

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 1

**Proposal Title:** Traffic Signal Maintenance

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.31NA

**Primary Dept:** Transportation

**Parent Proposal:** None

**Proposal Type:** Existing

**Dependent Proposal:** None

**Budget Status:** Recommended

**Previous Proposal:** 130.31NA

**Primary Staff:** Chris Long, Brian Breeden

**Fund:** General Fund

### Section 2: Executive Summary

This proposal will continue to maintain the City's 198 traffic signals and associated systems (1409 + assets), including standby for after-hour response. This proposal provides departmental, interdepartmental, and regional project review and coordination, as well as One-Call locating services as mandated by law. This proposal does not provide a full staff level because only one of the two electricians comprising the signal maintenance bucket truck crew is provided (cut as part of the '11-'12 budget). Critical, time sensitive maintenance of traffic signal equipment will typically be accomplished by borrowing from other budget proposals (for instance, Intelligence Traffic System (ITS) or Street Lighting Maintenance), and other important but less time sensitive maintenance activities will continue to be deferred or accomplished as time becomes available. This proposal coordinates closely with Signal Operations and Engineering and Intelligent Transportation Systems staff.

### Section 2b: Performance Narrative

The performance measures associated with this proposal give both the Engineering and Operations and Maintenance staff direction regarding workload balancing between new projects and routine maintenance, while setting priorities based on meeting the goals of the performance measures. Results indicate good performance despite increasing demands and maintaining a current level of (7) Maintenance field staff. The ability to change out assets sooner before the end of their life cycle reduces liability and system failures that lead to traffic delays. Having both the Engineering and Operations & Maintenance staff closely working together increases efficiencies and knowledge leading to strong performance measure results.

### Section 3: Responsiveness to Request For Results

What the city is buying: This proposal provides comprehensive maintenance activities for traffic signals and related systems throughout Bellevue. The main benefit of this proposal is to provide a maintained traffic signal system for those who travel in Bellevue in an efficient and cost effective way. By maintaining the system, we improve mobility/safety/efficiency, and diminish liability exposure. For example, if the signal at 148th Ave NE and Bel-Red Rd malfunctions and goes dark or into all way flashing red (failure mode) in the afternoon commute, the increase in delay would be 700% with two mile queues. Maintenance is important so failures are responded to in a timely manner, or so they don't occur in the first place.

Specific work assignments within this proposal include work planning and supervision, maintain 198 traffic signals including 5,500 high efficiency LED signal displays, maintain systems associated with traffic signals (communication troubleshooting, vehicle detection, ped displays and buttons, audible ped signals, etc.), maintain all electronics (signal controllers, conflict monitors, opti-com pre-emption system, etc.), conduct the Electronic Equipment Replacement Fund (EERF) program (1409 assets), investigate citizen complaints about signal malfunctions, provide annual intersection safety checks, provide after hour coverage and response through the standby program, administer contracts for traffic accidents repairs and vegetation control, deploy generators for continuity of operations during power outages, Maximo maintenance management and work documentation, administrative assistance (contract routing, po's/reqs, shop timekeeping, etc), PSE street light

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customer service program, parts inventory, Capital Improvement Program (CIP)/Regional/Development project review and coordination, One-Call Locates for signal underground electrical facilities, franchise utility coordination, Regional Fiber Consortium design/coordination/construction, Citywide maintenance of fiber optic cables including leased conduit/fiber, and WiFi field device maintenance.

The way Bellevue delivers traffic signal maintenance has changed over the years due to the large increase in assets to be maintained versus staff provided. Staff dedicated to signal maintenance has remained constant at 7 since 1991; however, during that time period the number of traffic signals has grown from 110 to 198, and assets have grown from 400 to 1409. There is no longer enough staff available to perform regular or preventative maintenance on all assets. As a result, a large part of our maintenance program is to replace certain “high value” assets on a set schedule (EERF program), preempting unscheduled failures. This strategy has enabled Bellevue to reduce the number of traffic interrupting failures to the signal system, and will allow lower staff levels again this budget cycle. This strategy to “replace certain assets on a set schedule” is bolstered by responding both during and after hours to failures that have a critical public safety component (for example, red signal burn out or knocked down signal pole with wires exposed). Because the dedicated two person traffic signal crew and bucket truck was reduced in 2011, we typically borrow from other proposals (ITS or Street Light Maintenance) or utilize a crew chief when possible (reducing supervision and work planning duties) to address these critical maintenance needs that require an aerial crew (and thus two staff). Other more regular and less time sensitive maintenance needs have been deferred, almost completely. Examples include replacing old wiring (a common cause of malfunctions), cleaning and replacing old signal heads, and maintaining in-pavement vehicle detection loops. We recently began once again cleaning and replacing opti-com emergency vehicle preemption system detectors because the system had deteriorated so badly. Our hope is to use capital programs and projects (PW-M-19, PW-M-20, and PW-R-155) to start addressing the old wiring concerns since this is no longer available through regular operating budget traffic signal maintenance.

This proposal provides the following benefits:

**DURING & AFTER HOUR MAINTENANCE** – if a signal malfunctions or there is a critical public safety related maintenance need, crews respond 24/7/365 to fix the concern and reduce the impact to public mobility.

**SCHEDULED REPLACEMENT OF HIGH VALUE ASSETS** (controllers, cabinets, conflict monitors, audible pedestrian signals, etc) so in-service failures are significantly reduced (EERF replacement program).

**REDUCED LIABILITY** – malfunctioning signal equipment results in congestion and accidents. Reducing these impacts through adequate maintenance reduces liability.

**MAINTENANCE MANAGEMENT** and work documentation through the Maximo system.

**COORDINATION OF ALL PROJECTS** (CIP, Development, and Regional) that utilize or affect the traffic signal system including design support and inspection.

**MANAGEMENT, MAINTENANCE, AND EXPANSION** of citywide fiber optic network used by multiple city departments and regional agencies, and leased for city revenue to franchise utilities.

**LOCATING OF UNDERGROUND TRAFFIC SIGNALS, ITS, and street lighting electrical facilities** in accordance with RCW, and maintenance of signal and lighting as-built information.

**CUSTOMER SATISFACTION** – the 2016 citywide budget survey confirmed the importance of transportation and specifically traffic signal maintenance to Bellevue citizens (ranked 7th highest priority out of 39 services).

Providing adequate maintenance is essential to get the full benefit from transportation investments.

Why the service level is appropriate: By changing maintenance strategy to focus on preventive maintenance associated with certain “high value” assets on a set schedule (EERF replacement program), and deferring other maintenance, it is possible to continue with the 2011-2012 budget reductions to this proposal. This proposal will continue to meet the basic needs of the traffic signal maintenance function, but project coordination and implementation will suffer.

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How do the services relate to the purchasing strategies for IMPROVED MOBILITY:

[EXISTING & FUTURE INFRASTRUCTURE] – This proposal provides dedicated maintenance to traffic signal related infrastructure, increasing the safety, ensuring maximum investment value and integration of such infrastructure. Retrofitting to LED signal indicators saves the city \$220,000 in electricity costs annually. By maintaining WSDOT ramp signals, this proposal leverages regional partnerships. [TRAVEL OPTIONS] – Choices, convenience, and access for all users is provided by maintaining pedestrian and bicycle oriented facilities such as countdown pedestrian displays, audible pedestrian signals, and bicycle detection loops and markings at traffic signals. Reliability of all systems is vastly increased through this offer. This proposal promotes and supports economic development by maintaining traffic signals and thus mobility, a foundation for healthy commerce. By providing and maintaining fiber optic communications to Metro Transit (Rapid Ride), this proposal improves local transit service within Bellevue. [TRAFFIC FLOW] – This proposal is a significant factor in increasing safety and efficiency by keeping traffic signals maintained and in working order. Travel times and capacity are maintained when malfunctions (e.g. traffic signal in flash) are avoided and/or quickly addressed. The generator program can restore power at traffic signals affected by power outages due to PSE problems or severe weather. [BUILT ENVIRONMENT] – By maintaining traffic signals in major corridors, this proposal increase quality of life and livability by encouraging traffic to remain on arterials and out of neighborhood cut thru routes. Traffic signals are often used to provide safe and efficient accessibilitiy. By switching to LED traffic signal displays, the environment benefits from 950 metric tons annually of reduced carbon emissions.

Other outcomes and citywide purchasing strategies: SAFE COMMUNITY – proposal provides “Well-equipped, trained professional responders”, and “Response to Public Works Emergencies 24/7.” ECONOMIC GROWTH & COMPETITIVENESS – proposal provides [Infrastructure Development]. This offer supports any proposal that relies on dependable and efficient traffic signal operations Infrastructure for Transportation Communications, for example Fire/Police proposals (opti-com emergency pre-emption system), ITD proposals (fiber optic/WiFi systems).

Performance is measured by tracking number of maintenance staff, traffic signals, high value assets, preventative maintenance completion, and intersection safety checks completed. Other measures tracked but not included are after hour callouts, Accessible Pedestrian Signals, and miles of fiber optic cable.

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### Section 4: Performance Measures and Targets

Code	Performance Measure	Frequency	2014	2015	2016	2017	2018
			Actual	Actual	Target	Target	Target
130.0049	Traffic signal maintenance staff	Years	7	7	7	7	7
130.0050	Traffic signals	Years	193	198	202	206	209
130.0051	Total signal assets	Years	1,335	1,409	1,450	1,500	1,550
130.0053	Preventative maintenance program completion	Years	74%	96%	90%	90%	90%
130.0055	Intersection safety checks	Years	149	177	149	150	150
130.0206	Annual hours providing underground facility locating services (one-call locates)		793	948	975	1,000	1,050
130.0220	Annual requests for underground facility locating services (one-call locates)	Years			675	725	775

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

N/A

#### 5B: Are one-time expenditures included in this proposal?

N/A

#### 5C: Are dedicated revenues included in this proposal?

Partially supported with CIP funding (\$44,000 in 2017 and \$47,000 in 2018).

#### 5D: Are changes to the existing service levels included in this proposal?

N/A

#### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
FTE	7.50	7.50
LTE	0.00	0.00
<b>Total Count</b>	<b>7.50</b>	<b>7.50</b>

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	397,646	417,741
<b>Personnel</b>	968,037	1,006,231
<b>Revenue</b>	44,000	47,000
<b>Rev-Exp Balance</b>	<b>-1,321,683</b>	<b>-1,376,972</b>

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### Section 1: Proposal Descriptors

Ranking: 2

**Proposal Title:** Signal Operations and Engineering

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.24NA

**Primary Dept:** Transportation

**Parent Proposal:** None

**Proposal Type:** Existing

**Dependent Proposal:** None

**Budget Status:** Recommended

**Previous Proposal:** 130.24NA

**Primary Staff:** Chris Long

**Fund:** General Fund

### Section 2: Executive Summary

This proposal provides citywide signal timing, Traffic Management Center (TMC) operations, signal engineering, signal timing complaint investigation/response, traffic camera video requests, street light engineering and design, signal and lighting standards and specifications, emergency management support, ADA upgrades for traffic signals, and management of emergency vehicle preemption (EVP) upgrades. The daily signal operations provided in this proposal utilizes ITS elements such as the SCATS traffic adaptive signal system to significantly increase system efficiency. The street light engineering utilizes new LED technology for cost savings and carbon footprint reduction. Detailed operational modeling of roadways and traffic signals is supported for the assessment of proposed roadway changes and mitigations for major projects such as East Link and Bel-Red. Daily signal operations are performed to address unscheduled emergency, road construction, holiday, and special event traffic.

### Section 2b: Performance Narrative

Signal Operations and Engineering are essential to maintaining the efficient operation of a multi-model transportation network and the efficient management of the City's street lighting network. The Signal Operations and Engineering team have done well at continuing to meet their high standards of operation. The traffic signal coordination PM peak delay reduction has consistently met the goal of an 11% reduction in delay over operating the network with no adaptive coordination. Staff achieved their goal of taking over operation of all WSDOT and Redmond traffic signals within Bellevue that require close coordination to promote improved traffic flow. ADA upgrade to Audible Pedestrian Signal (APS) pushbuttons has continued to exceed targets through the diligent work of staff to leverage CIP projects to support this important enhancement to the network. 2996 Puget Sound Energy LED street lights were upgraded in 2015. The goal of 4000 was not achieved due to work disruptions caused by storms, but the remaining 1000 are being completed in 2016. The PSE upgrade will result in a cumulative energy reduction of 980,140kWh. The PSE upgrade represents about half the street lights in Bellevue. Once all street lights in Bellevue are upgraded, we will save enough energy to power the equivalent of 180 homes for a year and save close to 40% of the energy cost for operating street lights in Bellevue. The return on investment for deploying LED streetlights is estimated at 6 years, with the life of an LED light being 15 years.

### Section 3: Responsiveness to Request For Results

Bellevue has invested greatly in the development of our roadway network through capital expenditures and in our ITS program through the deployment of SCATS. This proposal is intended to get the most out of that investment by running what we have built in an effective and efficient manner, reducing the need for additional large capital expenditures in the future. Transportation also prides itself on its ability to listen to our customers, respond to their requests, and actually follow through and make changes to traffic signal and street lighting operations when those changes make sense. Our team is continually working to keep our signal and lighting systems current to industry standards and emerging technologies. Lastly, by having a right sized professional signal operations staff, we want to have the ability to be nimble enough to respond to the multiple

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opportunities that continually arise to advance Bellevue's goals.

### WHAT THE CITY IS BUYING

This proposal provides comprehensive traffic signal and street lighting operations and engineering. The daily signal operations provided in this proposal will help keep "maintaining street lights and traffic signals" as a "Top Importance Service" in Bellevue's comprehensive Operating Budget Survey (Rank = 7 out of 39 in 2016). High level outcomes for this proposal include a coordinated traffic signal system that significantly reduces delay to motorists and quickly addresses abnormal traffic conditions associated with construction, accidents, holidays, and special events. Street lighting is provided that meets light level and uniformity guidelines for roadways and pedestrian facilities and that also utilizes new LED technology for better light distribution and cut off, and cost/energy/greenhouse gas reduction. The many capital, regional, and development projects that install and modify traffic signals, street lighting, and associated communication and electrical infrastructure are reviewed and coordinated, and their associated standards and specifications are updated and maintained regularly. Reviews also consider and promote ADA compliance such as APS pushbuttons, truncated domes at ramps, and countdown pedestrian walk displays. Citizens and staff with questions or concerns about signal operations or street lighting have their concerns reviewed and responded to by engineers, and often investigation of these concerns result in positive changes to the system. Emergency vehicles receive the ability to pre-empt traffic signals to decrease travel time and increase safety to emergency calls. Multi-modal transportation is advanced through the ability to signalize midblock pedestrian crossings at high traffic or accident prone locations, to provide transit signal priority along existing and future transit routes, to detect bicycles at traffic signals, and to one day incorporate commuter train operations into traffic signal operations at LRT/roadway grade crossings. Ever changing traffic standards established in the federally mandated Manual on Uniform Traffic Control Devices (MUTCD) and Americans with Disabilities Act (ADA) are evaluated and complied with, and when appropriate deviations are documented with justifications.

### SIGNAL OPERATIONS AND ENGINEERING RELATED TO PURCHASING STRATEGIES

The following is a summary of how this proposal addresses each purchasing strategy:

Existing and Future Infrastructure - Existing & Future Infrastructure is planned and designed significantly better through the design review and standards/specification update and maintenance provided herein. Regional partnerships are accomplished through signal operation agreements with WSDOT and Redmond through the operation of their signals. Currently Bellevue operates 26 signals owned by other agencies. Please visit this site for a presentation of how this joint operations support Bellevue and its partnering jurisdictions: [http://bellevue.granicus.com/MediaPlayer.php?publish\\_id=b1415ec4-e649-1031-a551-f3fb1162b875](http://bellevue.granicus.com/MediaPlayer.php?publish_id=b1415ec4-e649-1031-a551-f3fb1162b875). Another example of existing infrastructure support and safety improvement is the enhancements occurring to pedestrian pushbuttons through upgrade to current ADA standards with APS pushbuttons and the upgrade of emergency vehicle preemption equipment to GPS technology to enhance response capabilities for emergency responders.

Traffic Flow – Traffic flow is greatly enhanced through the signal operations provided – for instance the decrease in delay in the afternoon commute from the signal operations provided in this proposal is approximately 11%, with similar reductions during other portions of the day.

Travel Options – Travel options are enhanced through signal and lighting reliability, safety, and the support of multi-modal mobility: APS, pedestrian crossing signals, truncated domes, countdown pedestrian heads, transit signal priority, bicycle detection, and future light rail integration.

Built Environment - The built environment benefits because land use, destinations, and access to services and leisure are accommodated through the access and mobility provided by traffic operations, signals, and lighting.

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The environment greatly benefits through reduced vehicle emissions due to signal coordination, and less greenhouse gas production through the use of LED street lights. The replacement of the residential street lights operated by PSE (4000 lights) is estimated to eliminate 470 metric tons of carbon emissions. This work will be completed in 2016.

### WHY THE SERVICE LEVEL IS APPROPRIATE

Signal and Lighting operations is challenging and very time consuming due to the myriad of projects, issues, expectations, and changes encountered in a dynamic city like Bellevue. Traffic operations is dynamic in nature and thus flexibility and prioritization are essential. Immediate concerns such as traffic affecting events like accidents and construction take priority and must be addressed immediately, thus staff coverage hours are essential. Project review deadlines also affect weekly work plans. The most common areas where work is prioritized to gain staff time to address higher priority items include the investigation and response to citizen concerns, the design and implementation of spot improvement projects, and the implementation of changes required by new standards. This proposal has a staffing level that reasonably meets the needs of all areas of work covered in this proposal.

The following list shows the services supported by this proposal:

Signal Operations and Engineering – Status – Primary Benefit

Review/response to traffic signal comments – On-Going – Safety and operations

Traffic and signal modeling analysis - On-Going – Operations and mobility

CIP, regional, planning, & development project support - On-Going – Connectivity & economic development

Signal network communications coordination - On-Going - Operations and mobility

Electrical infrastructure review/design - On-Going - Operations

Update/maintenance of standards and specifications - On-Going - Safety

Street lighting request investigation, design and implementation - On-Going – Safety and sustainability

Implementation of new street lighting technologies – On-Going/Future - Safety and efficiency

Signal and lighting records management - On-Going - Operations

Signal warrant studies - On-Going - Safety

Capitalization of equipment/scheduling of annual replacement - On-Going - Operations

Liability reduction/expert witness, depositions, legal assistance - On-Going - Sustainability

Traffic Management Center (TMC) operations - On-Going – Safety, efficiency and mobility

SCATS operations - On-Going - Safety, efficiency and mobility

Evaluation of performance measure data – Future - Safety, efficiency and mobility

Street lighting design and analysis - On-Going – Safety and sustainability

Street light LED upgrade - On-Going - Safety and sustainability

ADA compliance review and upgrades - On-Going - Safety

Signal and street light spot improvement projects - On-Going – Safety, efficiency and capacity

Audible Pedestrian Signal request tracking and prioritization - On-Going - Safety

Monitor transit signal priority timing - On-Going – Mobility and efficiency

Support signal timing at-grade portion of East Link – Future - Mobility and efficiency

Support educational outreach for traffic signal operations - On-Going – Education and safety

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### Section 4: Performance Measures and Targets

Code	Performance Measure	Frequency	2014	2015	2016	2017	2018
			Actual	Actual	Target	Target	Target
130.0024	PM peak delay reduction from signal coordination	Years	11%	11%	11%	11%	11%
130.0027	Signal timing requests from public reviewed/responded	Years	159	172	145	150	150
130.0041	New LED street lights installed	Years	87	2,996	1,000	100	100
130.0042	Cumulative energy reduction from efficiency measures (kWh)	Years	576,721	980,140	2,100,000	2,200,000	2,300,000
130.0057	Audible pedestrian signals	Years	107	133	138	143	148
130.0211	Percent of Emergency Vehicle Preemption using GPS Technology	Months			7.5%	17.5%	27.5%

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

N/A

#### 5B: Are one-time expenditures included in this proposal?

N/A

#### 5C: Are dedicated revenues included in this proposal?

Partially supported by CIP funding (\$99,000 in 2017 and \$104,000 in 2018).

#### 5D: Are changes to the existing service levels included in this proposal?

N/A

#### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
<b>FTE</b>	3.00	3.00
<b>LTE</b>	0.00	0.00
<b>Total Count</b>	3.00	3.00

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	42,560	43,591
<b>Personnel</b>	425,436	443,168
<b>Revenue</b>	99,000	104,000
<b>Rev-Exp Balance</b>	-368,996	-382,759



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### Section 1: Proposal Descriptors

Ranking: 3

**Proposal Title:** Transportation System Maintenance (Non-Electric)

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.22NA

**Primary Dept:** Transportation

**Parent Proposal:** None

**Proposal Type:** Existing

**Dependent Proposal:** None

**Budget Status:** Recommended

**Previous Proposal:** 130.22NA

**Primary Staff:** Judy Johnson, 4891

**Fund:** General Fund

### Section 2: Executive Summary

The transportation system requires maintenance and repair services to increase the safety of motorized and pedestrian/bicycle users, improve traffic flow, reduce collisions, claims, and associated injuries and prolong the system's useful life. This proposal maintains the significant investments Bellevue has made in its streets, sidewalks, and bike lanes; and provides response to immediate safety issues such as potholes, accident debris, blocking vegetation, hazardous trees, and tripping hazards. Support for after-hour maintenance needs is also included. The roadway infrastructure is aging and repair needs are increasing. The 2016 Budget Survey indicates maintenance of existing streets and sidewalks as the 6th most important of 39 services.

### Section 2b: Performance Narrative

Street Maintenance tasks are planned each year based on assessment of infrastructure. They are tracked by cost/unit, hours/unit, accomplishments actual vs. planned, and many performance measures. The measures chosen for inclusion here are significant because they observe response time to safety issues, claims experience, efficient use of resources for work produced, competitiveness of crew production cost, and pavement condition (better pavement = lower # of potholes = happier customers).

### Section 3: Responsiveness to Request For Results

The IM&C Requests for Results are clear on the importance of maintaining what we build; Factor 1 says "Transportation infrastructure is the backbone of any mobility system". Protecting and maximizing our infrastructure investments requires the ability to track its quantity, location, condition, and value/cost of its maintenance and replacement. The addition of a GIS-based asset inventory will greatly improve this effort and help us catch up with the technology already enjoyed by other Departments and Agencies was not recommended for funding. Transportation maintenance requires a flexible approach to customer service delivery; as the system is visible to (and impacts the experience of) everyone who lives in and travels through the City. Components of the infrastructure are subject to damage from vehicle impact or overloading, tree root damage, failure of the supporting ground, installation problems, weather conditions (e.g. freeze/thaw, sun, flooding and wind damage), malicious mischief such as graffiti or vandalism, aging, and normal wear and tear. All components of the transportation system must function correctly to maximize mobility and create a safe and smooth experience for the traveling public. Priorities of maintenance work, repair, and response to reported problems shift daily and require every member of the workforce to be trained to perform all tasks and respond to any and all customer needs within established response standards. The 2016 budget survey shows a connection between the maintenance of the roadway/sidewalk system and customer safety, neighborhood value, and traveling/living experience.

The Transportation System Maintenance proposal consists of over 40 direct-service tasks, which support the Improved Mobility and Connectivity Factors by providing maximum investment value and ongoing maintenance of Transportation assets after construction. The annual plan is based on assessment of asset condition and tracked by cost/unit, hours/unit, actual vs. planned work, and performance measures. Data reviews are done regularly to shift priority as product stock levels are checked to meet standards at a

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competitive cost. The main tasks, workload factors, budget, and key performance indicators are internally reviewed quarterly. All employees are trained to perform all tasks and know all standards to perform the highest priority work, and all staff can communicate effectively with the public when questions arise.

Preparation for weather events is included in IM proposal 130.35NA, and Street Sweeping is a separate proposal (130.26NA) under the Healthy and Sustainable Environment outcome.

- **SCALABILITY AND PROCESS IMPROVEMENT:** Maintenance service levels are scalable; however the impacts of years of resource cuts, service level reductions and cost containment are now apparent. Through ongoing process review, Street Maintenance tasks have been streamlined as much as possible. Infrastructure has been added over many years with some budget adjustments for CIP adds (but not for developments such as Lincoln Square, etc.). Maintenance needs are also increasing due to aging infrastructure requiring additional maintenance while resources remain static. Further reduction of maintenance resources is NOT advised.
- **ROADWAY MAINTENANCE AND REPAIRS** (including Pothole Response) includes 1106 lane miles of pavement. Roadway maintenance and repair tasks extend the resources of the pavement management (overlay) CIP by repairing spot failures in otherwise sound pavement. This prolongs the life of the pavement by stopping water from entering through small failures and damaging larger sections of roadway. The 24-hour response standard for potholes has been studied; there is no cost savings in a 48-hour standard as OT is rare.
- **SIDEWALK REPAIR** (includes over 345 miles of sidewalk which is approximately 10.9 million square feet): Sidewalk defects, especially conflicts with tree roots, are common problems for all public works agencies. Trip and fall incidents and filed claims have increased in the last several years at the City as we understand they have in other agencies. During the 2011-12 biennium, a Citywide review of the entire sidewalk network was done. The backlog of structural sidewalk problems and tripping hazards has been increasing over many years, and the study revealed 5,078 defects impacting over 315,000 square feet of sidewalk. The estimated budget proposed for 2017-18 provides permanent restoration of defects totaling approx. 10,000 square feet per year; a status quo service level. More has not been proposed for this cycle due to LT budget guidance regarding adds. If an increase to 50k square feet of repairs per year was possible beginning in 2017, the City would be on an estimated recovery schedule of approx. 14 years to correct the current backlog.
- **TRAFFIC SIGNS AND TRAFFIC CONTROL DEVICES** (e.g. over 17,000 signs, more than 61,000 feet of guardrail, over 200,000 square ft. of plastic pavement markings, over 1 million feet of paint stripe, and more): Traffic signs, traffic lane markings, guardrails, lane lines, crosswalks, safety railings, and other items designed to inform, direct, and provide predictable and enforceable driver behavior are important maintenance and repair items contained within this proposal. Required by the federal “Manual of Uniform Traffic Control Devices” and the “Federal Highway Administration” (FHWA), they are essential to the safety of the traveling public. They are required to be maintained to standards of legibility and to be reflective to a measured standard when seen in the headlights at night. Also included are installation of signs and safety projects requested by the Traffic Engineering group, often on short notice due to identified public safety issues or collision experience at a location. Street Maintenance staff has the training and can respond quickly when necessary.
- **REDEPLOYMENT OF RESOURCES FOR EMERGENCIES:** All Street Maintenance staff (as well as some of the staff from other work groups and departments) are re-deployed for emergencies such as windstorms, slides, or ice and snow. These events are staffed by reallocating resources from other planned maintenance and repair programs and impact annual maintenance outputs for all responding work groups. No budget is allocated for emergency response; only for preparedness via budget proposal 130.35NA.
- **INNOVATIONS/EFFICIENCIES:** Implementation of several recent innovations is in progress, two examples are a trailer for the trackhoe that will double as a work platform and an adjustable screed that can be used with our existing equipment to improve quality, production and safety for our paving program. We are currently studying our work processes for documenting sidewalk defects with the hope that we will find some efficiencies.
- **EVIDENCE - 2016 BUDGET SURVEY:** The 2016 (year end 2015 data) Budget Survey indicates traffic and transportation services as top priorities in Bellevue and ranks maintenance of existing streets and sidewalks as the 6th most important of 39 services. Maintenance services fall into the “Above-Average Importance and

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Above-Average Satisfaction” range. Improved Mobility is ranked the #1 (this time above Safe Community) budget priority in 2016, (up from being #6 in 2010, number 2 in 2012, and tied for #1 in 2014).

Service Connections to Results Team Factors and Sub-Factors:

IMPROVED MOBILITY and CONNECTIVITY Factors supported by this proposal include Safety and Maintenance under the [EXISTING AND FUTURE INFRASTRUCTURE] and [TRAFFIC FLOW] factors and their listed purchasing strategies. In [EXISTING AND FUTURE INFRASTRUCTURE], the results team identified the transportation infrastructure as the backbone of any mobility system and as a result a critical factor to improved mobility. In order to continue allocating resources to support new projects and initiatives, we must provide ONGOING MAINTENANCE OF TRANSPORTATION ASSETS; optimizing their efficiency and value. This factor influences each of the other factors: [TRAFFIC FLOW], [BUILT ENVIRONMENT], and [TRAVEL OPTIONS] as maintenance assists in GAINING THE MOST EFFICIENCY from the existing transportation network. Projects and programs that enhance the reliability and maximize the functionality of transportation infrastructure not only ensure that the taxpayers get maximum value for their investments but also are keys to improving mobility. As existing infrastructure nears capacity, we must ensure that infrastructure performs to its full potential. The [TRAFFIC FLOW] factor in the RFR states that CONSIDERATION SHOULD BE GIVEN TO STRATEGIES THAT IMPROVE OR MAINTAIN TRAFFIC FLOW IN ORDER TO GAIN THE MOST EFFICIENCY OUT OF THE EXISTING TRANSPORTATION NETWORK PRIOR TO ADDING NEW INFRASTRUCTURE; also considering impacts due to the behavior of users of the system. If drivers are weaving out of the normal path of travel due to maintenance issues, there is a direct impact on the traffic flow. Safe traffic flow through all transportation modes demands removal of barriers such as potholes, overgrown tree branches and tripping hazards as well as providing and maintaining clear, legible traffic markings and signs to prevent delays caused by traveler confusion. An example: a worn “right turn only” arrow or “right turn must turn right” sign may cause a driver to make a last-minute lane change to go straight; impacting the drivers behind.

Maintenance services preserving the City’s assets and minimizing risk are concerns set forth in the RESPONSIVE GOVERNMENT outcome under [STEWARDS OF THE PUBLIC TRUST] which states the importance of WELL DESIGNED AND MAINTAINED ASSETS, specifying the need to ESTABLISH CONTROLS TO SAFEGUARD AND MONITOR THE CITY’S RESOURCES AND ASSETS. Under the Sub-factor WELL DESIGNED AND MAINTAINED ASSETS it states that the City must USE BEST PRACTICES TO ASSURE PROPER MAINTENANCE AND TIMELY UPGRADE OR REPLACEMENT OF SUCH ASSETS. Innovative maintenance methods such as the trailer/work platform and continuous review of inputs to outputs and efficiency measures align with the MAXIMIZE EFFICIENCY Citywide purchasing strategy and provide an evidence-based approach. Maintenance of the sidewalk and bicycle lane system provides non-motorized facilities suggested in the HEALTHY AND SUSTAINABLE ENVIRONMENT outcome under the [NATURAL ENVIRONMENT] factor. A well-maintained, safe and attractive neighborhood requires infrastructure maintenance as stated in the QUALITY NEIGHBORHOOD outcome, and its [FACILITIES AND AMENITIES] and [NEIGHBORHOOD MOBILITY] factors; stressing the importance of smooth traffic flow to and around neighborhoods to reduce cut-through traffic and enhance CONNECTING NEIGHBORHOODS.

PARTNERSHIPS: We share traffic control on joint projects with WSDOT and the CITY OF REDMOND. We coordinate with POLICE, NEIGHBORHOOD SERVICES, UTILITIES AND PARKS in graffiti response and prevention. Partnering with PARKS on tree/sidewalk conflicts is expected to reduce repeat repairs. Resource sharing with adjacent jurisdictional agencies is a common occurrence.

For admin. support and customer calls at the Bellevue Service Center (BSC), Utilities Dept. staff is utilized (and reimbursed by the General Fund based on a percentage of time). Conversely, half of a Street Maintenance inventory management FTE position is reimbursed as a revenue for work he does for the Utilities Dept.

Roadway repairs extend the service life of the asphalt so that the overlay program dollars go further. The

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

maintenance crews earn revenue from the Utilities Department due to our competitive unit cost per square foot for paving work; and this saves them time and money as well.

### Section 4: Performance Measures and Targets

Code	Performance Measure	Frequency	2014	2015	2016	2017	2018
			Actual	Actual	Target	Target	Target
130.0015	Percent of potholes filled within 24 hours of notice	Years	99.5%	100%	97%	97%	97%
130.0016	Percent of critical sign emergency calls responded to within 1 hour	Years	93.6%	100%	95%	95%	95%
130.0018	Cost per sq ft for Roadway Repaired (By staff, labor, materials, equip))	Years	\$8.22	\$8.29	\$14.70	\$14.70	\$14.70
130.0021	Number of potholes repaired (per each)	Years	390	274	300	300	300
130.0164	Street Maintenance-Related Claims Received	Years	16	24	20	20	20
130.0200	Percent of Transportation Asset Types in Maximo System with GIS Location Data	Years		25%	50%	75%	100%
130.0202	Number of Completed Projects Closed Out with GIS Asset Data added to Maximo	Years			20	20	20
130.0203	Number of Street Maintenance External Customer Requests	Years	1,742	1,586	1,500	1,500	1,500
130.0204	Percent of Vegetation-related Sight Line Complaints - Response Within 24-Hours	Years			93%	93%	93%

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

N/A

#### 5B: Are one-time expenditures included in this proposal?

N/A

#### 5C: Are dedicated revenues included in this proposal?

Street restoration fee revenues (\$65,000 per year), Utilities & CIP are charged for actual work as needed. Utilities funds 0.5 FTE for stockroom support and pays us approx. \$70k/year for paving services they would otherwise pay more to contract out. Transportation pays Utilities for administrative support. Also, partially funded by CIP (\$10,000 per year).

#### 5D: Are changes to the existing service levels included in this proposal?

N/A

#### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
<b>FTE</b>	19.50	19.50
<b>LTE</b>	0.00	0.00
<b>Total Count</b>	19.50	19.50

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	1,504,579	1,707,139
<b>Personnel</b>	2,008,100	2,086,381
<b>Revenue</b>	207,504	210,210
<b>Rev-Exp Balance</b>	-3,305,175	-3,583,310

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 4

**Proposal Title:** East Link Overall

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.07DA

**Primary Dept:** Transportation

**Parent Proposal:** None

**Proposal Type:** Existing

**Dependent Proposal:** None

**Budget Status:** Recommended

**Previous Proposal:** 130.07DA

**Primary Staff:** Maher Welaye

**Fund:** General Fund

### Section 2: Executive Summary

This proposal enables continued City involvement in the East Link light rail project. East Link is a voter approved \$2.8 billion extension of light rail that will connect Bellevue with Overlake, Mercer Island and Seattle. It will support the continued growth and development of the Downtown and the redevelopment of the Wilburton and Bel-Red areas. In 2011 the City and Sound Transit (ST) entered into a Memorandum of Understanding (MOU) and an Amended MOU in 2015. The Amended MOU commits the City and Sound Transit to project delivery elements to advance design and construction of the East Link Light Rail and Bel Red Operations and Maintenance Satellite Facility (OMSF). It created a Collaborative Design Process to facilitate resolution of issues and advance the project; and a Collaborative Construction Program to advance construction. This project is a major focus for the City Council and broader community.

### Section 2b: Performance Narrative

East Link is the largest regional project to impact Bellevue in many years. The Collaborative Design effort is being viewed as the model for Sound Transit in coordinating future construction in other jurisdictions. A measure to include the experience of our regional partners in working with city staff is important for this program and for future Sound Transit work. The benefits of the East Link project include providing alternative means of travel which is important to Bellevue residents. An additional benefit will be in the transit-oriented development planned to occur in the BelRed area. How residents perceive the new means of travel and the future growth of BelRed will be an important consideration for future light rail alignments.

### Section 3: Responsiveness to Request For Results

This proposal will provide the staff support required to complete final design, support and manage construction, support City Council deliberations and decisions on East Link issues, continue the ongoing CDP process, manage consultant resources; and deliver on commitments defined in the Amended MOU between the City and Sound Transit. A multi-department effort will be used for this proposal per the "One City" initiative. We will continue a close collaboration between city staff to address/solve East Link design and construction issues in lieu of heavy reliance on specialized consultants or on ST. It continues a partnership between the City and ST, for close city involvement in the project and access to ST analyses.

The City and ST executed an Umbrella Memorandum of Understanding in November 2011 (MOU) and executed an Amended MOU in May 2015. The Amended MOU committed the City and Sound Transit to various elements to deliver the East Link Light Rail project and the BelRed Operations and Maintenance Satellite Facility.

The staffing requirements for 2017 and 2018 total 5.0 FTE reflecting a reduction of 3.0 FTE from the last budget cycle as the project transitions from design to construction. Staffing is shown below:

Funded via CIP Plan No. PW-R-159:  
Engineering Manager – 1.0 FTE

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Sr. Project Manager – 2.0 FTE  
Sr. Engineer Signals – 0.5 FTE  
Outreach Lead – 1.0 FTE  
Associate Planner (Neighborhood Traffic) – 0.5 FTE

During 2017-2023, on-going resources will be required to continue advancing the project according to City Council and community expectations. The East Link project expected completion date is in 2023. This proposal reflects the needed resources for project completion through the 2017-2023 budget process.

Major work tasks include the following:

-Construction Management and Engineering: Staff, Sound Transit, and its consultants will advance final design. This involves coordination of requirements and continual oversight and review of design to ensure community preferences are reflected. Ongoing value engineering efforts are anticipated to ensure costs are minimized and quality maximized; City Hall plaza visitor/public safety garage modifications and coordination with Sound Transit design.

-Public Outreach and Construction Marketing Campaign: Outreach will focus on continued collaboration with Sound Transit on design, mitigation, and construction issues of interest to the public, including individual station design; planning for the areas around each of the stations; and coordination and outreach for the “Bellevue is Open for Business” campaign. Partnerships with the Bellevue Downtown Association, the Bellevue Chamber and others will help fund the construction marketing campaign.

This proposal primarily responds to the IMPROVED MOBILITY and Connectivity outcome, and addresses the Existing and Future Infrastructure, including all of its purchasing strategies: “plan to accommodate future demand ...maximize the benefits of investments made by regional and state agencies ...include safe infrastructure design for all users ...leverage partnerships and maximize opportunities with other agencies ...provide multi-modal infrastructure ...provide convenient connections between destinations ...promote and support economic development.” The City’s involvement in this project is key to ensure that the robust growth in downtown Bellevue and the redevelopment of the Bel-Red corridor is supported by light rail, and that stations are appropriately sited and designed.

This proposal also relates to the Built Environment and Travel Options strategies by advancing the voter approved project through final design and moving it towards construction. Light rail will ensure that the project is designed to fit with neighborhood character and that stations are located near or at existing transportation facilities such as the downtown Bellevue Transit Center and South Bellevue Park and Ride. This will ensure that light rail is convenient and readily accessible to where people work, live, and play. At the same time, the system is being designed to protect neighborhoods from negative traffic impacts through avoidance and mitigation.

The City leveraged its assets and expenditures for other projects (such as property acquisitions and roadway infrastructure projects) to benefit the East Link project. This collaborative partnership maximizes the efficiency of public expenditures and promises to reduce the time, effort, and conflict in designing the system to meet local and regional goals and objectives.

Several projects and programs will benefit from the work funded by this proposal. Joint work between the City and Sound Transit will be coordinated with park planning in south Bellevue and downtown; transportation planning and project development projects are being coordinated, particularly in the Bel-Red area; station area planning overlaps with the Downtown Livability Initiative, Downtown Plan, Bel-Red Plan, and Wilburton area

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planning. Additionally, the City plans to acquire several properties for the East Link project (part of its East Link MOU commitment; costs included in a separate CIP proposal, 130.21NA) that are also needed for future parks and transportation facilities. This proposal funds the staff resources to advance these efforts.

### Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>Frequency</u>	<u>2014 Actual</u>	<u>2015 Actual</u>	<u>2016 Target</u>	<u>2017 Target</u>	<u>2018 Target</u>
130.0013	Percent of regional partners and design/build teams who rate the value added by regional project staff as meets or exceeds expectations	Years	N/A	N/A	80%	80%	80%
130.0123	Percent of residents who agree that the city is doing a good job of planning for growth in ways that will add value to their quality of life	Years	76%	76%	80%	80%	80%

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

N/A

#### 5B: Are one-time expenditures included in this proposal?

N/A

#### 5C: Are dedicated revenues included in this proposal?

Supported by CIP funding (\$797,000 in 2017 and \$833,000 in 2018)

#### 5D: Are changes to the existing service levels included in this proposal?

N/A

#### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
FTE	5.00	5.00
LTE	0.00	0.00
<b>Total Count</b>	5.00	5.00

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	105,951	108,516
<b>Personnel</b>	681,740	710,245
<b>Revenue</b>	797,000	833,000
<b>Rev-Exp Balance</b>	9,309	14,239

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**2017-2018 Operating Budget Proposal**

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# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 5

**Proposal Title:** Transportation CIP Delivery Support

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.33NA

**Primary Dept:** Transportation

**Parent Proposal:** None

**Proposal Type:** Existing

**Dependent Proposal:** None

**Budget Status:** Recommended

**Previous Proposal:** 130.33NA

**Primary Staff:** Ron Kessack

**Fund:** General Fund

### Section 2: Executive Summary

Public surveys continue to identify transportation concerns as high on the list of issues that affect perceptions about quality of life in Bellevue. This proposal funds the core functions needed to deliver Transportation Capital Investment Program (CIP) projects and programs in a cost-effective, timely, and efficient manner. Core CIP functions reflect the work needed to take transportation capital projects from proposal to reality: pre-design activities, preliminary and final engineering design, project management, construction management, contract administration, construction inspection, construction materials testing, financial management, and CIP public involvement. It also funds projects/programs that coordinate with WSDOT, King County and other adjacent jurisdictions on regional transportation opportunities. Projects/programs cover the spectrum of system benefits – capacity improvements, safety, maintenance and multi-modal projects.

### Section 2b: Performance Narrative

The performance measures indicate that projects are being delivered in a cost-effective, efficient manner in both design and in construction. The small percentage variance between actual construction costs and the construction contract means that plans are being accurately developed and field changes minimalized. Keeping the design and administrative costs as low as possible maximizes the dollars actually being spent on project implementation. Resident surveys show that projects being built are meeting or exceeding the expectations of system users. A new measure is being developed in this budget cycle to show the cost impacts of using outside inspection/engineering field contractors compares to using internal staff.

### Section 3: Responsiveness to Request For Results

Transportation CIP Delivery Support functions ensure that projects are adequately designed and constructed to comply with federal, state and city standards and regulations; are completed within established budgets and schedules; and involve the public in key decisions throughout the project development process. Changes to this proposal include the transfer of 1.0 FTE from the East Link Overall proposal (130.07DA) to Implementation and recognizes the CIP-supported addition of one FTE inspector position. Projected work load indicators show that these positions are needed to ensure the delivery of the CIP and are essentially cost-neutral to this Operating Budget proposal due to reimbursement from the Capital programs/projects that they will work on. Staffing levels continue to recognize the impacts of greater documentation and process requirements for state and federal funding-assisted projects.

The staffing included in the proposal for 2017 totals 26.44 FTEs and 1.0 existing LTE. It includes the addition of 1.0 FTE Senior Inspector and the transfer of 1.0 FTE from the East Link Overall proposal (130.07DA) as East Link transitions from system planning/design to construction. No adjustment in the CIP is necessary as the projects already assume staff management, support, and delivery costs. Staffing will ultimately be right-sized based upon the CIP adopted by the City Council.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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The projects anticipated to be included in the 2017-2023 CIP for design and construction are large and complex. Many have or will have federal or state funding assistance which require much more documentation and process than projects solely funded by the city. Projects also will require coordination with private development projects, East Link and will have major impacts on the public and adjacent businesses. Public outreach resources are vital to assuring that the public is given full and timely information about our projects to minimize impacts. Regional Projects may require funding supplementation based upon the timing of funding packages approved by the Legislature.

### Staffing Proposed:

Assistant Director – 1.0 FTE; Construction Division Manager – 1.0 FTE; Design Division Manager – 1.0 FTE; Principle Office Engineer – 1.0 FTE; Design Engineering – 1.5 FTE; Contract Administration – 2.0 FTE; Materials Testing – 2.0 FTE; Resident Engineer – 1.0 FTE; Construction Inspection Supervisor – 1.0 FTE; Project/Program Management – 7.0 FTE; Construction Inspection – 6.0 FTE; 1.0 existing LTE; Administrative Assistance – 0.94 FTE; CIP Public Outreach – 1.0 FTE

SCALABILITY: Staffing for this proposal will be based upon resources needed to deliver the 2017-2023 CIP as recommended by the Leadership Team CIP Panel and the City Council. Right-sizing of staff will be determined based upon lessons learned from previous CIP delivery history.

### Mandates and Contractual Agreements:

All City CIP Delivery Support functions are required to implement and enforce federal and state contractual agreements and mandates on federal and state funded CIP projects (i.e. requirements imposed by the Federal Highway Administration (FHWA) or under the Americans with Disability Act.)

- [EXISTING & FUTURE INFRASTRUCTURE]: CIP Delivery support functions ensure that delivered projects are well designed and constructed to maintain and optimize the efficiency of Bellevue's current infrastructure investments. New capacity projects are designed/built to accommodate future growth and demands. Pedestrian/Bicycle improvement projects address the need for multi-modal infrastructure, provide safe facilities and convenient connections. The CIP delivery groups work in partnership with other Transportation agencies: local, county, regional, state, or federal, to maximize the benefits of investment to Bellevue. Major Maintenance programs such as M-19 provide the funding to support maintenance activities too expensive for traditional maintenance efforts (i.e. rockery/wall replacement, major signal replacements.) When possible, projects and programs are designed in-house which reduces the overall project cost, allowing for project delivery in the most cost-efficient manner.
- [TRAFFIC FLOW]: The current CIP includes several capacity projects in the BelRed area that will support projected development activities and mitigate potential impact on adjacent residential areas. Sidewalk and trail projects will help reduce congestion by providing safe, alternative means of travel. On-going channelization and intersection capacity improvement projects will clear barriers to traffic flow and increased traffic capacity.
- [BUILT ENVIRONMENT]: The CIP Delivery support team designs and constructs large projects in commercial areas that result in promoting and supporting the economic vitality of the City. The team also designs and builds context sensitive non-motorized projects that incorporates the feel and character of the neighborhood. They also developed specific, context-sensitive designs to protect the neighborhoods from negative traffic impacts.
- [TRAVEL OPTIONS]: The CIP Delivery support team designs and constructs a variety of infrastructure projects that provide for and promotes a full range of travel options. These projects provide convenient access to all users and improve connections between various travel modes and other destinations such as parks, schools, shopping and employment centers.
- RESPONSIVE GOVERNMENT [EXCEPTIONAL SERVICE]: The CIP Delivery Support team works collaboratively

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with property/business owners to mitigate project impacts resulting in very high business and property owner satisfaction. [STEWARDS OF THE PUBLIC TRUST]: The CIP Delivery Support team has a very good track record of designing and constructing CIP projects on time and budget.

- INNOVATIVE, VIBRANT AND CARING COMMUNITY [INVOLVED CITIZENS]: It is well established that the City's public outreach and community involvement in Transportation projects is exemplary. Our CIP PIO function staff develops and executes a very extensive public involvement plan for capital projects that help us achieve informed consent on the scope of the improvements from various adjacent communities, users groups, and other interest groups that have competing and conflicting views and interests. Staff work just as hard to keep the public updated as to project status and projected impacts prior to that work being done.

Partnerships/Collaboration: The CIP Delivery Support team works closely with outside agencies such as WSDOT, Sound Transit, on regional projects to ensure that the City's interests are protected. For public involvement, the BDA, the Chamber, Bellevue Schools, PSE, and other organizations are frequent partners. The CIP Delivery Support staff collaborates closely with internal and external stakeholders through a structured approach called Integrated Design as part the Project Delivery Roadmap, to improve efficiency and reduce cost on projects.

This proposal is the parent proposal that supports the approved Transportation's CIP program and discrete project proposals. It funds the core functions needed to deliver the 2017-2023 Transportation Capital Investment Program. One of the functions of the CIP delivery is to perform in-house design on some projects. This reduces the design cost significantly when compared to the cost of contracting this design work to engineering consultant firms.

### Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>Frequency</u>	<u>2014 Actual</u>	<u>2015 Actual</u>	<u>2016 Target</u>	<u>2017 Target</u>	<u>2018 Target</u>
130.0059	Total percentage variance of actual construction costs from the original construction contract	Years	0.4%	2.7%	6%	6%	6%
130.0060	Design cost at bid award as percentage of contract cost	Years	13.9%	20.71%	22%	22%	22%
130.0061	Construction engineering labor cost as percentage of contract cost	Years			10%	10%	10%
130.0062	Percent of survey respondents that rate completed projects as meeting or exceeding their expectations	Years	61%	85%	75%	75%	75%

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

Includes costs for 1.0 FTE Senior Construction Project Inspector (\$111,051 in 2017 and \$115,403 in 2018) and associated M&O costs (e.g., stipends, supplies, training and IT replacement) (\$1,680 in 2017 and \$2,036 in 2018). Ongoing operating costs of \$15,000 are added for 2017 and 2018.

#### 5B: Are one-time expenditures included in this proposal?

Costs associated with the new FTE (e.g., Computer, phone, recruitment) totaling \$1,600 in 2017.

#### 5C: Are dedicated revenues included in this proposal?

Partially supported by CIP funding (\$4,225,000 in 2017 and \$4,262,000 in 2018).

#### 5D: Are changes to the existing service levels included in this proposal?

N/A

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### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
FTE	26.44	26.44
LTE	1.00	1.00
<b>Total Count</b>	27.44	27.44

<u>Operating</u>	<u>2017</u>	<u>2018</u>
Expenditures	94,727	95,331
Personnel	3,766,674	3,816,891
Revenue	3,990,000	4,027,000
<b>Rev-Exp Balance</b>	128,599	114,778

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 6

**Proposal Title:** Intelligent Transportation Systems (ITS)

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.11NA      **Primary Dept:** Transportation

**Parent Proposal:** None      **Proposal Type:** Existing

**Dependent Proposal:** None      **Budget Status:** Recommended

**Previous Proposal:** 130.11NA; 130.29N      **Primary Staff:** Chris Long

**Fund:** General Fund

### Section 2: Executive Summary

This proposal provides maintenance and operations for existing Intelligent Transportation Systems (ITS) programs and devices, and planning and design efforts for future ITS technologies. ITS is Bellevue's program to add intelligence and communication technology to transportation infrastructure to provide a higher level of mobility and information to all roadway users. This intelligence supports the city's goal of becoming a truly "Smart City" through the efficient management and integration of all city functions. ITS solutions such as the state of the art SCATS (Sydney Coordinated Adaptive Traffic System) signal system provide gains in system wide efficiency without widening roads, and thus have a very high benefit to cost ratio. The Traffic Data Program has been incorporated into this proposal since SCATS and the video system will soon be able to provide the traffic counts collected on a bi-annual basis.

### Section 2b: Performance Narrative

In a very short time, ITS has revolutionized traffic operations in Bellevue providing improved traffic flow, which results in lower travel costs to drivers in Bellevue. ITS has also supported safety through the expanded video system that now provides greater coverage of local arterials and intersections and through the deployment of speed feedback signs. By the end of 2016, ITS will achieve their goal of having 100% of the traffic signals on SCATS. This also includes full deployment of Flashing Yellow Arrow traffic signals. Both deployments are resulting in an increasing value to motorists through a reduction in delay that has exceeded our goals by over \$1M, nearing \$8M total for both improvements. This is an ANNUAL savings compared to the one time investment of \$5M to deploy SCATS. Camera deployment is increasing, which provides a significant benefit to signal operations and safety when used to investigate collisions. We surpassed our 2015 goal for total number (Target=66) by reaching 70 cameras in 2015. Speed feedback sign deployment also continues to meet our goal of 1 to 2 installations per year. The Traffic Data program has also stayed on target, meeting 100% of the bi-annual data needs. Future goals for traffic data will be to monitor how much of the bi-annual data is collected through the ITS system and not temporary field deployed equipment.

### Section 3: Responsiveness to Request For Results

ITS has become the backbone of mobility in Bellevue through the support of traffic signal, transit, pedestrian and bicycle technology. Video snap shots produced through the ITS system have resulted in over 2-million hits on Bellevue's website; exceeding all other pages except the home page for Bellevue. ITS supports the efficient operation of traffic signals; provides priority to buses and transit arrival information for the RapidRide corridor; and provides the video for emerging technology that will evaluate the safety of intersections for cyclists. The SCATS and video systems will also revolutionize our data collection program by automating the process, providing more timely data for users and information that can better monitor the performance of the multimodal transportation network.

#### WHAT THE CITY IS BUYING

This proposal provides maintenance and operations for existing ITS programs and devices, as well as the staff

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## 2017-2018 Operating Budget Proposal

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resources necessary to continue expansion of ITS in support of the ITS Master Plan and Smart City goals for Bellevue. The Traffic Data Program has been merged into the ITS program to better manage the integration of ITS technology with data collection. Benefits of the combined ITS and Traffic Data program include: increased efficiency of multimodal travel; less motorist, transit and pedestrian delay; better trip making decisions; reduced vehicle wear and fuel consumption; increased safety and security; and the ability to monitor performance of the system at a more granular level.

### ITS FUNCTIONS RELATED TO PURCHASING STRATEGIES

Employing ITS in Bellevue is essential to providing an efficient and safe transportation network for all modes of travel. Bellevue has been a model city over the first 10 years of its ITS program for what it has accomplished in traffic signal management and traveler information. Bellevue was the first adaptive system in Washington State and is one of the only cities in the United States that has reached 100% adaptive. Bellevue also has one of the most extensive video surveillance systems in the state, providing up to 30 days of recorded video on every camera in the video system, which greatly supports safety and security. One of the Core Values for the City of Bellevue is Innovation. The ITS team is embarking on a new ITS Master Plan to look at where transportation innovation will take the City in the next 10 years, maintaining our position as a model city and providing a transportation environment that can fully support multimodal travel and Smart Cities efforts. This effort will incorporate the communication and systems to support East Link rail, Smart City integration, Connected Vehicles and Autonomous Vehicles.

The following are more detailed summaries of how each purchasing strategies is addressed:

**Existing and Future Infrastructure** – This proposal provides for the maintenance and operation of the existing infrastructure and the planning and implementation of future infrastructure including 10 new intersections by 2018. Existing infrastructure includes regional partnerships with WSDOT and Redmond for traffic signal operations. Bellevue currently operates 26 traffic signals for other agencies to improve regional mobility. Existing partnerships also exist with King County Metro for operations of the B-Line RapidRide, providing transit signal priority and the communication backbone supporting real-time bus arrival information. Future infrastructure includes sharing signal system data with Connected Vehicle vendors that are providing in-vehicle solutions that improve safety, fuel efficiency and traveler information (two contracts are in negotiation).

**Traffic Flow** – Through the maintenance of existing and expansion to new ITS projects and SCATS, this proposal enhances the efficiency of the system and increases road capacity and decreases travel time. The Traffic Management Center (TMC) and traffic cameras enable the City to provide better emergency responses and safety. The use of cameras for accident investigations has increased significantly as a result of new camera locations and use of “360” cameras that can see all approaches to an intersection. The integration of the Traffic Data Program into ITS and the use of existing and future signal system and camera technology will help promote the efficiency of the transportation system. The ultimate goal is to be able to monitor changes in performance of the transportation system real-time without the deployment of data collection equipment in the field.

**Travel Options** – The ITS system supports the communication network used by Metro to perform transit signal priority and real-time bus arrival information. Future elements will include integration of at-grade Light Rail crossings into the traffic signal network. The efficient movement of transit greatly improves travel options. In addition, the ITS team is supporting a study that will use traffic surveillance cameras to run video analytics on near misses between bikes and vehicles. The potential safety enhancement results of this study will greatly impact the expansion of the bicycle facility network in Bellevue.

**Built Environment** – ITS supports the built environment through providing traveler information that improves

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the mobility of Bellevue residents. The existing traffic camera map on the City's website received 2-million hits in 2015. The ITS Plan will look at how to enhance this information to support a more mobile society. This effort may include providing travel time and incident information specific to Bellevue. It will also be enhanced through the deployment of GPS based emergency vehicle preemption technology, which will improve accuracy of detection and the response of the traffic signals.

### WHY IS THE SERVICE LEVEL APPROPRIATE

Bellevue already has an impressive inventory of ITS solutions that need ongoing management and maintenance. Bellevue continues to look to ITS for additional solutions, and this proposal not only helps implement those solutions (such as SCATS traffic adaptive signals), but will also assume the maintenance as well. The proposal contains an ITS Manager, an electronics technician, a two person electrical crew, and a data analyst for managing the collection and processing of system data. This personnel is deemed the appropriate staff level to manage and maintain the existing and proposed ITS system. The proposal can reasonably manage the system expansion scheduled for '17-'18.

The following list shows existing and possible future ITS system supported by this proposal:

ITS system – Status – Primary Benefit

ITS Master Plan Update – Future – Planning for future enhancements  
Fiber/Broadband Communications - Existing & Active Upgrade - Systems operations  
Center to Center Integration - Active Upgrade - Congestion reduction  
Roadway Weather Stations – Future - Safety and maintenance  
Flood Monitoring at Roadways – Future - Emergency management  
SCATS Traffic Adaptive Signal System - Existing & Active Upgrade - Systematic delay reduction  
Traffic Management Center (TMC) – Existing - Active roadway management  
Driver Speed Feedback Signs – Existing & Active Upgrade - Speed reduction/safety  
Variable Signs and Channelization - Existing & Future - Congestion reduction  
Variable Speed Limits - Existing & Future - School and arterial safety  
Automated Traffic Counts and Performance Monitoring - Future - Traffic data & staff safety  
VoIP at Traffic Signals – Future - Emergency management  
Traffic Cameras - Existing & Active Upgrade - Traveler & staff info  
Real Time Traffic Map - Existing & Active Upgrade - Traveler & staff info  
Real Time Bus Arrival Signage – Existing & Future Upgrade- Traveler info  
Dynamic Message Signs – Future - Traveler info  
Street Light Management System – Future - Energy savings/maintenance  
Automated Commuter Alerts – Future - Traveler info  
Arterial Travel Times on Website – Future - Traveler info  
GPS Emergency Vehicle Preemption – Existing and Future – Safety and efficiency  
Transit Signal Priority - Existing & Future - Bus mobility  
Bike Detection at Signals - Existing and Expansion - Multi-modal mobility  
Light Rail Integration with Traffic Signals – Future - Multi-modal mobility  
Parking Management – Future – Traveler information and congestion reduction  
Web Video of Traffic Cams – Existing and Future Upgrade - Traveler info  
Connected Vehicle Interface – Future – Traveler Information

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 4: Performance Measures and Targets

Code	Performance Measure	Frequency	2014	2015	2016	2017	2018
			Actual	Actual	Target	Target	Target
130.0007	SCATS flashing yellow arrow delay reduction value	Years	\$2,550,000.00	\$3,550,000.00	\$3,700,000.00	\$3,900,000.00	\$4,100,000.00
130.0044	% screenline counts delivered on time to modeling	Years	100%	100%	100%	100%	100%
130.0045	% Mobility Management Area signalized intersections with manual turning movement counts delivered on time to modeling	Years	73%	14%	100%	100%	100%
130.0081	Traffic cameras (network/digital)	Years	62	70	80	90	100
130.0085	Speed Feedback Signs	Years	45	46	48	50	52
130.0154	SCATS total delay reduction value estimate	Years	\$6,375,000.00	\$8,875,000.00	\$9,000,000.00	\$9,200,000.00	\$9,400,000.00

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

N/A

#### 5B: Are one-time expenditures included in this proposal?

N/A

#### 5C: Are dedicated revenues included in this proposal?

Partially supported by CIP funding (\$19,000 in 2017 and \$20,000 in 2018).

#### 5D: Are changes to the existing service levels included in this proposal?

N/A

#### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
FTE	5.00	5.00
LTE	0.00	0.00
<b>Total Count</b>	5.00	5.00

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	84,554	86,598
<b>Personnel</b>	655,139	681,395
<b>Revenue</b>	19,000	20,000
<b>Rev-Exp Balance</b>	-720,693	-747,993



# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 7

**Proposal Title:** Modeling and Analysis Core Functions  
**Outcome:** Improved Mobility and Connectivity  
**Proposal Number:** 130.14NA      **Primary Dept:** Transportation  
**Parent Proposal:** None      **Proposal Type:** Existing  
**Dependent Proposal:** None      **Budget Status:** Recommended  
**Previous Proposal:** 130.14NA      **Primary Staff:** Shuming Yan  
**Fund:** General Fund

### Section 2: Executive Summary

This proposal seeks funding for travel demand forecasting and analysis support provided for multiple City departments and, through a longstanding partnership agreement, for the cities of Kirkland and Redmond. The program provides data and analytical support for the City's critical transportation planning and engineering functions such as evaluating proposed new developments to determine concurrency, assessing land use impacts on the transportation system, identifying multi-modal improvement options to support the City's continued economic development, and prioritizing safety projects to meet the City's safe community objectives.

### Section 2b: Performance Narrative

The performance measures included in this proposal are indicators of how well Modeling and Analysis Core Functions (MACF) staff provide modeling support to perform the City's functions and inform investment decisions pertaining to transportation. The percent of development projects reviewed for concurrency within two weeks of submittal by Development Review staff measures the timeliness of modeling support for internal customers. The percent of system Intersections operating better than the traffic standard measures the vehicle operating condition of the city's transportation system at 97 key intersections. This measure ensures the city's transportation system keeps pace with the rate and location of development. Finally, percent of Mobility Management Areas expected to meet the concurrency standard in six years is a future indicator used to inform the development of capital improvement projects for the ensuing six years. It also helps guide the review and approval of proposed new development.

### Section 3: Responsiveness to Request For Results

This work integrates land use and transportation plans to inform investment decisions. Having in-house staff to provide travel forecasting services ensures consistency, efficiency, timeliness, and confidence in city planning and project implementation efforts. MACF strives for seamless collaboration with staff within the department, the City and with agency partners in the region. The voice of the City in regional decision-making is strengthened by credible data and model forecasts.

This program includes the ongoing update and maintenance of the EMME travel demand model tool and other modeling tools (e.g., Dynameq, Synchro). Dynamic traffic assignment is used to forecast traffic operations. This is done with a mid-scale Dynameq model that produces traffic routing results. The Synchro model provides added detail at the intersection level. This suite of models – providing data at various levels of detail – supports a wide spectrum of critical supporting analytics from long-range planning forecasts to intersection traffic operations analyses.

The current multi-agency Bellevue-Kirkland-Redmond model was originally developed in the early 1990's. The City of Bellevue operates and maintains the model on behalf of all three cities. Although a number of minor improvements have been made since then, the model is due for a major upgrade. Developing a next generation BKR model is a key work element for MCAF in this coming biennium. The new model is expected to

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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more fully incorporate motorized as well as non-motorized travel modes to support the Comprehensive Plan policy of moving from auto-focused level-of-service (LOS) measurements and standards to multi-modal LOS measurements and standards.

### RESOURCES

Staff allocated in this proposal consists of 1.0 FTE Forecasting Manager, 1.0 FTE Senior Transportation Engineer, and 2.0 FTE Senior Transportation Analysts. The staff hours included in this proposal are responsible for both generating forecasts through the various modeling tools and for analyzing the data. Since the data requests are often tailored to specific requirements, the users of the data (engineers, planners, project managers, etc.) are often very involved in the analysis of the resulting data.

This proposal provides for the base-year model platform to be updated each year and validated for local conditions. On-going applications of the model to various projects and development review are also covered under this proposed budget. Additional resources needed to develop the next generation BKR model will come from reallocation of the already budgeted resources.

### SCALABILITY

Maintaining, updating and applying the existing modeling tools are the minimum core functions that must be performed to serve the City's critical modeling needs described below. That said, the current BKR model is due for a major upgrade to better support an increasingly multi-modal transportation system and a diverse land use pattern. This proposal has been scaled to reflect a careful evaluation of various design options for the next generation BKR model and the recommendations of a national Expert Review Panel. The new model can be developed in phases tailored to existing resources that can be reallocated from other existing programs. This phased approach is anticipated to be completed within the 2017-2018 biennium.

### EXISTING & FUTURE INFRASTRUCTURE

Modeling is needed to help assess how well our transportation system serves the public and the improvements needed in the future to keep up with planned growth and economic development. Chapter 14.10 in the Code sets forth the traffic standards against which proposed developments are evaluated to ensure transportation concurrency in each of the 14 mobility areas in the City. The model is also used to validate the reasonableness of the City's Impact Fee rate program so that it can be defended in court if challenged.

The MACF provides a strong foundation upon which to develop infrastructure plans for the future. The BKR model is an important tool used to fulfill many of the city's core planning and design functions including:

- 6-year Capital Improvement Program
- 12-year Transportation Facilities Plan
- 20-year Comprehensive Plan
- roadway cross section design
- pavement design
- development review and annual concurrency determination to support economic development
- investment value assessment and cost benefit analysis

The model is known as the BKR model because for many years it has been maintained under an interlocal agreement with both Kirkland and Redmond. This partnership represents an efficient use of resources and it creates consistent coverage of this portion of the region. On the regional side this work is done in collaboration with the data and analysis group at the Puget Sound Regional Council (PSRC) and with technical staff at Washington State Department of Transportation (WSDOT) and the transit agencies so that plans represented are regionally consistent.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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### TRAFFIC FLOW

The BKR model is an important tool for forecasting future traffic flow to support a variety of traffic operation analyses such as:

- assessing the efficiency of the existing system
- estimating travel times of transportation corridors
- forecasting traffic volumes and determining remaining roadway capacity available to accommodate new developments
- analyzing roadway and intersection level of service to determine if the traffic standards are met
- assessing construction impacts such as roadway/lane closures and evaluating the effectiveness of mitigation strategies

### BUILT ENVIRONMENT

MACF staff use the BKR model to assess future scenarios within the context of the built environment:

- planned land use or proposed development impacts on the transportation system
- transportation improvements necessary to support planned growth
- future traffic flow data to support air quality and greenhouse gas emission analysis
- system accessibility to identify multi-modal improvement strategies

### TRAVEL OPTIONS

The current version of the BKR model represents all motorized modes of travel and, where possible, forecasts walk trips as well. In the new biennium, MACF will engage in the development of the next generation BKR model which will include all modes of travel. This major upgrade is critical as the city moves from auto-focused level-of-service (LOS) measurements and standards to multi-modal LOS measurements and standards. When the new model is developed and operational, it will be a more robust tool to support:

- Multi-modal level of service analysis and performance measurement.
- System improvement needs assessment for travel options including auto, transit, bike, and pedestrian facilities.
- Benefit cost analysis to evaluate and identify cost effective multi-modal strategies to improve the connectivity and reliability of the transportation system.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>Frequency</u>	<u>2014</u> <u>Actual</u>	<u>2015</u> <u>Actual</u>	<u>2016</u> <u>Target</u>	<u>2017</u> <u>Target</u>	<u>2018</u> <u>Target</u>
130.0010	Percent of development projects reviewed for concurrency within two weeks of submittal by Development Review staff	Years	100%	100%	100%	100%	100%
130.1401	% of System Intersections operating better than the traffic standard	Months	95%	94%	85%	85%	85%
130.1402	% of Mobility Management Areas expected to meet the concurrency standard in 6 years	Years	100%	100%	100%	100%	100%

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

N/A

#### 5B: Are one-time expenditures included in this proposal?

N/A

#### 5C: Are dedicated revenues included in this proposal?

Redmond and Kirkland Interlocal revenue (\$24,800 each year). Concurrency modeling fee revenue (\$30,264 each year). CIP funding (\$66,000 in 2017 and \$69,000 in 2018).

#### 5D: Are changes to the existing service levels included in this proposal?

N/A

#### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
<b>FTE</b>	4.00	4.00
<b>LTE</b>	0.00	0.00
<b>Total Count</b>	4.00	4.00

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	33,998	34,821
<b>Personnel</b>	611,015	636,345
<b>Revenue</b>	126,264	129,264
<b>Rev-Exp Balance</b>	-518,749	-541,902

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 8

**Proposal Title:** Pavement Management

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.85DA

**Primary Dept:** Transportation

**Parent Proposal:** None

**Proposal Type:** Existing

**Dependent Proposal:** None

**Budget Status:** Recommended

**Previous Proposal:** 130.85DA

**Primary Staff:** Teresa Becker

**Fund:** General Fund

### Section 2: Executive Summary

This proposal is to provide funding for 3.5 FTEs for the design, management, implementation, and inspection of the Pavement Management Program (PMP). The use of a PMP is required per RCW 46.68.113 and WAC 136-320. The program is responsible to ensure that all City roads are maintained and resurfaced at the most cost-effective time and condition. Adjacent sidewalk wheelchair ramps must also meet accessibility requirements under the Americans with Disabilities Act (ADA). Adjacent curb/sidewalk repairs along with non-standard ramps are replaced with the street overlay. This program is also responsible to assure all city bridges are inspected and maintained as required by the Federal Highway Administration's National Bridge Inspection Standards.

### Section 2b: Performance Narrative

The biennial pavement condition rating data indicates that the majority of the City's roadway system is in very good condition. The average street ratings meet the target for arterial streets and are still above the target for the residential network. Since the 20% budget reduction in 2010, the focus of the annual overlay contract has been on the arterial roadway system. The results of the latest ratings show that this is beginning to be reflected in the condition of the residential streets.

### Section 3: Responsiveness to Request For Results

This proposal provides the staff funding necessary to implement the Capital Investment Program M-1 Overlay Program. Local agencies are mandated through federal and state statutes to have a Pavement Management System (PMS). Chapter 23 of the Code of Federal Regulations Part 500 requires each state must employ a PMS on all highway systems utilizing federal funds. RCW 46.68.113 requires cities to report the condition of their arterial and collector networks each biennium. Counties and cities with populations of 22,500 or greater must model their PMS on the components described in WAC 136-320.

To ensure that all city streets are maintained and repaired at the most cost efficient stage the city utilizes a PMS. The Pavement Engineer is responsible for ensuring all street pavements are physically inspected biennially for signs of deterioration or pavement distress. The inspection is performed by a consultant utilizing industry standard data collection methods. The PMS analyzes the condition data and street ratings to create a list of prioritized streets for maintenance. The Pavement Engineer develops the list into a five year candidate plan for roadway repair and resurfacing. The map of candidate streets is shared with other City departments and Franchise Utilities so that they can coordinate their repairs and upgrades to their subsurface systems in advance of planned resurfacing projects.

The Pavement Engineer also collaborates with other divisions and departments to determine if there are other projects that may be implemented through the resurfacing project. Items such as bike lane implementation, channelization upgrades, pedestrian signal modifications and island median upgrades (Urban Boulevards) design elements may be added to the project scope. When these steps are complete the design and

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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engineering process is initiated (see Proposal No. 130.85PA which describes the CIP phase of the program).

Title II of the Americans with Disabilities Act (ADA) requires that state and local governments ensure that persons with disabilities have access to the pedestrian routes in the public right of way. Additionally this legislation requires curb ramps to be provided or reconstructed when roadways are altered by resurfacing projects. The Pavement Engineer must ensure this obligation is met on every overlay site. The 2017 & 2018 Overlay Programs will design and construct approximately 150 ADA sidewalk ramps. The project routes are also reviewed for noticeable curb and sidewalk defects that may be repaired as part of the projects. Since the program has a fixed budget, some repair needs may not be fully implemented.

FHWA's National Bridge Inspection Standards mandate a bridge inventory system with the inspection frequency and repairs documenting all structures that carry or cross the travelled way. The inspections of bridges (19) are outsourced to be performed by federally qualified bridge inspectors. Data collected from the inspection is uploaded to WSDOT's bridge inventory data site and reported for compliance. Maintenance repairs and rehabilitation needs identified by the inspections are engineered and processed for construction. The current inventory of 19 bridges will grow by 50% to 29 structures with the addition of East Link bridges, Spring Blvd and Utilities Culvert Replacement Projects along Kelsy Creek and Coal Creek.

Maintenance of streets was a high priority in recent Resident Surveys. Results show residents believing road conditions are "Good" generally reflecting the on-going status quo program funding levels. The average pavement ratings for arterials are currently right at the target of 78; residential street averages are still above target but have declined due to the overlay focus on arterials streets since 2010. The average rating for residential streets is currently at 80, just 4 points over the target of 76.

This proposal is mainly responsive to the IMPROVED MOBILITY outcome: Addressing maintenance and preservation of [EXISTING & FUTURE INFRASTRUCTURE] is key: "Maintaining current investments (or infrastructures) is important in optimizing efficiency and value (Purchasing Strategy)." Through a systematic analysis of pavement life cycles, the city can determine the appropriate time to rehabilitate its pavements, utilizing the most cost-effective method necessary to maintain its roads in optimal condition. Also, maintaining wheelchair curb ramps, sidewalks, bike lanes, and bridges are vital for people getting around in Bellevue. This proposal ensures sound management of resources and "efficient" business practices.

Secondary outcomes addressed: QUALITY NEIGHBORHOODS: Maintaining city streets in a timely manner provides a safe means of access to residences, parks, schools, businesses and other destinations. "These include sidewalks and bike lanes that provide residents with other modes of travel and result in a healthier environment (Purchasing Strategy)." The ADA/sidewalk maintenance program components "enables people with disabilities to enjoy the benefits of Bellevue's programs, services, and activities by removing barriers that impede their ability to reach their desired destinations and participate in the community (Purchasing Strategy)." This proposal also addresses [INFRASTRUCTURE] as an important consideration under the ECONOMIC GROWTH AND COMPETITIVENESS OUTCOME. The City is responsible "to speed information, goods and services quickly and safely throughout the City (Purchasing Strategy)." Further, "A well maintained transportation system including sidewalks, bike lanes, and bridges is a key component for successful access and circulation within the City's commercial and employment centers (Purchasing Strategy)."

[PREVENTION] under the SAFE COMMUNITY OUTCOME is also addressed under this proposal. Residents feel safer driving when roads are well maintained. "Routine inspections and maintenance of the City's roads, sidewalks, bike lanes, and bridges will result in a safe mobile environment (Purchasing Strategy)."

Transportation partners with local jurisdictions and agencies to share costs on roadway repair and paving. In 2016 staff worked with Redmond for a partially grant funded pavement overlay of 148th Ave NE, north of 520

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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saving both cities money by providing a single contract to conduct work on our shared roadway. Internally, the Program includes the roadway restoration requirements under the Utilities Department pipeline repair and remediation work. Traffic Engineering staff provides design input to install new bike lanes on Overlay sites to meet the objectives of the Ped-Bike Plan at a lower cost than with individual bike lane projects. Work is also coordinated with Signals staff to install new traffic loops within the overlay areas that support the new SCATS traffic signal control system.

PW-M-1 the annual Overlay Program requires greater inspection effort than the 1 FTE currently included in the operating budget. The in house inspection labor hours billed against the program in the last 2 years are 2014 = 3,366 hours and 2015 = 4,233 hours. Consultant inspection contracts were also utilized. Currently the program relies on utilizing inspection staff from the CIP Delivery in order to fill the extra needs for inspection when available. Future CIP workload may not allow for this to occur.

There are several factors contributing to an increased need for inspection staff for the overlays. In the upcoming years the Overlay Program funding will be bolstered with federal grant funds. (Richards Road in 2017 and the potential for Eastgate Way in 2018 and BelRed Rd in 2020) This will add to the inspection workload both by increasing the contract dollars (number of lane miles paved) and by the added documentation required of federally funded contracts.

ADA ramp reconstruction is a requirement of roadway resurfacing projects. The design and construction tolerances in achieving a compliant curb ramp require more staff time in inspection and as-built documentation.

The annual overlay contract also includes Utility Restoration Sites. These locations provide for restoration of the roadways following AC watermain replacement and sewer repairs. Utilities has budgeted to accelerate the replacement of water main from 2 miles to 5 miles of pipe per year by 2018.

The Overlay Program ultimately reduces pavement maintenance costs by addressing pavement wear prior to major roadway maintenance or roadway re-construction has to occur. Left unaddressed, the roadway conditions will deteriorate to the point where it would be financially impossible to restore roadways to good condition ultimately requiring more and more budget dollars for roadway maintenance over time.

Scalability: Further reductions will impact design, project management, and/or inspection of work performed. Designs are prepared in-house (0.5 FTE) reducing costs by approximately \$120,000/yr compared to outsourcing. Program management staff (1.0 FTE) manage the PMS database, reporting requirements contracting for pavement condition assessment, pavement repair/overlay management and bridge inspection. One inspector (1.0) FTE inspects all work programmed under this proposal. Outsourcing inspections would adversely affect the interdepartmental coordination with Utilities, media releases, traffic advisories and police traffic control scheduling. It would also increase costs by approximately \$110,000 for inspection labor.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>Frequency</u>	<u>2014</u> <u>Actual</u>	<u>2015</u> <u>Actual</u>	<u>2016</u> <u>Target</u>	<u>2017</u> <u>Target</u>	<u>2018</u> <u>Target</u>
130.0086	Average pavement rating across the arterial roadway system	Years	79	78	78	78	78
130.0087	Average pavement rating across the residential roadway system	Years	87	80	72	76	76
130.0088	Percent of bridges with a federal sufficiency rating of "Good" or "Excellent"	Years	100%	100%	100%	100%	100%

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

Includes costs for 1.0 FTE Senior Construction Project Inspector (\$111,051 in 2017 and \$115,403 in 2018) and associated M&O costs (e.g., stipends, supplies, training and IT replacement) (\$1,680 in 2017 and \$2,036 in 2018).

#### 5B: Are one-time expenditures included in this proposal?

Costs associated with the new FTE (e.g., Computer, phone, recruitment) totaling \$1,600 in 2017.

#### 5C: Are dedicated revenues included in this proposal?

Partially supported by CIP funding (\$545,000 in 2017 and \$567,000 in 2018).

#### 5D: Are changes to the existing service levels included in this proposal?

N/A

#### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
<b>FTE</b>	3.50	3.50
<b>LTE</b>	0.00	0.00
<b>Total Count</b>	3.50	3.50

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	29,138	28,521
<b>Personnel</b>	451,395	469,600
<b>Revenue</b>	545,000	567,000
<b>Rev-Exp Balance</b>	64,467	68,879



# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 9

**Proposal Title:** Transportation Implementation Strategies  
**Outcome:** Improved Mobility and Connectivity  
**Proposal Number:** 130.36NA      **Primary Dept:** Transportation  
**Parent Proposal:** None      **Proposal Type:** Existing  
**Dependent Proposal:** None      **Budget Status:** Recommended  
**Previous Proposal:** 130.36NA      **Primary Staff:** Eric Miller  
**Fund:** General Fund

### Section 2: Executive Summary

Develop mid- and short-range transportation facility plans and funding strategies that identify, prioritize, and implement multi-modal capital improvement projects, operations and maintenance programs, and efficiency-enhancing transportation demand management (TDM) programs. Improved mobility and connectivity outcome-based criteria and community engagement processes are employed to ensure the transportation sections of the funded 7-year Capital Investment Program (CIP) Plan, the City Code-required 12-year Transportation Facilities Plan (TFP), and the state statute-required local Transportation Improvement Program (TIP) are updated and administered as required. The work program includes development and administration of the department's external funding programs including developer impact fees, state and federal grants, and interagency partnerships.

### Section 2b: Performance Narrative

Intended results include increasing the efficiency of the City's existing transportation infrastructure, determining the highest priority, most effective capital investments in new infrastructure, and securing or administering significant levels of non-local or outside capital funding to advance improved mobility and connectivity goals. The identified measures will help to indicate:

- How well TDM measures are incenting Bellevue residents & workers to commute via non-drive-alone modes (also a KPI for Improved Mobility & Connectivity);
- Whether capacity projects that maintain adopted level of service standards are being prioritized and funded; and
- Whether significant amounts of grant and transportation impact fee revenue are being awarded to or collected by the City.

### Section 3: Responsiveness to Request For Results

Transportation Implementation Strategies (TIS) staff funded by this proposal work collaboratively with all Department divisions, inter-departmentally, and with outside agencies/forums to accomplish the following major objectives (Responsiveness to the RFR is interspersed within each description below):

FACILITATE REQUIRED BIENNIAL TFP UPDATE PROCESS. DIRECTIVE: RCW 82.02.050 and Chapter 22.16 of the Bellevue City Code (BCC) require that every two years the Transportation Commission review and update the TFP for City Council adoption. The TFP is a bridge between the long-range sub-area/mode-specific facility plans adopted into the Comprehensive Plan and the funded CIP. The financially constrained TFP identifies the top priority projects citywide and forms the basis of the City's Transportation Impact Fee program. Outcome-based criteria used to prioritize candidate TFP projects are closely aligned with many of the Factors and Sub-factors related to Improved Mobility & Connectivity, including Traffic Flow, Level of Service, Capacity, Safety, Travel Options, Multi-Modal, Connectivity, and Regional Partnerships.

The TFP update process includes the preparation of the City's only programmatic, citywide environmental analysis (consistent with the State Environmental Policy Act). An Environmental Impact Statement documents

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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how proposed transportation facilities will cause or mitigate impacts to existing and projected Land Use and the Sustainability, Character, and Quality of Life in the Built Environment.

CONDUCT BIENNIAL UPDATE/ONGOING ADMINISTRATION OF THE TRANSPORTATION CIP PLAN. Facilitate project scope refinement, cost estimation and capital programming (detailed budgeting by year) associated with updating/amending the transportation program areas of the CIP (Roadways, Intersections, Walkways/Bikeways, and Maintenance/Minor Capital). This also involves development and evaluation of ongoing capital programs established to address emerging Maintenance and Safety needs. The current 2015-2021 CIP includes 39 discrete projects and ongoing capital programs representing over \$200 million of prioritized investment in the 7-year period.

FACILITATE ANNUAL UPDATE of the REQUIRED LOCAL TIP. DIRECTIVE: RCW 35.77.010 mandates that all local jurisdictions annually adopt and submit to the state a 6-year program of transportation improvements, the local TIP, by the end of June. Unlike the CIP and TFP, the local TIP is not revenue constrained, so any project can be included that would be implemented within the 6-year timeframe, if funding were available. Many grant programs require projects for which applications are submitted to be included in the agency's TIP.

There is very little reference, within the Improved Mobility and Connectivity RFR, to the capital costs of or funding necessary to achieve mobility and connectivity outcomes. The following three Transportation Implementation Strategies proposal work plan items focus on just that, generating significant outside revenue and assuring that all requirements or guidelines for the collection and use of the outside revenue are followed. These additional revenue sources significantly leverage the locally generated capital revenue the City routinely collects (primarily from taxes) to do much more to deliver the intended outcome – Improved Mobility and Connectivity.

ADMINISTER TRANSPORTATION IMPACT FEE PROGRAM. Work with Planning and Community Development and Development Services staff to ensure timely update and legal application of the City's Transportation Impact Fee Program. A key concept behind the program is that if it were not for growth (Economic Development) Future Infrastructure and new Capacity would not be necessary. The impact fee program is based upon the roadway capacity projects included within the adopted TFP, described above. Impact fee revenue can only be programmed and expended on funded capacity projects within the adopted CIP, also described above. Currently, the City has close to \$50 million in impact revenue programmed to projects in the 2015-2021 CIP.

SEEK, SECURE AND MANAGE STATE AND FEDERAL GRANTS. Comprehensive Plan Policy TR-131 directs staff to "Seek state and federal funds for transportation capital, maintenance, operational improvements." This function researches funding opportunities; develops competitive applications (typically 5-15 per year); and assists project managers and finance staff with post award grant management and compliance. The various grant programs the City is eligible for and the criteria they use to evaluate applications are often well aligned with the RFR's factors and sub-factors, including Maintenance, Connectivity, Economic Development, Sustainability, Capacity, Safety, and Multi-Modal Connections. Currently, more than \$26 million in secured transportation grant revenue is programmed in the 2015-2021 CIP.

Cities accepting federal funding are required to comply with Title II of the Americans with Disabilities Act (ADA) and Title VI of the Civil Rights Act to remain eligible to receive the funding. Staff funded by this proposal coordinate the departmental Title VI program and participate on ADA committees, update compliance plans and annual progress reports, and train other staff.

DEVELOP AND MANAGE INTERAGENCY PARTNERSHIPS. Work with other agencies to create mutually beneficial partnerships and monitor the resulting interlocal agreements (e.g. cost share agreements with Sound Transit).

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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This effort supports staff participation in regional funding forums and funder coordination. Currently, the City has more than \$27 million in Regional Partnership funding benefiting the 2015-2021 CIP.

TRANSPORTATION DEMAND MANAGEMENT (TDM). DIRECTIVES: State Commute Trip Reduction (CTR) law (RCW 70.94.527) and BCC 14.40; and Transportation Management Programs (TMP) BCC 14.60.070,080. TDM improves roadway system efficiency by increasing the viability and appeal of transportation modes other than driving alone, and building markets for transit, car- and vanpooling, walking, cycling, teleworking and other TRAVEL OPTIONS, thus reducing single-occupant vehicle trips among employees and residents. The CTR law directs the city to develop a plan and enact regulations that require large employers to operate programs for reducing commute trips at their worksites.

TDM staff oversees an implementation contract with King County (funded by a state grant) for assisting Bellevue's 57 affected worksites, which employ 27% of workers citywide. Local TDM resources fund and provide oversight for a similar contract with King Co. to monitor trip reduction programs required at 30 large buildings – per TMP conditions imposed at the time of development. To reach non-CTR employers, workers and residents, the City collaborates with King Co. and the Bellevue Downtown Association to implement the City's updated 2015-2019 CTR Plan and 2015-2023 TDM Plan. Local TDM resources also fund/operate a Bellevue-focused travel option website, [www.ChooseYourWayBellevue.org](http://www.ChooseYourWayBellevue.org).

Program results indicate that the change in travel mode use associated with these activities equates to removing 2,700 vehicle round-trips from the roadways each day—this is equivalent to a single line of cars seven miles long. An anticipated activity for the next biennium includes Education of the community on the Choose Your Way Bellevue website and available mobile applications to assist with accessing travel options. Many of these Tools compare the tradeoffs between driving alone and other modes in terms of cost, time and calories burned. The tools can also make it easier and more efficient for new users to sample non-drive-alone modes by providing on-the-go maps and instructions.

These programs and services ensure transportation capital investments are scoped, prioritized, and funded to best achieve IMPROVED MOBILITY and CONNECTIVITY. Long before Budget One, this program's processes were crafted to address many of the factors and purchasing strategies now determined to be critical to improved mobility. These processes are also consistent with best management practices for capital programming and project prioritization identified by the American Planning Association, the Government Finance Officers Association, and the Washington State Office of Financial Management.

### RESOURCES

The proposal includes 4.5 FTEs: 0.5 Implementation Strategies Division Manager, 1.0 Senior Planner, 1.0 Associate Planner, 1.0 Transportation Grants Program Manager, and a 1.0 Program Administrator. Other resources include M&O funding for professional services contracts to support environmental analysis, cost estimating, capital project feasibility studies, and Transportation Management Program administration contracts. The proposal also anticipates the continued use of a student intern hired for research and other implementation strategy activities valuable for achieving the intended results.

Program staff partner with all Transportation Department divisions and numerous other City Departments in the development, scoping, costing, prioritizing and programming of transportation plans, facility implementation, and programmatic investments. The work of this group also directly supports multiple other operating proposals, including but not limited to Department Management & Administration (130.04NA), Long Range Transportation Planning (130.13NA), Transportation CIP Delivery Support (130.33NA), and Emergency Management & Preparedness for the Transportation System (130.35NA). Finally, staff in this group routinely participate on numerous CIP project and ongoing program teams.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>Frequency</u>	<u>2014 Actual</u>	<u>2015 Actual</u>	<u>2016 Target</u>	<u>2017 Target</u>	<u>2018 Target</u>
130.0067	Percent of Mobility Management Areas (MMAs) meeting level of service and concurrency standards	Years	100%	100%	100%	100%	100%
130.0068	Percent of Transportation CIP supported by nonlocal revenue sources	Years	14%	18%	15%	15%	15%
130.0213	Dollar amount of state/federal grant awards in relation to 10-year biennial average (\$millions)	Years	\$7.60	\$7.60	\$7.70	\$7.70	\$7.70
130.0214	Dollar amount of Transportation Impact Fee revenue collected in relation to adopted budget (\$millions)	Years	\$4.00	\$7.10	\$6.90	\$7.10	\$7.30
130.0215	Percent of workers in Bellevue commuting by a non-drive-alone mode (5-year average, 1-year lag)	Years	25.9%	26.4%	28%	29%	30%
130.0216	Percent of Bellevue residents commuting by a non-drive-alone mode (5-year average, 1-year lag)	Years	34.6%	34.4%	37%	37%	38%

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

N/A

#### 5B: Are one-time expenditures included in this proposal?

N/A

#### 5C: Are dedicated revenues included in this proposal?

Grant revenue for Commute Trip Reduction (\$241,063 in 2017 and \$107,103 in 2018) and CIP funding (\$18,000 in 2017 and \$19,000 in 2018).

#### 5D: Are changes to the existing service levels included in this proposal?

N/A

#### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
<b>FTE</b>	4.50	4.50
<b>LTE</b>	0.00	0.00
<b>Total Count</b>	4.50	4.50

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	422,951	293,390
<b>Personnel</b>	609,691	635,190
<b>Revenue</b>	259,063	126,103
<b>Rev-Exp Balance</b>	-773,579	-802,477

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 10

**Proposal Title:** Long-Range Transportation Planning

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.13NA                      **Primary Dept:** Transportation

**Parent Proposal:** None                              **Proposal Type:** Existing

**Dependent Proposal:** None                              **Budget Status:** Recommended

**Previous Proposal:** 130.13NA                      **Primary Staff:** Paula Stevens

**Fund:** General Fund

### Section 2: Executive Summary

This proposal advances Council vision and direction expressed in the Comprehensive Plan to plan and build an increasingly multi-modal transportation system that provides mobility, invigorates economic vitality, sustains community character, and enhances human health and safety. To further these goals, transportation planners identify emerging trends and implement strategies to ensure that people have access to connected and safe mobility options. Planners develop policies for the Comprehensive Plan, manage subarea plans and corridor studies, lead transportation facility planning such as the Pedestrian & Bicycle Implementation Initiative and Transit Master Plan, and manage CIP resources to build projects that improve safety, access and connectivity. Planners coordinate with elected and appointed officials, city departments, community groups, business organizations, and agencies to ensure that transportation strategies support the city's land use vision and align with regional plans.

### Section 2b: Performance Narrative

The performance measures included in this proposal gauge the progress of the department's long range transportation planners in advancing Comprehensive Plan goals and laying the the foundation for project and program outcomes. The combination of the percent of residents that agree or strongly agree that Bellevue is doing a good job of planning for and implementing a range of transportation options and the percent of residents who agree that the city is doing a good job of planning for growth in ways that will add value to their quality of life gauge the perception of the city's residents regarding the contribution of planning in achieving mobility options and fostering quality of life. The other two indicators – average weekday transit boardings and alightings and connectivity of trails and walkways – measure tangible progress toward the expansion of mobility options, which begins with the work of planners. These measures answer the question: are we achieving the results set forth in our plans?

### Section 3: Responsiveness to Request For Results

This proposal ensures that the transportation system is planned and implemented to connect people within the city and to the region, support land use and economic development, and enhance quality of life and the environment. Planners coordinate and collaborate with local and regional partners to address transportation system needs expressed by the community. Through analysis and prioritization led by the Transportation Commission, mobility improvements are identified, designed, funded and constructed.

Transportation planners lead and support teams for subarea planning (BelRed), policy development (Vision Zero), corridor studies (Grand Connection), and "modal" plans (Pedestrian & Bicycle Implementation Initiative). Planners engage the public and advance policy proposals through boards, commissions and the City Council. Project managers across City Hall seek transportation planners for teams to help design roadways and other transportation projects, to enhance the access and livability of Downtown and other neighborhoods, and to guide redevelopment and access around light rail stations. Transportation planners partner with other agencies to enhance local and regional mobility and advocate on Bellevue's behalf.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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Long-Range Transportation Planning addresses Improved Mobility and Connectivity factors as follows:

### EXISTING & FUTURE INFRASTRUCTURE

Planners foster mobility through a comprehensive multimodal strategy with detailed analysis and broad community engagement. Staff work with the Transportation Commission on planning and implementation initiatives such as Multimodal Level-of-Service, Vision Zero, the Pedestrian & Bicycle Implementation Initiative, the Transit Master Plan, and the Capital Investment Program (CIP). Transportation planners address mobility needs for those who drive, walk, ride a bicycle or take transit. Planners recommend practical, innovative and sustainable approaches to mobility that are designed and integrated to meet the objectives of land use, economic development, and the expectations of the community to have safe and reliable mobility options. Planners lead citywide transportation planning through the Comprehensive Plan, and collaborate with PCD on subarea planning to establish local policy and implementation strategies. Modal plans such as the Pedestrian & Bicycle Transportation Plan create the framework for new capacity and connections. Implementing modal plans requires the diligent attention of transportation planners, who wisely invest CIP funds and often collaborate with transit agencies, schools and colleges, and private sector developers. In response to this Factor for the next biennium, Planners will:

- Collaborate with Planning & Community Development (PCD) to create a vision and implementation strategy for the Grand Connection and the Wilburton Subarea and to update BelRed and other neighborhood plans.
- Collaborate with other jurisdictions and regional and state agencies to ensure that Bellevue's mobility interests are considered and implemented through regional projects. Examples include staff work with:
  - Transit agencies and Bellevue College on the Bellevue College Connector,
  - WSDOT on the Mountains to Sound Greenway Trail,
  - Redmond and WSDOT on Bellevue-Redmond bicycle wayfinding, and
  - Bellevue School District on sidewalk access to elementary schools.
- Develop a Transportation Master Plan to enhance coordination and prioritization of mobility investments.

### TRAFFIC FLOW

Planners work with colleagues to maximize transportation system safety and efficiency. For example, collaborative Downtown land use and transportation planning resulted in more people walking, bicycling and using transit; and daily traffic volume on Downtown Bellevue arterials is about the same today as in the 1990s. Dramatic growth in BelRed and Wilburton requires expanded transportation infrastructure of all modes to support intended development. Investments to support trips not made by car can improve traffic flow by reducing demand for roadway space. Planning for an integrated multimodal transportation system supports walking, bicycling and transit, and connections between these modes. In response to this Factor for the next biennium, Planners will:

- Develop and integrate Vision Zero policies and an Action Plan to reduce to zero the number of fatalities and serious injuries on Bellevue streets by 2030.
- Develop and integrate multimodal level-of-service metrics and standards along arterial corridors and in mobility management areas.

### BUILT ENVIRONMENT

Planners integrate land use forecasts and neighborhood policies to plan and implement the transportation system. Transportation infrastructure that is integrated with neighborhoods and commercial centers supports and enhances economic development, provides mobility, and contributes to community health and livability. Transportation planners work with the community to develop projects that meet the mobility and connectivity needs of the city while fitting properly in neighborhoods. A network of transportation facilities accommodates all modes and reduces the reliance on any single mode. People walking, bicycling and riding transit, have a smaller environmental footprint than driving alone. Transportation planners ensure that mobility options are well-integrated between modes. Accessible and connected sidewalks and bicycle facilities near bus stops and

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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train stations extend the range of a person walking or bicycling. For instance, investments in pedestrian connections can provide walkable transit access to 97 percent of the people who live and work in Downtown by 2030, up from 86 percent in 2010. In response to this Factor for the next biennium, Planners will:

- Manage the Downtown Transportation Plan implementation through CIP programs PW-R-176 and PW-R-182 to improve access to light rail and to enhance mobility options throughout the Downtown
- Implement projects to improve pedestrian and bicycle access and connections through CIP program PW-W/B-56.

### TRAVEL OPTIONS

Transportation planners recommend policy, prepare modal plans and implementation strategies, and invest public resources to ensure that people have a variety of mobility options to suit their needs. This multi-modal strategy embraces evolving community expectations, changing techniques and technology, and new metrics and standards.

It is said, that “what you don’t measure doesn’t count.” This is true in transportation planning. Traditionally, counts and projections of personal vehicles on city streets have driven transportation investment decisions. Going forward, transportation planners will also gather and apply data to plan for the mobility and safety of people walking, riding a bicycle and using transit. Data will inform investments toward a more connected and equitable transportation system, one that implements Transportation Element policy TR-21 – “Ensure that the transportation infrastructure in Bellevue provides mobility options for all modes, and accommodates the mobility needs of everyone, including underserved populations”. Connected, convenient and reliable mobility options serve the community through cost savings and equitable access to jobs and services. In response to this Factor for the next biennium, Planners will:

- Manage the Pedestrian and Bicycle Access and Connections program (PW-W/B-56) to build small-scale, high-value projects that improve local connectivity.
- Implement the Transit Master Plan to support Downtown growth, BelRed redevelopment, economic development, and land use objectives with well-connected, frequent and reliable transit service that is seamlessly integrated with East Link light rail.
- Manage the Pedestrian & Bicycle Implementation Initiative to provide detailed plans and funding for non-motorized connections within and between Bellevue neighborhoods and to regional destinations.
- Per Council Priority #7, “advocate for improved transit service in Bellevue and Eastside in the Metro Long Range Transit Plan.”

### RESOURCES

3.0 FTE Senior Planners and professional services (including one-time funding enhancement). Management oversight (Assistant Director) is included in the Department Management and Administration proposal (130.04NA).

### SCALABILITY

The one-time enhancement of this proposal for professional services, with justification as noted in Section 5A, would not be funded if not supported by the City Council. This proposal could be scaled back only by reducing or eliminating funding for temporary help or professional services; however, these services are required to secure specific technical expertise and planning services necessitated on a project-by-project basis.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>Frequency</u>	<u>2014 Actual</u>	<u>2015 Actual</u>	<u>2016 Target</u>	<u>2017 Target</u>	<u>2018 Target</u>
130.0122	Percent of residents who agree that Bellevue is doing a good job of planning for and implementing a range of transportation options	Years	67%	68%	70%	70%	70%
130.0123	Percent of residents who agree that the city is doing a good job of planning for growth in ways that will add value to their quality of life	Years	76%	76%	80%	80%	80%
130.0139	Average weekday transit boardings and alightings (citywide)	Years	54,050	54,690	59,000	62,000	65,000
130.0140	Connectivity of trails and walkways - linear feet completed (sidewalks, on-street bike facilities, off-street bike facilities and trails)	Years	26,052	30,620	35,000	45,000	55,000

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

Proposal requests one-time professional services each year of the biennium (2017: \$97,248; 2018: \$101,435 ) to supplement the three Senior Planners who otherwise comprise the staffing for all work completed pursuant to this proposal. Council priorities – regional advocacy regarding transit service, implementing the Downtown Transportation Plan, Pedestrian & Bicycle Implementation Initiative (PBII) activities, the Grand Connection/Wilburton planning, and neighborhood planning – and ongoing work program responsibilities have converged such that a surge in work for the three planners is anticipated in the remainder of 2016 and in the coming two years. This funding will temporarily augment staff so that the Division can deliver both ongoing and anticipated work program assignments. Specifically, the funding will be directed towards development and tracking of metrics to support the City’s Vision Zero initiative, PBII and the Bellevue-Kirkland-Redmond (BKR) model development; neighborhood planning; and the Downtown Corridors Study.

#### 5B: Are one-time expenditures included in this proposal?

One-time professional services funding as described above.

#### 5C: Are dedicated revenues included in this proposal?

Partially supported with CIP funding (\$144,000 in 2017 and \$150,000 in 2018)

#### 5D: Are changes to the existing service levels included in this proposal?

The professional services funding will ensure delivery of the work program described in Section 5A. Absent this funding, LRTP will be insufficiently resourced to respond to this surge in work. The risk is that LRTP work will fall out of sync with initiatives such as Grand Connection/Wilburton planning, Downtown Transportation Plan implementation, and BelRed Subarea and neighborhood planning updates – all of which are Council priorities in 2017-2018.

#### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
<b>FTE</b>	3.00	3.00
<b>LTE</b>	0.00	0.00
<b>Total Count</b>	3.00	3.00

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	174,906	180,973
<b>Personnel</b>	423,168	440,805
<b>Revenue</b>	144,000	150,000
<b>Rev-Exp Balance</b>	-454,074	-471,778



# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 11

**Proposal Title:** Department Management and Administration

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.04NA      **Primary Dept:** Transportation

**Parent Proposal:** None      **Proposal Type:** Existing

**Dependent Proposal:** None      **Budget Status:** Recommended

**Previous Proposal:** 130.04NA      **Primary Staff:** Dana M. Adell

**Fund:** General Fund

### Section 2: Executive Summary

This proposal provides funding for strategic leadership on transportation issues within the organization and region, manages and/or provides oversight over all lines of department business, and provides general administrative and financial support to the Department. These resources benefit all functions within the Department logically lending themselves to a single proposal for management and administration.

### Section 2b: Performance Narrative

The performance measures included in this proposal are a family of measures that indicate whether the department's executive and administrative divisions are providing the leadership, support, and advancement of the city's interests as it pertains to transportation issues within the organization and across the region in a fiscally sustainable way. The combination of the percentage of residents that agree or strongly agree that improving transportation is the biggest problem in the city and the percentage of Council regional interest statements advanced through regional project staff activities provide the data that affirms whether the department's efforts are responsive to what is important to our community stakeholders and the City Council. The average score on the department employee survey indicating upper management effectively communications reasons behind key decisions takes an inward look at the effectiveness of communications in the department. Finally, there are three measures that focus on the department's financial management performance that together indicate whether the department is managing in a fiscally sustainable way. These measures are: Variance between Q2 General Fund expenditure and revenue projections and year end actuals, and the number of audit exit items related to best practices/standards requiring follow up as noted from local, state and federal audits.

### Section 3: Responsiveness to Request For Results

This proposal is comprised of 11.21FTEs, which include the Dept Director (1.0), Asst Directors for Transp Plng and Traffic Mgmt (2.0), Capital Implementation Plng Mgr (0.50), Policy Advisor (1.0), PIO (1.0), Admin Svcs Division (2.71), and Financial Services Division (3.0). The resources in this proposal provide the following:

- Manage the department, oversee operations and implement programs/projects to carry out the City vision and Council/City Manager direction.
- Assure interdepartmental collaboration and coordination to achieve unified results.
- Lead the budget development process and monitoring/reporting activities to be fiscally responsible within a strategic framework.
- Provide public information and engagement of the community stakeholders.
- Align depart. activities with city-wide initiatives such as One City, Environmental Stewardship, Organizational Development, etc.
- Manage the department-wide reaccreditation through APWA.
- Develop and maintain external partnerships with businesses, other agencies, and political bodies.
- Provide administrative and financial staff support for department management and department overall.
- Engage with other agencies to ensure that Bellevue's regional transportation interests are realized such as

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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with ST3.

City Council Priorities: This proposal provides the leadership and support required to meet Council's priorities.

### TRANSPORTATION AND MOBILITY

- Partnerships with other departments in city-wide planning efforts include the Wilburton Subarea Plan, Downtown Transportation Plan Update, Downtown Livability Initiative and the Eastgate/I-90 Corridor Study. These multi-year efforts have lead/are leading to innovative and future-focused comprehensive plan updates for major areas of the City.
- Partnerships with regional agencies (WSDOT, ST, King County/METRO) and the elected officials responsible for allocating resources to these agencies and projects have led to investments in transportation improvements in Bellevue including: Access Downtown (\$139M), NE 10th Street Extension (\$63M), I-405 South Bellevue Widening, I-405 Braid project (\$275M), East Link (\$1.4B), Rapid Ride B Line, etc..

Eliminate low value-added activities and Consider short and long-term financial impacts:

- In every budget cycle the department assesses every program for priority and level of service and bases budget requests on that assessment.

Consider best practices:

- Responsible for department accreditation through the American Public Works Association (APWA). This exhaustive best practices effort led to the department receiving accreditation in November of 2007 and re-accreditation in November 2011 and 2015 by proving to a review panel the department was in full compliance with all 313 best practices as established by APWA.

Promote Environmental Stewardship:

- Responsible for assuring staff are trained in and employ practices to assure environmental stewardship and that sustainable construction practices are utilized.

Ensure sound management of resources and business practices:

- The Transportation Department publishes, and presents to Council, a Transportation CIP Quarterly Report.

The services under this proposal relate to the following purchasing strategies for Improved Mobility and Connectivity:

### EXISTING & FUTURE INFRASTRUCTURE AND TRAVEL OPTIONS

- Planning to accommodate future demand:

Department management staff coordinate on an on-going basis with senior management staff in the Planning & Community Development (PCD) Department to ensure that land use and transportation planning efforts in the city are fully integrated, i.e. subarea planning (Downtown Transportation Plan, Wilburton, etc.), corridor studies (Grand Connection, Main Street), and "modal" plans (Pedestrian & Bicycle Implementation Initiative).

- Leverage partnerships and maximize opportunities with other agencies and Travel Options:

Ensure the full range of travel options are incorporated in local and regional planning: Department senior management staff meet on an on-going basis with senior management staff at other state and regional transportation agencies (such as WSDOT, Sound Transit, and King County Metro) to ensure that the City's interests are advanced and considered in the planning, design, and operations of state and regional transportation facilities and programs.

### TRAFFIC FLOW

- Include preparation for severe event response. Department senior staff serve on the city-wide Emergency Operations Board, staff the Transportation Desk in the Emergency Operations Center, and manage the Transportation Command Center during emergencies. Management staff also participate in emergency management planning, training and evaluation.

### BUILT ENVIRONMENT

- Promote and support the economic vitality of the City. Endorsement by the Director of the National Association of City Transportation Officials guidebook provides new tools to better integrate transportation and the built environment based on national best practices.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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### HOW DOES THIS PROPOSAL ADDRESS THE OTHER OUTCOMES?

**RESPONSIVE GOVERNMENT** - Department management staff promotes and ensures that departmental practices and projects strive to realize community vision and values, are accessible by all, and ensure department's public outreach efforts strive to connect with our diverse community. The Transportation Department has achieved and sustained American Public Works Association accreditation.

**SAFE COMMUNITY** - Transportation has established SOPs and procedures that document and address issues to assure a safe transportation system, have a plan, and practice that plan, for future emergency events, as well as have SOPs to address prompt recovery/restoration of services in an emergency.

**HEALTHY AND SUSTAINABLE ENVIRONMENT** - Management staff plan for and promote multi-modal transportation alternatives through efforts like the Transit Master Plan Update that will reduce greenhouse gasses in the environment and ensure surface water quality by meeting current requirements for detention and water quality treatment, including advocating for innovative techniques such as permeable pavements, rain gardens, etc.

**QUALITY NEIGHBORHOODS** - Management staff ensure forward thinking and context-sensitive designs of projects to assure they meet the neighborhood character (e.g., West Lake Sammamish parkway project); promote connectivity between neighborhoods for safe walking/biking environments; preserve or enhance existing infrastructure; and provide mobility to disabled system users by assuring transportation investments meet ADA requirements.

**INNOVATIVE, VIBRANT & CARING COMMUNITY** - Management staff assure that the community is involved and has a say in all phases of a project from planning into design (via public Open House meetings, social media and other forums and means).

**ECONOMIC GROWTH & COMPETITIVENESS** - Transportation staff work with outside agencies (locally and regionally), businesses, and residents to mutually develop long-range planning efforts and assure that infrastructure progresses in support of these efforts. We collaboratively support a wide range of infrastructure investments and system uses, e.g. Bellevue Arts & Craft Fair, that enhances the City and promote economic growth.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>Frequency</u>	<u>2014 Actual</u>	<u>2015 Actual</u>	<u>2016 Target</u>	<u>2017 Target</u>	<u>2018 Target</u>
130.0001	Average score on department employee survey indicating upper management effectively communicates the reasons behind key decisions (scale of 5)	Years	3.6	N/A	3.75	3.75	3.75
130.0003	Percentage of residents that agree or strongly agree that improving transportation is the biggest problem in the city	Years	60%	N/A	50%	50%	50%
130.0012	Percent of Council Regional Interest Statements advanced through regional project staff activities	Years	66%	80%	60%	75%	75%
130.0184	Variance between Q2 GF expenditure projections and year end actuals	Years	1.8%	0.6%	1%	1%	1%
130.0185	Variance between Q2 GF revenue projections and year end actuals	Years	8.9%	4.9%	3%	3%	3%
130.0217	Number of audit exit items related to best practices/standards requiring follow-up as noted from local, state, and federal audits	Years	N/A	0	0	0	0

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

N/A

#### 5B: Are one-time expenditures included in this proposal?

N/A

#### 5C: Are dedicated revenues included in this proposal?

Partially supported by CIP funding (\$186,000 in 2017 and \$194,000 in 2018).

#### 5D: Are changes to the existing service levels included in this proposal?

Service levels do not change from existing levels with this proposal.

#### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
<b>FTE</b>	11.21	11.21
<b>LTE</b>	0.00	0.00
<b>Total Count</b>	11.21	11.21

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	81,677	83,723
<b>Personnel</b>	1,652,533	1,721,293
<b>Revenue</b>	186,000	194,000
<b>Rev-Exp Balance</b>	-1,548,210	-1,611,016

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 12

**Proposal Title:** Traffic Safety and Engineering

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.30NA

**Primary Dept:** Transportation

**Parent Proposal:** None

**Proposal Type:** Existing

**Dependent Proposal:** None

**Budget Status:** Recommended

**Previous Proposal:** 130.30NA

**Primary Staff:** Karen Gonzalez, Chris Long

**Fund:** General Fund

### Section 2: Executive Summary

In the 2015 Budget Survey, 42% of residents ranked Traffic as the biggest problem facing Bellevue. Council priorities also speak to transportation continuing to implement projects in the neighborhoods, with a focus on safety and connectivity, and with a particular emphasis on sidewalks, crosswalk and traffic calming. Through a Vision Zero approach to creating a transportation system that is safe for all users, this proposal funds Traffic Safety and Engineering services for system operations and projects that reduce collisions, vehicle speeds, and non-local traffic. This proposal also provides for enhanced pedestrian and bicycle facilities, parking management on arterials and neighborhood streets, coordination with Street Maintenance, and traffic engineering support to Regional, CIP, and Planning projects. Resident concerns and requests regarding transportation are listened and responded to resulting in education and safety project opportunities that often use innovative technologies.

### Section 2b: Performance Narrative

This proposal provides high quality traffic engineering and neighborhood traffic safety services on a daily basis to facilitate exceptional roadway safety and operations and support Bellevue's investment in our transportation system. The measures in this proposal show we are achieving results, with 26 projects (ex: crosswalks, traffic calming/safety, school zone enhancements, guardrails) designed or constructed in 2015/2016 to reduce collisions and vehicle speeds as well as enhance pedestrian and bicycle safety. We also staffed over 70 project teams to ensure traffic operation and design objectives were met, as well as compliance with City and State Standards. Annual public cost savings from collision reduction projects continues to increase, and we are tracking the # of disabling injuries from traffic collisions to monitor our progress toward meeting Vision Zero's goal of eliminating severe and fatal collisions by 2030. We are currently seeing an increase in citizen requests (up 30% from 2014), which results in longer timelines to review and respond to residents. New city-wide initiatives such as the Neighborhood Enhancement Program, which started in late 2015 (Transportation received 57 requests from the first area) and other neighborhood outreach efforts from PCD (i.e. Neighborhood Leadership Gatherings) are contributing to this increase in response time.

### Section 3: Responsiveness to Request For Results

This proposal provides for all transportation operations and safety – except traffic signals and street lighting – for the city's transportation network. This is accomplished through numerous programs and projects that work to safely move bicyclists, pedestrians and motorists in and around the City.

#### ADDRESSING TRANSPORTATION CONCERNS

Staff investigates concerns expressed by citizens, staff, and outside agencies regarding traffic operations and safety, including assessments of traffic conditions, traffic data, and field conditions to develop solutions and direct responses back to the requestor. Staff also manages speed limits, truck routing, parking rules and fines, crosswalks, and school speed zones, by answering all inquiries, researching state of the practice, and preparation of council agenda memos and ordinances.

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## 2017-2018 Operating Budget Proposal

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### IMPLEMENTING SAFETY IMPROVEMENTS

Staff design and construct safety improvements that help reduce collisions, install crosswalks and guardrails, enhance school zone awareness and reduced speeding and cut-through traffic in neighborhoods. This is accomplished through a variety of program management that include:

Collision Reduction Program lowers injury costs to the public by identifying and addressing traffic crash locations, and results in less measurable public collision costs.

Crosswalk Program establishes priorities for installing new and enhancing existing pedestrian street crossings, often utilizing new technologies such as high intensity Rapid Flashing Beacons (RRFB's).

Guardrail Program reviews possible guardrail locations identified by citizens concerns, and along with an evaluation of existing guardrails in that year's pavement overlay program, an annual guardrail program is established to improve specific sites with roadside safety hazards.

Neighborhood Traffic Safety Program implements traffic calming measures to protect and preserve neighborhood livability by reducing speeds, cut-through traffic and enhance pedestrian and bicycle safety by developing Neighborhood Traffic Improvement Plans (ex: speed humps, traffic circles, chicanes, partial roadway closures). Projects also include educational components, such as Neighborhood Traffic Safety Newsletters and portable radar dollys to heighten motorist's attention to the posted speed limit.

Parking Management reviews parking concerns on arterials and neighborhood streets and manages the downtown parking enforcement contract. Parking concerns range from safety issues to non-resident vehicles parked in neighborhoods due to spill over from adjacent businesses, schools and other public facilities, with solutions that include general parking restrictions, time-of-day restrictions, or Residential Permit Parking Zones (RPZ's). RPZ's are established by City Ordinance to restrict non-residential parking on neighborhood streets to residents and their guests.

School Zone Enhancements improves traffic safety in school zones as a priority through the implementation of traffic safety education (Pedbee Safety Program), physical roadway improvements, and school speed limits. Implementation of these measures can also ease traffic congestion near schools by encouraging more students to walk or bike, reducing the number of vehicle trips and increasing physical activity.

### PROVIDING DESIGN GUIDANCE AND COORDINATION

Staff conduct investigations, provide technical reviews and manage coordination in order to maintain City and State standards, including the Manual on Uniform Traffic Control Devices (MUTCD) and the American with Disabilities Act (ADA). Provides staffing of project teams as part of CIP, development, regional, and planning projects and efforts.

Why the service level is appropriate: The work load and traffic issues within this proposal will always exceed available staff and capital resources due to the extensive roadway system, complexity of issues, and the appropriate expectations of city leadership and the public. Management spends a significant amount of time producing work plans, prioritizing workloads, and developing and tracking performance measures to ensure orderly and efficient administration of traffic safety and engineering. With the increase in neighborhood requests coupled with East Link neighborhood protection issues associated with East Link, new development and neighborhood initiatives, staffing levels cannot meet this increased demand and prioritization of workloads will continue. The result will be responsiveness to citizen concerns will take longer for review and development of recommendations.

How do these services relate to the purchasing strategies:

#### Improved Mobility and Connectivity

Safety of the Existing & Future Infrastructure is accomplished through investigation of concerns and administration of the numerous programs and projects outlined above. This includes all phases of infrastructure lifecycle management from the planning and design phase through construction and into the

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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ongoing maintenance that is supported through coordination with street maintenance. The planning and design of our projects are supported through numerous project teams, and maintenance of standards and specifications. Leveraging regional partnerships and maximizing opportunities are supported with projects that include WSDOT, Sound Transit, Metro Transit, Redmond, Kirkland, and Newcastle as team players. East Link is just one example. Safety and connectivity promote economic development and the projects/programs implemented in this proposal, such as crosswalks and daily traffic operations supports these areas. Investment value is supported through the Collision Reduction program and public cost savings from these projects. Traffic Flow is enhanced through daily traffic operations, safety programs, spot improvements to enhance capacity, and coordination with street maintenance and right of way use (detour plans for construction). Built Environment – Traffic concerns which impact neighborhood livability are addressed through projects that are “context sensitive” and “fit neighborhood character”. In addition, the arterial transportation system is maintained and improved as needed to protect neighborhoods from negative traffic impacts. Traffic engineering of roadways, crosswalks, and bike lanes support land use and access to services. Travel Options - Project teams work to ensure the full range of travel choices and connections are integrated where feasible into the design with bicycle lanes, curb ramps, and walking facilities. Building crosswalks and improvements (e.g. bike lanes) promote safety and multi-modal access. Also school programs to promote walking such as Walk to School Day and educate students and parents are implemented under this proposal.

Safe Community purchasing strategies include the prevention of traffic collisions by proactively implementing traffic safety improvements, including school zone improvements that heighten awareness, and speed control projects that encourage safe walking and bike practices to increase alternatives to being driven to school. Also educating the community on traffic safety through the distribution of newsletters and presentations to schools and organizations.

Quality Neighborhoods purchasing strategies are met with the implementation of neighborhood traffic safety projects that strengthen the sense of community and neighborhood identity by involving citizens in project development and design. Mobility is supported by improving streetscape design and public awareness through education of motorists, cyclist and pedestrians to obey traffic laws and respect other users.

### Resources:

Staffing for this proposal is split across two business units in Traffic Management, Neighborhood Services (5.3 FTE) and Traffic Engineering (5.5FTE). The Neighborhood Services staff includes 1.0 FTE for the Neighborhood Services Manager; 1.0 FTE for a Senior Project Engineer, 1.8 FTE for Project Managers, 1 FTE for a Design Engineer, and 0.5 FTE for an Associate Planner. The Traffic Engineering staff includes 0.5 for the Traffic Engineering Manager; 3.0 FTE for three Senior Transportation Engineers; 1.0 FTE for a Transportation Engineer and 1.0 FTE for a Senior Engineering Technician.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 4: Performance Measures and Targets

Code	Performance Measure	Frequency	2014	2015	2016	2017	2018
			Actual	Actual	Target	Target	Target
130.0026	Annual public cost savings from collision reduction projects	Years	\$3,700,000.00	\$3,800,000.00	\$3,900,000.00	\$4,000,000.00	\$4,100,000.00
130.0047	Percent of requests reviewed/responded to with recommendation within 6 weeks	Years	87%	72%	80%	80%	80%
130.0089	Number of projects designed and/or constructed per year	Years	36	26	25	25	25
130.0145	Number of Customer Concerns	Years	461	603	175	200	200
130.0212	Number of vehicle, ped and bicycle disabling injuries and fatalities	Years	20	18	15	13	13

### Section 5: Requested Funding

#### 5A: Are any new costs other than inflation included in this proposal?

\$150,000 in 2017 & 2018 to fund a Transportation Technology Partnership.

#### 5B: Are one-time expenditures included in this proposal?

N/A

#### 5C: Are dedicated revenues included in this proposal?

Partially supported with CIP funding (\$172,000 in 2017 and \$179,000 in 2018).

#### 5D: Are changes to the existing service levels included in this proposal?

N/A

#### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
<b>FTE</b>	10.80	10.80
<b>LTE</b>	0.00	0.00
<b>Total Count</b>	10.80	10.80

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	257,501	260,098
<b>Personnel</b>	1,563,086	1,628,234
<b>Revenue</b>	172,000	179,000
<b>Rev-Exp Balance</b>	-1,648,587	-1,709,332



# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 13

**Proposal Title:** Emergency Mgmt/Preparedness for the Transportation System

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.35NA                      **Primary Dept:** Transportation

**Parent Proposal:** None                      **Proposal Type:** Existing

**Dependent Proposal:** None                      **Budget Status:** Recommended

**Previous Proposal:** 130.35NA                      **Primary Staff:** Judy Johnson, x4891

**Fund:** General Fund

### Section 2: Executive Summary

This proposal provides equipment, training, preparedness plans, and material stock for transportation system emergencies such as snow and ice storms, windstorms, and earthquakes. This includes equipment preparation, developing and updating emergency response priority maps, detour route information and signage, and stocking traction sand, anti-icer, and de-icer. Also included are regular updates to emergency management plans and procedures, emergency response training and exercises, emergency management team meetings (both departmental and citywide) and other activities contributing to preparedness. An average amount of small-scale load-up, ice patrol, and insignificant hilltop snow response or ice prevention is included. Funding for full-scale event response is not included in this proposal.

### Section 2b: Performance Narrative

Emergency Preparedness measures are typically “pass or fail” measures; equipment is tested and ready, staff is trained, materials are stocked, response to the average event can be managed with resources prepared. We have added a tracking mechanism for lane miles of anti-icer applied to evaluate response to predicted ice, snow, freezing fog or heavy frost. Even though there may not be much snow (as was the case this last two seasons), we had ice and freezing fog in the forecast many times in 2015. Lack of incidents and calls for service regarding ice and freezing fog for these events last winter are an indication of success of the anti-icer application program.

### Section 3: Responsiveness to Request For Results

Transportation has a critical role in responding to events such as inclement weather (e.g. ice, snow, or wind storms), flooding, natural and man-made disasters, and major emergency incidents to keep the transportation system operational. Collaboration and cooperation is imperative since the operating groups in several City departments count on staffing and assistance from each other to respond to emergencies. For example, Transportation has the lead on ice and snow response and Utilities has the lead on flooding response - but employees in each work group join to respond to any of these emergencies. These work groups must be organized and prepared to react to any situation and respond to a variety of potential events. These preparedness efforts are made successful by proactive communication, planning, and training.

EMERGENCY MANAGEMENT INCLUDES FOUR PHASES: MITIGATION, PREPAREDNESS, RESPONSE AND RECOVERY. SERVICES PROVIDED BY THIS PROPOSAL INCLUDE:

- Snow and ice preparedness such as stocking materials needed for event response (e.g. traction sand and de-icer), post-response cleaning of deicer from equipment and treating equipment with corrosion inhibitor, pre-season testing of equipment to ensure functionality, and repairing or replacing equipment and tools.
- Wind and Flooding Preparedness including chain saw stocking, standby personnel protocols and training and detour route signing for known flooding locations.
- Proactive anti-icer application based on forecast conditions.
- Coordinating response priorities with partners, including the Utilities, Parks, Police and Fire Departments.
- Maintaining and updating maps and logs for field crews, and preparing and presenting training for

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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dispatchers, field coordinators and plow operators (including staff from other departments).

- Establishing communication protocol between departments and between operations center staff and field dispatch center.
- Contracting meteorology services to monitor weather forecasts specific to Bellevue; preparing communications and readying manpower and equipment for response when weather is forecast to require response.
- Updating the emergency preparedness guidelines and resources including roles and responsibilities of emergency functions, reporting procedures, communications and command center protocol; organizing the department emergency management team; and participating on citywide preparedness teams.
- Ensuring staff compliance with mandated training and developing ongoing training protocol and exercises.
- Participating in regional emergency management activities, updates to the City's Emergency Operations procedures, as well as Hazard Mitigation and Continuity of Operations Plans.

### ASSOCIATED REQUIREMENTS:

- WAC 118.30 Local Emergency Management/Services Organizations. Plans and Programs. Requires cities to maintain emergency operations plans based on hazard analyses.
- RCW 38.52 Emergency Management. Requires local jurisdictions to develop comprehensive emergency management plans and programs consistent with the State Comprehensive Emergency Management Plan.
- Code of Federal Regulations (CFR) Title 44, Chapter 1. Part 201. Requires that jurisdictions develop mitigation plans to be eligible for federal mitigation grants.
- Homeland Security Presidential Directive-5. Federal law requires the use and implementation of the National Incident Management System (NIMS) in order to receive grant funds.

### EVIDENCE AND LOGIC SUPPORTING THIS PROPOSAL:

- The 2016 Budget Survey conveys information from Bellevue's residents regarding preparing for emergencies. Emergency preparedness is listed as the #11 priority service out of 39 and was in the top 10 in both 2010 and 2012, #12 in 2014. There is work to be done, as this service remains in the "above-average importance/below-average satisfaction" category. Improved mobility is listed in the survey as priority one.
- Emergency management and preparedness is essential in moving traffic through Bellevue smoothly, efficiently, and safely as possible under extreme conditions. This work is critical to providing drivable routes for emergency response vehicle access to citizens in need during weather events. Response efforts are prioritized with high-use roadways and safety-critical destinations (such as hospitals and fire stations) in mind. By being proactive in preparedness efforts, City operations staff have worked together to react effectively to emergency situations including the 2006 wind storm, the 2012 freezing rain and extended snow event, and the Ford dealership fire. Immediate coordination with Fire and Police is the standard.

### INNOVATIONS, COLLABORATION, AND COST SAVINGS

- Agency Partners such as WSDOT, King County, Kirkland and Redmond communicate proactively to connect priorities at the borders and share ideas and resources.
- Once their facility plow priorities have been accomplished, the Parks Dept. is sometimes able to send help for the Transportation system in the form of plows with drivers to assist.
- Response is reviewed in an after-event briefing every time we have a significant response. Plans are reviewed and updated based on lessons learned. Staff continues to refine the response priorities map and emergency response plans based on years of lessons learned, conditions encountered, and area-wide jurisdictional coordination so that the City is well prepared for events. This minimizes traffic delays, reduces the impacts to infrastructure, and maximizes resources to do the most good for the most people. Preparedness for response to inclement weather conditions is necessary for safe travel conditions across the Transportation system.

**SCALABILITY:** For emergency preparedness activities, scalability by reducing supplies in stock or pre-season equipment preparation would slow response efforts by not having the materials and equipment ready when an event occurs. Emergency preparedness and response are important functions we perform as public sector

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employees. Being prepared in advance to respond to events such as earthquakes, wind storms, and snow and ice facilitate keeping the main roads accessible for police and fire vehicles and promote timely response to emergencies such as house fires. Scaling back this service is not recommended.

CORRELATIONS TO REQUESTS FOR RESULTS IMPROVED MOBILITY AND CONNECTIVITY (IM) - values and factors supported by the Emergency Mgmt/Preparedness for the Transportation System proposal:

- KEY COMMUNITY INDICATORS - Bellevue values "...a safe transportation system for all users" and "...travel to, from, and within the City in a reasonable and predictable amount of time".
- [TRAFFIC FLOW] FACTOR AND PURCHASING STRATEGY – "maintain traffic flow in order to gain the most efficiency out of the existing transportation network"; "Safety", "provide for road maintenance and timely system repair"; "effectively clear barriers to traffic flow"; "Include preparation for severe event response". Priority response map takes into consideration routes which will carry traffic in the safest and most efficient way based on roadway conditions and is made available to the public in advance for travel planning. When needed, (such as during flooding events), detour routes and signage help direct citizens to safe routes. Advance preparation of detour plans and traffic control supplies helps to enhance motorist safety and the efficiency of traffic flow by clearing mobility problems quickly.
- ALL IMPROVED MOBILITY AND CONNECTIVITY FACTORS AND STRATEGIES – "Safety is a central concern in designing and operating the transportation system, and is embedded in all factors".
- "Emergency Management function overlaps with Safe Community; proposals for equipment, emergency, or annual work related to restoring travel capability during severe events should be directed to IMPROVED MOBILITY AND CONNECTIVITY".
- CITYWIDE PURCHASING STRATEGIES regarding "best value", "gains in efficiency", "collaboration", "sound management of resources" and "innovation" have been demonstrated by continually improving based on lessons learned in each event, including the "Innovations, Collaboration, and Cost Savings" list in Section 4.
- SAFE COMMUNITY – Factors and purchasing strategies entitled: "Planning and Preparation" and "Response": "Bellevue can gain the confidence of its citizens by providing rapid and effective response to a man-made or natural disaster"; "demonstrate that a plan is in place to respond to an emergency and that the plan will work" and this includes references to emergency management and training. Emergency procedures are in place for all anticipated scenarios and weather conditions are monitored so that staff and the related equipment are brought to readiness in time to react to inclement weather events.
- QUALITY NEIGHBORHOODS. FACTOR 3: PUBLIC HEALTH AND SAFETY – Provide prevention education including emergency preparedness; Community awareness is achieved through open houses, web updates during response activities, and list serves providing information on how citizens can prepare and react to weather emergencies. Customers are confident that the City will respond to events as soon as possible.
- Cooperation with ADJACENT COMMUNITIES guides the route connections between cities, and using a common anti-icer/de-icer product allows for purchasing advantages, mutual support, and sharing of supplies. Transportation leverages partnerships in an eight county area by participating in regional groups; this work includes planning scenarios and guidelines for catastrophic event response area-wide.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>Frequency</u>	<u>2014 Actual</u>	<u>2015 Actual</u>	<u>2016 Target</u>	<u>2017 Target</u>	<u>2018 Target</u>
130.0063	Workload and call tracking are monitored for each event and positive feedback received from the community and City Council	Years	100%	100%	100%	100%	100%
130.0064	Stock is on hand, staff trained and equipment ready for ice and snow and winter storms by November 15 of each year	Years	98%	100%	100%	100%	100%
130.0065	Sufficient store of materials for the first 48 hours of an event	Years	100%	100%	100%	100%	100%
130.0066	Preventable equipment breakdowns in the first 12 hours of the event	Years	0	0	0	0	0
130.0166	Annual Total of Lane Miles Requiring Anti-icing Application	Years	335	683	345	345	345

### Section 5: Requested Funding

**5A: Are any new costs other than inflation included in this proposal?**

N/A

**5B: Are one-time expenditures included in this proposal?**

N/A

**5C: Are dedicated revenues included in this proposal?**

N/A

**5D: Are changes to the existing service levels included in this proposal?**

N/A

### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
<b>FTE</b>	2.00	2.00
<b>LTE</b>	0.00	0.00
<b>Total Count</b>	2.00	2.00

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	176,768	182,042
<b>Personnel</b>	193,598	201,038
<b>Revenue</b>	0	0
<b>Rev-Exp Balance</b>	-370,366	-383,080

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

### Section 1: Proposal Descriptors

Ranking: 14

**Proposal Title:** Transportation Drainage Billing

**Outcome:** Improved Mobility and Connectivity

**Proposal Number:** 130.06NA

**Primary Dept:** Transportation

**Parent Proposal:** None

**Proposal Type:** Existing

**Dependent Proposal:** None

**Budget Status:** Recommended

**Previous Proposal:** 130.06NA

**Primary Staff:** Judy Johnson, 4891

**Fund:** General Fund

### Section 2: Executive Summary

This proposal is for funds for the Transportation Department to pay for storm drainage from Bellevue's roadways to the City's Stormwater Utility. This system manages runoff from impervious surfaces to prevent flooding, and to preserve existing streams and wetlands, keeping them free from pollutants. Transportation owns over 120,000,000 sq ft of impervious streets. Transportation is billed for 26.5% of the surface as lightly developed (medians, plantings, etc). The other 73.5% is billed as heavily developed. Heavily developed properties have much greater runoff and are charged at a higher rate. These calculations have been determined to take credit for detention systems into account.

### Section 2b: Performance Narrative

The only possible measure for this proposal is whether the Transportation – Street Maintenance Operating Budget was funded to pay the bill or not.

### Section 3: Responsiveness to Request For Results

As property owners, the City must pay the same types of fees that homeowners and businesses pay, measured in the same way. Storm and Surface Water charges serve to maintain and improve the entire City's stormwater system. These charges are based on the size of the property and the percentage of impervious surface. Impervious surfaces are mainly constructed surfaces such as sidewalks and roads which are covered by materials which do not allow water to pass through; such as asphalt, concrete, brick and stone. These materials seal surfaces, repel water and prevent it from infiltrating soils. The higher the percentage of impervious surface, the higher the classification will be for billing purposes. The range of classifications runs from &wetlands& to &very heavily developed.& Transportation owns over 120,000,000 sq ft of impervious street surfaces and walkways.

The City of Bellevue currently provides a highly functional drainage system that serves all customers within the City. This system is critical to the prevention of flooding, and erosion; and traps debris, oils, silts, and other contaminants that would otherwise end up in the City's lakes and streams. Storm drainage is able to remove these contaminants and dispose of them properly.

#### SCALABILITY

Not paying the bill is not an option, this proposal is not scalable.

#### IMPROVED MOBILITY – (Flood Prevention)

Bellevue's drainage system is composed of streams, lakes, wetlands, flood detention sites, pipes and ditches and has been designed to hold and carry water during storms to prevent flooding. This improves mobility because a properly maintained drainage system reduces roadway flooding and the resulting impacts on mobility.

# City of Bellevue - Budget One

## 2017-2018 Operating Budget Proposal

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Bellevue's Citywide Purchasing Strategies, community values and IMPROVED MOBILITY purchasing factors include building, maintaining and improving the Transportation system in such a way that it provides safe and reliable connections for people to get where they want to go – when and how they want to get there. In the EXISTING AND FUTURE INFRASTRUCTURE factor, it states “PROJECTS AND PROGRAMS THAT ENHANCE THE RELIABILITY AND MAXIMIZE THE FUNCTIONALITY OF TRANSPORTATION INFRASTRUCTURE NOT ONLY ENSURE THAT TAXPAYERS GET THE MAXIMUM VALUE FOR THESE INVESTMENTS, BUT ARE ALSO KEY TO IMPROVING MOBILITY. Each and every Transportation project that is built includes considerations for storm drainage components that meet the engineering needs for system passability and flood control. Roadway, bicycle lane or walkway pavements that do not drain properly are hazards to the system users because they cause cars to hydroplane and cause bicyclists or pedestrians to edge out into traffic to avoid puddles. Further, pavements that do not drain properly fail sooner due to the eventual penetration of the water into the ground below, weakening the pavement. This trapped water becomes even more destructive in the winter when it freezes and expands, forcing pavements to buckle. Preventing this damage is beneficial to the SAFETY and MAINTENANCE components of the TRAFFIC FLOW factor by CLEARING BARRIERS AND MINIMIZING DISRUPTIONS to traffic. The BUILT ENVIRONMENT factor is enhanced as preservation of the existing pavement saves resources for other projects and enhances the TRAVEL OPTIONS as well as the convenience and safety of the system.

The payment of the Storm Drainage bill is not only a legal obligation, but it funds the maintenance of the Transportation drainage system; which is environmentally necessary, critical to the everyday function of the transportation network, and beneficial to the City's recovery after ice and snow events and flood events.

HEALTHY AND SUSTAINABLE ENVIRONMENT (RFR) factors and subfactors enhanced by this proposal:

AIR AND WATER factors - POLLUTION PREVENTION AND REDUCTION, SURFACE AND STORM WATER MANAGEMENT

- EDUCATION - To increase awareness about pollution in waterways, Bellevue is part of a regional campaign called &Puget Sound Starts Here,& made up of more than 300 Puget Sound organizations that support the message that the Sound's pollution problems start in our own backyards.
- REDUCED POLLUTANTS - To protect water quality, Bellevue manages stormwater runoff in a number of ways. The city follows &best management& practices and operates under a National Pollutant Discharge Elimination System Phase II Municipal Stormwater Permit issued by the state Department of Ecology in January 2007. This permit is a requirement of the Federal Clean Water Act.

NATURAL ENVIRONMENT, (LAKES, STREAMS, AND WETLANDS, WILDLIFE HABITAT)

- As water from rainfall flows over rooftops, streets and yards, it picks up and carries pollutants such as fertilizers, soap, oil, dirt, metals and solvents. This pollution flows directly into Bellevue's storm drains and ends up harming streams, lakes and wetlands. Proper maintenance of the Storm Drainage system keeps our waterways free of pollution.
- Streams, lakes and wetlands are critical areas protected from development, and constitute a natural part of Bellevue's drainage system. They are also home to salmon and many other types of fish and wildlife.
- People in Bellevue enjoy the city's streams, lakes and wetlands for their beauty and for recreation.
- Flooding can cause stream bank erosion, destroy salmon eggs and cause property damage.

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**SAFE COMMUNITY – (Flood Prevention)**

Bellevue's drainage system is composed of streams, lakes, wetlands, flood detention sites, pipes and ditches and has been designed to hold and carry water during storms to prevent flooding. This improves safety because it reduces the possibility of flooding in businesses and residences.

**RESPONSIVE GOVERNMENT: Stewards of the Public Trust (Minimizing Risk and Liability) –** Funds programs that ensure that the City complies with contract and regulatory requirements (National Pollutant Discharge Elimination System and Endangered Species Act). This also reduces the likelihood of claims due to roadway runoff that has overflowed the roadway and entered private properties.

**ECONOMIC GROWTH AND COMPETITIVENESS: Land, Infrastructure and Planning -** A robust and strategic drainage infrastructure forms the foundation for the City's economic competitiveness and advances the standard of living in the community.

### Section 4: Performance Measures and Targets

<u>Code</u>	<u>Performance Measure</u>	<u>Frequency</u>	<u>2014</u> <u>Actual</u>	<u>2015</u> <u>Actual</u>	<u>2016</u> <u>Target</u>	<u>2017</u> <u>Target</u>	<u>2018</u> <u>Target</u>
130.0163	Storm Drainage Bill Paid	Years	Yes	Yes			

### Section 5: Requested Funding

**5A: Are any new costs other than inflation included in this proposal?**

NA

**5B: Are one-time expenditures included in this proposal?**

NA

**5C: Are dedicated revenues included in this proposal?**

NA

**5D: Are changes to the existing service levels included in this proposal?**

NA

### 5E: Budget Summary

<u>FTE/LTE</u>	<u>2017</u>	<u>2018</u>
<b>FTE</b>	0.00	0.00
<b>LTE</b>	0.00	0.00
<b>Total Count</b>	0.00	0.00

<u>Operating</u>	<u>2017</u>	<u>2018</u>
<b>Expenditures</b>	3,991,452	4,183,042
<b>Personnel</b>	0	0
<b>Revenue</b>	0	0
<b>Rev-Exp Balance</b>	-3,991,452	-4,183,042

**City of Bellevue - Budget One**  
**2017-2018 Operating Budget Proposal**

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