#### **ENERGY PERFORMANCE AGREEMENT**

THIS AGREEMENT is made between the CITY AND COUNTY OF DENVER, a home rule and municipal corporation of the State of Colorado (the "City") and Ameresco, Inc., a Delaware corporation with its principal place of business located at an address of 111 Speen Street, Suite 410, Framingham, MA 01701 (the "Contractor"), jointly (the "Parties").

WHEREAS, the City and Contractor entered into that certain agreement no. GENRL-201952929-00 dated February 12, 2020 ("IGA Agreement") for the Contractor to perform an investment grade audit ("IGA") pursuant to C.R.S. § 29-12.5-102;

WHEREAS, pursuant to IGA Agreement, the Contractor provided the City with an analysis and recommendations in the form of an IGA Report and Energy Performance Contracting Project Proposal. Such report and proposal provided estimates of the amounts of Utility Cost Savings and Operation and Maintenance Cost Savings the City will realize if certain energy performance measures are implemented;

**WHEREAS**, the City has approved the Contractor's recommendations in the IGA Report and hereby authorizes the Contractor to perform the energy performance measures set forth in **Schedule B**;

**WHEREAS**, the Contractor has furnished to the City, pursuant to the IGA Report and Energy Performance Contracting Proposal, a bid for the provision of energy saving equipment as a separated and leasable component of the Energy Performance Contracting Proposal with Included Warranties in accordance with the terms, conditions, specification and quotations as provided in the IGA Report and Energy Performance Contracting Proposal;

WHEREAS, the City has determined to accept the bid of the Contractor for the Equipment;

**WHEREAS**, payment for the Equipment shall be accomplished through an escrow agreement as part of a separate lease-purchase agreement between the City and the Third-Party Lessor, a selected lessor entity; and

**WHEREAS**, the Parties' performance of the obligations under this Agreement are subject to the requirements of C.R.S. §§ 29-12.5-101-104.

**NOW THEREFORE**, in consideration of the promises and mutual benefits from the covenants hereinafter set forth, the Parties agree as follows:

1. **DEFINITIONS**: The following terms shall be construed and interpreted in this Agreement as follows:

**a.** "Adjusted Baseline Energy" means the energy use of the baseline period, adjusted to a different set of operating conditions.

b. "American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE)" means the recognized professional organization with standards and guidelines that may be referenced for additional definitions, procedures, and technical information as necessary in the Scope of Work and the IGA Project Proposal Report.

**c.** "**Baseline Energy**" means the energy use (units) occurring during the Baseline Period without adjustments.

**d.** "**Baseline Period**" means the period of time chosen to represent operation of the facility or system before implementation of a Utility Cost Savings Measure or any applicable FIM, as defined herein. This period may be as short as the time required for an instantaneous measurement of a constant quantity, or long enough to reflect one full operating cycle of a system or facility with variable operations.

e. "Baseline" means and pertains to the baseline period.

**f. "Business Day**" means any day in which the City is open and conducting business, which shall not include Saturday, Sunday, or any City-observed holidays.

**g.** "Colorado Open Records Act (CORA)" means the Colorado Open Records Act, C.R.S. §§ 24-72-200.1–205.5.

**h.** "Commissioning" means a process for achieving, verifying, and documenting the performance of equipment to meet the operational needs of the facility within the capabilities of the design, and to meet the design documentation and the City's functional criteria, including preparation of operational personnel. Retro-commissioning is the application of the Commissioning process to existing buildings.

i. "Compensation" means the funds payable to the Contractor by the City for the performance of the Contractor's obligations under this Agreement, including but not limited to the Project and the M&V Services.

j. "Contingency Funds" means City moneys not included in the Fixed Limit of Construction Cost and budgeted in the amount of Fifty-One Thousand Two Hundred Fifty-Nine Dollars and Zero Cents (\$51,259.00), appropriated and encumbered for Project contingency purposes in order that the City may use such moneys to pay to the Contractor, any other contractor through a Separate Contract constituting a portion of the Project Work, or any Third-Party Lessor. Contingency Funds could be used in the event of construction cost budget overage, if the Principal Representative determines to add to or change the Contractor's Scope of Work, hire a contractor for special services (example-environmental remediation) or reduce the City's obligation to any Third-Party Lessor, all pursuant to Article 10.c and Article 10.i.

**k.** "Construction Commencement Date" means the date the Principal Representative issues a written Notice to Proceed to Commence Construction Phase form.

**I.** "Construction Documents" means the documents set forth in Article 10.a.

m. "Construction Term" means the period of time in which the Contractor shall complete the Project, pursuant to Article 10.f.

**n.** "Contract Documents" means this Agreement, the Exhibits, the Schedules, and the Construction Documents.

**o.** "Contractor's Intellectual Property" means any formulas, patterns, devices, secret inventions or processes, copyrights, patents, or other intellectual property purchased, licensed or developed by Contractor prior to or outside of this Agreement or purchased, licensed or developed by Contractor or its Subcontractors as a tool for their use in performing the Services, plus any modifications or enhancements thereto and derivative works based thereon.

**p.** "Contract Term" means the definition of "Term" set forth in Article 6.

**q.** "Cost-Weighted Average Service Life" means the calculation is based upon the service life of the equipment (ASHRAE Handbook – HVAC Applications or other approved source), the cost of each Utility Cost Savings Measure or FIM (excluding the audit cost), and the total cost of all the measures. The formula is the sum of each measure cost divided by the total cost multiplied by its service life. Cost-Weighted Average Service Life  $\Sigma$  each measure  $\div$  total cost × service life.

**r.** "**Deliverable**" means any document, material, data, information, specification or other deliverable that results from or is provided through the Services or that the Contractor is required to deliver to the Principal Representative under this Agreement including the Contract Documents.

s. "Design Documents (DDS)" means documents supplied by the Contractor consisting of drawings, specifications, and other documents that fix and describe the size and character of the entire Project as to architectural, structural, mechanical, and electrical systems, materials, and such other elements as may be appropriate, and include design plans and documentation for each Utility Cost Savings Measure or FIM that may become part of the Project, and as further described in Article 9.c.

t. "Energy" means electricity (both usage and demand), natural gas, steam, water (potable or non-potable), or any other Utility charged service.

**u.** "Energy Conservation Measure (ECM)" means and Energy Saving Measure or Utility Cost-Savings Measure as those terms are defined in C.R.S. §§ 29-12.5-101(4), (9). An ECM is an activity or set of activities designed to increase the efficiency (energy, water, or other utility) of a facility, system or piece of equipment. ECMs may also conserve energy without changing efficiency. An ECM may involve one or more of: physical changes to facility equipment, revisions to operating and maintenance procedures, software changes, or new means of training or managing users of the space or operations and maintenance staff. An ECM may be

applied as a retrofit to an existing system or facility, or as a modification to a design before construction of a new system or facility. Within this Agreement, Utility Cost-Savings Measures, Energy Saving Measures, Energy Cost-Saving Measures, Energy Conservation Measures (ECMs) and Facility Improvement Measures (FIMs) shall be interchangeable as necessary.

v. "Energy Cost Savings Contract" is as defined in C.R.S. §§ 29-12.5-101(2.5).

w. "Energy Cost Savings Measure" means a Utility Cost Savings Measure. Within this Agreement, Utility Cost-Savings Measures, Energy Saving Measures, Energy Cost-Saving Measures, Energy Conservation Measures (ECMs) and Facility Improvement Measures (FIMs) shall be interchangeable as necessary.

**x.** "Energy Performance Contract (EPC)" is as defined in C.R.S. § 29-12.5-101(3).

y. "Energy Service Company (ESCO)" means the energy service company entity entering into a contract to design and construct the Project with the City. The Energy Service Company may also be referred to as "Contractor" in this Agreement or related exhibits, schedules, attachments, contract modification, or procedural documents.

z. "Equipment" means the equipment delivered to the Premises to be owned by the Third-Party Lessor and leased to the City, including systems and associated services set forth as "Tangible Goods" in Schedule B, including replacements, restorations, Modifications, and improvements of or to such Equipment. Modifications and improvements shall not replace the Equipment specified on Schedule B unless and until the City has received permission from the Lessor to allow the Modification or improvement and the City provides notice of authorization to the Contractor. It is understood and agreed that the Equipment, and Included Warranties associated with this Agreement that are being provided to the City hereunder are also routinely provided to nongovernmental customers on the same terms and conditions that were offered to the City and are agreed to by the City in this Agreement.

**aa.** "**Escrow Agreement**" means the escrow agreement executed by the City, the Third-Party Lessor, and the Escrow Agent, pursuant to which the Escrow Fund is established and administered. Contractor shall be paid for the Equipment portion of this Agreement through the Escrow Agreement.

**bb.** "Escrow Fund" means the fund, if applicable, established under the Escrow Agreement.

cc. "Escrow Agent" means the entity set forth in Article 7.d.

**dd.** "**Evaluation**" means the process of examining the Contractor's Work and rating such Work based on criteria established in this Agreement.

ee. "Excluded Materials and Activities" means asbestos, materials containing asbestos, or the existence, use, detection, removal, containment or treatment thereof; or pollutants, hazardous wastes, hazardous materials, or the storage, handling, use, transportation, treatment, or the disposal, discharge, leakage, detection, removal, or containment thereof.

**ff. "Facility**" or "**Facilities**" means any building or utility owned or operated by the City.

gg. "Facility Improvement Measure (FIMS)" means an activity or set of activities designed to improve the structural or operational conditions of a facility, system or piece of equipment. A FIM may be an activity associated with an Energy Cost-Savings Measure and funded as part of an EPC. A FIM may be an activity requested by the City, but is not an Energy Cost-Savings Measure, but funds have been budgeted, appropriated and otherwise made available to be included in an EPC. Within this Agreement, Utility Cost-Savings Measures, Energy Saving Measures, Energy Cost-Saving Measures, Energy Cost-Saving Measures, Energy Cost-Saving Measures, Energy Saving Measures, Energy Cost-Saving Measures, Energy Cost-Savi

hh. "Federal Energy Management Program ("FEMP") Measurement and Verification (M&V) Guidelines" means the current M&V Guidelines prepared by the U.S. Department of Energy. The FEMP M&V Guidelines contain specific procedures for applying concepts originating in the IPMVP (definition below). The FEMP M&V Guidelines represents a specific application of the IPMVP to EPC projects. It outlines procedures for determining M&V approaches, evaluating M&V plans and reports, and establishing the basis of payment for energy savings during the Agreement. These procedures are intended to be fully compatible and consistent with the IPMVP.

**ii.** "**Fiscal Year**" means a 12-month period beginning on January 1 of each calendar year and ending on December 31.

**jj.** "**Fixed Limit of Construction Cost (FLCC)**" means the total amount to be paid by the City or any Third-Party Lessor to Contractor for Contractor's satisfactory performance, construction, and installation of all elements of the Work, which shall include, but not be limited to, costs and expenses, permits, performance bonds, materials, labor, auditing, design, engineering, project construction management costs, commissioning, training, profit, travel expenses, communications, code work, including review, inspection, and compliance unless otherwise noted, and installation of Equipment. The Fixed Limit of Construction Cost is included as a part of the MCP and all costs comprising the Fixed Limit of Construction Cost shall be identified in **Schedule F**, which shall be executed after this Agreement is effective. The Fixed Limit of Construction Cost does not include any Contingency Funds or the M&V Fee.

**kk.** "Guarantee" means the warranty and guarantee made by the Contractor in Article 18 hereof that for each year of the Guarantee Period, the Project shall result in annual cost savings equal to or greater than the Guaranteed Annual Cost Savings presented in Schedule C which shall be equal to or greater than the annual guaranteed savings used to repay the project funding, as set forth in C.R.S. § 29-12.5-101(3). Failure to meet the Guaranteed Annual Cost Savings in any year during the Guarantee Period shall result in Contractor directly remunerating the City the dollar amount equal to the cost value of that year's Guaranteed Annual Cost Savings shortfall. Alternatively, subject to the City's consent, which shall not be unreasonably withheld, Contractor may implement additional Utility Cost-Savings Measures or FIMs, at no cost to the City, which may generate additional annual cost savings in future years of the Performance Period to offset future Guaranteed Annual Cost Savings shortfall.

**II.** "Guarantee Period" means a period of time commencing upon M&V Commencement Date and terminating on the termination of the M&V Term. The Guarantee Period is a mutually agreed to time period after the M&V Commencement Date, during which Guaranteed Annual Cost Savings resulting from the Project are measured and verified by the Contractor set forth in Schedule D.

mm. "Guaranteed Annual Cost Savings" means measurable and verifiable aggregate of Guaranteed Annual Utility Cost Savings and Guaranteed Annual Operations and Maintenance Cost Savings guaranteed by Contractor resulting from the Project that shall occur for each year of the Guarantee Period pursuant to Schedule C. Guaranteed Annual Utility Cost Savings shall be determined by Contractor's Measurement and Verification of annual utility unit use reductions and the application of mutually agreed to baseline and escalated utility unit costs for each year of the Guarantee Period as defined in Schedule C.

nn. "Guaranteed Annual Operations and Maintenance Cost Savings" means annual cost savings resulting from a verifiable reduction in the City's operation and maintenance budget.

**oo. "Guaranteed Annual Utility Cost Savings**" means annual Utility Cost Savings resulting from a reduction of usage and the application of the mutually agreed to baseline and escalated utility unit rates as presented in Schedule C.

**pp.** "**IGA Agreement**" means that certain contract no. GENRL-201952929-00 entered into between the Contractor and the City on February 12, 2020 pursuant to C.R.S. § 29-12.5-102 and pursuant to which the Contractor conducted the IGA.

**qq.** "Included Warranty" means the standard and included Equipment warranty which is included by the manufacturer or reseller, and which does not require additional purchase price and is transferrable in connection should the Equipment transfer. It does not include extended warranties or other services which are purchased in addition to the purchase price of the Equipment.

rr. "International Performance Measurement and Verification Protocol (IPMVP)" means the current document prepared by the Efficiency Valuation Organization on the Effective Date of the IGA Agreement. It is the industry standard for current best practice techniques available for verifying results of energy efficiency, water efficiency, and renewable energy projects associated with the Investment Grade Audit Report and Energy Performance Contract Project Proposal.

**ss.** "Investment Grade Audit (IGA)" means a detailed audit of certain Facilities of the City, including the Premises, conducted by the Contractor or another party pursuant to the IGA Agreement, as provided in C.R.S. § 29-12.5-102 and in respect of which the City has received and reviewed the IGA Record of Review from the CEO, which serves as the basis for this Agreement.

- tt. "kW" means kilowatt.
- **uu.** "**kWh**" means Kilowatt-hour.

**vv.** "Lease Purchase Agreement" means the annually renewable lease purchase agreement entered into by the City, as lessee of the Equipment, and a Third-Party Lessor, as lessor of the Equipment, for the lease and ultimate purchase of the Equipment necessary to implement Utility Cost-Savings Measures and FIMs as a result of Contractor's work pursuant to this Agreement (constituting the capital project so leased), as authorized pursuant to C.R.S. § 29-12.5-103.

ww. "Lease Purchase Agreement Term" means the original term and all renewal terms of any Lease Purchase Agreement of the City for the costs of the Equipment set forth in Schedule B to this Agreement.

**xx.** "Material Change" means any change or cumulative changes in or to the Premises, whether structural, operational or otherwise in nature as determined by the City or the Principal Representative, if authorized to do so by the City, and the Contractor, to increase or decrease Guaranteed Annual Cost Savings, as defined in **mm** above, in accordance with the provisions and procedures set forth in **Schedule B** and is correlated with such change in energy or water usage, and as described in **Article 21**.

yy. "Maximum Contract Price (MCP)" means the maximum amount of total allowable costs under this Agreement, as set forth in Article 8.d., which shall be the total amount paid by the City to Contractor for the Services, which shall include the Fixed Limit of Construction Cost, the Measurement and Verification Fee, and any Contingency Funds. It is the maximum amount payable to the Contractor by the City pursuant to this Agreement.

**zz.** "Maximum Equipment Price (MEP)" means the total compensation payable to Contractor for acquiring and delivering the Equipment, together with applicable systems and Included Warranties associated with such Equipment, as set forth in Article 8.f., payable to the Contractor from the Escrow Fund into which a deposit has been made by the Third-Party Lessor. The total MEP compensation payable directly by the City to Contractor for Equipment under this Agreement shall not exceed Zero Dollars (\$0.00).

aaa. "Measurement and Verification (M&V)" means the process of using measurements to reliably determine and verify the actual savings created within buildings, infrastructure, or systems resulting from an energy management program. Savings cannot be

directly measured since they represent the absence of energy use. Instead, savings are determined by comparing measured use before and after implementation of a project, making appropriate adjustments for changes in conditions. M&V follows the standards and definitions in the current International Performance Measurement and Verification Protocol ("**IPMVP**"), as may be amended by the Efficiency Valuation Organization on the Effective Date of this Agreement. The CEO Measurement and Verification Policy may allow alternative verification standards as appropriate for select Utility Cost-Savings Measures or FIMs.

**bbb.** "**M&V** Commencement Date" means the first day of the month following the completion by Contractor and the Principal Representative's submittal of Notice of Final Acceptance.

**ccc.** "**M&V Fee**" means an annual fee paid to Contractor by the City for Contractor's satisfactory performance of the M&V Services, as set forth in **Article 17**. The M&V Fee is included as a part of the Maximum Contract Price.

ddd. "M&V Plan" defines how savings will be calculated and specifies any ongoing activities that will occur during the Contract Term. The details of the M&V Plan are in Schedule D.

**eee.** "**M&V Services**" means Services or activities relating to the measurement and verification by Contractor of the efficiency and effectiveness of the Project, pursuant to this Agreement and the CEO Measurement and Verification Policy as applied.

fff. "M&V Term" has the meaning as described to it in Article 17.

ggg. "MMBtu" means 1 Million British thermal unit.

**hhh.** "**Modification to the Agreement**" means a written (i) amendment to this Agreement signed by both parties or (ii) Change Order executed in accordance with **Schedule A**.

iii. "One-Year Warranty" is as defined in Article 25.b.(3).

jjj. "Open Book Pricing" means open book pricing as that term is used in Article 10.g.

**kkk.** "Operation and Maintenance Cost Savings" as defined in C.R.S. § 29-12.5-101 (4.5), means the measurable decrease in operation and maintenance (O&M) costs that is a direct result of the implementation of one or more Utility Cost-Savings Measures. Such savings shall be calculated in comparison with an established baseline of operation and maintenance costs.

**III.** "**Premises**" is as set forth in **Article 9.a**.

**mmm.** "**Project**" means Contractor's design, acquisition, construction, and installation of the Utility Cost-Savings Measures and FIMs, and all Equipment and Services related thereto, as set forth in **Schedule B** and the Contract Documents, but does not include M&V Services.

**nnn.** "**Rebate**" means moneys used for Contractor's compensation that are not the moneys of the City or moneys from a Third-Party Lessor, including solar REC's and utility rebates, all as described in **Schedule B** and on **Schedule G**.

**000.** "**Review**" means the examination by the Principal Representative of the Contractor's Work to ensure that it is adequate, accurate, correct and in accordance with this Agreement.

**ppp.** "Schedule A" means Schedule A to this Agreement, attached hereto as General Conditions of the Agreement.

qqq. "Schedule B" means Schedule B to this Agreement, attached hereto as EPC Description of Work. The Schedule B is developed from information in the EPC Project Proposal. Schedule B includes the final list of facilities that define the Premise, final list of improvements, installed equipment and upgrades scope of work, savings summary, financial summary, utility baseline, key performance parameters, warranty, training plan, and project schedule. Schedule B details the cost for the Work from initial design to the start of the Guarantee Period. Schedule B includes the financial performance including any rebates, grants, City provided funds, and the potential third-party financial amount that totals up to the Maximum Contract Price.

**rrr.** "Services" means all services performed by Contractor hereunder, including, but not limited to, engineering, design, project management, construction management, design, training, and M&V Services, and tangible material produced either separately or in conjunction with the Work performed.

**sss.** "**Simple Payback**" means the length of time, typically presented in years, required to recover the cost of a measure or project.

**ttt.** "**Tax Information**" means federal and State of Colorado tax information including, without limitation, federal and State tax returns, return information, and such other tax-related information as may be protected by federal and State law and regulation. Tax Information includes, but is not limited to all information defined as federal tax information in Internal Revenue Service Publication 1075.

**uuu.** "Third-Party Lessor" means a third-party entity entering into a Lease Purchase Agreement, as lessor, with the City, as lessee, for the lease purchase of the Equipment pursuant to this Agreement.

vvv. "Utility" or "Utilities" means the water, sewer services, electricity, payments to energy service companies, purchase of energy conservation equipment, and all

heating fuels. Utility may include compressed air, chilled water, or other systems or services as agreed to with the City.

www. "Utility Cost Savings" means the definition set forth in C.R.S. §29-12.5-101(7).

**xxx.** "Utility Cost-Savings Contract" means an Energy Performance Contract or any other agreement in which Utility Cost Savings are used to pay for services or equipment set forth in C.R.S. § 29-12.5-101(8).

**yyy.** "Utility Cost-Savings Measure" means the definition set forth in C.R.S. § 29-12.5-101(9). Within this Agreement, Utility Cost-Savings Measures, Energy Saving Measures, Energy Cost-Saving Measures, Energy Conservation Measures (ECMs) and Facility Improvement Measures (FIMs) shall be interchangeable as necessary.

**zzz.** "Work" means the tasks and activities the Contractor is required to perform to fulfill its obligations under this Agreement and **Schedule B**, including the performance of the Services and delivery of the Equipment.

**aaaa.** "Work Product" means the tangible or intangible results of the Contractor's Work, including, but not limited to, research, reports, studies, data, photographs, negatives or other finished or unfinished documents, drawings, models, surveys, maps, materials, or work product of any type (but not including software), including drafts. Work Product does not include the Contractor's Intellectual Property.

Any other term used in this Agreement that is defined in a Schedule shall be construed and interpreted as defined in that Schedule.

2. <u>COORDINATION AND LIAISON</u>: The Contractor shall fully coordinate all services under the Agreement with the Executive Director of General Services ("Executive Director") or, the Executive Director's Designee. The "Principal Representative" shall be the Executive Director or the City representative designated by the Executive Director to implement this Agreement on the City's behalf.

### 3. <u>SERVICES TO BE PERFORMED</u>:

**a.** As the Executive Director directs, the Contractor shall diligently undertake, perform, and complete all of the services and produce all the deliverables set forth in this Agreement to the City's satisfaction.

**b.** The Contractor is ready, willing, and able to provide the services required by this Agreement.

**c.** The Contractor shall faithfully perform the services in accordance with the standards of care, skill, training, diligence, and judgment provided by highly competent individuals

performing services of a similar nature to those described in the Agreement and in accordance with the terms of the Agreement.

- d. Contract Phases. This Agreement contains the following phases:
  - (1) Pre-Construction
  - (2) Construction
  - (3) Start-up, Commissioning, and Acceptance
  - (4) Training
  - (5) Measurement and Verification

#### 4. <u>EQUIPMENT TO BE DELIVERED</u>:

**a.** The Contractor shall:

(1) Provide to the City under Schedule B, Equipment and all Included Warranties, in accordance with this Agreement. In the event of any other contradiction or inconsistency between this Agreement and Schedules B or Schedule V, this Agreement shall control.

(2) Provide delivery, installation, configuration, set-up, training, certification, loading, formatting, and related services for the Equipment.

(3) Provide the Included Warranties as set forth in Schedule B.

**b.** In installing the Equipment for the City, Contractor shall be bound by the terms, conditions, requirements, and specifications as listed in **Schedule B**, unless superseded by this Agreement. All Equipment, installation, training, support, maintenance, and Included Warranties shall be provided in accordance with **Schedule B**. Changes to the scope of work, offered by Contractor due to technology changes or updates must be approved, in writing, by the Executive Director and will not affect the overall cost of the work.

5. <u>SPECIAL PURCHASING TERMS AND CONDITIONS</u>: In addition to all other terms and conditions set forth in this Agreement, the Contractor shall comply with the following special purchasing terms and conditions.

**a.** All materials, supplies, and Equipment furnished under this Agreement shall comply with the requirements and standards specified in the Williams-Steiger Occupational Safety and Health Act of 1970 (Public Law 91-596) as well as with other applicable federal, state, and local codes.

**b.** The commitment to provide the Equipment under this Agreement has been arrived at by the Contractor independently and has been submitted without collusion with any other proposer or vendor to the City.

**c.** Prices quoted shall be F.O.B. Denver, CO delivered to various locations, Denver, Colorado, unloaded and installed.

**d.** Contractor agrees to bear all risk of loss, injury, or destruction of goods and materials ordered as a result of this Agreement which occur prior to delivery to the City; and such loss, injury, or destruction shall not release the Contractor from any obligation hereunder.

e. Contractor agrees to furnish, upon the written request of the City, any additional information needed to substantiate or clarify the design and/or performance characteristics of the goods that it proposes to furnish.

**f.** Contractor understands that timing of delivery is of the essence. Contractor agrees to begin work within thirty (30) days after the Agreement date. Failure to do so may result in termination of this agreement.

**g.** Contractor shall notify the Executive Director of General Services immediately of any occurrence or conditions that interfere with the full performance of this Agreement, and confirm in writing within twenty-four (24) hours.

- **h.** Contractor invoices must include the following:
  - (1) City contract control number;
  - (2) Scope listed individually;
  - (3) Invoice number and date;
  - (4) Requesting department name and "ship to" address; and
  - (5) Payment terms.

i. Contractor warrants and guarantees to the City that all Equipment and related materials to be furnished under this Agreement are free from all defects in workmanship and materials. Contractor shall provide a corrective action plan to any Vendor Deficiency/Deviation Report sent by the City and County of Denver within three (3) business days of the date of the Report. Contractor further warrants, guarantees, and agrees to remedy, or to begin to remedy, all such defects and to replace at Contractor's expense and at no expense to the City any or all labor, transportation, part or parts of the Equipment or related materials to be furnished under this Agreement, which are or become defective due to such defects within twelve (12) months after date of receipt by the City, within seven (7) calendar days after receipt of notification of such defect(s). This warranty/guarantee commitment shall be in addition to any other warranty supplied by the Contractor or otherwise required under this Agreement.

**j.** During the One-Year Warranty, Contractor shall be responsible for any and all warranty work, regardless of whether or not manufacturers of the Equipment or its component parts provide actual warranty coverage. In addition, Contractor shall have or establish local source(s) that will accomplish or coordinate any necessary warranty work. Contractor shall respond to requests for warranty assistance within twenty-four (24) hours.

6. <u>TERM</u>: The Agreement will commence on the date set forth on the City's signature page and will expire on December 31, 2025 (the "**Term**"). Contractor shall complete the Work and its other obligations described herein on or before December 31, 2025. The City shall not be liable to compensate Contractor for any Work performed prior to the Effective Date or after the termination of this Agreement. The Term shall be divided into two (2) separate components:

a. Construction Term. The "Construction Term" shall commence upon the Effective Date, which shall be defined as the date set forth on the City's signature page, and shall terminate no more than 365 days after the Effective Date, unless sooner terminated as provided in this Agreement.

**b. M&V Term**. The "M&V Term" shall begin on the M&V Commencement Date and continue until no later than December 31, 2025. The M&V Term shall terminate pursuant to **Schedule D** unless sooner terminated as provided in this Agreement.

## 7. <u>FUNDING</u>:

a. City Funds. The City will provide all or a portion of the moneys for the MCP required under this Agreement in the amount set forth in Article 8.d. from existing appropriations specifically budgeted, appropriated and encumbered for this purpose as full or partial compensation for the cost of the Project as described in Schedule B and indicated on Schedule G to be paid to Contractor.

**b.** Third Party Lessor Funds. The City intends to lease the Equipment required under this Agreement by entering into an annually renewable lease purchase arrangement with a Third-Party Lessor. The total amount of funds that the Third-Party Lessor shall pay into the Escrow Fund to acquire the Equipment is as set forth in Article 8.f. Amounts paid for the Equipment by the Third-Party Lessor may not exceed the MEP. The total MEP compensation payable directly by the City to Contractor for the Equipment under this Agreement shall not exceed Zero Dollars (\$0.00).

c. Escrow Account. Any funds provided by a Third-Party Lessor to own the Equipment in order to lease the Equipment to the City shall be deposited into an escrow account established for the purposes of acquiring Equipment. The City and the Third-Party Lessor shall be authorized to direct the Escrow Agent, as described in Article 7.d., to compensate Contractor for the Equipment delivered by Contractor and accepted in writing by the City in accordance with the terms of the Escrow Agreement, Article 8, and Schedule A, and the Escrow Agent will make payment from the Escrow Fund in accordance with procedures set forth in the Lease Purchase Agreement, this Agreement, and any escrow agreement. Final payment shall be made to Contractor upon the City's submittal of the Notice of Final Acceptance of the Project. Any proceeds from the Escrow Fund shall accrue to the City.

d. Escrow Agent. The Escrow Agent is hereby identified as:

U.S. Bank National Association, as Escrow Agent ATTN: Global Corporate Trust Services 950 17<sup>th</sup> Street, 5th Floor Denver CO 80202 Telephone: 303-585-4591 Facsimile: 303-585-4530 E-mail: kathleen.connelly@usbank.com

With notices also to: U.S. Bank National Association ATTN: Erica Fouks Trust Finance Management 60 Livingston Ave EP MN WS2N St. Paul MN 55107 Telephone: 651-466-6095 Facsimile: 866-691-4161 E-mail: erica.fouks@usbank.com

The Escrow Agent is as provided in the Escrow Agreement between the City, the Lessor, and the Escrow Agent.

### 8. <u>COMPENSATION AND PAYMENT</u>:

a. <u>Budget</u>. The City and the Third Part Lessor shall collectively pay, and the Contractor shall accept, as the sole compensation for the Work, through this Agreement and the Escrow Agreement, the amounts set forth below:

Cost of Services (MCP) via this Agreement	\$708,218
Cost of Equipment (MEP) via the Escrow Agreement:	\$977,273
Total Project Value to be Paid to Contractor:	\$1,685,491

b. <u>Reimbursable Expenses</u>: There are no reimbursable expenses allowed under the Agreement.

**c.** <u>Invoicing</u>: For Services provided pursuant to this Agreement, Contractor shall provide the City with a monthly invoice in a format and with a level of detail acceptable to the City including all supporting documentation required by the City. The City's Prompt Payment Ordinance, §§ 20-107 to 20-118, D.R.M.C., applies to invoicing and payment under this Agreement.

### d. <u>Maximum Contract Price</u>:

(1) Notwithstanding any other provision of the Agreement, the City's maximum payment obligation will not exceed Seven Hundred Eight Thousand Two Hundred

Eighteen Dollars and Zero Cents (**\$708,218.00**) (the "**Maximum Contract Price**"). The City is not obligated to execute an Agreement or any amendments for any further services, including any services performed by Contractor beyond that specifically described in **Schedule B**. Any services performed beyond those in **Schedule B** are performed at Contractor's risk and without authorization under the Agreement.

(2) The City's payment obligation, whether direct or contingent, extends only to funds appropriated annually by the Denver City Council, paid into the Treasury of the City, and encumbered for the purpose of the Agreement. The City does not by this Agreement irrevocably pledge present cash reserves for payment or performance in future fiscal years. The Agreement does not and is not intended to create a multiple-fiscal year direct or indirect debt or financial obligation of the City.

e. <u>Changes to Maximum Contract Price</u>. The City may decrease the amount available for the services in the MCP with the mutual consent of the Contractor and assuring that the decrease in the MCP does not adversely affect the Contractor's requirement to meet the Guaranteed Annual Cost Savings. A change in the Guaranteed Annual Cost Savings may be considered a Material Change to this Agreement, pursuant to Article 21. The decrease in the services in the MCP may be based on the actual costs of labor and materials to the Contractor. The MCP shall not be increased without an amendment to this Agreement.

#### f. <u>Lease Purchase Equipment</u>.

(1) It is understood and agreed, that concurrent with this Agreement, the City has elected to enter into the Lease and Acquisition of the Equipment and Included Warranties through a separate lease-purchase agreement with the Third-Party Lessor.

(2) The total compensation payable to Contractor for acquiring and installing the Equipment, together with Included Warranties associated with such Equipment, shall not exceed the amount of Nine Hundred Seventy-Seven Thousand Two Hundred Seventy-Three Dollars and Zero Cents (**\$977,273.00**) (the "**Maximum Equipment Price**"), payable directly to the Contractor by the Third-Party Lessor through the Escrow Agent. Payment for all such Equipment, installation, training, and Included Warranties shall be made by the Third-Party Lessor through the Escrow Agent's receipt of the corresponding Certificate of Acceptance and an approved Contractor invoice in a total amount not to exceed the MEP as provided by the Acceptance Certificates attached as **Schedule W**. The Contractor will forward title to the Equipment within twenty-four (24) hours of receiving payment to the Third-Party Lessor at:

JPMorgan Chase Bank, N.A. 1111 Polaris Parkway, Suite 4N Mail Suite OH1-1085 Attn: Operations Managers Account: Chase Equipment Finance (3) Contractor warrants that the Equipment, installation, and Included Warranties provided hereunder shall conform to Schedule B and to Contractor's published specifications. In the event that such items provided hereunder do not conform to Schedule B or to Contractor's published specifications, Contractor shall have the opportunity to correct the performance by either: (i) tuning the system or (ii) adding or changing other Equipment, to be performed at the sole option of Contractor, at Contractor's cost. If neither of the actions above correct the performance within thirty (30) days of notification to Contractor's standard Included Warranty which include repair, and replacement, together with other remedies allowed the City by law.

**g.** <u>Payments and Retainage</u>. The Principal Representative will, or will direct any Escrow Fund Agent, to compensate Contractor for Work done by Contractor pursuant to **Schedule A**. The Principal Representative shall withhold and release retainage amounts pursuant to **Schedule A** and as allowed by applicable law.

### 9. <u>PRE-CONSTRUCTION ACTIVITIES</u>:

a. **Premises.** The Premises is the Facilities owned or controlled by the City, as initially detailed on the IGA Contract and finalized in **Schedule B**.

#### b. Professional Design Services.

(1) <u>Qualifications</u>. Design services shall be performed by properly licensed and qualified architects, engineers and other professionals selected and paid by Contractor, subject to review by the Principal Representative. The professional obligations of such persons shall be undertaken and performed on behalf of Contractor. Nothing contained herein shall create any contractual relationship with the City between Subcontractors, architects, engineers or suppliers. All Drawings, Specifications, calculations, certifications and Submittals prepared by such design professionals shall bear the signature and seal of such design professionals and the City shall be entitled to rely upon the adequacy, accuracy and completeness of such design services.

(2) <u>Designation of Professionals</u>. All Work performed by Contractor that constitutes the practice of architecture/engineering shall be performed by properly qualified and licensed professionals employed by Contractor and shall be performed in accordance with applicable Colorado law.

(3) <u>Conflict of Interest</u>. Contractor or subcontractor, not already approved by the City, shall not be engaged to perform Work wherein a conflict of interest exists, as described in **Article 41**.

#### c. Design Documents.

(1) Based on the Scope of Work in Schedule B the Contractor has prepared, for the Principal Representative's acceptance, the Design Documents ("DDs"). The DDs may be waived or modified per Utility Cost-Savings Measure or FIM as mutually agreed in writing between the Parties. Such DDs include the following, where applicable:

A. Analysis of the proposed Work and the structure as such relates to any laws, codes, ordinances, and regulations;

**B.** Cut-sheets and/or samples of proposed materials, equipment and system components;

C. Submittal of final Equipment List, Construction and Installation Schedule, Systems Start-up and Commissioning, Contractor's Maintenance Responsibilities, Political Subdivision's Maintenance Responsibilities, Contractors Training Responsibilities, and the Manifest of Ownership; and

**D.** Submittal of an updated construction cost estimate as applicable, in substantially the same form as **Schedule F.** 

(2) A code review is required to meet the local jurisdiction authority code procedure.

(3) At the completion by Contractor and acceptance by the Principal Representative of the DDs, Contractor shall provide electronic or printed drawings as applicable, and such other documents as necessary to fully illustrate the Design Development Phase to the Principal Representative. Electronic drawing files should be in a form acceptable to the Principal Representative.

(4) Contractor shall be responsible for ensuring that the DDs, prepared by Contractor are in full compliance with applicable codes, regulations, laws and ordinances, including both technical and administrative provisions thereof. If Contractor deviates from such codes, regulations, law or ordinance, without written authorization from the City's Facilities Management Division, Contractor, shall make such corrections in the Construction Documents as may be necessary for compliance.

(5) The Principal Representative shall notify Contractor of acceptance or denial of the DDs in writing within 10 days of receipt.

## 10. <u>CONSTRUCTION</u>:

**a. Construction Documents.** The Construction Documents, if required, shall consist of the following:

(1) Final Construction Documents reviewed and approved by the Principal Representative in writing for constructability and code compliance;

- (2) All Design Documents applicable to the Project;
- (3) Any appendices, addenda, clarifications and allowances;
- (4) All modifications issued pursuant to this Agreement;
- (5) Construction and Installation Schedule; and
- (6) Finalized Schedule of Values.

**b.** Construction and Installation Schedule. Contractor shall prepare a Construction and Installation Schedule, which shall provide the timetable for the execution and completion of the Project. Such Construction and Installation Schedule shall be subject to the approval of the Principal Representative, pursuant to Schedule A, and shall be consistent with previously issued schedules, not exceed time limits under the Contract Documents and shall provide a schedule for the entire Project, to the extent required by the Contract Documents.

c. Schedule of Values. Contractor shall prepare a schedule of the cost of construction, which shall be delivered to the Principal Representative for approval and which shall be in substantially similar format as the attached Schedule F, and which such Contractor-submitted Schedule F shall be subject to review and approval by the Principal Representative. The Schedule of Values shall include, without duplication:

(1) All labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the Project, whether temporary or permanent, and whether or not incorporated or to be incorporated in the Project;

(2) The compensation for services and the cost of work provided by

Contractor;

- (3) All bond premiums and costs of insurance;
- (4) All Design and drafting Services;

(5) All other allowable compensable services pursuant to this Agreement as approved by the Principal Representative;

(6) Contingency Funds if any.

**d.** Approval and Completion of Construction Documents. Except as otherwise provided in this Article, the Construction Documents shall be subject to final approval by Principal Representative, on behalf of the City, and other reviewing authorities. The Principal Representative or written designee shall review documents submitted by Contractor and shall

render decisions pertaining thereto without unreasonable delay. The Principal Representative's approval shall be issued in the form of the **Notice to Proceed to Commence Construction Phase**.

e. Notice to Proceed to Commence Construction Phase. Upon receipt of Notice to Proceed to Commence Construction Phase, Contractor shall commence the Project, as described in Article 1 and Schedule B.

**f. Construction Term**. The Construction Term shall commence on the Effective Date and shall terminate upon the date according to **Article 6** or the date on which:

(1) Contractor has completed the Project Work;

(2) Contractor has finalized and delivered to the Principal Representative all necessary, updated, and final documents, including schedules, exhibits, and completed Punch Lists, at the Principal Representative's determination;

(3) Contractor has delivered to the Principal Representative a Notice of Substantial Completion, which indicates that Contractor has constructed, installed, and commenced operating the Utility Cost-Savings Measures or FIMs specified in Schedule B;

(4) The Principal Representative has inspected and accepted the Project, according to Article 12 and Schedule A, including the design, construction, installation, and operation of the Project and accepted Contractor's submittal of a Notice of Substantial Completion as demonstrated by signing and executing such Notice of Substantial Completion; and

(5) The Principal Representative, on behalf of the Political Subdivision, has issued a Notice of Final Acceptance.

Cost Reporting. Contractor shall fully disclose all costs as per the Open g. Book Pricing requirements to the City through Applications for Contractors Payments and in such detail as the City may request. Contractor shall maintain cost accounting records on authorized work performed. Such accounting records shall identify all costs for materials, labor, including all costs of subcontractor's, vendors, and services received during the Term as defined in Article 6. Upon request by the Principal Representative, Contractor shall provide the City with a list of hourly rates and position descriptions for labor or services provided by the Contractor and for all subcontractors and vendors and supply information on any other basis as specified by the Principal Representative. The Principal Representative may evaluate all cost through price analysis to compare costs with reasonable criteria such as established catalog and market prices or historical prices to ensure the Contractor's prices are reasonable and acceptable. Upon request by the Principal Representative, Contractor shall provide the Principal Representative complete access to such records at reasonable times and locations. The records shall be consistent with the Schedule of Values, Schedule F. Any disputes shall be subject to the terms of this Agreement and Schedule A.

**h. Progress Meetings**. Contractor shall schedule and conduct regular progress meetings at which meetings the Principal Representative and Contractor shall discuss such matters as procedures, progress, schedule, costs, quality control and problems relating to the Project. Contractor shall record and distribute minutes of all such progress construction meetings within 15 days of the meeting.

i. Contingency Funds. The Principal Representative may authorize the disbursement of Contingency Funds to Contractor through an Agreement Change Order, as described in Schedule A.

## 11. <u>CONTRACTOR PERFORMANCE</u>:

a. Performance of Project. Contractor shall perform the Project in accordance with the Contract Documents. Contractor shall construct and install the Project in accordance with the Construction and Installation Schedule. Contractor shall supervise and direct the Project and be solely responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Project under this Agreement, subject to the review and approval of the Principal Representative and the Construction and Installation Schedule. Contractor shall design, construct and install the Utility Cost-Savings Measures or FIMs. Before purchasing any major Equipment not specified within the Construction Documents, Contractor shall consult with, and if necessary, receive the written or electronic approval of the Principal Representative regarding the price, specifications, warranty, and manufacturer of the Equipment.

**b.** Contractor's Duty of Proper Performance. Contractor shall perform the Project so as to maintain and not degrade the structural integrity of the Premises or its operating systems. Contractor shall provide the Equipment and all Services, and complete all Work contemplated under this Agreement with skill and diligence to the satisfaction of the Principal Representative and in strict accordance with the provisions of the Contract Documents.

c. Standards of Comfort. Contractor's performance of the Project shall, to the extent relevant to the Work, maintain and provide the standards of heating, cooling, ventilation, hot water supply, and lighting quality as described in Schedule N.

**d.** Security. Contractor shall meet City requirements for security and access to the Premises. City shall provide timely access to buildings and rooms as needed by the Contractor.

## 12. <u>START-UP, COMMISSIONING, INSPECTION, AND ACCEPTANCE</u>:

**a. Contractor,** in conjunction with the City's selected personnel, shall direct the testing of installed utilities, operations, systems and Equipment for readiness.

**b.** Systems Startup and Equipment Commissioning. Contractor shall conduct systematic commissioning of all Equipment installed as part of the Work, in accordance

with the procedures specified in System Start-up and Commissioning Schedule Q, Schedule A, any operating parameters of Equipment from Equipment manufacturers, and this Agreement. Contractor agrees that Schedule Q shall follow and use as a standard the procedures and protocol for Commissioning located in the document *Commissioning Guidelines for Energy Saving Performance Contracts for the Colorado Energy Office*, provided by the City. Contractor shall test the Project and the Equipment to ensure it is functioning in accordance and compliance with any published Specifications and this Agreement and to determine if modified building systems, subsystems or components are functioning properly within the Project Work. Contractor shall provide notice to the Principal Representative of the scheduled test(s) and the Principal Representative and/or its designees may be present at any or all such tests.

c. Acceptance by Principal Representative. Contractor's Work shall be subject to acceptance by the Principal Representative pursuant to this Agreement and Schedule A.

**d.** Correction of Deficiencies. Contractor shall correct all deficiencies in the operation of the Project and the Equipment. Prior to Principal Representative acceptance, Contractor shall also provide Principal Representative with reasonably satisfactory documentary evidence that the Equipment installed is the Equipment specified in Schedule B and any subsequently necessary and accepted design or construction documents.

### e. Inspection and Disputes.

(1) The Principal Representative may inspect the Work provided under this Agreement at all reasonable times and places. If any Work does not conform to this Agreement, the Principal Representative may require Contractor to perform the Work again in conformity with this Agreement's requirements, with no additional compensation. When defects in the quality or quantity of Work cannot be corrected by re- performance, the Principal Representative may:

**A.** Require Contractor to take necessary action to ensure that the future performance conforms to Agreement's requirements; and/or

**B.** Equitably reduce the payment due Contractor to reflect the reduced value of the Work performed.

(2) Such remedies in no way limit the remedies available to City in the termination provisions of this Agreement, or remedies otherwise available at law. Disputes under this Agreement shall be subject to the terms of this Agreement and Schedule A.

## **13.** <u>ENVIRONMENTAL REQUIREMENTS</u>:

a. Excluded Material and Activities. Pursuant to its performance of the Project, Contractor may encounter, but is not responsible for, any work relating to Excluded Materials and Activities, as defined in Article 1. If the City requires continued performance of this Agreement, and the performance of any Project involves any Excluded Materials and Activities,

the City shall perform or arrange for the performance of such work and shall bear the sole cost, risk, and responsibility therefore.

#### b. Discovery of Excluded Materials and Activities.

(1) Notice - Work Stoppage. If Contractor discovers Excluded Materials and Activities, Contractor shall immediately cease work and remove all Contractor personnel or Subcontractors from the site and notify the Principal Representative. Contractor shall undertake no further work on the Premises except as authorized by the Principal Representative in writing. Notwithstanding anything in this Agreement to the contrary, any such event of discovery or remediation by the City or Contractor shall not constitute a default. In the event of such stoppage of Work by Contractor, the time for the completion of the Work shall be automatically extended by the amount of time of the work stoppage and any additional costs incurred by Contractor as a result shall be added by Change Order.

(2) Other Hazardous Materials. Contractor shall be responsible for safely handling, installing, and/or disposing of any other hazardous or other materials that it may bring to the Premises.

(3) Polychlorinated Biphenyl (PCB) Ballasts; Mercury Lamps. Contractor is responsible for the proper handling and disposal of Polychlorinated Biphenyl (PCB) Ballasts and Mercury Lamps. Upon discovery of PCB Ballasts and Mercury Lamps, Contractor shall enter into an agreement with an approved PCB ballast disposal contractor who shall provide an informational packet, packing receptacles and instructions, labels and shipping materials, transportation, and recycling or incineration services such materials. All capacitors and asphalt potting compound materials removed from the PCB Ballasts shall be incinerated in a federally approved facility. After proper disposal, a Certificate of Destruction shall be provided by the approved facility to the Principal Representative. Contractor's responsibility shall be for the proper and legal management of any of the PCB Ballasts removed as a result of the Work. Contractor shall enter into an agreement with an approved Mercury Lamp disposal contractor who shall provide approved containers, materials required to label, transportation, recycling or incineration in accordance with EPA requirements, and a copy of the Manifest of Ownership.

(4) **Manifests of Ownership.** The City will sign a Manifest of Ownership for any PCB Ballasts and Mercury Lamps encountered and removed from the Premises.

### 14. TRAINING AND FOLLOW-UP ACTIVITIES BY CONTRACTOR:

a. Training. Contractor shall provide training to the Principal Representative and to City personnel regarding operation of all new and upgraded Equipment. Training shall be conducted simultaneously with Project Work and commissioning Work and shall include, but not be limited to, any HVAC equipment installed, controls, utilities, lighting, safety, manufacturer's warranties, and operation and maintenance manuals per Schedule R (Contractor Training Responsibilities). All training performed by Contractor shall (i) meet the standards established by the Equipment manufacturers, (ii) be included in the Fixed Limit of Construction Cost and (iii) be

completed per **Schedule R**, in order for the Principal Representative to issue a Notice of Final Acceptance of the Project.

b. Emissions Reductions Documentation and Reporting. Contractor shall include information about environmental savings (not any Guaranteed Annual Cost Savings as described in Article 18) in each annual report and advise the Principal Representative about opportunities to achieve monetary benefit from such credits.

**c.** Application for Certifications. Contractor shall provide information related to Schedule B necessary for the Principal Representative to submit any required Federal, State, Local performance or other applicable Certifications.

### 15. <u>MALFUNCTIONS AND EMERGENCIES</u>:

**a.** The Principal Representative will use its best efforts to notify Contractor within 24 hours of the Principal Representative's actual knowledge and occurrence of: (i) any malfunction in the operation of the Equipment or any pre-existing energy related equipment that might materially impact the Guaranteed Annual Cost Savings, (ii) any interruption or alteration to the energy supply to the Premises, or (iii) any alteration or modification in any energy-related equipment or its operation. When the Principal Representative exercises reasonable due diligence in attempting to assess the existence of a malfunction, interruption, or alteration it shall be deemed not at fault in failing to correctly identify any such conditions as having a material impact upon the Guaranteed Annual Cost Savings.

**b.** If such malfunction, interruption, or alteration occurs during the Contractor's One-Year Warranty period, Contractor shall use commercially reasonable efforts to respond to any such notice within 24 hours of receipt of notice, and shall promptly thereafter proceed with corrective measures. The Principal Representative will provide Contractor with written memorialization of any telephone notice within three business days after the notice was given.

**c.** Contractor shall provide a written record of all service work performed for each malfunction or emergency. This record shall indicate the reason for the service, description of the problem and the corrective action performed.

**d.** The City may take reasonable steps to protect the Equipment if, due to an emergency, it is not possible or reasonable to notify Contractor before taking any such actions. The City agrees to maintain the Premises in good repair and to protect and preserve all portions thereof, which may in any way affect the operation or maintenance of the Equipment, all in accordance with the same standard of care the City applies to the Premises generally.

### 16. <u>OWNERSHIP</u>:

### a. Ownership of Documents (Instruments of Service).

(1) Drawings, specifications, and other documents, including those in electronic form, prepared by the Contractor's Architect/Engineer and the Contractor's Architect/Engineer's contractors are Instruments of Service for use solely with respect to this Project. The Contractor's Architect/Engineer and the Contractor's Architect/Engineer's contractors shall be deemed the authors and owners of their respective Instruments of Service and shall retain all common law, statutory and other reserved rights, including copyrights.

(2) Upon execution of this EPC and the Agreement between the Contractor's and the Contractor's Architect/Engineer, the Contractor's Architect/Engineer shall grant to the City a perpetual nonexclusive license to reproduce and use, and permit others to reproduce and use for the City, the Contractor's Architect/Engineer's Instruments of Service solely for the purposes of constructing, using and maintaining the Project for future alterations or additions to the Project. The Contractor's Architect/Engineer shall obtain similar nonexclusive licenses from the Contractor's Architect/Engineer's contractors consistent with this Agreement. If and upon the date the Contractor's Architect/Engineer is adjudged in default, the foregoing license shall be deemed terminated and replaced by a second, nonexclusive license permitting the City to authorize other similarly credentialed design professionals to reproduce and, where permitted by law, to make changes, corrections and additions to the Instruments of Service solely for the purposes of completing, using and maintaining the Project for future alterations or additions to the Project.

(3) Any unilateral use by the City of the Instruments of Service for completing, using, maintaining, adding to or altering the Project or facilities shall be at the City's sole risk and without liability to the Contractor's Architect/Engineer and the Contractor's Architect/Engineers contractors; provided, however, that if the City's unilateral use occurs for completing, using or maintaining the Project as a result of the Contractor's Architect/Engineer's default, nothing in this Article shall be deemed to relieve the Contractor's Architect/Engineer of liability for its own acts or omissions or default.

**b.** As-Built Drawings/Record Drawings. The Contractor's Architect/Engineer and its contractors shall, upon completion of the Construction Term, receive redline as-built Drawings from any Subcontractors or vendors. These redline changes shall describe the built condition of the Project. This information and all of the incorporated changes directed shall be incorporated by the Contractor's Architect/Engineer and its contractors into a Record Drawings document provided to the City in the form of an electro-media format and a reproducible format as agreed between the parties. The Contractor's Architect/Engineer shall also provide the Principal Representative with the as-built Drawings as received from the Contractor.

## c. Ownership of Existing Equipment.

(1) Property owned by the City located at the Premises on the Effective Date shall remain the property of the City even if it is replaced or its operation made unnecessary by Work Contractor performs pursuant to this Agreement. The Principal Representative shall designate in writing to Contractor which equipment and materials should not be disposed of offsite by Contractor prior to the delivery of the Notice to Proceed to Commence Construction Phase. (2) The Principal Representative shall designate the location and storage for any equipment and materials that it designates to be disposed of by Contractor. Contractor shall dispose of all equipment and materials designated by the Principal Representative as disposable off-site and in accordance with all applicable disposal laws and regulations.

(3) Except as otherwise indicated, Contractor shall not be obligated to dispose of or be responsible for any materials identified in Article 13.

### 17. <u>MEASUREMENT AND VERIFICATION</u>:

a. M&V Plan. Contractor shall provide the M&V Plan as required per the CEO Measurement and Verification Policy. The M&V Plan shall outline the M&V Option for each Utility Cost-Savings Measure or FIM. The Contractor M&V Plan is presented in Schedule D per the requirements of Schedule D.

**b. M&V Services**. Contractor shall provide M&V Services and all other services required to be performed by it pursuant to **Schedule D** during the M&V Term. Contractor agrees that **Schedule D** shall follow and use as a standard the procedures and protocol as stated in the CEO Measurement and Verification Policy.

c. Energy Usage Records and Data. The Principal Representative shall furnish, or authorize its utility suppliers to furnish, to Contractor or its designee upon Contractor's written request, all records and data regarding energy, water, or other utilities usage and related maintenance at the Premises no later than 45 days from date of request.

d. M&V Term. The M&V Term is as set forth in Article 6. Upon termination of the M&V Term, the City shall have no further liability or responsibility for any further payment to Contractor for future M&V Services. Upon termination of the M&V Term the Contractor shall have no further liability or responsibility for any M&V Services or Guarantee.

e. M&V Fee. The City shall pay to Contractor for performance of the M&V Services a maximum not-to-exceed amount as specified in Schedule D and shall be included in the MCP. Cost savings to support the fee are guaranteed. The cost is not included in the MEP. At the request of the Principal Representative, additional years of M&V may be added at a negotiated additional cost and shall not be included in the MCP.

f. **Payment**. The City shall pay Contractor pursuant to Article 8.

g. M&V Information Procedure. Measurement and Verification of Savings shall be verified as outlined in Schedule D.

**h. Monitoring Equipment**. Contractor shall provide all additional necessary equipment required to perform the M&V Services. The Contractor may utilize existing equipment,

systems, utility meters if applicable or provide the necessary equipment as described in **Schedule D**.

**i. Independent Monitor**. The City, at its sole expense, may hire an independent third party monitor to review Contractor's measurement and verification reports, including verifying the prorated share of the Guarantee in any event of Agreement termination. The City shall pay the cost of any independent monitoring through a separate contract.

### 18. <u>GUARANTEE</u>:

a. Guarantee. The Guarantee for the first year of the Guarantee Period is \$99,453 as indicated on Schedule C. Contractor hereby warrants and guarantees that during the Guarantee Period, the Project shall result in annual cost savings, determined solely as set forth in Schedule C, shall be equal to or greater than the Guaranteed Annual Cost Savings presented in Schedule C. Failure to meet Guaranteed Annual Cost Savings in any year during the Guarantee Period shall be as defined in Article 1. Cost savings in excess of the Guaranteed Annual Cost Savings shall be solely retained by the City.

**b.** Sufficiency of Savings. Contractor hereby warrants, guarantees, and represents that the Guaranteed Annual Cost Savings is accurately represented in Schedule C.

c. Termination. If this Agreement is terminated by the City for any reason, the Guarantee shall be cancelled and Contractor shall have no further obligations hereunder, except to guarantee the City the prorated portion of the annual amount of Guarantee up to the date of termination. The prorated portion shall include any Savings incurred prior to the termination date. In the event of termination by the City, the City shall be responsible for payment of the portion of Services implemented prior to termination The Contractor shall have all of the remedies listed in this Article 24 in addition to all other remedies set forth in other sections of this Agreement and Schedule A.

## **19.** <u>MODIFICATION, UPGRADE, OR ALTERATIONS OF EQUIPMENT</u>:

a. Modification of Equipment. The City shall not during the Term of this Agreement, without Contractor's prior written approval, which shall not be unreasonably withheld, affix or install any accessory equipment or device on any of the Equipment if such addition changes or impairs the originally intended Savings, functions, value or use of the Equipment.

### b. Upgrade or Alteration Operations and Procedures.

(1) During the performance of this Agreement, Contractor may, subject to prior authorization of the City, revise any procedures for the operation of the Equipment or implement other energy saving actions in the Premises, provided that:(a) Contractor complies with the Standards of Comfort, as set forth in this Agreement, and services set forth in Schedule N; (b) such modifications or additions to, any other operational changes, or new procedures enable Contractor to achieve a greater amount of energy and cost savings than the Savings, at the Premises; (c) any cost incurred relative to such modifications, additions or other operational

changes or new procedures are solely borne by Contractor and paid for with any Contingency Funds; and (d) any such action complies with State, federal and local law and is in the public interest of the City in the City's sole discretion. Any such upgrade or alteration shall not result in any additional cost to the City.

(2) All modifications, additions or replacements of the Equipment, if required due to failure of the Equipment, or other revisions to operating or other procedures shall be described at that time in supplemental Schedules provided to the City for approval; provided that any replacement of the Equipment shall, unless otherwise agreed, be new and shall reduce energy consumption at the Premises more than the Equipment being replaced. Contractor shall update any and all software it owns which is necessary for the operation of the Equipment.

20. <u>LOCATION AND ACCESS</u>: The Principal Representative shall provide access to the Premises for Contractor to perform any function related to this Agreement during regular business hours, or such other reasonable hours requested by Contractor that are acceptable to the Principal Representative. Contractor shall be granted immediate access to make emergency repairs or corrections as Contractor determines are needed. Contractor shall provide a written memorialization within three business days of the access specifying the emergency action taken, the reasons therefore, and the impact on the Premises.

## 21. <u>MATERIAL CHANGES</u>:

**a.** A Material Change as defined could be the result of the City not fulfilling its responsibilities as listed in **Article 26** or from actions including to but not limited to one or more of the following:

- (1) manner of use of the Premises by the City;
- (2) occupancy of the Premises;

(3) modifications, alterations or overrides of the energy management system schedules or hours of operation, set back/start up or holiday schedules;

(4) facility modifications, renovations, new construction, including the replacement, addition or removal in types and quantities of energy and water consuming equipment, including plug load items, used at the Premises;

(5) changes in utility provider or utility rate classification; or

(6) any other conditions other than climate affecting energy or water usage at the Premises.

**b.** Reported Material Changes; Notice by the City. The Principal Representative shall use commercially reasonable efforts to deliver to Contractor a written notice describing all actual or proposed Material Changes in the Premises or in the operations of the

Premises at least 14 days before any actual or proposed Material Change is implemented or as soon as is practicable after an emergency or other unplanned event. Notice to Contractor of Material Changes which result because of a bona fide emergency or other situation precluding advance notice shall be deemed sufficient if given by the Principal Representative within five business days after the Principal Representative discovers the event constituting the Material Change or receives actual knowledge thereof.

**c. Other Adjustments.** Contractor shall work with the Principal Representative to investigate, identify and correct any Material Changes that prevent the Savings from being realized. As a result of any such investigation, Contractor and the Principal Representative shall determine what, if any, adjustments to the baseline shall be made in accordance with the provisions set forth in **Schedule B** and **Schedule C**. Any disputes between the City and Contractor concerning any such adjustment shall be resolved in accordance with the provisions of this Agreement and **Schedule A**.

d. Force Majeure. See Yellow Book 1105 § 2.

# 22. <u>TERMINATION</u>:

**a.** The City has the right to terminate the Agreement with cause upon written notice effective immediately, and without cause upon thirty (30) days prior written notice to the Contractor. However, nothing gives the Contractor the right to perform services under the Agreement beyond the time when its services become unsatisfactory to the Executive Director.

**b.** Notwithstanding the preceding paragraph, the City may terminate the Agreement if the Contractor or any of its officers or employees are convicted, plead *nolo contendere*, enter into a formal agreement in which they admit guilt, enter a plea of guilty or otherwise admit culpability to criminal offenses of bribery, kick backs, collusive bidding, bidrigging, antitrust, fraud, undue influence, theft, racketeering, extortion or any offense of a similar nature in connection with Contractor's business. Termination for the reasons stated in this paragraph is effective upon receipt of notice.

**c.** Upon termination of the Agreement, with or without cause, the Contractor shall have no claim against the City by reason of, or arising out of, incidental or relating to termination, except for compensation for work duly requested and satisfactorily performed as described in the Agreement.

**d.** If the Agreement is terminated, the City is entitled to and will take possession of all materials, equipment, tools and facilities it owns that are in the Contractor's possession, custody, or control by whatever method the City deems expedient. The Contractor shall deliver all documents in any form that were prepared under the Agreement and all other items, materials and documents that have been paid for by the City to the City. These documents and materials are the property of the City. The Contractor shall mark all copies of work product that are incomplete at the time of termination "DRAFT-INCOMPLETE".

#### 23. <u>BREACH</u>:

**a. Defined.** In addition to any Breaches specified in other sections of this Agreement, the failure of either Party to perform any of its material obligations hereunder in whole or in part or in a timely or satisfactory manner may constitute a Breach. The institution of proceedings under any bankruptcy, insolvency, reorganization or similar law, by or against Contractor, or the appointment of a receiver or similar officer for Contractor or any of its property, which is not vacated or fully stayed within 20 days after the institution or occurrence thereof, may also constitute a Breach. Each of the following events or conditions may constitute a Breach by Contractor:

(1) Contractor does not provide the Standards of Comfort and service set forth in **Schedule N** due to failure of Contractor to properly design, install, maintain, repair or adjust the Equipment except that such failure, if corrected or cured within 30 days after written notice by the Principal Representative to Contractor demanding that such failure be cured, shall be deemed cured for purposes of this Agreement;

(2) Any representation or warranty furnished by Contractor in this Agreement is false or misleading in any material respect when made;

(3) The existence of any lien or encumbrance upon the Equipment by any subcontractor, laborer or materialman which is not released or otherwise cured within 30 days after notice of said filing;

(4) Any failure by the Contractor to perform or comply with the terms and conditions of this Agreement, including Breach of any covenant contained herein except that such failure, if corrected or cured within 30 days after written notice by the Principal Representative to the Contractor demanding that such failure to perform be cured, shall be deemed cured for purposes of this Agreement;

(5) The creation or submittal by Contractor of any data related to this Agreement that is intentionally inconsistent or incorrect, or the inability to verify Contractor's reports regarding the Guarantee as determined by any independent third-party monitor retained by the City if such third- party monitor determines that such inability is due to intentional acts of Contractor. Except as provided herein, any creation or submittal by Contractor of any data related to this Agreement that is inconsistent, incorrect, or unable to be verified shall be considered a breach and is subject to the cure period discussed herein; or

(6) The Savings is less than the Guaranteed Annual Cost Savings and the Contractor fails to reconcile the difference as provided herein.

**b.** Notice and Cure Period. In the event of a Breach, notice of such shall be given in writing by the aggrieved Party to the other Party in the manner provided in Article 42. If such Breach is not cured within 30 days of receipt of written notice, or if a cure cannot be completed within 30 days, or if cure of the Breach has not begun within 30 days and pursued with

due diligence, the City may exercise any of the remedies set forth in **Article 24**. Notwithstanding anything to the contrary herein, the Principal Representative, in its sole discretion, need not provide advance notice or a cure period and may immediately terminate this Agreement in whole or in part if reasonably necessary to preserve public safety or to prevent immediate public crisis.

### 24. <u>REMEDIES</u>:

**a. Remedies Not Involving Termination.** If Contractor is in Breach under any provision of this Agreement, the City, in its sole discretion, may exercise one or more of the following remedies in addition to other remedies available to it:

(1) **Suspend Performance.** Suspend Contractor's performance with respect to all or any portion of this Agreement pending necessary corrective action as specified by the City without entitling Contractor to an adjustment in price/cost or performance schedule. Contractor shall promptly cease performance and incurring costs in accordance with the directive of the City and the City shall not be liable for costs incurred by Contractor after the suspension of performance under this provision.

(2) Withhold Payment. Withhold payment to Contractor until corrections in Contractor's performance are satisfactorily made and completed.

(3) **Deny Payment.** Deny payment for those obligations not performed that because to Contractor's actions or inactions, cannot be performed or, if performed, would be of no value to the City; provided, that any denial of payment shall be reasonably related to the value to the City of the obligations not performed.

(4) **Removal.** Notwithstanding any other provision herein, City may demand immediate removal of any of Contractor's employees, agents, or Subcontractors whom the Principal Representative deems incompetent, careless, insubordinate, unsuitable, or otherwise unacceptable, or whose continued relation to this Agreement is deemed to be contrary to the public interest or the City's best interest.

(5) Intellectual Property. If Contractor infringes on a patent, copyright, trademark, trade secret or other intellectual property right while performing its obligations under this Agreement, Contractor shall, at the City's option (a) obtain for the City or Contractor the right to use such products and services; (b) replace any Goods, Services, or other product involved with non-infringing products or modify them so that they become non-infringing; or, (c) if neither of the foregoing alternatives are reasonably available, remove any infringing Goods, Services, or products and refund the price paid therefore to the City.

**b.** Termination Prior to M&V Commencement Date. If Contractor is in Breach under any provision of this Agreement, in addition to all other remedies set forth in other sections of this Agreement and Schedule A, the City may terminate this entire Agreement or any part of this Agreement as provided herein or pursuant to Schedule A. The City may exercise any or all of the remedies available to it, in its sole discretion, concurrently or consecutively. Exercise by the City of this right shall not be a breach of its obligations hereunder. Contractor shall continue performance of this Agreement to the extent not terminated, if any. To the extent specified in any termination notice, Contractor shall complete and deliver to the Principal Representative for the records of the City all Work not cancelled by the termination notice and may incur obligations as are necessary to do so within this Agreement's terms. At the sole discretion of the City, Contractor shall assign to the City all of Contractor's right, title, and interest under such terminated orders or subcontracts; provided that Contractor's obligations with respect to Contractor's Intellectual Property are set forth in **Article 51** below. Upon termination, Contractor shall take timely, reasonable and necessary action to protect and preserve property in the possession of Contractor in which the City has an interest. All materials owned by the City in the possession of Contractor shall be immediately returned to the City. All Work Product, at the option of the City, shall be delivered by Contractor to the City and shall become the City's personal property.

c. Termination of M&V Term. Notwithstanding anything to the contrary herein, the City may terminate this Agreement after the first three years of the M&V Term, and if so terminated, Contractor shall have no further obligations hereunder thereafter.

### 25. <u>REPRESENTATIONS AND WARRANTIES</u>:

a. **Representations.** Contractor makes the following specific representations and warranties, each of which was relied on by the City in entering into this Agreement.

(1) <u>Standard and Manner of Performance</u>. Contractor shall perform its obligations under this Agreement in accordance with the highest standards of care, skill and diligence in Contractor's industry, trade, or profession.

(2) <u>Legal Authority – Contractor Signatory</u>. Contractor warrants that it possesses the legal authority to enter into this Agreement and that it has taken all actions required by its procedures, and by-laws, and/or applicable laws to exercise that authority, and to lawfully authorize its undersigned signatory to execute this Agreement, or any part thereof, and to bind Contractor to its terms. If requested by the City, Contractor shall provide the Principal Representative, for the records of the City, with proof of Contractor's authority to enter into this Agreement within 15 days of receiving such request.

(3) Licenses, Permits, Etc. Contractor represents and warrants that as of the Effective Date it has, and that at all times during the term hereof it shall have and maintain, at its sole expense, all licenses, certifications, approvals, insurance, permits, and other authorizations required by law to perform its obligations hereunder. Contractor warrants that it shall maintain all necessary licenses, certifications, approvals, insurance, permits, and other authorizations required to properly perform this Agreement, without reimbursement by the City or other adjustment in MCP. Additionally, the Contractor shall ensure that all employees, agents and Subcontractors secure and maintain at all times during the term of their employment, agency or subcontract, all license, certifications, permits and other authorizations required to prior this Agreement. Contractor, if a foreign corporation or other foreign entity transacting business in the State of Colorado, further warrants that it currently has obtained and

shall maintain any applicable certificate of authority to transact business in the State of Colorado and has designated a registered agent in Colorado to accept service of process. Any revocation, withdrawal or non-renewal of licenses, certifications, approvals, insurance, permits or any such similar requirements necessary for Contractor to properly perform the terms of this is an Event of Default by Contractor and constitutes grounds for termination of this Agreement. Contractor shall use Subcontractors who are qualified and licensed in the State of Colorado to perform the work so subcontracted pursuant to the terms hereof. The Equipment is or shall be compatible with, or functional with, and or an upgrade to all other Premises mechanical and electrical systems, subsystems, or components with which the Equipment interacts, and that, as installed, neither the Equipment nor such other systems, subsystems, or components shall materially adversely affect each other as a direct or indirect result of Equipment installation or operation except in cases where that Principal Representative has directed, or approved, Contractor to install such equipment. That Contractor is financially solvent, able to pay its debts as they mature and possesses sufficient working capital to complete the installation and perform its obligations under this Agreement.

**b.** Warranties. The warranties set forth in this section and such other warranties as may be set forth in this Agreement are a part of the minimum work requirements of this Agreement and all remediation or other actions required by such warranties shall be performed or delivered without additional cost to the City.

(1) <u>Warranties Generally Applicable</u>. In addition to the Warranties provided in **Schedule A**, during the Construction phase, of this and for a period of one year following the Principal Representative's submission of either the Notice of Substantial Completion or Notice of Partial Substantial Completion for each Utility Cost- Savings Measure or FIM, whichever is longer, Contractor warrants that:

A. The Work shall meet the Specifications set forth in the Contract Documents and be acceptable to the City;

**B.** There are not any pending suits, claims, or actions of any type with respect to the Equipment or Work;

**C.** All Equipment and Work provided are free and clear of any liens, encumbrances or claims arising by or through Contractor or any party related to Contractor;

**D.** Contractor will perform all of its obligations in accordance with **Article 11**, Contractor Performance;

**E.** the Equipment is new, unless otherwise agreed in writing;

- **F.** shall be materially free from defects in materials; and
- **G.** shall function properly.

(2) <u>Equipment</u>. Specific and any material warranties that exceed the Equipment One-Year Included Warranty period shall be provided directly by the Equipment or material manufacturers and Contractor shall assign such warranties to the City, after the One-Year Warranty period.

(3) Obligations. During the One-Year Included Warranty period, Contractor shall remedy any defects due to faulty materials and shall pay for, repair and replace any resulting damage to other work or any other resulting damage directly associated with the Work. Only new and not reconditioned parts may be used as a remedy. The Principal Representative shall give written notice to Contractor of observed defects or other Work requiring correction with reasonable promptness. Contractor shall pursue rights and remedies against any Equipment manufacturers under the warranties in the event of Equipment malfunction or improper or defective function, defects in parts, workmanship and performance during the One-Year Warranty period. Contractor shall, during the One-Year Warranty period, notify the Principal Representative whenever defects in Equipment parts or performance arise that may provide a warranty claim. During the One-Year Warranty period, the cost of any risk of damage or damage to the Equipment and its performance, including damage to property, equipment of the City or the Premises, or Equipment, due to Contractor's failure to exercise its warranty rights shall be borne solely by Contractor. Notwithstanding the above, nothing in this section shall be construed to abrogate Contractor's duty to perform its other obligations under this Agreement. Contractor shall also remedy any deviation from the requirements of the Contract Documents which shall later be discovered within a period of one year from the date of the Notice of Substantial Completion. The Principal Representative shall give Notice of observed defects or other Work requiring correction with reasonable promptness. Such Notice shall be in writing to Contractor.

**26.** <u>**CITY M&V TERM RESPONSIBILITIES**</u>: The City is responsible during the M&V Term for:

**a.** Hours of operation of the Premises or for any equipment or systems operating at the Premises;

**b.** Notifying the Contractor about equipment performance issues as they are noticed;

c. Permanent changes in the comfort and service parameters set forth in Schedule N (Standards of Comfort);

**d.** Failure to provide maintenance of and repairs to the Equipment in accordance with **Schedule S** (City's Maintenance Responsibilities); and

e. Providing Contractor the right once a month, with prior notice, to inspect the Premises to determine if the City is complying with appropriate schedules. For the purpose of determining such compliance, the checklist to be set forth at **Schedule S** (City's Maintenance Responsibilities), as completed and recorded by Contractor during its monthly inspections, shall be used to measure and record the compliance of the City. The City shall make the Premises

available to Contractor for and during each monthly inspection, and shall have the right to witness each inspection and Contractor's recordation on the checklist. The Principal Representative, on behalf of the City, may complete checklist for the City at the same time. Contractor shall not interfere with any operations of the City during any monthly inspection.

27. <u>STATUS OF CONTRACTOR</u>: The Contractor is an independent Contractor retained to perform professional or technical services for limited periods of time. Neither the Contractor nor any of its employees are employees or officers of the City under Chapter 18 of the Denver Revised Municipal Code, or for any purpose whatsoever.

28. EXAMINATION OF RECORDS: Any authorized agent of the City, including the City Auditor or his or her representative, has the right to access and the right to examine, copy and retain copies, at City's election in paper or electronic form, any pertinent books, documents, papers and records related to Contractor's performance pursuant to this Agreement, provision of any goods or services to the City, and any other transactions related to this Agreement. Contractor shall cooperate with City representatives and City representatives shall be granted access to the foregoing documents and information during reasonable business hours and until the latter of three (3) years after the final payment under the Agreement or expiration of the applicable statute of limitations. When conducting an audit of this Agreement, the City Auditor shall be subject to government auditing standards issued by the United States Government Accountability Office by the Comptroller General of the United States, including with respect to disclosure of information acquired during the course of an audit. No examination of records and audit pursuant to this paragraph shall require Parties to make disclosures in violation of state or federal privacy laws. Parties shall at all times comply with D.R.M.C. 20-276.

29. <u>WHEN RIGHTS AND REMEDIES NOT WAIVED</u>: In no event will any payment or other action by the City constitute or be construed to be a waiver by the City of any breach of covenant or default that may then exist on the part of the Contractor. No payment, other action, or inaction by the City when any breach or default exists will impair or prejudice any right or remedy available to it with respect to any breach or default. No assent, expressed or implied, to any breach of any term of the Agreement constitutes a waiver of any other breach.

## 30. <u>INSURANCE</u>:

a. General Conditions: Contractor agrees to secure, at or before the time of execution of this Agreement, the following insurance covering all operations, goods or services provided pursuant to this Agreement. Contractor shall keep the required insurance coverage in force at all times during the term of the Agreement, including any extension thereof, and during any warranty period. The required insurance shall be underwritten by an insurer licensed or authorized to do business in Colorado and rated by A.M. Best Company as "A-VIII" or better. Each policy shall require notification to the City in the event any of the required policies be canceled or non-renewed before the expiration date thereof. Such written notice shall be sent to the parties identified in the Notices section of this Agreement. Such notice shall be sent thirty (30) days prior to such cancellation or non-renewal unless due to non-payment of premiums for

which notice shall be sent ten (10) days prior. If such written notice is unavailable from the insurer, Contractor shall provide written notice of cancellation, non-renewal and any reduction in coverage to the parties identified in the Notices section by certified mail, return receipt requested within three (3) business days of such notice by its insurer(s) and referencing the City's contract number. Contractor shall be responsible for the payment of any deductible or self-insured retention. The insurance coverages specified in this Agreement are the minimum requirements. The Contractor shall maintain, at its own expense, any additional kinds or amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Agreement.

**b. Proof of Insurance:** Contractor may not commence services or work relating to this Agreement prior to placement of coverages required under this Agreement. Contractor certifies that the certificate of insurance attached as **Schedule K**, preferably an ACORD form, complies with all insurance requirements of this Agreement. The City requests that the City's contract number be referenced on the certificate of insurance. The City's acceptance of a certificate of insurance or other proof of insurance that does not comply with all insurance requirements set forth in this Agreement shall not act as a waiver of Contractor's breach of this Agreement or of any of the City's rights or remedies under this Agreement. The City's Risk Management Office may require additional proof of insurance, including but not limited to policies and endorsements.

**c.** Additional Insureds: For Commercial General Liability, Auto Liability and Excess Liability/Umbrella (if required), Contractor and subcontractor's insurer(s) shall include the City and County of Denver, its elected and appointed officials, employees and volunteers as additional insured.

**d. Waiver of Subrogation:** For all coverages required under this Agreement, with the exception of professional liability, Contractor's insurer shall waive subrogation rights against the City.

e. Subcontractors and Subconsultants: Contractor shall confirm and document that all subcontractors and subconsultants (including independent contractors, suppliers or other entities providing goods or services required by this Agreement) procure and maintain coverage as approved by the Contractor and appropriate to their respective primary business risks considering the nature and scope of services provided.

f. Workers' Compensation and Employer's Liability Insurance: Contractor shall maintain the coverage as required by statute for each work location and shall maintain Employer's Liability insurance with limits of \$100,000 per occurrence for each bodily injury claim, \$100,000 per occurrence for each bodily injury caused by disease claim, and \$500,000 aggregate for all bodily injuries caused by disease claims.

**g.** Commercial General Liability: Contractor shall maintain a Commercial General Liability insurance policy with minimum limits of \$1,000,000 for each bodily injury and property damage occurrence, \$2,000,000 products and completed operations aggregate (if applicable), and \$2,000,000 policy aggregate.

**h.** Automobile Liability: Contractor shall maintain Automobile Liability with minimum limits of \$1,000,000 combined single limit applicable to all owned, hired and non-owned vehicles used in performing services under this Agreement.

i. **Professional Liability (Errors & Omissions):** Contractor shall maintain minimum limits of \$1,000,000 per claim and \$1,000,000 policy aggregate limit. The policy shall be kept in force, or a Tail policy placed, for three (3) years for all contracts except construction contracts for which the policy or Tail shall be kept in place for eight (8) years.

**j. Builder's Risk or Installation Floater**: Contractor shall maintain limits equal to the completed value of the project. Coverage shall be written on an all risk, replacement cost basis including coverage for soft costs, flood and earth movement, to the extent commercially available, if in a flood or quake zone, and, if applicable, equipment breakdown including testing. The City and County of Denver, Contractor, and subcontractors shall be Additional Named Insureds under the policy. Policy shall remain in force until acceptance of the project by the City.

### **31.** <u>DEFENSE AND INDEMNIFICATION</u>:

**a.** Contractor hereby agrees to defend, indemnify, reimburse and hold harmless City, its appointed and elected officials, agents and employees for, from and against all liabilities, claims, judgments, suits or demands for damages to persons or property arising out of, resulting from, or relating to the work performed under this Agreement ("Claims"), unless such Claims have been specifically determined by the trier of fact to be the sole negligence or willful misconduct of the City. This indemnity shall be interpreted in the broadest possible manner to indemnify City for any acts or omissions of Contractor or its subcontractors either passive or active, irrespective of fault, including City's concurrent negligence whether active or passive, except for the sole negligence or willful misconduct of City.

**b.** Contractor's duty to defend and indemnify City shall arise at the time written notice of the Claim is first provided to City regardless of whether Claimant has filed suit on the Claim. Contractor's duty to defend and indemnify City shall arise even if City is the only party sued by claimant and/or claimant alleges that City's negligence or willful misconduct was the sole cause of claimant's damages.

c. Contractor will defend any and all Claims which may be brought or threatened against City and will pay on behalf of City any expenses incurred by reason of such Claims including, but not limited to, court costs and attorney fees incurred in defending and investigating such Claims or seeking to enforce this indemnity obligation. Such payments on behalf of City shall be in addition to any other legal remedies available to City and shall not be considered City's exclusive remedy.

**d.** Insurance coverage requirements specified in this Agreement shall in no way lessen or limit the liability of the Contractor under the terms of this indemnification obligation. The Contractor shall obtain, at its own expense, any additional insurance that it deems necessary

for the City's protection.

e. This defense and indemnification obligation shall survive the expiration or termination of this Agreement.

**32. PAYMENT OF CITY MINIMUM WAGE:** The Contractor shall comply with, and agrees to be bound by, all requirements, conditions, and City determinations regarding the City's Minimum Wage Ordinance, Sections 20-82 through 20-84 D.R.M.C., including, but not limited to, the requirement that every covered worker shall be paid no less than the City Minimum Wage in accordance with the foregoing D.R.M.C. Sections. By executing this Agreement, the Contractor expressly acknowledges that the Contractor is aware of the requirements of the City's Minimum Wage Ordinance and that any failure by the Contractor, or any other individual or entity acting subject to this Agreement, to strictly comply with the foregoing D.R.M.C. Sections shall result in the penalties and other remedies authorized therein.

**PAYMENT OF CITY PREVAILING WAGE**: The Contractor shall comply 33. with, and agrees to be bound by, all requirements, conditions and City determinations regarding the Payment of Prevailing Wages Ordinance, Sections 20-76 through 20-79, D.R.M.C. including, but not limited to, the requirement that every covered worker working on a City owned or leased building or on City-owned land shall be paid no less than the prevailing wages and fringe benefits in effect on the date the bid or request for proposal was advertised. In the event a request for bids, or a request for proposal, was not advertised, the Contractor shall pay every covered worker no less than the prevailing wages and fringe benefits in effect on the date funds for the Agreement were encumbered. Prevailing wage and fringe rates will adjust on the yearly anniversary of the actual date of bid or proposal issuance, if applicable, or the date of the written encumbrance if no bid/proposal issuance date is applicable. Unless expressly provided for in this Agreement, the Contractor will receive no additional compensation for increases in prevailing wages or fringe benefits. The Contractor shall provide the Auditor with a list of all subcontractors providing any services under the Agreement. The Contractor shall provide the Auditor with electronicallycertified payroll records for all covered workers employed under the Agreement. The Contractor shall prominently post at the work site the current prevailing wage and fringe benefit rates. The posting must inform workers that any complaints regarding the payment of prevailing wages or fringe benefits may be submitted to the Denver Auditor by calling 720-913-5000 or emailing auditor@denvergov.org. If the Contractor fails to pay workers as required by the Prevailing Wage Ordinance, the Contractor will not be paid until documentation of payment satisfactory to the Auditor has been provided. The City may, by written notice, suspend or terminate work if the Contractor fails to pay required wages and fringe benefits.

**34. LETTER OF CREDIT, CONSTRUCTION BONDS**: Prior to the commencement of construction, Contractor shall deliver to the Executive Director a payment and performance bond on a form approved by the City Attorney's Office, or alternate form of surety, letter of credit or alternate form of assurance acceptable and approved by the City Attorney's Office, in a sum equal to the MCP payable to the City. Said bond shall guarantee prompt and faithful payment by the Contractor directly to the Contractor's contractors and by the Contractor's contractors to all persons supplying labor, materials, team hire, sustenance, provisions, provender,

supplies, rental machinery, tools and equipment used directly or indirectly by the said contractor, subcontractor(s) and suppliers in the prosecution of the work provided for in said construction Agreement and shall protect the City from any liability, losses or damages arising therefrom. All bonds shall be issued by a surety company licensed to transact business in the State of Colorado and satisfactory to and approved by the City. A payment and performance bond, or alternate form of surety, letter of credit or alternate form of assurance shall not be required for the asset management services as outlined in the Schedules. The performance and payment bonds apply only to the installation portion of the contract and do not apply in any way to energy savings guarantees, payments or maintenance provisions.

**35.** <u>**TAXES, CHARGES AND PENALTIES:**</u> The City is not liable for the payment of taxes, late charges or penalties of any nature, except for any additional amounts that the City may be required to pay under the City's prompt payment ordinance D.R.M.C. § 20-107, *et seq.* The Contractor shall promptly pay when due, all taxes, bills, debts and obligations it incurs performing the services under the Agreement and shall not allow any lien, mortgage, judgment or execution to be filed against City property.

**36.** <u>ASSIGNMENT; SUBCONTRACTING</u>: The Contractor shall not voluntarily or involuntarily assign any of its rights or obligations, or subcontract performance obligations, under this Agreement without obtaining the Executive Director's prior written consent. Any assignment or subcontracting without such consent will be ineffective and void, and will be cause for termination of this Agreement by the City. The Executive Director has sole and absolute discretion whether to consent to any assignment or subcontracting, or to terminate the Agreement because of unauthorized assignment or subcontracting. In the event of any subcontracting or unauthorized assignment: (i) the Contractor shall remain responsible to the City; and (ii) no contractual relationship shall be created between the City and any sub-contractor, subcontractor or assign.

**37. <u>INUREMENT</u>:** The rights and obligations of the Parties to the Agreement inure to the benefit of and shall be binding upon the Parties and their respective successors and assigns, provided assignments are consented to in accordance with the terms of the Agreement.

**38.** <u>NO THIRD PARTY BENEFICIARY</u>: Enforcement of the terms of the Agreement and all rights of action relating to enforcement are strictly reserved to the Parties. Nothing contained in the Agreement gives or allows any claim or right of action to any third person or entity. Any person or entity other than the City or the Contractor receiving services or benefits pursuant to the Agreement is an incidental beneficiary only.

**39.** <u>NO AUTHORITY TO BIND CITY TO CONTRACTS</u>: The Contractor lacks any authority to bind the City on any contractual matters. Final approval of all contractual matters that purport to obligate the City must be executed by the City in accordance with the City's Charter and the Denver Revised Municipal Code.

**40. SEVERABILITY:** Except for the provisions of the Agreement requiring appropriation of funds and limiting the total amount payable by the City, if a court of competent jurisdiction finds any provision of the Agreement or any portion of it to be invalid, illegal, or

unenforceable, the validity of the remaining portions or provisions will not be affected, if the intent of the Parties can be fulfilled.

# 41. <u>CONFLICT OF INTEREST</u>:

**a.** No employee of the City shall have any personal or beneficial interest in the services or property described in the Agreement. The Contractor shall not hire, or contract for services with, any employee or officer of the City that would be in violation of the City's Code of Ethics, D.R.M.C. §2-51, et seq. or the Charter §§ 1.2.8, 1.2.9, and 1.2.12.

**b.** The Contractor shall not engage in any transaction, activity or conduct that would result in a conflict of interest under the Agreement. The Contractor represents that it has disclosed any and all current or potential conflicts of interest. A conflict of interest shall include transactions, activities or conduct that would affect the judgment, actions or work of the Contractor by placing the Contractor's own interests, or the interests of any party with whom the Contractor has a contractual arrangement, in conflict with those of the City. The City, in its sole discretion, will determine the existence of a conflict of interest and may terminate the Agreement if it determines a conflict exists, after it has given the Contractor written notice describing the conflict.

42. <u>NOTICES</u>: All notices required by the terms of the Agreement must be hand delivered, sent by overnight courier service, mailed by certified mail, return receipt requested, or mailed via United States mail, postage prepaid, if to Contractor at the address first above written, and if to the City at:

Executive Director of General Services or Designee 201 W. Colfax Avenue, Dept. 1110 Denver, CO 80202

With a copy of any such notice to:

Denver City Attorney's Office 1437 Bannock St., Room 353 Denver, Colorado 80202

Notices hand delivered or sent by overnight courier are effective upon delivery. Notices sent by certified mail are effective upon receipt. Notices sent by mail are effective upon deposit with the U.S. Postal Service. The Parties may designate substitute addresses where or persons to whom notices are to be mailed or delivered. However, these substitutions will not become effective until actual receipt of written notification.

# 43. <u>NO EMPLOYMENT OF A WORKER WITHOUT AUTHORIZATION TO</u> <u>PERFORM WORK UNDER THE AGREEMENT</u>:

**a.** This Agreement is subject to Division 5 of Article IV of Chapter 20 of the Denver Revised Municipal Code, and any amendments (the "Certification Ordinance").

**b.** The Contractor certifies that:

(1) At the time of its execution of this Agreement, it does not knowingly employ or contract with a worker without authorization who will perform work under this Agreement, nor will it knowingly employ or contract with a worker without authorization to perform work under this Agreement in the future.

(2) It will participate in the E-Verify Program, as defined in § 8-17.5-101(3.7), C.R.S., and confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement.

(3) It will not enter into a contract with a subcontractor or subcontractor that fails to certify to the Contractor that it shall not knowingly employ or contract with a worker without authorization to perform work under this Agreement.

(4) It is prohibited from using the E-Verify Program procedures to undertake pre-employment screening of job applicants while performing its obligations under this Agreement, and it is required to comply with any and all federal requirements related to use of the E-Verify Program including, by way of example, all program requirements related to employee notification and preservation of employee rights.

(5) If it obtains actual knowledge that a subcontractor or subcontractor performing work under this Agreement knowingly employs or contracts with a worker without authorization, it will notify such subcontractor or subcontractor and the City within three (3) days. The Contractor shall also terminate such subcontractor or subcontractor if within three (3) days after such notice the subcontractor or subcontractor does not stop employing or contracting with the worker without authorization, unless during the three-day period the subcontractor or s

(6) It will comply with a reasonable request made in the course of an investigation by the Colorado Department of Labor and Employment under authority of § 8-17.5-102(5), C.R.S., or the City Auditor, under authority of D.R.M.C. 20-90.3.

**c.** The Contractor is liable for any violations as provided in the Certification Ordinance. If the Contractor violates any provision of this section or the Certification Ordinance, the City may terminate this Agreement for a breach of the Agreement. If this Agreement is so terminated, the Contractor shall be liable for actual and consequential damages to the City. Any termination of a contract due to a violation of this section or the Certification Ordinance may also, at the discretion of the City, constitute grounds for disqualifying the Contractor from submitting bids or proposals for future contracts with the City.

44. <u>DISPUTES</u>: All disputes between the City and Contractor arising out of or regarding the Agreement will be resolved by administrative hearing pursuant to the procedure

established by D.R.M.C. § 56-106(b)-(f). For the purposes of that administrative procedure, the City official rendering a final determination shall be the Executive Director as defined in this Agreement.

45. <u>GOVERNING LAW; VENUE</u>: The Agreement will be construed and enforced in accordance with applicable federal law, the laws of the State of Colorado, and the Charter, Revised Municipal Code, ordinances, regulations and Executive Orders of the City and County of Denver, which are expressly incorporated into the Agreement. Unless otherwise specified, any reference to statutes, laws, regulations, charter or code provisions, ordinances, executive orders, or related memoranda, includes amendments or supplements to same. Venue for any legal action relating to the Agreement will be in the District Court of the State of Colorado, Second Judicial District (Denver District Court).

# 46. <u>DIVISION OF SMALL BUSINESS OPPORTUNITY REQUIREMENTS:</u>

**a.** This Agreement is subject to Article III, Divisions 1 and 3 of Chapter 28, Denver Revised Municipal Code ("D.R.M.C."), designated as §§ 28-31 to 28-40 and 28-51 to 28-90 (the "MWBE Ordinance"); and any Rules and Regulations promulgated pursuant thereto. The Agreement goal for MWBE participation established for this Agreement by the Division of Small Business Opportunity ("DSBO") is 18%.

**b.** Under § 28-68, D.R.M.C., the Contractor has an ongoing, affirmative obligation to maintain for the duration of this Agreement, at a minimum, compliance with the MWBE participation upon which this Agreement was awarded, unless the City initiates a material modification to the scope of work affecting MWBEs performing on this Agreement through change order, Agreement amendment, force account, or other modification under § 28-70, D.R.M.C. The Contractor acknowledges that:

(1) If directed by DSBO, the Contractor is required to develop and comply with a Utilization Plan in accordance with § 28-62(b), D.R.M.C. Along with the Utilization Plan requirements, the Contractor must establish and maintain records and submit regular reports, as directed by DSBO, which will allow the City to assess progress in complying with the Utilization Plan and achieving the MWBE participation goal. The Utilization Plan is subject to modification by DSBO.

(2) If change orders or any other Agreement modifications are issued under the Agreement, the Contractor shall have a continuing obligation to promptly inform DSBO in writing of any agreed upon increase or decrease in the scope of work of such Agreement, upon any of the bases under § 28-70, D.R.M.C., regardless of whether such increase or decrease in scope of work has been reduced to writing at the time of notification of the change by the City.

(3) If change orders or other amendments or modifications are issued under the Agreement that include an increase in the scope of work of this Agreement, whether by amendment, change order, force account or otherwise, which increases the dollar value of the Agreement, whether or not such change is within the scope of work designated for performance by an MWBE at the time of Agreement award, such change orders or Agreement modification shall be promptly submitted to DSBO for notification purposes.

(4) Those amendments, change orders, force accounts or other Agreement modifications that involve a changed scope of work that cannot be performed by existing project subcontractors are subject to the original Agreement goal. The Contractor shall satisfy the goal with respect to such changed scope of work by soliciting new MWBEs in accordance with § 28-70, D.R.M.C. The Contractor must also satisfy the requirements under §§ 28-60 and 28-73, D.R.M.C., with regard to changes in scope or participation. The Contractor shall supply to the DSBO Director all required documentation under §§ 28-60, 28-70, and 28-73, D.R.M.C., with respect to the modified dollar value or work under the Agreement.

(5) If applicable, for contracts of one million dollars (\$1,000,000.00) and over, the Contractor is required to comply with § 28-72, D.R.M.C. regarding prompt payment to MWBEs. Payment to MWBE subcontractors shall be made by no later than thirty-five (35) days after receipt of the MWBE subcontractor's invoice.

(6) Failure to comply with these provisions may subject the Contractor to sanctions set forth in § 28-76 of the MWBE Ordinance.

(7) Should any questions arise regarding specific circumstances, the Contractor should consult the MWBE Ordinance or may contact the Project's designated DSBO representative at (720) 913-1999.

47. <u>COMPLIANCE WITH ALL LAWS</u>: Contractor shall perform or cause to be performed all services in full compliance with all applicable laws, rules, regulations and codes of the United States, the State of Colorado; and with the Charter, ordinances, rules, regulations and Executive Orders of the City and County of Denver.

**48. LEGAL AUTHORITY:** Contractor represents and warrants that it possesses the legal authority, pursuant to any proper, appropriate and official motion, resolution or action passed or taken, to enter into the Agreement. Each person signing and executing the Agreement on behalf of Contractor represents and warrants that he has been fully authorized by Contractor to execute the Agreement on behalf of Contractor and to validly and legally bind Contractor to all the terms, performances and provisions of the Agreement. The City shall have the right, in its sole discretion, to either temporarily suspend or permanently terminate the Agreement if there is a dispute as to the legal authority of either Contractor or the person signing the Agreement to enter into the Agreement.

**49.** <u>NO CONSTRUCTION AGAINST DRAFTING PARTY</u>: The Parties and their respective counsel have had the opportunity to review the Agreement, and the Agreement will not be construed against any party merely because any provisions of the Agreement were prepared by a particular party.

**50. ORDER OF PRECEDENCE:** In the event of any conflicts between the language of the Agreement and the Schedules, the language of the Agreement controls.

**51. INTELLECTUAL PROPERTY RIGHTS:** Except for Contractor's Intellectual Property, the City and Contractor intend that all property rights to any and all materials, text, logos, documents, booklets, manuals, references, guides, brochures, advertisements, URLs, domain names, music, sketches, web pages, plans, drawings, prints, photographs, specifications, software, data, products, ideas, inventions, and any other work or recorded information created by the Contractor and paid for by the City pursuant to this Agreement, in preliminary or final form and on any media whatsoever (collectively, "Materials"), shall belong to the City upon completion of the Project. To the extent permitted by the U.S. Copyright Act, 17 USC § 101, *et seq.*, the Materials are a "work made for hire" and all ownership of copyright in the Materials shall vest in the City at the time the Materials are created. To the extent that the Materials are not a "work made for hire," the Contractor (by this Agreement) sells, assigns and transfers all right, title and interest in and to the Materials to the City, including the right to secure copyright, patent, trademark, and other intellectual property rights throughout the world and to have and to hold such rights in perpetuity.

52. <u>SURVIVAL OF CERTAIN PROVISIONS</u>: The terms of the Agreement and any schedules and attachments that by reasonable implication contemplate continued performance, rights, or compliance beyond expiration or termination of the Agreement survive the Agreement and will continue to be enforceable. Without limiting the generality of this provision, the Contractor's obligations to provide insurance and to indemnify the City will survive for a period equal to any and all relevant statutes of limitation, plus the time necessary to fully resolve any claims, matters, or actions begun within that period.

**53. NO DISCRIMINATION IN EMPLOYMENT:** In connection with the performance of work under the Agreement, the Contractor may not refuse to hire, discharge, promote, demote, or discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, ethnicity, citizenship, immigration status, gender, age, sexual orientation, gender identity, gender expression, marital status, source of income, military status, protective hairstyle, or disability. The Contractor shall insert the foregoing provision in all subcontracts.

**54.** <u>ADVERTISING AND PUBLIC DISCLOSURE</u>: The Contractor shall not include any reference to the Agreement or to services performed pursuant to the Agreement in any of the Contractor's advertising or public relations materials without first obtaining the written approval of the Executive Director. Any oral presentation or written materials related to services performed under the Agreement will be limited to services that have been accepted by the City. The Contractor shall notify the Executive Director in advance of the date and time of any presentation. Nothing in this provision precludes the transmittal of any information to City officials.</u>

**55.** <u>**CONFIDENTIAL INFORMATION:**</u> Contractor acknowledges and accepts that, in performance of all work under the terms of this Agreement, Contractor may have access to

Proprietary Data or confidential information that may be owned or controlled by the City, and that the disclosure of such Proprietary Data or information may be damaging to the City or third parties. Contractor agrees that all Proprietary Data, confidential information or any other data or information provided or otherwise disclosed by the City to Contractor shall be held in confidence and used only in the performance of its obligations under this Agreement. Contractor shall exercise the same standard of care to protect such Proprietary Data and information as a reasonably prudent Contractor would to protect its own proprietary or confidential data. "Proprietary Data" shall mean any materials or information which may be designated or marked "Proprietary" or "Confidential", or which would not be documents subject to disclosure pursuant to the Colorado Open Records Act or City ordinance and provided or made available to Contractor by the City. Such Proprietary Data may be in hardcopy, printed, digital or electronic format.

**56.** <u>**CITY EXECUTION OF AGREEMENT:**</u> The Agreement will not be effective or binding on the City until it has been fully executed by all required signatories of the City and County of Denver, and if required by Charter, approved by the City Council.

**57.** <u>AGREEMENT AS COMPLETE INTEGRATION-AMENDMENTS</u>: The Agreement is the complete integration of all understandings between the Parties as to the subject matter of the Agreement. No prior, contemporaneous or subsequent addition, deletion, or other modification has any force or effect, unless embodied in the Agreement in writing. No oral representation by any officer or employee of the City at variance with the terms of the Agreement or any written amendment to the Agreement will have any force or effect or bind the City.

**58.** <u>USE, POSSESSION OR SALE OF ALCOHOL OR DRUGS</u>: Contractor shall cooperate and comply with the provisions of Executive Order 94 and its Attachment A concerning the use, possession or sale of alcohol or drugs. Violation of these provisions or refusal to cooperate with implementation of the policy can result in contract personnel being barred from City facilities and from participating in City operations.

**59.** <u>ELECTRONIC SIGNATURES AND ELECTRONIC RECORDS</u>: Contractor consents to the use of electronic signatures by the City. The Agreement, and any other documents requiring a signature under the Agreement, may be signed electronically by the City in the manner specified by the City. The Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.</u>

**60. ORDER OF PRECEDENCE**: In the event of a conflict or inconsistency between this Agreement and its Schedules, or attachments, such conflicts or inconsistencies shall be resolved by reference to the documents in the following order of priority:

- **a.** This provisions of this Agreement
- b. General Conditions of Schedule A

- c. Construction Documents (Article 10.a.)
- **d.** The remaining schedules
- e. Any other attachments

## List of Schedules

The following Schedules are attached and incorporated by reference herein.

- Schedule A General Conditions of Energy Performance Contract
- Schedule B Energy Performance Contract Description of Work
- Schedule C Guarantee
- Schedule D Measurement and Verification Services Plan
- Schedule E Code Compliance Requirements
- Schedule F Schedule of Values (Initial)
- Schedule G Projected Financial Cost and Cash Flow Analysis
- Schedule H Certification that Cost-weighted Average Service Life of Equipment Exceeds Financing Term
- Schedule I Record of Reviews (as recommended by the Colorado Energy Office)
- **Schedule J** Intentionally Deleted
- Schedule K Certificate of Insurance
- Schedule L Intentionally Deleted
- Schedule M Intentionally Deleted
- Schedule N Standards of Comfort
- **Schedule O** *Intentionally Deleted*
- **Schedule P** Intentionally Deleted
- **Schedule Q** System Start-up and Commissioning
- Schedule R Contractor Training Responsibilities
- Schedule S Political Subdivision's Maintenance Responsibilities
- Schedule T Notice of Substantial Completion
- Schedule U Notice of Final Acceptance
- Schedule V 5 and 15 Year Equipment List
- Schedule W Acceptance Certificates

## [THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK]

Contract Control Number: Contractor Name: GENRL-202161178-00 Ameresco, Inc.

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at Denver, Colorado as of:

SEAL

## **CITY AND COUNTY OF DENVER:**

**REGISTERED AND COUNTERSIGNED:** 

ATTEST:

By:

**APPROVED AS TO FORM:** 

Attorney for the City and County of Denver

By:

By:

By:

## **Contract Control Number: Contractor Name:**

GENRL-202161178-00 Ameresco, Inc.

DocuSigned by: Louis P. Maltezos \_\_\_\_\_C46BE5C8279044F...\_\_\_\_ By:

Louis	Ρ.	Maltezos	

Title: Executive Vice President
(please print)

# ATTEST: [if required]

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

# SCHEDULE A

# **GENERAL CONDITIONS**

## ARTICLE 1. DEFINITIONS

## A. CONTRACT DOCUMENTS

The Contract Documents consist of the following, some of which are procedural documents used in the administration and performance of the Agreement:

- 1. The Energy Performance Contract between the City and Contractor and all its Schedules, and Attachments;
  - 1.1 Contractor's report and Energy Performance Contract Project Proposal Contract, All Exhibits, Addenda. and Clarifications
  - 1.2 Accepted Energy Performance Contract Project Proposal
- 2. Referenced Titles of The City and County of Denver Department of Aviation and Department of Public Works Standard Specifications for Construction General Conditions (2011 Edition) ("Yellow Book");
- 3. Performance Bond and Labor and Material Payment Bond;
- 4. These General Conditions of the Energy Performance Contract (EPC-GC) and if applicable, Supplementary General Conditions;
- 5. Drawings developed by Contractor and accepted by City, prior to the Notice to Proceed to Commence Construction Phase;
- 6. Change Orders and any Amendments executed pursuant to State law and regulations;
- 7. Builder's risk insurance certificates of insurance;
- 8. Liability, workers' compensation and professional liability errors and omissions certificates of insurance;
- 9. Notice to Proceed to Commence Design Phase;
- 10. Notice to Proceed to Commence Construction Phase;
- 11. Notice of Approval of Occupancy/Use
- 12. Notice of Partial Substantial Completion);
- 13. Notice of Substantial Completion;
- 14. Notice of Partial Final Acceptance;
- 15. Notice of Final Acceptance);
- 16. Notice of Contractor's Settlement;
- 17. Application and Certificate for Contractor's Payment; and
- 18. Other procedural and reporting documents or forms referred to in these General Conditions of the Energy Performance Contract, the Specifications or required by the Principal Representative, including but not necessarily limited to the Pre- Acceptance Checklist form (SBP-05) and the Building Inspection Report (SBP-BIR). A list of the current standard Colorado Energy Office and State Buildings Programs forms applicable to this Contract may be obtained from the Principal Representative on request.

## B. DEFINITIONS OF WORDS AND TERMS USED

- 1. AGREEMENT. The term "Agreement" shall mean the written agreement entered into by the City, and the Contractor for the performance of the Work and payment therefore.
- 2. CHANGE ORDER. See Yellow Book, Title II, 1101.1
- 3. COLORADO LABOR. The term "Colorado labor", as provided in C.R.S. § 8-17-101(2)(a), as amended, means any person who is a resident of the state of Colorado, at the time of the public works project, without discrimination as to race, color, creed, sex, sexual orientation, marital status, national origin, ancestry, age, or religion except when sex or age is a bona fide occupational qualification. A resident of the State of Colorado is a person who can provide a valid Colorado driver's license, a valid Colorado state-issued photo identification, or documentation that he or she has resided in Colorado for the last 30days.
- 4. CONSULTANT. See Yellow Book, Title 1; 110.
- 5. DAYS. See Yellow Book, Title 1; 108.
- 6. DRAWINGS. See Yellow Book, Title 1, 117.

- 7. EMERGENCY FIELD CHANGE ORDER. See Yellow Book, Title 11; 1102.3.
- 8. ENERGY SERVICE COMPANY'S ARCHITECT/ENGINEER. The term "Energy Service Company Architect/Engineer" shall mean professionals licensed or registered by the State of Colorado who have contracted with the Energy Service Company with prior approval by the City, or a professional employee of the Energy Service Company, to accomplish the architectural and engineering services necessary for the Work. Nothing in this contract is intended to create a contractual relationship between such professional and the City.
- 9. ENERGY PERFORMANCE CONTRACT CHANGE ORDER. The EPC Change Order is applicable only to Energy Performance Contracts and only for the original EPC MCP. The term "EPC Change Order" means a written order, signed by a Procurement Officer or other authorized representative of the Principal Representative, directing Contractor to make changes in the Work, in accordance with Article 35E, Changes in the EPC Fixed Limit of Construction Cost.
- 10. FINAL ACCEPTANCE. See Yellow Book, Title 1; 111.
- 11. NOTICE. The term "Notice" shall mean any communication in writing from either contracting party to the other by such means of delivery that receipt cannot properly be denied. Notice shall be provided to the person identified to receive it in Article 42 (Energy Performance Contract), Notice Identification, or to such other person as either party identifies in writing to receive Notice or in the absence of the identified party, a principal of the Contractor. Notice by facsimile transmission where proper transmission is evidenced shall be adequate where facsimile numbers are included in Article 42 (Energy Performance Contract). Notwithstanding an email delivery or return receipt, email Notice shall not be adequate. Acknowledgment of receipt of a voice message shall not be deemed to waive the requirement that Notice, where required, shall be in writing.
- 12. OCCUPANCY. The term "Occupancy" means occupancy taken by the City as owner after the Date of Substantial Completion at a time when a building or other discrete physical portion of the Project is used for the purpose intended. The Date of Occupancy shall be the date of such first use but shall not be prior to the date of execution of the Notice of Approval of Occupancy/Use. Prior to the date of execution of a Notice of Approval of Occupancy/Use, the City shall have no right to occupy and the project may not be considered safe for occupancy/use for the intended use.
- 13. OWNER. The term "Owner" shall mean the Principal Representative.
- 14. PRINCIPAL REPRESENTATIVE. The term "Principal Representative" shall be defined, as provided in §24-30-1301(14), C.R.S., and as may be amended, as the Executive Director of General Services, or the Executive Director's designee. The Principal Representative may delegate authority. Contractor shall have the right to inquire regarding the delegated authority of any of the Principal Representative's representatives on the project and shall be provided with a response in writing when requested.
- 15. PRODUCT DATA. See Yellow Book, Title 1; 113.
- 16. REASONABLY INFERABLE: The phrase "reasonably inferable" means that if an item or system is either shown or specified, all material and equipment normally furnished with such items or systems and needed to make a complete installation shall be provided whether mentioned or not, omitting only such parts as are specifically excepted, and shall include only components which Contractor could reasonably anticipate based on his or her skill and knowledge using an objective, industry standard, not a subjective standard. This term takes into consideration the normal understanding that not every detail is to be given on the Drawings and Specifications.
- 17. SAMPLES. The term "Samples" shall mean examples of materials or Work provided to establish the standard by which the Work will be judged.
- 18. SCHEDULE OF VALUES. The term "Schedule of Values" is defined as the itemized listing of description of the Work. The format shall be the same as Schedule F (similar to the OSA form SC-7.2). Included shall be all costs of the Project, which shall be executed in final form by Contractor and delivered to the City, subject to acceptance by the City, after the Effective Date, and shall include design, material, labor and other costs, and the sum of all, as described in this Contract.
- 19. SHOP DRAWINGS. See Yellow Book, Title 1; 117.
- 20. SPECIFICATIONS. The term "Specifications" shall mean the written requirements for the Work to be accomplished.
- 21. SUBCONSULTANT. The term "Subconsultant" shall mean a person, firm or corporation supplying design/consulting services for the Project. Design and other professionals directly contracted to the

Contractor are considered subconsultants.

- 22. SUBCONTRACTOR. See Yellow Book, Title 1; 118.
- 23. SUBMITTALS. The term "submittals" means drawings, lists, tables, documents and samples prepared by Contractor to facilitate the progress of the Work as required by these General Conditions or the Drawings and Specifications. They consist of Shop Drawings, Product Data, Samples, and various administrative support documents including but not limited to lists of Subcontractors, construction progress schedules, schedules of values, applications for payment, inspection and test results, requests for information, various document logs, and as-built drawings. Submittals are required by the Contract Documents, but except to the extent expressly specified otherwise are not themselves a part of the Contract Documents.
- 24. SUBSTANTIAL COMPLETION. See Yellow Book, Title 1; 119. Substantial Completion will be awarded per Energy Conservation Measure.
- 25. SURETY. The term "Surety" shall mean any company providing labor and material payment and performance bonds for Contractor as obligor.

## ARTICLE 2. EXECUTION, CORRELATION, INTENT OF DOCUMENTS, COMMUNICATION AND COOPERATION

#### A. EXECUTION

Contractor, within ten (10) days from the Effective Date, as a requirement to execute the Energy Performance Contract, shall be required to furnish:

1. A fully executed Performance and Labor and Material Payment Bonds.

#### B. CORRELATION

Upon execution of the Energy Performance Contract, the Contractor represents that Contractor has visited the Premises, has become familiar with local conditions and local requirements under which the Work is to be performed, including the building code programs of the City as implemented by the Principal Representative, and has correlated personal observations with the requirements of the Contract Documents.

#### C. INTENT OF DOCUMENTS

The Contract Documents are complementary, and what is called for by any one document shall be as binding as if called for by all. The intention of the Contract Documents is to include all labor, materials, equipment and transportation necessary for the proper execution of the Work. Words describing materials or Work which have a well-known technical or trade meaning shall be held to refer to such recognized standards. The Yellow Book is referenced for the specific Titles and Sections only, and any reference to Public Works or the Manager of Public Works shall be replaced with General Services or the Executive Director of General Services.

Where a conflict occurs between or within standards, Specifications or Drawings, which is not resolved by reference to the precedence between the Contract Documents, the more stringent or higher quality requirements shall apply, so long as such more stringent or higher quality requirements are reasonably inferable. The Principal Representative shall decide with the Contractor a mutually agreeable resolution which requirements will provide the best installation. With the exception noted in the following paragraph, the precedence of the Contract Documents is as in the EPC Article 24, General Provisions:

Change Orders and Amendments, if any, to the Contract Documents take precedence over the original Contract Documents. However, notwithstanding any provision in these General Conditions to the contrary, the terms and conditions set forth in the Agreement shall control and take precedence over all other documents included in the Contract Documents.

Unless the context otherwise requires, form numbers in this document are for convenience only. In the event of any conflict between the forms required by name or context and the form required by number, the form required by name or context shall control. The Contractor may obtain State and Colorado Energy Office forms from the Principal Representative upon request.

Nothing contained in the Energy Performance Contract Documents shall create a professional obligation or contractual relationship between the Principal Representative and any third party, including the Contractor's Architect/Engineer.

## D. PARTNERING, COMMUNICATIONS AND COOPERATION

In recognition of the fact that conflicts, disagreements and disputes often arise during the performance of energy performance contracts, the Contractor and the Principal Representative aspire to encourage a relationship of open communication and cooperation between the employees and personnel of both, in which the objectives of the Contract may be better achieved and issues resolved in a more fully informed atmosphere.

Contractor and the Principal Representative each agree to assign an individual who shall be fully authorized to negotiate and implement a voluntary partnering plan for the purpose of facilitating open communications between them. Within thirty days (30) of the issuance of the Notice to Proceed to Commence Design Phase, the assigned individuals shall meet to discuss development of an informal agreement to accomplish these goals.

The assigned individuals shall endeavor to reach an informal agreement but shall have no such obligation. Any plans these parties voluntarily agree to implement shall result in no change to the Contract amount, and no costs associated with such plan or its development shall be recoverable under any Contract clause. In addition, no plan developed to facilitate open communication and cooperation shall alter, amend or waive any of the rights or duties of either party under the Contract unless and except by written Amendment to the Contract, nor shall anything in this clause or any subsequently developed partnering plan be deemed to create fiduciary duties between the parties unless expressly agreed in a written Amendment to the Contract. It is also recognized that projects with relatively low Contract values may not justify the expense or special efforts required. In the case of small projects with an initial Fixed Limit of Construction Cost under \$500,000, the requirements of the preceding paragraph shall not apply.

## ARTICLE 3. COPIES FURNISHED

The Contractor shall furnish to City the number of copies of Design Documents as specified in the Contract Documents (Article 1.n of the Agreement), or if no number is specified, all copies reasonably necessary for the execution of the Work.

## ARTICLE 4. OWNERSHIP OF DRAWINGS

Refer to Article 16 of the Agreement.

## ARTICLE 5. CONTRACTOR'S ARCHITECT/ENGINEER'S STATUS

In case of termination of employment or the death of the Contractor's Architect/Engineer, or the termination of the contract between the Contractor and the project's professional Architectural/Engineering firm, the Contractor will appoint a capable Architect/Engineer or contract with another professional firm, against whom the City makes no reasonable objection, whose status under the Contract shall be the same as that of the former Contractor's Architect/Engineer.

# ARTICLE 6. DECISIONS AND JUDGMENTS, ACCESS TO WORK AND INSPECTION

## A. DECISIONS

The Contractor shall, within a reasonable time, make decisions on all matters relating to the execution and progress of the Work.

Such decisions by the Contractor shall be promptly forwarded to the Principal Representative. The Principal Representative may consent with such decision by the Contractor or amend/revise such decision at the discretion of the PrincipalRepresentative.

## **B.** JUDGMENTS

The City is the judge of the performance required by the Contract Documents as it relates to compliance with the Work and quality of workmanship and materials.

#### C. ACCESS TO WORK

The Principal Representative and representatives of the City shall at all times have access to the Work. Contractor shall provide proper facilities for such access and for their observations or inspection of the Work.

## D. INSPECTION

The Contractor shall at all times allow the Principal Representative or consultants to the Principal Representative to make visits to the Premises to generally observe the progress and quality of the Work to determine in general if the Work is proceeding in accordance with the Contract Documents. Observation may extend to all or any part of the Work and to the preparation, fabrication or manufacture of materials.

If the Agreement, the laws, or ordinances of any public authority require any Work to be specifically tested or approved, Contractor shall give the Principal Representative and appropriate testing agency (if necessary) timely notice of its readiness for observation by the City or inspection by another authority, and if the inspection is by another authority, of the date fixed for such inspection, required certificates of inspection being secured by Contractor. Contractor shall give all required Notices to the Principal Representative or his or her designee for inspections required for the building inspection program. If such Work is found to be not in accordance with the Contract Documents, Contractor shall pay such costs, unless he or she shall show that the defect in the Work was caused by another contractor engaged by the Principal Representative. In that event, the Principal Representative, and if so ordered, the Work must be uncovered by Contractor. If such Work be found in accordance with the Contract Documents during the examination of the work ordered by the Principal Representative, Contractor shall be reimbursed the cost of examination and replacement.

## ARTICLE 7. CONTRACTOR'S SUPERINTENDENCE AND SUPERVISION

The Contractor shall employ, and assign to the Project during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Principal Representative. The superintendent shall not be changed except with the consent of the Principal Representative, unless the superintendent proves to be unsatisfactory to the Contractor or ceases to be in his or her employ. The superintendent shall represent the Contractor in his or her absence and all directions given to the superintendent shall be as binding as if given to the Contractor. Directions received by the superintendent shall be documented by the superintendent and confirmed in writing with the Contractor.

The Contractor shall give efficient supervision to the Work, using his or her best skill and attention. He or she shall carefully study and compare all Drawings, Specifications and other written instructions and shall without delay report any error, inconsistency or omission which he or she may discover in writing to the Principal Representative.

The superintendent shall see that the Work is carried out in accordance with the Contract Documents and in a uniform, thorough and first-class manner in every respect. The Contractor's superintendent shall establish all lines, levels, and marks necessary to facilitate the operations of all concerned in the Contractor's Work. The Contractor shall lay out all work in a manner satisfactory to the Principal Representative making appropriate permanent records for all other parts of the Work.

## ARTICLE 8. MATERIALS AND EMPLOYEES

Unless otherwise stipulated, Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the Work.

Unless otherwise specified, all materials and Equipment shall be new and both workmanship and materials shall be of uniform quality. Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

Contractor is fully responsible for all acts and omissions of Contractor's employees and shall at all times enforce strict

discipline and good order among employees on the Premises. Contractor shall not employ on the Work any person reasonably deemed unfit by the Principal Representative or anyone not skilled in the Work assigned to him.

## ARTICLE 9. SURVEYS, PERMITS, LAWS, TAXES AND REGULATIONS

#### A. SURVEYS

The Principal Representative shall furnish all surveys, property lines and benchmarks deemed necessary by the Contractor, unless otherwise specified.

#### **B.** PERMITS AND LICENSES

Permits and licenses necessary for the prosecution of the Work shall be secured and paid for by Contractor. The Contractor's employees shall become personally familiar with these local conditions and requirements and shall fully comply with such requirements. Contractor shall obtain and pay for such permits.

Easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Principal Representative, unless otherwise specified.

#### C. TAXES

#### 1. REFUND OF SALES AND USE TAXES

Contractor shall pay all local taxes required to be paid, including but not necessarily limited to all sales and use taxes. If requested by the Principal Representative prior to issuance of the Notice to Proceed to Commence Design or directed in the Specifications, Contractor shall maintain records of such payments in respect to the Work, which shall be separate and distinct from all other records maintained by Contractor, and Contractor shall furnish such data as may be necessary to enable City, acting by and through the Principal Representative, to obtain any refunds of such taxes which may be available under the laws, ordinances, rules or regulations applicable to such taxes. When so requested or directed, Contractor shall require Subcontractors to pay all local sales and use taxes required to be paid and to maintain records and furnish Contractor with such data as may be necessary to obtain refunds of the taxes paid by such Subcontractors. No State sales and use taxes are to be paid on material to be used in this Project. On application by the purchaser or seller, the Colorado Department of Revenue shall issue to a Contractor or to a Subcontractor at any tier, a certificate or certificates of exemption per §39-26-114(1)(d), C.R.S., and §39-26-203, C.R.S.

#### 2. FEDERAL TAXES

Contractor shall exclude the amount of any applicable federal excise or manufacturers' taxes from the proposal. The Principal Representative will furnish Contractor, on request, exemption certificates.

#### D. LAWS AND REGULATIONS

Contractor shall give all notices and comply with all laws, ordinances, rules and regulations, including the laws of the City and County of Denver, bearing on the conduct of the Work as drawn or specified.

Contractor shall bear all costs arising from the performance of Work required by the Drawings or Specifications that Contractor knows to be contrary to such laws, ordinances, rules or regulations.

## **ARTICLE 10. PROTECTION OF WORK AND PROPERTY**

#### A. GENERAL PROVISIONS

Contractor shall continuously maintain adequate protection of all Work, materials, and protect the property from injury or loss arising in connection with this Contract and adequately protect adjacent property as provided by law and the Contract Documents.

#### **B.** SAFETY PRECAUTIONS

Contractor shall take all necessary precautions for the safety of employees on the Project, and shall comply with all applicable provisions of federal, State and municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the Premises where the Work is being performed. Contractor shall erect and properly

maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for the protection of workers and the public and shall post danger signs warning against the hazards created by such features of construction as protruding nails, hoists, well holes, elevator hatchways, scaffolding, window openings, stairways and falling materials; and he or she shall designate a responsible member of his or her organization on the Project, whose duty shall be the prevention of accidents. The name and position of any person so designated shall be reported to the Principal Representative by Contractor.

The Contractor shall provide all necessary bracing, shoring and tying of all structures, decks and framing to prevent any structural failure of any material which could result in damage to property or the injury or death of persons; take all precautions to insure that no part of any structure of any description is loaded beyond its carrying capacity with anything that will endanger its safety at any time during the Term of this Agreement; and provide for the adequacy and safety of all scaffolding and hoisting equipment. Contractor shall not permit open fires within the building enclosure. Contractor shall construct and maintain all necessary temporary drainage and do all pumping necessary to keep excavations and floors, pits and trenches free of water. Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work, except as otherwise noted.

Contractor shall take due precautions when obstructing sidewalks, streets or other public ways in any manner, and shall provide, erect and maintain barricades, temporary walkways, roadways, trench covers, colored lights or danger signals and any other devices necessary or required to assure the safe passage of pedestrians and automobiles.

## C. EMERGENCIES

In an emergency affecting the safety of life or of the Work or of adjoining property, Contractor without special instruction or authorization from the Principal Representative, is hereby permitted to act, at his or her discretion, to prevent such threatened loss or injury; and he or she shall so act, without appeal, if so authorized or instructed.

## ARTICLE 11. DRAWINGS AND SPECIFICATIONS ON THE WORK

When applicable, as determined at the sole discretion of the Principal Representative, Contractor shall keep on the Premises a printed or electronic copy of the Contract Documents in good order, including current copies of all Drawings and Specifications for the Work, and any approved Shop Drawings, Product Data or Samples, and as-built drawings. All such documents shall be available to representatives of the City. In addition, Contractor shall keep on the Premises a printed or electronic copy of all approved addenda, Change Orders, EPC Change Orders, and requests for information issued for the Work.

Contractor shall develop procedures to ensure the currency and accuracy of as-built drawings and shall maintain on a current basis a log of requests for information and responses thereto, a Product Data submittal log, and a Sample submittal log to record the status of all necessary and required submittals.

## ARTICLE 12. REQUESTS FOR INFORMATION AND SCHEDULES

## A. DETAIL DRAWINGS AND INSTRUCTIONS

The Contractor shall furnish additional instructions with reasonable promptness, by means of drawings or otherwise, necessary for the proper execution of the Work. All such drawings and instructions shall be consistent with the Contract Documents and reasonably inferable there from.

The Work shall be executed in conformity with such instructions and Contractor shall do no Work without proper Drawings, Specifications or instructions.

The Contractor and the Principal Representative shall jointly prepare a schedule, subject to change from time to time in accordance with the progress of the Work, fixing the dates at which the various detail drawings and specification that will be required. A schedule shall be prepared, fixing the dates for the beginning of manufacture and installation of materials and for the completion of the various parts of the Work.

## **B.** SCHEDULES

#### 1. DESIGN SCHEDULE

Prior to receiving the Notice to Proceed to Commence Design Phase, the Contractor shall submit a detailed Design Phase Schedule identifying all phases of design, including time identified for the Principal Representative to review and approve design documents and specifications at each design milestone. The Design Phase Schedule shall also identify adequate time for the document coordination between the Contractor and each of its consultants.

#### 2. SUBMITTAL SCHEDULES

Prior to the Notice to Proceed to Commencement of Construction for the first construction phase a schedule shall be prepared by the Contractor fixing the dates for the beginning of manufacture, procure the equipment, and installation of materials for the completion of the various parts of the Work. The schedule shall be subject to change from time to time in accordance with the progress of the Work, and it shall be subject to the review and approval by the Principal Representative. The schedule shall be finalized, prepared and submitted with respect to each of the elements of the Work in time to avoid delay, considering reasonable periods for review, manufacture, procure the equipment and/or installation.

At the time the schedule is prepared, Contractor and Principal Representative shall jointly identify the Product Data and Samples, if any, which the Principal Representative shall receive simultaneously with the Contractor for the purposes of Owner coordination with existing facility standards and systems. Transmittal of Product Data copies to the Principal Representative shall be solely for the convenience of the Principal Representative and shall neither create nor imply responsibility or duty of review by the Principal Representative.

#### 3. SCHEDULE OF VALUES

Prior to the Notice to Proceed to Commence Construction for the first construction phase, the Contractor shall submit to the Principal Representative, for approval, and to the City when specifically requested, a complete itemized Schedule of Values (Schedule F) of the various parts of the Work, as estimated by Contractor, aggregating the total Project price. The Schedule of Values shall be in by ECM/FIM as indicated in the Description of Work (Schedule B) or in such detail as the Principal Representative shall require and be prepared on forms acceptable to the Principal Representative. Contractor shall revise and resubmit the Schedule of Values for approval when, in the opinion of the Principal Representative, such resubmittal is required due to changes or modifications to the Contract Documents.

The total cost of each line item so separately identified shall be consistent with the CEO Cost and Pricing Tool.

The cost of subcontracts shall be incorporated in Schedule of Values, and when requested by the Principal Representative, shall be separately shown as line items.

This Schedule of Values (Schedule F), when approved by the Principal Representative, shall be used in preparing Contractor's applications for payment.

## 4. CONSTRUCTION SCHEDULES

Prior to the Notice to Proceed to Commence Construction for the first construction phase, the Contractor shall submit to the Principal Representative when specifically requested, on a form acceptable to them, an overall timetable of the construction schedule for the Project. Unless the Supplementary General Conditions or the Specifications allow scheduling with bar charts or other less sophisticated scheduling tools, the Contractor's schedule shall be a critical-path method (CPM) construction schedule. The construction schedule should start with the date of Notice to Proceed to Commence Construction for the first Work phase and include the various Work activities, change order work (when applicable), demonstration of equipment operation when called for in the Specifications, commissioning of installed equipment, post-installation verification activities, testing, closeout, and acceptance and any other steps as agreed to with the Principal Representative. The completion time shall be the time specified in the Contract.

Contractor shall submit monthly updates of the construction schedule. These updates shall reflect Contractor's "Work in place" progress.

When construction phase measurement and verification is required by the Measurement and Verification Plan, Schedule D, the Contractor shall prepare and submit to the Principal Representative a schedule for M&V activities in accordance with Article 14, Samples and Testing, Construction Phase Measurement and Verification.

#### **ARTICLE 13. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES**

#### A. SUBMITTAL PROCESS

Contractor shall check and field-verify all dimensions. Contractor shall check, approve and submit to the Principal Representative in accordance with the schedule described in Article 12, Requests for Information and Schedules, all Shop Drawings, Product Data and Samples required by the Specifications or required for the Work of the various trades. All Drawings and Product Data shall contain identifying nomenclature and each Submittal shall be accompanied by a letter of transmittal identifying in detail all enclosures.

The Principal Representative shall review and comment on the Specifications, Shop Drawings, and Product Data within the time provided in the agreed upon schedule for conformance with information given and the design concept expressed in, or reasonably inferred from, the Contract Documents. The nature of all corrections to be made to the Specifications, Shop Drawings, and Product Data, if any, shall be clearly noted, and the submittals shall be returned to Contractor for such corrections. On resubmitted Specifications, Shop Drawings, Product Data or Samples, Contractor shall direct specific attention in writing on the transmittal cover to revisions on any previously checked submittal. The Principal Representative shall promptly review and comment on, and return, the resubmitted items.

Contractor shall thereafter furnish such other copies in the form approved by the Principal Representative as may be needed for the prosecution of the Work.

#### B. FABRICATION AND ORDERING

As required by the Work, fabrication shall be started by Contractor only after receiving approved Shop Drawings by the Principal Representative. Materials shall be ordered in accordance with approved Product Data. Work, which is improperly fabricated, whether through incorrect Shop Drawings, faulty workmanship or materials, will not be acceptable.

#### C. DEVIATIONS FROM DRAWINGS OR SPECIFICATIONS

The review and comments of the Specifications, Shop Drawings, Product Data or Samples by the Principal Representative shall not relieve Contractor from responsibility for deviations from the Drawings or Specifications, nor shall it relieve Contractor from responsibility for errors of any sort in Drawings or Specifications. Review and comments on Specifications, Shop Drawings or Product Data containing identified deviations from the Contract Documents shall not be the basis for a Change Order or a claim based on a change in the scope of the Work unless Notice is given to the Principal Representative in accordance with Articles 29 and 30.

#### D. CONTRACTOR REPRESENTATIONS

By preparing, approving, and/or submitting Specifications, Shop Drawings, Product Data and Samples, Contractor represents that Contractor has determined and verified all materials, field measurements, and field construction criteria related thereto, and has checked and coordinated the information contained within each submittal with the requirements of the Work, the Project and the Contract Documents and prior reviews and approvals.

## ARTICLE 14. SAMPLES AND TESTING

#### A. SAMPLES

Contractor shall furnish for approval, with such promptness as to cause no delay in his or her Work or in that of any other Contractor, applicable Samples as defined in the Schedule B.

#### B. TESTING – Construction Phase Measurement and Verification

Additional testing required during construction by the Measurement and Verification Plan, **Schedule D** will be coordinated by the Contractor.

## ARTICLE 15. SUBCONTRACTS

#### A. SUBCONTRACTOR PREQUALIFICATION

Prior to the Notice to Proceed to Commencement of Construction for the first construction phase, the Contractor shall submit to the Principal Representative a complete list of all proposed Subcontractors. The Contractor shall submit to the Principal Representative a complete list of Consultants including the Contractor's Architect/Engineer and the professional Subconsultants. It shall be as complete as possible at the time, showing all known Subcontractors, Consultants and Subconsultants planned for the Work. The list shall be supplemented as other Subcontractors are determined by the Contractor and any such supplemental list shall be submitted to the Principal Representative not less than ten (10) days before the Subcontractor commences Work.

The Contractor's list of all proposed pre-qualified Subcontractors shall include those Subcontractors, if any, which the Contractor indicated in its Investment Grade Audit report, would be employed for specific portions of the Work or if such indication was requested in the Request for Proposal documents issued by the City.

#### **B.** SUBCONTRACTOR PROPOSALS

The Contractor shall request and receive proposals from the Subcontractors and subcontracts will be awarded after the proposals are tabulated in a pre-approved format which compares to each Fixed Limit of Construction Cost per Schedule B, as indicated in the finalized Schedule F, and, reviewed by, Contractor, and Principal Representative.

Should Contractor submit a proposal for subcontract Work, the proposal conditions used shall be the same as for all subcontractor proposals. These Contractor proposals for subcontract Work shall be submitted to the Principal Representative twenty-four (24) hours prior to receipt of other subcontractor proposals and be opened with the other proposals.

#### C. SUBCONTRACTOR FORMS

All subcontracts will be between Contractor and the Subcontractors. The form of subcontracts shall be furnished to the Principal Representative for review and consent as to form, for which consent shall not be unreasonably withheld.

## D. SUBCONTRACTOR SUBSTITUTION

The substitution of any Subcontractor listed in the Contractor's proposal shall be justified in writing not less than ten (10) days after the date of the Notice to Proceed with Design and shall be subject to the approval of the Principal Representative. For reasons such as the Subcontractor's refusal to perform as agreed, subsequent unavailability or later discovered proposal errors, or other similar reasons, such substitution may be approved. Contractor shall bear any additional cost incurred by such substitutions.

#### E. CONTRACTOR RESPONSIBLE FOR SUBCONTRACTORS

The Contractor shall not employ any Subcontractor that the Principal Representative, within ten (10) days after the date of receipt of the Contractor's list of Subcontractors or any supplemental list, objects to in writing as being unacceptable to the Principal Representative.

The Contractor shall be fully responsible to the Principal Representative for the acts and omissions of Subcontractors and of persons either directly or indirectly employed by them. All instructions or orders in respect to work to be done by Subcontractors shall be given to the Contractor.

## ARTICLE 16. RELATIONS OF CONTRACTOR AND SUBCONTRACTORS

Contractor agrees to bind each Subcontractor to the terms of these General Conditions and to the requirements of the Drawings and Specifications, and any Addenda thereto, and also all the other Contract Documents and Procedural Documents, as applicable to the Work of such Subcontractor. Contractor further agrees to bind each Subcontractor to those terms of the General Conditions which expressly require that Subcontractors also be bound, including without limitation, the insurance requirements for subcontractors set forth in the Agreement.

Nothing contained in the Contract Documents shall be deemed to create any contractual relationship whatsoever

between any Subcontractor and the City acting by and through its Principal Representative.

## ARTICLE 17. MUTUAL RESPONSIBILITY OF CONTRACTORS

Should the Contractor cause damage to any separate contractor engaged by the Principal Representative on the Work, the Contractor agrees, upon due Notice, to settle with such separate contractor by agreement, if he or she will so settle. If such separate contractor sues the Principal Representative on account of any damage alleged to have been so sustained, the Principal Representative shall notify the Contractor.

## ARTICLE 18. SEPARATE CONTRACTS

The Principal Representative reserves the right to enter into other contracts in connection with the Project or the Contract. The Contractor shall afford other separate contractors reasonable opportunity for the introduction and storage of their materials and the execution of their Work and shall properly connect and coordinate his or her Work with theirs. If any part of the Contractor's Work depends, for proper execution or results, upon the Work of any other separate contractor, the Contractor shall inspect and promptly report to the Principal Representative any defects in such Work that render it unsuitable for such proper execution and results. Failure of the Contractor to so inspect and report shall constitute an acceptance of the other separate contractor's Work as fit and proper for the reception of work, except as to defects which may develop in the other separate contractor's Work after the execution of the Contractor's Work.

To ensure the proper execution of subsequent Work, the Contractor shall measure Work already in place and shall at once report to the Principal Representative any discrepancy between the executed Work and the Drawings.

## ARTICLE 19. USE OF PREMISES

Contractor shall confine apparatus, the storage of materials and the operations of workmen to limits indicated by law, ordinances, permits and any limits lines shown on the Drawings or defined in the Work. Contractor shall not unreasonably encumber the premises with materials. Contractor shall enforce all of the Principal Representative's instructions and prohibitions regarding, without limitation, such matters as signs, advertisements, fires and smoking.

## ARTICLE 20. CUTTING, FITTING OR PATCHING

The Contractor shall do all cutting, fitting or patching of Work that may be required to make its several parts come together properly and fit it to receive or be received by Work of other separate contractors shown upon, or reasonably inferred from, the Drawings and Specifications for the complete structure, and shall provide for such finishes to patched or fitted Work as the Principal Representative may direct. The Contractor shall not endanger any Work by cutting, excavating or otherwise altering the Work and shall not cut or alter the Work of any other separate contractor save with the consent of the Principal Representative.

## ARTICLE 21. UTILITIES

## A. TEMPORARY UTILITIES

Unless otherwise specifically stated in the Specifications or on the Drawings, the Principal Representative shall be responsible for the placement of all utilities as shown on the Drawings or indicated elsewhere in the Specifications, subject to Contractor's compliance with all statutory or regulatory requirements. When actual conditions deviate from those shown in the Drawings and Specifications, Contractor shall comply with the requirements of Article 31, Differing Premises Conditions. As applicable to the Project, Contractor shall provide and pay for the installation of all temporary utilities required to supply all the power, light and water needed by him or her and other Contractors for their Work associated with the Project and shall install and maintain all such utilities in such manner as to protect the public and workmen and conform with any applicable laws and regulations. Upon completion of the work, he or she shall remove all such temporary utilities from the site, if applicable. Contractor shall pay for all consumption of power, light and water used by him or her and the other Contractors used during the Project as it applies to these temporary utilities, without regard to whether such items are metered by temporary or permanent meters. The Superintendent shall have full authority over all trades and Subcontractors at any tier to prevent waste. The cut-off date on permanent meters shall be either the agreed date of the Notice of Substantial Completion of the Project, whichever shall be the earlier date.

#### **B.** PROTECTION OF EXISTING UTILITIES

Where existing utilities, such as water mains, sanitary sewers, storm sewers, computer networks, and electrical conduits, are shown on the Drawings, Contractor shall be responsible for the protection thereof, without regard to whether any such utilities are to be relocated or removed as a part of the Work. If any utilities are to be moved, the moving must be conducted in such manner as not to cause undue interruption or delay in the operation of thesame.

#### C. CROSSING OF UTILITIES

When new construction crosses highways, railroads, streets, or utilities under the jurisdiction of State, city or other public agency, public utility or private entity, Contractor shall secure proper written permission before executing such new construction. Contractor will be required to furnish a proper release before final acceptance of the Work.

## ARTICLE 22. UNSUITABLE CONDITIONS

Contractor shall not work at any time, or permit any work to be done, under any conditions contrary to those recommended by manufacturers or industry standards which are otherwise proper, unsuited for proper execution, safety and performance. Any loss, damage, or increased cost caused by ill-timed Work shall be borne by Contractor unless the timing of such Work shall have been directed by the Principal Representative, and Contractor provided Notice of any additional cost.

## **ARTICLE 23. TEMPORARY FACILITIES**

The applicability of the provisions of this Article may vary depending on the project's Scope of Work. Contractor and the Principal Representative shall establish the applicability of these provisions during the Construction Term.

#### A. TEMPORARY HEAT

Contractor shall furnish and pay for all the labor, facilities, equipment, fuel and power necessary to supply temporary heating, ventilating and air conditioning, except to the extent otherwise specified in the Scope of Work within Schedule B, and shall be responsible for the installation, operation, maintenance and removal of such facilities and equipment. Unless otherwise specified, the permanent HVAC system shall not be used for temporary heat in whole or in part. If Contractor desires to put the permanent system into use, in whole or in part, Contractor shall set it into operation and furnish the necessary fuel and manpower to safely operate, protect and maintain that HVAC system. Any operation of all or any part of the permanent HVAC system including operation for testing purposes shall not constitute acceptance of the system, nor shall it relieve Contractor of his or her Warranty of the Work from the date of the Notice of Substantial Completion of the entire Project, and if necessary due to prior operation, Contractor shall provide manufacturers' extended warranties from the date of Contractor's use prior to the date of the Notice of Substantial Completion.

#### **B.** WEATHER PROTECTION

The Contractor shall, at all times, provide protection against weather, so as to maintain all Work, materials, apparatus and fixtures free from injury or damages. The Contractor shall provide weathertight storage on substantial floors at least six (6) inches off the ground for all materials requiring protection from the weather.

#### C. DUST PARTITIONS

If the Work involves Work in an occupied existing building, Contractor shall erect and maintain during the progress of the Work, suitable dust-proof temporary partitions, or more permanent partitions as specified, to protect such building and the occupants thereof.

#### D. BENCHMARKS

Contractor shall maintain any Premises benchmarks provided by the Principal Representative and shall establish any additional benchmarks specified by the Principal Representative as necessary for Contractor to layout the Work and ascertain all grades and levels as needed.

#### E. SIGN

Contractor shall erect and permit one 4' x 8' sign only at the Premises to identify the Project as specified or directed by the City which shall be maintained in good condition during the life of the Project.

#### F. SANITARY PROVISION

Contractor shall provide and maintain suitable, clean, temporary sanitary toilet facilities for any and all workmen engaged on the Work, for the entire construction period, in strict compliance with the requirement of all applicable codes, regulations, laws and ordinances, and no other facilities, new or existing, may be used by any person on the Project. When the Project is complete Contractor shall promptly remove them from the Premises, disinfect, and clean or treat the areas as required. If any new construction surfaces in the Project other than the toilet facilities provided for herein are permanently soiled at any time, the entire areas so soiled shall be completely removed from the Project and rebuilt.

## ARTICLE 24. CLEANING UP

Contractor shall keep the building and premises free from all surplus material, waste material, dirt and rubbish caused by employees or Work, and at the completion of the Work shall remove all such surplus material, waste material, dirt, and rubbish, as well as all tools, equipment and scaffolding, and shall wash and clean all window glass and plumbing fixtures, perform cleanup and cleaning required by the Specifications and leave all of the Work clean unless more exact requirements are specified.

## ARTICLE 25. ROYALTIES AND PATENTS

Contractor shall be responsible for assuring that all rights to use of products and systems have been properly arranged and shall take such action as may be necessary to avoid delay, at no additional charge to the Principal Representative, where such right is challenged during the course of the Work. Contractor shall pay all royalties and license fees required to be paid and shall defend and indemnify the City in accordance with the terms of the Agreement.

## ARTICLE 26. CORRECTION OF WORK BEFORE ACCEPTANCE

Contractor shall promptly remove from the premises all Work or materials condemned or declared irreparably defective as failing to conform to the Contract Documents on receipt of written Notice from the Principal Representative. If such materials shall have been incorporated in the Work, or if any unsatisfactory Work is discovered, the Contractor shall promptly replace and re-execute his or her Work in accordance with the requirements of the Contract Documents without expense to the Principal Representative, and shall also bear the expense of making good all work of other contractors destroyed or damaged by the removal or replacement of such defective material or Work.

Should any defective work or material be discovered during the process of construction, or should reasonable doubt arise as to whether certain material or Work is in accordance with the Contract Documents, the value of such defective or questionable material or Work shall not be included in any application for payment, or if previously included, shall be deducted by the Principal Representative from the next application submitted by the Contractor.

If Contractor does not perform repair, correction and replacement of defective Work, in lieu of proceeding by issuance of a Notice of Intent to remove condemned Work as outlined above, the Principal Representative may, not less than seven (7) days after giving the original written Notice of the need to repair, correct, or replace defective Work, deduct all costs and expenses of replacement or correction as instructed by the City from Contractor's next application for payment in addition to the value of the defective Work or material. The Principal Representative may also make an equitable deduction from the Fixed Limit of Construction Cost by unilateral Change Order, in accordance with Article 33, Payments Withheld and Article 35, Changes in The Work.

If the Contractor does not remove such condemned or irreparably defective Work or material within a reasonable time, the Principal Representative may, after giving a second seven- (7) day advance Notice to the Contractor and the Surety, remove them and may store the material at the Contractor's expense. The Principal Representative may accomplish the removal and replacement with its own forces or with another separate contractor. If the Contractor does not pay the expense of such removal and pay all storage charges within ten (10) days thereafter, the Principal Representative may, upon ten (10) days' written Notice, sell such material at auction or at private sale and account

for the net proceeds thereof, after deducting all costs and expenses which should have been borne by the Contractor. If the Contractor shall commence and diligently pursue such removal and replacement before the expiration of the seven- day period, or if the Contractor shall show good cause in conjunction with Schedule showing when the Work will be performed and why such removal of condemned Work should be scheduled for a later date, the Principal Representative shall not proceed to remove or replace the condemnedWork.

If the Contractor disagrees with the Notice to remove Work or materials condemned or declared irreparably defective, the Contractor may request facilitated negotiation of the issue and the Principal Representative's right to proceed with removal and to deduct costs and expenses of repair shall be suspended and tolled until such time as the parties meet and negotiate the issue

## **ARTICLE 27. APPLICATIONS FOR PAYMENTS**

#### A. RETAINAGE WITHHELD

Yellow Book, Title 9; 908-909.

#### B. RELEASE OF RETAINAGE

Yellow Book, Title 9, 909-911.

## ARTICLE 28. PAYMENTS WITHHELD

Yellow Book, Title 9; 909.

## ARTICLE 29. CHANGES IN THE WORK

#### A. CHANGES TO THE EPC FIXED LIMIT OF CONSTRUCTION COST

Yellow Book, Title 11 except 1104 reference Article 35.C.

## B. THE VALUE OF CHANGED WORK

Yellow Book, Title 11 except 1104 reference Article 35.C.

## C. DETAILED BREAKDOWN

EPC Pricing structure is located in Schedule G, and will be applied to any extra or changed work.

## D. HAZARDOUS MATERIALS

The Principal Representative represents that it has undertaken an examination of the site of the Work and has determined that there are no hazardous substances, as defined below, which the Contractor could reasonably encounter in its performance of the Work. In the event the Principal Representative so discovers hazardous substances, the Principal Representative shall render harmless such hazards before the Contractor commences the Work.

In the event the Contractor encounters any materials reasonably believed to be hazardous substances which have not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the Principal Representative, in writing. For purposes of this Agreement, "hazardous substances" shall include asbestos, lead, polychlorinated biphenyl (PCB) and any or all of those substances defined as "hazardous substance," "hazardous waste," or "dangerous or extremely hazardous wastes" as those terms are used in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), and shall also include materials regulated by the Toxic Substances Control Act (TSCA), the Clean Air Act, the Air Quality Act, the Clean Water Act, and the Occupational Safety and Health Act. The Work in the affected area shall not, therefore, be resumed except by written agreement of the Principal Representative and the Contractor, if in fact materials that are hazardous substances have not been rendered harmless. The Work in the affected area shall be resumed only in the absence of the hazardous substances or when it has been rendered harmless or by written agreement of the Principal Representative and the Contractor. The Contractor shall not be required to perform Work without consent in any areas where it reasonably believes hazardous substances that have not been rendered harmless are present.

#### E. EMERGENCY FIELD CHANGE ORDERED WORK

Yellow Book, Title 11; 1102.3.

## ARTICLE 30. CLAIMS

Yellow Book, Title 12.

#### **ARTICLE 31. DIFFERING SITE CONDITIONS**

Yellow Book, Title 14; 1401.

## ARTICLE 32. DELAYS AND EXTENSIONS OF TIME

Yellow Book, Title 11; 1105 (Extension of Time)

Yellow Book, Title 6 (Liquidated Damages)

Yellow Book, Title 6; 603 (Delay Damages)

#### ARTICLE 33. RIGHT OF OCCUPANCY

The Principal Representative shall have the right to take possession of and to use any completed or partially completed portions of the Work, even if the time for completing the entire Work or portions of the Work has not expired and even if the Work has not been finally accepted, and Contractor shall fully cooperate with the Principal Representative to allow such possession and use. Such possession and use shall not constitute an acceptance of such portions of the Work but may impact equipment warranty start date.

Prior to any occupancy of the Project, an inspection shall be made by the Principal Representative, the Contractor's Architect/Engineer, and the Contractor. Such inspection shall be made for the purpose of ensuring that the building is secure, protected by operation safety systems as designed, operable exits, power, lighting and HVAC systems, and otherwise ready for the occupancy intended and the Notice of Substantial Completion has been issued for the occupancy intended. The inspection shall also document existing finish conditions to allow assessment of any damage by occupants.. Any and all areas so occupied will be subject to a final inspection when the Contractor complies with Article 34, Completion, Final Inspection, Acceptance and Settlement.

## ARTICLE 34. COMPLETION, FINAL INSPECTION, ACCEPTANCE AND SETTLEMENT

- A. NOTICE OF COMPLETION Yellow Book, Titles 19 and 20.
- B. FINAL INSPECTION. Yellow Book, Title 20; 2001.1.
- C. NOTICE OF SUBSTANTIAL COMPLETION. Yellow Book, Titles 19 and 20.
- **D.** NOTICE OF FINAL ACCEPTANCE. Yellow Book, Title 20, 2002.2.
- E. SETTLEMENT. Yellow Book, Title 20, 2003.

#### **ARTICLE 35. GENERAL WARRANTY AND CORRECTION OF WORK AFTER ACCEPTANCE** Reference Article 25 of the main agreement.

ARTICLE 36. LIENS

Yellow Book, Title 12.

#### **ARTICLE 37. ONE-YEAR WARRANTIES**

#### A. ONE YEAR WARRANTY OF THE WORK

Reference Article 25 of the main agreement.

#### **B.** SPECIAL WARRANTIES

In case of Work performed for which product, manufacturers or other special warranties are required by the Specifications, Contractor shall secure the required warranties and deliver copies thereof to the Principal Representative upon completion of the Work.

These products, manufacturers or other special warranties, as such, do not in any way lessen Contractor's responsibilities under the Contract. Whenever warranties are required by the Specifications for a longer period than one year, such longer period shall govern. Administration of such extended warranties may be the responsibility of the specific manufacturer of the product being warranted and not necessarily the Contractor, unless explicitly stated in the Contract Documents.

#### ARTICLE 38. WARRANTY INSPECTIONS AFTER COMPLETION

Yellow Book, Title 20, 2002-2003.

## ARTICLE 39. TIME OF COMPLETION AND LIQUIDATED DAMAGES

Yellow Book, Title 6; except that the term "days" as used in this Article 39 shall mean "business days."

If an amount is indicated immediately below, liquidated damages shall be applicable to this Project as, and to, the extent shown below. Where an amount is indicated below, liquidated damages shall be assessed in accordance with and pursuant to the terms of Article 46, Time Of Completion And Liquidated Damages, in the amounts and as here indicated. The election of liquidated damages shall limit and control the party's right to damages only to the extent noted.

For the inability to use the Project, for each day after the number of calendar days specified in the Contractor's bid for the Project and the Contract for achievement of Substantial Completion, or as specified in this Agreement, until the day that the Project has achieved Substantial Completion and the Notice of Substantial Completion is issued, the Contractor agrees that an amount equal to (\$1,000 per day) shall be assessed against Contractor from amounts due and payable to the Contractor under the Contract, or the Contractor and the Contractor's Surety shall pay to the City such sum for any deficiency, if amounts on account thereof are deducted from remaining amounts due, but amounts remaining are insufficient to cover the entire assessment.

For damages related to or arising from additional administrative, technical, supervisory and professional expenses related to and arising from the extended closeout period, for each day in excess of the number of calendar days specified in the Contractor's bid for the Project and the Agreement to finally complete the Project as defined by the issuance of the Notice of Final Acceptance) after the issuance of the final Notice of Substantial Completion, the Contractor agrees that an amount equal to (\$1,000 per day) shall be assessed against Contractor from amounts due and payable to the Contractor under the Contract, or the Contractor and the Contractor's Surety shall pay to the City such sum for any deficiency, if amounts on account thereof are deducted from remaining amounts due but amounts remaining are insufficient to cover the entire assessment.

## ARTICLE 40. DAMAGES

Yellow Book, Title 6.

## ARTICLE 41. CITY'S RIGHT TO DO THE WORK; TEMPORARY SUSPENSION OF WORK; DELAY; DAMAGES

## A. CITY'S RIGHT TO DO THE WORK

Yellow Book, Title 21.

#### **B.** TEMPORARY SUSPENSION OF WORK

Yellow Book, Title 21.

## C. DELAY DAMAGES

Yellow Book, Title 6; 603.

# EPC SCHEDULE B ENERGY PERFORMANCE CONTRACT DESCRIPTION OF WORK

# **EXECUTIVE SUMMARY**

# 1. Key Participants

Ameresco Contacts Rob Sevier Senior Account Executive 303-981-7454 rsevier@ameresco.com

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Scott Logan Project Manager 720 627-8725 slogan@ameresco.com

Scott Faller Director of Operations 508-598-4643 sfaller@ameresco.com

## City & County of Denver Contacts

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# 2. Facilities/Locations

The following City facilities and assets, which are owned and operated by the City, are affected by the scope of this project.

Facilities impacted by EPC Project								
Facility	Address	Bldg. Area (sf)						
Ford Warren Library	2825 High St	10,623						
Green Valley Ranch Library	4856 N Andes Ct	26,000						
Hampden Library	9755 E Girard Ave	11,866						
Montbello Library	12955 Albrook Dr	11,443						
Rodolfo "Corky" Gonzales Library	1498 N Irving Street	27,000						
Virginia Village Library	1500 S Dahlia St	11,562						
Woodbury Library	3265 Federal Blvd	10,023						
Athmar Rec Ctr	2680 W Mexico Ave	23,391						
Aztlan Rec Ctr	4435 Navajo St	10,188						
Central Park Rec Center	9651 E. Martin Luther King Jr Blvd.	60,264						
Eisenhower Rec Center	4300 E Dartmouth Ave	14,192						
Green Valley Ranch Rec Ctr	4890 Argonne Way	16,344						
Harvard Gulch Rec/DPDWhse	550 E Iliff Ave	24,892						
Hiawatha Davis Rec Ctr	3334 Holly St	41,502						
La Familia Rec Ctr	65 S Elati St	21,864						
Martin Luther King Rec Ctr	3880 Newport St	25,512						
Montbello Rec Ctr	15555 E 53rd Ave	44,394						
Montclair Rec Ctr	729 Ulster Way	37,852						
Rude Rec Ctr	2855 W Holden Pl	41,021						
Southwest Denver Rec Ctr	9200 W Saratoga Pl	14,478						
St Charles Rec Ctr	3777 Lafayette St	16,519						
Washington Park Rec Ctr	701 S Franklin St	24,372						
	Tatala	EDE 202						

## **Facilities Impacted by EPC Project**

Totals

525,302

# 3. Summary of ECMs

The following table list which facilities are affected by each ECM.

ECM Summary Matrix								
	ECM 1 Interior Lighting Upgrades	ECM 2 Exterior Lighting Upgrades	ECM 3 Live Energy Monitoring	ECM 4 Fabric Pool Cover				
Ford Warren Library	х	х	х					
Green Valley Ranch Library	Х	Х	Х					
Hampden Library	х	Х	Х					
Montbello Library	Х	Х	Х					
Rodolfo "Corky" Gonzales Library	Х	Х	Х					
Virginia Village Library	Х	Х	Х					
Woodbury Library	Х	Х	Х					
Athmar Rec Ctr	X	Х	Х					
Aztlan Rec Ctr	Х	Х	Х					
Central Park Rec Center	Х	Х	Х					
Eisenhower Rec Center	Х	Х	Х					
Green Valley Ranch Rec Ctr	Х	Х	Х					
Harvard Gulch Rec/DPDWhse	Х	Х	Х					
Hiawatha Davis Rec Ctr	Х	Х	Х					
La Familia Rec Ctr	Х	Х	Х					
Martin Luther King Rec Ctr	Х		Х					
Montbello Rec Ctr	х	Х	Х					
Montclair Rec Ctr	х	Х	Х					
Rude Rec Ctr	х	Х	Х					
Southwest Denver Rec Ctr	х	Х	Х					
St Charles Rec Ctr	Х	Х	Х					
Washington Park Rec Ctr	Х	Х	Х	х				
Sites Impacted	22	21	22	1				

**ECM Summary Matrix** 

# 4. Energy Conservation Measure (ECM) Savings Summary

The guaranteed utility use/demand and cost savings for the proposed ECMs will have an overall reduction in annual energy consumption of 5%, electrical demand reduction of 11%, and total utility costs savings of 8%. Including the annual operation and maintenance savings and EIS fees, the project's first year total savings are expected to be \$99,453. Note that the performance savings guarantee applies to project's total savings and not the savings of each ECM individually, which are broken out for reference in the following table.

	Utility Use & Demand Savings					Annual Cost Savings							
ECM Name	Electric Energy Savings	Electric Demand Savings	Gas Energy Savings	Water & SS Savings	Annual Energy Savings	Electricit	y	Natural Gas	Water & SS	Total Utility Cost Savings	Material Cost	EIS Subscription & Service	Total Yr-1 Savings
	(kWh/yr)	(kW/yr)	(Therms/yr)	(kGal/yr)	(MMBtu /Yr)						Savings	Contract Fees	
ECM 1 - Interior Lighting Upgrades	770,928	2,194	-11,566	0	1,474	\$ 71,	799	\$ (5,620)	\$ -	\$ 66,179	\$ 7,466	s -	\$ 73,645
ECM 2 - Exterior Lighting Upgrades	213,780	0	0	0	729	\$ 7,	6 <b>9</b> 7	s -	\$ -	\$ 7,697	\$ 3,290	s -	\$ 10,986
ECM 3 - Live Energy Monitoring	156,411	419	11,211	0	1,655	\$ 14,	069	\$ 5,370	\$ -	\$ 19,439	<b>S</b> -	\$ (9,327)	\$ 10,112
ECM 4 - Fabric Pool Cover	15,610	0	4,931	56	546	\$	568	\$ 2,267	\$ 375	\$ 3,210	\$ 1,500	s -	\$ 4,710
Totals	1,156,729	2,613	4,576	56	4,404	\$ 94,1	33	\$ 2,017	\$ 375	\$ 96,525	\$ 12,256	\$ (9,327)	\$ 99,453
Baseline	8,752,283	23,034	573,329	33,622	87,196	\$ 789,2	26	\$ 273,712	\$ 187,881	\$ 1,250,820			\$ 1,250,820
% Savings	13.2%	11.3%	0.8%	0.2%	5.1%	11.9%		0.7%	0.2%	7.7%			8.0%

## **Guaranteed Utility Savings By ECM**

# 5. Financial Summary

For each ECM included in this scope of work, the first-year's annual savings, construction cost, anticipated rebates (which are not guaranteed) and payback are shown in the table below.

Financial Summary								
ECM Name	Total Yr-1 Savings	ECM Construction Cost	Estimated Rebates <sup>*</sup>	Simple Payback				
ECM 1 - Interior Lighting								
Upgrades	\$73,645	\$1,097,961		14.9				
ECM 4 - Fabric Pool Cover	\$4,710	\$157,606		33.5				
ECM 3 - Live Energy Monitoring	\$10,112	\$235,836		23.3				
ECM 2 - Exterior Lighting Upgrades	\$10,986	\$157,325		14.3				
Totals	\$99,453	\$1,648,728	\$0	16.6				
Down Payment (cost of incidental services)		\$ 671,456						
Financed Amount (cost of tangible goods)		\$977,273						
Construction Period Interest (8- month duration)		\$5,222						
Total Financed Project Cost								
Balance		\$982,495						
Simple Payback on Project's Financed Cost				9.9				

\*Xcel Energy's instant lighting rebate program incentives (which are applied at the time of material purchase) have been applied directly to the lighting construction costs. In other words, the benefit from Xcel's instant rebate program have already been applied in above costs for lighting upgrades. Pricing is dependent on Xcel's continued funding of this rebate program and timely execution of the contract.

# 6. Utility Baseline

The annual utility use for the buildings evaluated as part of the IGA are listed in the table below.

					/
Facility	Electric Consumption (kWh)	Electric Demand (kW)	Natural Gas (Therms)	Sanitary Sewer (kGal)	Water (kGal)
Ford Warren Library	186,560	472	4,724	61	169
Green Valley Ranch Library	305,760	723	14,260	6,723	1,715
Hampden Library	194,240	647	6,263	60	65
Montbello Library	151,360	425	9,114	66	354
Rodolfo "Corky" Gonzales Library	345,760	715	12,414	424	424
Virginia Village Library	177,040	661	7,249	69	492
Woodbury Library	110,880	338	5,321	48	48
Athmar Rec Ctr	340,858	750	30,980	1,560	3,057
Aztlan Rec Ctr	91,600	348	12,297	-	3,534
Central Park Rec Center	1,216,595	3,031	62,520	2,345	2,345
Eisenhower Rec Center	151,840	444	14,932	1,194	1,194
Green Valley Ranch Rec Ctr	559,680	1,944	9,706	1,803	1,803
Harvard Gulch Rec/DPDWhse	246,320	875	24,911	865	865
Hiawatha Davis Rec Ctr	597,282	1,379	69,130	1,120	6,426
La Familia Rec Ctr	257,760	612	35,960	392	677
Martin Luther King Rec Ctr	388,960	882	36,990	1,599	1,599
Montbello Rec Ctr	933,920	2,305	53,810	902	902
Montclair Rec Ctr	836,000	2,109	55,320	3,770	3,770
Rude Rec Ctr	894,428	2,298	38,730	564	564
Southwest Denver Rec Ctr	186,800	544	11,991	807	807
St Charles Rec Ctr	96,240	302	13,287	38	462
Washington Park Rec Ctr	482,400	1,230	43,420	2,350	2,350
Total	8,752,283	23,034	573,329	26,760	33,622
Libraries Subtotal	1,471,600	3,981	59,345	7,451	3,267
P&R Subtotal	7,280,683	19,053	513,984	19,309	30,355

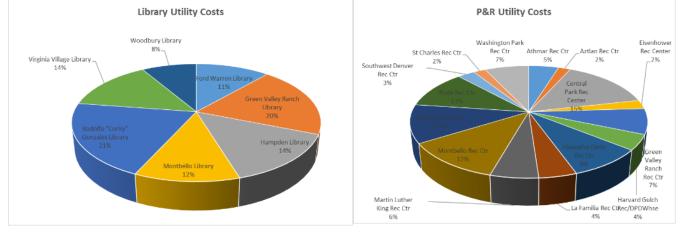
# **Baseline Utility Consumption & Demand (2019 Base-Year)**

The annual utility cost for the buildings evaluated as part of the IGA was nearly \$1.3M for the 2019 calendar year. Breakouts by facility and utility type are listed in the table below.

				,	
Facility	Area (sf)	Elec Spend	Fuel Spend	Water & SS Spend	Total Utility Spend
Ford Warren Library	10,623	\$16,681	\$2,922	\$2,383	\$21,986
Green Valley Ranch Library	26,000	\$25,765	\$7,872	\$34,531	\$68,167
Hampden Library	11,866	\$20,457	\$3,877	\$1,376	\$25,711
Montbello Library	11,443	\$14,355	\$5,353	\$2,001	\$21,709
Rodolfo "Corky" Gonzales Library	27,000	\$28,136	\$7,106	\$3,653	\$38,894
Virginia Village Library	11,562	\$19,922	\$4,318	\$3,064	\$27,304
Woodbury Library	10,023	\$11,195	\$3,305	\$523	\$15,023
Athmar Rec Ctr	23,391	\$28,411	\$14,638	\$14,327	\$57,376
Aztlan Rec Ctr	10,188	\$10,665	\$6,766	\$9,642	\$27,073
Central Park Rec Center	60,264	\$105,209	\$26,005	\$16,621	\$147,835
Eisenhower Rec Center	14,192	\$14,676	\$8,014	\$9,172	\$31,862
Green Valley Ranch Rec Ctr	16,344	\$59,649	\$5,626	\$13,832	\$79,107
Harvard Gulch Rec/DPDWhse	24,892	\$25,903	\$13,385	\$8,242	\$47,530
Hiawatha Davis Rec Ctr	41,502	\$49,700	\$28,152	\$22,216	\$100,069
La Familia Rec Ctr	21,864	\$21,998	\$16,962	\$4,784	\$43,745
Martin Luther King Rec Ctr	25,512	\$32,183	\$17,292	\$11,483	\$60,958
Montbello Rec Ctr	44,394	\$80,677	\$23,705	\$7,928	\$112,310
Montclair Rec Ctr	37,852	\$73,171	\$24,984	\$27,037	\$125,193
Rude Rec Ctr	41,021	\$79,606	\$18,588	\$4,877	\$103,071
Southwest Denver Rec Ctr	14,478	\$18,186	\$6,652	\$6,689	\$31,527
St Charles Rec Ctr	16,519	\$9,910	\$7,601	\$3,006	\$20,518
Washington Park Rec Ctr	24,372	\$42,770	\$20,589	\$16,485	\$79,844
Total	525,302	\$789,226	\$273,712	\$223,874	\$1,286,812
Libraries Subtotal	108,517	\$136,511	\$34,753	\$47,531	\$218,794
P&R Subtotal	416,785	\$652,715	\$238,959	\$176,343	\$1,068,018

# Utility Cost Summary (2019 Base-Year)

# Utility Costs by Faciltiy Type



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# **SCOPE OF WORK**

The equipment listed herein is also known as the "tangible goods", which will be owned by the Third-Party Lessor.

### 1. ECM #1 – Interior Lighting Upgrades

#### 1.1 Location(s) Affected

Facility Group	Building	Included
	Ford Warren Library	<ul> <li>✓</li> </ul>
	Green Valley Ranch Library	<ul> <li>✓</li> </ul>
	Hampden Library	<ul> <li>✓</li> </ul>
Libraries	Montbello Library	<ul> <li>✓</li> </ul>
Libraries	Rodolfo "Corky" Gonzales Library	~
	Virginia Village Library	<ul> <li>✓</li> </ul>
	Woodbury Library	<ul> <li>✓</li> </ul>
	Athmar Rec Ctr	<ul> <li>✓</li> </ul>
	Aztlan Rec Ctr	<ul> <li>✓</li> </ul>
	Central Park Rec Center	<ul> <li>✓</li> </ul>
	Eisenhower Rec Center	<ul> <li>✓</li> </ul>
	Green Valley Ranch Rec Ctr	<ul> <li>✓</li> </ul>
	Harvard Gulch Rec/DPDWhse	<ul> <li>✓</li> </ul>
Denks and	Hiawatha Davis Rec Ctr	<ul> <li>✓</li> </ul>
Parks and Recreation	La Familia Rec Ctr	<ul> <li>✓</li> </ul>
Recreation	Martin Luther King Rec Ctr	<ul> <li>✓</li> </ul>
	Montbello Rec Ctr	<ul> <li>✓</li> </ul>
	Montclair Rec Ctr	✓
	Rude Rec Ctr	<ul> <li>✓</li> </ul>
	Southwest Denver Rec Ctr	✓
	Ford Warren Library Green Valley Ranch Library Hampden Library Montbello Library Rodolfo "Corky" Gonzales Library Virginia Village Library Woodbury Library Athmar Rec Ctr Aztlan Rec Ctr Central Park Rec Center Eisenhower Rec Center Green Valley Ranch Rec Ctr Harvard Gulch Rec/DPDWhse Hiawatha Davis Rec Ctr La Familia Rec Ctr Martin Luther King Rec Ctr Montbello Rec Ctr Montclair Rec Ctr Rude Rec Ctr Southwest Denver Rec Ctr St Charles Rec Ctr	<ul> <li>✓</li> </ul>
	Washington Park Rec Ctr	<ul> <li>✓</li> </ul>

#### 1.2 ECM Scope of Work

Contractor will install LED interior lighting systems. The recommended interior lighting scope will enhance their quality, consistency, and color rendering.

The following tables detail the line-by-line (i.e. room-by-room) fixture types and quantities included in the scope of work. Contractor will install the project assuming the existing systems have not changed since the audit. If new LED fixtures are found to be in place, the scope will be installed as planned and the new fixtures will be turned over to the city for future use. Note that excluded rows may not be a complete list of existing fixtures to remain as-is.

		Room Details			Existing Systems				Proposed Syst	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
798	Y	Ford Warren Library	Custodial	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	194
799	Y	Ford Warren Library	Staff Break Room	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	4	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	46
800	Y	Ford Warren Library	Electrical	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	146
801	Y	Ford Warren Library	Furnace	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	1		39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	146
802	Y	Ford Warren Library	Data Closet	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	1		39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	146
803	Y	Ford Warren Library	Mechanical	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	146
804	Y	Ford Warren Library	Mechanical	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	2		39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	146
805	Y	Ford Warren Library	Emergency Exit	4"RC-1L-Screw-In-CFL-23W- Total22W	Screw-In	2		22	LED10DA19/840	10	1	10	9
806	Y	Ford Warren Library	Staff RR	6"RC-1L-4pin-G24-VPL-CFL-32W- Total34W	Plug-In	2	sensor	34	LED-7320-40K-G3	10	1	10	65
807	Y	Ford Warren Library	Staff Office	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	9		52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	19
808	Y	Ford Warren Library	Staff Office	P2x2T-2L-22"x6"-F32T8/UTF- Total60W	T8 - U-Tube	1		60	(2) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13	2	26	19
809	Y	Ford Warren Library	Staff Office	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	27
810	Y	Ford Warren Library	Meeting Room 1	P2x2T-2L-22"x6"-F32T8/UTF- Total60W	T8 - U-Tube	4	sensor	60	(2) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13	2	26	87
811	Y	Ford Warren Library	Supervisor's Office	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	1	0011001	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	26
812	Y	Ford Warren Library	RRs	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	6	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	73
813	Y	Ford Warren Library	Meeting Room 2	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	9	sensor	155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	122
814	Y	Ford Warren Library	Meeting Room 2	4'-AW-2L-4'-F13T5-Total26W	T5 - Linear	2		26	UCEL 48IN 30K 90CRI SWR WH UC ERC	20	1	19.5	87
815	Y	Ford Warren Library	Meeting Room 2	6"RC-2L-4pin-G24-HPL-CFL-13W- Total25W	Plug-In	3	sensor	25	LED-7320-40K-G3	10	2	20	43
816	Y	Ford Warren Library	Meeting Room 2	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	122
817	Y	Ford Warren			T8 - Linear	3	sensor	155			4	48	122
818	Y	Library Ford Warren	Meeting Room 3	8'-S-4L-4'-F32T8-Total155W 6"RC-1L-4pin-G24-VPL-CFL-32W-		3	sensor	34	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	1	10	9
819	N	Library Ford Warren	Lobby	Total34W	Plug-In	20		11	LED-7320-40K-G3	10	1	0	0
820	N	Library Ford Warren	Lobby	Decorative Pendant Light	LED	1		21	ALREADY LED	0	1	0	0
821	Y	Library Ford Warren	Lobby	GreenCreative-21W-RC-kit	LED	4		60	ALREADY LED	0	2	24	27
822	Y	Library Ford Warren	Lobby	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3		155	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	4	48	27
022	I.	Library	Lobby	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	5		100	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	-	UT	

## Interior Lighting Scope Details

		Room Details			Existing Systems				Proposed Sys	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
823	Y	Ford Warren Library	Study Nook	4pin-Twin-PL-CFL-42W	Plug-In	1		42	LED-7320-40K-G3	10	1	10	15
824	Y	Ford Warren Library	Children's Stacks	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	9		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	27
825	Y	Ford Warren Library	Children's Play/Kitchen	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	3		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	27
826	Y	Ford Warren Library	Children's Play/Kitchen	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	27
827	Y	Ford Warren Library	Returns	Spiral-CFL-26W	Screw-In	1		26	LED10DA19/840	10	1	10	9
828	Y	Ford Warren Library	Stacks	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	54		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	27
829	Y	Ford Warren Library	Stacks	4'-S-1L-4'-F28T5-Total26W	T5 - Linear	8		26	(1) LEDT5/LC/G/4/840 (1) LED18T8/DR/18W	18	1	18	19
830	Y	Ford Warren Library	Stacks	6"RC-1L-4pin-G24-VPL-CFL-32W- Total34W	Plug-In	4		34	LED-7320-40K-G3	10	1	10	9
831	Y	Ford Warren Library	Study Rooms	P2x2T-2L-22"x6"-F32T8/UTF- Total60W	T8 - U-Tube	2		60	(2) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13	2	26	30
832	Y	Ford Warren Library	Children's Play/Kitchen	8"RC-1L-4pin-G24-VPL-CFL-32W- Total30W	Plug-In	1		30	LED-7320-40K-G3	10	1	10	9
836	Y	Ford Warren Library	Landscaping	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	194
Included Subtotal		Ford Warren Library Interior				152		2135				818	
872	Y	Green Valley Ranch Library	Landscaping	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	2	sensor	155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	212
873	Y	Green Valley Ranch Library	Mechanical	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	2		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	127
874	Y	Green Valley Ranch Library	Storage	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	2		119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	170
875	Y	Green Valley Ranch Library	Electrical	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	2	sensor	155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	159
876	Y	Green Valley Ranch Library	Water Entry	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	159
877	Y	Green Valley Ranch Library	IT	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	4	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	159
878	Y	Green Valley Ranch Library	Custodial	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	212
879	Y	Green Valley Ranch Library	Staff Hall	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	4	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	29
880	Y	Green Valley Ranch Library	RRs	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	6	sensor	30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	64
881	Y	Green Valley Ranch Library	Sorting	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	44	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	29
882	Y	Green Valley Ranch Library	Office	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	4	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	40
883	Y	Green Valley Ranch Library	Staff RR	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	1	sensor	30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	159
884	Y	Green Valley Ranch Library	Break room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	85
885	Y	Green Valley Ranch Library	Open Space	PEN-DEC-4L-PLL-CFL-40W- Total160W	Plug-In	75		160	(4) LED172G11/840/10 (1) GE232MAX-G-L	17	4	68	17
886	Y	Green Valley Ranch Library	Open Space	4'-S-1L-4'-F54T5/HO-Total51W	T5HO - Linear	31		51	(1) LEDT5/LC/G/4/840 (1) LED36T8/DR/36W	36	1	36	17

		Room Details			Existing Systems				Proposed Sy	rstems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
887	Y	Green Valley Ranch Library	Open Space	3'-S-3L-3'-F21T5-Total59W	T5 - Linear	24		59	(3) LEDT5/LC/G/3/840 (1) LED15T8/DR/D2L/LW	15	3	45	17
888	Y	Green Valley Ranch Library	Open Space	4"RC-1L-4pin-G24-VPL-CFL-26W- Total25W	Plug-In	23		25	LED-7320-40K-G3	10	1	10	8
889	Y	Green Valley Ranch Library	Study Rooms	P2x2T-2L-2'-F22T8-Total41W	T8 - Linear	5	sensor	41	(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	9	2	18	45
890	Y	Green Valley Ranch Library	Open Space	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	17		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	23
891	N	Green Valley Ranch Library	Open Space	Decorative Pendant Light	0	2		11	ALREADY LED	0	1	0	0
892	Y	Green Valley Ranch Library	Open Space	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
893	Y	Green Valley Ranch Library	Multipurpose Room	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	12	sensor	155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	106
894	Y	Green Valley Ranch Library	Multipurpose Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	5	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	212
895	Y	Green Valley Ranch Library	Family RR	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	1	sensor	30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	80
896	Y	Green Valley Ranch Library	Conference	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	127
1064	N	Green Valley Ranch Library	Kitchen*al	ALREADY LED	LED	0	0	0		0	0	0	0
1065	N	Green Valley Ranch Library	Multipurpose Room*al	ALREADY LED	LED	0	0	0		0	0	0	0
1066	N	Green Valley Ranch Library	RRs*al	ALREADY LED	LED	0	0	0		0	0	0	0
1067	N	Green Valley Ranch Library	Family RR*al	ALREADY LED	LED	0	0	0		0	0	0	0
1068	N	Green Valley Ranch Library	Staff RR*al	ALREADY LED	LED	0	0	0		0	0	0	0
1069	N	Green Valley Ranch Library	Exterior*I5*gl->I6	ALREADY LED	LED	0	0	0		0	0	0	0
Included Subtotal		Green Valley Ranch Library Interior				275		1920				741	
948	Y	Hampden Library	Multipurpose	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	10	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	112
949	Y	Hampden Library	Multipurpose	6"RC-1L-PAR38-INC-90W-Total90W	PAR38	14	sensor	90	LED18D38OW3840/40	18	1	18	40
950	Y	Hampden Library	Multipurpose Storage	4'-S-1L-4'-F32T8-Total39W (duplicate)	T8 - Linear	4	sensor	39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	224
951 952	Y Y	Hampden Library Hampden Library	Hall	4'-DID-2L-4'-F32T8-Total78W SC-DEC-2L-Twin-2Pin-HPL-CFL-	T8 - Linear	32 12		78 25	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24 10	24 9
953	Y	Hampden Library	Idea lab storage	13W-Total25W V1x4T-2L-4'-F32T8-Total61W	Plug-In T8 - Linear	1		61	LED-7300-40K-G2 (2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	5 12	2	24	179
954	Y	Hampden Library	Computer Lab	8"RC-2L-4pin-G24-HPL-CFL-18W- Total34W	Plug-In	3		34	LED-7320-40K-G3	10	2	20	11
955	Y	Hampden Library	Children's Area	8"RC-2L-4pin-G24-HPL-CFL-18W- Total34W	Plug-In	5		34	LED-7320-40K-G3	10	2	20	9
956	Y	Hampden Library	Children's Area	SC-DEC-2L-4pin-G24-VPL-CFL-13W- Total26W	Plug-In	5		26	LED-7320-40K-G3	10	2	20	9
957	Y	Hampden Library	Reception	6"RC-1L-4pin-G24-VPL-CFL-42W- Total39W	Plug-In	9		39	LED-7320-40K-G3	10	1	10	9
958	Y	Hampden Library	RRs	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	4	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	67
959	Y	Hampden Library	Mechanical	8'-S-2L-4'-F32T8-Total60W (duplicate)	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	135
960	Y	Hampden Library	Paint Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	179

		Room Details			Existing Systems				Proposed S	ystems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
961	Y	Hampden Library	Vestibule	PC-WP-2L-HPL-CFL-26W-Total49W (duplicate)	Plug-In	3		49	LED-7300-40K-G2	5	1	5	9
962	Y	Hampden Library	Sorting	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	24
963	Y	Hampden Library	Book Drop	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	179
964	Y	Hampden Library	Stacks	8"RC-2L-4pin-G24-HPL-CFL-18W- Total34W	Plug-In	2		34	LED-7320-40K-G3	10	2	20	9
1070	N	Hampden Library	Mechanical*l2	ALREADY LED	LED	0	0	0		0	0	0	0
1071	Ν	Hampden Library	Electrical * *	ALREADY LED	LED	0	0	0		0	0	0	0
1072	N	Hampden Library	Boiler* *	ALREADY LED	LED	0	0	0		0	0	0	0
1073	N	Hampden Library	Maintenance Workroom* *	ALREADY LED	LED	0	0	0		0	0	0	0
1074	N	Hampden Library	Children's Area*l8	ALREADY LED	LED	0	0	0		0	0	0	0
1075	N	Hampden Library	Reception*I8	ALREADY LED	LED	0	0	0		0	0	0	0
1076	N	Hampden Library	Computer Lab*I8	ALREADY LED	LED	0	0	0		0	0	0	0
1077	Ν	Hampden Library	Stacks*I9*I10*I11	ALREADY LED	LED	0	0	0		0	0	0	0
1078	N	Hampden Library	Stacks*I9*I10*I11	ALREADY LED	LED	0	0	0		0	0	0	0
1079	N	Hampden Library	Stacks*I9*I10*I11	ALREADY LED	LED	0	0	0		0	0	0	0
1080	N	Hampden Library	Idea Lab* *	ALREADY LED	LED	0	0	0		0	0	0	0
1081	N	Hampden Library	Study Room* *	ALREADY LED	LED	0	0	0		0	0	0	0
1082	N	Hampden Library	Supervisor's Office* *	ALREADY LED	LED	0	0	0		0	0	0	0
1083	N	Hampden Library	Sorting*I13*I11	ALREADY LED	LED	0	0	0		0	0	0	0
1084	N	Hampden Library	Sorting*I13*I11	ALREADY LED	LED	0	0	0		0	0	0	0
1085	N	Hampden Library	Staff RR* *	ALREADY LED	LED	0	0	0		0	0	0	0
1086 Included	N	Hampden Library Hampden Library	Staff Lounge* *	ALREADY LED	LED	0	0	0		0	0	0	0
Subtotal		Interior				108		893				339	
379	Y	Rodolfo "Corky" Gonzales Library	2F Break Room	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	67
380	Y	Rodolfo "Corky" Gonzales Library	2F Conference Room	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	2	aanaar	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	135
		Rodolfo "Corky"		F 2X41-2L-4-F 3216-10td100VV	10 - Lilleai		sensor			12			
381	Y	Gonzales Library Rodolfo "Corky"	2F Janitor	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	224
382	Y	Gonzales Library	IT Room	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	135
383	Y	Rodolfo "Corky" Gonzales Library	Shared Office	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	31
384	Y	Rodolfo "Corky" Gonzales Library	Unisex RR	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	67
385	Y	Rodolfo "Corky" Gonzales Library	Unisex RR	8"RC-1L-4pin-G24-HPL-CFL-26W- Total25W	Plug-In	3	sensor	25	LED-7320-40K-G3	10	1	10	24
386	Y	Rodolfo "Corky"				5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	31
387	Y	Gonzales Library Rodolfo "Corky"	2H SE Cubicles	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear		sensor	34			2	18	31
388	· · ·	Gonzales Library Rodolfo "Corky"	2F SE Hall	P2x2T-2L-2'-F17T8-Total34W	T8 - Linear	7	sensor	155	(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	9	4	48	31
		Gonzales Library Rodolfo "Corky"	2F Stacks	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	30	sensor		(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	-		
389	Y	Gonzales Library Rodolfo "Corky"	2F Stacks	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	55	sensor	78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	31
390	N	Gonzales Library	2F Stacks	Decorative Pendant Light	0	10	sensor	11	ALREADY LED	0	1	0	0

		Room Details			Existing Systems				Proposed Sys	stems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
391	Y	Rodolfo "Corky" Gonzales Library	Study Room A,B,C,D,E	4'-DID-3L-4'-F32T8-Total89W	T8 - Linear	5	sensor	89	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	48
392	Y	Rodolfo "Corky" Gonzales Library	Meeting Room	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	8	sensor	78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	112
393	Y	Rodolfo "Corky" Gonzales Library	2F Stacks	8"RC-1L-4pin-G24-HPL-CFL-26W- Total25W	Plug-In	1	sensor	25	LED-7320-40K-G3	10	1	10	11
394	Y	Rodolfo "Corky" Gonzales Library	2F Open Space	4'-D-11 LAMP-4'-F32T8- Total352W	T8 - Linear	3	sensor	352	(11) LEDT8/LC/4/840 (3) LED/DR/D4L/LW	12	11	132	31
395	Y	Rodolfo "Corky" Gonzales Library	2F Open Space	2x2T-6L-2'-F17T8-Total96W	T8 - Linear	4	sensor	96	(6) LEDT8/LC/2/840 (1) LED/DR/D4L/LW (1) LED/DR/D2L/LW	8	6	48	31
396	Ν	Rodolfo "Corky" Gonzales Library	2F Open Space	Decorative Pendant Light	0	4	sensor	11	ALREADY LED	0	1	0	0
397	Y	Rodolfo "Corky" Gonzales Library	Studio	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	4	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	112
398	Y	Rodolfo "Corky" Gonzales Library	2F RR	8"RC-1L-4pin-G24-HPL-CFL-26W- Total25W	Plug-In	2	sensor	25	LED-7320-40K-G3	10	1	10	24
399	Y	Rodolfo "Corky" Gonzales Library	2F RR	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	2	sensor	39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	67
400	Y	Rodolfo "Corky" Gonzales Library	Stairwell	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	5	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	8
401	Y	Rodolfo "Corky" Gonzales Library	Mechanical	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	135
402	Y	Rodolfo "Corky" Gonzales Library	Mechanical	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	2		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	135
403	Y	Rodolfo "Corky" Gonzales Library	Sorting Room	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	26	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	31
404	Y	Rodolfo "Corky" Gonzales Library	Elevator Mechanical	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	179
405	Y	Rodolfo "Corky" Gonzales Library	Elevator	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	2		39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	27
406	Y	Rodolfo "Corky" Gonzales Library	Landscaping	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	224
407	Y	Rodolfo "Corky" Gonzales Library	Idea Lab	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	15		78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	90
408	Y	Rodolfo "Corky" Gonzales Library	1F Lobby	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	16	sensor	78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	31
409	Y	Rodolfo "Corky" Gonzales Library	1F Lobby	8"RC-1L-4pin-G24-HPL-CFL-26W- Total25W	Plug-In	6	sensor	25	LED-7320-40K-G3	10	1	10	11
410	Y	Rodolfo "Corky" Gonzales Library	1F Lobby	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	7	sensor	39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	31
411	Y	Rodolfo "Corky" Gonzales Library	1F Lobby	3'-S-1L-3'-F21T5-Total20W	T5 - Linear	6	sensor	20	(1) LEDT5/LC/G/3/840 (1) LED15T8/DR/D2L/LW	15	1	15	22
412	Y	Rodolfo "Corky" Gonzales Library	1F Lobby	2'-S-1L-2'-F17T8-Total17W	T8 - Linear	2	sensor	17	(1) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	9	1	9	31
413	Y	Rodolfo "Corky" Gonzales Library	Men's RR	8"RC-1L-4pin-G24-HPL-CFL-26W- Total25W	Plug-In	3	sensor	25	LED-7320-40K-G3	10	1	10	12
414	Y	Rodolfo "Corky" Gonzales Library	Men's RR	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	34
415	Y	Rodolfo "Corky" Gonzales Library	Women's RR	8"RC-1L-4pin-G24-HPL-CFL-26W- Total25W	Plug-In	2	sensor	25	LED-7320-40K-G3	10	1	10	24
416	Y	Rodolfo "Corky" Gonzales Library	Women's RR	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	67
417	Y	Rodolfo "Corky" Gonzales Library	Vending	8"RC-1L-4pin-G24-HPL-CFL-26W- Total25W	Plug-In	3		25	LED-7320-40K-G3	10	1	10	9

		Room Details			Existing Systems				Proposed Sys	stems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
418	Y	Rodolfo "Corky" Gonzales Library	Community Room	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	25	sensor	30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	112
419	Y	Rodolfo "Corky" Gonzales Library	Community Room Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	224
420	Y	Rodolfo "Corky" Gonzales Library	Chair/Table Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	3	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	31
421	Y	Rodolfo "Corky" Gonzales Library	Data room	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	168
422	Y	Rodolfo "Corky" Gonzales Library	Crafts Room	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	4	sensor	65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	67
423	Y	Rodolfo "Corky" Gonzales Library	Storytime Tower	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	2		39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	54
424	Y	Rodolfo "Corky" Gonzales Library	Storytime Tower	3'-S-1L-3'-F21T5-Total20W	T5 - Linear	6		20	(1) LEDT5/LC/G/3/840 (1) LED15T8/DR/D2L/LW	15	1	15	38
425	Y	Rodolfo "Corky" Gonzales Library	Storytime Tower	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	54
426	Y	Rodolfo "Corky" Gonzales Library	Children's Stacks	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	24	sensor	65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	31
427	Y	Rodolfo "Corky" Gonzales Library	Children's Stacks	8"RC-1L-4pin-G24-HPL-CFL-26W- Total25W	Plug-In	1	sensor	25	LED-7320-40K-G3	10	1	10	11
428	Y	Rodolfo "Corky" Gonzales Library	Custodial	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	224
429	Y	Rodolfo "Corky" Gonzales Library	Family RR	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	84
430	Y	Rodolfo "Corky" Gonzales Library	Family RR	8"RC-1L-4pin-G24-HPL-CFL-26W- Total25W	Plug-In	1	sensor	25	LED-7320-40K-G3	10	1	10	30
431	Y	Rodolfo "Corky" Gonzales Library	1F Hall	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	31	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	31
432	Y	Rodolfo "Corky" Gonzales Library	1F Hall	2'-S-2L-2'-F17T8-Total32W	T8 - Linear	2		32	(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	8	2	16	31
433	Y	Rodolfo "Corky"	1F Hall		T8 - Linear	2	sensor	47		12	2	24	31
434	Y	Gonzales Library Rodolfo "Corky"	1F Lobby	3'-S-2L-3'-F25T8-Total47W	T8 - Linear		sensor	60	(2) LEDT8/LC/G/3/840 (1) LED/DR/D2L/LW	12	2	24	31
Included Subtotal		Gonzales Library Rodolfo "Corky" Gonzales Library Interior		4'-S-2L-4'-F32T8-Total60W	To - Linear	359	sensor	3250	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12		1255	
982	Y	Virginia Village	Book Drop	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	243
983	Y	Library Virginia Village Library	Sorting	P2x2T-2L-22"x6"-F32T8/UTF- Total60W (duplicate)	T8 - U-Tube	18	sensor	60	(2) LED1578/G/U6/840 (1) LED1578/DR/D2L	12	2	26	19
984	Y	Virginia Village	Sorting		T5 - Linear	7		26		20	1	19.5	19
985	Y	Library Virginia Village	Sorting	4'-W-2L-2'-F13T5-Total26W 2'-W-1L-2'-F14T5-Total13W		1		13	UCEL 48IN 30K 90CRI SWR WH UC ERC		1	9	19
986	Y	Library Virginia Village	Sorting	(duplicate) 6"RC-2L-4pin-G24-HPL-CFL-13W- Total/25W (duplicate)	T5 - Linear	1		25	(2) LEDT5/LC/G/2/840 (1) LED/DR/D2L/LW	9	2	20	9
987	Y	Library Virginia Village	Break Room	Total25W (duplicate) P2x2T-2L-22"x6"-F32T8/UTF- Total20W (duplicate)	Plug-In	4		60	LED-7320-40K-G3	10	2	26	87
988	Y	Library Virginia Village	Break Room	Total60W (duplicate)	T8 - U-Tube	2	sensor	26	(2) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13	1	19.5	87
989	Y	Library Virginia Village Library	Data Room	4'-W-2L-2'-F13T5-Total26W 4'-S-2L-4'-F32T8-Total60W	T5 - Linear T8 - Linear	2	sensor	60	UCEL 48IN 30K 90CRI SWR WH UC ERC (2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	20	2	24	146

		Room Details			Existing Systems				Proposed Sy	stems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
990	Y	Virginia Village Library	Air Handling	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	6		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	146
991	Y	Virginia Village Library	Crawl space	A19-INC-100W (duplicate)	A19	3		100	LED10DA19/840	10	1	10	104
992	Y	Virginia Village Library	Electrical	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	146
993	Y	Virginia Village Library	Boiler	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	146
994	Y	Virginia Village Library	Boiler	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	1		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	146
995	Y	Virginia Village Librarv	Supervisor's Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	2	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	46
996	Y	Virginia Village Library	Quiet Space	P2x2T-2L-22"x6"-F32T8/UTF- Total60W (duplicate)	T8 - U-Tube	4	sensor	60	(2) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13	2	26	33
997	Y	Virginia Village Library	Stacks	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	13		49	LED-7320-40K-G3	10	2	20	9
998	Y	Virginia Village Library	Stacks	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	30		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	27
999	N	Virginia Village Library	104C - storage	LED Wallpack	LED	1		40	ALREADY LED	0	1	0	0
1000	Y	Virginia Village Library	East Stairwell	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	8
1001	Y	Virginia Village Library	Stacks	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	97		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	27
1002	Y	Virginia Village Library	Stacks	3'-S-2L-3'-F25T8-Total47W	T8 - Linear	8		47	(2) LEDT8/LC/G/3/840 (1) LED/DR/D2L/LW	12	2	24	27
1003	Y	Virginia Village Library	Stack Walkways	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	13		49	LED-7320-40K-G3	10	2	20	9
1004	Y	Virginia Village Library	Study Rooms	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	4	sensor	49	LED-7320-40K-G3	10	2	20	19
1005	Y	Virginia Village Library	Checkout Desk	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	10		49	LED-7320-40K-G3	10	2	20	9
1006	Y	Virginia Village Library	Stack Entry	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	16		49	LED-7320-40K-G3	10	2	20	9
1007	Y	Virginia Village Library	Family RR	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	91
1008	Y	Virginia Village Library	Conference	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	1	sensor	49	LED-7320-40K-G3	10	2	20	52
1009	Y	Virginia Village Library	Conference	8"RC-1L-Screw-In-CFL-15W- Total14W	Screw-In	20	sensor	14	LED10DA19/840	10	1	10	52
1010	Y	Virginia Village Library	Conference	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	34	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	146
1011	Y	Virginia Village Library	Conference	3'-S-2L-3'-F25T8-Total47W	T8 - Linear	7	sensor	47	(2) LEDT8/LC/G/3/840 (1) LED/DR/D2L/LW	12	2	24	146
1012	Y	Virginia Village Library	Conference Storage	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	3	301301	65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	194
1013	Y	Virginia Village Library	Women's RR	6"RC-2L-HPL-CFL-13W-Total25W	Plug-In	2	sensor	25	LED10DA19/840	10	2	20	26
1014	Y	Virginia Village Library	Women's RR	3'-S-2L-3'-F25T8-Total47W	T8 - Linear	2	sensor	47	(2) LEDT8/LC/G/3/840 (1) LED/DR/D2L/LW	12	2	24	73
1015	Y	Virginia Village Library	Men's RR	3'-S-2L-3'-F25T8-Total47W	T8 - Linear	1	sensor	47	(2) LEDT8/LC/G/3/840 (1) LED/DR/D2L/LW	12	2	24	36
1016	Y	Virginia Village Library	Men's RR	6"RC-2L-HPL-CFL-13W-Total25W	Plug-In	1	sensor	25	LED10DA19/840	10	2	20	13

		Room Details			Existing Systems				Proposed Sy	stems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
1017	Y	Virginia Village Library	Men's RR	6"RC-2L-4pin-G24-HPL-CFL-13W- Total25W (duplicate)	Plug-In	3	sensor	25	LED-7320-40K-G3	10	2	20	13
1018	Y	Virginia Village Library	Women's RR	6"RC-2L-4pin-G24-HPL-CFL-13W- Total25W (duplicate)	Plug-In	2	sensor	25	LED-7320-40K-G3	10	2	20	26
1019	Y	Virginia Village Library	Entryway	4"RC-1L-4pin-G24-VPL-CFL-26W- Total25W	Plug-In	5		25	LED-7320-40K-G3	10	1	10	9
1020	Y	Virginia Village Library	Entryway	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	12		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	27
1021	Y	Virginia Village Library	Entryway	PAR16-HAL-60W	PAR16	2		60	LED6D/P16/NFLTP	6	1	6	9
1022	Y	Virginia Village Library	Landscaping	8'-S-2L-4'-F34T12-Total63W	T12 - Linear	1	sensor	63	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	243
1087	N	Virginia Village Library	Staff RR*al	ALREADY LED	LED	0	0	0		0	0	0	0
Included Subtotal		Virginia Village Library Interior				346		2268				922	
437	Y	Woodbury Library	2F	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	27
438	Y	Woodbury Library	2F	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	3		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	27
439	Y	Woodbury Library	2F	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	16		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	27
440	Y	Woodbury Library	2F	8"RC-2L-HPL-CFL-13W-Total25W	Plug-In	8		25	LED10DA19/840	10	2	20	9
441	· ·	Woodbury Library	Stairwell	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	3	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	8
442	Y	Woodbury Library	Stairwell	DR-1L-12"-4pin-Horizontal-13W- Total13W	Plug-In	1	sensor	13	LED-7320-40K-G3	10	1	10	3
443	Y	Woodbury Library	Stairwell	6"RC-1L-4pin-G24-VPL-CFL-42W- Total39W	Plug-In	7	sensor	39	LED-7320-40K-G3	10	1	10	3
444	Y	Woodbury Library	Stairwell	8"RC-2L-HPL-CFL-13W-Total25W	Plug-In	2	sensor	25	LED10DA19/840	10	2	20	3
445	N	Woodbury Library	Lobby	PEN-DEC-4L-Spiral-LED-10W- Total40W	Screw-In	1	0011001	40	ALREADY LED	0	4	0	0
446	Y	Woodbury Library	Lobby	8"RC-2L-HPL-CFL-13W-Total25W	Plug-In	8		25	LED10DA19/840	10	2	20	9
447	Y	Woodbury Library	Lobby	8"RC-1L-4pin-G24-HPL-CFL-26W- Total25W	Plug-In	1		25	LED-7320-40K-G3	10	1	10	9
448	Y	Woodbury Library	Lobby	6"RC-1L-4pin-G24-VPL-CFL-42W- Total39W	Plug-In	2		39	LED-7320-40K-G3	10	1	10	9
449	Y	Woodbury Library	Lobby	EC1x4T-1L-4'-F32T8-Total30W	T8 - Linear	2		30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	27
450	Y	Woodbury Library	Checkout	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	27
451	Y	Woodbury Library	Checkout	6"RC-1L-4pin-G24-VPL-CFL-42W- Total39W	Plug-In	3		39	LED-7320-40K-G3	10	1	10	9
452	Y	Woodbury Library	Office Storage	2'-S-2L-2'-F17T8-Total32W	T8 - Linear	1	sensor	32	(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	8	2	16	243
453	Y	Woodbury Library	Office Storage	50W HPS TOTAL WATTAGE 64W	High Intensity Discharge	1	sensor	58	LED10DA19/840	10	1	10	87
454	Y	Woodbury Library	Staff Workroom	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	27
455	Y	Woodbury Library	Dropbox	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	243
456	N	Woodbury Library	1F Stacks	PEN-DEC-4L-Spiral-LED-10W- Total40W	Screw-In	8		40	ALREADY LED	0	4	0	0
457	Y	Woodbury Library	1F Stacks	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	21		78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	27
458	Y	Woodbury Library	East Exit	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	27
459	Y	Woodbury Library	Storytelling Room	6"RC-1L-4pin-G24-VPL-CFL-26W- Total25W	Plug-In	10	sensor	25	LED-7320-40K-G3	10	1	10	26
460	Y	Woodbury Library	Storytelling Room	DR-1L-12"-4pin-Horizontal-13W- Total13W	Plug-In	3	sensor	13	LED-7320-40K-G3	10	1	10	26
461	N	Woodbury Library	Chair Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	243

		Room Details			Existing Systems				Proposed Sys	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
462	Y	Woodbury Library	Storytelling Room	2' drum light	T8 - U-Tube	3	sensor	32	(1) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13	1	13	52
463	Y	Woodbury Library	Storytelling Room	3' drum light	T8 - U-Tube	2	sensor	96	(3) LED15T8/G/U6/840 (2) LED15T8/DR/D2L	13	3	39	52
464	Y	Woodbury Library	Storytelling Room	4' drum light	T8 - U-Tube	2	sensor	160	(5) LED15T8/G/U6/840 (3) LED15T8/DR/D2L	13	5	65	52
465	Y	Woodbury Library	Basement EM Stairwell	Spiral-CFL-26W	Screw-In	3		26	LED10DA19/840	10	1	10	3
466	Y	Woodbury Library	Story storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	194
467	Υ	Woodbury Library	Women's and Men's RRs	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	6	sensor	78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	73
468	Y	Woodbury Library	B03 - Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	3	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	73
469	Y	Woodbury Library	Conference	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	3	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	182
470	Y	Woodbury Library	Locker Room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	8		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	29
471	Y	Woodbury Library	Family RR	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	2	sensor	78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	91
472	Y	Woodbury Library	B10 - Custodial	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	243
473	Υ	Woodbury Library	B14 - Electrical/Mechanical	Spiral-CFL-26W	Screw-In	1	sensor	26	LED10DA19/840	10	1	10	65
474	Y	Woodbury Library	B12 -Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	7	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	243
475	Y	Woodbury Library	B12 -Storage	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	1	sensor	30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	243
476	Y	Woodbury Library	B13 - Mechanical	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	146
478	Y	Woodbury Library	108 Elevator Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	194
1088	Ν	Woodbury Library	B14 - Electrical/Mechanical	A19, LED, 16.5, 50000 Hours, Lamp	LED	0	0	0		0	0	0	0
Included Subtotal		Woodbury Library Interior				154		2179				857	
688	Y	Athmar Rec Ctr	Pool Pump Room	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	7		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
689	Y	Athmar Rec Ctr	Game Room	P2x4T-4L-4'-F32T8-Total126W	T8 - Linear	8		126	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	28
690	Y	Athmar Rec Ctr	Game Storage	Spiral-CFL-42W	Screw-In	1		42	LED10DA19/840	10	1	10	40
691	Y	Athmar Rec Ctr	Basement Electrical	Twin-CFL-25W	Screw-In	2		25	LED10DA19/840	10	1	10	30
692	Y	Athmar Rec Ctr	Janitor's Office	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
693	Y	Athmar Rec Ctr	Lower Mezzanine Hallway	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	15
694	Y	Athmar Rec Ctr	Men's Locker Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	21		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	17
695	Ν	Athmar Rec Ctr	Men's Locker Room	GEN-LED-9W	Other	1		10	ALREADY LED	0	1	0	0
696	Y	Athmar Rec Ctr	Men's Locker Room	DR-1L-12"-CircF-32W-Total30W	Circlite	1		30	RPT-P-LEDCR-G2-9IN-14L-840-FWFC	10	1	10	24
697	Y	Athmar Rec Ctr	Men's Locker Storage	A19-INC-60W	A19	2		60	LED10DA19/840	10	1	10	40
698	Y	Athmar Rec Ctr	Aerobics Room	P2x4T-4L-4'-F32T8-Total126W	T8 - Linear	13	sensor	126	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	69
699 700	N	Athmar Rec Ctr Athmar Rec Ctr	Gym	LED highbay P2x2T-2L-22"x6"-F32T8/UTF-	LED	16	sensor	80 60	ALREADY LED	0	1	0 26	0 15
			Fitness Center Office	Total60W	T8 - U-Tube	-			(2) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13			-
701	Y	Athmar Rec Ctr	136 - Crafts	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	33
702	Y	Athmar Rec Ctr	Crafts Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
703	Y	Athmar Rec Ctr	Crafts Storage	Spiral-CFL-23W	Screw-In	1		23	LED10DA19/840	10	1	10	40
704	N	Athmar Rec Ctr	131- Ceramics	2x4 LED flatpanels	LED	8	sensor	30		0	1	0	0
705	Y	Athmar Rec Ctr	Kiln Room	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
706 707	ř V	Athmar Rec Ctr	Painting Room	A19-INC-60W	A19	0		60 126	LED10DA19/840	10	2	10	12
707	T V	Athmar Rec Ctr Athmar Rec Ctr	Cardio Room	P2x4T-4L-4'-F32T8-Total126W	T8 - Linear	8			(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	19
708	Y V	Athmar Rec Ctr	Gym Storage	4'-W-2L-4'-F32T8-Total60W 4'-W-2L-4'-F34T12-Total63W	T8 - Linear T12 - Linear	1		60 63	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW (2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12 12	2	24 24	111 15
103	1		Game room vestibule	+-VV-2L-+-104112-101000VV		1		00	(2) LED 10/LU/4/040 (1) LED/DR/D2L/LVV	12	4	27	

		Room Details			Existing Systems				Proposed Syst	ems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
710	Y	Athmar Rec Ctr	Weight Room vestibule	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	15
711	Y	Athmar Rec Ctr	Weight Room vestibule	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	15
712	Y	Athmar Rec Ctr	HVAC room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
713	Y	Athmar Rec Ctr	Weight Room	8'-DID-6L-4'-F32T8-Total233W	T8 - Linear	20		233	(6) LEDT8/LC/G/4/840 (1) LED/DR/D2L/HW (1) LED/DR/D4L/HW	12	6	72	19
714	Y	Athmar Rec Ctr	Fitness Office	8"RC-2L-4pin-G24-HPL-CFL-26W-	Dhua la	1		49		10	2	20	5
715	N	Athmar Rec Ctr	Vestibule Men's HA Locker Room	Total49W 1x4 LED flatpanels	Plug-In LED	3	sensor	34	LED-7320-40K-G3 ALREADY LED	10 0	1	0	0
716	N	Athmar Rec Ctr	Men's HA Locker			1	3011301	25			1	0	0
	IN		Room	2' LED Wrap	LED		sensor		ALREADY LED	0	1	-	-
717	Y	Athmar Rec Ctr	Janitor's Closet Women's HA Locker	A19-INC-60W	A19	1		60	LED10DA19/840	10	1	10	40
718	N	Athmar Rec Ctr	Room	4' LED Wrap	LED	1	sensor	30	ALREADY LED	0	1	0	0
719	N	Athmar Rec Ctr	Women's HA Locker Room	1x4 LED flatpanels	LED	3	sensor	34	ALREADY LED	0	1	0	0
720	N	Athmar Rec Ctr	Hallway	2x2 LED flat panel	LED	1		30	ALREADY LED	0	1	0	0
721	N	Athmar Rec Ctr	Hallway	2x4 LED flatpanels	LED	8		30	ALREADY LED	0	1	0	0
722	Y	Athmar Rec Ctr	Lobby	P2x4T-4L-4'-F32T8-Total126W	T8 - Linear	4		126	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	15
723	Y	Athmar Rec Ctr	Lobby	8'-DID-6L-4'-F32T8-Total233W	T8 - Linear	4		233	(6) LEDT8/LC/G/4/840 (1) LED/DR/D2L/LW (1) LED/DR/D4L/LW	12	6	72	15
724	Y	Athmar Rec Ctr	Lobby	4'-DID-3L-4'-F32T8-Total117W	T8 - Linear	2		117	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	15
725	Y	Athmar Rec Ctr	Data Room	P2x4T-4L-4'-F32T8-Total126W	T8 - Linear	1		126	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	83
726	Y	Athmar Rec Ctr	Manager's Office	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	26
727	Y	Athmar Rec Ctr	Women's Lockers	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	13		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	17
728	Y	Athmar Rec Ctr	Women's Lockers	8'-VT-2L-8'-F56T8-Total112W	T8 - Linear	4		112	(4) LEDT8/LC/G/4/840 (1) LED/DR/D4L/LW (1) RETROFIT KIT	12	4	48	17
729	Y	Athmar Rec Ctr	Shared Office	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	8	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	19
730	Y	Athmar Rec Ctr	Women's Locker Storage	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
731	N	Athmar Rec Ctr	Pool	LED highbay SQ-CA-2L-Screw-In-CFL-23W-	LED	29		80	ALREADY LED	0	1	0	0
732	Y	Athmar Rec Ctr	Men's Locker Room	Total4fW	Screw-In	1		44	LED10DA19/840	10	2	20	6
733	Y	Athmar Rec Ctr	Lifeguard Office	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	21
734	Y	Athmar Rec Ctr	Oxy Room	A19-INC-60W	A19	1		60	LED10DA19/840	10	1	10	30
735	Y	Athmar Rec Ctr	Acid Room	Spiral-CFL-26W	Screw-In	1		26	LED10DA19/840	10	1	10	40
1052	N	Athmar Rec Ctr	Exterior*o*o*o	ALREADY LED	LED	0	0	0		0	0	0	0
1053	N	Athmar Rec Ctr	Exterior*o*o	ALREADY LED	LED	0	0	0		0	0	0	0
1054	N	Athmar Rec Ctr	Exterior*o*o	ALREADY LED	LED	0	0	0		0	0	0	0
Included Subtotal		Athmar Rec Ctr Interior				150		2887				972	<u> </u>
488	Y	Aztlan Rec Ctr	Acid Room	A19-INC-135W	A19	1		135	LED10DA19/840	10	1	10	68
489	Y	Aztlan Rec Ctr	Pump Room	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	2		39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	143
490	Y	Aztlan Rec Ctr	Boiler Room	4'-S-1L-4'-F34T12-Total32W	T12 - Linear	1		32	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	143
491	Y	Aztlan Rec Ctr	Staff locker room	4'-W-2L-4'-F34T12-Total63W	T12 - Linear	2		63	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	71
492	Y	Aztlan Rec Ctr	Staff locker room	P2x2T-2L-22"x6"-F32T8/UTF- Total60W	T8 - U-Tube	1		60	(2) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13	2	26	51
494	Y	Aztlan Rec Ctr	Lobby	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	15		119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	26

		Room Details			Existing Systems				Proposed Sys	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
495	Y	Aztlan Rec Ctr	Lobby	8"RC-1L-HPL-CFL-Total42W	Plug-In	4		42	LED10DA19/840	10	1	10	9
496	Y	Aztlan Rec Ctr	Admin Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	2		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	36
497	Y	Aztlan Rec Ctr	Weight Room	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	7		119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	32
498	Y	Aztlan Rec Ctr	Weight Room	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	32
499	Y	Aztlan Rec Ctr	Multipurpose Room	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	3		30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	95
500	Y	Aztlan Rec Ctr	Multipurpose Room	4'-AW-4L-4'-F32T8-Total119W	T8 - Linear	13		119	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW 15W	15	3	45	95
501	Y	Aztlan Rec Ctr	Paint Room	4'-AW-4L-4'-F32T8-Total119W	T8 - Linear	1		119	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW 15W	15	3	45	57
502	Y	Aztlan Rec Ctr	Kiln Room	4'-AW-4L-4'-F32T8-Total119W	T8 - Linear	1		119	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW 15W	15	3	45	190
503	Y	Aztlan Rec Ctr	Multipurpose Room	3'-W-1L-3'-F25T8-Total24W	T8 - Linear	3		24	(1) LEDT8/LC/G/3/840 (1) LED/DR/D2L/LW	12	1	12	95
504	Y	Aztlan Rec Ctr	Aerobics Room	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	12		119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	95
505	Y	Aztlan Rec Ctr	Chair Storage	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	1		119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	190
506	Y	Aztlan Rec Ctr	Chair Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	190
507	Y	Aztlan Rec Ctr	Chair Storage	Spiral-CFL-32W	Screw-In	1		32	LED10DA19/840	10	1	10	68
508	Y	Aztlan Rec Ctr	Data Room	4'-VT-2L-4'-F34T12-Total63W	T12 - Linear	2		63	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	143
509	Ν	Aztlan Rec Ctr	Data Room	LED-16.5W-Medium base	Screw-In	4		17	ALREADY LED	0	1	0	0
510	Y	Aztlan Rec Ctr	Data Room	3'-AW-2L-3'-F30T12-Total56W	T12 - Linear	1		56	(2) LEDT8/LC/G/3/840 (1) LED/DR/D2L/LW	12	2	24	143
511	Y	Aztlan Rec Ctr	Janitors Closet	Spiral-CFL-42W	Screw-In	1		42	LED10DA19/840	10	1	10	68
512	Y	Aztlan Rec Ctr	Pool Admin	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	36
513	Y	Aztlan Rec Ctr	Cleaning Supply Storage	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	190
514	Y	Aztlan Rec Ctr	Staff RR	6"RC-1L-Screw-In-CFL-14W- Total13W	Screw-In	2		13	LED10DA19/840	10	1	10	51
1023	Ν	Aztlan Rec Ctr	Gym*a1	ALREADY LED	LED	0	0	0		0	0	0	0
1024	Ν	Aztlan Rec Ctr	Men's and Women's Locker Rooms*ab*a2*al*s	ALREADY LED	LED	0	0	0		0	0	0	0
1025	Ν	Aztlan Rec Ctr	Men's and Women's Locker Rooms*ab*a2*al*s	ALREADY LED	LED	0	0	0		0	0	0	0
1026	Ν	Aztlan Rec Ctr	Men's and Women's Locker Rooms*ab*a2*al*s	ALREADY LED	LED	0	0	0		0	0	0	0
1027	Ν	Aztlan Rec Ctr	Men's and Women's Locker Rooms*ab*a2*al*s	ALREADY LED	LED	0	0	0		0	0	0	0
1028	Ν	Aztlan Rec Ctr	Locker Access*x	ALREADY LED	LED	0	0	0		0	0	0	0
Included Subtotal		Aztlan Rec Ctr Interior				80		1788				655	
286	Y	Central Park Rec Center	Electrical	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	1		39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	71
287	Y	Central Park Rec Center Central Park Rec	Roof Access	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	1	sensor	39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	88
288	Y	Central Park Rec Center Central Park Rec	Day Care RR	4'-W-2L-4'-F32T8-Total60W 4"RC-1L-GU10-MR16-HAL-50W-	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	22
289	Y	Center Central Park Rec	Child Care	Total50W 6"RC-1L-4pin-G24-VPL-CFL-42W-	MR16	2	sensor	50	LED6D/GU10/NFL/TP	6	1	6	8
290	Y	Center Central Park Rec	Men's & Women's RR	Total39W	Plug-In	4	sensor	39	LED-7320-40K-G3	10	1	10	13
291	Y	Center	Men's & Women's RR	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	35

		Room Details			Existing Systems				Proposed Syst	ems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
292	Y	Central Park Rec Center	Men's & Women's RR	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	6	sensor	39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	35
293	Y	Central Park Rec Center	Multipurpose Room A	6"RC-1L-4pin-G24-VPL-CFL-42W- Total39W	Plug-In	10	sensor	39	LED-7320-40K-G3	10	1	10	21
294	Y	Central Park Rec Center	Multipurpose Room A	3'-S-1L-3'-F21T5-Total20W	T5 - Linear	2	sensor	20	(1) LEDT5/LC/G/3/840 (1) LED15T8/DR/D2L/LW	15	1	15	42
295	Y	Central Park Rec Center	Multipurpose Room A	4'-S-1L-4'-F28T5-Total26W	T5 - Linear	7	sensor	26	(1) LEDT5/LC/G/4/840 (1) LED18T8/DR/18W	18	1	18	42
296	Y	Central Park Rec Center	Multipurpose Room A	P2x2T-2L-2'-F24T5/HO-Total45W	T5HO - Linear	11	sensor	45	(2) LEDT5/LC/G/2/840 (1) LED/DR/D2L/LW	17	2	33	42
297	Y	Central Park Rec Center	Multipurpose Storage	4'-S-1L-4'-F28T5-Total26W	T5 - Linear	2	sensor	26	(1) LEDT5/LC/G/4/840 (1) LED18T8/DR/18W	18	1	18	84
298	Y	Central Park Rec Center	Multipurpose Storage	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	118
299	Y	Central Park Rec Center	Multipurpose B	6"RC-1L-4pin-G24-VPL-CFL-42W- Total39W	Plug-In	8	sensor	39	LED-7320-40K-G3	10	1	10	21
300	Y	Central Park Rec Center	Multipurpose B	P2x2T-2L-2'-F24T5/HO-Total45W	T5HO - Linear	12	sensor	45	(2) LEDT5/LC/G/2/840 (1) LED/DR/D2L/LW	17	2	33	42
301	Y	Central Park Rec Center	Multipurpose B	3'-S-1L-3'-F21T5-Total20W	T5 - Linear	2	sensor	20	(1) LEDT5/LC/G/3/840 (1) LED15T8/DR/D2L/LW	15	1	15	42
302	Y	Central Park Rec Center	Multipurpose B	4'-S-1L-4'-F28T5-Total26W	T5 - Linear	7	sensor	26	(1) LEDT5/LC/G/4/840 (1) LED18T8/DR/18W	18	1	18	42
303	Y	Central Park Rec Center	Multipurpose Storage B	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	118
304	Y	Central Park Rec Center	Office A	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	2	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	16
305	Y	Central Park Rec Center	Office B	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	2	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	16
306	Y	Central Park Rec Center	Office C	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	2	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	16
307	Y	Central Park Rec Center	Copy Room	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	2	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	16
308	Y	Central Park Rec Center	Break Room	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	2	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	42
309	Y	Central Park Rec Center	Office Open Space	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	3	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	11
310	Y	Central Park Rec Center	Office Hall	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	2	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	11
311	Y	Central Park Rec Center	Child Care	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	15	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	16
312	Y	Central Park Rec Center	Catering kitchen	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	4		52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	40
313	Y	Central Park Rec Center	Conference Room	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	2	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	51
314	Y	Central Park Rec Center	Family Lounge	4'-DID-3L-4'-F32T8-Total117W	T8 - Linear	2	sensor	117	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	44
315	Y	Central Park Rec Center	Family Lounge	8'-DID-6L-4'-F32T8-Total233W	T8 - Linear	7	sensor	233	(6) LEDT8/LC/G/4/840 (1) LED/DR/D2L/LW (1) LED/DR/D4L/LW	12	6	72	44
316	Y	Central Park Rec Center	Fitness Area	8'-DID-6L-4'-F32T8-Total233W	T8 - Linear	10	001001	233	(6) LEDT8/LC/G/4/840 (1) LED/DR/D2L/HW (1) LED/DR/D4L/HW	12	6	72	16
317	Y	Central Park Rec Center	Fitness Area	4'-DID-3L-4'-F32T8-Total89W	T8 - Linear	10		89	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	16
318	Y	Central Park Rec Center	Reception	PEN-DEC-1L-VPL-CFL-32W- Total30W	Plug-In	7		30	LED-7320-40K-G3	10	1	10	5

		Room Details			Existing Systems				Proposed Syst	ems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
319	Y	Central Park Rec Center	Reception	P2x2T-2L-2'-F14T5-Total26W	T5 - Linear	3		26	(2) LEDT5/LC/G/2/840 (1) LED/DR/D2L/LW	9	2	18	9
320	Y	Central Park Rec Center	Hallway	8'-W-2L-4'-F28T5-Total52W	T5 - Linear	3		52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	9
321	Y	Central Park Rec Center	Hallway	LB-1L-HID-MH-70W-Total82W	High Intensity Discharge	23		82	LED-8038E57-A	14	1	14	9
322	Y	Central Park Rec Center	Hallway	6"RC-1L-4pin-G24-VPL-CFL-32W- Total34W	Plug-In	5		34	LED-7320-40K-G3	10	1	10	5
323	Y	Central Park Rec Center	Hallway	4'-W-1L-4'-F28T5-Total26W	T5 - Linear	1		26	(1) LEDT5/LC/G/4/840 (1) LED18T8/DR/18W	18	1	18	9
324	Y	Central Park Rec Center	Elevator	MR16-MH-35W	MR16	6		35	SATCO S8636	8	1	8	5
325	Y	Central Park Rec Center	Lobby Stairwell	HID-MH-70W	High Intensity Discharge	6		82	LED-8039E57-A	18	1	18	9
326	Y	Central Park Rec Center	Spin Class	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	7	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	25
327	Y	Central Park Rec Center	Spin Class	P2x2T-2L-2'-F24T5/HO-Total45W	T5HO - Linear	1	sensor	45	(2) LEDT5/LC/G/2/840 (1) LED/DR/D2L/LW	17	2	33	25
328	Y	Central Park Rec Center	Aerobics	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	13	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	42
329	Y	Central Park Rec Center	Aerobics	P2x2T-2L-2'-F24T5/HO-Total45W	T5HO - Linear	5	sensor	45	(2) LEDT5/LC/G/2/840 (1) LED/DR/D2L/LW	17	2	33	42
330	Y	Central Park Rec Center	Aerobics Storage	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	118
331	Y	Central Park Rec Center	Elevator machine room	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	2		39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	94
332	Y	Central Park Rec Center	1F Women's & Men's RRs	8"RC-2L-4pin-G24-VPL-CFL-18W- Total34W	Plug-In	11	sensor	34	LED-7320-40K-G3	10	2	20	13
333	Y	Central Park Rec Center	1F Women's & Men's RRs	4'-S-1L-4'-F28T5-Total26W	T5 - Linear	8	sensor	26	(1) LEDT5/LC/G/4/840 (1) LED18T8/DR/18W	18	1	18	25
334	Y	Central Park Rec Center	Tele/Data Room	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	2	sensor	39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	88
335	Y	Central Park Rec Center	Main Electrical Room	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	71
336	Y	Central Park Rec Center	Fire Sprinkler Room	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	1	sensor	39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	88
337	Y	Central Park Rec Center	LF Custodial	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	118
338	Y	Central Park Rec Center	Gym Storage	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	5	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	118
339	Y	Central Park Rec Center	Weight Room	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	31	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	14
340	Y	Central Park Rec Center	Weight Room	P2x2T-2L-2'-F24T5/HO-Total45W	T5HO - Linear	3	sensor	45	(2) LEDT5/LC/G/2/840 (1) LED/DR/D2L/LW	17	2	33	14
341	Y	Central Park Rec Center	Weight Room	8"RC-1L-4pin-G24-VPL-CFL-26W- Total25W	Plug-In	12	sensor	25	LED-7320-40K-G3	10	1	10	7
342	Y	Central Park Rec Center	Weight Room	8'-W-2L-4'-F28T5-Total52W	T5 - Linear	5	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	14
343	Y	Central Park Rec Center	Weight Room	4'-W-1L-4'-F28T5-Total26W	T5 - Linear	1	sensor	26	(1) LEDT5/LC/G/4/840 (1) LED18T8/DR/18W	18	1	18	14
344	Y	Central Park Rec Center	Weight Room	2'-W-1L-2'-F14T5-Total13W	T5 - Linear	1	sensor	13	(2) LEDT5/LC/G/2/840 (1) LED/DR/D2L/LW	9	1	9	14
345	Y	Central Park Rec Center	Weight Room	8'-DID-6L-4'-F32T8-Total233W	T8 - Linear	3	sensor	233	(6) LEDT8/LC/G/4/840 (1) LED/DR/D2L/HW (1) LED/DR/D4L/HW	12	6	72	20

		Room Details			Existing Systems				Proposed Syst	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
346	Y	Central Park Rec Center	Weight Room	4'-DID-3L-4'-F32T8-Total89W	T8 - Linear	3	sensor	89	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	20
347	Y	Central Park Rec Center	Weight Room	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	2	sensor	155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	20
348	Y	Central Park Rec Center	Weight Room	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	2	sensor	78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	20
349	Y	Central Park Rec Center	Fitness Office A	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	1	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	16
350	Y	Central Park Rec Center	Fitness Office B	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	1	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	16
351	Y	Central Park Rec Center	Sports Office	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	1	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	16
352	Y	Central Park Rec Center	Gym	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	30		358	ABV3 0 24 T 48 1D FH ST K Q W	137	1	137	22
353	Y	Central Park Rec Center	Family RRs	6"RC-1L-4pin-G24-VPL-CFL-32W- Total34W	Plug-In	8	sensor	34	LED-7320-40K-G3	10	1	10	16
354	Y	Central Park Rec Center	Family RRs	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	4	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	44
355	Y	Central Park Rec Center	Family Locker Room	6"RC-1L-4pin-G24-VPL-CFL-32W- Total34W	Plug-In	19	sensor	34	LED-7320-40K-G3	10	1	10	16
356	Y	Central Park Rec Center	Pool Party Room	10"RC-2L-HPL-CFL-18W-Total39W	Plug-In	12	sensor	39	LED-7320-40K-G3	10	2	20	25
357	Y	Central Park Rec Center	Men's Lockers	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	7		39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	14
358	Y	Central Park Rec Center	Men's Lockers	6"RC-1L-4pin-G24-VPL-CFL-18W- Total18W	Plug-In	37		18	LED-7320-40K-G3	10	1	10	5
359	Y	Central Park Rec Center	Women's Lockers	6"RC-1L-4pin-G24-VPL-CFL-18W- Total18W	Plug-In	46		18	LED-7320-40K-G3	10	1	10	5
360	Y	Central Park Rec Center	Women's Lockers	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	6		39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	14
361	N	Central Park Rec Center	Custodial	LED-16.5W-Medium base	Screw-In	1	sensor	17	ALREADY LED	0	1	0	0
362	Y	Central Park Rec Center	Custodial	4pin-Twin-PL-CFL-26W	Plug-In	1	sensor	26	LED-7320-40K-G3	10	1	10	42
364	Y	Central Park Rec Center	Pool	8'-VT-6L-4'-F54T5/HO-Total302W	T5HO - Linear	17		302	(6) LEDT5/LC/G/4/840 (1) LED/DR/D2L/HW (1) LED/DR/D4L/HW	36	6	216	10
365	Y	Central Park Rec Center	Pool	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	1		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	14
366	Y	Central Park Rec Center	Pool Storage	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	94
367	Y	Central Park Rec Center	Pool Mechanical	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	3	sensor	39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	88
368	Y	Central Park Rec Center	Pool Mechanical	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	4	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	88
369	Y	Central Park Rec Center	Boiler room	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	2	sensor	39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	88
370	N	Central Park Rec Center	Sanitizer Room	GEN-LED-15W	Other	1	301301	15	ALREADY LED	0	1	0	0
371	Y	Central Park Rec Center	PH Buffer Room	4pin-Twin-PL-CFL-26W	Plug-In	1		26	LED-7320-40K-G3	10	1	10	34
372	Y	Central Park Rec Center	Lifeguard Office	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	2	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW		2	36	16
373	Y	Central Park Rec Center	Pool Manager Office	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	2	sensor	52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW		2	36	16

		Room Details			Existing Systems				Proposed Sys	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
378	Y	Central Park Rec Center	Grounds storage	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	1	sensor	39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	118
1045	N	Central Park Rec Center	Exterior*a11*a12	ALREADY LED	LED	0	0	0		0	0	0	0
1046	N	Central Park Rec Center	Exterior*a11*a12	ALREADY LED	LED	0	0	0		0	0	0	0
Included Subtotal		Central Park Rec Center Interior				530		5315				2449	
205	Y	Eisenhower Rec Center	Aerobics Room	4'-AW-4L-4'-F32T8-Total119W	T8 - Linear	9	sensor	119	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW 15W	15	3	45	86
206	Y	Eisenhower Rec Center	Aerobics Room	PAR20-HAL-60W	PAR20	1	sensor	60	LED7DP203W830/35	7	1	7	31
207	Y	Eisenhower Rec Center	Aerobics Storage	8'-S-2L-4'-F32T8-Total60W	T8 - Linear	I	3611301	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	137
208	Y	Eisenhower Rec Center	Break room	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	6		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW		2	24	86
209	Y	Eisenhower Rec				2	sensor	60		12	1	10	31
210	Y	Center Eisenhower Rec	Break room	A19-INC-60W	A19		sensor	26	LED10DA19/840	10	1	10	7
211	Y	Center Eisenhower Rec	Entrance Men's & Women's	Spiral-CFL-26W	Screw-In	2		39	LED10DA19/840	10	1	12	51
212	Y	Center Eisenhower Rec	RRs Men's & Women's	4'-S-1L-4'-F32T8-Total39W 8"RC-1L-Screw-In-CFL-23W-	T8 - Linear	2	sensor	22	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	10	18
213	Y	Center Eisenhower Rec	RRs	Total22W	Screw-In	6	sensor	60	LED10DA19/840	10	2	24	23
214	Y	Center Eisenhower Rec	Reception	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	5	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
215	· · ·	Center Eisenhower Rec	Reception Office	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	41
215		Center Eisenhower Rec	Crafts Room	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	6		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	137
	1	Center Eisenhower Rec	Crafts Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2			(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2		
217	N	Center Eisenhower Rec	Lounge	2x2 LED flat panel	LED	14	sensor	30	ALREADY LED	0	1	0	0
218	Y	Center Eisenhower Rec	Cardio Room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	9	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	29
219	Y	Center Eisenhower Rec	Weight Room	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	15	sensor	155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	29
220	Y	Center	Lounge Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	137
221	Y	Eisenhower Rec Center	Lounge Storage	A19-INC-100W	A19	1		100	LED10DA19/840	10	1	10	49
222	Y	Eisenhower Rec Center	Boiler Room	4'-W-2L-4'-F40T12-Total75W	T12 - Linear	2		75	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	103
223	Y	Eisenhower Rec Center	Gym	4', Linear High Bay, 6 Lamp, 4', T5, Linear Fluorescent, 54W Lamp, Standard Ballast, BF= 1.15, 20000 Hours, Luminaire, 358 Total Watts	T5 - Linear	18	sensor	358	ABV3 0 24 T 48 1D FH ST K Q W	137	1	137	41
224	Y	Eisenhower Rec Center	Gym Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	л	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	172
225	Y	Eisenhower Rec Center	Gym Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW (2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	172

		Room Details			Existing Systems				Proposed S	ystems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
226	Y	Eisenhower Rec Center	TeleComm	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	103
227	Y	Eisenhower Rec Center	Men's Lockers	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	21
228	Y	Eisenhower Rec Center	Men's Lockers	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	21
229	Y	Eisenhower Rec Center	Concessions	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	103
230	Y	Eisenhower Rec Center	Women's Lockers	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	21
231	Y	Eisenhower Rec Center	Women's Lockers	2'-VT-2L-2'-F17T8-Total34W	T8 - Linear	1		34	(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	9	2	18	21
232	Y	Eisenhower Rec Center	Women's Lockers	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	21
233	Y	Eisenhower Rec Center	Men's Lockers	2'-VT-2L-2'-F17T8-Total34W	T8 - Linear	1		34	(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	9	2	18	21
234	N	Eisenhower Rec Center	Hallway	12' LED strip	LED	2		90	ALREADY LED	0	1	0	0
235	N	Eisenhower Rec Center	Hallway	4' disc LED can lights	LED	17		11	ALREADY LED	0	1	0	0
236	Y	Eisenhower Rec Center	Hallway	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	19
237	Y	Eisenhower Rec Center	Hallway	8"RC-1L-Screw-In-CFL-23W- Total22W	Screw-In	5		22	LED10DA19/840	10	1	10	7
240	Y	Eisenhower Rec Center	Exterior Men's and Women's RR	SQ-CA-1L-HID-HPS-50W-Total58W	High Intensity Discharge	2		58	LED-FXSCM28/40K/BK-SEN	28	1	28	49
243	N	Eisenhower Rec Center	Pool Chem Room	4'-VT-1L-4'-TLED-18W-Total18W	TLED	1	sensor	18	ALREADY LED	0	1	0	0
244	N	Eisenhower Rec Center	Pool Chem Room	GEN-LED-9W	Other	3	sensor	10	ALREADY LED	0	1	0	0
484	N	Eisenhower Rec Center	Pool Boiler Room & Pump Room	LED-10W-Screw in	LED	2		10	ALREADY LED	0	1	0	0
485	N	Eisenhower Rec Center	Electrical Room	LED-16.5W-Medium base	Screw-In	1		17	ALREADY LED	0	1	0	0
Included Subtotal		Eisenhower Rec Center Interior				122		2206				807	-
89	Y	Green Valley Ranch Rec Ctr	103 - Classroom B	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	10		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	61
90	Y	Green Valley Ranch Rec Ctr	103 - Classroom B	6"RC-2L-HPL-CFL-26W-Total49W	Plug-In	1		49	LED10DA19/840	10	2	20	22
91	Y	Green Valley Ranch Rec Ctr	104 - Storage	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	1		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	123
92	Y	Green Valley Ranch Rec Ctr	114 - Community Room A	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	15		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	61
93	Y	Green Valley Ranch Rec Ctr	114 - Community Room A	6"RC-2L-HPL-CFL-26W-Total49W		9		49	LED10DA19/840	10	2	20	22
94	Y	Green Valley Ranch Rec Ctr	115 - Community Room B	EC2x4T-3L-4'-F32T8-Total84W	Plug-In T8 - Linear	15		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	10	3	36	61
95	Y	Green Valley Ranch Rec Ctr	116 - Storage	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	4		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	123
96	Y	Green Valley Ranch Rec Ctr	115 - Community Room B	6"RC-2L-HPL-CFL-26W-Total49W		9		49	LED10DA19/840	12	2	20	22
97	Y	Green Valley Ranch Rec Ctr	107 - Kitchen	6 RC-2L-HPL-CFL-26W-10tal49W EC2x4T-3L-4'-F32T8-Total84W	Plug-In T8 - Linear	14		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	10	3	36	61

		Room Details			Existing Systems				Proposed S	ystems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
98	Y	Green Valley Ranch Rec Ctr	105 - Electrical Room	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	2		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	92
99	Y	Green Valley Ranch Rec Ctr	106 - Telecom Room	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	1		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	92
100	Y	Green Valley Ranch Rec Ctr	108 - Classroom A	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	13		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	61
101	Y	Green Valley Ranch Rec Ctr	109 - Storage	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	1		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	123
102	Y	Green Valley Ranch Rec Ctr	111 - Men's RR & 110 - Women's RR	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	6		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	37
103	Y	Green Valley Ranch Rec Ctr	111 - Men's RR & 110 - Women's RR	6"RC-2L-HPL-CFL-26W-Total49W	Plug-In	2		49	LED10DA19/840	10	2	20	13
104	Y	Green Valley Ranch Rec Ctr	113 - Laundry Room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	2		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	37
105	Y	Green Valley Ranch Rec Ctr	113A - Janitor's Closet	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	1		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	123
106	N	Green Valley Ranch Rec Ctr	101 - Gym	4'-LHB-6L-4'-TypeA LED	LED	32	sensor	66	ALREADY LED	66	1	66	0
107	Y	Green Valley Ranch Rec Ctr	102 -Storage	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	3	3011301	155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	123
108	N	Green Valley Ranch Rec Ctr	Game Room	Decorative Pendant Light	LED	13		11	ALREADY LED	0	1	0	0
109	Y	Green Valley Ranch Rec Ctr	Game Room	6"RC-2L-HPL-CFL-26W-Total49W	Plug-In	3		49	LED10DA19/840	10	2	20	11
110	Y	Green Valley Ranch Rec Ctr	Game Room	6"RC-2L-HPL-CFL-26W-Total49W	Plug-In	8		49	LED10DA19/840	10	2	20	11
111	N	Green Valley Ranch Rec Ctr	Game Room	4' disc LED can lights	LED	15		11	ALREADY LED	0	1	0	0
112	Y	Green Valley Ranch Rec Ctr	127 - Men's Locker Room	6"RC-2L-HPL-CFL-26W-Total49W		13		49	LED10DA19/840	10	2	20	7
113	Y	Green Valley	127 - Men's Locker		Plug-In			60			2	24	18
114	Y	Ranch Rec Ctr Green Valley	Room 127 - Men's Locker	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	26		32	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	16	18
115	N	Ranch Rec Ctr Green Valley	Room 127 - Men's Locker	2'-S-2L-2'-F17T8-Total32W	T8 - Linear	9		9	(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	8	1	0	0
116	N	Ranch Rec Ctr Green Valley	Room	4"RC-1L-Screw-In-LED-9W-Total9W	Screw-In			9	ALREADY LED	0	1	0	0
117	Y	Ranch Rec Ctr Green Valley	133 - Family RR 132 - Mechanical	4"RC-1L-Screw-In-LED-9W-Total9W	Screw-In	4		155	ALREADY LED	0	4	48	92
118	· · ·	Ranch Rec Ctr Green Valley	Room 134 - Women's Locker	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	1		49	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	2	20	7
119	· · ·	Ranch Rec Ctr Green Valley	Room 134 - Women's Locker	6"RC-2L-HPL-CFL-26W-Total49W	Plug-In	13		60	LED10DA19/840	10	2	20	18
120	· ·	Ranch Rec Ctr Green Valley	Room 134 - Women's Locker	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	26		32	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	16	18
120	N N	Ranch Rec Ctr Green Valley	Room 134 - Women's Locker	2'-S-2L-2'-F17T8-Total32W	T8 - Linear	6			(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	8	4	0	
	N	Ranch Rec Ctr Green Valley	Room	4"RC-1L-Screw-In-LED-9W-Total9W	Screw-In	7		9	ALREADY LED	0		-	0
122	Y	Ranch Rec Ctr Green Valley	141 - Fitness Room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	20		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	20
123	Y	Ranch Rec Ctr Green Valley	141A -Storage	6"RC-2L-HPL-CFL-26W-Total49W	Plug-In	1		49	LED10DA19/840	10	2	20	44
124	Y	Ranch Rec Ctr	140 - Storage	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	2		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	123

		Room Details			Existing Systems				Proposed Sys	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
125	Y	Green Valley Ranch Rec Ctr	Weight room	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	21		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	20
126	Y	Green Valley Ranch Rec Ctr	Weight room	SC-DEC-1L-4pin-G24-HPL-CFL-26W- Total126W	Plug-In	4		26	LED-7320-40K-G3	10	1	10	7
127	Y	Green Valley Ranch Rec Ctr	125 - Storage	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	2		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	123
128	Y	Green Valley Ranch Rec Ctr	125A Storage	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	1		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	123
129	Y	Green Valley Ranch Rec Ctr	118 - Work Room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	8	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	21
130	Y	Green Valley Ranch Rec Ctr	121 - Conference	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	1	sensor	155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	92
131	Y	Green Valley Ranch Rec Ctr	121 - Conference	6"RC-2L-HPL-CFL-26W-Total49W	Plug-In	8	sensor	49	LED10DA19/840	10	2	20	33
132	Y	Green Valley Ranch Rec Ctr	117 - Storage	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	1	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	154
133	Y	Green Valley Ranch Rec Ctr	120 - Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	2	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	29
134	Y	Green Valley Ranch Rec Ctr	123 - Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	3	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	29
135	N	Green Valley Ranch Rec Ctr	Hallway	Decorative Pendant Light	LED	8		11	ALREADY LED	0	1	0	0
136	Y	Green Valley Ranch Rec Ctr	Hallway	6"RC-2L-HPL-CFL-26W-Total49W	Plug-In	15		49	LED10DA19/840	10	2	20	6
137	Y	Green Valley Ranch Rec Ctr	Hallway	SC-DEC-1L-4pin-G24-HPL-CFL-26W- Total126W	Plug-In	4		26	LED-7320-40K-G3	10	1	10	6
140	Y	Green Valley Ranch Rec Ctr	144 Fire Sprinkler Riser Room	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	1		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	92
1047	N	Green Valley Ranch Rec Ctr	Lobby*a14	PAR20, LED, 25W, 1000 Hours, Lamp	LED	0	0	0		0	0	0	0
1048	N	Green Valley Ranch Rec Ctr	124 - Activity Room* *	ALREADY LED	LED	0	0	0		0	0	0	0
1049	N	Green Valley Ranch Rec Ctr	124 - Activity Room* *	ALREADY LED	LED	0	0	0		0	0	0	0
1050	N	Green Valley Ranch Rec Ctr	Vestibule *a14	PAR20, LED, 25W, 1000 Hours, Lamp	LED	0	0	0		0	0	0	0
Included		Green Valley Ranch Rec Ctr		FAR20, LED, 25W, 1000 Hours, Lamp			0						
Subtotal		Interior Harvard Gulch				308		3503				1340	<u> </u>
737	Y	Rec/DPDWhse	Men's Lockers	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	7		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
738	Y	Harvard Gulch Rec/DPDWhse	Men's Lockers	8"RC-1L-Screw-In-CFL-13W- Total13W	Screw-In	3		13	LED10DA19/840	10	1	10	8
739	Y	Harvard Gulch Rec/DPDWhse	Women's Lockers	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	10		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
740	Y	Harvard Gulch Rec/DPDWhse	Loft	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	153
741	Y	Harvard Gulch Rec/DPDWhse	Workshop	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	77
742	Y	Harvard Gulch Rec/DPDWhse	Workshop	4'-AW-4L-4'-F32T8-Total119W	T8 - Linear	1		119	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW 15W	15	3	45	77
743	Ν	Harvard Gulch Rec/DPDWhse	Workshop	4' LED Wrap	LED	1		30	ALREADY LED	0	1	0	0

		Room Details			Existing Systems				Proposed Syst	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
744	Y	Harvard Gulch Rec/DPDWhse	Gym/Locker	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	23		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
745	Y	Harvard Gulch Rec/DPDWhse	Entry/Hall	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	21
746	Y	Harvard Gulch Rec/DPDWhse	Entry/Hall	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	21
747	Y	Harvard Gulch Rec/DPDWhse	Entry/Hall	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	1		30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	21
748	Y	Harvard Gulch Rec/DPDWhse	Office	8'-S-2L-8'-F77T8-Total143W	T8 - Linear	5		143	(4) LEDT8/LC/G/4/840 (1) LED/DR/D4L/LW (1) RETROFIT KIT	12	4	48	29
749	Y	Harvard Gulch Rec/DPDWhse	Office	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	29
750	N	Harvard Gulch Rec/DPDWhse	Office	4' LED Wrap	LED	2		30	ALREADY LED	0	1	0	0
751	N	Harvard Gulch Rec/DPDWhse	Office RR	GEN-LED-9W	Other	2		10	ALREADY LED	0	1	0	0
752	Y	Harvard Gulch Rec/DPDWhse	Armory	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	2		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	153
753	Y	Harvard Gulch Rec/DPDWhse	Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	153
754	N	Harvard Gulch Rec/DPDWhse	Storage	GEN-LED-9W	Other	4		10	ALREADY LED	0	1	0	0
755	N	Harvard Gulch Rec/DPDWhse	Showers	GEN-LED-9W	Other	1		10	ALREADY LED	0	1	0	0
756	Y	Harvard Gulch Rec/DPDWhse	K9 Kennels	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	1		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	27
757	Y	Harvard Gulch Rec/DPDWhse	Washbasins	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	77
758	N	Harvard Gulch Rec/DPDWhse	Armory	GEN-LED-9W	Other	1		10	ALREADY LED	0	1	0	0
759	Y	Harvard Gulch Rec/DPDWhse	Hall Storage	8"RC-2L-HPL-CFL-13W-Total25W	Plug-In	1		25	LED10DA19/840	10	2	20	55
760	Y	Harvard Gulch Rec/DPDWhse	Kitchen	Spiral-CFL-85W	Screw-In	2		85	LED15DA21/840	15	1	15	20
761	Y	Harvard Gulch Rec/DPDWhse	Pantry	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	92
762	Y	Harvard Gulch Rec/DPDWhse	Aerobics	Spiral-CFL-85W	Screw-In	9		85	LED15DA21/840	15	1	15	16
763	Y	Harvard Gulch Rec/DPDWhse	Aerobics Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	153
764	Y	Harvard Gulch Rec/DPDWhse	Manager's Office	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	2		52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW		2	36	20
765	Y	Harvard Gulch Rec/DPDWhse	Reception Office	2x4T-2L-4'-F28T5-Total52W	T5 - Linear	2		52	(2) LEDT5/LC/G/4/840 (1) LED18T8/DR/2L/LW	18	2	36	15
766	Y	Harvard Gulch Rec/DPDWhse	Hallway	8"RC-2L-HPL-CFL-13W-Total25W	Plug-In	7		25	LED10DA19/840	10	2	20	7
767	Y	Harvard Gulch Rec/DPDWhse	Hallway	Spiral-CFL-85W	Screw-In	8		85	LED15DA21/840	15	1	15	4
768	Y	Harvard Gulch Rec/DPDWhse	Hallway	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	4		119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	21
769	Y	Harvard Gulch Rec/DPDWhse	Arts and Crafts	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	12		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	153
770	Ν	Harvard Gulch Rec/DPDWhse	Kiln Room	LED-10W-Screw in	LED	1		10	ALREADY LED	0	1	0	0

		Room Details			Existing Systems				Proposed Sy	/stems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
771	N	Harvard Gulch Rec/DPDWhse	Pottery Storage	GEN-LED-15W	Other	1		15	ALREADY LED	0	1	0	0
772	Y	Harvard Gulch Rec/DPDWhse	Electrical Room	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	1		119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	115
773	Y	Harvard Gulch Rec/DPDWhse	Gym	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	15	sensor	358	ABV3 0 24 T 48 1D FH ST K Q W	137	1	137	46
774	Y	Harvard Gulch Rec/DPDWhse	Pool boiler	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	115
775	Y	Harvard Gulch Rec/DPDWhse	Chlorine Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	153
776	Y	Harvard Gulch Rec/DPDWhse	Acid Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	153
777	Y	Harvard Gulch Rec/DPDWhse	Pool Storage	4'-S-2L-4'-F34T12-Total63W	T12 - Linear	2		63	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	153
778	Y	Harvard Gulch Rec/DPDWhse	Lifeguard Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	2		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	29
779	Y	Harvard Gulch Rec/DPDWhse	Lifeguard Breakroom	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	5		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	77
780	Y	Harvard Gulch Rec/DPDWhse	Lifeguard Breakroom	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	1		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	77
781	Y	Harvard Gulch Rec/DPDWhse	Gym Storage	Spiral-CFL-85W	Screw-In	1		85	LED15DA21/840	15	1	15	33
782	Y	Harvard Gulch Rec/DPDWhse	Gym Office	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	29
783	Y	Harvard Gulch Rec/DPDWhse	Gym Staff Lockers	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	77
784	N	Harvard Gulch Rec/DPDWhse	Gym Staff Lockers	DR-1L-12"-LED-32W-Total30W	LED	1		15	ALREADY LED	0	1	0	0
785	Y	Harvard Gulch Rec/DPDWhse	Ball Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	3	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	191
786	Y	Harvard Gulch Rec/DPDWhse	HVAC Access	Spiral-CFL-23W	Screw-In	1		23	LED10DA19/840	10	1	10	41
787	Y	Harvard Gulch Rec/DPDWhse	Laundry	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	1		119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	115
788	Y	Harvard Gulch Rec/DPDWhse	Weight Room	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	20		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	26
789	Y	Harvard Gulch Rec/DPDWhse	Men's and Women's RRs	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	6		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	46
790	Y	Harvard Gulch Rec/DPDWhse	Janitor's Closet	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	153
791	Y	Harvard Gulch Rec/DPDWhse	Boiler Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	115
792	Y	Harvard Gulch Rec/DPDWhse	Dance Studio	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	19		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	57
Included Subtotal		Harvard Gulch Rec/DPDWhse Interior				203		3508				1346	
1	Y	Hiawatha Davis Rec Ctr	118 - Multipurpose Room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	12		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	66
2	Y	Hiawatha Davis Rec Ctr	119 - Multipurpose Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	66
3	Y	Hiawatha Davis Rec Ctr	120 - Kitchen	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	4		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	28

		Room Details			Existing Systems				Proposed S	/stems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
4	Y	Hiawatha Davis Rec Ctr	Men's RR	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	5	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	49
5	Y	Hiawatha Davis Rec Ctr	Women's RR	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	5	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	49
6	Y	Hiawatha Davis Rec Ctr	114-craft room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	8	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	49
7	Y	Hiawatha Davis Rec Ctr	Kiln room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	131
8	Y	Hiawatha Davis Rec Ctr	Painting Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	39
9	Y	Hiawatha Davis Rec Ctr	Employee Only	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	4	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	22
10	Y	Hiawatha Davis Rec Ctr	110-Card Room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	8	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	82
11	Y	Hiawatha Davis Rec Ctr	107 - Janitor's closet	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	131
12	Y	Hiawatha Davis Rec Ctr	109-Pool Observation	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	4		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	18
13	Y	Hiawatha Davis Rec Ctr	Women's Lockers	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	10	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	25
14	Y	Hiawatha Davis Rec Ctr	Men's Lockers	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	10	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	25
15	Y	Hiawatha Davis Rec Ctr	Copy room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	3	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	31
16	Y	Hiawatha Davis Rec Ctr	Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	4	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	31
17	Y	Hiawatha Davis Rec Ctr	103 - basket room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	2	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	31
18	Y	Hiawatha Davis Rec Ctr	Hall storage closet	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	131
19	Y	Hiawatha Davis Rec Ctr	Game room	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	11		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	28
20	Y	Hiawatha Davis Rec Ctr	Game room	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	1		78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	28
21	Y	Hiawatha Davis Rec Ctr	Weight room	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	18		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	22
22	Y	Hiawatha Davis Rec Ctr	Weight room	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	3		78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	22
23	Y	Hiawatha Davis Rec Ctr	124-Elevator Equipment	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	99
24	Y	Hiawatha Davis Rec Ctr	West Stairwell	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	8
25	Y	Hiawatha Davis Rec Ctr	Elevator	4'-S-3L-32WT8	T8 - Linear	2		86	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	8
26	Y	Hiawatha Davis Rec Ctr	201 - Janitor's Closet	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	131
27	Y	Hiawatha Davis Rec Ctr	2F W hall	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	2		49	LED-7320-40K-G3	10	2	20	6
28	Y	Hiawatha Davis Rec Ctr	202 - Track	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	34		78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	22
29	Y	Hiawatha Davis Rec Ctr	Gym	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	21		358	ABV3 0 24 T 48 1D FH ST K Q W	137	1	137	31
30	Y	Hiawatha Davis Rec Ctr	Gym	60W screw in CFL mogul base	CFL	24		60	LED-8055M57	30	1	30	16

		Room Details			Existing Systems				Proposed Sy	stems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
31	Y	Hiawatha Davis Rec Ctr	127A - gym storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	131
32	Y	Hiawatha Davis Rec Ctr	1F Hallway	8"RC-1L-4pin-G24-VPL-CFL-32W- Total30W	Plug-In	14		30	LED-7320-40K-G3	10	1	10	6
33	Y	Hiawatha Davis Rec Ctr	1F Hallway	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	8		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	18
34	Y	Hiawatha Davis Rec Ctr	1F Hallway	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	11		78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	18
35	Y	Hiawatha Davis Rec Ctr	1F Hallway	6"RC-1L-4pin-G24-VPL-CFL-42W- Total39W	Plug-In	5		39	LED-7320-40K-G3	10	1	10	6
36	Y	Hiawatha Davis Rec Ctr	1F Hallway	8â€⊡ round down light, 4-pin CFL	CFL	3		32	LED-7320-40K-G3	10	1	10	6
37	Y	Hiawatha Davis Rec Ctr	Pool	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	36		358	ABR2 0 24 T 48 1D 2Q 43 C Q R	176	1	176	28
38	Y	Hiawatha Davis Rec Ctr	131-pool office	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	20
39	Y	Hiawatha Davis Rec Ctr	128 - Pool Mechanical	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	7		30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	99
40	Y	Hiawatha Davis Rec Ctr	129 pool storage	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	2		30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	131
41	Y	Hiawatha Davis Rec Ctr	104A - boiler	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	99
42	Y	Hiawatha Davis Rec Ctr	104A - boiler	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	1		30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	99
43	Y	Hiawatha Davis Rec Ctr	104B - water heater	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	1		30	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	99
44	Y	Hiawatha Davis Rec Ctr	130-elect room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	99
Included Subtotal		Hiawatha Davis Rec Ctr Interior				301		3625				1425	
654	Y	La Familia Rec Ctr	Basement	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	113
655	Y	La Familia Rec Ctr	Basement	4'-S-4L-4'-F32T8-Total120W	T8 - Linear	1		120	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	113
656	Y	La Familia Rec Ctr	Basement	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	113
657	N	La Familia Rec Ctr	Basement	A17-LED-9.5W	A17	1		10	ALREADY LED	0	1	0	0
658	Y	La Familia Rec Ctr	Women's Lockers	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
659	Y	La Familia Rec Ctr	Women's Lockers	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
660	Y	La Familia Rec Ctr	Women's Lockers	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
661	Y	La Familia Rec Ctr	Men's Lockers	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
662	Y	La Familia Rec Ctr	Men's Lockers	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
663	N	La Familia Rec Ctr	Gym Hall	4' LED Wrap	LED	2		30	ALREADY LED	0	1	0	0
664	Y	La Familia Rec Ctr	Gym	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	16	sensor	358	ABV3 0 24 T 48 1D FH ST K Q W	137	1	137	45
665	Y	La Familia Rec Ctr	Pool Chem Room	Spiral-CFL-23W	Screw-In	1		23	LED10DA19/840	10	1	10	54

		Room Details			Existing Systems				Proposed Sys	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
666	Y	La Familia Rec Ctr	Pool Acid Room	Spiral-CFL-23W	Screw-In	1		23	LED10DA19/840	10	1	10	54
667	Y	La Familia Rec Ctr	Gym Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	151
668	Y	La Familia Rec Ctr	Art Room	P2x2T-3L-2'-F22T8-Total62W	T8 - Linear	5		62	(3) LEDT8/LC/G/2/840 & (1) LED/DR/D4L/LW	9	3	27	45
669	Y	La Familia Rec Ctr	Art Room	P2x4T-4L-4'-F32T8-Total126W	T8 - Linear	11		126	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	45
670	Y	La Familia Rec Ctr	Art Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	151
671	Y	La Familia Rec Ctr	Kiln Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	151
672	Y	La Familia Rec Ctr	Data	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	113
673	Y	La Familia Rec Ctr	Weight Room	P2x4T-4L-4'-F32T8-Total126W	T8 - Linear	13		126	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	25
674	Y	La Familia Rec Ctr	Weight Room	P2x2T-3L-2'-F22T8-Total62W	T8 - Linear	3		62	(2) LEDT8/LC/G/2/840 & (1) LED/DR/D2L/LW	9	3	27	25
675	Y	La Familia Rec Ctr	Weight Room RRs	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	56
676	Y	La Familia Rec Ctr	Hallways	P2x4T-4L-4'-F32T8-Total126W	T8 - Linear	1		126	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	21
677	Y	La Familia Rec Ctr	Hallways	P2x2T-3L-2'-F22T8-Total62W	T8 - Linear	10		62	(3) LEDT8/LC/G/2/840 & (1) LED/DR/D4L/LW	9	3	27	21
678	Y	La Familia Rec Ctr	Break/Cardio	P2x4T-4L-4'-F32T8-Total126W	T8 - Linear	6		126	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	25
679	Y	La Familia Rec Ctr	Reception	P2x4T-4L-4'-F32T8-Total126W	T8 - Linear	5		126	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	21
680	Y	La Familia Rec Ctr	Reception	10"RC-2L-HPL-CFL-26W-Total49W	Plug-In	7		49	LED-7320-40K-G3	10	2	20	7
681	Y	La Familia Rec Ctr	Manager's Office	P2x4T-4L-4'-F32T8-Total126W	T8 - Linear	2	sensor	126	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	35
682	n	La Familia Rec Ctr	Pool	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	20		358	ABR2 0 24 T 48 1D 2Q 43 C Q R	176	1	176	32
683	n	La Familia Rec Ctr	Pool	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
684	Y	La Familia Rec Ctr	Pool Pump Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	113
685	N	La Familia Rec Ctr	Pool	PC-WP-1L-Screw-In-LED-18W- Total18W	Screw-In	1		18	ALREADY LED	0	1	0	0
686	Y	La Familia Rec Ctr	Break/Cardio	10"RC-2L-HPL-CFL-26W-Total49W	Plug-In	3		49	LED-7320-40K-G3	10	2	20	9
Included Subtotal		La Familia Rec Ctr Interior	Dical carate			110		2344				854	
50	N	Martin Luther King Rec Ctr	Therapy pool	4'-VT-LED-linear	LED	8		25	ALREADY LED	0	1	0	0
51	Y	Martin Luther King Rec Ctr	Therapy Office	8"RC-1L-4pin-G24-HPL-CFL-32W- Total30W	Plug-In	3		30	LED-7320-40K-G3	10	1	10	8
52	Y	Martin Luther King Rec Ctr	Pool pump room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	119
53	N	Martin Luther King Rec Ctr	Therapy pool	4'-VT-1L-4'-TLED-18W-Total18W	TLED	1		18	ALREADY LED	0	1	0	0
54	Y	Martin Luther King Rec Ctr	Pool chemicals	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	6		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	158

		Room Details			Existing Systems				Proposed S	ystems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
55	Y	Martin Luther King Rec Ctr	Acid room	Spiral-CFL-23W	Screw-In	1		23	LED10DA19/840	10	1	10	56
56	Y	Martin Luther King Rec Ctr	Electrical Room	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	1		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	119
57	Y	Martin Luther King Rec Ctr	Supervisor office	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	3	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	37
58	Y	Martin Luther King Rec Ctr	Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	158
59	N	Martin Luther King Rec Ctr	Hallways	2x2 LED flat panel	LED	4		30	ALREADY LED	0	1	0	0
60	Y	Martin Luther King Rec Ctr	Crafts	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	18		119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	47
61	Y	Martin Luther King Rec Ctr	Jewelry Storage	Spiral-CFL-23W	Screw-In	1		23	LED10DA19/840	10	1	10	56
62	Y	Martin Luther King Rec Ctr	Jewelry Storage	Spiral-CFL-60W	Screw-In	1		60	LED15DA21/840	15	1	15	34
63	Y	Martin Luther King Rec Ctr	Kiln room	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	158
64	Y	Martin Luther King Rec Ctr	Storage	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	158
65	Y	Martin Luther King Rec Ctr	Men's room	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	47
66	Y	Martin Luther King Rec Ctr	Women's RR	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	47
67	Y	Martin Luther King Rec Ctr	Weight room	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	11		119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	26
68	Y	Martin Luther King Rec Ctr	Storage	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	1		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	158
69	Y	Martin Luther King Rec Ctr	Office	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	9		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	30
70	N	Martin Luther King Rec Ctr	Upstairs storage	4' LED Wrap	LED	2	sensor	30	ALREADY LED	0	1	0	0
71	N	Martin Luther King Rec Ctr	Pool	LED highbay	LED	13		80	ALREADY LED	0	1	0	0
72	Y	Martin Luther King Rec Ctr	Janitors closet	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	158
73	Y	Martin Luther King Rec Ctr	Family rooms	P2x2T-2L-2'-F17T8-Total34W	T8 - Linear	2		34	(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	9	2	18	59
74	Y	Martin Luther King Rec Ctr	Family rooms	8"RC-1L-4pin-G24-HPL-CFL-32W- Total30W	Plug-In	2		30	LED-7320-40K-G3	10	1	10	21
75	Y	Martin Luther King Rec Ctr	Family rooms	ACC-L-1L-Screw-In-CFL-13W- Total13W	Screw-In	2		13	LED10DA19/840	10	1	10	21
76	N	Martin Luther King Rec Ctr	Sauna	LED-5W-screw in	LED	2		5	ALREADY LED	0	1	0	0
77	Y	Martin Luther King Rec Ctr	Staff RR	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	1		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	119
78	Y	Martin Luther King Rec Ctr	Men's and Women's locker room	P2x4T-2L-4'-F32T8-Total60W	Parabolic, 1x4 Troffer, 2 Lamp, 4', T8, Linear Fluorescent, 36W Lamp, Standard Ballast, BF= 0.88, 20000 Hours, Luminaire, 34 Total Watts	6		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	24

		Room Details			Existing Systems				Proposed Sys	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
79	Y	Martin Luther King Rec Ctr	Reception desk	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	22
80	Y	Martin Luther King Rec Ctr	Reception office	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	22
81	Y	Martin Luther King Rec Ctr	Gym	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	24	sensor	358	ABV3 0 24 T 48 1D FH ST K Q W	137	1	137	47
82	Y	Martin Luther King Rec Ctr	Hallways	4'-AW-4L-4'-F32T8-Total119W	T8 - Linear	5		119	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW 15W	15	3	45	22
83	Y	Martin Luther King Rec Ctr	Hallways	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	10		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	22
84	Y	Martin Luther King Rec Ctr	Hallways	P2x2T-2L-2'-F17T8-Total34W	T8 - Linear	1		34	(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	9	2	18	22
85	Y	Martin Luther King Rec Ctr	Hallways	SQ-DL-1L-G28-CFL-32W-Total32W	Plug-In	2		32	SATCO S9827	5	1	4.5	5
86	Y	Martin Luther King Rec Ctr	Lounge	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	7		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	22
87	Y	Martin Luther King Rec Ctr	Stairs	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	8
88	Y	Martin Luther King Rec Ctr	Stairs	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	8
1029	N	Martin Luther King Rec Ctr	Racquetball Court*a4	ALREADY LED	LED	0	0	0		0	0	0	0
1030	N	Martin Luther King Rec Ctr	Men's and Women's locker room*al	ALREADY LED	LED	0	0	0		0	0	0	0
Included Subtotal		Martin Luther King Rec Ctr Interior				138		2484				936	
145	Y	Montbello Rec Ctr	Weight Room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	36		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	19
146	Y	Montbello Rec Ctr	Weight room storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
147	Y	Montbello Rec Ctr	Boiler Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	6		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
148	Y	Montbello Rec Ctr	Art Classroom	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	8		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	33
149	Y	Montbello Rec Ctr	Kiln Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
150	Y	Montbello Rec Ctr	Art Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
151	Y	Montbello Rec Ctr		4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
152	Y	Montbello Rec Ctr	Elevator	L9-12V-20W-Halogen	halogen	6		20	SATCO S9005	2	1	2	7
153	Y	Montbello Rec Ctr	Men's RR 2F	8"RC-1L-4pin-G24-VPL-CFL-32W- Total30W	Plug-In	1		30	LED-7320-40K-G3	10	1	10	6
154	Y	Montbello Rec Ctr	Men's RR 2F	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	17
155	Y	Montbello Rec Ctr	Women's RR 2F	8"RC-1L-4pin-G24-VPL-CFL-32W- Total30W	Plug-In	3		30	LED-7320-40K-G3	10	1	10	12
156	Y	Montbello Rec Ctr	Women's RR 2F	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	33
157	Y	Montbello Rec Ctr	2F classroom	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	6		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	56
158	Y	Montbello Rec Ctr	2F Hall	8"RC-1L-4pin-G24-VPL-CFL-32W- Total30W	Plug-In	10		30	LED-7320-40K-G3	10	1	10	5
159	Y	Montbello Rec Ctr	Pool Staff Lockers	8"RC-1L-4pin-G24-VPL-CFL-32W- Total30W	Plug-In	2		30	LED-7320-40K-G3	10	1	10	15
160	Y	Montbello Rec Ctr	Pool Staff Lockers	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	42
161	Y	Montbello Rec Ctr	Pool	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	18		358	ABR2 0 24 T 48 1D 2Q 43 C Q R	176	1	176	24
162	Y	Montbello Rec Ctr	Pool	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	2		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	17
163	Y	Montbello Rec Ctr	Aquatics Office	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	2		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	21
164	Y	Montbello Rec Ctr	Men's Locker Room	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	8		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	17

		Room Details			Existing Systems				Proposed Sys	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
165	Y	Montbello Rec Ctr	Men's Locker Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	13		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	17
166	Y	Montbello Rec Ctr	Family Lockers	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	42
167	Y	Montbello Rec Ctr	Family Lockers	8"RC-1L-4pin-G24-VPL-CFL-32W- Total30W	Plug-In	2		30	LED-7320-40K-G3	10	1	10	15
168	Y	Montbello Rec Ctr	Women's Locker Room	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	8		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	17
169	Y	Montbello Rec Ctr	Women's Locker Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	11		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	17
170	Y	Montbello Rec Ctr	Pool Equipment Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	9		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
171	Y	Montbello Rec Ctr	Ozone Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
172	Y	Montbello Rec Ctr	Pool Storage	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
173	Y	Montbello Rec Ctr	Acid Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
174	Y	Montbello Rec Ctr	Chlorine Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
175	Y	Montbello Rec Ctr	Electrical	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
176	Y	Montbello Rec Ctr	1F Custodial	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
177	Y	Montbello Rec Ctr	Gym	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	32	sensor	358	ABV3 0 24 T 48 1D FH ST K Q W	137	1	137	33
178	Y	Montbello Rec Ctr	Gym Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
179	Y	Montbello Rec Ctr	Elevator Equipment	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
180	Y	Montbello Rec Ctr	Lounge	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	14		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	15
181	Y	Montbello Rec Ctr	Lounge	8"RC-1L-4pin-G24-VPL-CFL-32W- Total30W	Plug-In	2		30	LED-7320-40K-G3	10	1	10	5
182	Y	Montbello Rec Ctr	1F Janitor's closet	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	15
183	Υ	Montbello Rec Ctr	Electrical (South hall)	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
184	Y	Montbello Rec Ctr	Women's RR 1F & Men's RR 1F	8"RC-1L-4pin-G24-VPL-CFL-32W- Total30W	Plug-In	6		30	LED-7320-40K-G3	10	1	10	12
185	Y	Montbello Rec Ctr	Women's RR 1F & Men's RR 1F	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	6		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	33
186	Y	Montbello Rec Ctr	Multipurpose Room (South)	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	12		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	56
187	Y	Montbello Rec Ctr	Multipurpose Room (North)	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	12		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	56
188	Y	Montbello Rec Ctr	Multipurpose Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
189	Y	Montbello Rec Ctr	Kitchen	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	5		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	67
190	Y	Montbello Rec Ctr	Telephone/Data	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
191	Y	Montbello Rec Ctr	Staff Workroom	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	9		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	15
192	Y	Montbello Rec Ctr	West office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	1		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	21
193	Y	Montbello Rec Ctr	North Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	2		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	21
194	Y	Montbello Rec Ctr	Staff Locker Room	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	52
195	Y	Montbello Rec Ctr	Staff Locker Room	4'-S-2L-4'-F32T8-Total60W 8"RC-1L-4pin-G24-VPL-CFL-32W-	T8 - Linear	1	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	52
196	Y	Montbello Rec Ctr	Staff Locker Room	Total30W	Plug-In	2	sensor	30	LED-7320-40K-G3	10	1	10	19
197	Y	Montbello Rec Ctr	Display cases	8"RC-1L-4pin-G24-VPL-CFL-32W- Total30W	Plug-In	3		30	LED-7320-40K-G3	10	1	10	5
198	Y	Montbello Rec Ctr	1F Hall	FC-WP-1L-HPL-CFL-42W-Total39W	Plug-In	12		39	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	22
199	Y	Montbello Rec Ctr	1F Hall	PC-WP-1L-HID-MH-250W-Total290W	High Intensity Discharge	36		290	OLWX2 LED 90W 40K BLANK PE DDB	69	1	69	22
1051	N	Montbello Rec Ctr	Exterior*a18	ALREADY LED	LED	0	0	0		0	0	0	0
Included Subtotal		Montbello Rec Ctr Interior				348		4055				1602	

		Room Details			Existing Systems				Proposed S	Systems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
245	Y	Montclair Rec Ctr	Pool	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	15		358	ABR2 0 24 T 48 1D 2Q 43 C Q R	176	1	176	23
246	Y	Montclair Rec Ctr	Pool	4'-LHB-8L-4'-F28T5-Total208W	T5 - Linear	18		208	ABR2 0 24 T 48 1D 2Q 43 C Q R	176	1	176	23
247	Y	Montclair Rec Ctr	Pool	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	8		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	16
248	Y	Montclair Rec Ctr	Family changing room	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	1		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	40
249	Y	Montclair Rec Ctr	Family changing room	8"RC-1L-4pin-G24-HPL-CFL-32W- Total30W	Plug-In	4		30	LED-7320-40K-G3	10	1	10	14
250	Y	Montclair Rec Ctr	012 - First Aid	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	2	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	40
251	Y	Montclair Rec Ctr	013 - Janitor	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	106
252	Y	Montclair Rec Ctr	Men's Locker Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	6		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	16
253	Y	Montclair Rec Ctr	Women's Locker Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	8		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	16
254	Y	Montclair Rec Ctr	018 - Gym	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	4	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	22
255	Y	Montclair Rec Ctr	019A -Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	106
256	Y	Montclair Rec Ctr	019B - Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	106
257	Y	Montclair Rec Ctr	024 - Mechanical	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	80
258	Y	Montclair Rec Ctr	023 - Waterpump room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	9		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	80
259	Y	Montclair Rec Ctr	022B - Pool Storage	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	106
260	Y	Montclair Rec Ctr	025 - Electrical	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	80
261	N	Montclair Rec Ctr	Reception	2x2 LED flat panel	LED	5		30	ALREADY LED	0	1	0	0
262	Y	Montclair Rec Ctr	Reception	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	9		49	LED-7320-40K-G3	10	2	20	5
263	Y	Montclair Rec Ctr	Director's Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	3	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	25
264	Y	Montclair Rec Ctr	Staff Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	3		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	14
265	Y	Montclair Rec Ctr	Multipurpose	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	24		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	53
266	Y	Montclair Rec Ctr	101- Classroom	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	9	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	66
267	Y	Montclair Rec Ctr	Men's & Women's RRs	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	2		49	LED-7320-40K-G3	10	2	20	11
268	Y	Montclair Rec Ctr	Men's & Women's RRs	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	6		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	32
269	Y	Montclair Rec Ctr	Studio 1	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	9	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	66
270	Y	Montclair Rec Ctr	Electrical	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	1		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	80
271	Y	Montclair Rec Ctr	Mechanical	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	80
272	N	Montclair Rec Ctr	Mechanical	GEN-LED-15W	Other	1		15	ALREADY LED	0	1	0	0
273	Y	Montclair Rec Ctr	Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	106
274	Y	Montclair Rec Ctr	Studio 2	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	10	sensor	84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	66
275	Y	Montclair Rec Ctr	Kiln Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	106
276	Y	Montclair Rec Ctr	Glaze storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	106
277	Y	Montclair Rec Ctr	Fitness Room	8'-DID-4L-4'-F32T8-Total155W	T8 - Linear	30		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	18
278	Y	Montclair Rec Ctr	Fitness Room	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	12		78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	18
279	Y	Montclair Rec Ctr	Fitness Room	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	18
280	Y	Montclair Rec Ctr	Hallway	P2x4T-2L-4'-F32T8-Total60W 8"RC-1L-4pin-G24-HPL-CFL-32W-	T8 - Linear	13	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	18
281	Y	Montclair Rec Ctr	Hallway	Total30W	Plug-In	2	sensor	30	LED-7320-40K-G3	10	1	10	6
282	Y	Montclair Rec Ctr	Hallway	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	3	sensor	119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	18
283	Y	Montclair Rec Ctr	Hallway	8"RC-1L-4pin-G24-HPL-CFL-32W- Total30W	Plug-In	3	sensor	30	LED-7320-40K-G3	10	1	10	6

		Room Details			Existing Systems				Proposed Sy	stems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
284	Y	Montclair Rec Ctr	Hallway	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	2	sensor	49	LED-7320-40K-G3	10	2	20	6
483	Y	Montclair Rec Ctr	022A - Filter Room	4pin-Twin-PL-CFL-26W	Plug-In	1		26	LED-7320-40K-G3	10	1	10	28
1031	N	Montclair Rec Ctr	Hallway*a6	ALREADY LED	LED	0	0	0		0	0	0	0
1032	N	Montclair Rec Ctr	Pool Entry* *	ALREADY LED	LED	0	0	0		0	0	0	0
1033	N	Montclair Rec Ctr	Pool*x	ALREADY LED	LED	0	0	0		0	0	0	0
1034	Y	Montclair Rec Ctr	010 Aquatic Office* *	4', Vapor Tight, 2 Lamp, 4', T8, Linear Fluorescent, 32W Lamp, Standard Ballast, BF= 0.88, 20000 Hours, Luminaire, 60 Total Watts	T8 - Linear	1	0	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	23
1035	N	Montclair Rec Ctr	010 Aquatic Office* *	ALREADY LED	LED	0	0	0		0	0	0	0
1036	N	Montclair Rec Ctr	018 - Gym*ac	ALREADY LED	LED	0	0	0		0	0	0	0
1037	N	Montclair Rec Ctr	Women's Locker Room*x*a7	ALREADY LED	LED	0	0	0		0	0	0	0
1038	N	Montclair Rec Ctr	Men's Locker Room*x*a7	ALREADY LED	LED	0	0	0		0	0	0	0
1039	N	Montclair Rec Ctr	Men's Locker Room*x*a7	8â€⊟ LED wafer light, can replacement	LED	0	0	0		0	0	0	0
1040	N	Montclair Rec Ctr	Women's Locker Room*x*a7	8â€⊟ LED wafer light, can replacement	LED	0	0	0		0	0	0	0
1041	N	Montclair Rec Ctr	Exterior*a7*a8*a9*a1 0	8â€⊡ LED wafer light, can replacement	LED	0	0	0		0	0	0	0
1042	N	Montclair Rec Ctr	Exterior*a7*a8*a9*a1 0	ALREADY LED	LED	0	0	0		0	0	0	0
1043	N	Montclair Rec Ctr	Exterior*a7*a8*a9*a1 0	ALREADY LED	LED	0	0	0		0	0	0	0
1044	N	Montclair Rec Ctr	Exterior*a7*a8*a9*a1 0	ALREADY LED	LED	0	0	0		0	0	0	0
Included Subtotal		Montclair Rec Ctr Interior				241		3129				1352	
589	Y	Rude Rec Ctr	Chlorine Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
590	Y	Rude Rec Ctr	Acid Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
591	Y	Rude Rec Ctr	Pool Equipment Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
592	Y	Rude Rec Ctr	Pool Boiler	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
593	Y	Rude Rec Ctr	Pool Pump Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
594	Y	Rude Rec Ctr	Pool	PC-WP-1L-HID-MH-400W-Total440W	High Intensity Discharge	17		440	ABR2 0 24 T 48 1G QQ RB A Q R	176	1	176	24
595	Y	Rude Rec Ctr	Pool	6"RC-2L-HPL-CFL-26W-Total49W	Plug-In	12		49	LED10DA19/840	10	2	20	6
596	Y	Rude Rec Ctr	Pool	DR-2L-4pin-G24-HPL-CFL-26W- Total49W	CFL	8		49	LED-7320-40K-G3	10	2	20	6
597	Y	Rude Rec Ctr	Pool Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
598	Y	Rude Rec Ctr	Pool Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	2		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	17
599	Y	Rude Rec Ctr	Staff Shower	6"RC-1L-4pin-G24-VPL-CFL-18W- Total18W	Plug-In	2		18	LED-7320-40K-G3	10	1	10	60
600	Y	Rude Rec Ctr	Lifeguard Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	1		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	21
601	Y	Rude Rec Ctr	Women's Dressing Room	P2x2T-2L-22"x6"-F32T8/UTF- Total60W	T8 - U-Tube	5		60	(2) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13	2	26	12

		Room Details			Existing Systems				Proposed Sys	stems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
602	n	Rude Rec Ctr	Women's Dressing Room	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	7		49	ALREADY LED	10	2	20	0
603	Y	Rude Rec Ctr	Women's Dressing Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	17
604	Y	Rude Rec Ctr	Women's Dressing Room	3'-S-2L-3'-F25T8-Total47W	T8 - Linear	2		47	(2) LEDT8/LC/G/3/840 (1) LED/DR/D2L/LW	12	2	24	17
605	Y	Rude Rec Ctr	Women's Dressing Room	2'-S-2L-2'-F17T8-Total32W	T8 - Linear	2		32	(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	8	2	16	17
606	n	Rude Rec Ctr	Men's Dressing	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	7		49	ALREADY LED	10	2	20	0
607	Y	Rude Rec Ctr	Men's Dressing	P2x2T-2L-22"x6"-F32T8/UTF- Total60W	T8 - U-Tube	3		60	(2) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13	2	26	12
608	Y	Rude Rec Ctr	Men's Dressing	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	17
609	Y	Rude Rec Ctr	LF Janitors	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
610	Y	Rude Rec Ctr	Family Dressing	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	2		49	LED-7320-40K-G3	10	2	20	15
611	Y	Rude Rec Ctr	Elevator	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	17
612	Y	Rude Rec Ctr	Elevator	4'-S-1L-4'-F32T8-Total39W	T8 - Linear	1		39	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	17
613	Y	Rude Rec Ctr	LL Hall	6"RC-2L-HPL-CFL-26W-Total49W	Plug-In	9		49	LED10DA19/840	10	2	20	5
614	Y	Rude Rec Ctr	LL Hall	P2x2T-2L-22"x6"-F32T8/UTF- Total60W	T8 - U-Tube	7		60	(2) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13	2	26	11
615	N	Rude Rec Ctr	Stairwell	LED-16.5W-Medium base	Screw-In	7		17	ALREADY LED	0	1	0	0
616	N	Rude Rec Ctr	Stairwell	GreenCreative-21W-RC-kit	LED	10		21	ALREADY LED	0	1	0	0
617	N	Rude Rec Ctr	Game Room	GreenCreative-21W-RC-kit	LED	30		21	ALREADY LED	0	1	0	0
618	Y	Rude Rec Ctr	Gym	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	12	sensor	358	ABV3 0 24 T 48 1D FH ST K Q W	137	1	137	33
619	Y	Rude Rec Ctr	Mechanical	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	9		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
620	Y	Rude Rec Ctr	Roof	DR-1L-VPL-CFL-26W-Total24W	Plug-In	12		24	LED-7320-40K-G3	10	1	10	30
621	Y	Rude Rec Ctr	Gym Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
622	Y	Rude Rec Ctr	Gym electrical	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
623	Y	Rude Rec Ctr	Weight Room	4'-DID-2L-4'-F54T5/HO-Total101W	T5HO - Linear	101		101	(2) LEDT5/LC/G/4/840 (1) LED36T8/DR/2L/36W	36	2	72	13
624	N	Rude Rec Ctr	EM agrees steir	FC-WP-1L-Screw-In-CFL-100W-	Corow In	5		23		20	1	20	0
625	V	Rude Rec Ctr	EM egress stair Admin Hall	Total100W 4'-S-2L-4'-F32T8-Total60W	Screw-In T8 - Linear	21		60	ALREADY LED (2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	20 12	2	24	15
626	Y	Rude Rec Ctr	Kitchen	P2x2T-2L-22"x6"-F32T8/UTF- Total60W	T8 - U-Tube	8		60	(2) LED1578/G/U6/840 (1) LED1578/DR/D2L	13	2	26	48
627	Y	Rude Rec Ctr	Kitchen	A23-INC-300W	A23	2		300	LED10DA19/840	10	1	10	24
628	Y	Rude Rec Ctr	Pantry	P2x2T-2L-22"x6"-F32T8/UTF- Total60W	T8 - U-Tube	2		60	(2) LED15T8/G/U6/840 (1) LED15T8/DR/D2L	13	2	26	48
629	Y	Rude Rec Ctr	ML Elec/Roof Access	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
630	N	Rude Rec Ctr	Multipurpose	2x4 LED flatpanels	LED	16		30	ALREADY LED	0	1	0	0
631	Y	Rude Rec Ctr	Manager's Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	4		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	21
632	Y	Rude Rec Ctr	Break Room	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	4		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	56
633	Y	Rude Rec Ctr	Laundry Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
634	Y	Rude Rec Ctr	ML Janitor	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
635	Y	Rude Rec Ctr	Men's and Women's RRs	6"RC-2L-HPL-CFL-26W-Total49W	Plug-In	9		49	LED10DA19/840	10	2	20	12
636	Y	Rude Rec Ctr	Men's and Women's RRs	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	12		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	33
637	Y	Rude Rec Ctr	Office	EC2x4T-3L-4'-F32T8-Total84W	T8 - Linear	5		84	(3) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	3	36	21

		Room Details			Existing Systems				Proposed Sys	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
638	Y	Rude Rec Ctr	Elevator Machine Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	111
639	Y	Rude Rec Ctr	Data Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
640	Y	Rude Rec Ctr	Reception	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	14		49	LED-7320-40K-G3	10	2	20	5
641	Y	Rude Rec Ctr	Pool Overlook	8"RC-2L-4pin-G24-HPL-CFL-26W- Total49W	Plug-In	9		49	LED-7320-40K-G3	10	2	20	5
642	N	Rude Rec Ctr	Main Hall	LED-P30-24W	PAR30	24		24	ALREADY LED	0	1	0	0
643	N	Rude Rec Ctr	Main Hall	DR-1L-LED-50W-Total50W	PAR30	8		50	ALREADY LED	0	1	0	0
644	N	Rude Rec Ctr	Main Hall	GreenCreative-21W-RC-kit	LED	8		21	ALREADY LED	0	1	0	0
645	Y	Rude Rec Ctr	Main Hall	PEN-DEC-1L-CA-MH-100W- Total100W	CA	2		150	LED-8029M57-A	24	1	24	11
646	Y	Rude Rec Ctr	Main Hall	P30-INC-100W	PAR30	1		100	LED12DP303W83035	12	1	12	5
647	Y	Rude Rec Ctr	External Electrical/Mechanical	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	6		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	83
1062	N	Rude Rec Ctr	Staff Shower*a7	8† LED wafer light, can replacement	LED	0	0	0		0	0	0	0
1063	N	Rude Rec Ctr	Exterior*a28	ALREADY LED	LED	0	0	0		0	0	0	0
Included Subtotal		Rude Rec Ctr Interior				342		3932				1457	
841	Y	Southwest Denver Rec Ctr	Pool Boiler	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	119
842	Y	Southwest Denver Rec Ctr	Electrical	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	119
843	Y	Southwest Denver Rec Ctr	Pool Chemical/Pump Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	5		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	158
844	Y	Southwest Denver Rec Ctr	Pool Office	4'-W-2L-4'-PLL/41/RS-Total75W	Т8	2		75	(2) LED172G11/840/10 (1) GE232MAX-G-L	17	2	34	17
845	Y	Southwest Denver Rec Ctr	Landscaping	4pin-Twin-PL-CFL-26W	Plug-In	1		26	LED-7320-40K-G3	10	1	10	56
846	Y	Southwest Denver Rec Ctr	Janitor	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	158
847	Y	Southwest Denver Rec Ctr	Multipurpose	4'-W-2L-4'-PLL/41/RS-Total75W	Т8	8		75	(2) LED172G11/840/10 (1) GE232MAX-G-L	17	2	34	56
848	Y	Southwest Denver Rec Ctr	Multipurpose	2'-W-1L-2'-F20T12-Total19W	T12 - Linear	2		19	(1) LEDT8/LC/G/2/840 & (1) LED/DR/D2L/LW	8	1	8	79
849	Y	Southwest Denver Rec Ctr	Weight Room	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	26		78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	26
850	Ν	Southwest Denver Rec Ctr	Aerobics	Decorative Pendant Light	0	28	sensor	11	ALREADY LED	0	1	0	0
851	Y	Southwest Denver Rec Ctr	Fitness Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	158
852	Y	Southwest Denver Rec Ctr	Gym	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	16	sensor	358	ABV3 0 24 T 48 1D FH ST K Q W	137	1	137	47
853	Y	Southwest Denver Rec Ctr	Gym storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	158
854	Y	Southwest Denver Rec Ctr	Supervisor Office	4'-W-2L-4'-PLL/41/RS-Total75W	Т8	2		75	(2) LED172G11/840/10 (1) GE232MAX-G-L	17	2	34	21
855	Y	Southwest Denver Rec Ctr	Office	4'-W-2L-4'-PLL/41/RS-Total75W	Т8	2		75	(2) LED172G11/840/10 (1) GE232MAX-G-L	17	2	34	21
856	N	Southwest Denver Rec Ctr	Women's Locker Room	GEN-LED-9W	Other	9		10	ALREADY LED	0	1	0	0

		Room Details			Existing Systems				Proposed Sys	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
857	Y	Southwest Denver Rec Ctr	Women's Locker Room	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	24
858	Ν	Southwest Denver Rec Ctr	Reception	GEN-LED-9W	Other	6		10	ALREADY LED	0	1	0	0
859	Y	Southwest Denver Rec Ctr	Reception	SQ-CA-2L-HPL-CFL-13W-Total25W	Plug-In	2		25	LED-7300-40K-G2	5	2	10	8
860	Y	Southwest Denver Rec Ctr	Reception	SQ-CA-2L-HPL-CFL-13W-Total25W	Plug-In	3		25	LED-7300-40K-G2	5	2	10	8
861	Y	Southwest Denver Rec Ctr	Reception	2'-W-1L-2'-F20T12-Total19W	T12 - Linear	3		19	(1) LEDT8/LC/G/2/840 & (1) LED/DR/D2L/LW	8	1	8	22
862	Y	Southwest Denver Rec Ctr	Men's Lockers	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	24
863	Ν	Southwest Denver Rec Ctr	Men's Lockers	GEN-LED-9W	Other	9		10	ALREADY LED	0	1	0	0
864	Υ	Southwest Denver Rec Ctr	Hallway	Spiral-CFL-60W	Screw-In	1		60	LED15DA21/840	15	1	15	5
865	Y	Southwest Denver Rec Ctr	Hallway	SQ-CA-2L-HPL-CFL-13W-Total25W	Plug-In	4		25	LED-7300-40K-G2	5	2	10	8
866	Ν	Southwest Denver Rec Ctr	Hallway	LED-16.5W-Medium base	Screw-In	10		17	ALREADY LED	0	1	0	0
Included Subtotal		Southwest Denver Rec Ctr				92		1415				560	
516	Y	Interior St Charles Rec Ctr	Gym 2	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	12	aanaar	358	ABV3 0 24 T 48 1D FH ST K Q W	137	1	137	62
517	Y	St Charles Rec				4	sensor	119			4	48	35
518	N	Ctr St Charles Rec	Weight Room	8'-W-4L-4'-F32T8-Total119W	T8 - Linear			17	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW ALREADY LED	12	1	0	0
519	Y	Ctr St Charles Rec Ctr	Weight Room Gym 1	LED-16.5W-Medium base 4'-LHB-6L-4'-F54T5/HO-Total358W	Screw-In T5HO - Linear	2 11		358	ABV3 0 24 T 48 1D FH ST K Q W	0 137	1	137	49
520	Y	St Charles Rec		4'-W-2L-4'-F32T8-Total60W				60			2	24	28
521	Y	Ctr St Charles Rec	Reception Office		T8 - Linear	3		30	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	12	28
522	Y	Ctr St Charles Rec	Reception	4'-W-1L-4'-F32T8-Total30W	T8 - Linear	7		60	(1) LEDT8/LC/4/840 (1) LED/DR/D2L/LW		2	24	31
523	Y	Ctr St Charles Rec	Women's Lockers	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	/		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	31
524	N	Ctr St Charles Rec	Women's Lockers	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	3		10	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	1	0	0
525	Y	Ctr St Charles Rec	Laundry and Storage	GEN-LED-9W	Other	2		119		0	4	48	39
526	Y	Ctr St Charles Rec	Copy Room	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	2		60	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	2	24	156
527	Y	Ctr St Charles Rec	Data room	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	156
528	Y	Ctr St Charles Rec	Admin RR	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		119	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	4	48	39
529	N	Ctr St Charles Rec	Director's office	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	1		10	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	1	0	0
530	Y	Ctr St Charles Rec	Hall storage	GEN-LED-9W	Other	1		60		0	2	24	28
		Ctr	Hall	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1			(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	_	·	

		Room Details			Existing Systems				Proposed Sy	vstems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
531	Y	St Charles Rec Ctr	Game Room	8'-W-4L-4'-F32T8-Total119W	T8 - Linear	12		119	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	52
532	Y	St Charles Rec Ctr	Men's Lockers	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	9		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	31
533	Y	St Charles Rec Ctr	Men's Lockers	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	31
534	Y	St Charles Rec Ctr	Egress Hall	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	28
535	Y	St Charles Rec Ctr	Daycare	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	9		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	39
536	Y	St Charles Rec Ctr	Daycare Storage	Spiral-CFL-26W	Screw-In	1		26	LED10DA19/840	10	1	10	74
537	Y	St Charles Rec Ctr	Cleaning Closet	Spiral-CFL-26W	Screw-In	2		26	LED10DA19/840	10	1	10	74
538	Y	St Charles Rec Ctr	Daycare Kitchen	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	6		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	104
539	Y	St Charles Rec Ctr	Lobby and Hall	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	4		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	28
540	Y	St Charles Rec Ctr	Lobby and Hall	Spiral-CFL-42W	Screw-In	7		42	LED10DA19/840	10	1	10	10
541	Y	St Charles Rec Ctr	Lobby and Hall	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	28
542	Y	St Charles Rec Ctr	Roof access	Spiral-CFL-26W	Screw-In	1		26	LED10DA19/840	10	1	10	56
543	Y	St Charles Rec Ctr	Roof access	4'-VT-2L-4'-F34T12-Total63W	T12 - Linear	3		63	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	156
544	Y	St Charles Rec Ctr	Roof access	A19-INC-60W	A19	3		60	LED10DA19/840	10	1	10	56
545	Y	St Charles Rec Ctr	Gym Storage	A19-INC-100W	A19	1		100	LED10DA19/840	10	1	10	74
548	Y	St Charles Rec Ctr	Boiler Room	A19-INC-100W	A19	1		100	LED10DA19/840	10	1	10	56
Included Subtotal		St Charles Rec Ctr Interior				118		2445				884	
552	Y	Washington Park Rec Ctr	Pool Pak	4'-W-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	80
553	Y	Washington Park Rec Ctr	Pool Pak	Spiral-CFL-68W	Screw-In	4		68	LED15DA21/840	15	1	15	17
554	Y	Washington Park Rec Ctr	Roof Access	Spiral-CFL-23W	Screw-In	1		23	LED10DA19/840	10	1	10	29
555	N	Washington Park Rec Ctr	Lobby and Reception	4' disc LED can lights	Other	3		11	ALREADY LED	0	1	0	0
556	N	Washington Park Rec Ctr	Lobby and Reception	GEN-LED-9W	Other	35		10	ALREADY LED	0	1	0	0
557	N	Washington Park Rec Ctr	Lobby and Reception	LED-P30	LED	9		14	ALREADY LED	0	1	0	0
558	Y	Washington Park Rec Ctr	Men's and Women's RRs	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	4		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	32
559	Y	Washington Park Rec Ctr	Multipurpose Room	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	6	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	67
560	Y	Washington Park Rec Ctr	Fitness Area Lockers	P1x4T-2L-4'-F32T8-Total34W	T8 - Linear	3		65	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	16
561	Y	Washington Park Rec Ctr	Cardio	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	22		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	18

		Room Details			Existing Systems				Proposed S	systems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
562	Y	Washington Park Rec Ctr	Cardio Cleaning Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	3		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	107
563	Y	Washington Park Rec Ctr	Aerobics Storage	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	134
564	N	Washington Park Rec Ctr	Women's Locker Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	13		24	ALREADY LED	12	2	24	0
565	N	Washington Park Rec Ctr	Women's Locker Room	GEN-LED-9W	Other	1		10	ALREADY LED	0	1	0	0
566	Y	Washington Park Rec Ctr	Janitor's closet	2'-W-2L-2'-F22T8-Total41W	T8 - Linear	1		41	(2) LEDT8/LC/2/840 (2) LED/DR/D2L/LW	8	2	16	107
567	N	Washington Park Rec Ctr	Men's Lockers	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	14		24	ALREADY LED	12	2	24	0
568	N	Washington Park Rec Ctr	Pool	LED-16.5W-Medium base	Screw-In	4		17	ALREADY LED	0	1	0	0
569	Y	Washington Park Rec Ctr	Pool Mechanical	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	6		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	80
570	Y	Washington Park Rec Ctr	Pool Acid Room	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	107
571	Y	Washington Park Rec Ctr	Pool Heater	4'-VT-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	80
572	Y	Washington Park Rec Ctr	Pool Heater	4'-VT-2L-4'-F34T12-Total63W	T12 - Linear	1		63	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	80
573	Y	Washington Park Rec Ctr	Electrical Room	4'-S-2L-4'-F34T12-Total63W	T12 - Linear	3		63	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	80
574	Y	Washington Park Rec Ctr	Water Heater	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	2		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	80
575	Y	Washington Park Rec Ctr	Manager's Office	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	25
576	N	Washington Park Rec Ctr	Office Storage	GEN-LED-9W	Other	1		10	ALREADY LED	0	1	0	0
577	Y	Washington Park Rec Ctr	Office B	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	2	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	25
578	Y	Washington Park Rec Ctr	Office B	Spiral-CFL-26W	Screw-In	1	sensor	26	LED10DA19/840	10	1	10	9
579	Y	Washington Park Rec Ctr	Main Office	P2x4T-2L-4'-F32T8-Total60W	T8 - Linear	8	sensor	60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	18
580	Y	Washington Park Rec Ctr	Gym	6"RC-1L-Screw-In-CFL-21W- Total20W	Screw-In	4		20	LED10DA19/840	10	1	10	6
581	Y	Washington Park Rec Ctr	Gym	4'-LHB-6L-4'-F54T5/HO-Total358W	T5HO - Linear	16		358	ABV3 0 24 T 48 1D FH ST K Q W	137	1	137	26
582	Y	Washington Park Rec Ctr	Gym Storage	4'-DID-2L-4'-F32T8-Total78W	T8 - Linear	6	sensor	78	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	134
583	Y	Washington Park Rec Ctr	Gym Aerobics storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	107
584	Y	Washington Park Rec Ctr	Gym Mat Storage	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	1		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	12	2	24	107
588	Y	Washington Park Rec Ctr	Oxy Room	A19-INC-75W	A19	1		75	LED10DA19/840	10	1	10	29
1055	N	Washington Park Rec Ctr	Reception Filing*a22	4', Strip, 2 Lamp, 4', TLED, 12W Lamp, 50000 Hours, Luminaire, 24 Total Watts	LED	0	0	0		0	0	0	0
1056	N	Washington Park Rec Ctr	Weight Room*a23*a24*a27	ALREADY LED	LED	0	0	0		0	0	0	0

		Room Details			Existing Systems				Proposed Syst	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
1057	Ν	Washington Park Rec Ctr	Weight Room*a23*a24*a27	ALREADY LED	LED	0	0	0		0	0	0	0
1058	Ν	Washington Park Rec Ctr	Pool*ep*u	ALREADY LED	LED	0	0	0		0	0	0	0
1059	Ν	Washington Park Rec Ctr	Pool*ep*u	ALREADY LED	LED	0	0	0		0	0	0	0
1060	Ν	Washington Park Rec Ctr	Cardio*a26	PAR36, LED, 17W, 50000 Hours, Lamp	LED	0	0	0		0	0	0	0
1061	Ν	Washington Park Rec Ctr	Weight Room*a23*a24*a27	ALREADY LED	LED	0	0	0		0	0	0	0
Included Subtotal		Washington Park Rec Ctr Interior				103		1785				664	
ECM Total						4,811		59,308				23,063	

#### 1.3 Key Performance Parameters

Interior lighting fixture operating times were estimated by scaling the annual facility operating hours using the usage-group multipliers as follows:

	Interior Lighting Usage Groups	
Room Use Code	Description	multiplier
CONF	Conference	25%
COR	Corridors	110%
CRAFT	Arts & Crafts	50%
GYM	gymnasium	90%
KILN	Kiln	15%
LR	Locker room	100%
ME	Mech/Elect	20%
MP	Multipurpose	30%
00	Open Office (includes library stacks)	110%
PO	Private Office	80%
POOL	Pool	100%
PrivRR	Private Restroom	20%
PubRR	Public Restroom	50%
ST	Storage	15%
WTS	weights	90%

In rooms with existing occupancy-sensing lighting controls, their lighting run-times were reduced by an additional 20% of the non-sensored run-times.

Facility operating hours as follows:

Facility Group	Building	Operating Hours per Week
Libraries	Ford Warren Library	45
	Green Valley Ranch Library	55
	Hampden Library	52
	Montbello Library	52
	Rodolfo "Corky" Gonzales Library	52
	Virginia Village Library	48
	Woodbury Library	48
Parks and Recreation	Athmar Rec Ctr	84
	Aztlan Rec Ctr	49
	Central Park Rec Center	99
	Eisenhower Rec Center	68
	Green Valley Ranch Rec Ctr	76
	Harvard Gulch Rec/DPDWhse	61
	Hiawatha Davis Rec Ctr	71

Facility Group	Building	Operating Hours per Week
	La Familia Rec Ctr	66
	Martin Luther King Rec Ctr	59
	Montbello Rec Ctr	84
	Montclair Rec Ctr	88
	Rude Rec Ctr	84
	Southwest Denver Rec Ctr	59
	St Charles Rec Ctr	45
	Washington Park Rec Ctr	87

## 1.4 O&M Savings

For each fixture type, lighting maintenance costs were annualized by determining the annual maintenance cost for each fixture type as follows:

$$\mathsf{MC} = \left[\mathsf{N} \cdot \mathsf{L} \cdot \frac{\mathsf{h}}{\mathsf{H}_{\mathsf{L}}} \cdot \mathsf{C}_{\mathsf{L}} + \mathsf{N} \cdot \mathsf{B} \cdot \frac{\mathsf{h}}{\mathsf{H}_{\mathsf{B}}} \cdot \mathsf{C}_{\mathsf{B}}\right] \cdot \mathsf{f}$$

Where:

MC is the annual maintenance cost,

N is the number lighting fixtures

L is the quantity of lamps per fixture,

h is the annual operating hours,

H, is the rated lamp life (hours),

 $_{C_1}$  is the cost per lamp,

B is the quantity of ballasts per fixture,

H<sub>B</sub> is the rated ballast life (hours),

 $_{\mathsf{C}_{\mathsf{R}}}$  is the cost per ballast, and

f is the cost adjustment factor (100% in this analysis)

Material costs utilize typical lamp and ballast volume-based pricing for the technologies considered. Labor costs were not evaluated even though the time spent for lighting system maintenance by facility staff will be reduced.

The O&M savings for this ECM are agreed-to and will not be verified. These savings are anticipated to extend over the project's useful life of 23 years.

## 1.5 Specific exclusions or assumptions

The lighting upgrades exclude any specialized production lighting systems.

New quick-disconnects on lighting fixtures will be provided for code compliance as needed. Otherwise, the scope of work excludes correcting any code or other deficiencies of the existing equipment/systems to remain in service.

#### 1.6 Warranty

Contractor's installation subcontractor will provide a one-year warranty on the workmanship, materials and equipment against manufacturer's defects. Manufacturer's warranty on equipment and materials will be transferred to the City. All warranty replacements of material when the contractor is not on-site during warranty period shall be installed by the City.

# 2. ECM #2 – Exterior Lighting Upgrades

## 2.1 Location(s) Affected

Facility Group	Building	Included
	Ford Warren Library	✓
	Green Valley Ranch	1
	Library	•
	Hampden Library	✓
Libraries	Montbello Library	✓
	Rodolfo "Corky"	✓
	Gonzales Library	
	Virginia Village Library	✓
	Woodbury Library	<ul> <li>✓</li> </ul>
	Athmar Rec Ctr	✓
	Aztlan Rec Ctr	<ul> <li>✓</li> </ul>
	Central Park Rec Center	<ul> <li>✓</li> </ul>
	Eisenhower Rec Center	✓
	Green Valley Ranch Rec Ctr	✓
	Harvard Gulch Rec/DPDWhse	~
	Hiawatha Davis Rec Ctr	<ul> <li>✓</li> </ul>
Parks and Recreation	La Familia Rec Ctr	✓
	Martin Luther King Rec Ctr	NO
	Montbello Rec Ctr	✓
	Montclair Rec Ctr	✓
	Rude Rec Ctr	✓
	Southwest Denver Rec Ctr	~
	St Charles Rec Ctr	✓
	Washington Park Rec Ctr	~

## 2.2 ECM Scope of Work

Contractor will install new exterior LED lighting systems. The recommended exterior lighting scope will enhance their quality, consistency, and color rendering.

The following tables detail the line-by-line fixture types and quantities included in the scope of work. Contractor will install the project assuming the existing systems have not changed since the audit. If new LED fixtures are found to be in place, the scope will be installed as planned and the new fixtures will be turned over to the city for future use. Note that excluded rows may not be a complete list of existing fixtures to remain as-is.

		Room Details			Existing Systems				Proposed Syst	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
833	Y	Ford Warren Library - Exterior	Exterior	FC-WP-1L-HID-MH-100W-Total116W	High Intensity Discharge	1		116	OLWX1 LED 20W 40K BLANK BLANK BLANK		1	24	23
834	Y	Ford Warren Library - Exterior	Exterior	FC-WP-1L-HID-MH-100W-Total116W	High Intensity Discharge	8		116	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
835	Y	Ford Warren Library - Exterior	Exterior	PAR30-HAL-75W	PAR30	2		75	LED12DP303W83035	12	1	12	6
837	Ν	Ford Warren Library - Exterior	Exterior	LED Wallpack	LED	1		40	ALREADY LED	0	1	0	0
838	Y	Ford Warren Library - Exterior	Exterior	SQ-CA-1L-HID-MH-100W-Total116W	High Intensity Discharge	4		116	LED-FXSCM28/40K/BK-SEN	28	1	28	11
839	Ν	Ford Warren Library - Exterior	Exterior	OD-DEC-1L-A19-LED-15W-Total15W	LED	2		15	ALREADY LED	20	1	20	0
840	Ν	Ford Warren Library - Exterior	Exterior	OD-DEC-1L-A19-LED-15W-Total15W	A19	6		15	ALREADY LED	0	1	0	0
Included Subtotal		Ford Warren Library Exterior				15		423				88	
897	Y	Green Valley Ranch Library - Exterior	Exterior	PC-WP-1L-HID-MH-70W-Total82W	High Intensity Discharge	2		82	OLWX1 LED 20W 40K BLANK BLANK BLANK		1	24	23
898	Y	Green Valley Ranch Library - Exterior	Exterior	4'-S-2L-4'-F32T8-Total60W	T8 - Linear	15		60	(2) LEDT8/LC/4/840 (1) LED/DR/D2L/LW	24 12	2	24	16
899	Y	Green Valley Ranch Library - Exterior	Exterior	8'-S-4L-4'-F32T8-Total155W	T8 - Linear	4		155	(4) LEDT8/LC/4/840 (1) LED/DR/D4L/LW	12	4	48	16
900	Ν	Green Valley Ranch Library - Exterior	Exterior	SB-AR-1L-HID-HPS-70W-Total82W	LED	1		17	ALREADY LED	14	1	14	0
901	Y	Green Valley Ranch Library - Exterior	Exterior	OD-DEC-1L-HPS-70W-Total75W	CA	4		75	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
Included Subtotal		Green Valley Ranch Library Exterior				25		372				120	
965	Y	Hampden Library - Exterior	Exterior	6"RC-1L-HID-HPS-70W-Total82W	High Intensity Discharge	1		82	LED-8055M57	30	1	30	11
966	Y	Hampden Library - Exterior	Exterior	OD-DEC-1L-HID-HPS-250W- Tota285W	High Intensity Discharge	4		285	LED-8090M50-G4-T3	110	1	110	11
967	Y	Hampden Library - Exterior	Exterior	PC-WP-1L-HID-HPS-70W-Total82W	High Intensity Discharge	6		82	OLWX1 LED 20W 40K BLANK BLANK BLANK		1	24	23
968	Y	Hampden Library - Exterior	Exterior	RD-CA-1L-HID-HPS-70W-Total82W	High Intensity Discharge	High Intensity 5 82		24 14	1	14	11		
969	Y	Hampden Library - Exterior	Exterior	16's-2L-8'-F96T12/HO-Total190W	T12HO - Linear	1		190	ASPL-96CW-DSMV		2	96	11
970	Ν	Hampden Library - Exterior	Exterior	LED Wallpack	LED	1		40	ALREADY LED 0		1	0	0
Included Subtotal		Hampden Library Exterior				17		721	1		274		
940	Y	Montbello Library - Exterior	Exterior	PC-WP-1L-HID-HPS-250W- Total290W (duplicate)	High Intensity Discharge	6		290	OLWX2 LED 90W 40K BLANK PE DDB	69	1	69	23

# Exterior Lighting Scope Details

		Room Details			Existing Systems			Proposed Systems				
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) (E) Control Power/Fixture Code (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
941	Y	Montbello Library - Exterior	Exterior	SL-2L-INC-90W-Total180W	Screw-In	1	180	LED18D38OW3840/40	18	1	18	6
942	Y	Montbello Library - Exterior	Exterior	16's-2L-8'-F96T12/HO-Total190W	T12HO - Linear	2	190	ASPL-96CW-DSMV	48	2	96	11
943	Y	Montbello Library - Exterior	Exterior	PC-WP-2L-HPL-CFL-26W-Total49W (duplicate)	Plug-In	5	49	OLWX1 LED 13W 40K BLANK BLANK BLANK	11	1	11	23
944	Y	Montbello Library - Exterior	Exterior	PC-WP-1L-Screw-In-CFL-23W- Total22W	Screw-In	1	22	OLWX1 LED 13W 40K BLANK BLANK BLANK	11	1	11	23
945	Y	Montbello Library - Exterior	Exterior	6"RC-1L-A19-INC-100W-Total100W	A19	1	100	LED10DA19/840	10	1	10	6
946	Y	Montbello Library - Exterior	Exterior	OD-DEC-1L-HID-HPS-400W- Total440W	High Intensity Discharge	4	440	LED-8090M50-G4-T3	110	1	110	11
947	Y	Montbello Library - Exterior	Exterior	SQ-DID-2L-A19-INC-100W- Total200W	A19	2	200	LED10DA19/840	10	2	20	6
Included Subtotal		Montbello Library Exterior				22	1471				345	
435	Y	Rodolfo "Corky" Gonzales Library - Exterior	Exterior	PC-WP-1L-Screw-In-CFL-42W- Total39W	Screw-In	6	39	OLWX1 LED 13W 40K BLANK BLANK BLANK	11	1	11	23
436	Y	Rodolfo "Corky" Gonzales Library - Exterior	Exterior	OD-DEC-1L-CA-MH-250W-Total290W	High Intensity Discharge	10	290	RSX1 LED P2 40K R3 MVOLT SPA RPA DDBXD	72	1	72	23
Included Subtotal		Rodolfo "Corky" Gonzales Library Exterior				16	329				83	
971	Y	Virginia Village Library - Exterior	Exterior	BOL-L-1L-HID-MV-50W-Total58W	High Intensity Discharge	8	58	LED-8039E57-A	18	1	18	11
972	Y	Virginia Village Library - Exterior	Exterior	RD-DL-1L-HID-MH-50W-Total55W	High Intensity Discharge	2	55	LED-8039E57-A	18	1	18	11
973	N	Virginia Village Library - Exterior	Exterior	SP-1L-LED-35W-Total41W	LED	2	41	ALREADY LED	0	1	0	0
974	Y	Virginia Village Library - Exterior	Exterior	PC-WP-1L-VPL-CFL-42W-Total39W	Plug-In	2	39	OLWX1 LED 13W 40K BLANK BLANK BLANK	11	1	11	23
975	Y	Virginia Village Library - Exterior	Exterior	ACC-L-1L-HID-MH-50W-Total58W	High Intensity Discharge	12	58	LED-8039E57-A	18	1	18	11
976	Y	Virginia Village Library - Exterior	Exterior	OD-DEC-1L-MH-400W-Total440W	High Intensity Discharge	10	440	RSX1 LED P2 40K R3 MVOLT SPA RPA DDBXD	72	1	72	23
977	Y	Virginia Village Library - Exterior	Exterior	BOL-L-1L-HID-MH-50W-Total58W	High Intensity Discharge	4	58	LED-8039E57-A	18	1	18	11
978	Y	Virginia Village Library - Exterior	Exterior	SP-1L-HID-MH-100W-Total116W	High Intensity Discharge	2	116	OLWX1 LED 40W 40K BLANK BLANK BLANK 2 1/2IN MOUNT	39	1	39	23
979	Y	Virginia Village Library - Exterior	Exterior	OD-DEC-1L-MH-400W-Total440W	High Intensity Discharge	2	440	LED-8090M50-G4-T3	110	1	110	11
980	Y	Virginia Village Library - Exterior	Exterior	6"RC-1L-HID-MH-100W-Total116W	High Intensity Discharge	4	116	LED-8055M57	30	1	30	11
981	n	Virginia Village Library - Exterior	Exterior	ACC-L-1L-HID-MH-100W-Total116W	LED	5	19	ALREADY LED	18	1	18	0
Included Subtotal		Virginia Village Library Exterior				46	1380				334	
477	Y	Woodbury Library - Exterior	Exterior	PC-WP-1L-HID-MH-50W-Total58W	High Intensity Discharge	11	58	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
479	Y	Woodbury Library - Exterior	Exterior	PAR38-HAL-90W	PAR38	4	90	LED18D38OW3840/40	18	1	18	6

		Room Details			Existing Systems				Proposed Sys	tems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
480	Y	Woodbury Library - Exterior	Exterior	OD-DEC-1L-CA-MH-150W-Total174W	High Intensity Discharge	4		174	LED-8029M57-A	24	1	24	11
481	Y	Woodbury Library - Exterior	Exterior	FL-1L-HID-MH-175W-Total203W	High Intensity Discharge	2		203	OLWX1 LED 20W 40K BLANK BLANK BLANK (1) OLWX1TS	18	1	18	23
482	Y	Woodbury Library - Exterior	Exterior	PC-WP-1L-HID-MH-150W-Total174W	High Intensity Discharge	2		174	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
Included		Woodbury	Exterior	FG-WF-TE-HID-WIT-150W-10ta11/4W	Discharge	23		699	OLWATEED 2000 40K BLANK BLANK BLANK	24		108	
Subtotal 736	Y	Library Exterior Athmar Rec Ctr -	Exterior	PC-WP-1L-HID-HPS-250W-	High Intensity	23 1		290		60	1	69	23
Included		Exterior Athmar Rec Ctr	Exterior	Total290W	Discharge	1		290	OLWX2 LED 90W 40K BLANK PE DDB	69		69	
Subtotal 486	Y	Exterior           Aztlan Rec Ctr -			High Intensity			<b>290</b> 58			1	24	23
487	Y	Exterior Aztlan Rec Ctr -	Exterior	PC-WP-1L-HID-HPS-50W-Total58W PC-WP-1L-HID-HPS-250W-	Discharge High Intensity	7		290	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	69	23
493	Y	Exterior Aztlan Rec Ctr - Exterior	Exterior	Total290W OD-DEC-1L-HPS-400W-Total440W	Discharge High Intensity Discharge	4		440	OLWX2 LED 90W 40K BLANK PE DDB RSX1 LED P4 40K R5 MVOLT SPA RPA DDBXD	69 72	1	72	23
515	Y	Aztlan Rec Ctr - Exterior	Exterior	SP-1L-HID-MH-150W-Total174W	High Intensity Discharge	2		174	OLWX1 LED 40W 40K BLANK BLANK BLANK 1/2IN MOUNT	39	1	39	23
Included Subtotal		Aztlan Rec Ctr Exterior	Exterior	SF-TE-HID-WH-150W-10ta1174W	Discharge	14		962				204	
374	Y	Central Park Rec Center - Exterior	Exterior	4"RC-1L-GU10-MR16-HAL-50W- Total50W	MR16	10		50	LED6D/GU10/NFL/TP	6	1	6	6
375	Y	Central Park Rec Center - Exterior	Exterior	PC-WP-1L-HPL-CFL-26W-Total25W	Plug-In	14		25	OLWX1 LED 13W 40K BLANK BLANK BLANK	11	1	11	23
376	N	Central Park Rec Center - Exterior	Exterior	LED Wallpack	LED	4		40	ALREADY LED	0	1	0	0
377	Y	Central Park Rec Center - Exterior	Exterior	FC-WP-1L-HID-MH-50W-Total58W	High Intensity Discharge	4		58	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
Included Subtotal		Central Park Rec Center Exterior	Exterior		Discharge	28		133	OLWATELD 2000 FOR DEAVIR DEAVIR DEAVIR	24		41	
238	Y	Eisenhower Rec Center - Exterior	Exterior	PC-WP-1L-HID-HPS-100W- Total116W	High Intensity Discharge	2		116	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
239	Y	Eisenhower Rec Center - Exterior	Exterior	SQ-CA-1L-HID-HPS-50W-Total58W	High Intensity Discharge	1		58	LED-FXSCM28/40K/BK-SEN	28	1	28	11
241	Y	Eisenhower Rec Center - Exterior	Exterior	PC-WP-3L-HPL-CFL-26WTotal64W	Plug-In	4		64	OLWX1 LED 13W 40K BLANK BLANK BLANK	11	3	33	23
242	Y	Eisenhower Rec Center - Exterior	Exterior	DR-1L-HID-MV-250W-Total290W	Screw-In	1		290	LED-8055E57	30	1	30	11
Included Subtotal		Eisenhower Rec Center Exterior	LACHUI		0016W-111	8		528				115	
138	Y	Green Valley Ranch Rec Ctr - Exterior	Decorative pole	OD-DEC-1L-CA-MH-150W-Total174W	High Intensity Discharge	5		174	LED-8029M57-A	24	1	24	11
139	Y	Green Valley Ranch Rec Ctr - Exterior	Decorative pole lights	OD-DEC-1L-CA-CF60W-Total60W	0	8		60	LED-8039E57-A	18	1	18	11
141	N	Green Valley Ranch Rec Ctr - Exterior	Wall packs	PC-WP-1L-LED-MV-35W-Total35W	LED	6		35	ALREADY LED	0	1	0	0
142	Y	Green Valley Ranch Rec Ctr - Exterior	Wall packs	FC-WP-1L-HPL-CFL-26W-Total26W	Plug-In	8		26	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23

		Room Details			Existing Systems				Proposed Syst	ems			
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
143	Y	Green Valley Ranch Rec Ctr - Exterior	Wall packs	PC-WP-1L-HID-CMH-150W- Total174W	High Intensity Discharge	1		174	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
144	Y	Green Valley Ranch Rec Ctr - Exterior	Decorative pole lights	OD-DEC-1L-CA-MH-175W-Total210W	High Intensity Discharge	11		203	LED-8029M57-A	24	1	24	11
Included Subtotal		Green Valley Ranch Rec Ctr Exterior				33		637				114	
793	Y	Harvard Gulch Rec/DPDWhse - Exterior	Exterior	PC-WP-1â€□HPL-CFL-42-Total42W	Plug-In	6		42	LED-7320-40K-G3	10	1	10	6
794	Ν	Harvard Gulch Rec/DPDWhse - Exterior	Exterior	LED Wallpack	LED	1		40	ALREADY LED	0	1	0	0
795	N	Harvard Gulch Rec/DPDWhse - Exterior	Exterior	LED Wallpack	LED	2		40	ALREADY LED	0	1	0	0
796	Y	Harvard Gulch Rec/DPDWhse - Exterior	Exterior	PC-WP-1L-Screw-In-CFL-42W- Total39W	Screw-In	5		39	OLWX1 LED 13W 40K BLANK BLANK BLANK	11	1	11	23
797	Y	Harvard Gulch Rec/DPDWhse - Exterior	Exterior	A19-INC-100W	A19	3		100	LED10DA19/840	10	1	10	6
Included Subtotal		Harvard Gulch Rec/DPDWhse Exterior	Exterior			14		181				31	
45	N	Hiawatha Davis Rec Ctr - Exterior	Wall packs	LED Wallpack	LED	11		40	ALREADY LED	0	1	0	0
46	Y	Hiawatha Davis Rec Ctr - Exterior	Exterior	12"RC-1L-HID-MV-175W-Total203W	High Intensity Discharge	8		203	LED-8055M57	30	1	30	11
47	Y	Hiawatha Davis Rec Ctr - Exterior	Exterior	10"RC-1L-HID-MH-100W-Total116W	High Intensity Discharge	8		116	LED-8055M57	30	1	30	11
48	Y	Hiawatha Davis Rec Ctr - Exterior	Bollard	BOL-L-1L-CFL-9W-Total9W	CFL	6		9	LED-7300-40K-G2	5	1	5	6
Included Subtotal		Hiawatha Davis Rec Ctr Exterior				22		328				65	
687	Y	La Familia Rec Ctr - Exterior	Exterior	PC-WP-1L-HID-HPS-150W- Total174W	High Intensity Discharge	16		174	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
Included Subtotal		La Familia Rec Ctr Exterior				16		174				24	
49	N	Martin Luther King Rec Ctr - Exterior	Exterior	LED Wallpack	LED	16		40	ALREADY LED	0	1	0	0
Included Subtotal		Martin Luther King Rec Ctr Exterior				0		0				0	
200	N	Montbello Rec Ctr - Exterior	Wall Packs	LED Wallpack	LED	15		40	ALREADY LED	0	1	0	0
201	Y	Montbello Rec Ctr - Exterior	North Parking Lot	250W Metal Halide Total Wattage 285 GREY ROUND TAPPERED	High Intensity Discharge	13		285	RSX1 LED P2 40K R3 MVOLT SPA RPA DDBXD	24	1	24	23
202	Y	Montbello Rec Ctr - Exterior	Path poles	100W Metal Halide Total Wattage 125W	High Intensity Discharge	12		125	LED-8029M57-A	24	1	24	11
203	Y	Montbello Rec Ctr - Exterior	South Parking Lot	OD-DEC-1L-MH-400W-Total440W	High Intensity Discharge	10		456	RSX1 LED P4 40K R3 MVOLT SPA RPA DDBXD	133	1	133	23

		Room Details			Existing Systems				Proposed Sys				
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Lamps per (N) Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
204	Y	Montbello Rec Ctr - Exterior	Path poles	OD-DEC-1L-MH-400W-Total440W	High Intensity Discharge	4		456	RSX1 LED P4 40K R3 MVOLT SPA RPA DDBXD	72	1	72	23
Included Subtotal		Montbello Rec Ctr Exterior				39		1322				253	
285	Y	Montclair Rec Ctr - Exterior	Exterior	A19-INC-100W	A19	1		100	LED10DA19/840	10	1	10	6
Included Subtotal		Montclair Rec Ctr Exterior				1		100				10	
648	Y	Rude Rec Ctr - Exterior	Exterior	PC-WP-1â€⊡HPL-CFL-42-Total42W	Plug-In	26		42	LED-7320-40K-G3	10	1	10	6
649	Y	Rude Rec Ctr - Exterior	Exterior	10"RC-1L-HID-MH-175-Total203W	High Intensity Discharge	8		203	LED-8055M57	30	1	30	11
650	Y	Rude Rec Ctr - Exterior	Exterior	DR-1L-MH-175Q-Total175W	High Intensity Discharge	6		175	LED-FXSCM28/40K/BK-SEN	28	1	28	11
651	Ν	Rude Rec Ctr - Exterior	Exterior	LED Wallpack	LED	3		40	ALREADY LED	0	1	0	0
652	N	Rude Rec Ctr - Exterior	Exterior	LED Wallpack	LED	3		40	ALREADY LED	0	1	0	0
653	Y	Rude Rec Ctr - Exterior	Exterior	OD-DEC-1L-CA-MH-150W-Total150W	High Intensity Discharge	8		285	RSX1 LED P2 40K R3 MVOLT SPA RPA DDBXD	24	1	24	23
Included Subtotal		Rude Rec Ctr Exterior				48		705				92	
867	N	Southwest Denver Rec Ctr - Exterior	Exterior	LED-16.5W-Medium base	Screw-In	6		17	ALREADY LED	0	1	0	0
868	Y	Southwest Denver Rec Ctr - Exterior	Exterior	PC-WP-1L-HID-MH-400W-Total440W	High Intensity Discharge	5		440	RSX1 LED P4 40K R3 MVOLT SPA RPA DDBXD	133	1	133	23
869	Y	Southwest Denver Rec Ctr - Exterior	Exterior	PC-WP-1L-HID-MH-150W-Total174W	High Intensity Discharge	3		174	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
870	Y	Southwest Denver Rec Ctr - Exterior	Exterior	PC-WP-1L-HID-MH-400W-Total440W	High Intensity Discharge	1		440	OLWX2 LED 90W 40K BLANK PE DDB	69	1	69	23
871	Y	Southwest Denver Rec Ctr - Exterior	Exterior	RD-AR-1L-HID-MH-175W-Total203W	High Intensity Discharge	5		203	LED-8029E57-A	24	1	24	11
Included Subtotal		Southwest Denver Rec Ctr Exterior				14		1257				250	
546	Y	St Charles Rec Ctr - Exterior	Exterior	PC-WP-1L-HID-HPS-150W- Total174W	High Intensity Discharge	3		174	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
547	Y	St Charles Rec Ctr - Exterior	Exterior	PC-WP-1L-HID-HPS-150W- Total174W	High Intensity Discharge	2		174	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
549	Y	St Charles Rec Ctr - Exterior	Exterior	PC-WP-1L-HID-HPS-250W- Total290W	High Intensity Discharge	13		290	OLWX2 LED 90W 40K BLANK PE DDB	69	1	69	23
550	Y	St Charles Rec Ctr - Exterior	Exterior	FC-WP-1L-HPL-CFL-42W-Total39W	Plug-In	1		39	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23
551	Y	St Charles Rec Ctr - Exterior	Exterior	PC-WP-2L-HPL-CFL-26W-Total49W	Plug-In	1		49	OLWX1 LED 13W 40K BLANK BLANK BLANK	11	1	11	23
Included Subtotal		St Charles Rec Ctr Exterior			~~ <b>3</b> ····	20		726				152	
585	N	Washington Park Rec Ctr - Exterior	Exterior	LED Wallpack	LED	5		40	ALREADY LED	0	1	0	0
586	Ν	Washington Park Rec Ctr - Exterior	Exterior	4' disc LED can lights	LED	3		11	ALREADY LED	0	1	0	0
587	Y	Washington Park Rec Ctr - Exterior	Exterior	PC-WP-1L-HID-CMH-150W- Total174W	High Intensity Discharge	1		174	OLWX1 LED 20W 40K BLANK BLANK BLANK	24	1	24	23

	Room Details			Existing Systems					Proposed Systems				
Line #	Include	Facility	Room Name	(E) Fixture Name	(E) Lamp Type	(E) No. of Fixtures	(E) Control Code	(E) Power/Fixture (Watts)	(N)Fixture Code	(N) Fixture Power (Watts)	Fixture	Total (N) Fixture Power (Watts)	(N) Lamp Useful Life (yrs)
Included Subtotal		Washington Park Rec Ctr Exterior				1		174				24	
						· ·							
ECM Total						423		12,912				2,796	

#### 2.3 Key Performance Parameters

The exterior lighting systems are assumed to operate 12-hours per day on average over the year.

#### 2.4 O&M Savings

For each fixture type, lighting maintenance costs were annualized by determining the annual maintenance cost for each fixture type as follows:

$$\mathsf{MC} = \left[\mathsf{N} \cdot \mathsf{L} \cdot \frac{\mathsf{h}}{\mathsf{H}_{\mathsf{L}}} \cdot \mathsf{C}_{\mathsf{L}} + \mathsf{N} \cdot \mathsf{B} \cdot \frac{\mathsf{h}}{\mathsf{H}_{\mathsf{B}}} \cdot \mathsf{C}_{\mathsf{B}}\right] \cdot \mathsf{f}$$

Where:

MC is the annual maintenance cost,

N is the number lighting fixtures

L is the quantity of lamps per fixture,

h is the annual operating hours,

H, is the rated lamp life (hours),

C<sub>1</sub> is the cost per lamp,

B is the quantity of ballasts per fixture,

H<sub>R</sub> is the rated ballast life (hours),

 $_{C_{B}}$  is the cost per ballast, and

f is the cost adjustment factor (100% in this analysis)

Material costs utilize typical lamp and ballast volume-based pricing for the technologies considered. Labor costs were not evaluated even though the time spent for lighting system maintenance by facility staff will be reduced.

The O&M savings for this ECM are agreed-to and will not be verified. These savings are anticipated to extend over the project's useful life of 23 years.

#### 2.5 Specific exclusions or assumptions

The lighting upgrades exclude any specialized production lighting systems.

New quick-disconnects on lighting fixtures will be provided for code compliance as needed. Otherwise, the scope of work excludes correcting any code or other deficiencies of the existing equipment/systems to remain in service.

Scope assumes that existing wiring is in good working condition and does not include and wiring replacement.

Scope of work is a lighting retrofit and does not include fixture relocation, permitting or lighting redesign.

#### 2.6 Warranty

Contractor's installation subcontractor will provide a one-year warranty on the workmanship, materials

and equipment against manufacturer's defects. Manufacturer's warranty on equipment and materials will be transfer to the City. All warranty replacements of material when the contractor is not on-site during warranty period shall be installed by the City.

# 3. ECM #3 -Live Energy Monitoring

## 3.1 Location(s) Affected

Facility Group	Building	Included
	Ford Warren Library	✓
	Green Valley Ranch Library	✓
	Hampden Library	✓
Libraries	Montbello Library	✓
	Rodolfo "Corky" Gonzales Library	$\checkmark$
	Virginia Village Library	$\checkmark$
	Woodbury Library	$\checkmark$
	Athmar Rec Ctr	✓
	Aztlan Rec Ctr	$\checkmark$
	Central Park Rec Center	$\checkmark$
	Eisenhower Rec Center	$\checkmark$
	Green Valley Ranch Rec Ctr	$\checkmark$
	Harvard Gulch Rec/DPDWhse	$\checkmark$
	Hiawatha Davis Rec Ctr	✓
Parks and Recreation	La Familia Rec Ctr	✓
	Martin Luther King Rec Ctr	$\checkmark$
	Montbello Rec Ctr	✓
	Montclair Rec Ctr	✓
	Rude Rec Ctr	✓
	Southwest Denver Rec Ctr	$\checkmark$
	St Charles Rec Ctr	✓
	Washington Park Rec Ctr	$\checkmark$

## 3.2 ECM Scope of Work

This ECM will install energy information system (EIS) or real-time electricity and natural gas metering monitoring under the Contractor's AssetPlanner Energy & Sustainability Module that will allow the City to:

- Track energy performance over time, including demand interval data.
- Benchmark against industry targets.
- Identify savings opportunities and develop accurate reporting.
- Create consumption baselines and cost avoidance reports using built-in weather normalization.
- Assess greenhouse gas emissions and calculate the carbon footprint of assets.

The system will be comprised of the following:

- Pulse-generating meter heads provided by Xcel Energy
- A data acquisition system (DAS) provided by the Contractor that will be installed in the IT closet to collect the meter pulse signals.

- City provided LAN connection between the DAS and their IT racks.
- Web-based E&S module platform.
- E&S Software access and Energy Consulting Service fees, the annual cost of which are included in the project proforma.

The *EIS Service* costs include the annual fees for both the existing Contractor phase-1 project and the new sites proposed under this 'phase-2' project.

#### 3.3 Key Performance Parameters

N/A.

#### 3.4 O&M Savings

There are no operational and maintenance savings associated with this measure.

#### 3.5 Specific exclusions or assumptions

It is assumed that the City will provide and maintain a LAN connection to the DAS installed by the Contractor.

#### 3.6 Warranty

Contractor's installation subcontractor will provide a one-year warranty on their labor, workmanship, materials and equipment against manufacturer's defects. Manufacturer's warranty on equipment and materials will be transferred to the City.

## 3.7 Service Fee

Contractor has included the first year of the EIS Subscription & Service Contract fees for this project. If the City decides to continue this subscription, the City will be required to enter into a separate subscription agreement for the service.

## 4. ECM #4 -Pool Covers

## 4.1 Location(s) Affected

Facility Group	Building	Included
Parks and Recreation	Washington Park Rec Ctr	$\checkmark$

## 4.2 ECM Scope of Work

This ECM will provide and install motorized reel and cable systems to deploy and retract new fabric pool covers by the push of a button. The photos below show the proposed location of the 2-reel cover system (left photo) and control panel (right photo) at the Wash. Park Recreation Center.

## Proposed Location of Washington Park Rec. Center's Pool Cover System



## 4.3 Key Performance Parameters

The savings for this ECM were calculated based on the following operating conditions:

• The pool cover shall be deployed by staff outside of pool operating hours, totaling at least 4221 hours per year, which is based on the following facility operating schedule:

Pool Schedule	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
start time	11:00	6:00	6:00	6:00	6:00	6:00	8:00
stop time	16:00	21:00	21:00	21:00	21:00	20:00	16:00

- Pool water temperature 83 °F
- Pool air temperature and relative humidity of 83 °F and 60% respectively.
- Covered pool surface area of 4,105 ft<sup>2</sup>.

#### 4.4 O&M Savings

According to the U.S. Department of Energy pool covers reduce pool's chemical consumption by 35%-60%. Based upon information provided by the City, typical chemical costs for their indoor pools range from \$5-8k per year. The O&M chemical cost savings for this ECM assume an annual chemical cost savings of \$1,500/year for the Washington Park pool based upon saving 30% of a baseline chemical cost of \$5,000.

The O&M savings for this ECM are agreed-to and will not be verified. These savings are anticipated to

extend over the project's useful life of 23 years.

#### 4.5 Specific exclusions or assumptions

It is assumed that pool staff will deploy the pool cover whenever the pool is closed.

#### 4.6 Warranty

Contractor's installation subcontractor will provide a one-year warranty on their labor, workmanship, materials and equipment against manufacturer's defects. Manufacturer's warranty on equipment and materials will be transferred to the City.

# **INSTALLATION PLAN**

## **Submittals**

Equipment will be further identified in submittals provided to the Contractor from suppliers for approval prior to procurement. Documents will be submitted to the City for review and comment prior to NTP. Upon approval, these will constitute the construction documents. Upon completion of the construction phase, the documents will be revised as needed to reflect "as-built" conditions and submitted electronically to City for the record.

## **Project Schedule**

ECMs will be implemented both during and outside normal business hours. Construction activities will be scheduled and coordinated to limit impact to facility operations. Extended shutdowns (greater than 1-hour in duration) to equipment will be scheduled with the City at least one-day in advance. Although none are anticipated, the shutdown of any facility operations will be scheduled with the City at least two-weeks in advance if necessary.

Schedule may be updated by Contractor prior to issuance of Notice to Proceed.

					City	ty & County of Denv	/er	AMERESCO
					Pre	elim Construction Sched	ule	
ID	Task Name	Duration	Start	Finish	Predecessors	November December	ianuary   February   March   April   May 1/2   1/9   1/16 1/23 1/26 2/6  2/15 2/26 2/27 3/6  2/15 2/26 3/27 4/2  4/16 4/17 4/24 5/1 5/8 5/15 20	June July August
1	City & County of Denver Construction Schedule	177 days	Mon 11/29/21	Tue 8/2/22				
2	Energy Performance Contract Execution	0 days	Mon 11/29/21	Mon 11/29/21		¢ 11/29		
3	Design Phase	25 days	Mon 11/29/21					
4	Design NTP issued to Ameresco	5 days	Mon 11/29/21	Fri 12/3/21	2	<b></b>		
5	Issue/execute subcontract agreements	10 days	Mon 12/6/21	Fri 12/17/21	4			
6	Submittal generation & reviews for completed designs	10 days	Mon 12/20/21	Fri 12/31/21	5	<b>*</b>		
7	Build Phase	151 days	Tue 1/4/22	Tue 8/2/22				
8	Construction	126 days	Tue 1/4/22	Tue 6/28/22		11		n
9	Construction NTP	1 day	Tue 1/4/22	Tue 1/4/22	6FS+1 day	11 '	5	
10	Lighting Upgades	125 days	Wed 1/5/22	Tue 6/28/22			r	
11	Material procurement and mobilization	35 days	Wed 1/5/22	Tue 2/22/22	9			
12	Installation	90 days	Wed 2/23/22	Tue 6/28/22	11		*	
13	Live Energy Monitoring	120 days	Wed 1/5/22	Tue 6/21/22				
14	Material procurement and mobilization	60 days	Wed 1/5/22	Tue 3/29/22	9		*	
15	Installation	60 days	Wed 3/30/22	Tue 6/21/22	14		*	
16	Pool Covers	70 days	Wed 1/5/22	Tue 4/12/22			·	
17	Structural Engineering Design	20 days	Wed 1/5/22	Tue 2/1/22	9			
18	Material procurement and mobilizatio	40 days	Wed 2/2/22	Tue 3/29/22	17		*]	
19	Installation	10 days	Wed 3/30/22	Tue 4/12/22	18		¥	
20	Construction Closeout	25 days	Wed 6/29/22	Tue 8/2/22				
21	Commissioning and M&V	15 days	Wed 6/29/22	Tue 7/19/22	8			<b></b>
22	Closeout Punch List	5 days	Wed 7/20/22	Tue 7/26/22	21			<b>*</b>
23	Final Acceptance	5 days	Wed 7/27/22	Tue 8/2/22	22			<b>*</b>
Date	Printed - Fri 10/1/21	·				Page 1	cm.•	relim Construction Schedule 2021.10.01.mpp
	prietary & Confidential					raye i		consudiction schedule 2021.10.01.mpp

# TRAINING PLAN

On-site training for the lighting and pool cover equipment installed under ECM's -1, 2 & 4 will be provided by the installation subcontractors. The Contractor will provide remote user training for the ECM-3 live energy monitoring system.

# **GENERAL NOTES AND CLARIFICATIONS**

## General Scope of Services Comments:

- As final engineering is not started and equipment is not ordered until the Contractor has a signed contract / notice to proceed - the Contractor cannot guarantee delivery dates / system start-up and is not responsible for costs associated with additional mobilizations, temporary equipment, etc. if long lead times affect construction schedule.
- Material ordering and final scheduling will not occur until a signed agreement is executed.
- The Contractor's pricing assumes 100% availability of rooms to do the work after normal facility operating hours.
- Unless specifically noted in the Scope of Services paint / patch is excluded. If noted in the Scope of Services only the affected areas will be addressed (not the entire area / wall). Paint will match existing adjacent as close as possible, but an exact match cannot be guaranteed.
- Piping / conduit / wire mold may be run exposed in occupied spaces (as applicable).
- Unless specifically noted in the Scope of Services conduit / wire mold is un-painted.

Contractor hereby guarantees to City that the amount of the Annual Savings shall equal or exceed the "*Guaranteed Annual Cost Savings*" (as specified in Table C1 below), over the Guarantee Period (defined below).

The Guaranteed Annual Savings Amount is made up of two (2) savings components:

- 1. Energy (Electric, Gas and Water) Savings
- 2. Operating Cost Savings

Contractor, guarantees the Guaranteed Annual Cost Savings, but does not guarantee the savings amount achieved by each individual Energy Conservation Measure. Construction Period savings are not guaranteed.

Sources of Energy and Operating Cost Savings are set forth in Schedule B. Operating cost savings result from avoided expenditures for operations, maintenance, equipment repair, or equipment replacement that, because of the project, will not be necessary.

Calculation of the Guaranteed Annual Cost Savings shall be performed under, and governed by, the methods, formulas, and procedures described in the Measurement and Verification Plan set forth in Schedule D.

The Guarantee Period shall be 18 years unless terminated earlier as a result of termination of the Agreement or termination of M&V Services.

#### Table C1: Guaranteed Annual Cost Savings

Project Funding		
Total Project Value (TPV=TCP+M&V)	\$1,685,491	
Turnkey Project Cost (TPC):	\$1,648,728	
Capital Contribution (CC):	\$671,456	Cost of Incidental Goods
Financed Project Cost Balance (TPC-CC+CP):	\$982,495	
Annual Capital Contribution	\$0	
Anticipated Rebates (Applied in Yr 1)	\$0	
Financing Type:	T.E.L.P.	
Financing Interest Rate:	1.60%	
Program Term:	15	
Construction Period (CP) Interest [1]:	\$5,223	
Measurement & Verification (3-yrs M&V)	\$36,762	

#### Notes:

[1] Construction loan interest is not capitalized, but accrued in the principal balance

	AI	nnual Costs					Amo	Amortization Details							
{A}	{B}	{C}	{D}	{E}	{F}	{G}	{H}	{I}	{J}	{K}	{L}	{M}	{N}	{O}	{P}
Year	Annual Debt Service	Annual M&V Cost	Total Annual Cost	Electric	Natural Gas	Water	Sewer	Total Annual Utility Savings	O&M Mat'l Savings	EIS Subscription & Service Contract	Guaranteed Annual Cost Savings	to Financier	Interest (added to EON Balance) (Rate x	New Loan Balance (EOY)	
			(B+C)					{E+F+G+H}		Contract	{I+J+K}	{C+L}	O_prev. yr.)	{M+N+O_prev. yr.}	{D+L}
	0.0% Esc.	3.0% Esc.		3.0% Esc.	3.0% Esc.	3.0% Esc.	3.0% Esc.		3.00% Esc.	3.0% Esc.				J., J	
0	Constru	iction Period Sa	vings	\$23,533	\$504	\$30	\$63	\$24,131	<b>\$</b> 0	<b>\$</b> 0	\$24,131	<b>\$</b> 0	<b>\$0</b>	-\$982,495	\$24,131
<b>N</b>	-\$91,810	-\$11,894	-\$103,704	\$94,133	\$2,017	\$121	\$254	\$96,525	\$12,256	-\$9,327	\$99,453	\$91,810	-\$15,720	-\$906,405	\$19,881
2	-\$91,810	-\$12,251	-\$104,061	\$96,957	\$2,078	\$125	\$261	\$99,421	\$12,624	-\$9,607	\$102,437	\$91,810	-\$14,502	-\$829,098	\$18,257
3	-\$91,810	-\$12,618	-\$104,428	\$99,865	\$2,140	\$129	\$269	\$102,403	\$13,002	-\$9,895	\$105,510	\$91,810	-\$13,266	-\$750,553	\$19,339
4	-\$91,810	<b>\$0</b>	-\$91,810	\$102,861	\$2,204	\$133	\$277	\$105,475	\$13,392	-\$10,192	\$108,675	\$91,810	-\$12,009	-\$670,752	\$36,205
5	-\$91,810	\$0	-\$91,810	\$105,947	\$2,270	\$137	\$285	\$108,639	\$13,794	-\$10,498	\$111,936	\$91,810	-\$10,732	-\$589,674	\$56,330
6	-\$64,280	<b>\$</b> 0	-\$64,280	\$109,126	\$2,338	\$141	\$294	\$111,899	\$14,208	-\$10,813	\$115,294	\$64,280	-\$9,435	-\$534,829	\$107,344
7	-\$64,280	<b>\$</b> 0	-\$64,280	\$112,399	\$2,409	\$145	\$303	\$115,256	\$14,634	-\$11,137	\$118,752	\$64,280	-\$8,557	-\$479,106	\$161,816
8	-\$64,280	\$0	-\$64,280	\$115,771	\$2,481	\$149	\$312	\$118,713	\$15,073	-\$11,471	\$122,315	\$64,280	-\$7,666	-\$422,492	\$219,851
9	-\$64,280	<b>\$0</b>	-\$64,280	\$119,244	\$2,555	\$154	\$321	\$122,275	\$15,525	-\$11,816	\$125,985	\$64,280	-\$6,760	-\$364,972	\$281,556
10	-\$64,280	<b>\$0</b>	-\$64,280	\$122,822	\$2,632	\$158	\$331	\$125,943	\$15,991	-\$12,170	\$129,764	\$64,280	-\$5,840	-\$306,531	\$347,040
11	-\$64,280	<b>\$0</b>	-\$64,280	\$126,506	\$2,711	\$163	\$341	\$129,721	\$16,471	-\$12,535	\$133,657	\$64,280	-\$4,904	-\$247,155	\$416,417
12	-\$64,280	\$0	-\$64,280	\$130,302	\$2,792	\$168	\$351	\$133,613	\$16,965	-\$12,911	\$137,667	\$64,280	-\$3,954	-\$186,830	\$489,803
13	-\$64,280	<b>\$0</b>	-\$64,280	\$134,211	\$2,876	\$173	\$361	\$137,621	\$17,474	-\$13,298	\$141,797	\$64,280	-\$2,989	-\$125,539	\$567,320
14	-\$64,280	<b>\$</b> 0	-\$64,280	\$138,237	\$2,962	\$178	\$372	\$141,750	\$17,998	-\$13,697	\$146,051	\$64,280	-\$2,009	-\$63,268	\$649,090
15	-\$64,280	<b>\$0</b>	-\$64,280	\$142,384	\$3,051	\$184	\$384	\$146,002	\$18,538	-\$14,108	\$150,432	\$64,280	-\$1,012	\$0	\$735,242
16	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$146,656	\$3,143	\$189	\$395	\$150,382	\$19,094	-\$14,532	\$154,945	<b>\$</b> 0	\$0	\$0	\$890,187
17	\$0	<b>\$0</b>	<b>\$</b> 0	\$151,055	\$3,237	\$195	\$407	\$154,894	\$19,667	-\$14,968	\$159,593	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$1,049,781
18	<b>\$</b> 0	<b>\$</b> 0	<b>\$0</b>	\$155,587	\$3,334	\$201	\$419	\$159,541	\$20,257	-\$15,417	\$164,381	<b>\$</b> 0	<b>\$</b> 0	<b>\$0</b>	\$1,214,162
19	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$160,255	\$3,434	\$207	\$432	\$164,327	\$20,865	-\$15,879	\$169,313	<b>\$</b> 0	<b>\$</b> 0	<b>\$0</b>	\$1,383,475
20	\$0	<b>\$0</b>	<b>\$0</b>	\$165,062	\$3,537	\$213	\$445	\$169,257	\$21,491	-\$16,355	\$174,392	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$1,557,867
21	<b>\$</b> 0	<b>\$</b> 0	<b>\$0</b>	\$170,014	\$3,643	\$219	\$458	\$174,334	\$22,135	-\$16,846	\$179,624	<b>\$</b> 0	<b>\$</b> 0	<b>\$0</b>	\$1,737,490
22	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$175,114	\$3,752	\$226	\$472	\$179,564	\$22,799	-\$17,351	\$185,012	<b>\$</b> 0	<b>\$</b> 0	<b>\$0</b>	\$1,922,503
23	<b>\$</b> 0	<b>\$0</b>	<b>\$0</b>	\$180,368	\$3,865	\$233	\$486	\$184,951	\$23,483	-\$17,872	\$190,563	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$2,113,066
Totals:	-\$1,101,850	-\$36,762	-\$1,138,613	\$3,078,409	\$65,966	\$3,971	\$8,292	\$3,156,638	\$397,738	-\$302,697	\$3,251,679	\$1,101,850	-\$119,355		\$2,113,066

Table C2 summarizes the baseline utility rates. These rates were used in establishing the Baseline and calculations. Throughout the term of the Guarantee Period the utility rates in Table C2, escalated at 3% per year shall be used in determining annual savings. The City acknowledges and accepts the utility rates set forth in Table C1 as reasonable.

#### Table C2: Baseline Rates and Annual Escalation Rates :

Facility	Electric Use (\$/kWh)	Electric Demand (\$/kW)	Natural Gas (\$/therm)	Water (\$/kgal)	Sewer (\$/kgal)
Ford Warren Library	\$0.036	\$20.10	\$0.52	\$2.16	\$0.00
Green Valley Ranch Library	\$0.036	\$19.95	\$0.52	\$2.16	\$4.49
Hampden Library	\$0.036	\$20.06	\$0.54	\$2.16	\$0.00
Montbello Library	\$0.036	\$20.01	\$0.54	\$2.16	\$0.00
Rodolfo "Corky" Gonzales Library	\$0.039	\$19.95	\$0.53	\$2.16	\$4.30
Virginia Village Library	\$0.035	\$20.14	\$0.53	\$2.16	\$0.00
Woodbury Library	\$0.036	\$20.22	\$0.53	\$2.16	\$0.00
Athmar Rec Ctr	\$0.036	\$19.95	\$0.47	\$2.16	\$4.51
Aztlan Rec Ctr	\$0.036	\$19.95	\$0.55	\$2.16	\$0.00
Central Park Rec Center	\$0.036	\$19.95	\$0.42	\$2.16	\$4.51
Eisenhower Rec Center	\$0.034	\$20.37	\$0.54	\$2.16	\$0.00
Green Valley Ranch Rec Ctr	\$0.036	\$20.18	\$0.58	\$2.16	\$4.51
Harvard Gulch Rec/DPDWhse	\$0.033	\$20.40	\$0.54	\$2.16	\$0.00
Hiawatha Davis Rec Ctr	\$0.033	\$20.40	\$0.54	\$2.16	\$0.00
La Familia Rec Ctr	\$0.036	\$19.98	\$0.45	\$2.16	\$4.51
Martin Luther King Rec Ctr	\$0.036	\$20.00	\$0.45	\$2.16	\$4.51
Montbello Rec Ctr	\$0.036	\$20.27	\$0.43	\$2.16	\$4.51
Montclair Rec Ctr	\$0.036	\$20.05	\$0.44	\$2.16	\$4.51
Rude Rec Ctr	\$0.037	\$20.17	\$0.46	\$2.16	\$4.51
Southwest Denver Rec Ctr	\$0.036	\$20.31	\$0.50	\$2.16	\$0.00
St Charles Rec Ctr	\$0.037	\$19.80	\$0.52	\$2.16	\$0.00
Washington Park Rec Ctr	\$0.036	\$20.18	\$0.46	\$2.16	\$4.51

Utility	Energy Escalation Rate Applied Herein	Nominal Escalation Rate per EERC
Electricity	3.0%	2.46%
Natural Gas	3.0%	5.05%
Water	3.0%	n/a
Sewer	3.0%	n/a

#### Table C3: Proposed Unit Savings and Guaranteed Annual Cost Savings for Project For Year 1 by ECM

		Utility U	se & Demand	l Savings		Annual Cost Savings											
ECM Name	Electric Energy Savings	Electric Demand Savings	Gas Energy Savings	Water & SS Savings	Annual Energy Savings	Electricity	, 1	Natural Gas	Water & SS	Total Utility Cost Savings	Savings less		otal Yr-1 Savings				
	(kWh/yr)	(kW/yr)	(Therms/yr )	nerms/yr ) (kGal/yr)						COSt Suvings	EIS fees	Javings					
ECM 1 - Interior Lighting Upgrades	770,928	2,194	-11,566	0	1,474	\$ 71,79	Э :	\$ (5,620)	ş -	\$ 66,179	\$ 7,466	\$	73,645				
ECM 2 - Exterior Lighting Upgrades	213,780	0	0	0	729	\$ 7,69	7	\$ -	\$ ·	\$ 7,697	\$ 3,290	\$	10,986				
ECM 3 - Live Energy Monitoring	156,411	419	11,211	0	1,655	\$ 14,069	Э :	\$ 5,370	ş -	\$ 19,439	\$ (9,327)	\$	10,112				
ECM 4 - Fabric Pool Cover	15,610	0	4,931	56	546	\$ 56	в	\$ 2,267	\$ 375	\$ 3,210	\$ 1,500	\$	4,710				
Totals	1,156,729	2,613	4,576	56	4,404	\$ 94,133	3	\$ 2,017	\$ 375	\$ 96,525	\$ 2,929	\$	99,453				
Baseline	8,752,283	23,034	573,329	33,622	87,196	\$ 789,22	5	\$ 273,712	\$ 187,881	\$1,250,820		\$1	1,250,820				
% Savings	13.2%	11.34%	0.8%	0.2%	5.1%	11.9%		0.7%	0.2%	7.7%			8.0%				

# EPC SCHEDULE D MEASUREMENT AND VERIFICATION SERVICES PLAN

M&V Services

For each year for which M&V Services are to be performed, Contractor will perform the M&V Services and submit to City a measurement and verification report for the project (the "M&V Report"), which shall include a guarantee reconciliation (the "Guarantee Reconciliation") upon the later of (i) sixty (60) days after the end of each Guarantee Year and (ii) sixty (60) days after Contractor receives or obtains City's available energy usage data for the Guarantee Year in question, if requested. The Guarantee Reconciliation will set forth the calculation of the Annual Savings achieved in relation to the Guarantee Savings for the period being reconciled.

The M&V Services will be performed, and an M&V Report delivered for Guarantee Years 1 through 3 of the Guarantee Period. By written notice to Contractor provided no later than ninety (90) days after the commencement of any subsequent and consecutive Guarantee Year, City, in its sole discretion, may elect to continue the M&V Services. If the City does not elect to continue the M&V Services within the stated timeframe, the Guaranteed Savings will be deemed achieved for the balance of the Guarantee Period and no further M&V Services will be performed. The Guaranteed Savings will be deemed achieved for each year for which M&V Services are not required to be performed.

Upon written notice to Contractor, given at least ninety (90) days after to the commencement of Years 4 through 18 of the Guarantee Period, Contractor will continue monitoring the performance of each ECM, consistent with the M&V Plan, and provide an Annual M&V Report; provided however, such notice may be given only for consecutive Guarantee Years.

The City must pay the stated M&V fee listed in Table D1 below in advance of each given year for the M&V Services to be provided. Failure to pay the M&V Services fee when due on an annual basis will result in termination of the M&V Services, and the Guaranteed Savings shall be deemed achieved for each Guarantee Year for which payment was not made and for the balance of the Guarantee Period.

In the event of early termination of this Agreement or of the M&V Services, unless termination is effective on the last day of the Guarantee Year then in effect, no annual M&V Report will be produced for the Guarantee Year then in effect, and the Guaranteed Savings shall be deemed achieved for the Guarantee Year then in effect and for the balance of the Guarantee Period.

EPC M&V Policy: Should the City wish to extend M&V services beyond the Guarantee Period per the M&V Term definition, the future additional annual costs to the City are presented in the table below. If the extended M&V costs beyond the Guarantee Period are not included in the Maximum Contract Price, they will be funded separately by the City through a separate agreement.

Year	 uaranteed nnual Cost Savings	Annual Cost for M&V Services					
1	\$ 99,453	\$	11,894				
2	\$ 102,437	\$	12,251				
3	\$ 105,510	\$	12,618				
Minimum 3-year Total*	\$ 307,400	\$	36,762				
4	\$ 108,675	\$	12,997				
5	\$ 111,936	\$	13,387				
6	\$ 115,294	\$	13,788				
7	\$ 118,752	\$	14,202				
8	\$ 122,315	\$	14,628				
9	\$ 125,985	\$	15,067				
10	\$ 129,764	\$	15,519				
11	\$ 133,657	\$	15,984				
12	\$ 137,667	\$	16,464				
13	\$ 141,797	\$	16,958				
14	\$ 146,051	\$	17,466				
15	\$ 150,432	\$	17,990				
Optional 15-Year Total	\$ 1,849,724	\$	221,211				

#### Table D1: Guaranteed Annual Cost Savings and Annual Cost for M&V Services

# M&V Plan

The table below lists the M&V approach for each energy conservation measure.

wice v Option Summary	
ECM	M&V Method
ECM 1 - Interior Lighting Upgrades	Option A
ECM 2 - Exterior Lighting Upgrades	Option A
ECM 3 - Live Energy Monitoring	Agreed Upon
ECM 4 - Fabric Pool Cover	Agreed Upon

#### M&V Option Summary by ECM

# M&V APPROACH FOR ECM 1 & 2 – INTERIOR AND EXTERIOR LIGHTING UPGRADES

M&V Plan Description:	FEMP Option A (Retrofit Isolation with Key Parameter Measurement) will be used to quantify the energy consumption savings associated with the lighting upgrades
Baseline Performance Parameters:	<ul> <li>Fixture quantities, wattage, and operating hours were determined based on a combination of field surveys, manufacturer data, assumptions, and industry standards.</li> <li>All baseline performance parameters are set forth in Schedule B.</li> <li>Pre and post retrofit hours of operation are agreed to as presented in the lighting savings calculations. Pre retrofit wattages are agreed to as set forth in the energy savings calculations.</li> </ul>
Post Installation Performance Parameters:	<ul> <li>Power level for a sample set of fixtures will be spot measured one (1) time post-construction on fixtures that represent more than 5% of the population.</li> <li>Measurements will follow 80/20 statistical confidence and precision criteria.</li> <li>Fixture count will be confirmed by visual confirmation during the commissioning and construction closeout process.</li> <li>Operating hours will not be measured but will be the same as the baseline performance parameters set forth in Schedule B unless an occupancy sensor is installed (operating hours will be noted in the savings calculation table). Interactive effects are not measured.</li> <li>Calculate energy savings achieved with final as-built counts and kW readings.</li> </ul>
Performance Assurance Activities:	<ul> <li>No ongoing measurements involved with this ECM.</li> <li>Annual site visits to a sample of City facilities impacted by EPC project as needed, to evaluate changes in the system performance or modifications to the installed ECM.</li> <li>Include findings in annual M&amp;V report.</li> </ul>

## **M&V APPROACH FOR ECM 3 – LIVE ENERGY MONITORING**

M&V Plan Description:	Agreed upon savings that have been derived through engineering calculations will be used to quantify the energy savings associated with this ECM.
Baseline Performance Parameters:	• The key parameter for this measure is the adjusted baseline energy used and demand as set forth in calculations included in the IGA Report appendix.
Post Installation Performance Parameters:	<ul> <li>Installation of the EIS and validation of accurate reporting from that system.</li> <li>Confirm application of the E&amp;S module energy information system as performed under the Cx plan for this measure.</li> <li>It is the responsibility of the City to utilize the system to monitor the building's energy performance and take corrective action as needed in order to realize energy savings.</li> </ul>
Performance Assurance Activities:	<ul> <li>No ongoing measurements involved with this ECM.</li> <li>Annual site visits to a sample of City facilities impacted by this ECM as needed.</li> <li>Validation of continued availability of the EIS</li> <li>Include findings in annual M&amp;V reports. Contractor has included the first year of the EIS Subscription &amp; Service Contract fee in the project. The City must enter into a separate agreement for subsequent years to continue to receive the service in order to realize the energy savings associated with real time monitoring of the buildings' energy usage.</li> </ul>

## M&V APPROACH FOR ECM 4 – FABRIC POOL COVER

M&V Plan Description:	Agreed upon savings that have been derived through engineering calculations will be used to quantify the energy savings associated with this ECM.
Baseline Performance Parameters:	• The key baseline parameters are the agreed-to pool water temperature and natatorium air temperature & relative humidity setpoints for the uncovered pools as set forth in calculations included in Schedule B.
Post Installation Performance Parameters:	<ul> <li>The key performance period parameters are the agreed-to pool water temperature and natatorium air temperature &amp; relative humidity setpoints (which are held fixed from the initial baseline values) for pools that are covered during unoccupied periods.</li> <li>Confirm pool covers deploy and retract correctly as performed under the Cx plan for this measure.</li> </ul>
Performance Assurance Activities:	<ul> <li>A sample of hours of operation will be measured with data loggers to confirm if the pool covers are deployed as intended or not.</li> <li>Annual site visits to City facilities impacted by this ECM.</li> <li>Include findings in annual M&amp;V report.</li> </ul>

# EPC SCHEDULE E CODE COMPLIANCE REQUIREMENTS

#### **Code Compliance Requirement**

The total cost is included in **EPC Schedule F**.

ECM	Code required (Y/N)	Code Enforced	Documentation review cost (\$)	Field inspection /permit cost (\$)
ECM 1 - Interior Lighting Upgrades	Y	2020 NEC	n/a	included
ECM 2 - Exterior Lighting Upgrades	Y	2020 NEC	n/a	included
ECM 3 - Live Energy Monitoring	Y	2020 NEC	n/a	included
		2020 NEC, 2019 IBC as	Included	included
ECM 4 - Fabric Pool Cover	Y	amendmended.		
Total				

# **EPC SCHEDULE F** Schedule of Values

SCHEDUL	E OF VALUES			of Denver - Libra PROJECT # 3729	ry and P&R Facili 2-20	ties	PERIOD TO : PURCHASE ORDER NO :															
			-														Estima	ted Draw Sc	hedule			
A	В	C = C.1+C.2	C.1	C.2	D	E	F	G TOTAL COMPLET		Н	1											
ITEM		TOTAL	TANGIBLE	INCIDNETAL			MATERIAL	& STORED TO DAT		BALANCE	RETAINAGE											
NO.	DESCRIPTION OF WORK	SCHEDULED	GOODS	GOODS	FROM PREVIOU		STORED			TO FINISH	IF APPLICABLE)						Mon	-	_	_		
		VALUE*	VALUE	VALUE	APPLICATIONS	PERIOD	(NOT IN D or E)	(D + E + F)	(%)	(C - G)		1		2	3		4	5	6	7	8	total
1 Bondi	ng - Incidental Goods	\$20,662.89		\$20,662.89	\$-	\$-		\$ -	_	\$ 20,662.89	\$-	\$	20,663 \$	- 6	\$	-	\$-	\$-	\$-	\$-	\$-	\$ 20,66
2 Interio	r Lighting - Ford Warren Library	\$19,568.01	\$9,755.74	\$9,812.27	\$-	\$-		\$ -		\$ 19,568.01	\$ -	\$	- \$	- 3	\$	-	\$ 19,568	\$-	\$-	\$-	\$-	\$ 19,56
3 Interio	r Lighting - Green Valley Ranch Library	\$53,596.19	\$31,124.64	\$22,471.56	\$-	\$-		\$ -		\$ 53,596.19	\$-	\$	- \$	- 3	\$	-	\$ 53,596	\$-	\$-	\$-	\$-	\$ 53,59
4 Interio	r Lighting - Hampden Library	\$10,922.66	\$6,149.17	\$4,773.49	\$-	\$-		\$ -		\$ 10,922.66	\$-	\$	- \$	- 3	\$	-	\$ 10,923	\$-	\$-	\$-	\$-	\$ 10,92
5 Interio	r Lighting - Montbello Library	\$29,104.63	\$15,183.31	\$13,921.32	\$-	\$-		\$ -		\$ 29,104.63	\$ \$ -	\$	- \$	- 5	\$	-	\$ 29,105	\$-	\$-	\$-	\$-	\$ 29,10
6 Interio	r Lighting - Rodolfo "Corky" Gonzales Library	\$47,245.16	\$23,036.49	\$24,208.67	\$-	\$-		\$ -		\$ 47,245.16	\$-	\$	- \$	- 5	\$	-	\$ 47,245	\$-	\$-	\$-	\$-	\$ 47,24
7 Interio	r Lighting - Virginia Village Library	\$41,617.48	\$22,921.02	\$18,696.45	\$-	\$-		\$ -		\$ 41,617.48	\$ -	\$	- \$	- 5	\$	-	\$-	\$ 41,617	\$-	\$-	\$-	\$ 41,61
8 Interio	r Lighting - Woodbury Library	\$16,692.22	\$8,010.18	\$8,682.04	\$-	\$-		\$-		\$ 16,692.22	\$ -	\$	- \$	- 6	\$	-	\$-	\$ 16,692	\$-	\$-	\$-	\$ 16,69
9 Interio	r Lighting - Athmar Rec Ctr	\$23,490.18	\$12,208.80	\$11,281.38	\$-	\$-		\$ -		\$ 23,490.18	\$ -	\$	- \$	- 5	\$	-	\$-	\$ 23,490	\$-	\$-	\$-	\$ 23,49
10 Interio	r Lighting - Aztlan Rec Ctr	\$11,388.94	\$6,039.97	\$5,348.96	\$-	\$-		\$ -		\$ 11,388.94	\$ -	\$	- \$	- 5	\$	-	\$-	\$ 11,389	\$-	\$-	\$-	\$ 11,38
11 Interio	r Lighting - Central Park Rec Center	\$92,885.38	\$53,361.41	\$39,523.97	\$ -	\$-		\$ -		\$ 92,885.38	\$ -	\$	- \$	- 3	\$	-	\$-	\$ 92,885	\$-	\$-	\$-	\$ 92,88
12 Interio	r Lighting - Eisenhower Rec Center	\$31,606.48	\$19,294.38	\$12,312.10	\$ -	\$-		\$ -		\$ 31,606.48	\$ -	\$	- \$	- 3	\$	-	\$-	\$-	\$ 31,606	\$-	\$-	\$ 31,60
13 Interio	r Lighting - Green Valley Ranch Rec Ctr	\$36,072.87	\$18,644.68	\$17,428.19	\$ -	\$ -		\$ -		\$ 36,072.87	\$-	\$	- \$	; -	\$	-	\$-	\$-	\$ 36,073	\$-	\$-	\$ 36,07
14 Interio	r Lighting - Harvard Gulch Rec/DPDWhse	\$36,074.83	\$20,948.51	\$15,126.32	\$ -	\$-		\$ -		\$ 36,074.83	\$\$-	\$	- \$	; -	\$	-	\$-	\$-	\$ 36,075	\$-	\$-	\$ 36,07
15 Interio	r Lighting - Hiawatha Davis Rec Ctr	\$130,183.66	\$98,002.80	\$32,180.86	<b>\$</b> -	\$-		\$ -		\$ 130,183.66	s -	\$	- \$	; -	\$	-	\$ -	\$-	\$ 130,184	\$-	\$-	\$ 130,18
16 Interio	r Lighting - La Familia Rec Ctr	\$29,351.11	\$18,382.49	\$10,968.62	<b>\$</b> -	\$-		\$ -		\$ 29,351.11	\$ -	\$	- \$	; -	\$	-	\$ -	\$-	\$ 29,351	\$-	\$-	\$ 29,35
	r Lighting - Martin Luther King Rec Ctr	\$38,904.53	\$24,346.91	\$14,557.62		\$ -		\$ -		\$ 38,904.53	s s -	\$	- \$	; -	\$	-	\$ -	\$-	\$ 38,905	\$-	\$-	\$ 38,90
	r Lighting - Montbello Rec Ctr	\$128,974.02	\$94,435.86	\$34,538.16	<b>\$</b> -	\$ -		\$ -		\$ 128,974.02	s -	\$	- \$	; -	\$	-	\$ -	\$-	\$-	\$ 128,974	\$-	\$ 128,97
	r Lighting - Montclair Rec Ctr	\$97,042.49	\$73,542.96	\$23,499.52		\$ -		\$ -		\$ 97,042.49		\$	- \$	; -	\$	-	\$ -	\$-	s -	\$ 97,042		\$ 97,04
	r Lighting - Rude Rec Ctr	\$88,764.58	\$61,181.88	\$27,582.69		\$ -		\$ -		\$ 88,764.58		\$	- \$	- -	\$	-	\$ -	- \$-	s -	\$ 88,765		\$ 88,76
	r Lighting - Southwest Denver Rec Ctr	\$25,827.37	\$15,884.93	\$9,942.44		\$ -		\$ -		\$ 25,827.37		\$	- \$	; -	s	-	s -	\$-	s -	\$ 25,827		\$ 25,82
	r Lighting - St Charles Rec Ctr	\$34,175.05	\$21,392.88	\$12,782.17		s -		\$ -		\$ 34,175.05		\$	- \$	-	s	-	\$ -	\$-	s -	\$ 34,175		\$ 34,17
	r Lighting - Washington Park Rec Ctr	\$26,576.89	\$15,742.94	\$10,833.95		\$ -		\$ -		\$ 26.576.89		\$	- \$	-	s	-	\$ -	s -	s -	\$ 26,577		\$ 26,57
	br Lighting - Ford Warren Library	\$5,080.89	\$3,635.34	\$1,445.54		\$		\$ -		\$ 5,080.89		\$	- \$	-	\$		\$ 5,081	\$-	\$ -	\$ -	\$ -	\$ 5,08
	or Lighting - Green Valley Ranch Library	\$4,816.11	\$2,905.94	\$1,910.17		\$ -		\$ -		\$ 4,816.11		\$	- \$	-	s		\$ 4,816	\$-	\$ -	\$-	\$ -	\$ 4,81
	or Lighting - Hampden Library	\$5,743.79	\$4,060.75	\$1,683.04		\$ -		\$ -		\$ 5,743.79	-	ŝ	- 5	· -	s		\$ 5,744	\$	\$ -	\$	\$ -	\$ 5,74
	or Lighting - Montbello Library	\$9,540.32	\$7,311.12	\$2,229.20		\$		\$		\$ 9,540.32	-	¢		, 	¢		\$ 9,540	¢ \$	\$	¢ \$	\$-	\$ 9,54
	or Lighting - Rodolfo "Corky" Gonzales Library	\$12,127.04	\$10,381.97	\$1,745.08		Ф –		ф –		\$ 12,127.04		ę	- 4 e	-	¢		\$ 12,127	¢ -	φ -	φ - ¢	φ - ¢	\$ 12,12
	or Lighting - Virginia Village Library	\$12,127.04	\$14,833.91	\$3,872.67		\$ \$		ф –		\$ 18,706.59		ę	- φ - ¢	, -	¢		\$ 12,127	♀ - \$ 18,707	φ - \$	φ - «	φ - \$	\$ 18,70
		\$7,322.91	\$5,354.08			Ф –		ф –				ę	- 4 e	-	¢	_	¢ -			φ - ¢	φ - ¢	
	or Lighting - Woodbury Library or Lighting - Athmar Rec Ctr	\$698.89	\$565.31	\$1,968.83 \$133.58		э - е		φ -		\$ 7,322.91 \$ 698.89		ф е	- \$	, -	\$ S	-	\$ - \$ -	\$	\$ -	\$- \$-	ş - \$ -	\$ 7,32 \$ 69
				\$133.56		ъ -		ъ -				ъ е			¢		Ť					\$ 8,48
	or Lighting - Aztlan Rec Ctr	\$8,484.37	\$6,923.46	\$1,560.91 \$2,034.95		ъ -		ъ -		\$ 8,484.37 \$ 7,183.71		ð	- \$		þ		Ť	,			\$ - \$ -	\$ 0,40 \$ 7,18
	or Lighting - Central Park Rec Center	\$7,183.71	\$5,148.76			ъ -		ъ -				\$	- \$	, -	Þ	-		-				
	br Lighting - Eisenhower Rec Center	\$2,992.30	\$2,111.30	\$881.00		ъ -		ъ -		\$ 2,992.30		\$	- 3	, -	Þ	-	\$ -	\$-	\$ 2,992		\$ -	\$ 2,99
	or Lighting - Green Valley Ranch Rec Ctr	\$7,456.41	\$4,890.89	\$2,565.51		\$ -		\$ -		\$ 7,456.41		\$	- \$	· -	\$	-	\$ -	\$-	\$ 7,456		\$ -	\$ 7,45
	pr Lighting - Harvard Gulch Rec/DPDWhse	\$2,302.71	\$1,579.81	\$722.90		\$ -		\$ -		\$ 2,302.71		\$	- \$	; -	\$	-	\$ -	\$-	\$ 2,303		\$ -	\$ 2,30
	or Lighting - Hiawatha Davis Rec Ctr	\$4,352.82	\$3,139.92	\$1,212.90		\$ -		ъ -		\$ 4,352.82		\$	- \$	· -	\$	-	\$ -	\$-	\$ 4,353		\$ -	\$ 4,35
	or Lighting - La Familia Rec Ctr	\$6,013.39	\$4,387.31	\$1,626.08		\$ -		\$ -		\$ 6,013.39		\$	- \$		\$	-	\$ -	\$-	\$ 6,013		\$ -	\$ 6,01
	or Lighting - Montbello Rec Ctr	\$20,082.37	\$16,328.70	\$3,753.67		\$ -		\$ -		\$ 20,082.37		\$	- \$	i -	\$	-	\$ -	\$-	\$ 20,082		\$ -	\$ 20,08
	or Lighting - Montclair Rec Ctr	\$52.93	\$8.64	\$44.30		\$-		\$ -		\$ 52.93		\$	- \$	- 5	\$	-	\$ -	\$-	\$-	\$ 53		\$ 5
	or Lighting - Rude Rec Ctr	\$7,257.78	\$4,821.39	\$2,436.39		\$-		\$ -		\$ 7,257.78		\$	- \$	-	\$	-	\$ -	\$-		\$ 7,258		\$ 7,25
	or Lighting - Southwest Denver Rec Ctr	\$8,380.08	\$6,987.51	\$1,392.57		\$ -		\$-		\$ 8,380.08		\$	- \$	- 5	\$	-	\$ -	\$-	-	\$ 8,380		\$ 8,38
	or Lighting - St Charles Rec Ctr	\$11,462.76	\$9,263.29	\$2,199.47		\$-		\$ -		\$ 11,462.76		\$	- \$	- 5	\$	-	\$-	\$-	\$-	\$ 11,463		\$ 11,46
44 Exteri	or Lighting - Washington Park Rec Ctr	\$404.02	\$274.78	\$129.24	\$-	\$-		\$ -		\$ 404.02	\$-	\$	- \$	- 3	\$	-	\$-	\$-	\$-	\$ 404	\$-	\$ 40

SCHEDULE OF VALUES		City and County of Denver - Library and P&R Facilities PROJECT # 37292-20				PERIOD TO : PURCHASE ORDER NO :																
A ITEM	В	C = C.1+C.2 TOTAL	C.1 TANGIBLE	C.2	D WORK	E COMPLETED	F	G TOTAL COMPLETED & STORED TO DATE	H	I CE RETAIN	ACE	-				Estimate	ed Draw Sche	dule				
NO.		SCHEDULED	GOODS		FROM PREVIOU	THIS	STORED	& STORED TO DATE	TO FINI							Month						
		VALUE*	VALUE	VALUE	APPLICATIONS	PERIOD	(NOT IN D or E)	(D + E + F)	(%) (C - G			1	2		3	4	5	6	7	8		total
45	Live Energy Monitoring - Ford Warren Library	\$6,190.53	\$2,187.32	\$4,003.21	<b>\$</b> -	\$ -		\$ -	\$ 6,19	0.53 \$	-	\$-	\$	- \$	-	\$ 6,191 \$	-	\$-	\$-	\$	- \$	6,191
46	Live Energy Monitoring - Green Valley Ranch Library	\$7,722.95	\$3,027.03	\$4,695.92	\$-	\$-		\$-	\$ 7,72	2.95 \$	-	\$-	\$	- \$	-	\$ 7,723 \$	-	\$-	\$-	\$	- \$	7,723
47	Live Energy Monitoring - Hampden Library	\$8,624.72	\$2,958.17	\$5,666.55	\$-	\$-		\$-	\$ 8,62	4.72 \$	-	\$-	\$	- \$	-	\$ 8,625 \$	-	\$-	\$-	\$	- \$	8,625
48	Live Energy Monitoring - Montbello Library	\$7,405.84	\$2,714.59	\$4,691.25	\$-	\$-		\$-	\$ 7,40	5.84 \$	-	\$-	\$	- \$	-	\$ 7,406 \$	-	\$-	\$-	\$	- \$	7,406
49	Live Energy Monitoring - Rodolfo "Corky" Gonzales Library	\$7,562.25	\$2,677.23	\$4,885.02	\$-	\$-		\$-	\$ 7,56	2.25 \$	-	\$-	\$	- \$	-	\$ 7,562 \$	-	\$-	\$-	\$	- \$	7,562
50	Live Energy Monitoring - Virginia Village Library	\$10,730.81	\$4,267.38	\$6,463.43	\$-	\$-		\$-	\$ 10,73	0.81 \$	-	\$-	\$	- \$	-	\$ - \$	10,731	\$-	\$-	\$	- \$	10,731
51	Live Energy Monitoring - Woodbury Library	\$8,468.23	\$3,186.93	\$5,281.30	\$-	\$-		\$-	\$ 8,46	8.23 \$	-	\$-	\$	- \$	-	\$ - \$	8,468	\$-	\$-	\$	- \$	8,468
52	Live Energy Monitoring - Athmar Rec Ctr	\$11,175.16	\$4,896.66	\$6,278.50	\$-	\$-		\$-	\$ 11,17	5.16 \$	-	\$-	\$	- \$	-	\$ - \$	11,175	\$-	\$-	\$	- \$	11,175
53	Live Energy Monitoring - Aztlan Rec Ctr	\$7,390.19	\$2,699.17	\$4,691.02	\$-	\$-		\$-	\$ 7,39	0.19 \$	-	\$-	\$	- \$	-	\$ - \$	7,390	\$-	\$-	\$	- \$	7,390
54	Live Energy Monitoring - Central Park Rec Center	\$13,579.62	\$4,776.60	\$8,803.02	\$-	\$-		\$-	\$ 13,57	9.62 \$	-	\$-	\$	- \$	-	\$ - \$	13,580	\$-	\$-	\$	- \$	13,580
55	Live Energy Monitoring - Eisenhower Rec Center	\$9,264.58	\$3,971.55	\$5,293.02	\$-	\$-		\$-	\$ 9,26	4.58 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$ 9,265	\$-	\$	- \$	9,265
56	Live Energy Monitoring - Green Valley Ranch Rec Ctr	\$13,800.52	\$4,611.30	\$9,189.22	\$-	\$-		\$-	\$ 13,80	0.52 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$ 13,801	\$-	\$	- \$	13,801
57	Live Energy Monitoring - Harvard Gulch Rec/DPDWhse	\$12,279.92	\$3,878.97	\$8,400.95	\$-	\$-		\$-	\$ 12,27	9.92 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$ 12,280	\$-	\$	- \$	12,280
58	Live Energy Monitoring - Hiawatha Davis Rec Ctr	\$12,306.46	\$3,905.12	\$8,401.34	\$-	\$-		\$-	\$ 12,30	6.46 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$ 12,306	\$-	\$	- \$	12,306
59	Live Energy Monitoring - La Familia Rec Ctr	\$9,616.97	\$3,361.41	\$6,255.57	\$-	\$-		\$-	\$ 9,67	6.97 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$ 9,617	\$-	\$	- \$	9,617
60	Live Energy Monitoring - Martin Luther King Rec Ctr	\$13,744.70	\$4,556.31	\$9,188.39	\$-	\$-		\$-	\$ 13,74	4.70 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$ 13,745	\$-	\$	- \$	13,745
61	Live Energy Monitoring - Montbello Rec Ctr	\$15,329.77	\$4,431.21	\$10,898.56	\$-	\$-		\$-	\$ 15,32	9.77 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$-	\$ 15,33	30 \$	- \$	15,330
62	Live Energy Monitoring - Montclair Rec Ctr	\$7,980.45	\$3,141.49	\$4,838.96	\$-	\$-		\$-	\$ 7,98	0.45 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$-	\$ 7,98	80 \$	- \$	7,980
63	Live Energy Monitoring - Rude Rec Ctr	\$12,530.89	\$4,509.20	\$8,021.70	\$-	\$-		\$-	\$ 12,53	0.89 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$-	\$ 12,53	31 \$	- \$	12,531
64	Live Energy Monitoring - Southwest Denver Rec Ctr	\$9,089.01	\$3,798.57	\$5,290.44	\$-	\$-		\$-	\$ 9,08	9.01 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$-	\$ 9,08	39 \$	- \$	9,089
65	Live Energy Monitoring - St Charles Rec Ctr	\$9,667.44	\$3,602.60	\$6,064.84	\$-	\$-		\$-	\$ 9,66	7.44 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$-	\$ 9,66	67 \$	- \$	9,667
66	Live Energy Monitoring - Washington Park Rec Ctr	\$11,087.34	\$3,852.78	\$7,234.57	\$-	\$-		\$-	\$ 11,08	7.34 \$	-	\$-	\$	- \$	-	\$ - \$	-	\$-	\$ 11,08	37 \$	- \$	11,087
67	Pool Cover - Washington Park Rec Ctr	\$150,730.87	\$111,754.91	\$38,975.96	\$-	\$-		\$ -	\$ 150,73	0.87 \$	-	\$-	\$	- \$	-	\$ - \$	150,731	\$-	\$-	\$	- \$	5 150,731
68	Contingency - Incidental Goods	\$51,259.32		\$51,259.32	\$-	\$-		\$-	\$ 51,25	9.32 \$	-	\$-	\$	- \$	-	\$ 12,815 \$	12,815	\$ 12,815	\$ 10,25	52 \$ 2,	2,563 \$	51,259
	ORIGINAL CONTRACT TOTAL:	\$1,648,728.33	\$977,272.63	\$671,455.70					\$1,648,72	8.33		\$ 20,66	3 \$	- \$	-	\$ 248,066 \$	443,360	\$ 429,221	\$ 504,85	55 \$ 2	2,563 \$	5 1,648,728

В	City and County of Denver - Library and P&R Facilities PROJECT # 37292-20						PERIOD TO : PURCHASE ORDER NO : ?				Entimated Down Ont-shile							
	C = C.1+C.2         C.1         C.2         D         E           WORK COMPLETED					F	F G H I TOTAL COMPLETED				Estimated Draw Schedule							
DESCRIPTION OF WORK	TOTAL SCHEDULED	TANGIBLE GOODS	INCIDNETAL GOODS	FROM PREVIOU		MATERIAL	& STORED TO DATE		RETAINAGE IF APPLICABLE)				Мо	nth				
	VALUE*	VALUE	VALUE	APPLICATIONS	PERIOD	NOT IN D or E	(D + E + F)	(%) (C - G)		1	2	3	4	5	6	7	8	to
onding - Incidental Goods	\$20,662.89		\$20,662.89	s -	s -		s -	\$ 20,662.89	s -	\$ 20,663	s -	s -	\$ -	s -	s -	s -	s -	- s
terior Lighting - Ford Warren Library	\$19,568.01	\$9,755.74	\$9,812.27		\$ -		s -	\$ 19,568.01	s -	s -	\$ -	s -	\$ 19,568	s -	\$ -	\$ -	s -	
terior Lighting - Green Valley Ranch Library	\$53,596.19	\$31,124.64	\$22,471.56		\$ -		s -	\$ 53,596.19	s -	\$ -	\$ -	s -	\$ 53,596	s -	\$ -	\$ -	s -	- s
terior Lighting - Hampden Library	\$10,922.66	\$6,149.17	\$4,773.49	s -	\$ -		s -	\$ 10,922.66	s -	s -	s -	s -	\$ 10,923	s -	\$ -	s -	s -	- s
terior Lighting - Montbello Library	\$29,104.63	\$15,183.31	\$13,921.32	s -	s -		s -	\$ 29,104.63	s -	s -	s -	s -	\$ 29,105	s -	\$ -	\$ -	s -	- s
nterior Lighting - Rodolfo "Corky" Gonzales Library	\$47,245.16	\$23,036.49	\$24,208.67	s -	s -		s -	\$ 47,245.16	s -	s -	s -	s -	\$ 47,245	s -	s -	\$ -	s -	- s
nterior Lighting - Virginia Village Library	\$41,617.48	\$22,921.02		s -	\$ -		s -	\$ 41,617.48	S -	s -	s -	s -	\$ -	\$ 41,617	s -	\$ -	s -	- s
terior Lighting - Woodbury Library	\$16,692.22	\$8,010.18	\$8,682.04		s -		s -	\$ 16,692.22	s -	s -	s -	s -	\$ -	\$ 16,692	s -	\$ -	s -	- s
nterior Lighting - Athmar Rec Ctr	\$23,490.18	\$12,208.80	\$11,281.38		s -		s -	\$ 23,490.18	s -	s -	s -	s -	s -	\$ 23,490	s -	s -	s -	- s
nterior Lighting - Aztlan Rec Ctr	\$11,388.94	\$6,039.97	\$5,348.96		s -		s -	\$ 11.388.94	s -	s -	s -	s -	s -	\$ 11.389	s -	- s -	s -	- s
tterior Lighting - Central Park Rec Center	\$92,885.38	\$53,361.41	\$39,523.97	s -	s -		s -	\$ 92,885.38	s -	s -	s -	s -	\$ -	\$ 92,885	s -	s -	s -	. s
terior Lighting - Eisenhower Rec Center	\$31,606.48	\$19,294.38	\$12,312.10		· ·		\$ .		\$ .	\$ .	s .	s -	s -	s -	\$ 31.606	s .	s -	
terior Lighting - Green Valley Ranch Rec Ctr	\$36,072.87	\$18,644.68	\$17,428.19				\$	\$ 36,072.87	\$ _	\$	s .	s -	\$ -	s -	\$ 36,073	۰ ۲ ۲	\$	
terior Lighting - Harvard Guich Rec/DPDWhse	\$36,072.87	\$20,948.51	\$15,126.32				\$	\$ 36,074.83	s -	\$	s .	\$	\$	s -	\$ 36,075	- ب د	s .	s
erior Lighting - Hawatha Davis Rec Ctr	\$130,183.66	\$98,002.80	\$32,180.86				- -	\$ 130.183.66	- -	e -	• -		s -	s -	\$ 130,184	φ - e	s -	-
	\$29,351.11		\$10,968.62		• -		-	\$ 29,351.11	- -	° -	•	· ·	- -	s -		• -	-	- s
erior Lighting - La Familia Rec Ctr		\$18,382.49	\$10,968.62		•		• •	\$ 29,351.11 \$ 38.904.53	· ·		• ·			s -	\$ 29,351 \$ 38,905	* - s	s -	- s
erior Lighting - Martin Luther King Rec Ctr	\$38,904.53	\$24,346.91			* -		° -		- -		ې - د	° -	\$ -	· ·	a 38,905	9 -	*	
erior Lighting - Montbello Rec Ctr	\$128,974.02	\$94,435.86	\$34,538.16		• -			\$ 128,974.02	ə -	° -	ۍ د د	° -	\$ -	° -	° -	\$ 128,974 \$ 07,042		-  \$
terior Lighting - Montclair Rec Ctr	\$97,042.49	\$73,542.96	\$23,499.52		ə -		> -	\$ 97,042.49	ə -	» -	» -	\$ -	5 -	s -		\$ 97,042		- \$
erior Lighting - Rude Rec Ctr	\$88,764.58	\$61,181.88			5 -		s -	\$ 88,764.58	5 -	5 -	5 -	s -	\$ -	s -	·	\$ 88,765		1.
erior Lighting - Southwest Denver Rec Ctr	\$25,827.37	\$15,884.93	\$9,942.44		5 -		2 -	\$ 25,827.37	5 -	\$ -	s -	s -	5 -	s -		\$ 25,827		- \$
erior Lighting - St Charles Rec Ctr	\$34,175.05	\$21,392.88	\$12,782.17		<b>5</b> -		S -	• • • • • • • • • •	s -	\$ -	ş -	s -	\$ -	s -	ş -	\$ 34,175	s -	- \$
arior Lighting - Washington Park Rec Ctr	\$26,576.89	\$15,742.94	\$10,833.95		\$ -		s -	\$ 26,576.89	s -	\$ -	\$ -	S -	\$ -	s -	\$ -	\$-	s -	- \$
xterior Lighting - Ford Warren Library	\$5,080.89	\$3,635.34	\$1,445.54		\$ -		\$ -	• •,••••	\$ -	\$ -	\$ -	s -		s -	\$ -	\$ -	s -	- \$
xterior Lighting - Green Valley Ranch Library	\$4,816.11	\$2,905.94	\$1,910.17		\$ -		\$ -	\$ 4,816.11	s -	\$ -	\$ -	s -	\$ 4,816	s -	\$ -	\$-	s -	- \$
terior Lighting - Hampden Library	\$5,743.79	\$4,060.75	\$1,683.04		\$-		s -	\$ 5,743.79	s -	\$-	\$-	s -	\$ 5,744	s -	\$ -	\$-	s -	- \$
terior Lighting - Montbello Library	\$9,540.32	\$7,311.12	\$2,229.20	\$ -	\$ -		s -	• • • • • • • •	s -	\$-	\$ -	s -	\$ 9,540	s -	\$ -	\$-	s -	- \$
terior Lighting - Rodolfo "Corky" Gonzales Library	\$12,127.04	\$10,381.97	\$1,745.08		\$ -		s -	\$ 12,127.04	s -	s -	\$ -	s -	\$ 12,127	s -	\$ -	\$-	s -	- \$
terior Lighting - Virginia Village Library	\$18,706.59	\$14,833.91	\$3,872.67	s -	5 -		s -	\$ 18,706.59	s -	s -	\$ -	s -	\$ -	\$ 18,707	\$-	\$-	s -	- \$
terior Lighting - Woodbury Library	\$7,322.91	\$5,354.08	\$1,968.83	<b>\$</b> -	\$ -		\$	\$ 7,322.91	s -	\$-	\$ -	s -	\$-	\$ 7,323	\$-	\$-	s -	- \$
terior Lighting - Athmar Rec Ctr	\$698.89	\$565.31	\$133.58	S -	5 -		5 -	\$ 698.89	s -	s -	s -	s -	\$-	\$ 699	\$-	\$-	s -	- \$
terior Lighting - Aztian Rec Ctr	\$8,484.37	\$6,923.46	\$1,560.91	\$ -	\$ -		\$ -	\$ 8,484.37	s -	s -	\$ -	s -	\$-	\$ 8,484	\$ -	\$ -	s -	- \$
terior Lighting - Central Park Rec Center	\$7,183.71	\$5,148.76	\$2,034.95	<b>S</b> -	\$ -		s -	\$ 7,183.71	\$ -	s -	\$ -	s -	\$ -	\$ 7,184	\$ -	\$-	s -	- \$
terior Lighting - Eisenhower Rec Center	\$2,992.30	\$2,111.30	\$881.00	S -	\$ -		\$ -	\$ 2,992.30	s -	s -	\$ -	s -	\$-	s -	\$ 2,992	\$-	s -	- \$
terior Lighting - Green Valley Ranch Rec Ctr	\$7,456.41	\$4,890.89	\$2,565.51	<b>\$</b>	\$ -		\$	\$ 7,456.41	s -	s -	\$-	s -	\$-	s -	\$ 7,456	\$-	s -	- \$
terior Lighting - Harvard Gulch Rec/DPDWhse	\$2,302.71	\$1,579.81	\$722.90	\$ -	\$-		<b>S</b>	\$ 2,302.71	s -	\$-	\$ -	s -	\$ -	s -	\$ 2,303	\$-	s -	- \$
terior Lighting - Hiawatha Davis Rec Ctr	\$4,352.82	\$3,139.92	\$1,212.90	S -	\$ -		<b>S</b> -	\$ 4,352.82	s -	\$-	\$ -	s -	\$-	s -	\$ 4,353	\$-	s -	- \$
terior Lighting - La Familia Rec Ctr	\$6,013.39	\$4,387.31	\$1,626.08	s -	\$-		\$ -	\$ 6,013.39	s -	\$-	\$-	s -	\$ -	s -	\$ 6,013	\$-	s -	- \$
xterior Lighting - Montbello Rec Ctr	\$20,082.37	\$16,328.70	\$3,753.67	s -	\$-		s -	\$ 20,082.37	s -	s -	s -	s -	\$ -	s -	\$ 20,082	s -	s -	- s
terior Lighting - Montclair Rec Ctr	\$52.93	\$8.64	\$44.30	s -	\$ -		s -	\$ 52.93	s -	\$ -	\$ -	s -	\$ -	s -	\$ -	\$ 53	s -	- \$
xterior Lighting - Rude Rec Ctr	\$7,257.78	\$4,821.39	\$2,436.39	s -	\$ -		s -	\$ 7,257.78	s -	\$ -	s -	s -	\$ -	s -	\$ -	\$ 7,258	s -	- s
xterior Lighting - Southwest Denver Rec Ctr	\$8,380.08	\$6,987.51	\$1,392.57	S -	\$ -		s -	\$ 8,380.08	s -	s -	s -	s -	\$ -	s -	\$ -	\$ 8,380	s -	- s
xterior Lighting - St Charles Rec Ctr	\$11,462.76	\$9,263.29	\$2,199.47	<b>\$</b> -	\$ -		s -	\$ 11,462.76	s -	s -	s -	s -	\$ -	s -	\$ -	\$ 11,463	s -	- s
xterior Lighting - Washington Park Rec Ctr	\$404.02	\$274.78	\$129.24	s -	\$ -		s -	\$ 404.02	s -	s -	s -	s -	\$ -	s -	s -	\$ 404	s -	- \$
ve Energy Monitoring - Ford Warren Library	\$6,190.53	\$2,187.32	\$4,003.21	s -	\$ -		s -	\$ 6,190.53	s -	\$ -	\$ -	s -	\$ 6,191	s -	\$ -	\$ -	s -	- s
ve Energy Monitoring - Green Valley Ranch Library	\$7,722.95	\$3,027.03	\$4,695.92	s -	s -		s -		s -	s -	s -	s -	\$ 7,723	s -	\$ -	s -	s -	- s
e Energy Monitoring - Hampden Library	\$8,624.72	\$2,958.17			s -		s -	\$ 8,624.72	s -	s -	s -	s -	\$ 8,625	s -	s -	s -	s -	- s
ve Energy Monitoring - Montbello Library	\$7,405.84	\$2,714.59	\$4,691.25	s -	\$ -		s -	\$ 7,405.84	s -	\$ -	\$ -	s -	\$ 7,406	s -	\$ -	\$ -	s -	\$
e Energy Monitoring - Rodolfo "Corky" Gonzales Library	\$7,562.25	\$2,677.23			s -		s -		s -	\$ -	\$ -	s -		s -	\$ -	\$ -	s -	- s
e Energy Monitoring - Virginia Village Library	\$10,730.81	\$4,267.38	\$6,463.43		s -		s -	\$ 10,730.81	s -	s -	s -	s -		\$ 10,731	s -	s -	s -	- s
e Energy Monitoring - Woodbury Library	\$8,468.23	\$3,186.93	\$5,281.30		\$-		s -		s -	s -	\$ -	s -	\$ -	\$ 8,468	\$ -	s -	s -	- s
ve Energy Monitoring - Athmar Rec Ctr	\$11,175.16	\$4,896.66			<b>\$</b> -		s -		s -	s -	s -	s -	\$ -	\$ 11,175	s -	\$-	s -	- \$
ve Energy Monitoring - Aztlan Rec Ctr	\$7,390.19	\$2,699.17	\$4,691.02		\$-		s -		s -	s -	\$ -	s -	\$ -	\$ 7,390	\$ -	\$-	s -	. s
e Energy Monitoring - Central Park Rec Center	\$13,579.62	\$4,776.60			\$ -		s -		s -	s -	s -	s -	\$ -	\$ 13,580	s -	s -	s -	
ve Energy Monitoring - Eisenhower Rec Center	\$9,264.58	\$3,971.55			s -		s -	\$ 9,264.58	s -	s -	s -	s -	\$ -	s -	\$ 9,265	\$ -	s -	- s
e Energy Monitoring - Green Valley Ranch Rec Ctr	\$13,800.52	\$4,611.30			\$ -		\$ -		s -	s -	\$ -	s -	\$ -			\$ -	s -	- \$
e Energy Monitoring - Harvard Gulch Rec/DPDWhse	\$12,279.92	\$3,878.97	\$8,400.95		\$ -		s -		s -	s -	s -	s -			\$ 12,280	•	s -	
e Energy Monitoring - Hawatha Davis Rec Ctr	\$12,306.46	\$3,905.12			s -		s -	\$ 12,306.46	s -	s _	s -	s -	\$ -	s -	\$ 12,306		s -	- s
e Energy Monitoring - La Familia Rec Ctr	\$9,616.97	\$3,361.41	\$6,255.57		s -		s -		s -	s _	s -	s -					s -	
ve Energy Monitoring - La Fanning Nec Cur	\$13,744.70	\$4,556.31	\$9,188.39		s -		s -	\$ 13,744.70	s -	s -	s -	s	\$ -	s -			s -	
ve Energy Monitoring - Montbello Rec Ctr	\$15,329.77	\$4,431.21	\$10,898.56		s -		s .		s -	s	s -	s -	s -	s -		\$ 15,330		
ve Energy Monitoring - Montclair Rec Ctr	\$7,980.45	\$3,141.49			s -		s	\$ 7,980.45	s -	s	s -	s	\$ -	s -	·	\$ 15,550 \$ 7,980		
ve Energy Monitoring - Noniclair Rec Ctr	\$12,530.89	\$4,509.20			s -		\$		s -	s	s -	s -	\$ - \$ -	s -		\$ 7,580 \$ 12,531		
ve Energy Monitoring - Rube Rec Ctr	\$9,089.01	\$3,798.57	\$5,290.44		s -		s -		s -		s -	s -				\$ 9,089		
	\$9,667.44	\$3,602.60	\$5,290.44		s -		s -	\$ 9,667.44	s -	•	» - s -	s -	\$ -	s -		\$ 9,089 \$ 9,667		
ive Energy Monitoring - St Charles Res Ctr	49,007.44	¢3,002.00					lă î			l″ ⁻	· ·		<sup>*</sup>	· ·				
ive Energy Monitoring - St Charles Rec Ctr	\$11.097.94	e2 050 70	67 004 57					C 11 007 01	\$	s '	\$	S	8	¢	¢ !			
ive Energy Monitoring - Washington Park Rec Ctr	\$11,087.34 \$150,730.87	\$3,852.78 \$111.754.91	\$7,234.57 \$38.975.96		<u>s</u> -		s -	\$ 11,087.34 \$ 150,730,87	<u>s -</u>	\$ - \$ -	<u>s -</u>	s -	\$ - \$ -	\$ - \$ 150 731	<u>s</u> -	\$ 11,087 \$ -	s - s -	- <u>\$</u>
	\$11,087.34 \$150,730.87 \$51,259.32	\$3,852.78 \$111,754.91	\$7,234.57 \$38,975.96 \$51,259.32	s -	\$- \$- \$-		s - s - s -	\$ 150,730.87	<u>s -</u> s -		<u>s -</u> s -	s - s - s -	\$ - \$ - \$ 12,815	\$ - \$ 150,731 \$ 12,815		\$ -	s -	- \$ - \$ 563 \$

# EPC Schedule G: Proposed Financial Cost and Cash Flow Analysis

Projected Financial Performance		
Investment Grade Audit (under a separate IGA contract)	\$0	IGA Contract, Exhibit B: \$105,060
Fixed Limit of Construction	\$1,597,470	Schedule F
Measurement & Verification Fee	\$36,762	Schedule D
Contingency	\$51,259	Schedule B
Total Project Value (TPV) (total of items above)	\$1,685,491	

Rebates (minimum amount guaranteed by ESCO)	\$0	Schedule B		
Political Subdivision Cash Contribution (MCP)	\$671,456	Schedule F		
(one time, not annual)	J071,430	Scheddle		
Measurement & Verification Fee (Same as above,	\$36,762	Schedule D		
M&V is not Financed)	\$50,702	Scheddle		
Other Political Subdivision Funds (gifts, grants,	\$0	Schedule F		
donations, etc.),	ŞU	Schedule		
Construction Period Interest (CPI, cost is added to	(65.222)			
financed amount)	(\$5,223)			
Total Amount Financed (TPV minus items above + CPI)	\$982,495	)		
	. ,			

Financial Term in Years	15
Projected Interest Rate	1.60%

#### **Cashflow Table**

Project Funding		
Maximum Contract Price (MCP=TCP+M&V)	\$1,685,491	
Turnkey Project Cost (TPC):	\$1,648,728	
Capital Contribution (CC):	\$671,456	Cost of Incidental Goods
Financed Project Cost Balance (TPC-CC+CP):	\$982,495	
Annual Capital Contribution	\$0	
Anticipated Rebates (Applied in Yr 1)	\$0	
Financing Type:	T.E.L.P.	
Financing Interest Rate:	1.60%	]
Program Term:	15	
Construction Period (CP) Interest [1]:	\$5,223	]
Measurement & Verification (3-yrs M&V)	\$36,762	]

#### Notes:

[1] Construction loan interest is not capitalized, but accrued in the principal balance

	Ar	nnual Costs	;	Annual Savings									ortization De	etails	
{A}	{B}	{C}	{D}	{E}	{F}	{G}	{H}	{I}	{J}	{K}	{L}	{M}	{N}	{0}	{P}
Year	Annual Debt Service	Annual M&V Cost	Total Annual Cost	Electric	Natural Gas	Water	Sewer	Total Annual Utility Savings	O&M Mat'l Savings	EIS Subscription & Service	Guaranteed Total Annual Cost Savings	Customer Step Payment to Financier	EOY Balance)	New Loan Balance (EOY)	Year End Balance
			(B+C)					{E+F+G+H}		Contract	{I+J+K}	{C+L}	(Rate x O_prev. yr.)	{M+N+O_prev. yr.}	{D+L}
	0.0% Esc.	3.0% Esc.		3.0% Esc.	3.0% Esc.	3.0% Esc.	3.0% Esc.		3.00% Esc.	3.0% Esc.					
0		uction Period Sa		\$23,533	\$504	\$30	\$63	\$24,131	<b>\$</b> 0	\$0	\$24,131	\$0	\$0	-\$982,495	\$24,131
	-\$91,810	-\$11,894	-\$103,704	\$94,133	\$2,017	\$121	\$254	\$96,525	\$12,256	-\$9,327	\$99,453	\$91,810	-\$15,720	-\$906,405	\$19,881
2	-\$91,810	-\$12,251	-\$104,061	\$96,957	\$2,078	\$125	\$261	\$99,421	\$12,624	-\$9,607	\$102,437	\$91,810	-\$14,502	-\$829,098	\$18,257
3	-\$91,810	-\$12,618	-\$104,428	\$99,865	\$2,140	\$129	\$269	\$102,403	\$13,002	-\$9,895	\$105,510	\$91,810	-\$13,266	-\$750,553	\$19,339
4	-\$91,810	\$0	-\$91,810	\$102,861	\$2,204	\$133	\$277	\$105,475	\$13,392	-\$10,192	\$108,675	\$91,810	-\$12,009	-\$670,752	\$36,205
5	-\$91,810	\$0	-\$91,810	\$105,947	\$2,270	\$137	\$285	\$108,639	\$13,794	-\$10,498	\$111,936	\$91,810	-\$10,732	-\$589,674	\$56,330
6	-\$64,280	\$0	-\$64,280	\$109,126	\$2,338	\$141	\$294	\$111,899	\$14,208	-\$10,813	\$115,294	\$64,280	-\$9,435	-\$534,829	\$107,344
7	-\$64,280	\$0	-\$64,280	\$112,399	\$2,409	\$145	\$303	\$115,256	\$14,634	-\$11,137	\$118,752	\$64,280	-\$8,557	-\$479,106	\$161,816
8	-\$64,280	\$0	-\$64,280	\$115,771	\$2,481	\$149	\$312	\$118,713	\$15,073	-\$11,471	\$122,315	\$64,280	-\$7,666	-\$422,492	\$219,851
9	-\$64,280	\$0	-\$64,280	\$119,244	\$2,555	\$154	\$321	\$122,275	\$15,525	-\$11,816	\$125,985	\$64,280	-\$6,760	-\$364,972	\$281,556
10	-\$64,280	\$0	-\$64,280	\$122,822	\$2,632	\$158	\$331	\$125,943	\$15,991	-\$12,170	\$129,764	\$64,280	-\$5,840	-\$306,531	\$347,040
11	-\$64,280	\$0	-\$64,280	\$126,506	\$2,711	\$163	\$341	\$129,721	\$16,471	-\$12,535	\$133,657	\$64,280	-\$4,904	-\$247,155	\$416,417
12	-\$64,280	\$0	-\$64,280	\$130,302	\$2,792	\$168	\$351	\$133,613	\$16,965	-\$12,911	\$137,667	\$64,280	-\$3,954	-\$186,830	\$489,803
13	-\$64,280	\$0	-\$64,280	\$134,211	\$2,876	\$173	\$361	\$137,621	\$17,474	-\$13,298	\$141,797	\$64,280	-\$2,989	-\$125,539	\$567,320
14	-\$64,280	\$0	-\$64,280	\$138,237	\$2,962	\$178	\$372	\$141,750	\$17,998	-\$13,697	\$146,051	\$64,280	-\$2,009	-\$63,268	\$649,090
15	-\$64,280	\$0	- <b>\$64,280</b>	\$142,384	\$3,051	\$184	\$384	\$146,002	\$18,538	-\$14,108	\$150,432	\$64,280	-\$1,012	\$0	\$735,242
16 17	\$0 \$0	\$0 \$0	\$0	\$146,656	\$3,143 \$3,237	\$189	\$395 \$407	\$150,382	\$19,094	-\$14,532	\$154,945	\$0 \$0	\$0	\$0 \$0	\$890,187
17	\$0 \$0	\$0 \$0	\$0 \$0	\$151,055 \$155,587	\$3,237 \$3,334	\$195 \$201	\$407 \$419	\$154,894 \$159,541	\$19,667 \$20,257	-\$14,968 -\$15,417	\$159,593 \$164,381	\$0 \$0	\$0 \$0	\$0 \$0	\$1,049,781 \$1,214,162
10	\$0 \$0	\$0 \$0	50 \$0	\$155,587 \$160,255	\$3,334	\$201	\$432	\$159,541 \$164,327	\$20,257 \$20,865	-\$15,417 -\$15,879	\$169,313	\$0 \$0	\$0 \$0	50 \$0	\$1,214,102 \$1,383,475
20	\$0	\$0 \$0	\$0 \$0	\$165,062	\$3,537	\$207	\$432	\$169,257	\$20,805	-\$15,879	\$109,313 \$174,392	\$0 \$0	\$0	50 \$0	\$1,557,867
20	\$0	\$0 \$0	50 \$0	\$100,002 \$170,014	\$3,643	\$213	\$445	\$109,257 \$174,334	\$21,491 \$22,135	-\$10,300	\$174,392 \$179,624	\$0 \$0	\$0	50 \$0	\$1,557,867 \$1,737,490
21	\$0	\$0 \$0	\$0 \$0	\$170,014 \$175,114	\$3,043	\$219	\$458	\$174,334 \$179,564	\$22,135	-\$10,840 -\$17,351	\$179,024 \$185,012	\$0	\$0	\$0	\$1,737,490 \$1,922,503
22	\$0	50 \$0	50 50	\$175,114 \$180,368	\$3,752	\$233	\$472 \$486	\$179,504 \$184,951	\$22,799 \$23,483	-\$17,351	\$185,012 \$190,563	\$0 \$0	50 \$0	50 \$0	\$1,922,503 \$2,113,066
														<b>4</b> 7	
Totals:	-\$1,101,850	-\$36,762	-\$1,138,613	\$3,078,409	\$65,966	\$3,971	\$8,292	\$3,156,638	\$397,738	-\$302,697	\$3,251,679	\$1,101,850	-\$119,355		\$2,113,066

## **EPC SCHEDULE H**

## **Certification that Cost-weighted Average Service Life of Equipment Exceeds Financing Term**

The table below lists the information and calculations used to determine the Cost-Weighted Average Service Life of utility cost-savings equipment.

ECM Description		ECM Price	Service Life (yrs.)	Source of Service Life Value	Average Service Life Value*		
ECM 1 - Interior Lighting Upgrades	\$	1,097,961	27	Calculated	18.0		
ECM 2 - Exterior Lighting Upgrades	\$	157,325	18	Calculated	1.7		
ECM 3 - Live Energy Monitoring	\$	235,836	15	SHRAE (electronic controls	2.1		
ECM 4 - Fabric Pool Cover	\$	157,606	12	AMRC Estimate	1.1		
Totals	\$	1,648,728			23.0		
				T			
Financing Agreement Term 15 years							

\*The Average Service Life Value = ECM Price X Service Life/Total Price for the individual ECMs. Summed over all ECMs, it yields the average service life of the overall project.

The useful life of the lighting systems was determined using the rated life of the replacement lamps (or new fixtures) divided by their annual run-times.

# EPC SCHEDULE I RECORD OF REVIEWS

**INVESTMENT GRADE AUDIT CONTRACT** (this review shall be completed by a CEPCP member, the Principal Representative of the City

The IGA Contract review establishes:

- Confirmation that the CEPCP-provided IGA contract and exhibits are beingused;
- Scope of Work (IGA Exhibit A) if modified, was only modified within the generally historically allowed changes with approval of the client, the CEPCP reviewer, and OSA as applicable;
- ESCO cost and pricing elements are within the boundaries of the EPC base agreement contract with CEPCP program; and
- No additions, subtractions, or changes have been made to the IGA contract without notifying and receiving approval from the Principal Representative, the CEPCP reviewer, and OSA asapplicable.

<b>CEPCP Reviewer</b> : Reviewers Comments:	 Date Completed:	
<b>City Reviewer</b> : Reviewers Comments:	 Date Completed:	

**INVESTMENT GRADE AUDIT REPORT AND PROJECT PROPOSAL** (This review shall be completed by a CEPCP member, the Principal Representative, and, as necessary, OSA, prior to finalizing the EPC Project Proposal for an EPC contract)

IGA report review addressed the following:

- IGA has met the minimum requirements as outlined in the CEPCP IGA Exhibit A, Scope of Work;
- Verifies compliance with all applicable legislation for state governments;
- Reviews existing operational assumptions and adds notes as necessary to the Principal Representative and ESCO verifying assumptions are confirmed by the Principal Representative;
- Confirms that adequate technical details follow appropriate methodologies and assumptions used to calculate savings (utility usage reduction) for each Utility Cost Savings Measure or FIM;
- Confirms costs document: engineering/design costs, contractor/vendor estimates, fees, estimated code compliance cost, etc.
- Principal Representative confirms that any operation and/or maintenance (O&M) savings proposed by the ESCO are acceptable. The sufficiency of O&M savings are not reviewed by the CEPCP;
  - Principal Representative Signature \_\_\_\_\_\_
  - Date: \_\_\_\_
- Principal Representative confirms that presented operations, schedules, set points, etc. are acceptable.
  - Principal Representative Signature \_\_\_\_\_
  - Date: \_
- Principal Representative confirms commissioning, M&V plans, and any non-verified calculated savings, are in compliance with the CEPCP and that the Principal Representative understands and accepts these items and schedules.

## EPC SCHEDULE I RECORD OF REVIEWS

- Principal Representative Signature \_\_\_\_\_\_
- Date: \_\_\_\_\_
- Principal Representative confirms, when applicable, the Principal Representative's annual or one-time monetary contributions are included in the financial performance schedule. The sufficiency of such contributions is not reviewed by the CEPCP.
  - Principal Representative Signature
  - Date:
- Principal Representative confirms acceptance of presented annual utility and inflation escalation rates.
   Principal Representative Signature \_\_\_\_\_\_
  - Date:

CEPCP Reviewer:	Dylan Klomhaus & Jock Tuttel	Date Completed:	11/24/2020
<b>Reviewers Comments:</b>	See file "CEO CCD Ameresco Project Rec	ord of Reviews.xlsx"	_
City Reviewer:	Kami Johle	Date Completed:	12/1/2020
Reviewers Comments:	See file "CCD Draft IGA Report Review Meeting Minutes 12-1-2020.pdf"		

**ENERGY PERFORMANCE CONTRACT** (this shall be completed by a CEPCP member, the Principal Representative, and as necessary, OSA, prior to the ESCO signing the contract)

The EPC review establishes the following:

- Confirms that the CEPCP provided EPC contract and schedules are being used;
- ESCO cost and pricing elements are within the boundaries of their EPC base agreement contract with CEPCP;
- No additions, subtractions, or changes have been made to the contract without notifying and receiving approval from the Principal Representative, the CEPCP reviewer, a Principal Representative legal review, and Principal Representative Controller (or equivalent);
- If modified, all modifications, updates, additions to the schedules and exhibits are within the generally
  historically allowed changes. All changes are tracked until accepted by CEPCP reviewer and OSA as applicable;
  and
- Confirms the pro-forma schedule includes all known Principal Representative funds, utility rebates, other grant funds, and all potential cost through the length of the loan.

CEPCP Reviewer:	_ Date Completed:
City Reviewer:	Date Completed:
Reviewers Comments:	

ACORD <sup>®</sup> CERTIFICATE OF LIABILITY INSURANCE				DATE (	MM/DD/YYYY)		
						10/28/2021	
THIS CERTIFICATE IS ISSUED AS A CERTIFICATE DOES NOT AFFIRMAT BELOW. THIS CERTIFICATE OF INS REPRESENTATIVE OR PRODUCER, A	IVELY O SURANCE ND THE (	R NEGATIVELY AMEND, E DOES NOT CONSTITU CERTIFICATE HOLDER.	EXTEND OR ALT	ER THE CO BETWEEN T	VERAGE AFFORDED HE ISSUING INSUREF	BY THE R(S), AU	POLICIES
IMPORTANT: If the certificate holder If SUBROGATION IS WAIVED, subject this certificate does not confer rights t	to the te	erms and conditions of th	ne policy, certain policy, uch endorsement(s	olicies may			
PRODUCER	0		CONTACT NAME:				
Arthur J. Gallagher Risk Management Services, Inc. 470 Atlantic Avenue Boston MA 02210			PHONE (A/C, No, Ext): 617-26 E-MAIL ADDRESS:	1-6700	FAX (A/C, No)	<u>:</u> 617-64	6-0400
					RDING COVERAGE		NAIC #
INOUDED			INSURER A : ZURICH A				16535
Ameresco, Inc.			INSURER B : Steadfas	st Insurance (	Company		26387
111 Speen Street			INSURER C :				
Suite 410 Framingham MA 01701			INSURER D :				
			INSURER E :				
COVERAGES CER	TIFICAT	E NUMBER: 2139814828	INSURER F :		REVISION NUMBER:		
THIS IS TO CERTIFY THAT THE POLICIES INDICATED. NOTWITHSTANDING ANY RE CERTIFICATE MAY BE ISSUED OR MAY EXCLUSIONS AND CONDITIONS OF SUCH	GOF INSU EQUIREMI PERTAIN,	RANCE LISTED BELOW HA ENT, TERM OR CONDITION THE INSURANCE AFFORD	OF ANY CONTRACT	OR OTHER I S DESCRIBEI	ED NAMED ABOVE FOR T DOCUMENT WITH RESPE D HEREIN IS SUBJECT T	CT TO V	NHICH THIS
INSR LTR TYPE OF INSURANCE	ADDL SUB		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIM	TS	
A X COMMERCIAL GENERAL LIABILITY	Y	GLO585238808	1/31/2021	1/31/2022	EACH OCCURRENCE	\$2,000	,000
CLAIMS-MADE X OCCUR					DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 500,0	00
					MED EXP (Any one person)	\$ 50,00	0
					PERSONAL & ADV INJURY	\$ 2,000	,000
GEN'L AGGREGATE LIMIT APPLIES PER:					GENERAL AGGREGATE	\$4,000	,000
POLICY X PRO- JECT X LOC					PRODUCTS - COMP/OP AGG	\$4,000	,000
OTHER:						\$	·
A AUTOMOBILE LIABILITY	Y	BAP585238708	1/31/2021	1/31/2022	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000	,000
X ANY AUTO					BODILY INJURY (Per person)	\$	
OWNED AUTOS ONLY AUTOS					BODILY INJURY (Per accident	)\$	
X HIRED X NON-OWNED AUTOS ONLY X AUTOS ONLY					PROPERTY DAMAGE (Per accident)	\$	
						\$	
UMBRELLA LIAB OCCUR					EACH OCCURRENCE	\$	
EXCESS LIAB CLAIMS-MADE					AGGREGATE	\$	
DED RETENTION \$						\$	
A WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		WC595394509	1/31/2021	1/31/2022	X PER OTH- STATUTE ER		
	N/A				E.L. EACH ACCIDENT	\$ 1,000	,000
(Mandatory in NH)	N/ A				E.L. DISEASE - EA EMPLOYE	E \$1,000	,000
If yes, describe under DESCRIPTION OF OPERATIONS below B Professional Liability		EOC 6692743-10	1/31/2021	1/31/2022	E.L. DISEASE - POLICY LIMIT Each Claim Aggregate	\$ 1,000 \$1,00 \$2,00	0,000
						1,00	,
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHIC As required by written contract, the City an Insured as respects the Commercial Gener	d County	of Denver, its Elected and A	le, may be attached if mor Appointed Officials, E	e space is requir imployees an	∣ ed) d Volunteers are includer	d as Add	litional
CERTIFICATE HOLDER			CANCELLATION				
City & County of Denver E Services or Designee 201 W. Colfax Avenue	xecutive	Director of General		N DATE THI TH THE POLIC	ESCRIBED POLICIES BE ( EREOF, NOTICE WILL Y PROVISIONS.		
Denver CO 80202 USA			Patrick J. Veale				
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# EPC SCHEDULE N STANDARDS OF COMFORT

#### **Facility Operating Hours**

Facility operating hours for each facility are detailed below. Deviation from these standards, may result in adjustments to the Baseline, the Guaranteed Annual Cost Savings and/or the determination of annual savings for ECM-1.

Site	Facility Schedule	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Ford Warren Library	Open	10:00	12:00	10:00	12:00	10:00	9:00	closed
	Close	18:00	20:00	18:00	20:00	18:00	17:00	closed
Green Valley Ranch	Open	10:00	10:00	12:00	12:00	10:00	10:00	9:00
Library	Close	18:00	18:00	20:00	20:00	18:00	17:00	17:00
Hampden Library	Open	10:00	12:00	12:00	10:00	10:00	9:00	13:00
/	Close	18:00	20:00	20:00	18:00	18:00	17:00	17:00
Montbello Library	Open	12:00	12:00	10:00	10:00	10:00	9:00	closed
	Close	20:00	20:00	20:00	20:00	18:00	17:00	closed
Rodolfo "Corky"	Open	12:00	12:00	10:00	10:00	10:00	9:00	13:00
Gonzales Library	Close	20:00	20:00	18:00	18:00	18:00	17:00	17:00
Virginia Village	Open	12:00	10:00	12:00	10:00	10:00	9:00	Closed
Library	Close	20:00	18:00	20:00	18:00	18:00	17:00	Closed
Woodbury Library	Open	10:00	12:00	10:00	12:00	10:00	9:00	closed
	Close	18:00	20:00	18:00	20:00	18:00	17:00	closed
Athmar Rec Ctr	Open	6:00	6:00	6:00	6:00	6:00	9:00	12:00
	Close	21:00	21:00	21:00	21:00	20:00	15:00	16:00
Aztlan Rec Ctr	Open	11:00	11:00	11:00	11:00	11:00	11:00	closed
	Close	20:00	20:00	20:00	20:00	20:00	15:00	closed
Central Park Rec	Open	5:30	5:30	5:30	5:30	5:30	8:00	8:00
Center	Close	21:00	21:00	21:00	21:00	21:00	20:00	17:00
Eisenhower Rec	Open	Open	7:00	7:00	7:00	7:00	7:00	9:00
Center	Close	Close	20:00	20:00	20:00	20:00	19:00	13:00
Green Valley Ranch	Open	6:00	6:00	6:00	6:00	6:00	10:00	closed
Rec Ctr	Close	20:00	20:00	20:00	20:00	20:00	16:00	closed
	Open	9:00	9:00	9:00	9:00	9:00	9:00	closed
Harvard Gulch Rec	Close	20:00	20:00	20:00	20:00	20:00	15:00	closed
Hiawatha Davis Rec	Open	7:00	7:00	7:00	7:00	7:00	9:00	closed
Ctr	Close	20:00	20:00	20:00	20:00	19:00	16:00	closed
La Familia Das Chu	Open	10:00	6:00	10:00	6:00	10:00	9:00	closed
La Familia Rec Ctr	Close	21:00	21:00	21:00	21:00	20:00	13:00	closed
Martin Luther King	Open	6:00	6:00	6:00	6:00	6:00	9:00	closed
Rec Ctr	Close	19:00	19:00	19:00	19:00	19:00	13:00	closed
	Open	6:00	6:00	6:00	6:00	6:00	9:00	9:00
Montbello Rec Ctr	Close	20:00	20:00	20:00	20:00	20:00	16:00	16:00
	Open	6:00	6:00	6:00	6:00	6:00	9:00	9:00
Montclair Rec Ctr	Close	21:00	21:00	21:00	21:00	20:00	16:00	16:00
	Open	6:00	6:00	6:00	6:00	6:00	9:00	9:00
Rude Rec Ctr	Close	21:00	21:00	21:00	21:00	20:00	15:00	13:00
Southwest Denver	Open	9:00	9:00	9:00	9:00	9:00	9:00	closed
Rec Ctr	Close	20:00	20:00	20:00	21:00	19:00	13:00	closed
	Open	11.50	11.50	11.50	11.50	11:00	14:00	closed
St Charles Rec Ctr	Close	20:00	20:00	20:00	20:00	18:00	18:00	closed
Wash Park Rec	Open	6:00	6:00	6:00	6:00	6:00	8:00	11:00
Center	Close	21:00	21:00	21:00	21:00	20:00	16:00	16:00

# EPC SCHEDULE N STANDARDS OF COMFORT

#### Indoor Pool Setpoints and Cover Schedule

Temperature and humidity set points for locations served by new pool covers will be set and maintained by City as shown in the table below.

#### **Indoor Pool Setpoints**

Period	Pool Water Setpoint (°F)	Natatorium Air Temp Setpoint (°F)	RH Setpont (%)	Pool Cover Status
Occupied	83	83	60%	Uncovered
Unoccupied	83	83	60%	Covered

The pool cover shall be deployed by staff outside of pool operating hours, totaling at least 4221 hours per year, which is based on the following facility operating schedule.

Site	Facility Schedule	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Wash Park Rec Center	Open	6:00	6:00	6:00	6:00	6:00	8:00	11:00
	Close	21:00	21:00	21:00	21:00	20:00	16:00	16:00

Pool system setpoints and schedules served by existing and/or new controls will be set and maintained by City as shown in this Schedule. Deviation from these standards, may result in adjustments to the Baseline, the Guaranteed Savings Amount and/or the determination of Annual Savings for ECM-4.

# EPC SCHEDULE Q SYSTEM START-UP AND COMMISSIONING

### Commissioning Plan Overview

The purpose of the Commissioning (Cx) Plan is to provide a general description of the commissioning process including the goals, intent and requirements; as well as to provide direction for the commissioning process during implementation, providing resolution for issues such as scheduling, roles and responsibilities, lines of communication and reporting, approvals and coordination.

Contractor will commission the newly installed equipment and systems to ensure the proper and efficient operation of these systems. Throughout the commissioning process, the commissioning agent revises the specific commissioning procedures and forms as necessary to suit project field conditions and actual approved manufacturer's equipment, to incorporate test data and procedure results, and to provide detailed scheduling for all commissioning tasks. A master list of deficiencies will be maintained throughout the testing process until all items are closed out. The completed Commissioning Report becomes the City's commissioning record and provides a reference to system setup, test results, and operational data for the systems commissioned.

The City will be notified of and has the right to be present during these commissioning procedures. Documentation that the training plan has been completed and documentation that the operation manuals have been provided will be referenced by the commissioning report. Contractor intends to commission all equipment, as listed below, under this agreement. The minimum listed commissioning activities for each piece of equipment to be installed are shown below. A formal report listing all commissioned points will be given to the City upon completion of the project.

## **Commissioning Process Description**

Commissioning is a systematic process of ensuring that the building systems perform per the design intent and the operational requirements. All equipment and systems should be installed per manufacturer's recommendations and the best practices and standards of the industry. A complete commissioning process begins at the design phase and continues through implementation and acceptance phases, with actual verification of performance. The commissioning process is intended to achieve the following main goals:

- Facilitate the final acceptance of the project at the earliest possible date,
- Ensure that the City's operating personnel are adequately trained on the operation and maintenance of building equipment, and
- Ensure that the comfort systems meet the requirements of the occupants.

Implementation phase commissioning is intended to achieve the following objectives:

- Observe and document that systems and equipment are installed per the design requirements, manufacturer's recommendations, and receive adequate operational checkout by installing subcontractors,
- Observe and document performance of the systems and equipment in compliance with design intent,
- Observe and document that O&M documentation is complete, complies with the design intent and is provided to the City, and
- Observe and document that the City's operating personnel are adequately trained per the design intent.

The Commissioning Plan is a document that outlines the organization, schedule, allocation of resources and documentation requirements of the commissioning process. The sub-contractor verifies installation, provides scheduling and coordination of commissioning activities, performs training, starts up equipment, conducts tests, corrects deficiencies, performs re-tests and provides documentation of the process. The Commissioning Authority (CxA) provides the City an objective view of the systems installation, documentation, operation and performance. Commissioning procedures and results are observed by the CxA. Contractor and subcontractor are expected to verify the functional readiness of systems to be tested prior to performing the tests in the presence of the witnesses. A high

# EPC SCHEDULE Q SYSTEM START-UP AND COMMISSIONING

rate of test failure shall indicate that the subcontractor has not adequately verified the readiness of the systems.

This plan is the key means for the CxA to inform all parties as to how each system functions independently and with respect to other systems. Each building system to be commissioned is addressed, including commissioning requirements, and completion and start-up schedule.

#### Equipment and Systems to be Commissioned

The commissioning process involves a complete and thorough evaluation of the operation and performance of all components, systems and sub-systems. The following list shows the ECMs that will be commissioned under this proposed project:

#### ECM 1 & 2 – Int. and Ext. Lighting Upgrades

- System Description: LED Lighting Upgrades (retrofits and new fixtures)
- Equipment/Systems to be performance tested: Lighting fixtures & retrofits
- Observations, tests and Inspections during Construction (pre-functional): Verify operation of all fixtures as completed
- Pre-Functional Responsibility: Contractor and lighting contractor
- *Observations, Tests, and Inspections prior to Acceptance (Functional):* Verify operation, measure light levels for 10% of installed fixtures in each lamp/ballast group by building
- Functional Responsibility: Lighting contractor and Contractor
- *Testing Documentation:* Light level measurements will be documented

#### ECM 3 – Live Energy Monitoring

- System Description: Analytics Planner E&S module software
- Equipment/Systems to be performance tested: Contractor system to monitor building electrical and gas usage.
- Observations, tests and Inspections during Construction (pre-functional): N/A
- Pre-Functional Responsibility: Installation Contractor
- Observations, Tests, and Inspections prior to Acceptance (Functional): Submittal review, check on data integration and trending. Verify setup and functionality of E&S software module. graphics and rules-based commissioning functions, confirm trending capabilities, confirm integration into BAS, witness/review system functionality.
- Functional Responsibility: Installation Contractor
- *Testing Documentation:* O&M materials, FPT reports

#### ECM 4 – Pool Cover

- System Description: Pool Cover
- Equipment/Systems to be performance tested: Pool Cover.
- Observations, tests and Inspections during Construction (pre-functional): Verify cover operation is in accordance with design.
- Pre-Functional Responsibility: Pool Cover installation contractor.

# EPC SCHEDULE Q SYSTEM START-UP AND COMMISSIONING

- Observations, Tests, and Inspections prior to Acceptance (Functional): Perform Functional Performance Test (FPT) in accordance with FPT Reports. A matrix will also be provided at the conclusion of the design period that will be used during the FPT period. The matrix will identify each piece of equipment to be controlled and "expected results" and "actual results" for schedules, setpoints, sequences and control strategies. The FPT will include verification of proper cover deployment and removal.
- Functional Responsibility: Contractor
- *Testing Documentation:* FPT Reports will be completed for each system. Implemented controls strategy will be documented in O&M Manuals.

# EPC SCHEDULE R CONTRACTOR TRAINING RESPONSIBILITIES

Contractor shall provide training on the intent, design, operating requirements, and operational and maintenance requirements for all ECMs installed. The following section defines the intent, personnel to be involved, logistics, and tracking and documentation for the Training Plan that shall be provided by Contractor.

Contractor will implement a training program that involves classroom and hands-on/field training. Training sessions will include a review of the overall installation and performance characteristics of installed Energy Conservation Measures. Documentation will include review of O&M manuals, drawings, and equipment specification literature. Facilities personnel, and select building occupants, will receive comprehensive manuals for reference. The primary goal of Contractor's training program will be to educate designated operations, maintenance, and building staff in the key areas that relate to the ECMs installed throughout the project. Contractor has identified three (3) levels of training which may be required depending on the specific ECMs which are installed. Refer to the following Training Matrix for applications of Training Levels.

- Level 1: For systems and equipment which are essentially direct replacements of existing equipment, such that no additional skills will be required to perform operations and maintenance functions, the training will be limited to a general overview of the equipment installed, a review of the manufacturer's O&M manuals, and an explanation of equipment warranties. This level of training will provide operations and maintenance staff the familiarity with the equipment that is installed, manufacturer's recommended maintenance procedures, and all warranty information. This training will be conducted up to two (2) sessions of combined classroom and field instruction for all ECMs designated for Level 1 training.
- Level 2: For systems and equipment which are new to the site, and require some general understanding as to their function and operation, training will include a minimum amount of classroom instruction that will provide an overview of the specific technology selected, specific equipment installed, review of the manufacturer's O&M manuals, and an explanation of equipment warranties. Following the classroom training session, a site tour will be scheduled to view the specific installation and operation of the equipment. This level of training will provide operations and maintenance staff with additional equipment details (including equipment cut sheets), familiarity with the equipment that is installed, manufacturer's recommended maintenance procedures, and all warranty information. This training will be conducted up to three (3) sessions of combined classroom and field instruction for all ECMs designated for Level 2 training.
- Level 3: For systems and equipment which are new to the site and are more complex in nature training will be directed to facilities engineering and the operations and maintenance staff. Level 3 training will require more extensive classroom training to discuss design intent, specific system design, energy efficiency considerations, seasonal modes of operations, comfort conditions, operation of individual components, emergency conditions, sequences of operations, alarms, diagnostics, and any additional ECM specific information as required. This training will be conducted up to four (4) sessions and will include combined classroom and field instruction for all ECMs designated for Level 3 training.
  - Level 3 classroom training will also include a review of the manufacturer's operation and maintenance manuals, and an explanation of equipment warranties. Following the classroom training session, a site tour will be scheduled to view the specific installation, operation of the equipment, and hands on maintenance instructions by qualified personnel and manufacturers' representatives. This level of training will provide staff with a comprehensive understanding of all equipment details as well as hands on familiarity with the equipment that is installed and a detailed review of manufacture's recommended maintenance procedures and warranty information.

# EPC SCHEDULE R CONTRACTOR TRAINING RESPONSIBILITIES

Note: "Classroom" refers to a setting where information is presented to City personnel and may occur on-site in a meeting room, office, boiler room, etc.).

The City shall provide suitable space and make personnel available, as reasonably required for Contractor to conduct training under this Schedule R. Total time for all training shall not exceed sixteen (16) hours.

#### Table M-1: Training Matrix

	Training Matrix					
ECM #	ECM Name	Level 1	Level 2	Level 3	NA	Training Hours
ECM 1	Interior Lighting Upgrades	Х				2
ECM 2	Exterior Lighting Upgrades	X				2
ECM 3	Live Energy Monitoring		Х			10
ECM 4	Pool Covers		Х			2
Total Traini	Total Training Hours					16

# EPC SCHEDULE S CITY'S MAINTENANCE RESPONSIBILITIES

City, at its own expense, will keep and maintain, or cause to be kept and maintained, the ECMs and all equipment in as good operating condition as when delivered to the City hereunder, ordinary wear and tear resulting from proper use thereof alone excepted, and will provide maintenance and service and make all repairs necessary for such purpose. Responsibility for the proper maintenance, service, repair and adjustments to each ECM, ECM system and related ancillary systems and equipment, including related expenses, shall transfer to the City on an ECM by ECM basis on the date of Substantial Completion of each ECM as such date is determined in accordance with the definition of Substantial Completion set forth in Section 1 of the Agreement. The City will be responsible for such maintenance, service, repair and adjustments for the remainder of the Term. Operation and Maintenance Manuals (O&M Manuals) will be provided to the City, by the Contractor. Included with the O&M manuals will be a list of maintenance responsibilities and tasks for the City.

Start-up and Shutdown: The City's responsibilities include all system start-ups and shut-downs. System start-up (beginning of season) and shut-down (end of season) refers to specific manufacturer recommendations with respect to "proper" system start-up, operation, maintenance, and shut-down as defined in the manufacturer's installation / operation / maintenance (O&M) manuals which will be provided to the City upon Substantial Completion and / or Delivery and Acceptance, as appropriate.

Operations: The City shall operate the equipment installed hereunder in accordance with parameters noted in the manufacturers' recommendations, and any supplemental procedures supplied to the City by Contractor, including those set forth in the O&M manuals. The City shall also operate the equipment and systems (including ancillary related systems) in accordance with the Standards of Comfort.

Maintenance: The City's maintenance responsibilities include the proper operation and prompt repair and maintenance of each ECM, ECM system and related ancillary systems and equipment such that they are maintained in good working order during the Term. The City shall repair and maintain (i) the equipment and all other components which comprise the ECM and (ii) all other equipment which is attached thereto and/or is integral to the proper functioning of the ECM, including performance of the maintenance tasks, manufacturer's recommendations and supplemental procedures included in the O&M Manuals. Maintenance also refers to performing required maintenance of ancillary systems.

Access: During the Term of this Agreement, the City shall reasonably provide Contractor reasonable access to facilities, equipment, and building controls installed as a part of this project to confirm proper operation of systems.

In addition to any of its other obligations under this Agreement, City agrees to operate and maintain all ECM's to the standards set forth in this Exhibit. Deviation from these standards may result in adjustments to baseline energy consumption and Guaranteed Savings.

# Schedule T Notice of Substantial Completion

#### SUBSTANTIAL COMPLETION CERTIFICATE (1)

PROJECT NAME & ADDRESS:	

The installation of [list each ECM being accepted with this certificate] under the Agreement has/have been reviewed and found to be substantially complete. The date of Substantial Completion of the forgoing ECM(s) is hereby established as: **SUBSTANTIAL COMPLETION DATE:** 

The date of Substantial Completion of an ECM is the date when such ECM is sufficiently complete in accordance with the Agreement so that the City derives beneficial use thereof. The punch list items are hereby completed in accordance with the Agreement.

The Substantial Completion date set forth above is the date of commencement of applicable warranties for such ECM(s), as required by the Agreement. A list of items to be completed or corrected is identified below as punch list items.

# CONTRACTOR: Ameresco, Inc., 111 Speen Street, Suite 410, Framingham, Massachusetts 01701

AUTHORIZED			DATE:	
NAME:				
	(type or print)			
CITY:				
AUTHORIZED			DATE:	
NAME:	(type or print)			
		PUNCHLIST ITEMS		

Attach additional page(s) as necessary. Number of pages attached \_\_\_\_\_.

# Schedule T Notice of Substantial Completion

# PERCENT COMPLETE ACKNOWLEDGEMENT CERTIFICATE (2) (Per ECM/FIM)

The City and County of Denver hereby acknowledges receipt and acceptance of the \_\_\_\_\_\_ portion of the Energy Conservation Measure (the "ECM") described in Schedule B to the Agreement. The City certifies that the work described in the related application for payment submitted by Ameresco has been completed in accordance with the Agreement and that the ECM(s) are \_\_\_\_\_ percent complete, as substantiated by sufficient detail provided by Ameresco. The City agrees to make payment to Ameresco as set forth in Article 8 of the Agreement.

Notice is hereby given that **the City and County of Denver** accepts the installed equipment for this ECM and establishes a warranty period start date of \_\_\_\_\_.

Date Accepted by the City:\_\_\_\_\_

Accepted for:

Accepted by:

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

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

ACKNOWLEDGMENT OF AMERESCO

Ameresco hereby acknowledges that the total amount due based upon percent complete for the ECM's described in Schedule B, and the Notice to Proceed, hereto is

\$\_\_\_\_\_.

Date Accepted by Ameresco:

Accepted for: AMERESCO, INC.

Accepted by:

Name:

Title:

# Schedule U

# **Notice of Final Acceptance**

#### **DELIVERY AND ACCEPTANCE CERTIFICATE**

#### PROJECT COMPLETION LOG

Sub-Project Tasks/Punch List items	Completion Date

Notes (special instructions etc.):		

#### Items furnished to CITY with this Delivery and Acceptance Certificate:

- □ Receipt of owner's manuals; \_\_\_\_\_\_\_sets.
- Receipt of instruction and training; \_\_\_\_\_\_
- Completion of inspection and walk-through.
- **Receipt of warranty information.**

The punch list items are hereby completed in accordance with the Agreement.

CITY AND COUNTY	By:	Title:	Date:
OF DENVER			

DocuSign Envelope ID: 683AC2A4-A3F1-434C-898D-FA0717C062E9

#### SCHEDULE V 5 and 15 Year Equipment List

Summary:

		Ameresco		
5-Year	\$	130,583.68		
15-Year	\$ 846,688.95			
	\$	977,272.63		

Facility Improvement Measure/ Energy Conservation Measure		1	Tangible Good Cost	Useful Life
			\$	yrs.
CM-2 Exterior Lighting: Hampden Library	Lighting fixtures, lamps & drivers	\$	4,060.75	14
CM-2 Exterior Lighting: Central Park Rec Center	Lighting fixtures, lamps & drivers	\$	5,148.76	13
CM-2 Exterior Lighting: Green Valley Ranch Rec Ctr	Lighting fixtures, lamps & drivers	\$	4,890.89	12
CM-2 Exterior Lighting: Hiawatha Davis Rec Ctr	Lighting fixtures, lamps & drivers	\$	3,139.92	11
ECM-2 Exterior Lighting: Harvard Gulch Rec/DPDWhse	Lighting fixtures, lamps & drivers	\$	1,579.81	10
CM-2 Exterior Lighting: Montclair Rec Ctr	Lighting fixtures, lamps & drivers	\$	8.64	6
CM-5 Fabric Pool Cover: Washington Park Rec Ctr	Pool Covers, motorized reels, controller	\$	111,754.91	12-15
		\$	130,583.68	

#### DocuSign Envelope ID: 683AC2A4-A3F1-434C-898D-FA0717C062E9

r Component Unit

Facility Improvement Measure/ Energy Conservation Measure		Ia	ingible Good Cost
			\$
ECM-1 Interior Lighting: St Charles Rec Ctr	Lighting fixtures, lamps & drivers	\$	21,392.8
ECM-1 Interior Lighting: Aztlan Rec Ctr	Lighting fixtures, lamps & drivers	ŝ	6,039.9
ECM-1 Interior Lighting: Martin Luther King Rec Ctr	Lighting fixtures, lamps & drivers	\$	24,346.9
ECM-1 Interior Lighting: Southwest Denver Rec Ctr	Lighting fixtures, lamps & drivers	\$	15,884.9
ECM-1 Interior Lighting: Eisenhower Rec Center	Lighting fixtures, lamps & drivers	Ş	19,294.3
ECM-1 Interior Lighting: Harvard Gulch Rec/DPDWhse	Lighting fixtures, lamps & drivers	\$	20,948.
ECM-1 Interior Lighting: La Familia Rec Ctr	Lighting fixtures, lamps & drivers	\$	18,382.4
ECM-1 Interior Lighting: Rodolfo "Corky" Gonzales Library	Lighting fixtures, lamps & drivers	\$	23,036.4
ECM-1 Interior Lighting: Ford Warren Library	Lighting fixtures, lamps & drivers	\$	9,755.
ECM-1 Interior Lighting: Virginia Village Library	Lighting fixtures, lamps & drivers	\$	22,921.
ECM-1 Interior Lighting: Montbello Library	Lighting fixtures, lamps & drivers	\$	15,183.
ECM-1 Interior Lighting: Hampden Library	Lighting fixtures, lamps & drivers	\$	6,149.
ECM-1 Interior Lighting: Washington Park Rec Ctr	Lighting fixtures, lamps & drivers	\$	15,742.
ECM-1 Interior Lighting: Hiawatha Davis Rec Ctr	Lighting fixtures, lamps & drivers	\$	98,002.
ECM-1 Interior Lighting: Woodbury Library	Lighting fixtures, lamps & drivers	\$	8,010.
ECM-1 Interior Lighting: Green Valley Ranch Rec Ctr	Lighting fixtures, lamps & drivers	\$	18,644.
ECM-1 Interior Lighting: Montbello Rec Ctr	Lighting fixtures, lamps & drivers	\$	94,435.
ECM-1 Interior Lighting: Green Valley Ranch Library	Lighting fixtures, lamps & drivers	\$	31,124.
ECM-1 Interior Lighting: Montclair Rec Ctr	Lighting fixtures, lamps & drivers	\$	73,542.
ECM-2 Exterior Lighting: Aztlan Rec Ctr	Lighting fixtures, lamps & drivers	\$	6,923.
ECM-2 Exterior Lighting: Rodolfo "Corky" Gonzales Library	Lighting fixtures, lamps & drivers	\$	10,381.
ECM-2 Exterior Lighting: Athmar Rec Ctr	Lighting fixtures, lamps & drivers	\$	565.
ECM-2 Exterior Lighting: La Familia Rec Ctr	Lighting fixtures, lamps & drivers	\$	4,387.
ECM-2 Exterior Lighting: St Charles Rec Ctr	Lighting fixtures, lamps & drivers	\$	9,263.
ECM-2 Exterior Lighting: Washington Park Rec Ctr	Lighting fixtures, lamps & drivers	\$	274.
ECM-2 Exterior Lighting: Montbello Rec Ctr	Lighting fixtures, lamps & drivers	\$	16,328.
ECM-1 Interior Lighting: Athmar Rec Ctr	Lighting fixtures, lamps & drivers	\$	12,208.
ECM-1 Interior Lighting: Rude Rec Ctr	Lighting fixtures, lamps & drivers	\$	61,181.
ECM-2 Exterior Lighting: Southwest Denver Rec Ctr	Lighting fixtures, lamps & drivers	\$	6,987.
ECM-2 Exterior Lighting: Virginia Village Library	Lighting fixtures, lamps & drivers	\$	14,833.
ECM-2 Exterior Lighting: Ford Warren Library	Lighting fixtures, lamps & drivers	\$	3,635.
ECM-1 Interior Lighting: Central Park Rec Center	Lighting fixtures, lamps & drivers	\$	53,361.
ECM-2 Exterior Lighting: Green Valley Ranch Library	Lighting fixtures, lamps & drivers	\$	2,905.
ECM-2 Exterior Lighting: Eisenhower Rec Center	Lighting fixtures, lamps & drivers	\$	2,111.
ECM-2 Exterior Lighting: Woodbury Library	Lighting fixtures, lamps & drivers	\$	5,354.
ECM-2 Exterior Lighting: Montbello Library	Lighting fixtures, lamps & drivers	\$	7,311.
ECM-2 Exterior Lighting: Rude Rec Ctr	Lighting fixtures, lamps & drivers	\$	4,821
ECM-4 Live Energy Monitoring: Ford Warren Library	Meter pulsers and data logger	\$	2,187
ECM-4 Live Energy Monitoring: Green Valley Ranch Library	Meter pulsers and data logger	\$	3,027.
ECM-4 Live Energy Monitoring: Hampden Library	Meter pulsers and data logger	\$	2,958.
ECM-4 Live Energy Monitoring: Montbello Library	Meter pulsers and data logger	\$	2,714.
ECM-4 Live Energy Monitoring: Rodolfo "Corky" Gonzales Library	Meter pulsers and data logger	\$	2,677.
ECM-4 Live Energy Monitoring: Virginia Village Library	Meter pulsers and data logger	\$	4,267.
ECM-4 Live Energy Monitoring: Woodbury Library	Meter pulsers and data logger	\$	3,186.
ECM-4 Live Energy Monitoring: Athmar Rec Ctr	Meter pulsers and data logger	\$	4,896.
ECM-4 Live Energy Monitoring: Aztlan Rec Ctr	Meter pulsers and data logger	\$	2,699.
ECM-4 Live Energy Monitoring: Central Park Rec Center	Meter pulsers and data logger	\$	4,776.
ECM-4 Live Energy Monitoring: Eisenhower Rec Center	Meter pulsers and data logger	\$	3,971.
ECM-4 Live Energy Monitoring: Green Valley Ranch Rec Ctr	Meter pulsers and data logger	\$	4,611.
ECM-4 Live Energy Monitoring: Harvard Gulch Rec/DPDWhse	Meter pulsers and data logger	\$	3,878.
ECM-4 Live Energy Monitoring: Hiawatha Davis Rec Ctr	Meter pulsers and data logger	\$	3,905.
ECM-4 Live Energy Monitoring: La Familia Rec Ctr	Meter pulsers and data logger	\$	3,361.
ECM-4 Live Energy Monitoring: Martin Luther King Rec Ctr	Meter pulsers and data logger	\$	4,556.
ECM-4 Live Energy Monitoring: Montbello Rec Ctr	Meter pulsers and data logger	\$	4,431.
ECM-4 Live Energy Monitoring: Montclair Rec Ctr	Meter pulsers and data logger	\$	3,141.
ECM-4 Live Energy Monitoring: Rude Rec Ctr	Meter pulsers and data logger	\$	4,509.
ECM-4 Live Energy Monitoring: Southwest Denver Rec Ctr	Meter pulsers and data logger	\$	3,798.
ECM-4 Live Energy Monitoring: St Charles Rec Ctr	Meter pulsers and data logger	\$	3,602.
ECM-4 Live Energy Monitoring: Washington Park Rec Ctr	Meter pulsers and data logger	\$	3,852. 846,688.

#### **SCHEDULE W**

#### FORM OF ACCEPTANCE CERTIFICATE NO. 17 of 20 FOR ENERGY SERVICES EQUIPMENT Appendix A Item 17, Ameresco Month 4, December 13, 2021 Equipment Lease Purchase Agreement

Re: Equipment Lease Purchase Agreement (the "Lease") dated December 13, 2021 between JPMorgan Chase Bank, N.A., as Lessor, and the City and County of Denver, Colorado (the "City"), as Lessee.

To: JPMorgan Chase Bank, N.A. 1111 Polaris Parkway, Suite 4N Mail Suite OH1-1085 Columbus, Ohio 43240 Attn: Operations Managers Phone: 1-800-678-2601 E-mail: cefi.escrow.disbursement.request@jpmchase.com

and

U.S. Bank National Association Attn: Erica Fouks, Trust Finance Management, 60 Livingston Avenue, EP-MN-WS3T St. Paul, MN 55107-2292 E-mail: <u>Erica.Fouks@usabank.com</u>

In accordance with the Lease and a related Escrow Agreement, the undersigned City Representative hereby certifies and represents to, and agrees with the Lessor as follows:

(1) The Equipment described in the Lease at Exhibit A as Items described for Ameresco Month 4 have been delivered, installed, tested and accepted on the date hereof.

(2) The City has conducted such inspection and testing of this Equipment as it deems necessary and appropriate and hereby acknowledges that it accepts this Equipment for all purposes.

(3) No event or condition that constitutes, or with notice or lapse of time, or both, would constitute, an Event of Default (as defined in the Lease) exists at the date hereof.

(4) The Lessor is hereby requested to approve the payment of, and the Escrow Agent is hereby requested to pay, the Vendor designated below as Payee, the sum of **One Hundred Twenty Seven Thousand One Hundred Eight Dollars And Eighty One Cents (\$127,108.81**) in payment of all of the cost of the acquisition, delivery, and testing of the Equipment listed at Items described for Ameresco Month 4 on Exhibit A to the Lease. Such amount is due and payable under the invoice of the Payee attached hereto with respect to the cost of the acquisition, delivery, installation and testing of the Equipment and has not formed the basis of any prior request for payment. The Equipment for which this payment is to be made is all of the "Equipment" listed at Items described for Ameresco Month 4 in Exhibit A to the Lease. Pursuant to paragraph 4 of the Escrow Agreement, the Escrow Agent is to notify the Manager of Finance that this payment has been made.

Payee: Ameresco, Inc. 111 Speen Street, Suite 410 Framingham, MA 01701

Payee's Federal ID Number: \_\_\_\_\_

(5) If all Acceptance Certificates have been completed with the processing of this Acceptance Certificate, then coincident with the payment of the Vendor pursuant to (4) above, the Escrow Agent is hereby directed to pay all amounts remaining in the Acquisition Fund in accordance with paragraph 4 of the Escrow Agreement.

City and County of Denver, Colorado, as Lessee

By: \_\_\_\_\_ Manager of General Services (as City Representative under the Lease)

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

APPROVED:

JPMorgan Chase Bank, N.A., as Lessor

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

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

### FORM OF ACCEPTANCE CERTIFICATE NO. 18 of 20 FOR ENERGY SERVICES EQUIPMENT Appendix A Item 18, Ameresco Month 5, December 13, 2021 Equipment Lease Purchase Agreement

Re: Equipment Lease Purchase Agreement (the "Lease") dated December 13, 2021 between JPMorgan Chase Bank, N.A., as Lessor, and the City and County of Denver, Colorado (the "City"), as Lessee.

To: JPMorgan Chase Bank, N.A. 1111 Polaris Parkway, Suite 4N Mail Suite OH1-1085 Columbus, Ohio 43240 Attn: Operations Managers Phone: 1-800-678-2601 E-mail: cefi.escrow.disbursement.request@jpmchase.com

and

U.S. Bank National Association Attn: Erica Fouks, Trust Finance Management, 60 Livingston Avenue, EP-MN-WS3T St. Paul, MN 55107-2292 E-mail: <u>Erica.Fouks@usabank.com</u>

In accordance with the Lease and a related Escrow Agreement, the undersigned City Representative hereby certifies and represents to, and agrees with the Lessor as follows:

(1) The Equipment described in the Lease at Exhibit A as Items described for Ameresco Month 5 have been delivered, installed, tested and accepted on the date hereof.

(2) The City has conducted such inspection and testing of this Equipment as it deems necessary and appropriate and hereby acknowledges that it accepts this Equipment for all purposes.

(3) No event or condition that constitutes, or with notice or lapse of time, or both, would constitute, an Event of Default (as defined in the Lease) exists at the date hereof.

(4) The Lessor is hereby requested to approve the payment of, and the Escrow Agent is hereby requested to pay, the Vendor designated below as Payee, the sum of **Two Hundred Sixty Six Thousand Nine Hundred Forty Eight Dollars And Fifty Five Cents (\$266,948.55)** in payment of all of the cost of the acquisition, delivery, and testing of the Equipment listed at Items described for Ameresco Month 5 on Exhibit A to the Lease. Such amount is due and payable under the invoice of the Equipment and has not formed the basis of any prior request for payment. The Equipment for which this payment is to be made is all of the "Equipment" listed at Items described for Ameresco Month 5 in Exhibit A to the Lease. Pursuant to paragraph 4 of the Escrow Agreement, the Escrow Agent is to notify the Manager of Finance that this payment has been

made.

Payee: Ameresco, Inc. 111 Speen Street, Suite 410 Framingham, MA 01701

Payee's Federal ID Number: \_\_\_\_\_

(5) If all Acceptance Certificates have been completed with the processing of this Acceptance Certificate, then coincident with the payment of the Vendor pursuant to (4) above, the Escrow Agent is hereby directed to pay all amounts remaining in the Acquisition Fund in accordance with paragraph 4 of the Escrow Agreement.

City and County of Denver, Colorado, as Lessee

By: \_\_\_\_\_ Manager of General Services (as City Representative under the Lease)

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

APPROVED:

JPMorgan Chase Bank, N.A., as Lessor

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

Title:

### FORM OF ACCEPTANCE CERTIFICATE NO. 19 of 20 FOR ENERGY SERVICES EQUIPMENT Appendix A Item 19, Ameresco Month 6, December 13, 2021 Equipment Lease Purchase Agreement

Re: Equipment Lease Purchase Agreement (the "Lease") dated December 13, 2021 between JPMorgan Chase Bank, N.A., as Lessor, and the City and County of Denver, Colorado (the "City"), as Lessee.

To: JPMorgan Chase Bank, N.A. 1111 Polaris Parkway, Suite 4N Mail Suite OH1-1085 Columbus, Ohio 43240 Attn: Operations Managers Phone: 1-800-678-2601 E-mail: cefi.escrow.disbursement.request@jpmchase.com

and

U.S. Bank National Association Attn: Erica Fouks, Trust Finance Management, 60 Livingston Avenue, EP-MN-WS3T St. Paul, MN 55107-2292 E-mail: <u>Erica.Fouks@usabank.com</u>

In accordance with the Lease and a related Escrow Agreement, the undersigned City Representative hereby certifies and represents to, and agrees with the Lessor as follows:

(1) The Equipment described in the Lease at Exhibit A as Items described for Ameresco Month 6 have been delivered, installed, tested and accepted on the date hereof.

(2) The City has conducted such inspection and testing of this Equipment as it deems necessary and appropriate and hereby acknowledges that it accepts this Equipment for all purposes.

(3) No event or condition that constitutes, or with notice or lapse of time, or both, would constitute, an Event of Default (as defined in the Lease) exists at the date hereof.

(4) The Lessor is hereby requested to approve the payment of, and the Escrow Agent is hereby requested to pay, the Vendor designated below as Payee, the sum of **Two Hundred Fifty Six Thousand Three Hundred Forty Two Dollars And Thirty Six Cents (\$256,342.36)** in payment of all of the cost of the acquisition, delivery, and testing of the Equipment listed at Items described for Ameresco Month 6 on Exhibit A to the Lease. Such amount is due and payable under the invoice of the Payee attached hereto with respect to the cost of the acquisition, delivery, installation and testing of the Equipment and has not formed the basis of any prior request for payment. The Equipment for which this payment is to be made is all of the "Equipment" listed at Items described for Ameresco Month 6 in Exhibit A to the Lease. Pursuant to paragraph 4 of the Escrow Agreement, the Escrow Agent is to notify the Manager of Finance that this payment has been made.

Payee: Ameresco, Inc. 111 Speen Street, Suite 410 Framingham, MA 01701

Payee's Federal ID Number:

(5) If all Acceptance Certificates have been completed with the processing of this Acceptance Certificate, then coincident with the payment of the Vendor pursuant to (4) above, the Escrow Agent is hereby directed to pay all amounts remaining in the Acquisition Fund in accordance with paragraph 4 of the Escrow Agreement.

City and County of Denver, Colorado, as Lessee

By: \_\_\_\_\_ Manager of General Services (as City Representative under the Lease)

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

APPROVED:

JPMorgan Chase Bank, N.A., as Lessor

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

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

### FORM OF ACCEPTANCE CERTIFICATE NO. 20 of 20 FOR ENERGY SERVICES EQUIPMENT Appendix A Item 20, Ameresco Month 7, December 13, 2021 Equipment Lease Purchase Agreement

Re: Equipment Lease Purchase Agreement (the "Lease") dated December 13, 2021 between JPMorgan Chase Bank, N.A., as Lessor, and the City and County of Denver, Colorado (the "City"), as Lessee.

To: JPMorgan Chase Bank, N.A. 1111 Polaris Parkway, Suite 4N Mail Suite OH1-1085 Columbus, Ohio 43240 Attn: Operations Managers Phone: 1-800-678-2601 E-mail: <u>cefi.escrow.disbursement.request@jpmchase.com</u>

and

U.S. Bank National Association Attn: Erica Fouks, Trust Finance Management, 60 Livingston Avenue, EP-MN-WS3T St. Paul, MN 55107-2292 E-mail: <u>Erica.Fouks@usabank.com</u>

In accordance with the Lease and a related Escrow Agreement, the undersigned City Representative hereby certifies and represents to, and agrees with the Lessor as follows:

(1) The Equipment described in the Lease at Exhibit A Items described for Ameresco Month7 have been delivered, installed, tested and accepted on the date hereof.

(2) The City has conducted such inspection and testing of this Equipment as it deems necessary and appropriate and hereby acknowledges that it accepts this Equipment for all purposes.

(3) No event or condition that constitutes, or with notice or lapse of time, or both, would constitute, an Event of Default (as defined in the Lease) exists at the date hereof.

(4) The Lessor is hereby requested to approve the payment of, and the Escrow Agent is hereby requested to pay, the Vendor designated below as Payee, the sum of **Three Hundred Twenty Six Thousand Eight Hundred Seventy Two Dollars and Ninety One Cents (\$326,872.91)** in payment of all of the cost of the acquisition, delivery, and testing of the Equipment listed at Items described for Ameresco Month 7 on Exhibit A to the Lease. Such amount is due and payable under the invoice of the Payee attached hereto with respect to the cost of the acquisition, delivery, installation and testing of the Equipment and has not formed the basis of any prior request for payment. The Equipment for which this payment is to be made is all of the "Equipment" listed at Items described for Ameresco Month 7 in Exhibit A to the Lease. Pursuant to paragraph 4 of the Escrow Agreement, the Escrow Agent is to notify the Manager of Finance that this payment has been made.

Payee: Ameresco, Inc. 111 Speen Street, Suite 410 Framingham, MA 01701 Payee's Federal ID Number:

(5) If all Acceptance Certificates have been completed with the processing of this Acceptance Certificate, then coincident with the payment of the Vendor pursuant to (4) above, the Escrow Agent is hereby directed to pay all amounts remaining in the Acquisition Fund in accordance with paragraph 4 of the Escrow Agreement.

City and County of Denver, Colorado, as Lessee

By: \_\_\_\_\_ Manager of General Services (as City Representative under the Lease)

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

APPROVED:

JPMorgan Chase Bank, N.A., as Lessor

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

Title: