CITY OF OREM
CITY COUNCIL MEETING
56 North State Street, Orem, Utah
February 9, 2016

This meeting may be held electronically to allow a Councilmember to participate.

2:00 P.M. TOUR – WASTE MANAGEMENT AND NORTH POINTE SOLID WASTE SPECIAL SERVICE DISTRICT

4:00 P.M. WORK SESSION – PUBLIC SAFETY TRAINING ROOM

1. **DISCUSSION – Automated Metering Infrastructure (30 min)**
   Presenters: Chris Tschirki and Neal Winterton
2. **DISCUSSION – CARE Five-Year Plan (20 min)**
   Presenters: Karl Hirst
3. **DISCUSSION – Siemens Energy Agreement (30 min)**
   Presenters: Bill Bell and Mark Cram

5:00 P.M. STUDY SESSION – PUBLIC SAFETY TRAINING ROOM

PREVIEW UPCOMING AGENDA ITEMS

4. **Staff will present to the City Council a preview of upcoming agenda items.**

AGENDA REVIEW

5. **The City Council will review the items on the agenda.**

CITY COUNCIL - NEW BUSINESS

6. **This is an opportunity for members of the City Council to raise issues of information or concern.**

6:00 P.M. REGULAR SESSION - COUNCIL CHAMBERS

CALL TO ORDER
INVOCATION/INSPIRATIONAL THOUGHT: By Invitation
PLEDGE OF ALLEGIANCE: By Invitation

THE PUBLIC IS INVITED TO PARTICIPATE IN ALL CITY COUNCIL MEETINGS.
If you need a special accommodation to participate in the City Council Meetings and Study Sessions, please call the City Recorder's Office at least 3 working days prior to the meeting.
(Voice 229-7074)

This agenda is also available on the City's Internet webpage at orem.org

APPROVAL OF MINUTES

7. MINUTES of City Council Meeting – December 8, 2015
8. MINUTES of City Council Meeting – January 12, 2016
9. MINUTES of City Council Meeting – January 26, 2016

MAYOR'S REPORT/ITEMS REFERRED BY COUNCIL

10. UPCOMING EVENTS
11. APPOINTMENTS TO BOARDS AND COMMISSIONS
Transportation Advisory Commission.....2 vacancies
12. RECOGNITION OF NEW NEIGHBORHOODS IN ACTION OFFICERS
13. RECOGNITION – State Runners-Up – Mountain View Youth Football
14. PROCLAMATION – FCCLA Week – February 7-13, 2016
15. REPORT – Beautification Advisory Commission

CITY MANAGER'S APPOINTMENTS

16. APPOINTMENTS TO BOARDS AND COMMISSIONS

PERSONAL APPEARANCES – 15 MINUTES

17. Time has been set aside for the public to express their ideas, concerns, and comments on items not on the Agenda. Those wishing to speak should have signed in before the beginning of the meeting. (Please limit your comments to 3 minutes or less.)

CONSENT ITEMS

18. There were no Consent Items.

SCHEDULED ITEMS

19. RESOLUTION – Siemens Industry, Inc. Agreement
Authorizing the Mayor, or his designee, to execute
1. **A Performance Contracting Agreement between the City and Siemens Industry, Inc., pertaining to the installation of several Facility Improvement Measures (FIMs) designed to significantly reduce the City's energy consumption; and**
2. **A Master Lease Purchase Agreement associated Leasing Schedule and an Escrow Agreement with Siemens Public, Inc., with regard to the financing of the Equipment that will be installed as part of the FIMs; and authorizing the taking of all other actions necessary to the consummation of the transactions contemplated by such documents.**

PRESENTER: Bill Bell and Mark Cram

REQUEST: The Department of Administrative Services requests that the City Council authorize the Mayor, or his designee, to execute

1. A Performance Contracting Agreement between the City and Siemens Industry, Inc., pertaining to the installation of several Facility Improvement Measures (FIMs) designed to significantly reduce the City's energy consumption; and
2. A Master Lease Purchase Agreement, associated Leasing Schedule and an Escrow Agreement with Siemens Public, Inc., with regard to the financing of the Equipment that will be installed as part of the FIMs; and authorizing the taking of all other actions necessary to the consummation of the transactions contemplated by such documents.

POTENTIALLY AFFECTED AREA: Citywide

BACKGROUND: Siemens Industry, Inc., performed an energy savings audit of the City's buildings and other facilities to identify opportunities to realize energy savings from upgrades to City facilities. As part of the audit, Siemens analyzed City street lights, building lights, heating and cooling systems, temperature settings and controls, operating hours, swimming pool operations, building insulation, windows, boilers and other elements of City facilities.

The audit performed by Siemens identified a number of Facility Improvement Measures (FIMs) that could be implemented to generate energy savings for the City. The proposed FIMs include the following:

1. Street Lighting Upgrades
2. Building Lighting Upgrades and Control
3. Building Automation System Upgrade/Expansion
4. Elevator Upgrades
5. On-site Hypochlorite Generator
6. Pool Evaporation Control
7. Retro-Commissioning
8. Building Envelope and Mechanical Insulation
9. Fan Speed VFD Controls
10. Reduced Pool Circulation Pump Flow
11. Constant Volume To Variable Volume Pumping
12. Destratification Fans
13. Data Center Optimization, Hot Aisle Containment
14. Solar Shading of Windows
15. Boiler Replacement
16. Leisure Pool Pump Switch
17. Motor Replacements
18. Boiler Room Air Barrier
19. Increased Cooling Capacity

Siemens has calculated that implementation of the above-listed FIMs (all equipment or tangible items associated with the FIMs is hereinafter referred to as the "Equipment") would save the City at least 4,491,395 kWh of electric energy and 83,473 therms of natural gas every year. Installation of the FIMs would also generate operational savings in the form of reduced maintenance. Based on current electricity and natural gas rates and the anticipated increase in these rates over time, Siemens estimates that the energy and

operational savings would save the City between $608,000 and $893,000 every year with savings in the initial years in the lower end of the range and increasing over time to the higher end of the range. The total average savings over the 15 year period following installation of the FIMS would be approximately $759,000 per year.

The City and Siemens have negotiated a contract (the "Siemens Contract") in which Siemens agrees to install the agreed-upon FIMs within 18 months. The contract contains a guarantee that the installed FIMs will generate the annual energy savings described above. The contract calls for compensation to be paid to Siemens in the amount of $6,738,778 which will be paid in progress payments as work under the contract is completed.

In order to pay for the installation of the FIMs, the City proposes to enter into a Master Lease Purchase Agreement, associated Leasing Schedule and Escrow Agreement (collectively referred to as the "Lease Agreement") with Siemens Public, Inc., which is essentially the finance arm of Siemens (for ease of reference, Siemens Industry will hereinafter be referred to as "Siemens Construction" and Siemens Public will be referred to as "Siemens Finance"). The City solicited and reviewed proposals from several qualified firms regarding the funding of the Siemens Contract and ultimately selected the proposal of Siemens Finance as the most advantageous to the City.

Under the Lease Agreement, Siemens Finance will deposit the sum of $6,738,778 (the contract price) into an escrow account from which progress payments will be made to Siemens Construction until all the work has been completed and the contract price is paid in full. The City will then make monthly lease payments to Siemens Finance over a period of 15 years. The lease payments will be made out of savings that the City will realize from the installation of the FIMs.

During the term of the lease, Siemens Finance will have a security interest in the Equipment and will have the right to repossess the Equipment in the event the City does not make the lease payments. At the end of the 15 years, the lease will be terminated and clear title to all of the Equipment will be conveyed to the City free and clear of any liens (not unlike a "lease to own" contract).

The City's obligation to make the lease payments is subject to annual appropriation by the City Council. The City Council may, in any year, elect not to appropriate funds to make the lease payments, but Siemens Finance would then have the right to repossess the Equipment pursuant to its security interest.

This item contains two parts. The first part is a request that the City Council authorize the Mayor or his designee to execute the Performance Contracting Agreement between the City and Siemens Construction for the installation of the FIMs. The second part is a request that the City Council authorize the Mayor or his designee to execute the Master Lease Purchase Agreement, associated Leasing Schedule and an Escrow Agreement with Siemens Public, Inc., related to the financing of the Equipment..

RECOMMENDATION: The Director of Administrative Services recommends that the City Council by resolution authorize the Mayor or his designee to execute (1) a Performance Contracting Agreement between the City and Siemens Industry, Inc.,

and (2) a Master Lease Purchase Agreement, associated Leasing Schedule and an Escrow Agreement with Siemens Public, Inc.

20. RESOLUTION – Amending the policies and procedures for city option funding of recreational and cultural facilities and cultural organizations known as the CARE program

PRESENTER: Steven Downs

POTENTIALLY AFFECTED AREA: Citywide

BACKGROUND: The existing CARE policies and procedures were most recently adopted on December 9th, 2008. Since that time, Orem voters renewed the CARE tax for an additional 10 years, keeping the CARE tax in effect through March 31, 2024, and thus requiring changes to reflect the effective dates.

The updated policies and procedures also reflect the creation of a mid-major CARE group which allows organizations that would otherwise qualify for a mini grant, but have an active 501c3 designation, to qualify for a grant between $5,000 and $9,999. This also moves the lower bound of a major grant from $5,000 to $10,000.

Additional changes were made to reflect changes to state code as well as eliminate the restrictive language used to define the various disciplines allowed to be funded with CARE funding.

RECOMMENDATION: The Assistant to the City Manager recommends the City Council, by resolution, approve the resolution updating the CARE Policies and Procedures.

COMMUNICATION ITEMS

21. There are no Communication Items.

CITY MANAGER INFORMATION ITEMS

22. This is an opportunity for the City Manager to provide information to the City Council. These items are for information and do not require action by the City Council.

ADJOURNMENT

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CITY OF OREM
CITY COUNCIL MEETING
56 North State Street Orem, Utah
December 8, 2015

3:00 P.M. WORK SESSION – PUBLIC SAFETY TRAINING ROOM

CONDUCTING	Mayor Richard F. Brunst
ELECTED OFFICIALS	Councilmembers Hans Andersen, Margaret Black, Tom Macdonald, Mark E. Seastrand, and Brent Sumner
APPOINTED STAFF	Jamie Davidson, City Manager; Brenn Bybee, Assistant City Manager; Greg Stephens, City Attorney; Richard Manning, Administrative Services Director; Bill Bell, Development Services Director; Karl Hirst, Recreation Director; Chris Tschirki, Public Works Director; Scott Gurney, Fire Department Director; Gary Giles, Police Department Director; Charlene Crozier, Library Director; Jason Bench, Planning Division Manager; Paul Goodrich, Transportation Engineer; Keith Larson, Traffic Operations Engineer; Sam Kelly, Engineer; Neal Winterton, Water Division Manager; Reed Price, Maintenance Division Manager; Steven Downs, Assistant to the City Manager; and Jackie Lambert, Deputy City Recorder

DISCUSSION – Draft Storm Water Utility Master Plan

Mr. Tschirki introduced Keith Larson with Bowen Collins & Associates who had worked with staff on the update of the draft Storm Water Utility Master Plan. He reminded the Council that the following presentation was a review of previous presentations, and said they planned to bring the formal adoption before the Council during a January City Council meeting. He then turned the time to Mr. Price for the presentation.

Orem City Storm Water Master Plan

- Storm Water Intro
  - 1987
    - Congress mandates EPA to control certain storm water discharges
  - 1990
    - Utah issues first permits to large municipalities
  - 1996
    - Orem Storm Sewer Utility created in march
      - Numerous findings
      - Improve water quality
      - Protect health and safety of public
      - Enhance water availability
      - Reduce flooding potential
  - One of numerous unseen utilities

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        - Infrastructure used to convey storm water runoff
            - 87.1 miles of pipe
                - Range from 6” to 54” diameter
            - 1,759 sumps
            - 36 Detention basins
            - Many privately managed structures
- Storm Water Pipes and Detention Basins (map)
- Storm Water Sumps (map)
- Purpose of Master Plan
    - Contracted with Bowen/Collins & Associates, Inc.
        - Provide recommended improvements to resolve existing and projected future deficiencies in the City’s storm water system based on the adopted General Plan.
        - Conduct a Rate Study to recommend storm drain rates for the City
        - A working document
- Scope of Project
    - Conduct a thorough analysis of City’s storm water utility system and its ability to meet the present and future storm water system needs.
        - Review
            - Existing InfoSWMM model
            - Known deficiencies with city staff
        - Collect
            - Supplemental data to update model
        - Modify
            - Existing InfoSWMM model for future conditions
        - Develop
            - Hydrologic model based on a 10-year storm
            - Solutions to existing and future deficiencies and prioritize with staff
            - Solutions to protect wellhead protection zones and prioritize with staff
            - Utility rate options for the city.
        - Outreach
            - Public Works Advisory Commission
            - Public open houses to communicate needs to the public
            - Mailers to city residents
            - Website with planning information
- Wellhead Protection Areas (map)
- Model Results (North) (map)
- Model Results (South) (map)
- Proposed Projects (North) (map)
- Ten-Year CIP Plan
- Proposed Project Costs (* indicates present value)
    - Major Conveyance Facilities (Pipelines)
        - 144 projects (New, Parallel, Reroute, Upsize)
        - $54.6 million*

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- Open Channel Improvements (Irrigation Ditches)
  - 1 project, Modify
  - $41,000*
- Detention Basin Improvements
  - 24 projects (New, Modify)
  - $6.5 million*
- Culvert Improvements
  - 3 projects
  - $216,000*

- Storm Water Utility Funding
  - Storm Water Fee
    - Based on amount of impervious surface.
    - Equivalent Service Unit (ESU)
      - Equal to the average impervious surface of a residential property.
        - 1 ESU = 2,700 sq. ft.
        - $5.25 per ESU (Current rate)
  - All single-family units are charged 1 ESU per month.
  - Businesses are charged according to their impervious surface area
    - Example: A business with 27,000 sq. ft. of impervious surface (e.g., roof, parking lot, walk ways) would be charged for 10 ESUs, or $52.50/month
- Other Cities (chart)
- Revised Storm Water Rates
  - Scenario 1 – Increase over 5 years
  - Scenario 2 – Increase over 7 years
  - Scenario 3 – Increase over 10 years
- The Path Forward
  - Final review by the community and City Council
  - Finalize Master Plan and appendices
  - Formal presentation to City Council
    - Adopt Storm Water Master Plan
    - Adopt new storm water rates

Mr. Price said the Environmental Protection Agency (EPA) was mandated by Congress in 1987 to control certain storm water discharges. In 1990, Utah issued the first permits to large municipalities like Salt Lake City and in March of 1996 Orem created the Orem Storm Sewer Utility. The Orem Storm Sewer Utility was created to protect Orem's underground water resources from contaminates, improve water quality, protect the health and safety of the public, enhance water availability, and reduce flooding potential during storm water conditions. Mr. Price said the storm water utility was part of the unseen infrastructure system in Orem that people did not readily think of. In response to a question from the Mayor, Mr. Reed identified the locations of City detention basins and sumps.

He said the Master Plan was a working document, and the prioritization of projects could change. He said Bowen Collins & Associates was asked to review the existing model and to address any known deficiencies using a newly developed hydrological model. They would also conduct a rate study to provide some options to determine what consumers should be charged for the use of the utility.

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Mr. Price then reviewed wellhead protection zones, saying that when storm water ran off the road into the sumps there was a potential for pollutants and debris to be collected into the sumps, which could then percolate into the low aquifers. They did not want that to happen, and so protecting wellhead areas was extremely important. Wells were used to supply drinking water, so they did not want anything to contaminate the wells. They were hoping to pipe the water away from wellhead protection areas, instead of relying solely on sumps to manage the storm drainage.

Mr. Price said the outreach effort was important to the process. They sent out mailers and held a series of open houses to communicate with the public and receive public feedback. They had a website, utilities.orem.org, with information for the public to review.

Mr. Davidson asked if the connectivity of new piping would change retention basins, or if they would still be used as part of the new system. Mr. Price said they would still be used, and more detention basins could potentially be added.

Mr. Tschirki said they had spoken with the Taylor family who operated Cherry Hill Farm, which had a conservation easement and agricultural protection overlay, about the major storm drain system that flowed through their properties. An additional forty-two inch storm drain line was needed in the effort to maintain a pristine ground water source. They needed to eliminate storm water injection in the wellhead protection areas, and that could come at a high price.

Mr. Price said they would use a mixture of sumps and detention basins in wellhead protection areas, and they would do what they could to keep costs low while still protecting underground water sources. He said the proposed projects had been prioritized as high, medium, and low priority, which were represented on the map as red, orange, and yellow respectively. Mr. Price said they had given a lot of thought to how to remove the water from those areas. He said the prioritization was in part based on the funding system that was suggested, which was to fund everything to a sustained inflation point. He said the project list would change based on the decisions of the City Council in how aggressively they wanted to address the projects.

When Mayor Brunst asked about a project near 1200 North, Mr. Price said the 1200 North project was slated for 2018, depending on the prioritization plan and funding. Mr. Price said they had been working on a thirty year plan, but had only prioritized the first ten years. He anticipated that the prioritization process would continue through the years based on needs and costs. He reminded the Council that storm water utility fees were based on the amount of impervious surface a given resident or business had, accounted for in Equivalent Service Units (ESUs). One ESU was equal to 2,700 square feet of impervious surface, which had a fee of $5.25 at the current rate. Impervious surfaces included driveways, rooftops, sidewalks, etc. Mr. Price said businesses were charged differently than residential, because they typically had a more ESUs. A business that kept storm water clean by following specific criteria could receive a credit for those efforts. He said Costco, for example, was a business with 264 ESUs that regularly received credits for keeping storm water as free of contaminates as possible. Businesses were encouraged to take advantage of the credit opportunities.

Mr. Price showed a chart comparing the storm water fees for residential customers with other Utah municipalities, with Orem being among the lowest in amount. He shared charts detailing the possible five-year, seven-year, and ten-year scenarios. He said the five-year scenario would

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see the ESU cost go from $5.25 to $6.65, an increase of $1.40. The consultant suggested that jump to front end load to meet the proposed prioritization schedule.

Mr. Macdonald asked for a comparison on the municipality chart with an increase to $6.65. Mr. Price said that would put Orem closer to South Jordan's current rates.

Mr. Macdonald inquired about the numbers listed at the bottom of the scenario charts, listed as "effect on CIP." Mr. Price said those numbers were to capture the amounts that would be lost in purchasing power by delaying the increases. In the seven-year scenario, that amount was around $699,754, and the ten-year scenario showed a loss of approximately $1.6 million. Mr. Price said the path forward would be to finalize and adopt the Storm Water Utility Master Plan and select the rate structure.

Mr. Davidson said the full copy of the report had been emailed to the Council so they would have time to review it prior to consideration of adoption in the second meeting in January. Staff wanted the Council to be aware of the timeline. He asked them to consider how it would fit with the overall philosophical discussion about moving forward with fees.

Mr. Seastrand asked if the motivating factor to updating this particular master plan was wellhead protection. He asked if there were other ways to tackle the issue. Mr. Davidson said there were several mandates that required the City to act. It was not just about building pipes but educating the public on how storm water would need to be handled.

Mr. Tschirki said fifteen years ago there was not a storm water utility. The main focus was on managing storm water quantity and preventing private property damage, as well as protecting the natural groundwater resources. The mandates from the EPA continued to progress and water quality issues were a priority. There were over 2,000 public sumps, and they were looking at eliminating over half of them in an effort to maintain pristine aquifers.

Mr. Seastrand asked what the pollutants were and if they were seeing an increase in them. Mr. Tschirki said salt, oil spills, heavy metals and other fluids from automobiles, and other debris were typical pollutants. He felt the level of pollutants in storm water was increasing, but did not have measurable data to back that up. He said there were innovative changes in sumps that could help, where pretreatment manholes allowed solids to settle in the system and jetvac equipment was used to pump it out. They used those to target areas with high levels of concern.

Councilwoman Elect Debby Lauret asked about mandates from the EPA and what was absolutely required. Mr. Tschirki said they were attempting the meet the base level requirements. Much of the plan correlated with sump elimination and protecting wellhead areas.

Mr. Davidson said they would stagger into compliance with EPA requirements based on their timetable. He said they were seeing increasingly high standards, particularly for larger municipalities.

Mr. Larson said regulations were constantly evolving. A lot of projects were not specifically federally mandated, but progress needed to be shown. He said one good thing going for Orem

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was that everyone was in this situation to keep up with the regulations. Making steps in the right direction was more what they looked for.

Mr. Davidson asked what negative outcomes could result if the Council decided it was too expensive to make the changes to meet the EPA mandates. Mr. Larson said direct defiance of EPA mandates would not be received well. Mr. Tschirki added that not making the necessary changes would continue to put Orem's drinking water source at risk.

Mr. Davidson asked if the plan was to pay-as-you-go or to finance up front. Mr. Price said they intended to finance with a pay-as-you-go option.

Mr. Macdonald asked (1) if bonding had been discussed; and (2) the approximate lifetime of the assets. Mr. Larson said almost all of the upgrades had a fifty year life expectation or more. He said that they had generally been instructed to look only at a pay-as-you-go option. Mr. Macdonald commented that most of these expenditures had been delayed during the lean years, and now was the time to pay for what would be needed in the next fifty years.

Mr. Tschirki said they thought the plan was palatable and responsible but could be accelerated if that was the direction the Council wished to go.

Mr. Lentz asked if any unit that was not residential was charged as a business, be it a school or state-owned unit. Mr. Price said the rates were based on ESUs, and typically businesses had more ESUs.

Mr. Tschirki said the storm water utility had never been built out to the extent of the water or sewer utilities. There was no pipe network that went into all areas, so they had relied on detention basins and sumps. They hoped to have a more fully developed storm water utility system.

Mr. Davidson said those updates were not a solution to solve every storm issue in Orem but to address many of them and come into compliance with federal regulations.

Mr. Tschirki said infrastructure would not be replaced in a set timeframe, but as needed. They would do things in the most cost effective way they could, including the lining of pipes to increase their life time and use the most optimal technology.

DISCUSSION – Neighborhood Plan (Canyon View, Orchard, Cascade)

Mr. Bench said neighborhood plans had been in the works since last year, and would eventually yield ten individualized plans for specific neighborhoods. The first neighborhood plan involved the three neighborhoods of Canyon View, Orchard, and Cascade. He said approximately 10,000 mailers had been sent to invite neighbors to be a part of the neighborhood planning process. He said Mickey Cochran and Diane Fraser were some who answered that invitation, and they were in attendance to answer questions from the Mayor and Council. He turned the time over to Mr. Stocksdale for the presentation.

Mr. Stocksdale reviewed the four major goals of neighborhood planning:

- Support the City Council's Areas of Focus

- Promote community planning by identifying local needs and concerns
- Improve City communication with residents
- Apply city-wide plans to the neighborhood level

Mr. Stocksdale said the public input had been included through:

- MindMixer and mySidewalk.com
- 3 Neighborhood meetings
- 3 Back-to-school nights
- An advisory committee

Mr. Stocksdale said these processes gave the residents and business owners a sense of ownership in the planning. He shared the list of advisory committee members, which included representatives from schools, business, and the neighborhood residents.

Diane Fraser, a member of the advisory committee from the Canyon View neighborhood, said she was impressed with the people who had presented to the committee, and she felt the City wanted to listen to the residents and wanted to do things in an orderly manner. She said citizens were able to express their opinions and to be heard.

Mickey Cochran, a member of the advisory committee from the Orchard neighborhood, said he had always been politically active, and when the opportunity came up he thought it was a great thing to do. He said they attended meetings and went to back-to-school nights, and interacted with a lot of different people and really enjoyed doing it. He said there was a lot of lively discussion, especially about the dog park, and he thought most of those who served on the committee wanted to stay involved in one way or another.

Mr. Seastrand asked if there was good cross representation from the neighborhood. Mr. Cochran said there was a wide spectrum represented, especially at the back-to-school nights. He said that by getting people onto the mySidewalk platform they had made contacts that they were still involved with. Ms. Fraser added that the different neighborhoods were represented in the committee, and people's area of expertise and experience brought in information that might not otherwise have been introduced.

Mr. Seastrand if there were any parts of the plan that were still controversial or if it represented a pretty good consensus. Mr. Cochran said he felt it was as strong representation of what people wanted. He said people were mainly concerned with preservation of their communities, improving traffic, improving parks, and finishing sidewalks.

Mrs. Black said the members of the committee had felt safe in expressing their opinions.

Mr. Stocksdale said it was a community-driven process, and he appreciated the citizen involvement. He said it was a vision from the people of what they wanted to see. The purpose was to advise staff and the Planning Commission and the City Council as new projects or challenges arose. They had identified neighborhood strengths and weaknesses, housing, population growth, land use, transportation, and neighborhood character.

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Mr. Stocksdale said the goal was to get through all the neighborhood plans in about five years and then to go back and review them. He said they were currently working on the Northridge/Heather Ridge/Windsor plan and that the Aspen and Timpview neighborhoods would begin their plan in the new year.

Mayor Brunst asked about specific projects that may have been mentioned.

Mr. Stocksdale gave the example that 800 North at about 1000 East was missing a needed sidewalk. That funding was put in place as a result of the committee meeting, because that item was mentioned many times and they were able to do something about it.

A summary of Canyon View, Orchard & Cascade Neighborhood Plan included:

- Orem Neighborhood Plans Program – Purpose
    - Support the City Council's Areas of Focus
    - Promote community planning by identifying local needs and concerns
    - Improve City communication with residents
    - Apply City-wide plans to the neighborhood level
- Public Outreach
    - MindMixer & mySidewalk
    - 3 Neighborhood Meetings
    - 3 Back to School Nights
    - Advisory Committee (Committee members listed)
- Vision Statement
    - "Enhance our quality of life by improving public safety and awareness; expanding transportation options through making streets safer for pedestrians, children, and bicyclists; increasing access to parks and open space; and making wise land use choices to consider future growth as we create homes that support the preservation and beautification of our neighborhoods."
- Neighborhood Concerns
    - Neighborhood preservation, clean up, and beautification
    - Maintain low density nature of neighborhoods
    - Traffic congestion and speeds on neighborhood roads
    - Improving walkability and safety, particularly around schools and parks
    - Increase access to parks and trails while improving the quality of parks
    - Develop or beautify vacant lots throughout the neighborhoods
- Housing Statistics
    - Single Family Homes – 93%
    - Accessory Apartments – 2%
    - Attached Homes – 4%
    - Duplex – 1%
    - Homeownership Rates
        - Neighborhoods Owners – 86
        - Neighborhoods Renters – 14
        - Orem Owners – 62
        - Orem Renters – 38
- Land Use
    - Existing Conditions:

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        - Largely Single Family Housing
        - Commercial/Office uses on 800 North
        - Parks built adjacent to schools
    - Future Considerations:
        - Infill development on vacant lots and orchards
        - Balance access to open space and parks; encourage new open space development
        - Increased density through attached homes and accessory apartments
        - Development of churches on existing lots
        - Use of Professional Office (PO) zone on 800 North
- Transportation Concerns
    - Improve safety around schools and parks
    - Improve nonvehicle transportation options and safety, including for bikes and pedestrians
    - Improve trail and sidewalk facilities
    - Maintain traffic capacities on major streets and utilize traffic calming techniques in the neighborhoods
        - Neighborhood Traffic Calming Tools
            - Reduce speeds on local roads while preserving traffic flow
            - Enhance pedestrian and bicycle safety
            - Improve crossings near schools
            - Traffic circles; raised crosswalks; bulb-out crossings; island medians
- Implementation
    - Vision Statement > Goals > Objectives > Actions
    - Timeline Horizons:
        - On-Going – Continuous
        - Short-Term – 0-2 Years
        - Mid-Term – 2-5 Years
        - Long-Term – 5+ Years

<u>DISCUSSION – 2015 International Energy Conservation Code</u>

Mayor Brunst introduced Don Jarvis, chair of the Utah Valley Clean Air Task Force and chair of the Provo City Sustainability and Natural Resources committee.

Mr. Clark said Orem participated on the Utah Valley Clean Air Task Force. Other participants included Provo City, MAG, BYU, Utah County Health Department, UCAR, the American Lung Association, UV Chamber, and various private businesses representatives. The Task Force was asking the City to execute a resolution in support of a change in the building code that would be coming up in the legislature in January. The Legislature would be considering the 2015 International Energy Conservation Code.

Mr. Clark said the Task Force was concerned about inversions, which had a negative effect on health and on economic development. Businesses have been driven away by the air quality in Utah Valley. The legislation to be considered would make changes in building codes, since

homes and buildings account for 39 percent of air pollution in Utah. The new code would help reduce pollution from new homes being constructed. This would add some cost to new construction but the home owner would get that back within two years in energy savings.

Mr. Macdonald asked if the new code would be statewide if passed the legislature. Mr. Clark said it would.

Mr. Jarvis said Provo had passed a resolution similar to the one being proposed for Orem. He said the changes would not only affect air quality but would have a positive effect on energy and heating bills.

Mayor Brunst asked where the proposed code could be found. He was concerned that different areas in the world were different and preferred that the code be site specific.

Mr. Bell said the State had already adopted the 2012 international code but was still using the 2006 energy code for residences. That needed to be changed.

Mr. Jarvis said people should not be concerned that it was an international code. It should be much more stringent here than it would be in other areas of the country. He felt it could be a base to build on. The Legislature was poised to adopt most of it with some compromises which would weaken it a bit. The resolution from the cities would ask the legislature not to weaken it too much.

Mayor Brunst asked what the realtors thought of the new code. Mr. Jarvis said the new chair of the Utah County Association of Realtors was in favor of it. He said most realtors sold both old and new homes and were fairly neutral concerning the code. Old homes had to have an energy rating for sale while new homes did not, which was what builders did not want to change.

Mr. Sumner asked how that would help the inversion over ten years. Mr. Jarvis said there were federal standards to improve pollution from automobiles in the future, so a higher percentage of the pollution would be coming from homes and buildings, and that needed to be addressed.

Mr. Bell said that every year the federal energy codes had slowly gotten tighter. Utah was behind most other states in the country because home builders had been lobbying against stricter codes. Now, rather than gradual changes, Utah needed some big changes.

Mr. Clark said many builders had been implementing the codes for several years, regardless of mandate, because of the benefits of a good, energy-efficient home.

Mr. Macdonald asked for clarification about the cost per home. Mr. Clark said it would depend on size and whether or not there was a basement, etc.

Mr. Jarvis said the important thing was to encourage the legislature to address the code and they could adapt it as they saw fit. He said code updates used to be done every three years, but the home builders had lobbied against that. This update would save people money in the long run and would be good for the economy, but people did not always look ahead.

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Mr. Davidson said it might be good to note the percentage of state legislators who had some interest in development and home building activities. In the long term the list of benefits would far exceed the negatives.

Mr. Lentz asked if it would be up to the cities to police the new policies. Mr. Bell said it would not because the homes were already being inspected. Mr. Jarvis said the inspectors often encouraged that people to meet the newer standards anyway.

Mrs. Black asked how Mr. Jarvis got involved. He said he was head of Provo's sustainability committee, and was therefore interested in improving the air quality.

Mayor Brunst said his first home was built in 1861 and had many energy leaks. The home he was in now was much larger but he paid similar energy costs because it was more energy efficient. He said that also kept the emissions down.

Mr. Jarvis said that was the goal. He said it was almost impossible to retrofit, but things could be done moving forward. He said houses could last 150 years, so it was important to make these changes. Mr. Clark said it was noteworthy that even the utilities were interested in higher energy standards and offered rebates for upgrades. He said those improvements should happen up front.

UPDATE – All-Together Playground

Mr. Downs said the overall theme was "Where everybody plays." "Playgrounds by Leather" had been chosen to design it. He said most of the cost would be covered by community involvement. The City was partnering with United Way, who were planning to build during the week of the "Day of Caring," the first full week in September. The City was also working with Kids on the Move to help identify the types of needs for the children. Habitat for Humanity also would be supplying some full-time people to help. It would be built at City Center Park.

Mr. Downs said the designers would hear the ideas of the children and implement those in their plans, and a community celebration would take place to show the design. He said that Brian Regan has pledged some of his ticket sales from his March concert to the project. His shows were sold out and would potentially generate about $19,000.

Mr. Downs said The Jimmer Foundation would sponsor a three-point-a-thon and pledge a dollar for every three pointer. Many corporations have been interested, but without the concept it was hard to know the funding issues.

Mr. Hirst said more businesses could get involved once the design came forward. They would buy a specific part of the plan.

Mr. Downs said most parks had a plaque specifying large sponsors. He said Excel, Fantastic Sam's, and others wanted to be involved.

Mayor Brunst said Zions Bank and Frontier Communications in Provo were also interested in helping. Mr. Hirst said the size had grown, they didn't really know what they were getting into when they started but the energy was building. Mr. Downs said had they known the full costs, the requests would have been different.

Mr. Bybee said they had a template email that anyone interested could forward along.

Mrs. Black wondered if the City would you ask for more money in the next round of CARE grants. Mr. Hirst said they were hoping to cover the costs with donations, but they would have to wait and see. He said the bathrooms were also an issue, and they needed to be redone.

5:00 P.M. STUDY SESSION – PUBLIC SAFETY TRAINING ROOM

CONDUCTING	Mayor Richard F. Brunst
ELECTED OFFICIALS	Councilmembers Hans Andersen, Margaret Black, Mark E. Seastrand, David Spencer, and Brent Sumner
APPOINTED STAFF	Jamie Davidson, City Manager; Brenn Bybee, Assistant City Manager; Greg Stephens, City Attorney; Richard Manning, Administrative Services Director; Bill Bell, Development Services Director; Karl Hirst, Recreation Director; Chris Tschirki, Public Works Director; Scott Gurney, Fire Department Director; Gary Giles, Police Department Director; Charlene Crozier, Library Director; Jason Bench, Planning Division Manager; Paul Goodrich, Transportation Engineer; Keith Larson, Traffic Operations Engineer; Sam Kelly, Engineer; Neal Winterton, Water Division Manager; Reed Price, Maintenance Division Manager; Steven Downs, Assistant to the City Manager; and Jackie Lambert, Deputy City Recorder
EXCUSED	Tom Macdonald

Preview Upcoming Agenda Items

Staff presented a preview of upcoming agenda items.

Agenda Review

The City Council and staff reviewed the items on the agenda.

City Council New Business

There was no City Council new business.

Mr. Davidson spoke to the nature of minutes. He said it was a misrepresentation that minutes should be word-for-word.

Mr. Stephens said the requirement was that it was a summary of the main points discussed at the meeting, who spoke, a summary of what was said, and the vote. He said it definitely was not a verbatim transcription of the meeting.

Mr. Davidson said meetings were recorded and those recordings were available. He said pending minutes could be provided to the public upon request before they were approved. He said that in the future meetings would be streamed lived and archived online.

Mr. Downs said there would also be some painting done in the council chambers and a new City seal would be installed behind the dais along with some sounding boards to improve the sound quality for broadcasting.

Mr. Tschirki previewed his presentation about the sewer base rate changes. Mayor Brunst said it was a big change, it was a fairness issue, but he anticipated much public comment.

Mr. Winterton said they would be working on educating in the next six months before implementation. And typically those who were upset at the beginning came to an understanding of the need.

The Council adjourned at 5:53 p.m. to the City Council Chambers for the regular meeting.

6:00 P.M. REGULAR SESSION – COUNCIL CHAMBERS

CONDUCTING	Mayor Richard F. Brunst
ELECTED OFFICIALS	Councilmembers Hans Andersen, Margaret Black, Tom Macdonald, Mark E. Seastrand, David Spencer, and Brent Sumner
APPOINTED STAFF	Jamie Davidson, City Manager; Brenn Bybee, Assistant City Manager; Greg Stephens, City Attorney; Richard Manning, Administrative Services Director; Bill Bell, Development Services Director; Karl Hirst, Recreation Director; Chris Tschirki, Public Works Director; Scott Gurney, Fire Department Director; Gary Giles, Police Department Director; Charlene Crozier, Library Director; Jason Bench, Planning Division Manager; Paul Goodrich, Transportation Engineer; Sam Kelly, Engineer; Steven Downs, Assistant to the City Manager; and Jackie Lambert, Deputy City Recorder

INVOCATION / INSPIRATIONAL THOUGHT	David Christopherson
PLEDGE OF ALLEGIANCE	Samuel Pollard
APPROVAL OF MINUTES	

Mr. Seastrand **moved** to approve the September 8, 2015, City Council meeting minutes. Mr. Macdonald **seconded** the motion. Those voting aye: Margaret Black, Richard F. Brunst, Tom Macdonald, Mark E. Seastrand, David Spencer, Brent Sumner. Those voting nay: Hans Andersen. The motion **passed, 6-1**.

Mr. Seastrand **moved** to approve the September 22, 2015, City Council meeting minutes. Mr. Macdonald **seconded** the motion. Those voting aye: Margaret Black, Richard F. Brunst, Tom Macdonald, Mark E. Seastrand, David Spencer, Brent Sumner. Those voting nay: Hans Andersen. The motion **passed, 6-1**.

Mr. Seastrand **moved** to approve the October 13, 2015, City Council meeting minutes. Mr. Macdonald **seconded** the motion. Those voting aye: Margaret Black, Richard F. Brunst, Tom Macdonald, Mark E. Seastrand, David Spencer, Brent Sumner. Those voting nay: Hans Andersen. The motion **passed, 6-1**.

Mr. Seastrand **moved** to approve the October 27, 2015, City Council meeting minutes. Mr. Macdonald **seconded** the motion. Those voting aye: Margaret Black, Richard F. Brunst, Tom Macdonald, Mark E. Seastrand, David Spencer, Brent Sumner. Those voting nay: Hans Andersen. The motion **passed, 6-1**.

Mr. Seastrand **moved** to approve the November 10, 2015, City Council meeting minutes. Mr. Macdonald **seconded** the motion. Those voting aye: Margaret Black, Richard F. Brunst, Tom Macdonald, Mark E. Seastrand, David Spencer, Brent Sumner. Those voting nay: Hans Andersen. The motion **passed, 6-1**.

Mayor Brunst asked Mr. Davidson to review the information he had shared in the work session regarding the requirements for the minutes. Mr. Davidson deferred to Mr. Stephens. Mr. Stephens said the minutes were supposed to be a summary of what happened in the meeting and were not supposed to be a verbatim transcription**.** He said State law indicated they should include the substance of matters proposed, discussed, or decided, and also the substance in brief of the testimony or comments provided by the public.

MAYOR'S REPORT/ITEMS REFERRED BY COUNCIL

Upcoming Events

The Mayor referred the Council to the upcoming events listed in the agenda packet.

Appointments to Boards and Commissions

There were no appointments to boards and commissions.

Recognition of New Neighborhoods in Action Officers

There were no new neighborhood officers recognized.

Mayor Pro Tem

Mayor Brunst moved that Councilmember Seastrand serve as the new Mayor Pro Tem. Mr. Macdonald seconded the motion. Those voting aye: Hans Andersen, Margaret Black, Richard F. Brunst, Tom Macdonald, Mark E. Seastrand, David Spencer, Brent Sumner. The motion **passed unanimously.**

REPORT – Arts Council

Ms. Crozier introduced the members of the Arts Council. They included: Cody Hale from Hale Center Theater, chair; Casandra Barney; Cindy Clark; Cody Clark; Debby Lauret; Kate Monson;

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Peggy Philbrick; Ray Smith; Barry Merrell; John Reinhard; Nancy Peterson; Joseph Sorenson; and Adam Robertson, representing the SCERA. She thanked them for their service and expressed how passionate they each were about the Arts in Orem.

Mr. Hale said the Arts Council had gone through many changes in the past year. He said the Arts Council had previously been a presenting organization, presenting things to the public. As a result of some of the changes, they now referred to it as Orem Arts Council Create! The difference was that instead of completely presenting things, they hosted participatory events. Those events had included:

- the Orem Stories Project, which included history, writing, and art
- a Jazz concert and jam session for high school students
- the "Play in a Day" event involving mostly junior high aged students and younger

Mr. Hale said the next event would involve dance. He then reviewed some of the events they had been part of with the City Center Stage concerts and Summerfest. They had also worked with City planners on the State Street Master Plan regarding creating an arts district.

Ms. Lauret said she appreciated the free events for families and commented on the amount of talent in the area. Mr. Hale agreed with that, saying he felt this valley was the hotbed of talent for the world. He said the Arts Council wanted to keep fostering opportunities for those talents to grow and improve.

Ms. Crozier thanked the arts providers in Orem who had not charged for their professional services or their facilities. She expressed appreciation for the corporate sponsorship they had received from Wayfair.com and were looking to expand that in the future. She also thanked Mrs. Black for her service to the Arts Council over the years.

Utah Valley Women's Initiative

Glynis Tolerico represented the Utah Valley Women's Initiative which was founded by Dr. Paula Fellingham. She said organization hoped to get the initiative in all the cities in the Utah Valley. At the foundational meeting in October they had discussed the major problems that kept "Happy Valley" from being as happy as it could be for thousands of women who lived there. They identified the following as primary problems:

1. Women felt inadequate or alone, unfulfilled and lacking purpose
2. Women were addicted to a variety of things, i.e. eating, drugs, exercise, work, etc.
3. Women did not feel as safe as they would like to feel
4. Women lacked healthy relationships and many struggled loneliness
5. Women were starting, but often not finishing, educational degrees

Ms. Tolerico said the initiative was formed to help create solutions, both short-term and long-term. She said the initiative would officially be launched on January 15, 2016, at the SCERA. She said representatives to the initiative would:

- meet monthly to discuss the issues and solutions, with presentations from experts
- present free monthly educational and uplifting events for women in the valley
- collaborate with services and businesses to support women
- publish a Utah Valley Resource Guide to help women connect with those services
- provide programs to help women in all seven areas of their lives

- mental
- physical
- emotional
- social
- spiritual
- financial
- relational

Ms. Tolerico said the program also helped families, offering books, a guidebook, DVDs and CDs as well as family meetings. It used surveys at the beginning and the end to assess family strengths, weaknesses, and progress. She said the Utah Valley Women's mission was to strengthen women and families in the valley. Their motto was: "We are women helping women live our best lives." She invited Councilmembers and their spouses to attend the launch of the program.

Mr. Seastrand left the meeting at 6:28

CITY MANAGER'S APPOINTMENTS

Appointments to Boards and Commissions

Mayor Brunst **moved** to reappoint Karen Jeffreys to the Planning Commission. Mr. Spencer **seconded** the motion. Those voting aye: Hans Andersen, Margaret Black, Richard F. Brunst, Tom Macdonald, David Spencer, Brent Sumner. The motion **passed unanimously**.

PERSONAL APPEARANCES

Time was allotted for the public to express their ideas, concerns, and comments on items not on the agenda. Those wishing to speak should have signed in prior to the meeting, and comments were limited to three minutes or less.

Carolyn James, resident, said she represented the Chauntenettes women's chorus. She shared a history of the chorus and thanked the City for the CARE program funds that allowed them to purchase new sound equipment, music, bells and costumes. She said they had to hold a concert in the American Fork Tabernacle because there was not a large enough venue for them in Orem. She thanked Mrs. Black for all her support to the chorus and to the arts in Orem and presented her with a thank-you gift.

Ann Morey, resident, said she was opposed to the proposed zoning change at 800 West 800 South. Her concerns included:

- Proximity to her home.
- Traffic
- Parking
- Crime
- Density of the project

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Ronald Jones, resident, said he also lived close to the proposed ICO development. He said he was especially concerned about the safety of area children crossing the street near such a dense development. It was easier to stop something from happening than to undo something that was already done.

Jennifer Webber, resident, spoke about two Utah State Traffic Codes: Title 41, Chapter 6A, Part 4, Section 401.3 and Section 401.7. She said she was a crossing guard and had been hit by a car and severely hurt. The City of Orem did not fully uphold state traffic codes and would not be prosecuting the hit-and-run driver. Ms. Webber said the prosecutor and police should be upholding the law.

Rebecca Daily, resident, spoke in honor of Hans Andersen and his service to Orem. She presented Mr. Andersen with a "Mr. No" plaque for his efforts to point the city in the right direction.

Melodee Andersen, resident and Hans Andersen's' wife, honored her husband as a statesman, saying he knew the proper role of government. She said he was unpopular among progressives. She asserted that the City did not tell the people the whole truth. She awarded Mr. Andersen with a plaque naming him "Mr. Know" because he wanted the citizens to know the truth.

Brent Wood, resident of the Sunsets Heights neighborhood, talked about the high density housing project and said the neighborhood should be renamed "No Sunset Heights" because the building would block the view of the residents in that area. He expressed concern about the short length of leases being proposed and insufficient parking requirements

Barbara Petty, resident, read a letter to Hans Andersen from five residents which thanked him for his service and for his perseverance in doing the right thing and putting principle over profit.

CONSENT ITEMS

MOTION – 2016 Annual City Council Meeting Schedule

Mrs. Black **moved** to adopt the 2016 Annual City Council Meeting Schedule. Mr. Andersen **seconded** the motion. Those voting aye: Hans Andersen, Margaret Black, Richard F. Brunst, Tom Macdonald, Mark E. Seastrand, David Spencer, Brent Sumner. The motion **passed unanimously**.

SCHEDULED ITEMS

6:00 P.M. PUBLIC HEARING – Sewer Base Rate
ORDINANCE – Amending the sewer base rate for multiunit residential buildings and for nonresidential buildings with a water meter size greater than ¾"

Mr. Tschirki and Mr. Winterton presented the recommendation that the City Council, by ordinance with an effective date of July 1, 2016, (1) charge a sewer base rate for each residential living unit, and (2) amend the sewer base rate for nonresidential buildings having a water meter size greater than ¾".

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The City of Orem currently charged a monthly "sewer base rate" for city sewer services. This charge was the same for all land uses and was charged based on the total number of physical sewer connections that serviced the account, regardless of the number of residential or nonresidential units associated with that account. That meant, for example, that an account holder with a 12-plex with one sewer connection paid the same sewer base rate as a single-family homeowner. Furthermore, a large commercial business paid the same base rate that a single-family homeowner paid. The sewer base rate was intended to compensate the City for the cost of making sewer service available at a particular connection point, including costs related to infrastructure and maintenance. The "sewer volume charge" was a separate charge that was based on actual sewage flow and was intended to compensate the City for the cost of handling and treating the user's quantity of sewage flow.

Summary of Proposed Amendments:

Effective July 1, 2016, the City of Orem sewer base rates will change as follows:

1. Each residential living unit found in a single-family dwelling, multifamily dwelling, apartment complex, condominium complex, etc. will be charged a sewer base rate. In other words, a 12-plex would now be billed for 12 sewer base rates and not 1 sewer base rate.
2. Nonresidential accounts will be charged a sewer base rate according to their water meter size and the associated industry standard American Water Works Association (AWWA) equivalent meter information.
3. Mixed-use developments will be charged by combining these two methods—paying for each residential living unit plus the equivalent meter size necessary to service the nonresidential portion of the building.

The sewer base rate for single family residences and the sewer volume charge remain unchanged.

The new fees and charges information would read as follows:

Monthly Sewer Rates

Residential Base Rate[1]	$9.32/Residential Living Unit (unchanged)
Nonresidential Base Rate[2]	$9.32 x AWWA Multiplier
Mixed-Use Base Rate[3]	$9.32/Residential Living Unit + Nonresidential Component
Volume Charge[4]	$1.42/1,000 Gallons (unchanged)

[1] Each residential utility account will be assessed a sewer base rate according to the number of residential living units associated with the account. For example, a single-family dwelling will be billed for 1 sewer base rate, a duplex (including single-family dwellings with an accessory apartment) will be billed for 2 sewer base rates, a 4-plex will be billed for 4 sewer base rates, a 12-plex will be billed for 12 sewer base rates, etc.

[2] All nonresidential utility account holders will be billed using a water meter size multiplier based on American Water Works Association (AWWA) guidelines. (Table 28-2 from American Water Works Association Manual of Water Supply Practices M1 – "Principles of Water Rates, Fees, and Charges" for water meters up to 3-inches in size and Table 2-2 from American Water Works Association Manual of Water Supply Practices M6 – "Water Meters – Selection,

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Installation, Testing, and Maintenance" for water meters larger than 3-inches in size.) The following table details the AWWA Multiplier for various water meter sizes.

Water Meter Size	¾"	1"	1½"	2"	3"	4"	6"	8"	10"
AWWA Multiplier	1.00	1.67	3.33	5.33	10.00	20.00	41.67	53.33	96.67

[3] Mixed-use utility accounts will be assessed according to (1) the number of residential living units and (2) the nonresidential component of the mixed-use development. The nonresidential component is calculated by determining the equivalent water meter size required to service only the nonresidential portion of the mixed-use development using the International Plumbing Code 2012 version, Appendix E201.1 (pressure range over 60) and E103.3(2) . The AWWA multiplier associated with the equivalent water meter size will then be applied to determine the nonresidential component of the sewer base rate.

[4] Effective July 1 of each year, the monthly charge shall be based on the average winter water usage for the preceding winter months.

Mr. Tschirki said they had been working on this issue for about a year and a half. He said that in the Spring of 2014, Bowen and Collins had been hired to help create the Sewer, Water, and Storm Water Master Plans. In December, 2014, the concept of the sewer base rate and how it was currently being assessed was presented to the Council. In February of 2015 the City hired a GIS graduate to identify all the nonresidential and residential units within the city. He explained that nonresidential could be retail, industrial, manufacturing, commercial, etc. In August 2015, the study was completed and it was presented to the Public Works Advisory Commission (PWAC) in September.

Mr. Tschirki said the PWAC consisted of seven members, including professors, engineers, development directors and other professionals within the community, who had reviewed the study and given direction. He said the findings were presented to the Council in October and a notification to the public had been sent within the past week.

Mr. Tschirki said it was the recommendation was that the Council adopt the new policy and to implement it July 1, 2016. He said the PWAC actually recommended implementation on January 1, 2016, but then it was felt that, as per the recommendation of Council, those who would be impacted should be given six months to plan for the changes.

Mr. Tschirki explained that there were two different sewer rates in the city. One was the base rate for the connection to the sewer system, and it was based on an account basis. There were instances where multiple units were part of one account. The sewer volume rate was the "great equalizer" of the charges in that those who produced more or consumed more, were billed more. He said there were not sewer meters on the sewer laterals and so the billing was based on an industry standard of looking at internal water consumption during the winter months and using that as an average for the next twelve months. He said the typical utility service bill had two line items – the sewer base rate of $9.32 per connection and the volume or production charge, billed at $1.42/gallon.

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Mr. Tschirki said that, before any rate increase, they looked at the current the billing process to identify any anomalies or inequities or fairness issues, and the sewer base rate be reviewed for inequities or fairness issues, and the PWAC felt like the sewer base rate was one of the most egregious fairness issues. He said the current base rate was based on an account, in other words a 12-unit complex was charged the $9.32 which was divided by 12. In other accounts, there were much higher numbers of units, only being charged one or two base rates as it was one or two accounts.

Mr. Tschirki said that Orem currently had a sewer base rate that covered fixed costs associated with operations that did not vary. He said that at the treatment plant they treated about 8 million gallons per day throughout the year. He said the sewer base rate was a charge for the privilege to connect to the public sewer system. The PWAC felt larger customers should pay a larger share than smaller customers. He said that, with the current structure, individual home owners were subsidizing larger customers such as commercial properties and multiunit developments.

Mr. Tschirki said the first phase of the proposed plan would be to bill every unit the sewer base rate, so a 12-plex would be billed $9.32 times twelve. They also addressed the nonresidential component, which included commercial, retail, and industrial units, by billing them based on the meter size and a multiplier provided by the American Water Works Association's equivalent meter data. Mixed use developments would be charged accordingly by combining the two methods on a case by case basis. He pointed out that there were only three mixed-use developments in the community.

Mr. Tschirki said the study reported that there were 21,847 data base entries in the utility billing system. Of those, 20,141 residential and 1,706 were nonresidential. They also determined that there were a total of 27,472 residential units, which meant that 7,331 residential units were not being billed a sewer base rate. It was projected that, if the proposal were implemented, the proposed residential annual increase would be approximately $800,000, and the nonresidential annual increase would be about $300,000. Thus, the total projected annual increase would be $1.1 million. He reiterated that the sewer base rate was for the privilege of connecting to the system and the volume rate was the great equalizer.

Mr. Tschirki said the revenues generated by the base rate and the volume rate were used to pay for any costs associated with the sewer utility, including the installation, maintenance, operation, repair, replacement, personnel, and administrative costs pertaining to the sewer mains, manholes, lift stations, treatment facility and other infrastructure. This plan would provide increased revenue as noted above, to cover these costs.

Mr. Tschirki said that the staff recommended that the City eliminate the 21 cents of the thousand gallon increase in year one, which would equate to $600,000. This plan eliminate any subsidization that was currently occurring and would result in a $1,68 per month reduction for the average homeowner. They also said that future increase recommendations should apply to both the base rate and the volume charge to create more equity and fairness in the billing process.

Mr. Winterton said an outreach campaign was done. They sent a mailer to every account holder, although it was a little later than they had hope, and they had used email, and a robocall. They had emailed 995 businesses and 806 multifamily units, and had contacted 2262 businesses and

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1,200 multifamily units via robocall. He said he had personally fielded a lot of calls, and so had Steven Downs and their secretaries. He said the inquiries had come from single-family homes, businesses, and multifamily unit landlords and property managers.

Mr. Andersen asked when the people had received the flier. Mr. Winterton said they probably would have received their flier that very day. The email and newsletter had gone out the previous week, the information had been on the website, and they had presented this topic in a premeeting in October. Mr. Andersen asked if Mr. Winterton remembered when the City was asked to alert the landlords. Mr. Winterton said it had been in the October 2015, meeting. Mr. Andersen asked if it was not also the previous spring that they were asked to do it. Mr. Winterton said they had not received direction from the Council whether or not it was something they wanted to pursue, so they had not sent out any notices at that time. Mr. Andersen said City had not done sent out notices until the previous five days. He said he wanted transparency when the City was doing stuff, and he felt it was lacking here.

Mr. Winterton said based on the response they had received, they felt the message had gotten out. He said they had received a lot of feedback and one of the emails had come from the Utah Apartment Association. That association said that while, they did not endorse nor dissuade, they would not oppose the change. They said the new system would be consistent with what other communities did. He said there were questions about the fairness concerning the number of sewer lateral connections, but the reality was that the City did not maintain the laterals. All utility account holders were responsible for their laterals.

Mr. Winterton reviewed the concept of peak flows and how sewer mains had to be built to accommodate them. Under the present fee structure, a single-family home paid the same rate as an entire apartment complex. He said arguments could be made that people living on a hill should pay more for snow plow services or people who lived farther from the treatment plant should pay more since the water had to travel farther in their pipe. The same storm water ESU was charged even though peoples' rooftops or driveways had different square footage. Charging the same base rate would make it fair without going into the minute details. Mr. Winterton said that, besides Provo, there were no other cities that operated the way Orem currently did—and Provo was considering making changes to how they based their rate.

Mr. Winterton shared the existing fee and charge system and the proposed system where the residential base rate was by living unit, and the nonresidential was with the AWWA multiplier. A business owner he spoke with had not completely understood how the rate would be applied, and when it was explained the man realized it was not as much as he had thought.

Mr. Winterton said there were no standards that required the City Council to follow any pattern or policy to support the water reclamation fund. The underlying principal was that the City needed the funding to support the everyday operations and everyday conveyance sewer. They had to meet the standards set forth in the permit that the City had to discharge through Powell Slough and eventually into Utah Lake, as well as to have a responsible CIP replacement program. The proposed plan was what had been recommended by the Public Works Advisory Commission (PWAC) and by the hired engineering consultants. The AWWA multipliers were established and recognized throughout the industry and country to establish water and sewer rates. He shared an extreme example that highlighted the disparity between cities, using multiple

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accounts for one business owner with 192 units. . The base rate for that business owner under the proposed plan in Orem would be $1,826. Under Payson's current rate, that business owner would be paying $6,348. In Santaquin it would be $7,338.

Mr. Sumner asked if all those cities charged by the door. Mr. Winterton said they did, except for Orem and Provo. He said there was not one city, besides Provo, where the business owner in the example would pay less than what he would pay under the new proposal.

Mr. Winterton said that the landlord should pass the cost along to the tenants so that each unit paid its share. He said he had spoken to single-family homeowners who could not believe Orem's current system was still being used. Some people argued that the burden would be passed on to poor students with only three people living in the unit. Mr. Winterton noted there were homes that also had only three people in residence. In the example above, with three people per unit, each tenant would be paying only twenty-five cents per month for the connection. He said the Northridge HOA had 82 accounts of full-sized, single-family homes and it was charged only about $18 per month for all 82 units. He said mobile home accounts were similar. He explained that the system had to be maintained for the highest possible usage to avoid sewer back-ups. He said the treatment plant didn't get smaller because people flushed their toilets less; it still needed to be maintained on the same level. He said the plan was about fairness.

Mr. Sumner expressed concern that landlords would use this to substantially increase their rents.

Mr. Winterton said the system had been unfair all along and landlords had not decreased rents because of the disparity. He said they charged rents based on the market. Landlords would charge as much as they could, regardless of a sewer base rate.

Mr. Tschirki said, referring to Mr. Andersen's previous questions, the information could not be sent out in February of last year, because it had not been compiled at that point. It was at that time that the City had hired a consultant to conduct the study that took about six months to complete. They did not feel they were able to present the information until now. In the spirit of transparency, they had done what they should. They did not want to bring people together without information being available.

Mr. Macdonald said he had served with PWAC and felt there did need to be a change in the system to address the fairness issue. When he had first heard of it, he had worried about the widows, the retired, un or underemployed who had a home and were paying a higher rate than if they were in an apartment. He said it felt like a "reverse Robin Hood" to him, stealing from the poor and giving to the rich. Mr. Macdonald said the late notice was a concern to him. He had received several emails indicating that the late notice might not have allowed enough public comment. He said the emails he had received had caused him concern. He said a single-family home and did use more water for lawns than an apartment renter might use. There was less piping and less expense in apartments than in separate homes. While he believed there should an additional charge per door, he was not positive it should be the same charge as per house. He thought there needed to be more study and feedback, especially in light of things he had heard in the past week from apartment owners and apartment dwellers.

Mr. Sumner asked if Mr. Macdonald was advocating a sliding scale. Mr. Macdonald said he

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would like something different than what they were seeing in the proposal, and something different than what they were currently doing.

Mr. Andersen said quoted emails he had received from Marilyn Broadbent and Mark Haney, indicating that the same topic had come up in 1997 and that landlords had not been consulted at that time, either. They said that, after the threat of a lawsuit, the City had conducted a study at a cost of $80,000, after which base rates were reduced and consumption rates were increased. Mr. Andersen proposed allowing the citizens to vote on the issue. He said it was comparable to the UTOPIA tax increase a few years back.

Mr. Macdonald clarified that the tax three years back was not a UTOPIA thing. That had been a decision on how to fund city operations, of which UTOPIA was a part. He said the citizens did not vote on UTOPIA.

Mr. Andersen said he was at a Council meeting six days after he was sworn in and he was told it was for UTOPIA. He said he was told it in a closed-door meeting

Mayor Brunst brought the discussion back to the sewer base rate. He said it was for the availability and privilege to connect to the sewer system, to cover the fixed costs and maintenance of the infrastructure. The volume charge was for the cost of treatment and for discharging the water after it was cleaned. He said that each living unit was connected to the system and therefore should be charged both a base rate and a volume rate. It was important to consider how to do it fairly and equitably. He said the proposed base rate was something that should have been looked at some time ago and adjusted.

Mrs. Black said she agreed with the Mayor.

Mayor Brunst opened the public hearing.

Fred Johnson, resident, said he had lived in Orem for more than 60 years and worked in real estate sales and development. He agreed with the Mayor that multiunit complexes should pay their fair share but he felt more time needed to be put into studying the issue.

Ray Springer, resident of Salt Lake City, said he owned a forty-four unit apartment complex in Orem. He said on the surface the plan seemed very fair, but it would increase his cost by $382 increase, and increase he would have to pass on to his tenants.

Mark Haney, an owner of Orem apartments, said the presentation which compared costs for his business if he were located in other cities was deceptive because it only considered the sewer base rate and not the volume rate. He reviewed the history of the attempt years ago to increase the rate, noting the Council had reversed their decision. He said the base rate was never intended to cover the cost of infrastructure upgrades, but was only to cover fixed costs, such as billing. The rest of the costs were to be covered by the consumption part of the bill. He asserted that the mailer conveniently left out information about apartments using less water than single-family homes. He encouraged the Council to vote “no.

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Landon Conover, resident, said he lived in a townhome community and served on the HOA for that community. He said he heard about the issue by reading the minutes he subscribed to by email, and he also learned about it on Facebook. At first he had thought it was not fair but on reading the agenda more closely he thought it was fair because bills were based on connection points. He said the volume charge was what made it all fair. He agreed with increasing the base rate because operating expenses had increased; he also agreed with Mr. Macdonald that a tiered system might be good

John Shelley, resident, said he knew that infrastructure was important to maintain. He said he lived in a basement apartment, and the proposal would mean a substantial increase for him. He was fine with everyone paying their fair share, and if costs had gone up he knew that his base rate should go up. He said he did find it misleading or unfair to say that a basement apartment would be charged an extra $9.32.

Sarah Fuller, resident, expressed concern about the late notification, saying more work should be done to notify the public. She felt the $9.32 per door did not fully address the aspect of fairness and felt it should be based on consumption.

Jim Fawcett, resident, said the volume charge was going to be going up. He said the City was not falling apart and failing, and this was a lot of money. He had questions about the various numbers being proposed, and wondered if an apartment owner would need to pay the $9.32 for an empty unit. He asked if mixed-use facilities would get a better break or if they would be charged like a fourplex or an eight-plex.

Tony Cook, resident of Lindon, said he owned a business in Orem. He thought there should be more emphasis put on the commercial side of water usage and whether that water was returned. He felt the City had been fair and hoped they would continue to be. He felt a per-door fee was fair. As the owner of a greenhouse that watered a lot of plants and did not return a lot of water into the sewer system, he felt that should be considered. He knew a scale system for every hookup was difficult, but there might be a few worth reviewing.

Sam Lentz, resident and councilmember-elect, responded to Mr. Fawcett's question of what the City had been doing before any increases. Mr. Lentz said the City had been going into debt. He hoped that would not continue and not continue passing debt on to future generations. He said the current path was not sustainable. He said he recognized that the plan was not perfect and might need more time to review. It might be good to consider charging by the size of the connection, using the multiplier across the board.

John Reinhard, resident, said studies he had read reported that high-density housing was used to subsidize single-family home costs. He said this would be the same thing. He liked the idea of tabling the issue and giving some more time to look at options. He said he iked Mr. Lentz's suggestion of going solely on the size of the connection. He did not think the system was fair the way it was, but the proposal might be swinging the pendulum too much in the other direction. He said it was wise to take care of the issue now before the new housing units were all completed.

Scott Blackham, resident, owned commercial property in Orem. He said he was charged $45 a month for storm sewer, but every time there was a storm the water came up over the gutter and

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into his parking lot. He had called the City to ask what he was paying for and was told the City had dug a hole, filled it with gravel, and put a grate over it, and that was his storm sewer. He wanted to know why he was still paying for that after fifteen years. He said this looked like a tax increase to him. He said the City should raise the taxes the same for everyone. He asked what the $1.1 million would be used for. He said Orem did not need to be like other cities.

Daniel Broadbent, Provo resident, said he owned rental property in Orem. He said the fair way was to charge a base fee for billing, and base the rest on consumption. He felt the study had proved that eighteen years ago, and if the current rates were not covering costs, then the consumption fee needed to be adjusted. He felt the proposal was targeting landlords. He thought they might examine raising the base fee for a larger hook-up, but believed the majority of the expense of the sewer system would be covered by an increase in the consumption fee.

Conrad Diamond, resident, said he had received an email the previous week and seen the flier that day. He said fairness depended on the perspective of the person looking at it. He realized there were issues in trying to meter use on the sewer system vs. use on the water supply. He felt the per-door approach seemed reasonable, even if not perfect. It was important to take care of the system upfront rather than wait and have to do repairs.

Mayor Brunst closed the public hearing.

Mayor Brunst said the purpose of the proposal was to make the system fairer, and raising the consumption fee for everyone would not address the fairness issue between homes, rental units, and commercial buildings. He said the base fee was not just for the infrastructure, it was the right to hook up to and to use the system, sharing the sump costs and the fixed costs. He felt the base fee going against a living unit was the proper and just way to address it. If the City did not fund maintenance, there would be problems and backups. Orem's rate was one of the lowest in the state, around one-half or one-third what nearby cities charged. While he understood the proposal would affect those in apartments, those living in a home were expected to pay for the same sewer usage.

Mayor Brunst had some thoughts on timing, and noted that Mr. Seastrand had expressed a desire would be to continue this. Mayor Brunst said the delay in the delivery of the fliers was due to the system that the post office used. There had been a tremendous amount of effort to try to reach out to make it transparent and available. He was open to the idea of continuing the item to have more public input.

Mr. Spencer asked Mr. Broadbent if utilities were included in the rents, and Mr. Broadbent said if units had separate meters, renters would put the utilities in their own name. He said when contracts renewed they might increase rents, but that would depend on the market.

Mr. Sumner asked for clarification, that if the utilities went up, the landlords would increase the rent. Mr. Broadbent said they would do the best they could. If everyone's rent was going up in Orem, people would move to other cities. Mr. Sumner suggested that the landlords would probably raise rents more than the actual increase of the utility fee. Mr. Broadbent said rents would go up based on what the market could bare, but if utilities were going up considerably the

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landlords would try to recover as much as they could. They would not want to lose profits. He said commercial properties took a bigger hit than residential, typically.

Mr. Spencer said he wanted more time to do research and to review the sewer study from eighteen years ago. He would like to continue the discussion.

Mayor Brunst said in any apartment, if gas or electric went up, it affected everyone.

Mr. Davidson reviewed a comparison of usage rates in nearby cities, as well as the base rates.

City	Base Rate	Volume Rate/1000 gallons
Orem	$ 9.32	$1.42
American Fork	$35.55	$1.40
Payson	$36.75	$1.09
Pleasant Grove	$24.14	$2.29
Lehi	$22.00	$2.00
Spanish Fork	$16.59	$1.52
Springville	$19.73	$1.32
Provo	$ 7.31	$2.00

He said the full picture represented that an Orem utility customer could potentially take ninety-minute shower every day, and still come in with a lower sewer and water rate than most of the surrounding cities. He said the City was looking at both rates and knew there needed to be a balance between volume and base, but if landlords were looking to move their apartments to these other cities, they would not find cheaper rates.

****Mr. Seastrand returned at 8:27****

Mrs. Black said she wanted to give her opinion since she would not be on the Council at the next meeting. She felt this was a fair and equitable solution to the issue. It seemed unusual that an eighty-two-unit development like Northridge near her home did not pay the same $9.32 per home that she did. She said the base rate was the privilege to connect and the volume rate was how much was used. It was an equity issue that needed to be addressed. She said her friend from Pleasant Grove said she could not believe the complaints over Orem's rates which were so much lower than Pleasant Grove's. Mrs. Black said Orem was fortunate to have such low taxes and fees overall, but when studies were made they needed to be paid attention to.

Mr. Davidson compared it with the fact that it was only those that got pulled over for speeding got a ticket.

Mr. Seastrand said her had made some inquiries about the study done in 1997/98. It was important to find a fair and equitable solution, and he did not mind getting more information before making a decision. He would review the minutes and recordings to see what was done. He would like to continue the item.

Mr. Spencer **moved** to continue the discussion. Mr. Andersen **seconded** the motion.

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It was asked if the public hearing would be continued. Mayor Brunst said it would be a continued discussion to give time for the public to communicate with Council members.

Mr. Spencer **amended the motion** to say that the discussion was continued to January 12, 2016, at 6:00 p.m., the public hearing having been closed. Mr. Macdonald **seconded** the amended motion. Those voting aye: Hans Andersen, Margaret Black, Richard F. Brunst, Tom Macdonald, Mark E. Seastrand, David Spencer, Brent Sumner. The motion **passed unanimously**.

6:00 P.M. PUBLIC HEARING – Transportation Master Plan
RESOLUTION – Adopting the December 2015 Transportation Master Plan and amending the Orem City General Plan to include the Transportation Master Plan as Appendix B

The Development Services Department requested that the City Council adopt the Transportation Master Plan and amend the Orem General Plan by adopting the Transportation Master Plan as Appendix B.

The last time a full Transportation Master Planning document was approved was in 1988 and was titled: "STREET MASTER PLAN for City of Orem, Utah, January 1988." Multiple amendments had been made to that Master Plan over the years, and the Development Services Department felt that it was time to provide a complete new Plan.

The Development Services Department hired Horrocks Engineers to assist staff in developing the new Transportation Master Plan. A public outreach effort was launched to seek public input, including providing an interactive web page for citizens to provide comments on roadway, bike, and transit maps. Public outreach was managed by newsletter articles, City web page updates, project web page management, and other social media forms.

The proposed Transportation Master Plan was finalized based on traffic modeling efforts and public input. A public open house was held on September 1, 2015 to showcase the draft Plan and the Transportation Advisory Commission also held several meetings through the process of developing the new Plan. A copy of the proposed Plan was included with the agenda summary and could also be found at http://www.oremtmp.com/.

Having a complete Transportation Master Plan (TMP) was important for the following reasons:

1. A TMP is needed to receive federal, state, and county funding for regionally significant roadway improvements.
2. Developers will be required to follow the TMP and create proper setbacks for development – and will also construct certain improvements if they create a legal nexus due to development impacts.
3. The City will use the TMP in programming funding for needed transportation improvements; however, the City is not bound financially to complete needed transportation improvements identified by the Plan by any specific time.

The City's Transportation Advisory Commission had unanimously recommended approval of the Transportation Master Plan.

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The Planning Commission recommended the City Council adopt the Transportation Master Plan and amend the Orem General Plan by adopting it as Appendix B. Staff supports the Planning Commission recommendation.

Mr. Goodrich introduced Sandy Lanshire with Horrocks Engineers; Blake DeVry; John Dorny, transportation engineer; Kevin Croshaw; Sam Kelly, City Engineer; and Griffin Harris, chair of the Transportation Advisory Commission.

Ms. Lanshire explained that having the Transportation Master Plan provided a citywide plan for roads, transit, bike and pedestrian pathways, and other vital infrastructure. She said that having a plan also helped the City get federal funding. The last Transportation Master Plan that was done for the City was in 1988. The new plan studied (1) roadway network conditions, including travel demand modeling, roadway functional classification analysis, level of service (LOS), the 2015 CIP program, and 2040 roadway improvements; (2) Alternative modes of Transportation , including transit, bicycle and pedestrian pathways curb radius; (3) other policies and guidelines, including truck routes, speed limit analysis, curb radius analysis, crosswalk analysis, traffic signal warrants, access management standards, traffic calming standards, traffic impact study requirements, and overall connectivity for the city.

Ms. Lanshire said the committee had conducted a public outreach program above and beyond the normal open house system because the City wanted more public input. There was a project hotline, project email, and website (OremTMP.com) and these were advertised through social media, the City blog, the City newsletter, and a press release. The committee gathered input from citizens from March 19 through May 19th, 2015, and about 150 comments were gathered. All were analyzed and categorized and either passed on to Keith Larson, City Traffic Engineer, or incorporated into the plan. On September 1, 2015, a public open house was held to discuss the draft plan and about 50 people attended and commented.

Ms. Lanshire explained the need for the various projects and how the conditions could worsen if they were not addressed. She said that 150 projects were identified, 52 of which were needed for capacity improvement in the next ten years.

Mr. Dorny explained that the committee had modified the three-phase travel demand model that MAG had developed, looking closer at the needs of the city. They noted that 1600 North and 800 East, and 1600 North and 1200 West were projects that were needed above and beyond what MAG showed. There was also a project on Center Street that MAG had identified as needing to be done by 2034, but the committee had recognized that it would be needed sooner. He reiterated that adopting the plan did not mean the projects would be done or funded, but that those were projects that the City would further consider.

Mr. Dorny pointed out the needs for new Hawk signals, roundabout improvements, bike paths, rails, routes, and intersections. All of the projects would come before the Council before anything was done.

Mayor Brunst said a concern for him was prioritization of the use of the road. He felt on some roads the parking needed to be removed from the street and on others restriping could widen the road and up the capacity. He would like to see a strong study on current assets.

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Mr. Goodrich said the plan did not go into detail on the corridors, but it tried to prioritize which improvements on various roadways were needed first. Then microlevel prioritization would take place. He said a detailed analysis needed to be done with public involvement to determine which ones to focus on, and then there would be an environmental clearance process.

Mayor Brunst said he thought it would be interesting to see the cost of overlays versus having to purchase homes and properties. Mr. Goodrich said that would be the second step; the first step was getting the master plan in place.

Mr. Dorny said they had driven every collector road in Orem, and they had checked speed limits, school zones, street parking, etc. The committee considered what could be done to maximize the pavement. He again said all decisions would be up to the Council and all the details and tools were in the full document.

Ms. Lanshire, said the cost of the projects identified as the most needed over the next ten years would be about $183 million, with inflation.

Mayor Brunst said the City's current annual road budget was only about half of what would be needed. He said Proposition 1 would have helped with that.

Ms. Lanshire said that what the City currently received from the gas tax would be used for maintenance only, not for new projects. She said the City did not get much funding at all from the county. MAG managed the federal and state funding, with the City receiving on average about $1.3 million. She said that, with an approved master plan, the City could request more funding. She said the CIP fund for next year was about $126,000. With rounding, that left about a $1.6 million gap annually. Other funding could come from impact fees, bonding, and federal grants, but grants were costly and time consuming to pursue.

Mayor Brunst opened the public hearing.

Keith Wyatt, resident, said he was on the Transportation Commission and supported this document. He felt it was important that planning be an ongoing process. It was a living document that the Council, Mayor, and staff would refer to frequently. He said it should become a part of Orem's DNA to constantly plan and assess the future.

Scott Blackham, resident, said he liked the idea of bicycle paths. He said he hoped that as this moved forward the City would look at other cities and how they handled things. He had lived in Germany where they had excellent bike paths.

Mayor Brunst closed public hearing.

Mrs. Black **moved**, by resolution, to adopt the December 2015 Transportation Master Plan and amending the Orem City General Plan to include the Transportation Master Plan as Appendix B. Mayor Brunst **seconded** the motion. Those voting aye: Margaret Black, Richard F. Brunst, Tom Macdonald, Mark E. Seastrand, David Spencer, Brent Sumner. Those voting nay: Hans Andersen. The motion **passed, 6-1**.

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RESOLUTION – Accept Fiscal Year 2014-2015 Audit

Mr. Manning introduced Mr. Ron Stewart with the firm of Gilbert and Stewart, which performed the audit, who presented the City Manager's recommendation that the City Council, by resolution, accept the Fiscal Year 2014-2015 audit as presented.

In accordance with State law, the City was required to have a complete financial audit performed by an independent auditing firm on an annual basis.

Over the past several months, the accounting firm of Gilbert & Stewart CPA, PC had been reviewing the City's financial records and had now completed their audit. All of the audit information was included in the Comprehensive Annual Financial Report (CAFR). Representatives from Gilbert & Stewart reviewed the CAFR in their presentation to the City Council during the meeting. The City ended the fiscal year at June 30, 2015, in relatively sound financial condition and had received an auditor's opinion with no qualifications (a "clean" opinion).

Mr. Stewart explained that the auditors were required to come to an opinion regarding the CAFR and whether it fairly represented what happened in the City. They confirmed various transactions with outside parties to make sure what was being reported was correct. The reported opinion of the auditors was that the CAFR fairly represented the financial position of the City, in accordance with accounting principles generally accepted in the United States of America.

Mr. Stewart explained that the second report looked at controls in place and their effectiveness. As the auditors pulled samples, they made sure the process was working. In this report they did not give an opinion, but looked for material weaknesses and for significant deficiencies. The audit found neither of those problems.

Mr. Stewart said that, if the City spent more than $500 in federal funds, they were required to go through an A-133 audit. The audit tested for compliance with federal programs. He said they tested a Department of Transportation grant and found that the City complied in all material respects.

Mr. Stewart said they also did compliance tests, in accordance with Utah law, within certain areas of the city, including budgetary compliance, justice courts, state retirement systems, open and public meetings, nepotism, cash management, and some others. They also looked at fund balance because there was a State requirement that the general fund could not be more than 25 percent of the general revenues, and the City exceeded that. He said that City management was aware, and it would be fixed in the upcoming budget amendment.

Mr. Seastrand asked if it was a timing issue. Mr. Stewart said there were ins and outs through the year, and it was tough to budget to spend those monies, not knowing when things would happen. He said it was the only finding, and it would was not a bad thing in the grand scheme of things. City staffs had been great to work with, were very responsive, and knew what they were doing.

Mr. Seastrand asked if this was the first year that this firm had done the audit. Mr. Stewart said it was. Mr. Seastrand said it was good sign that new eyes saw the same good things, and he was

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pleased that the firm had given the City an unqualified recommendation. He asked if there were there any recommendations for the future.

Mr. Stewart said in a large city like Orem, with so many departments, communication was very important. He said the accounting needed to know exactly how funding was going in and out.

Mr. Andersen asked when the State required that the audit be given to the Council. Mr. Stewart said it had to be reported 180 days after the fiscal year ended. Mr. Andersen asked when pending minutes for public meetings were supposed to be made available to the public. He answered his own question by saying it was 30 days after the holding of a public meeting. He said the Council had just approved four sets of minutes that were more than 30 days.

Mr. Stephens explained that pending minutes needed to be *available* after thirty days, but the final minutes did not have to be approved within thirty days.

Mr. Andersen said it was his understanding that most meetings this year had not been available to the public. He asserted that the City was breaking the law more times than they were keeping the law when it came to transparency with the minutes of meetings.

Mayor Brunst said the question was what "available" meant. He said that if someone wanted to come in to read or listen, the minutes were available.

Mr. Andersen **moved** that the City Council, by resolution, accept the Fiscal Year 2014-2015 audit. Mr. Spencer **seconded** the motion. Those voting aye: Hans Andersen, Margaret Black, Richard F. Brunst, Tom Macdonald, Mark E. Seastrand, David Spencer, Brent Sumner. The motion **passed unanimously**.

6:00 P.M. PUBLIC HEARING – Transportation Master Plan
RESOLUTION – Amending the General Plan land use map of the City of Orem by changing the land use designation on property located generally at 660 South Geneva Road from Low Density Residential to Community Commercial; and
ORDINANCE – Amending Article 22-5-3(A) and the zoning map of the City of Orem by rezoning 5.83 acres of property located generally at 660 South Geneva Road from the R20 zone to the C1 zone

The applicant withdrew her application on November 25, 2015, and requested the item not be considered.

COMMUNICATION ITEMS

There were no communication items.

CITY MANAGER INFORMATION ITEMS

There were no City Manager information items.

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ADJOURN TO A MEETING OF THE REDEVELOPMENT AGENCY OF THE CITY OF OREM

Mayor Brunst **moved** to adjourn to a meeting of the Redevelopment Agency of the City of Orem. Mr. Macdonald **seconded** the motion. Those voting aye: Hans Andersen, Margaret Black, Richard F. Brunst, Tom Macdonald, Mark E. Seastrand, David Spencer, Brent Sumner. The motion **passed unanimously**.

The meeting adjourned at 9:19 p.m.

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CITY OF OREM
CITY COUNCIL MEETING
56 North State Street Orem, Utah
January 12, 2016

3:00 P.M. WORK SESSION – PUBLIC SAFETY TRAINING ROOM

CONDUCTING	Mayor Richard F. Brunst
ELECTED OFFICIALS	Councilmembers Debby Lauret, Sam Lentz, Tom Macdonald, Mark Seastrand, David Spencer, and Brent Sumner
APPOINTED STAFF	Jamie Davidson, City Manager; Brenn Bybee, Assistant City Manager; Greg Stephens, City Attorney; Richard Manning, Administrative Services Director; Bill Bell, Development Services Director; Karl Hirst, Recreation Director; Chris Tschirki, Public Works Director; Scott Gurney, Fire Department Director; Gary Giles, Police Department Director; Charlene Crozier, Library Director; Jason Bench, Planning Division Manager; Paul Goodrich, Transportation Engineer; Sam Kelly, Engineer; Neal Winterton, Water Division Manager; Reed Price, Maintenance Division Manager; Steven Downs, Assistant to the City Manager; and Jackie Lambert, Deputy City Recorder
EXCUSED	David Spencer

DISCUSSION – CARE Policies

Mr. Downs began the discussion about the upcoming year's Cultural Arts & Recreation Enhancement funds (CARE). Some desire had been expressed to consider grants for projects that fit somewhere between the mini-and major grants. There would be an estimated increase in revenues of $82,000, including $40,000 surplus from last year. He noted that State law defined specific rules for the use of CARE tax revenues, including mini- and major grants. While major grants—which had strict standards—had not seen growth in the number of applications, many more applications were being submitted for mini-grants with its looser criteria.

Mr. Downs said the increase in the number of applications had brought about requests for something in between the mini- and major grants. He then made a presentation on a possible new grant: mid-major grants.

General Rules for Cultural Arts Grants

- Grants to qualifying organizations should be utilized to build organizational capacity, to create stability and to enhance the City of Orem's cultural arts offerings and community.

- Qualifying organizations must come from one of the following eligible disciplines: natural history, art, music, theater, dance, cultural arts, literature, motion picture, storytelling
- Qualifying organizations must have as their primary purpose the advancement and preservation of natural history, art, music, theater, dance, cultural arts, literature, motion picture, or storytelling, as well as a preponderance of activities that are within their eligible disciplines, and not just have some element of cultural activities.
- CARE funds should not be the sole or major source of funding received by applicant organizations. Priority will be given to organizations that can solicit and receive matching funds. Priority will be given to organizations that can demonstrate a strong connection to the community, have a substantial track record and show a stable history.

Mini-Grant Specific Information

- Organizations applying for mini-grants may be awarded up to $4,999 for qualifying operating expenses as defined in these policies and procedures.
- Private nonprofit cultural organizations requesting mini-grants must be 501(c)(3) nonprofit entities or registered with the State of Utah as nonprofit corporations with an active status at the time of the application deadline.
- Preference will be given to mini-grant applicants that have a significant presence, and manage and present, in the City of Orem.
- Organizations headquartered outside of Orem may qualify for mini-grant to present in the City of Orem, based on their intent to establish a more significant ongoing presence in the City of Orem
- Last year there were 15 recipients (12 the prior year)

Major Grant Specific Information

- Organizations applying for major grants of $5,000 or more may be awarded up to 35% of their total qualifying operating expenses as defined in these policies and procedures.
- Private nonprofit cultural organizations requesting major grants must be 501(c)(3) nonprofit entities at the time of the application deadline.
- Organizations will not qualify to receive major grants of $5,000 or more unless they have a significant presence, and manage and present, in the City of Orem.
- Last year there were 3 major grant recipients (5 the prior year)

Mid-Major

Mr. Downs said that over the last couple of years several councilmembers had brought up the idea of creating another category. It would allow for some cultural organizations to apply for grants larger than $5,000 without meeting the requirements of a major grant, usually because their operating expenditures weren't high enough to qualify for a major grant. A larger grant would allow them to grow their programs and pay for their ongoing operating expenses

Mr. Davidson observed that the operating thresholds had been set by the Council. They could be changed. Mr. Downs added that State law only determined what projects/organizations could qualify. The amounts were determined by the Council.

In the subsequent Council and staff discussion, the following issues were raised:

- The Colonial Heritage event was a possibility, as was the music festival.
- Reaching a greater part of the community as a possible requirement for more funding.
- More solidly define what it meant to have a "significant presence in Orem."
- CARE money did not go to Summerfest, and the Colonial Heritage Festival might be more on par with that, needing a long-term solution rather than applying each year for CARE funding.
- While Summerfest was a City-sponsored event and had other sponsors, the General Fund paid the difference. Any funding given to a new event would have to be weighed against other needs, such as parks, public safety, etc.
- The way the ballot's opinion question was worded did limit what could be done, including the 50/50 split between cultural arts and recreation.
- This was the first year with the full 50/50 split.
- CARE applications would go out in about a month, and if there was going to be an addition of a mid-major grant, the discussion needed to happen sooner than later.
- They must ask themselves as they considered these different organizations if the CARE money was being used to maintain or enhance what they did. Those using it to maintain should be cautioned that the City wanted a catalytic growth effort made with these funds.
- There could be a rush on grants if the amount were raised.
- The amount might need to be between $10,000 and $15,000 to be a compromise between the mini-grants and major grants.
- It would need to be more than simply holding one or two performances in Orem in a year.

Mr. Stephens was tasked with coming up with criteria for the Council to consider such as amount of outreach, effects/helps the community, number of people touched.

DISCUSSION – CARE Project Updates

Mr. Hirst presented information about dog parks and splash pads. They had tried to avoid the schools and parks that already had a lot of activity going on or parking/restroom issues.

Dog Park

The Council and staff discussion included:

- The State had been approached about using detention basin areas as dog parks, and at this point they did not like the idea, though some communities around the valley had used them for that purpose.
- The detention pond by the skate park was an option, though:
    - The bathrooms there had a lot of vandalism problems.
    - There was no playground.
    - It was close to the fire station #3, which could be good or bad.
    - The slope to access it was steep and would be challenging to make handicap-accessible
    - There was also a kind of creek there, which could be good or bad. Of the three options, it would be the most expensive.
    - With fencing, it would create mowing issues.
    - There were only eighteen parking stalls.
    - It was the most expensive to develop of all the options being considered.

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    - If animals were to get loose, proximity to the freeway could be a danger.
    - Moving the entrance could not be done for the $75,000 amount.
    - Parking on the north was red-curbed.
    - Some suggestions for putting a dog park in the detention basin involved bringing in fill which would have a negative impact on its capacity. That would have to be made up somewhere else.
- Community Park was another option, partly because the City was the only one scheduling it.
    - Mountain View High School also used it.
    - It was a potential site for a future underwater tank.
    - It was a little more hidden than other locations.
    - If all programmed activities were moved, there would be forty-three parking spots.
    - It would be south of the tennis courts, and they would try to keep it fifty or sixty feet from the six or seven neighbors bordering that side, though it would still be visible and they could hear.
    - They were pushing on the deadline to open it by this summer.

Mr. Macdonald asked what Mr. Hirst's preference was, and he indicated Community Park first, followed by Bonneville and then the skate park. He said he would put out a flier and ask for residents to come speak to him about the sites. He would be back in about two weeks.

Splash Pad – Palisades Park

Mr. Hirst said the company that would be building the splash pad was supportive of the site. When they constructed Palisades Park, they planned for pumps and chlorine tanks. The restrooms would need to be within 140 feet of the splash pad, by health code.

Some of the issues included:

- Flow-through system for irrigation was relatively new, where water was sprayed up and then used to irrigate.
- They would use culinary water.
- The cons were unique to the site.
- It was expensive, and they would need to build the tank to fill every day.
- If they went with what was basically a giant sprinkler, the flexibility would go away.
- Another downside was water conservation, with it using 300,000 gallons per season going back into the sewer.
- St. George might use recycled water.
- Most splash pads had a recirculated system which had to be treated with an operating cost of about $28,000-35,000, and this was Mr. Hirst's recommendation.
- Additional expenses include employee costs, chemicals, filters, UV bulbs, etc.
- The more pressure in the system, the better.
- Palisades Park provided the best design flexibility and was the preferred site.
- The pavilion had the possibility of providing some off-set for the cost via concessions.
- Staff preferred a look of rock or granite rather than colorful tubes that only looked nice for about three years.
- Spanish Fork paid about $900,000 for their splash pad.
- Shade structures were the big thing right now for parks, pools, etc.

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- The Council must decide what they could build for half a million dollars, among the four options being proposed.
- The current vision for the project went beyond the current funding.
- While there were some risk management issues, they were not any different from other playgrounds.
- A splash pad could affect revenues for paid pools, perhaps even significantly.
- Some trees would be left to keep the separation between the splash pad and programmed sports.
- Since the bid of $500,000 was from last year, the City could do a second tranche.
- There were many great opportunities for use of the CARE funds and, while they could make them all work, they could not make them all work immediately.
- The costs needed to be weighed with the interests of the Recreation Advisory Commission.
- CIP funds could be used to augment the CARE funds, but the Council would have to consider what other necessary project would not be done because of the money diverted to the splash pad.
- Since it would be a one-time expense, it could be financed, using the CARE dollars to retire the debt.
- Splash pads were a relatively new thing, but it was estimated they could last between twenty and twenty-five years. The one at Olympic Park was going on sixteen years.
- Conservation was not really an issue with the recycle option, but the other options had waste concerns.
- Because of the nature of a splash pad, it was an on-demand use, so breezes would generally only be a problem in the mornings and later evenings.
- Staff would work with management to prepare a plan.

UPDATE – Storm Water Utility Master Plan

Mr. Price handed out an executive summary from the financial report by Lewis & Young. For the benefit of the new Council members, he reviewed the process they had gone through to evaluate areas that needed improvement to help in preparing the Storm Water Utility Master Plan. They identified about fifty years' worth of projects that they would like to start chipping at. With the master plan complete and with Lewis Young Robertson & Burningham conducting a financial study, they now had a vision for how to proceed. Rate structure options had been proposed for five, seven, or ten year increases. The proposal was taken to the Public Works Advisory Commission (PWAC) where some modifications to decrease the amounts were made. Mr. Price said that, in order to meet expectations, they would need $1.00 per ESU (equivalent stormwater unit) and smaller increases over the next several years. They would be formally presenting this at the meeting on January 26, 2016.

Mrs. Lauret asked if he preferred one scenario over another, and Mr. Price said he would like it as aggressive as was feasible.

Mr. Davidson said if the Council were comfortable adopting the master plan, there would be a financing mechanism to make it happen. Different scenarios would be proposed. He noted that it would not make sense to adopt the master plan without also adopting a fee.

In response to a query by the Mayor about the sewer base rate fee, Mr. Davidson said the utility fees were all interconnected in some way. They could be adopted with an effective date into the future. He cautioned again about adopting a master plan with the intent to move forward but not also putting an appropriate financing mechanism in place.

Mr. Lentz noted that the changes to the base rate were intended to get rid of inequity among users and wondered if that was also the case with the stormwater user rate. Mr. Price said there was no inequality, based upon the ESU and relating to the amount of impervious surface. Residential was determined to be 2,700 square feet to an ESU. Commercial businesses are charged one ESU for every 2,700 feet of impervious area, such as asphalt, concrete, and roof. When it rained, the water needed to go somewhere. Since businesses replaced bare ground with asphalt, concrete, and roofing, the rain could no longer percolate into the ground. If businesses made improvements to lessen the impact, they were given credits.

Mr. Sumner inquired about property owners, and Mr. Price said a fourplex would be treated like a business.

Mr. Tschirki said that single-family homes were treated as a benchmark for the ESUs. Some developments might have fifty ESUs, but most had one.

Mr. Sumner said he would like to see them as one package, to piggyback on the discussion about sewer base rates. Mr. Davidson said they were happy to speak to the idea of bringing them forward separately. Strategically, there were reasons staff wanted to bring them to the Council separately. The Council could establish different effective dates, for example, with storm water taking place in five years, water in ten years, etc. It was a complex issue, and they hoped to provide the most flexibility. They wanted to address all the questions and give the Council time to learn about the issue.

Mr. Tschirki said the main reason with the sewer base rate was that this decision needed to be decided before looking at rates prospectively. They felt the inequity issue needed to be resolved first.

DISCUSSION – Sewer Base Rate Options

Mr. Tschirki said K.C. Shaw, Mike Collins, Neal Winterton, and Steven Downs would all be presenting on the issue at the 6 p.m. meeting. Mr. Tschirki reviewed what they had done in the form of outreach about the issue.

Mr. Sumner asked if it would be a public hearing. Mayor Brunst said it was a public hearing, but they had opened and closed the public hearing in December. Interested parties had had many opportunities to bring forward their concerns and more information.

Mr. Tschirki and Mr. Winterton reviewed the material again that they had presented to the Council in previous work sessions.

Mr. Tschirki said an important element to keep in mind was that they needed to build the system to handle peak times. Having a sewer system capable of handling only the average amount of flow would lead to problems during peak demand times.

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Mayor Brunst observed that when everyone decided to go to the bathroom during Super Bowl halftime, the sewer needed to be able to handle it.

Mr. Tschirki said residents were not simply paying for their use but for potential use. It was the same with purchasing a car that had the capacity to go 120 mph. The 1998 study looked at volume and not at the important issue of peak capacity in the system. A fourplex had the same ability to hit peak capacity as a residential home, so staff felt they should be charged the same. Over the years since the 1998 report, the number of multifamily units in Orem had continued to grow, making the amount single-family homes were subsidizing even greater.

Mr. Winterton said the Utah Apartment Association's argument against making the changes were not valid because they did not address the peak flow. The base rate was not intended to address the number of people in a unit.

Mr. Macdonald said there were homes with more than one washer/dryer set or multiple bathrooms that apartments did not have. It was arguable that a peak for an apartment was something less than a single-family home. He said the Mayor had a proposal to address that.

Mayor Brunst said the comment had been made that the apartment was using less than the house. He would argue that a smaller, single-family home could be using less than an apartment. He said he compared utility bills with his neighbors, two retired people. They used eight times less than his family did. It was not only apartments that used less.

Mr. Winterton reviewed a comparison of how much more 10 accounts with 196 units would pay if billed the way surrounding communities charged. He stressed again that the difference was how much more they would pay. All communities did it a little differently. None were perfect. The underlying principle was fairness. Mr. Winterton shared some of the arguments against changing the base rate, such as landscaping and fire flow.

Mr. Sumner asked about peak flows, and Mr. Winterton said at the plant it was 10:00 a.m., measured in million gallons a day. Mr. Tschirki said pipes closer to the treatment facility were larger to accommodate the water flowing that way.

Mayor Brunst suggested charging the full price for the first unit in a multi-unit complex and then doing a discounted rate for the rest since the City did not have the expense of billing them all individually.

Mr. Sumner asked about examples of the nonresidential category. Mr. Winterton said Costco might have a two-inch connection, as did many hotels, schools, and Utah Valley University (UVU).

Mr. Tschirki said schools were a good example of facilities that had meters large enough to accommodate landscaping. Mr. Winterton noted that some had elected to have separate meters for different uses. Fire was not metered.

Mr. Shaw, representing the PWAC, said the commission spent months working on the master plan recommendation. In the end they suggested increasing fees to generate about $1.1 million.

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While reviewing the way the City billed they realized not paying per living unit meant single-family homes were subsidizing multi-family units. Mr. Shaw said 10 might be the average of 9 and 11, but it was also the average of 20 and 2. There were no perfect billing systems, but they tried to bring increased fairness.

Mr. Davidson said they should be prepared to recalibrate the rate according to how much growth Orem had. For example, the current proposal did not include a completed Midtown.

Mr. Shaw said the PWAC members supported the per-living-unit billing system. The proposal moved them closer to fairness. He used his ninety-year-old mother as an example of someone who used very little water generally, but did place a much larger demand on the system when family came for a visit.

Mr. Lentz asked how assisted living facilities would be billed. Mr. Winterton said that since they were basically apartments they would be billed per living unit, the same as accessory apartments.

Mr. Seastrand said some had asked if the Mall or Midtown were getting special deals. Mr. Winterton said there were no "sweetheart" deals. Midtown would be charged for each living unit plus the commercial.

Mr. Sumner asked staff to give an explanation of peak uses.

Mr. Davidson said the Mall's parking lot was sized to accommodate the Saturday before Christmas or Black Friday. The City was sizing the system to accommodate the highest peak flow. He said telecommunications was another example. People complained about slow Internet because they were not taking into consideration when it was slow because of the number of others trying to use the system during peak times.

5:00 P.M. STUDY SESSION – PUBLIC SAFETY TRAINING ROOM

CONDUCTING	Mayor Richard F. Brunst
ELECTED OFFICIALS	Councilmembers Debby Lauret, Sam Lentz, Tom Macdonald, Mark Seastrand, David Spencer, and Brent Sumner
APPOINTED STAFF	Jamie Davidson, City Manager; Brenn Bybee, Assistant City Manager; Greg Stephens, City Attorney; Richard Manning, Administrative Services Director; Bill Bell, Development Services Director; Karl Hirst, Recreation Director; Chris Tschirki, Public Works Director; Scott Gurney, Fire Department Director; Gary Giles, Police Department Director; Charlene Crozier, Library Director; Jason Bench, Planning Division Manager; Paul Goodrich, Transportation Engineer; Keith Larsen, Traffic Operations Engineer; Sam Kelly, Engineer; Neal Winterton, Water Division Manager; Reed Price, Maintenance Division

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Manager; Steven Downs, Assistant to the City Manager; and Donna Weaver, City Recorder

Preview Upcoming Agenda Items

Staff presented a preview of upcoming agenda items.

Agenda Review

The City Council and staff reviewed the items on the agenda.

Mr. Davidson said the appointments to the UIA and UTOPIA boards were made by the city manager. The UIA appointment also had to be ratified by the Council. Because of that he thought it appropriate to receive input from the Council. He said he recommended appointing an appointed representative to one and an elected representative to the other. Whoever served should be engaged to address some things that would be coming forward.

Mayor Brunst said UTOPIA and UIA were big deals to Orem. He said the City spent more on UTOPIA debt than on road maintenance, and they needed to find solutions to deal with it. The majority of residents were not in favor of forced participation. UTOPIA could become revenue generating.

Mr. Davidson said it would help if the person assigned already had some experience/training in telecom. It was a technical assignment but also a political one.

Mayor Brunst said he would prefer someone on the UIA board who had been on the Council for a while. He suggested Mr. Macdonald.

Mr. Macdonald said he had neither the time nor the expertise for such an assignment and suggested Mr. Lentz. Mr. Davidson said he could support that, and Mr. Lentz said he could do it.

Mr. Spencer said at a recent meeting he had asked to bring the issue back to the Council for a vote. The board moved ahead anyway, leaving Orem out. Mayor Brunst said that had been a problem in the past as well and not just with Orem.

Mr. Seastrand asked how to involve the Council more. Mayor Brunst said he wanted to have a session at their retreat on UTOPIA. He would also like to have a report on UTOPIA monthly during Council sessions. Orem was the largest customer in UTOPIA and had a huge demand for the service.

Mr. Sumner said there were three or four cities that controlled UTOPIA. Mayor Brunst said if some people retired, there might be some change. He noted that UTOPIA had been without a CEO for two years.

Mr. Lentz asked about reestablishing a UTOPIA citizen committee and engaging more with citizens. It would not have to be called a UTOPIA committee but could be about telecommunications.

Mr. Davidson said it was appropriate to involve citizens but it was also important for them to understand the system and the limitations Orem had to operate under. He would not want to create an expectation that was not supportable.

Mr. Stephens said it should be an agenda item at the next meeting.

Mr. Davidson said Mr. Sumner had asked if it would result in significant changes. Mr. Davidson said he did not think it would. One area that would help was discussion about Orem's operational invoice expense that had been outstanding for about eighteen months. Conversations were taking place but one statement that was being made by not making the payment was that Orem was not a "dues paying member." He suggested that, in order to participate, the debt be paid. Mr. Davidson said he believed the board would be willing to then roll those funds into infrastructure in Orem.

Mayor Brunst said it was a complicated issue and suggested discussing it further at the next meeting.

He passed out a list of the 2016 Council assignments:

<u>Mayor Brunst</u>

- Envision Utah Executive Board
- Envision Utah Board of Directors
- Mountainland Association of Governments Exec. Council
- Mountainland MPO Regional Planning - Transportation
- Mountainland MPO Finance Committee
- Utah Valley Chamber of Commerce Board of Directors
- Utah Valley Chamber of Commerce Govt. Review Committee
- Utah Valley Chamber of Commerce Public Policy Committee
- Joint Policy Advisory Committee - Transportation
- ULCT Legislative Policy
- US Ignite Steering Committee
- Miss Orem Scholarship Board
- NIA: Heatheridge & Northridge

<u>Debby Lauret</u>

- Heritage Commission
- Library Advisory Commission
- Beautification Commission
- NIA: Cherry Hill, Orem Park, Orem East

<u>Sam Lentz</u>

- UCCU Board
- Orem Youth Council
- Planning Commission
- NIA: Lakeridge, Sharon Park, Sunset Heights West

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Tom Macdonald

- Intermountain Healthcare Outreach
- Transportation Advisory Commission
- Historical Preservation Commission
- NIA: Hillcrest, Orem, Geneva

Mark Seastrand

- Utah Lake Commission
- Arts Council
- NIA: Aspen, Sharon, Lakeview

David Spencer – Councilmember

- ULCT Board/Legislative Policy
- Public Works Advisory Commission
- Recreation Advisory Commission
- Senior Citizen Advisory Commission
- NIA: Sunset Heights East, Stonewood, Windsor, Canyon View

Brent Sumner – Councilmember

- Summerfest
- UVU Community Relations
- NIA: Suncrest, Orem North, Timpview

City Council New Business

There was no City Council new business.

The Council adjourned at 5:54 p.m. to the City Council Chambers for the regular meeting.

6:00 P.M. REGULAR SESSION – COUNCIL CHAMBERS

CONDUCTING	Mayor Richard F. Brunst
ELECTED OFFICIALS	Councilmembers Debby Lauret, Sam Lentz, Tom Macdonald, Mark Seastrand, David Spencer, and Brent Sumner
APPOINTED STAFF	Jamie Davidson, City Manager; Brenn Bybee, Assistant City Manager; Greg Stephens, City Attorney; Richard Manning, Administrative Services Director; Bill Bell, Development Services Director; Karl Hirst, Recreation Director; Chris Tschirki, Public Works Director; Scott Gurney, Fire Department Director; Gary Giles, Police Department Director; Charlene Crozier, Library Director; Jason Bench, Planning Division Manager; Paul Goodrich, Transportation Engineer; Sam Kelly, Engineer; Steven

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Downs, Assistant to the City Manager; and Jackie Lambert, Deputy City Recorder

INVOCATION /
INSPIRATIONAL THOUGHT Tai Riser
PLEDGE OF ALLEGIANCE Carol Walker

APPROVAL OF MINUTES

Mr. Seastrand **moved** to approve the November 17, 2015, City Council meeting minutes. Mr. Spencer **seconded** the motion. Those voting aye: Richard F. Brunst, Debby Lauret, Sam Lentz, Tom Macdonald, Mark E. Seastrand, David Spencer, and Brent Sumner. The motion **passed** unanimously.

MAYOR'S REPORT/ITEMS REFERRED BY COUNCIL

Upcoming Events

The Mayor referred the Council to the upcoming events listed in the agenda packet.

Appointments to Boards and Commissions

Mayor Brunst **moved** to appoint Brayden Santo to the CDBG Advisory Commission. Mr. Macdonald **seconded** the motion. Those voting aye: Richard F. Brunst, Debby Lauret, Sam Lentz, Tom Macdonald, Mark E. Seastrand, David Spencer, and Brent Sumner. The motion **passed** unanimously.

Recognition of New Neighborhoods in Action Officers

There were no new neighborhood officers recognized.

RECOGNITION – State Champions – Orem Youth Baseball

Karl Hirst stated that Orem City had a long history of producing excellent young athletes. The time was then turned over to Rod Sweeten to speak more about the program.

Rod Sweeten thanked Mr. Hirst for all of the support that he provided Orem Youth Baseball. He noted that hundreds of kids participated in Orem Youth Baseball, ranging from ages seven to fourteen years old. He then introduced three all-star teams, all of which won the District Tournament prior to competing in the State Tournament. After winning the State Championships, these teams represented the State of Utah, Orem City and Orem Youth Baseball in the California Zone Tournament. Mr. Sweeten noted it was only the second time all three teams had won the State Championships.

Mayor Brunst invited the Orem Youth Baseball Orem All-Star Pony, Bronco, and Mustang teams as to come forward for a photograph and to shake hands with the Council.

Mr. Spencer recognized Mr. Sweeten and Mr. Todd Monson, indicating that they practically ran Orem Youth Baseball.

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CITY MANAGER'S APPOINTMENTS

Appointments to Boards and Commissions

There were no appointments to boards and commissions.

PERSONAL APPEARANCES

Time was allotted for the public to express their ideas, concerns, and comments on items not on the agenda. Those wishing to speak should have signed in prior to the meeting, and comments were limited to three minutes or less.

Jim Hadlock, resident, said that he had lived in Orem for nearly forty-four years, and had observed many changes that had taken place over the years. He read a statement from the recent newsletter, and expressed that in his opinion the City's focus was primarily on business and apartments. He hoped that the Council would put citizens first this year, especially when making considerations for projects that the citizens did not want approved. Mr. Hadlock made mention of large apartment complexes like the Ivory project near UVU, as well as the Jive building.

Jan Jensen, resident, said he had lived in Orem all his life, and reviewed his family history of service to Orem. He said he was opposed to the Ivory project because it would destroy his neighborhood, as it had a higher density than Deseret Towers in Provo. He questioned if there were enough people to fill all the apartments that had been approved in Orem and Vineyard. He expressed appreciation to the Council members for their service.

CONSENT ITEMS

There were no Consent Items.

SCHEDULED ITEMS

CONTINUED ITEM – Sewer Base Rate
ORDINANCE – Amending the sewer base rate for multiunit residential buildings and for nonresidential buildings with a water meter size greater than ¾"

The City of Orem presently charged a monthly "sewer base rate" for City sewer services. That charge was the same for all land uses and was charged by the total number of physical sewer connections that service the account, regardless of the number of residential or nonresidential units associated with that account. That meant, for example, that an account holder with a twelve-plex with one sewer connection pays the same sewer base rate as a single-family homeowner. Furthermore, a large commercial business paid the same base rate that a single-family homeowner pays. The sewer base rate was intended to compensate the City for the cost of making sewer service available at a particular connection point, including costs related to infrastructure and maintenance. The "sewer volume charge" was a separate charge that was based on actual sewage flow and was intended to compensate the City for the cost of handling and treating the user's quantity of sewage flow.

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Summary of Proposed Amendments:

Effective July 1, 2016, the City of Orem sewer base rates would change as follows:

1. Each residential living unit found in a single-family dwelling, multifamily dwelling, apartment complex, condominium complex, etc. would be charged a sewer base rate. In other words, a twelve-plex would now be billed for twelve sewer base rates and not one sewer base rate.
2. Nonresidential accounts would be charged a sewer base rate according to their water meter size and the associated industry standard American Water Works Association (AWWA) equivalent meter information.
3. Mixed-use developments would be charged by combining these two methods—paying for each residential living unit plus the equivalent meter size necessary to service the nonresidential portion of the building.

The sewer base rate for single family residences and the sewer volume charge remain unchanged.

The new fees and charges information would read as follows:

Monthly Sewer Rates

Residential Base Rate[1]	$9.32/Residential Living Unit (unchanged)
Nonresidential Base Rate[2]	$9.32 x AWWA Multiplier
Mixed-Use Base Rate[3]	$9.32/Residential Living Unit + Nonresidential Component
Volume Charge[4]	$1.42/1,000 Gallons (unchanged)

[1] Each residential utility account would be assessed a sewer base rate according to the number of residential living units associated with the account. For example, a single-family dwelling would be billed for 1 sewer base rate, a duplex (including single-family dwellings with an accessory apartment) would be billed for two sewer base rates, a fourplex would be billed for four sewer base rates, a twelve-plex would be billed for twelve sewer base rates, etc.

[2] All nonresidential utility account holders would be billed using a water meter size multiplier based on American Water Works Association (AWWA) guidelines. (Table 28-2 from American Water Works Association Manual of Water Supply Practices M1 – "Principles of Water Rates, Fees, and Charges" for water meters up to 3-inches in size and Table 2-2 from American Water Works Association Manual of Water Supply Practices M6 – "Water Meters – Selection, Installation, Testing, and Maintenance" for water meters larger than 3-inches in size.) The following table details the AWWA Multiplier for various water meter sizes. All nonresidential utility account holders for water meter sizes 2" and larger might request an adjustment to the multiplier based on qualifying site-specific criteria.

Water Meter Size	¾"	1"	1½"	2"	3"	4"	6"	8"	10"
AWWA Multiplier	1.00	1.67	3.33	5.33	10.00	20.00	41.67	53.33	96.67

[3] Mixed-use utility accounts would be assessed according to (1) the number of residential living units and (2) the nonresidential component of the mixed-use development. The nonresidential component was calculated by determining the equivalent water meter size required to service only the nonresidential portion of the mixed-use development using the International Plumbing

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Code 2012 version, Appendix E201.1 (pressure range over 60) and E103.3(2). The AWWA multiplier associated with the equivalent water meter size would then be applied to determine the nonresidential component of the sewer base rate.

[4] Effective July 1 of each year, the monthly charge shall be based on the average winter water usage for the preceding winter months.

Mr. Tschirki introduced KC Shaw, vice chair of the Public Works Advisory Commission; Tai Riser, chairman of the Public Works Advisory Commission; and Carol Walker, member of the Public Works Advisory Commission. It was also noted that Keith Larsen from Bowen, Collins & Associates was present at the meeting.

Mr. Tschirki and Mr. Winterton presented the commission's recommendation to the City Council, which was proposed for adoption by ordinance with an effective date of July 1, 2016. The ordinance would charge a sewer base rate for each residential living unit, and amend the sewer base rate for nonresidential buildings having a water meter size greater than ¾". Mr. Tschirki then presented a PowerPoint Presentation.

Steven Downs reviewed the noticing for the item, noting that mailers, phone calls, and email were all used. Approximately 10,100 emails were sent to all utility account holders, as well as specific emails to businesses and multifamily living units. Every address on file received notification in some form, and staff felt that they had done as much as possible to inform the citizens on the issue.

Keith Larsen explained that sewer rates were based on principles that were established in a cost causation procedure. The goal of the method was to assign costs of the system to the actual cost of service of each customer. In doing so, the information was organized into a number of cost categories, including the following: waste water volume, waste water strength, use of the system capacity and customer related costs. Waste water volume and strength were variable costs that were tied to how much water was actually used; however, the other two categories were fixed costs. Mr. Larsen explained that there was a difference between volume and capacity. Volume represents the total amount of waste water produced, whereas capacity represents how quickly that waste water was used. The concept was illustrated by using a flushing toilet as an example.

Mr. Tschirki explained that the cost of service analysis that was performed in the 1998 was done so in order to equitably recover costs from all customers. A statement from City Attorney, Greg Stephens, was then read. The statement indicated that if someone challenges a City service fee, such as a sewer fee, the ultimate question was whether the fee was reasonable. Courts do not require the fee structure to be the best or optimal solution; only that it was reasonable. Mr. Tschirki stated that tonight's proposal was more equitable and fair for the entire community. The 1998 Water and Sewer Rate Study indicates that the cost of allocation provides the basis for recovering revenues from classes of customers, according to the demand that they place on the utility. Costs were allocated to functional categories for sewer and water, including operational, maintenance, capitol, administrative expenses, etc. Costs were then distributed to customer classes based on peak capacity, which were predictable.

The cost of services provided to nonresidential accounts had not been equitably recovered since the Water and Sewer Rate Study in 1998. The study clearly stated that nonresidential units were

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not taken into consideration; in other words, all of those accounts had been subsidized by everyone else in the community since that time. The sewer rates were adopted by the City, but not recommended by the consultant. The adopted sewer rates did not consider peak, but rather monthly volumes and averages. The sewer conveyance and infrastructure was not designed based on monthly volumes or averages. The report states that ¾ inch meter customers pay substantially more than allocated costs, while costs were under-recovered for larger, meter sized customers. Since 1998, Mr. Tschirki argued that the subsidy had increased.

The Utah Apartment Association stated in an email that they would not oppose the change for three reasons. Mr. Tschirki emphasized the third reason, which explains that the new system would be like what everyone else already does. He explained that they were trying to follow cost positive allocations for services that were provided to the community.

Neal Winterton, Water Resources Division Manager, presented a particular example of 10 accounts comprised of 196 living units, comparative between different cities. With regards to water reclamation fund rates, there were no exact guidelines or principles that the Council must follow as a legislative body. The AWWA multipliers could be modified as they see fit. Mr. Winterton explained that different cities, entities and districts had all chosen various ways to fund their utilities.

Several concerns had been expressed from the public. First, each individual unit was not billed; rather, the landlord collects. Furthermore, the City did not have billing costs for each unit because it doesn't read a meter for each unit. Billing should be mostly based on volume, and the distance between multi-family units isn't 80 or 100 feet, like it was in single family homes; rather, they were stacked and therefore there was less pipe in the road. These questions were addressed these concerns by making the following suggestions: 1. Apply a water meter multiplier across every account, whether it's residential or nonresidential. 2. Apply a reduction factor for multifamily units. 3. Charge 100% of the sewer base rate for every residential living unit as originally proposed. 4. Eliminate the volume charge altogether. 5. Implement a base fee that includes a minimum amount of flow. The pros and cons of each of these suggestions were then reviewed and discussed by Mr. Winterton.

KC Shaw, Vice Chair of the Public Works Advisory Commission, stated that he was a Professional Engineer. He explained that Orem suffers from aging infrastructure and was ahead of most communities in addressing the problem, because they had done so in a methodical way. Over the past 18 months they had identified $1.1 million worth of projects that were needed. The discussion had evolved into a discussion regarding rate fairness, when it was really a utility maintenance issue. In speaking to the fact that individual units aren't billed in multifamily residential buildings, the Public Works Advisory Commission noted that apartments use less waste water than single family homes. They were also aware that almost every other city charges by a living unit basis and that Orem's system was unique. He reiterated previous statements made that it was determined that a more equitable solution would be to charge each unit a fixed fee, thereby buying into the capacity of the system. Mr. Shaw stated that there was no perfect billing method, and there would always be someone who feels that they were being mistreated. However, the Commission believes that the proposed amendments would bring the City closer to a more fair system.

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Mayor Brunst asked staff to reiterate the reasons behind the proposed changes, and how they would affect the City's infrastructure and future rates. Mr. Tschirki responded that before they bring forward the Sewer Master Plan, they felt it was necessary for them to look at any inequities or unfairness that existed in the current billing system. The proposed increases would be tied to fixed costs related to expenses already made. Fixed costs were those which relate to operations and maintenance, equipment, personnel and capital improvements. Variable costs were chemicals such as fuel and power that were associated with plant processes, or provide services to the City. Mayor Brunst asked what the proposed increases would mean for the future, and Mr. Tschirki answered that they would have a broader foundation from which they could draw. These changes had been delayed for many years, and it was time to have a course correction for the benefit of future generations.

Mrs. Lauret inquired the subsidy, and whether or not it had increased over time. Mr. Shaw responded that prior to the changes that were made in 1998, the fixed fee was around $9.50 and the volume fee was about $.55. Under the scenario, the single family homes were subsidizing multifamily units by about seven to ten percent. The inequity had increased since that time, to greater than 10 percent. Mr. Tschirki added that the nonresidential uses were not addressed in the 1998 study.

Mr. Sumner thanked the Commission for their work on the project. In response to a question from Mr. Sumner, Mr. Tschirki explained that it was determined that the adjustment would generate $1.1 million, and of that money $800,000 was for apartments and the remaining amount was for business. Mr. Sumner remarked that the increase would probably be easier for businesses, and reviewed other anticipated increases. He expressed concern that duplexes would carry a heavier burden, to which Mr. Tschirki replied that it would depend upon the size of the meter. Furthermore, peak volume anticipated for a particular use would be taken into consideration, and some businesses would have more indoor water consumption, thereby resulting in sewer discharge.

Mr. Spencer asked Mr. Tschirki to elaborate on peak capacity. Mr. Tschirki referenced summer water use in Orem, and explained that collectively the community would produce 60 million gallons of water. That was about six times as much water as was used in the City during the winter time. Likewise at the water reclamation facility, peak use was rated at about 13 million gallons, and today's average flows were around 8 million gallons. If a system was designed for average and not peak capacity, issues would arise during peak times. Mr. Davidson added that shopping centers design parking for Black Friday and not an average shopping day. The same principle applied with sewer needs.

Mayor Brunst commented that this proposal was similar to what was taking place in other cities. If they did not prepare for the future, then they would be incapable of dealing with peak usage.

Mr. Shaw explained that there were two ways to address the issue; first, they could either implement a "pay as you go" system to accumulate funds, or they could bond. If Orem did not do something now, then they would have to bond later. Mr. Shaw noted that he worked for Central Utah Water Conservancy District (CUWCD), and Orem was in the top one percent of cities that planned ahead and anticipated maintenance, upkeep, and expansion. Other cities were of the

opinion that they would bond whenever a problem arose. It was noted that Salt Lake City had had several water main breaks over the last few years.

Mr. Tschirki added that Orem had had the philosophy that they would bond when necessary. A hybrid approach could be used for larger projects; however, a "pay as you go" approach could be implemented for addressing issues on an annual basis.
Mr. Lentz said he had heard from several renters who were concerned with increased rent. His understanding was that rent was typically built off of market rates. He asked if renters would bear the brunt of these rate increases. Mr. Tschirki replied that his assumption was that landlords would pass the cost on to their renters.

Mr. Davidson stated that the City had a $1.1 million "nut to crack." The nut would be cracked in terms of funding for future infrastructure, either on the base or variable rate. Regardless of who bore the brunt of those rate increases, there was going to be an increase in cost.

Mr. Sumner brought up the issue of franchise taxes being increased as well. He stated that the increases would be passed on to tenants, which was of concern to him because many of those citizens were young people making minimum wage. Mr. Tschirki said the franchise percent would remain the same, and would be applied across services fees.

Mayor Brunst commented that in most cities each living unit paid the base rate; therefore, that which they were proposing to implement was normal throughout the cities within the area. He read a quote made by Mike Collins, of Bowen & Collins. Mayor Brunst stressed that they were trying to bring everyone to an equal level, and much of the City's infrastructure had been previously constructed. If they wished to pass the infrastructure on to future generations, then they needed to maintain it properly. Mr. Tschirki explained that the direct costs were billed to the sewer utility, and Mayor Brunst suggested taking off the $.85 from the $9.32 rate for all apartment units, since they did not need to pay for the billing structure. He stated that while the changes were not easy to make, they were necessary to keep the system current and in proper repair.

Mr. Lentz asked staff to elaborate on how the City would address hotels, hospitals, assisted living facilities, and accessory apartments. Mr. Tschirki responded that the nonresidential component was tied to the American Water Works Association meter multiplier. Any type of nonresidential would be charged based on the equivalent water meter size. The proposal included qualifiers that would take into account water that did not make it into the sewer system. Furthermore, facilities would be allowed to request an adjustment to their multiplier based on qualifying site specific criteria, such as landscaping, and what was being used inside that facility. Using the International Plumbing Code, the equivalent meter would be determined for the facility. Care facilities would be treated similar to residential units, apartments or condos. Hospitals would be billed for any water that was consumed inside of the facility. Accessory apartments would also be treated as living units.

At Mr. Macdonald's request, there was continued discussion relating to the $.85 reduction for apartment buildings. Mr. Macdonald explained that he had been the City Council representative to the Public Works Advisory Committee, and he had become very well educated on this issue.

He believes that it's a fair assessment that a typical apartment or house had less impact on the infrastructure.

Mr. Seastrand commented there had been many documents to review on this issue, and he expressed appreciation for the discussion. He agreed there was diversity in how the system was used based on homes and residents. He also agreed with sentiments that had been expressed earlier, that while there isn't one way to achieve a perfect system, they could get closer to making it fairer with the changes that had been addressed. Similar to what happened with the water system in the summer, the City needed to be able to supply water at the peak usage amount. The sewer system changed from hour to hour, and therefore it was critical that it function properly all of the time.

Mr. Seastrand recapped the proposal as presented. The first aspect of the proposal pertains to usage; second was that of was capacity, which was where inequities had applied. Namely, some apartment units might have one person while others might have several. Mr. Seastrand stated that he had received a number of emails expressing concerns that apartments were not paying a fair access fee. He explained that he understood multiple perspectives on the proposed changes. Mr. Seastrand argued that, ultimately, it was not a matter of how many bills were sent out; rather, it was fairer to base rates on the number of dwellings that were associated with an address.

Mr. Lentz stated that he was reviewing the mailer that was distributed last week, and in particular Option 2, which indicated that additional units on a bill would receive consideration for a discount of effectively 20 percent. He wondered how that amount had been determined.

Mr. Winterton said that it was a number created in order to generate conversation. The 20 percent figure was never mathematically derived.

Mayor Brunst said that while he felt it was important they go ahead and look at the $.85 deduction, he was not comfortable with what was proposed in Option 2 on the mailer. He suggested eliminating a dollar off of the remaining units of a multifamily dwelling. The full amount of $9.32 would be charged for the first unit, and a $1.00 would be deducted for each of the other units. Going any lower would take too much from the needed revenues. He reaffirmed that the City should be charging by living unit with a qualifier, as was discussed.

Mrs. Lauret noted that Option 2 had been created at her request.

Mr. Sumner stated that while he understood the need for additional revenues, he was concerned with the increases being implemented all at once.

Mr. Seastrand said that the real estate owners he had spoken to suggested that shut off and reconnection fees be considered, which might occur due to occasional vacancy issues.

Mayor Brunst **moved**, by ordinance, with an effective date of July 1, 2016, to (1) charge a sewer base rate of $9.32 for each residential living unit and those afterward in a multifamily unit of $8.32, and (2) amend the sewer base rate for nonresidential buildings having a water meter size greater than ¾".Mr. Lentz **seconded** the motion. Those voting aye: Richard F. Brunst, Debby

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Lauret, Sam Lentz, Tom Macdonald, Mark E. Seastrand, and David Spencer. Those voting nay: Mr. Sumner. The motion **passed, 6-to-1.**

6:00 P.M. PUBLIC HEARING – Building Projections in Setbacks
ORDINANCE – Amending Section 22-6-8(C) (3) and Section 22-6-8(E) of the Orem City Code pertaining to permitted projections into setbacks in a residential zone

Mr. Jason Bench presented Development Services Department's request that the City amend Section 22-6-8(C)(3) and Section 22-6-8(E) of the Orem City Code pertaining to permitted building projections into setbacks in a residential zone.

City ordinances currently allowed certain building projections such as bay windows, box windows and chimneys to encroach up to 24 inches into a residential setback. However, the current ordinance did not define bay windows or box windows and also did not provide any guidance on how many bay windows could encroach into a setback or how large those bay windows could be.

Because of the lack of clarity regarding the definition of those terms, City staff proposed to amend section 22-6-8 to more clearly specify what was allowed under that section. Specifically, the proposed amendment would clarify that only building projections that were "cantilevered" (not supported by a foundation) might encroach into a setback. In addition, the proposed amendment would limit:

- The width of a building projection to ten feet
- The total number of building projections to two
- To no more than one building projection for any elevation of a single-family dwelling.

The Planning Commission recommended the City Council amend Section 22-6-8(C) (3) and Section 22-6-8(E) of the Orem City Code pertaining to permitted projections into setbacks in a residential zone. Staff supported the recommendation of the Planning Commission.

Mayor Brunst asked for the reasoning behind the request. Mr. Bench said that for the past several years, builders had been making this request and staff had had to deny them. Therefore, staff decided to come forward with a recommendation that addressed those concerns and provided some options. Mayor Brunst asked Mr. Bench if he foresaw any problems that could arise with the proposed amendment, and Mr. Bench said staff recommended approval. Furthermore, there would be a limit to two of the projections on a house, and they would need to be on separate elevations.

Mr. Macdonald asked for mathematical clarifications, to which Mr. Bench explained that the maximum for any projection would be twenty-four inches beyond the buildable area. Mr. Lentz inquired as to the reasoning behind limiting projections to two per building and one per side. Mr. Bench said currently they did not allow any projections into a setback, other than the bay window. If the City was going to start allowing them to go all the way to the floor, then it would not be desirable to have two of those projections to utilize the entire width on one elevation.

Mayor Brunst opened the public hearing. No one came forward to speak, so he closed the public hearing.

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Mr. Macdonald **moved**, by ordinance, to amend Section 22-6-8(C) (3) and Section 22-6-8(E) of the Orem City Code pertaining to permitted projections into setbacks in a residential zone. Mr. Sumner **seconded** the motion. Those voting aye: Richard F. Brunst, Debby Lauret, Sam Lentz, Tom Macdonald, Mark E. Seastrand, David Spencer, and Brent Sumner. The motion **passed** unanimously.

6:00 P.M. PUBLIC HEARING – Development Standards in the PRD zone
ORDINANCE – Amending a portion of Article 22-7 of the Orem City Code pertaining to development standards in the PRD zone

Mr. Bench presented Development Services Department's request that the City amend portions of Article 22-7 of the Orem City Code pertaining to development standards in the Planned Residential Development (PRD) Zone.

City staff proposed to make several amendments to the PRD zone in order to improve developments in that zone. The principal changes being proposed along with an explanation for each proposed change were provided below.

1. Require a concept plan to be submitted with any application to rezone property to the PRD zone and make the concept plan binding.

Developers who requested a rezone to the PRD zone typically provided a concept plan showing the layout and architectural style of their proposed development. However, City Code did not actually require a developer to comply with the concept plan after a rezone to the PRD zone was approved. Thus, it was currently possible for a developer to show the City Council a certain plan at the time it requested a rezone and then do something entirely different after approval (within the confines of the PRD standards). Because PRD zones were intended to blend in with existing residential areas and because PRDs were generally allowed to have a density of at least seven units per acre, staff believed it was important for the City Council to have some assurance as to what would actually be built at the time they approved a PRD zone. Staff therefore proposed to make an approved concept plan part of Appendix "RR" and require a developer to substantially comply with the approved concept plan in developing the property.

2. Require all streets in a PRD to be public and to have a buffered sidewalk on each side of the street.

Developers of property in the PRD zone currently had the option to make streets in the PRD either public or private. The developers of many PRDs had chosen to develop with private streets because under the current ordinance, private streets were only required to have a minimum width of thirty-six feet (36') while public streets were required to have a minimum width of forty-six feet (46'). However, private streets could become a maintenance issue for a homeowners' association (HOA) when the time came to repair or repave the street. Often, the HOA would ask the City to take over a private street at such time because the HOA could not afford the maintenance. However, because those private streets typically did not meet City standards for public streets, the City was hesitant to accept responsibility for them.

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In order to address the issue, City staff proposed to require that all streets in a PRD be public and built to City standards and specifications for public streets. Public streets that were estimated to have average daily trips of 800 or fewer would be required to have a width of at least 32 feet while all other streets must have a width of at least 46 feet. Staff also proposed to require a buffered sidewalk to be constructed on both sides of all streets in a PRD. That was consistent with the requirements for other new residential development in the City and would improve walkability.

The proposed amendments also provided clarification regarding the required setbacks from public streets with buffered sidewalks and required all dwellings to follow the street setbacks shown on Appendix K of the Code which was the current sub-local street design standard.

3. Allow private drives in a PRD provided that no more than four units were accessed from a private drive.

Private drives were currently allowed in a PRD and might be constructed with a minimum width of only twenty-four feet. Outside of the PRD zone, private drives were currently only allowed where needed to access deep lots and there was a restriction providing that no more than four deep lots might access a private drive. Consistent with that existing practice, staff believed that private drives should only be used in limited circumstances in a PRD zone where necessary to provide access to just a few units and should not be used as roads intended to provide significant traffic circulation. Therefore, staff proposed to allow private drives only where they provided access to no more than four units and only where approved by the City Council in the concept plan. There were thirteen locations in the City where the PRD zone had been approved. Only one of those locations had not been developed, due to UVU purchasing the property and developing a parking lot.

The Planning Commission recommended the City Council amend a portion of Article 22-7 of the Orem City Code pertaining to development standards in the PRD zone as described above. Staff supported the recommendation of the Planning Commission.

Mr. Sumner questioned if those amendments would affect the proposed housing development on 800 West and 800 South. Mr. Bench said the project in question fell within the PD zone.

Mayor Brunst asked if there had been situations in which what had been presented to the Council had not been constructed. Mr. Bench said he was not sure; however, the developers had in the past had the option of changing their concept plan, which was what staff would like to change. Developers should be bound to their concept plan, so that more forethought took place while developing the proposal.

Mr. Lentz asked if a parking lot would need to be a public street, and Mr. Bench replied that the twin homes would front the street and would have garages.

Mr. Seastrand asked who would be responsible for deciding if a PRD developer could convert back to a public street. Mr. Bench explained that some private streets did not meet public standards in the first place, and therefore staff did not want to perpetuate that problem into the future. Mr. Seastrand asked how taking over a private street and making it public would benefit

Orem. Mr. Bench said the City did not take over private streets because they become dilapidated and were expensive to repair. Higher density developments should have higher standards in order to compensate for the impact.

Mr. Bell said the proposed ordinance would not allow private streets; all requests moving forward would be required to have public streets.

Mr. Spencer made reference to an upcoming project that was already in the process. Mr. Bench replied that the project in question would be the last one with a private street. Mr. Stephens explained that they had encountered people who lived on private streets who complained about not receiving the same services as residents who lived on public streets.

Mayor Brunst opened the public hearing. No one came forward to speak, so he closed the public hearing.

Mr. Seastrand **moved**, by ordinance, to amend a portion of Article 22-7 of the Orem City Code pertaining to development standards in the PRD zone. Mayor Brunst **seconded** the motion. Those voting aye: Richard F. Brunst, Debby Lauret, Sam Lentz, Tom Macdonald, Mark E. Seastrand, David Spencer, and Brent Sumner. The motion **passed** unanimously.

RESOLUTION – A resolution of the City Council of the City of Orem outlining their support for adoption of the 2015 International Energy Conservation Code (IECC) and other possible air quality enhancements for Utah

Mr. Ryan Clark explained that the valleys in Utah suffered from inversions each winter season. The inversions caused health problems and could also affect economic development efforts. Businesses had eliminated Utah from their site selection searches because of the inversions.

The City of Orem, Provo City, Mountainland Association of Governments (MAG), Utah County, Utah County Health Department, and local business leaders were members of the Utah Valley Clean Air Task Force (UVCATF). The task force actively evaluated and implemented solutions to reduce air pollution during the inversion season. Over the last two years the task force had encouraged the residents of the valley to reduce automobile emissions. The task force was also looking for solutions to reduce pollution from homes and buildings, which accounted for 39 percent of the pollutants in the air.

One way to reduce pollution from homes and buildings was to adopt energy-efficient building codes. The UVCATF had asked Orem, Provo, and MAG to support adoption of the 2015 International Energy Conservation Code as part of a planned update to the state building code by the Utah legislature in the upcoming legislative session.

Mr. Clark said he recommended the Council adopt the request to outline their support for adoption of the 2015 International Energy Conservation Code (IECC) and other possible air quality enhancements for Utah. In addition, it was recommended that the City Council instruct staff to transmit copies of this resolution to the President of the Utah Senate, to the Speaker of the Utah House of Representatives, to the Clerk of the Legislature, and to the news media to include the *Daily Herald*, *Salt Lake Tribune*, and *Deseret News*.

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Mr. Clark explained some of the accomplishments of UVCATF, which included a clean-air pledge program, pledge cards and pins, electronic billboard ads, air-quality flag sets, and UTA bus-idling thermometers. He noted that using the air-quality flag sets, the City would fly a flag each day to indicate the weather quality forecast for the next day; i.e., yellow, orange, red, etc. Orem had not had a red weather quality day since the task force was established.

Inversions were an issue every winter that not only caused health problems, but also affected economic development. Businesses had eliminated Utah from their site selection searches because of inversions. The largest source of contaminants was automobiles, which contributed between 50 to 60 percent; industry contributed between 10 and 15 percent, and homes and buildings contributed 30 to 40 percent. The 2015 new requirements included increased R-value (thermal resistance) insulation to be installed in ceilings, skylights, windows, doors, wood frame walls, floors, basement walls, slab, and return ducts in attics. The new code also accounted for duct leakage and other HVAC control requirements. Duct leakage also needed to be mitigated according to the new code requirements.

One disadvantage to the new requirements was that of increased construction costs that would range from approximately $1,000 to $3,000 for a typical home. However, the advantage of implementing the new construction requirements was that new homeowners would save an average of $297 per year in utility costs. After accounting for the upfront costs and additional costs financed in the mortgage, homeowners should see net positive cash flows within two years. In addition, pollutants including CO2, PM2.5, and ozone would be reduced. Energy demand from new construction would be reduced, mitigating the need for new infrastructure.

Adoption of the proposed resolution would indicate that the City Council was interested in State legislators adopting the 2015 IECC for Utah. Furthermore, the City Council would instruct the City Recorder to transmit duly authenticated copies of the resolution to the President of the Utah Senate, to the Speaker of the Utah House of Representatives, to the Clerk of Legislature, and to the news media of Utah to include the *Daily Herald*, *Salt Lake Tribune* and *Deseret News*. Mr. Clark noted that Provo City had passed a similar resolution in December.

Mrs. Lauret asked if there had been any businesses in particular that had chosen not to relocate to Orem, specifically because of issues pertaining to inversion. Mr. Clark said that while there had not been any specific instances in Orem, EDC Utah had generally stated that as a fact through site visits they had made.

Mr. Lentz asked if there were any policies found in the code that had flexibility to adapt based on geography and populations. Mr. Clark said the studies were based upon Utah's climate. Mr. Bell added that there were ways to change the code, through a process that would go through the State for review and then ultimately to the Legislature.

Mayor Brunst observed that the 2015 International Energy Conservation Code (IECC) was a huge document, and he was not comfortable supporting a document he had not read. Mr. Bell clarified that the State had already adopted the 2009 version the code, and the residential code had been adopted in 2006. The codes went through a three-year code cycle, and the 2015 version would go before the legislature this session. In other words, the code was already in effect and

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had already been adopted.

Subsequent to a brief discussion regarding a proper motion to make on the item, Mr. Macdonald **moved**, by resolution, to support air quality enhancement for Utah and instruct staff to transmit copies of this resolution to the President of the Utah Senate, to the Speaker of the Utah House of Representatives, to the Clerk of the Legislature, and to the news media to include the *Daily Herald*, *Salt Lake Tribune*, and *Deseret News*. Mayor Brunst **seconded** the motion. Those voting aye: Richard F. Brunst, Debby Lauret, Sam Lentz, Tom Macdonald, Mark E. Seastrand, David Spencer, and Brent Sumner. The motion **passed** unanimously.

RESOLUTION – Adopting the Canyon View, Orchard & Cascade Neighborhood Plan and amending the City of Orem General Plan to include the Canyon View, Orchard & Cascade Neighborhood Plan as Appendix C

Mr. Brandon Stocksdale and Mr. Bench presented a request from the Development Services Department that the City Council approve, by resolution, the Canyon View, Orchard & Cascade Neighborhood Plan and amend the Orem City General Plan by adopting the Canyon View, Orchard & Cascade Neighborhood Plan as Appendix C.

Before the Council was the first neighborhood plan to be completed in the City of Orem's Neighborhood Plan Program. The major goals of the plan included promoting community planning by working with residents to identify local concerns and needs, improving communication with residents, and applying citywide plans at the neighborhood level. Three public open houses were held and a citizen-driven advisory committee was formed to help identify concerns, shape the vision statement, and assist in drafting the plan. Community outreach was also supported by the City's MindMixer and mySidewalk pages. The major elements of the plan included an introduction, an inventory of existing conditions, future land uses, transportation, neighborhood preservation, and implementation.

Some of the major objectives of the plan included:

- Preserving the character of the neighborhoods while allowing for appropriate growth and redevelopment
- Addressing current and future traffic congestion concerns
- Improving nonvehicular access throughout the community
- Maintaining and improving parks and recreational facilities
- Improving coordination and ordinance enforcement
- Providing sufficient amenities throughout the neighborhoods

The plan included the following two specific recommendations:

1. Concentrating new commercial/retail development on the 800 North corridor while preserving existing single family neighborhoods.
2. Allowing appropriate infill development to accommodate growth and redevelopment within the context of the existing single family neighborhoods.

Each neighborhood plan served as a guide for future planning decisions made by City staff, the Planning Commission, and the City Council based on the goals and vision established by the residents. It was intended that each neighborhood plan be updated at least every five years. The

Planning Commission recommended that the City Council approve the Canyon View, Orchard & Cascade Neighborhood Plan and amend the City of Orem General Plan by adopting the Canyon View, Orchard & Cascade Neighborhood Plan as Appendix C. City staff supports the Planning Commission recommendation.

Members of the advisory committee commented on their experiences while serving in this capacity. Diane Fraser stated that working on the advisory committee had been a fun experience. She enjoyed getting to know people and learning how the City operated. Katrina Larsen commented that she had gotten involved because of an insert in her utility bill. She had gained a lot of confidence in the City staff through the experience, as well as what resources were available to citizens.

Mickey Cocheran stated that he lived in the Orchard neighborhood, and said that many people had come to the first meeting. They were asked to get involved and talk to neighbors, and he particularly liked the school visits. The citizens who attended meetings cared about what happened to their families, and he believed that continuing the process in other neighborhoods would have a positive influence on Orem.

Mr. Stocksdale commented that this had been a community-driven process, and it was a great opportunity to work with citizens. He explained the vision statement, which reads as follows:

> *Enhance our quality of life by improving public safety and awareness; expanding transportation options through making streets safer for pedestrians, children, and bicyclists; increasing access to parks and open space; and making wise land use choices to consider future growth as we create homes that support the preservation and beautification of our neighborhoods.*

In response to a question from Mr. Sumner, Mr. Stocksdale explained that in the implementation section, potential funding sources were addressed. Part of that included incorporating objectives from plans that were already in place, such as the Bikes and Trails Master Plan and the Capital Improvement Plan. Mr. Stocksdale said they looked into different potential grant funding sources. One improvement that had been identified through the process was that of a missing sidewalk on the south side of 800 North. It was brought forward to the State and was now being reviewed.

Mayor Brunst **moved** to adopt the Canyon View, Orchard & Cascade Neighborhood Plan and amend the City of Orem General Plan to include the Canyon View, Orchard & Cascade Neighborhood Plan as Appendix C. Mrs. Lauret **seconded** the motion. Those voting aye: Richard F. Brunst, Debby Lauret, Sam Lentz, Tom Macdonald, Mark E. Seastrand, David Spencer, and Brent Sumner. The motion **passed** unanimously.

COMMUNICATION ITEMS

The Monthly Financial Summary for November 2015 was provided to the Council.

CITY MANAGER INFORMATION ITEMS

Mr. Davidson noted the legislative session would begin on January 25, 2016, and he reviewed some of the upcoming issues:

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- Police body cameras
- Prop 1
- Land use
- Water
- Sales tax, especially Internet

Mr. Macdonald asked if the online businesses might pay a lesser tax since they had less of an impact. Mr. Davidson explained that they were not necessarily seeing retailers go away but they were rather starting to downsize. No one understood how it would play out long term. The State would be looking at how to spend one-time money, a situation similar to what Orem was experiencing.

ADJOURNMENT

Mr. Seastrand **moved** to adjourn to the meeting. Mayor Brunst **seconded** the motion. Those voting aye: Richard F. Brunst, Debby Lauret, Sam Lentz, Tom Macdonald, Mark E. Seastrand, David Spencer, and Brent Sumner. The motion **passed** unanimously.

The meeting adjourned at 8:58 p.m.

RECOGNITION

State Runners-up

Mountain View Youth Football

PROCLAMATION

WHEREAS, Family, Career and Community Leaders of America, the national nonprofit family-focused student organization for Family and Consumer Sciences students through grade 12, helps youth assume their roles in society through Family and Consumer Sciences education in areas of personal growth, family life, vocational preparation, college readiness, leadership, and community involvement; and

WHEREAS, the organization extends classroom learning through chapter projects that develop leadership and initiative and helps young men and women learn how to plan, make decisions, and carry out and evaluate programs of action as they work with other youth and adults in their school and community; and

WHEREAS, Family, Career and Community Leaders of America offers members an opportunity to work together for common purposes for the improvement of themselves, their families, and their communities; and

WHEREAS, the week of February 7 through 13, 2016, has been designated NATIONAL FCCLA WEEK with the theme "EMPOWER".

NOW THEREFORE, I, Richard F. Brunst Jr., Mayor of the City of Orem, Utah, do hereby designate February 7 through 13, 2016, as

NATIONAL FCCLA WEEK

in the City of Orem and urge all citizens to acquaint themselves with the activities and values of Family, Career and Community Leaders of America, to show interest in it, and to give help and encouragement to the young men and women who are working to achieve knowledge and experience that will help prepare them for future responsibilities as active and concerned adult members of society.

Dated this 9th day of February 2016

_____

Richard F. Brunst Jr., Mayor

ATTEST:

_____

Jackie Lambert, Deputy City Recorder

CITY OF OREM **CITY COUNCIL MEETING** FEBRUARY 9, 2016	
REQUEST:	**RESOLUTION-Authorizing the Mayor, or his designee, to execute (1) a Performance Contracting Agreement between the City and Siemens Industry, Inc., pertaining to the installation of several Facility Improvement Measures (FIMs) designed to significantly reduce the City's energy consumption; and (2) a Master Lease Purchase Agreement, associated Leasing Schedule and an Escrow Agreement with Siemens Public, Inc., with regard to the financing of the Equipment that will be installed as part of the FIMs; and authorizing the taking of all other actions necessary to the consummation of the transactions contemplated by such documents.**
APPLICANT:	Administrative Services
FISCAL IMPACT:	$6,738,778 (to be paid from energy savings generated by installation of the FIMs)

NOTICES:
-Posted in 2 public places
-Posted on City webpage
-Posted on the State noticing website
-Faxed to newspapers
-Mailed 306 notices on July 21, 2015

PREPARED BY:
Steve Earl
Deputy City Attorney

REQUEST:
The Department of Administrative Services requests that the City Council authorize the Mayor, or his designee, to execute (1) a Performance Contracting Agreement between the City and Siemens Industry, Inc., pertaining to the installation of several Facility Improvement Measures (FIMs) designed to significantly reduce the City's energy consumption; and (2) a Master Lease Purchase Agreement, associated Leasing Schedule and an Escrow Agreement with Siemens Public, Inc., with regard to the financing of the Equipment that will be installed as part of the FIMs; and authorizing the taking of all other actions necessary to the consummation of the transactions contemplated by such documents.

BACKGROUND:
Siemens Industry, Inc., performed an energy savings audit of the City's buildings and other facilities to identify opportunities to realize energy savings from upgrades to City facilities. As part of the audit, Siemens analyzed City street lights, building lights, heating and cooling systems, temperature settings and controls, operating hours, swimming pool operations, building insulation, windows, boilers and other elements of City facilities.

The audit performed by Siemens identified a number of Facility Improvement Measures (FIMs) that could be implemented to generate energy savings for the City. The proposed FIMs include the following:

1. Street Lighting Upgrades
2. Building Lighting Upgrades and Control
3. Building Automation System Upgrade/Expansion
4. Elevator Upgrades
5. On-site Hypochlorite Generator
6. Pool Evaporation Control
7. Retro-Commissioning
8. Building Envelope and Mechanical Insulation

9. Fan Speed VFD Controls
10. Reduced Pool Circulation Pump Flow
11. Constant Volume To Variable Volume Pumping
12. Destratification Fans
13. Data Center Optimization, Hot Aisle Containment
14. Solar Shading of Windows
15. Boiler Replacement
16. Leisure Pool Pump Switch
17. Motor Replacements
18. Boiler Room Air Barrier
19. Increased Cooling Capacity

Siemens has calculated that implementation of the above-listed FIMs (all equipment or tangible items associated with the FIMs is hereinafter referred to as the "Equipment") would save the City at least 4,491,395 kWh of electric energy and 83,473 therms of natural gas every year. Installation of the FIMs would also generate operational savings in the form of reduced maintenance. Based on current electricity and natural gas rates and the anticipated increase in these rates over time, Siemens estimates that the energy and operational savings would save the City between $608,000 and $893,000 every year with savings in the initial years in the lower end of the range and increasing over time to the higher end of the range. The total average savings over the 15 year period following installation of the FIMS would be approximately $759,000 per year.

The City and Siemens have negotiated a contract (the "Siemens Contract") in which Siemens agrees to install the agreed-upon FIMs within 18 months. The contract contains a guarantee that the installed FIMs will generate the annual energy savings described above. The contract calls for compensation to be paid to Siemens in the amount of $6,738,778 which will be paid in progress payments as work under the contract is completed.

In order to pay for the installation of the FIMs, the City proposes to enter into a Master Lease Purchase Agreement, associated Leasing Schedule and Escrow Agreement (collectively referred to as the "Lease Agreement") with Siemens Public, Inc., which is essentially the finance arm of Siemens (for ease of reference, Siemens Industry will hereinafter be referred to as "Siemens Construction" and Siemens Public will be referred to as "Siemens Finance"). The City solicited and reviewed proposals from several qualified firms regarding the funding of the Siemens Contract and ultimately selected the proposal of Siemens Finance as the most advantageous to the City.

Under the Lease Agreement, Siemens Finance will deposit the sum of $6,738,778 (the contract price) into an escrow account from which progress payments will be made to Siemens Construction until all the work has been completed and the contract price is paid in full. The City will then make monthly lease payments to Siemens Finance over a period of 15 years. The lease payments will be made out of savings that the City will realize from the installation of the FIMs.

During the term of the lease, Siemens Finance will have a security interest in the Equipment and will have the right to repossess the Equipment in the event the City does not make the lease payments. At the end of the 15 years, the lease will be terminated and clear title to all of the Equipment will be conveyed to the City free and clear of any liens (not unlike a "lease to own" contract).

The City's obligation to make the lease payments is subject to annual appropriation by the City Council. The City Council may, in any year, elect not to appropriate funds to make the lease payments, but Siemens Finance would then have the right to repossess the Equipment pursuant to its security interest.

This item contains two parts. The first part is a request that the City Council authorize the Mayor or his designee to execute the Performance Contracting Agreement between the City and Siemens Construction for the installation of the FIMs. The second part is a request that the City Council authorize the Mayor or his designee to execute the Master Lease Purchase Agreement, associated Leasing Schedule and an Escrow Agreement with Siemens Public, Inc., related to the financing of the Equipment.

RECOMMENDATION: The Director of Administrative Services recommends that the City Council by resolution authorize the Mayor or his designee to (1) execute a Performance Contracting Agreement between the City and Siemens Industry, Inc., and (2) execute a Master Lease Purchase Agreement, associated Leasing Schedule and an Escrow Agreement with Siemens Public, Inc., and (3) take all other actions necessary to the consummation of the transactions contemplated by such documents.

DRAFT

Orem, Utah

February 9, 2016

The City Council (the "Council") of the City of Orem, Utah (the "Issuer"), met in regular public session at the regular meeting place of the Council in the City of Orem, Utah, on Tuesday, February 9, 2016, at the hour of 6:00 p.m., with the following members of the Council being present:

Richard Brunst	Mayor
Tom Macdonald	Councilmember
David Spencer	Councilmember
Brent Sumner	Councilmember
Sam Lentz	Councilmember
Debbie Lauret	Councilmember
Mark Seastrand	Councilmember

Also present:

Donna Weaver	City Recorder

Absent:

After the meeting had been duly called to order and after other matters not pertinent to this Resolution had been discussed, the City Recorder presented to the City Council a Certificate of Compliance with Open Meeting Law with respect to this February 9, 2016, meeting, a copy of which is attached hereto as Exhibit A.

The following Resolution was then introduced in written form, was fully discussed, and pursuant to motion duly made by Councilmember _____ and seconded by Councilmember _____, adopted by the following vote:

AYE:

NAY:

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OREM, UTAH AUTHORIZING THE MAYOR OR HIS DESIGNEE TO EXECUTE A PERFORMANCE CONTRACTING AGREEMENT PERTAINING TO THE INSTALLATION OF SEVERAL FACILITY IMPROVEMENT MEASURES (FIMS) DESIGNED TO GENERATE ENERGY SAVINGS FOR THE CITY; AUTHORIZING THE MAYOR OR HIS DESIGNEE TO EXECUTE A MASTER LEASE PURCHASE AGREEMENT, LEASING SCHEDULE AND ESCROW AGREEMENT AND OTHER DOCUMENTS REQUIRED IN CONNECTION THEREWITH RELATING TO THE FINANCING OF THE EQUIPMENT THAT WILL BE INSTALLED AS PART OF THE FIMS; AUTHORIZING THE TAKING OF ALL OTHER ACTIONS NECESSARY TO THE CONSUMMATION OF THE TRANSACTIONS CONTEMPLATED BY SUCH DOCUMENTS AND THIS RESOLUTION; AND RELATED MATTERS.

WHEREAS Siemens Industry, Inc., performed an energy savings audit of the City's buildings and other facilities and identified several opportunities to realize energy savings from upgrades to City facilities; and

WHEREAS as part of the audit, Siemens analyzed City street lights, building lights, heating and cooling systems, temperature settings and controls, swimming pool operations, building insulation, windows, boilers and other elements of City facilities; and

WHEREAS the audit performed by Siemens Construction identified a number of Facility Improvement Measures (FIMs) that could be implemented to generate energy savings for the City including, among others, street lighting upgrades, building lighting upgrades and controls, upgraded heating and cooling controls, boiler replacement, motor replacements, solar shading of windows, de-stratification fans, pool evaporation control and building envelope and mechanical insulation; and

WHEREAS Siemens Construction has calculated that implementation of the proposed FIMs would save the City at least 4,491,395 kWh of electric energy and 83,473 therms of natural gas every year; and

WHEREAS based on current electricity and natural gas rates and the anticipated increase in these rates over time, Siemens Construction estimates that the energy and operational savings would save the City between $608,000 and $893,000 every year with savings in the initial years in the lower end of the range and increasing over time to the higher end of the range; and

WHEREAS Siemens Construction estimates that the average savings over the 15 year period following installation of the FIMs would be approximately $759,000 per year; and

WHEREAS the City and Siemens Construction have negotiated a contract (the "Siemens Construction Contract," attached hereto as Exhibit B), in which Siemens Construction agrees to install the agreed-upon FIMs (hereinafter referred to as the "Project") within 18 months and in which Siemens Construction guarantees that the installed FIMs will generate the annual energy savings described above; and

WHEREAS the Siemens Construction Contract calls for compensation to be paid to Siemens Construction in the amount of $6,738,778 which will be paid in progress payments as work under the contract is completed; and

WHEREAS in order to pay for the installation of the FIMs, the City proposes to enter into a Master Lease Purchase Agreement, Leasing Schedule and Escrow Agreement (collectively referred to as the "Lease Agreement," attached hereto as Exhibit C) with Siemens Public, Inc. (hereinafter "Siemens Finance"); and

WHEREAS the City solicited and reviewed proposals from several qualified firms regarding the funding of the Siemens Construction Contract and ultimately selected the proposal of Siemens Finance as the most advantageous to the City; and

WHEREAS under the Lease Agreement, Siemens Finance will deposit the sum of $6,738,778 into an escrow account from which progress payments will be made to Siemens Construction until all the work has been completed and the contract price is paid in full; and

WHEREAS under the Lease Agreement, the City will lease all equipment associated with the installation of the FIMs (hereinafter the "Equipment") for a period of 15 years and the City will make monthly lease payments to Siemens Finance over such 15 year lease period; and

WHEREAS at the end of the 15 year lease period and upon payment of all lease payments, the lease will be terminated and clear title to all of the Equipment will be conveyed to the City free and clear of any liens or other encumbrances; and

WHEREAS the City's obligation to make the lease payments under the Lease Agreement is subject to annual appropriation by the City Council and the City Council may, in any year, elect not to appropriate funds to make the lease payments subject to the right of Siemens Finance in such event to repossess the Equipment pursuant to a security interest that will be granted to Siemens Finance under the Lease Agreement; and

WHEREAS, pursuant to the provisions of Title 10, Utah Code Annotated 1953, as amended (the "Act"), the City of Orem, Utah (the "City"), has authority to enter into lease agreements to provide for the financing of certain equipment; and

WHEREAS the City Council considered the approval of the Siemens Construction Contract and the Lease Agreement in a public meeting held on February 9, 2016; and

WHEREAS the City Council finds that the execution of the Siemens Construction Agreement and Lease Agreement would generate substantial savings for the City and would be in the best interest of the City;

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF OREM, UTAH as follows:

Section 1. Terms defined in the foregoing recitals shall have the same meaning when used in the body of this Resolution.

Section 2. The City Council hereby authorizes the Mayor or his designee to execute the Performance Contracting Agreement with Siemens Industry, Inc., in substantially the same form as shown in the attached Exhibit B.

Section 3. For the purpose of providing funds to be used for the financing of the FIMs described in the Siemens Construction Contract, the City Council hereby authorizes the Mayor or his designee to execute the Master Lease Purchase Agreement, Leasing Schedule and Escrow Agreement with Siemens Public, Inc., in substantially the same form as shown in the attached Exhibit C. The execution of the Lease Agreement and Escrow Agreement shall be subject to the final advice of counsel for the City.

Section 4. The Mayor or his designee is authorized to make any alterations, changes or additions to the Performance Contracting Agreement and/or the Master Lease Purchase Agreement, Leasing Schedule and Escrow Agreement or any other document herein authorized which the Mayor or his designee, upon the advice of the City Attorney, may deem reasonably necessary or in the best interest of the City.

Section 5. The Mayor or his designee is hereby authorized and directed to execute and deliver for and on behalf of the City any or all additional certificates, documents and other papers and to perform all other acts he may deem necessary or appropriate in order to implement and carry out the matters authorized in this Resolution and the documents authorized and approved herein.

Section 6. The City Council hereby declares the City's intention and reasonable expectation to use proceeds of the Escrow Agreement to reimburse itself for expenditures for costs of the Project and to make payments to Siemens Industry, Inc., as work on the Project is completed.

Section 7. The Mayor or his designee is hereby authorized to take all action necessary or reasonably required by the Performance Contracting Agreement, Master Lease Purchase Agreement, Leasing Schedule and/or Escrow Agreement to carry out, give effect to and consummate the transactions as contemplated thereby.

Section 8. If any provisions of this Resolution should be held invalid, the invalidity of such provisions shall not affect the validity of any of the other provisions of this Resolution.

Section 9. All resolutions of the City Council or parts thereof inconsistent herewith, are hereby repealed to the extent only of such inconsistency. This repealer shall not be construed as reviving any bylaw, order, resolution or ordinance or part thereof.

Section 10. This Resolution shall become effective immediately upon its adoption.

PASSED AND APPROVED this February 9, 2016.

(SEAL)

By:_____
Mayor

ATTEST:

By:_____
City Recorder

(Other business not pertinent to the above appears in the minutes of the meeting.)

Upon motion duly made and carried, the meeting was adjourned.

STATE OF UTAH)
: ss.
COUNTY OF UTAH)

I, Donna Weaver, hereby certify that I am the duly qualified and acting City Recorder of the City of Orem, Utah (the "Issuer").

I further certify that the above and foregoing instrument constitutes a true and correct copy of the minutes of a special meeting of City Council of the Issuer adopted at said meeting held on February 9, 2016, as said minutes and Resolution are officially of record in my possession, and that a copy of said Resolution was deposited in my office on February 9, 2016.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of the Issuer this February 9, 2016.

(SEAL)

By:_____
City Recorder

EXHIBIT A

CERTIFICATE OF COMPLIANCE WITH OPEN MEETING LAW

I, Donna Weaver, the undersigned City Recorder of the City of Orem, Utah (the "Issuer"), do hereby certify according to the records of the Issuer in my official possession, and upon my own knowledge and belief, that in accordance with the requirements of Section 52-4-6(2), Utah Code Annotated, (1953), as amended, I gave not less than twenty-four (24) hours public notice of the agenda, date, time, and place of the February 9, 2016, public meeting held by the Issuer as follows:

(a) By causing a notice, in the form attached hereto as Schedule 1, to be posted at the Issuer's principal offices on February ___, 2016, at least twenty-four (24) hours prior to the convening of the meeting, said notice having continuously remained so posted and available for public inspection until the completion of the meeting; and

(b) By causing a copy of such notice, in the form attached hereto as Schedule 1, to be delivered to The Salt Lake Tribune on February ___, 2016, at least twenty four (24) hours prior to the convening of the meeting.

(c) By causing a copy of such notice to be posted on the Utah Public Notice Website created under 63F-1-701, Utah Code Annotated 1953, as amended.

IN WITNESS WHEREOF, I have hereunto subscribed my official signature this February 9, 2016.

(SEAL)

By:_____
City Recorder

EXHIBIT B

PERFORMANCE CONTRACTING AGREEMENT

PERFORMANCE CONTRACTING AGREEMENT

between

City of Orem, Utah

and

Siemens Industry, Inc.,
Building Technologies Division

TABLE OF ARTICLES

1. Agreement
2. Glossary
3. General
4. Performance Guarantee
5. Work by SIEMENS
6. CLIENT Responsibilities
7. Changes and Delays
8. Compensation
9. Acceptance
10. Insurance and Allocation of Risk
11. Hazardous Material Provisions
12. Miscellaneous Provisions
13. Maintenance Services Program

Number: SAP JOB NUMBER

Article 1
AGREEMENT

THIS **PERFORMANCE CONTRACTING AGREEMENT** ("Agreement") is made this day of , (the "Effective Contract Date", defined below), by and between Siemens Industry, Inc., Building Technologies Division ("SIEMENS") and the party identified below as the CLIENT.

The CLIENT: **City of Orem, Utah**
56 North State Street
Orem, Utah 84057

DESIGNATED REPRESENTATIVE: James P. Davidson, City Manager
PHONE: 801.229.7000 FAX: 801.229.7031

Siemens Industry, Inc., Building Technologies Division
1000 Deerfield Parkway
Buffalo Grove, Illinois 60089

With offices at: Sandy Branch
9707 South Sandy Parkway
Sandy, Utah 84070

DESIGNATED REPRESENTATIVE: Bryce Morris, Branch Manager
PHONE: 801.316.2500 FAX: 801.316.2449

For Work and Services in connection with the following project (the "Project"):

Orem Energy Performance Contract

The CLIENT considered performing the following FIMs but at this time, has determined to exclude them from the Scope of Work and Services, Exhibit A:

- Infrared Heater Controls
- Air Source Heat Pump
- Boiler Flue Stack Economizers
- Golf Course and Building Irrigation Measures
- Domestic Water Conservation
- Thin/zero client
- Roof repairs
- Solar Photo-Voltaic System
- PC Power Management
- Water Meter Replacemnt, AMI/AMR
- Exhaust Heat Recovery System re-commissioning

- Fleet Vehicle conversion to compressed natural gas (CNG)
- Waste Water Treatment Plant process improvements
- Solar Thermal Water heating system
- Irrigation Controls ET
- Compressor Replacements

Articles and Attachments

This Agreement consists of this document, which includes the following articles and exhibits which are acknowledged by the CLIENT and SIEMENS and incorporated into the Agreement by this reference:

Articles

1. Agreement
2. Glossary
3. General
4. Performance Guarantee
5. Work BY SIEMENS
6. The CLIENT's Responsibilities
7. Changes and Delays
8. Compensation
9. Acceptance
10. Insurance and Allocation of Risk
11. Hazardous Material Provisions
12. Miscellaneous Provisions
13. Maintenance Services Program

Exhibits

Exhibit A	Scope of Work and Services
Exhibit B	Payment Schedule(s)
Exhibit C	Performance Assurance
Exhibit D1	Form of Certificate of Substantial Completion
Exhibit D2	Form of Certificate of Final Completion

Appendix A	Scope of Work for Lighting Upgrades

This Agreement, when executed by an authorized representative of the CLIENT and authorized representatives of SIEMENS, constitutes the entire, complete and exclusive agreement between the Parties relative to the project scope stated in Exhibit A. This Agreement supersedes all prior and contemporaneous negotiations, statements, representations, agreements, letters of intent, awards, or proposals, either written or oral relative to the same, and may be modified only by a written instrument signed by both Parties.

COMPENSATION/TERMS OF PAYMENT:

As full consideration for the performance of the Work and Services set forth in Exhibit A, and for the Performance Assurance set forth in Exhibit C, the CLIENT shall pay SIEMENS in such manner and amounts as agreed to in Exhibit B.

Agreed for **City of Orem, Utah**

(Signature) by: _____

Print Name and Title: _____

(Signature) by: _____

Print Name and Title: _____

Agreed for **Siemens Industry, Inc.**

(Signature) by: _____

Print Name and Title: _____

(Signature) by: _____

Print Name and Title: _____

Article 2

Glossary

The following terms shall for all purposes have the meanings stated herein, unless the context otherwise specifies or requires, or unless otherwise defined in the Agreement:

Acceptance means the CLIENT has signed, or is deemed to have signed, a Certificate of Final Completion.

Acceptance Date means the date on which the CLIENT signs or is deemed to have signed a Certificate of Final Completion.

Annual Performance Assurance Report means the document prepared by SIEMENS and submitted to the CLIENT as part of the Performance Assurance Service Program, which identifies the Savings achieved for the applicable Annual Period.

Annual Period means a twelve (12) month period beginning on the Guarantee Date or on any anniversary date thereof.

Annual Realized Savings means the actual Savings achieved by the CLIENT during an Annual Period, calculated as the sum of the Measured & Verified Savings plus the Stipulated Savings.

Applicable Law means laws, ordinances, codes, rules and regulations applicable to the Work and in effect on the Effective Contract Date.

Baseline means the measurements of Facility energy usage taken prior to the Effective Contract Date, and the Facility operating practices in effect prior to the Effective Contract Date, as set forth in the Performance Assurance, Exhibit C.

Baseline Period means the period of time from which data is provided to SIEMENS to derive the Baseline measurements. The Baseline Period is set forth in the Performance Assurance, Exhibit C.

BTU means a British Thermal Unit and is a unit of thermal energy.

Capital Off-Set Savings means a sub-category of Operational Savings where Savings will result from a cost effective upgrade to the Facility to address one or more of the following issues: potential future increased costs, comfort, code non-compliance, usage requirements, user needs and/or expectations.

Certificate of Final Completion means a document, in the form attached as Exhibit D2 hereto, indicating that the Work identified in Article 1 of the Scope of Work and Services-Exhibit A has been completed in accordance with the Agreement, including all items in the Outstanding Items List(s).

Certificate of Substantial Completion means a document, in the form attached as Exhibit D1 hereto, indicating that the Work, or a designated portion of the Work, is Substantially Complete in accordance with the Agreement. A Certificate of Substantial Completion may be accompanied by an Outstanding Items List.

CLIENT Representative means the person identified to SIEMENS by the CLIENT as the person authorized to make decisions on behalf of the CLIENT as set forth in Section 6.1(a) hereof.

Construction Period means the period between the Effective Contract Date and the first day of the month following the Acceptance Date.

Construction Period Savings means the actual accumulated Measured & Verified Savings plus the Stipulated Savings achieved from the Effective Contract Date until the Guarantee Date.

Contracted Baseline means the post-FIM-implementation Facility operating profile based on parameters described in Exhibit C, which the CLIENT shall maintain throughout the Performance Guarantee Period and are relied upon by SIEMENS for the calculation of Guaranteed Savings as provided in the Performance Assurance, Exhibit C. The Contracted Baseline must also include stipulated hours of operation and plug-loads for all Facilities, and must include stipulated blended, or non-blended, utility rates.

Deferred Maintenance means a sub-category of Operational Savings where Savings result from a reduction of current or potential future repair and maintenance costs due to certain work being performed hereunder where such work had been previously postponed.

Deliverables shall mean collectively, (a) any Equipment and any Software Product deliverable to CLIENT from SIEMENS under or in connection with the Work, and (b) any Work Product Deliverables.

Effective Contract Date is the date appearing at the top of this Agreement, unless specifically indicated otherwise.

Energy Conservation Measure or **ECM** means the SIEMENS Products and/or other third party equipment, devices, materials and/or software as installed by SIEMENS at the Facilities, or as repaired or replaced by SIEMENS or the CLIENT hereunder, for the purpose of improving the efficiency of utility consumption.

Equipment means the installed physical equipment to be provided by SIEMENS as described in the Scope of Work and Services, Exhibit A.

Escalation Rate means an annual percentage increase to be applied to the previous Annual Period's energy savings, operational savings and service pricing, beginning and occurring on dates outlined in the Performance Assurance, Exhibit C. A different Escalation Rate may be applied to differing Savings calculations and/or payment schedules depending on the percentage agreed upon by the Parties.

Facility or Facilities means the **building**(s) or structure(s) where Work will be installed or implemented.

Facility Improvement Measures or **FIMs** means the (i) Instruments, know-how and Intellectual Property, including but not limited to methods and techniques for energy conservation, owned or licensed by SIEMENS and employed by SIEMENS to perform the Work and Services under this Agreement; and, (ii) the installation of Equipment and Software Products with the intent of generating net savings or efficiencies at or in connection with the operation of the Facilities. A FIM may include one or multiple ECMs as well as any non-conservation-related activities, means or methods.

FEMP means the Federal Energy Management Program managed by the United States Department of Energy.

FEMP Guidelines means the FEMP M&V Guidelines v. 3.0 published by FEMP as M&V Guidelines; Measurement and Verification for Federal Energy Management Projects.

Guarantee Date means the first day of the month following the date on which the CLIENT executes, or is deemed to have executed, the Certificate of Final Completion.

Guaranteed Annual Savings are the Guaranteed Measured & Verified Savings plus the Stipulated Savings that SIEMENS guarantees will be achieved in an Annual Period of the Performance Guarantee Period.

Guaranteed Measured & Verified Savings means the Measured & Verified Savings that SIEMENS guarantees will be achieved, as described in the Performance Assurance, Exhibit C.

Guaranteed Savings means the amount of Savings that SIEMENS guarantees will be achieved at the Facility during the Performance Guarantee Period. as identified in the Performance Assurance, Exhibit C as subject to the limitation identified in Section 4.8.

Hazardous Materials refers to the definition found in Section 11.1.

I**nstruments** means all know-how, tools and related documentation owned or licensed by SIEMENS and used by SIEMENS to install or commission Equipment and Software Products for operation at the Facility, including but not limited to tools for installing any Software Products in Equipment, performing diagnostics on Equipment as installed in the Facility as well as any reports, notes, calculations, data, drawings, estimates, specifications, manuals, documents, all computer programs, codes and computerized materials prepared by or for SIEMENS and used by SIEMENS to provide an ECM or a FIM. Instruments excludes Work Product Deliverables.

Intellectual Property Rights or Intellectual Property means all trade secrets, patents and patent applications, trade marks (whether registered or unregistered and including any goodwill acquired in such trade marks), services marks, trade names, internet domain names, copyrights (including rights in computer software), moral rights, database rights, design rights, rights in know-how, rights in inventions (whether patentable or not) including, but not limited to, any and all renewals or extensions thereof, and all other proprietary rights (whether registered or unregistered, and any application for the foregoing), and all other equivalent or similar rights which may subsist anywhere in the world, including, but not limited to, any and all renewals or extensions thereof.

I**PMVP** means the International Performance Measurement and Verification Protocol, Volume 1, EVO 10000-1.2007 as prepared by the Efficiency Valuation Organization.

kW and **kWh** means kilowatt and kilowatt hour, respectively.

Maintenance Services Program or **MSP** means the Services performed by SIEMENS to maintain the Equipment in good working order. The MSP may also contain Services unrelated to the maintenance of the Equipment. If applicable, the MSP is more fully described in the Scope of Work and Services, Exhibit A.

Material Change means a measurable deviation in the Contracted Baseline such that there is an adverse impact on the Annual Realized Savings which results or will result in a Savings Shortfall.

Measured & Verified Savings means those Savings that can be calculated and ascertained by the methodology set forth in the Performance Assurance, Exhibit C.

Oil refers to the definition found in Section 11.1.

Operational Savings means Savings derived from reduced operational expenses, including but not limited to, Deferred Maintenance, or Capital Off-Set Savings. Operational Savings can only be expressed in monetary value and are Stipulated Savings.

Outstanding Items List means a list of items in need of completion or correction that relates to the Work, or a designated portion thereof that is Substantially Complete. The absence of such items does not deprive the CLIENT of the ability to put such Work, or a designated portion thereof to beneficial use. An Outstanding Items List may be attached to a Certificate of Substantial Completion.

Parties means the CLIENT and SIEMENS.

Performance Assurance is the process of ascertaining whether the FIMs are performing at the level necessary to achieve the Guaranteed Savings.

Performance Assurance Services Program or PASP means the Services required to monitor the operation of the FIMs so that SIEMENS can provide the Annual Performance Assurance Report detailing the Annual Realized Savings and comparing the same to the Annual Guaranteed Savings based upon the calculations agreed to by the Parties in the Performance Assurance, Exhibit C. The Services provided under the PASP are described in the Scope of Work and Services, Exhibit A.

Performance Guarantee means the guarantee that SIEMENS makes to the CLIENT which is reconciled and confirmed through the Performance Assurance process set forth in the Performance Assurance, Exhibit C.

Performance Guarantee Period means the timeframe from the Guarantee Date to the last day of the final Annual Period as described in Table 1.1 of the Performance Assurance, Exhibit C, or the period from the Guarantee Date until the termination of this Agreement, whichever occurs earlier.

Permitted Users means the CLIENT, its employees and agents.

Savings means the Parties' intended result from implementing all FIMs. Savings can be derived from reductions in energy or utility consumption, reductions in operating expenses, a changed utility rate classification or a combination thereof. The Savings that are achieved from reduced energy or utility consumption are converted to a dollar figure based upon the calculation in Article 4.1.1 and as detailed in the Performance Assurance, Exhibit C. When converted to a dollar figure, these Savings become energy cost savings. Operational Savings are only expressed in a dollar figure.

Savings Shortfall means the Annual Realized Savings less the Guaranteed Annual Savings for the Annual Period resulting in an amount less than zero.

Services means those services to be provided by SIEMENS as described in the Scope of Work and Services, Exhibit A.

SIEMENS Pre-existing Intellectual Property means any Intellectual Property: (i) that has been conceived or developed by an employee or subcontractor of SIEMENS before SIEMENS performs any Work or Services under this Agreement; (ii) that is conceived or developed by such employee or subcontractor at any time wholly independently of SIEMENS performing the Work under this Agreement; or, (iii) if developed while performing the Work under this Agreement, where the development of Intellectual Property for the benefit of the CLIENT is not expressly identified as a FIM or part of a FIM. SIEMENS Pre-existing Property is included in all reports, notes, calculations, data, drawings, estimates, specifications, manuals, documents, all computer programs, codes and computerized materials prepared by or for SIEMENS.

SIEMENS Product means a product, including Software Product and/or Equipment, offered for sale or license by SIEMENS or its affiliates or subsidiaries and developed prior to performing the Work or SIEMENS rendering services in connection with this Agreement. A SIEMENS Product also includes improvements or modifications to any Equipment and any Software Product developed by SIEMENS or developed as part of the Work, including any SIEMENS Product that is configured or modified for operation at a site specified by the CLIENT. Any information that is provided by the CLIENT and incorporated into a SIEMENS Product is not, by itself, a SIEMENS Product. A compilation of such information and the product of such compilation, however, is a SIEMENS Product.

Software Product means any software that is owned or licensed by SIEMENS or its affiliates and that is either separately deliverable for use in the Equipment or for use in a computer system owned by the CLIENT or delivered as firmware embedded in the Equipment.

Stipulated Savings are a sub-category of Guaranteed Savings that do not require post-FIM implementation measurement and verification because they are agreed upon by the Parties based upon representations made to SIEMENS by the CLIENT and through the application of generally accepted analytical formulae. As such, Stipulated Savings are agreed upon in advance by the Parties and cannot be changed. When used as a methodology for representing a FIM's energy savings, such methodology is not recognized as a measurement and verification methodology under IPMVP. Therefore, where the

IPMVP measurement methodologies are required, a methodology other than Stipulated Savings must be used to calculate energy savings.

Substantial Completion or Substantially Complete means the Work, or any identifiable portion thereof, which is sufficiently complete, in accordance with the provisions of this Agreement relating to the Scope of the Work and Services, Exhibit A, such that the CLIENT will be able to realize from such Work substantially all of the practical benefits intended to be gained therefrom, or otherwise employ the Work or the FIMs for their intended purposes.

Therm is a measure of energy equal to 100,000 BTUs.

Total Guaranteed Savings means the sum of the Savings that are guaranteed for all Annual Periods during the Performance Guarantee Period (inclusive of the Construction Period, if applicable). The Total Guaranteed Savings are reflected in Tables 1.1 and 1.2 in the Performance Assurance, Exhibit C.

Work means collective labor, Equipment and services comprising the FIMs to be performed by SIEMENS, as described in the Scope of Work and Services, Exhibit A.

Work Product Deliverable means the tangible form of a report or drawing specifically developed for, commissioned by and deliverable to the CLIENT in connection with the Work to be performed by SIEMENS under this Agreement.

Article 3
General

3.1 The Parties hereto acknowledge and agree that this Agreement has been negotiated at arm's length. Each party has conferred, or has had the opportunity to confer, with their respective legal counsel. Accordingly, in the event any claim is made relating to any conflict, omission, or ambiguity in this Agreement, no presumption, burden of proof, or persuasion shall be implied by virtue of the fact that this Agreement was drafted by or at the request of a particular party or its legal counsel.

3.2 The CLIENT hereby engages and SIEMENS hereby accepts the engagement to perform and to provide the Work and Services set forth in Exhibit A in accordance with the terms and conditions of this Agreement.

3.3 SIEMENS shall perform the Work as an independent contractor with exclusive control of the manner and means of performing the Work in accordance with the requirements of this Agreement. SIEMENS has no authority to act or make any agreements or representations on behalf of the CLIENT. This Agreement is not intended, and shall not be construed to create, between the CLIENT and SIEMENS, the relationship of principal and agent, joint-ventures, co-partners or any other such relationship, the existence of which is hereby expressly denied. No employee or agent of SIEMENS shall be, or shall be deemed to be, an employee or agent of the CLIENT.

3.4 SIEMENS represents, warrants and covenants to the CLIENT that:

(a) It has all requisite corporate power to enter into this Agreement, and that its execution hereof has been duly authorized and does not and will not constitute a breach or violation of any of SIEMENS organizational documents, any Applicable Law, or any agreements with third parties;

(b) It has done and will continue to do all things necessary to preserve and keep in full force and effect its existence and the Agreement;

(c) This Agreement is the legal, valid and binding obligation of SIEMENS, in accordance with its terms, and all requirements have been met and procedures have been followed by SIEMENS to ensure the enforceability of the Agreement;

(d) To SIEMENS best knowledge, there is no pending or threatened, suit, action, litigation or proceeding against or affecting SIEMENS that affects the validity or enforceability of this Agreement; and,

(e) It is duly authorized to do business in all locations where the Work and Services are to be performed.

3.5 The CLIENT represents, warrants and covenants to SIEMENS that:

(a) It has all requisite corporate power and/or statutory authority to enter into this Agreement, and that its execution hereof has been duly authorized and does not and will not constitute a breach or violation of any of the CLIENT's organizational documents, any Applicable Law, or any agreements with third parties;

(b) It has done and will continue to do all things necessary to preserve and keep in full force and effect its existence and the Agreement;

(c) This Agreement is the legal, valid and binding obligation of the CLIENT, in accordance with its terms, and all requirements have been met and procedures have been followed by the CLIENT to ensure the enforceability of the Agreement;

(d) To the CLIENT's best knowledge, there is no pending or threatened, suit, action, litigation or proceeding against or affecting the CLIENT that affects the validity or enforceability of this Agreement; and,

(e) The CLIENT has consulted with its legal counsel and is relying on the advice of its counsel concerning all legal issues related to this Agreement, and is not relying on SIEMENS in this regard.

Article 4

Performance Guarantee

4.1 The Annual Realized Savings generated during each Annual Period will be no less than the Guaranteed Annual Savings as shown in Tables 1.1 and 1.2 of the Performance Assurance, Exhibit C, subject to the limits in Section 4.8. The measurement and verification calculation methodology for determining the Savings is set forth in the Performance Assurance, Exhibit C.

4.1.1 General. Except as otherwise provided, energy savings will be calculated for each month of each Annual Period as the product of (a) "units of energy saved" (kWh, Therms, GJ, etc.) multiplied by (b) "cost of energy."

(a) Units of energy saved are calculated by 1) assuming the Contracted Baseline has been maintained per Section 4.3 below, and 2) subtracting the then current period measured units of energy consumed from the Baseline units of energy defined in Article 5 of Exhibit C.

(b) Costs of energy are defined in Article 6 of Exhibit C-Utility Rate Structures and Escalation Rates.

4.2 Any future Escalation Rates to be applied to utility, energy or other costs are set forth in Exhibit C. SIEMENS and the CLIENT agree that the Baseline data set forth in Exhibit C is a full and accurate reflection of the existing Facility, equipment, operation, business use and energy usage, and that such Baseline data will be the basis on which all future energy use will be compared in order to determine the Annual Realized Savings.

4.3 SIEMENS and the CLIENT agree that the Contracted Baseline fully described in Exhibit C will represent the new operating and/or equipment profile of the Facility following the FIM implementation. The Performance Guarantee is dependent upon and is subject to the express condition that the CLIENT operates and maintains its Facilities substantially within the Contracted Baseline parameters, as may be adjusted in accordance with the terms herein, during the entire term of the Performance Guarantee Period.

4.4 The CLIENT agrees to notify SIEMENS prior to or within thirty (30) days of CLIENT's knowledge of any Material Change.

4.5 Within thirty (30) days of notice of a Material Change, SIEMENS' discovery of a Material Change and with prompt notice to CLIENT, SIEMENS will either:

(a) Require an adjustment to the Performance Assurance and the Performance Guarantee to an extent reasonably justified as a result of the Material Change; or,

(b) Where a commercially reasonable adjustment to the Performance Guarantee is unavailable, terminate both the Performance Assurance and the Performance Guarantee.

4.6 A Performance Guarantee Period savings reconciliation as identified in Section 4.1 will be performed at the end of each Annual Period as follows:

(a) At the conclusion of each Annual Period, SIEMENS will calculate the Annual Realized Savings and compare the calculated amount to the applicable Guaranteed Annual Savings amount.

(b) Where the Annual Realized Savings are less than the Guaranteed Annual Savings, a Savings Shortfall shall be recorded for the applicable Annual Period.

(c) A Savings Shortfall shall be paid by SIEMENS within sixty (60) days following the CLIENT's acceptance of the reconciliation and once paid SIEMENS shall have fulfilled its obligations under the Performance Guarantee for the applicable Annual Period.

4.6.1 As the mutual goal of the Parties is to maximize Savings, if SIEMENS can correct a Savings Shortfall through an operational improvement at no expense or material inconvenience to the CLIENT and without future operational expenses, and the CLIENT unreasonably declines to allow such operational improvement, then any future Savings Shortfall that the improvement would have corrected will be negated by deeming the value of the Savings Shortfall as Savings achieved and adding the amount of same to the Annual Realized Savings calculations for each Annual Period thereafter.

4.7 The Performance Guarantee is dependent upon and is subject to the express condition that the CLIENT maintains the PASP during the entire Performance Guarantee Period. If the CLIENT fails to maintain, breaches, cancels or otherwise causes the termination of the PASP then; (a) The Performance Guarantee shall terminate immediately and be void and of no force or effect; or, (b) Where termination of the Performance Guarantee acts to render the Agreement in violation of Applicable Law, all Guaranteed Savings thereafter shall be determined to have been achieved and SIEMENS shall have been deemed to have met its Performance Guarantee obligations under this Agreement for each and every Annual Period thereafter without the obligation to provide the CLIENT, or any third-party as the case may be, with any further Annual Performance Assurance Reports. In the event of a termination of the PASP as described herein, the CLIENT shall have no further obligation to make any payment for any of the PASP services not yet performed pursuant to Article 2 of Exhibit B.

4.8 The payments and credits based on Savings Shortfalls, if any, are the sole remedy of the CLIENT under this Performance Guarantee. ANY PAYMENTS MADE OR TO BE MADE TO THE CLIENT UNDER THE TERMS OF THIS PERFORMANCE GUARANTEE SHALL NOT EXCEED THE PAYMENTS ACTUALLY MADE BY CLIENT TO EITHER SIEMENS AND/OR A THIRD-PARTY (IN THE EVENT THAT THE CLIENT HAS FINANCED THE TRANSACTION) FOR THE AGGREGATE OF: THE PRICE, AS DEFINED IN EXHIBIT B, ARTICLE 1.1; THE PASP PAYMENTS; THE MSP PAYMENTS, IF ANY; AND, IF APPLICABLE, THE CLIENT'S COST OF FINANCING THE WORK. The CLIENT's cost of financing the Work is the cost of financing calculated either: (a) On the date that the escrow account is funded in accordance with Exhibit B, Article 1.2; or, (b) On the Effective Contract Date if the escrow requirement is expressly waived by SIEMENS.

4.9 The CLIENT represents that all existing equipment that is not installed by SIEMENS under this Agreement but is deemed necessary to achieve the Performance Guarantee, is in satisfactory working condition. Prior to the beginning of the Performance Guarantee Period, SIEMENS will have inspected all such existing equipment and reported any deficiencies to the CLIENT. To the extent that the deficiencies are not remedied by the CLIENT prior to the Guarantee Date, the adverse effect on the ability of the Project to attain the necessary Guaranteed Savings shall be factored into the Annual Performance Assurance Report and, if necessary, the Performance Guarantee shall be adjusted accordingly.

4.10 If the Equipment or the existing equipment is altered or moved by any person (including the CLIENT) other than SIEMENS or a person authorized by SIEMENS, the CLIENT shall immediately notify SIEMENS in writing, and SIEMENS reserves the right to perform a reacceptance test on, or if necessary a re-commissioning of, the system at the CLIENT's expense in order to determine if a Material Change has occurred.

4.11 SIEMENS will have no liability or obligation to continue providing PASP Services or any Guaranteed Savings under the Performance Guarantee in the event that the CLIENT fails to:

(a) Authorize a re-acceptance test or re-commissioning that SIEMENS reasonably deems necessary in order to determine if a Material Change has occurred;

(b) Provide access to any Facility where Work is to be performed;

(c) Service and maintain all Equipment in accordance with the manufacturers' recommendations in order to prevent a Savings Shortfall; or,

(d) Provide SIEMENS with accurate Facility operating information as soon as such information becomes reasonably available to the CLIENT, including energy usage and cost, executed preventive maintenance and repair records, building or equipment additions, and occupancy levels during each Annual Period.

4.12 The CLIENT shall have the right to discontinue the PASP at any time. Should the CLIENT decide to discontinue the PASP before the end of the Performance Guarantee Period, the CLIENT will give SIEMENS thirty (30) days prior written notice, and upon receipt of such notice, Siemens shall perform no further PASP services. In the event the CLIENT elects to discontinue the PASP, the CLIENT shall not be liable for the Performance Assurance Program

Payment for PASP services not rendered as of the date of Siemens' receipt of the notice of cancellation, or for PASP services for any period subsequent to the performance period when the services were discontinued.

4.13 Unless expressly contrary to Applicable Law, any disputes concerning the calculation of the Annual Realized Savings or changes to the Contracted Baseline that are not resolved by negotiation between the Parties within thirty (30) days of the notice of the dispute, will be resolved by a third-party professional engineering firm which is reasonably acceptable to both SIEMENS and the CLIENT. The determination of such firm will be final and binding upon CLIENT and SIEMENS. SIEMENS and the CLIENT will each be responsible for half of the fees of such firm.

Article 5
Work by SIEMENS

5.1 SIEMENS will perform the Work expressly described in this Agreement and in any work release documents or change orders that are issued under this Agreement and signed by both Parties. The Work performed by SIEMENS shall be conducted in a workmanlike manner.

5.2 SIEMENS shall perform the Work during its normal hours, Monday through Friday inclusive, excluding holidays, unless otherwise agreed herein. The CLIENT shall make the Facility available on a reasonable basis so Work may proceed in an efficient manner.

5.3 SIEMENS is not required to conduct safety, reacceptance or other tests, install new devices or equipment or make modifications to any Equipment unless expressly made a part of the Work identified in the Scope of Work and Services, Exhibit A. Any CLIENT request to change the scope or the nature of the Work or Services must be in the form of a mutually agreed change order, effective only when executed by the Parties.

5.4 All Work Product Deliverables shall become the CLIENT's property upon receipt by CLIENT. SIEMENS may retain file copies of such Work Product Deliverables. If any Instruments are provided to the CLIENT under this Agreement, any such Instruments shall remain SIEMENS' property, including the Intellectual Property conceived or developed by SIEMENS in the Instruments. All SIEMENS' Pre-existing Intellectual Property that may be included in the Deliverables provided to the CLIENT under this Agreement shall also remain SIEMENS property including the SIEMENS Pre-existing Intellectual Property included in the Work Product Deliverables. All Work Product Deliverables and any Instruments provided to the CLIENT are for Permitted Users' use and only for the purposes disclosed to SIEMENS. SIEMENS hereby grants the CLIENT a royalty-free (once payments due under this Agreement are paid to SIEMENS), non-transferable, perpetual, nonexclusive license to use any SIEMENS Pre-existing Intellectual Property solely as incorporated into the Deliverables and SIEMENS' Intellectual Property as incorporated into any Instruments provided to the CLIENT under this Agreement. Under such license, and following agreement to be bound to such separate confidentiality provisions that may exist between the Parties, Permitted Users shall have a right to:

(a) Use, in object code form only, the Software Products included in the Deliverables ("Software Deliverables");

(b) Make and retain archival and emergency copies of such Software Deliverables (subject to any confidentiality provisions) except if the Software Deliverable is embedded in the Equipment; and,

(c) Use all such Deliverables and such Instruments, provided however, the Deliverables and Instruments shall not be used or relied upon by any parties other than Permitted Users, and such use shall be limited to the particular project and location for which the Deliverables are provided. All Deliverables provided to the CLIENT are for Permitted Users' use only for the purposes disclosed to SIEMENS, and the CLIENT shall not transfer them to others or use them or permit them to be used for any extension of the Work or any other project or purpose, without SIEMENS' express written consent.

5.4.1 Any reuse of such Deliverables or such Instruments for other projects or locations without the written consent of SIEMENS, or use by any party other than Permitted Users will be at Permitted Users' risk and without liability to SIEMENS; and, the CLIENT shall indemnify, defend and hold SIEMENS harmless from any claims, losses or damages arising therefrom.

5.4.2 In consideration of such license, CLIENT agrees not to reverse engineer any Equipment or Software Product to reconstruct or discover any source code, object code, firmware, underlying ideas, or algorithms of such Equipment or Software Product even to the extent such restriction is allowable under Applicable Law.

5.4.3 Nothing contained in this Agreement shall be interpreted or construed to convey to the CLIENT the pre-existing Intellectual Property rights of any third party incorporated into the Deliverables. CLIENT agrees to take delivery of any Software Deliverables subject to any applicable SIEMENS or third party end-user license agreement accompanying such Software Deliverable.

5.5 SIEMENS shall be responsible for any portion of the Work performed by any subcontractor of SIEMENS. SIEMENS shall not have any responsibility, duty or authority to direct, supervise or oversee any contractor of the CLIENT or their work or to provide the means, methods or sequence of their work or to stop their work. SIEMENS' work and/or presence at the Facility shall not relieve others of their responsibility to the CLIENT or to others.

5.6 SIEMENS warrants that:

(a) Unless otherwise agreed, all Equipment shall be new and of good quality. Until one year from the date the Equipment is installed, all Equipment manufactured by SIEMENS or bearing its nameplate will be free from defects in material and workmanship arising from normal use and service.

(b) Labor for all Work, excluding PASP or MSP Services, is warranted to be free from defects in workmanship for one year after the Work is performed. PASP Services and MSP Services are warranted to be free from defects in workmanship for ninety (90) days after the Services are performed.

5.7 Warranty Limitation:

(a) The limited warranties set forth in Section 5.6 will be void as to, and shall not apply to, any Equipment (i) repaired, altered or improperly installed by any person other than SIEMENS or its authorized representative; (ii) which the CLIENT or a third party subjects to unreasonable or improper use or storage, uses beyond rated conditions, operates other than per SIEMENS or the manufacturer's instructions, or otherwise subjects to improper maintenance, negligence or accident; (iii) damaged because of any use of the Equipment after the CLIENT has, or should have had, knowledge of any defect in the Equipment; or (iv) not manufactured, fabricated and assembled by SIEMENS or not bearing SIEMENS nameplate. However, SIEMENS assigns to the CLIENT, without recourse, any and all assignable warranties available from any manufacturer, supplier, or subcontractor of such Equipment.

(b) Any claim under the limited warranty granted above must be made in writing to SIEMENS within thirty (30) days after discovery of the claimed defect unless discovered directly by SIEMENS. Such limited warranty only extends to the CLIENT and not to any subsequent owner of the Equipment. The CLIENT's sole and exclusive remedy for any Equipment or Services not conforming with this limited warranty is limited to, at SIEMENS' option: (i) repair or replacement of defective components of covered Equipment; (ii) re-performance of the defective portion of the Services; or (iii) to the extent previously paid and itemized, the issuance of a credit or refund for the original purchase price of such defective component or portion of the Equipment or Services.

(c) SIEMENS shall not be required to repair or replace more than the component(s) of the Equipment or the portion of the Work and Services actually found to be defective. SIEMENS' warranty liability shall not exceed the purchase price of such item. Repaired or replaced Equipment or Services will be warranted hereunder only for the remaining portion of the original warranty period.

5.8 THE EXPRESS LIMITED WARRANTIES PROVIDED ABOVE ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES, STATUTORY, EXPRESS, OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED. THE LIMITED EXPRESS WARRANTIES AND REPRESENTATIONS SET FORTH IN THIS AGREEMENT MAY ONLY BE MODIFIED OR SUPPLEMENTED IN A WRITING EXECUTED BY A DULY AUTHORIZED SIGNATORY OF EACH PARTY.

5.9 SIEMENS will not be responsible for the maintenance, repair or replacement of, or Services necessitated by reason of:

(a) Non-maintainable, non-replaceable or obsolete parts of the equipment, including but not limited to: ductwork, shell and tubes, heat exchangers, coils, unit cabinets, casings, refractory material, electrical wiring, water and pneumatic piping, structural supports, cooling tower fill, slats and basins, etc., unless covered by the warranty provisions herein or otherwise specifically stated herein; or

(b) The CLIENT's or a third-party's negligence, abuse, misuse, improper or inadequate repairs or modifications, improper operation, lack of operator maintenance or skill, corrosion, erosion, improper or inadequate water

treatment, electrolytic action, chemical action, failure to comply with manufacturer's operating and environmental requirements, Acts of God, or other reasons beyond SIEMENS' control. Unless expressly agreed in writing, SIEMENS is not responsible for the removal or reinstallation of replacement valves, dampers, or waterflow and tamper switches with respect to pipes and ductwork, including vent or drain system. SIEMENS ASSUMES NO RESPONSIBILITY FOR ANY SERVICE PERFORMED ON ANY EQUIPMENT OTHER THAN THAT PERFORMED BY SIEMENS OR ITS AGENTS.

Article 6
CLIENT Responsibilities

6.1 The CLIENT, without cost to SIEMENS, shall:

(a) Designate a contact person with authority to make decisions for the CLIENT regarding the Work and provide SIEMENS with information sufficient to contact such person in an emergency;

(b) Coordinate the work of contractors under CLIENT's sole control so as not to disrupt the Work and Services proceeding in an efficient manner;

(c) Provide or arrange for 24 hour, 7 day per week access and make all reasonable provisions for SIEMENS to enter any Facility where Work is to be performed so that Work may proceed in an efficient manner, provided, however, that if access beyond the normal business hours is required, SIEMENS will give reasonable advance notice to the CLIENT and coordinate its activities with the CLIENT;

(d) Permit SIEMENS to control and/or operate all building controls, systems, apparatus, equipment and machinery necessary to perform the Work;

(e) To the extent in the possession of or reasonably available to CLIENT, furnish SIEMENS with blueprints, surveys, legal descriptions, waste management plans and all other available information pertinent to the Work and any Facility where the Work is to be performed as may be reasonably requested by SIEMENS. Such plans and blueprints, along with an executed copy of this Agreement, with its Exhibits, shall be kept and maintained in CLIENT's files for a period of fifteen (15) years from the Effective Contract Date;

(f) Furnish SIEMENS with all approvals, permits and consents from government authorities and others as may be required for performance of the Work, except for those SIEMENS has expressly agreed in writing to obtain;

(g) In accordance with Article 11 hereof, promptly notify SIEMENS of all known or suspected Hazardous Materials at the Facility, of any contamination of the Facility by Oil or Hazardous Material, and of any other conditions requiring special care or which may reasonably be expected to affect the Work, and provide SIEMENS with any available documents describing the quantity, nature, location and extent of such materials, contamination or conditions;

(h) Comply with Applicable Law and provide any notices required to be given to any government authorities in connection with the Work, except such notices SIEMENS has expressly agreed in writing to give;

(i) Provide SIEMENS with legally required materials and information (including but not limited to Material Safety Data Sheets) related to all Hazardous Materials located at any Facility where the Work is to be performed;

(j) Furnish SIEMENS with any contingency plans, safety programs and other policies, plans or programs related to any Facility where the Work is to be performed;

(k) Operate, service and maintain all Equipment according to the manufacturer's recommendations including those set forth in the manufacturer's operating manuals or instructions, as well as all requirements of Applicable Law or of authorities having jurisdiction. To the extent not covered by applicable warranty under this Agreement, the CLIENT shall furnish all needed servicing and parts for said FIMs, which parts shall become part of the FIMs. Such Equipment shall be operated only in the specified operating environment, which shall be supplied by the CLIENT, including without limitation: (1) suitable electrical service, including clean, stable, properly conditioned power, to all Equipment; (2) telephone lines, capacity and connectivity as required by such Equipment; and (3) heat, light, air conditioning or other environmental controls, and other utilities in accordance with the specifications for the Equipment;

(l) Promptly notify SIEMENS of any unusual operating conditions, hours of usage, system malfunctions, installed equipment or building alterations that may affect the Equipment or energy usage or any Services; and,

(m) If applicable, provide and pay for a dedicated voice grade dial-up phone line, or a mutually agreed communication method, and install a terminal block, or an equivalent communication mechanism, in a mutually agreed upon location. All on-line service Equipment provided by SIEMENS (excluding the phone line) will remain the property of SIEMENS unless otherwise stated herein.

6.2 In accordance with Utah Code Section 63G-2-309 (Government Records Access Management Act), SIEMENS makes a claim of business confidentiality as to all technical and pricing information (not including the total compensation amount, the total savings or savings per year, or the amount of energy savings) contained in this Agreement and attached exhibits and appendices. The technical and pricing information included in this Agreement was developed by Siemens using its proprietary business and engineering methods and techniques; it is not generally known in the industry; and its disclosure would afford Siemens' competitors an unfair advantage over Siemens. To the extent provided under Utah Code Section 63G-2-309, CLIENT agrees not to disclose such information entitled to business confidentiality or otherwise make it available to others without SIEMENS' express written consent. However, the parties acknowledge and agree that the CLIENT may be required to disclose any information that is not entitled to protection from release under 63G-2-309.

6.3 The CLIENT acknowledges that it is now and shall at all times remain in control of the Facility. Except as expressly provided herein, SIEMENS shall not be responsible for the adequacy of the health or safety programs or precautions related to the CLIENT's activities or operations, the CLIENT's other contractor(s), the work of any other person or entity, or Facility conditions. SIEMENS shall not be responsible for inspecting, observing, reporting or correcting health or safety conditions or deficiencies of the CLIENT or others at the Facility. So as not to discourage SIEMENS from voluntarily addressing health or safety issues while at the Facility, in the event SIEMENS does address such issues by making observations, reports, suggestions or otherwise, the CLIENT shall not hold, or attempt to hold, SIEMENS liable or responsible on account thereof.

Article 7
Changes and Delays

7.1 As the Work is performed, Applicable Law or conditions may change, or circumstances outside SIEMENS' reasonable control may develop, which would require SIEMENS to expend substantial additional costs, effort or time to complete the Work, in which case SIEMENS will notify the CLIENT and an equitable adjustment will be made to SIEMENS' time for performance. In the event that such conditions are caused by the CLIENT, an equitable adjustment will also be made to SIEMENS' compensation. In the event such changes require the Work to be suspended or terminated, SIEMENS shall be compensated for Work previously performed and, if such changes are caused by the CLIENT, for costs reasonably incurred in connection with the suspension or termination. In the event that the Work is suspended or terminated under this section, SIEMENS shall return to the CLIENT any payments made to SIEMENS by the CLIENT that are in excess of: (i) the value of the Work performed by SIEMENS, plus (ii) reasonable expenses incurred by Siemens due to suspension or termination.

7.2 Either party may request additions, deletions, modifications or changes to the Work. Any such requests shall only become effective upon execution of a written agreement by authorized representatives of both Parties.

7.3 SIEMENS may, in its sole discretion, substitute alternative parts, goods or equipment in the performance of the Work, provided that any such substitution shall be of an equal or better quality and equal or better functionality.

7.4 SIEMENS shall not be responsible for loss, delay, injury, damage or failure of performance that may be caused by circumstances beyond its control, including but not restricted to acts or omissions by the CLIENT or its employees, agents or contractors, Acts of God, war, civil commotion, acts or omissions of government authorities, fire, theft, corrosion, flood, water damage, lightning, freeze-ups, strikes, lockouts, differences with workmen, riots, explosions, quarantine restrictions, delays in transportation, or shortage of vehicles, fuel, labor or materials. In the event of such delay or failure, the time for performance shall be extended by a period equal to the time lost plus a reasonable recovery period. If caused by the CLIENT, the compensation shall be equitably adjusted to compensate for additional costs SIEMENS reasonably incurs due to such delay. If any such delay exceeds sixty (60) days, SIEMENS may terminate this Agreement upon three (3) days notice to the CLIENT and the CLIENT shall promptly pay SIEMENS for the allocable portion of the Work completed.

Article 8
Compensation

8.1 The aggregate amount paid by CLIENT provides for and is solely in consideration of the Scope of Work and Services described in Exhibit A, and is detailed in Exhibit B.

8.2 SIEMENS will invoice the CLIENT in accordance with the schedules set forth in Exhibit B. Unless otherwise agreed in writing, invoices are due and payable upon receipt by the CLIENT. If the CLIENT disagrees with any portion of an invoice, it shall notify SIEMENS in writing of the amount in dispute and the reason for its disagreement within 21 days of receipt of the invoice, and shall pay the portion not in dispute.

8.3 SIEMENS may suspend or terminate the Work or Services at any time if payment is not received when due. In such event, SIEMENS shall be entitled to compensation for the Work or Services previously performed and for costs reasonably incurred in connection with the suspension or termination.

8.4 On amounts not paid within thirty (30) days of invoice date, the CLIENT shall pay interest from invoice date until payment is received at the lesser of 12% per annum or the maximum rate allowed by law. In the event that a lawsuit is filed to resolve the parties' payment disputes, then, in addition to other remedies allowed by law, the prevailing party shall be entitled to recover its reasonable attorney's and witness fees, plus other costs and expenses of the lawsuit.

8.5 Except to the extent expressly agreed herein, SIEMENS' fees do not include any taxes, excises, fees, duties or other government charges related to the Work or Services. The CLIENT shall pay such amounts or reimburse SIEMENS for any such amounts SIEMENS pays to the extent such charges are lawfully due and payable by CLIENT and have been paid or incurred by SIEMENS in furtherance thereof. If the CLIENT claims that the Work or Services is subject to a tax exemption or direct payment permit, it shall provide SIEMENS with a valid exemption certificate or permit and, unless specifically prohibited by law, shall indemnify, defend and hold SIEMENS harmless from any taxes, costs and penalties arising out of the use or acceptance of same.

8.6 All other work or services requested by the CLIENT, including but not limited to the following, shall be separately billed or surcharged on a time and materials basis:

(a) Emergency services, if inspection does not reveal any deficiency covered by the Scope of Work and Services, Exhibit A;

(b) Work and/or services performed at times other than during SIEMENS' normal working hours, unless otherwise agreed to in Exhibit A to the extent that CLIENT requests or requires that such work be done outside normal working hours; or

(c) Work and/or services performed on equipment not covered by the Scope of Work and Services, Exhibit A.

Article 9
Acceptance

9.1 When SIEMENS believes that all or an independent definable phase or portion of the Work is Substantially Complete, SIEMENS will submit a Certificate of Substantial Completion to the CLIENT which shall be subject to the following:

(a) If the CLIENT concurs that the described portion of the Work as performed is Substantially Complete, the CLIENT will sign the Certificate of Substantial Completion and return it to SIEMENS;

(b) A Certificate of Substantial Completion may include, as an attachment to it, an Outstanding Items List prepared by SIEMENS;

(c) If the CLIENT does not concur that the Work is Substantially Complete, then, within ten (10) business days of receiving the Certificate of Substantial Completion, the CLIENT shall notify SIEMENS in writing of the reasons it believes the Work is not Substantially Complete;

(d) If SIEMENS disagrees with the CLIENT as to whether the Work is Substantially Complete, SIEMENS shall notify the CLIENT of a dispute and such dispute shall be resolved in accordance with Section 9.3 herein;

(e) If, within fifteen (15) business days of receiving the Certificate of Substantial Completion the CLIENT fails to sign the Certificate, and within the same period the CLIENT's Representative does not deliver to SIEMENS a written notice of the reasons the CLIENT believes that the Work is not Substantially Complete, then in the mutual interests of the Project proceeding in a timely manner, the CLIENT will be deemed to have agreed to, signed and returned the Certificate of Substantial Completion.

9.2 After the CLIENT signs and returns, or is deemed to have signed and returned to SIEMENS all of the Certificates of Substantial Completion relating to the Work, and after SIEMENS corrects and completes all of the items on all of the Outstanding Items Lists, if any, SIEMENS will submit to the CLIENT a Certificate of Final Completion which shall be subject to the following:

(a) If the CLIENT concurs that all of the items on all of the Outstanding Items Lists have been completed or corrected, the CLIENT will indicate its final acceptance of the Work by signing the Certificate of Final Completion and returning it to SIEMENS;

(b) If the CLIENT does not concur that all of the items on all of the Outstanding Items Lists have been completed or corrected, then the CLIENT shall, within fifteen (15) business days of receiving the Certificate of Final Completion, identify the items that, it believes, were not completed or corrected;

(c) If SIEMENS disagrees that the items identified by the CLIENT have not been completed or corrected, SIEMENS shall notify the CLIENT of a dispute and such dispute shall be resolved in accordance with section 9.3 herein;

(d) If, within fifteen (15) business days of receiving a Certificate of Final Completion, the CLIENT fails to sign that Certificate, and, within the same period the CLIENT's Representative does not deliver to SIEMENS a written notice identifying the items on the Outstanding Items List(s) that, the CLIENT believes, were not completed or corrected, then the CLIENT will be deemed to have agreed to and signed and returned the Certificate of Final Completion.

9.3 Any disputes concerning the Substantial Completion or the Final Completion of the Work will be resolved by submitting the issue to a third party professional engineering firm and which is reasonably acceptable to both SIEMENS and the CLIENT. The determination of this firm with respect to Final Completion or Substantial Completion will be final and binding upon the Parties. SIEMENS and the CLIENT shall share equally the costs or fees for such firm in connection with such dispute resolution process.

Article 10
Insurance and Allocation of Risk

10.1 SIEMENS shall maintain, at SIEMENS' expense, the following insurances while performing the Work and shall add the CLIENT as an "Additional Insured" to each policy that is referenced in subsections (c) through and including (e) hereof:

(a) Workers' Compensation at the statutory amounts and limits as prescribed by Applicable Law.

(b) Employer's Liability insurance (and, where applicable, Stop Gap extended protection endorsement) limits of liability shall be:

- $1,000,000 per occurrence
- $1,000,000 Disease Policy
- $1,000,000 Each Employee

(c) SIEMENS shall carry, in the Occurrence Coverage Form, Comprehensive General Liability or Commercial General Liability, insurance covering SIEMENS' operations and providing insurance for bodily injury and property damage with limits of liability stated below and including coverage for:

- Products and Completed Operations
- Contractual Liability insuring the obligations assumed by SIEMENS in this Agreement
- Broad Form Property Damage (including Completed Operations)
- Explosion, Collapse and Underground Hazards
- Personal Injury Liability:
  — Limits of liability shall be $1,000,000 per occurrence/aggregate

(d) SIEMENS shall carry Automobile Liability Insurance in the Occurrence Coverage Form covering all owned, hired and non-owned automobiles and trucks used by or on behalf of SIEMENS providing insurance for bodily injury liability and property damage liability for the limits of:

- $1,000,000 per occurrence/aggregate

(e) SIEMENS shall carry Excess Liability Insurance in the Occurrence Coverage Form with limits of:

- $5,000,000 per occurrence/aggregate

10.2 The CLIENT will maintain at its own expense property insurance, including coverage for new construction in the amount of $1 million. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by SIEMENS, until final payment has been made to SIEMENS or no person or entity other than the CLIENT has an insurable interest in the property, whichever is later. The policy form shall include without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and start-up, rebuilding and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for SIEMENS' services and expenses required as result of such insured loss. If the insurance requires deductibles or retentions, the CLIENT shall pay costs not covered because of such deductibles or retentions. Partial occupancy or use shall not commence unless the insurance company providing this insurance (or the CLIENT if self-insured) has consented to such partial occupancy or use by endorsement or otherwise. The CLIENT and SIEMENS waive all rights against each other and any of their subcontractors, sub-subcontractors, agents and employees for damages caused by fire or other causes of loss to the extent covered by the insurance required by this section and for any other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the CLIENT as fiduciary. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged. Insurance certificates shall be furnished upon request.

10.3 Title and risk of loss of materials and Equipment furnished by SIEMENS shall pass to the CLIENT upon their delivery to the Facility, and the CLIENT shall be responsible for protecting them against theft and damage.

10.4 SIEMENS will indemnify the CLIENT from and against losses, claims, expenses and damages (including reasonable attorney's fees) for personal injury or physical damage to property (collectively "Damages"). Such indemnification shall be solely to the extent the Damages are caused by or arise directly from SIEMENS or its employees', consultants' or agents' negligent acts or omissions or willful misconduct in connection with SIEMENS' performance of the Work or Services. SIEMENS' obligations under this indemnity shall not extend to Damages to the extent arising out of or attributable to the negligence of the CLIENT or its agents, contractors or employees. SIEMENS reserves the right to control the defense and settlement of any claim for which SIEMENS has an obligation to indemnify hereunder. UNLESS CONTRARY TO APPLICABLE LAW, IN NO EVENT SHALL THE CLIENT OR SIEMENS BE LIABLE UNDER THIS INDEMNITY OR OTHERWISE UNDER THIS AGREEMENT FOR SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES, INCLUDING COMMERCIAL LOSS, LOSS OF USE, OR LOST PROFITS, HOWEVER CAUSED, EVEN IF SIEMENS OR THE CLIENT HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND, IN ANY EVENT, UNLESS CONTRARY TO APPLICABLE LAW, SIEMENS' AGGREGATE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES OR EXPENSES ARISING OUT OF THIS AGREEMENT, OR OUT OF ANY GOODS OR SERVICES FURNISHED UNDER THIS AGREEMENT, WHETHER BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, AGENCY, WARRANTY, TRESPASS, INDEMNITY OR ANY OTHER THEORY OF LIABILITY, SHALL BE LIMITED TO THE GREATER OF $1,500,000 OR THE TOTAL COMPENSATION RECEIVED BY SIEMENS FROM THE CLIENT UNDER THIS AGREEMENT. The preceding limit shall not apply to the CLIENT's remedy under the Performance Guarantee as such is limited by Section 4.8.

10.5 As to Patents and Copyrights:

(a) SIEMENS will, at its own expense, defend or at its option settle any suit or proceeding brought against the CLIENT in so far as it is based on an allegation that any Work (including parts thereof), or use thereof for its intended purpose, constitutes an infringement of any United States patent or copyright, if SIEMENS is promptly provided notice and given authority, information, and assistance in a timely manner for the defense of said suit or proceeding. SIEMENS will pay the damages and costs awarded in any suit or proceeding so defended. SIEMENS will not be responsible for any settlement of such suit or proceeding made without its prior written consent. In case the Work, or any part thereof, as a result of any suit or proceeding so defended is held to constitute infringement or its use by the CLIENT is enjoined, SIEMENS will, at its option and its own expense, either: (i) procure for the CLIENT the right to continue using said Work; (ii) replace it with substantially equivalent non-infringing Work; or (iii) modify the Work so it becomes non-infringing.

(b) SIEMENS will have no duty or obligation to the CLIENT under Section 10.5(a) to the extent that the Work is: (i) supplied according to the CLIENT's design or instructions, wherein compliance therewith has caused SIEMENS

to deviate from its normal course of performance; (ii) modified by the CLIENT or its contractors after delivery; or, (iii) combined by the CLIENT or its contractors with items not furnished hereunder, and by reason of said design, instruction, modification, or combination, a suit is brought against the CLIENT. If by reason of such design, instruction, modification or combination, a suit or proceeding is brought against SIEMENS, unless expressly prohibited by law, the CLIENT shall protect SIEMENS in the same manner and to the same extent that SIEMENS has agreed to protect the CLIENT under the provisions of Section 10.5(a) above.

(c) THIS SECTION 10.5 IS AN EXCLUSIVE STATEMENT OF ALL THE DUTIES OF THE PARTIES RELATING TO PATENTS AND COPYRIGHTS, AND DIRECT OR CONTRIBUTORY PATENT OR COPYRIGHT AND OF ALL THE REMEDIES OF THE CLIENT RELATING TO ANY CLAIMS, SUITS, OR PROCEEDINGS INVOLVING PATENTS AND COPYRIGHTS. Compliance with Section 10.5 as provided herein shall constitute fulfillment of all liabilities of the Parties under the Agreement with respect to the intellectual property indemnification.

10.6 The Parties acknowledge that the price for which SIEMENS has agreed to perform the Work and obligations under this Agreement was calculated based upon the foregoing allocations of risk, and that each Party has expressly relied on and would not have entered into this Agreement but for such allocations of risk.

Article 11
Hazardous Materials Provisions

11.1 The Work does not include directly or indirectly performing or arranging for the detection, testing, handling, storage, removal, treatment, transportation, disposal, monitoring, abatement or remediation of any contamination of any Facility at which Work is performed and any soil or groundwater at the Facility by petroleum or petroleum products (collectively called “Oil"), asbestos, PCBs or hazardous, toxic, radioactive or infectious substances, including any substances regulated under RCRA, CERCLA or any other Applicable Law (collectively called “Hazardous Materials"), including without limitation: ionization smoke detectors, ballasts, mercury bulb thermostats, used oil, contaminated filters, contaminated absorbents, and refrigerant. Except as expressly disclosed pursuant to Section 11.2, the CLIENT represents and warrants that, to the best of its knowledge following due inquiry, there are no Hazardous Materials or Oil present where the Work is to be performed. SIEMENS will notify the CLIENT immediately if it discovers or reasonably suspects the presence of any previously undisclosed Oil or Hazardous Material. All Services have been priced and agreed to by SIEMENS in reliance on the CLIENT’s representations as set forth in this Article. The discovery or reasonable suspicion of Hazardous Materials or hazardous conditions at a Facility where SIEMENS is to perform Work, or of contamination of the Facility by Oil or Hazardous Materials not previously disclosed pursuant to Section 11.2, shall entitle SIEMENS to suspend the Work immediately, subject to mutual agreement of terms and conditions applicable to any further Work, or to terminate the Work and to be paid for Work previously performed.

11.2 The CLIENT warrants that, prior to commencement of the Work under this Agreement, it will notify SIEMENS in writing of any and all Oil or Hazardous Materials, to the best of its knowledge following due inquiry, known to be present, potentially present or likely to become present at the Facility and provide a copy of any Facility safety policies and information, including but not limited to lock-out and tag procedures, chemical hygiene plan, material safety data sheets, and other items covered or required to be disclosed or maintained by Applicable Law.

11.3 Regardless of whether Oil or Hazardous Material was disclosed pursuant to Section 11.2, the CLIENT shall be solely responsible for properly testing, abating, encapsulating, removing, disposing, remedying or neutralizing such Oil or Hazardous Materials, and for the costs thereof. Even if an appropriate change order has been entered into pursuant to Section 11.1, SIEMENS shall have the right to stop the Work until the Facility is free from Oil or Hazardous Materials. In such event, SIEMENS will receive an equitable extension of time to complete the Work, and compensation for delays caused by Oil or Hazardous Materials remediation. In no event shall SIEMENS be required or construed to take title, ownership or responsibility for such Oil or Hazardous Materials. The CLIENT shall sign any required waste manifests in conformance with all government regulations, listing the CLIENT as the generator of the waste. If someone other than the CLIENT is the generator of the waste, the CLIENT shall arrange for such other person to sign such manifests.

11.4 Except where expressly prohibited by Applicable Law, the CLIENT shall indemnify, defend and hold SIEMENS harmless from and against any damages, losses, costs, liabilities or expenses (including attorneys’ fees) arising out of any Oil or Hazardous Materials or from the CLIENT’s breach of, or failure to perform its obligations under this Article. However, CLIENT shall not be required to indemnify SIEMENS hereunder to the extent that any such damages, losses, costs, liabilities, or expenses (including attorneys’ fees) arise out of the negligence, intentional wrongful act or omission of SIEMENS. UNLESS CONTRARY TO APPLICABLE LAW, IN NO EVENT SHALL THE CLIENT BE LIABLE UNDER

THIS INDEMNITY FOR SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES, INCLUDING COMMERCIAL LOSS, LOSS OF USE, OR LOST PROFITS, HOWEVER CAUSED, EVEN IF THE CLIENT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND, IN ANY EVENT, UNLESS CONTRARY TO APPLICABLE LAW, CLIENT'S AGGREGATE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES OR EXPENSES ARISING OUT OF THIS INDEMNIFICATION PROVISION UNDER ANY THEORY OF LIABILITY, SHALL BE LIMITED TO THE TOTAL GUARANTEED SAVINGS UNDER THIS AGREEMENT.

11.5 For purposes of this Article 11, in the context of the phrase "to the best of its knowledge following due inquiry"; "knowledge" means actual awareness of the facts by the CLIENT's directors, officers, employees or agents, or the presence of relevant information contained in the CLIENT's books or records; and, "due inquiry" means inquiry of those persons under the CLIENT's control who should have knowledge of the subject matter of such inquiry.

Article 12
Miscellaneous Provisions

12.1 Notices between the Parties shall be in writing and shall be hand-delivered or sent by certified mail, express courier, or acknowledged telefax properly addressed to the appropriate party. Any such notice shall be deemed to have been received when delivered in-person or when sent by telefax, or five (5) business days subsequent to deposit in the U.S. mails, or one (1) day after deposit with express courier.

12.2 Neither the CLIENT nor SIEMENS shall assign or transfer any rights or obligations under this Agreement, except that either party may assign this Agreement to its affiliates and SIEMENS may use subcontractors in the performance of the Work or Services. Nothing contained in this Agreement shall be construed to give any rights or benefits to anyone other than the CLIENT and SIEMENS without the express written consent of both Parties.

12.3 This Agreement shall be governed by and construed in accordance with the laws of the state or commonwealth within which the Facilities are located.

12.4 This Agreement and all provisions of this Agreement allocating responsibility or liability between the Parties shall survive the completion of the Work, the Services, and the termination of this Agreement.

12.5 Unless contrary to Applicable Law and with the exception of disputes arising under Article 4 or Article 9, all disputes not resolved by negotiation between the Parties shall be resolved in accordance with the Commercial Rules of the American Arbitration Association in effect at that time, except as modified herein. All disputes shall be decided by a single arbitrator. A decision shall be rendered by the arbitrator no later than nine months after the demand for arbitration is filed, and the arbitrator shall state in writing the factual and legal basis for the award. Discovery shall be permitted. The arbitrator shall issue a scheduling order that shall not be modified except by the mutual agreement of the Parties. Except as provided in Article 8.4, the arbitrator shall have no authority to award, and shall not award, attorneys' fees. Judgment may be entered upon the award in the highest state or federal court having jurisdiction over the matter.

12.6 SIEMENS' performance of the Work and Services is expressly conditioned on the Parties assenting to all of the terms of this Agreement, notwithstanding any different or additional terms contained in any writing at any time submitted or to be submitted by a Party to the other Party relating to the Work or Services, even if signed by the Parties, unless the written statement expressly indicates that such terms supersede the terms of this Agreement

12.7 Any provision of this Agreement found to be invalid, unlawful or unenforceable by a court of law shall be ineffective to the extent of such invalidity, and deemed severed herefrom, without invalidating the remainder of this Agreement. All other provisions hereof shall remain in full force and effect.

12.8 The waiver by a party of any breach by the other party of any term, covenant or condition hereof shall not operate as a waiver of any subsequent breach hereof. No waiver shall operate or be effective unless made in writing and executed by the party to be bound thereby.

12.9 In the event that Applicable Law or the CLIENT requires that SIEMENS procure a performance bond and/or a payment bond, SIEMENS shall provide a performance and payment bond in the amount of $6,738,778. The performance and payment bond will solely apply to the Work performed during the Construction Period and to the required statutory lien filing period thereafter. The performance and payment bond will not apply to any of the obligations included in the Performance Assurance, Exhibit C. Furthermore, the CLIENT's funding source may be named as "Co-Obligee" on the performance bond if so requested by the CLIENT.

Article 13
Maintenance Services Program

13.1 If applicable, the scope of Services provided by SIEMENS for the Maintenance Services Program is stated in Exhibit A.

13.2 The CLIENT represents that all equipment not installed by SIEMENS under this Agreement and subject to a MSP is in satisfactory working condition. SIEMENS will have inspected all such equipment within the first thirty (30) days of MSP commencement or no later than the first scheduled inspection. Testing and inspection will not be deemed to be complete until all such equipment has been so tested and inspected.

13.3 If the equipment is altered or moved by any person, including the CLIENT, other than SIEMENS or a person authorized by SIEMENS, the CLIENT shall immediately notify SIEMENS in writing, and SIEMENS reserves the right to perform a reacceptance test on, or if necessary a re-commissioning of, the system at the CLIENT's expense.

13.4 If SIEMENS reasonably determines as a result of such inspection and/or testing that any equipment requires repair or replacement, the CLIENT will be so notified and shall take corrective action within thirty (30) days, or such equipment shall be removed from coverage hereunder without further action by the Parties. SIEMENS is not liable or responsible for the continued testing, maintenance, repair, replacement or operating capabilities of any portion of the equipment until it has been inspected and/or tested and has been, if necessary, restored to an acceptable initial condition at the CLIENT's sole expense. Any services provided by SIEMENS in the course of such restoration will be separately charged on a time and materials basis, and not included in fees paid hereunder. If individual items of equipment cannot, in SIEMENS' sole determination, be properly repaired or replaced due to age, obsolescence, lack of availability of refrigerant gas, halon gas, necessary parts, materials, compatibility or otherwise, or as a result of excessive wear or deterioration, SIEMENS may, within ten (10) days of such inspection, give written notice that it is withdrawing such items from coverage under the MSP and adjust the MSP payments due hereunder accordingly.

13.5 If the removal of equipment from coverage would compromise or impair the integrity of the Work, Services or compliance with law of any system, then SIEMENS will provide a written statement thereof for execution by the CLIENT. The CLIENT's failure to execute such statement within ten (10) days will void the MSP and release SIEMENS from any further obligations with respect to the MSP.

13.6 If the MSP scope of Services provides for equipment maintenance, repairs and/or replacements of equipment by SIEMENS, those Services are limited to restoring the proper working condition of such equipment. SIEMENS will not be obligated to provide replacement equipment that represents significant capital improvement compared to the original. Exchanged components become the property of SIEMENS, except Hazardous Materials, which under all circumstances remain the property and responsibility of the CLIENT.

Article 1: Scope of Work

1.1 *Description*: Except as otherwise expressly provided herein, SIEMENS shall provide each and every item of cost and expense necessary for: implementation of the following Facility Improvement Measures (FIMs).

1.2 *Specific Elements*: The Work shall include the following:

1.2.1 FIM 1.1 Elevator Upgrades

Mechanical lift systems will be addressed along with the elevator aesthetics. The mechanical lift systems will be upgraded with new equipment. The cab interiors will be upgraded with new lighting and new wall panels.

Scope of Work:

- At City Center and Recreation Center, the following items will be replaced with new: power unit, shut off valve and oil, controller system, front car door operator, infrared door detector, front car door and hatch side restrictor vanes, main car station (includes: Custom finish, Applied panel, Braille Plates, Digital Position Indicators, Standard Key Switch Package, Locked Service Cabinet, ADA Phone System, Emergency Light, Swing Return on TKE Cab only, Vandal Resistant Floor Buttons,) Car Position Indicator, Car Riding Lantern (Standard), Hands Free Phone, Emergency Lighting, Hall Stations (excluding Egress), Egress Hall Stations (Lobby), Jamb Braille, Hall Position Indicators, Hall Lanterns, Hoistway Access Switch, Car Guide Shoes, Leveling Unit / Landing System, Traveling Cable / Car Wiring, Hoistway Wiring Package, Overspeed (Rupture) Valve Kits, Adjusting and Pretest, and Inspection by installing contractor.

In addition to the mechanical upgrades listed above the existing ceiling and fluorescent lighting will be removed and a new stainless steel ceiling with a 6 light LED kit will be installed. The existing interior panels will be removed and new laminate wall panels, brushed stainless steel reveals/handrails/frieze and true vent base, cab pads and hooks will be installed. City to choose final design from 6 standard options. This work will produce savings in the form of avoided future capital expenditures.

1.2.2 FIM 1.3: Boiler Replacement

The Senior Center boiler will be replaced with a new boiler with a higher overall efficiency. This will produce energy savings as well as operational savings in the form of avoided maintenance costs

Scope of work:

- Replace the existing Senior Center boiler with a like for like unit with a higher efficiency.
- Provide and install new boiler, including upsized coils if necessary.
- Supply all auxiliary equipment required for the system including additional duct mounted pressures sensors, wiring (in conduit), connect via VFD comm. bus, programming, etc.

- Provide and install any additional equipment that is necessary to operate the equipment as described.
- Provide turnkey installation including startup, and commissioning.
- Provide electrical services to complete turn-key system.
- Provide manufacturer recommended startup services and complete all recommended startup forms.
- Ensure new sensors are installed and new control points are added to BAS
- Review existing sequence of operations and ensure existing programming is maintained for new boiler.
- Provide programming of the sequence of operations as described in other FIM's.

1.2.3 FIM 1.4: Solar Shading

Window films are applied to the interior side of the southern facing windows. The films block solar heat gain by absorbing the majority of the solar insolation. This produces a more comfortable building and cooling savings in the summer time, however, there is a heating penalty in the winter time when solar heat gain is beneficial. The summer time benefit outweighs the winter heating penalty.

Scope of work:

- Provide and install solar films on the 2 large south facing windows of the Children's Library. Each window is approximately 18 feet wide by 20 feet tall with an oval window on top.
- Scaffolding or other equipment necessary to complete turn-key installation is included.

1.2.4 FIM 1.5: Rec Center Boiler Room Air Barrier

A walk-in refrigerator style strip curtain installed across the opening to the boiler area will allow facility staff easy access to the boiler while preventing the infiltration of outside air into the conditioned space. The strip style curtain will span the full width of the opening and the full height from ceiling to floor.

Scope of work:

- Provide and install curtain air barrier and all attachment necessary to complete installation.

1.2.5 FIM 2.1: BAS Upgrade/Expansion, Automation

The scope of this measure varies by building. A description of the scope pertaining to the BAS system itself as well as the automation strategies to be implemented are listed below. In all cases where there is already an Alerton BAS in place (City Center, Library, Public Safety, Senior Center and Recreation Center) Siemens will document existing sequence of operations before any retrofits occur for this or any other FIM.

Scope of work:

- Automation contractor to provide owner training on expanded BAS system.
- The Alerton BAS system for each of the buildings listed below (except for the Rec Center) shall be designed and/or configured so that all such systems may be monitored and controlled from a single device at the City Center building and remotely via the internet. Control shall include the ability to monitor and control thermostats, valves, dampers or any other component of the BAS systems that is digital or electronic and is capable of being controlled.

- **City Center**: Existing Alerton control system will remain. Global DDC modifications will be made as necessary to expand the front end system and graphics to integrate additional buildings. The sequence of operations controls strategies listed below will be enabled.

  Automation:
  - Review existing sequence of operations.
  - Provide BAS programming of the following control sequences: Unoccupied temperature setback, and equipment scheduling/unoccupied OSA damper closure.

- **Library**: Expand existing control system and points needed to enable the sequence of operations controls strategies listed below.

  Automation:
  - Review existing sequence of operations.
  - Provide BAS programming of the following control sequences: Unoccupied temperature setback, equipment scheduling/unoccupied OSA damper closure, and demand control ventilation.

- **Children's Library**: Convert pneumatic controls to DDC. Provide sensors and points as needed to include (1) boiler, (1) VAV air handlers, (1) MZU air handler, (2) heating circulation pumps, (1) chilled water circulation pumps. Enable the sequence of operations controls strategies listed below and tie into existing Alerton front end at City Center.

  Automation:
  - Provide BAS programming of the following control sequences: Unoccupied temperature setback, and equipment scheduling/unoccupied OSA damper closure.

- **Public Safety**: Existing control system IBEX devices will be left as existing. The following controls strategies will be implemented.

  Automation:
  - Review existing sequence of operations.

- Provide BAS programming of the following control sequences: equipment scheduling/OSA damper closure, economizer cooling, and demand control ventilation.

- **Senior Center**: Existing control system IBEX devices will be left as existing. Control points for the replacement boiler under FIM 1.3 will be added as part of that FIM. The following controls strategies will be implemented.

  Automation:
  - Review existing sequence of operations.
  - Provide BAS programming of the following control sequences: Unoccupied temperature setback, equipment scheduling/OSA damper closure, economizer cooling, and demand control ventilation.

- **Recreation Center**: Expand existing partial Alerton system to entire building to include the air handlers that serve the lower level (3), racquetball (1), basketball gym (2), circulation pumps, and any additional equipment necessary to enable the sequence of operations controls strategies listed below and tie into the front end at this building.

  Automation:
  - Review existing sequence of operations.
  - Provide BAS programming of the following control sequences: Unoccupied temperature setback, equipment scheduling/OSA damper closure, economizer cooling, and demand control ventilation. Also ensure proper boiler staging protocol.
  - Move wall mounted T-stats as necessary to gain more accurate readings.

- **Public Works**: Convert existing Carrier BAS system to Alerton. Points that currently exist on the Carrier system will be converted to Alerton and will be tied into the front end at the City Center building.

  Automation:
  - Review existing sequence of operations.
  - Provide BAS programming of the following control sequences: Unoccupied temperature setback.

- **Waste Water Treatment Plant:** Provide DDC controls and tie into existing Alerton front end at City Center. There are a total of 3 buildings at the plant that will be added to the Alerton system: the administration building, the Biosolids building, and Shop. The equipment that will be added is 4 split systems, 1 Rooftop Unit, and 1 Make up air Unit.

Automation:

- Provide BAS programming of the following control sequences: Night setback.

1.2.6 FIM 3.1: Pool Evaporation Control

This FIM includes raising the humidity setpoint of the space to 60% relative humidity which reduces the factors driving evaporation, and implementing a liquid pool cover.

The City has been advised that higher humidity may cause comfort and maintenance issues at the City's facilities. During the development stage of the project, the City's staff conducted a trial run with the humidity setpoint increased to 60%.

A liquid pool cover is a non-toxic molecular compound that is lighter than water and which, when applied to a body of water (pool), rises to the surface when the water is calm and spreads out in an extremely, thin layer. When the pool water is left undisturbed, the compound floats to the surface and creates an inhibiting layer which slows evaporation and heat loss. The liquid pool cover is added automatically to the pool via a dedicated pump. Approximately 4 ounces of product are applied each day for each 400 square feet of pool surface. Each pool will receive its own dedicated system. Recommended maintenance includes making sure the reservoir is maintained with the liquid pool cover product. According to the manufacturer, the liquid pool cover product is safe for the pool equipment, and human contact. The manufacturer advises that this type of product was been used in several high profile applications, including the 1996 Olympic pools in Atlanta.

Scope of work:

- Re-program the sequence of operations in the BAS to maintain a 60% RH level in the pool area. Include re-programming for air handlers, supply fans, return fans, and exhaust dampers as needed to maintain new setpoint.
- Provide and install a total of 3 feeder pumps (1 for lap, 1 for leisure, and 1 for spa) for distribution of the liquid compound.
- A reservoir tank will be provided for each pump.
- An automated timer will be provided for each pump that will automatically operate the pump to distribute the liquid compound.
- Reservoir tanks will be filled with initial supply of liquid compound.
- Turnkey installation provided on the liquid pool cover distribution system.

1.2.7 FIM 3.3: Reduced Pool Circulation Pump Flow

Add a variable frequency drive (VFD) to the pool circulation pump. The VFD will control the motor speed to meet the minimum flow rate that satisfies the longer turnover rate of 8 hours. As the pool filters get clogged in-between cleanings the pressure drop increases and the pump speed needs to increase to maintain the minimum flow rate. The new VFD will control pump output based on flow rate

and not pressure drop. Pool equipment rooms are typically harsh due to excess moisture and pool related chemicals. An aquatic VFD will be utilized which is designed specifically for use in pool mechanical rooms with an enclosure type, NEMA 12, that protects it from the ingress of moisture.

Scope of work:

- Install VFD on the lap pool circulation pump motor, 25 HP.
- VFD should be specific for pool mechanical room applications and have NEMA 12 enclosure.
- Add VFD point to the BAS system and supply programming that control pump output based on flow rate.
- Add alarming to alert when pump maintains 100% speed for 1 hour.
- Turnkey installation provided for circulation pump VFD and BAS programming.

1.2.8 FIM 3.4: On-Site Hypochlorite Generator (OSHG)

An on-site hypochlorite generator (OSHG) utilizes salt as its only raw material to produce enough chlorine to treat the water. No additional chlorine tablets or feeder system is necessary. Pool water is pumped to the generator machine. The salt content is analyzed, salt is added by an external feeder if necessary and chlorine is generated and used to sanitize pool water. The production tank controls for PH levels as well reducing acid costs. The proposed units are capable of producing 40lbs of chlorine per day.

With prior OSHG systems the accumulation of salt required additional filter backwashing. The new Nexgen system prevents this accumulation by adding only the amount needed instead of a set daily amount therefore avoiding additional backwashing. An added benefit is the reduced exposure of facility staff handling the sodium hypochlorite which is a toxic chemical.

One generator will supply the lap pool and spa at the Recreation Center. Siemens will submit changes to the health department for approval as needed.

For the SCERA Park pools one OSHG will be added to the existing chlorine tablet system which will be left in place. The reason for this is the high bather loads, for example on holidays, makes sizing an OSHG system cost prohibitive. At SCERA the OSHG will be sized to handle an average bather load for this pool, and the existing system will remain in place as supplemental disinfection is needed.

Scope of work:

- Provide and install (1) hypochlorite generators at the recreation center to serve the lap pool and spa.
- Provide and install (1) hypochlorite generators at SCERA Park.
- Each unit is skid mounted and will be installed in the pool mechanical rooms.

- Piping and connection into the existing pool sanitation system provided.
- Programming of the on-board salt/chlorine analyzer controls provided.
- Provide hydrogen gas by-product venting.
- Electrical services to complete turn-key system.
- Provide turnkey installation including startup, and commissioning.

1.2.9 FIM 3.6: Leisure Pool Pump Switch

Programming the pump to operate only when needed will reduce pump energy consumption because the pump will not operate when no occupants are using the water feature. Additionally a push button override switch will be installed on the pool deck to allow life guards to power the pump on during scheduled unoccupied times. The override will have a 15 min timeout.

Scope of work:

- Install push button timer switch on pool deck to control the river feature pump VFD.
- Provide BAS programming to automate pump operation hours based on provided schedule.
- Provide electrical services to complete turn-key system.

Provide turnkey installation including startup, and commissioning.

1.2.10 FIM 4.2: Data Center Optimization: Hot aisle containment

Dividing the room into 2 sections , a hot aisle and a cold aisle, will prevent the mixing of air streams. This will ensure that all of the cool supply air passes over the servers before returning back to the CRAC unit. It also drives a greater temperature difference across the CRAC unit leading to greater efficiency. Using the servers as the room divider, the room will be split in half using a vinyl air barrier curtain that will span the full height of the room. The perforated floor tiles will be moved to the cold aisle side of the room. A door will be installed to allow IT personnel access back and forth to the equipment. Blanking panels will be provided and installed in the empty rack spots.

Scope of work:

- Provide and install the air barrier vinyl curtain and all attachments necessary to complete installation.
- Provide and install blanking panels in empty server rack spaces.
- Remove perforated floor tiles to the return side (hot aisle) and replace with non-perforated tiles from the supply side (cold aisle).

1.2.11 FIM 7.1: Constant Volume to Variable Volume Pumping

Due to the automation FIMs 2.1 and the pool evaporation control FIM 3.1, the heat load required by the occupied space will become more variable. Variable frequency drives (VFD's) will be installed on the circulation pumps, and a control sequence will be added to the control system adjusting the pump motor speed

based on a heating call from the air handlers. This provides the minimal amount of heating hot water that is needed and does not needlessly pump the remaining amount around the distribution lines.

Scope of work:

- VFD's to be provided and installed on the following pumps:
  Children's Library boiler loop pumps, 2 pumps, 3HP each
  Recreation Center boiler loop pumps, 2 pumps, 5HP each
  Recreation Center chiller loop pumps, 1 pumps, 7.5HP
  Senior Center boiler loop pumps, 2 pumps, 3HP each
  Senior Center chiller loop pumps, 1 pumps, 7.5HP each
- Provide pipe mounted pressure sensors (one for each loop) to control VFD's, wiring in conduit, and connect via VFD comm. bus, and programming.
- Program BAS to automate VFD output to meet differential pressure set point. Program the sequence of operations in the BAS to modulate the pump motor output based on building load. 'Points' in BAS shall include motor on/off, motor speed, pressure and alarms.
- Add a normal-close 3 way valve to end of loop by-pass.
- Provide manufacturer recommended startup services and complete all recommended start up forms.

1.2.12 FIM 8.1: Fan Speed VFD Controls

Repair or replace the non-operational VFD's at the recreation center. Remove inlet guide vanes on AHU2 and replace with VFD. Program VFD output based on heating/cooling mode and airflow requirements from the downstream VAV boxes. VAV boxes to be re-commissioned as part of FIM 14.1.

Scope of work:

Recreation Center: Existing Allen-Bradley VFD's are non-operational on the 2 air handlers serving the lap pool area (each supply fan is 15HP). These are to be repaired or replaced. Supply fan VFD's are to control to duct static pressure setpoint. The single return fan (10HP) is to be outfitted with a VFD and control to building static pressure (BSP) setpoint in cooperation with the leisure pool area.

- Provide and install VFD's for the 2 pool AHU supply fans (15HP) and the return fan (10HP)
- Supply all auxiliary equipment required for the system including additional duct mounted pressure, building static pressure sensors, wiring (in conduit), connect via VFD comm. bus, programming, etc.
- Provide electrical services to complete turn-key system.
- Provide manufacturer recommended startup services and complete all recommended startup forms.
- Review the pool HVAC design documents and ensure the sequence of operations identified is programmed into the BAS.
- Program SF VFD's to modulate fan output subject to minimum air turnover rates, and humidity controls.

- Add relief fan and relief damper points as necessary to aid in control of BSP.

Senior Center: Air handler 2 (AC2) has existing inlet guide vanes (IGV's) which are to be removed and replaced with VFD's. VFD's are to control to duct static pressure.

- Provide and install VFD's for the supply fan motor (20 HP).
- Supply all auxiliary equipment required for the system including additional duct mounted pressure sensors, wiring (in conduit), connect via VFD comm. bus, programming, etc.
- Provide electrical services to complete turn-key system.
- Provide manufacturer recommended startup services and complete all recommended startup forms.
- Program the sequence of operations in the BAS to modulate the fan motor output based on building load.
- 'Points' in BAS shall include on/off, speed, pressure and alarms.

1.2.13 FIM 10.1: Building Lighting Upgrades and Controls

Replace the existing T-12 and T-8 (32W) fluorescent lamps with Super T-8 fluorescent lamps (28W). Replace existing high wattage compact fluorescent and metal halide lamps with LED's, lower wattage compact fluorescent, and induction lamps. These lighting upgrades will significantly reduce electricity usage and associated costs, standardize lamps and ballasts for the buildings, and enhance the lighting levels throughout the facilities. Furthermore, maintenance will be reduced by having new lamps and ballasts. Any existing incandescent and fluorescent exit signs will be replaced with LED exit signs that use a fraction of the energy and have lamps that last considerably longer. Building exterior lighting, building parking lots, and park lighting will be included. The buildings and parks where the lighting will be replaced are the following:

Buildings:
-Children's Library
-City Center
-Fire Station 1
-Fire Station 2
-Fire Station 3
-Library
-Public Safety
-Public Works
-Recreation Center
-Senior Center
-Waste Water Treatment Plant

Parks:
-Bonneville
-Cascade
-Cemetery
-Cherryhill

-City Center Park
-Foothill
-Geneva
-Hillcrest
-Lakeside
-Mt. Timpanogos
-Nielsens
-North Ridge
-Orchard
-Recreation Center Park
-SCERA
-Sharon
-Springwater
-Westmore
-Windsor

Scope of work:

The full scope of work can be found in Appendix A.[1] The parties acknowledge that it is the intent of this Agreement to upgrade all of the lights in all City buildings that are listed in Appendix A, in all the locations in those buildings that are listed on Appendix A. The parties believe that the locations and number of such lights are fully addressed in Appendix A. However, Siemens agrees that if a location identified on Appendix A has a higher number of lights than the number listed on Appendix A, then the scope of work shall also include upgrading any additional lights in that location. (By way of example and not of limitation, Appendix A, line 27 lists 2 lights in the locker room area of Children's Library. If there are 3 lights in that area, Siemens will upgrade the additional light at no additional cost to the City). The upgrade of any such additional lights in the buildings and locations listed in Appendix A shall be performed at no additional cost to the Client and such costs shall not be drawn from the contingency amount. The building lighting retrofit will consist of the following measures:

- Retrofitting with LED where ever possible and cost effective.
- Relamping T-12 fluorescent lamps with Super T-8 (28W) fluorescent lamps and electronic ballasts.
- Replacing high wattage compact fluorescent lamps with lower wattage LED or compact fluorescent lamps.
- Replacing high wattage metal halide lamps and magnetic ballasts with LED, induction lamp and fixtures, and lower wattage metal halide.
- Installing LED lamps in existing incandescent fixtures or replacing the fixtures where appropriate.

[1] The City has already installed the lights in the Recreation Center Gym. These lights are identified on lines 38 and 39 of the Recreation Center page of Appendix A. By agreement of the parties, in consideration for this work by the City, Siemens increased the contingency by an amount of $18.940. Any additional lights that are listed in Appendix A, but installed by the City shall be treated in the same manner – by increasing the contingency by an amount to be agreed on by the parties.

- Occupancy and day lighting sensors will be installed throughout the buildings where appropriate.
- At the election of the City, repair or bypass of the lighting control panels in the adult wing of the library.

In accordance with Appendix A, install lighting motion sensors in hallways of City Center building so that lights will turn off automatically when unoccupied.

1.2.14 FIM 11.1: Street Lighting Upgrades

Upgrading HPS and MH to LED will significantly reduce electricity usage and associated costs and standardize lamps and ballasts for the street lights. Furthermore, maintenance will be reduced by having new lamps and ballasts, and by stocking the same types of lamps and ballasts for all the street lights.

Scope of work:
The full scope of work can be found in Appendix A. It should be noted that Appendix A includes only the City-owned lights. Siemens shall perform no upgrades for the lights that are not owned by the City. The parties acknowledge that it is the intent of this Agreement to upgrade all of the City-owned street lights identified in Appendix A. The parties believe that Appendix A correctly reflects the number of City-owned street lights. However, if it is found that the number of City-owned street lights is higher than the number stated on Appendix A, then Siemens agrees to upgrade any additional City-owned street lights at no additional cost to the City, and such costs shall not be drawn from the contingency amount. The street lighting retrofit will consist of the following types of measures:

- Retrofit or replace the existing high pressure sodium, and metal halide lamps and fixtures with a Halophane LED retrofit kit solution dependent on existing application. See lighting notes included in Appendix A for a detailed lighting audit.

1.2.15 FIM 13.1: Building Envelope and Mechanical Insulation

Air infiltration causes excess heating and cooling energy usage. Infiltration will be reduced through the use of weather stripping, astragals, jamb seals, door sweeps, sealants, foams, caulk, and weather stripping materials. This will also reduce unwanted infiltration through the building envelope which contributes to undesired heat loss or heat gain. It also reduces unwanted drafts leading to immediate occupant comfort improvement.

Scope of work:

- Table 4.1 list in summary the full scope of work to be implemented across the City Center, Library, Children's Library, Public Safety, Senior Center, Recreation Center, WWTP, Public Works, and the 3 fire stations:

Table 4.1: Building Envelope Improvements.

Quantity	Envelope Improvements
5.76	Sq/ft - Penetrations sealed with polyurethane sealant
26	LF - Wall cracks, window/door frames and vents sealed with polyurethane sealant
123	Sets of weather-strip DF
161	Door sweeps
28	Astragals (weather-strip for center of double door)
56	Sets of weather-strip DF (OH Door)
56	Door sweeps (OH Door)
561	LF - Spray foam roof wall seam
1	Ea - Replace electrical cover plate (Item "A")

Quantity	Weatherization/Preventative Maintenance
8	Sets of weather-strip DF
20	Door sweeps
3	Astragals (weather-strip for center of double door)
16	Sets of weather-strip DF (OH Door)
16	Door sweeps (OH Door)

- Un-insulated mechanical piping and valves will have insulation added to areas that allow for heat transfer to unconditioned spaces. Table 4.2 below describes the full scope of work that includes the buildings listed above.

Table 4.2: Equipment to receive mechanical insulation.

Pipe (LF)/Equip (sqft)	Fittings (#)	Strainers (#)	Flange Pairs (#)	Bonnets (#)	In-Line Pumps (#)	Centrifugal Pumps (#)
274.5	117	51	140	0	9	2

The parties agree that if it is determined that the building envelope improvements described in Section 1.2. 15 and in Table 4.1 require quantities of material which are higher than the quantities listed in that Table, then Siemens will supply such additional material at no additional cost to the Client, and the costs of such additional material shall not be drawn from contingency. (By way of example and not of limitation, if the buildings listed in Section 1.2.15 require more than 161 door sweeps listed in Table 4.1, then Siemens will supply additional door sweeps at no additional cost to the Client).

1.2.16 FIM 14.1: Retro-Commissioning

Commissioning refers to the process of a point by point checkout of a new building before it is turned over to the owner and occupants. Re-Commissioning refers to retroactively completing this check out to ensure optimal functionality. The scope of this FIM is limited to items that will contribute to energy savings as opposed to broad re-commissioning. The scope of work is listed by building below.

Scope of work:
The scope of work will address all of the items listed. Repairs needed within the scope identified will be limited to the amount budgeted. Additional items above and beyond the scope identified will be presented to the City for approval.

- Recreation Center: Heating and cooling coil valves will be repaired/replaced on the pool AHU's. Heating and cooling coils will be cleaned in pool/gym/r-

ball/lower level AHU's. Loose supply air ducting sealed air tight on pool/range AHU's. Outside air damper rubber seals checked and replaced if necessary to make proper seal. Proper outside air and VAV box damper response to automation system command will be checked (Point to Point) and fixed if necessary limited to actuator adjustments. Sequence of operations checked on boiler staging (FPT).

- Senior Center: AHU heating and cooling coils will be cleaned. Outside air damper rubber seals checked and replaced if necessary to make proper seal. Proper outside air and VAV box damper response to automation system command will be checked (Point to Point) and repaired if necessary limited to actuator adjustments.

- City Center: Air handler heating and cooling coils cleaned as necessary. Outside air damper rubber seals checked and replaced if necessary to make proper seal. A 5% sample of VAV damper rubber seals checked and replaced if necessary to make proper seal. Siemens will then submit to the City the results of checking the 5% sample, and the Parties will jointly determine whether the scope of work should be expanded to include the checking and replacement, to the extent necessary, of any additional damper seals. The parties will also determine the amount of compensation for such expanded scope. Proper automation system command will be checked (point to point) and fixed if necessary limited to actuator adjustments. Sequence of operations (FPT) checked on cooling tower and chiller optimization. (The chiller operates on a fixed outside air set point start/stop. FPT to confirm this, and change operation to be based on on space temperature approaching cooling setpoint. Use the Alerton auto reset function for the AHUs.) The newer condensing boilers operate with a very small delta T and 176 degree setpoint. FPT to confirm this and lower setpoint, close bypass legs on three way heating valves, control heating pump VFD to a lower pressure/speed to get a greater delta T.

- Library: Air handler heating and cooling coils cleaned as necessary. Outside air damper rubber seals checked and replaced if necessary to make proper seal. Proper outside air and VAV box damper response to automation system command will be checked (Point to Point) and fixed if necessary limited to actuator adjustments. Use the Auto Reset option on the hot and cold deck temperatures based on worst case zone.

- Public Safety: Air handler heating and cooling coils cleaned as necessary. Outside air damper rubber seals checked and replaced if necessary to make proper seal. Proper outside air and VAV box damper response to automation system command will be checked (Point to Point) and fixed if necessary limited to actuator adjustments.

- Children's Library: Air handler heating and cooling coils cleaned as necessary. Outside air damper rubber seals checked and replaced if necessary to make proper seal. Proper outside air and VAV box damper response to automation

system command will be checked (Point to Point) and fixed if necessary limited to actuator adjustments. Use the Auto Reset option on the hot and cold deck temperatures based on worst case zone.

1.2.17 FIM 16.1: De-stratification Fans

The basketball gyms and cardio room areas of the recreation center have tall ceilings in excess of 25 feet tall. Area's like these are susceptible to air stratification which is where warm less dense air floats to the top of the space and cooler more dense air settles to the bottom of the space near the occupants. Low speed de-stratification fans will be installed in these spaces to mix the air. This will produce an even temperature gradient leading to a more comfortable space with less heating energy.

Scope of work:

- Provide and install de-stratification fans in the basketball gym and cardio area of the Recreation Center.
- Fans shall be sized by Siemens
- Provide electrical connections to meet local code.
- Provide manufacturer recommended startup services and complete all recommended startup forms.
- Add de-stratification fans points to BAS system and program to run only when heating coil valves prove open for the air handlers serving the affected space or rooftop units are in heating mode.
- The de-stratification fans will not operate when temperature gradient is satisfied.
- Turnkey installation provided.

1.2.18 FIM 18.1: Motor Replacements

This FIM provides NEMA Premium Efficiency Criteria motors in locations where standard efficiency motors exist. The premium efficiency motors are inverter ready and may be used with an existing or new VFD. The motors vary in size from 3 HP to 7.5 HP that are candidates for replacement.

Scope of work:

- Remove existing motors and provide and install premium efficiency motors meeting at least NEMA 2007 efficiency standards.
- Provide manufacturer recommended startup services and complete all recommended startup forms.
- Provide turnkey installation, including electrical connections, for the following list of motors:

Building	Serves	Horse Power	Existing Efficiency	Retrofit Efficiency
Recreation Center	Chiller Loop, P1	7.5	87.5 %	91.0%
Recreation Center	Boiler Loop, P1	5.0	82.0%	89.5%
Recreation Center	Boiler Loop, P2	5.0	81.0%	89.5%
Senior Center	Chiller Loop, P1	7.5	87.5%	91.0%
Senior Center	Boiler Loop, P1	3.0	78.5%	89.5%
Senior Center	Boiler Loop, P2	3.0	78.5%	89.5%

Children's Library	Chiller Loop, P1	7.5	87.5%	91.0%
Children's Library	Boiler Loop, P1	3.0	78.5%	89.5%
Children's Library	Boiler Loop, P2	3.0	78.5%	89.5%

1.2.19 Additional Services

1.2.19.1 Increased Cooling Capacity

After inspection, Siemens concluded that the cooling equipment capacity at Fire Station 2 is sized appropriately. Adjustments and minor additions to the existing equipment will alleviate the comfort issues in the building.

Scope of work:

- A full mechanical service on the equipment will be performed.
- Ducting modifications, and better compressor controls will be added to the existing equipment.

1.3 *Technical Specifications, Drawings, and Exhibits:* The Work shall be performed in accordance with the following specifications, drawings and other attachments hereto, which are specifically incorporated herein and made part hereof:

See the attached lighting audit, Appendix A hereto, for detailed lamp and fixture replacements.

1.4 CLIENT'S Responsibilities (in addition to those in Article 6 of the Agreement):

1.4.1 Customer to provide access to the project site including building access. Additional help with specific equipment shutdown may be required.

Article 2: Work Implementation Period

2.1 Commencement of Work (select **one**):

2.1.1 ☐ SIEMENS shall commence the Work on _____, 20__, and shall perform the Work diligently and shall complete the Work no later than _____, 20__;

or,

2.1.1 ☒ SIEMENS shall commence the Work 30 calendar days from the Effective Contract Date, and shall perform the Work diligently and shall complete the Work no later than 18 months from the day of commencement.

2.2 *Milestones*: Specific scheduling milestones and coordination requirements are as follows:

2.3

2.4

Article 3: Scope of Services-Performance Assurance Services Program

3.1 Annual Measurement & Verification reporting will be performed and report will be delivered no later than 90 days after the end of the annual guarantee period. For specific information on the M&V plan see Exhibit C – Article 4.

3.2 SIEMENS will meet with representatives of CLIENT on an annual basis for the duration of the measurement and verification period to review energy savings and ensure commitments are being met.

Article 4: Scope of Services-Maintenance Services Program

(Please check one box only)

☒ CLIENT has elected to self-implement maintenance. Therefore SIEMENS shall not perform any on-going maintenance services, although the Parties may negotiate a separate agreement for such services at a later date. CLIENT agrees that it will maintain the equipment per manufacturer specifications and that it will operate the Equipment in accordance with the Contracted Baseline described in Article 7 of Exhibit C. If CLIENT fails to properly maintain or operate the Equipment, SIEMENS shall have the right to modify the Performance Guarantee pursuant to Article 4 of the Agreement.

☐ The follow consists of the Services to be performed by SIEMENS:

4.1

4.2

By signing below, this Exhibit is attached to and made a part of the Agreement between SIEMENS and the CLIENT.

CLIENT: **City of Orem, Utah**

Signature: _____
Printed Name: _____
Title: _____
Date: _____

SIEMENS: **Siemens Industry, Inc.**

Signature: _____
Printed Name: _____
Title: _____
Date: _____

Signature: _____
Printed Name: _____
Title: _____
Date: _____

Article 1: Payment for Scope of Work

1.1 **Price:** As full consideration of the Work as described in Exhibit A, Article 1: Scope of Work, the CLIENT shall pay to SIEMENS $6,738,778.00 (plus taxes, if applicable).

1.2 **Escrow:** The CLIENT has agreed to deposit the Price into an Escrow Account at a financial institution satisfactory to both the CLIENT and SIEMENS. All expenses to establish the Escrow Account shall be the complete responsibility of the CLIENT and the CLIENT will receive all interest earnings from the Escrow Account. SIEMENS will submit periodic invoices to the CLIENT based on the Payment Schedule in Table B.1 below. The CLIENT shall be responsible for submitting the necessary documents to the Escrow Agent to allow for timely disbursements from the Escrow Account. The funding of the Escrow Account in an amount equal to or greater than the Price stated in Article 1.1 above shall be a condition precedent to SIEMENS obligation to perform or to continue the performance of the Work. If the Escrow Account is not funded within 30 days of the execution of this Agreement, this Agreement shall be null and void. This 30 day funding period may be extended as mutually agreed in writing by the Parties. In the event that the Agreement becomes null and void as described in this paragraph and CLIENT has previously authorized SIEMENS to proceed with the Work, the CLIENT shall be obligated to reimburse SIEMENS either: (i) for the Work performed to date; or (ii) for the Work specifically authorized by the CLIENT.

Timely Payments: Within thirty (30) days of the execution of this Agreement, SIEMENS will submit to the CLIENT for approval a Schedule of Values for the Work. Before the 5th business day of each month, SIEMENS will submit to the CLIENT an invoice which will contain a description of the Work performed by SIEMENS during the preceding month and an amount reflecting the value of such Work in accordance with the approved Schedule of Values. The description of the Work performed shall be sufficiently detailed to allow the CLIENT to verify that the amount invoiced corresponds to the Work performed. The CLIENT agrees to pay SIEMENS in accordance with the provisions of Article 8 of the Agreement, subject to a five percent (5%) retainage. Final payment constituting the entire unpaid balance of the contract price set forth in Section 1.1 above (as it may be adjusted by change orders, if any) shall be due when the Work is fully performed in accordance with the terms and conditions of the Agreement.

Article 1 of Exhibit B is attached to and made a part of the Agreement between SIEMENS and the CLIENT.

CLIENT:	**City of Orem, Utah**	**SIEMENS:**	**Siemens Industry, Inc.**
Signature:	_____	Signature:	_____
Printed Name:	_____	Printed Name:	_____
Title:	_____	Title:	_____
Date:	_____	Date:	_____
		Signature:	_____
		Printed Name:	_____
		Title:	_____
		Date:	_____

Article 2: Payment for Performance Assurance Services Program (PASP)

2.1 **Price:** As full consideration of the Services as described in Exhibit A, Article 3, and subject to the CLIENT's right to discontinue the PASP as described in 4.12 of the Performance Contracting Agreement, the CLIENT shall pay to SIEMENS the amounts identified in Table B.2 plus taxes, if applicable, on the dates identified therein.

2.2 **Performance Assurance Services Program Term:** The term of the PASP shall commence on the Guarantee Date and shall extend for either: (a) the term of the Performance Guarantee Period where multi-year obligations are allowed; or (b) for twelve (12) month periods corresponding to the term of each Annual Period.

2.3 **Automatic Renewal:** Where the PASP term is limited to an Annual Period, and unless otherwise terminated, the PASP shall automatically renew for successive Annual Periods beginning on the anniversary date of Guarantee Date. Either party may request to amend the PASP at the end of an Annual Period by giving the other party at least sixty (60) days prior written notice of such amendments and such amendment shall be mutually negotiated by the Parties and effective upon a written amendment signed by both Parties prior to commencement of the next Annual Period. Each automatic renewal shall be and remain subject to the terms and conditions of this Agreement. SIEMENS obligations under the Performance Guarantee are dependent upon and subject to the express condition that the CLIENT maintains the PASP during the entire Performance Guarantee Period.

2.4 **Termination**: See Section 4.7 of the Agreement.

Table B.2 – Performance Assurance Program Payment Schedule

Date	Annual Payments ($)	Notes
Year 1	$ 49,264	Billed 15 mos. after the 1st day of performance period.
Year 2	$ 32,982	Billed 1 year after the billing for the previous period.
Year 3	$ 33,972	Billed 1 year after the billing for the previous period.
Year 4	$ 34,991	Billed 1 year after the billing for the previous period.
Year 5	$ 36,041	Billed 1 year after the billing for the previous period.
Year 6	$ 37,122	Billed 1 year after the billing for the previous period.
Year 7	$ 38,235	Billed 1 year after the billing for the previous period.
Year 8	$ 39,383	Billed 1 year after the billing for the previous period.
Year 9	$ 40,564	Billed 1 year after the billing for the previous period.
Year 10	$ 41,781	Billed 1 year after the billing for the previous period.
Year 11	$ 43,034	Billed 1 year after the billing for the previous period.
Year 12	$ 44,325	Billed 1 year after the billing for the previous period.
Year 13	$ 45,655	Billed 1 year after the billing for the previous period.
Year 14	$ 47,025	Billed 1 year after the billing for the previous period.
Year 15	$ 48,436	Billed 1 year after the billing for the previous period.

Article 2 of Exhibit B is attached to and made a part of the Agreement between SIEMENS and the CLIENT.

CLIENT: **City of Orem, Utah**

Signature: _____
Printed Name: _____
Title: _____
Date: _____

SIEMENS: **Siemens Industry, Inc.**

Signature: _____
Printed Name: _____
Title: _____
Date: _____

Signature: _____
Printed Name: _____

Title: _____

Date: _____

Article 3: Maintenance Services Program (MSP)

CLIENT CHOSE TO SELF-IMPLEMENT MAINTENANCE. ACCORDINGLY, NO MAINTENANCE SERVICE PROGRAM INCLUDED.

The following Articles and Tables are hereby included and made part of this Exhibit C:

Article 1: Summary of Articles and Total Guaranteed Savings

Article 1	Summary of Articles and Total Guaranteed Savings
Article 2	Measurement and Verification Options
Article 3	Performance Guarantee Period Responsibilities of CLIENT
Article 4	Measurement and Verification Plan
Article 5	Baseline Data
Article 6	Utility Rate Structures and Escalation Rates
Article 7	Contracted Baseline Data
Appendix 1-	Lighting Line by Line Audit

Table 1.1 – Total Guaranteed Savings (Units)

Performance Period	Electric Energy Saved (kWh)	Electric Power Saved (kW)	Natural Gas Saved (Therms)	No. 2 Fuel Oil Saved (Gallons)	Water Saved (Gallons)
Construction	**1,916,289**	**0**	**43,602**	**0**	**0**
Annual Period 1	**4,491,395**	**0**	**83,473**	**0**	**0**

1.1 Only Annual Period 1 is shown, as the guaranteed energy/utility unit Savings will remain constant for each Annual Period of the Performance Guarantee Period as the CLIENT will operate the Facility in accordance with the Contracted Baseline identified in Article 7.

Table 1.2 – Total Guaranteed Savings (Cost)

Performance Period	Energy/Utility Savings	Operational Savings (Maintenance and Labor)	Operational Savings (Capital Cost Avoidance)	Total Savings
Construction	$175,719	$89,989	0	$265,708
Annual Period 1	$ 401,824	$ 178,561	$27,817.40	$ 608,203
Annual Period 2	$ 415,888	$ 184,811	$27,817.40	$ 628,516
Annual Period 3	$ 430,444	$ 191,279	$27,817.40	$ 649,541
Annual Period 4	$ 445,510	$ 197,974	$27,817.40	$ 671,301
Annual Period 5	$ 461,103	$ 204,903	$27,817.40	$ 693,823
Annual Period 6	$ 477,241	$ 212,074	0	$ 689,316
Annual Period 7	$ 493,945	$ 219,497	0	$ 713,442
Annual Period 8	$ 511,233	$ 227,179	0	$ 738,412
Annual Period 9	$ 529,126	$ 235,131	0	$ 764,257
Annual Period 10	$ 547,645	$ 243,360	0	$ 791,006
Annual Period 11	$ 566,813	$ 211,308	0	$ 778,121
Annual Period 12	$ 586,651	$ 218,704	0	$ 805,355
Annual Period 13	$ 607,184	$ 226,358	0	$ 833,542
Annual Period 14	$ 628,435	$ 234,281	0	$ 862,716
Annual Period 15	$ 650,431	$ 242,481	0	$ 892,911
TOTALS	$ 7,929,191	$ 3,317,890	$139,087	$ 11,386,168

1.2 Table 1.2 shows the CLIENT'S guaranteed cost Savings for each Annual Period that are extrapolated from the guaranteed energy/utility unit Savings shown in

Table 1.1 by multiplying the energy/utility Savings by the Baseline energy/utility rates including the stipulated Escalation Rates found in Article 6.

1.3 SIEMENS cannot and does not predict fluctuations in utility rates or the cost of energy. Therefore, the CLIENT and SIEMENS agree that the energy/utility cost Savings for each Annual Period will be calculated by multiplying the verified units of energy/utility Savings by the Annual Period's stipulated energy/utility rate and Escalation Rates and not the Annual Period's actual utility rate.

1.4 The determination of energy/utility Savings will follow current best practice, as defined in the IPMVP, or the FEMP Guidelines where required, unless otherwise agreed to by the Parties.

1.5 The Performance Guarantee does not operate to guarantee the Savings per-FIM. Rather, the calculation of Savings is based on aggregate performance of all of the FIMs contained in the Project. The projected value of such aggregate performance is contained in Table 1.2 above representing the Total Guaranteed Savings as monetized.

This Exhibit C, comprising 49 pages plus Appendix 1, is attached to and made a part of the Agreement between SIEMENS and the CLIENT.

CLIENT: **City of Orem, Utah**

Signature: _____
Printed Name: _____
Title: _____
Date: _____

SIEMENS: **Siemens Industry, Inc.**

Signature: _____
Printed Name: _____
Title: _____
Date: _____

Signature: _____
Printed Name: _____
Title: _____
Date: _____

Article 2: Measurement and Verification Options

2.1 Measurement and Verification Options: There are five measurement and verification options to measure and verify energy/utility Savings: Option A - Retrofit Isolation: Key Parameter Measurement; Option B - Retrofit Isolation: All Parameter Measurement; Option C - Whole Facility; and, Option D – Calibrated Simulation. Options A through and including D are part of the IPMVP. Option E-Stipulated is based on industry accepted engineering standards and is the Option used for purposes of calculating Operational Savings.

Option A - Retrofit Isolation: Key Parameter Measurement. Savings are determined by field measurement of the key performance parameter(s) which define the energy use of the FIM's affected system(s) and/or the success of the Project. Measurement frequency ranges from short-term to continuous, depending on the expected variations in the measured parameter and the length of the reporting period. Parameters not selected for field measurement are estimated. Estimates can be based on historical data, manufacturer's specifications, or engineering judgment. Documentation of the source or justification of the estimated parameter is required. The plausible savings error arising from estimation rather than measurement is evaluated. If applicable, the predetermined schedule for data collection, evaluation, and reporting is defined in Exhibit A, Article 3-Performance Assurance Services Program.

Option B – Retrofit Isolation: All Parameter Measurement. Savings are determined by field measurement of the energy use of the FIM-affected system. Measurement frequency ranges from short-term to continuous, depending on the expected variations in the savings and the length of the reporting period. If applicable, the predetermined schedule for data collection, evaluation, and reporting is defined in Exhibit A, Article 3-Performance Assurance Services Program.

Option C - Whole Facility: Savings are determined by measuring energy use at the whole Facility or sub-Facility level. Continuous measurements of the entire Facility's energy use are taken throughout the reporting period. If applicable, the predetermined schedule for data collection, evaluation, and reporting is defined in Exhibit A, Article 3-Performance Assurance Services Program.

Option D - Calibrated Simulation: Savings are determined through simulation of the energy use of the whole Facility, or of a sub-Facility. Simulation routines are demonstrated to adequately model actual energy performance measured in the Facility. This Option usually requires considerable skill in calibrated simulation. If applicable, the predetermined schedule for data collection, evaluation, and reporting is defined in Exhibit A, Article 3-Performance Assurance Services Program.

Option E – Stipulated: This Option is the method of measurement and verification applicable to FIMS consisting either of Operational Savings or where the end use capacity or operational efficiency; demand, energy consumption or power level; or manufacturer's measurements, industry standard efficiencies or operating hours are known in advance, and used in a calculation or analysis method that will stipulate the outcome. Both CLIENT and SIEMENS agree to the stipulated inputs and outcome(s) of the analysis methodology. Based on the established analytical methodology the Savings stipulated will be achieved upon completion of the FIM and no further

measurements or calculations will be performed during the Performance Guarantee Period. If applicable, the methodology and calculations to establish Savings value will be defined in Section 4.6 of this Exhibit C.

2.2 Table 2.1 below summarizes the first Annual Period's Guaranteed Savings (See Article 1, Tables 1.1 and 1.2) utilizing the applicable Measurement and Verification Options as applied to the referenced FIMs valued pursuant to the agreed upon amounts identified in Article 6 hereof.

Table 2.1 – Savings for First Annual Period by Option

FIM	Energy/Utility Savings $						Operational Savings $	Total Savings $
	Measurement and Verification Options							
	A Retrofit Isolation: Key Parameter Measurement	B Retrofit Isolation: All Parameter Measurement	C Whole Facility	D Calibrated Simulation	E Stipulated	Total Energy/Utility Savings	E Stipulated	
1.1 Elevator Upgrades							$ 27,817.40	$ 27,817.40
1.2 Increased Cooling Capacity					$ (41.73)	$ (41.73)	$ -	$ (41.73)
1.3 Boiler Replacement					$ 819.11	$ 819.11	$ 300.00	$ 1,119.11
1.4 Solar Shading					$1,215.28	$ 1,215.28	$ -	$ 1,215.28
1.5 Boiler Room Air Barrier					$ 202.19	$ 202.19	$ -	$ 202.19
2.1 Expand BAS, Automation	$ 66,437.84					$ 66,437.84	$ -	$ 66,437.84
3.1 Pool Evaporation Control	$ 18,414.96					$ 18,414.96	$ (7,444.00)	$ 10,970.96
3.3 Reduced Pool Circ Pump Flow					$ 3,777.98	$ 3,777.98	$ -	$ 3,777.98
3.4 On-Site Hypochlorite Generator					$ -	$ -	$ 22,508.00	$ 22,508.00
3.6 Leisure Pool Pump Switch					$ 602.59	$ 602.59	$ -	$ 602.59
4.2 Hot Aisle Containment					$ 396.47	$ 396.47	$ 1,200.00	$ 1,596.47
7.1 C.V. to V.V. Pumping					$ 3,562.99	$ 3,562.99	$ -	$ 3,562.99
8.1 Fan Speed VFD Controls	$ 7,286.97					$ 7,286.97	$ -	$ 7,286.97
10.1 Building Lighting	$ 85,035.06					$ 85,035.06	$ 29,244.00	$114,279.06
11.1 Street Lighting	$181,862.27					$181,862.27	$132,753.00	$314,615.27
13.1 Building Envelope and Mech. Insulation					$14,390.75	$ 14,390.75	$ -	$ 14,390.75

14.1 Retro-Commissioning					$14,849.05	$ 14,849.05	$ -	$ 14,849.05
16.1 De-Strat Fans					$ 2,554.98	$ 2,554.98	$ -	$ 2,554.98
18.1 Motor Replacements	$ 457.47					$ 457.47	$ -	$ 457.47
TOTALS	**$359,494.57**	**$ -**	**$ -**	**$ -**	**$42,329.66**	**$401,824.23**	**$206,378.40**	**$608,202.63**

2.3 Table 2.2 identifies the source of Operational Savings defined and quantified by the Parties. The Parties affirm that such amounts are Stipulated Savings for purposes of calculating Annual Realized Savings and acknowledge that the Guaranteed Savings identified herein have been based on CLIENT'S affirmation. **OPERATIONAL SAVINGS SHALL NOT BE MEASURED OR MONITORED DURING THE PERFORMANCE GUARANTEE PERIOD.**

Table 2.2 - Source of Operational Savings

Account/'Vendor	Description	Annual Cost $	# of Annual Periods Savings Are Applied	Annual Period Savings Begin
	Avoided Capital Costs (FIM 1.1)	$27,817.40	5	1
	Senior Center Boiler Maintenance (FIM 1.3)	$300.00	15	1
	Liquid Pool Cover Product (FIM 3.1)	$(7,444.00)	15	1
	Chlorine Savings (Net savings due to FIM 3.4)	$22,508.00	15	1
	Server Replacement avoided cost (FIM 4.2)	$1,200.00	15	1
	Replacement and Labor Savings. (FIM 10.1)	$29,244	10	1
	Replacement and Labor Savings. (FIM 11.1)	$132,753	15	1

2.3 SIEMENS has explained to the CLIENT and the CLIENT has satisfied itself as to how Operational Savings are incorporated into the Annual Realized Savings.

2.4 The Escalation Rate applicable to the Operational Savings is 3.5%.

BY SIGNING BELOW, THE PARTIES CONFIRM THAT THEY HAVE REVIEWED THE INCLUDED MEASUREMENT AND VERIFICATION OPTIONS AND THEIR APPLICATION TO BE USED IN CALCULATING SAVINGS UNDER THE AGREEMENT.

CLIENT: **City of Orem, Utah**

Signature: _____

Printed Name: _____

Title: _____

Date: _____

SIEMENS: **Siemens Industry, Inc.**

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Article 3: Performance Guarantee Period Responsibilities of the CLIENT
In addition to the CLIENT'S responsibilities under Article 6 of the Agreement, this Article details the responsibilities of the CLIENT in connection with the management and administration of the Performance Guarantee.

3.1 The CLIENT will provide a representative at each Facility to coordinate work and provide required data described below.

3.2 The CLIENT will provide SIEMENS with accurate Facility operating information as defined below and in the Contracted Baseline article of this Exhibit C during each Annual Period, within thirty (30) days of any Material Change that may increase or decrease energy usage.

3.3 If applicable, the CLIENT will provide SIEMENS with copies of utility bills within thirty (30) days of receipt by the CLIENT or provide access to utility vendor information to allow SIEMENS to include a utility bill analysis in the Annual Performance Assurance Report. The utility bill analysis does not take the place of the Measurement and Verification Plan identified in Article 4 of this Exhibit C and is not used to measure the Project's performance.

3.4 If required for the Work, CLIENT will provide telephone/data remote access, through SIEMENS Insight® software package or otherwise, as SIEMENS reasonably requests. All charges related to telephone/data line installation, activation and communication services are the responsibility of the CLIENT.

3.5 If required for the Work, CLIENT will provide and coordinate utility meter upgrade for interface with SIEMENS metering and data collection. All charges related for these upgrades are the responsibility of the CLIENT.

Article 4: Measurement and Verification Plan

The following information is applicable to this Agreement:

Article 4.1 General Overview
Article 4.2 Option A - Retrofit Isolation: Key Parameter Measurement
Article 4.3 Option B - Retrofit Isolation: All Parameter Measurement
Article 4.4 Option C - Whole Facility
Article 4.5 Option D - Calibrated Simulation
Article 4.6 Option E – Stipulated-Energy/Utility Savings

4.1 General Overview –

The purpose of the Measurement and Verification (M&V) Plan is to identify the methods, measurements, procedures and tools that will be used to verify the Savings for each FIM which has energy/utility Savings. Savings are determined by comparing prior usage, consumption or efficiencies (defined as the "Baseline") against the post-FIM implementation usage, consumption or efficiencies. The Baseline usage, consumption or efficiencies are described in this Exhibit C, Article 5. The post-FIM implementation usage, consumption or efficiencies is defined as the Contracted Baseline and are described in this Exhibit C, Article 7.

4.2 Option A - Retrofit Isolation: Key Parameter Measurement

4.2.1 FIM 2.1 Building Automation System (BAS) Upgrade/Expansion, Automation

Description

The scope of this measure varies by building. A description of the scope pertaining to the BAS system is provided in Exhibited A. The upgrades can be summarized as follows:

- For buildings where there is already a BAS system in place, expand the existing Alerton system to allow for the automation sequence of operations controls strategies identified (see exhibit A) to be implemented.
- For buildings where there is no BAS system in place, expand the existing Alerton system to controls this buildings HVAC equipment to allow for the automation sequence of operations controls strategies identified (see exhibit A) to be implemented.
- For buildings where there is not already a BAS Alerton system in place, convert the existing BAS to the Alerton BAS system to allow for the automation sequence of operations controls strategies identified (see exhibit A) to be implemented.
- Program the identified controls sequence of operations into the BAS for each building.

Savings Derived From:

Savings for this measure are generated by the automation control sequences that will be implemented which include unoccupied temperature setbacks, unoccupied equipment shutdown, economizer cooling, and demand control ventilation.

Commissioning Plan (post-implementation):

- Ensure the updated and expanded BAS system has been implemented across City owned buildings as defined in the scope of work.
- Ensure front end graphics have been updated and accurately portray equipment and floor plans.
- Verify all new Control Wiring has specific point addresses clearly labeled on each end (panel termination and field termination).
- Document existing sequence of operations for all equipment currently monitored or controlled by the existing system. Ensure the existing sequences have been carried to the new BAS system. Include points list.
- Ensure existing sequence of operations has been updated where necessary to accomplish the automation controls strategies defined in the scope of work.
- Ensure the sequence of operations for any newly controlled equipments has been programmed correctly to accomplish the automation controls strategies defined in the scope of work.
- Provide performance test of all equipment to verify sequences can be executed.
- Verify setpoints and sequences are in place as documented and not in override or manual control.
- Ensure new unoccupied heating and cooling setpoints are programmed in new BAS for areas defined in scope of work.
- Ensure outside air dampers and proper equipment shutdown is programmed in new BAS for areas defined in scope of work.
- Ensure economizer cooling sequence is programmed in new BAS for areas defined in scope of work.
- Verify economizer cooling test has been performed for air handlers where economizer cooling is to be implemented.
- Verify duct mounted CO2 sensors have been installed in the air handlers where DCV is to be implemented.
- Ensure demand control ventilation sequence is programmed in new BAS for areas defined in scope of work.
- Verify DCV functionality test has been performed for air handlers where DCV is to be implemented.
- Ensure O&M manuals are on site.
- Ensure owner training has been completed.

Post installation annual savings will be verified by confirming that the equipment is controlled by the new automation controls sequences which were programmed in the BAS and that it is not under manual control. Heating and cooling setpoints will be confirmed, time of day scheduling will be confirmed, and economizer cooling and DCV protocols will be verified.

Measurement and Verification Plan:

Year 1-15:

● Verify setpoints and sequences are in place as documented and not in override or manual control.

● Ensure new unoccupied heating and cooling setpoints are programmed in new BAS for areas defined in scope of work.

● Ensure outside air dampers and proper equipment shutdown is programmed in new BAS for areas defined in scope of work.

● Ensure economizer cooling sequence is programmed in new BAS for areas defined in scope of work.

● Ensure demand control ventilation sequence is programmed in new BAS for areas defined in scope of work.

Calculations

Based on the types of automation measures included, effort was taken to ensure no interactive affects would result in double counting savings. There are 4 different automation FIM's included which are numbered as FIM's 2.1a (Unoccupied Temperature Setback), 2.1b (Equip Scheduling/Unoccupied outside air damper closure), 2.1c (Economizer Cooling), and 2.1d (Demand Control Ventilation).

Example savings calculation for 2.1a:
Savings for 2.1a are only counted for unoccupied hours.

Existing Heat Loss = Existing Heating Conduction + Existing Heating Infiltration

Proposed Heat Loss = Proposed Heating Conduction + Proposed Heating Infiltration

Existing Cooling Loss = Existing Cooling Conduction + Existing Cooling Infiltration

Proposed Cooling Loss = Proposed Cooling Conduction + Proposed Cooling Infiltration

Existing Heating Energy =(Existing Heat Loss)/[(Boiler Efficiency)(Conversion Factor)]*

Proposed Heating Energy =(Proposed Heat Loss)/[(Boiler Efficiency)(Conversion Factor)]*

Existing Cooling Energy = [(Existing Cooling Loss) x (Chiller Efficiency)]/(Conversion Factor)

Proposed Cooling Energy = [(Proposed Cooling Loss) x (Chiller Efficiency)]/(Conversion Factor)

Example savings calculation for 2.1b, equip scheduling/unoccupied outside air damper closure:
-Existing unoccupied outside air percentage profile is from data logger trend data.
-Existing unoccupied fan operate hours percentage profile is from data logger trend data.
-Unoccupied operate hours factor is assumed percentage fans will operate to meet temp setpoints during unoccupied hours.
-Savings for 2.1b are only counted for unoccupied hours.

Proposed Unoccuiped fan run hours = (Existing Unocc fan run hours) – (1-Unocc Run hrs factor) (Existing Unocc fan run hours)*

Fan Energy Saved (kWh) = (Occupied Bin Hours)[Existing Unocc fan run hours - Proposed Unocc fan run hours]*
Existing Unoc Outside Air (cfm) = [Existing Unocc % OA profile][SF airflow (cfm)]*

Heating Energy Savings (Dth) = ∑([0.94][Exist. Unoc OA (cfm)]*[Unoc htg stpt – OA Temp]*[Exist. Unoc run hours – Prop. Unoc run hours]) / ([Boiler eff.]*[1,000,000 (Dth/btu)])*

Cooling Energy Savings (kWh) = ∑[0.94][Exist. Unoc OA (cfm)]*[OA Temp – Unoc Clg stpt]*[Exist. Unoc run hours – Prop. Unoc run hours]*[0.083 (ton clg/MBh)]*[chiller efficiency (kW/ton)]*

Example savings calculation for 2.1c, Economizer Cooling:
Savings for 2.1c are only counted during occupied hours.

Mixed Air Temperature (MAT) =(OA% x (OAT-RAT))-RAT

Mixed Air Enthalpy (MAH) =(OA% x (OAH-RAH))-RAH

*Cooling Load (MBH) =(4.5 x cfm x (Mixed Air Enthalpy - Return Air Enthalpy) *Calc'd for each bin-hr*

Chiller Load (MBH) =Same as Cooling load if chiller is on [Calculated for each bin-hr]

*Economizer Savings (mbh) = (4.5 x Return Air CFM x (RA Enthalpy - OA Enthalpy) *Calc'd for each bin-hr*

*Total Cooling Load (MBH) =(Cooling Load x hours/bin x (1 MBH/1000 btu)) *Calc'd for each bin-hr*

Cooling Energy (kwh) =(Ventilation Cooling Load x (1 Ton/12 MBH) x Cooling Efficiency)

Return Air Quantity (cfm)= Air Handling Unit Capacity (Cfm)(1-Percent Ventilation Air)*

Energy Cost =(Energy) x $/kwh

Energy Savings =(Original Energy) - (Proposed Energy)

Energy Savings Cost = (Original Ventilation Energy Cost) - (Proposed Ventilation Energy Cost)

Cost of Cooling ($/MMbh)=(Electrical Cost ($/Kwh))(Cooling Efficiency (Kw/Ton)/(12,000 btu/Ton)*(1,000,000 btu/MMbh)*

Example savings calculation for 2.1d, Demand Control Ventilation:
-Where 2.1c is to be implemented, savings for 2.1d are not counted if OAT is >=60 and <70.
-Savings are only counted during occupied hours.
-Minimum Outside Air (cfm) is from design documents.
-ASHRAE code minimum outside air (cfm) = 20cfm/person

Existing Outside Air (cfm) = Minimimu design (cfm)

Proposed Outside Air (cfm) = [% Occupancy][ASHRAE code (cfm)]*

Heating Savings =∑ ([0.94][Existing OA (cfm) – Proposed OA (cfm)]*[Occ htg stpt – OA Temp]) / ([1,000,000 (Btu/Dth)]*[Boiler Efficiency])*

Cooling Savings =∑ ([0.94][Existing OA (cfm) – Proposed OA (cfm)]*[OA Temp – Occ clg stpt]) / ([3.412 (Btu/kWh)]*[1000 (kW/W)]*[Chiller eff. (kW/ton)])*

Calculations Variables Index
N/A

Measurement or Reference Tables

Measurement	
Htg/Clg Temp Setpoints	Staff interviews, data logging, BAS
Existing OA Damper position	Data Logging
Motor Power	Measured

Responsibility for SIEMENS and CLIENT
The CLIENT will maintain temperature setpoints, schedules, and other sequence of operations programmed into the BAS by SIEMENS as outlined in Article 7 of this Exhibit C and the Scope of Work, Exhibit A, to ensure savings are generated.

Specifications on Measurement Tools
N/A

4.2.2 FIM 3.1 Pool Evaporation Control

Description

The relative humidity setpoint of the space will be raised to 60% which reduces the factors driving evaporation. In addition, a liquid pool cover will be implemented. A liquid pool cover is a non-toxic molecular compound that is lighter than water and when applied to a body of water (pool) rises to the surface when the water is calm and spreads out in an extremely, thin layer.

Savings Derived From:
Reduced evaporation from the pool results in less make up water heat load and a reduction in natural gas expense.

Commissioning Plan (post-implementation):

- Ensure the pumps have been installed per manufacturer's recommendations
- All equipment is securely mounted and powered in a code approved (receptacle) manner?
- Ensure the system is functional and the liquid cover reservoir tank is full.
- Ensure feeder pumps are programmed to add the prescribed amount of the liquid compound based on pool surface area daily.
- Ensure pool space humidity setpoint has been re-programmed in the BAS system to 60%.
- Present owner with binder for logging maintenance, product purchase and fill dates.
- Ensure O&M Manual are on site.
- Ensure owner training has been completed.

Post installation annual savings will be verified by confirmation that RH setpoint has been changed and review of owner provided maintenance log for the liquid pool cover.

Measurement and Verification Plan:

Year 1:

- Review owner maintained maintenance log, product purchase and fill log. Include in annual report.

Year 2-15:

- Owner shall transmit copy of maintenance log to Siemens,
- Review owner maintained maintenance, product purchase and fill log. Include in annual report.

Calculations

Due to the interactions with the pool humidity setpoint change, the savings for this measure were calculated assuming the humidity setpoint change will be implemented first.

Evaporation Rate (lb/hr/sf) = [0.05][(Saturation Air Pressure (Water)(Pw) - Saturation Air Pressure (Air) (Pa)]*

**note Pa changes with adjustment to RH%, air temperature remains constant.*

Evaporation (lbs) = [Evap Rate (lb/hr/sf)][Pool Area (sqft)]*[Annual Hours]*

*MakeUp water heat load (DTh) = [(Evaportion (lbs) * (Enthalpy of vaporization (Btu/lb) – Enthalpy of make up water (Btu/lb)]/[(1,000,000 Btu/DTh) * (Boiler efficiency)]*

Heating Energy Savings (DTh) = Existing MakeUp water heat Load – Proposed Exisitng MakeUp water heat load

The equations above are re-calculated with the new evaporation rate found with use of the pool cover:

*Evaporation rate (lb/hr/sf) = Evap rate at 60%RH * (1 - % reduction in evaporation)*

Calculations Variables Index
N/A

Measurement or Reference Tables

Measurement	
Pool Temp Setpoints	Stipulated, Staff interviews
Air Temp and RH Setpoints	Data Logging

Responsibility for SIEMENS and CLIENT
The CLIENT will keep and update maintenance and refill log and provide to SIEMENS for each annual inspection.

The CLIENT will maintain relative humidity and temperature setpoint programmed into the BAS by SIEMENS as outlined in the Scope of Work, Exhibit A, to ensure savings accumulate. The CLIENT will ensure the liquid pool cover chemical reservoir is refilled as needed.

Specifications on Measurement Tools
N/A

4.2.3 FIM 8.1 Fan Speed VFD Controls
Description

Repair or replace the non-operational VFD's at the recreation center pool AHU's. Remove inlet guide vanes on Senior Center AHU2 and replace with VFD. Program VFD output based on heating/cooling mode and airflow requirements from the downstream VAV boxes. VAV boxes to be re-commissioned as part of FIM 14.1.

All VFD's associated with this measure are to operate subject to the automation FIM's listed under FIM 2.1.

Savings Derived From:
Lower fan speeds result in a decrease in consumption of electrical energy. Fan speeds will modulate as needed to meet the output requirements as dictated by duct mounted pressure sensors or building static pressure sensors.

Commissioning Plan (post-implementation):

- Ensure new VFD's are installed per manufacturer's recommendations.
- Ensure inlet guide vanes (on Senior Center AC2) are removed.
- Verify that duct mounted pressure sensors are installed and control the supply fan VFD's to the prescribed differential pressure setting.
- Verify that building static pressure sensors are installed and properly control the return fans VFD speed.
- Ensure the building static pressure setpoint in the lap pool area is equal to that in the leisure pool area. And that these 2 areas are negative to the rest of the building, but positive to outside.
- Verify that duct static pressure sensors are placed to obtain proper readings. VAV mixing boxes to be re-commissioned as part of FIM 14.1
- Pre measurements have been obtained for motor power. Ensure VFD speed control is not in hand and obtain motor power post measurements.

Post installation annual savings will be verified by ascertaining that VFD's are not in manual control.

Measurement and Verification Plan:

Year 1-15:

- Ensure VFD's are in place and operating as intended.
- Verify that VFD's are not in manual mode and are modulating as needed to adjust output.
- Record VFD speed for each affected fan motor.

<u>Calculations</u>
A bin hour calc was carried out and is summarized here:

*Existing Fan Energy (kWh) = ∑[Fan measured power (kW) * Occupied Bin hours]*

Retrofit Fan Flow (cfm) = ∑[VAV box flow required]

Retrofit VFD Speed (%) = Proposed Fan Flow (cfm) / Rated Fan Flow (cfm)

Retrofit Fan Energy (kWh) = ∑([Measured Fan Power (kW)][Retrofit VFD Speed (%)]^2.4 * [Occupied Bin Hours])*

Annual Savings ($) = [Existing Cooling Energy (kWh) - Proposed Cooling Energy (kWh)]*[Elec Rate ($/kWh)]

Calculations Variables Index
N/A

Measurement or Reference Tables

Measurement	
Existing Run Hours	Stipulated, Staff interviews
Motor Power	Measured where accessible

Responsibility for SIEMENS and CLIENT
The CLIENT will maintain VFD programming in the BAS as outlined in the Scope of Work, Exhibit A, to ensure savings accumulate.

The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools
N/A

4.2.4 FIM 10.1 Building Lighting Upgrades and Controls

Description
Replace the existing T-12 and T-8 (32W) fluorescent lamps with Super T-8 fluorescent lamps (28W). Replace existing high wattage compact fluorescent and metal halide lamps with LED's, lower wattage compact fluorescent, and induction lamps. These lighting upgrades will significantly reduce electricity usage and associated costs, standardize lamps and ballasts for the buildings, and enhance the lighting levels throughout the facilities. Occupancy and day lighting sensors will be installed throughout the buildings where appropriate. Furthermore, maintenance will be reduced by having new lamps and ballasts. Any existing incandescent and fluorescent exit signs will be replaced with LED exit signs that use a fraction of the energy and have lamps that last considerably longer. Building exterior lighting, building parking lots, and park lighting will be included.

See Exhibit A for complete scope of work and Appendix 1 for the lighting line by line audit.

Savings Derived From:
Reduced electrical consumption due to higher efficiency lamps and fixtures.

Commissioning Plan (post-implementation):

For areas which include direct lamp and ballast replacements:

- Pre-Measure: Measure power (kW) for 5% of fixtures, by type, and record finding on printout of detailed lighting audit.

● Post-Measure: Measure power (kW) for 5% of fixtures, by type, and record finding on printout of detailed lighting audit.
● Visually inspect 10% of fixtures to confirm replacement and record finding on printout of detailed lighting audit.
● Attach detailed lighting audit with results of spot check to this report.
● Record Spot Check Completion Date: _____
● Present Owner with lighting replacement log. Owner shall maintain log for all warranty and future replacements. This document will be used for verification that future replacements follow contracted technology and wattages.
● Operation and Maintenance Manuals (O&M) manuals provided.
● Fill out deficiency Log – Describe deficiency, date noted, action taken and date resolved.

Post installation annual savings will be verified by review of owner- updated replacement logs.

Measurement and Verification Plan:

Year 1:
● Review Owner updated Replacement Log.
● Attach copy of updated Replacement Log to this report.
● Replacement Log review Completion Date to be done within 90 days of the end of each annual period.
● Include log in annual report.
● Fill out deficiency Log – Describe deficiency, date noted, action taken and date resolved.

Years 2 thru 15:
● Owner shall transmit copy of Replacement Log to Siemens.
● Review Owner updated Replacement Log.
● Attach copy of updated Replacement Log to this report.
● Replacement Log review Completion Date to be done within 90 days of the end of each annual period.
● Include log in abbreviated annual report.
● Fill out deficiency Log – Describe deficiency, date noted, action taken and date resolved.

Calculations

Energy savings from each retrofit will be based on a statistically developed number of runtime hours for specific area types and the areas wattage reduction. The wattage reduction will be based upon the pre and post retrofit wattages published by Xcel Energy on their LE-1 form. Annual dollar savings from each area retrofit will be calculated using the formulas listed below in conjunction with the utility rates described in Section 3.

Lighting Power saved (kW) = Existing power (kW) – Retrofit power (kW)

*Energy Saved (kWh) = Power saved (kW) * Run Hrs*

Annual Savings ($) = Energy Saved (kWh) * Elec Rate ($/kWh)

HVAC INTERACTION CALCULATION – Occupied Spaces Only

Btu Heating Increase = ∑([kW saved][Heating Hrs]*[(3413 (Btu/h) / 1 (kW)])*

*Gas Penalty (DTh) = [Btu heating increase]/[Boiler Efficiency * 1,000,000 (DTh/Btu)]*

Annual Heating Penalty ($) = [Gas Penalty (Dth)]*[Gas Rate ($/DTh)]

*kWh saved = (kW saved *3413(Btu/hr/kW))/12,000 Btu/hr/ton * cooling efficiency *clg hrs*

Calculations Variables Index

kWafter	Xcel Energy Standard Fixture Wattage
kWbefore:	Xcel Energy Standard Fixture Wattage

Measurement or Reference Tables

Measurement	
Existing Run Hours	Stipulated, Staff interviews

Responsibility for SIEMENS and CLIENT

The CLIENT will provide SIEMENS with the ownerupdated maintenance and replacement log for annual inspection.

The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools

N/A

4.2.5 FIM 11.1 Street Lighting Upgrades

Description

Upgrading existing HPS and MH to LED will significantly reduce electricity usage and associated costs and standardize lamps and ballasts for the street lights. Furthermore, maintenance will be reduced by having new lamps and ballasts, and by stocking the same types of lamps and ballasts for all the street lights.

See Exhibit A for complete scope of work and Appendix 1 for the lighting line by line audit.

Savings Derived From:

Reduced electrical consumption due to higher efficiency lamps and fixtures.

Commissioning Plan (post-implementation):

For areas which include direct lamp and ballast replacements:

- Ensure utility billing rate tariff has been changed to the new rated wattage and fixture type.
- Pre-Measure: Measure power (kW) for 5% of fixtures, by type, and record finding on printout of detailed lighting audit.
- Post-Measure: Measure power (kW) for 5% of fixtures, by type, and record finding on printout of detailed lighting audit.
- Visually inspect 10% of fixtures to confirm replacement and record finding on printout of detailed lighting audit. For street lights this may consist of one or more of the following: reviewing contractor installation logs, manufacturer data sheets, physical verification and coordination with Owner appointed witness.
- Attach detailed lighting audit with results of spot check to this report.
- Record Spot Check Completion Date: _____
- Present Owner with lighting replacement log. Owner shall maintain log for all warranty and future replacements. This document will be used for verification that future replacements follow contracted technology and wattages.
- Operation and Maintenance Manuals (O&M) manuals provided.
- Fill out deficiency Log – Describe deficiency, date noted, action taken and date resolved.

Post installation annual savings will be verified by review of owner updated replacement logs.

Measurement and Verification Plan:

Years 1:

- Review Owner updated Replacement Log.
- Attach copy of updated Replacement Log to this report.
- Replacement Log review Completion date to be done within 90 days of the end of each annual period.
- Include log in annual report.
- Fill out deficiency Log – Describe deficiency, date noted, action taken and date resolved.

Years 2 thru 19:

- Owner shall transmit copy of Log to Siemens.
- Review Owner updated Replacement Log.
- Attach copy of updated Replacement Log to this report.
- Replacement Log review Completion Date to be done within 90 days of the end of each annual period.
- Include log in abbreviated annual report.
- Fill out deficiency Log – Describe deficiency, date noted, action taken and date resolved.

Calculations

Lighting Power saved (kW) = Existing power (kW) – Retrofit power (kW)

*Energy Saved (kWh) = Power saved (kW) * Run Hrs*

Savings are also generated by the utility provider rate change associated with the new upgraded lamps. The overall savings associated with the project including the rate change are as follows:

*Annual Savings ($) = [Existing Annual Energy (kWh) * Existing Elec. Rate ($/kWh)] –[Proposed Annual Energy (kWh) * Proposed Elec. Rate ($/kWh)]*

Calculations Variables Index

N/A

Measurement or Reference Tables

Measurement	
Existing Run Hours	Stipulated, RMP tariff
Fixture Power (pre)	Stipulated, RMP tariff
Fixture Power (post)	Stipulated, Product Submittal

Responsibility for SIEMENS and CLIENT

The CLIENT will update the billing rate based on the retrofit lamp and fixture wattages, using the above noted contract stipulated runtimes.

The CLIENT will provide Siemens with the owner updated maintenance and replacement log for annual inspection.

The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools

N/A

4.2.6 FIM 18.1 Motor Replacements

Description

This FIM provides NEMA Premium Efficiency Criteria motors in locations where standard efficiency motors exist and are nearing end of useful life. The premium efficiency motors are inverter ready and may be used with an existing or new VFD. The motors vary in size from 3 HP to 7.5 HP that are recommended for replacement.

Savings Derived From:

Increased efficiency of new motors.

Commissioning Plan (post-implementation):

- Visually inspect newly installed motor to ensure the unit is installed and operates as specified.
- Confirm Factory Startup has been completed
- Manufacturers' installation, troubleshooting and O&M manuals shall be provided.
- All Control Wiring has specific point addresses clearly labeled on each end (panel termination and field termination)?

Post installation annual savings will be verified by confirmation of replacement motor efficiency rating.

Measurement and Verification Plan:

Year 1-15:

- Ensure the replacement motors are in place and operating as intended.
- This is a stipulated measure, no further measurements or calculations are required.

Calculations

Baseline Energy Consumption (kWh) = [(Existing Motor HP x 0.746) / Existing Motor Efficiency] x Total Bin Hours

Proposed Energy Consumption (kWh) = [(Premium Motor HP x 0.746) / Premium Motor Efficiency] x Total Bin Hours

Energy Savings (kWh/yr) = Baseline Yearly Energy Consumption (kWh) – Proposed Yearly Energy Consumption (kWh)

Calculations Variables Index

N/A

Measurement or Reference Tables

Measurement	
Runtime	Stipulated, Staff interviews
Motor Power (Pre)	Measured where accessible
Motor Efficiency (Pre)	Nameplate data
Motor Efficiency (Post)	Manufacturer design data

Responsibility for SIEMENS and CLIENT

The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools

N/A

4.3 Option B - Retrofit Isolation: All Parameter Measurement

No FIM's under this Option.

4.4 **Option C - Whole Facility**

No FIM's under this Option.

4.5 **Option D –** Calibrated Simulation

No FIM's under this Option.

4.6 **Stipulated-Energy/Utility Savings**

4.5.1 4.6.1 1.1 Elevator Upgrades

Description

Mechanical lift systems will be addressed along with the elevator aesthetics. The mechanical lift systems will be upgraded with new equipment. The cab interiors will be upgraded with new lighting and new wall panels.

Savings Derived From:
Future avoided capital costs.

Commissioning Plan (post-implementation):

- Ensure all new equipment has been installed as per manufacturer's recommendations.
- Verify installed equipment start up procedures have been completed.
- Verify safety inspections required for the equipment installed as part of this work have been completed.

Measurement and Verification Plan:

Year 1-15:

- Interview Owner to ensure equipment continues to function as expected.

Calculations

N/A

Calculations Variables Index

N/A

Measurement or Reference Tables

N/A

Responsibility for SIEMENS and CLIENT

The CLIENT will perform repair and replacement of items identified as requiring attention during the annual inspection.

Specifications on Measurement Tools

N/A

4.5.2 FIM 1.2 Increased Cooling Capacity

Description

A mechanical service on the equipment will be performed. Ducting modifications, and compressor controls will be added. Adjustments and minor additions to the existing equipment will alleviate the comfort issues in the building.

Savings Derived From:
The small negative savings shown is calculated under the assumption that additional cooling energy may be used under the new outdoor unit compressor control sequence.

Commissioning Plan (post-implementation):

- Ensure duct modifications have been implemented.
- Ensure outdoor unit compressor controls are functioning properly.
- Verify owner training has been completed on additional control system.

Post installation annual savings will be verified by inspection that equipment is in place and operating as intended.

Measurement and Verification Plan:

Year 1-15:

- Interview Owner to ensure equipment continues to function as expected.
- This is a stipulated measure, no further measurements or calculations are required.

Calculations

Increasing cooling capacity, as was first specified, would result in an energy penalty. Ducting modifications and controls, as is now specified, will not result in an energy penalty. To be conservative the energy penalty was carried in the project despite the change in scope.

Although this is not the prescribed improvement, a bin hour calculation was carried out assuming the 3 Ton unit will be replaced with a 7 Ton unit. This would provide 11 Tons of cooling. The existing 24/7 schedule and heating and cooling setpoints of 68/70 were not modified.

The existing energy consumption is calculated as follows:

*Existing Cooling load (kWh) = ∑ [Existing Cooling load (kW)] * [Total Bin Hours]*

Existing Cooling load (kW) = [# of units "on"][Unit kW]*

# of units "on" = 1 if Cooling load (Tons) is less than 3, or 2 if Cooling load (Tons) is greater than 3

*Cooling load (Tons) = [Building Cooling Load %] * [Unit 1 Capacity (tons) + Unit 2 Capacity (tons)]*

The retrofit energy consumption is calculated similarly but using a 7 Ton unit in place of the 3 Ton unit:

*Retrofit Cooling load (kWh) = ∑ [Proposed Cooling load (kW)] * [Total Bin Hours]*

Proposed Cooling load (kW) = [# of units "on"][Unit kW]*

# of units "on" = 1 if Cooling load (Tons) is less than 4, or 2 if Cooling load (Tons) is greater than 4

*Cooling load (Tons) = [Building Cooling Load %] * [Unit 1 Capacity (tons) + Unit 2 Capacity (tons)]*

The total savings is then calculated by:

Annual Energy Savings (kWh) = Exisitng Cooling load (kWh) – Retrofit Cooling Load (kWh)

Annual $ Savings ($) = [Annual Energy Savings (kWh)] * [Blended Electric Rate ($/kWh)]

Calculations Variables Index
N/A

Measurement or Reference Tables
N/A

Responsibility for SIEMENS and CLIENT
The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection. The CLIENT will maintain updated controls programming as outlined in the Scope of Work, Exhibit A.

Specifications on Measurement Tools
N/A

4.5.3 FIM 1.3 Boiler Replacement
Description Replace Senior Center Boiler with like for like unit with a higher efficiency.

Savings Derived From:
Less natural gas usage due to increased boiler efficiency.

Commissioning Plan (post-implementation):

- Verify that the boiler has been installed per manufacturers recommendations.
- Reviewed burner start-up report copy.
- Verify that the boiler safeties have been tested.

- Verify that the boiler operation has been witnessed by Owners Representative.
- Verify balance valve positions and compare to balance report.
- Verify proper insulation is installed.
- Verify that insulation is clearly labeled with Service Type and Flow Direction.
- Confirm Startup Commissioning has been completed.
- All New Control Wiring has specific point addresses clearly labeled on each end (panel termination and field termination).
- Verify combustion efficiency at full load.
- Verify O&M Manuals provided and on site.
- Verify owner training has been completed.

Post installation annual savings will be verified by inspection that equipment is in place and operating as intended.

Measurement and Verification Plan:

Year 1-15:

- Interview Owner to ensure equipment continues to function as expected.
- This is a stipulated measure, no further measurements or calculations are required.

Calculations

The savings with the new boiler are calculated as follows:

Existing boiler load (DTh) = ∑ ([500][GPM]*[DeltaT]*[Bin hrs]*[Bldg Load%]) / ([Comb eff, existing]*[Dist eff]) / 1,000,000 (Dth/Btu)*

Proposed boiler load (DTh) = ∑ ([500][GPM]*[DeltaT]*[Bin hrs]*[Bldg Load%]) / ([Comb eff, prop]*[Dist eff]) / 1,000,000 (Dth/Btu)*

Annual Energy Savings (DTh) = Existing boiler load (DTh) - Proposed boiler load (DTh)

Annual Savings ($) = [Annual Energy Savings (DTh)]*[Natural gas rate ($/DTh)]

Calculations Variables Index

N/A

Measurement or Reference Tables

N/A

Responsibility for SIEMENS and CLIENT

The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools N/A

4.5.4 FIM 1.4 Solar Shading

Description

Window films are applied to the interior side of the southern facing windows. The films block solar heat gain by absorbing the majority of the solar insolation. This produces a more comfortable building and cooling savings in the summer time, however, there is a heating penalty in the winter time when solar heat gain is beneficial.

Savings Derived From:
Reduced solar heat gain in the summer time. Note that there is a heating penalty in the winter time that has been accounted for.

Commissioning Plan (post-implementation):

- Ensure window films have been installed as per manufacturer's recommendations.
- Verify O&M manual's are on site.

Post installation annual savings will be verified by inspection that equipment is in place and operating as intended.

Measurement and Verification Plan:

Year 1-15:

- Interview Owner to ensure films are in place and still operating as intended.
- This is a stipulated measure, no further measurements or calculations are required.

Calculations

Manufacturer claims regarding product performance range from 12 – 19 kWh/sqft in cooling savings per year. Research papers support this range including research by the National Fenestration Rating Council (NFRC), the Department of Energy's Federal Energy Management Program (FEMP), CONSOL Energy, and an Equest modeling study by DeBusk.

Total south facing window area to receive the films is 1,250 square feet. Using the most conservative estimate of 12 kwh/sqft savings are found by:

Total kWh saved = [Total window area(sqft)][12(kWh/sqft)]*

Total $ saved = [Total kWh saved][Electric rate ($/kWh)]*

Calculations Variables Index

N/A

Measurement or Reference Tables

N/A

Responsibility for SIEMENS and CLIENT

The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools
N/A

4.5.5 FIM 1.5 Boiler Room Air Barrier

Description

A walk-in refrigerator style strip curtain will be installed across the opening to the boiler area. The curtain will allow facility staff easy access to the boiler while preventing the infiltration of outside air into the conditioned space.

Savings Derived From:
Reduction in outside air infiltration which results in less natural gas use in winter time and less electrical use in summer time needed to condition the unwanted infiltration air.

Commissioning Plan (post-implementation):

- Ensure air curtain has been installed as per manufacturer's recommendations.
- Verify air curtain covers the entire boiler bay opening.
- Verify O&M manuals are on site.

Post installation annual savings will be verified by inspection that equipment is in place and operating as intended.

Measurement and Verification Plan:

Year 1-15:

- Interview Owner to ensure air barrier is still in place and still operating as intended.
- This is a stipulated measure, no further measurements or calculations are required.

Calculations

$$\text{Fuel}_{\text{saved}} = \frac{\text{Bldg Leakage x Bldg K value x Wind P Factor x HDD x 24 x 60 x .075 x .243}}{\text{100,000 x Boiler Efficiency}}$$

$$\text{kWh}_{\text{saved}} = \frac{\text{Bldg Leakage x Bldg K value x Wind P Factor x HDD x 24 x 60 x .075 x .243}}{\text{3412 x Chiller Efficiency}}$$

$$\text{Total Dollars Saved} = \text{Fuel Saved x} \left(\frac{\$\text{ rate}}{\text{Therm}}\right) + \text{kWh saved x} \left(\frac{\$\text{ rate}}{\text{kWh}}\right)$$

Calculations Variables Index

- Building K value: factor that accounts for airflow within the building.
- Wind P Factor: Pressure differential (the main driver of infiltration) caused by typical winds.
- HDD: Heating degree days

Measurement or Reference Tables
N/A

Responsibility for SIEMENS and CLIENT
The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools
N/A

4.5.6 FIM 3.3 Reduced Pool Circulation Pump Flow

Description
Add a variable frequency drive (VFD) to the pool circulation pump. The VFD will control the motor speed to meet the minimum flow rate that satisfies the longer turnover rate of 8 hours. As the pool filters get clogged in-between cleanings the pressure drop increases and the pump speed needs to increase to maintain the minimum flow rate. The new VFD will control pump output based on flow rate and not pressure drop. Pool equipment rooms are typically harsh due to excess moisture and pool related chemicals. An aquatic VFD will be utilized which is designed specifically for use in pool mechanical rooms with an enclosure type, NEMA 12, that protects it from the ingress of moisture.

Savings Derived From:
Reduced pool circulation pump energy by reducing the flow to meet the minimum turnover requirements by Utah state code.

Commissioning Plan (post-implementation):

- Ensure new aquatic VFD is installed as per manufacturer's recommendations.
- Verify all new equipment is mounted in a code approved receptacle.
- Verify the VFD is controlling to flow rate.
- Verify the VFD is set to meet the minimum flow rate, approximately 82% (49.2 Hz).
- Verify via owner interview that the VFD increases pump speed and pressure to maintain minimum flow as filters clog and require backwash.
- Verify that the system is set to alarm owner after the pump operates at full speed for more than 1 hour, signaling filter backwash is required.

Post installation annual savings will be verified by inspection that VFD is in place and is modulating and not being operated in hand.

Measurement and Verification Plan:

Year 1-15:

- Interview Owner to ensure VFD is still in place and still operating as intended.
- This is a stipulated measure, no further measurements or calculations are required.

Calculations

Pump Energy Savings (kWh) = Existing Pump Energy (kWh) – Retrofit Pump Energy (kWh)

*Existing Pump Energy (kWh) = Pump power (kW) * Annual Run hours*

*Existing Pump Power (kW) = Pump rated power (kW) * Motor load Factor*

*Retrofit Flow Rate (gpm) = Pool Volume (gal) / [Retrofit Turnover Rate (hrs) * 60]*

Retrofit VFD Speed = Retrofit Flow (gpm) / Existing Flow (gpm)

*Retrofit Pump Energy = ([Existing Pump Power (kW)] * [Retrofit Flow (gpm) / Existing Flow (gpm)] ^ 2.4) * Annual Run hours*

Calculations Variables Index

N/A

Measurement or Reference Tables

N/A

Responsibility for SIEMENS and CLIENT

The CLIENT will maintain VFD programming in the BAS as outlined in the Scope of Work, Exhibit A, to ensure savings accumulate.

Specifications on Measurement Tools

N/A

4.5.7 FIM 3.4 On-Site Hypochlorite Generator

Description

An on-site hypochlorite generator (OSHG) utilizes salt as its only raw material to produce enough chlorine to treat the water. No additional chlorine tablets or feeder system is necessary. Pool water is pumped to the generator machine. The salt content is analyzed, salt is added by an external feeder if necessary and chlorine is generated and used to sanitize pool water. The production tank controls for PH levels as well reducing acid costs. The new units are capable of producing 40lbs of chlorine per day.

One generator will supply the lap pool and spa at the Recreation Center. For the SCERA Park pools one OSHG will be added to the existing chlorine tablet system which will be left in place.

Savings Derived From:

Replacing the ongoing expense of chlorine tablet use with an OSHG that utilizes salt to generate chlorine.

Commissioning Plan (post-implementation):

- Ensure the OSHG has been installed per manufacturer's recommendations.
- Ensure all equipment is mounted and powered in a code approved manner.
- Ensure the initial salination has been completed to the manufacturer's recommended concentration.
- Verify that the proper venting has been provided for the hydrogen by-product.
- Ensure all systems are installed and functional.
- Ensure O&M manual are on site.
- Ensure owner training has been completed.
- Ensure that information has been provided to Owner on ordering future salt supplies.

Post installation annual savings will be verified by inspection that equipment is in place and operating as intended.

Measurement and Verification Plan:

Year 1:

- Verify systems are installed and functional. Owner furnished data regarding operation shall be utilized.
- This is a stipulated measure, no further calculations or verifications are to be completed.

Year 2-15:

- Siemens shall interview Owner to verify system are operational. Include information gathered in annual report.
- This is a stipulated measure, no further measurements or calculations are required.

Calculations

The savings are obtained from chemical cost avoidance. There will be additional expenditures with the OSHG system such as salt supply, and scheduled part replacements. The sources of costs and savings streams are shown below for an annual period:

Avoided Chlorine Costs	$29,637
Avoided Acid (PH balancing) Costs	$2,663
Injector cell replacement	($5,200)
Salt Costs	($543)
Chlorine Feeder Maintenance	$200
Elec. Cost Difference	($3,869)
Replacement Parts, Avg.	($380)
Total	**$22,508**

Calculations Variables Index
N/A

Measurement or Reference Tables

Measurement	
Annual Chemical Costs	Stipulated, Staff interviews

Responsibility for SIEMENS and CLIENT
The CLIENT will ensure the OSHG salt reservoir is refilled as needed. The CLIENT will ensure that the identified parts are replaced as scheduled to maintain proper functionality.

Specifications on Measurement Tools
N/A

4.5.8 FIM 3.6 Leisure Pool Pump Switch

Description
Programming the river feature pump to operate only when needed which will reduce pump energy consumption because the pump will not operate when no occupants are using the water feature. Additionally a push button override switch will be installed on the pool deck to allow life guards to power the pump on during scheduled unoccupied times. The override will have a 15 min timeout.

Savings Derived From:
Avoidance of lazy river pump energy operational time when that system is not needed by pool patrons.

Commissioning Plan (post-implementation):

- Ensure the pump switch has been installed on the pool deck and properly controls the lazy river pump "on/off".
- Verify that the daily schedule has been programmed into the BAS system and properly turns pump on/off.
- Ensure that once over-ridden "on" by the pool deck switch the pump automatically turns off after 30 minutes.
- The pump is currently controlled in hand at 50Hz when turned "on"; ensure that the new switch, and the BAS system utilize the same speed when this pump is turned "on".

Post installation annual savings will be verified by inspection that equipment is in place and operating as intended.

Measurement and Verification Plan:

Year 1:

- Ensure the daily schedule for the lazy river pump is programmed in the BAS and not set to manual.
- Verify that the pump switch on the pool deck properly controls the pump "on/off".

- This is a stipulated measure, no further measurements or calculations are required.

Calculations

Existing Pump Power (kW) = [Pump Rated Power (kW)][VFD Speed (Hz) / 60 (Hz)]^2.4*

*Existing Pump Energy (kWh) = [Existing Pump Power (kW)] * [Existing Annual run hours]*

*Proposed Pump Energy (kWh) = [Existing Pump Power (kW)] * [Proposed Annual run hours]*

Annual Savings ($) = [Existing Pump Energy (kWh) – Proposed Pump Energy (kWh)]*[Electric rate ($/kWh)]

Calculations Variables Index

N/A

Measurement or Reference Tables

Measurement	
Pump Run Hours	Stipulated, Staff interviews

Responsibility for SIEMENS and CLIENT

The CLIENT will maintain VFD programming in the BAS as outlined above to ensure savings accumulate.

Specifications on Measurement Tools

N/A

4.5.9 FIM 4.2 Data Center Optimization, Hot Aisle Containment

Description

Dividing the room into 2 halves, a hot aisle and a cold aisle, will prevent the mixing of air streams. This will ensure that all of the cool supply air passes over the servers before returning back to the CRAC unit. It also drives a greater temperature difference across the CRAC unit leading to greater efficiency. Using the servers as the room divider the room will be split in half using a vinyl air barrier curtain that will span the full height of the room. The perforated floor tiles will be moved to the cold aisle side of the room. A door will be installed to allow IT personnel access back and forth to the equipment. Blanking panels will be provided and installed in the empty rack spots.

Savings Derived From:

Increased CRAC unit efficiency due to the separation of cold supply air stream from the hot return air stream. Operational savings are due to less server failure due to reduction of hot spots from increased efficiency in cold supply air stream.

Commissioning Plan (post-implementation):

- Ensure the vinyl air barrier curtain has been installed and no gaps or leaks exist allowing for air migration from one side to the other.
- Ensure all perforated floor tiles have been moved from the hot aisle side to the cold aisle side.
- Verify that all empty rack spaces have been fitted with blanking panels to prevent air migration from one side to the other.
- Ensure customer has excess stock of blanking panels for future use and has been trained on installing them.

Post installation annual savings will be verified by inspection that equipment is in place and operating as intended.

Measurement and Verification Plan:

Year 1-15:

- Inspect air barrier to ensure it is still in place, no gaps or leaks exist and is still operating as intended.
- Verify that owner has been installing blanking panels as rack space opens up.
- This is a stipulated measure, no further measurements or calculations are required.

Calculations

Several studies utilizing Computational Fluid Dynamics (CFD) have been used to calculate savings for this type of improvement in data centers. Research has been conducted by the Department of Energy's Federal Energy Management Program (FEMP), the American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE), Schneider Electric, and several end users such as Intel, Ebay, and Google to name a few. The energy savings results of these studies vary in the range of 10-40% of total cooling energy based on the baseline and retrofit conditions.

A white paper study conducted by Schneider Electric (white paper #135) closely resembled the characteristics of the Orem data center. Due to its close approximation this study was used to quantify the savings. The paper found energy savings results of 43% of its total cooling load. A de-rate of 25% (11% savings) was taken due to assumptions made that did not apply to Orem such as: a higher rack density, no air leakage across containment device, no air leakage from raised floor, and the use of a dedicated chiller vs. Orem's use of a split system CRAC.

Savings were then quantified as follows:

*Existing Cooling Energy (kWh) = [Existing Ton*hrs]*[Existing Unit Eff. (kW/ton)]*[Unit Capacity (tons)]*[Cooling Load Profile %]*

Proposed Cooling Energy (kWh) = [Existing Cooling Energy][1-11%]*

Annual Savings ($) = [Existing Cooling Energy (kWh) - Proposed Cooling Energy (kWh)]*[Elec Rate ($/kWh)]

Calculations Variables Index
N/A

Measurement or Reference Tables
N/A

Responsibility for SIEMENS and CLIENT
The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools
N/A

4.5.10 FIM 7.1 Constant Volume (CV) to Variable Volume (VV) Pumping

Description
Due to the automation FIMs 2.1 and the pool evaporation control FIM 3.1, the heat load required by the occupied space will become more variable. This will increase the losses due to the current pumping configuration. Variable frequency drives (VFD's) will be installed on the circulation pumps, and a control sequence is added to the control system adjusting the pump motor speed based on a heating call from the air handlers. This provides the minimal amount of heating hot water that is needed and does not needlessly pump the remaining amount around the distribution lines.

Savings Derived From:
Reduced pumping electrical energy due to the removal of the end of loop bypass, and addition of VFD which will modulate the pump motors as needed to meet differential pressure setpoint.

Commissioning Plan (post-implementation):

- Ensure VFD's are installed per manufacturer's recommendations
- Ensure pressure sensors are installed in both systems
- For heating loop verify 20% of flow is left in 3-way condition (preferably at end of loop). Remaining 3-way valves are converted to '2-way' by closing bypass or installing new shutoff valve.
- For pool heating loop verify 3-way valve and bypass to remain as designed, allowing minimum flow at pump.
- Ensure sequences, set-points and graphics are programmed in BAS and functional.
- Verify VFD speed is not in manual control.
- Ensure O&M manual are on site.
- Ensure owner training has been completed.

Post installation annual savings will be verified by inspection and ensuring that VFD's are not in manual control.

Measurement and Verification Plan:

Year 1-15:

- Verify set-points and sequences are in place as documented and not in manual control.
- This is a stipulated measure, no further measurements or calculations are required.

Calculations

Existing Pump kWh used = (HP x Load Factor x (% Flow^Exponent) x 0.746 / Motor Efficiency) x (Annual Op Hours x % of Time at % Flow)

Existing Pump kW = (HP x Load Factor x (% Flow^Exponent) x 0.746 / Motor Efficiency) x (% of Time at % Flow x DUF x Months/year)

Proposed Pump kWh = (HP x Load Factor x (% Flow^Exponent) x 0.746 / Motor Efficiency) x (Annual Op Hours x % of Time at % Flow)

Proposed Pump kW = (HP x Load Factor x (% Flow^Exponent) x 0.746 / Motor Efficiency) x (% of Time at % Flow x DUF x Months/year)

Calculations Variables Index

The exponent is based on the type of system currently in place and equals 1 for a constant volume system.

DUF = The Demand Utilization Factor is an assumption to determine if the system is operating when the building reached peak demand for any given month.

Measurement or Reference Tables

Measurement	
Existing Run Hours	Stipulated, Staff interviews/htg hours
Motor Power	Measured where accessible

Responsibility for SIEMENS and CLIENT

The CLIENT will maintain VFD programming in the BAS as outlined in the Scope of Work, Exhibit A, to ensure savings accumulate.

The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools

N/A

4.5.11 FIM 13.1 Building Envelope and Mechanical Insulation

Description

Air leakage will be reduced through the use of weather stripping, astragals, jamb seals, door sweeps, sealants, foams, caulk, and weather stripping materials. This will reduce unwanted infiltration through the building envelope which contributes to undesired heat loss or heat gain. It also reduces unwanted drafts leading to immediate occupant comfort improvement.

Savings Derived From:
Reduction in outside air infiltration which results in less natural gas use in winter time and less electrical use in summer time needed to condition the unwanted infiltration air. Savings are also due to less heat loss from un-insulated piping and valves.

Commissioning Plan (post-implementation):

- Verify each envelope and insulation measure has been competed as detailed in the iStar report.
- Include iStar report in commissioning report.
- Operation and Maintenance Manuals (O&M) manuals provided.
- Ensure owner training has been completed.
- Fill out deficiency Log – Describe deficiency, date noted, action taken and date resolved.

Post installation annual savings will be verified by visual inspection of improvements, and owner interviews.

Measurement and Verification Plan:

Year 1:

- Verify envelope and insulation improvements are in place and in working condition for a 10% sample size.

Year 2-15:

- Interview owner to ensure continued placement and working condition of weatherization materials.
- This is a stipulated measure, no further measurements or calculations are required.

<u>Calculations</u>

Infiltration savings are based on the reduced infiltration rate per linear foot of: door, window, and roof wall joints. The following is an example infiltration savings calculation:

$$Fuel_{saved} = \frac{Bldg\ Leakage\ x\ Bldg\ K\ value\ x\ Wind\ P\ Factor\ x\ HDD\ x\ 24\ x\ 60\ x\ .075\ x\ .243}{100{,}000\ x\ Boiler\ Efficiency}$$

$$kWh_{saved} = \frac{Bldg\ Leakage\ x\ Bldg\ K\ value\ x\ Wind\ P\ Factor\ x\ HDD\ x\ 24\ x\ 60\ x\ .075\ x\ .243}{3412\ x\ Chiller\ Efficiency}$$

$$Total\ Dollars\ Saved = Fuel\ Saved\ x \left(\frac{\$\ rate}{Therm}\right) + kWh\ saved\ x \left(\frac{\$\ rate}{kWh}\right)$$

Calculations Variables Index
-Building K value: factor that accounts for airflow within the building.

- Wind P Factor: Pressure differential (the main driver of infiltration) caused by typical winds.

-HDD: Heating degree days

Measurement or Reference Tables

Measurement	
Htg and Clg Temp Setpoints	Staff interviews, data logging, BAS

Responsibility for SIEMENS and CLIENT
The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools
N/A

4.5.12 FIM 14.1 Retro-Commissioning
Description
Re-Commissioning refers to retroactively completing the building start-up and check out process to ensure optimal functionality. For the purpose of this FIM the scope includes only items that will contribute to energy savings as opposed to broad re-commissioning. The scope of work is listed by building in Exhibit A and the Technical Energy Audit (TEA).

Savings Derived From:
Better outdoor air damper seals, replacement of malfunctioning or broken equipment, better equipment response to automation system, more efficient sequence of operations, and reduced loss of conditioned supply air to mechanical rooms.

Commissioning Plan (post-implementation):

- Ensure each specific item called out in the scope of work for inspection and repair/replacement has been addressed building by building.
- Where specific sequence of operations are identified for inspection in the scope of work, ensure any new programming does not interfere with the automation strategies as part of FIM 2.1.
- If additional items were found and repaired, document the pre and post conditions.

Post installation annual savings will be verified by confirming updated sequences of operations are still programmed in the BAS and not in manual control.

Measurement and Verification Plan:

Year 1-15:
● If any additional sequence of operations were programmed as part of this FIM and documented in the Commissioning report, ensure they remain in the BAS system and are not being overridden or in manual control.
● This is a stipulated measure, no further measurements or calculations are required.

Calculations

Savings are based on savings found by the Department of Energy's (DOE's) Federal Energy Management Program (FEMP) for existing building re-commissioning. FEMP has conducted several studies the support savings of 8-10% of total HVAC annual spend. The savings for each building are calculated based on the buildings observed condition, the scope of work listed above, and the FEMP studies.

Percentage Savings of existing HVAC utility spend.
Recreation Center: 6%
Senior Center: 5%
City Center/Library: 4%
Children's Library: 5%
Public Safety: 3%

Calculations Variables Index
N/A

Measurement or Reference Tables
N/A

Responsibility for SIEMENS and CLIENT
The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools
N/A

4.5.13 FIM 16.1 De-Stratification Fans

Description
Low speed de-stratification fans will be installed in the basketball gym and cardio spaces at the Recreation Center to mix the air. This will produce an even temperature gradient leading to a more comfortable space with less heating energy.

Savings Derived From:
Reduced load on the heating equipment through the reduction in stratification of conditioned air.

Commissioning Plan (post-implementation):

- Confirm Startup Commissioning has been completed.
- Verify fans are programmed to only operate during the heating season.
- Manufacturers' installation, troubleshooting and O&M manuals shall be provided.
- Ensure all equipment is mounted in a code approved receptacle.

Post installation annual savings will be verified by spot measuring the post installation ceiling temperature and applying to the stipulated loading profiles. Spot measurements will be taken to allow for an adequate profile for the ceiling temperature.

Measurement and Verification Plan:

Year 1-15:

- Ensure fans are in place and operating as intended.
- This is a stipulated measure, no further measurements or calculations are required.

Calculations

Annual Fuel Savings =0.94 x Supply Air CFM x Hours per Heating Season x (Current Space Temperature- Proposed Space Temperature) / (Heating System Efficiency) / (btu/fuel unit)

Annual Fuel Cost Savings = Annual Fuel Savings x Fuel Cost

Motor Energy Use = Motor Horsepower x 0.746 kW/HP x Motor Load Factor / Motor Efficiency

Annual Electric Use = Motor KW x Hours per Heating Season

Annual Electric Cost = Annual Electric Use x Electric Cost

Annual Savings = Annual Fuel Cost Savings – Annual Electric Cost

Calculations Variables Index

N/A

Measurement or Reference Tables

Measurement	
Htg and Clg Temp Setpoints	Staff interviews, data logging, BAS

Responsibility for SIEMENS and CLIENT

The CLIENT will perform repair and replacement of items identified as requiring attention during the inspection.

Specifications on Measurement Tools

N/A

Article 5: Baseline Data

5.1 The year(s) selected as the Baseline Period starts on Dec. 2013 and ends on Nov. 2014. Table 5.1 outlines the utility consumption that occurred during this Baseline Period. This Baseline Period's Facility utility consumption will be used as the reference for comparing the Facility's utility consumption during the Performance Guarantee Period in order to determine the Annual Realized Savings.

Table 5.1 – Baseline Utility Consumption

Units	kWh	Therms
Jan	1,27,0823	45,256
Feb	1,316,408	38,058
Mar	1,279,155	28,783
Apr	1,187,944	23,934
May	1,196,120	13,101
Jun	1,208,913	16,968
Jul	1,319,213	11,301
Aug	1,315,962	11,477
Sep	1,422,891	15,207
Oct	1,348,909	18,548
Not	1,298,012	30,687
Dec	1,321,217	43,210

5.2 The operating practices during the Baseline Period determine the utility consumption shown in Table 5.1. This data indicates the operating characteristics that were in effect during the Baseline Period. The Guaranteed Savings provided under this Agreement are based on the efficiencies gained by implementing the Work and implementing the Contracted Baseline in Article 7 of this Exhibit C.

Table 5.2.1 Summer/Winter Operating Hours

	City Center		Childrens Library		Public Safety		Senior Center		Rec Center		WWTP		Public Works	
Day of Week	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours
Mon	17	7	17	7	24	0	10	14	17	7	9.5	14.5	14	10
Tue	17	7	17	7	24	0	10	14	17	7	9.5	14.5	14	10
Wed	17	7	17	7	24	0	10	14	17	7	9.5	14.5	14	10
Thur	17	7	17	7	24	0	10	14	17	7	9.5	14.5	14	10
Fri	17	7	17	7	24	0	10	14	17	7	9.5	14.5	14	10
Sat	10	14	10	14	24	0	0	24	13.5	10.5	0	24	0	24
Sun	0	24	0	24	24	0	0	24	0	24	0	24	0	24
Holiday	0	24	0	24	24	0	0	24	0	24	0	24	0	24

Table 5.2.2 Summer/Winter Operating Temperatures

	City Center / Library		Childrens Library		Public Safety		Senior Center		Rec Center		WWTP		Public Works	
Day of Week	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max
Mon	70 / 74	70 / 74	72 / 74	72 / 74	72 / 74	72 / 74	68 / 74	68 / 74	72 / 76	72 / 76	73 / 75	73 / 75	72 / 74	72 / 74
Tue	70 / 74	70 / 74	72 / 74	72 / 74	72 / 74	72 / 74	68 / 74	68 / 74	72 / 76	72 / 76	73 / 75	73 / 75	72 / 74	72 / 74
Wed	70 / 74	70 / 74	72 / 74	72 / 74	72 / 74	72 / 74	68 / 74	68 / 74	72 / 76	72 / 76	73 / 75	73 / 75	72 / 74	72 / 74
Thur	70 / 74	70 / 74	72 / 74	72 / 74	72 / 74	72 / 74	68 / 74	68 / 74	72 / 76	72 / 76	73 / 75	73 / 75	72 / 74	72 / 74
Fri	70 / 74	70 / 74	72 / 74	72 / 74	72 / 74	72 / 74	68 / 74	68 / 74	72 / 76	72 / 76	73 / 75	73 / 75	72 / 74	72 / 74
Sat	70 / 74	70 / 74	72 / 74	72 / 74	72 / 74	72 / 74	68 / 74	68 / 74	72 / 76	72 / 76	73 / 75	73 / 75	72 / 74	72 / 74
Sun	70 / 74	70 / 74	72 / 74	72 / 74	72 / 74	72 / 74	68 / 74	68 / 74	72 / 76	72 / 76	73 / 75	73 / 75	72 / 74	72 / 74
Holiday	70 / 74	70 / 74	72 / 74	72 / 74	72 / 74	72 / 74	68 / 74	68 / 74	72 / 76	72 / 76	73 / 75	73 / 75	72 / 74	72 / 74

Table 5.2.3 Number of Occupants Summer/Winter

Building	Period	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Holiday
City Center / Lib	Day	200	200	200	200	200	0	0	0
	Afternoon	200	200	200	200	200	0	0	0
	Night	0	0	0	0	0	0	0	0
Children's Library	Day	30	30	30	30	30	30	0	0
	Afternoon	130	130	130	130	130	130	0	0
	Night	0	0	0	0	0	0	0	0
Public Safety	Day	50	50	50	50	50	50	50	0
	Afternoon	65	65	65	65	65	65	65	0
	Night	5	5	5	5	5	5	5	0
Senior Center	Day	75	75	75	75	75	0	0	0
	Afternoon	105	105	105	105	105	0	0	0
	Night	0	0	0	0	0	0	0	0
Rec Center	Day	74	74	74	74	74	74	0	0
	Afternoon	200	200	200	200	200	200	0	0
	Night	0	0	0	0	0	0	0	0
WWTP	Day	40	40	40	40	40	3	3	3
	Afternoon	40	40	40	40	40	3	3	3
	Night	0	0	0	0	0	0	0	0
Public Works	Day	35	35	35	35	35	0	0	0
	Afternoon	35	35	35	35	35	0	0	0
	Night	0	0	0	0	0	0	0	0

5.3 Applicable codes - Federal, State, County or Municipal codes or regulations are applicable to the use and operation of the Facility. SIEMENS will maintain the current level of Facility compliance relative to applicable codes unless specifically outlined to the contrary below. Unless specifically set forth in the Scope of Work and Services, Exhibit A, nothing herein should be construed as to require SIEMENS to provide additional work or services in the event that the current applicable code or regulation is modified.

5.3.1 Current code compliance (identify the applicable code citation):

a. N/A

5.3.2 Code changes:

N/A

Article 6: Utility Rate Structures and Escalation Rates

6.1 Utility costs used for Savings calculations will be based on the utility rates and rate escalation percentages, as provided in the table(s) below. Each escalation rate will be applied annually to the utility rate.

Building:	City Center / Library	
Utility & Electric Tariff Number:	Rocky Mtn Power Schedule 6	
Rate Structure:	0.084	Blended $ per kWh
Utility & Nat. Gas Tariff Number:	Questar GS	
Rate Structure:	8.02	Blended $ per DTh
Escalation Factor:	3.5%	

Building:	Children's Library	
Utility & Electric Tariff Number:	Rocky Mtn Power Schedule 6	
Rate Structure:	0.087	Blended $ per kWh
Utility & Nat. Gas Tariff Number:	Questar GS	
Rate Structure:	7.97	Blended $ per DTh
Escalation Factor:	3.5%	

Building:	Senior Center	
Utility & Electric Tariff Number:	Rocky Mtn Power Schedule 6	
Rate Structure:	0.117	Blended $ per kWh
Utility & Nat. Gas Tariff Number:	Questar FS	
Rate Structure:	7.24	Blended $ per DTh
Escalation Factor:	3.5%	

Building:	Public Safety	
Utility & Electric Tariff Number:	Rocky Mtn Power Schedule 6	
Rate Structure:	0.070	Blended $ per kWh
Utility & Nat. Gas Tariff Number:	Questar FS	
Rate Structure:	7.17	Blended $ per DTh
Escalation Factor:	3.5%	

Building:	Public Works	
Utility & Electric Tariff Number:	Rocky Mtn Power Schedule 6	
Rate Structure:	0.089	Blended $ per kWh
Utility & Nat. Gas Tariff Number:	Questar GS	
Rate Structure:	7.90	Blended $ per DTh
Escalation Factor:	3.5%	

Building:	Recreation Center	
Utility & Electric Tariff Number:	Rocky Mtn Power Schedule 6	
Rate Structure:	0.082	Blended $ per kWh
Utility & Nat. Gas Tariff	Questar FS	

Number:		
Rate Structure:	7.54	Blended $ per DTh
Escalation Factor:	3.5%	

Building:	Waste Water Treatment Plant	
Utility & Electric Tariff Number:	Rocky Mtn Power Schedule 8	
Rate Structure:	0.082	Blended $ per kWh
Natural Gas Tariff Number:	GS	
Rate Structure:	8.51	Blended $ per DTh
Escalation Factor:	3.5%	

Tariff Number or Designation:	Schedule 12E – City Owned Energy Only. HPS Lamps	
Utility Name:	Rocky Mountain Power	
Rate Structure:	2.50	$ per Luminaire 100W Lamp
	6.52	$ per Luminaire 250W Lamp
	10.02	$ per Luminaire 400W Lamp

Tariff Number or Designation:	Schedule 12E – City Owned Energy Only. MH Lamps	
Utility Name:	Rocky Mountain Power	
Rate Structure:	2.55	$ per Luminaire 100W Lamp
	4.46	$ per Luminaire 175W Lamp
	6.17	$ per Luminaire 250W Lamp
	9.77	$ per Luminaire 400W Lamp

Tariff Number or Designation:	Schedule 12E – City Owned Energy Only. Unlisted Lamps. This is the rate the street lights will transfer to.	
Utility Name:	Rocky Mountain Power	
Rate Structure:	0.0658	$ per kWh

Tariff Number or Designation:	Schedule 11 – RMP Owned Maintenance + Energy. HPS Lamp Types.	
Utility Name:	Rocky Mountain Power	
Rate Structure:	11.80	$ per Luminaire 70W

		Lamp
	12.78	$ per Luminaire 100W Lamp
	16.94	$ per Luminaire 150W Lamp
	21.14	$ per Luminaire 250W Lamp
Electric & Nat. Gas rate escalation:	3.5	% per Annual Period

Article 7: Contracted Baseline Data

7.1 The following tables detail the Facility operating parameters that are required to be implemented on the Guarantee Date or on such time as agreed upon by the Parties. This specific configuration of Facility operating parameters is the Contracted Baseline and failure of the CLIENT to substantially adhere to n the Contracted Baseline may result in a Material Change which may require a modification of the Performance Guarantee pursuant to Article 4 of the Agreement. The parties agree that minimal deviations from the Contracted Baseline will not constitute a Material Change. For the purposes of this Section, "minimal deviations" shall mean an increase in a building's annual operating hours that does not exceed 1% of the annual operating hours of that building as reflected in Table 7.1.1.

Table 7.1.1 Summer/Winter Operating Hours

	City Center		Childrens Library		Public Safety		Senior Center		Rec Center		WWTP		Public Works	
Day of Week	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours	Occ Run Hours	Unocc Run Hours
Mon	17	7	17	7	24	0	10	14	17	7	9.5	14.5	14	10
Tue	17	7	17	7	24	0	10	14	17	7	9.5	14.5	14	10
Wed	17	7	17	7	24	0	10	14	17	7	9.5	14.5	14	10
Thur	17	7	17	7	24	0	10	14	17	7	9.5	14.5	14	10
Fri	17	7	17	7	24	0	10	14	17	7	9.5	14.5	14	10
Sat	10	14	10	14	24	0	0	24	13.5	10.5	0	24	0	24
Sun	0	24	0	24	24	0	0	24	0	24	0	24	0	24
Holiday	0	24	0	24	24	0	0	24	0	24	0	24	0	24

Table 7.1.2 Summer/Winter Operating Temperatures

	City Center / Library		Childrens Library		Public Safety		Senior Center		Rec Center		WWTP		Public Works	
Day of Week	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max	Occ Min / Max	Unocc Min / Max
Mon	69 / 74	60 / 80	69 / 77	65 / 80	69 / 74	64 / 74	69 / 74	60 / 80	69 / 76	65 / 80	69 / 74	60 / 80	69 / 74	60 / 80
Tue	69 / 74	60 / 80	69 / 77	65 / 80	69 / 74	64 / 74	69 / 74	60 / 80	69 / 76	65 / 80	69 / 74	60 / 80	69 / 74	60 / 80
Wed	69 / 74	60 / 80	69 / 77	65 / 80	69 / 74	64 / 74	69 / 74	60 / 80	69 / 76	65 / 80	69 / 74	60 / 80	69 / 74	60 / 80
Thur	69 / 74	60 / 80	69 / 77	65 / 80	69 / 74	64 / 74	69 / 74	60 / 80	69 / 76	65 / 80	69 / 74	60 / 80	69 / 74	60 / 80
Fri	69 / 74	60 / 80	69 / 77	65 / 80	69 / 74	64 / 74	69 / 74	60 / 80	69 / 76	65 / 80	69 / 74	60 / 80	69 / 74	60 / 80
Sat	69 / 74	60 / 80	69 / 77	65 / 80	69 / 74	64 / 74	69 / 74	60 / 80	69 / 76	65 / 80	69 / 74	60 / 80	69 / 74	60 / 80
Sun	69 / 74	60 / 80	69 / 77	65 / 80	69 / 74	64 / 74	69 / 74	60 / 80	69 / 76	65 / 80	69 / 74	60 / 80	69 / 74	60 / 80
Holiday	69 / 74	60 / 80	69 / 77	65 / 80	69 / 74	64 / 74	69 / 74	60 / 80	69 / 76	65 / 80	69 / 74	60 / 80	69 / 74	60 / 80

Table 7.1.3 Number of Occupants Summer/Winter

Building	Period	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Holiday
City Center / Lib	Day	200	200	200	200	200	0	0	0
	Afternoon	200	200	200	200	200	0	0	0
	Night	0	0	0	0	0	0	0	0
Children's Library	Day	30	30	30	30	30	30	0	0
	Afternoon	130	130	130	130	130	130	0	0
	Night	0	0	0	0	0	0	0	0
Public Safety	Day	50	50	50	50	50	50	50	0
	Afternoon	65	65	65	65	65	65	65	0
	Night	5	5	5	5	5	5	5	0
Senior Center	Day	75	75	75	75	75	0	0	0
	Afternoon	105	105	105	105	105	0	0	0
	Night	0	0	0	0	0	0	0	0
Rec Center	Day	74	74	74	74	74	74	0	0
	Afternoon	200	200	200	200	200	200	0	0
	Night	0	0	0	0	0	0	0	0
WWTP	Day	40	40	40	40	40	3	3	3
	Afternoon	40	40	40	40	40	3	3	3
	Night	0	0	0	0	0	0	0	0
Public Works	Day	35	35	35	35	35	0	0	0
	Afternoon	35	35	35	35	35	0	0	0
	Night	0	0	0	0	0	0	0	0

SIEMENS

Certificate of Substantial Completion

PROJECT NAME:	City of Orem, Utah
CLIENT:	City of Orem
CERTIFICATE DATE (mm/dd/yyyy):	
CERTIFICATE NUMBER:	
PROJECT NUMBER:	

The following portions of the Work are at Substantial Completion in accordance with the Agreement. (Insert unique Work item such as Facility Improvement Measure title, system name, building, etc.)

Work Item:	
Warranty Start Date (mm/dd/yyyy):	
Work Item:	
Warranty Start Date (mm/dd/yyyy):	
Work Item:	
Warranty Start Date (mm/dd/yyyy):	

The Building Technologies Division of Siemens Industry, Inc. guarantees the workmanship and materials of the above Substantially Complete Work in accordance with the Agreement.

The Work indicated above has been reviewed by the CLIENT and has been found, to the best of the CLIENT's knowledge, to be Substantially Complete. Substantial Completion is the milestone in the progress of the Work at which time the Work is sufficiently complete and available for the CLIENT to have beneficial use of the Work for its intended purpose. A list of items to be completed and corrected (if any) shall be identified as the Outstanding Items List, attached to this form, and indicated by checking the appropriate box below:

Outstanding Items List Attached: ☐ **No Outstanding Items Noted:** ☐

The failure of the CLIENT to note items requiring completion or correction does not relieve the contractual responsibility of Building Technologies Division of Siemens Industry, Inc. to complete or correct the Work. Work found to require completion or correction after the Certificate Date of this

Certificate, but within the warranty period shall be corrected in accordance with the Agreement's warranty provisions.

Building Technologies Division of Siemens Industry, Inc. agrees to complete or correct all items indicated on the Outstanding Items in a timely manner.

Building Technologies Division of Siemens Industry, Inc. Representative: _____

Signature: _____ Date: _____

The CLIENT accepts the Work indicated above as Substantially Complete and assumes possession and beneficial use of the Work on the Warranty Start Date indicated above.

CLIENT: _____

CLIENT Representative: _____

Signature: _____ Date: _____

Note: The CLIENT shall, upon execution of this Certificate of Substantial Completion, assume all contractual responsibilities for maintenance, insurance, operation, and protection of the Substantially Complete Work in accordance with the Agreement.

SIEMENS

Certificate of Final Completion

PROJECT NAME:	City of Orem, Utah
CLIENT:	City of Orem
CERTIFICATE DATE (mm/dd/yyyy):	
PROJECT NUMBER:	

All elements of the project Work have been reviewed by the CLIENT and have been found, to the best of the CLIENT's knowledge, to be at Final Completion. All items noted in the Outstanding Items Lists associated with Certificate(s) of Substantial Completion have been resolved, and all Work as defined in Exhibit A of the Agreement is complete.

The failure of the CLIENT to note items requiring completion or correction does not relieve the contractual responsibility of Building Technologies Division of Siemens Industry, Inc. to complete or correct the Work. Work found to require completion or correction after the date of this Certificate, but within the warranty period shall be promptly corrected in accordance with the Agreement's warranty provisions.

Building Technologies Division of Siemens Industry, Inc. has reviewed the project Work, as well as all contractual requirements, and the requirements for Final Completion have been met.

Building Technologies Division of Siemens Industry, Inc. Representative: _____

Signature: _____ Date: _____

The CLIENT accepts the project Work as meeting the requirements for Final Completion.

CLIENT: _____

CLIENT Representative: _____

Signature: _____ Date: _____

APPENDIX A

Bonneville

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Parking / Path	4,380	EFHPS250	7	Existing Fixture High Pressure Sodium 250 watt Lamp	1	250	295	30		GLT95	7	Post Top LED Retrofit 95w - GlobalTech GTSOL5498	1	95	95						post top. suggest Relume deployable. same as Windsor Park. JST:went with Globaltech b/c 55w isn't enough on relume		4100
2	Pavillion	4,380	EV4232N	4	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LED19T84-2	4	Sylvania UltraLED 4' External Driver T8 LED - 2 lamp - 19w/ea	2	19	38								4100
3	Restroom Bldg Exterior	4,380	EINC60	2	Existing Incandescent 60 watt Lamp(s)	1	60	60			NXTWLED10	2	New Cooper Crosstour LED Wallpack, 8 watts	1	10	8						wallpack		4100
Total		4380		13					30			13						0	0		0		0	

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Park / Parking Lighting	4,380	EPLMH150	15	Existing Pole Light Metal Halide 150 watt Lamp	1	150	185			LEDRX45	15	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						pendant mount. like City Park.		4100
2	Restroom Bldg Exterior	4,380	EINC60	3	Existing Incandescent 60 watt Lamp(s)	1	60	60			NXTWLED10	3	New Cooper Crosstour LED Wallpack, 8 watts	1	10	8						wallpack		4100
3	Pavillion	4,380	ES4234N	4	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			NVPLED32	4	New 1x4 LED VT 32W - P-2	1	32	32						suggest vaportight		4100
Total		4,380		22					0			22						0.0	0.0		0.0		0%	

NORTHWEST EDISON

Cemetary

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Cemetary	4,380	ECHMH400	1	Existing Cobra Head Fixture Metal Halide 400 watt Lamp	1	400	458	20		NCHLED139	1	New LED Cobrahead Cree XSP2L 139 watts	1	139	139	PH	1.00				need PC	0%	4100
2	Cemetary	4,380	ECHMH250	8	Existing Cobra Head Fixture Metal Halide 250 watt Lamp	1	250	295	20		NCHLED101HE	8	New LED Cobrahead Cree XSP1C 101 watts, 8,224 Lm	1	101	101	PH	8.00				need PC	0%	4100
3	Skate Park	4,380	EINC500	1	Existing Incandescent 500 watt Lamp(s)	1	500	500	12		NFLED78	1	New LED Flood Rab FXLED78S, 79 watts	1	78	79	PH	1.00				quartz halogen flood. 1/2" nip and adj knuckle. suggest wide LED flood with PC	0%	4100
4	Sleepy Ridge Golf Course	4,380	EFHPS100	1	Existing Fixture High Pressure Sodium 100 watt Lamp	1	100	130			LEDR24	1	24 watt HID Replacement Lamp- Light Efficient Design -bypass ballast	1	24	24						post top lantern		4100
Total		4380		11					20			11						10	0		0		0	

NORTHWEST EDISON

Cherry Hill

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Restroom Bldg Exterior	4,380	EWCFL20	7	Existing 20 watt CFL Wallpack	1	20	20			NXTWLED10P	7	New Cooper Crosstour LED Wallpack, 8 watts + Photocell	1	10	8								4100
2	Path	4,380	EFMH150	7	Existing Fixture Metal Halide 150 watt Lamp	1	150	185	16		LEDRX45	7	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						post top acorn, green pole, glass acorn		4100
3	Pavillion	4,380	EV4232N	16	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LED19T84-2	16	Sylvania UltraLED 4' External Driver T8 LED - 2 lamp - 19w/ea	2	19	38								4100
Total		4,380		30					16			30						0.0	0.0		0.0		0%	

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Entry	3,599	EPT4334N	3	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130		45	LB328L	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64								4100
2	Main Floor on 1	3,599	EPT4334N	38	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130		55-60	LB328N	38	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
3	Main Floor on 1	3,599	EPT4334N	6	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130		55-60	LB328N	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						6 with battery backup		4100
4	Main Floor on 1	3,599	EPT2234N	4	Existing Parabolic Troffer 2x2 2 Lamp(s) F34 T12 U-Tube Standard Ballast	2	34	82			TK2317L	4	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Low Ballast Factor	3	17	40								4100
5	Main Floor on 1	3,599	EPT4234N	5	Existing Parabolic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228N	5	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
6	Main Floor on 1	3,599	EPT4234N	1	Existing Parabolic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						1 with battery backup		4100
7	Main Floor on 1	8,760	LEDEXIT	8	Existing LED Exit Sign	2	3	6			NEXBG	8	New Green LED Exit Sign w Battery Backup	0		2						all existing LED shown are depreciated		4100
8	Main Floor on 1	3,599	EFMH400	18	Existing Fixture Metal Halide 400 watt Lamp	1	400	458			NWPLED104	18	New LED Wallpack Rab104 - 113 watts	1	104	113						uplight, bolted to wall. bronze		4100
9	Main Floor on 1	3,599	EINC150	25	Existing Incandescent 150 watt Lamp(s)	1	150	150			19WLEDP38	25	19 watt Par 38 LED Lamp	1	19	19						par 38 track light		4100
10	Main Floor on 1	3,599	EFMH70	3	Existing Fixture Metal Halide 70 watt Lamp	1	70	90	20		**LEDR24**	3	24 watt HID Replacement Lamp- Light Efficient Design -bypass ballast	1	24	24						downlight, Relume disk 8", white jst: won't fit		4100
11	Main Floor on 1	3,599	EPT4432N	1	Existing Parabolic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			LB428N	1	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96								4100
12	Main Floor on 1	3,599	EPT4434N	6	Existing Parabolic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			LB428N	6	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96								4100
13	Main Floor on 1	3,599	EPT4434N	1	Existing Parabolic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			LB428N	1	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96						1 with battery backup		4100
14	Main Floor on 1	3,599	EINC50	14	Existing Incandescent 50 watt Lamp(s)	1	50	50			10WLEDBR30	14	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5				DIMSW	1.00	can, on dimmer		4100
15	Main Floor on 1	3,599	EINC50	8	Existing Incandescent 50 watt Lamp(s)	1	50	50			9WLEDA19	8	9.5 watt A-19 Style LED Lamp	1	9.5	9.5				DIMSW	1.00	2L wall mount, on dimmer		4100
16	Main Floor on 1	3,599	ECFLP18	2	Existing CFL Pin Based 18 watt Lamp(s)	1	18	22			LAI	2	Leave existing fixture as is	1	18	22						can 6", hard lid, vertical		4100
17	Main Floor on 1	3,599	EINC100	5	Existing Incandescent 100 watt Lamp(s)	1	100	100			10WLEDBR30	5	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5				DIMSW	1.00	can on stage, dimmer		4100
18	Main Floor on 1	3,599	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
19	Main Floor on 1	3,599	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						1 with battery backup		4100
20	Main Floor on 1	3,599	EPT4232N	1	Existing Parabolic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
21	Main Floor on 1	3,599	ECFLS32	1	Existing CFL Screw-in 32 watt Lamp(s)	1	32	32			10WLEDBR30	1	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5						can		4100
22	Main Floor on 1	3,599	ES4132N	16	Existing Strip 4' 1L F32 T8 32 watt Lamp(s), Normal Ballast Factor	1	32	34			LB128L	16	Lamp & Ballast Retrofit 1L F32 T8 28 watt Lamp(s), Low Ballast Factor	1	28	22						cove light		4100
23	Main Floor on 1	3,599	EINC100	5	Existing Incandescent 100 watt Lamp(s)	1	100	100			10WLEDBR30	5	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5						can		4100
24	Area Behind Counter	3,599	EPT4334N	8	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	8	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
25	Area Behind Counter	3,599	EPT4334N	2	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						2 with battery backup		4100
26	Area Behind Counter	3,599	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
27	Locker Room	3,599	EW4234N	2	Existing Wrap 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						1 broken cover		4100
28	Office to Left of Reception	3,599	EPT4234N	2	Existing Parabolic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228NP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CM9	0.50	0.50				25%	4100
29	Office to Left of Reception	3,599	EINC100	2	Existing Incandescent 100 watt Lamp(s)	1	100	100			9WLEDA19	2	9.5 watt A-19 Style LED Lamp	1	9.5	9.5	CM9	0.50	0.50				25%	4100
30	Door to Right	3,599	EPT4234N	2	Existing Parabolic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228NP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CM9	1.00	1.00				25%	4100
31	Elevator Lobby	3,599	EINC100	2	Existing Incandescent 100 watt Lamp(s)	1	100	100			10WLEDBR30	2	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5						can		2700
32	Restroom Lobby	3,599	ECFLP26	2	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	2	Leave existing fixture as is	1	26	30						can 7", hard lid, vertical		4100
33	Mens' RR & Women's RR, 4 each, 1 EB each	**2,339**	EW4232N	6	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		35	LB228LP	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						**wall mount. already sensored**		4100
34	Mens RR	**2,339**	EW2217N	1	Existing Wrap 2' 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33						**wall mount. already sensored**		4100
35	Mens' RR & Women's RR, 4 each, 1 EB each	**2,339**	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						**1 with battery backup. already sensored**		4100
36	Womens RR	**2,339**	EW2217N	1	Existing Wrap 2' 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33						**wall mount. already sensored**		4100

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
37	Door in between	3,599	ES4234N	1	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
38	Office by Small Help Desk (including one behind it)	3,599	EPT4334N	4	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
39	Office to Right of Restroom by Theater	3,599	EPT2234N	1	Existing Parabolic Troffer 2x2 2 Lamp(s) F34 T12 U-Tube Standard Ballast	2	34	82		60	TK2317L	1	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Low Ballast Factor	3	17	40								4100
40	Office to Right of Restroom by Theater	3,599	EDI8432N	2	Existing Direct/Indirect Fixture 8' 4L F32 T8 Lamps, NBF Ballast	4	32	112			LB428N	2	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96						pendant mount		4100
41	Restroom	3,599	EVAN2220N	1	Existing Vanity Fixture 2' 2 Lamp(s) F20 T12 Standard Ballast	2	20	36			LB2217L	1	Lamp & Ballast Retrofit 2L F17 T8 17 watt Lamp(s), Low Ballast Factor	2	17	29						wall mount		4100
42	Restroom	3,599	EVAN4234N	1	Existing Vanity Fixture 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						wall mount		4100
43	Stairs Up/Down	3,599	EW4232N	4	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						**wall mount with battery backup**		4100
44	2nd Floor Main	3,599	EFMH400	19	Existing Fixture Metal Halide 400 watt Lamp	1	400	458			NWPLED104	19	New LED Wallpack Rab104 - 113 watts	1	104	113						uplight, bolted to wall. bronze		4100
45	2nd Floor Main	8,760	LEDEXIT	3	Existing LED Exit Sign	2	3	6			NEXBG	3	New Green LED Exit Sign w Battery Backup	0		2								4100
46	Staff Room Upstairs	3,599	EPT4334N	3	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
47	Office Left of Drinking Fountain	3,599	EPT4334N	3	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
48	Custodian	520	ES4234N	1	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
49	Basement Main	3,599	EPT4234N	4	Existing Parabolic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228N	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
50	Basement Main	3,599	EPT4234N	3	Existing Parabolic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228N	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						3 with battery backup		4100
51	Basement Main	8,760	LEDEXIT	4	Existing LED Exit Sign	2	3	6			NEXBG	4	New Green LED Exit Sign w Battery Backup	0		2								4100
52	Basement Main	3,599	EINC100	2	Existing Incandescent 100 watt Lamp(s)	1	100	100			10WLEDBR30	2	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5						can		4100
53	Basement Main	3,599	EPT4334N	37	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	37	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100

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Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
54	Basement Main	3,599	EPT4334N	4	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						4 with battery backup		4100
55	Basement Main	3,599	ET2234N	12	Existing Prismatic Troffer 2x2 2 Lamp(s) F34 T12 U-Tube Standard Ballast	2	34	82			TK2317N	12	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Normal Ballast Factor	3	17	45								4100
56	Basement Main	3,599	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
57	Basement Main	3,599	EW4234N	5	Existing Wrap 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228N	5	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
58	Meeting Room (through 2 sets of double doors)	3,599	EPT4334N	7	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	7	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
59	Meeting Room (through 2 sets of double doors)	3,599	EPT4334N	2	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						2 with battery backup		4100
60	Meeting Room (through 2 sets of double doors)	3,599	EPT2234N	1	Existing Parabolic Troffer 2x2 2 Lamp(s) F34 T12 U-Tube Standard Ballast	2	34	82			TK2317L	1	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Low Ballast Factor	3	17	40								4100
61	Meeting Room (through 2 sets of double doors)	3,599	EINC100	3	Existing Incandescent 100 watt Lamp(s)	1	100	100			10WLEDBR30	3	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5				DIMS W	1.00	can on dimmer		4100
62	PERC	3,599	EPT4334N	9	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	9	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
63	PERC	3,599	EPT4334N	3	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						3 with battery backup		4100
64	2 Offices in PERC	3,599	EPT4334N	4	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
65	Mech in Basement	520	ES4234N	11	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	11	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
66	Staff Room	3,599	EPT4334N	5	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328NP	5	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	1.00	1.00				25%	4100
67	Door in Staff Room - Storage	3,599	ES4234N	3	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
68	Restroom Lobby	3,599	ECFLP26	2	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	2	Leave existing fixture as is	1	26	30						7" can, vertical, hard lid		4100
69	Mens RR	3,599	EVAN4232N	4	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						**wall mount. already sensored**		4100

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Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
70	Mens RR	**2,339**	EVAN2217N	1	Existing Vanity Fixture 2' 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33						**wall mount. already sensored**		4100
71	Womens RR	3,599	EVAN4232N	4	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						**wall mount. already sensored**		4100
72	Womens RR	**2,339**	EVAN2217N	1	Existing Vanity Fixture 2' 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33						**wall mount. already sensored**		4100
73	Custodian	520	ES4234N	1	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
74	Sorting Office	3,599	EPT4334N	4	Existing Parabolic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	1.00	1.00				25%	4100
75	Exterior	4,380	EWHPS150	4	Existing Wall Pack High Pressure Sodium 150 watt Lamp	1	150	188	25		NXTWLED85P	4	New Cooper CrosstourMaxx LED Wallpack, 85 watts + Photocell	1	85	85						bronze		4100
76	Exterior	4,380	EFMH70	4	Existing Fixture Metal Halide 70 watt Lamp	1	70	90			**LEDR24**	4	24 watt HID Replacement Lamp- Light Efficient Design -bypass ballast	1	24	24						downlight like interior		4100
77					Existing Wall Pack High Pressure Sodium 150 watt Lamp						#REF!	4	New Cooper CrosstourMaxx LED Wallpack, 85 watts + Photocell	0	#REF!	#REF!								4100
78					Existing Fixture Metal Halide 70 watt Lamp						#REF!	4	24 watt HID Replacement Lamp- Light Efficient Design -bypass ballast	0	#REF!	#REF!								4100
Total		3602.291		397					25			397						4	4		4		0.25	

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Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Entry between City Center and Library Rotunda area near city council chambers	2,868	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328L	6	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	3	28	64	CMW	2.00	1.00				25%	4100
2	City Center Lobby and Hall on 1st Rotunda area near city council chambers	2,868	EPT4332N	12	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92	22		TDI4228NP	12	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	48	CMW	2.00	1.00				25%	4100
3	City Center Lobby and Hall on 1st Rotunda area near city council chambers	2,868	EPT2232N	6	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61	22	25	TK2317N	6	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	3	17	45	CMW	2.00	1.00				25%	4100
4	City Center Lobby and Hall on 1st Rotunda area near city council chambers	2,868	EPT4332N	17	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92	9	40-50	LB328L	17	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	3	28	64	CMW	3.00	1.00				25%	4100
5	City Center Lobby and Hall on 1st Rotunda area near city council chambers	2,868	E20MR16	8	Existing Halogen 20 watt MR16 Style Lamp	1	20	20			6WLEDMR16	8	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	1	6.5	6.5	CM9	1.00	1.00			MR16, GU 5.3 base. warm white	25%	2700
6	City Center Lobby and Hall on 1st Rotunda area near city council chambers	2,868	ECFLS14	2	Existing 14 watt Screw-in CFL Lamp	1	14	14			8WLEDP20	2	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	1	8	8	CM9	0.50	0.50			par 20	25%	2700

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
7	City Center Lobby and Hall on 1st Rotunda area near city council chambers	2,868	EINC50	1	Existing Incandescent 50 watt Lamp(s)	1	50	50			8WLEDP20	1	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	1	8	8	CM9	0.50	0.50			par 20	25%	2700
8	City Center Lobby and Hall on 1st Rotunda area near city council chambers	2,868	EPT2232N	3	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61	9		TK2317L	3	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	3	17	40	CMW	1.00					25%	4100
9	Suite 100 - Council Room	2,868	DECOCHAN	10	Decorative Chandelier with CFL Lamps	1	10	10				10	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	1	10	10								4100
10	Suite 100 - Council Room	2,868	ECFLP32	9	Existing CFL Pin Based 32 watt Lamp(s)	1	32	36			RCM13TLX	9	Retro RC 7"+ LED Module - Terralux 13 watts	1	13	13						8" can, recessed, drop ceiling, vertical		4100
11	Suite 101 - Economic Development	**1,864**	EPT4332N	14	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		90	LB328NP	14	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
12	Suite 101 - Economic Development	**1,864**	EPT2232N	3	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317NP	3	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	3	17	45						already sensored		4100
13	Copy / Storage	**150**	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
14	Office	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		60	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
15	Office	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		75	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
16	Office	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		50	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
17	Office	2,868	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		50	LB328N	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
18	Office	2,868	EPT2232N	1	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317L	1	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Low Ballast Factor	3	17	40								4100
19	Suite 103 HR	**1,864**	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		75	LB328NP	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
20	Suite 103 HR	**1,864**	EPT2232N	2	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317NP	2	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	3	17	45						already sensored		4100
21	Conference Room	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
22	Office to Right	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		80	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
23	Office to Right	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
24	Office Behind	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		60	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
25	Door 106 Breakroom	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328LP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	3	28	64						already sensored		4100
26	Door 107 Conference (in use - estimated)	**1,864**	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
27	Mens RR	**1,864**	ET2232N	2	Existing Prismatic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2217NP	2	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	2	17	33						already sensored		4100
28	Door Left	**1,864**	ES8432N	1	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428LP	1	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	4	28	84						already sensored		4100
29	Door Left	**1,864**	EPT4332N	24	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		55-65	LB328NP	24	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
30	Door Left	2,868	ECFLP26	3	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10H	3	Retrofit 4 pin LED - Horizontal - 10w - LightEffDes	1	10	10						8" can, drop ceiling, horizontal. Terralux		4100
31	First Door on Left	2,868	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
32	City Treasurers Office	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		55	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
33	Copy Room	**1,864**	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		75	LB228NP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
34	Office Right	**1,864**	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		50	LB328NP	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
35	Office Right	**1,864**	EPT2232N	1	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2217NP	1	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	2	17	33						already sensored		4100
36	Office Right	**1,864**	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		50	LB328NP	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
37	Office Right	**1,864**	EPT2232N	3	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2217NP	3	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	2	17	33						already sensored		4100
38	Stairwell	2,868	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		15	NSW228STS	3	New Stairwell Wrap Fixture, 2L F32T8 28 watt lamps, 2L Step Dim with integrated PIR sensor	2	28	51	INTEG	3.00					25%	4100
39	Stairwell	2,868	EPT2232N	2	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317L	2	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Low Ballast Factor	3	17	40								4100
40	Stairwell	2,868	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328L	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64								4100
41	Suite 105 - Development Services	2,868	EPT4332N	22	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		70	LB328N	22	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
42	Suite 105 - Development Services	2,868	ECFLP26	22	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	22	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						verify qty. 6" can, hard lid, vertical		4100
43	Suite 105 - Development Services	2,868	ES4132N	6	Existing Strip 4' 1L F32 T8 32 watt Lamp(s), Normal Ballast Factor	1	32	34			LB128L	6	Lamp & Ballast Retrofit 1L F32 T8 28 watt Lamp(s), Low Ballast Factor	1	28	22						cove light		4100
44	Suite 105 - Development Services	8,760	LEDEXIT	2	Existing LED Exit Sign	2	3	6			NEXBG	2	New Green LED Exit Sign w Battery Backup	0		2								4100
45	Conference in 105	**1,864**	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		60	LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
46	Office	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		95	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
47	Office	**1,864**	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		85	LB328NP	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
48	Office	**1,864**	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		70	LB328NP	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
49	Office	**1,864**	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		125	LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
50	Office Right	**1,864**	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		120	LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
51	Office Right	**1,864**	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
52	Office Right	**1,864**	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
53	Office Right	**1,864**	EPT2232N	1	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2217NP	1	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	2	17	33						already sensored		4100
54	Stairwell Up in Main Hall	2,868	EPT2232N	2	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317N	2	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Normal Ballast Factor	3	17	45								4100
55	Stairwell Down	2,868	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			NSW228STS	3	New Stairwell Wrap Fixture, 2L F32T8 28 watt lamps, 2L Step Dim with integrated PIR sensor	2	28	51	INTEG	3.00					25%	4100
56	Suite 104 - Mayors Office	**1,864**	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		90	LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
57	Suite 104 - Mayors Office	**1,864**	EPT2232N	1	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317NP	1	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	3	17	45						already sensored		4100
58	Office	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
59	Office RIght	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		95	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
60	Office RIght	**1,864**	EPT2232N	1	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317NP	1	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	3	17	45						already sensored		4100
61	Mayors Office	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
62	Mayors Office	**1,864**	EPT2232N	1	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317NP	1	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	3	17	45						already sensored		4100
63	Office RIght	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
64	Office RIght	2,868	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						not sensored		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
65	Hall on 2nd	2,868	EPT4332N	9	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328L	9	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64								4100
66	Suite 200	**1,864**	EPT4332N	8	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92	10	105	LB328NP	8	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
67	Suite 200	2,868	EPT4332N	11	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92	8	60	LB328L	11	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64								4100
68	First Door Behind Counter	**1,864**	EPT4332N	8	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		65	LB328NP	8	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
69	Office 1	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		65	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
70	Office 2	**1,864**	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
71	Conference Room	**1,864**	EPT4332N	8	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		130	LB328NP	8	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
72	Office Around Corner	**1,864**	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
73	Office to Right	**1,864**	EPT4332N	9	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	9	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
74	Office 206	**1,864**	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		95	LB328NP	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
75	Office 205	**1,864**	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		150	LB328NP	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
76	Office to Right	**1,864**	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		150	LB328NP	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
77	Office to Right	**1,864**	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		115	LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
78	202 Conference	**1,864**	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
79	Door on Left in Conference	**1,864**	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
80	Entry to Right	1,864	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
81	Door in Entry	1,864	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228NP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
82	Door to Right of Entry	1,864	EPT4332N	5	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	5	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
83	Mens RR	1,864	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	1	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						6" can, vertical, drop ceiling. already sensored		4100
84	Mens RR	1,864	EPT2232N	1	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317LP	1	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), PRS Low Ballast Factor	3	17	40						already sensored		4100
85	Mens RR	1,864	ECFLS13	2	Existing CFL Screw-in 13 watt Lamp(s)	1	13	13			6WLEDA19	2	6.5 watt A-19 Style LED Lamp	1	6.5	6.5						screw-in vanity. already sensored		4100
86	Door in Mens RR	2,868	ECFLS13	4	Existing CFL Screw-in 13 watt Lamp(s)	1	13	13			6WLEDA19	4	6.5 watt A-19 Style LED Lamp	1	6.5	6.5						2L screw-in ceiling mount		4100
87	Womens RR	1,864	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	1	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						6" can, vertical, drop ceiling. already sensored		4100
88	Womens RR	1,864	EPT2232N	1	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317LP	1	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), PRS Low Ballast Factor	3	17	40						already sensored		4100
89	Womens RR	1,864	ECFLS13	2	Existing CFL Screw-in 13 watt Lamp(s)	1	13	13			6WLEDA19	2	6.5 watt A-19 Style LED Lamp	1	6.5	6.5						screw-in vanity. already sensored		4100
90	Suite 210 - Conference	1,864	EPT4332N	7	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	7	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
91	Suite 210 - Conference	1,864	EPT2232N	1	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317LP	1	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), PRS Low Ballast Factor	3	17	40						already sensored		4100
92	Copy Area	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
93	Office on Left	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
94	Office on Right	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
95	Suite 222	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		60	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
96	Door in 222	1,864	EPT2232N	1	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61		45	TK2317NP	1	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	3	17	45						already sensored		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
97	Basement Hall	2,868	ET4232N	2	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		30	LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42	HW13	1.00	1.00				25%	4100
98	Basement Hall	2,868	EPT4332N	11	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328L	11	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64	HW13	2.00	1.00				25%	4100
99	Door Left of Elevator	1,864	ECFLS13	4	Existing CFL Screw-in 13 watt Lamp(s)	1	13	13			6WLEDA19	4	6.5 watt A-19 Style LED Lamp	1	6.5	6.5						2L ceiling mount. already sensored		4100
100	Elevator	8,760	ES4134N	2	Existing Strip 4' 1 Lamp(s) F34 T12 Standard Ballast	1	34	48			LB128L	2	Lamp & Ballast Retrofit 1L F32 T8 28 watt Lamp(s), Low Ballast Factor	1	28	22								4100
101	Mech Space (Right of Elevator)	150	ES4232N	4	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
102	Door Right Past Second Mech Door	2,868	EPT2232N	1	Existing Parabolic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61		70	TK2317N	1	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Normal Ballast Factor	3	17	45								4100
103	Door Right Past Second Mech Door	2,868	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
104	Storage (1st Door Left)	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
105	Double Doors to Right of Mech	1,864	ES4232N	12	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	12	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
106	Double Doors to Right of Mech	2,868	ECFLS32	1	Existing CFL Screw-in 32 watt Lamp(s)	1	32	32			9WLEDA19	1	9.5 watt A-19 Style LED Lamp	1	9.5	9.5								4100
107	Door to Right	2,868	ES4234N	1	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
108	Door to Right	2,868	ES4234N	1	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
109	Wood Double Doors in Hall	1,864	ES4232N	5	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	5	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
110	Wood Double Doors in Hall	1,864	ES8432N	1	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428LP	1	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	4	28	84						already sensored		4100
111	Wood Double Doors in Hall	2,868	EINC300	2	Existing Incandescent 300 watt Lamp(s)	1	300	300			NS4228L	2	New Strip Fixture with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
112	Door Right (estimated)	2,868	ES4232N	6	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
113	Mens RR	1,864	ET4432N	1	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			TK4228LP	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						no cover. already sensored		4100
114	Womens RR	1,864	ET4432N	1	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			TK4228LP	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
115	PreCon - Design - Survey	1,864	EPT4332N	15	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	15	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
116	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
117	Office	2,868	ECFLS14	2	Existing 14 watt Screw-in CFL Lamp	1	14	14			8WLEDP20	2	8 watt Par 20 LED Lamp	1	8	8						par 20		4100
118	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
119	Office	2,868	ECFLS14	2	Existing 14 watt Screw-in CFL Lamp	1	14	14			8WLEDP20	2	8 watt Par 20 LED Lamp	1	8	8						par 20		4100
120	Riser Closet	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
121	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
122	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		90	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
123	Office to Right	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
124	Accounting Suite - Hall / Main	1,864	EPT4332N	11	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	11	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
125	Accounting Suite - Hall / Main	1,864	ET4232N	1	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
126	Office	1,864	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		60	LB328NP	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
127	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
128	Office	1,864	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
129	Glass Double Doors - All Areas	1,864	EPT4332N	9	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		75	LB328NP	9	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
130	Glass Double Doors - All Areas	1,864	ET4332N	6	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
131	File Storage in Accounting	150	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
132	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
133	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
134	Office Right	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
135	Office Across	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
136	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
137	Office	1,864	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		85	LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
138	Storage Under Stairs	520	EINC100	1	Existing Incandescent 100 watt Lamp(s)	1	100	100			9WLEDA19	1	9.5 watt A-19 Style LED Lamp	1	9.5	9.5								4100
139	Door Left	2,868	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
140	Halfway Up Ramp on Left	1,864	ET4232N	3	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228NP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
141	Halfway Up Ramp on Left	1,864	ES4232N	2	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
142	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
143	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
144	Office Across	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
145	Office to Right	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
146	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
147	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
148	Main Hall - Gray Door to Right of Accounting Door	2,868	ECFLS32	1	Existing CFL Screw-in 32 watt Lamp(s)	1	32	32			9WLEDA19	1	9.5 watt A-19 Style LED Lamp	1	9.5	9.5								4100
149	Door to Right	2,868	EINC150	1	Existing Incandescent 150 watt Lamp(s)	1	150	150			19WLEDA21	1	19 watt A-21 Style LED Lamp	1	19	19						pendant mount		4100
150	Engineers Area - Main	1,864	EPT4332N	13	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	13	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
151	Engineers Area - Main	2,868	ECFLP26	5	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	5	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						6" can, recessed, drop ceiling, vertical		4100
152	Restroom 1	1,864	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
153	Restroom 2	1,864	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
154	Storage by Stairs	520	EINC60	3	Existing Incandescent 60 watt Lamp(s)	1	60	60			9WLEDA19	3	9.5 watt A-19 Style LED Lamp	1	9.5	9.5								4100
155	Conference	1,864	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
156	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
157	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
158	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
159	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
160	Door to Right (estimated)	1,864	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored?		4100
161	Door to Right	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
162	Office	1,864	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						already sensored		4100
163	Elevator Room	2,868	ECFLS15	1	Existing CFL Screw-in 15 watt Lamp(s)	1	15	15			9WLEDA19	1	9.5 watt A-19 Style LED Lamp	1	9.5	9.5								4100
164	Elevator Room	2,868	E8WLEDA19	1	Existing 8 watt A19 Style LED Lamp	1	8	8			LAI	1	Leave existing fixture as is	1	8	8								4100
165	Exterior (including all path and complex parking)	4,380	EINC500	2	Existing Incandescent 500 watt Lamp(s)	1	500	500	15		NFLED78	2	New LED Flood Rab FXLED78S, 79 watts	1	78	79						quartz halogen flood. 1/2" nip and adj knuckle		4100
166	Exterior (including all path and complex parking)	4,380	EINC75	2	Existing Incandescent 75 watt Lamp(s)	1	75	75			17WLEDP38	2	17 watt Par 38 LED Lamp	1	17	17						2L par 38 directional flood. need outdoor rated		4100
167	Exterior (including all path and complex parking)	4,380	EWHPS100	1	Existing Wall Pack High Pressure Sodium 100 watt Lamp	1	100	130	15		NXTWLED30P	1	New Cooper Crosstour LED Wallpack, 30 watts + Photocell	1	30	30						bronze		4100
168	Exterior (including all path and complex parking)	4,380	EINC100	9	Existing Incandescent 100 watt Lamp(s)	1	100	100			10WLEDBR30	9	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5						recessed cans		4100
169	Exterior (including all path and complex parking)	4,380	EPLMH250	24	Existing Pole Light Metal Halide 250 watt Lamp	1	250	295	28		RL95DISKLED	24	Relume Teardrop LED Illumadisk40 Retrofit - 95w	1	95	95						pole fixtures, green. PC - TEARDROPS		4100
170	Exterior (including all path and complex parking)	4,380	EPLMH250	6	Existing Pole Light Metal Halide 250 watt Lamp	1	250	295			RL95DISKLED	6	Relume Teardrop LED Illumadisk40 Retrofit - 95w	1	95	95						same as Line 169 but pole has 2 heads. these are facing parking lot - TEARDROPS		4100
170A	Exterior (including all path and complex parking)	4,380	EPLMH250	6	Existing Pole Light Metal Halide 250 watt Lamp	1	250	295			LAI	6	Leave existing fixture as is	1	250	295						on same poles as Line 170 but facing street. LAI		4100
171	Exterior (including all path and complex parking)	4,380	EFLMH175	3	Existing Flood Fixture Metal Halide 175 watt Lamp	1	175	210			NFLED79S	3	New LED Narrow Flood, Lithonia DSXF2 Series 79 watts	1	79	79						flood on flag. 1/2" nip and adj knuckle. narrow, bronze		4100
172	Exterior (including all path and complex parking)	4,380	EINC500	1	Existing Incandescent 500 watt Lamp(s)	1	500	500	15		NFLED78	1	New LED Flood Rab FXLED78S, 79 watts	1	78	79						quartz halogen flood, trunnion mount		4100
173	Exterior (including all path and complex parking)	4,380	EPLHPS150	2	Existing Pole Light Fixture High Pressure Sodium 150 watt Lamp	1	150	188	16		NALED53HE	2	New LED Cobrahead Cree XSP1 53 watts, 4,806 Lm	1	53	53						shoebox. 2 bolt, bronze, square pole		4100
174	Exterior (including all path and complex parking)	4,380	EINC150	2	Existing Incandescent 150 watt Lamp(s)	1	150	150			17WLEDP38	2	17 watt Par 38 LED Lamp	1	17	17						par 38 flood on shoebox pole. 1/2" nip and adj knuckle. spots on flags		4100
175	Exterior (including all path and complex parking)	4,380	EFHPS70	5	Existing Fixture High Pressure Sodium 70 watt Lamp	1	70	91			LEDR24	5	24 watt HID Replacement Lamp- Light Efficient Design -bypass ballast	1	24	24						bollard, vertical		4100
176	Exterior (including all path and complex parking)	4,380	EFMV175	4	Existing Fixture Mercury Vapor 175 watt Lamp	1	175	205			LEDRX45	4	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						in grade light vault. Dialight? parking lot islands		4100
Total		2,311		682					28			682						21.00	8.00		0.00		25%	

NORTHWEST EDISON

City Center Park

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Restroom Exterior	4,380	EINC60	3	Existing Incandescent 60 watt Lamp(s)	1	60	60			NXTWLED10	3	New Cooper Crosstour LED Wallpack, 8 watts	1	10	8						wallpack		4100
2	Path Lighting	4,380	EPLMH150	20	Existing Pole Light Metal Halide 150 watt Lamp	1	150	185			LEDRX45	20	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						pendant mount, green		4100
3	Rotary Pavillion	4,380	ES4234N	4	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			NVPLED32	4	New 1x4 LED VT LED 32W - P-2	1	32	32								4100
4	Stage Exterior	4,380	EWMH100	3	Existing Wall Pack Metal Halide 100 watt Lamp	1	100	129	14		NXTWLED30	3	New Cooper Crosstour LED Wallpack, 30 watts	1	30	30								4100
5	Stage Exterior	4,380	ECFLP226	22	Existing CFL Pin Based with 2 - 26 watt Lamp(s)	2	26	56	10-15		RCM13TLX	22	Retro RC 7"+ LED Module - Terralux 13 watts	1	13	13						verify. 8" can, hard lid, lensed. Terralux		4100
6	Maintenance Shed Exterior	4,380	EINC60	4	Existing Incandescent 60 watt Lamp(s)	1	60	60			NXTWLED10	4	New Cooper Crosstour LED Wallpack, 8 watts	1	10	8						wallpack		4100
7	Other Pavillion	4,380	ES4234N	14	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			NVPLED32	14	New 1x4 LED VT LED 32W - P-2	1	32	32								4100
8	Other Pavillion	4,380	EINC65	2	Existing Incandescent 65 watt Lamp(s)	1	65	65			12WLEDP30	2	12 watt Par 30 LED Lamp	1	12	12						2L directional flood. need outdoor rated		4100
9	Parking Lot	4,380	EPLHPS150	2	Existing Pole Light Fixture High Pressure Sodium 150 watt Lamp	1	150	188	16		NALED73Q	2	New LED Area/Shoebox Cree XSP2Q option 74 watts, PC, O Option	1	101	74	PH	1.00				shoebox. 2 bolt, square pole, bronze, PC, ML JST: Don't see multi-level on cut sheet	0%	4100
Total		4380		74					16			74						1	0		0		0	

NORTHWEST EDISON

Fire Station 1

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Exterior	4,380	EWMH70	15	Existing Wall Pack Metal Halide 70 watt Lamp	1	70	90	12		NXTWLED20P	15	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21								4100
2	Exterior	4,380	EINC300	1	Existing Incandescent 300 watt Lamp(s)	1	300	300	25		NFLED53	1	New LED Flood, Rab FFLED52 Flood, 54 watts	1	54	54						quartz halogen flood. 1/2" nip and adj knuckle		4100
3	Exterior	4,380	EINC60	6	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	6	7 watt A-19 Style LED Lamp	1	7	7						Jelly Jar		4100
4	Garage	4,380	ES8260N	12	Existing Strip 8' 2 Lamp(s) F96 60 watt Lamp(s) T12 Standard Ballast	2	60	138		25	SKR8428N	12	Strip Kit with Reflector 1X8' 4, 4'L, F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96								4100
5	Garage	4,380	ES82110H	3	Existing Strip 8' 2 Lamp(s) F96 T12 110 watt Lamp(s), HO Ballast	2	110	252			SKR8428N	3	Strip Kit with Reflector 1X8' 4, 4'L, F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96								4100
6	Door with Uniforms in it	520	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100
7	Laundry	520	ET4434N	2	Existing Prismatic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
8	Storage to Right	520	EINC100	1	Existing Incandescent 100 watt Lamp(s)	1	100	100			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7								4100
9	Main Entry	4,380	ECFLP26	2	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	2	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100
10	Hall	4,380	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42	HW13	2.00	1.00				25%	4100
11	Captains Office	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
12	Bunk Room	4,380	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
13	Restroom	4,380	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
14	Restroom	4,380	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, lens, vertical		4100
15	Copy Room	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
16	Restroom	4,380	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
17	Kitchen	4,380	ET4332N	9	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		75	TK4228N	9	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48	CMW	2.00	2.00				25%	4100
18	TV Room	4,380	ET4332N	10	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	10	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
19	Hall	4,380	ET4332N	5	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	5	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42	HW13	2.00	1.00				25%	4100
20	Bunk Room	4,380	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		60	TK4228L	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
21	Next Bunk Room Right	4,380	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
22	Next Bunk Room	4,380	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
23	Next Bunk Room Right	4,380	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
24	Next Bunk Room Right	4,380	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
25	Womens RR	2,847	ECFLP26	5	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	5	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical. already sensored		4100
26	Womens RR	2,847	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
27	Mens RR	2,847	ECFLP26	11	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	11	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical. already sensored		4100
28	Mens RR	2,847	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
Total		3747.429		102					25			102						6	4		0		0.25	

NORTHWEST EDISON

Fire Station 2

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Exterior	4,380	EWHPS50	2	Existing Wall Pack High Pressure Sodium 50 watt Lamp	1	50	66			NXTWLED10P	2	New Cooper Crosstour LED Wallpack, 8 watts + Photocell	1	10	8						over door		4100
2	Exterior	4,380	EWHPS70	4	Existing Wall Pack High Pressure Sodium 70 watt Lamp	1	70	91	15		NXTWLED20P	4	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21								4100
3	Exterior	4,380	EWCFL42	2	Existing Wallpack CFL 42 watt Lamp	1	42	42			LAI	2	Leave existing fixture as is	1	42	42						over door		4100
4	Exterior	4,380	EWCFL242	3	Existing Wallpack CFL 2L 42 watt Lamps	2	42	84			LAI	3	Leave existing fixture as is	2	42	84								4100
5	Exterior	4,380	EINC62R30	8	Existing 65W Incandescent BR30	1	65	65			10WLEDBR30	8	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5						BR 30 can		4100
6	Exterior	4,380	EINC300	1	Existing Incandescent 300 watt Lamp(s)	1	300	300	10		NFLED53	1	New LED Flood, Rab FFLED52 Flood, 54 watts	1	54	54						quartz halogen flood. 1/2" nip and adj knuckle		4100
7	Entry	4,380	EDI2214N	1	Existing Direct/Indirect 2x2 2L F14 T5 Lamps, NBF Ballast	2	14	36			LAI	1	Leave existing fixture as is	2	14	36								4100
8	Halls	4,380	EDI2214N	10	Existing Direct/Indirect 2x2 2L F14 T5 Lamps, NBF Ballast	2	14	36			LAI	10	Leave existing fixture as is	2	14	36	HW13	2.00	1.00				25%	4100
9	Halls	4,380	EDI4254H	1	Existing Direct/Indirect Fixture 4' 2L F54 T5 Lamps, HBF Ballast	2	54	120			LAI	1	Leave existing fixture as is	2	54	120	HW13	1.00	1.00				25%	4100
10	Office	4,380	EDI2214N	6	Existing Direct/Indirect 2x2 2L F14 T5 Lamps, NBF Ballast	2	14	36			LAI	6	Leave existing fixture as is	2	14	36	WSD	1.00					25%	4100
11	Restroom	2,847	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
12	Storage to Right	250	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LAI	2	Leave existing fixture as is	3	32	92						already sensored		4100
13	Electrical	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
14	Office	4,380	EDI2214N	4	Existing Direct/Indirect 2x2 2L F14 T5 Lamps, NBF Ballast	2	14	36			LAI	4	Leave existing fixture as is	2	14	36								4100
15	Bunk Room	4,380	EINC50	4	Existing Incandescent 50 watt Lamp(s)	1	50	50			7WLEDA19	4	7 watt A-19 Style LED Lamp	1	7	7						par 20 can - use A19 lamp		4100
16	Restroom	4,380	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
17	Restroom	4,380	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, lens, horizontal. Terralux		4100
18	Laundry	250	ET4332N	3	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LAI	3	Leave existing fixture as is	3	32	92						already sensored		4100
19	Server Room	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
20	Restroom	2,847	ET2232N	1	Existing Prismatic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2217LP	1	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), PRS Low Ballast Factor	2	17	29						already sensored		4100

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
21	KItchen Area	4,380	EDI4254H	11	Existing Direct/Indirect Fixture 4' 2L F54 T5 Lamps, HBF Ballast	2	54	120			LAI	11	Leave existing fixture as is	2	54	120								4100
22	KItchen Area	4,380	EDI2214N	1	Existing Direct/Indirect 2x2 2L F14 T5 Lamps, NBF Ballast	2	14	36			LAI	1	Leave existing fixture as is	2	14	36								4100
23	Upstairs Main	4,380	ET2232N	1	Existing Prismatic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2217N	1	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), Normal Ballast Factor	2	17	33								4100
24	Upstairs Main	4,380	EDI4232N	9	Existing Direct/Indirect Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228N	9	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
25	Upstairs Main	4,380	EINC62R30	1	Existing 65W Incandescent BR30	1	65	65			10WLEDBR30	1	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5								2700
26	Bunk Room at End of Hall - Left	4,380	EINC62R30	5	Existing 65W Incandescent BR30	1	65	65			10WLEDBR30	5	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5								2700
27	Bunk Room at End of Hall - Left	4,380	ECFLP213	3	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	3	Leave existing fixture as is	2	13	30						8" can, horizontal. Terralux		4100
28	Restroom	4,380	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
29	Restroom	4,380	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, lens, horizontal. Terralux		4100
30	Restroom	4,380	ECFLP213	1	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	1	Leave existing fixture as is	2	13	30						6" can, horizontal. Terralux		4100
31	Bunk Room	4,380	EINC62R30	5	Existing 65W Incandescent BR30	1	65	65			10WLEDBR30	5	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5								4100
32	Bunk Room	4,380	ECFLP213	3	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	3	Leave existing fixture as is	2	13	30						8" can, horizontal. Terralux		4100
33	Bunk Room	4,380	EINC62R30	4	Existing 65W Incandescent BR30	1	65	65			10WLEDBR30	4	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5								4100
34	Bunk Room	4,380	ECFLP213	3	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	3	Leave existing fixture as is	2	13	30						8" can, horizontal. Terralux		4100
35	Restroom	4,380	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
36	Restroom	4,380	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, lens, horizontal. Terralux		4100
37	Restroom	4,380	ECFLP213	1	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	1	Leave existing fixture as is	2	13	30						6" can, horizontal. Terralux		4100
38	Next Bunk Room	4,380	EINC62R30	5	Existing 65W Incandescent BR30	1	65	65			10WLEDBR30	5	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5								4100
39	Next Bunk Room	4,380	ECFLP213	3	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	3	Leave existing fixture as is	2	13	30						8" can, horizontal. Terralux		4100
40	Next Bunk Room	4,380	EINC62R30	5	Existing 65W Incandescent BR30	1	65	65			10WLEDBR30	5	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5								4100
41	Next Bunk Room	4,380	ECFLP213	3	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	3	Leave existing fixture as is	2	13	30						8" can, horizontal. Terralux		4100
42	Restroom	4,380	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
43	Restroom	4,380	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, lens, horizontal. Terralux		4100
44	Restroom	4,380	ECFLP213	1	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	1	Leave existing fixture as is	2	13	30						6" can, horizontal. Terralux		4100
45	Next Bunk Room	4,380	EINC62R30	4	Existing 65W Incandescent BR30	1	65	65			10WLEDBR30	4	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5								4100

Fire Station 2

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
46	Next Bunk Room	4,380	ECFLP213	3	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	3	Leave existing fixture as is	2	13	30						8" can, horizontal. Terralux		4100
47	Vehicle Bay	4,380	ES8432N	22	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112	25		SKR8428N	22	Strip Kit with Reflector 1X8' 4, 4'L, F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96								4100
48	Vehicle Bay	4,380	ES4232N	4	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61	8		LB228N	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
49	Vehicle Bay	2,847	ET2232N	1	Existing Prismatic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2217NP	1	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	2	17	33						already sensored		4100
50	Compressor Room	520	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
51	Door Left	4,380	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
52	Door Far Left	4,380	EINC60	1	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7								4100
Total		3910.019		165					25			165						4	2		0		0.25	

NORTHWEST EDISON

Fire Station 3

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Vehicle Bay	4,380	ES8396N	16	Existing Strip 8' 3 Lamp(s) F96 T12 Standard Ballast	3	75	273		30	SKR8432H	16	Strip Kit with Reflector 1X8' 4, 4'L, F32 T8 32 watt Lamp(s), High Ballast Factor	4	32	146								4100
2	Vehicle Bay	4,380	EW4234N	1	Existing Wrap 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						wall mount		4100
3	Compressor Room	4,380	ET4334N	2	Existing Prismatic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130		25	TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
4	Door in Compressor Room	4,380	ET4334N	2	Existing Prismatic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
5	Janitor Closet	4,380	ET4334N	1	Existing Prismatic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			TK4228L	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
6	Gear Storage	4,380	ET4334N	2	Existing Prismatic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
7	Entry	4,380	EINC60	1	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7						can		4100
8	Lobby	4,380	ET4234N	2	Existing Prismatic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00					25%	4100
9	Lobby	4,380	EINC60	1	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7						can		4100
10	First Office Left	4,380	ET4334N	2	Existing Prismatic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130		30	TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
11	Office Right	4,380	ET4334N	3	Existing Prismatic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			TK4228N	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
12	Hall	4,380	ET4234N	5	Existing Prismatic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	5	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	2.00	1.00				25%	4100
13	Bunk Room	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
14	Restroom	4,380	EVAN3230N	1	Existing Vanity Fixture 3' 2 Lamp(s) F30 T12 Standard Ballast	2	30	79			LB3225L	1	Lamp & Ballast Retrofit 3' 2L F25 T8 25 watt Lamp(s), Low Ballast Factor	2	25	38	CMW	1.00					25%	4100
15	Restroom	4,380	ET14234N	1	Existing Prismatic Troffer 1x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSW	1.00					25%	4100
16	Restroom	4,380	ECFLS15	1	Existing CFL Screw-in 15 watt Lamp(s)	1	15	15			9WLEDA19	1	9.5 watt A-19 Style LED Lamp	1	9.5	9.5								4100
17	Restroom	4,380	E8WLEDA19	1	Existing 8 watt A19 Style LED Lamp	1	8	8			LAI	1	Leave existing fixture as is	1	8	8								4100

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
18	Next Bunk Room	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
19	Chief Office	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
20	Restroom	4,380	EVAN3230N	1	Existing Vanity Fixture 3' 2 Lamp(s) F30 T12 Standard Ballast	2	30	79			LB3225L	1	Lamp & Ballast Retrofit 3' 2L F25 T8 25 watt Lamp(s), Low Ballast Factor	2	25	38								4100
21	Restroom	4,380	ET14234N	1	Existing Prismatic Troffer 1x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
22	Restroom	4,380	ECFLS15	1	Existing CFL Screw-in 15 watt Lamp(s)	1	15	15			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7								4100
23	Restroom	4,380	EINC60	1	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7						can		4100
24	Next Bunk Room	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
25	Next Bunk Room	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
26	Restroom	4,380	EVAN3230N	1	Existing Vanity Fixture 3' 2 Lamp(s) F30 T12 Standard Ballast	2	30	79			LB3225L	1	Lamp & Ballast Retrofit 3' 2L F25 T8 25 watt Lamp(s), Low Ballast Factor	2	25	38								4100
27	Restroom	4,380	ET14234N	1	Existing Prismatic Troffer 1x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
28	Restroom	4,380	ECFLS15	2	Existing CFL Screw-in 15 watt Lamp(s)	1	15	15			7WLEDA19	2	7 watt A-19 Style LED Lamp	1	7	7								4100
29	Bunk Room	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
30	Next Bunk Room	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
31	Restroom	4,380	EVAN3230N	1	Existing Vanity Fixture 3' 2 Lamp(s) F30 T12 Standard Ballast	2	30	79			LB3225L	1	Lamp & Ballast Retrofit 3' 2L F25 T8 25 watt Lamp(s), Low Ballast Factor	2	25	38								4100
32	Restroom	4,380	ET14234N	1	Existing Prismatic Troffer 1x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
33	Restroom	4,380	ECFLS15	2	Existing CFL Screw-in 15 watt Lamp(s)	1	15	15			7WLEDA19	2	7 watt A-19 Style LED Lamp	1	7	7								4100
34	Bunk Room	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
35	Kitchen	4,380	ET4334N	10	Existing Prismatic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			TK4228N	10	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
36	Laundry	520	ET4232N	2	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
37	Stairs	4,380	ET4232N	2	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						over stairs		4100
38	Stairs	4,380	EINC60	1	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7						can		4100
39	Downstairs Hall	4,380	ET4432N	5	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			TK4228NP	5	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CMW	2.00	1.00				25%	4100
40	Fitness Room	4,380	ES4234N	4	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00		WRLSW			25%	4100
41	Mech	520	ES4234N	4	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
42	Restroom 1	4,380	EW4234N	1	Existing Wrap 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSW	1.00					25%	4100
43	Restroom 2	4,380	EW4234N	1	Existing Wrap 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSW	1.00					25%	4100
44	Meeting Room	4,380	ET4432N	8	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116		60	TK4228N	8	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
45	Electrical	520	ET4432N	1	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			TK4228L	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
46	Home Safe Home	4,380	ET4432N	12	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			TK4228N	12	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
47	Exterior	4,380	ECLMH70	3	Existing Can Light Metal Halide 70 watt Lamp (8-10")	1	70	90	10		LEDR24	3	24 watt HID Replacement Lamp- Light Efficient Design -bypass ballast	1	24	24						vertical, 8"		4100
48	Exterior	4,380	EWMH70	12	Existing Wall Pack Metal Halide 70 watt Lamp	1	70	90	12		NXTWLED20	12	New Cooper Crosstour LED Wallpack, 20 watts	1	20	21						white		4100
49	Exterior	4,380	EPLMH250	9	Existing Pole Light Metal Halide 250 watt Lamp	1	250	295	30		NCHLED101HE	9	New LED Cobrahead Cree XSP1C 101 watts, 8,224 Lm	1	101	101						shoebox. 2 bolt, round pole, white		4100
50	Exterior	4,380	EINC20	6	Existing Incandescent 20 watt Lamp - BA15	1	20	20			7WLEDA19	6	7 watt A-19 Style LED Lamp	1	7	7						indicator light		4100
Total		4148.4		151					30			151						10	2		0		0.25	

NORTHWEST EDISON

Foothill

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Pavillion	4,380	EV4232N	8	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LED19T84-2	8	Sylvania UltraLED 4' External Driver T8 LED - 2 lamp - 19w/ea	2	19	38								4100
2	Restroom Bldg Exterior	4,380	EINC60	2	Existing Incandescent 60 watt Lamp(s)	1	60	60			NXTWLED10P	2	New Cooper Crosstour LED Wallpack, 8 watts + Photocell	1	10	8						wallpack		4100
Total		4380		10					0			10						0	0		0		0	

NORTHWEST EDISON

Geneva

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Parking	4,380	EFMH250	2	Existing Fixture Metal Halide 250 watt Lamp	1	250	295	30		RL95DISKLED	2	Relume Teardrop LED Illumadisk40 Retrofit - 95w	1	95	95						pendant mount acorn, green		4100
2	Path Lighting	4,380	EFMH150	7	Existing Fixture Metal Halide 150 watt Lamp	1	150	185	16		LEDRX45	7	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						pendant mount acorn, green. Illumadisk		4100
3	Pavillion	4,380	EV4234N	6	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LED19T84-2	6	Sylvania UltraLED 4' External Driver T8 LED - 2 lamp - 19w/ea	2	19	38								4100
Total		4380		15					30			15						0	0		0		0	

NORTHWEST EDISON

Hillcrest

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Restroom Bldg Exterior	4,380	EINC60	3	Existing Incandescent 60 watt Lamp(s)	1	60	60			NXTWLED10	3	New Cooper Crosstour LED Wallpack, 8 watts	1	10	8						wallpack		4100
2	Parking / Path	4,380	EPLHPS250	2	Existing Pole Light Fixture High Pressure Sodium 250 watt Lamp	1	250	295	26		NCHLED101HE	2	New LED Cobrahead Cree XSP1C 101 watts, 8,224 Lm	1	101	101						shoebox. 2 bolt, square pole, fixture bronze, pole green		4100
3	Parking / Path	4,380	EFMH150	3	Existing Fixture Metal Halide 150 watt Lamp	1	150	185			LEDRX45	3	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						pendant mount like SCERA and others. Green - china hat / teardrop		4100
4	Pavillion	4,380	EV4234N	4	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LED19T84-2	4	Sylvania UltraLED 4' External Driver T8 LED - 2 lamp - 19w/ea	2	19	38								4100
Total		4380		12					26			12						0	0		0		0	

NORTHWEST EDISON

Lakeside

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Parking	4,380	EPLMH250	7	Existing Pole Light Metal Halide 250 watt Lamp	1	250	295	30		NCHLED101HE	7	New LED Cobrahead Cree XSP1C 101 watts, 8,224 Lm	1	101	101						shoebox. green pole, bronze fixtures, 2 bolt, square pole with PC		4100
2	Path Lighting	4,380	EFMH150	10	Existing Fixture Metal Halide 150 watt Lamp	1	150	185	16		LEDRX45	10	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						pendant mount acorn, green.		4100
3	Ballfield Concessions Exterior	4,380	EFLMH70	6	Existing Flood Fixture Metal Halide 70 watt Lamp	1	70	90	20		NFLED18	6	New LED Flood, Rab FFLED18 Flood, 22 watts	1	18	22						1/2" nip and adj knuckle, bronze		4100
4	Ballfield Concessions Exterior	4,380	EWCFL26	1	Existing Wallpack CFL 26 watts	1	26	26			NXTWLED10P	1	New Cooper Crosstour LED Wallpack, 8 watts + Photocell	1	10	8								4100
5	Ballfield Concessions Exterior	4,380	ECFLP26	10	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	10	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						6" can, hard lid, vertical		4100
6	Soccer Concessions	4,380	ECFLP26	19	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	19	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						6" can, hard lid, vertical		4100
7	Soccer Concessions	4,380	EV4332N	8	Existing Vapor Tight 4' 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	85			NVPLED51	8	New 1x4 LED VT LED 51W - P-2	1	51	51								4100
Total		4380		61					30			61						0	0		0		0	

NORTHWEST EDISON

Mount Timpanogos

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Parking	4,380	EFMH175	7	Existing Fixture Metal Halide 175 watt Lamp	1	175	210	16		RL55KITLED	7	Relume Acorn LED Retrofit 55w Deployable	1	55	55						post top acorn, green pole, glass acorn		4100
2	Path Lighting	4,380	EFMH150	20	Existing Fixture Metal Halide 150 watt Lamp	1	150	185			LEDRX45	20	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						same pendant mount acorn as other parks. green pole.		4100
3	Bldg Exterior	4,380	EWMH70	19	Existing Wall Pack Metal Halide 70 watt Lamp	1	70	90	8		NXTWLED20P	19	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21						bronze		4100
4	Pavillion	4,380	EWMH70	2	Existing Wall Pack Metal Halide 70 watt Lamp	1	70	90			NXTWLED20P	2	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21								4100
5	Pavillion	4,380	ECNMH70	4	Existing Canopy Fixture Metal Halide 70 watt Lamp	1	70	90			NCLED30	4	New Alumen8 LED Canopy, 31 watts	1	31	30						suggest 12x12 Amerilum canopy		4100
6	Bldg Exterior	4,380	EWMH70	6	Existing Wall Pack Metal Halide 70 watt Lamp	1	70	90			NXTWLED20P	6	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21								4100
Total		4380		58					16			58						0	0		0		0	

NORTHWEST EDISON

Nielsens

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Parking Lighting	4,380	EPLMH250	20	Existing Pole Light Metal Halide 250 watt Lamp	1	250	295	30		NCHLED101HE	20	New LED Cobrahead Cree XSP1C 101 watts, 8,224 Lm	1	101	101						2 bolt, square pole, green pole, bronze fixtures		4100
2	Path Lighting	4,380	EFMH150	42	Existing Fixture Metal Halide 150 watt Lamp	1	150	185	15		LEDRX45	42	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						pendant mount. same as Cascade, green		4100
3	Sign Light	4,380	EFLMH70	1	Existing Flood Fixture Metal Halide 70 watt Lamp	1	70	90			NFLED18	1	New LED Flood, Rab FFLED18 Flood, 22 watts	1	18	22						bronze, slipfit with adj knuckle. medium		4100
4	Pavillions	4,380	EWHPS50	13	Existing Wall Pack High Pressure Sodium 50 watt Lamp	1	50	66			NWPLED14FT	13	New LED Wallpack, Lithonia DSXW1 14w, Type TFTM	1	14	14						with forward. need forward. Caulk bead after install		4100
5	Bldg Exterior	4,380	EWMH50	5	Existing Wall Pack Metal Halide 50 watt Lamp	1	50	72			NXTWLED10P	5	New Cooper Crosstour LED Wallpack, 8 watts + Photocell	1	10	8								4100
Total		4380		81					30			81						0	0		0		0	

NORTHWEST EDISON

Northridge

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Parking	4,380	EFMH250	2	Existing Fixture Metal Halide 250 watt Lamp	1	250	295	30		RL95DISKLED	2	Relume Teardrop LED Illumadisk40 Retrofit - 95w	1	95	95						pendant mount acorn, green. Illumadisk?		4100
2	Path	4,380	EFMH150	10	Existing Fixture Metal Halide 150 watt Lamp	1	150	185	16		LEDRX45	10	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						pendant mount acorn, green		4100
3	Restroom Bldg Exterior	4,380	EINC60	2	Existing Incandescent 60 watt Lamp(s)	1	60	60			NXTWLED10P	2	New Cooper Crosstour LED Wallpack, 8 watts + Photocell	1	10	8								4100
4	Pavillion	4,380	EV4232N	6	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LED19T84-2	6	Sylvania UltraLED 4' External Driver T8 LED - 2 lamp - 19w/ea	2	19	38								4100
Total		4380		20					30			20						0	0		0		0	

NORTHWEST EDISON

Orchard

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Path Lighting	4,380	EFMH150	20	Existing Fixture Metal Halide 150 watt Lamp	1	150	185	16		LEDRX45	20	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						pendant mount acorn, green		4100
2	Pavillion	4,380	EV4234N	6	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LED19T84-2	6	Sylvania UltraLED 4' External Driver T8 LED - 2 lamp - 19w/ea	2	19	38						pendant mount acorn, green. Illumadisk		4100
3	Pavillion	4,380	EINC60	2	Existing Incandescent 60 watt Lamp(s)	1	60	60			NXTWLED10P	2	New Cooper Crosstour LED Wallpack, 8 watts + Photocell	1	10	8								4100
Total		4380		28					16			28						0	0		0		0	

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Main Area 1st Floor	3,860	EBIAX440	12	Existing Chandelier with 4L 40 watt Biax Lamps	4	40	162	30		LAI	12	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	4	40	162	PC	1.00				control with PC	25%	4100
2	Main Area 1st Floor	3,860	EC3139H	322	Existing Cable Light 3' 1L F39 T5 Lamp, HBF Ballast	1	39	47			LAI	322	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	1	39	47								4100
3	Main Area 1st Floor	3,860	ECFL42	20	Existing Can Light with 42 watt CFL Lamp	1	42	42	30		LAI	20	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	1	42	42	PC	1.00				drop ceiling, vertical. control with PC	25%	4100
4	Main Area 1st Floor	3,860	EFMH175	18	Existing Fixture Metal Halide 175 watt Lamp	1	175	210			LEDRX45	18	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	1	45	45	PC	1.00				uplight, trunnion mount, bronze. control with PC	25%	4100
5	Main Area 1st Floor	3,860	ET4332N	54	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	54	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	48								4100
6	Main Area 1st Floor	3,860	ECFL218	1	Existing Round Ceiling Mount Fixture 2L 18 watt CFL Lamps	2	18	36			LAI	1	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	18	36								4100

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
7	Mens RR	2,509	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		30	LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
8	Mens RR	2,509	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						wall mount uplight. already sensored		4100
9	Womens RR	2,509	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
10	Womens RR	2,509	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						wall mount uplight. already sensored		4100
11	Book Sorting	3,860	ET4332N	9	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		80	TK4228N	9	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
12	Custodian	520	ET2217N	1	Existing Troffer 2x2 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33						surface mount fixture		4100
13	Stairwell	3,860	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			NSW228STS	2	New Stairwell Wrap Fixture, 2L F32T8 28 watt lamps, 2L Step Dim with integrated PIR sensor	2	28	51	INTEG	2.00				1 missing cover	25%	4100
14	Mech	520	ES4232N	2	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
15	Mech	520	ES4234N	3	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
16	Breakroom	3,860	ET4332N	6	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CM9	1.00	1.00				25%	4100
17	Breakroom	3,860	EINC60	2	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	2	7 watt A-19 Style LED Lamp	1	7	7								4100
18	Book Discussion Room - Main Level	3,860	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CM9	1.00	1.00				25%	4100
19	Door Around Corner	3,860	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CM9	1.00	1.00				25%	4100
20	2nd Floor	3,860	ET4332N	46	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		85	TK4228N	46	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
21	2nd Floor	3,860	ECFL42	4	Existing Can Light with 42 watt CFL Lamp	1	42	42			LAI	4	Leave existing fixture as is	1	42	42						8", drop ceiling, vertical		4100
22	Admin Offices	3,860	ECFL218	4	Existing Round Ceiling Mount Fixture 2L 18 watt CFL Lamps	2	18	36		30	LAI	4	Leave existing fixture as is	2	18	36								4100
23	Admin Offices	3,860	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						over reception desk		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
24	Admin Offices	3,860	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
25	Admin Offices	3,860	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328L	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64						in hall		4100
26	First Office on Right Down Left Hall	3,860	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		60	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	WSD	1.00					25%	4100
27	Next Office Left	3,860	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		60	LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	WSD	1.00					25%	4100
28	Next Office Left	3,860	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	1.00	1.00				25%	4100
29	Right Hall Copy Room	3,860	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		80	TK4228NP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	WSD	1.00					25%	4100
30	Office Right	3,860	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	1.00	1.00				25%	4100
31	Office Right	3,860	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	1.00	1.00				25%	4100
32	Office Right	3,860	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	1.00	1.00				25%	4100
33	Stairwell	3,860	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
34	Stairwell	3,860	ECFL218	2	Existing Round Ceiling Mount Fixture 2L 18 watt CFL Lamps	2	18	36			LAI	2	Leave existing fixture as is	2	18	36								4100
35	Office at End of Hall	3,860	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		70	LB328NP	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	0.50	0.50				25%	4100
36	Office at End of Hall	3,860	ET2232N	3	Existing Prismatic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2317NP	3	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), PRS Normal Ballast Factor	3	17	45	CM9	0.50	0.50				25%	4100
37	Workroom to Right	3,860	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		65	LB328NP	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	1.00	1.00				25%	4100
38	Workroom to Right	3,860	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	1.00	1.00				25%	4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
39	Stairwell to Basement from Main Area on 1	3,860	ET4232N	2	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		30	LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						surface mount		4100
40	Door at Bottom of Stairs	3,860	ET4232N	1	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						surface mount		4100
41	Basement Main	3,860	ET4332N	130	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		75-80	TK4228N	130	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
42	Basement Main	3,860	ET2232N	4	Existing Prismatic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2217N	4	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), Normal Ballast Factor	2	17	33								4100
43	Basement Main	3,860	ECFLP26	9	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	9	Leave existing fixture as is	1	26	30						7" can, drop ceiling, vertical		4100
44	Room Past Elevator	3,860	ET4332N	6	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CM9	1.00	1.00				25%	4100
45	Server Room	520	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
46	Tech Room	3,860	ET4332N	6	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CM9	1.00	1.00				25%	4100
47	Community Writing Center	3,860	ET4332N	8	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	8	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CM9	1.00	1.00				25%	4100
48	Elevator	8,760	ES4134N	2	Existing Strip 4' 1 Lamp(s) F34 T12 Standard Ballast	1	34	48			LB128L	2	Lamp & Ballast Retrofit 1L F32 T8 28 watt Lamp(s), Low Ballast Factor	1	28	22								4100
49	Breezeway to Childrens Library	3,860	ES12332N	3	Existing Strip 12' 3L F32 T8 Lamps, NBF Ballast	3	32	85			LB328L	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64	PC	1.00				para pris?. control with PC	25%	4100
50	Exterior	4,380	EWHPS150	1	Existing Wall Pack High Pressure Sodium 150 watt Lamp	1	150	188	25		NXTWLED85P	1	New Cooper CrosstourMaxx LED Wallpack, 85 watts + Photocell	1	85	85						forward. bronze		4100
51	Exterior	4,380	EWHPS70	3	Existing Wall Pack High Pressure Sodium 70 watt Lamp	1	70	91			NXTWLED20P	3	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21						over door		4100
Total		3608.549		742					30			742						22	13		0		0.25	

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Entry / Hall	4,380	ECFLP26	16	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30		10-15	R4P-10V	16	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10	CMW	3.00	1.00			6" can, drop ceiling, vertical	25%	4100
2	Entry / Hall	4,380	ECFLP26	14	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	14	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10	CMW	3.00	1.00			6" can, hard lid, vertical	25%	4100
3	Mens RR	2,847	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		30	LB228LP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						wall mount. already sensored		4100
4	Womens RR	2,847	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						wall mount. already sensored		4100
5	Door Around Corner from Womens RR	4,380	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
6	Suite 100 Traffic School	4,380	EDI8432N	4	Existing Direct/Indirect Fixture 8' 4L F32 T8 Lamps, NBF Ballast	4	32	112		30	LB428N	4	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96						pendant mount strip		4100
7	Suite 100 Traffic School	4,380	EINC75	19	Existing Incandescent 75 watt Lamp(s)	1	75	75			12WLEDP30	19	12 watt Par 30 LED Lamp	1	12	12				DIMS W	1.00	par 30 can. dimmable		4100
8	Door on Left	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		55	TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
9	Door on Right	4,380	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
10	Suite 104	4,380	EPT4332N	8	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		75	LB328NP	8	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	2.00	2.00				25%	4100
11	Door on Right	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
12	107 Interview Room 3	2,847	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		90	LB328LP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	3	28	64						already sensored		4100
13	106 Interview 2	2,847	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328LP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	3	28	64						already sensored		4100
14	105 Interview 1	2,847	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328LP	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	3	28	64						already sensored		4100
15	Suite 102	4,380	EPT4332N2	11	Existing Parabolic Troffer 2x4 18 Cell 3L F32 T8 32 watt Lamp(s), 2 NBF Ballasts (Inboard/Outboard)	3	32	92			LB328ST	11	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Step Dimming Ballast	3	28	72						dual switch in/out		4100
16	Suite 102	4,380	ECFLP26	4	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	4	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						6" can, hard lid, vertical		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
17	Suite 103 - Hall	4,380	EPT4332N	34	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		35	LB328LP	34	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	3	28	64	HW13	6.00	2.00				25%	4100
18	Suite 103 - Hall	4,380	ECFLP26	5	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	5	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10	HW13	1.00	1.00			6" can, hard lid, vertical	25%	4100
19	Med Supplies	520	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
20	Door to Right	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
21	108	4,380	EPT4332N2	6	Existing Parabolic Troffer 2x4 18 Cell 3L F32 T8 32 watt Lamp(s), 2 NBF Ballasts (Inboard/Outboard)	3	32	92		75	LB328ST	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Step Dimming Ballast	3	28	72						dual switch in/out		4100
22	Breakroom	4,380	ET4332N	6	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSD	1.00					25%	4100
23	Fitness Room	4,380	EPT4332N	9	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	9	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
24	Cubby Across	4,380	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
25	Armory	4,380	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
26	Door Across from Cubby	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
27	Door Around Corner	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
28	110	4,380	EPT4332N	5	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	5	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
29	Back Door by 110 - Stairwell	4,380	EW4232N	4	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						wall mount		4100
30	111	4,380	EPT4332N	9	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		70	LB328N	9	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
31	112	4,380	EPT4332N	10	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	10	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
32	Report Writing Cubby	4,380	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
33	Locker Area Across	4,380	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
34	Back Entry	4,380	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
35	113 Detention	4,380	EVP4232N	6	Existing Vandal Proof Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228N	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						surface mount		4100
36	Holding Hall	4,380	EVP4232N	4	Existing Vandal Proof Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228N	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						surface mount		4100
37	Holding Cells	4,380	EVP4232N	4	Existing Vandal Proof Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228N	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						surface mount		4100
38	Visiting Room	4,380	EVP4232N	1	Existing Vandal Proof Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						surface mount		4100
39	Juvi Holding	4,380	EVP4232N	2	Existing Vandal Proof Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228N	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						surface mount		4100
40	Holding	4,380	EVP4232N	1	Existing Vandal Proof Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						surface mount		4100
41	Hall to 114	4,380	EVP4232N	2	Existing Vandal Proof Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228N	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48	CMW	1.00	1.00			surface mount	25%	4100
42	114 Warrant	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
43	Garage	4,380	EV4232N	15	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LB228N	15	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
44	115 Property	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
45	Evidence Room	4,380	ES4232N	12	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	12	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
46	Closet in Evidence	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
47	Room with Defumigator	520	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						surface mount		4100
48	Closet	520	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
49	Custodial by Mens RR	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
50	Mens RR	4,380	EW4232N	6	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		75	LB228L	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						wall mount		4100
51	Mens RR	4,380	ECFLP13	5	Existing CFL Pin Based 13 watt Lamp(s)	1	13	17			R4P-10V	5	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						can 6", 4 pin, hard lid, vertical		4100
52	Mens RR	4,380	EPT4332N	9	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328L	9	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64								4100
53	Womens RR	4,380	EW4232N	4	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						wall mount		4100
54	Womens RR	4,380	ECFLP13	3	Existing CFL Pin Based 13 watt Lamp(s)	1	13	17			R4P-10V	3	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						can 6", 4 pin, hard lid, vertical		4100
55	Womens RR	4,380	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328L	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64								4100
56	Server	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
57	Double Door around Corner	2,847	ES4332N	4	Existing Strip 4' 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	85			LB328LP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	3	28	64						already sensored		4100
58	116 Mech	520	ES4232N	7	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	7	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
59	117	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	1.00	2.00			dual switch	25%	4100
60	Stairwell	4,380	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						wall mount		4100
61	Hall	4,380	EPT4332N	5	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328L	5	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64	HW13	2.00	1.00				25%	4100
62	Lobby between Halls	4,380	EPT4332N	9	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TDI4228NP	9	Troffer Direct/Indirect Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	WV16	3.00	1.00				25%	4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
63	Lobby between Halls	4,380	EINC65	4	Existing Incandescent 65 watt Lamp(s)	1	65	65			10WLEDBR30	4	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5						BR30 can		4100
64	Hall	4,380	EPT4332N	13	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328L	13	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64	WV16	2.00	1.00				25%	4100
65	206	4,380	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
66	205	4,380	EPT4332N	5	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	5	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
67	204	4,380	EPT4332N	5	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	5	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
68	Closet	520	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
69	208	4,380	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
70	Copy Area	4,380	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
71	202	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
72	Lobby on 2	4,380	ECFLP213	2	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			R4P-10H	2	Retrofit 4 pin LED - Horizontal - 10w - LightEffDes	1	10	10	CMW	1.00	1.00			6" can, hard lid, horizontal, Terralux	25%	4100
73	Lobby on 2	4,380	ECFLP26	19	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	19	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10	CMW	2.00	1.00			6" can	25%	4100
74	EMS Manager	4,380	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
75	201	4,380	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
76	210	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
77	210	4,380	EINC100	2	Existing Incandescent 100 watt Lamp(s)	1	100	100			15WLEDA21	2	15 watt A-21 Style LED Lamp	1	15	15						can		4100
78	Restroom in 210	4,380	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						wall mount		4100
79	209 Conference	4,380	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
80	211	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
81	Fire Storage	520	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
82	Electrical	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
83	Closet in Hall Around Corner	520	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
84	Janitor Closet to Right	520	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
85	212	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
86	Restroom Lobby	4,380	ECFLP26	2	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	2	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						6" can, hard lid, vertical		4100
87	Womens RR	4,380	EW4232N	4	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						wall mount		4100
88	Womens RR	4,380	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	1	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						6" can, hard lid, vertical		4100
89	Mens RR	4,380	EW4232N	4	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						wall mount		4100
90	Mens RR	4,380	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	1	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						6" can, hard lid, vertical		4100
91	213	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
92	214	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
93	Kitchen	4,380	EPT4332N	3	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	3	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
94	215	4,380	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72	CM9	1.00	1.00			dual switch	25%	4100
95	216	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
96	Call Center	4,380	EPT4332N	12	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	12	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
97	Office Back Right	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
98	Server Room	520	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
99	Restroom Lobby	4,380	EPT4332N	1	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328L	1	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Low Ballast Factor	3	28	64								4100
100	Breakroom	4,380	EPT4332N	2	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	2	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72								4100
101	Restroom	4,380	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						wall mount		4100
102	219	4,380	EPT4332N	23	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	23	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
103	220	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
104	221	4,380	EPT4332N	4	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328N	4	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), Normal Ballast Factor	3	28	72						dual switch		4100
105	Conference	2,847	EPT4332N	6	Existing Parabolic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LB328NP	6	Lamp & Ballast Retrofit 3L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	3	28	72						dual switch. already sensored		4100
106	Storage	520	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
107	Door to Right	4,380	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
108	207	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
109	Exterior	4,380	EWMH70	5	Existing Wall Pack Metal Halide 70 watt Lamp	1	70	90			NXTWLED20P	5	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21						over door		4100
110	Exterior	4,380	ECFLP26	9	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			R4P-10V	9	Retrofit 4 pin LED - Vertical - 10w - LightEffDes	1	10	10						6" can, hard lid, vertical		4100
111	Exterior	4,380	EFHPS150	2	Existing Fixture High Pressure Sodium 150 watt Lamp	1	150	188			LEDRX45	2	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						ball light, post top, bronze		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
112	Exterior	4,380	ECLHPS70	2	Existing Can Light High Pressure Sodium 70 watt Lamp	1	70	91			NCLED30	2	New Alumen8 LED Canopy, 31 watts	1	31	30						recessed, 12 in hole. suggest 12x12 Amerilum canopy with mounting plate		4100
Total		3801.688		525					0			525						29	16		1		0.25	

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Entry	2,847	ECFLP26	2	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	2	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical, sensored		4100
2	Lobby	2,347	ET4232N	6	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61	26		LB228N	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
3	Storage in Lobby	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
4	Reception Counter	2,347	ECFLP26	4	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	4	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100
5	Hall	1,526	ET4232N	27	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	27	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
6	Hall	2,347	ECFLP26	2	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	2	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100
7	Metro Water Office	1,526	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		95	TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
8	Office	2,347	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
9	Office	2,347	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
10	Office	2,347	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
11	Garage Hall	1,526	ET4232N	2	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
12	Office	2,347	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
13	Office	2,347	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
14	Mens RR	1,526	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
15	Mens RR	1,526	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
16	Garage	2,347	EHB4654H	20	Existing High Bay Fixture 4' 6L F54 T5 Lamps, HBF Ballast	6	54	354	26	65	LAI	20	Leave existing fixture as is	6	54	354						hung off of strut		4100
17	Double Door Storage	250	ET4232N	1	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LAI	1	Leave existing fixture as is	2	32	61						already sensored		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
18	Mezzanine	2,347	ES8432N	8	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428L	8	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
19	Water Services Office	1,526	ET4332N	9	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		80	TK4228NP	9	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
20	Office	2,347	ET4332N	6	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48								4100
21	Next Garage Hall	1,526	ET4232N	2	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
22	Office	2,347	ET4332N	3	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48								4100
23	Next Bay of Garage	2,347	EHB4654H	15	Existing High Bay Fixture 4' 6L F54 T5 Lamps, HBF Ballast	6	54	354			LAI	15	Leave existing fixture as is	6	54	354								4100
24	Mezzanine	2,347	ES8432N	6	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428L	6	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
25	Electrical on Mezz	520	ES4232N	3	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
26	Storage on Mezz	520	ES4232N	2	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
27	Storage Room in 2nd Bay	250	ES4232N	3	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LAI	3	Leave existing fixture as is	2	32	61						already sensored		4100
28	Hall to Next Bay	1,526	ET4232N	6	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
29	Mens RR	1,526	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						wall mount. already sensored		4100
30	Mens RR	2,347	ECFLP26	2	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	2	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100
31	Breakroom	2,347	ET4232N	12	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	12	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
32	First Office on Right	1,526	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
33	Next Office Left	2,347	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
34	Next Office Left	2,347	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
35	Next Office Left	2,347	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
36	Office Across	2,347	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
37	Office Left	2,347	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
38	Storage in Hall	520	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
39	Womens RR	1,526	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
40	Womens RR	2,347	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100
41	Breakroom	1,526	ET4332N	7	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	7	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
42	Office	1,526	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
43	Office	1,526	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
44	3rd Bay of Garage	2,347	EHB4654H	20	Existing High Bay Fixture 4' 6L F54 T5 Lamps, HBF Ballast	6	54	354			LAI	20	Leave existing fixture as is	6	54	354								4100
45	Compressor Room	250	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LAI	1	Leave existing fixture as is	2	32	61						already sensored		4100
46	Tool Room	520	ET4232N	2	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
47	Mens RR in Main Hall of Public Works	1,526	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						wall mount. already sensored		4100
48	Mens RR in Main Hall of Public Works	2,347	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100
49	Womens RR	1,526	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						wall mount. already sensored		4100
50	Womens RR	2,347	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
51	Elevator Mech	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
52	Storage	250	ET4232N	4	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LAI	4	Leave existing fixture as is	2	32	61						already sensored		4100
53	Reception Office	1,526	ET4232N	13	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		60	LB228NP	13	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
54	File Room	250	ET4332N	1	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			LAI	1	Leave existing fixture as is	3	32	92						already sensored		4100
55	Copy / Mail Room	1,526	ET4232N	3	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		60	LB228NP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
56	Office	1,526	ET4332N	8	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	8	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
57	Kitchen / Vending	1,526	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored. suggest 2 vending misers in this area JST: VM'S not in scope		4100
58	Conference	1,526	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
59	Janitor	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
60	Conference 3	1,526	EDI4232N	6	Existing Direct/Indirect Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228LP	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
61	Double Door Storage	250	ET4232N	2	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LAI	2	Leave existing fixture as is	2	32	61						already sensored		4100
62	Office	1,526	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
63	Conference 2	1,526	EDI4232N	6	Existing Direct/Indirect Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228LP	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
64	Office	1,526	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
65	Conference 1	1,526	EDI4232N	6	Existing Direct/Indirect Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228LP	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
66	Office	1,526	ET4332N	6	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
67	Hall to Right of Conf 3	1,526	ET4232N	8	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	8	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
68	Street Light Shop	2,347	ELBLED	5	Existing Low Bay LED Fixture	1	200	200			LAI	5	Leave existing fixture as is	1	200	200								4100
69	Office	1,526	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
70	Storage	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
71	Traffic Shop	2,347	EHB4654H	6	Existing High Bay Fixture 4' 6L F54 T5 Lamps, HBF Ballast	6	54	354			LAI	6	Leave existing fixture as is	6	54	354								4100
72	Traffic Shop	1,526	ES8432N	9	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428LP	9	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	4	28	84						already sensored		4100
73	Sign Shop	2,347	EHB4654H	2	Existing High Bay Fixture 4' 6L F54 T5 Lamps, HBF Ballast	6	54	354			LAI	2	Leave existing fixture as is	6	54	354								4100
74	Sign Shop	1,526	ET4332N	9	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	9	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
75	Shower 1	1,526	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
76	Shower 2	1,526	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
77	Back Hall Past Showers	1,526	ET4232N	7	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	7	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
78	Carpentry Shop	2,347	ES8432N	6	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428N	6	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96								4100
79	Carpentry Shop	2,347	EHB4654H	2	Existing High Bay Fixture 4' 6L F54 T5 Lamps, HBF Ballast	6	54	354			LAI	2	Leave existing fixture as is	6	54	354								4100
80	Kitchen	1,526	ET4232N	2	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
81	Closet	520	ET4232N	1	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
82	Restroom	1,526	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						wall mount. already sensored		4100
83	Restroom	2,347	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100
84	Mens RR	1,526	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						wall mount. already sensored		4100
85	Mens RR	2,347	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100
86	Warehouse	2,347	EHB4654H	18	Existing High Bay Fixture 4' 6L F54 T5 Lamps, HBF Ballast	6	54	354			LAI	18	Leave existing fixture as is	6	54	354								4100
87	Office	1,526	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
88	Office	1,526	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
89	Fleet Services Bay	2,347	EHB4654H	21	Existing High Bay Fixture 4' 6L F54 T5 Lamps, HBF Ballast	6	54	354			LAI	21	Leave existing fixture as is	6	54	354								4100
90	Fleet Services Bay	2,347	ES8432N	11	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428N	11	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96						on Mezz		4100
91	Breakroom / Office	1,526	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228NP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48						already sensored		4100
92	Double Door Storage Under Mezz	520	ES8432N	6	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428N	6	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96								4100
93	Locksmith Room	520	ES4232N	2	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
94	Lube Storage	520	EX4332N	6	Existing Explosion Proof Fixture 4' 3L F32 T8 Lamps, NBF Ballast	3	32	85			LAI	6	Leave existing fixture as is	3	32	85								4100
95	Stairwell by Lobby	2,347	ES4232N	2	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						wall mount up/down light		4100
96	2nd Floor Hall	1,526	ET4232N	21	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	21	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
97	Office	1,526	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
98	Office	2,347	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
99	Next Office Right	2,347	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
100	Office	2,347	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
101	Mens RR	1,526	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						wall mount. already sensored		4100
102	Mens RR	2,347	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100
103	Restroom	1,526	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						wall mount. already sensored		4100
104	Restroom	2,347	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, hard lid, vertical		4100
105	Conference	1,526	EDI4232N	6	Existing Direct/Indirect Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228LP	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
106	Storage	250	ET4232N	1	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LAI	1	Leave existing fixture as is	2	32	61						already sensored		4100
107	Office	1,526	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
108	Office	1,526	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
109	Traffic Ops Center	1,526	EDI4232N	8	Existing Direct/Indirect Fixture 4' 2L F32 T8 Lamps, NBF Ballast	2	32	58			LB228LP	8	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
110	Traffic Ops Center	2,347	ELEDCAN	6	Existing LED Can Light	1	15	15			LAI	6	Leave existing fixture as is	1	15	15								4100
111	Traffic Computer Room	2,347	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
112	Traffic Intern	1,526	ET4332N	3	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
113	Office	1,526	ET4332N	3	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
114	Office	1,526	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
115	Office	1,526	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
116	Comm Room	1,526	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
117	Office	1,526	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228LP	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42						already sensored		4100
118	Mechanical	520	ES4232N	12	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	12	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
119	Fitness Area	2,347	EW4432N	2	Existing Wrap 4' 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			WK4228L	2	Wrap Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						wide		4100
120	Exterior	4,380	ECLMH70	5	Existing Can Light Metal Halide 70 watt Lamp (8-10")	1	70	90	26		LEDR24	5	24 watt HID Replacement Lamp- Light Efficient Design -bypass ballast	1	24	24						6", hard lid		4100
121	Exterior	4,380	EWMH70	48	Existing Wall Pack Metal Halide 70 watt Lamp	1	70	90			NXTWLED20P	48	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21						bronze		4100
122	Exterior	4,380	EFLMH175	1	Existing Flood Fixture Metal Halide 175 watt Lamp	1	175	210			NFLED53	1	New LED Flood, Rab FFLED52 Flood, 54 watts	1	54	54						bolted into concrete? perhaps DSXF series? JST: x to Rab		4100
123	Poles	4,380	EFMH250	8	Existing Fixture Metal Halide 250 watt Lamp	1	250	295	30		RL95DISKLED	8	Relume Teardrop LED Illumadisk40 Retrofit - 95w	1	95	95						pendant mount acorn, green pole		4100
124	Poles	4,380	EFLMH400	20	Existing Flood Fixture Metal Halide 400 watt Lamp	1	400	458	33		NFLED150	20	New LED Flood, Rab FXLED150, 155 watts	1	150	155	PH	20.00				trunnion mounted to wood pole. DSXF3 wide with PC jst: x to Rab		4100
125	Poles	4,380	ECHMH175	6	Existing Cobra Head Fixture Metal Halide 175 watt Lamp	1	175	210	16		NCHLED53	6	New LED Cobrahead Cree XSP1 53 watts	1	53	53	PH	6.00				needs PC		4100
Total		1786.278		627					33			627						26	0		0		#DIV/0!	

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Entry	5,059	ECFLP226	6	Existing CFL Pin Based with 2 - 26 watt Lamp(s)	2	26	56	10	30	RCM13TLX	6	Retro RC 7"+ LED Module - Terralux 13 watts	1	13	13						recessed can, hard lid, horizontal. Terralux		4100
2	Spin Area	5,059	EBIAX840	24	Existing Fixture with 8L 40 watt Biax Lamps	8	40	320	18	40	NHBLED198	24	New LED Highbay 18K Lumens, Lithonia IBH - 198w	1	198	198						biax disk. lid is 21'. hung off cable. suggest LED highbay		4100
3	Spin Area	8,760	EXCFL27	1	Exit Sign Compact Fluorescent 2 - 7 watt Lamp(s)	2	7	14			NEXBG	1	New Green LED Exit Sign w Battery Backup	0		2								4100
4	Back Hall	5,059	ET4234N	30	Existing Prismatic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82		25-35	LB228LP	30	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	6.00	1.00			surface mount	25%	4100
5	Back Hall	5,059	ET14234N	5	Existing Prismatic Troffer 1x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	5	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00			surface mount	25%	4100
6	Back Hall	8,760	EXCFL27	6	Exit Sign Compact Fluorescent 2 - 7 watt Lamp(s)	2	7	14			NEXBG	6	New Green LED Exit Sign w Battery Backup	0		2								4100
7	Back Hall	5,059	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
8	Back Hall	5,059	ET2232N	16	Existing Prismatic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2217LP	16	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), PRS Low Ballast Factor	2	17	29	CMW	3.00	1.00			surface mount	25%	4100
9	Gray Double Doors on Left in Spin Area	5,059	ES8432N	1	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428L	1	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
10	Single Gray Door on Left in Spin Area	5,059	EINC100	1	Existing Incandescent 100 watt Lamp(s)	1	100	100			15WLEDA21	1	15 watt A-21 Style LED Lamp	1	15	15								4100
11	Mens RR	5,059	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		30	LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	0.50	0.50				25%	4100
12	Mens RR	5,059	EW4234N	2	Existing Wrap 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	0.50	0.50				25%	4100
13	Mens RR	5,059	EVAN4232N	2	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
14	Mens Locker Room	5,059	EW4232N	6	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		20-30	LB228LP	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
15	Mens Locker Room	5,059	EW4234N	4	Existing Wrap 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
16	Mens Locker Room	5,059	EVAN4232N	4	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
17	Mens Locker Room	5,059	EV4232N	10	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LB228LP	10	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	2.00	1.00				25%	4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
18	Mens Locker Room	5,059	EV4234N	18	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	18	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	3.00	1.00				25%	4100
19	Mens Locker Room	5,059	EV2217N	1	Existing Vaportight 2x2 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33								4100
20	Door in Mens Locker Room	5,059	EINC100	1	Existing Incandescent 100 watt Lamp(s)	1	100	100			15WLEDA21	1	15 watt A-21 Style LED Lamp	1	15	15								4100
21	Staff Room between Lockers	5,059	ET4232N	1	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		30	LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
22	Staff Room between Lockers	5,059	EW4234N	5	Existing Wrap 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	5	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
23	Staff Room between Lockers	5,059	ET4234N	2	Existing Prismatic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
24	Staff Room between Lockers	5,059	ES4232N	3	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
25	Staff Room between Lockers	5,059	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						ceiling mount in closet. LAI		4100
26	Gray Door in Staff Area to Left of Elec Panels	5,059	ECFLS20	1	Existing CFL Screw-in 20 watt Lamp(s)	1	20	20			9WLEDA19	1	9.5 watt A-19 Style LED Lamp	1	9.5	9.5								4100
27	Gray Door in Staff Area to Left of Elec Panels	5,059	EINC100	1	Existing Incandescent 100 watt Lamp(s)	1	100	100			15WLEDA21	1	15 watt A-21 Style LED Lamp	1	15	15								4100
28	Womens Locker Room	5,059	EW4232N	6	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
29	Womens Locker Room	5,059	EW4234N	4	Existing Wrap 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
30	Womens Locker Room	5,059	EVAN4232N	4	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
31	Womens Locker Room	5,059	EV4232N	10	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LB228LP	10	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	2.00	1.00				25%	4100
32	Womens Locker Room	5,059	EV4234N	18	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	18	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	3.00	1.00				25%	4100
33	Womens Locker Room	5,059	EV2217N	1	Existing Vaportight 2x2 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33								4100
34	Womens RR	5,059	EVAN4232N	2	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	0.50	0.50				25%	4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
35	Womens RR	5,059	EW4234N	3	Existing Wrap 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	0.50	0.50				25%	4100
36	Womens RR	5,059	ET4234N	1	Existing Prismatic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMW	1.00	1.00				25%	4100
37	Family Dressing Room	5,059	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CMPDT	1.00	1.00				25%	4100
38	Gym	5,059	EHBMH400	29	Existing High Bay Fixture Metal Halide 400 watts	1	400	458	25	30-50	NHBLED198	29	New LED Highbay 18K Lumens, Lithonia IBH - 198w	1	198	198	CM9	4.00	8.00			Installed by City.	25%	4100
39	Gym	8,760	EXINC215	3	Exit Sign Incandescent with 2 - 15 watt Lamps	2	15	30			NEXBG	3	New Green LED Exit Sign w Battery Backup	0		2								4100
40	Child Care in Gym	5,059	ET4234N	15	Existing Prismatic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82		30	LB228L	15	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						surface mount		4100
41	Class to Right	5,059	ET4232N	6	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						surface mount		4100
42	Athletic Equipment Room in Gym	5,059	ES4234N	12	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	12	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
43	Filter Room	520	ES4234N	4	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
44	Boiler Room in Equipment Room	520	ES4234N	4	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
45	M2 Mech in Gym	520	ECFLS20	3	Existing CFL Screw-in 20 watt Lamp(s)	1	20	20			9WLEDA19	3	9.5 watt A-19 Style LED Lamp	1	9.5	9.5								4100
46	Storage in Gym across from Daycare	520	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						no cover		4100
47	Weight Room	5,059	ET4332N	42	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		45-55	TK4228N	42	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						surface mount		4100
48	Coordinators Office	5,059	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						surface mount		4100
49	Racquetball Court 2	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61	22	55	LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
50	Court 4	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000
51	Court 6	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000
52	Court 8	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000
53	M3 Mech	520	ES8434N	1	Existing Strip 8' 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			LB428L	1	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
54	Court 10	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000
55	Court 12	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
56	Court 14	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000
57	101 Rifle Range	5,059	ES4234N	2	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
58	101 Rifle Range	5,059	ES8434N	2	Existing Strip 8' 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			LB428N	2	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Normal Ballast Factor	4	28	96								4100
59	101 Rifle Range	5,059	EINC75	10	Existing Incandescent 75 watt Lamp(s)	1	75	75			17WLEDP38	10	17 watt Par 38 LED Lamp	1	17	17				DIMS W	1.00	par 38. dimmable		4100
60	101 Rifle Range	5,059	ET14234N	8	Existing Prismatic Troffer 1x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228N	8	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
61	101 Rifle Range	5,059	ET4434N	3	Existing Prismatic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			TK4228N	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
62	Door to Left of Court 13	5,059	ES4234N	1	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
63	Court 13	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000
64	Court 11	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	48						recessed		5000
65	Court 9	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
66	Court 7	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000
67	Court 5	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000
68	Court 3	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000
69	Court 1	5,059	ET4232N	16	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228H	16	The lighting solution will be a "long life", energy efficient equivalent to similar locations and applications. The most suitable solution will be determined on a case by case basis with City and contractor agreement and approval	2	28	65						recessed		5000
70	S4 Storage to Right of Court 1	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
71	M1 Custodian	5,059	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
72	M1 Custodian	5,059	ES4234N	1	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
73	Telephone Cubby by Check in Desk	5,059	EW2220N	1	Existing Wrap 2' 2 Lamp(s) F20 T12 Standard Ballast	2	20	36			LB2217L	1	Lamp & Ballast Retrofit 2L F17 T8 17 watt Lamp(s), Low Ballast Factor	2	17	29								4100
74	Blue Door Under Stairs (to water slide?)	5,059	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						Pool area already LED		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
75	Blue Door by Kiddie Pool Area - Pump Room	5,059	ES8432N	6	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428L	6	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84						existing has cage		4100
76	Brown Door	5,059	ES8432N	2	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428L	2	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84						existing has cage		4100
77	Blue Double Doors by Kiddie Pool Area	5,059	ES8432N	1	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428L	1	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84						existing has cage		4100
78	Filter Room - Brown Door - Main Pool	520	EV4234N	5	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	5	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
79	Filter Room - Brown Door - Main Pool	520	EV4232N	3	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LB228L	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
80	Pool Fan Room - Outside Entry	520	EV4234N	4	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
81	Downstairs behind Check in Desk	5,059	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						other 2 over stairs are counted in main hall counts		4100
82	Track	5,059	EW8232N	16	Existing Wrap 1x8 Fixture 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58		30	LB228L	16	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						surface mount		4100
83	Track	5,059	EW8234N	66	Existing Wrap 8' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	66	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						surface mount		4100
84	Track	5,059	EW4134N	1	Existing Wrap 4' 1 Lamp(s) F34 T12 Standard Ballast	1	34	48			LB128L	1	Lamp & Ballast Retrofit 1L F32 T8 28 watt Lamp(s), Low Ballast Factor	1	28	22						surface mount		4100
85	Storage S5 on Track	520	ES4234N	2	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
86	M12 Elevator Pump Room	520	ES8434N	1	Existing Strip 8' 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			LB428L	1	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
87	Upstairs Open Area	5,059	ET2217N	23	Existing Troffer 2x2 2L F17 T8 Lamps, NBF Ballast	2	17	33		35	LAI	23	Leave existing fixture as is	2	17	33						recessed		4100
88	Upstairs Open Area	5,059	ET4232N	9	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	9	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						surface mount		4100
89	Upstairs Open Area	5,059	ET4234N	24	Existing Prismatic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	24	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						surface mount		4100
90	Upstairs Open Area	5,059	ET2232N	7	Existing Prismatic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2217L	7	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), Low Ballast Factor	2	17	29						surface mount		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
91	Upstairs Open Area	8,760	EXINC215	3	Exit Sign Incandescent with 2 - 15 watt Lamps	2	15	30			NEXBG	3	New Green LED Exit Sign w Battery Backup	0		2								4100
92	Upstairs Open Area	5,059	ET2234N	9	Existing Prismatic Troffer 2x2 2 Lamp(s) F34 T12 U-Tube Standard Ballast	2	34	82			TK2217L	9	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), Low Ballast Factor	2	17	29						surface mount		4100
93	M11 Mech by Racquet Courts in 2nd Floor Hall	520	ES8434N	1	Existing Strip 8' 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			LB428L	1	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
94	S6 Storage	520	ES4234N	1	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
95	Spin Class (includes 3 over back stairwell)	5,059	ET4234N	10	Existing Prismatic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	10	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42						surface mount		4100
96	Aerobics Class	5,059	EDI121232 N	19	Existing Direct/Indirect Pendant Mount Fixture 12' 12L F32 T8 Lamps, NBF Ballast	12	32	366		70	LB628N	38	Lamp & Ballast Retrofit 6L F32 T8 28 watt Lamp(s), Normal Ballast Factor	6	28	144								4100
97	Office in Aerobics Studio	5,059	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
98	Back Stairs	5,059	ECFLP26	2	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			RCM13TLX	2	Retro RC 7"+ LED Module - Terralux 13 watts	1	13	13						recessed can, drop ceiling, horizontal. Terralux		4100
99	Back Stairs	5,059	ECFLP26	3	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			NXTWLED10	3	New Cooper Crosstour LED Wallpack, 8 watts	1	10	8						wallmount. new bronze		4100
100	Door Across from Exercise Studio	5,059	ET4434N	2	Existing Prismatic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
101	M10 Custodian	520	ES4234N	2	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
102	Fitness Center Manager Office	5,059	ET4234N	4	Existing Prismatic Troffer 2x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228N	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						surface mount		4100
103	Program Manager Office	5,059	EW4434N	1	Existing Wrap 4' 4 Lamp(s) F34 T12 Standard Ballast	4	34	164		40	WK4228N	1	Wrap Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						wide		4100
104	Copy Room	5,059	ET4434N	1	Existing Prismatic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			TK4228N	1	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						surface mount		4100
105	Pool Viewing Area	5,059	EV4232N	2	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
106	Pool Viewing Area	5,059	EV4234N	8	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	8	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
107	Pool Viewing Area	8,760	EXINC215	2	Exit Sign Incandescent with 2 - 15 watt Lamps	2	15	30			NEXBG	2	New Green LED Exit Sign w Battery Backup	0		2								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
108	S7 Storage	520	ES4234N	2	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
109	Office to Left of Copy	5,059	ET4434N	3	Existing Prismatic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			TK4228N	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
110	Conference Room	3,288	ET2217N	8	Existing Troffer 2x2 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	8	Leave existing fixture as is	2	17	33						already sensored		4100
111	Storage	150	ET2217N	4	Existing Troffer 2x2 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	4	Leave existing fixture as is	2	17	33						already sensored		4100
112	Office to Right	3,288	ET2217N	4	Existing Troffer 2x2 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	4	Leave existing fixture as is	2	17	33						already sensored		4100
113	Office to Right	3,288	ET2217N	4	Existing Troffer 2x2 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	4	Leave existing fixture as is	2	17	33						already sensored		4100
114	Exterior	4,380	EWCFL26	2	Existing Wallpack CFL 26 watts	1	26	30	12		NXTWLED10	2	New Cooper Crosstour LED Wallpack, 8 watts	1	10	8						over door, cutoff. new bronze		4100
115	Exterior	4,380	ESOFMH70	2	Existing Soffit Fixture Metal Halide 70 watt Lamp	1	70	90			NCLED30	2	New Alumen8 LED Canopy, 31 watts	1	31	30						recessed square. suggest 12x12 Amerilum canopy		4100
116	Exterior	4,380	ECLMH70	2	Existing Can Light Metal Halide 70 watt Lamp (8-10")	1	70	90			NCLED30	2	New Alumen8 LED Canopy, 31 watts	1	31	30						recessed, 6", hard lid, vertical. suggest 12x12 Amerilum canopy		4100
117	Exterior	4,380	EWLED	4	Existing LED Wallpack with PC	1	30	30			LAI	4	Leave existing fixture as is	1	30	30								4100
118	Exterior	4,380	EWMV175	1	Existing Wall Pack Mercury Vapor 175 watt Lamp	1	175	205			NXTWLED30	1	New Cooper Crosstour LED Wallpack, 30 watts	1	30	30						over door. new bronze		4100
119	Exterior	4,380	EWMV175	4	Existing Wall Pack Mercury Vapor 175 watt Lamp	1	175	205	20		NXTWLED30	4	New Cooper Crosstour LED Wallpack, 30 watts	1	30	30						bronze		4100
120	Exterior	4,380	EWMH50	1	Existing Wall Pack Metal Halide 50 watt Lamp	1	50	72			NXTWLED20	1	New Cooper Crosstour LED Wallpack, 20 watts	1	20	21						by door dwon stairs. new bronze		4100
121	Exterior	4,380	EFLMH250	2	Existing Flood Fixture Metal Halide 250 watt Lamp	1	250	295	20		NFLED105	2	New LED Flood, Rab FXLED105, 105 watts	1	105	109						slipfit with adj knuckle. bronze		4100
122	Exterior	4,380	ECHMH400	4	Existing Cobra Head Fixture Metal Halide 400 watt Lamp	1	400	458	30		NCHLED139	4	New LED Cobrahead Cree XSP2L 139 watts	1	139	139	PH	4.00				need PC.	0%	4100
123	Exterior	4,380	EFHPS100	4	Existing Fixture High Pressure Sodium 100 watt Lamp	1	100	130			NCHLED101HE	2	New LED Cobrahead Cree XSP1C 101 watts, 8,224 Lm	1	101	101						post top -JST:; REMOVE BOTH HEADS, REPLACE 1 PER POLE, Type V SQUARE, BLACK - FACING AWAY FROM BLDG		4100
Total		4517.61		877					30			894						44	31		1		0.2407407	

NORTHWEST EDISON

RecCen Park

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Parking Lot	4,380	ECHHPS150	8	Existing Cobra Head High Pressure Sodium 150 watt Lamp	1	150	188	30		NCHLED53HE	8	New LED Cobrahead Cree XSP1 53 watts, 4,806 Lm	1	53	53	PH	8.00				slipfit, silver, PC,		4100
2	Path Lighting	4,380	ECHHPS70	5	Existing Cobra Head High Pressure Sodium 70 watt Lamp	1	70	91	30		NALED43	5	New LED Cobrahead Cree BSXR 42 watts	1	42	42	PH	5.00				slipfit, silver, PC		4100
3	Restroom Bldg 1	4,380	EA4234N	8	Existing Angle Mount Fixture 4' 2L F34 T12 Lamps, NBF Ballast	2	34	82			NVPLED32	8	New 1x4 LED VT LED 32W - P-2	1	32	32						tamp screws. already sensored by PC		4100
4	Restroom Bldg 1	4,380	EINC60	2	Existing Incandescent 60 watt Lamp(s)	1	60	60			NXTWLED10	2	New Cooper Crosstour LED Wallpack, 8 watts	1	10	8						wallpack		4100
5	Gazebos	4,380	ES4234N	18	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			NVPLED32	18	New 1x4 LED VT LED 32W - P-2	1	32	32						on PC already		4100
6	Restroom Bldg 2	4,380	EV8260N	4	Existing Vapor Tight 8' 2 Lamp(s) F96 60 watt Lamp(s) T12 Standard Ballast	2	60	138			NVPLED64-8	4	New 1x8 LED VT LED 64W - P-2	1	64	64								4100
7	Restroom Bldg 2	4,380	ESOFHPS50	2	Existing Soffit Fixture High Pressure Sodium 50 watt Lamp	1	50	66			NCLED30	2	New Alumen8 LED Canopy, 31 watts	1	31	30						recessed. suggest 12x12 Amerilum canopy		4100
Total		4380		47					30			47						13	0		0		#DIV/0!	

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Parking / Path	4,380	EPLHPS150	24	Existing Pole Light Fixture High Pressure Sodium 150 watt Lamp	1	150	188			LEDRX45	24	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						same as Cascade but clearly green. verify wattage		4100
2	Pavillion 1	4,380	EV4234N	4	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			NVPLED32	4	New 1x4 LED VT LED 32W - P-2	1	32	32								4100
3	Pavillion 2	4,380	EV4134N	6	Existing Vapor Tight 4' 1 Lamp(s) F34 T12 Standard Ballast	1	34	48			NVPLED32	6	New 1x4 LED VT LED 32W - P-2	1	32	32								4100
4	Pavillion 2	4,380	EV4232N	1	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			NVPLED32	1	New 1x4 LED VT LED 32W - P-2	1	32	32								4100
5	Large Pavillion	4,380	EV4232N	14	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			NVPLED32	14	New 1x4 LED VT LED 32W - P-2	1	32	32								4100
6	Pavillion 3	4,380	EV4134N	6	Existing Vapor Tight 4' 1 Lamp(s) F34 T12 Standard Ballast	1	34	48			NVPLED32	6	New 1x4 LED VT LED 32W - P-2	1	32	32								4100
7	Pavillion 3	4,380	EV4234N	1	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			NVPLED32	1	New 1x4 LED VT LED 32W - P-2	1	32	32								4100
Total		4380		56					0			56						0	0		0		0	

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Main Mech in Basement	520	EINC50	2	Existing Incandescent 50 watt Lamp(s)	1	50	50		3-7	9WLEDA19	2	9.5 watt A-19 Style LED Lamp	1	9.5	9.5								4100
2	Main Mech in Basement	520	E8WLEDA19	2	Existing 8 watt A19 Style LED Lamp	1	8	8			LAI	2	Leave existing fixture as is	1	8	8								4100
3	Main Mech in Basement	520	ECFLS15	1	Existing CFL Screw-in 15 watt Lamp(s)	1	15	15			9WLEDA19	1	9.5 watt A-19 Style LED Lamp	1	9.5	9.5								4100
4	Entry - Main Level - Logger 2155	730	EWM16832N	2	Existing Wall Mount Down Light 16' 8L F32 T8 Lamps, NBF Ballast	8	32	224		55	LB828LP	2	Lamp & Ballast Retrofit 8L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	8	28	168	CM9PC	0.40	1.00			put on PC	18%	4100
5	Entry - Main Level - Logger 2155	730	EWM12632N	1	Existing Wall Mount Down Light 12' 6L F32 T8 Lamps, NBF Ballast	6	32	170			LB628LP	1	Lamp & Ballast Retrofit 6L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	6	28	128	CM9PC	0.20				put on PC	18%	4100
6	Entry - Main Level - Logger 2155	730	EWM8432N	2	Existing Wall Mount Down Light 8' 4L F32 T8 Lamps, NBF Ballast	4	32	112			LB428LP	2	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	4	28	84	CM9PC	0.40				put on PC	18%	4100
7	Hall on 1st	2,347	ET4232N	22	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	22	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
8	Hall on 1st	2,347	EWM16832N	3	Existing Wall Mount Down Light 16' 8L F32 T8 Lamps, NBF Ballast	8	32	224			LB828L	3	Lamp & Ballast Retrofit 8L F32 T8 28 watt Lamp(s), Low Ballast Factor	8	28	168								4100
9	Hall on 1st	8,760	EXINC215	6	Exit Sign Incandescent with 2 - 15 watt Lamps	2	15	30			NEXBG	6	New Green LED Exit Sign w Battery Backup	0		2								4100
10	Office / Reception	2,347	ET2332N	10	Existing Prismatic Troffer 2x2 3L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	3	32	85		75	TK2317N	10	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Normal Ballast Factor	3	17	45								4100
11	Office on Left	2,347	ET2332N	4	Existing Prismatic Troffer 2x2 3L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	3	32	85		60	TK2317N	4	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Normal Ballast Factor	3	17	45								4100
12	Office to Right	2,347	ET2332N	4	Existing Prismatic Troffer 2x2 3L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	3	32	85			TK2317N	4	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Normal Ballast Factor	3	17	45								4100
13	Storage Room	520	EINC50	1	Existing Incandescent 50 watt Lamp(s)	1	50	50			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7								4100
14	Orem Literacy Center	2,347	ET2332N	4	Existing Prismatic Troffer 2x2 3L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	3	32	85			TK2317N	4	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Normal Ballast Factor	3	17	45								4100
15	Mens RR	2,347	ECFLP213	1	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	1	Leave existing fixture as is	2	13	30	WSDPDT	0.33				can, horizontal. Terralux	25%	4100
16	Mens RR	2,347	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSDPDT	0.33					25%	4100
17	Mens RR	2,347	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSDPDT	0.34					25%	4100
18	Womens RR	2,347	ECFLP213	1	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	1	Leave existing fixture as is	2	13	30	WSDPDT	0.33				can, horizontal. Terralux	25%	4100
19	Womens RR	2,347	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSDPDT	0.33					25%	4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
20	Womens RR	2,347	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSDP DT	0.34					25%	4100
21	Door in Between RRs	2,347	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
22	Door to Right of Mens RR	2,347	ES8232N	3	Existing Strip 1x8 Fixture 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
23	Gift Shop	2,347	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
24	Double Door Storage to Right	520	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
25	Womens RR	2,347	ECFLP213	1	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	1	Leave existing fixture as is	2	13	30	WSDP DT	0.33				can, horizontal. Terralux	25%	4100
26	Womens RR	2,347	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228NP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	WSDP DT	0.33					25%	4100
27	Womens RR	2,347	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSDP DT	0.34					25%	4100
28	Mens RR	2,347	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228NP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	WSDP DT	0.50					25%	4100
29	Mens RR	2,347	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSDP DT	0.50					25%	4100
30	Storeroom between these RRs	520	EINC50	1	Existing Incandescent 50 watt Lamp(s)	1	50	50			9WLEDA19	1	9.5 watt A-19 Style LED Lamp	1	9.5	9.5								4100
31	First Aid Door	2,347	ET4432N	4	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116		60	TK4228NP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CM9	1.00	2.00				25%	4100
32	Theater	2,347	ET4432N	10	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116		55	TK4228NP	10	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CM9	1.00	2.00				25%	4100
33	Locked Door in Theater	2,347	EW4432N	1	Existing Wrap 4' 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			WK4228N	1	Wrap Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						wide		4100
34	Conference Room	2,347	ET4432N	6	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116		65	TK4228N	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
35	Panel "D" Room to Right	2,347	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
36	Garage	2,347	ES8232N	2	Existing Strip 1x8 Fixture 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
37	Kitchen	2,347	EW4232N	12	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		65	LB228N	12	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
38	Kitchen	2,347	EW4432N	4	Existing Wrap 4' 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			WK4228N	4	Wrap Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						wide		4100
39	Kitchen	2,347	EWM16832 N	1	Existing Wall Mount Down Light 16' 8L F32 T8 Lamps, NBF Ballast	8	32	224			LB828L	1	Lamp & Ballast Retrofit 8L F32 T8 28 watt Lamp(s), Low Ballast Factor	8	28	168								4100
40	Staff RR	2,347	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
41	Door to Right	2,347	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
42	12 Degree Walk-in	520	EINC60	2	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	2	7 watt A-19 Style LED Lamp	1	7	7						jelly jar		4100
43	44 Degree Walk-in	520	EINC60	2	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	2	7 watt A-19 Style LED Lamp	1	7	7						jelly jar		4100
44	Breakroom in Kitchen	2,347	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42								4100
45	Breakroom in Kitchen	8,760	EXINC215	1	Exit Sign Incandescent with 2 - 15 watt Lamps	2	15	30			NEXBG	1	New Green LED Exit Sign w Battery Backup	0		2								4100
46	Orem Literacy Center Back in Lobby Area	2,347	ET2332N	4	Existing Prismatic Troffer 2x2 3L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	3	32	85			TK2317N	4	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Normal Ballast Factor	3	17	45								4100
47	Directors Office	2,347	ET2332N	7	Existing Prismatic Troffer 2x2 3L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	3	32	85			TK2317N	7	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Normal Ballast Factor	3	17	45								4100
48	Main Dining Hall	2,347	ELEDCAN	83	Existing LED Can with 10 watt LED A19	1	10	10		35-50	LAI	83	Leave existing fixture as is	1	10	10						recessed		4100
49	Main Dining Hall	2,347	ET2332N	28	Existing Prismatic Troffer 2x2 3L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	3	32	85			TK2317N	28	Troffer Kit with Reflector 2' 3L F17 T8 17 watt Lamp(s), Normal Ballast Factor	3	17	45								4100
50	Main Dining Hall	8,760	EXINC215	3	Exit Sign Incandescent with 2 - 15 watt Lamps	2	15	30			NEXBG	3	New Green LED Exit Sign w Battery Backup	0		2								4100
51	Main Dining Hall	2,347	EINC40	80	Existing Incandescent 40 watt Lamp(s)	1	40	40			4WLEDA19F	80	4 watt LED replacement A19 with visible filament - LSGC	1	4	4						2 - 40L chandelier - filiment LED A19 warm white		4100
52	Main Dining Hall	2,347	EINC20	12	Existing Incandescent 20 watt Lamp - BA15	1	20	20			3WLEDB11F	12	3 watt LED replacement B11 Blunt Tip with visible filament - LSGC	1	3	3						3L wall sconce, candelabra base		4100
53	Stage / Hall by Stage	2,347	EW4232N	8	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	8	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
54	Door on Stage Right	2,347	ET4232N	1	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
55	Door on Stage Left	2,347	EW4432N	2	Existing Wrap 4' 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			WK4228N	2	Wrap Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						wide		4100
56	Server Room	520	ET4232N	1	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
57	Downstairs Hall	2,347	EW4232N	6	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		40	LB228L	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
58	Downstairs Hall	8,760	EXINC215	9	Exit Sign Incandescent with 2 - 15 watt Lamps	2	15	30			NEXBG	9	New Green LED Exit Sign w Battery Backup	0		2								4100
59	Downstairs Hall	2,347	ET4232N	33	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	33	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
60	Downstairs Hall	2,347	ET2232N	1	Existing Prismatic Troffer 2x2 2L F32 T8 32 watt U-Tube Lamp(s), Normal Ballast Factor	2	32	61			TK2217L	1	Troffer Kit with Reflector 2' 2L F17 T8 17 watt Lamp(s), Low Ballast Factor	2	17	29								4100
61	Storeroom in Basement - Panel "B" Door	520	EINC50	1	Existing Incandescent 50 watt Lamp(s)	1	50	50			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7						ceiling mount		4100
62	Fitness Room - Logger EF19	939	ET4432N	14	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116		30-60	TK4228N	14	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						JST: TOOK OUT SENSORS DUE TO 1.672% SAVINGS		4100
63	Fitness Room - Logger EF19	939	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
64	Fitness Room - Logger EF19	939	ECFLP213	2	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	2	Leave existing fixture as is	2	13	30						6" can, horizontal. Terralux		4100
65	Ping Pong Room	2,347	EW4434N	2	Existing Wrap 4' 4 Lamp(s) F34 T12 Standard Ballast	4	34	164		120	WK4228H	2	Wrap Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), High Ballast Factor	2	28	65								5000
66	Mens RR in Fitness	2,347	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSDP DT	0.25					25%	4100
67	Mens RR in Fitness	2,347	ECFLP213	1	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	1	Leave existing fixture as is	2	13	30	WSDP DT	0.25				can, horizontal. Terralux	25%	4100
68	Mens RR in Fitness	2,347	EINC50	4	Existing Incandescent 50 watt Lamp(s)	1	50	50			10WLEDBR30	4	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5	WSDP DT	0.25				can	25%	4100
69	Mens RR in Fitness	2,347	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSDP DT	0.25					25%	4100
70	Womens RR	2,347	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228LP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSDP DT	0.25					25%	4100
71	Womens RR	2,347	ECFLP213	1	Existing CFL Pin Based with 2 - 13 watt Lamp(s)	2	13	30			LAI	1	Leave existing fixture as is	2	13	30	WSDP DT	0.25				can, horizontal. Terralux	25%	4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
72	Womens RR	2,347	EINC50	4	Existing Incandescent 50 watt Lamp(s)	1	50	50			10WLEDBR30	4	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5	WSDP DT	0.25				can	25%	4100
73	Womens RR	2,347	EVAN4232N	1	Existing Vanity Fixture 4' 2L F32 T8 Lamp, NBF Ballast	2	32	58			LB228LP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	WSDP DT	0.25					25%	4100
74	Storage to Right	520	EINC50	1	Existing Incandescent 50 watt Lamp(s)	1	50	50			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7								4100
75	Mech in Fitness	520	EINC50	2	Existing Incandescent 50 watt Lamp(s)	1	50	50			7WLEDA19	2	7 watt A-19 Style LED Lamp	1	7	7								4100
76	Door by Second Stairwell	520	EINC50	1	Existing Incandescent 50 watt Lamp(s)	1	50	50			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7								4100
77	Elevator Systems Room	520	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
78	Arts & Crafts Room	2,347	ET4432N	2	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
79	Computer Lab (going to be puzzle room - director asked for more light)	2,347	ET4432N	2	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116		70	TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
80	Computer Lab (going to be puzzle room - director asked for more light)	2,347	NOEXIST		No Fixture Existing - Needs Lighting	0	0	0			NT4228N	2	New Prismatic Troffer Fixture 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						add 2 new		4100
81	Billards Room - Logger 34A5	522	ET4432N	12	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116		85	TK4228NP	12	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CM9	2.00	3.00				27%	4100
82	Quilting Room	2,347	ET4432N	7	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116		85	TK4228N	7	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
83	Quilting Room	2,347	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
84	Ceramics	2,347	ET4432N	9	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116		90	TK4228N	9	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
85	Ceramics	2,347	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
86	Ceramics	2,347	EV4232N	2	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
87	Pouring Room	2,347	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
88	Wood Shop	2,347	ET4432N	11	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116		75	TK4228N	11	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
89	Restroom Hall	2,347	EINC50	2	Existing Incandescent 50 watt Lamp(s)	1	50	50			10WLEDBR30	2	9.5 watt BR30 Style LED Lamp - Philips	1	9.5	9.5								2700

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
90	Mens RR	2,347	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
91	Womens RR	2,347	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
92	Elec Room	520	ES8232N	1	Existing Strip 1x8 Fixture 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
93	Chase through Mens RR	520	ECFLS15	2	Existing CFL Screw-in 15 watt Lamp(s)	1	15	15			7WLEDA19	2	7 watt A-19 Style LED Lamp	1	7	7								4100
94	Door Left around corner in Hall	2,347	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
95	Exterior	4,380	EFHPS50	2	Existing Fixture High Pressure Sodium 50 watt Lamp	1	50	66			LEDR24	2	24 watt HID Replacement Lamp- Light Efficient Design -bypass ballast	1	24	24						bollard		4100
96	Exterior	4,380	ECFLP226	7	Existing CFL Pin Based with 2 - 26 watt Lamp(s)	2	26	56			LAI	7	Leave existing fixture as is	2	26	56						wall sconce. Terralux bars JST: CHANGED TO LAI		4100
97	Exterior	4,380	EFMH175	2	Existing Fixture Metal Halide 175 watt Lamp	1	175	210			LAI	2	Leave existing fixture as is	1	175	210						Hydrel in grade flag lights		4100
98	Exterior	4,380	DIALIGHT	1	Existing LED Dialight	1	50	50			LAI	1	Leave existing fixture as is	1	50	50						in grade flag Hydrel kit		4100
99	Exterior	4,380	EFLMH175	1	Existing Flood Fixture Metal Halide 175 watt Lamp	1	175	210	2		NFLED53	1	New LED Flood, Rab FFLED52 Flood, 54 watts	1	54	54						slipfit with adj knuckle, bronze. need wide		4100
100	Exterior	4,380	EINC50	1	Existing Incandescent 50 watt Lamp(s)	1	50	50			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7						basement stairwell		4100
101	Exterior	4,380	ECFLP226	1	Existing CFL Pin Based with 2 - 26 watt Lamp(s)	2	26	56			LAI	1	Leave existing fixture as is	2	26	56						8" can, horizontal, Terralux bars JST: CHANGED TO LAI		4100
102	Exterior	4,380	EPLMH250	6	Existing Pole Light Metal Halide 250 watt Lamp	1	250	295	22		NCHLED101HE	6	New LED Cobrahead Cree XSP1C 101 watts, 8,224 Lm	1	101	101						shoebox. 2 bolt, square pole, bronze		4100
103	Exterior	4,380	EPLHPS150	7	Existing Pole Light Fixture High Pressure Sodium 150 watt Lamp	1	150	188	15		NALED53HE	7	New LED Cobrahead Cree XSP1 53 watts, 4,806 Lm	1	53	53						shoebox. 2 bolt, square pole, bronze		4100
104	Exterior	4,380	EWHPS70	1	Existing Wall Pack High Pressure Sodium 70 watt Lamp	1	70	91	18		NXTWLED20	1	New Cooper Crosstour LED Wallpack, 20 watts	1	20	21						forward, bronze		4100
Total		2403.25		548					22			550						11	8		0		0.2424	

NORTHWEST EDISON

Sharon

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Path Lighting	4,380	EFMH150	10	Existing Fixture Metal Halide 150 watt Lamp	1	150	185	16		LEDRX45	10	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						pendant mount acorn, green.		4100
2	Pavillion	4,380	EV4232N	16	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			NVPLED32	16	New 1x4 LED VT LED 32W - P-2	1	32	32								4100
Total		4380		26					16			26						0	0		0		0	

NORTHWEST EDISON

Spring Water

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Parking	4,380	ECHHPS150	5	Existing Cobra Head High Pressure Sodium 150 watt Lamp	1	150	188	30		NCHLED53HE	5	New LED Cobrahead Cree XSP1 53 watts, 4,806 Lm	1	53	53	PH	5.00				slipfit, silver, PC	25%	4100
2	Pavillion	4,380	EV4234N	6	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			NVPLED32	6	New 1x4 LED VT LED 32W - P-2	1	32	32								4100
3	Path Lighting	4,380	ECHHPS100	13	Existing Cobra Head High Pressure Sodium 100 watt Lamp	1	100	130	30		NCHLED53HE	13	New LED Cobrahead Cree XSP1 53 watts, 4,806 Lm	1	53	53	PH	13.00				PC		4100
4	Bldg Exterior	4,380	ECFLP226	2	Existing CFL Pin Based with 2 - 26 watt Lamp(s)	2	26	56			NCLED30	2	New Alumen8 LED Canopy, 31 watts	1	31	30						canopy. suggest 12x12 Amerilum		4100
Total		4380		26					30			26						18	0		0		0.25	

NORTHWEST EDISON

WWTP

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Admin Bldg - Entry	2,347	ECFLP26	1	Existing CFL Pin Based 26 watt Lamp(s)	1	26	30			LAI	1	Leave existing fixture as is	1	26	30						6" can, hard lid, lens, vertical		4100
2	Lobby / Reception	2,347	ET4332N	6	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92	20	45	TK4228L	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
3	Hall	2,347	ET4232N	4	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
4	Conference 104	2,347	ET4332N	8	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		60	TK4228LP	8	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CM9	1.00	2.00				25%	4100
5	105 Breakroom	2,347	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		55	TK4228LP	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), PRS Low Ballast Factor	2	28	42	CM9	1.00	1.00				25%	4100
6	Garage	2,347	EHBMH400	13	Existing High Bay Fixture Metal Halide 400 watts	1	400	458	24	45	NHBLED198	13	New LED Highbay 18K Lumens, Lithonia IBH - 198w	1	198	198						mounted 20-24, lid is 24-28'		4100
7	Garage	2,347	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
8	Garage	2,347	ES8296T8	4	Existing Strip 8' 2L F96 T8 59 watt Lamp(s), Magnetic Ballast	2	59	120			NVPLED65-8	4	New 1x8 LED VT LED 65W - P-2	1	103	65								4100
9	Storage Room	520	EW4232N	6	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		35	LB228N	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
10	Mens RR	2,347	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61		35	LB228NP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	WSDP DT	0.50					25%	4100
11	Mens RR	2,347	EVAN2217N	1	Existing Vanity Fixture 2' 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33	WSDP DT	0.50					25%	4100
12	Mens Locker	2,347	EW4232N	3	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228NP	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CMDT W	1.00		WRLS W	1.00	wireless CMDT with receiver switch	25%	4100
13	Womens RR	2,347	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228NP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	WSDP DT	0.50					25%	4100
14	Womens RR	2,347	EVAN2217N	1	Existing Vanity Fixture 2' 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33	WSDP DT	0.50					25%	4100
15	Womens Locker	2,347	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228NP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	CMDT W	0.50		WRLS W	0.50	wireless CMDT with receiver switch	25%	4100
16	Womens Locker	2,347	EVAN2217N	1	Existing Vanity Fixture 2' 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33	CMDT W	0.50		WRLS W	0.50		25%	4100

NORTHWEST EDISON

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
17	Mech Room	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
18	Office 103	2,347	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92		60	TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
19	Office 102 / 101	2,347	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
20	2nd Floor Hall	2,347	ET4232N	6	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
21	Office 205	2,347	ET4332N	3	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
22	206	2,347	ET4332N	3	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
23	204	2,347	ET4332N	6	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
24	Mens RR	2,347	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228NP	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	WSDP DT	0.50					25%	4100
25	Mens RR	2,347	EVAN2217N	1	Existing Vanity Fixture 2' 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33	WSDP DT	0.50					25%	4100
26	Womens RR	2,347	EW4232N	1	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228NP	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), PRS Normal Ballast Factor	2	28	48	WSDP DT	0.50					25%	4100
27	Womens RR	2,347	EVAN2217N	1	Existing Vanity Fixture 2' 2L F17 T8 Lamps, NBF Ballast	2	17	33			LAI	1	Leave existing fixture as is	2	17	33	WSDP DT	0.50					25%	4100
28	203	2,347	ET4332N	6	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
29	201	2,347	ET4332N	4	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
30	Office to Right	2,347	ET4332N	3	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
31	Exterior of Admin Bldg	4,380	EWHPS70	9	Existing Wall Pack High Pressure Sodium 70 watt Lamp	1	70	91			NXTWLED20P	9	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21						bronze		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
32	Exterior of Admin Bldg	4,380	EPLMH400	2	Existing Pole Light Metal Halide 400 watt Lamp	1	400	458	30		NCHLED139	2	New LED Cobrahead Cree XSP2L 139 watts	1	139	139						shoebox, 2 bolt, square pole, bronze		4100
33	Exterior of Admin Bldg	4,380	EFLMH400	1	Existing Flood Fixture Metal Halide 400 watt Lamp	1	400	458			NFLED150	1	New LED Flood, Rab FXLED150, 155 watts	1	150	155						on flag. slipfit with adj knuckle		4100
34	Exterior of Admin Bldg	4,380	EFLLED	1	Existing LED Flood Fixture	1	39	42			LAI	1	Leave existing fixture as is	1	39	42						existing Rab		4100
35	Plant Maintenance / Elec Bldg - Entry / Office	4,380	ET4434N	2	Existing Prismatic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
36	Next Office	2,347	ET4434N	3	Existing Prismatic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			TK4228N	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
37	Garage	4,380	ES4234N	60	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82		30	LB228L	60	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
38	Restroom in Garage	4,380	ET14234N	1	Existing Prismatic Troffer 1x4 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
39	Restroom in Garage	4,380	ECFLS15	2	Existing CFL Screw-in 15 watt Lamp(s)	1	15	15			7WLEDA19	2	7 watt A-19 Style LED Lamp	1	7	7						vanity		4100
40	Restroom in Garage	4,380	EINC60	2	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	2	7 watt A-19 Style LED Lamp	1	7	7						vanity		4100
41	Exterior of Bldg	4,380	EWLED	1	Existing LED Wallpack with PC	1	10	10			LAI	1	Leave existing fixture as is	1	10	10						existing XTOR		4100
42	Exterior of Bldg	4,380	EFLMH250	1	Existing Flood Fixture Metal Halide 250 watt Lamp	1	250	295	22		NFLED78	1	New LED Flood Rab FXLED78S, 79 watts	1	78	79						trunnion, bronze		4100
43	Exterior of Bldg	4,380	EINC60	1	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7						porch light		4100
44	Exterior of Bldg	4,380	EWLED	1	Existing LED Wallpack with PC	1	10	10			LAI	1	Leave existing fixture as is	1	10	10						existing Rab		4100
45	4 Bay Garage Bldg	4,380	EW4232N	4	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
46	4 Bay Garage Bldg	4,380	EWLED	4	Existing LED Wallpack with PC	1	10	10			LAI	4	Leave existing fixture as is	1	10	10						existing XTOR		4100
47	Poles in Yard	4,380	EPLHPS150	4	Existing Pole Light Fixture High Pressure Sodium 150 watt Lamp	1	150	188	18		NALED53HE	4	New LED Cobrahead Cree XSP1 53 watts, 4,806 Lm	1	53	53						shoebox, 2 bolt, square pole, bronze		4100
48	Poles in Yard	4,380	ECHHPS400	20	Existing Cobra Head High Pressure Sodium 400 watt Lamp	1	400	464	33		NCHLED139	20	New LED Cobrahead Cree XSP2L 139 watts	1	139	139	PH	20.00				slipfit, silver. needs PC	25%	4100
49	Poles in Yard	4,380	EPLMH400	2	Existing Pole Light Metal Halide 400 watt Lamp	1	400	458	30		NCHLED139	2	New LED Cobrahead Cree XSP2L 139 watts	1	139	139	PH	2.00				shoebox, 2 bolt, square pole, bronze	25%	4100
50	Ribbed Bldg - Pump Storage	520	ES4232N	12	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	12	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
51	Fitness Room	2,347	ES4232N	5	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	5	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
52	Storage Room with Grated Floor	520	ET6272N	15	Existing Troffer 1x6 2L F72 T12 Lamps, NBF Ballast	2	55	91			6UR2-80	15	(2) Cree UR Kits - 4' 2 bar 44w + 2' 2 bar 36w	0	0	80								4100
53	Room in Storage	520	ET6272N	1	Existing Troffer 1x6 2L F72 T12 Lamps, NBF Ballast	2	55	91			6UR2-80	1	(2) Cree UR Kits - 4' 2 bar 44w + 2' 2 bar 36w	0	0	80								4100
54	Stairs Down to Basement	520	EINC60	2	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	2	7 watt A-19 Style LED Lamp	1	7	7						jelly jar		4100
55	Basement	520	EINC60	9	Existing Incandescent 60 watt Lamp(s)	1	60	60			7WLEDA19	9	7 watt A-19 Style LED Lamp	1	7	7						explosion proof		4100
56	Bldg Exterior	4,380	EWHPS50	2	Existing Wall Pack High Pressure Sodium 50 watt Lamp	1	50	66			NXTWLED20P	2	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21								4100
57	Bldg Exterior	4,380	EINC100	3	Existing Incandescent 100 watt Lamp(s)	1	100	100			NXTWLED20P	3	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21						existing wallpack		4100
58	Shack in Front of Headworks Bldg	520	ES4232N	1	Existing Strip 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
59	Headworks Bldg	4,380	ET4334N	3	Existing Prismatic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			TK4228L	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
60	Headworks Bldg	4,380	EWMH175	6	Existing Wall Pack Metal Halide 175 watt Lamp	1	175	210			NFLED78	6	New LED Flood Rab FXLED78S, 79 watts	1	78	79						forward. trunnion mount an LED flood in its place		4100
61	Headworks Bldg	4,380	EW8296H	4	Existing Wrap 8' 2 Lamp(s) F96 T12 HO Ballast	2	95	221			WK8428H	4	Wrap Kit with Reflector 1x8' 4, 4'L, T8 28 watt Lamp(s), High Ballast Factor	4	28	130								4100
62	Exterior	4,380	EFLMH250	1	Existing Flood Fixture Metal Halide 250 watt Lamp	1	250	295	20		NFLED78	1	New LED Flood Rab FXLED78S, 79 watts	1	78	79	PH	1.00				trunnion mount. needs PC	25%	4100
63	Exterior	4,380	EINC500	1	Existing Incandescent 500 watt Lamp(s)	1	500	500	20		NFLED39	1	New LED Flood, Rab FFLED39 Flood, 42 watts	1	39	42						quartz halogen flood. 1/2" nip and adj knuckle		4100
64	Exterior	4,380	EWMH175	1	Existing Wall Pack Metal Halide 175 watt Lamp	1	175	210	22		NXTWLED85P	1	New Cooper CrosstourMaxx LED Wallpack, 85 watts + Photocell	1	85	85						RL OPTION		4100
65	Headwork Aeration Bldg	4,380	ES4234N	2	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
66	Testing Shack Behind Headwork	4,380	EW4232N	7	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	7	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
67	Testing Shack Behind Headwork	4,380	EINC75	2	Existing Incandescent 75 watt Lamp(s)	1	75	75			17WLEDP38	2	17 watt Par 38 LED Lamp	1	17	17						2L directional flood. need outdoor rated		4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
68	Boiler Bldg	520	EV8434N	4	Existing Vapor Tight 8' 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			LB428L	4	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
69	Exterior	4,380	EWHPS70	2	Existing Wall Pack High Pressure Sodium 70 watt Lamp	1	70	91			NXTWLED20P	2	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21								4100
70	Exterior	4,380	EV8296H	4	Existing Vapor Tight 8' 2 Lamp(s) F96 T12 HO Ballast	2	95	221			NVPLED103-8	4	New 1x8 LED VT LED 103W - P-2	1	103	103								4100
71	Digester Bldg (between Holding Tanks)	4,380	ECFLS32	4	Existing CFL Screw-in 32 watt Lamp(s)	1	32	32			15WLEDA21	4	15 watt A-21 Style LED Lamp	1	15	15						explosion proof		4100
72	Downstairs	4,380	EV4232N	6	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LB228N	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
73	Exterior	4,380	EINC500	1	Existing Incandescent 500 watt Lamp(s)	1	500	500			NFLED39	1	New LED Flood, Rab FFLED39 Flood, 42 watts	1	39	42						quartz halogen flood. 1/2" nip and adj knuckle		4100
74	Exterior	4,380	EINC75	2	Existing Incandescent 75 watt Lamp(s)	1	75	75			17WLEDP38	2	17 watt Par 38 LED Lamp	1	17	17						flood. suggest outdoor rated par		4100
75	Primary Pump Bldg	4,380	EW8434N	4	Existing Wrap 8' 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			LB428L	4	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
76	Primary Pump Bldg	4,380	EFLCFL65	3	Existing Flood with 65 watt CFL Lamp	1	65	65			NFLED39	3	New LED Flood, Rab FFLED39 Flood, 42 watts	1	39	42						FLOOD mounted to round j-box		4100
77	Exterior	4,380	EWHPS50	1	Existing Wall Pack High Pressure Sodium 50 watt Lamp	1	50	66			NXTWLED20P	1	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21								4100
78	Exterior	4,380	EINC75	2	Existing Incandescent 75 watt Lamp(s)	1	75	75			17WLEDP38	2	17 watt Par 38 LED Lamp	1	17	17						2L directional flood. need outdoor rated		4100
79	Exterior	4,380	EINC500	1	Existing Incandescent 500 watt Lamp(s)	1	500	500			NFLED39	1	New LED Flood, Rab FFLED39 Flood, 42 watts	1	39	42						quartz halogen flood. 1/2" nip and adj knuckle		4100
80	Thermophilic Digester Bldg (14), Downstairs (11)	4,380	EV8296T8	13	Existing Vapor Tight 8' 2L F96 T8 59 watt Lamp(s), Magnetic Ballast	2	59	120			NV8428L	13	New Vapor Tight 1x8 Fixture 4, 4'L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84						total is 25, 1/2 have EB's		4100
81	Thermophilic Digester Bldg (14), Downstairs (11) - the 1/2 with EB	4,380	EV8296T8	12	Existing Vapor Tight 8' 2L F96 T8 59 watt Lamp(s), Magnetic Ballast	2	59	120			NV8428L	12	New Vapor Tight 1x8 Fixture 4, 4'L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84						1/2 with battery backup		4100
82	Downstairs	4,380	EV4232N	1	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LB228N	1	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
83	Through Blue Double Doors at Bottom of Stairs	100	EINC100	1	Existing Incandescent 100 watt Lamp(s)	1	100	100			15WLEDA21	1	15 watt A-21 Style LED Lamp	1	15	15						explosion proof. rarely used		4100
84	Exterior	4,380	EWHPS70	3	Existing Wall Pack High Pressure Sodium 70 watt Lamp	1	70	91			NXTWLED20P	3	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
85	Exterior	4,380	EXHPS70	1	Existing Explosion Proof Fixture with 70 watt HPS Lamp	1	70	91			RAL28X	1	New Xproof LED, 28 watts, Stanchion Mount - RigALite SAFJ03	1	28	28						stantion mount		4100
86	Pole by Ponds	4,380	EXHPS70	1	Existing Explosion Proof Fixture with 70 watt HPS Lamp	1	70	91			RAL28X	1	New Xproof LED, 28 watts, Stanchion Mount - RigALite SAFJ03	1	28	28						stantion mount		4100
87	CL2 Bldg	4,380	EV4232N	3	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LB228N	3	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
88	CL2 Bldg	4,380	EV8434N	2	Existing Vapor Tight 8' 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			LB428L	2	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
89	Exterior	4,380	EWLED	1	Existing LED Wallpack with PC	1	10	10			LAI	1	Leave existing fixture as is	1	10	10						existing Rab		4100
90	Chem Bldg Behind CL2	4,380	ET4334N	3	Existing Prismatic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			TK4228L	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
91	Exterior	4,380	EINC75	2	Existing Incandescent 75 watt Lamp(s)	1	75	75			17WLEDP38	2	17 watt Par 38 LED Lamp	1	17	17						2L directional flood		4100
92	UV Bldg	4,380	EV8296T8	12	Existing Vapor Tight 8' 2L F96 T8 59 watt Lamp(s), Magnetic Ballast	2	59	120			NV8428L	12	New Vapor Tight 1x8 Fixture 4, 4'L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
93	Exterior	4,380	EWMH70	3	Existing Wall Pack Metal Halide 70 watt Lamp	1	70	90			NXTWLED20P	3	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21								4100
94	Impure Water Pump Bldg Behind UV Bldg	4,380	ET4434N	2	Existing Prismatic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
95	Downstairs	4,380	EFLLED	1	Existing LED Flood Fixture	1	39	42			LAI	1	Leave existing fixture as is	1	39	42						existing Rab		4100
96	Downstairs	4,380	EV8434N	2	Existing Vapor Tight 8' 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			LB428L	2	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
97	Oil Storage Bldg	520	EV4234N	4	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
98	Exterior	4,380	EWLED	1	Existing LED Wallpack with PC	1	10	10			LAI	1	Leave existing fixture as is	1	10	10						existing XTOR		4100
99	Tank in Front of Oil Storage	4,380	EXHPS70	3	Existing Explosion Proof Fixture with 70 watt HPS Lamp	1	70	91			RAL28X	3	New Xproof LED, 28 watts, Stanchion Mount - RigALite SAFJ03	1	28	28						stantion mount		4100
100	Aerobic Bldg	4,380	ET4434N	4	Existing Prismatic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			TK4228N	4	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
101	Aerobic Bldg	4,380	EWHPS50	1	Existing Wall Pack High Pressure Sodium 50 watt Lamp	1	50	66			NXTWLED20	1	New Cooper Crosstour LED Wallpack, 20 watts	1	20	21								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
102	Aerobic Bldg	4,380	EV4254H	4	Existing Vapor Tight Fixture 4' 2L F54 T5 Lamps, HBF Ballast	2	54	120			LAI	4	Leave existing fixture as is	2	54	120								4100
103	Exterior	4,380	EFLMH70	1	Existing Flood Fixture Metal Halide 70 watt Lamp	1	70	90	14		NFLED39	1	New LED Flood, Rab FFLED39 Flood, 42 watts	1	39	42						1/2" nip and adj knuckle, bronze		4100
104	Grated Area by Aerobic Bldg	4,380	EXHPS70	1	Existing Explosion Proof Fixture with 70 watt HPS Lamp	1	70	91			RAL28X	1	New Xproof LED, 28 watts, Stanchion Mount - RigALite SAFJ03	1	28	28						stantion mount		4100
105	Bio Solids Bldg - Entry / Hall	4,380	ET4332N	5	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228L	5	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
106	First Door Left	4,380	EV4234N	6	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
107	Door Straight Through	4,380	EWHPS70	8	Existing Wall Pack High Pressure Sodium 70 watt Lamp	1	70	91			NFLED18	8	New LED Flood, Rab FFLED18 Flood, 22 watts	1	18	22						need forward throw JST: MOUNT TO WALL AND AIM TO GET FORWARD THROW AFFECT		4100
108	Door Straight Through	4,380	EV4234N	6	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	6	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
109	Double Door Right in Bio Solids	4,380	EV4232N	4	Existing Vapor Tight 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	58			LB228N	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
110	Double Door Right in Bio Solids	4,380	EV4234N	24	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LB228L	24	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
111	Double Door Right in Bio Solids	4,380	EFMH250	16	Existing Fixture Metal Halide 250 watt Lamp	1	250	295	28		NCLED74	16	New LED Canopy/Garage, Lithonia 20C1000, 74 watts, Integrated Dimming Sensor	1	74	74	INTEG	16.00				surface mount box	25%	4100
112	Office 101	2,347	ET4334N	2	Existing Prismatic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
113	Storage Under Stairs	520	ECFLS15	1	Existing CFL Screw-in 15 watt Lamp(s)	1	15	15			7WLEDA19	1	7 watt A-19 Style LED Lamp	1	7	7								4100
114	Custodian	520	EW4432N	1	Existing Wrap 4' 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			WK4228N	1	Wrap Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						wide		4100
115	Restroom	4,380	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228N	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48						wall mount		4100
116	102 Lab	4,380	ET4434N	8	Existing Prismatic Troffer 2x4 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			TK4228N	8	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
117	Upstairs Hall	4,380	ET4334N	2	Existing Prismatic Troffer 2x4 3 Lamp(s) F34 T12 Standard Ballast	3	34	130			TK4228L	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
118	Upstairs Hall	4,380	ET4232N	4	Existing Prismatic Troffer 2x4 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	4	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
119	201	4,380	ET4332N	6	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	6	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
120	202	4,380	ET4432N	2	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
121	203	4,380	ET4332N	2	Existing Prismatic Troffer 2x4 3L F32 T8 32 watt Lamp(s), Normal Ballast Factor	3	32	92			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
122	Mech	520	EW4232N	2	Existing Wrap 4' 2L F32 T8 32 watt Lamp(s), Normal Ballast Factor	2	32	61			LB228L	2	Lamp & Ballast Retrofit 2L F32 T8 28 watt Lamp(s), Low Ballast Factor	2	28	42								4100
123	204	4,380	ET4432N	2	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			TK4228N	2	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
124	205	4,380	ET4432N	3	Existing Prismatic Troffer 2x4 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	116			TK4228N	3	Troffer Kit with Reflector 4' 2L F32 T8 28 watt Lamp(s), Normal Ballast Factor	2	28	48								4100
125	Bio Solids Exterior	4,380	EWMH250	8	Existing Wall Pack Metal Halide 250 watt Lamp	1	250	295	24		NXTWLED85P	8	New Cooper CrosstourMaxx LED Wallpack, 85 watts + Photocell	1	85	85						RL OPTION		4100
126	Tank Area to Right of Bio Solids	4,380	EXHPS70	2	Existing Explosion Proof Fixture with 70 watt HPS Lamp	1	70	91			RAL28X	2	New Xproof LED, 28 watts, Stanchion Mount - RigALite SAFJ03	1	28	28						stantion mount		4100
127	BNR Blower Bldg / Gen Bldg 2	4,380	ES8432N	7	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428L	7	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84						1/2 with battery backup (SEE BELOW)		4100
128	BNR Blower Bldg / Gen Bldg 2	4,380	ES8432N	6	Existing Strip 1x8 Fixture 4L F32 T8 32 watt Lamp(s), Normal Ballast Factor	4	32	112			LB428L	6	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84						1/2 with battery backup		4100
129	Exterior	4,380	EWHPS70	4	Existing Wall Pack High Pressure Sodium 70 watt Lamp	1	70	91			NXTWLED20P	4	New Cooper Crosstour LED Wallpack, 20 watts + Photocell	1	20	21								4100
130	BNR 2	4,380	EXHPS70	8	Existing Explosion Proof Fixture with 70 watt HPS Lamp	1	70	91			RAL28X	8	New Xproof LED, 28 watts, Stanchion Mount - RigALite SAFJ03	1	28	28						stantion mount		4100
131	Across from BNR 2	4,380	EXHPS70	18	Existing Explosion Proof Fixture with 70 watt HPS Lamp	1	70	91			RAL28X	18	New Xproof LED, 28 watts, Stanchion Mount - RigALite SAFJ03	1	28	28						stantion mount		4100

WWTP

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
132	Gen Bldg 1	4,380	EV8434N	10	Existing Vapor Tight 8' 4 Lamp(s) F34 T12 Standard Ballast	4	34	164			LB428L	10	Lamp & Ballast Retrofit 4L F32 T8 28 watt Lamp(s), Low Ballast Factor	4	28	84								4100
133	Gen Bldg 1	4,380	EFLCFL65	4	Existing Flood with 65 watt CFL Lamp	1	65	65			NFLED39	4	New LED Flood, Rab FFLED39 Flood, 42 watts	1	39	42						FLOOD mounted to round j-box		4100
134	Exterior	4,380	EWMH250	1	Existing Wall Pack Metal Halide 250 watt Lamp	1	250	295	18		NXTWLED85P	1	New Cooper CrosstourMaxx LED Wallpack, 85 watts + Photocell	1	85	85						RL OPTION		4100
135	Exterior	4,380	EWHPS70	3	Existing Wall Pack High Pressure Sodium 70 watt Lamp	1	70	91			NXTWLED20	3	New Cooper Crosstour LED Wallpack, 20 watts	1	20	21								4100
136	BNR Pump Station	4,380	EV8296T8	1	Existing Vapor Tight 8' 2L F96 T8 59 watt Lamp(s), Magnetic Ballast	2	59	120			NVPLED65-8	1	New 1x8 LED VT LED 65W - P-2	1	103	65								4100
137	Exterior	4,380	EWMH70	2	Existing Wall Pack Metal Halide 70 watt Lamp	1	70	90			NXTWLED20	2	New Cooper Crosstour LED Wallpack, 20 watts	1	20	21								4100
138	Ponds in Front of BNR	4,380	EXHPS70	4	Existing Explosion Proof Fixture with 70 watt HPS Lamp	1	70	91			RAL28X	4	New Xproof LED, 28 watts, Stanchion Mount - RigALite SAFJ03	1	28	28						stantion mount		4100
Total		3528.674		599					33			599						47	3		2		0.25	

NORTHWEST EDISON

Westmore

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Path Lights	4,380	EFMH150	13	Existing Fixture Metal Halide 150 watt Lamp	1	150	185	16		LEDRX45	13	45 watt HID Replacement Lamp - Light Efficient Design -remote ballast	1	45	45						pendant mount acorn, green.		4100
2	Restroom Bldg Exterior	4,380	EINC60	2	Existing Incandescent 60 watt Lamp(s)	1	60	60			NXTWLED10P	2	New Cooper Crosstour LED Wallpack, 8 watts + Photocell	1	10	8						wallpack		4100
3	Pavillion	4,380	ES4234N	8	Existing Strip 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			NVPLED32	8	New 1x4 LED VT LED 32W - P-2	1	32	32								4100
Total		4380		23					16			23						0	0		0		0	

NORTHWEST EDISON

Windsor

Line	Location	EX Hours	EX Code	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	EX Input Watts	Mounting Height	EX FC	PR Code	PR Qty	PR Desc	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Parking / Path	4,380	EFMH250	16	Existing Fixture Metal Halide 250 watt Lamp	1	250	295			GLT95	16	Post Top LED Retrofit 95w - GlobalTech GTSQL5498	1	95	95						post top. maybe need deployable?		4100
2	Parking / Path	4,380	EFLMH250	3	Existing Flood Fixture Metal Halide 250 watt Lamp	1	250	295	30		NFLED105	3	New LED Flood, Rab FXLED105, 105 watts	1	105	109	PH	3.00				trunnion mount. need PC		4100
3	Pavillion	4,380	EV4234N	12	Existing Vapor Tight 4' 2 Lamp(s) F34 T12 Standard Ballast	2	34	82			LED19T84-2	12	Sylvania UltraLED 4' External Driver T8 LED - 2 lamp - 19w/ea	2	19	38								4100
4	Restroom Bldg Exterior	4,380	EINC60	3	Existing Incandescent 60 watt Lamp(s)	1	60	60			NXTWLED10P	3	New Cooper Crosstour LED Wallpack, 8 watts + Photocell	1	10	8						wallpack		4100
Total		4380		34					30			34						3	0		0		#DIV/0!	

NORTHWEST EDISON

Street Lights

Line	Owner	EX Hours	EX Qty	EX Desc	Lamps	EX Watts/ Lamp	PR Code	PR Qty	PR Lamp Qty	PR Watts/ Lamp	PR Input Watts	Sensor Type	Sensor Qty	Power Packs	Switch Type	Switch Qty	Audit Notes	Sensor Saving %	Lamp Color
1	Orem	4,608	8	HPS	1	250	LED	8	1	107	107								
2	Orem	4,440	151	HPS	1	400	LED	151	1	215	215								
3	Orem	4,482	24	MH	1	70	LED	24	1	50	50								
4	Orem	4,800	4,277	MH	1	150	LED	4,277	1	60	60								
5	Orem	4,464	173	MH	1	250	LED	173	1	73	73								
6	Orem	4,350	540	MH	1	400	LED	540	1	150	150								
7	Orem	4,680	6	HPS	1	100	LED	6	1	60	60								
8	Orem	3,940	30	LED	1	150	LED	30	1	150	150								
9	Orem	3,940	2	Ind	1	85	LED	2	1	51	51								
10	Orem	4,680	1	MH	1	100	LED	1	1	60	60								
Total		4380	5,212					5,212											

NORTHWEST EDISON

EXHIBIT C

MASTER LEASE PURCHASE AGREEMENT, LEASING SCHEDULE AND ESCROW AGREEMENT

DRAFT

SIEMENS PUBLIC, INC.

MASTER LEASE PURCHASE AGREEMENT DATED FEBRUARY 19, 2016

This Master Lease Purchase Agreement (herein "Agreement") is by and between SIEMENS PUBLIC, INC., as lessor ("Lessor"), and the CITY OF OREM, UTAH, as lessee ("Lessee").

1. Master Lease. This Agreement sets forth the basic terms and conditions upon which Lessor shall lease to Lessee and Lessee shall lease from Lessor items of property specified in leasing schedules (herein "Leasing Schedules") to be entered into from time to time. Each Leasing Schedule shall incorporate the terms and conditions of the Agreement and shall constitute a lease as to the property specified in such Leasing Schedule (herein "Equipment"). The term "Lease" as used in the Agreement shall mean the applicable Leasing Schedule as incorporating the terms and conditions of the Agreement. The Agreement shall become effective at the time of Lessor's acceptance (by execution hereof) at its corporate offices, by an authorized representative of Lessor. This Agreement shall not be effective until Lessee has entered into a Purchase Contract (defined below) for the acquisition of the Equipment from the Supplier (defined below).

2. Term. The lease term of the Equipment (herein "Lease Term") shall commence upon the lease commencement date specified in the Leasing Schedule (herein “Lease Commencement Date”) and, unless earlier terminated as expressly provided for in the Lease, shall continue until Lessee has paid and performed in full all of its obligations under the Lease.

3. Purchase Contracts, Acquisition of Equipment.

(a) The Equipment shall be acquired and installed pursuant to one or more purchase or acquisition contracts (the "Purchase Contracts") to be entered into by and between Lessee and one or more vendors, suppliers or contractors (the "Suppliers") for the acquisition and installation of the Equipment. Lessee and Lessor agree that Lessee shall be solely responsible for the selection, size, design and specifications of the Equipment and that Lessor shall have no duty or responsibility therefor or for the negotiation, execution or delivery of any Purchase Contract.

(b) Lessee represents, warrants and covenants that the cost of the Equipment (excluding applicable sales tax) shall in no event exceed the Maximum Equipment Cost as set forth in the Leasing Schedule.

(c) The total cost of the Equipment under the Purchase Contract (excluding applicable sales tax) shall not exceed the Maximum Equipment Cost. Further, Lessee shall, after entering into such Purchase Contracts, proceed with due diligence and complete the acquisition and installation of all the Equipment by no later than the timeframe specified in Section 3.5(ii) of the Escrow Agreement Relating to Equipment Subject to the Lease (the "Escrow Agreement") among Lessor, Lessee and the Escrow Agent named therein (the "Escrow Agent"). If the cost of the Equipment exceeds the monies available in the Escrow Fund (the “Escrow Fund”) created by the Escrow Agreement, Lessee shall pay the remaining cost of the Equipment from its other available funds, subject to appropriation by the governing body of Lessee.

(d) Lessee hereby sells, assigns, transfers and sets over to Lessor, all of its rights, title and interest, but none of its obligations or responsibilities, in and to the Purchase Contracts (whether now in existence or hereafter entered into), including, without limitation, all right, title and interest of Lessee in and to the Equipment and all of Lessee's rights and remedies under the Purchase Contracts, and the right either in Lessor's own behalf or in Lessee's name to take all such proceedings, legal equitable or otherwise, that it might take, save for the Lease, provided that such assignment shall not be effective except upon a Default (defined herein) by Lessee.

(e) Prior to disbursements under the Escrow Agreement, either directly to one or more Suppliers or in reimbursement of advance payments by Lessee, for all or a portion of the Equipment accepted by Lessee pursuant to the Lease and the Purchase Contracts, Lessee shall furnish the Escrow Agent with a requisition requesting disbursement in the form attached as Exhibit A to the Escrow Agreement completed and executed by Lessee and approved for payment by Lessor, together with the supporting documents referred to in the requisition. Upon the delivery to Escrow Agent of such instruments, Lessee shall be found to have accepted that portion of the Equipment and related services and labor represented by the requisition.

(f) If Lessee has not accepted all the Equipment within the timeframe specified in Section 3.5(ii) of the Escrow Agreement (the "Nonacquired Equipment Date"), this Agreement and the Lease shall not as a result thereof be void or voidable, nor shall Lessor be liable to Lessee for any loss or damage resulting from such nonacceptance of Equipment. Prior to the Nonacquired Equipment Date, Lessee may, with Lessor's prior written consent, substitute items of Equipment equal in value for items of Equipment not delivered. If all or a part of the original or substituted Equipment has not been accepted by Lessee on or before the Nonacquired Equipment Date, this Agreement and the Lease shall terminate as to such unaccepted portion of the Equipment (the "Nonacquired Equipment") as of the Nonacquired Equipment Date. Exhibit

A to the Leasing Schedule shall be deemed to be automatically amended to delete all reference to the Nonacquired Equipment. As set forth in the Escrow Agreement, a payment to Lessor pursuant to Section 3.5 of the Escrow Agreement shall constitute a partial prepayment of Lease Payments (as hereinafter defined), and upon receipt of such prepayment, Lessee authorizes Lessor to prepare a revised Exhibit B to the Leasing Schedule reflecting such prepayment, which shall be delivered to Lessee, and Lessee shall acknowledge such revised Exhibit B in writing if requested by Lessor.

(g) Monies held by the Escrow Agent pursuant to the Escrow Agreement shall be paid to Lessor in accordance with Section 3.5 of the Escrow Agreement, including, without limitation, upon the occurrence of a Default or upon a termination of the Lease as a result of Lessee's governing body failing to appropriate sufficient funds to pay the Lease Payments and other amounts due hereunder for any fiscal period.

(h) Lessee hereby represents as follows:

(i) The estimated total costs of the Equipment, including costs of installation of the Equipment, negotiating and preparing the Lease and any assignment of the Lease by Lessor, shall not be less than the total principal portion of the Lease Payments.

(ii) The Equipment has been ordered or is expected to be ordered within six months of the Lease Commencement Date, and the Equipment is expected to be delivered and installed, and the Supplier fully paid, within eighteen (18) months of the Lease Commencement Date.

(iii) Lessee has not created or established, and does not expect to create or establish, any sinking fund or other similar fund (a) that is reasonably expected to be used to pay the Lease Payments, or (b) that may be used solely to prevent a default in the payment of the Lease Payments.

(iv) The Equipment has not been and is not expected to be sold or otherwise disposed of by Lessee, either in whole or in part, prior to the expiration of the Maximum Lease Term (as defined in Section 5 of this Agreement).

(v) To the best of Lessee's knowledge, information and belief, all expectations referenced above are reasonable."

4. Lessee to Act as Agent. Lessor hereby irrevocably appoints Lessee as its agent in connection with the acquisition and installation of the Equipment pursuant to the Purchase Contracts. Lessee, as agent of Lessor, shall cause the acquisition and installation of Equipment to be completed as soon as reasonably practicable and in accordance with the Lease and the Purchase Contract, and any applicable requirements of governmental authorities. During the term of this Agreement and the Lease, Lessor will provide Lessee with quiet use and enjoyment of the Equipment, without suit, trouble, or hindrance from Lessor or through Lessor, except upon a Default (as defined herein).

5. Rent. Lessee agrees to pay to Lessor or its assignee the lease payments, including the interest thereon (herein the "Lease Payments") specified in the Leasing Schedule. The Lease Payments shall be payable without notice or demand at the Delaware headquarters of Lessor (or such other place as Lessor or its assignee may from time to time designate in writing) and shall commence as set forth in the Leasing Schedule (each applicable due date, a "Lease Payment Date"), and continue thereafter as specified in the Leasing Schedule. Any Lease Payment or other amount due from Lessee under the Lease (whether prior to or after a Default (as hereinafter defined) and including, without limitation, accelerated balances) that is received later than ten (10) days from the due date shall bear interest from the due date at the lesser of 16% per annum or the highest lawful rate.

Except as specifically provided in Section 8 hereof, Lessee's obligation to pay the Lease Payments is absolute and unconditional in all events and is not subject to any abatement, set-off, defense, counterclaim, or recoupment claim for any reason whatsoever, including without limitation any failure of any of the Equipment to be delivered or installed, any condemnation or loss of or damage to the Equipment, any defect therein or any unfitness or obsolescence thereof.

Lessee reasonably believes that funds can be obtained sufficient to make all Lease Payments during the period beginning with the Lease Commencement Date and ending on the last Lease Payment Date set forth on the Leasing Schedule (the "Maximum Lease Term") and hereby covenants that its staff shall properly request funds from Lessee's governing body from which Lease Payments may be made, including making provision for such payments to the extent necessary in each budget submitted to its governing body for consideration. Lessor and Lessee acknowledge and agree that the obligation of Lessee to pay Lease Payments hereunder constitutes a current obligation of Lessee payable exclusively from legally available funds and shall not in any way be construed to be an indebtedness of Lessee within the meaning of any provision of the laws of the State of Utah or any section of the Utah Constitution, or any other constitutional or statutory limitation or requirement applicable to Lessee concerning the creation of indebtedness. Lessee has not hereby pledged the credit of Lessee or any revenues or assets of Lessee to the payment of the Lease Payments, or the interest thereon, and this Agreement shall not obligate Lessee to apply any other money to the Lease Payments or any interest thereon.

Lease Payments have been calculated based upon the interest portion of the Lease Payments being excludable from gross income for federal, state and local income tax purposes. If, in the opinion of nationally-recognized bond counsel acceptable to

Lessor and approved by Lessee, which approval shall not be unreasonably withheld, Lessor is no longer entitled to exclude the interest portion of the Lease Payments from its gross income for federal, state and local income tax purposes due to any action or failure to act by Lessee, Lessor, at Lessor's option, shall recalculate the Lease Payments for the remaining term of the Lease and/or extend the original term of the Lease, as permitted by law, to protect Lessor's originally anticipated after tax yield from the Lease Commencement Date to the end of the Maximum Lease Term. Such recalculations shall be on the basis that the interest portion of the Lease Payments is subject to (a) federal income tax at the highest marginal corporate tax rate of Lessor and (b) state and local income tax at the highest marginal corporate tax rate or other similar tax rate as may be applicable in each state or locality, as applicable. In such event, Lessee authorizes Lessor to correct the Leasing Schedule (and all related documentation) to reflect such changes, and Lessee, if requested by Lessor, shall execute an amendment to the Leasing Schedule prepared by Lessor to reflect such changes.

6. Delivery and Acceptance. Lessee, as Lessor's agent, shall cause the Equipment to be delivered to Lessee at the location specified in Exhibit A to the Leasing Schedule ("Equipment Location"). Lessee shall pay all transportation and other costs, if any, incurred in connection with delivery of the Equipment. Lessee shall accept the Equipment (by delivery of a requisition request as described in Section 3(e) above) as soon as it has been delivered and is operational. Concurrently with the delivery of its final requisition request, Lessee shall evidence its acceptance of all Equipment by executing and delivering to Lessor an Acceptance Certificate substantially in the form attached to the Escrow Agreement. Such Acceptance Certificate shall include the description of all Equipment covered by any and all requisition requests issued under the Lease (the "Final Equipment Description"). Exhibit A to the Leasing Schedule shall be deemed automatically amended to the extent necessary to correct any differences between such Exhibit A and the Final Equipment Description."

7. Disclaimer of Warranties; Limitation on Liability. Lessee acknowledges and agrees that the Equipment is of a size, design and capacity selected by Lessee, that Lessor is neither a manufacturer nor a vendor of such Equipment, and that LESSOR HAS NOT MADE, AND DOES NOT HEREBY MAKE, ANY REPRESENTATION, WARRANTY OR COVENANT, EXPRESS OR IMPLIED, WITH RESPECT TO THE MERCHANTABILITY, CONDITION, QUALITY, DURABILITY, DESIGN, OPERATION, FITNESS FOR USE, OR SUITABILITY OF THE EQUIPMENT IN ANY RESPECT WHATSOEVER OR IN CONNECTION WITH OR FOR THE PURPOSES AND USES OF LESSEE, OR ANY OTHER REPRESENTATION, WARRANTY OR COVENANT OF ANY KIND OR CHARACTER, EXPRESS OR IMPLIED, WITH RESPECT THERETO. IN NO EVENT SHALL LESSOR BE LIABLE (INCLUDING WITHOUT LIMITATION, UNDER ANY THEORY IN TORTS) FOR ANY LOSS OF USE, REVENUE, ANTICIPATED PROFITS OR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE LEASE OR THE USE, PERFORMANCE OR MAINTENANCE OF THE EQUIPMENT. Lessor hereby assigns to Lessee for the Lease Term, so long as no Default has occurred hereunder and is continuing, all manufacturer's warranties held by Lessor, if any, express or implied, with respect to the Equipment, and Lessor authorizes Lessee to obtain the customary services furnished in connection with such warranties at Lessee's expense.

8. Non-Appropriation of Funds. Notwithstanding anything contained in this Agreement, the Lease or the Escrow Agreement to the contrary, Lessee's obligation to make Lease Payments to Lessor under the Lease shall be subject to annual appropriation by Lessee's governing body of funds sufficient to make all Lease Payments that come due in any given fiscal year of Lessee. Lessee's governing body shall have no obligation to appropriate funds to make any Lease Payments. In the event no funds or insufficient funds are appropriated and budgeted in any fiscal period for Lease Payments or other amounts due under the Lease, the Lease shall terminate on the last day of the fiscal period for which appropriations were received without penalty or expense to Lessee of any kind whatsoever, except as to the portions of Lease Payments or other amounts agreed upon in the Lease for which funds shall have been appropriated and budgeted. Lessee shall immediately notify Lessor or its assignee in writing of such occurrence, but failure to give such notice shall not prevent such termination. In the event of such termination, Lessee shall immediately cease all use of the Equipment and shall, at its sole expense and risk, immediately de-install, disassemble, pack, crate, insure, and return the Equipment to Lessor (all in accordance with applicable industry standards) at any location in the continental United States selected by Lessor. The Equipment shall be in the same condition and appearance as when received by Lessee (reasonable wear, tear and depreciation resulting from normal and proper use excepted), shall be in good operating order and maintenance as required by the Lease, shall be free and clear of any liens (except Lessor's lien), and shall comply with all applicable laws and regulations. Lessee agrees to execute and deliver to Lessor all documents reasonably requested by Lessor to evidence the transfer of legal and beneficial title to the Equipment to Lessor and to evidence the termination of Lessee's interest in the Equipment. Lessor shall have all legal and equitable rights and remedies to take possession of the Equipment.

9. Lessee Representations and Covenants.

(a) Lessee represents, covenants and warrants that: (i) Lessee is a state or a fully constituted political subdivision or agency of the State of Lessee (as set forth in the Leasing Schedule); (ii) Lessee intends that the interest portion of the Lease Payments is excludable from Lessor's gross income pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"); (iii) the execution, delivery and performance by Lessee of the Lease and all related documents and instruments executed by Lessee have been duly authorized by all necessary action on the part of Lessee; (iv) the Lease and all related documents and instruments executed by Lessee constitute legal, valid and binding obligations of Lessee enforceable in

accordance with their terms except as limited by state and federal laws, regulations, rulings and court decisions relating to applicable bankruptcy, insolvency, reorganizations, moratoriums or similar laws affecting the enforcement of creditors' rights generally; (v) Lessee shall comply with the information reporting requirements of Section 149(e) of the Code, and such compliance shall include but not be limited to the execution of information statements requested by Lessor; (vi) Lessee shall not do or cause to be done any act which will cause, or by omission of any act allow, the Lease to be an arbitrage bond within the meaning of Section 148(a) of the Code; (vii) Lessee intends that the Lease will not be a private activity bond within the meaning of Section 141(a) of the Code, and Lessee shall not do or cause to be done any act which will cause, or by omission of any act allow, the Lease to be a private activity bond within the meaning of Section 141(a) of the Code; (viii) Lessee shall not do or cause to be done any act which will cause, or by omission of any act allow, the interest portion of the Lease Payments to be or become includable in the gross income of the recipient for federal income taxation purposes under the Code; (ix) Lessee shall be the only entity or person (other than its employees within the scope of their employment and use by the general public) to own, use, manage or operate the Equipment during the Lease Term; (x) no event that constitutes, or with the giving of notice or the lapse of time or both would constitute, a Default exists as of the date hereof; (xi) Lessee has, in accordance with the requirements of law, fully budgeted and appropriated sufficient funds to make the Lease Payments scheduled to come due, if any, for the current fiscal year and to meet its other obligations for such period, and such funds have not been expended for other purposes and Lessee currently expects that it will fully budget and appropriate sufficient funds to make Lease Payments throughout the Maximum Lease Term (but Lessee retains its right to terminate the Lease pursuant to Section 8 hereof); (xii) Lessee shall cause to be done all things necessary to keep the Lease in full force and effect except as otherwise permitted by Section 8 hereof; (xiii) Lessee has an immediate need for the Equipment, which Lessee expects will continue throughout the Maximum Lease Term; (xiv) the use of the Equipment is, and Lessee currently expects that it will continue to be throughout the Maximum Lease Term, essential to Lessee's proper, efficient and economic operation; (xv) based on information received from the Supplier, the useful life of the Equipment is as great or greater than the Maximum Lease Term; (xvi) the Equipment shall not be used in connection with a trial or test program of Lessee; (xvii) Lessee has never failed to appropriate funds for payment of any amount due pursuant to a lease purchase agreement, a conditional sales agreement or any similar type of obligation; (xviii) Lessee is not and has never been in default under any bond, note, lease purchase agreement or other type of financial obligation to which it is or has been a party; (xix) Lessee has complied with such public bidding and other requirements as may be applicable to the Lease and the Purchase Contracts, including, without limitation, the acquisition by Lessee of the Equipment; (xx) all financial and other information provided to Lessor by Lessee, and all statements or representations made to Lessor by Lessee, in connection with the Lease are true and complete in all material respects and not misleading in any material respect; and (xxi) within 270 days after the end of each fiscal year, Lessee shall provide Lessor with current financial statements, budgets and such other financial information relating to the ability of Lessee to continue the Lease as may be reasonably requested by Lessor.

(b) Lessee further represents, covenants and warrants that: (i) neither Lessor nor Lessor's fiscal agent, Siemens Financial Services, Inc. ("SFS"), has recommended any action to Lessee; (ii) Lessee understands that Lessor is acting for its own interests, that neither Lessor nor SFS is a registered municipal advisor and neither is subject to any of the fiduciary duties imposed on municipal advisors; (iii) without limiting the generality of the foregoing, neither Lessor nor SFS is an advisor to, or fiduciary of, Lessee with respect to the Lease, any of the discussions, undertakings, and procedures leading thereto, or any information or material provided in connection therewith; and (iv) to the extent it deems appropriate, Lessee has consulted, and will continue to consult before taking any action, its own legal, financial, and other advisors regarding the Lease, all matters related thereto, and any information or material provided in connection therewith.

(c) Lessee's representations, covenants and warranties under the Lease shall survive the expiration of the Lease, and any remedies related thereto shall be limited to those set forth in this Agreement.

10. Title to Equipment; Security Interest. Upon acceptance of the Equipment by Lessee, title to the Equipment shall vest in Lessee; provided, however, that (i) in the event of termination of the Lease by Lessee pursuant to Section 8 hereof, or (ii) upon the occurrence of a Default, and as long as such Default is continuing, title will immediately vest in Lessor or its assignee. In order to secure the payment and performance of all of its obligations under the Lease, Lessee hereby: (a) to the extent permitted by law, grants to Lessor a first and prior security interest in any and all right, title and interest of Lessee in the Equipment, together with all accessions, attachments (excluding any property presently owned by Lessee), replacements, substitutions, modifications and additions thereto, now or hereafter acquired, and all Proceeds (as defined in the applicable Uniform Commercial Code) thereof (including insurance proceeds); (b) authorizes Lessor to file such Uniform Commercial Code financing statements or similar filings respecting such security interest with such authorities and with any filing offices as Lessor considers appropriate; and (c) agrees to execute and deliver all certificates of title and other documents requested by Lessor to evidence such security interest.

11. Use; Repairs. Lessee shall use the Equipment in a careful manner for the use contemplated by the manufacturer for the Equipment and shall comply with all laws, ordinances, insurance policies and regulations relating thereto, and will pay all costs, claims, damages, fees and charges arising out of, its possession, use or maintenance. Lessee, at its expense, will keep the Equipment in good repair and furnish all parts, mechanisms, and devices required therefor. Lessee shall not permit any other person (other than its employees within the scope of their employment and use by the general public) or entity to use, manage

or operate the Equipment. If any Equipment is customarily covered by a maintenance agreement, Lessee shall enter into a maintenance agreement with a party reasonably satisfactory to Lessor and shall furnish Lessor with a copy of such maintenance agreement. The parties acknowledge that Lessee will not enter into a maintenance agreement for the Equipment. No maintenance or other service for any Equipment will be provided by Lessor and Lessor shall not be liable for any operating or maintenance costs with respect to the Equipment.

12. Alterations. Lessee shall not make any alterations, additions or improvements to the Equipment without Lessor's prior written consent unless such alterations, additions or improvements may be readily removed without causing damage to the Equipment. Any alterations, additions or improvements to the Equipment shall become a part of the Equipment and subject to the Lease.

13. Location; Inspection. The Equipment shall not be removed from, or if the Equipment consists of mobile goods or rolling stock, its permanent base shall not be changed from, the Equipment Location without Lessor's prior written consent, which will not be unreasonably withheld. Lessor shall be entitled to enter upon the Equipment Location or elsewhere during reasonable business hours to inspect the Equipment or observe its use and operation.

14. Liens and Taxes. Lessee shall keep the Equipment free and clear of all levies, liens and encumbrances except those created under the Lease. Lessee shall pay, when due, all Taxes (as hereinafter defined) which may now or hereafter be imposed upon the ownership, leasing, rental, sale, purchase, possession or use of the Equipment, the Lease, the Lease Payments, any other payments due under the Lease or the transaction contemplated thereby. If Lessee fails to pay any Taxes when due, Lessor shall have the right, but shall not be obligated, to pay those Taxes. If Lessor pays any Taxes for which Lessee is responsible or liable under the Lease, Lessee shall promptly reimburse Lessor therefor, but only from funds which have been legally appropriated for such purpose. For purposes of the Lease, "Taxes" means present and future taxes, levies, duties, assessments, fees or other governmental charges of federal, state and local governments that are not based on the net income of Lessor, whether they are assessed to or payable by Lessee or Lessor, including, without limitation, sales, use, excise, licensing, registration, titling, gross receipts, stamp and personal property taxes, and interest, penalties or fines on any of the foregoing.

15. Risk of Loss; Damage; Destruction. Lessee assumes all risk of loss of or damage to the Equipment from any cause whatsoever. In the event of damage to any item of Equipment, Lessee shall immediately place the same in good repair, with the proceeds of any insurance recovery applied to the cost of such repair. If Lessor determines that any item of Equipment is lost, stolen, destroyed or damaged beyond repair, Lessee shall replace the same with like equipment in good repair (with its own funds which have been legally appropriated for that purpose to the extent that sufficient insurance proceeds are not available for that purpose).

16. Insurance. Lessee shall, at its expense, maintain at all times during the Lease Term, or self-insure for the equivalent risks, commercial general liability insurance and property insurance in an amount no less than the value of the Concluding Payment with respect to the Equipment. Such property insurance shall be maintained, unless otherwise provided in this Agreement or otherwise agreed in writing by Lessor, until the final Lease Payment has been made to Lessor~~. The policy form~~, and shall include without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and start-up, rebuilding and debris removal including demolition occasioned by enforcement of any applicable legal requirements. If the insurance requires deductibles or retentions, Lessee shall pay costs not covered because of such deductibles or retentions. Lessee shall purchase and maintain boiler and machinery insurance which shall specifically cover such insured objects during installation and until Acceptance by Lessee. The property insurance required by this Section shall include the interests of Lessor and Lessee in the Equipment. To the extent permissible under Lessee's self-insurance or other commercial general liability insurance policies, such commercial general liability insurance policies shall name Lessor and its assigns as additional insureds. The property insurance policy shall name Lessee as an insured and Lessor and its assigns as additional insured and loss payee, as their interests may appear. ~~Each of the~~The property insurance ~~policies~~policy described herein shall contain a clause requiring the insurer to give Lessor at least thirty (30) days prior written notice of any alteration in the terms of such policy or the cancellation thereof. The proceeds of any such ~~policies~~property insurance policy shall be payable to Lessee and Lessor or its assigns as their interests may appear. Upon acceptance of the Equipment and thirty (30) days prior to each insurance renewal date, Lessee shall deliver to Lessor a certificate evidencing such insurance. In the event that Lessee has been permitted to self-insure, Lessee shall furnish Lessor with a letter or certificate evidencing such self-insurance. In the event of any loss, damage, injury or accident involving the Equipment, Lessee shall promptly provide Lessor with written notice thereof and make available to Lessor all information and documentation relating thereto.

17. Indemnification. Lessee shall, to the extent not prohibited by applicable law, indemnify Lessor against, and hold Lessor harmless from, any and all claims, actions, proceedings, expenses, damages or liabilities, including attorneys' fees and court costs, arising in connection with the Equipment, including, but not limited to, its selection, purchase, ownership, delivery, possession, lease, use, operation, rejection, revocation of acceptance or return, and the recovery of claims under insurance policies thereon provided, however, such indemnification shall not apply to any claims, actions, proceedings, expenses,

damages or liabilities arising out of the gross negligence or willful misconduct of Lessor. The provisions of this Section 17 shall survive the expiration of the Lease.

18. Assignment. Without Lessor's prior written consent, Lessee shall neither (i) assign, transfer, pledge, hypothecate, grant any security interest in or otherwise dispose of the Lease or the Equipment or any interest in the Lease or the Equipment, nor (ii) sublet or lend the Equipment or permit it to be used by anyone other than Lessee, Lessee's employees or the general public. Lessor (and any assignee of Lessor) may assign any of its rights, title and interest in and to the Lease, the Equipment and any documents executed with respect to the Lease without the consent of Lessee. Lessee shall not have the right to and shall not assert against any assignee any claim, defense, recoupment claim, setoff or counterclaim or other right Lessee may have against Lessor or any Supplier. Subject to the foregoing, the Lease inures to the benefit of and is binding upon the heirs, executors, administrators, successors and assigns of the parties hereto. After notice of such an assignment, Lessee shall execute all documents, including any notices and acknowledgements of assignment, which may be reasonably requested by Lessor or assignee, and, upon request of Lessor, shall name the assignee as additional insured and loss payee in any insurance policies for which Lessor is entitled to be named as additional insured or loss payee. For the Lease Term and an additional period of six (6) years thereafter, Lessee shall keep a complete and accurate record of all assignments or reassignments of any of Lessor's right, title or interest in the Lease or the Equipment in a form necessary to comply with Section 149(a) of the Code and the regulations promulgated thereunder by the Internal Revenue Service.

19. Default. The term "Default," as used herein, means the occurrence of any one or more of the following events: (i) Lessee fails to make any Lease Payment (or any other payment) as it becomes due in accordance with the terms of the Lease, and any such failure continues for fifteen (15) days after the due date thereof; (ii) Lessee fails to perform or observe any other covenant, condition or agreement to be performed or observed by it under the Lease, and such failure is not cured within twenty (20) days after written notice thereof by Lessor; (iii) the discovery by Lessor that any material statement, representation or warranty made by Lessee in the Lease or in any writing ever delivered by Lessee pursuant hereto or in connection herewith is false, misleading or erroneous in any material respect; (iv) a nonpayment default by Lessee under any Lease or other agreement or note with Lessor, or with any assignee of the Lease; (v) proceedings under any bankruptcy, insolvency, reorganization or similar legislation shall be instituted against or by Lessee, or a receiver or similar officer shall be appointed for Lessee or any of its property, and in the case of any such involuntary proceedings or appointment, such shall not be vacated, dismissed or fully stayed within sixty (60) days after the institution or occurrence thereof; or (vi) an attachment, levy or execution is threatened or levied upon or against the Equipment which is not lifted or removed within sixty (60) days thereof. The parties acknowledge and agree that Lessee’s failure to make Lease Payments because of the failure of Lessee’s governing body to appropriate adequate funds to make all Lease Payments in a given fiscal year shall not constitute a Default hereunder.

20. Remedies. Upon the occurrence of a Default, and as long as such Default is continuing, Lessor may, at its option, exercise any one or more of the following remedies: (i) by written notice to Lessee, declare an amount equal to all amounts then due under the Lease, and all remaining Lease Payments and other amounts due during the fiscal year in effect when the Default occurs, to be immediately due and payable, whereupon the same shall become immediately due and payable; (ii) by written notice to Lessee, demand and Lessee shall, at Lessee's expense, promptly return the Equipment to Lessor in the manner set forth in Section 8 hereof, or Lessor, at its option and upon providing five (5) business days advance notice to Lessee, may enter upon the premises where the Equipment is located and take immediate possession of and remove the same without other demand or notice, without any court order or other process of law and without liability for any damage occasioned by taking possession, except for damage caused due to Lessor’s gross negligence; (iii) following a repossession of the Equipment, sell, lease or otherwise dispose of the Equipment (each a “Disposition”), in whole or in part, in public or private transactions, for the account of Lessee, holding Lessee liable for all Lease Payments and other payments due during the fiscal year in effect when the Default occurs; (iv) terminate any unfunded commitments to Lessee; and (v) exercise any other right, remedy or privilege which may be available to it under applicable law or by appropriate court action at law or in equity to enforce the terms of the Lease or to recover damages for the breach of the Lease or to rescind the Lease as to any or all of the Equipment. However, notwithstanding the foregoing, in no event shall Lessor be entitled to recover damages or any amount for Lease Payments for any fiscal year of Lessee in which Lessee’s governing body has not appropriated funds to make such Lease Payments. In addition, Lessee shall remain liable for all legal fees and other costs and expenses, including court costs, incurred by Lessor with respect to the enforcement of any of the remedies listed above, subject to appropriation of funds therefor by Lessee’s governing body. Lessor may be a purchaser at any sale of the Equipment pursuant to this Section 20, and the proceeds of any such Disposition shall be applied in the following order: (a) to the payment of expenses related to such Disposition including, without limitation, costs of repair or replacement of the Equipment, expenses related to enforcement of the Lease, including reasonable attorneys' fees and other expenses related thereto; (b) to payment of the Non-Recourse Amount, as defined below; (c) to the payment of the amount determined pursuant to the calculation in clause (i) above; and (d) the balance, if any, to Lessee. Lessee will remain responsible for any amounts that are due pursuant to clause (i) above after Lessor has applied such proceeds.

As used herein, the “Non-Recourse Amount” means (1) an amount equal to the Concluding Payment for the last Lease Payment Date occurring in the fiscal year in effect when the Default occurs (the “Last Lease Payment Date”), plus (2) if the Disposition has occurred after the Last Lease Payment Date, an amount equal to interest (to the date of Disposition) on the

Concluding Payment referenced in the foregoing subsection (1) at the lesser of 16% per annum or the highest rate permitted by law, plus (3) all other amounts due and unpaid under the Lease to the extent not included in the amount calculated pursuant to clause (i) above.

21. Purchase Option. Upon thirty (30) days prior written notice from Lessee to Lessor, and provided that there is no Default then existing, Lessee shall have the right to purchase all (but not less than all) of the Equipment on any Lease Payment Date, as permitted in the Leasing Schedule, by paying to Lessor, on such date, the Lease Payment then due together with the Concluding Payment amount for such date as set forth in the Leasing Schedule. Upon satisfaction by Lessee of such purchase conditions, Lessor will transfer any and all of its right, title and interest in the Equipment to Lessee AS-IS, WHERE-IS, without warranty, express or implied, except that the Equipment shall be free and clear of any liens created or held by Lessor.

22. Notices. All written notices to be given under the Lease shall be given to the other party at its address identified below, or at such address as the party may provide to the other party in writing from time to time, by (i) first class mail, postage prepaid, (ii) overnight delivery by nationally recognized courier or (iii) personal delivery. Notices sent by mail shall be deemed received five days after deposit in the U.S. mail, postage prepaid. Notices delivered by other means shall be deemed received upon receipt. All written notices herein shall be simultaneously given to Lessor's fiscal agent, Siemens Financial Services, Inc., 170 Wood Avenue South, Iselin, NJ 08830, Attention: Chief Financial Officer.

23. Section Headings. All section headings contained herein are for the convenience of reference only and are not intended to define or limit the scope of any provision of the Lease.

24. Governing Law. The Lease shall be construed in accordance with and governed by the laws of the State of Lessee**.**

25. Further Assurances. Lessee shall promptly execute and deliver to Lessor such further documents and take such further action as Lessor may reasonably request in order to more effectively carry out the intent and purpose of the Lease.

26. Waiver. The Lease shall not be modified, amended, altered or changed except with the written consent of Lessee and Lessor. If any provision of the Lease shall be adjudged invalid, illegal or unenforceable by a court of competent jurisdiction, the remaining provisions of the Lease shall not be affected thereby, but the Lease shall be construed as if such invalid, illegal or unenforceable provisions had not been contained therein, and the remainder of the Lease shall be valid and enforceable to the fullest extent permitted by law. Lessor shall not be deemed to have waived any breach by Lessee of any term, covenant or condition of the Lease, unless Lessor makes such waiver in writing, and any such waiver shall not operate as a waiver of any subsequent breach of any terms, covenant or conditions of the Lease. **TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW, LESSOR AND LESSEE EACH WAIVE TRIAL BY JURY IN ANY ACTION OR PROCEEDING BROUGHT BY EITHER PARTY AGAINST THE OTHER ON ANY MATTER WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE AGREEMENT, LEASE OR THE TRANSACTION CONTEMPLATED HEREBY.**

27. Execution in Counterparts. The Lease may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute but one and the same instrument. All signatures of the parties to the Lease may be transmitted by facsimile, and such facsimile will, for all purposes, be deemed to be the original signature of such party whose signature reproduces and will be binding upon such party. In addition, the transaction described in the Lease may be conducted and related documents may be stored by electronic means. Copies, telecopies, facsimiles, electronic files and other reproductions of original executed documents shall be deemed to be authentic and valid counterparts of such original documents for all purposes, including the filing of any claim, action or suit in the appropriate court of law.

28. No Third Party Beneficiary. Nothing in this Agreement, the Lease or the Escrow Agreement is intended to limit Lessee's rights against the Supplier of the Equipment. No person other than a party hereto will have any right, remedy or claim under or by reason of this Agreement, the Lease or the Escrow Agreement or otherwise be a third party beneficiary of any rights, remedies, claims, agreements or representations made hereunder.

IN WITNESS WHEREOF, Lessor and Lessee have caused the Agreement to be executed by their authorized representatives. For all purposes hereof, the date of the Agreement shall be the date of Lessor's execution of the Agreement as set forth below. By execution hereof, each signer certifies that (s)he is duly authorized to execute the Agreement on behalf of Lessee or Lessor, as applicable.

SIEMENS PUBLIC, INC.
3411 Silverside Road
Hanby Building, Suite 100
Wilmington, DE 19810

By: _____

Printed Name: _____

Title: _____

By: _____

Printed Name: _____

Title: _____

Date: February 19, 2016

CITY OF OREM, UTAH
56 North State Street
Orem, UT 84057

By: _____

Printed Name: _____

Title: _____

Date: February 19, 2016

DRAFT

SIEMENS

Siemens Public, Inc.

LEASING SCHEDULE #280-0002526-001

(Escrow)

LESSOR: **SIEMENS PUBLIC, INC.**
3411 Silverside Road
Hanby Building, Suite 100
Wilmington, DE 19810
(800) 327-4443

LESSEE: **CITY OF OREM, UTAH**
56 North State Street
Orem, UT 84057
(801) 229-7000

LEASING SCHEDULE #280-0002526-001 (herein also referred to as the "Leasing Schedule" or "Lease"), to that certain Master Lease Purchase Agreement dated February 19, 2016 (herein "Agreement"), between Lessor and Lessee.

1. **EQUIPMENT DESCRIPTION:** See **Exhibit A** attached hereto and incorporated herein.

2. **LEASE COMMENCEMENT DATE:** The date that Lessor executes this Leasing Schedule and provides funds hereunder, as reflected on the signature lines of Lessor below.

3. **STATE OF LESSEE:** Utah

4. **NUMBER OF LEASE PAYMENTS:** 168 (monthly)

5. **LEASE PAYMENT** (per payment period): See Lease Payment Schedule attached hereto and incorporated herein as **Exhibit B**.

6. **CONCLUDING PAYMENT:** See Lease Payment Schedule attached hereto and incorporated herein as **Exhibit B**.

7. **EQUIPMENT LOCATION:** See **Exhibit A** attached hereto and incorporated herein.

8. **MAXIMUM EQUIPMENT COST:** $6,739,000 (not including applicable sales tax)

9. **LEASE PAYMENT LOCATION:** Unless Lessor specifies in writing otherwise, all payments shall be sent by wire transfer as follows:
   Account Title: Siemens Public, Inc.
   Bank: Citibank, New York
   Bank Address: 111 Wall Street, New York, New York 10043 USA
   Swift Code: CITIUS33
   ABA (for Wires and ACH): 021000089
   Account Number: 30824094

10. **STATEMENT OF INTENT:** It is the intent of Lessor and Lessee that for federal, state and local income tax purposes, the transaction contemplated hereby will be a conditional sale or financing arrangement consisting of a loan from the Lessor directly to the Lessee, and the Lessee acquiring and being deemed the owner of the Equipment. For income tax purposes, the parties shall take no action or file any return or other document inconsistent with such intentions unless otherwise required by U.S. federal, state or local tax law or as directed by the Internal Revenue Service or a similar state tax authority.

11. **MISCELLANEOUS:** Lessor and Lessee agree that the terms and conditions of the Agreement are hereby incorporated into this Leasing Schedule to the same extent as if such terms and conditions were set forth in full herein. **THIS LEASING SCHEDULE (AS INCORPORATING THE TERMS OF THE AGREEMENT), TOGETHER WITH ANY EXHIBITS AND ATTACHMENTS HERETO, CONTAIN THE COMPLETE AGREEMENT OF THE PARTIES WITH RESPECT TO ITS SUBJECT MATTER AND SUPERSEDE AND REPLACE ANY PREVIOUSLY MADE PROPOSALS, REPRESENTATIONS, WARRANTIES AND AGREEMENTS.** Capitalized terms used herein, which are not otherwise defined herein, shall have the same meanings as set forth in the Agreement. Any amendments contained or incorporated into this Leasing Schedule, which in any way alter the terms of the Agreement, shall be effective only with respect to this Leasing Schedule and shall be ineffective with respect to any other Leasing Schedule. The Lease shall become effective at the time of Lessor's acceptance (by execution hereof) at its corporate offices, by an authorized representative of Lessor.

IN WITNESS WHEREOF, the parties hereto have duly executed the Lease as of the dates set forth below. For all purposes hereof, the date of the Lease shall be the date of Lessor's acceptance as set forth below. **LESSEE ACKNOWLEDGES THAT NEITHER LESSOR NOR THE SUPPLIER IS AN AGENT OR REPRESENTATIVE OF THE OTHER AND NEITHER HAS AUTHORITY TO BIND THE OTHER.** Lessee certifies that all representations and warranties of Lessee in the Lease are true as of the date of the Lease.

ACCEPTED BY:

LESSOR: SIEMENS PUBLIC, INC.

BY: _____
(Authorized Signature)

NAME: _____
(Printed or Typed)

TITLE: _____
(Printed or Typed)

BY: _____
(Authorized Signature)

NAME: _____
(Printed or Typed)

TITLE: _____
(Printed or Typed)

DATE: February 19, 2016

BY EXECUTION HEREOF, THE SIGNER CERTIFIES THAT (S)HE HAS READ THE ENTIRE LEASE, THAT LESSOR OR ITS REPRESENTATIVES HAVE MADE NO AGREEMENTS OR REPRESENTATIONS EXCEPT AS SET FORTH HEREIN, OR IN THE AGREEMENT, AND THAT (S)HE IS DULY AUTHORIZED TO EXECUTE THE LEASE ON BEHALF OF LESSEE.

LESSEE: CITY OF OREM, UTAH

BY: _____
(Authorized Signature)

NAME: _____
(Printed or Typed)

TITLE: _____
(Printed or Typed)

DATE: February 19, 2016

COUNTERPART NO. ___ OF 2 SERIALLY NUMBERED MANUALLY EXECUTED COUNTERPARTS. TO THE EXTENT THAT THIS DOCUMENT CONSTITUTES CHATTEL PAPER UNDER THE UNIFORM COMMERCIAL CODE, NO SECURITY INTEREST IN THIS DOCUMENT MAY BE CREATED THROUGH THE TRANSFER AND POSSESSION OF ANY

COUNTERPART OTHER THAN COUNTERPART NO. 1.

EXHIBIT A
to
Leasing Schedule #280-0002526-001

DESCRIPTION OF EQUIPMENT

Energy savings equipment consisting of street light upgrades, lighting retrofits in various city buildings, building automation services, elevator upgrades and other equipment, as described in the Performance Contracting Agreement dated _____, 2016, between Lessee and Siemens Industry Inc., Building Technologies Division. (See **Exhibit A-1** attached hereto for Scope of Work and Services.)

The Equipment will be located at the following locations, all located in the City of Orem, Utah County, Utah:

Please review the location list below (including addresses) to confirm that the list is correct and all-inclusive to list the locations where the improvements will be installed.

City Center
56 N. State Street
Orem, UT 84057

Orem Fitness Center
580 W. 165 South Street
Orem, UT 84057

Fire Station No. 1
300 E. 1000 South Street
Orem, UT 84058

Fire Station No. 2
911 N. Main Street
Orem, UT 84057

Fire Station No. 3
225 N. 1200 West Street
Orem, UT 84057

Orem Senior Friendship Center
93 N. 400 East Street
Orem, UT 84057

Orem Public Library
58 N. State Street
Orem, UT 84057

SCERA Park Pools
701 S. State Street
Orem, UT 84057

Children's Library
_____
_____

Waste Water Treatment Plant
1797 W. 1000 South Street
Orem, UT 84058

Bonneville Park
1450 N. 800 West Street
Orem, UT 84057

Cascade Park
950 E. 200 North Street
Orem, UT 84057

Recreation Center Park
_____
_____

Cemetery Field
1200 N. East Street
Orem, UT 84097

Cherry Hill Park
240 E. 1800 South Street
Orem, UT 84057

City Center Park
300 E. Center Street
Orem, UT 84057

Foothill Park
1011 N. 1240 East Street
Orem, UT 84057

Geneva Park
260 N. 700 West Street
Orem, UT 84057

Hillcrest Park
650 E. 1400 South Street
Orem, UT 84057

Lakeside Sports Park
1850 W. 400 South Street
Orem, UT 84057

Mt. Timpanogos Park
Provo Canyon Road
Highway 189
Orem, UT 84057

Nielson's Grove Park
2000 Sandhill Road
Orem, UT 84057

Northridge Park
1750 N. 165 East Street
Orem, UT 84057

Orchard Park
750 E. 1000 North Street
Orem, UT 84057

SCERA Park
600 S. State Street
Orem, UT 84057

Sharon Park
300 E. 600 North Street
Orem, UT 84057

Springwater Park
945 S. Artesian Road
Orem, UT 84057

Westmore Park
1050 S. Main Street
Orem, UT 84057

Windsor Park
1270 N. 200 West Street
Orem, UT 84057

Public Works Department
1450 W. 550 North Street
Orem, UT 84057

Orem Department of Public Safety
95 E. Center Street
Orem, UT 84057

Orem Cemetery
1520 N. 800 East Street
Orem, UT 84097

Orem Skate Park
335 N. 1200 West Street
Orem, UT 84057

Links at Sleepy Ridge
730 S. Sleepy Ridge Drive
Orem, UT 84058

In addition, street light upgrades will be installed at various locations throughout the City.

(The foregoing property description shall be deemed to be automatically amended to the extent necessary to conform to the Final Equipment Description as provided in Section 6 of the Agreement.)

Lessor: **SIEMENS PUBLIC, INC.**

By: _____
Title: _____

By: _____
Title: _____

Lessee: **CITY OF OREM, UTAH**

By: _____
Title:_____

EXHIBIT A-1

SCOPE OF WORK AND SERVICES

[To be attached.]

EXHIBIT B
to
Leasing Schedule #280-0002526-001

LEASE PAYMENT SCHEDULE

Lease Commencement Date: February 19, 2016
Principal Amount: $6,739,000
Interest Rate: ____%

[The following draft payment schedule is based on a principal amount of $6,739,000, an interest rate of 2.15% and a February 19, 2016 closing date. The final interest rate will be set approximately three days prior to the closing date, in accordance with the signed Proposal dated December 4, 2015.]

Payment Date	Lease Payment	Interest	Principal	Remaining Balance	Concluding Payment [1]
7/1/2017	$232,347.43	$198,347.42	$34,000.01	$6,704,999.99	$6,839,099.99
8/1/2017	46,013.13	12,013.12	34,000.01	6,670,999.99	6,804,419.99
9/1/2017	46,952.21	11,952.21	35,000.00	6,635,999.99	6,768,719.99
10/1/2017	46,889.50	11,889.50	35,000.00	6,600,999.99	6,733,019.99
11/1/2017	46,826.79	11,826.79	35,000.00	6,565,999.99	6,697,319.99
12/1/2017	46,764.08	11,764.08	35,000.00	6,530,999.99	6,661,619.99
1/1/2018	46,701.38	11,701.37	35,000.01	6,495,999.99	6,625,919.99
2/1/2018	46,638.67	11,638.67	35,000.00	6,460,999.99	6,590,219.99
3/1/2018	46,575.96	11,575.96	35,000.00	6,425,999.98	6,554,519.98
4/1/2018	46,513.25	11,513.25	35,000.00	6,390,999.98	6,518,819.98
5/1/2018	46,450.54	11,450.54	35,000.00	6,355,999.99	6,483,119.99
6/1/2018	46,387.83	11,387.83	35,000.00	6,320,999.99	6,447,419.99
7/1/2018	46,325.13	11,325.12	35,000.01	6,285,999.98	6,411,719.98
8/1/2018	46,262.42	11,262.42	35,000.00	6,250,999.98	6,376,019.98
9/1/2018	46,199.71	11,199.71	35,000.00	6,215,999.98	6,340,319.98
10/1/2018	46,137.00	11,137.00	35,000.00	6,180,999.98	6,304,619.98
11/1/2018	46,074.29	11,074.29	35,000.00	6,145,999.98	6,268,919.98
12/1/2018	46,011.58	11,011.58	35,000.00	6,110,999.98	6,233,219.98
1/1/2019	46,948.88	10,948.87	36,000.01	6,074,999.98	6,196,499.98
2/1/2019	46,884.38	10,884.37	36,000.01	6,038,999.97	6,159,779.97
3/1/2019	46,819.88	10,819.87	36,000.01	6,002,999.97	6,123,059.97
4/1/2019	46,755.38	10,755.37	36,000.01	5,966,999.96	6,086,339.96
5/1/2019	46,690.88	10,690.87	36,000.01	5,930,999.96	6,049,619.96
6/1/2019	46,626.38	10,626.37	36,000.01	5,894,999.95	6,012,899.95
7/1/2019	46,561.88	10,561.87	36,000.01	5,858,999.95	5,976,179.95
8/1/2019	46,497.38	10,497.37	36,000.01	5,822,999.94	5,939,459.94
9/1/2019	46,432.88	10,432.87	36,000.01	5,786,999.94	5,902,739.94
10/1/2019	46,368.38	10,368.37	36,000.01	5,750,999.93	5,866,019.93
11/1/2019	46,303.88	10,303.87	36,000.01	5,714,999.93	5,829,299.93
12/1/2019	46,239.38	10,239.37	36,000.01	5,678,999.92	5,792,579.92
1/1/2020	46,174.88	10,174.87	36,000.01	5,642,999.92	5,755,859.92
2/1/2020	46,110.38	10,110.37	36,000.01	5,606,999.91	5,719,139.91
3/1/2020	46,045.88	10,045.87	36,000.01	5,570,999.91	5,682,419.91
4/1/2020	46,981.38	9,981.37	37,000.01	5,533,999.90	5,644,679.90
5/1/2020	46,915.08	9,915.08	37,000.00	5,496,999.91	5,606,939.90
6/1/2020	46,848.79	9,848.79	37,000.00	5,459,999.91	5,569,199.91
7/1/2020	46,782.50	9,782.50	37,000.00	5,422,999.91	5,531,459.91

[1] After payment of the Lease Payment and all other amounts then due. The Concluding Payment also contains prepayment fees, if applicable. Prepayments, as provided in Section 21 of the Lease, are permitted only on the due date of the Lease

Payment that is asterisked and on the due date of each Lease Payment thereafter.

Payment Date	Lease Payment	Interest	Principal	Remaining Balance	Concluding Payment [1]
8/1/2020	46,716.21	9,716.21	37,000.00	5,385,999.91	5,493,719.90
9/1/2020	46,649.92	9,649.92	37,000.00	5,348,999.90	5,455,979.90
10/1/2020	46,583.63	9,583.62	37,000.01	5,311,999.90	5,418,239.89
11/1/2020	46,517.33	9,517.33	37,000.00	5,274,999.90	5,380,499.90
12/1/2020	46,451.04	9,451.04	37,000.00	5,237,999.90	5,342,759.90
1/1/2021	46,384.75	9,384.75	37,000.00	5,200,999.90	5,305,019.90
2/1/2021	46,318.46	9,318.46	37,000.00	5,163,999.90	5,267,279.90
3/1/2021	46,252.17	9,252.17	37,000.00	5,126,999.90	5,229,539.89
4/1/2021	46,185.88	9,185.87	37,000.01	5,089,999.89	5,191,799.89
5/1/2021	46,119.58	9,119.58	37,000.00	5,052,999.89	5,154,059.89
6/1/2021	46,053.29	9,053.29	37,000.00	5,015,999.90	5,116,319.89
7/1/2021	45,987.00	8,987.00	37,000.00	4,978,999.89	5,078,579.89
8/1/2021	46,920.71	8,920.71	38,000.00	4,940,999.89	5,039,819.89
9/1/2021	46,852.63	8,852.62	38,000.01	4,902,999.89	5,001,059.89
10/1/2021	46,784.54	8,784.54	38,000.00	4,864,999.89	4,962,299.89
11/1/2021	46,716.46	8,716.46	38,000.00	4,826,999.89	4,923,539.89
12/1/2021	46,648.38	8,648.37	38,000.01	4,788,999.88	4,884,779.88
1/1/2022	46,580.29	8,580.29	38,000.00	4,750,999.88	4,846,019.88
2/1/2022	46,512.21	8,512.21	38,000.00	4,712,999.88	4,807,259.88
3/1/2022	46,444.13	8,444.12	38,000.01	4,674,999.88	4,768,499.87
4/1/2022	46,376.04	8,376.04	38,000.00	4,636,999.88	4,729,739.88
5/1/2022	46,307.96	8,307.96	38,000.00	4,598,999.88	4,690,979.87
6/1/2022	46,239.88	8,239.87	38,000.01	4,560,999.87	4,652,219.87
7/1/2022	46,171.79	8,171.79	38,000.00	4,522,999.87	4,613,459.87
8/1/2022	46,103.71	8,103.71	38,000.00	4,484,999.87	4,574,699.87
9/1/2022	46,035.63	8,035.62	38,000.01	4,446,999.87	4,535,939.86
10/1/2022	46,967.54	7,967.54	39,000.00	4,407,999.87	4,496,159.86
11/1/2022	46,897.67	7,897.67	39,000.00	4,368,999.86	4,456,379.86
12/1/2022	46,827.79	7,827.79	39,000.00	4,329,999.86	4,416,599.86
1/1/2023	46,757.92	7,757.92	39,000.00	4,290,999.86	4,376,819.86
2/1/2023	46,688.04	7,688.04	39,000.00	4,251,999.86	4,337,039.86
3/1/2023	46,618.17	7,618.17	39,000.00	4,212,999.86	4,297,259.86
4/1/2023	46,548.29	7,548.29	39,000.00	4,173,999.86	4,257,479.86
5/1/2023	46,478.42	7,478.42	39,000.00	4,134,999.86	4,217,699.85
6/1/2023	46,408.54	7,408.54	39,000.00	4,095,999.86	4,177,919.86
7/1/2023	46,338.67	7,338.67	39,000.00	4,056,999.85	4,138,139.85
8/1/2023	46,268.79	7,268.79	39,000.00	4,017,999.86	4,098,359.85
9/1/2023	46,198.92	7,198.92	39,000.00	3,978,999.85	4,058,579.85
10/1/2023	46,129.04	7,129.04	39,000.00	3,939,999.85	4,018,799.85
11/1/2023	46,059.17	7,059.17	39,000.00	3,900,999.85	3,979,019.85
12/1/2023	45,989.29	6,989.29	39,000.00	3,861,999.85	3,939,239.85
1/1/2024	46,919.42	6,919.42	40,000.00	3,821,999.85	3,898,439.84
2/1/2024	46,847.75	6,847.75	40,000.00	3,781,999.85	3,857,639.84
3/1/2024	46,776.08	6,776.08	40,000.00	3,741,999.85	3,816,839.85
4/1/2024	46,704.42	6,704.42	40,000.00	3,701,999.85	3,776,039.84
5/1/2024	46,632.75	6,632.75	40,000.00	3,661,999.85	3,735,239.84
6/1/2024	46,561.08	6,561.08	40,000.00	3,621,999.85	3,694,439.85
7/1/2024	46,489.42	6,489.42	40,000.00	3,581,999.85	3,653,639.84

[1] After payment of the Lease Payment and all other amounts then due. The Concluding Payment also contains prepayment fees, if applicable. Prepayments, as provided in Section 21 of the Lease, are permitted only on the due date of the Lease Payment that is asterisked and on the due date of each Lease Payment thereafter.

Payment Date	Lease Payment	Interest	Principal	Remaining Balance	Concluding Payment [1]
8/1/2024	46,417.75	6,417.75	40,000.00	3,541,999.85	3,612,839.84
9/1/2024	46,346.08	6,346.08	40,000.00	3,501,999.85	3,572,039.85
10/1/2024	46,274.42	6,274.42	40,000.00	3,461,999.85	3,531,239.84
11/1/2024	46,202.75	6,202.75	40,000.00	3,421,999.85	3,490,439.84
12/1/2024	46,131.08	6,131.08	40,000.00	3,381,999.85	3,449,639.85
1/1/2025	46,059.42	6,059.42	40,000.00	3,341,999.84	3,408,839.84
2/1/2025	46,987.75	5,987.75	41,000.00	3,300,999.84	3,367,019.84
3/1/2025	46,914.29	5,914.29	41,000.00	3,259,999.85	3,325,199.84
4/1/2025	46,840.83	5,840.83	41,000.00	3,218,999.85	3,283,379.85
5/1/2025	46,767.38	5,767.37	41,000.01	3,177,999.84	3,241,559.84
6/1/2025	46,693.92	5,693.92	41,000.00	3,136,999.84	3,199,739.84
7/1/2025	46,620.46	5,620.46	41,000.00	3,095,999.84	3,157,919.83
8/1/2025	46,547.00	5,547.00	41,000.00	3,054,999.84	3,116,099.83
9/1/2025	46,473.54	5,473.54	41,000.00	3,013,999.84	3,074,279.84
10/1/2025	46,400.08	5,400.08	41,000.00	2,972,999.84	3,032,459.84
11/1/2025	46,326.63	5,326.62	41,000.01	2,931,999.84	2,990,639.83
12/1/2025	46,253.17	5,253.17	41,000.00	2,890,999.83	2,948,819.83
1/1/2026	46,179.71	5,179.71	41,000.00	2,849,999.83	2,906,999.83
2/1/2026	46,106.25	5,106.25	41,000.00	2,808,999.83	2,865,179.83
3/1/2026	46,032.79	5,032.79	41,000.00	2,767,999.83	2,823,359.83
4/1/2026	46,959.33	4,959.33	42,000.00	2,725,999.84	2,780,519.83
5/1/2026	46,884.08	4,884.08	42,000.00	2,683,999.84	2,737,679.84
6/1/2026	46,808.83	4,808.83	42,000.00	2,641,999.84	2,694,839.84
7/1/2026	46,733.58	4,733.58	42,000.00	2,599,999.84	2,651,999.84
8/1/2026	46,658.33	4,658.33	42,000.00	2,557,999.85	2,609,159.84
9/1/2026	46,583.08	4,583.08	42,000.00	2,515,999.85	2,566,319.85
10/1/2026	46,507.83	4,507.83	42,000.00	2,473,999.85	2,523,479.85
11/1/2026	46,432.58	4,432.58	42,000.00	2,431,999.86	2,480,639.85
12/1/2026	46,357.33	4,357.33	42,000.00	2,389,999.86	2,437,799.86
1/1/2027	46,282.08	4,282.08	42,000.00	2,347,999.86	2,394,959.86
2/1/2027	46,206.83	4,206.83	42,000.00	2,305,999.87	2,352,119.86
3/1/2027	46,131.58	4,131.58	42,000.00	2,263,999.87	2,309,279.87
4/1/2027	46,056.33	4,056.33	42,000.00	2,221,999.87	2,266,439.87
5/1/2027	46,981.08	3,981.08	43,000.00	2,178,999.88	2,222,579.87
6/1/2027	46,904.04	3,904.04	43,000.00	2,135,999.88	2,178,719.87
7/1/2027	46,827.00	3,827.00	43,000.00	2,092,999.88	2,134,859.87
8/1/2027	46,749.96	3,749.96	43,000.00	2,049,999.87	2,090,999.87
9/1/2027	46,672.92	3,672.92	43,000.00	2,006,999.87	2,047,139.87
10/1/2027	46,595.88	3,595.87	43,000.01	1,963,999.87	2,003,279.86
11/1/2027	46,518.83	3,518.83	43,000.00	1,920,999.87	1,959,419.87
12/1/2027	46,441.79	3,441.79	43,000.00	1,877,999.87	1,915,559.87
1/1/2028	46,364.75	3,364.75	43,000.00	1,834,999.87	1,871,699.87
2/1/2028	46,287.71	3,287.71	43,000.00	1,791,999.87	1,827,839.87
3/1/2028	46,210.67	3,210.67	43,000.00	1,748,999.86	1,783,979.86
4/1/2028	46,133.63	3,133.62	43,000.01	1,705,999.86	1,740,119.86
5/1/2028	46,056.58	3,056.58	43,000.00	1,662,999.86	1,696,259.86
6/1/2028	46,979.54	2,979.54	44,000.00	1,618,999.86	1,651,379.86
7/1/2028	46,900.71	2,900.71	44,000.00	1,574,999.86	1,606,499.86

[1] After payment of the Lease Payment and all other amounts then due. The Concluding Payment also contains prepayment fees, if applicable. Prepayments, as provided in Section 21 of the Lease, are permitted only on the due date of the Lease Payment that is asterisked and on the due date of each Lease Payment thereafter.

Payment Date	Lease Payment	Interest	Principal	Remaining Balance	Concluding Payment [1]
8/1/2028	46,821.88	2,821.87	44,000.01	1,530,999.86	1,561,619.85
9/1/2028	46,743.04	2,743.04	44,000.00	1,486,999.86	1,516,739.86
10/1/2028	46,664.21	2,664.21	44,000.00	1,442,999.86	1,471,859.85
11/1/2028	46,585.38	2,585.37	44,000.01	1,398,999.85	1,426,979.85
12/1/2028	46,506.54	2,506.54	44,000.00	1,354,999.85	1,382,099.85
1/1/2029	46,427.71	2,427.71	44,000.00	1,310,999.85	1,337,219.85
2/1/2029	46,348.88	2,348.87	44,000.01	1,266,999.85	1,292,339.84
3/1/2029	46,270.04	2,270.04	44,000.00	1,222,999.85	1,247,459.84
4/1/2029	46,191.21	2,191.21	44,000.00	1,178,999.84	1,202,579.84
5/1/2029	46,112.38	2,112.37	44,000.01	1,134,999.84	1,157,699.84
6/1/2029	46,033.54	2,033.54	44,000.00	1,090,999.84	1,112,819.84
7/1/2029	46,954.71	1,954.71	45,000.00	1,045,999.84	1,066,919.84
8/1/2029	46,874.08	1,874.08	45,000.00	1,000,999.84	1,021,019.84
9/1/2029	46,793.46	1,793.46	45,000.00	955,999.84	975,119.84
10/1/2029	46,712.83	1,712.83	45,000.00	910,999.84	929,219.84
11/1/2029	46,632.21	1,632.21	45,000.00	865,999.84	883,319.84
12/1/2029	46,551.58	1,551.58	45,000.00	820,999.84	837,419.84
1/1/2030	46,470.96	1,470.96	45,000.00	775,999.84	791,519.84
2/1/2030	46,390.33	1,390.33	45,000.00	730,999.85	745,619.84
3/1/2030	46,309.71	1,309.71	45,000.00	685,999.84	699,719.84
4/1/2030	46,229.08	1,229.08	45,000.00	640,999.85	653,819.84
5/1/2030	46,148.46	1,148.46	45,000.00	595,999.84	607,919.84
6/1/2030	46,067.83	1,067.83	45,000.00	550,999.85	562,019.84
7/1/2030	45,987.21	987.21	45,000.00	505,999.85	516,119.84
8/1/2030	46,906.58	906.58	46,000.00	459,999.85	469,199.85
9/1/2030	46,824.17	824.17	46,000.00	413,999.84	422,279.84
10/1/2030	46,741.75	741.75	46,000.00	367,999.84	375,359.84
11/1/2030	46,659.33	659.33	46,000.00	321,999.85	328,439.84
12/1/2030	46,576.92	576.92	46,000.00	275,999.84	281,519.84
1/1/2031	46,494.50	494.50	46,000.00	229,999.84	234,599.84
2/1/2031	46,412.08	412.08	46,000.00	183,999.85	187,679.84
3/1/2031	46,329.67	329.67	46,000.00	137,999.84	140,759.84
4/1/2031	46,247.25	247.25	46,000.00	91,999.84	93,839.84
5/1/2031	46,164.83	164.83	46,000.00	45,999.85	46,919.84
6/1/2031	46,082.26	82.42	45,999.85	0.00	0.00
TOTALS	$7,996,148.93	$1,257,148.74	$6,739,000.00		

[The remainder of this page left blank intentionally. Signature page follows.]

[1] After payment of the Lease Payment and all other amounts then due. The Concluding Payment also contains prepayment fees, if applicable. Prepayments, as provided in Section 21 of the Lease, are permitted only on the due date of the Lease Payment that is asterisked and on the due date of each Lease Payment thereafter.

[Signature page to Exhibit B to Leasing Schedule #280-0002526-001 – Lease Payment Schedule]

Lessor: **SIEMENS PUBLIC, INC.**

By: _____
Title: _____

By: _____
Title: _____

Lessee: **CITY OF OREM, UTAH**

By: _____
Title:_____

DRAFT

ESCROW AGREEMENT RELATING TO EQUIPMENT
SUBJECT TO LEASING SCHEDULE #280-0002526-001

NAME AND ADDRESS OF LESSOR	NAME AND ADDRESS OF LESSEE	NAME AND ADDRESS OF ESCROW AGENT
Siemens Public, Inc. 3411 Silverside Road Hanby Building, Suite 100 Wilmington, DE 19810 Attn: President Fax : 302-479-7152	City of Orem, Utah 56 North State Street Orem, UT 84057 Attn: _____ Fax: 801-229-7031	UMB Bank, N.A. 2 S. Broadway, 6th Floor St. Louis, MO 63102 Attn: Corporate Trust Dept. Fax: 314-612-8499
Escrow Fund: "City of Orem, Utah Equipment Acquisition Escrow Fund" Escrow Fund Deposit: $6,739,000 Maximum Financed Lease Preparation Costs: $0		

In consideration of the mutual agreements and covenants herein contained and for other valuable consideration, the parties hereto agree as follows:

ARTICLE 1
DEFINITION AND RULES OF CONSTRUCTION

1.1. Definitions. Terms defined in the Lease and capitalized herein shall, for purposes of this Escrow Agreement (the "Escrow Agreement"), have the meanings given them in the Lease unless the context requires otherwise. The terms defined below shall have the meanings given to them below:

"Acquisition Costs" means the amount paid for any portion of the Equipment upon the Lessee's acceptance thereof in connection with the acquisition and installation of the Equipment, all of which shall have been approved by the Lessor in good faith, and in amounts as set forth in Table B.1 of the performance contracting agreement with the Supplier.

"Authorized Officer of Lessee" means the _____ or _____ of the Lessee or any of their designees.

"Authorized Officer of Lessor" means any of the officers designated on an officer list provided by the Lessor to the Escrow Agent from time to time.

"Code" means the Internal Revenue Code of 1986, as amended.

"Effective Date" means the Lease Commencement Date, as defined in the Lease.

"Escrow Agent" means the Escrow Agent identified above and its successors and assigns.

"Escrow Fund" means the Escrow Fund identified above.

"Escrow Fund Deposit" means the Escrow Fund Deposit identified above.

"Lease" means that certain Leasing Schedule referenced in the title to this Escrow Agreement under Master Lease Purchase Agreement dated February 19, 2016, between the Lessor and the Lessee.

"Lessee" means the Lessee identified above and its successors and assigns.

"Lessor" means the Lessor identified above and its successors and assigns.

"Maximum Financed Lease Preparation Costs" means the Maximum Financed Lease Preparation Costs identified above.

"Permitted Investments" means the following to the extent permitted by applicable law and to the extent they comply with the Arbitrage Investment Instructions attached hereto as **Exhibit B**:

(i) Bonds or interest-bearing notes or obligations of the United States, or those for which the faith and credit of the United States are pledged for the payment of principal and interest, which mature on or before the date on which the proceeds of such bonds, notes or obligations are expected to be used for the purpose set forth herein;

(ii) Bonds or interest-bearing notes or obligations that are guaranteed as to principal and interest by a federal agency of the United States, which mature on or before the date on which the proceeds of such bonds, notes or obligations are expected to be used for the purpose set forth herein;

(iii) Mutual funds invested exclusively in investments described in the preceding Subparagraphs (i) and (ii), or agreements to repurchase such investments, including those mutual funds for which the Escrow Agent or an affiliate of the Escrow Agent serves as investment manager, administrator, shareholder servicing agent, and/or custodian or subcustodian, notwithstanding that (a) the Escrow Agent or an affiliate of the Escrow Agent receives fees from such funds for services rendered, and (b) the Escrow Agent charges and collects fees for services rendered pursuant to this Escrow Agreement, which fees are separate from the fees received from such funds; and

(iv) Interest-bearing deposits of the Escrow Agent.

"Principal Office", when used with respect to the Escrow Agent, means the office of the Escrow Agent situated in St. Louis, Missouri, at which the Escrow Agent conducts a corporate trust business.

1.2. Rules of Construction. Words of the masculine and feminine genders shall be deemed and construed to include the neuter gender. Unless the context otherwise indicates, the singular number shall include the plural number and vice versa, and words importing persons shall include corporations and associations, including public bodies, as well as natural persons. The terms "hereby," "hereof," "hereto," "herein," "hereunder" and any similar terms, as used in this Escrow Agreement, refer to this Escrow Agreement.

ARTICLE 2
RECITALS AND REPRESENTATIONS

2.1. Lease Purchase Agreement. The Lessor and the Lessee have entered into the Lease whereby the Lessor has agreed to lease certain Equipment to the Lessee and the Lessee has agreed to lease said Equipment from the Lessor. Under the terms of the Lease, the Lessor and the Lessee agree that the Lessee shall provide for the acquisition and installation of the Equipment. This Escrow Agreement shall not be effective until both the Lessor and the Lessee have entered into the Agreement and the Lease.

2.2. Lease Payments. Under the Lease, the Lessee is obligated to pay to the Lessor or its assigns Lease Payments for the lease of the Equipment.

2.3. Conditions Precedent Satisfied. All acts, conditions and things required by law to exist, happen and be performed precedent to and in connection with the execution and entering into of this Escrow Agreement have happened and have been performed in regular and due time, form and manner as required by law, and the parties hereto are now duly empowered to execute and enter into this Escrow Agreement.

ARTICLE 3
ESTABLISHMENT AND ADMINISTRATION OF ESCROW FUND

3.1. Escrow Fund. The Escrow Fund is hereby established with the Escrow Agent. The Escrow Agent shall keep the Escrow Fund separate and apart from all other funds and monies held by it. The Escrow Agent agrees to receive and deposit in the Escrow Fund the Escrow Fund Deposit.

3.1.1 Deposit of Monies. To provide for payment of Acquisition Costs, the Lessor will deposit, or cause to be deposited on its behalf, with the Escrow Agent, the Escrow Fund Deposit. This Escrow Agreement is made subject to and conditioned upon the deposit of the entire Escrow Fund Deposit with the Escrow Agent.

3.2. Administration of the Escrow Fund.

3.2.1. The Escrow Agent shall administer the Escrow Fund as provided in this Section 3.2.

3.2.2. Amounts in the Escrow Fund shall be disbursed for Acquisition Costs as follows:

3.2.2.1. Disbursements from the Escrow Fund for Acquisition Costs (which shall not include any costs associated with the negotiation and preparation of the Lease or any assignment of the Lessor's interest in the Lease) shall be made by the Escrow Agent upon receipt of a Requisition Requesting Disbursement in the form attached hereto as Exhibit A, executed by an Authorized Officer of Lessee and approved for payment by an Authorized Officer of Lessor. So long as the Escrow Agent disburses funds in accordance with a valid Requisition Requesting Disbursement executed by an Authorized Officer of Lessee and approved by an Authorized Officer of Lessor it shall have no liability on account of disbursements from the Escrow Fund under Section 3.2.2 hereof.

3.2.2.2. The Lessor shall approve all Requisitions Requesting Disbursements made by the Lessee that comply with the requirements of this Escrow Agreement. The Lessor shall in good faith approve any Requisition Requesting Disbursement submitted by the Lessee.

3.2.3. After completion of the installation of all of the Equipment and concurrently with its delivery of the final Requisition Requesting Disbursement, the Lessee shall deliver to the Escrow Agent an Acceptance Certificate executed by an Authorized Officer of Lessee, substantially in the form of Attachment I to Exhibit A hereto, setting forth the final acceptance date for the Equipment. Upon receipt of the Acceptance Certificate and the final Requisition Requesting Disbursement, and subject to the provisions of Section 3.4 hereof, the Escrow Agent shall pay the balance of any amounts remaining in the Escrow Fund after payment of the final Requisition Requesting Disbursement as follows: (i) if so directed in writing by an Authorized Officer of Lessee and approved in writing by an Authorized Officer of Lessor, the amount specified in that direction shall be paid to the Lessee to reimburse the Lessee for the interest portion of Lease Payments paid by the Lessee during the acquisition period for the Equipment, and (ii) any of the balance not paid to the Lessee pursuant to clause (i) shall be paid to the Lessor on behalf of the Lessee to be applied by the Lessor to prepay a portion of the Lessee's principal obligations under the Lease.

3.2.4. No amounts shall be withdrawn or transferred from or paid out of the Escrow Fund except as provided in this Article 3.

3.2.5. If the monies in the Escrow Fund are not sufficient to pay all of the Acquisition Costs, the Lessee shall pay from other funds the balance of the Acquisition Costs as they come due, but only from monies that have been legally appropriated for such purpose by the governing body of the Lessee.

3.3. Monies in Escrow Fund. The monies and the investments held by the Escrow Agent under this Escrow Agreement are irrevocably held in trust for the benefit of the Lessor and the Lessee, and such moneys, together with any income or interest earned thereon, shall be expended only as provided in this Escrow Agreement, and shall not be subject to levy or attachment or lien by or for the benefit of any creditor of either the Lessor or the Lessee. With respect to any interest that the Lessee may have in the Escrow Fund, the parties hereto intend that the Lessor have a security interest in the Escrow Fund, and such security interest is hereby granted by the Lessee, to secure payment of all sums due to the Lessor under the Lease. For such purpose, the Escrow Agent hereby agrees to (a) act as control agent for the Lessor in connection with the perfection of such security interest, (b) note, or cause to be noted, on all books and records relating to the Escrow Fund, the Lessor's security interest therein, and (c) comply with entitlement orders or other instructions originated by the Lessor in accordance with Section 3.2 above directing disposition of the funds in the Escrow Fund without further consent by the Lessee.

3.4. Investment of Monies in Escrow Fund.

3.4.1. All monies held by the Escrow Agent in the Escrow Fund shall be invested and income and earnings thereon shall be distributed in accordance with the provisions of this Section 3.4.

3.4.2. The Escrow Agent shall invest amounts on deposit in the Escrow Fund in Permitted Investments as directed by an Authorized Officer of Lessee in writing. In the absence of such written instructions, Escrow Agent shall invest such monies in investments of the type described in subparagraph (iv) of the definition of Permitted Investments.

3.4.3. All interest or income on the Escrow Fund shall be deposited in the Escrow Fund.

3.4.4. The Escrow Agent shall not be liable for any loss or decrease in value resulting from the making or disposition of any investment pursuant to the provisions of this Section 3.4, and any such losses shall be charged to the Escrow Fund with respect to which such investment was made.

3.4.5. The Escrow Agent shall have the right to liquidate any investments held, in order to provide funds necessary to make required payments under this Escrow Agreement. The Escrow Agent in its capacity as escrow agent hereunder shall not have any liability for any loss sustained as a result of any investment made pursuant to the instructions of the Lessee or as a result of any liquidation of any investment prior to its maturity or for the failure by the Lessee to give the Escrow Agent instructions to invest or reinvest the Escrow Fund or any earnings thereon.

3.4.6. The Lessee and the Escrow Agent shall comply with the Arbitrage Investment Instructions attached hereto as Exhibit B. The Arbitrage Investment Instructions shall be amended at any time, without action by any party hereto, if in the opinion of counsel nationally recognized in the area of tax-exempt municipal obligations and satisfactory to the Lessor and the Lessee, such amendment is necessary or desirable to ensure that the interest portion of the Lease Payments are excludable from gross income for federal income tax purposes. Neither such instructions, whether or not amended, nor any failure to amend such instructions shall affect or diminish any obligation or liability of the Lessee under the Lease, including without limitation Section 9 thereof.

3.5. Termination. The Escrow Fund shall be closed upon the earlier of:

(i) completion of the acquisition and installation of the Equipment as evidenced by an Acceptance Certificate and payment of all of the Acquisition Costs therefor;

(ii) twenty-four months from the Effective Date (or such later date as may be agreed to in writing by the Lessor and the Lessee with notice in writing to the Escrow Agent);

(iii) if the Lease is subject to non-appropriation, receipt of a written notice to the Escrow Agent from the Lessor that the Lease has terminated because the Lessee' s governing body has failed to appropriate funds for the payment of Lease Payments and other amounts due under the Lease for any fiscal period; or

(iv) receipt of a written notice to the Escrow Agent from the Lessor that a Default under the Lease has occurred.

Upon the occurrence of one of the events described above, the Escrow Agent shall pay the balance of any funds then remaining in the Escrow Fund to the Lessor or its assigns on behalf of the Lessee to be applied as a prepayment of a portion of the Lessee' s principal obligation under the Lease in a manner reasonably determined by the Lessor.

ARTICLE 4
COVENANTS, DEFAULT AND LIMITATION OF LIABILITY

4.1. No Obligation with Respect to Performance by Escrow Agent. The Lessor and the Lessee shall have no obligation or liability to any party with respect to the performance by the Escrow Agent of any duty imposed upon it under this Escrow Agreement.

4.2. No Liability by Escrow Agent. The Escrow Agent makes no representations or warranties as to the title to the Equipment or as to the performance of any obligations of the Lessor or the Lessee.

4.3. No Responsibility for Sufficiency. The Escrow Agent shall not be responsible for the sufficiency of the Lease. The Escrow Agent shall not be responsible or liable for any loss or decrease in value suffered in connection with any investment of funds made by it under the terms of and in accordance with this Escrow Agreement.

4.4. Indemnification to Escrow Agent. The Lessee hereby agrees, to the extent permitted by Utah law, to indemnify and hold the Escrow Agent and its directors, officers, agents and employees (collectively, the "Indemnitees") harmless from and against any and all claims, liabilities, losses, damages, fines, penalties, and expenses, including out-of-pocket, incidental expenses, legal fees and expenses ("Losses") that may be imposed on, incurred by, or asserted against, the Indemnitees or any of them for following any instruction or other direction upon which the Escrow Agent is authorized to rely pursuant to the terms of this Escrow Agreement. In addition to and not in limitation of the immediately preceding sentence, the Lessee also agrees to indemnify and hold the Indemnitees and each of them harmless from and against any and all Losses that may be imposed on, incurred by, or asserted against the Indemnitees or any of them in connection with or arising out of the Escrow Agent's performance under this Escrow Agreement, provided the Escrow Agent has not acted with negligence, engaged in willful misconduct, or breached any provision of this Escrow Agreement. The provisions of this Section 4.4 shall survive the termination of this Escrow Agreement and the resignation or removal of the Escrow Agent for any reason. Nothing herein shall be construed to prevent the Lessor or the Lessee from commencing or maintaining an action against the Escrow Agent for specific performance or other injunctive relief.

ARTICLE 5
THE ESCROW AGENT

5.1. Appointment of Escrow Agent. The Escrow Agent is hereby appointed to serve in such capacity and the Escrow Agent shall receive, hold, invest and disburse the monies paid to it pursuant to this Escrow Agreement and the income and earnings thereon for credit to the Escrow Fund, and shall perform certain other functions, all as herein provided and subject to the terms and conditions of this Escrow Agreement.

5.2. Acceptance of Appointment. In consideration of the compensation herein provided for, the Escrow Agent accepts the appointment above referred to, subject to the terms and conditions of this Escrow Agreement. The Escrow Agent undertakes to perform only such duties as are expressly set forth herein. The duties and responsibilities of the Escrow Agent hereunder shall be determined solely by the express provisions of this Escrow Agreement, and no further duties or responsibilities shall be implied, except that the implied covenant of good faith and fair dealing shall apply to the Escrow Agent. The Escrow Agent shall not have any liability under, nor duty to inquire into the terms and provisions of any agreement or instructions, other than outlined in this Escrow Agreement. The Escrow Agent shall not incur any liability for following the instructions or other direction upon which the Escrow Agent is authorized to rely pursuant to the terms of this Escrow Agreement.

5.3. Escrow Agent; Duties, Removal and Resignation. By executing and delivering this Escrow Agreement, the Escrow Agent accepts the duties and obligations of the Escrow Agent provided for in this Escrow Agreement, and agrees to perform such duties and obligations with the same degree of care and skill customarily exercised by financial institutions in the performance of the duties similar to those set forth in this Escrow Agreement.

The Lessor may, by written request, remove the Escrow Agent initially a party to this Escrow Agreement, and any successor thereto, and may appoint a successor Escrow Agent, but any such successor shall be a bank or trust company having a combined capital (exclusive of borrowed capital) and surplus of at least Twenty-five Million Dollars ($25,000,000.00) and subject to supervision or examination by federal or state authority. If such bank or trust company publishes a report of condition at least annually, pursuant to law or to the requirements of any supervising or examining authority above referred to, then for the purposes of this Section, the combined capital and surplus of such bank or trust company shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published.

The Escrow Agent may at any time resign by giving thirty (30) days written notice to the Lessor, but its resignation shall not become effective until a successor Escrow Agent has been appointed. Upon receiving such notice of resignation, the Lessor shall promptly appoint a successor Escrow Agent by an instrument in writing; provided, however, that in the event the Lessor does not appoint a successor Escrow Agent within sixty (60) days following receipt of such notice of resignation, the resigning Escrow Agent, at the expense of the Lessor, may petition an appropriate court having jurisdiction to appoint a successor Escrow Agent. Any resignation or removal of the Escrow Agent and appointment of a successor Escrow Agent shall become effective upon acceptance of appointment by the successor Escrow Agent. Upon written notice to the Lessor, any corporation or association into which the Escrow Agent in its individual capacity may be merged or converted or with which it may be consolidated, or any corporation or association resulting from any merger, conversion or consolidation to which the Escrow Agent in its individual capacity shall be a party, or any corporation or association to which all or substantially all the corporate trust business of the Escrow Agent in its individual capacity may be sold or otherwise transferred, shall be the Escrow Agent hereunder without further act.

5.4. Compensation of the Escrow Agent. The Lessee shall pay $600 to the Escrow Agent on the Effective Date as compensation for its agreement to provide services under this Escrow Agreement and thereafter either (a) $1,200 per year annually payable in arrears or (b) $100 per month or portion thereof for any partial years to the date of termination of this Escrow Agreement payable in arrears. The Lessee shall be responsible for paying any and all brokerage fees or commissions or similar expenses incurred in the investment and reinvestment of the Escrow Fund and all other expenses incurred in connection with this Escrow Agreement, including reasonable attorneys' fees and expenses for matters in which the Lessee, the Lessor and the Escrow Agent are not adverse parties and which are not related to the Escrow Agent's negligence, willful misconduct or breach of any provision of this Escrow Agreement.

5.5. Protection to the Escrow Agent. The Escrow Agent shall be protected in acting upon any notice, resolution, request, consent, order, certificate, report, opinion, bond, or other paper or document upon which the Escrow Agent is authorized to act pursuant to the terms of this Escrow Agreement and reasonably believed by it to be genuine, and to have been signed or presented by the proper party or parties. The Escrow Agent shall be under no duty to inquire into or investigate the validity or accuracy of any such document. The Escrow Agent may consult with counsel that is reasonably selected by the Escrow Agent and familiar with such matters described herein, who may or may not be counsel to the Lessor or the Lessee, and the opinion or advice of such counsel shall be full and complete authorization and protection in respect of any action taken or suffered by it under this Escrow Agreement in good faith and in accordance therewith

Whenever the Escrow Agent shall deem it necessary or desirable that a matter be proved or established prior to taking or suffering any action under this Escrow Agreement, such matter (unless other evidence in respect thereof be therein specifically prescribed) may be deemed to be conclusively proved and established by a certificate of an Authorized Officer of

Lessee or an Authorized Officer of Lessor, or both, as appropriate, and any such certificate shall be full warrant for any action taken or suffered in good faith under the provisions of this Escrow Agreement upon the faith thereof, but in its discretion the Escrow Agent may in lieu thereof accept other evidence of such fact or matter or may require such further additional evidence as to it may seem reasonable.

In the event that the Escrow Agent shall be uncertain as to its duties or rights hereunder or shall receive instructions, claims or demands from any party hereto which, in its opinion, conflict with any of the provisions of this Escrow Agreement, the Escrow Agent shall provide written notice to the Lessor and Lessee of the reason of such uncertainty or the receipt of instructions, claims or demands (with a copy thereof to the parties hereto), and it shall be entitled to refrain from taking any action and its sole obligation shall be to keep safely all property held in escrow until it shall be directed otherwise in writing by all of the other parties hereto or by a final order or judgment of a court of competent jurisdiction.

Except as otherwise expressly provided in this Escrow Agreement, any request order, notice or other direction required or permitted to be furnished pursuant to any provision hereof by the Lessee or the Lessor shall be sufficiently executed if executed in the name of the Lessee or the Lessor by an Authorized Officer of Lessee or Lessor, as the case may be.

The Escrow Agent either as principal or agent, may also engage in or be interested in any financial, fiduciary, agency or other transaction with the Lessee or the Lessor, and may act as depository, trustee, or agent for any assignee of the Lessor or other obligations of the Lessee as freely as if it were not Escrow Agent hereunder.

The recitals, statements and representations in this Escrow Agreement shall be taken and construed as made on the part of the Lessor and the Lessee and not by the Escrow Agent, and the Escrow Agent does not assume, and shall not have, any responsibility or obligation for the correctness of any thereof.

The Escrow Agent may execute any of the trusts or powers hereof and perform the duties required of it hereunder by or through attorneys, agents, or receivers, and shall be entitled to advice of counsel concerning all matters of trust and its duties hereunder, and the Escrow Agent shall not be answerable for the default or misconduct of any such attorney, agent or receiver selected by it with reasonable care. The Escrow Agent shall not be answerable for the exercise of any discretion or power under this Escrow Agreement or for anything whatever in connection with the Escrow Fund established hereunder, except only for its own willful misconduct, negligence or breach of any provision of this Escrow Agreement.

Anything in this Escrow Agreement to the contrary notwithstanding, in no event shall the Escrow Agent be liable for special, indirect or consequential loss or damage of any kind whatsoever (including, but not limited to, lost profits) even if advised of the likelihood of such loss or damage and regardless of the form of action.

The Escrow Agent shall not be required to take notice or be deemed to have notice of any default hereunder unless the Escrow Agent shall be specifically notified in writing of such default by the Lessee or the Lessor. All notices or other instruments required hereunder to be delivered to the Escrow Agent must, in order to be effective, be delivered to the office of the Escrow Agent as specified in Section 6.3 herein, and in the absence of such notice so delivered, the Escrow Agent may conclusively assume there is no such default except as aforesaid.

The Escrow Agent shall not be required to give any bond or surety in respect of the execution of the said trusts and powers or otherwise in respect of the premises.

Before taking such action hereunder, the Escrow Agent may require that it be furnished an indemnity bond satisfactory to it for the reimbursement to it of all expenses to which it may be put and to protect it against all liability, except liability which is adjudicated to have resulted from the Escrow Agent's negligence, willful misconduct or breach of any provision of this Escrow Agreement.

ARTICLE 6
AMENDMENT; ADMINISTRATIVE PROVISIONS

6.1. Amendment. This Escrow Agreement may only be amended by written agreement among all of the parties.

6.2. Escrow Agent to Keep Records. The Escrow Agent shall keep a copy of this Escrow Agreement and books and records of all monies received and disbursed under this Escrow Agreement, which shall be available for inspection by the Lessor and the Lessee at any time during regular business hours upon prior written request. In addition, the Escrow Agent shall furnish monthly statements of any monies received and disbursed during such period and the balance of any monies held and a listing of the investment(s) of such monies at the end of such monthly period to the Lessor and the Lessee.

6.3. Notices. All communications hereunder shall be in writing, shall be sent to the appropriate notice address set forth on Page 1 of this Agreement, or at such other address as any party hereto may have furnished to the other parties in accordance

with this section, and shall be deemed to be duly given and received:

(i) upon delivery if delivered personally or upon confirmed transmittal via telephone call-back to one of the phone numbers listed on **Schedule 1** hereto or such other phone number as provided by the Lessor to the Escrow Agent if by facsimile; or

(ii) on the date received if sent by overnight courier or if mailed by prepaid certified mail, return receipt requested.

In the event that the Escrow Agent, in its sole discretion, shall determine that an emergency exists, the Escrow Agent may use such other means of communication as the Escrow Agent deems appropriate. All written notices hereto shall be simultaneously given to Lessor's Fiscal Agent, Siemens Financial Services, Inc., 170 Wood Avenue South, Iselin, NJ 08830, Attention: Chief Financial Officer and to the Lessee, City of Orem, 56 North State Street, Orem, Utah 84057, Attention: City Manager.

6.4. Governing Law. This Escrow Agreement shall be construed and governed in accordance with the laws of the State of New York without regard to its principles of conflicts of laws (other than Section 5-1401 of the New York General Obligations Law), and any action brought hereunder shall be brought in the courts of the State of New York, located in the County of New York. Each party hereto irrevocably waives any objection on the grounds of venue, forum non-conveniens or any similar grounds and irrevocably consents to service of process by mail or in any other manner permitted by applicable law, and consents to the jurisdiction of said courts.

6.5. Security Procedures. In the event funds transfer instructions are given (other than in writing at the time of execution of this Escrow Agreement) whether in writing, by telecopier or otherwise, the Escrow Agent shall seek confirmation of such instructions by telephone call-back to the person or persons designated on Schedule 1 hereto, and the Escrow Agent may rely upon the confirmation of anyone purporting to be the person or persons so designated. The persons and telephone numbers for individuals authorized to give or confirm payment instructions may be changed only in a writing actually received and acknowledged by the Escrow Agent. The Escrow Agent and the beneficiary's bank in any funds transfer may rely solely upon any account numbers or similar identifying numbers provided by the Lessor or the Lessee to identify (i) the beneficiary, (ii) the beneficiary's bank, or (iii) an intermediary bank. The Escrow Agent may apply any of the escrowed funds for any payment order it executes using any such identifying number, even when its use may result in a person other than the beneficiary being paid, or the transfer of funds to a bank other than the beneficiary's bank or an intermediary bank designated. The parties to this Escrow Agreement acknowledge that these security procedures are commercially reasonable. All funds transfer instructions must include the signature of the person(s) authorizing said funds transfer.

6.6 Severability. Any provision of this Escrow Agreement found to be prohibited by law shall be ineffective only to the extent of such prohibition, and shall not invalidate the remainder of this Escrow Agreement.

6.7. Binding on Successors. This Escrow Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns.

6.8. Headings. Headings preceding the text of the several Articles and Sections hereof, and the table of contents, are solely for convenience of reference and shall not constitute a part of this Escrow Agreement or affect its meaning, construction or effect.

6.9. Execution in Counterparts; Electronic Transaction. This Escrow Agreement may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute but one and the same instrument. All signatures of the parties to this Escrow Agreement may be transmitted by facsimile, and such facsimile will, for all purposes, be deemed to be the original signature of such party whose signature reproduces and will be binding upon such party. If one of the parties requests after the date of this Escrow Agreement that the other parties hereto deliver a copy of the Escrow Agreement with an original signature page to such requesting party, the non-requesting parties shall promptly deliver a copy of this Escrow Agreement with an original signature page to the requesting party. In addition, the transaction described herein may be conducted and related documents may be received, sent or stored by electronic means. Copies, telecopies, facsimiles, electronic files and other reproductions of original executed documents shall be deemed to be authentic and valid counterparts of such original documents for all purposes, including the filing of any claim, action or suit in the appropriate court of law.

6.10. Force Majeure. In the event that any party to this Escrow Agreement is unable to perform its obligations under the terms of this Escrow Agreement because of acts of God, strikes, equipment or transmission failure or damage reasonably beyond its control, or other cause reasonably beyond its control, such party shall not be liable for damages to the other parties for any unforeseeable damages resulting from such failure to perform or otherwise from such causes. Performance under this Escrow Agreement shall resume when the affected party is able to perform substantially that party's duties.

6.11 Tax Identification Numbers. Upon execution of this Agreement, the Lessee shall provide the Escrow Agent with a fully executed W-8 or W-9 IRS form, or such other tax document as is appropriate for the Lessee, which shall include the Lessee's Tax Identification Number. All interest or other income earned under the Escrow Agreement shall be for the account of Lessee and shall be so reported by the Escrow Agent to the Internal Revenue Service and all other applicable taxing authorities. The Escrow Agent shall report, and, as required, withhold and remit, to the appropriate authorities, any taxes as it determines may be required by any law or regulation in effect at the time of a distribution or as otherwise required. In the event that any earnings remain undistributed at the end of any calendar year, Escrow Agent shall report to the Internal Revenue Service or such other authority such earnings as it deems appropriate or as required by any applicable law or regulation or, to the extent consistent therewith, as directed in writing by the Lessor and Lessee.

6.12 Account Opening Information. In order to assist the United States government to prohibit the funding of terrorism and money laundering activities, Federal law requires all financial institutions to obtain, verify, and record information that identifies each person who opens an account. Accordingly, in order to establish the Escrow Fund, the Escrow Agent will ask for information that will allow the Escrow Agent to identify all relevant parties.

IN WITNESS WHEREOF, the parties have executed and attested this Escrow Agreement by their officers thereunto duly authorized as of the Effective Date.

CITY OF OREM, UTAH, as Lessee

By: _____
Name:_____
Title:_____

UMB BANK, N.A., as Escrow Agent

By: _____
Name: _____
Title: _____

SIEMENS PUBLIC, INC., as Lessor

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: _____

SCHEDULE 1

Telephone Number(s) for Call-Backs and
Person(s) Designated to Give and Confirm Funds Transfer Instructions

If to Lessor:

	Name	Telephone Number	Signature Specimen
1.	Katherine Forbes-Hunter	732 / 590-6606	_____
2.	Carolyn Breniak	732 / 476-3404	_____
3.	Kevin Keaton	732 / 590-6563	_____
4.	Ernest Errigo	732 / 476-3427	_____

If to Lessee:

	Name	Telephone Number	Signature Specimen
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

Telephone call-backs shall be made to both Lessor and Lessee if joint instructions are required pursuant to this Escrow Agreement. All funds transfer instructions must include the signature of the person(s) authorizing said funds transfer.

DRAFT

EXHIBIT A
FORM OF REQUISITION REQUESTING DISBURSEMENT

REQUISITION REQUESTING: ___ PARTIAL DISBURSEMENT ***Invoice No.*** _____
___ FINAL DISBURSEMENT

In accordance with Leasing Schedule #280-0002526-001 (the "Lease") to Master Lease Purchase Agreement dated February 19, 2016, between Siemens Public, Inc. (the "Lessor"), and the undersigned as lessee (the "Lessee"), and further in accordance with the Escrow Agreement Relating to Equipment Subject to Leasing Schedule #280-0002526-001 (the "Escrow Agreement"), dated February 19, 2016, among the Lessor, the Lessee and UMB Bank, N.A., as Escrow Agent, the Lessee hereby requests a disbursement from the Escrow Fund for the following Acquisition Costs of the Equipment listed below. Terms capitalized but not defined in this Requisition shall have the meaning given such terms in the Lease or the Escrow Agreement, as applicable.

Quantity	Item	Amount	Name and Address of Payee*

The Lessee hereby represents and warrants for all purposes that:

1. The amount to be disbursed constitutes all or a portion of the Acquisition Costs of the Equipment, said amount is required to be disbursed pursuant to a Purchase Contract entered into therefor by or on behalf of the Lessee, and said amount is not being paid in advance of the time, if any, fixed for any payment.

2. Acquisition and installation of the applicable portion of the Equipment for which payment is being requested has been completed in accordance with plans and specifications approved by the Lessee and in accordance with the terms and conditions of the applicable Purchase Contract(s). Said applicable portion of the Equipment is suitable and sufficient for the expected uses thereof, but this statement is made without prejudice to any rights against third parties which exist at the date hereof or which may subsequently come into being.

3. No amount set forth in this Requisition Requesting Disbursement was included in any Requisition Requesting Disbursement previously filed with the Escrow Agent for which payment was actually made by the Escrow Agent.

4. By the delivery to Escrow Agent of this Requisition Requesting Disbursement, the Lessee, for purposes of the Agreement, the Lease and the Escrow Agreement only, irrevocably accepts that portion of the Equipment and related services and labor represented by this Requisition Requesting Disbursement. If this Requisition Requesting Disbursement is the Final Disbursement Requisition (as indicated above), there is attached hereto as Attachment 1 an original of the Acceptance Certificate, executed by an Authorized Officer of Lessee, evidencing the Lessee's acceptance of all Equipment (including all Equipment represented by any and all prior Requisitions Requesting Disbursement).

5. The Lessee has made such investigation of such sources of information as are deemed necessary and is of the opinion that the applicable portion of the Equipment, upon payment hereunder, will be fully paid for, and no claim or claims exist against the Lessee or, to the best of Lessee's knowledge, any Supplier out of which a lien based on furnishing labor or material exists or might arise. Funds are on deposit in the Escrow Fund sufficient to make payment of the full amount which might in any event be payable in order to satisfy such claim or claims contested by the Lessee and described in this or any previous Requisition Requesting Disbursement.

6. By delivery of this Requisition Requesting Disbursement by the Lessee, the Lessee does hereby represent and warrant to the Lessor, that: (i) each of the representations and warranties of the Lessee contained in the Lease (and any documents related thereto) is true and correct on and as of the date hereof; (ii) the Lessee has performed all of its obligations under the Lease (and any documents related thereto) that are required to be performed by the Lessee on or prior to the date hereof; (iii) no Default exists under the Lease and no event has occurred and is continuing that with notice or the lapse of time or both

_____

* A current IRS Form W-9 for the payee is attached hereto or an IRS Form W-9 has been previously submitted to Escrow Agent.

would constitute a Default under the Lease; and (iv) the person signing this Requisition Requesting Disbursement is an Authorized Officer of Lessee.

Date: _____

CITY OF OREM, UTAH

By: _____

Title: _____

Approved for Payment:

SIEMENS PUBLIC, INC., by
SIEMENS FINANCIAL SERVICES, INC.,
As Fiscal Agent

By: _____

Title: _____

By: _____

Title: _____

DRAFT

ATTACHMENT 1
TO EXHIBIT A
(FORM OF REQUISITION REQUESTING DISBURSEMENT)

ACCEPTANCE CERTIFICATE

The undersigned, as the Lessee under that certain Leasing Schedule #280-0002526-001 (the "Lease") to Master Lease Purchase Agreement dated February 19, 2016, with Siemens Public, Inc., as lessor (the "Lessor"), hereby acknowledges receipt in good condition of all of the equipment (the "Equipment") described on the attached Annex A; and for purposes of the Lease only, hereby accepts such Equipment **"AS-IS, WHERE-IS"**; and hereby certifies, for purposes of the Lease, that it has inspected the Equipment, that the Equipment is in good working order and complies with all purchase orders, contracts and specifications, that the Lessee has fully and satisfactorily performed all covenants and conditions to be performed by it as of this date under the Lease with regard to such Equipment, that the Lessee waives any right to revoke its acceptance, that such Equipment is fully insured in accordance with Section 16 of the Lease, and that such Equipment constitutes all or a portion of the Equipment as that term is defined in the Lease. This certificate is made without prejudice to any rights against third parties which may exist as of the date hereof or which may subsequently come into being.

CITY OF OREM, UTAH

Acceptance Date: _____

By: _____
Name: _____
Title: _____

DRAFT

ANNEX A
TO ATTACHMENT 1
(ACCEPTANCE CERTIFICATE)

DESCRIPTION OF EQUIPMENT∗

The following items:

∗ The Equipment subject to this Acceptance Certificate is deemed to include all items listed in each Requisition Requesting Disbursement submitted to the Escrow Agent pursuant to the Escrow Agreement whether or not such items are specifically included in this Description of Equipment. The Escrow Agent has no responsibility or duty to verify or validate any such Equipment related to this Agreement.

EXHIBIT B

ARBITRAGE INVESTMENT INSTRUCTIONS

These Arbitrage Instructions provide guidance regarding compliance with § 148 of the Internal Revenue Code of 1986, as amended (the "Code"), in order to preserve the exclusion from gross income for federal income tax purposes of the interest components of Lease Payments to be paid by the Lessee under the Lease. Pursuant to the Escrow Agreement, the Escrow Agent has agreed to hold, invest and disburse the proceeds of the Lease.

In Section 9 of the Lease, the Lessee has covenanted that it will not knowingly take any action that would cause the interest portion of the Lease Payments under the Lease to become includable in gross income of the recipient for federal income tax purposes under the Code and the applicable Treasury Regulations promulgated thereunder (defined below as the "Regulations"), and that it will take and will cause its officers, employees and agents to take all affirmative actions legally within its power and known to it to be necessary to ensure that the interest portion of the Lease Payments does not become includable in gross income of the recipient for federal income tax purposes under the Code and the Regulations. These actions include compliance with all requirements of the Code and the Regulations relating to the rebate of arbitrage profit to the United States of America, including without limitation the calculation and payment to the United States of any rebate required to preserve said exclusion of the interest components of Lease Payments.

Section 1. Definitions. In addition to the capitalized terms defined in the Lease and in § 148 of the Code and the Treasury Regulations issued thereunder, the following capitalized terms are defined:

"Bona Fide Debt Service Fund" means, under Treas. Reg. § 1.148-1(b), a fund that (1) is used primarily to achieve a proper matching of revenues with Lease Payments within each Lease Year, and (2) is depleted at least once each Lease Year, except for a reasonable carryover amount not to exceed the greater of (a) the investment earnings on the fund for the preceding Lease Year, or (b) 1/12 of the total Lease Payments on the Lease for the preceding Lease Year. For purposes of these Arbitrage Instructions, as of any date, all amounts in the Escrow Fund which are expected to be used to pay capitalized interest during the current Lease Year should be treated as amounts in a Bona Fide Debt Service Fund. It is not expected that any Gross Proceeds would be held in a Bona Fide Debt Service Fund.

"Escrow Fund" means the special escrow trust fund established in the custody of the Escrow Agent under the Escrow Agreement.

"Final Computation Date" means the date the last Lease Payment is made and the Lease is terminated.

"Gross Proceeds" means (i) Sale Proceeds; (ii) investment proceeds derived from the investment of Sale Proceeds; (iii) amounts held in a sinking fund for the Lease; (iv) amounts held in a pledged fund or reserve fund for the Lease; and (v) any transferred proceeds. Specifically, Gross Proceeds include all amounts held in the Escrow Fund.

"Installment Computation Date" means every 5th anniversary of the Issue Date.

"Investment" means any security, obligation, annuity contract or other investment-type property which is purchased directly with, or otherwise allocated to, Gross Proceeds. Such term does not include obligations the interest on which is excluded from federal gross income, except for "specified private activity bonds" as such term is defined in Code § 57(a)(5)(C).

"Issue Date" means the date on which the Lease is executed and delivered.

"Lease Year" means each one-year period ending on each annual anniversary of the Lease Commencement Date.

"Minor Portion" means the lesser of $100,000 or 5% of the Sale Proceeds.

"Reasonable Retainage" means Gross Proceeds retained by the Lessee for reasonable business purposes, such as to ensure or promote compliance with a construction contract; provided that such amount may not exceed 5% of net Sale Proceeds of the Lease on the date 18 months after the Issue Date.

"Regulations" means Treasury Regulations §§ 1.148-0 through 1.148-11, 1.149(d)-1, 1.149(g)-1, 1.150-1 and 1.150-2, as the same may hereafter be amended, and any other temporary, proposed or final regulations promulgated by the Internal Revenue Service to implement the requirements of § 148(f) of the Code and applicable to the Lease.

"Sale Proceeds" means any amounts actually or constructively received from the "sale" of the Lease (i.e., execution, delivery and funding or purchase of the Lease by the Lessor or the Lessor's assignee if the Lessor's assignee is funding the Lease), including amounts used to pay any discount or compensation to underwriters, lease brokers, placement agents or financial advisors and accrued interest other than pre-issuance accrued interest.

"Special Tax Counsel" means a counsel of recognized national standing in the field of law relating to municipal bonds.

Section 2. Covenants. The Lessee agrees (a) to compute the arbitrage rebate on the Lease, or to determine that all or a portion of the Gross Proceeds are exempt from the rebate requirements, as appropriate, in accordance with the Regulations, and (b) to pay to the United States all arbitrage rebate due in accordance with these Arbitrage Investment Instructions and the Regulations.

Section 3. Investments. All Gross Proceeds must be invested in accordance with this Section.

(a) *Temporary Periods/Yield Restriction*. Proceeds of the Lease deposited in the Escrow Fund and investment earnings thereon may be invested without yield restriction for not more than three years after the Issue Date, except as otherwise provided in this Section. If any unspent proceeds remain in the Escrow Fund after three years, such amounts may continue to be invested without yield restriction, except as otherwise provided in this Section, so long as all yield reduction payments are computed and paid to the IRS in accordance with Treas. Reg. § 1.148-5(c). Any amounts in the Escrow Fund after completion of the acquisition of the Equipment in excess of the sum of the Lease Payments coming due within 12 months of such completion plus $100,000 and any amounts not invested as described above shall be invested at a yield not greater than the yield on the Lease.

(b) *Fair Market Value*.

(1) General. No Investment may be acquired with Gross Proceeds for an amount (including transaction costs) in excess of the fair market value of such Investment, or sold or otherwise disposed of for an amount (including transaction costs) less than the fair market value of the Investment. The fair market value of any Investment is the price a willing buyer would pay to a willing seller to acquire the Investment in a bona fide, arm's-length transaction. Fair market value shall be determined in accordance with § 1.148-5 of the Regulations. Where there is no established securities market for an Investment, use the applicable paragraphs below.

(2) Certificates of Deposit. The purchase price of a certificate of deposit (a "CD") is treated as its fair market value on the purchase date if (i) the CD has a fixed interest rate, a fixed payment schedule, and a substantial penalty for early withdrawal; (ii) the yield on the CD is not less than the yield on reasonably comparable direct obligations of the United States; and (iii) the yield is not less than the highest yield published or posted by the CD issuer to be currently available on reasonably comparable CDs offered to the public.

(3) Other Investments. If an Investment is not described above, the fair market value may be established through a competitive bidding process, as follows:

(A) at least three bids on the Investment must be received from persons with no financial interest in the Lease (*e.g.*, as underwriters or brokers); and

(B) the yield on the Investment must be equal to or greater than the yield offered under the highest bid.

Section 4. Arbitrage Rebate Exceptions.

(a) *Small Issuer Exception.* The Lessee will not be obligated to pay arbitrage rebate to the United States if (i) the Lessee is a governmental unit under the laws of its state with general taxing powers; (ii) the Lease is not a private activity bond as defined in Section 141 of the Code; (iii) 95% or more of the net proceeds of the Lease will be used for local governmental activities of the Lessee; and (iv) the aggregate face amount of all tax-exempt obligations (other than private activity bonds) issued by the Lessee and all subordinate entities thereof during the calendar year in which the Lease Commencement Date (as defined in the Lease) occurs does not exceed $5,000,000.

(b) *Six-Month Exception*. The obligation to pay arbitrage rebate to the United States will be treated as satisfied if

(1) the Gross Proceeds (as modified below) are allocated to expenditures for the governmental purpose of the Lease within six months after the Issue Date; and

(2) arbitrage rebate is paid in accordance with Section 148 of the Code on all other Gross Proceeds.

For purposes of paragraph (1) above, Gross Proceeds do not include amounts in a Bona Fide Debt Service Fund or amounts that become Gross Proceeds after the end of the six-month spending period, but were not expected to be Gross Proceeds as of the Issue Date (*e.g.*, Gross Proceeds arising from a sale of the facilities financed with the Lease). The Lease meets the six-month expenditure test even if, at the end of the six-month period, Gross Proceeds not exceeding the Minor Portion remain unspent, so long as such Gross Proceeds are spent within one year after the Issue Date. The use of Gross Proceeds to pay the principal component of any Lease Payment will not be treated as an expenditure of Gross Proceeds.

(c) *Eighteen-Month Exception*. The obligation to pay arbitrage rebate to the United States will be treated as satisfied if

(1) the Gross Proceeds (as modified below) are allocated to expenditures for the governmental purpose of the Lease in accordance with the following schedule:

Time Period after the Issue Date	Minimum Percentage of Gross Proceeds Spent
6 months	15
1 year	60
18 months	100

and;

(2) arbitrage rebate is paid in accordance with Section 148 of the Code on all other Gross Proceeds.

For purposes of paragraph (1) above, Gross Proceeds do not include amounts in a Bona Fide Debt Service Fund or amounts that become Gross Proceeds after the end of the 18-month spending period, but were not expected to be Gross Proceeds as of the Issue Date (*e.g.*, Gross Proceeds arising from a sale of the facilities financed with the Lease). The Lease meets the 18-month expenditure test even if, at the end of the 18-month period, Gross Proceeds not exceeding a Reasonable Retainage remain unspent, so long as such proceeds are spent within 30 months after the Issue Date. In addition, the failure to satisfy the final spending requirement at the end of the 18-month period is disregarded if the Lessee uses due diligence to complete the facilities financed with the Lease, and the amount of Gross Proceeds unspent does not exceed the lesser of 3% of the "issue price" of the Lease (i.e., the amount paid by the Lessor or the Lessor's assignee if the Lessor's assignee is funding the payment) or $250,000. However, the use of Gross Proceeds to pay the principal component of any Lease Payment will not be treated as an expenditure of such Gross Proceeds.

Section 5. Computation and Payment of Arbitrage Rebate.

(a) *Computation, Notice and Transfer*. Except as provided above, the Lessee shall compute arbitrage rebate within 45 days after each Installment Computation Date, and within 45 days after the Final Computation Date, in accordance with the Regulations. Upon each computation of arbitrage rebate, the Lessee shall give written notice to the Lessor by first class mail, postage prepaid, including a copy of such computation, showing the arbitrage rebate due, together with an opinion or certificate stating that arbitrage rebate was determined in accordance with the Regulations.

(b) *Exception for Bona Fide Debt Service Fund.* Amounts in a Bona Fide Debt Service Fund are exempt from the arbitrage rebate requirements.

(c) *Rebate Payments*. Within 60 days after each Installment Computation Date and the Final Computation Date, the Lessee shall pay to the United States the amount of arbitrage rebate then due, determined in accordance with the Regulations.

Each payment of arbitrage rebate shall be mailed or delivered to:

Internal Revenue Service Center
Ogden, UT 84201

(or any other address required by the Regulations) and shall be accompanied by IRS Form 8038-T and such other forms, documents or certificates as may be required by the Regulations. The Lessee shall send a copy of any such correspondence, payments, forms or documents to the Lessor.

Section 6. Records. The Lessee shall retain a copy of each computation of arbitrage rebate, and the Escrow Agent shall, to the best of its abilities, retain detailed records with respect to each Investment, including: (a) purchase date, (b) purchase price, (c) information establishing the fair market value on the date such investment was allocated to the Lease, (d) any accrued interest paid, (e) face amount, (f) coupon rate, (g) frequency of interest payments, (h) disposition price, (i) any accrued interest received, and (j) disposition date. The Lessee and the Escrow Agent shall retain all such records until six years after the Final Computation Date.

Section 7. Filing Requirements. The Lessee shall file or cause to be filed with the Internal Revenue Service such reports or other documents as are required by the Code. The Escrow Agent shall provide to the Lessee, upon written request, all information required to be retained by it pursuant to the Escrow Agreement (including these Arbitrage Investment Instructions).

Section 8. Survival after Defeasance. Notwithstanding anything in the Escrow Agreement to the contrary, the obligation to pay arbitrage rebate to the United States and to comply with all other requirements contained in these Arbitrage Instructions and in the Regulations shall survive the payment or defeasance of the Lease.

Section 9. Opinion of Special Tax Counsel. These Arbitrage Instructions may be modified or amended in whole or in part upon receipt of an opinion of Special Tax Counsel to the effect that such modifications and amendments will not adversely affect the exclusion from federal gross income of the interest components of the Lease Payments.

* * *

DRAFT

LESSEE COUNSEL OPINION

[To be Placed on Attorney Letterhead.]

February 19, 2016

Siemens Public, Inc.
3411 Silverside Road
Hanby Building, Suite 100
Wilmington, DE 19810

Ladies and Gentlemen:

As counsel for City of Orem, Utah (the "Lessee"), I have examined a duly executed original of (a) Leasing Schedule #280-0002526-001 dated February 19, 2016 (the "Lease"), by and between Siemens Public, Inc. (the "Lessor") and the City of Orem, Utah, as Lessee, which incorporates the terms and conditions of Master Lease Purchase Agreement dated February 19, 2016 (the "Agreement"); (b) Escrow Agreement Relating to Equipment Subject to Leasing Schedule #280-0002526-001 dated February 19, 2016 (the "Escrow Agreement"), among the Lessee, the Lessor and UMB Bank, N.A., as escrow agent; and (c) Performance Contracting Agreement dated _____, 2016 (the "Energy Savings Contract"), between the Lessee and Siemens Industry Inc., Building Technologies Division. Based upon this examination and upon such other examination as I have deemed necessary or appropriate, I am of the opinion that:

1. The Lessee is a public body corporate and politic, duly organized and existing under the laws of the State of Utah with the power and authority to execute, deliver and perform all of its obligations under the Lease, the Escrow Agreement and the Energy Savings Contract, and has a substantial amount of one or more of the following sovereign powers: (a) the power to tax; (b) the power of eminent domain; and (c) police power.

2. The Lease, as incorporating the terms and conditions of the Agreement, the Escrow Agreement and the Energy Savings Contract have been duly authorized, executed and delivered by the Lessee, pursuant to constitutional and/or statutory provisions which authorize this transaction and pursuant to Resolution No. _____ (the "Resolution"), adopted by the Lessee's governing body on February 9, 2016.

3. Assuming due execution of the Lease, the Escrow Agreement and the Energy Savings Contract by the other parties thereto, the Lease, as incorporating the terms and conditions of the Agreement, the Escrow Agreement and the Energy Savings Contract are legal, valid and binding obligation of the Lessee, enforceable in accordance with their respective terms except as limited by state and federal laws, regulations, rulings and court decisions relating to applicable bankruptcy, insolvency, reorganizations, moratoriums or similar laws affecting the enforcement of creditors' rights generally, and by equitable principles which could limit specific performance. In the event the Lessor obtains a judgment against the Lessee in money or damages, as a result of a default under the Lease, the Lessee will be obligated to pay such judgment.

4. The authorization, approval and execution of the Lease (as incorporating the terms and conditions of the Agreement), the Escrow Agreement and the Energy Savings Contract and all other proceedings of the Lessee related to the transactions contemplated thereby, have been performed in accordance with all open meeting laws, public bidding laws, if any, and all other applicable laws, including without limitation **[Note to Counsel: Reference applicable energy savings statute]**.

5. The signatures of the officers of the Lessee which appear on the Lease, the Escrow Agreement and the Energy Savings Contract are true and genuine; I know said officers and know them to hold the offices set forth next to their names.

6. To the best of my knowledge after due inquiry, no litigation is pending or threatened in any court or other tribunal, state or federal, in any way questioning or affecting the validity of the Resolution, the Lease, the Escrow Agreement or the Energy Savings Contract, or is likely to affect the ability of the Lessee to perform its obligations under the Lease (as incorporating the terms and conditions of the Agreement), the Escrow Agreement or the Energy Savings Contract.

7. No consent of, exemption by or registration with any governmental body (other than those that have been obtained) is required in connection with the leasing of the property or the execution, delivery and performance by the Lessee of its obligations under the Lease (as incorporating the terms and conditions of the Agreement), the Escrow Agreement and the Energy Savings Contract.

You, your assigns and their assigns may rely on this opinion as if it were addressed to them.

Very truly yours,

DRAFT

OPINION OF SPECIAL TAX COUNSEL AND IRS FORM 8038-G

[To be provided by Lessee's Special Tax Counsel.]

[Required to be Provided Prior to Closing Date.]

OFFICER'S CERTIFICATE

Issued in Connection with Leasing Schedule #280-0002526-001 (the "Lease") to Master Lease Purchase Agreement dated February 19, 2016 (the "Agreement") between Lessee and Siemens Public, Inc.

The undersigned, being a duly qualified and acting officer of the **City of Orem, Utah** ("Lessee"), **DOES HEREBY CERTIFY AS FOLLOWS:**

1. Attached hereto is a true and complete copy of the resolution or other authorizing document adopted, signed and approved by the governing body of Lessee, authorizing execution and delivery of (a) the Lease, as incorporating the terms and conditions of the Agreement, (b) the Escrow Agreement Relating to Equipment Subject to Leasing Schedule #280-0002526-001 (the "Escrow Agreement") among Lessee, Siemens Public, Inc. and the escrow agent named therein, (c) the Performance Contracting Agreement dated _____, 2016 (the "Energy Savings Contract"), by and between Lessee and Siemens Industry Inc., and (d) all related documents, and consummation of the transactions contemplated thereby.

2. The official of Lessee who executed the Lease, as incorporating the terms and conditions of the Agreement, the Escrow Agreement and the Energy Savings Contract on behalf of Lessee and whose signature appears on those documents; (a) is the duly qualified and acting officer of Lessee as stated beneath his or her signature, and (b) has been authorized to execute those documents on behalf of Lessee.

3. The following official or representative of Lessee is authorized to act on behalf of Lessee in matters relating to the Lease, as incorporating the terms and conditions of the Agreement, the Escrow Agreement and the Energy Savings Contract and the Equipment covered thereby:

Name	Office	Signature
_____	_____	_____

4. The budget year of Lessee is from July 1 to June 30.

IN WITNESS WHEREOF, the undersigned has executed this Officer's Certificate as of the date set forth below.

_____

Name:_____

Title:_____

Date: February 19, 2016

[PROPOSED FORM OF RESOLUTION FOR USE BY LESSEE]

RESOLUTION NO. _____

WHEREAS, the governing body (the "Governing Body") of the City of Orem, Utah ("Lessee"), has reviewed and determined its anticipated equipment requirements.

WHEREAS, the Governing Body for Lessee has determined that it is in Lessee's best interest to acquire the equipment (the "Equipment") described in a Performance Contracting Agreement (the "Energy Savings Contract") by and between Lessee and Siemens Industry, Inc., Building Technologies Division, a copy of which document is attached hereto as Exhibit A, and to finance such acquisition under Leasing Schedule #280-0002526-001 (the "Lease"), which incorporates the terms and conditions of the Master Lease Purchase Agreement (the "Agreement"), between Lessee and Siemens Public, Inc., copies of which documents are attached hereto as Exhibit B; and

WHEREAS, in connection with the execution and delivery of the Lease, it will be necessary for Lessee to enter into an Escrow Agreement Relating to Equipment Subject to Leasing Schedule #280-0002526-001 (the "Escrow Agreement") among Lessee, Siemens Public, Inc. and the escrow agent named therein, a copy of which document is attached hereto as Exhibit C; and

THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY THAT:

1. Lessee shall acquire the Equipment.

2. The Energy Savings Contract, the Lease, as incorporating the terms and conditions of the Agreement, and the Escrow Agreement are hereby approved, and Lessee's _____, _____ or other representative of the Lessee designated by any of them in writing is hereby authorized to execute (i) the Energy Savings Contract; (ii) the Lease, as incorporating the terms and conditions of the Agreement, and (iii) the Escrow Agreement, all substantially in the forms attached hereto with such changes or amendments (substantial or otherwise) as are approved by the officer of Lessee executing those documents, such approval to be conclusively evidenced by that officer's execution of those documents, and (iv) all other documents, instruments, certificates and agreements related to the Energy Savings Contract, the Escrow Agreement and the Lease.

ADOPTED, SIGNED AND APPROVED at a duly convened meeting of Lessee's Governing Body on the 9th day of February, 2016.

By: _____

Name: _____

Title: _____

ESSENTIAL USE/SOURCE OF FUNDS CERTIFICATE

LESSEE NAME: City of Orem, Utah

Re: Leasing Schedule #280-0002526-001 (the "Lease") to Master Lease Purchase Agreement dated February 19, 2016 between the undersigned ("Lessee") and Siemens Public, Inc.

This certificate confirms and affirms that the equipment described in the Lease referenced above (the "Equipment") is essential to the functions of the Lessee or to the services Lessee provides its citizens. Further, Lessee has an immediate need for, and expects to make immediate use of, substantially all such Equipment, which need is not temporary or expected to diminish in the foreseeable future. Lessee will use such Equipment only for the purpose of performing one or more of Lessee's governmental or proprietary functions consistent with the permissible scope of its authority.

1. Is the Equipment new, an upgrade, additional or a replacement? If replacement, how old is the existing equipment? If new, is the Equipment for a start-up program?

_____

_____

_____

2. Please fully explain the use of the Equipment, including any specific department which may be its primary user.

_____

_____

_____

3. If any of the Equipment is computer software, on what hardware will the software run, and is the existing hardware owned or being leased?

_____

_____

_____

4. From which fund will lease payments be made?

_____

5. Will any loan or grant monies be used to make lease payments?

_____

_____

CITY OF OREM, UTAH

By: _____

Name:_____

Title:_____

Date: February 19, 2016

INSURANCE COVERAGE REQUIREMENTS

TO LESSOR: **(CERTIFICATE HOLDER)**
SIEMENS PUBLIC, INC. its Successors and/or Assigns ATIMA
c/o Siemens Financial Services, Inc.
3411 Silverside Road
Hanby Building, Suite 100
Wilmington, DE 19810

FROM LESSEE: **(INSURED)**
CITY OF OREM, UTAH
56 North State Street
Orem, UT 84057

LEASING SCHEDULE #280-0002526-001 dated February 19, 2016 (the "Lease"), to MASTER LEASE PURCHASE AGREEMENT dated February 19, 2016 (the "Agreement") between the undersigned ("Lessee") and Siemens Public, Inc.

EQUIPMENT LOCATIONS: See **Schedule 1** attached hereto.

SUBJECT: INSURANCE COVERAGE REQUIREMENTS

Check All Appropriate Boxes:

☐ **Third-Party Insurance**. In accordance with Section 16 of the Agreement, we have instructed the insurance agent named below to issue the insurance indicated below (please fill in name, address and telephone number of insurance agent):

_____

_____

_____

☐ All Risk Physical Damage Insurance on the leased equipment ("Equipment") covered by the Lease, evidenced by a Certificate of Insurance and Long Form Loss Payable Clause **naming Siemens Public, Inc., and/or its assigns, as additional insured and loss payee.**

Coverage Required: Full Replacement Value

☐ Public Liability Insurance evidenced by a Certificate of Insurance **naming Siemens Public, Inc., and/or its assigns as Additional Insured.**

Minimum Coverage Required:
$1,000,000.00 per person
$1,000,000.00 aggregate bodily injury liability
$100,000.00 property damage liability

Proof of insurance coverage will be provided prior to the time the Equipment is delivered to us.

☐ **Self Insurance**. Pursuant to Section 16 of the Agreement, we are self-insured for:

☐ All risk, physical damage.

☐ Public liability.

Such self-insurance covers Siemens Public, Inc. and its assigns to the same extent that commercial insurance would otherwise be required to do so by the Lease. We will provide proof of such self-insurance in letter form together with a copy of the statute or other authority authorizing this form of insurance.

LESSEE: CITY OF OREM, UTAH

By: _____

Name: _____

Title:_____

Date: February 19, 2016

SCHEDULE 1 TO
INSURANCE COVERAGE REQUIREMENTS

EQUIPMENT LOCATIONS

[Please provide.]

INSURANCE CERTIFICATES (PROPERTY AND LIABILITY) RESPECTING THE EQUIPMENT WITH THE FOLLOWING PARTY SHOWN AS LOSS PAYEE AND ADDITIONAL INSURED:

SIEMENS PUBLIC, INC. its Successors and/or Assigns ATIMA
c/o Siemens Financial Services, Inc.
3411 Silverside Road
Hanby Building, Suite 100
Wilmington, DE 19810

[Required to be Provided by Lessee Prior to Closing Date.]

LESSEE'S PAYMENT INSTRUCTIONS

Re: Leasing Schedule #280-0002526-001 (the "Lease") to Master Lease Purchase Agreement, both dated February 19, 2016, between the City of Orem, Utah, as lessee, and Siemens Public, Inc., as lessor

Siemens Public, Inc.
3411 Silverside Road
Hanby Building, Suite 100
Wilmington, DE 19810

Ladies and Gentlemen:

The City of Orem, Utah (the "Lessee"), hereby instructs Siemens Public, Inc. to disburse the following amounts to the following parties in connection with the Lease:

$6,739,000 to UMB Bank, N.A., as escrow agent, consisting of the proceeds of the Lease, to be applied to finance the "Equipment" as described in the Lease and certain costs of issuance relating thereto, as follows:

Wire Instructions:
Bank Name: UMB Bank, N.A.
ABA Routing No.: 101000695
BNF Name: Trust Operations/CT-STL
BNF Acc: 9800006823
Reference: Siemens/City of Orem, Utah

Dated: February 19, 2016.

CITY OF OREM, UTAH

By _____
Name: _____
Title: _____

Siemens
Financial Services

Partner in creating value.

CUSTOMER BILLING INFORMATION

This is to instruct Siemens Financial Services Inc. in the mailing address for invoices regarding **Leasing Schedule #280-0002526-001 to Master Lease Purchase Agreement** between the **City of Orem, Utah** (the "Lessee") and **Siemens Public, Inc.** (the "Lessor"). This form applies to the following Leasing Schedule:

Leasing Schedule No. 280-0002526-001

Invoice should be addressed as follows:

To the Attention of: _____

Corporate Name: City of Orem, Utah

Billing Address: 56 North State Street, Orem, UT 84057

Federal ID#: _____

Invoice Resolution Contact: _____ (_____)

Telephone Number: (___) ___-____ Fax Number: (___) ___-____

CUSTOMER PURCHASE ORDER #: **X**_____

Thank you!

Executed Documentation Should Be Sent To Whom: _____

Form **W-9**
(Rev. December 2014)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification; check only **one** of the following seven boxes:
☐ Individual/sole proprietor or single-member LLC ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate
☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶
Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.
☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
Exempt payee code (if any)
Exemption from FATCA reporting code (if any)
(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.)

Requester's name and address (optional)

6 City, state, and ZIP code

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number
☐☐☐ - ☐☐ - ☐☐☐☐

or

Employer identification number
☐☐ - ☐☐☐☐☐☐☐

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here **Signature of U.S. person ▶** **Date ▶**

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at *www.irs.gov/fw9*.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding?* on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and

4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

SIEMENS

February 19, 2016

City of Orem, Utah
56 North State Street
Orem, Utah 84057

Re: Leasing Schedule #280-0002526-001 (the "Lease") to Master Lease Purchase Agreement dated as of February 19, 2016, between the City of Orem, Utah, as lessee, and Siemens Public, Inc., as lessor

Ladies and Gentlemen:

Thank you for selecting Siemens Public, Inc. ("Siemens") as your lender. We are delivering this letter to describe our role in the transaction.

Siemens has not acted and will not act as your agent or serve as your municipal advisor (as defined in Section 15B of the Securities Exchange Act of 1934). We have no fiduciary duty to you and intend only to enter into an arms-length transaction involving extending credit to you through the purchase of a lease purchase agreement.

Any quote or indication of interest provided to you consists solely of the terms under which Siemens may be willing to enter into a transaction with you for Siemens' own account.

Please acknowledge the foregoing by signing where indicated below and returning this letter via e-mail to our counsel, Gilmore & Bell, P.C. (e-mail: jjackson@gilmorebell.com). In addition, please identify below any registered municipal advisor, financial advisor or placement agent you are working with on this transaction.

Please let us know if you or your counsel would like to further discuss these matters. Thank you again for doing business with us. We look forward to working with you.

SIEMENS PUBLIC, INC.

☒ Placement Agent/Financial Advisor/
Registered Municipal Advisor: LEWIS YOUNG ROBERTSON & BURNINGHAM, INC.
(Name of Firm)

☐ No Placement Agent/Financial Advisor/Registered Municipal Advisor

Acknowledgement:
CITY OF OREM, UTAH

By: _____
Name: _____
Title: _____

SCHEDULE 1

NOTICE OF MEETING

CITY OF OREM **CITY COUNCIL MEETING** **FEBRUARY 9, 2016**	
REQUEST:	**RESOLUTION – Amending the policies and procedures for city option funding of recreational and cultural facilities and cultural organizations known as the CARE program**
APPLICANT:	The City of Orem
FISCAL IMPACT:	None

NOTICES:
-Posted in 2 public places
-Posted on City webpage
-E-mailed to newspapers
-Posted on Social Media

SITE INFORMATION:
General Plan Designation:
N/A
Current Zone:
N/A
Acreage:
N/A
Neighborhood:
N/A
Neighborhood Chair:
N/A

PREPARED BY:
Steven Downs
Assistant to the CM

RECOMMENDATION:
The Assistant to the City Manager recommends the City Council, by resolution, approve the resolution updating the CARE Policies and Procedures.

BACKGROUND:
The existing CARE policies and procedures were most recently adopted on December 9th, 2008. Since that time, Orem voters renewed the CARE tax for an additional 10 years, keeping the CARE tax in effect through March 31, 2024, and thus requiring changes to reflect the effective dates.

The updated policies and procedures also reflect the creation of a mid-major CARE group which allows organizations that would otherwise qualify for a mini grant, but have an active 501c3 designation, to qualify for a grant between $5,000 and $9,999. This also moves the lower bound of a major grant from $5,000 to $10,000.

Additional changes were made to reflect changes to state code as well as eliminate the restrictive language used to define the various disciplines allowed to be funded with CARE funding.

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RESOLUTION NO. _____

A RESOLUTION BY THE OREM CITY COUNCIL AMENDING THE POLICIES AND PROCEDURES FOR CITY OPTION FUNDING OF RECREATIONAL AND CULTURAL FACILITIES AND CULTURAL ORGANIZATIONS KNOWN AS THE CARE PROGRAM

WHEREAS the City Council recognizes that recreation and the arts enrich the quality of life in a community; and

WHEREAS the City Council desires to encourage and support the advancement of recreational and cultural facilities and cultural arts organizations in Orem; and

WHEREAS the City Option Funding of Recreational and Cultural Facilities and Cultural Organizations known as the CARE tax, exists to enhance financial support for Orem's qualifying recreational and cultural facilities and cultural organizations through the imposition, collection, and distribution of a 1/10th of 1 percent local sales and use tax; and

WHEREAS the City is required to distribute the entire amount of revenues and interest collected as a result of the imposition of the tax in a manner consistent with Utah Code Annotated 59-12-1403, which allows for granting to one or more organizations or facilities; and

WHEREAS the CARE Program Policies and Procedures delineate a method for distribution of funds including eligibility requirements for facilities and organizations and an application process for this competitive grant program; and

WHEREAS the CARE Program Policies and Procedures was last updated the 9th of December 2008; and

WHEREAS revisions are necessary to reflect changes that have been made to the existing CARE Program Policies and Procedures.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF OREM, UTAH, as follows:

1. The City Council hereby amends the Policies and Procedures for City Option Funding of Recreational and Cultural Facilities and Cultural Organizations, known as the CARE Program, as set forth in Exhibit "A" which is attached hereto and incorporated herein by reference.
2. If any part of this resolution be declared invalid, such decision shall not affect the validity of the remainder of this resolution.
3. All resolutions, ordinances, or policies in conflict herewith are hereby repealed.
4. This resolution shall become effective immediately upon its passage.

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PASSED AND APPROVED this **9th** day of **February** 2016.

_____
Richard F. Brunst, Jr., Mayor

ATTEST:

_____
Donna R. Weaver, City Recorder

COUNCIL MEMBERS VOTING "AYE"	COUNCIL MEMBERS VOTING "NAY"

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EXHIBIT A

City of Orem

Policies and Procedures for City Option Funding of Recreational and Cultural Facilities and Cultural Organizations, known as the CARE Program

Background:
On November 8, 2005, a majority of City of Orem voters approved a 1/10th of 1% increase in the local sales and use tax as a means of enhancing funding for recreational and cultural facilities and cultural organizations within the City of Orem. The Orem City Council enacted the tax by ordinance on November 22, 2005 and the tax went into effect April 1, 2006. In November 2013, Orem voters renewed the CARE tax for an additional 10 years, keeping the CARE tax in effect through March 31, 2024.

Known as the Cultural Arts and Recreation Enrichment tax, hereafter, CARE, funds are to be used for eligible facilities and organizations consistent with the 2013 ballot proposition, Orem City Code, and Utah Code Ann. 59-12-1401, et. seq Zoological facilities and organizations and botanical organizations are not eligible for CARE funding.

To carry out the provisions of the act, the City has enacted Article 18-5 of the City of Orem Municipal Code.

Program Purpose:
The CARE Program exists to enhance financial support for Orem's qualifying recreational and cultural facilities and cultural organizations through the imposition, collection, and distribution of a 1/10th of 1% city sales and use tax. The CARE Program is committed to fair and equitable access to CARE funding.

1.0 Policy
The Orem City Council shall distribute the entire amount of revenues and interest collected as a result of the imposition of the sales and use tax known as the CARE tax in a manner consistent with the 2013 ballot proposition and Utah Code Ann. 59-12-1403, which allow for:

1.1 granting to one or more eligible organizations or facilities;
1.2 granting for an eligible facility located within the geographic area of entities that are party to an interlocal agreement; and,
1.3 retaining a portion of the tax collected, not to exceed 1.5%, for the cost of administering the CARE program.

2.0 Definitions
The following definitions shall be used when referenced hereafter:

2.1 Application Form – the documents specified by the CARE Program of the City of Orem for use by entities and organizations which request funds pursuant to this Policy, including any required attachments and supporting documents.
2.2 Compilation Report – financial statement of an organization, prepared by a Utah licensed Certified Public Accountant.

2.3 Nonprofit – an organization or corporation that is not organized, created, operated or maintained to generate a profit or distribute income to its members, directors, officers, or corporation.

2.4 Notice to an Applicant – Notice to an applicant required or provided for under this Policy will be complete when Notice is forwarded by regular mail to the name and address provided by the Applicant in the application for CARE funds.

2.5 Primary Purpose – the main goal, the fundamental intent, the core purpose or mission of an organization.

2.6 Qualifying Operating Expenses – this definition applies to cultural organizations. An organization's total expenditures for ongoing operations for an identifiable fiscal year as documented by certified financial records (as allowed by Generally Accepted Accounting Principles, GAAP) less the following non-qualifying expenditures:

- 2.6.1 Capital construction expenses, including capital acquisition, improvements to real property or depreciation of real property;
- 2.6.2 Payments into an Endowment Corpus;
- 2.6.3 Expenditures for programs conducted outside of the City of Orem;
- 2.6.4 Activities not available to the general public;
- 2.6.5 Fundraising expenses related to capital or endowment campaigns;
- 2.6.6 Repayments of loans and/or interest thereon;
- 2.6.7 Expenditures for direct political lobbying on all levels;
- 2.6.8 Grants – the distribution of funds to outside groups, institutions, organizations or other units;
- 2.6.9 Bad Debt Expense;
- 2.6.10 Depreciation and amortization of any asset;
- 2.6.11 Non-deductible Tax penalties;
- 2.6.12 Unrelated Business Income Tax – any operating expenses that are utilized in calculating federal unrelated business income tax; and,
- 2.6.13 Other expenses not related to the organization's primary cultural purpose.

2.7 Qualifying Organization – a cultural organization as defined in Utah Code Ann. 59-12-702 that:

- 2.7.1 maintains nonprofit status and meets the purpose of the statute; and,
- 2.7.2 has a primary purpose that corresponds with the definitions for a cultural organization as described in the statute.

2.8 Qualifying Facilities Expenses – capital development and ongoing operating expenses of recreational facilities and capital development of cultural facilities.

2.9 Review – inquiry and analytical procedures applied to the financial statements of an organization, performed by a Utah licensed Certified Public Accountant.

2.10 Definitions from the 2013 ballot proposition and Utah Code Ann. 59-12-702, referenced hereafter:

- 2.10.1 Administrative Unit – a division of a private nonprofit organization or institution that would, if it were a separate entity, be a cultural organization; and consistently maintains books and records separate from those of its parent organization.
- 2.10.2 Cultural Facility – any city-owned or operated museum, theater, art center, music hall, or other cultural or arts facility.
- 2.10.3 Cultural Organization – a private nonprofit organization or institution having as its primary purpose the advancement and preservation of: (1) natural history; (2) art; (3) music; (4) theater; (5) dance; or (6) cultural arts, including

literature, a motion picture, or storytelling; and an administrative unit. Cultural organization does not include any agency of the state; any political subdivision of the state; any educational institution whose annual revenues are directly derived more than 50% from state funds; or any radio or television broadcasting network or station, cable communications system, newspaper, or magazine.

2.10.4 Institution – institutions listed in Utah Code Ann. subsections 53B-1-102(1)(b) through (l), including Utah Valley University and other public post-high school educational institutions designated by the State Legislature as a part of the State's system of higher education.

2.10.5 Recreational Facility – any city-owned park, campground, marina, dock, golf course, playground, athletic field, gymnasium, swimming pool, trail system, or other facility used for recreational purposes.

3.0 General Guidelines

3.1 Funding for this program comes from sales tax revenues that are collected by the State of Utah and distributed to the City of Orem. All funding shall be based on actual sales and use tax receipts as received, recorded and reconciled by the City.

3.2 CARE funds *are not an entitlement* and the filing of an application for funds, no matter how complete or comprehensive, is not a guarantee that any funds will be awarded. As such, it should be clearly understood that the award of CARE funds is in the nature of a competitive grant and is awarded on the basis of merit and availability of funds of which from year to year there is no guarantee. Grants are awarded as much as possible on objective factors.

3.3 The City Council may choose to allocate a percentage of the funding to various classes of applications. This may be modified annually based on revenues available and the number of organizations that apply.

3.4 Grants shall be made available in four categories: City-owned Recreational and Cultural Facilities; Cultural Arts Major Grants of $10,000 or more, Cultural Arts Mid-Major Grants of $5,000 - $9,999 and Cultural Arts Mini Grants of up to $4,999.

3.5 Applicants may apply in one or more categories and they may apply in collaboration with other qualifying entities.

3.6 One granting round shall be made available each year.

3.7 Multiple year grants may be awarded provided they are within the CARE tax authorization period of ten years. Multiple year grants will still be subject to annual appropriation by the Orem City Council.

3.8 The fact that a project was previously qualified for funding does not guarantee that it is qualified for subsequent funding unless so authorized in the original grant.

3.9 The Orem City Council may use unallocated or unexpended funds from one fiscal year in another fiscal year.

4.0 Recreational and Cultural Facilities Grants

4.1 Grants shall be made available for City-owned recreational and cultural facilities.

4.2 Qualifying facilities expenses include capital development of recreational and cultural facilities and the ongoing operating expenses of recreational facilities.

4.3 All funded facilities must be located in the City of Orem or within the boundaries of an inter-local agreement with the City of Orem.

4.4 Applying entities and organizations must provide for perpetual maintenance and be responsible for operational and financial accountability for all facilities for which funding is requested.

5.0 Cultural Arts Major, Mid-Major and Mini Grants

5.1 Grants to qualifying organizations should be utilized to build organizational capacity, to create stability and to enhance the City of Orem's cultural arts offerings and community.

5.2 Private nonprofit cultural organizations requesting Major and Mid-Major Grants must be 501(c)(3) nonprofit entities at the time of the application deadline. Private nonprofit cultural organizations requesting Mini Grants must be 501(c)(3) nonprofit entities or registered with the State of Utah as nonprofit corporations with an active status at the time of the application deadline.

5.3 Qualifying organizations must have as their primary purpose the advancement and preservation of one or more of the following eligible disciplines:
(1) Natural history;
(2) Art;
(3) Music;
(4) Theater;
(5) Dance; or
(6) Cultural arts, including literature, a motion picture, or storytelling.

5.4 Qualifying organizations must have as their primary purpose the advancement and preservation of natural history, art, music, theater, dance, or cultural arts, including literature, a motion picture, or storytelling, as well as a preponderance of activities that are within their eligible disciplines, and not just have some element of cultural activities.

5.5 CARE funds should not be the sole or major source of funding received by applicant organizations. Priority will be given to organizations that can solicit and receive matching funds. Priority will be given to organizations that can demonstrate a strong connection to the community, have a substantial track record and show a stable history.

5.6 Organizations applying for Major Grants of $10,000 or more may be awarded up to 35% of their total qualifying operating expenses as defined in these policies and procedures.

5.6.1 Organizations will not qualify to receive Major Grants of $10,000 or more unless they have a significant presence, and manage and present, in the City of Orem.

5.7 Organizations applying for Mid-Major Grants may be awarded no greater than $9,999 as defined in these policies and procedures.

5.6.1 Organizations will not qualify to receive Mid-Major Grants unless they have a significant presence, and manage and present, in the City of Orem.

5.6.2 Organizations applying for a Mid-Major grant may be awarded a mini-grant of $4,999 or less.

5.6.3 Any applicant receiving $10,000 or more in CARE grants, even if the $10,000 threshold is reached through multiple Mini Grants and/or Mid-Major Grants, shall be treated as a Major Grant recipient and must comply with all rules and regulations related to Major Grants.

5.8 Organizations applying for Mini Grants may be awarded up to $4,999 for qualifying operating expenses as defined in these policies and procedures.

5.8.1 Preference will be given to Mini Grant applicants that have a significant presence, and manage and present, in the City of Orem.

5.8.2 Organizations headquartered outside of Orem may qualify for Mini Grants to present in the City of Orem, based on their intent to establish a more significant ongoing presence in the City of Orem.

58.3 Any applicant receiving $10,000 or more in CARE grants, even if the $10,000 threshold is reached through multiple Mini Grants and/or Mid-Major Grants, shall be treated as a Major Grant recipient and must comply with all rules and regulations related to Major Grants.

5.9 New cultural organizations may only receive a minimal amount, established by the City Council, until the organization can provide financial and evaluation reports to justify more substantial funding.

5.10 Qualifying organizations must have a stable financial history. Weak or negligent financial management could be grounds for exclusion.

5.11 Qualifying organizations requesting amounts of $10,000 or more shall be required to provide financial reports for their organizations prepared by a Utah licensed certified public accountant/firm according to the following schedule (subject to annual adjustment/indexing by the Orem City Council):

5.11.1 $10,000 to $99,999 – a compilation report for the most recently completed fiscal year;

5.11.2 $100,000 to $499,999 – a review of the most recently completed fiscal year plus a compilation report for the previous two fiscal years;

5.11.3 $500,000 or more – a review for the most recently completed fiscal year and the two previous fiscal years.

6.0 Application Process

6.1 Applications for funding under Utah Code Ann. 59-12-1403, Article 18-5 of the Municipal Code of the City of Orem and these policies and procedures shall be provided by the CARE Program.

6.2 The CARE Program shall issue public notice detailing the date, time, and place of availability of application forms, deadline for filing completed applications for CARE funding and all City Council meeting dates for CARE grant consideration.

6.3 All requests for funds must be submitted on an official application provided by the City of Orem CARE Program.

6.4 An application must be accurate, complete and all supplemental information included. It is not the responsibility of CARE Program staff to contact the applicants regarding information missing from their application. In the interest of the program, staff may notify applicants of deficiencies. If this occurs all applicants shall be treated equitably and notified of similar deficiencies.

6.5 Applications, including all required attachments, must be submitted prior to the deadline identified within the body of the application. Applications received after the deadline will not be accepted.

6.6 Fiscal information both within the application and required as attachments shall be reviewed for accuracy, consistency and compliance with fiscal requirements of the CARE Program by the City's accounting staff prior to the City Council's consideration of qualifying organizations.

6.7 The City Council will review the application and accompanying material and shall identify and approve qualifying applicants per Utah Code Ann. 59-12-701, Article 18-5 of the Municipal Code of the City of Orem, and these policies and procedures.

6.8 All qualifying applicants may be required to make a brief presentation and discuss the merits of their proposals with the Orem City Council at a public meeting. No additional materials will be accepted at these presentations unless requested by the City Council.

6.9 The City Council shall make final determination as to the amount of program funds to be distributed to each organization based upon Article 18-5 of the Municipal Code of the City of Orem, these policies and procedures and the application and accompanying information. The names of organizations and the amount of funds each is to receive shall be presented by the Orem City Council at a public meeting.

6.10 The CARE Program shall provide notice to applicants regarding the Orem City Council's decisions as soon as reasonably possible, including the amount each qualifying group shall receive based on verified expenditures; and which, if any, groups were disqualified or denied funding.

7.0 Distribution of Funds

7.1 Qualifying organizations will be required to enter into a contractual agreement with the City of Orem prior to receiving funds. Said contracts shall include:

- 7.1.1 the organization's detailed planned use schedule of expenditures;
- 7.1.2 a beginning and ending date for the project;
- 7.1.3 dates for required reporting, including interim reports as needed;
- 7.1.4 a clause that allows the City of Orem to verify application, evaluation report and use of funds information if requested; and
- 7.1.5 consequences of the failure to use CARE funds as required.

7.2 Said contracts must be executed by the qualifying organization and returned to the City of Orem CARE Program within a reasonable period of time as set by the program. If any organization fails to return the contract, executed as required hereunder, within said time, it will not receive payments and may lose its qualification for funding in that cycle.

7.2 No checks will be distributed until contracts are fully executed.

7.3 Funds disbursed to qualifying organizations shall be accounted for in a special revenue fund and disbursed through accounts within the City of Orem's CARE Program.

7.4 Funds under this program shall be disbursed based upon the City's fiscal year which runs July 1 through June 30 of the following calendar year.

8.0 Credit to the CARE Program

8.1 Each recipient organization shall use their best efforts to ensure that all brochures, news releases, programs, publications and other printed material bear the CARE logo, identifying an organization's use of CARE funding where projects, performances or other activities are funded in full or in part by the City of Orem CARE Program.

8.2 The CARE logo should not be reproduced smaller than 1 inch by 1.25 inches in size.

8.2 Recipients of CARE funding that provide waived or discounted admission must publicly announce (in some manner) that the event or activity has been sponsored by the City of Orem CARE Program.

9.0 Reporting Requirements

9.1 Each recipient organization shall be required to submit an evaluation report detailing how it expended the funds it received pursuant to these policies and procedures.

9.2 Interim reports may also be required for projects spanning a year or more.

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9.3 Deadlines for submission of all reports shall be specified in the contract with the City of Orem, with evaluation reports generally required within 60 days after the completion of the project or the period in which funds were expended.

9.4 Future CARE funding may be withheld due to inadequate, incomplete, or non-submitted reports.