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Major Maintenance Financial Model

Review and Analysis

Prepared for:

King County – Department of Executive Services
Facilities Management Division

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1.0 EXECUTIVE SUMMARY

The purpose of this analysis is to review the validity of the Major Maintenance Financial Model (MMFM) and its effectiveness as a tool to assist in the management of the major maintenance program for the County's portfolio of general-purpose buildings.

The Major Maintenance Financial Model was created in 1999 and was an excellent first step in implementing a systematic method for forecasting major maintenance needs. By and large, the MMFM contains the prerequisite elements to project funding requirements based on the general model components now contained in the model. Improvements in the model will come by adding additional project detail, refining cycles, and developing more accurate per square foot (PSF) charges for those buildings where revenue is being derived from assessing PSF charges. The resulting per square foot (PSF) charges for those buildings will then achieve full funding of each building's major maintenance needs. Rearranging the data in a more building specific format then is currently being done will result in a database which is more easily understood and navigated.

Of the two elements, expenditures and revenue, it is the expenditure element that is the most important. This expenditure element drives the revenue requirements. The current model derives its square foot charges by utilizing a static number for seven basic components, grouped in three static "cycles".

For example, "Carpet/Painting" has a base dollar number of $4.63 per square foot and is under the eight-year cycle for replacement. This dollar value and this cycle for "Carpet/Painting" are used for each building uniformly. This method, while acceptable in the aggregate, should be, as time elapses, refined to take into account each building's particular operational situation. This refinement might lower or raise that dollar value, or affect the cycle being used. For example, the carpet wear rate for an office building operating five days a week, ten hours per day will be much less than a police precinct operated twenty four hours per day, three hundred sixty five days per year. In addition, the PSF cost of $4.63 is not broken down separately for paint costs and carpet costs. Refinement for all components (including project detail, individualized cycles based on building characteristics, and project cost rational) currently included in the MMFM will be undertaken during the assessment survey of the County's buildings which is currently underway.

Another improvement to the MMFM would be to identify the individual building components specifically, e.g. heat pumps and condenser loops. Currently, these components are grouped under general categories linked to a predetermined cycle of replacement. This lack of specific information about project components results in a less reliable forecast for the corresponding funding requirements than forecasts based on more detailed components.

As detailed in the various sections later in this document, an effort is currently underway to inventory each building and its components, assess the current condition, and arrive at realistic replacement costs. Once this survey is completed, the County will be able to add and modify cycles, including building specific systems and components. It will be from this work that a verifiable foundation will be built from which all else in the MMFM will evolve.

The County has implemented an underlying financing method within the MMFM, that should result in projected funding being available, over a ten-year period, and should allow for the successful completion of all anticipated projects. These projects include existing deferred cyclical projects (projects past their scheduled refurbishment date), and the completion of deferred repair projects. In addition, accumulate sufficient reserves to fund cyclical projects when they become due and, provide a "borrowing" scheme to fund deferred building repairs. This method appears to be structurally sound from a fiscal aspect and should, with additional detail, result in stronger financial management of the MMRF. To achieve this, it is presumed that the MMFM will contain all building components not currently included (components that may come from the consultant's study for example) with detailed project costs, valid cycles, and displayed in a fashion that is easily understood.

Until such time as the inventory assessments are obtained from the consultant's study and any additional cyclical and immediate need projects are added to the model, there may be possible adverse financial impacts to the MMFM. The magnitude of these impacts has yet to be ascertained and the degree to which the MMFM may need to be adjusted is uncertain.

In addition to the impacts described in the paragraph above, other non-major maintenance projects such as capital improvement projects should not receive funding from the major maintenance reserve fund until resources for all major maintenance projects have been assured. This is true, as well, for any other draw-downs from the Major Maintenance Reserve Fund.

An additional funding mechanism for emergency repairs should be developed and a borrowing system implemented separately identified as such and an appropriate funding source specified. Such a mechanism might entail a borrowing system by which funds could be borrowed from the major maintenance reserve fund and then repaid, with interest, at a later date. (See **Appendix 4.2**, line item "Buildings Contingency")

Although the MMFM is structurally sound, it is complex, and will only grow more so as additional information and building specific systems and/or components are added. The model as currently constructed is not intuitive by nature and unless someone is familiar with it's structural layout, information is not readily available. Furthermore, the expansion and future updating of the model is subject to the functional limitations of using Excel ®. Serious consideration should be given to converting this spreadsheet model to an automated relational database type, or some combination of the two. (See **Section 3.2**)

One additional, but important component noted for this evaluation, is maintenance in general and preventative maintenance in particular. Based on the limited information provided for this analysis, by documentation, and interviews, it appears that the current staffing levels are inadequate to accomplish the required tasks of routine and preventative maintenance. The list of "immediate needs" projects indicate significant amount of projects that represent deferred repairs as opposed to cyclical building systems and/or component refurbishment, overhaul, or replacement (either on time or deferred). Furthermore, from the limited data obtained, it also appears that the successful completion of a significant portion of preventative maintenance tasks have been deferred as a result of the maintenance staff continually responding to a continuous and overwhelming volume of urgent repairs.

The importance of introducing a preventative maintenance program cannot be over emphasized. Failure to perform required preventative maintenance tasks on building systems and components will result in significantly reduced life cycles and increases in maintenance and operation costs. Moreover, the lack of a preventative maintenance program intensifies the challenge of accurately estimating future financial needs.

In conclusion, each building should be treated as an individual asset; each should have an operating budget that reflects the annual operating costs of maintaining the building in a "like new" condition. A Major Maintenance Reserve Fund for each building is designed to provide required funding to perform those tasks that occur on a cyclical basis. Capital Improvement funds would likewise made available in order to provide existing tenants, as well as prospective tenants the best finishes and amenities. This will result in a building being maintained in the best possible condition at all times

While the County's overall goals, as compared with private sector, may differ slightly (with respect to maximizing revenue, for example) the underlying fundamental goals remain the same. The private sector building owner may expend funds, for example, to have the latest high technology features in a building. This is done in order to attract tenants. Tenants choose to lease in those buildings because those high technology features translate into increased productivity for their employees which more than offsets a higher lease rate. Although the County owned buildings would not make improvements that attract tenants per say; these same improvements will benefit the County by increasing productivity, enhance employee morale, and reduce operating costs.

The private sector approach to building management may offer methods the County can model. The treatment of each building as an individual economic entity will facilitate improved financial projections, more meaningful budgets, and a sense of ownership on the part of those individuals involved in the management of these buildings. The treatment of each building as an individual entity operationally will greatly improve long and short-term maintenance programs.

The proposed modifications to the MMFM contained in this document represent private sector approaches, which over time, have proven to be successful at delivering cost effective facilities maintenance and operations in general, and major maintenance in particular.

This report and analysis provides several recommendations to consider for the Major Maintenance Financial Model. These recommendations are detailed in **Section 4.0 Analysis – Findings and Recommendations**, specifically in **Sections 4.2, Recommendations – Major Maintenance Model**.

2.0 METHODOLOGY OF ANALYSIS

The overall purpose of this analysis is to determine the effectiveness of the existing Major Maintenance Fund Financial Model as currently utilized by the King County Department of Executive Services, Facilities Management Division. This includes a review of the funding sources, system or component cycles, and building systems and/or components.

As a part of this analysis, a comparison of this financial model will be made to private sector counterparts. This comparison will include funding and/or budget methods, forecasting and cyclical determination for equipment and/or system components where these elements can be correlated to the Major Maintenance Financial Model. Elements of this review are as follows, but not limited to:

- Comparing of the MMFM in scope and detail to a comparable private sector financial model for a major maintenance program.
- Evaluating whether the MMFM model encompasses all relevant areas appropriate for a major maintenance program.
- Reviewing the financial model's cycles and determine their appropriateness.
- Reviewing the scope of the systems and building components included in the model and determine whether all appropriate components and/or systems have been included.
- Formulating and presenting other potential methods of managing major maintenance for buildings that have had a history of deferred maintenance.

With respect to the MMFM, an analysis of this model will occur in four distinct areas.

1. A description of the existing model.
2. A comparison of the existing model to private sector models.
3. A review of the scope of the existing model to determine whether or not the model contains the relevant elements that a major maintenance program should or is likely to contain.
4. A review of the cycles used in the major maintenance model. This review should answer whether or not these cycles reflect the useful lives of those building components and/or systems being managed.

2.1 Description – Major Maintenance Financial Model

The existing Major maintenance Financial Model is a complex Excel® spreadsheet, which has two primary components. The first is a revenue projection component comprised of revenue from costs that can be allocated to each building in the form of a per square foot charge. In some buildings, either part or in whole, the full cost of these major maintenance needs cannot be collected from this per square foot charge. In these cases, the gap between what can be collected and what is required is funded from secondary sources. These secondary sources begin with dedicated revenue sources, such as the Sales Tax Reserve; with any remaining funding being a CX responsibility.

On the expenditure side, the model contains several elements that combine to make up funding needs and/or requirements. It may be helpful at this point, to provide definitions of each of these elements so as to avoid confusion. The confusion that may arise, if any, may come from the overlapping nature of projects in facilities. For the purposes of this analysis, the following definitions are used when discussing projects:

- Major Maintenance Project

  Major Maintenance Projects are those building systems or components that require a cyclical refurbishment, overhaul, or replacement. The cycles are based on industry standards, adjusted for the unique operating characteristics of the building where they are located. These projects are not cyclical projects that are past their designated cycle (See Deferred Major Maintenance projects) but these projects may include those which are not yet due, but have less then a full cycle left before they must be done.

- Deferred Major Maintenance Projects

  Deferred major maintenance projects are those building systems and/or components, which require a cyclical refurbishment, overhaul, or replacement but have not received the scheduled refurbished, overhauled, or replaced pursuant to the cyclical scheduled assigned to them and are now past due.

- Deferred Repair Projects

  Deferred repair projects are those projects which represent repairs to building systems and/or components that are a result of the failure to initiate timely repairs to the system or component at the time the building system and/or component failure occurred. They do not represent cyclical items such as those identified under "Deferred Major Maintenance Projects".

- Capital Improvement Projects

  Capital improvement projects are those projects that add something to the building systems and/or components that do not exist at present. They may include projects that modify an existing building system and/or component or add something to an existing building system and/or component.

The most common area where two types of projects overlap each other is when a Major Maintenance Project is performed. More often than not, a cyclical refurbishment, overhaul, or replacement entails an upgrade to a newer technology or system as a part of the cyclical tasks. For example, when performing a major maintenance cyclical project for HVAC controls, the old controls will be replaced with new controls and the software running the system will be replaced with a new version. While a strict interpretation of the definition of a Capital Improvement Project might well construe this project as a capital improvement, it is not. On the other hand, if additional equipment were added to the HVAC system (such as additional new VAV boxes and related controls) during this major maintenance project, that portion would be considered capital and should be treated (and funded) as such.

With respect to the anticipated building expenditure requirements, the County has faced three distinct expenditure development challenges up to the present time. The first of which is/was the development of prospective per square foot charge requirements based upon unit cost and a cycle of replacement. Secondly, there is a body of building systems and/or components which have less then a full cycle left before they will become due for replacement, refurbishment, and/or replacement. Finally, there is an additional body of building systems and/or components, which have been identified as requiring immediate repair, refurbishment, and/or replacement. In some cases, these projects represent major maintenance projects that are past their designated life cycle, others represent building repairs which have gone undone, or capital improvement projects.

Through the MMFM, the County has dealt with all three of the required expenditure issues, as will be detailed below.

2.1.1 Major Maintenance Forecasting

The first component in the MMFM that will be discussed is the development of the unit cost and cycles used for forecasting expenditures required for the recurring major maintenance systems and/or components. These unit costs and cycles were developed conceptually speaking, on the assumption the building is new.

The broad overall formula is based on three cycles, eight-year, fifteen year, and twenty five year. The three broad categories and unit costs are:

- Eight year cycle
  - Carpet/Paint $4.63 Per Square Foot (PSF)
  - Phones/Data $1.60 PSF
- Fifteen years cycle
  - Lighting $4.41 PSF
  - Parking lots, Grounds $2.31 PSF
  - Furniture systems. $0.00 PSF
- Twenty-five year cycle

- HVAC	$16.48 PSF
- Roofs	$4.75 PSF

For each building, the building system and/or component as identified under each of these cycles and PSF costs is divided by the building's gross square footage, culminating in an annual square foot cost for each component for each building.

In 2001, an additional work sheet with calculations was added to the MMFM that provides a cost calculation for elevators and other automated conveyance systems. Although the expected life cycle is twenty five years, the individual elevators and/or conveyance systems are not part of the cyclical items for each building, rather they are dealt with separately and brought back together later in summary totals.

2.1.2 Major Maintenance Projects – Less then a full cycle remaining.

Prior to 1999, to one degree or another, each of the existing buildings have systems and/or components which until recently were not being funded by the methods described above. This could potentially leave these systems and/or components under-funded when they become due for their scheduled refurbishment, overhaul, or replacement. For example, a roof, which is due for replacement in 2008, hasn't any funds allocated from any funding sources for this roof replacement prior to 1999. This leaves a funding gap between what is being collected now and what will be required when the replacement actually takes place in 2008.

To deal with this, the County has implemented a plan whereby over the course of ten years, the gaps in the funding for these "short cycled" projects will be assessed now and added to the PSF allocation collected from each building (or secondary revenue sources, as may be applicable).

2.1.3 Deferred Repair Projects

As is the case above, in **Section 2.1.2**, the County has no accumulated reserves in which to draw from to facilitate the completion of any of the existing deferred repair projects. Therefore, the County has devised a system whereby an internal borrowing/lending mechanism has been implemented that will finance the estimated amount required for deferred repair projects over a ten year period by borrowing from the early surpluses created in the Major Maintenance reserve Fund.

2.1.4 Capital Improvement Projects

Although not meant to be a part of the Major Maintenance Reserve Fund (MMRF), it appears that some capital improvement projects are being funded through the MMRF. In the MMFM, MMRF Additions for 2001, a list of "Existing Deficiencies-Additions" indicate a large number of projects, some of which appear to be capital improvement projects and not major maintenance projects, either deferred or short cycle. A portion of these projects may well be deferred maintenance repair projects, but based on the age of the building and the project description, they do not appear to fall into that category. See the excerpt below for a sample of these projects.

Existing Deficiencies-Additions

RJC-Jail

Component	Cost
Waterside Economizer	$ 210,297
Water Infiltration R&R	$ 119,000
Variable Frequency Drive	$ 160,352
Boiler Stack Modification	$ 12,000
Emergency Generator	$ 74,634
Steam Boiler Room	$ 55,000
HVAC Control Board Backup	$ 25,000
Fire Control computer	$ 40,000
Pneumatic Tube Repair	$ 400,000

2.2 Comparison of Major Maintenance Financial Model vs. Private Sector

Private sector entities approach the process of major maintenance projects from a variety of angles. Each method is determined by how the ownership of the building is structured. The method of assessing a PSF charge for the funding of major maintenance projects is also an accepted model in the private sector. A typical private sector asset management company's approach to the development of such a model would be as follows:

1. The Chief Engineer of each building develops, maintains, and revises a twenty-five year major maintenance plan. This plan includes all major building systems and components, such as building envelope, elevators, fire and life safety systems, mechanical equipment, including HVAC systems and components, and security systems. In addition, anticipated common area renovation and upgrades would be a part of this plan.

2. The Chief Engineer develops costs and schedules for all upgrades or renovation costs for each element included in the major maintenance and capital plan. Capital and cyclical projects would then be adjusted for inflation from the current year to the year in which they would be completed. Each project's cost is then divided by the number of years from the present year to the year the project is

to be performed in order to arrive at an annual square foot contribution to the common area reserve fund. The Chief Engineer meets with the Property Manager to review and approve the model.

3. Upon approval by the Property Manager, the twenty-five year plan is implemented and a common area project reserve fund is setup. Contributions, as identified above, are deposited into this fund. Withdrawals from the common area reserve fund are only made for projects already identified in the twenty-five year major maintenance plan.

4. Each annual budget development cycle the Chief Engineer or Engineering Manager would use this major maintenance plan to determine what projects are scheduled to be done in the upcoming operating year. The Property Manager would approve the operating budget and a capital budget to include these projects.

Some small but important distinctions between the County's model and private sector models are that improvements in tenant spaces are typically not a part of any model. The responsibility for equipment contained within the tenant space resides with the tenant. Some examples of this might include, but are not limited to:

- Interior surface painting except for common areas.
- Furniture or furnishings belonging to the tenant and not part of common areas.
- Communication and data systems except the backbone through the building.
- Cafeteria or kitchen equipment including furnishings.
- Specialty lighting systems, including lamps, covers, other than building provided lighting fixtures.
- Carpeting or other floor finishes not a part of the building common areas.
- Any other equipment owned by the tenant and not part of the building shell and core, or common areas.

As indicated earlier, these exclusions are typical, but not universal. The scope of the building owner's responsibility is entirely dependent upon the lease agreement with individual tenants. Each lease is unique to the tenant and to the building in which he/she is located, as well as his/her needs. Should any part or all of these items be included in any given lease agreement, they would be added to the major maintenance plan, or the operating budget as appropriate.

2.3 Scope of the Major Maintenance Financial Model

Based upon the materials provided and the information gathered from interviews with County staff, it appears that the model, when taken as a whole, has the prerequisite components required to provide a fundamental mechanism by which major maintenance projects can be projected and funding can be forecasted. Although, as outlined in various sections of this document, there needs to be an overall modification to many components and systems that will provide detailed component/system description, building specific replacement cycles, and verifiable project costs.

The County Council, in 1993 passed ordinance 10728 (**Appendix 4.3**), which set up the initial Major Maintenance Reserve Fund (MMRF) and related operational parameters. A subsequent ordinance modified this original one, ordinance 14230 (**Appendix 4.4**) specifically. Two items identified in ordinances 10662 and 14230, but not found in the MMFM are capital expenses and emergency repairs. In ordinance 14230, Section 1, Item B.1. – The ordinance limits the use of funds from the MMRF to the periodic replacement of major building systems and components. It does not allow these funds to be used for routine maintenance. It specifically forbids the use of funds from the MMRF for capital improvement projects.

In ordinance 14230, Section 2, Item A. It sets up a "Building Capital Improvement Fund". Section 2, Item B. ***"The purpose of the fund is to provide for the receipt and disbursement to appropriate capital funds of revenues used to accommodate major functional and programmatic changes in buildings, building modernization, or building replacement."*** It is therefore assumed that capital improvement projects have been, will be, or should be, routed through this mechanism as established by the ordinance.

Ordinance 10728, section ((6))7, allowed for a "borrowing" from the major maintenance reserve fund. However, in the amended ordinance 14230 indicates that the section allowing for the borrowing of funds from the major maintenance reserve fund for emergency repairs has been stricken from the ordinance. While this would account for the omission of this from the MMFM, this feature should be reevaluated for possible inclusion in the model. It is not unusual for building systems and/or components to experience failures that are unanticipated. Many of these unanticipated repairs would typically be budgeted for through the maintenance and operations budget process, however, large unanticipated emergency repairs typically are not. It may prove to be a prudent measure to include some method by which a source is available that funds can be drawn from that would facilitate these large unanticipated repairs so that they do not become deferred "immediate needs" projects sometime in the future.

This could be accomplished by allowing a building to borrow from the major maintenance reserve fund to effect the required repair and then reimburse that amount, plus interest, back to the fund through a temporary surcharge added to the PSF charge being levied to the individual building. This surcharge would begin the next budget year. The duration of the surcharge could be determined by the dollar size required to make the repair. For example, if the repair cost $10,000.00, then the surcharge could levied so that the $10,000.00 (plus interest) was recovered over the course of one year. If the repair cost $100,000.00 then perhaps the surcharge would be levied over a period of three or four years. The repayment period could be dependent upon the amount borrowed and the building size that the repair cost can

be spread across. Other factors that may impact these decisions, would be for example, whether or not the building was one of those receiving secondary funding from sources such as sales tax and/or CX transfers.

2.4 Life Cycle Analysis

The Major Maintenance Financial Model uses cycles of eight, fifteen, and twenty five years respectively. From the information gathered it does not appear that any other cycles are used. These cycles are used across the board, for all buildings, regardless of the individual building's operating characteristics.

For example, the King County Administration Building is an office building traditionally operated Monday through Friday during the daytime hours. Its HVAC system and components will wear out at a rate consistent with that degree of use. On the other hand, The Regional Justice Center – Jail, operates twenty-four hours per day, every day of the year. This HVAC system and components will have a different life cycle than the Administration Building. Furthermore, each system and/or component may well have some interim maintenance measures (preventative maintenance for example) that would prolong their life. Conversely, if those measures are not undertaken, the expected life cycle may be reduced considerably.

While the concept of using general life cycles is inherently useful and the cycles that the County is using have provided a good baseline for the initial cycle projections. However, in order to add further value, the County should revise existing and future life cycles to be building and component specific. This will add increasingly useful and supportable baseline data for projecting future costs. The building's location, type of use, tenant activity, and public access play an important role in determining the appropriate life cycle assigned to a system, or system component in that building.

2.5 Analysis of The Scope of Systems and Components Included in the Model

In its current format, the Major Maintenance Financial Model breaks out systems and components into seven basic types:

- Carpet/Paint
- Phones/Data
- Lighting
- Parking Lot and Grounds
- Furniture Systems
- HVAC
- Roofs

There is no additional breakdown identified under these categories in the MMFM as it is currently configured. Even under these categories, the furniture systems category is not being used. In some building work sheets there is an additional category called

"Misc.", again, with no projects specifically identified. Compare the above model to the Common Area Projects Reserve Fund setup for King Street Center:

- **HVAC**
  - *Upgrade HVAC Software and PC's*
  - *Upgrade HVAC Controls*
  - *Replace/Overhaul DX Units*
- **Elevators**
  - *Replace Fabric System and refinish metal surfaces*
- **General Building**
  - *Upgrade Security System Software and PC's*
  - *Upgrade Fire Alarm System*
- **Alterations and Repairs**
  - *Replace roof membrane on stairwell and mechanical rooms*
  - *Replace main building roof, flashing and caulking*
  - *Replace carpet in common areas*
  - *Clean, re-caulk curtain wall panels*
  - *Interior painting - Tenant areas*
- **Other Common Area Renovation**
  - *Group Lamp Replacement*
  - *Replace Fabric Panels over Retail Entrances*
- **Tenant's Contingency Fund**
  - *Main Lobby renovation*
  - *Unanticipated Major Maintenance Repairs*

As you can see, the model used for King Street Center (See **Appendix 4.1**) also contains categories and specific projects for components under each category. Each component has a life cycle unique to it. These components have costs based on verifiable values such as previous project costs, or contractor supplied estimates.

2.6 Managing Buildings with Deferred Maintenance

To begin to effectively manage any major maintenance program in any building, or portfolio of buildings, one must first determine the current condition of the buildings. This means an in-depth building-by-building survey of the present condition. Only after such a survey can steps be taken to determine what the funding level requirements will be. Once the funding requirements are known, an evaluation can be made to determine if the existing revenue stream will support those funding requirements. In the private sector, the building owner(s) would normally budget in such a fashion so as to not be in a position that they were dealing with a building that has significant amounts of deferred major maintenance and deferred building repair projects. However, in some cases, a building owner might find itself in a similar situation by the purchase of an existing building. The building owner would typically perform a due diligence inspection of the building. This survey would identify these existing deferred maintenance projects and all or part of the funding to correct them would be included in the loan to purchase the building. For those projects not repaired from the purchase loan, they would be completed and funded in a manner as outlined in **Section 2.6.1**.

At the time of this report being written, the County has engaged a consulting firm that will perform an assessment survey as described above. The scope of work of such a survey must include at a minimum, the following building systems, and or sub-systems as applicable:

- **Building Envelope**
  - *Roof Condition (including insulation condition)*
  - *Flashing, drainage and downspout condition*
  - *Exterior curtain wall condition*
  - *Exterior painted surface condition*
  - *Exterior window/glass systems*
- **HVAC Systems and Components**
  - *Boiler condition*
  - *Steam system condition (including piping, traps, and auxiliary components)*
  - *Air Handling Systems – based on type and application*
  - *Relief/Exhaust fan(s) condition*
  - *Chillers, pumps, cooling towers, and related plumbing systems for both chilled water side as well as condenser side*
  - *Unitary HVAC systems such as Heat Pumps, AC Units, and special application systems used for data and/or laboratory applications.*
  - *VAV boxes (variable air volume boxes)*

- *HVAC control systems.*

- **Fire and Life Safety Systems**
  - *Fire Alarm Control system – including field devices*
  - *Emergency generator systems and related ATS's (automatic transfer switches)*
  - *Fire Pump condition*
  - *Pressurization Fans*
  - *Elevator Recall operations*
  - *Automatic door unlock inter-locks*
  - *Interior sprinkler system condition (wet systems)*
  - *Exterior sprinkler system condition (dry systems)*
  - *Stand-pipes*
  - *Sprinkler control valves*
- **Building Plumbing Systems and Components**
  - *Plumbing fixtures – toilets, urinals, sinks, drinking fountains, and other water closet fixtures*
  - *Domestic piping, supply, drain, waste and vent.*
  - *Domestic water pumps (for high rises)*
  - *Hot water circulating pumps*
  - *Hot water tanks*
  - *Special appliances such as back-flow prevention devices and filtering systems*
- **Electrical Systems**
  - *Main switch gear condition*
  - *Transformers*
  - *Sub-Panels and motor control centers*
  - *UPS Systems (un-interruptible power systems)*
  - *Lighting control systems, including motion sensor systems*
- **Interior Finishes**

- *Interior painted surfaces*
- *Carpeted floor surfaces*
- *VCT floor surfaces (vinyl composite tile)*
- *Doors, door hardware, and finishes*
- *Bathroom finishes such as partitions, tile, and counter top condition*
- *Blinds, drapes, or other window coverings.*
- *Stone finishes*
- *Decorative metal finishes such as brass, brushed aluminum, stainless steel*
- *Interior glass finish condition*
- *Art work – condition and maintenance*

- **Elevator and other automated conveyance systems**
  - *Elevator mechanical condition*
  - *Elevator interior cab condition*
  - *Wheelchair lift condition*
  - *Escalator condition*
  - *Dumbwaiter condition*
- **Exterior Property Components**
  - *Landscaping*
  - *Parking lot condition, including concrete, asphalt (and/or interior underground parking garage condition)*
  - *Storm drainage system condition*
  - *Sidewalk and ADA ramping condition*
  - *Exterior parking lot lighting*
  - *Equipment*
  - *Parking lot striping or other painted surfaces*
- **Miscellaneous Building Components**
  - *Access Control System*

- *Camera Security System*
- *Parking Metering System*
- *Building Intercom System*

Once the physical inventory has taken place, a worksheet for each building should be developed that is similar to the one in **Appendix 4.2**. Each component that requires a cyclical repair/renovation should be included. In addition, other shorter-term cyclical maintenance tasks should be included. Items such as group lamp replacement, software, and computer upgrades for HVAC and Security systems are examples of short-term major maintenance tasks.

2.6.1 Developing Life Cycle and Funding Requirements

With respect to project detail, the consultant's report should indicate the remaining life of each component. With this information, the cost of that item should be placed in the appropriate year on the worksheet.

For the sake of illustration, **Appendix 4.2** contains the available major maintenance data from MMFM for building DPS Evidence Storage. This building was selected because it contained cyclical systems and/or components that meet most, if not all, of the four types of projects contained in the MMFM. The four types of projects are:

- Systems and/or components that are on schedule
- Systems and/or components which have less then a full life cycle remaining (Requiring an accelerated contribution for accumulated reserves)
- Systems and/or components which are past their normally scheduled replacement date and are identified as requiring "immediate needs"
- Building repairs that are not cyclical in nature but represent building maintenance repairs that were not completed when they occurred but now require immediate attention.

Each of these four types of projects requires a different approach with respect to their inclusion in the MMFM. A brief description of each is outlined below:

1. **System and/or Component Life Cycle Development – Normal Cycle**

   In **Appendix 4.2**, Item #4, Phone/Data, a project is identified as on schedule in terms of its replacement cycle. This then requires the projected project be forecast out to future years and the project cost be adjusted for inflation. In this example, the first year the Phone/Data system will require replacement/refurbishment in 2008, then again in 2016, and 2024.

   Assuming the project cost as provided for this analysis is correct (completed in 2001), it is then adjusted for inflation and this adjusted number is placed in the reserve withdrawal column in the year 2008. This adjustment for inflation is made for each of the remaining cycles and the adjusted costs placed in the

appropriate reserve withdrawal column corresponding to the year the project will be completed.

Now a Per Square Foot (PSF) rate must be established based on the projected project cost. As indicated in Item #4, Reserve Deposit, a contribution is calculated in year one of the cycle. This unit cost is then adjusted for inflation each year (as indicated in the yearly contribution) and that value placed in the year one column and each year thereafter contains an inflation adjusted contribution value.

At the bottom of the project section "**Ending Balance**" for this particular project, a balance is displayed. This balance will rise throughout the term of the cycle and when the year arrives that the project will be completed, the balance will revert to $0.00 (or within $1.00) and the process begun again.

2. System and/or Component Life Cycle Development – Short Cycle

For some systems and/or components that are identified in the MMFM, there exists a situation where the system and/or component have not been accumulating reserve funds during part of the period between cycles. For example, in **Appendix 4.2**, Item #7, Roof Replacement, the roof is due for replacement in 2005. However, the time period between 2001 and 2005 is less than the normal cycle of twenty-five years. This means that there are no accumulated reserve funds except what can be collected in 2001 through 2005. To provide the required funds to complete this project, an additional PSF charge is levied against the building. This additional levy is allocated over eight years, 2002 through 2008. The normal reserve contribution, plus the additional funds from this levy will provide funding for the roof replacement in 2005. It will also pay back the accumulated reserve fund for any required borrowing to perform this project.

After 2005, the normal inflation adjusted assessment is levied towards the required accumulated reserves that will be needed for the next roof replacement. The additional levy is collected only through 2008, at which time it is removed after having served its purpose. The exact annual levied amount can be seen on the worksheet for Item #7, Roof Replacement in the row identified as "**Accumulated Reserve Req.**"

3. System and/or Component Life Cycle Development – Immediate Needs

There are some systems and/or components that are identified in the MMFM that have been deferred and have not been completed when the assigned cyclical replacement schedule indicated. These projects represent those that need to be completed immediately but for which no funds have been accumulated from major maintenance reserve contributions.

In **Appendix 4.2**, Item #3, Parking Lot & Grounds, an example of the above is shown. The deferred project for the parking lot and grounds was past due and no funds had been accumulated in the major maintenance fund in order to pay for it. The project was completed in 2000 and annual PSF charges beginning in 2001 were calculated for the next cycle due in 2015(See the line item identified as "**Reserve Deposit**"). In addition, an extra levy was assessed beginning in 2001 that will be assessed through 2008 (See line item identified as "**Accumulated**

Reserve Req.") The amount of the additional levy, adjusted for inflation, will provide the mechanism that will pay back the reserve fund for the "loan" of the required funds to perform the project now.

After 2008, only the normal inflation adjusted assessment is levied. The additional levy is collected only through 2008, at which time it is removed after having served its purpose. The exact annual levied amount can be seen on the worksheet for Item #3, Parking Lot & Grounds in the row identified as "**Accumulated Reserve Req.**"

4. **Deferred Building Repairs**

Finally there exists repair projects in this building that have been deferred for one reason or another. These deferred repairs could not have been anticipated by MMFM yet must be completed. A similar procedure as outlined in section 3 above is used for the completion of the deferred repair projects.

In **Appendix 4.2**, Item #8, Deferred Repairs, an example of this is illustrated. This building had deferred repair projects totaling $76,211.00, which were completed in 2001. An annual contribution to the reserve fund should have been implemented in 2001 in the amount of $8,570.00, and each year thereafter, another contribution is made. This, and subsequent contributions are based on the original contribution and adjusted for inflation. The combined contributions for years 2001 through 2008 will equal the project cost of $76,211.00. In 2008, the contribution to the accumulated reserve fund for these projects ends. As you will note the "**Ending Balance**" for this project begins with a negative balance of $67,641.00 (after receiving a contribution of $8,570.00 in 2001) and each subsequent year, the balance drops by the amount of the contribution made by the additional assessment being levied. With the final assessment in 2008, the project's "**Ending Balance**" reaches zero and no further assessments are made or required.

In both Items #3 and #4 above, there may be more projects to do than funds available to do them. In the case of "System and/or Component Life Cycle Development – Immediate Needs", a priority system should be established. To determine which projects might be spread out beyond the first year, the priority system should be developed that analyzes projects based on criteria that fall into one of the categories as outlined below:

Priority One – Projects that have a significant liability exposure to employees, the public, or visitors to the building. This may include life safety systems, exit and pathway lighting, emergency generator systems, or security systems.

Priority Two – Projects that will protect the building shell and core from further or additional damage. Projects such as curtain wall caulk joint replacement, roof replacement, deck re-sealing (in garages), and exterior curtain wall repair, or replacement, and exterior surface painting or sealing (as may be applicable) might be examples of this priority level.

Priority Three – Projects that could reduce maintenance and operating costs. Projects such as HVAC components, HVAC control upgrades and replacements, lighting system upgrades and replacements, exhaust fan upgrades and variable

frequency drive upgrades, as well as pump and cooling tower refurbishment, including state of the art control systems.

These projects should also be evaluated and prioritized with the potential for utility company participation in a cost-sharing role. Local utilities often will pick up substantial portions of the costs of energy saving retrofits and upgrades. This would also have the effect of reducing demand on the major maintenance reserve fund.

Priority Four - Projects that are due based on the replacement schedules but do not represent a project that will forestall further building damage. Examples of this level of priority would be interior painting, carpet replacement (unless the carpet condition presented a safety hazard), or drapery/blind replacement.

2.6.2 Major Maintenance – Component Conclusion

Once the elements as described contained in **Section 2.6.1** have been implemented in a workbook similar to the one displayed in **Appendix 4.2**. A workbook should be developed for each existing building in the County's portfolio.

Each of the systems and/or components that will be inventoried by the consultant should be added to the appropriate building workbook. From these workbooks, links can be made to other worksheets or workbooks that will bring forth the data contained in each.

As you will note in **Appendix 4.2**, there is a line item with each system and/or component listed that allows for the projection of County CX requirements, should they be required. In the sample building used for this example, there were no CX transfers required, but the capability is there for those buildings that do.

With respect to the possible funding of emergency repairs, you will note that in **Appendix 4.2**, the section identified as "Building Contingency" there is a provision for the funding of reserve funds for unexpected contingencies. There are two basic funding sources, first, a direct contribution to the reserve fund, and second, interest earned on the accumulated reserves (if any exist). Of these two sources, only the contributions made from interest earned are typically used.

In the sample building used for **Appendix 4.2**, you will note that because the building is in effect "borrowing" from the reserve fund to finance projects identified as "immediate needs" that this building contingency has a negative value. This negative value represents the interest this building will be paying on the funds it borrowed from the reserve fund. With the conclusion of the fiscal year 2008, the negative becomes a positive as the funds borrowed have been repaid and accumulated reserves start to rise. However, the building contingency fund remains in the negative until 2012 because it relies solely on interest contributions for funding. The effect of this is internal to the specific building and it's reserves for contingencies and does not affect the major maintenance reserve fund in general.

As you will also note in the section following "Building Contingency", identified as "Transaction Summary" there contains summaries for each year of the twenty-five year plan. Interest earned, interest paid, total withdrawals from the fund, and an ending reserve balance for this building. Additionally, it calculates a yearly PSF charge for this specific building.

By using a worksheet similar to the one we have been describing, the County will have a method that can easily be understood by everyone. By refining cycles and by including all pertinent building systems and/or components in detail, the County will then have a format that is easily navigated with detailed information that is straight forward and displayed in a fashion that even people not familiar with the model can understand. Future year forecasting is readily available and if linked to summary pages, these worksheets can provide the underlying foundation for the MMFM.

3.0 ANALYSIS – FINDINGS AND RECOMMENDATIONS

Based upon the evaluation of the financial model and our analysis of current major maintenance programs, below are a summary of our findings. The recommendations for these findings are contained in Section 3.2. For example Findings, Item #1 has a corresponding recommendation located in Section 3.2, Item #1

3.1 FINDINGS – MAJOR MAINTENANCE FINANCIAL MODEL

1. The existing model, developed on an Excel® spreadsheet, is large and not easily navigated. With the inclusion of additional detail, a greater number of projects, and/or adding future buildings to this model will only increase its complexity. This complexity is a result of the limitations of the spreadsheet format for storing large amounts of data.

2. The model is primarily made up of two elements (expenditures and revenue). The revenue projections are based on the forecasted expenditure requirements.

   In the MMFM, the placeholders (or the PSF value) used in the expenditure element (such as the 4.63 for carpet & painting for example) do not contain any footnotes, or comments describing the origin of the value being used.

   The values used may well be derived from a combination of sources that in the final computation will represent a value that will be sufficient to fund the required project. However, unless information regarding the origins of the value being used is provided, there remains a question mark to anyone not familiar with the model whether or not that the value used will be sufficient. If the value is not sufficient, this will adversely affect the revenue stream forecasting for each building.

3. Individual building worksheets contain few if any projects under the cycle categories. Without specific projects and details, no underlying realistic funding costs can be obtained.

4. Cycles appear to be "hard-coded" in eight, fifteen, and twenty five year cycles. While using a generic experienced based cycle is infinitely better than arbitrary values, a more useful method in many cases would be cycles based on the unique characteristics of that building and that component.

5. Some specific projects such as elevator and other automated conveyance systems are identified on a separate worksheet. This may cause confusion for other viewers or users of the MMFM. It is presumed that this inclusion on a separate worksheet represents a temporary condition and that at some future point in time, these components will be added to the individual building work sheets as another cyclical component.

6. While the MMFM does contain those projects which represent deferred building repairs, cyclical projects which are past due, and cyclical projects which are coming due, but have no accumulated reserve funds available, they are not easily identified as such. Furthermore, while the County does have an internal "borrowing" system in place which funds these projects, this funding, or "borrowing" is also not easily identified. This information should be separately identified so that the related financial ramifications such as the amounts

"borrowed", the payback period, and the additional per square foot charge (or CX transfer required, if applicable) are readily apparent and easily understood.

7. The ordinance that revised the original major maintenance reserve fund ordinance deleted all references to a minimum reserve fund level, and more importantly, deleted the mechanism for the funding emergency repairs. This should not be construed to be a criticism of the MMFM; rather this suggestion is for the County to contemplate some method that could be contained in the ordinance that would allow a "borrowing" mechanism. This borrowing mechanism would provide for funding for unanticipated emergency repairs which could be repaid as long as an agreed upon repayment mechanism existed.

8. The categories used for the cycles may be limited and at times could be confusing. Additional and more informative category definitions should be used.

9. From the limited data obtained, it appears that the successful completion of a significant portion of preventative maintenance tasks have been put at risk as a result of the maintenance staff continually responding to a continuous and overwhelming amount of urgent repairs.

3.2 Recommendations – Major Maintenance Model

The recommendations contained herein are linked by number to the preceding **Section 3.1**, Recommendations, Item #1 is in answer to Findings, Item #1 and so on and so forth.

1. Because of the complexity of the existing model and because of the likelihood of additional systems and/or component being added in the near future, the County is encouraged to consider the development of an automated relational database system. This database would provide management, inventory, and manipulate the information now contained in the MMFM. This would go far in reducing the existing complexity by automating many of the features currently in the MMFM spreadsheet. In addition to the cyclical projects, building specific information such as GSF, NRSF, tenant square footage, and other unique building information could be maintained in a much more efficient manner.

   If constructed properly, this database would allow multiple people to have ready access to the MMFM database as well as easily generate reports on a variety of information for future projects as well as future project costs. Square foot costs could easily be determined and if included, individual tenant charges would easily be developed. It would also provide histories of projects, historical cycles, and project costs that could then be used as a baseline for future project cycles and costs. The MMFM could be an exclusive database solution or a combination of database and spreadsheet solution depending upon the needs of the Facilities Management Division.

   Recognizing that for the foreseeable future, the existing MMFM in it's present format will remain the primary modeling tool for major maintenance, additional recommendations will follow in this document that apply to this existing model.

2. As the County obtains additional data from such sources as the consultants currently inventorying the buildings system and/or components, and from actual completed projects; this data should be used to re-evaluate each placeholder

value currently being used. For example, assume building X has the carpet replaced and the interior painted in 2002. The cost of carpet installation was $170,000.00 and the interior painting cost $95,000.00. Building X has 75,000 square feet of space. Based on these actual costs, the placeholder value for Painting/Carpet for building X would be $3.59 ($2.33 PSF for carpet and $1.26 PSF for painting) instead of $4.63

Footnotes, or cell comments would then be added to the placeholder value for Building X that indicates that the value was obtained from actual project costs in 2002.

As a general rule, the use of this new placeholder value should be limited to Building X and not used for other buildings because other buildings may require different values based on their unique characteristics. An exception to this would be if there were similar buildings and the placeholder value found for Building X is higher than the placeholder value being used for other similar buildings. An adjustment to the placeholder values in those similar buildings should be made to reflect this higher value.

3. It is recommended that a workbook be created similar in nature to **Appendix 4.1** for each building. This workbook should contain the components that will be identified by the consultants who will be inspecting the County buildings. The components should be evaluated to determine their inclusion in the model. Those components chosen to be included should have the remaining life provided as well as a repair/replacement cost.

   Additional funding is required above and beyond the annual PSF placeholder value being assessed. This additional revenue is levied to provide funding for components that are past their life cycle and need to be refurbished, overhauled, or replaced immediately. In addition, there are deferred building repairs, which require immediate attention and funding must be provided. Finally, there are cyclical components which are not yet due for replacement, but have less then a full life cycle left before refurbishment, overhaul, or replacement becomes due. (In effect, there are no accumulated reserves set aside for these components.

   Modifications to the worksheet in **Appendix 4.1** could be developed so that a revised worksheet would encompass and identify all of the particular elements outlined above. See **Appendix 4.2** for an example of a worksheet containing the building system and/or component with it's full life cycle, accumulating reserve funds for the shortened life cycle, as well as examples of building systems and/or components past their life cycle. Additionally, an example of a deferred building repair is included to demonstrate the revenue stream flowing back into the major maintenance reserve fund from this "borrowing" that would occur to fund the deferred maintenance repair.

   Finally, further modifications to the worksheet in **Appendix 4.2** illustrates the sources of funding for the building system and/or component (In those cases where secondary funding sources are used)

4. It is recommended that each building be re-evaluated for possible modification of the cycles used for that individual buildings systems and/or components. Cycles might be adjusted upwards or downwards based on the unique characteristics of

each individual building. See **Section 2.4** for a detailed discussion of the increased value of individualizing the building cycles to match the building's uses.

5. In 2001, the County further revised the major maintenance reserve fund plan by incorporating elevators and other automated conveyance systems into the MMFM. This is currently identified in worksheet "MMRF Additions for 2001" of the MMFM. It is recommended that these elevator and automated conveyance components be eventually moved to the individual building worksheets and another category added for elevators in a manner similar to the other building categories already contained in the worksheet. This will reduce the overall complexity of the model and will be easier to view the total building components in a single location.

6. The additional detail for this particular finding of fact will actually be taken care of if the recommendations outlined in Item #3 are undertaken. The added detail, in a layout that is easily read will result in less complexity in the MMFM. See the example in **Appendix 4.2**.

7. With the revision of the major maintenance reserve fund in ordinance 14230 (See **Appendix 4.3**), the portion allowing for the borrowing of funds from the major maintenance reserve fund to pay for emergency repairs was also removed.

   It is recommended that a borrowing mechanism be established that would once again allow this to occur. This could be accomplished by allowing a building to borrow from the major maintenance reserve fund to effect the required repair and then reimbursing that amount of funds, plus interest, back to the fund through a temporary surcharge added to the PSF charge being levied to the individual building. This surcharge would begin the next budget year. The duration of the surcharge could be determined by the dollar size required to make the repair. For example, if the repair cost $10,000.00, then the surcharge could levied so that the $10,000.00 (plus interest) was recovered over the course of one year. If the repair cost $100,000.00 then perhaps the surcharge would be levied over a period of three or four years. The repayment period could be dependent upon the amount borrowed and the square footage the repair can be spread across. Other factors that may impact these decisions would be for example, whether or not the building was one of those receiving secondary funding sources, such as from the sales tax and/or CX transfers.

8. Greater detail with respect to categories may provide the County with a model that more closely reflects the building systems and/or components. Categories such as those described in **Section 2.6** may provide an enhanced level of category definition compared to the existing definitions.

9. The performance and completion of preventative maintenance tasks must be a priority. A method of auditing preventative maintenance tasks should be implemented so that these important maintenance tasks are verified as being completed. The implementation of an annual facility performance audit for each building to insure this completion should be contemplated

4.0 APPENDIXS

4.1 COMMON AREA PROJECT RESERVES & TWENTY-FIVE YEAR PLAN - SAMPLE

KING STREET CENTER
COMMON AREA PROJECTS RESERVES AND DEPOSITS; SOURCES AND USES TWENTY FIVE YEAR PLAN
2001 Budget Summary Schedule

General Ledger Account Number	Description or Purpose For Tenant's Operating Reserve	Reserve History 1999 - (6mo's)	Estimate 2000 Year 1 (18mo's)	Estimate 2001 Year 2 (30 mo's)	Estimate 2002 Year 3 (42 mo's)	Estimate 2003 Year 4 (54 mo's)	Estimate 2004 Year 5 (66 mo's)	Estimate 2005 Year 6 (78 mo's)	Estimate 2006 Year 7 (90 mo's)	Estimate 2007 Year 8 (102 mo's)	Estimate 2008 Year 9 (114 mo's)	Estimate 2009 Year 10 (126 mo's)	Estimate 2010 Year 11 (138 mo's)	Estimate 2011 Year 12 (150 mo's)	EXPLANATION
	MAJOR MAINTENANCE AND REPAIR														
63000	**HVAC**														
63330	**Upgrade HVAC Software & PC's**														
	Beginning Balance	$0	$2,350	$5,291	$8,233	$10,412	$12,666	$0	$2,416	$4,916	$7,503	$10,181	$12,953	$15,822	2004 - Server replacement ard HVAC
	Reserve Deposit	2,350	2,941	2,941	2,179	2,255	2,334	2,415	2,500	2,588	2,678	2,772	2,869	2,969	software upgrade.
	Reserve Withdrawal	0	0	0	0	0	(15,000)	0	0	0	0	0	0	(18,500)	2011 - Server replacement ard software
	Ending Balance	**$2,350**	**$5,291**	**$8,233**	**$10,412**	**$12,666**	**$0**	**$2,416**	**$4,916**	**$7,503**	**$10,181**	**$12,953**	**$15,822**	**$291**	replacement.
63330	**Upgrade HVAC Controls**														
	Beginning Balance		$0	$17,649	$35,297	$68,830	$103,536	$139,457	$176,635	$215,115	$254,941	$296,161	$338,824	$382,980	2011 - Phase 1 upgrade of VAV controllers
	Reserve Deposit	0	17,649	17,649	33,533	34,706	35,921	37,178	38,479	39,826	41,220	42,663	44,156	45,701	and VAV box fan motors.
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	(228,000)	
	Ending Balance	**$0**	**$17,649**	**$35,297**	**$68,830**	**$103,536**	**$139,457**	**$176,635**	**$215,115**	**$254,941**	**$296,161**	**$338,824**	**$382,980**	**$200,681**	
63330	**Replace/Overhaul DX Units**														
	Beginning Balance	$0	$0	$6,537	$13,073	$19,180	$0	$6,542	$13,313	$20,321	$27,573	$1,228	$8,998	$17,039	It is anticipated that over the course of 25
	Reserve Deposit	0	6,537	6,537	6,107	6,321	6,542	6,771	7,008	7,253	7,507	7,770	8,041	8,323	years, we will need to replace five of the ten
	Reserve Withdrawal	0	0	0	0	(25,500)	0	0	0	0	(33,852)	0	0	0	DX units in the Mammoth units - This
	Ending Balance	**$0**	**$6,537**	**$13,073**	**$19,180**	**$0**	**$6,542**	**$13,313**	**$20,321**	**$27,573**	**$1,228**	**$8,998**	**$17,039**	**$25,362**	schedule is subject to change.
66000	**ELEVATORS**														
66330	**Elevator Cab Renovation**														
	Beginning Balance	$0	$3,000	$11,498	$19,995	$24,595	$29,355	$34,282	$39,382	$44,660	$50,123	$55,777	$28,368	$0	2009 - Replacement of fabric system and
	Reserve Deposit	3,000	8,498	8,498	4,600	4,761	4,927	5,100	5,278	5,463	5,654	5,852	6,057	6,269	metal refinishing in Elevators 1, 2, and 3.
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	(33,261)	(34,425)	0	2010 - Replacement of fabric system and
	Ending Balance	**$3,000**	**$11,498**	**$19,995**	**$24,595**	**$29,355**	**$34,282**	**$39,382**	**$44,660**	**$50,123**	**$55,777**	**$28,368**	**$0**	**$6,269**	metal refinishing in Elevators 4, 5, and 6.
67000	**GENERAL BUILDING**														
67320	**Upgrade Security System Software and PC's**														2003 - Server replacement, software upgrad
	Beginning Balance	$0	$6,000	$9,268	$12,537	$15,092	$1,737	$4,475	$7,308	$10,240	$13,275	$16,417	$0	$3,365	on all stations
	Reserve Deposit	6,000	3,268	3,268	2,556	2,645	2,738	2,833	2,932	3,035	3,141	3,251	3,365	3,483	2009 - Server and workstation replacement,
	Reserve Withdrawal	0	0	0	0	(16,000)	0	0	0	0	0	(19,668)	0	0	software upgrade on all stations.
	Ending Balance	**$6,000**	**$9,268**	**$12,537**	**$15,092**	**$1,737**	**$4,475**	**$7,308**	**$10,240**	**$13,275**	**$16,417**	**$0**	**$3,365**	**$6,848**	
67320	**Upgrade Fire Alarm System**														
	Beginning Balance	$0	$0	$5,556	$11,112	$14,864	$18,747	$22,767	$26,927	$31,232	$35,688	$40,300	$45,074	$15	2010 - Upgrade main fire alarm panel -
	Reserve Deposit	0	5,556	5,556	3,752	3,883	4,019	4,160	4,305	4,456	4,612	4,774	4,941	5,114	Does not include field devices.
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	(50,000)	0	
	Ending Balance	**$0**	**$5,556**	**$11,112**	**$14,864**	**$18,747**	**$22,767**	**$26,927**	**$31,232**	**$35,688**	**$40,300**	**$45,074**	**$15**	**$5,128**	
72000	**ALTERATIONS AND REPAIRS**														

KING STREET CENTER

COMMON AREA PROJECTS RESERVES AND DEPOSITS; SOURCES AND USES TWENTY FIVE YEAR PLAN

2001 Budget Summary Schedule

General Ledger Account Number	Description or Purpose For Tenant's Operating Reserve	Reserve History 1999 - (6mo's)	Estimate 2000 Year 1 (18mo's)	Estimate 2001 Year 2 (30 mo's)	Estimate 2002 Year 3 (42 mo's)	Estimate 2003 Year 4 (54 mo's)	Estimate 2004 Year 5 (66 mo's)	Estimate 2005 Year 6 (78 mo's)	Estimate 2006 Year 7 (90 mo's)	Estimate 2007 Year 8 (102 mo's)	Estimate 2008 Year 9 (114 mo's)	Estimate 2009 Year 10 (126 mo's)	Estimate 2010 Year 11 (138 mo's)	Estimate 2011 Year 12 (150 mo's)	EXPLANATION
72330	**Stairwell & Mechanical Roofs, Replace Membrane**														
	Beginning Balance	$0	$0	$3,268	$6,537	$8,813	$11,169	$13,607	$16,131	$18,743	$21,447	$24,245	$27,141	$4	2010 - Replace membrane on roof
	Reserve Deposit	0	3,268	3,268	2,276	2,356	2,438	2,524	2,612	2,704	2,798	2,896	2,998	3,102	mechanical spaces and stairwells
	Reserve Withdrawal	0	0	0		0	0	0	0	0	0	0	(30,135)	0	
	Ending Balance	**$0**	**$3,268**	**$6,537**	**$8,813**	**$11,169**	**$13,607**	**$16,131**	**$18,743**	**$21,447**	**$24,245**	**$27,141**	**$4**	**$3,106**	
72330	**Main Roofs, Reseal, Flashing & Caulking**														
	Beginning Balance	$0	$19,200	$32,556	$45,912	$62,254	$79,167	$96,672	$114,790	$133,543	$152,951	$173,039	$193,830	$215,348	
	Reserve Deposit	19,200	13,356	13,356	16,341	16,913	17,505	18,118	18,752	19,408	20,088	20,791	21,519	22,272	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$19,200**	**$32,556**	**$45,912**	**$62,254**	**$79,167**	**$96,672**	**$114,790**	**$133,543**	**$152,951**	**$173,039**	**$193,830**	**$215,348**	**$237,620**	
72320	**Carpet, Replace Common Areas**														
	Beginning Balance	$0	$40,000	$56,015	$88,697	$146,048	$203,399	$262,758	$324,193	$387,780	$453,591	$521,706	$290,860	$9,968	2009 - Allowance to replace carpet floors
	Reserve Deposit	40,000	16,015	32,683	57,351	57,351	59,358	61,436	63,586	65,812	68,115	70,499	72,966	75,520	1 through 4
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	(301,345)	(353,859)	0	2010 Office area carpet floors 5 through 8
	Ending Balance	**$40,000**	**$56,015**	**$88,697**	**$146,048**	**$203,399**	**$262,758**	**$324,193**	**$387,780**	**$453,591**	**$521,706**	**$290,860**	**$9,968**	**$85,488**	Life estimate 8 to 10 years
72320	**Curtain Wall Maintenance**														
	Beginning Balance	$0	$9,000	$18,805	$28,610	$35,548	$42,730	$50,162	$57,855	$65,817	$74,058	$82,588	$91,415	$100,552	
	Reserve Deposit	9,000	9,805	9,805	5,939	7,181	7,433	7,693	7,962	8,241	8,529	8,828	9,137	9,457	2011 - Allowance to recaulk and clean
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	(110,000)	curtain wall panels.
	Ending Balance	**$9,000**	**$18,805**	**$28,610**	**$35,548**	**$42,730**	**$50,162**	**$57,855**	**$65,817**	**$74,058**	**$82,588**	**$91,415**	**$100,552**	**$9**	
72330	**Interior Painting - Tenant Areas**														
	Beginning Balance	$0	$0	$16,668	$33,336	$48,965	$65,141	$81,883	$99,211	$53,646	$8	$19,220	$39,104	$59,685	2006 - Interior painting Floors 1 through 4
	Reserve Deposit	0	16,668	16,668	15,629	16,176	16,742	17,328	17,935	18,562	19,212	19,884	20,580	21,301	
	Reserve Withdrawal	0	0	0	0	0	0	0	(63,500)	(72,200)	0	0	0	0	2007 - Interior painting Floors 5 through 8.
	Ending Balance	**$0**	**$16,668**	**$33,336**	**$48,965**	**$65,141**	**$81,883**	**$99,211**	**$53,646**	**$8**	**$19,220**	**$39,104**	**$59,685**	**$80,985**	

KING STREET CENTER
COMMON AREA PROJECTS RESERVES AND DEPOSITS; SOURCES AND USES TWENTY FIVE YEAR PLAN
2001 Budget Summary Schedule

General Ledger Account Number	Description or Purpose For Tenant's Operating Reserve	Reserve History 1999 - (6mo's)	Estimate 2000 Year 1 (18mo's)	Estimate 2001 Year 2 (30 mo's)	Estimate 2002 Year 3 (42 mo's)	Estimate 2003 Year 4 (54 mo's)	Estimate 2004 Year 5 (66 mo's)	Estimate 2005 Year 6 (78 mo's)	Estimate 2006 Year 7 (90 mo's)	Estimate 2007 Year 8 (102 mo's)	Estimate 2008 Year 9 (114 mo's)	Estimate 2009 Year 10 (126 mo's)	Estimate 2010 Year 11 (138 mo's)	Estimate 2011 Year 12 (150 mo's)	EXPLANATION
72320	**Other Common Area Renovation**														2002 - Concrete Repair - East building
	Beginning Balance	$0	$9,955	$23,311	$36,667	$30,023	$43,847	$58,155	$42,963	$58,289	$74,152	$90,570	$107,563	$100,151	2010 - Replace canopy fabric retail stores
	Reserve Deposit	9,955	13,356	13,356	13,356	13,824	14,307	14,808	15,326	15,863	16,418	16,993	17,588	18,203	2005 & 2011 Group lamp replacement
	Reserve Withdrawal	0	0	0	(20,000)	0	0	(30,000)	0	0	0	0	(25,000)	(34,800)	
	Ending Balance	**$9,955**	**$23,311**	**$36,667**	**$30,023**	**$43,847**	**$58,155**	**$42,963**	**$58,289**	**$74,152**	**$90,570**	**$107,563**	**$100,151**	**$83,554**	
	TENANT'S CONTINGENCY														
74000	**Other Requirements**														
	Beginning Balance	$0	$6,450	$25,288	$34,557	$14,982	$34,966	$60,825	$94,088	$134,697	$181,857	$235,744	$298,431	$357,733	
	Reserve Deposit	0	15,000	0	0	0	0	0	0	0	0	0	0	0	
	Interest Deposits	6,450	3,838	9,268	14,983	19,984	25,859	33,263	40,609	47,160	53,887	62,687	59,302	50,505	
	Reserve Withdrawal	0	0	0	(34,557)	0	0	0	0	0	0	0	0	0	Withdrawal for Lobby Repairs - 2001
	Ending Balance	**$6,450**	**$25,288**	**$34,557**	**$14,982**	**$34,966**	**$60,825**	**$94,088**	**$134,697**	**$181,857**	**$235,744**	**$298,431**	**$357,733**	**$408,240**	
	TRANSACTION SUMMARY														
	Beginning Reserve Balance	$0	$95,955	$231,710	$374,563	$499,606	$646,463	$831,586	$1,015,213	$1,178,999	$1,347,169	$1,567,177	$1,482,562	$1,262,661	
	All Reserve Deposits	$89,505	$131,917	$133,585	$164,617	$168,372	$174,265	$180,364	$186,677	$193,210	$199,973	$206,972	$214,216	$221,713	
	Interest On Reserve Deposits	6,450	3,838	9,268	14,983	19,984	25,859	33,263	40,609	47,160	53,887	62,687	59,302	50,505	
	Withdrawals from Reserves	$0	$0	$0	($54,557)	($41,500)	($15,000)	($30,000)	($63,500)	($72,200)	($33,852)	($354,274)	($493,419)	($391,300)	
	Ending Reserve Balance	**$95,955**	**$231,710**	**$374,563**	**$499,606**	**$646,463**	**$831,586**	**$1,015,213**	**$1,178,999**	**$1,347,169**	**$1,567,177**	**$1,482,562**	**$1,262,661**	**$1,143,581**	
	Reserve Expense per NRSF	326,828	$0.40	$0.41	$0.50	$0.52	$0.53	$0.55	$0.57	$0.59	$0.61	$0.63	$0.56	$0.63	
	Inflation Rate	103.50%													
	Assumed Safe Rate	4.00%													
	NPV of Reserve Deposits	$1,667,368													

KING STREET CENTER
COMMON AREA PROJECTS RESERVES AND DEPOSITS; SOURCES AND USES TWENTY FIVE YEAR PLAN
2001 Budget Summary Schedule

General Ledger Account Number	Description or Purpose For Tenant's Operating Reserve	Estimate 2012 Year 13 (162 mo's)	Estimate 2013 Year 14 (174mo's)	Estimate 2014 Year 15 (186 mo's)	Estimate 2015 Year 16 (198 mo's)	Estimate 2016 Year 17 (210 mo's)	Estimate 2017 Year 18 (222 mo's)	Estimate 2018 Year 19 (234 mo's)	Estimate 2019 Year 20 (246 mo's)	Estimate 2020 Year 21 (258 mo's)	Estimate 2021 Year 22 (270 mo's)	Estimate 2022 Year 23 (282 mo's)	Estimate 2023 Year 24 (294 mo's)	Estimate 2024 Year 25 (306 mo's)	EXPLANATION
	MAJOR MAINTENANCE AND REPAIR														
63000	**HVAC**														
63330	**Upgrade HVAC Software & PC's**														
	Beginning Balance	$291	$3,363	$6,543	$9,834	$13,240	$16,765	$20,413	$653	$4,561	$8,606	$12,793	$17,127	$21,612	2018 - Replace server and upgrade software
	Reserve Deposit	3,072	3,180	3,291	3,406	3,525	3,649	3,776	3,908	4,045	4,187	4,333	4,485	4,542	2024 - Replace server and install new syster
	Reserve Withdrawal	0	0	0	0	0	0	(23,537)	0	0	0	0	0	(32,000)	software. (In connection with system upgrac
	Ending Balance	**$3,363**	**$6,543**	**$9,834**	**$13,240**	**$16,765**	**$20,413**	**$653**	**$4,561**	**$8,606**	**$12,793**	**$17,127**	**$21,612**	**($5,746)**	
63330	**Upgrade HVAC Controls**														
	Beginning Balance	$200,681	$182	$47,483	$96,439	$147,108	$199,551	$253,829	$310,008	$368,152	$428,332	$490,617	$555,083	$621,305	2012 - Phase 2 of VAV control upgrades
	Reserve Deposit	45,701	47,301	48,956	50,670	52,443	54,278	56,178	58,144	60,179	62,286	64,466	66,722	69,057	includes Mammoth Controls.
	Reserve Withdrawal	(246,200)	0	0	0	0	0	0	0	0	0	0	0	(344,524)	2024 - Upgrade/replacement of VAV box
	Ending Balance	**$182**	**$47,483**	**$96,439**	**$147,108**	**$199,551**	**$253,829**	**$310,008**	**$368,152**	**$428,332**	**$490,617**	**$555,083**	**$621,805**	**$346,339**	controls and fan replacement - Phase 1
63330	**Replace/Overhaul DX Units**														2013 - 2018 - 2024
	Beginning Balance	$25,362	$33,212	$1,155	$9,564	$18,268	$27,276	$36,599	($1,475)	$8,513	$18,850	$29,548	$40,622	$52,082	It is anticipated that over the course of 25
	Reserve Deposit	7,850	8,125	8,409	8,703	9,008	9,323	9,650	9,987	10,337	10,699	11,073	11,461	11,461	years, we will need to replace five of the ten
	Reserve Withdrawal	0	(40,182)	0	0	0	0	(47,723)	0	0	0	0	0	(60,717)	DX units in the Mammoth units - This
	Ending Balance	**$33,212**	**$1,155**	**$9,564**	**$18,268**	**$27,276**	**$36,599**	**($1,475)**	**$8,513**	**$18,850**	**$29,548**	**$40,622**	**$52,082**	**$2,826**	schedule is subject to charge.
66000	**ELEVATORS**														
66330	**Elevator Cab Renovation**														
	Beginning Balance	$6,269	$13,619	$21,226	$29,100	$37,249	$45,683	$54,413	$63,448	$72,799	$37,145	$244	$10,612	$21,343	2020 - Replacement of fabric system and
	Reserve Deposit	7,350	7,607	7,874	8,149	8,434	8,729	9,035	9,351	9,679	10,017	10,368	10,731	11,106	metal refinishing in Elevators 1, 2, and 3.
	Reserve Withdrawal	0	0	0	0	0	0	0	0	(45,332)	(46,919)	0	0	0	2021 - Replacement of fabric system and
	Ending Balance	**$13,619**	**$21,226**	**$29,100**	**$37,249**	**$45,683**	**$54,413**	**$63,448**	**$72,799**	**$37,145**	**$244**	**$10,612**	**$21,343**	**$32,449**	metal refinishing in Elevators 4, 5, and 6.
67000	**GENERAL BUILDING**														
67320	**Upgrade Security System Software and PC's**														
	Beginning Balance	$6,848	$10,898	$15,090	$19,428	($258)	$4,389	$9,199	$14,178	$19,330	$24,663	$464	$6,176	$12,089	2015 - Server replacement software upgrad
	Reserve Deposit	4,050	4,192	4,338	4,490	4,647	4,810	4,978	5,153	5,333	5,520	5,713	5,913	6,120	on all stations
	Reserve Withdrawal	0	0	0	(24,177)	0	0	0	0	0	(29,720)	0	0	0	2021 - Server and workstation replacemen;
	Ending Balance	**$10,898**	**$15,090**	**$19,428**	**($258)**	**$4,389**	**$9,199**	**$14,178**	**$19,330**	**$24,663**	**$464**	**$6,176**	**$12,089**	**$18,209**	software upgrade on all stations.
67320	**Upgrade Fire Alarm System**														
	Beginning Balance	$5,128	$11,206	$17,497	$24,008	$30,747	$37,721	$44,940	$52,411	$60,144	$3	$8,287	$16,860	$25,734	2020 - Upgrade/Replacement of main
	Reserve Deposit	6,078	6,291	6,511	6,739	6,975	7,219	7,471	7,733	8,004	8,284	8,574	8,874	9,184	fire alarm panel and software - does not
	Reserve Withdrawal	0	0	0	0	0	0	0	0	(68,145)	0	0	0	0	include field devices.
	Ending Balance	**$11,206**	**$17,497**	**$24,008**	**$30,747**	**$37,721**	**$44,940**	**$52,411**	**$60,144**	**$3**	**$8,287**	**$16,860**	**$25,734**	**$34,918**	
72000	**ALTERATIONS AND REPAIRS**														

KING STREET CENTER
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General Ledger Account Number	Description or Purpose For Tenant's Operating Reserve	Estimate 2012 Year 13 (162 mo's)	Estimate 2013 Year 14 (174mo's)	Estimate 2014 Year 15 (186 mo's)	Estimate 2015 Year 16 (198 mo's)	Estimate 2016 Year 17 (210 mo's)	Estimate 2017 Year 18 (222 mo's)	Estimate 2018 Year 19 (234 mo's)	Estimate 2019 Year 20 246 mo's)	Estimate 2020 Year 21 (258 mo's)	Estimate 2021 Year 22 (270 mo's)	Estimate 2022 Year 23 (282 mo's)	Estimate 2023 Year 24 (294 mo's)	Estimate 2024 Year 25 (306 mo's)	EXPLANATION
72330	**Stairwell & Mechanical Roofs, Replace Membrane**														
	Beginning Balance	$3,106	$6,208	$10,219	$14,369	$18,665	$23,112	$27,714	$32,477	$37,407	$0	$5,281	$10,747	$16,404	2020 - Roof replacement - roof has a 10
	Reserve Deposit	3,102	4,010	4,151	4,296	4,446	4,602	4,763	4,930	5,102	5,281	5,466	5,657	5,855	year guarantee - next replacement is due in
	Reserve Withdrawal	0	0	0	0	0	0	0	0	(42,508)	0	0	0	0	2,030
	Ending Balance	**$6,208**	**$10,219**	**$14,369**	**$18,665**	**$23,112**	**$27,714**	**$32,477**	**$37,407**	**$0**	**$5,281**	**$10,747**	**$16,404**	**$22,259**	
72330	**Main Roofs, Reseal, Flashing & Caulking**														
	Beginning Balance	$237,620	$260,671	$284,530	$309,223	($19,556)	$6,896	$34,274	$62,611	$91,939	$122,293	$153,710	$186,226	$219,881	2015 - Roof has 15 year guarantee - next
	Reserve Deposit	23,052	23,858	24,693	25,558	26,452	27,378	28,336	29,328	30,354	31,417	32,516	33,655	34,832	roof will be due in 2030.
	Reserve Withdrawal	0	0	0	(354,336)	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$260,671**	**$284,530**	**$309,223**	**($19,556)**	**$6,896**	**$34,274**	**$62,611**	**$91,939**	**$122,293**	**$153,710**	**$186,226**	**$219,881**	**$254,713**	
72320	**Carpet, Replace Common Areas**														
	Beginning Balance	$85,488	$152,748	$222,362	$294,413	$368,985	$446,167	$526,051	$608,731	$266,560	($144,689)	($53,021)	$41,856	$140,054	2019 - Allowance to replace carpet in high
	Reserve Deposit	67,260	69,614	72,051	74,572	77,182	79,884	82,680	85,574	88,569	91,668	94,877	98,198	101,634	traffic areas.
	Reserve Withdrawal	0	0	0	0	0	0	0	(427,744)	(499,818)	0	0	0	0	2021 - 2022 General office area carpet
	Ending Balance	**$152,748**	**$222,362**	**$294,413**	**$368,985**	**$446,167**	**$526,051**	**$608,731**	**$266,560**	**($144,689)**	**($53,021)**	**$41,856**	**$140,054**	**$241,688**	replacement - estimated life 7 to 10 years.
72320	**Curtain Wall Maintenance**														
	Beginning Balance	$9	$9,813	$19,618	$29,423	$41,189	$52,955	$64,721	$76,486	$88,252	$100,018	$111,784	$123,550	($17,185)	2023 - Allowance to recaulk and clean
	Reserve Deposit	9,805	9,805	9,805	11,766	11,766	11,766	11,766	11,766	11,766	11,766	11,766	11,766	11,766	curtain wall panels.
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	(152,500)	0	
	Ending Balance	**$9,813**	**$19,618**	**$29,423**	**$41,189**	**$52,955**	**$64,721**	**$76,486**	**$88,252**	**$100,018**	**$111,784**	**$123,550**	**($17,185)**	**($5,419)**	
72330	**Interior Painting - Tenant Areas**														2013 & 2023 Painting Floors 1 through 4.
	Beginning Balance	$80,985	$102,286	$123,587	$66,388	($1,311)	$19,990	$41,291	$62,592	$83,893	$105,194	$126,495	$147,796	$72,597	
	Reserve Deposit	21,301	21,301	21,301	21,301	21,301	21,301	21,301	21,301	21,301	21,301	21,301	21,301	21,301	2014 & 2024 Painting Floors 5 through 8.
	Reserve Withdrawal	0	0	(78,500)	(89,000)	0	0	0	0	0	0	0	(96,500)	(109,500)	
	Ending Balance	**$102,286**	**$123,587**	**$66,388**	**($1,311)**	**$19,990**	**$41,291**	**$62,592**	**$83,893**	**$105,194**	**$126,495**	**$147,796**	**$72,597**	**($15,602)**	

KING STREET CENTER

COMMON AREA PROJECTS RESERVES AND DEPOSITS; SOURCES AND USES TWENTY FIVE YEAR PLAN

2001 Budget Summary Schedule

General Ledger Account Number	Description or Purpose For Tenant's Operating Reserve	Estimate 2012 Year 13 (162 mo's)	Estimate 2013 Year 14 (174mo's)	Estimate 2014 Year 15 (186 mo's)	Estimate 2015 Year 16 (198 mo's)	Estimate 2016 Year 17 (210 mo's)	Estimate 2017 Year 18 (222 mo's)	Estimate 2018 Year 19 (234 mo's)	Estimate 2019 Year 20 (246 mo's)	Estimate 2020 Year 21 (258 mo's)	Estimate 2021 Year 22 (270 mo's)	Estimate 2022 Year 23 (282 mo's)	Estimate 2023 Year 24 (294 mo's)	Estimate 2024 Year 25 (306 mo's)	EXPLANATION
72320	**Other Common Area Renovation**														
	Beginning Balance	$83,554	($49,676)	($32,319)	($14,355)	$1,987	($22,172)	($5,830)	$10,511	$26,852	$9,194	($21,465)	($5,123)	$11,218	2020 - Replace canopy fabric retail stores.
	Reserve Deposit	16,770	17,357	17,965	16,341	16,341	16,341	16,341	16,341	16,341	16,341	16,341	16,341	16,341	2012 - Renovate elevator lobby areas
	Reserve Withdrawal	(150,000)	0	0	0	(40,500)	0	0	0	(34,000)	(47,000)	0	0	0	2016 & 2021 Group Lamp replacement
	Ending Balance	**($49,676)**	**($32,319)**	**($14,355)**	**$1,987**	**($22,172)**	**($5,830)**	**$10,511**	**$26,852**	**$9,194**	**($21,465)**	**($5,123)**	**$11,218**	**$27,559**	
	TENANT'S CONTINGENCY														
74000	**Other Requirements**														
	Beginning Balance	$408,240	$53,983	$78,323	$110,936	$150,887	$142,675	$182,715	$234,328	$295,407	$352,359	$394,838	$445,221	$509,091	
	Reserve Deposit	0	0	0	0	0	0	0	0	0	0	0	0	0	2012 - Renovation of Main Lobby.
	Interest Deposits	45,743	24,341	32,613	39,951	32,288	40,040	51,613	61,078	56,952	42,479	50,383	63,870	68,269	
	Reserve Withdrawal	(400,000)	0	0	0	(40,500)	0	0	0	0	0	0	0	0	
	Ending Balance	**$53,983**	**$78,323**	**$110,936**	**$150,887**	**$142,675**	**$182,715**	**$234,328**	**$295,407**	**$352,359**	**$394,838**	**$445,221**	**$509,091**	**$577,360**	
	TRANSACTION SUMMARY														
	Beginning Reserve Balance	$1,143,581	$608,515	$815,314	$998,770	$807,199	$1,001,009	$1,290,330	$1,526,959	$1,423,810	$1,061,969	$1,259,576	$1,596,753	$1,706,726	
	All Reserve Deposits	$215,390	$222,640	$229,344	$235,991	$242,522	$249,281	$256,276	$263,517	$271,010	$278,766	$286,794	$295,103	$303,301	
	Interest On Reserve Deposits	45,743	24,341	32,613	39,951	32,288	40,040	51,613	61,078	56,952	42,479	50,383	63,870	68,269	
	Withdrawals from Reserves	($796,200)	($40,182)	($78,500)	($467,513)	($81,000)	$0	($71,260)	($427,744)	($689,803)	($123,638)	$0	($249,000)	($546,741)	
	Ending Reserve Balance	**$608,515**	**$815,314**	**$998,770**	**$847,199**	**$1,001,009**	**$1,290,330**	**$1,526,959**	**$1,423,810**	**$1,061,969**	**$1,259,576**	**$1,596,753**	**$1,706,726**	**$1,531,554**	
	Reserve Expense per NRSF	326,828	$0.68	$0.70	$0.72	$0.74	$0.76	$0.78	$0.81	$0.83	$0.85	$0.88	$0.90	$0.93	
	Inflation Rate	103.50%													
	Assumed Safe Rate	4.00%													
	NPV of Reserve Deposits	$2,533,666													

4.2 Proposed Major Maintenance Projects Reserves and Deposits: Sources and Uses Twenty Five Year Plan – Sample DPS Evidence Storage Building

DPS EVIDENCE STORAGE
MAJOR MAINTENANCE PROJECTS RESERVES AND DEPOSITS; SOURCES AND USES TWENTY FIVE YEAR PLAN
2002 Budget Summary Schedule

General Ledger Account Number	Description or Purpose For Tenant's Operating Reserve	Reserve History 1999 - (6mo's)	Estimate 2000 Year 1 (18mo's)	Estimate 2001 Year 2 (30 mo's)	Estimate 2002 Year 3 (42 mo's)	Estimate 2003 Year 4 (54 mo's)	Estimate 2004 Year 5 (66 mo's)	Estimate 2005 Year 6 (78 mo's)	Estimate 2006 Year 7 (90 mo's)	Estimate 2007 Year 8 (102 mo's)	Estimate 2008 Year 9 (114 mo's)	Estimate 2009 Year 10 (126 mo's)	Estimate 2010 Year 11 (138 mo s)	Estimate 2011 Year 12 (150 mo's)	EXPLANATION
	MAJOR MAINTENANCE AND REPAIR														
	General Building														
	1 **Carpet and Paint**														
	Beginning Balance	$0	$0	$0	$487	$3,989	$7,599	$11,321	$15,156	$19,109	$23,184	$0	$3,901	$7,920	2008 - Paint Interiors
	Reserve Deposit	0	0	0	2,999	3,089	3,182	3,277	3,375	3,477	3,581	3,901	4,018	4,139	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	(27,384)	0	0	0	
	Accumulated Reserve Req.	0	0	487	504	521	539	558	578	598	619	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**$487**	**$3,989**	**$7,599**	**$11,321**	**$15,156**	**$19,109**	**$23,184**	**$0**	**$3,901**	**$7,920**	**$12,058**	
	2 **Lighting**														
	Beginning Balance	$0	$0	($31,763)	($25,438)	($18,905)	($12,159)	($5,191)	$2,005	$9,438	$17,114	$25,042	$28,609	$32,284	2001 - Lighting Project
	Reserve Deposit	0	0	2,816	2,901	2,988	3,077	3,170	3,265	3,363	3,463	3,567	3,674	3,785	
	Reserve Withdrawal	0	(31,763)	0	0	0	0	0	0	0	0	0	0	0	
	Accumulated Reserve Req.	0	0	3,509	3,632	3,759	3,891	4,027	4,168	4,314	4,465	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**($31,763)**	**($25,438)**	**($18,905)**	**($12,159)**	**($5,191)**	**$2,005**	**$9,438**	**$17,114**	**$25,042**	**$28,609**	**$32,284**	**$36,068**	
	3 **Parking Lot & Grounds**			4,910											
	Beginning Balance	$0	$0	($44,448)	($35,636)	($26,541)	($17,153)	($7,464)	$2,538	$12,862	$23,517	$34,516	$39,538	$44,735	
	Reserve Deposit	0	0	3,813	3,947	4,085	4,228	4,376	4,529	4,687	4,852	5,021	5,197	5,379	
	Reserve Withdrawal	0	(44,448)	0	0	0	0	0	0	0	0	0	0	0	
	Accumulated Reserve Req.	0	0	4,998	5,148	5,303	5,462	5,626	5,795	5,968	6,147	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**($44,448)**	**($35,636)**	**($26,541)**	**($17,153)**	**($7,464)**	**$2,538**	**$12,862**	**$23,517**	**$34,516**	**$39,538**	**$44,735**	**$50,114**	
	General Building														
	4 **Phone/Data**														
	Beginning Balance	$0	$0	$0	$1,740	$3,533	$5,379	$7,280	$9,239	$11,256	$13,334	$0	$2,205	$4,475	2008 - Replace Phone System
	Reserve Deposit	0	0	1,740	1,792	1,846	1,902	1,959	2,017	2,078	2,140	2,204	2,271	2,339	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	(15,474)	0	0	0	
	Accumulated Reserve Req.	0	0	0	0	0	0	0	0	0	0	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**$1,740**	**$3,533**	**$5,379**	**$7,280**	**$9,239**	**$11,256**	**$13,334**	**$0**	**$2,205**	**$4,475**	**$6,814**	
	HVAC														
	5 **HVAC Upgrades**														
	Beginning Balance	$0	$0	$0	$20,417	$41,446	$63,107	$85,417	$108,396	$132,065	$156,444	$181,554	$207,417	$234,057	Replace HVAC - in 2024
	Reserve Deposit	0	0	20,417	21,029	21,660	22,310	22,979	23,669	24,379	25,110	25,863	26,639	27,439	

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MAJOR MAINTENANCE PROJECTS RESERVES AND DEPOSITS; SOURCES AND USES TWENTY FIVE YEAR PLAN
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General Ledger Account Number	Description or Purpose For Tenant's Operating Reserve	Reserve History 1999 - (6mo's)	Estimate 2000 Year 1 (18mo's)	Estimate 2001 Year 2 (30 mo's)	Estimate 2002 Year 3 (42 mo's)	Estimate 2003 Year 4 (54 mo's)	Estimate 2004 Year 5 (66 mo's)	Estimate 2005 Year 6 (78 mo's)	Estimate 2006 Year 7 (90 mo's)	Estimate 2007 Year 8 (102 mo's)	Estimate 2008 Year 9 (114 mo's)	Estimate 2009 Year 10 (126 mo's)	Estimate 2010 Year 11 (138 mo's)	Estimate 2011 Year 12 (150 mo's)	EXPLANATION
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Accumulated Reserve Req.	0	0	0	0	0	0	0	0	0	0	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**$20,417**	**$41,446**	**$63,107**	**$85,417**	**$108,396**	**$132,065**	**$156,444**	**$181,554**	**$207,417**	**$234,057**	**$261,495**	
6	**New Project Here**														
	Beginning Balance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
	Reserve Deposit	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Reserve Withdrawal	0	0												
	Accumulated Reserve Req.	0	0	0	0	0	0	0	0	0	0	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	
	ALTERATIONS AND REPAIRS														
7	**Roor Replacement**														
	Beginning Balance	$0	$0	$0	$15,420	$31,302	$47,661	$64,510	($30,330)	($12,454)	$5,958	$24,922	$33,739	$42,820	2005 - Replace membrane on roof
	Reserve Deposit	0	0	6,960	7,169	7,384	7,605	7,833	8,068	8,310	8,560	8,817	9,081	9,354	
	Reserve Withdrawal	0	0	0	0	0	0	(112,195)	0	0	0	0	0	0	
	Accumulated Reserve Req.	0	0	8,460	8,714	8,975	9,244	9,522	9,807	10,101	10,405	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**$15,420**	**$31,302**	**$47,661**	**$64,510**	**($30,330)**	**($12,454)**	**$5,958**	**$24,922**	**$33,739**	**$42,820**	**$52,173**	
8	**Deferred Repairs**														
	Beginning Balance	$0	$0	$0	($67,641)	($58,813)	($49,721)	($40,355)	($30,709)	($20,774)	($10,540)	$0	$0	$0	
	Reserve Deposit	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Reserve Withdrawal	0	0	(76,211)	0	0	0	0	0	0	0	0	0	0	
	Accumulated Reserve Req.	0	0	8,570	8,828	9,092	9,365	9,646	9,935	10,234	10,541	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**($67,641)**	**($58,813)**	**($49,721)**	**($40,355)**	**($30,709)**	**($20,774)**	**($10,540)**	**$0**	**$0**	**$0**	**$0**	
9	**New Project Here**														
	Beginning Balance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
	Reserve Deposit	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Accumulated Reserve Req.	0	0	0	0	0	0	0	0	0	0	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	

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General Ledger Account Number	Description or Purpose For Tenant's Operating Reserve	Reserve History 1999 - (6mo's)	Estimate 2000 Year 1 (18mo's)	Estimate 2001 Year 2 (30 mo's)	Estimate 2002 Year 3 (42 mo's)	Estimate 2003 Year 4 (54 mo's)	Estimate 2004 Year 5 (66 mo's)	Estimate 2005 Year 6 (78 mo's)	Estimate 2006 Year 7 (90 mo's)	Estimate 2007 Year 8 (102 mo's)	Estimate 2008 Year 9 (114 mo's)	Estimate 2009 Year 10 (126 mo's)	Estimate 2010 Year 11 (138 mo's)	Estimate 2011 Year 12 (150 mo's)	EXPLANATION
	BUILDING CONTINGENCY														
	Other Requirements														
	Beginning Balance	$0	$0	$0	($3,048)	($7,837)	($11,224)	($13,105)	($13,368)	($16,387)	($17,729)	($17,272)	($16,604)	($13,934)	
	Reserve Deposit	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Interest Earned/Payed	0	0	(3,048)	(4,789)	(3,387)	(1,880)	(264)	(3,018)	(1,342)	456	668	2,670	4,812	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**($3,048)**	**($7,837)**	**($11,224)**	**($13,105)**	**($13,368)**	**($16,387)**	**($17,729)**	**($17,272)**	**($16,604)**	**($13,934)**	**($9,122)**	
	TRANSACTION SUMMARY														
	Beginning Reserve Balance	$0	$0	($76,211)	($119,724)	($84,676)	($47,012)	($6,589)	($75,453)	($33,548)	$11,404	$16,708	$66,751	$120,302	
	All Reserve Deposits	$0	$0	$35,746	$39,837	$41,052	$42,304	$43,594	$44,924	$46,294	$47,706	$49,374	$50,881	$52,433	
	Interest Earned/Payed	0	0	(3,048)	(4,789)	(3,387)	(1,880)	(264)	(3,018)	(1,342)	456	668	2,670	4,812	
	Withdrawals from Reserves	$0	($76,211)	($76,211)	$0	$0	$0	($112,195)	$0	$0	($42,858)	$0	$0	$0	
	Ending Reserve Balance	**$0**	**($76,211)**	**($119,724)**	**($84,676)**	**($47,012)**	**($6,589)**	**($75,453)**	**($33,548)**	**$11,404**	**$16,708**	**$66,751**	**$120,302**	**$177,547**	
	Reserve Expense per NRSF	19,205	$0.00	$1.86	$2.07	$2.14	$2.20	$2.27	$2.34	$2.41	$2.48	$2.57	$2.65	$2.73	
	Inflation Rate	103.50%													
	Assumed Safe Rate	4.00%													
	NPV of Reserve Deposits	$373,417													

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MAJOR MAINTENANCE PROJECTS RESERVES AND DEPOSITS; SOURCES AND USES TWENTY FIVE YEAR PLAN
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General Ledger Account Number	Description or Purpose For Tenant's Operating Reserve	Estimate 2012 Year 13 (162 mo's)	Estimate 2013 Year 14 (174mo's)	Estimate 2014 Year 15 (186 mo's)	Estimate 2015 Year 16 (198 mo's)	Estimate 2016 Year 17 (210 mo's)	Estimate 2017 Year 18 (222 mo's)	Estimate 2018 Year 19 (234 mo's)	Estimate 2019 Year 20 (246 mo's)	Estimate 2020 Year 21 (258 mo's)	Estimate 2021 Year 22 (270 mo's)	Estimate 2022 Year 23 (282 mo's)	Estimate 2023 Year 24 (294 mo's)	Estimate 2024 Year 25 (306 mo's)	EXPLANATION
	MAJOR MAINTENANCE AND REPAIR														
	General Building														
	1 **Carpet/Painting**														
	Beginning Balance	$12,058	$16,321	$20,712	$25,234	$29,892	$0	$4,942	$10,032	$15,275	$20,675	$26,237	$31,966	$37,867	2016 - Interior Painting
	Reserve Deposit	4,263	4,391	4,522	4,658	4,798	4,942	5,090	5,243	5,400	5,562	5,729	5,901	6,078	2024 - Interior Painting
	Reserve Withdrawal	0	0	0	0	(34,690)	0	0	0	0	0	0	0	(34,944)	
	Ending Balance	**$16,321**	**$20,712**	**$25,234**	**$29,892**	**$0**	**$4,942**	**$10,032**	**$15,275**	**$20,675**	**$26,237**	**$31,966**	**$37,867**	**$9,001**	
	2 **Lighting**														
	Beginning Balance	$36,068	$39,967	$44,001	$48,177	($0)	$4,473	$9,103	$13,895	$18,854	$23,988	$29,300	$34,799	$40,490	2015 - Lighting Project
	Reserve Deposit	3,898	4,035	4,176	4,322	4,473	4,630	4,792	4,960	5,133	5,313	5,499	5,691	5,890	
	Reserve Withdrawal	0	0	0	(52,499)	0	0	0	0	0	0	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0		
	Ending Balance	39,967	44,001	48,177	**0**	4,473	9,103	13,895	18,854	23,988	29,300	34,799	40,490	46,381	
	3 **Parking/Grounds**														2015 - Parking lot repaving
	Beginning Balance	$50,114	$55,654	$61,388	$67,323	$0	$6,358	$12,938	$19,748	$26,797	$34,093	$41,644	$49,459	$57,548	
	Reserve Deposit	5,540	5,734	5,935	6,143	6,358	6,580	6,811	7,049	7,296	7,551	7,815	8,089	8,089	
	Reserve Withdrawal	0	0	0	(73,466)	0	0	0	0	0	0	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0		
	Ending Balance	**$55,654**	**$61,388**	**$67,323**	**$0**	**$6,358**	**$12,938**	**$19,748**	**$26,797**	**$34,093**	**$41,644**	**$49,459**	**$57,548**	**$65,637**	
	4 **Phone/Data**														
	Beginning Balance	$6,814	$9,222	$11,704	$14,259	$16,891	$0	$2,793	$5,669	$8,631	$11,683	$14,826	$18,063	$21,397	2016 - Replacement of Phone System
	Reserve Deposit	2,409	2,481	2,555	2,632	2,711	2,792	2,876	2,963	3,051	3,143	3,237	3,334	3,434	
	Reserve Withdrawal	0	0	0	0	(19,602)	0	0	0	0	0	0	0	(24,831)	2024 - Replacement of Phone System
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$9,222**	**$11,704**	**$14,259**	**$16,891**	**$0**	**$2,793**	**$5,669**	**$8,631**	**$11,683**	**$14,826**	**$18,063**	**$21,397**	**$1**	
	HVAC														
	5 **HVAC Upgrades**														
	Beginning Balance	$261,495	$289,757	$318,867	$348,849	$379,732	$411,541	$444,304	$478,050	$512,808	$548,609	$585,484	$623,466	$662,587	2024 - Upgrade HVAC System
	Reserve Deposit	28,262	29,110	29,983	30,882	31,809	32,763	33,746	34,758	35,801	36,875	37,981	39,121	40,294	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	(702,831)	
	County CX Funds Required														
	Ending Balance	**$289,757**	**$318,867**	**$348,849**	**$379,732**	**$411,541**	**$444,304**	**$478,050**	**$512,808**	**$548,609**	**$585,484**	**$623,466**	**$662,587**	**$0**	
	6 **New Project Continued**														
	Beginning Balance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

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	Reserve Deposit	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	0	
	County CX Furds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	
	ALTERATIONS AND REPAIRS														
7	**Roof Replacement**														
	Beginning Balance	$52,173	$61,808	$71,731	$81,952	$92,479	$103,322	$114,491	$125,995	$137,843	$150,047	$162,618	$175,565	$188,901	2025 - Roof replacement
	Reserve Deposit	9,634	9,923	10,221	10,527	10,843	11,169	11,504	11,849	12,204	12,570	12,947	13,336	13,735	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	(202,637)	
	County CX Furds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$61,808**	**$71,731**	**$81,952**	**$92,479**	**$103,322**	**$114,491**	**$125,995**	**$137,843**	**$150,047**	**$162,618**	**$175,565**	**$188,901**	**$0**	
8	**Deferred Repairs**														
	Beginning Balance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
	Reserve Deposit	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	0	
	County CX Furds Required	0	0	0	0	0	0	0	0	0	0	0	0		
	Ending Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	
9	**New Project Here**														
	Beginning Balance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
	Reserve Deposit	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	
10	**New Project Here**														
	Beginning Balance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
	Reserve Deposit	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	
11	**New Project Here**														
	Beginning Balance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
	Reserve Deposit	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	0	
	County CX Funds Required	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	

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	BUILDING'S CONTINGENCY														
	Other Requirements														
	Beginning Balance	($9,122)	($2,020)	$7,526	$19,681	$34,618	$47,480	$61,125	$77,831	$97,797	$121,236	$148,367	$179424	$214,651	
	Reserve Deposit	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Interest Deposits	7,102	9,546	12,155	14,937	12,862	13,645	16,706	19,967	23,438	27,131	31,057	35228	39,655	
	Reserve Withdrawal	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Ending Balance	**($2,020)**	**$7,526**	**$19,681**	**$34,618**	**$47,480**	**$61,125**	**$77,831**	**$97,797**	**$121,236**	**$148,367**	**$179,424**	**$214,651**	**$254,307**	
	TRANSACTION SUMMARY														
	Beginning Reserve Balance	$177,547	$238,655	$303,874	$373,422	$321,558	$341,121	$417,642	$499,166	$585,953	$678,277	$776,422	$880,688	$991,387	
	All Reserve Deposits	$54,006	$55,673	$57,392	$59,165	$60,992	$62,876	$64,818	$66,821	$68,886	$71,014	$73,209	$75,472	$77,522	
	Interest On Reserve Deposits	7,102	9,546	12,155	14,937	12,862	13,645	16,706	19,967	23,438	27,131	31,057	35,228	39,655	
	Withdrawals from Reserves	$0	$0	$0	($125,965)	($54,292)	$0	$0	$0	$0	$0	$0	$0	($965,293)	
	Ending Reserve Balance	**$238,655**	**$303,874**	**$373,422**	**$321,558**	**$341,121**	**$417,642**	**$499,166**	**$585,953**	**$678,277**	**$776,422**	**$880,688**	**$991,387**	**$143,271**	
	Reserve Expense per NRSF	19.205	$2.90	$2.99	$3.08	$3.18	$3.27	$3.38	$3.48	$3.59	$3.70	$3.81	$3.93	$4.04	
	Inflation Rate	103.50%													
	Assumed Safe Rate	4.00%													
	NPV of Reserve Deposits	$640,517													

4.3 King County Ordinance 10728

February 8, 1993
93-57.ORD

Introduced by: Ron Sims

Proposed No.: 93-57

ORDINANCE NO. 10728

AN ORDINANCE creating the Major Maintenance Reserve Fund and defining the policies for its operation.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. There is hereby created a new county fund entitled Major Maintenance Reserve Fund. This fund shall be first tier fund as described in Chapter 4.10.020 of the King County Code. The county's finance director shall be the fund manager.

SECTION 2. Sufficient reserves shall be maintained in the Major Maintenance Reserve Fund to fund the county's ongoing major maintenance requirements for county-owned buildings and grounds, including the King County Courthouse, Administration Building, Yesler Building, and other county-owned buildings occupied by all county departments.

SECTION 3. The Major Maintenance Reserve Fund will be financed by:

1) Initiative 62 settelements received from the State;

2) Annual service charges against all county agencies housed in county-owned space;

3) A 1% major maintenance assessment against all ((~~general facility construction projects~~)) newly acquired or constructed above grade facilities;

4) Proceeds from the sale of county-owned real property;

5) Other appropriations and transfers as authorized by the county council.

SECTION 4. Beginning in 1994 the county shall establish a major maintenance service charge against all county agencies housed in county-owned space. The plan for this service charge shall be submitted to the council for review and approval by June 30, 1993. Changes to the annual service charge shall be submitted to the council for review and approval.

SECTION ((4))5. Any major repairs, or major maintenance projects called for in the County's general facilities major maintenance program shall be eligible for expenditures from the Major Maintenance Reserve. The general facilities major maintenance plan will provide 6-year major maintenance and rehabilitation plans for each of the county's general government facilities. These plans will be updated annually and will serve as the basis for requesting project appropriations from the Major Maintenance Reserve Fund. Requests to use the Major Maintenance Reserve Fund as a financing source for capital projects will be made in accordance with the County's annual Capital Improvement Program planning and budgeting process.

SECTION ((5))6. First priority for spending funds from the Major Maintenance Reserve Fund shall be for projects which improve safety for the public and county employees. Second priority shall be for projects which preserve facility integrity. Third priority shall be for projects which significantly reduce future maintenance costs, improve operational efficiencies or increase revenues. Fourth priority shall be for projects which improve the overall facility appearance and useability by the public.

SECTION ((6))7. The County shall maintain a minimum fund balance in the Major Maintenance Reserve Fund of $1,000,000, or a higher amount as determined by the council, as an emergency reserve to deal with unanticipated and emergency major maintenance projects. If used for emergency purposes, the minimum fund balance shall be restored within one year.

The fund balance should be systematically increased in anticipation of a significant outlay of funding during the later years of the 6-year capital planning cycle.

INTRODUCED AND READ for the first time this 25th day of January, 1993.

PASSED this 8th day of February, 1993

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

Audrey Grugen
Chair

ATTEST:

Gerald A. Peterson
Clerk of the Council

APPROVED this 19th day of February, 1993.

King County Executive

Attachments:

4.4 King County Ordinance 14230

KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

January 29, 2002

Ordinance 14230

Proposed No. 1999-0055.3 **Sponsors** Hague and McKenna

AN ORDINANCE revising the Major Maintenance Reserve Fund and Building Repair and Replacement Fund, governing the establishment of reserves, financing methods and expenditure guidelines for the Major Maintenance Reserve Fund; and amending Ordinance 12076, Section 29, and K.C.C. 4.08.250 and Ordinance 12076, Section 18, and K.C.C. 4.08.110.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. Ordinance 12076, Section 29, and K.C.C. 4.08.250 are each hereby amended to read as follows:

Major maintenance reserve fund. A. ((~~FUND ESTABLISHED.~~)) There is hereby created a new county fund entitled major maintenance reserve fund. This fund shall be a first tier fund as described in K.C.C. chapter 4.08 and the first paragraph of RCW 36.29.020.

B.1. ((~~RESERVES. Sufficient reserves shall be maintained in the Major Maintenance Reserve Fund to fund the county's ongoing major maintenance requirements for county-owned buildings and grounds, including the King County Courthouse, Administration Building, Yesler Building, and other county-owned buildings occupied by all county departments.~~)) The purpose of the fund is to provide for the periodic replacement of major building systems and components at certain King County facilities so that each building will realize its full useful life. Expenditures from this fund shall not be used to accommodate routine maintenance, and shall not be used to finance unique program infrastructure investments. Unique infrastructure investments are those capital expenses unique to a specific building user that are not necessary to maintain the usability and maintenance standard for the building. Such capital investments may be combined with major maintenance reserve fund eligible work but shall be financed from other appropriate funding sources. For the purpose of this section, "major maintenance program plan" means the prioritized list of projects transmitted to the council with, and funded by, the annual major maintenance fund budget request. For the purpose of this section, "major maintenance financial model" means the analytical system for projecting both the cyclical and existing maintenance expenses of major county building systems and components, and development of the revenue estimates necessary to fund those expenses.

2. The major maintenance program shall consist of two primary categories of projects:

a. Life-cycle projects, which involve a forecast of future expenditures based upon the expected life of building components and systems, their current age, and the

cost to repair or replace those components and systems. The major maintenance financial model includes three "life-cycle" categories of facility improvements:

(1) eight-year "short cycle" refurbishments, including but not limited to carpet, paint and communications equipment;

(2) fifteen-year "medium cycle" refurbishments, including but not limited to lighting fixtures, parking lots and grounds and structures;

(3) twenty-five-year "long term" renovation, including but not limited to heating, ventilation, air conditioning and electrical systems, walls, doors, roofs and conveyance systems.

b. Deferred maintenance projects, which entail immediate deficiencies and partially worn systems that would normally be financed within the major maintenance financial model's framework but that already existed when the model was initiated. Deferred maintenance project costs shall be estimated similarly to capital projects; the scope of work is defined, and construction costs are estimated, by the project manager, county staff or consultants. Costs estimates shall include any necessary design work, permitting and overhead associated with the project.

C. Major maintenance program costs are funded by the major maintenance reserve fund. The calculation of the amount necessary to finance facility infrastructure maintenance costs is based on a building specific per square foot charge corresponding to existing deficiencies and current age of building systems and mix of building systems. The major maintenance reserve fund funding requirements shall be fulfilled by

1. An annual transfer of the sales tax reserve contingency fund balance in excess of fifteen million dollars;

2. Transfers, which are contributions, from the current expense fund;

3. Transfers, which are contributions from the non-current expense fund agencies in buildings owned by King County or for which the county is responsible for debt service costs;

4. Contributions from current expense agency operating budgets that receive partial reimbursement from other jurisdictions; and

5. Other revenue sources, including investment earnings on the emergency reserve balance. The per square foot charge to current expense agencies is financed primarily from the sales tax reserve and current expense fund transfer to the major maintenance reserve fund.

((~~C. FINANCNING. The Major Maintenance Reserve Fund will be financed by: Initiative 62 settlements received from the State; annual service charges against all county agencies housed in county-owned space; a 1% major maintenance assessment against all newly acquired or constructed above grade facilities; proceeds from the sale of county-owned real property; and other appropriations and transfers as authorized by the council.~~))

D. ((~~ANNUAL SERVICE CHARGE. Beginning in 1994 the county shall establish a major maintenance service charge against all county agencies housed in county-owned space. The plan for this service charge shall be submitted to the council for review and approval by June 30, 1993. Changes to the annual service charge shall be submitted to the council for review and approval.~~)) The following shall be submitted with the annual budget transmittal, except as noted:

Bob Williams *
296-3405

1. Financial plan. The exact mix of revenues used to finance major maintenance reserve fund expenditures in a given year shall be set forth in a detailed financial plan spanning no less than six years. The mix of revenues may change from year to year, as economic and budgetary circumstances warrant, subject to adoption of the financial plan by the council concurrent with adoption of the annual major maintenance reserve fund appropriation;

2. Major maintenance financial model. Any proposed changes to the major maintenance financial model shall be submitted to the council, along with supporting materials that describe how the proposed changes will affect the financing and progress of outstanding major maintenance projects;

3. Program plan. The major maintenance program plan is the list of projects transmitted to the council with, and funded by, the annual major maintenance fund budget request. The program plan shall be adopted with the annual major maintenance budget allocation. The plan will be prioritized and include project names, project numbers and project appropriation requests. Expenditures may be made only for approved projects on the program plan and total expenditures shall not exceed the aggregate project appropriation level for a given year. The executive shall submit quarterly reports documenting all proposed changes to the program plan and the reasons for those changes, including but not limited to changes that alter project appropriation levels as indicated in the program plan, scope or scheduling of listed projects, or by adding or deleting projects from the program plan; and

4. Status. The executive shall report annually, by May 30, to the council on the status of scope, schedule and expenditures for all identified projects funded by the major

maintenance reserve fund. All planned expenditures shall be consistent with the financial model, financial plan and program plan. These annual reports shall be sorted by building, project status, category (either "life-cycle" or "deferred") and year the project first received appropriation authority, and shall include:

a. each project's name and number;

b. project location;

c. current status of the project;

d. whether the project is classified as "life-cycle" or "deferred";

e. the year the project was first identified;

f. the year the project first received appropriation authority;

g. the initial year of construction;

h. the initial estimate of the project's duration in years, or expected completion date;

i. the original estimate of the project's total cost;

j. any revisions to the original estimate of the project's total cost;

k. current expenditures and encumbrances spanning the project's existence; and

l. for each fiscal year of existence, the appropriation amount, the beginning balance, the summary totals of expenditures and encumbrances and the carryover at the year's end.

((~~E. ELIGIBLE EXPENDITURES / SIX-YEAR PLANS. Any major repairs, or major maintenance projects called for in the county's general facilities major maintenance program shall be. The general facilities major maintenance plan will provide 6-year major maintenance and rehabilitation plans for each of the county's~~

~~general government facilities. These plans will be updated annually and will serve as the basis for requesting project appropriations from the Major Maintenance Reserve Fund. Requests to use the Major Maintenance Reserve Fund as a financing source for capital projects will be made in accordance with the county's annual Capital Improvement Program planning and budgeting process.~~

~~F. SPENDING PRIORITIES. First priority for spending funds from the Major Maintenance Reserve Fund shall be for projects which improve safety for the public and county employees. Second priority shall be for projects which preserve facility integrity. Third priority shall be for projects which significantly reduce future maintenance costs, improve operational efficiencies or increase revenues. Fourth priority shall be for projects which improve the overall facility appearance and usability by the public.~~

~~G. MINIMUM FUND BALANCE. The county shall maintain a minimum fund balance in the Major Maintenance Reserve Fund of $1,000,000, or a higher amount as determined by the council, as an emergency reserve to deal with unanticipated and emergency major maintenance projects. If used for emergency purposes, the minimum fund balance shall be restored within one year. The fund balance should be systematically increased in anticipation of a significant outlay of funding during the later years of the 6-year capital planning cycle.~~))

SECTION 2. Ordinance 12076, Section 18, and K.C.C. 4.08.110 are each hereby amended to read as follows:

Building ((~~repair and replacement fund~~)) capital improvement fund. ((~~A new capital fund is hereby entitled Building Repair and Replacement Fund, providing~~)) A. There is hereby created a new county fund entitled building capital improvement fund.

This fund shall be a first tier fund as described in K.C.C. chapter 4.08 and the first paragraph of RCW 36.29.020.

B. The purpose of the fund is to provide for the receipt ((~~of revenues~~)) and disbursement to appropriate capital funds ((~~for expenditures to repair and replace county buildings and building systems. Cash balances in said fund not needed for immediate expenditure shall be invested for the benefit of the fund, pursuant to the first paragraph of RCW 36.29.020, and such procedures and limitations contained in county ordinance. Such investments shall not negate or affect the authority of the director of finance, under the guidance of the executive finance committee, to include the retained cash balance in the fund as part of the residual treasury cash invested under the second paragraph of RCW 36.20.020, as now or hereafter amended, for the benefit of the county Current Expense Fund~~)) of revenues used to accommodate major functional and programmatic changes in buildings, building modernization or building replacement.

C. Annually, the building capital improvement fund program plan shall include a full itemization of all candidate projects for the ensuing budget year. The plan shall include proposed funding sources for each project on this list. The executive shall report annually to the council on the status of scope, schedule and expenditures for all identified projects. All projects administered through this fund shall be included in the building reports described in K.C.C. 4.08.250D.5.

SECTION 3. On or before July 1, 2002, the executive shall submit an evaluative report to the council describing the effectiveness of the following:

A. The major maintenance financing model's accuracy in estimating actual life-cycle maintenance costs; and

B. The completion rates for projects funded by the major maintenance reserve fund during the three full fiscal years, which are 1999, 2000 and 2001, the financing model has been implemented.

C. The executive shall submit a report that proposes and justifies an appropriate level of reserves for the major maintenance reserve fund and an ordinance that authorizes the recommended reserves.

Ordinance 14230 was introduced on 2/16/99 and passed as amended by the Metropolitan King County Council on 10/15/01, by the following vote:

Yes: 11 - Mr. von Reichbauer, Ms. Fimia, Mr. Phillips, Mr. McKenna, Ms. Sullivan, Mr. Nickels, Mr. Pullen, Mr. Gossett, Ms. Hague, Mr. Thomas and Mr. Irons
No: 0
Excused: 2 - Ms. Miller and Mr. Pelz

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

Pete von Reichbauer, Chair

ATTEST:

Anne Noris, Clerk of the Council

APPROVED this _____ day of _____, 2001.

Ron Sims, County Executive

Attachments None