



MEMORANDUM

To: Kurt Triplett, City Manager
From: Tracey Dunlap, Deputy City Manager
Date: September 27, 2018
Subject: CAPITAL IMPROVEMENT PROGRAM PROCESS IMPROVEMENTS

BACKGROUND

The City's Capital Improvement Program has grown substantially over the past ten years, as illustrated by the table below (with investments in public safety facilities like the Kirkland Justice Center (KJC) reflected in the Public Safety category).

CIP Expenditure History by Category - Actuals 2007-2017

| | Trans | Parks | Public Safety | Technology | Facilities | Surf Wtr | Water/Sewer | Total |
|--------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| 2007 | 3,836,700 | 3,023,833 | 214,467 | 1,690,739 | 568,665 | 1,014,715 | 3,180,487 | 13,529,607 |
| 2008 | 4,824,708 | 1,089,616 | 46,848 | 1,574,195 | 806,763 | 1,330,816 | 4,890,347 | 14,563,293 |
| 2009 | 6,845,294 | 1,580,526 | 650,491 | 794,451 | 1,557,475 | 1,095,033 | 4,860,352 | 17,383,621 |
| 2010 | 6,013,625 | 1,453,241 | 11,231,510 | 1,274,150 | 524,576 | 4,501,019 | 7,819,322 | 32,817,442 |
| 2011 | 7,895,500 | 2,740,063 | 750,807 | 628,464 | 112,075 | 887,400 | 345,996 | 13,360,306 |
| 2012 | 16,644,900 | 1,793,184 | 1,132,077 | 762,075 | 455,704 | 4,435,280 | 3,986,820 | 29,210,039 |
| 2013 | 11,505,068 | 1,157,690 | 19,339,127 | 1,466,822 | 359,242 | 4,623,661 | 1,254,218 | 39,705,829 |
| 2014 | 11,122,588 | 3,014,706 | 11,838,509 | 897,313 | 907,761 | 2,711,523 | 2,878,355 | 33,370,755 |
| 2015 | 16,141,092 | 1,055,912 | 1,123,259 | 1,329,740 | 7,293,784 | 5,268,145 | 8,025,732 | 40,237,664 |
| 2016 | 9,710,246 | 2,039,662 | 779,978 | 1,508,344 | 9,292,972 | 2,287,867 | 5,293,133 | 30,912,201 |
| 2017 | 14,843,598 | 4,431,871 | 1,946,530 | 2,312,487 | 1,912,284 | 2,885,395 | 6,982,948 | 35,315,113 |
| Total | 109,383,317 | 23,380,304 | 49,053,603 | 14,238,781 | 23,791,300 | 31,040,855 | 49,517,710 | 300,405,870 |

In addition to the City's investments, there has been substantial private investment in infrastructure associated with new development.

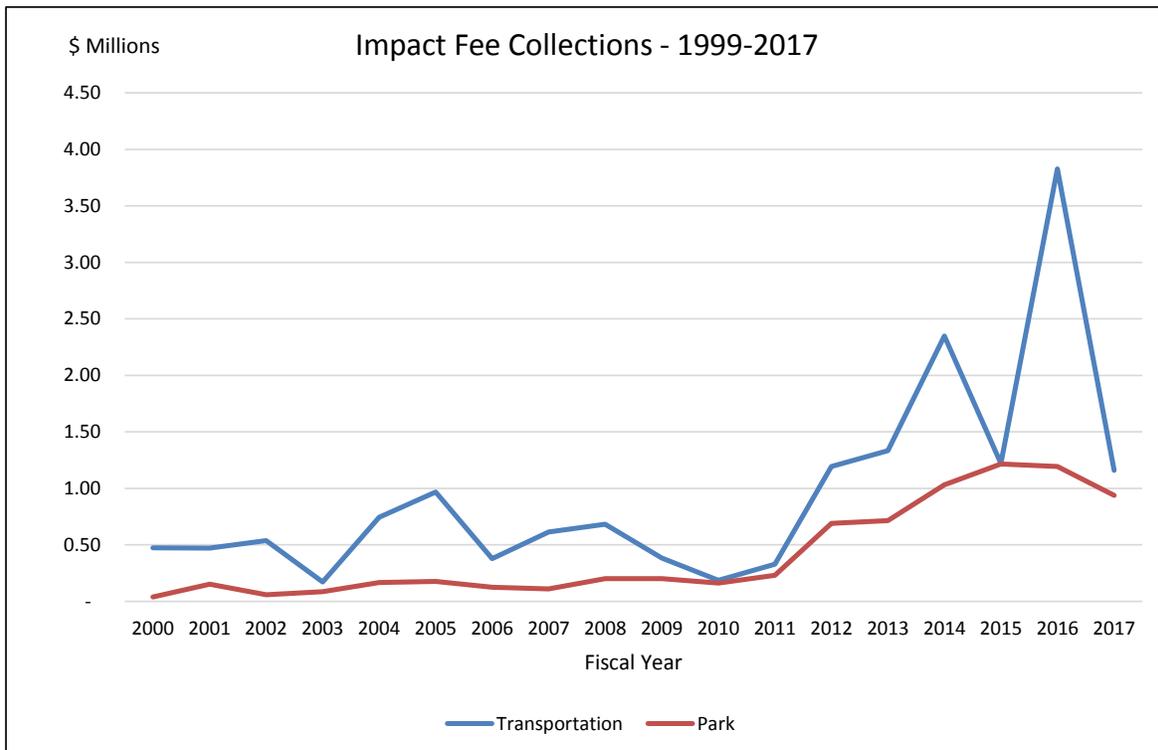
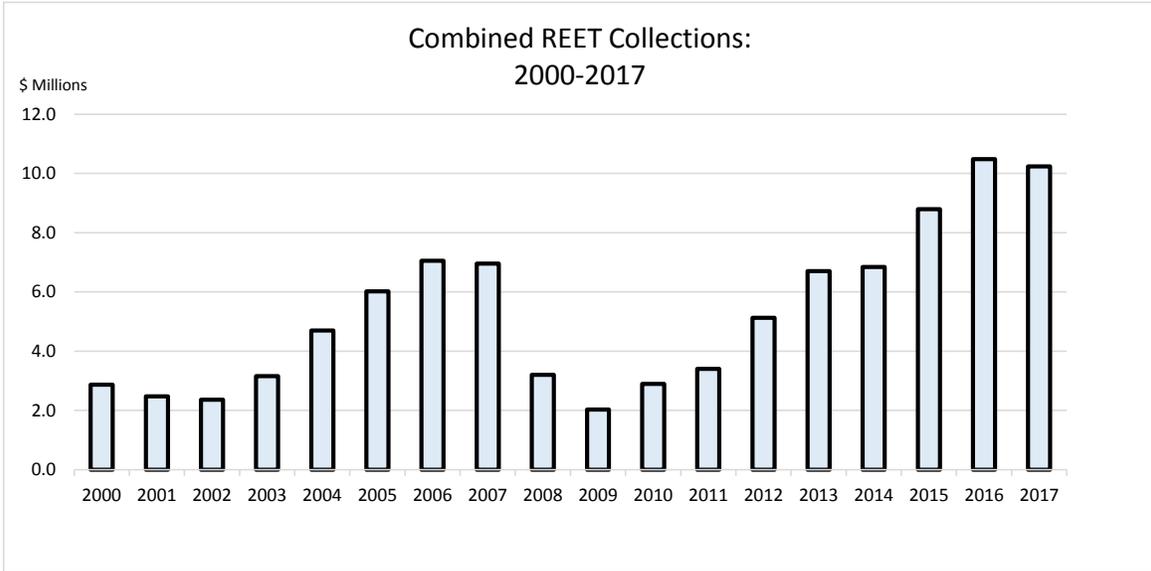
Developer Installed Infrastructure

| Year | Water Main | Hydrants | Sewer Main | Storm Main | Curb/Gutter | Sidewalk | Pavement | Total |
|--------------|---------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
| 2007 | \$ 205,199 | \$ 41,900 | \$ 295,022 | \$ 224,369 | \$ 136,387 | \$ 136,456 | \$ 216,493 | \$ 1,255,826 |
| 2008 | \$ 165,396 | \$ 32,710 | \$ 283,517 | \$ 323,801 | \$ 169,338 | \$ 175,368 | \$ 81,281 | \$ 1,231,411 |
| 2009 | \$ 148,603 | \$ 28,150 | \$ 263,748 | \$ 289,149 | \$ 130,284 | \$ 118,614 | \$ 181,453 | \$ 1,160,001 |
| 2010 | \$ 125,737 | \$ 23,190 | \$ 114,959 | \$ 177,886 | \$ 112,738 | \$ 110,512 | \$ 147,901 | \$ 812,923 |
| 2011 | \$ 17,027 | \$ 6,450 | \$ 5,734 | \$ 84,746 | \$ 22,331 | \$ 28,020 | \$ - | \$ 164,308 |
| 2012 | \$ 148,128 | \$ 27,300 | \$ 190,633 | \$ 118,122 | \$ 82,821 | \$ 100,007 | \$ 147,562 | \$ 814,573 |
| 2013 | \$ 243,444 | \$ 77,350 | \$ 233,691 | \$ 277,070 | \$ 164,907 | \$ 171,969 | \$ 159,761 | \$ 1,328,192 |
| 2014 | \$ 274,716 | \$ 31,850 | \$ 366,544 | \$ 599,015 | \$ 482,125 | \$ 379,630 | \$ 701,741 | \$ 2,835,621 |
| 2015 | \$ 298,980 | \$ 61,600 | \$ 85,440 | \$ 328,916 | \$ 275,040 | \$ 237,245 | \$ 198,157 | \$ 1,485,378 |
| 2016 | \$ 86,150 | \$ 36,000 | \$ 12,355 | \$ 216,530 | \$ 204,284 | \$ 163,766 | \$ 250,055 | \$ 969,140 |
| 2017 | \$ 589,979 | \$ 70,330 | \$ 610,614 | \$ 642,678 | \$ 517,013 | \$ 383,484 | \$ 510,952 | \$ 3,325,050 |
| TOTAL | \$ 2,303,359 | \$ 436,830 | \$ 2,462,257 | \$ 3,282,282 | \$ 2,297,268 | \$ 2,005,071 | \$ 2,595,356 | \$ 15,382,423 |

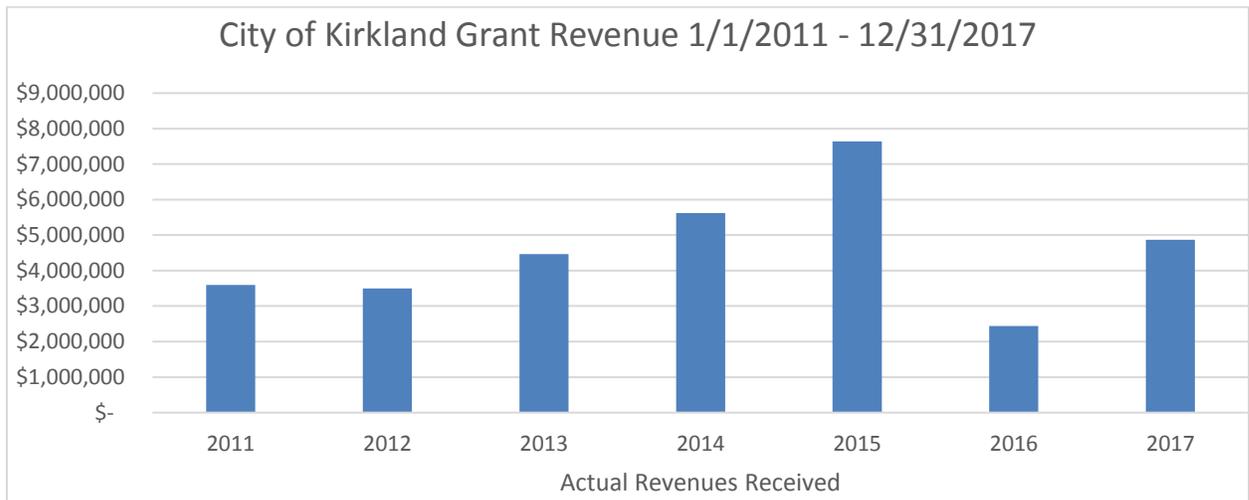
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As shown on the graphs that follow, the high rates of new development have also resulted in Real Estate Excise Tax (REET) and impact fee collections above budgeted levels, which have been used to:

- Fund new projects necessary to serve growth (for example, Totem Lake Park),
- Supplement projects that have experienced cost growth due to the booming land prices and the overall economy (such as new Fire Station 24),
- Fund shortfalls in projects where bids have been over the engineer’s estimate due to the competition for construction resources and other factors (examples include Edith Moulton, Finn Hill Playfields, and several sidewalk projects), and
- Add to reserve balances toward future projects.



In addition to these revenue sources, the City has been very successful in securing grants from state and federal programs as shown in the graphic below and continues to actively pursue funding from outside sources as discussed later in this issue paper. Note that 2015 was an exceptional year and included \$5.9 million in transportation grants including the CKC Interim Trail, Park Lane Pedestrian Corridor Enhancements Phase II, NE 120th Street Roadway Extension East Section, and part of the NE 85th St improvements. The scope and ambition of the projects listed above helped make them very attractive grant candidates and carrying out the associated work funded by those grants helps to explain the lower level of grant funding in 2016.



As noted in the CIP document, the CIP is a funding plan, rather than a spending plan. The amounts shown in the document are the funding sources that are being planned for projects, based on preliminary, rough order-of-magnitude cost estimates. In most cases, project cost estimates in the CIP are prepared in the early concept phase, without the benefit of any design work. For example, projects may show as funded over two years, with the first year reflecting design and the second year showing construction, but in reality the spending to complete the project may occur over a period of three to five years. This dynamic exists for a variety of reasons, including the ability to secure local funding to match potential grants and to allow for coordination of projects across functions (for example, timing utility projects to coincide with resurfacing the roadway). The capital carryover that occurs at the beginning of each biennium is, in part, the recognition that cash has been set aside for projects, but has not yet been spent.

Further, the CIP process is intended to identify the funding sources available for projects prioritized in the next six years. The project budgets are the best estimates available as of the date of the plan and, as a result, can change as scope evolves, as design and permitting progresses, and in response to market conditions. As project timing changes, the impacts of cost escalation can also come into play. The first two years of the CIP are adopted as part of the biennial budget and therefore represent actual funding commitments. In general terms, the estimates for projects that appear beyond the first two years of the CIP are preliminary programming estimates. As a result, when the CIP is developed every other year (and updated in the intervening year), the cost estimates may change and require adjustments to funding. There are several mechanisms in place to help address this uncertainty:

- In some cases, placeholder projects are used for outer years to recognize funding availability, for example Neighborhood Park Land Acquisition. This approach allows specific project priorities and estimates to be developed based on specific needs as they are identified.
- Preliminary programming estimates generally contain larger contingencies (10% of construction or higher), which can be refined as engineering design progresses.
- Funds are set aside toward capital contingencies. These take the form of reserves in both the general and utilities capital funds. These reserves are intended to be used to supplement

project budgets when actual site conditions and market pricing vary from previous assumptions. These reserves provide a planned approach to dealing with the unknowns in capital planning.

Although reserves are used effectively and appropriately to adjust preliminary project budgets prior to awarding bids, staff has discussed ways in which Council members could be given early indications of the potential need for contingency use. At times, prior to project bids, engineer's estimates exceed planned construction budgets. Past practice has been to wait for actual bids to determine whether or not there is a need to use reserves to adjust project budgets. This practice is helpful, in that it eliminates the need for multiple budget adjustments prior to bid openings. The practice does not, however, provide an early indication of foreseen project budget adjustment needs. When a bid exceeds the project budget amount, the department may recommend changing the scope of the project, rebidding the project with some elements as alternates, or adding new funding. Staff will bring options forward to Council for making Council members aware of potential project budget adjustments earlier in the process.

Summary of Process Improvements

The rapid growth in capital investments over the past five years has provided the opportunity and the imperative to examine our process for managing capital projects. The process improvement efforts can be summarized in three different phases.

2013-2014 Process Improvements

At the June 17, 2013 City Council Retreat, the Council received an overview of improvements to the Public Works CIP Project Management process that is included as Attachment A to this issue paper. This document summarizes a number of key process improvements that were implemented at that time:

- The CIP Steering Committee, comprised of Public Works, client departments, the City Manager's Office, and Finance, was established to meet on a monthly basis to review the scope, schedule, and budget status of CIP projects that are in process. For very large and/or complex projects, separate steering teams can be established, for example, the Facilities steering team met regularly during the City Hall renovation and a few complex Information Technology projects (Lucity, Project 12) have used the steering team model.
- Project Budget Dashboards were established to allow costs to be tracked for major expense components (land acquisition, design, construction, etc.) and funding sources. The budget and actual information on the dashboards is maintained by Finance and the project progress information by the project manager to ensure consistency.
- Part of this process formalized the management of the construction aspects of Park projects by the Public Works Capital Projects group to enable those projects to take advantage of the systems and expertise of the CIP staff.
- A CIP Project Management checklist was created to clarify the roles and responsibilities of Public Works, Finance, and client departments (signified by Parks in the document), as well as identifying when Public Outreach staff should be brought into the process.

In addition to the items summarized in the attachment, the following changes were also implemented:

- Added dedicated Public Outreach staffing to the Capital Project group to provide expertise and focused attention to this important part of project execution.
- Established performance measurements for capital projects, including scope, schedule, and budget and billable hour standards for project management staff.
- Established a standard that capital project staff attend Project Management Professional training offered by King County that is based around the best practices, tools and techniques established by the Project Management Institute. This training series was implemented by the County in response to past King County performance audits.

2015-2018 Process Improvements

A variety of process improvements have been implemented since that time:

- As part of the 2015-2020 Capital Improvement Program, the process for presenting the recommendations was revamped to better reflect the relationship to Council goals, the City Work Program, and adopted master plans. Two of these improvements are highlighted below:
 - Establishing Council-adopted Policy Principles for Prioritizing the CIP (Attachment B) and organizing the CIP narrative by those principles.
 - Aligning the 2-year budget, 6-year CIP, and 20-year master plans, with a focus on funding construction of projects that have completed the design phase as part of the 2-year budget. Attachment C contains an excerpt from the CIP narrative that describes how this process was implemented in the Transportation elements to maximize the benefit to the community within the level of funding available.

- A number of actions were taken as part of the 2015-2016 and 2017-2018 biennial budget processes to facilitate project delivery:
 - Hired a construction inspector dedicated to CIP projects and an engineer with specific skills to allow for the design of small projects in-house.
 - Instituted programmatic permitting to allow for expedited permit processing of specific types of recurring projects such as sidewalks.
 - Hired a consultant that was formerly the Executive Director of the Transportation Improvement Board to review the CIP process and make recommendations to assist Public Works in its continuous improvement of CIP management. The following specific tasks have been completed or are underway:
 - 1) Developed a strategic approach for planning grant revenues and targeting grant sources,
 - 2) Identified (and continue to identify) specific projects to implement the new strategies and assisted with grant applications` (See Attachment D for a presentation made to the Public Works, Parks, and Human Services Committee on the grant strategy topic. Additional materials and briefings will be made available upon request.) ,
 - 3) Provided a review of current program management processes and practices and is making recommendations regarding best practices,
 - 4) Assisted (and continue to assist) the Department in integrating Lean/continuous improvement concepts and practices into the City's CIP program.
 - Engaged an engineering consultant to update estimated current and proposed project budgets in light of documented price increases that are being experienced throughout the construction industry.

- Other actions and improvements include:
 - Implementation of Lucity Maintenance Management software to track work orders and system condition to help identify deficiencies in existing system to prioritize as capital projects.
Implementing, as a standard practice, a "lessons learned" debrief among all CIP staff upon completion of each project. Lessons learned are logged and saved by project type, so staff can later refer to them and build on past successes and avoid past mistakes.
 - Implementation of recommended bidding strategy best practices. Attachment E is a presentation by construction management firm, KBA Inc. at the April 2018 American Public Works Association Washington Conference that provides some best practices from their work with contractors (Attachment E). The tables on the following pages

summarizes those practices that the City has employed with selected examples. Additionally, the Department has solicited input from the capital project management firm OAC regarding best practices, and, more specifically, strategies to address current market conditions in this region.

Kirkland CIP Project Management Employed Strategies

| To achieve better value (lower bid) on <u>all</u> contractor bid projects | |
|--|---|
| Strategy | Kirkland Example |
| Maintain a reputation for being a fair and reasonable owner | <ul style="list-style-type: none"> ○ Demonstrated willingness to openly work through payment for legitimate changes <ul style="list-style-type: none"> ● Wester Parking Lot soil amendment ● 2018 Curb ramp repairs equitable adjustment to contract for differing site conditons |
| Build relationships | <ul style="list-style-type: none"> ○ Approaching past succesful project contractor as contact for gauging the bidding climate and industry trends <ul style="list-style-type: none"> ● 2017 NSP (collaborative effort to resolve differing site conditions) ● Fire Station 25 (complete small work items not specified in contract at no cost) ● 2018 School Walk Routes (reflected in repeated low bid) ● Edith Moulton (significant grading and conduit work not specified in plans at no cost) ● 2017 Pavement Program (contractor appreciation letter for stewardship of tax dollars and road condition) |
| Provide less confrontational specifications | <ul style="list-style-type: none"> ○ Review traffic control needs for project ○ Clearly identify unit cost items as opposed to incidental items ○ Clearly identify requirements for handling changes ○ Provide adjustment for oil prices on projects with high quantities of asphalt (i.e., Annual Street Preservation) <ul style="list-style-type: none"> ● Clearly identify requirements and calculation of liquidated damages ● Review project scope of work and challenges at preconstruction meetings |

| To achieve better value (lower bid) on <u>all</u> contractor bid projects (cont.) | |
|---|---|
| Strategy | Kirkland Example |
| | <ul style="list-style-type: none"> ○ Examples <ul style="list-style-type: none"> ▪ 3rd and 2nd water/sewer projects (spring contractor) ▪ Juanita Creak Stream Bank (summer, fish window) ▪ Kirkland Way and RR Ave (winter) ▪ Comfort Inn Storm improvements (winter; coordination with other projects and potential for same contractor) |
| Allow advertisement time for contractor bid submittal | <ul style="list-style-type: none"> ○ A change from two-weeks to three weeks or longer based on contractor input <ul style="list-style-type: none"> ● Lake Front Ped and Bike ● 6th St Water and Sewer |
| Allow adequate time to construction completion | <ul style="list-style-type: none"> ○ Flexibility on the start/completion dates allowing bidders to best manage crew times and schedules – recent examples: <ul style="list-style-type: none"> ● Market St Storm Improvements ● 124th Ave NE Sidewalk Improvements |
| Utilize the best procurement method for successful project completion | <ul style="list-style-type: none"> ○ Public Works Advertisement for Low bid ○ Small Works Roster <ul style="list-style-type: none"> ● Water Intrusion Repairs at KJC ○ In-House Crews <ul style="list-style-type: none"> ● 7th Ave at 5th St (sidewalk tie in to ADA ramps) ● Forbes Creek Park/106th lane (ADA ramps) ● 53rd CKC connection ● 7th Ave asphalt pathway ○ Job Order Contract (JOC) <ul style="list-style-type: none"> ● Cedar Park Storm ● OO Denney Irrigation ● Flashing Yellow Arrow |
| Entertain contractor-presented design or material modifications that do not devalue the project | <ul style="list-style-type: none"> ○ Examples: <ul style="list-style-type: none"> ● NE 85th Street Watermain Cost Reduction Incentive Program (CRIP) to reduce watermain trench width ● Marina Repair (redesign pier bracing to extend lifespan of materials) ● Wester Parking Lot (use of recycled concrete (within specs) for pavement base) |

| To reduce contractors' perception of risk on projects: | |
|---|---|
| Strategy | Kirkland Example |
| Host pre-bid meeting to discuss challenges & desired outcomes | <ul style="list-style-type: none"> ○ Example: Advance Mitigation Program |
| Utilize best practices for traffic control | <ul style="list-style-type: none"> ○ Examples: <ul style="list-style-type: none"> ● Employ city owned variable message board ● Use of Uniformed Police Officers |
| Provide appropriate level of geotechnical information, including any/all dewatering requirements, when applicable | <ul style="list-style-type: none"> ○ Example: Slater Ave Sanitary Sewer in support of planned redevelopment |
| Strive to be flexible on contractor identified staging areas | <ul style="list-style-type: none"> ○ Allow limited material and equipment staging in the ROW when available |

Forthcoming Process Improvements

All departments involved in these processes continue to work diligently and cooperatively to ensure that the City delivers projects to best serve the needs of constituents in the most effective way possible. Some of the process improvements that are currently in the works include:

- Implementation of the City's new finance system, Tyler Munis, included a best practices review that will result in a number of process improvements, including:
 - Automating the project dashboards,
 - Budget checks that provide more detail about project components, with encumbrances (budget committed but not spent) included to provide a more complete budget picture and flag potential issues sooner,
 - Grant tracking that is integrated with project management,
 - One data source that allows for budgeting outside appropriation period and provides central access to contracts, invoices, grants, etc.
 - Data export tools to allow integration of the financial data into the internal workload planning forecast.

- Project delivery improvements such as:
 - Funding of the Advanced Mitigation Program to help control environmental costs and provide more certainty for project budgeting. Additionally, this approach provides a more efficient and effective means of achieving the City's environmental policy goals.
 - Continued use of a consultant to update estimates and provide deeper study of environmental needs early in the project planning process.
 - Adding dedicated planner and surface water engineer positions to focus on review of City and other public projects (proposed in 2019-2020 budget).
 - Incorporating smaller, more neighborhood-driven projects (that are inherently less efficient) into large projects or using internal staff that can design small projects to help control costs.

- Using in-house maintenance crews to the maximum extent possible (within constraints set forth in state law) on smaller-scale construction or significant maintenance activities.
- Other initiatives underway include:
 - Internal discussions of how to balance the City's role as regulator with the project delivery expected by the public, including how to make sure our internal processes are proactive to prevent regulatory delays,
 - Funding design so projects are shovel ready, particularly before debt is issued, as part of an overall strategy for how to deliver debt-funded projects,
 - Improving coordination and recognizing the demands placed on CIP staff by other agencies' projects by funding projects as specific line items to support those efforts, for example I-405 improvements planned by WSDOT and Sound Transit, and
 - Expanding the current practice of "lessons learned" to include formal debriefs with design consultants, construction contractors, permitting authorities, and others upon completion of major projects.

The preliminary, placeholder project cost estimates in the six-year CIP are valuable in the creation of a long-term program funding plan; however, as mentioned above, the initial project budgets are not informed by design, permitting, or site condition information. Placeholder project costs that are preliminary, rough, order-of-magnitude estimates are replaced by updated "baseline" budgets that are prepared after scoping, design, permitting, and site conditions are better defined. Some organizations formalize this process with a two-phased budget approach for all projects using a "preliminary" and "baseline" budget phases. Rather than having one project budget that gets adjusted using reserves when new cost information becomes available, this alternative process recognizes to degree of uncertainty inherent in project estimates. Kirkland's approach of having one budget that gets adjusted can create the appearance of "overruns" rather than budget refinements that reflect scoping, design, and permitting cost factors as they become known. To provide an accurate picture of program performance, project delivery should be assessed after project baselines have been established.

Although projects budgets and time frames may need to be adjusted as they proceed from concept through design, the positive results of the above-described efforts on managing the construction phase of projects are demonstrable. Between January 2015, and September 2018, the CIP Division met or exceeded its performance goals. Since January 2015, the CIP group has recommended work acceptance on forty-five projects. Of these completed projects 98 percent were delivered on time and within budget, once preliminary budgets were adjusted for design and other relevant information prior to construction. In a few cases, additional time or resources were needed after project award based on unforeseen design issues, construction contractor performance issues, unusual permitting requirements, or unforeseen field conditions.

The City is fortunate to have Kathy Brown serve as Public Works Director as she has deep experience managing a variety of very large projects for King County. In addition, she has a broad network of contacts throughout the industry that she can call upon. Kathy's expertise and commitment to process improvement, coupled with the experience of the Capital Projects team, creates a culture of continuous improvement. As an organization, staff will continue to focus on ways to work together to deliver projects that are delivered efficiently and effectively to help achieve the City's vision:

"Kirkland is one of the most livable cities in America. We are a vibrant, attractive, green and welcoming place to live, work and play. Civic engagement, innovation and diversity are highly valued. We are respectful, fair, and inclusive. We honor our rich heritage while embracing the future. Safe, walkable, bikeable and friendly neighborhoods are connected to each other and to thriving mixed use activity centers, schools, parks and our scenic waterfront. Convenient transit service provides a viable alternative to driving. Diverse and affordable housing is available throughout the city. Kirkland strives to be a model, sustainable city that values preserving and enhancing our natural environment for our enjoyment and future generations."



CITY OF KIRKLAND

Department of Public Works

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MEMORANDUM

To: Kurt Triplett, City Manager

From: Pam Bissonnette, Interim Director of Public Works
Tracey Dunlap, Director of Finance & Administration

Date: May 29, 2013

Subject: Public Works CIP Management

RECOMMENDATION:

City Council receives an overview of improvements to the Public Works CIP Management process and provides feedback.

BACKGROUND DISCUSSION:

Just as Kirkland has grown over the past decade, so has its Capital Improvement Program (CIP). The Public Works (PW) Department has historically had the largest role in implementing the CIP through capital construction projects requiring design, property acquisition, environmental analysis, permitting, construction, inspection, and closeout. The majority of all CIP projects are designed by consultants and built by contractors. PW's role has been one of project management, including oversight of the design consultants and construction contractors, negotiators of land acquisition, inspectors, and managers of the project budget. It is this responsibility for project budget management that is the primary subject of this discussion.

PW has had practices in place for many years to manage CIP projects and project budgets. The Request for Proposal and Bid Processes provide for the procurement of outside services per state law and city policy, and are usually the largest expenditures. Appropriate contingency amounts are set aside for both design and construction to assure that a project, under normal circumstances, can be completed within the budget approved by the City Council for an individual project. Use of the contingency for construction occurs through a formal change order process.

At times the contingency is not sufficient to cover additional unanticipated costs for a project. For example, if land acquisition is a large component of a project budget, and condemnation is not used to secure property rights at fair market value in a timely manner, land acquisition costs can be considerably above a project budget and result in delays with associated inflationary increases on the whole project. In such cases, staff needs to re-estimate the budget and obtain council approval to add funding in order to complete the project.

While PW's project management practices have served the city well over the past decade, they need periodic review and revision. Based on significant changes in the current and future CIP program, PW, in partnership with the Finance Department, has initiated such a review and is implementing proposed revisions.

Size of Projects

Ten years ago, Kirkland had only one project larger than \$5 million. Today Kirkland has, or is anticipated to have soon, seven projects over \$5 million, and at least three over \$10 million (Public Safety Building, 85th Street, City Hall renovation). The ultimate funding of the Cross Kirkland Corridor could be well over \$10 million. Each of the Proposition 1 & 2 levies in aggregate are over \$10 million. Larger projects are often far more complex than small projects.

Number and Funding Value of Projects

The 2002 funding for Public Works CIP projects was \$18.6 million dollars and there were 54 active projects. The 2013 funding for Public Works projects, including work in progress, is over \$80 million with 92 active projects.

Complex Funding Sources and Restrictions

Kirkland has recently had major success in obtaining grant funds. For example, the average annual grant funding from 2002-2008 was about \$1 million. In 2012 alone CIP grant funding was just under \$8 million, and more large grant applications are in the pipeline for 2013 and beyond. Grants are restricted in use and have significant new and complex reporting requirements, particularly for federal grants. In addition, PW often combines projects including streets, water, sewer and stormwater investments. The rationale is to accomplish as much as possible when a street or sidewalk is opened up so that you don't have to dig into it again soon. This combining of projects has resulted in greater efficiency, less overall public cost, and less disruption to citizens. However, utility funds are restricted in use as well and management of the funds requires strict accounting. Kirkland also often has other partners in projects such as WSDOT, PSE, Sound Transit, and King County, each with their own funding and restrictions. PW has several current projects that may have as many as 5-6 different funding sources, each with their own restrictions and reporting requirements. This situation has been called the "color of money" issue, meaning that it is not only important to manage a project within budget, but also within each funding source.

Managing Projects for Clients

PW's own projects tend to be primarily streets and utilities. However, PW manages the design, land acquisition, and construction of City facilities, such as the Public Safety Building (PSB) for Police and the Court. The City Manager is the client for the City Hall remodel. PW recently was assigned the Parks CIP. Managing projects for clients adds an additional layer of approvals and signoffs for such things as project design, change orders, use of contingency funding, development of bid alternates, and budget management.

Accountability

Publically voted measures appropriately create an expectation of public accountability for spending the added funding as authorized. Propositions 1 & 2 included specific authorizations for street maintenance, safe pedestrian and bike investments, investment in the CKC interim

trail, and a variety of parks capital improvements. Annual accountability reports for both levies will be provided to the Council and the public. The levies were also premised on “non-supplanting” of the base budget for these purposes, adding complexity in how both the base CIP budget and levy funding is managed and reported.

CIP Management Objectives

As a result of these major changes, PW and Finance have collaborated on best practices for CIP management and have put several enhancements in place to improve internal CIP budget controls and project management to achieve the following objectives:

1. Apply best practices and standardize CIP project management.
2. Support the City’s CIP process.
3. Support Council decision-making throughout the life of a project so there are no unexpected changes to the project, the revenues, or the cost.
4. Manage projects within budgets before requesting additional funding in the event of projected changes resulting in projected cost increases.
5. Develop performance measures and engage in continuous improvement.

Revisions to Public Works CIP Management: Large, Complex Projects

Project management should recognize differing levels of oversight based on size and complexity of both the project and its budget. For example, it is recommended that all projects over \$5 million have a Steering Committee comprised of PW, any client department, the CMO, and Finance (See Figure 2). Responsibilities of the Steering Committee include monitoring the project expenditures against the budget, early forecasting of changes to projects that might impact scope, schedule, and/or budget, development of alternatives to address project changes, agreement on expenditures of contingency through change orders, and claims management.

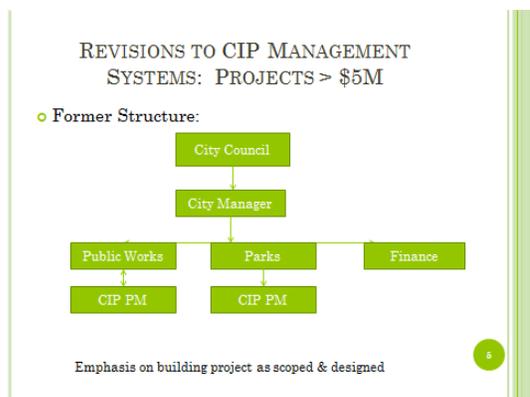


Figure 1

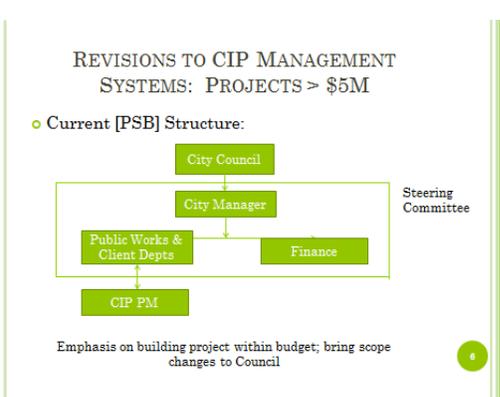


Figure 2

This process also demonstrates a shift in emphasis from “building the project as scoped and designed” to include more of a balance with “building the project within the budget”. A good example is the Public Safety Building (PSB), which has a Steering Committee of CMO, Finance, PW, Police and the Court. The committee meets monthly, and more often at major milestones as needed to oversee the project. When the projected cost to complete the project exceeded the budget, options for Council were developed within the Steering Committee to

reduce scope (shooting range, additional jail beds, ceiling paint) and Finance developed options to increase funding. These options and decisions were presented to the Council for decision-making in advance of project commitments.

Revisions to Public Works CIP Management: Small Projects

Even smaller projects can present significant complexity. A closer working relationship by PW with Finance is recommended such as regular meetings to review all active projects at major milestones to enhance communications and monitor expenditures against budgets. Other topics should include the formalization of new projects as CIP projects between CIP updates, project revenues, funding sources, and to review anticipated and secured grant funding. Several tools have been developed to make project reviews more transparent and easier.

1. Project Budget Dashboard (see Attachment A, example)

A project budget dashboard sheet is being developed for each project within the CIP. For each major component of a project (land acquisition, design, construction, internal engineering/project management, and contingency) it will bring together the budget, source of funds, percent expenditures, and percent project complete each month for review. The Dashboard will improve transparency during a project and will provide a means to forecast changes, develop options, and obtain formal approvals before project commitments are made.

2. CIP Project Management and Finance Coordination Sheet (see Attachment B)

This sheet makes formal a structure for PW and Finance to follow throughout the life of a project, improving the transfer of financial and project information through two-way communication. It sets out known milestones for expected consultations.

3. CIP Checklist (see Attachment C)

The CIP Checklist is primarily for the PW Project Engineer and CIP Manager as a guide to sign-offs and authorizations at significant decision points in a project, including the CMO, client departments, Finance, and the PW Director. Necessary authorizations for change orders, use of contingency, submittals of or responses to claims, etc. will be noted and logged.

These tools will enhance management of projects by providing additional documentation of the various elements, budgets and milestones of a project.

Changes to CIP Process/Management

During each CIP Update process, PW will revise completion estimates for all active projects, based on current information, and adjust for schedule, inflation, changes in scope, etc. and submit to Finance. In addition, at 60% design, cost to complete the project will be re-estimated and if it is greater than the budget, project alternatives will be developed, such as down-scoping, to complete the project within its authorized budget. Additional options will be developed along with Finance to add funding or to phase the project. These options will be reviewed with the CMO and Council for re-authorization.

Finance will review all CIP financial materials before they go to Council. All CIP sheets and project revision sheets will be documented in TRIM, the City's electronic management system. Each project will now be managed to the main components (land acquisition, design, construction, engineering, contingency), and funding sources rather than to the overall project budget. Continuous improvement will be fostered through the development and monitoring of CIP performance measures.

All CIP staff will be trained on the new CIP project management system in 2013. In addition, Public Works plans to provide additional external project management training for the project engineers as a refresher on best practices and current trends.

Council Reporting

Currently, Council CIP project authorizations occur throughout a project (Figure 3).

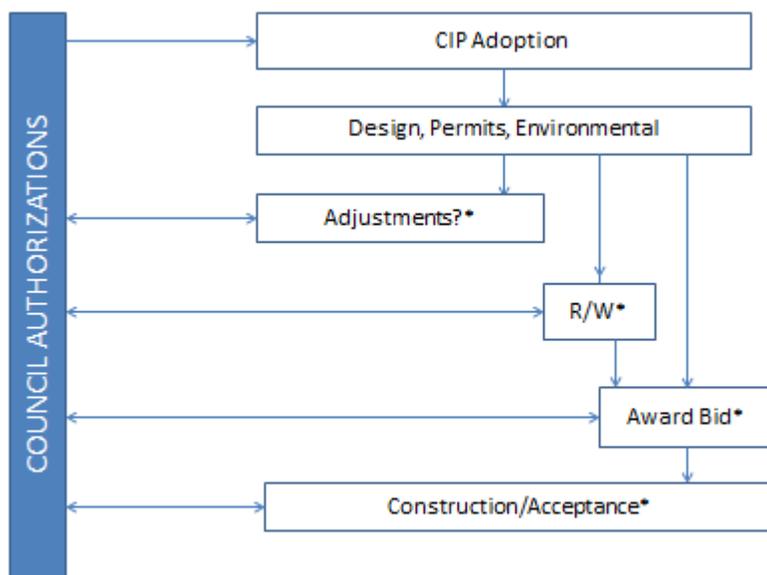


Figure 3

As the over-arching client for the CIP process, it is recommended the Council receive additional periodic reports on large capital projects (>\$5 M) at major milestones. The first such report was on May 7th with the bid award of the PSB. We plan a report to the Council on 85th Street in July. The Street and Parks Levies report is planned in early 2014 following the first year of its implementation. Future large projects are expected to include City Hall renovation and the Cross Kirkland Corridor (CKC). The Intelligent Transportation System (ITS) series of investments is approaching the \$5M threshold and might be included in future Council reports.

A summary on the status of all projects should be co-incident with the CIP Update, and with individual Council actions (e.g. bid awards).

Conclusion

With these enhanced practices, we hope to make the PW CIP implementation process more transparent to the Council and public, and engage the Council in decisions on CIP projects during implementation when the unanticipated does occur, and before commitments are made. Finally, we expect these enhancements to result in continuous improvements in project delivery, the efficient use of public resources, and accountability.

- Attachment A: CIP Project Dashboard Example
- Attachment B: CIP Project Coordination
- Attachment C: CIP Project Management Checklist

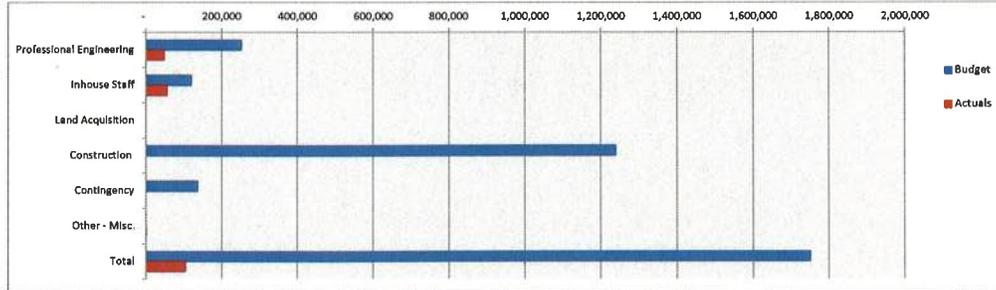
Project Budget Dashboard - 4/30/2013
CST 1306-000 / 2013 Annual Street Preservation Program

| Budget History | | | |
|-----------------|-----------|-----------|--------------|
| Budget Document | GG Budget | SW Budget | Total Budget |
| 13-18 CIP | 1,750,000 | - | 1,750,000 |
| | | | - |
| | | | - |
| | | | - |
| | | | - |
| | | | - |

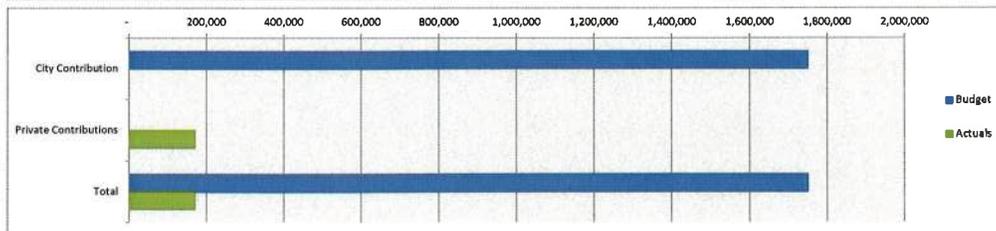
| Current Approved Budget - by Year | | | | | | |
|-----------------------------------|------------------|----------|----------|----------|----------|------------------|
| Source | 2013 | | | | | Total |
| External | | | | | | - |
| City Contribution | 1,750,000 | | | | | 1,750,000 |
| Debt | | | | | | - |
| Other | | | | | | - |
| Impact Fees | | | | | | - |
| Subtotal General | 1,750,000 | - | - | - | - | 1,750,000 |
| SWM (423) | | | | | | - |
| Utilities (413) | | | | | | - |
| Subtotal Utilities | - | - | - | - | - | - |
| Total Project | 1,750,000 | - | - | - | - | 1,750,000 |

| Budget Document | GG Budget | IFAS | IFAS Check | Difference |
|-----------------|-----------|-----------|------------|------------|
| 13-18 CIP | 1,750,000 | 1,750,000 | TRUE | - |

| Budget Authority - Expense Category | | | | | | | |
|-------------------------------------|------------------|----------------|------------------|--------------------|-------------------|--------------|------------------|
| Category | Budget | Actuals | Balance | % Complete (Budg.) | % Complete (P.E.) | As Of - Date | ETC |
| Professional Engineering | 252,900 | 48,510 | 204,390 | 19% | 20% | | 242,550 |
| Inhouse Staff | 120,600 | 56,198 | 64,402 | 47% | 40% | | 140,495 |
| Land Acquisition | | | | | | | - |
| Construction | 1,238,850 | | 1,238,850 | 0% | | | 1,238,850 |
| Contingency | 137,650 | | 137,650 | 0% | | | 137,650 |
| Other - Misc. | | 203 | (203) | #DIV/0! | | | - |
| Total | 1,750,000 | 104,911 | 1,645,089 | 6% | | | 1,759,545 |



| Budgeted Revenue | | | | |
|-----------------------|------------------|----------------|------------------|--------------------|
| Category | Budget | Actuals | Balance | % Complete (Budg.) |
| City Contribution | 1,750,000 | - | 1,750,000 | 0% |
| Private Contributions | - | 170,329 | (170,329) | #DIV/0! |
| Total | 1,750,000 | 170,329 | 1,579,671 | 10% |



Notes:

5.24.13 - Cl

> 2013 City funding will occur on 6/30 & 12/30 (half & half)

> Potential budget adjustment to recognize private contributions

---> **Option 1: Increase budget by \$170,329 to \$1,920,329**

---> **Option 2: Decrease City funding by \$170,329 to \$1,579,671 (keeps project funding at \$1.75m)**

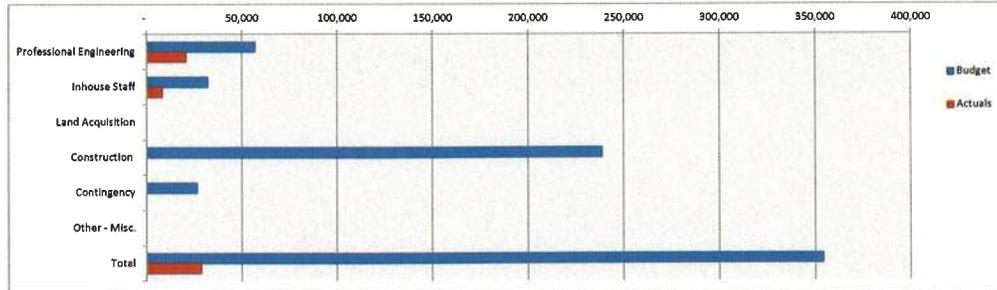
Project Budget Dashboard - 4/30/2013
CSS 0081-000 / 7th/8th Ave W Alley Sewermain Replacement

| Budget History | | | |
|-----------------|-----------|----------------|--------------|
| Budget Document | GG Budget | Utility Budget | Total Budget |
| 13-18 CIP | | 354,000 | 354,000 |
| | | | - |
| | | | - |
| | | | - |
| | | | - |

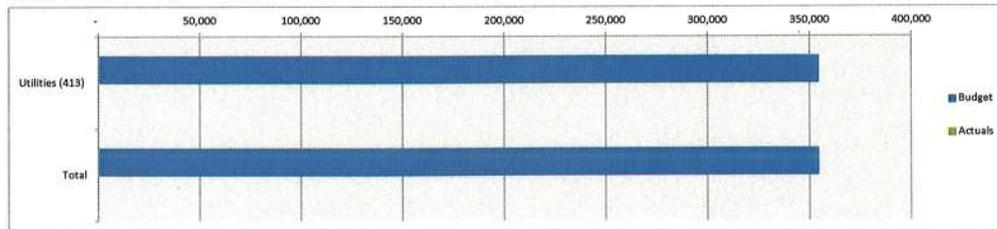
| Current Approved Budget - by Year | | | | | | | |
|-----------------------------------|---------|---|---|---|---|---|---------|
| Source | 2013 | | | | | | Total |
| External | | | | | | | - |
| City Contribution | | | | | | | - |
| Debt | | | | | | | - |
| Other | | | | | | | - |
| Impact Fees | | | | | | | - |
| Subtotal General | - | - | - | - | - | - | - |
| SWM (423) | | | | | | | 354,000 |
| Utilities (413) | 354,000 | | | | | | 354,000 |
| Subtotal Utilities | 354,000 | - | - | - | - | - | 354,000 |
| Total Project | 354,000 | - | - | - | - | - | 354,000 |

| Budget Document | Utility Budget | IFAS | IFAS Check | Difference |
|-----------------|----------------|---------|------------|------------|
| 13-18 CIP | 354,000 | 354,000 | TRUE | - |

| Budget Authority - Expense Category | | | | | | | |
|-------------------------------------|----------------|---------------|----------------|--------------------|-------------------|--------------|----------------|
| Category | Budget | Actuals | Balance | % Complete (Budg.) | % Complete (P.E.) | As Of - Date | ETC |
| Professional Engineering | 57,000 | 20,621 | 36,379 | 36% | 34% | | 60,651 |
| Inhouse Staff | 32,000 | 8,096 | 23,904 | 25% | 27% | | 29,984 |
| Land Acquisition | | | | | | | - |
| Construction | 238,500 | | 238,500 | 0% | | | 238,500 |
| Contingency | 26,500 | | 26,500 | 0% | | | 26,500 |
| Other - Misc. | | | | | | | - |
| Total | 354,000 | 28,717 | 325,283 | 8% | | | 355,635 |



| Budgeted Revenue | | | | |
|------------------|----------------|----------|----------------|--------------------|
| Category | Budget | Actuals | Balance | % Complete (Budg.) |
| Utilities (413) | 354,000 | - | 354,000 | 0% |
| Total | 354,000 | - | 354,000 | 0% |



Notes:

5.24.13 - CL

> 2013 Utility funding will occur on 6/30 & 12/30 (half & half)

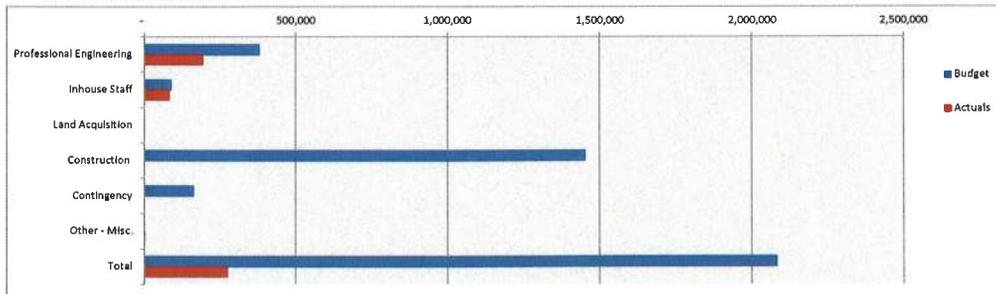
Project Budget Dashboard - 4/30/13
CTR 0111-000 / ITS Phase 1

| Budget History | | | |
|-------------------|-----------|-----------|--------------|
| Budget Document | GG Budget | SW Budget | Total Budget |
| 11-16 CIP Revised | 2,081,000 | | 2,081,000 |
| | | | - |
| | | | - |
| | | | - |
| | | | - |

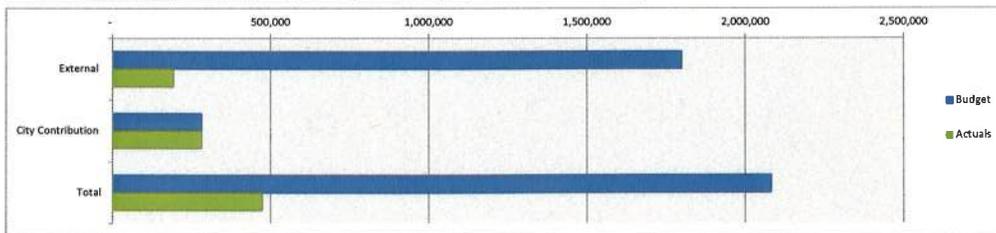
| Current Approved Budget - by Year | | | | | | | |
|-----------------------------------|------------------|---|---|---|---|---|------------------|
| Source | 2011 | | | | | | Total |
| External | 1,800,000 | | | | | | 1,800,000 |
| City Contribution | 281,000 | | | | | | 281,000 |
| Debt | | | | | | | - |
| Other | | | | | | | - |
| Impact Fees | | | | | | | - |
| Subtotal General | 2,081,000 | - | - | - | - | - | 2,081,000 |
| SWM (423) | | | | | | | - |
| Utilities (413) | | | | | | | - |
| Subtotal Utilities | - | - | - | - | - | - | - |
| Total Project | 2,081,000 | - | - | - | - | - | 2,081,000 |

| Budget Document | GG Budget | IFAS | IFAS Check | Difference |
|-------------------|-----------|-----------|------------|------------|
| 11-16 CIP Revised | 2,081,000 | 2,081,000 | TRUE | - |

| Budget Authority - Expense Category | | | | | | | |
|-------------------------------------|------------------|----------------|------------------|--------------------|-------------------|--------------|------------------|
| Category | Budget | Actuals | Balance | % Complete (Budg.) | % Complete (P.E.) | As Of - Date | ETC |
| Professional Engineering | 379,400 | 191,197 | 188,203 | 50% | 50% | | 382,394 |
| Inhouse Staff | 87,800 | 82,240 | 5,560 | 94% | 80% | | 102,801 |
| Land Acquisition | | | | | | | - |
| Construction | 1,452,420 | | 1,452,420 | 0% | | | 1,452,420 |
| Contingency | 161,380 | | 161,380 | 0% | | | 161,380 |
| Other - Misc. | | 11 | (11) | #DIV/0! | | | - |
| Total | 2,081,000 | 273,449 | 1,807,551 | 13% | | | 2,098,995 |



| Budgeted Revenue | | | | |
|-------------------|------------------|----------------|------------------|--------------------|
| Category | Budget | Actuals | Balance | % Complete (Budg.) |
| External | 1,800,000 | 192,040 | 1,607,960 | 11% |
| City Contribution | 281,000 | 281,000 | - | 100% |
| Total | 2,081,000 | 473,040 | 1,607,960 | 23% |



Notes:

3.13.13 - CL

- > Accrual charge for \$10,307.20 (DKS) will invoice on Q1 2013 grant billing
- > Typically this would have been included on Q4 2012

5.20.13 - CL

- > 2013 OH rate calculated at 2012 total avg for all T.E. & P.E.
- > Transportation Engineers (T.E.) = 1.52
- > Project Engineers (P.E.) = 1.60

CIP Project Management & Financial Coordination

Topic: Coordination meetings between the Finance department and Public Works department project engineers for the purpose of establishing, monitoring and refining project budgets and to track actual and planned expenditures. Meetings will provide the opportunity to discuss each project’s funding structure and address restrictions that may exist on the funding sources that make up the project’s budget.

Check-in points for CIP projects would be tied to milestones in the project lifecycle, after project has been approved by Council as a funded capital project.

| Milestone | Description of Milestone | Meeting Goals |
|---|--|---|
| Project Kickoff (during project baseline phase) | The beginning of the project life cycle (project start). | Meet to discuss the funding sources (“color of money”) involved in the project and any spending restrictions that exist. |
| 60% Design (during phase I) | Point in planning process where detailed cost estimates are available. | Establish an improved budget estimate; identify any potential challenges in the future to plan for changes in spending or requests for budget adjustments. Communicate any changes in funding or discrepancies. |
| Bid Award (during phase II) | Contractor costs are contractually established. | Finalize the pre-construction budget estimate; make budget adjustments as needed. Discuss funding and address discrepancies. |
| 75% Construction (during Phase IV) | Majority of construction is complete, final project cost estimates are accurate. | Compile the most accurate budget estimate to date, discuss any problems that have occurred with funding. Remedy any issues. |
| Project Close Out (during phase V) | Project is complete, summary of project is prepared and contract is closed. | Prepare final summary of the project's financial performance. Make sure to: 1) review budget to actual report, 2) check that expenses have been allocated to all funds appropriately, 3) account for retainage, and 4) close out the project. |

Some projects may require additional check-ins:

| Other Milestones | Description of Milestone | Meeting Goals |
|---|--|--|
| Land acquisition planning @ 30% or 60% design, or as needed for ROW negotiations (during phase I) | If the project requires the purchase of private property, most often in right-of-way. | Outline budget and funds available for acquisition and any restrictions that may exist on funding. |
| Quarterly meetings for "watch list" projects | Date-specific meetings for projects that are inherently more complex and thus carry more uncertainty, or projects with known issues. | Report on the status of the project and identify financial challenges or areas of improvement. Plan remedies for financial challenges. |
| Grant Application | When the application is ready for a final review before it is submitted. | Update finance on the grant, make sure everyone understands the grant parameters and how they could affect the project |
| Grant Award | Once a grant has been awarded to the project. | Review and confirm the grant rules and restrictions to understand its impact on the project finances. |
| <i>Any time anyone in either department notices a problem with the budget.</i> | If anyone working on a project finds anything unexpected in terms of funding or if any claims by or against the City are pending. | Discuss the issue and work to find resolution, inform management about the situation and address as necessary. |

CIP PROJECT MANAGEMENT CHECKLIST

| PROJECT BASELINE | PW | PARKS | FINANCE | OUT-REACH |
|--|-----------|--------------|----------------|------------------|
| A. SCOPE: | | | | |
| CIP Paragraph | X | X | | X |
| B. BUDGET: | | | | |
| Project Revision Request policy | X | X | X | |
| Project Revision Request form | X | X | X | |
| Funding change notification | X | X | X | |
| C. PROJECT SCHEDULE: | | | | |
| Project Team Establishment at Kickoff | X | X | X | X |
| Quarterly Project Meetings | X | X | X | X |
| Weekly Team Meetings | X | X | | X |
| PHASE I - PLANS, SPECIFICATIONS, AND ESTIMATES (PS&E) | PW | PARKS | FINANCE | OUT-REACH |
| A. SELECT PROJECT CONSULTANTS: | | | | |
| Set-up internal file system | X | | | |
| Advertise for consultants/use consultant roster | X | X | | |
| Select from consultant pool for project | X | X | | |
| Develop scope for consultant work | X | X | | |
| Interview prospective consultants | X | X | | |
| Check consultant references | X | X | | |
| Notify consultant of award or rejection | X | X | | |
| B. SECURE CONSULTANT CONTRACT: | | | | |
| Negotiate consultant contracts | X | X | | X |
| Submit Project Revision Request (if required) | X | X | X | |
| Secure City contractual routing/approval of contracts | X | X | | |
| Notice to proceed to consultant | X | X | | |
| Assemble project schedule in MS Project | X | | | |
| C. COORDINATE ASSEMBLY OF PRE-PLANS AND SPECIFICATIONS | | | | |
| Provide standard specification package to consultant | X | | | |
| Provide Federal provisions and information | X | | | |
| Provide standard details to consultant | X | | | |
| Notify utilities of project | X | | | |
| Submit RFI from Planning Dept | X | | | |
| Assist in SEPA checklist preparation | X | | | |
| Obtain required permits (HPA, Shoreline, BNRR, etc.) | X | | | |
| Answer consultant design questions | X | X | | |
| Perform in-house design review | X | X | | |
| Provide 30% design review | X | X | | |
| D. MONITOR PROJECT CONSULTANT PROGRESS: | | | | |
| Monitor consultant design | X | | | X |
| Monitor consultant schedule | X | | | X |
| Monitor consultant products/requisitions | X | | | |
| Requisition process | X | | | |
| Process consultant progress payments | X | | | |
| Monitor consultant budget | X | | X | |
| Submit Project Revision Request (if required) | X | X | X | |
| E. ACQUIRE PROJECT RIGHT-OF-WAY (ROW) AND EASEMENTS: | | | | |
| Select ROW consultant from roster | X | | | |

Attachment C

| | | | | |
|---|-----------|--------------|----------------|------------------|
| Acquire title reports for ROW | X | | | |
| 30% land acquisition planning | X | X | X | |
| Submit Project Revision Request (if required) | X | X | X | |
| Make initial contact with property owners | X | | | X |
| Provide easements or take documents | X | | | |
| Coordinate meeting with property owner | X | | | |
| Finalize ROW acquisition, submit PRR (if required) | X | X | X | |
| Proceed or not proceed with condemnation | X | | | |
| Forward documents for closing | X | | | |
| Process payments for ROW | X | | | |
| F. PREPARE AGENCY AND PUBLIC INFORMATION: | | | | |
| Prepare Council memoranda and information | X | X | | X |
| Prepare open-house notifications | X | X | | X |
| Secure open-house facilities | X | X | | X |
| Prepare open-house exhibits | X | X | | X |
| Attend public open houses | X | X | | X |
| Answer design questions for public | X | X | | X |
| G. COORDINATE ASSEMBLY OF FINAL PLANS AND SPECS: | | | | |
| Provide 60% design review/engineer's estimate | X | X | X | |
| Submit Project Revision Request (if required) | X | X | | |
| Provide plans to utilities for review/comment | X | | | |
| Review construction insurance requirements (Contact WCIA) | X | | | |
| Provide 90% design review | X | X | | |
| H. COORDINATE ADVERTISEMENT OF PROJECT FOR BIDS: | | | | |
| Prepare Council memorandum and information | X | X | X | X |
| Establish advertisement dates | X | | | |
| Establish pre-bid meeting date | X | | | |
| Establish bid opening date | X | | | |
| Prepare/submit advertisement package to purchasing | X | | | |
| Provide final design review and stamp | X | X | | |
| Provide applicable prevailing wage rates | X | | | |
| Incorporate all WSDOT/APWA amendments (CD or Web page) | X | | | |
| Prepare plan holder list | X | | | |
| Setup construction estimate/specification pages | X | | | |
| Prepare final PS&E package for sale | X | | | |
| PHASE II - AWARD | | | | |
| A. ADMINISTER/COORDINATE PUBLIC BIDDING PROCESS | | | | |
| Answer contractor/vendor questions | X | | | |
| Issue addenda for plans and specs (if required) | X | | | |
| Maintain sufficient supply of bid documents | X | | | |
| Conduct pre-bid meeting | X | | | |
| Attend bid opening | X | X | | |
| Tabulate bid results (Excel spreadsheet and post to H) | X | | | |
| Verify subcontractor list for projects over \$1,000,000 | X | | | |
| Check low-bidder references | X | | | |
| Contact DLI regarding liens (1.800.647.0982) | X | | | |
| Reconcile all job costs | X | | | |
| Submit Project Revision Request (if required) | X | X | X | |
| Prepare Council award memorandum/exhibits | X | | | |
| Attend Council meeting | X | X | X | |
| PHASE III - PRE-CONSTRUCTION | | | | |
| | PW | PARKS | FINANCE | OUT-REACH |

| | | | | |
|---|-----------|--------------|----------------|------------------|
| A. PREPARE INFORMATION /DOCUMENTS FOR CONSTRUCTION: | | | | |
| Secure inspection contract | X | | | |
| Secure compaction/geotechnical services from roster | X | | | |
| Secure project display sign | X | | | |
| Put construction notice on City Web page | X | | | |
| Print triplicate inspector forms | X | | | |
| Take pre-construction video and photographs | X | | | |
| Prepare and mail notice(s) to residents | X | | | |
| B. CONDUCT PRE-CONSTRUCTION MEETING: | | | | |
| Set-up conference room and agenda | X | | | |
| Notify agencies/attendees of meeting | X | | | |
| Conduct meeting | X | X | | |
| Attend Pre-construction meeting | X | X | | X |
| Review and process contractor's CPM schedule | X | X | | |
| Coordinate submittal of contractor's contract | X | | | |
| PHASE IV - CONSTRUCTION | | | | |
| | PW | PARKS | FINANCE | OUT-REACH |
| A. MANAGE CONSTRUCTION AND INSPECTION OF PROJECT: | | | | |
| Issue Notice to Proceed letter | X | | | X |
| Receive and file Intent to Pay Prevailing Wage forms | X | | | |
| Review/approve submittals | X | | | |
| Review/approve traffic control plan | X | | | |
| Review/approve subcontractors | X | | | |
| Review/approve private property agreements | X | | | |
| Answer construction questions | X | | | |
| Coordinate testing of new systems | X | X | | |
| Monitor inspector's construction record drawings | X | | | |
| Answer questions from public | X | X | | X |
| Review/file Construction Inspection Daily Report | X | | | |
| Review/file Inspector's Daily Log | X | | | |
| Review/file Weekly Statement Report of Contract Days | X | | | |
| Review and Compile Force Account Activity | X | X | | |
| 75% Construction (dollars) | X | X | X | |
| Issue change orders (per change order policy) | X | X | | |
| Force Account documentation (if required) | X | X | | |
| Submit Project Revision Request (if required) | X | X | X | |
| B. MONITOR CONSTRUCTION PROGRESS OF CONTRACTOR: | | | | |
| Process monthly progress payments | X | X | | |
| Collect/review weekly certified payroll | X | | | |
| Monitor/update contractor schedule | X | X | | X |
| Submit Project Revision Request (if required) | X | X | X | |
| Prepare final punch list | X | X | | |
| Issue letter of Substantial Completion | X | | | |
| C. OTHER | | | | |
| Claim for Damages | X | X | X | |
| PHASE V - POST CONSTRUCTION | | | | |
| | PW | PARKS | FINANCE | OUT-REACH |
| A. PROVIDE FINAL CONTRACT ACCOUNTING: | | | | |
| Prepare construction close-out cost summary | X | X | X | |
| Prepare Council acceptance memorandum | X | X | X | |
| Submit Notice of Completion | X | | | |
| Complete Administration and Finance (A&F) checklist | X | | X | |
| Coordinate release of retainage to contractor (letter from A&F) | X | | | |

| | | | | |
|---|---|---|---|--|
| B. COLLECT PRIVATE FUNDING: | | | | |
| Determine concomitants for project | X | | X | |
| Send concomitant billings to property owners | X | | X | |
| Collect concomitant funds | X | | X | |
| Prepare, route, record concomitant releases | X | | | |
| | | | | |
| C. PROJECT CLOSE-OUT: | | | | |
| Provide construction record drawings for inclusion in base maps | X | X | | |
| Take post-construction photographs | X | | | |
| Prepare job completion critique (consultant and contractor) | X | X | | |
| Complete and file project documentation | X | | | |
| Submit Final Project Revision Request (mandatory) | X | X | X | |
| Submit all files to archives - PROJECT COMPLETE | X | | | |

RESOLUTION R-5118

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND
SETTING POLICY PRINCIPLES FOR PRIORITIZATION IN THE 2015-
2020 CAPITAL IMPROVEMENT PROGRAM.

1 WHEREAS, the Kirkland 2035 Comprehensive Plan represents a
2 collaboration between residents, staff and the City Council to develop a
3 long-term vision for the City of Kirkland's growth over the next 20 years;
4 and

5
6 WHEREAS, the City Council has adopted ten goals for the City
7 that articulate key policies and service priorities, and guide the allocation
8 of resources for Kirkland through the budget and capital improvement
9 programs; and

10
11 WHEREAS, the City Council desires to spur job growth and
12 economic development, retain a high quality of life in Kirkland, and
13 provide efficient and cost-effective city services to an informed and
14 engaged public; and

15
16 WHEREAS, the three Strategic Anchors, the Kirkland Quad, the
17 Price of Government and the five-year General Fund Forecast, are
18 fundamental tools for the sustainable allocation of resources to meet
19 the wants and needs of Kirkland residents; and

20
21 WHEREAS, the 2015-2020 Capital Improvement Program
22 provides an opportunity to utilize the Strategic Anchors to guide public
23 investments over the next six years that continue the City's progress
24 towards meeting the Council goals.

25
26 NOW, THEREFORE, be it resolved by the City Council of the City
27 of Kirkland as follows:

28
29 Section 1. The Kirkland City Council endorses development of a
30 2015-2020 Capital Improvement Program prioritized according to the
31 following principles:

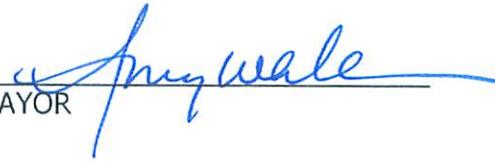
- 32
33 a. Sustains and enhances public safety, including bicycle and
34 pedestrian safety.
35 b. Invests in projects that facilitate near term economic
36 development to help address the gap between revenues and
37 expenditures as identified in the most recent five-year General
38 Fund Forecast.
39 c. Creates measureable progress toward achieving the City
40 Council's ten goals.
41 d. Implements the 2015-2016 City Work Program.
42 e. Improves services identified in both the "Imperatives" and
43 "Stars" sections of the most recent Kirkland Quad.

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- f. Improves efficiency of existing facilities and maintains integrity of existing infrastructure.
- g. Sequences projects in a manner that advances the Vision Statement and Guiding Principles of the Kirkland 2035 Comprehensive Plan.
- h. Maximizes the benefit to the community within a given level of funding.

Passed by majority vote of the Kirkland City Council in open meeting this 17th day of March, 2015.

Signed in authentication thereof this 17th day of March, 2015.


MAYOR

Attest:


City Clerk

Attachment C – Excerpt from 2015-2020 Capital Improvement Plan Summary (pp. xxvi-xxix)

8. Maximizes the benefit to the community within a given level of funding.

Each of the functional Master Plans contains objectives and policies that result in the identification of capital projects to help serve the community's needs. In addition, the City has other mechanisms for identifying specific projects, including the Neighborhood Plans and Suggest-A-Project. To illustrate how the 2015-2020 CIP maximizes the benefit to the community within a given level of funding, the process for prioritizing Transportation projects for the 6-year CIP is described in more detail below.

Kirkland's transportation policies, embodied in the Comprehensive Plan via the Transportation Master Plan (TMP), seek to improve current transportation conditions and, more importantly, to foresee and address future transportation needs for generations to come. Kirkland's policy makers, the City's Transportation Commission, and the technical staff all recognize that, as the region continues to grow and develop, traffic congestion cannot be addressed by simply adding more lanes for automobile traffic. Adding automobile traffic capacity is not only impractical from a cost standpoint; it is also contrary to many of the values held by our City, such as environmental sustainability and natural beauty, walkable communities, and vibrant neighborhoods. Thus, the TMP shifts past focus from automobile capacity to a more comprehensive, multi-modal approach to the City's transportation system.

The City's Capital Improvement Program (CIP) provides a means for transforming the TMP vision into a reality. In concert with the TMP, the proposed CIP places greater emphasis on transit, bicycling, and walking networks. Dealing with motorized vehicle congestion is also addressed by improving traffic flow with the City's Intelligent Transportation System (ITS) project, along with more efficient traffic channelization and signalization where feasible. Creating new and enhancing existing motorized and non-motorized networks, completing missing network links, and making non-auto transportation more convenient to commuters will all serve to reduce traffic congestion and enhance our community.

Together with active participation in regional transit planning efforts, a CIP that aligns with the vision and policies in the TMP, coupled with the land use plan in the Comprehensive Plan can, over time, transform the transportation experience in Kirkland. The challenge, of course, is adhering to long-term policy goals, while also addressing the very real priorities of today. The City has many programs and forums where staff, commissioners, policymakers, and citizens identify today's immediate transportation concerns and challenges, and suggest potential near-term solutions. Sources of input include, for example, the following processes and programs:

- The City's Neighborhood Safety Program,
- The School Walk Route Program,
- The Walkable Kirkland Initiative, which expands the School Walk Route and Neighborhood Safety Program for 6 years,
- Neighborhood Plans,
- Cross Kirkland Corridor (CKC) Connections,
- Connections to new developments (with particular emphasis on major developments along the CKC, such as Totem Lake, Park Place, South Kirkland Park and Ride, Houghton Shopping Center, and Google),
- Kirkland's Suggest-A-Project Program,
- Grant Funding availability for specific project types,
- Planning efforts of Sound Transit and King County Metro.

To balance today's project "inputs" with long-range policies, the TMP contains a 20-year project list that reflects the goals and policies in the TMP, while also considering the multiple current sources of project suggestions. Staff's approach for preparing the 20 year project list was as follows:

1. By policy, recognize a 20 year street maintenance budget of approximately \$85 million of street levy and other committed funds.
2. Establish project categories within each mode (Walk, Bike, Transit, Auto) based on TMP policies.
3. For each project category, develop a *pool* of potential projects. This is a larger set of projects in a given category based on the multiple existing project sources.
4. For each project category, develop a *recommended set of projects*. For most project categories, this is based on a combination of a) projects that will meet the goals and policies in the draft plan, b) fiscal balance across project types c) projects that have been previously developed and d) staff's judgment of a sensible level of completeness for a project category. Priority is given to projects that meet multiple policy objectives, and/or that are identified from multiple sources.
5. Perform an analysis similar to 2 and 3 above for other maintenance needs over the next 20 years.

The 20-year list serves as a main source of future CIP projects and individual projects are prioritized within groups based on the criteria in the TMP Goals and Policies. A specific 6-year CIP Plan and the first two years reflected in the biennial budget further refine the 20-year list by again balancing current inputs with long-range policy. The current 6-year and 2-year CIP project lists were created as follows:

- Re-examining the assumptions in the 20-year plan with regard to specific projects identified for the next six years. As in the case with the 20-year plan, projects that meet multiple "input" objectives, or that complete critical transportation network links, are considered high priority.
- Allocating committed projects (such as School Walk Routes, or projects that have received grant funding) to the appropriate 20-year project category, as set forth in the TMP.
- Adding and/or prioritizing projects that received grant funding. Grant funding deadlines often push projects up in the CIP schedule.
- Applying a "reality check" to project timing and phasing. For example, although a project might be a high priority from a TMP policy perspective, it is possible that extensive permitting requirements push construction back a year or two in the CIP Plan.
- Review by the Finance Department of the project list and assumptions regarding revenue, and providing direction on budget and revenue assumptions.
- Balancing of the budget for the requested project list with projected funding sources. Again, similar to the permitting and grant funding considerations, revenue projections from various sources can influence the timing of projects.
- The Transportation Commission reviews and provides input to the proposed 6-year CIP and 2-year appropriation. (Although not part of the current CIP process, the Planning Commission has expressed interest in receiving briefings on future preliminary 6-year CIP Plans to have an opportunity for questions and comments.)
- Input and adjustment by the City Manager to the proposed 6-year CIP and 2-year appropriation.
- Refinement by the City Council of the proposed 6-year CIP and 2-year appropriation prior to final adoption.

Many of the above steps are iterative, and some steps are revisited as the process moves forward.

Implementing Multiple Programs Simultaneously

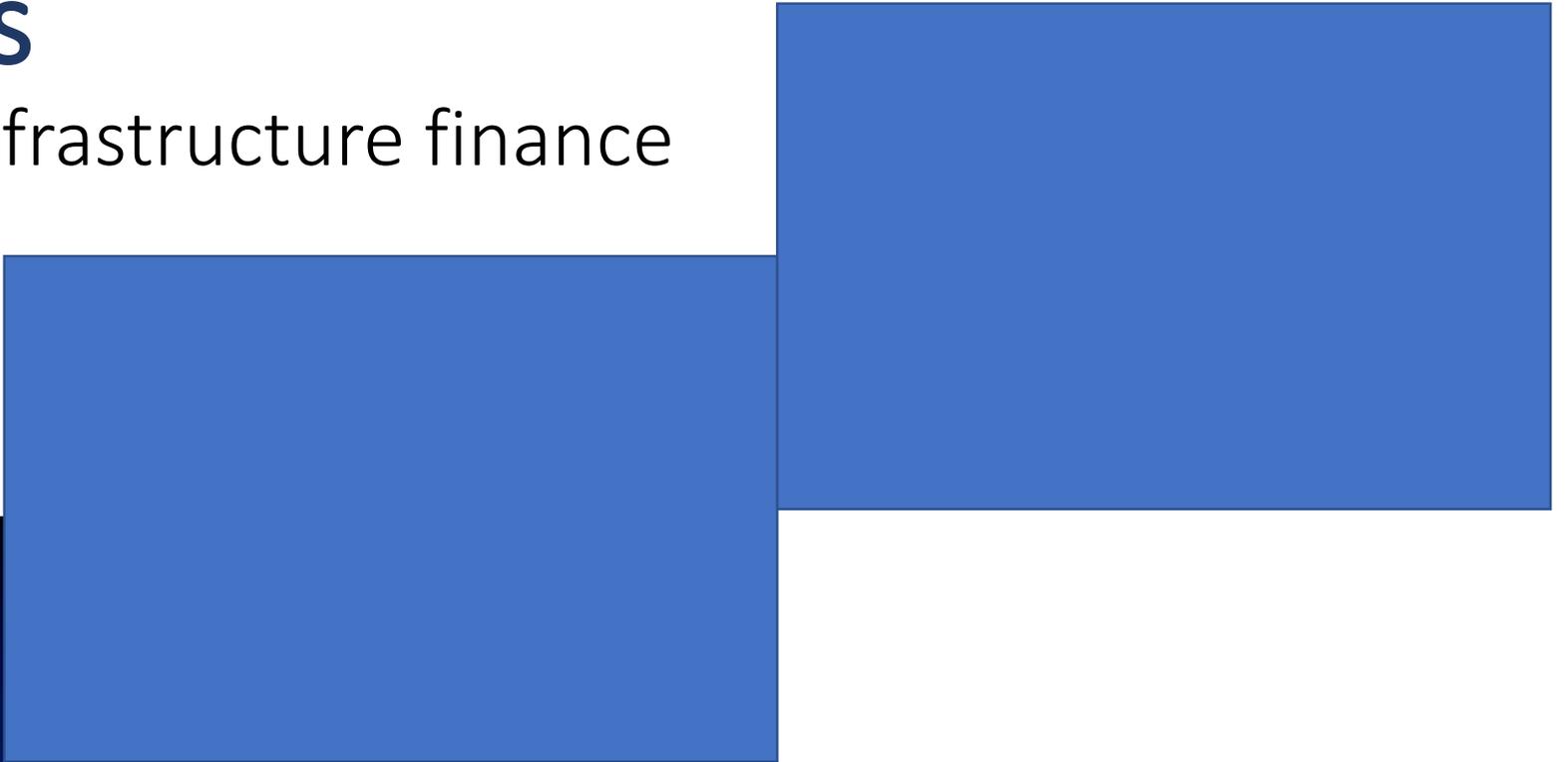
For the 2015-16 CIP budget, and 2015-2020 CIP Plan, there were more than enough projects from the various input sources to meet multiple objectives, and also adhere to the guiding principles of the TMP. As these "low-hanging fruit" projects get completed over the course of this 6-year CIP, a more refined process will be needed to choose between various suggested projects in the future. One technique used by staff in this process was to overlay the TMP projects with the projects identified in Neighborhood Plans and Suggest-A-Project. This approach helped illustrate how the recommended projects helped to meet the needs identified through all three mechanisms. **Of the 50 funded Transportation projects in the**

2015-2020 CIP, over 60% incorporate specific Suggest-a-Project and/or neighborhood plan items as part of their scope.

All of the functional areas applied similar principles in identifying and prioritizing projects adopted in the CIP, incorporating their strategic/master plans, public input from those processes and Kirkland 2035, and the feedback from Boards and Commissions. The City Manager and the CIP Leadership team (Deputy City Managers, Director of Finance & Administration, Financial Planning Manager) further applied the prioritization criteria established by the City Council to balance the competing needs and interests across the City.

Building Blocks

-a funder's view of infrastructure finance



2017
Performance Plane LLC

Beware of the thermometer!

- Results in wrong amounts
- All sources are not created equal
- Project focused fundraising may leave money on the table
- Cornerstones are the true drivers



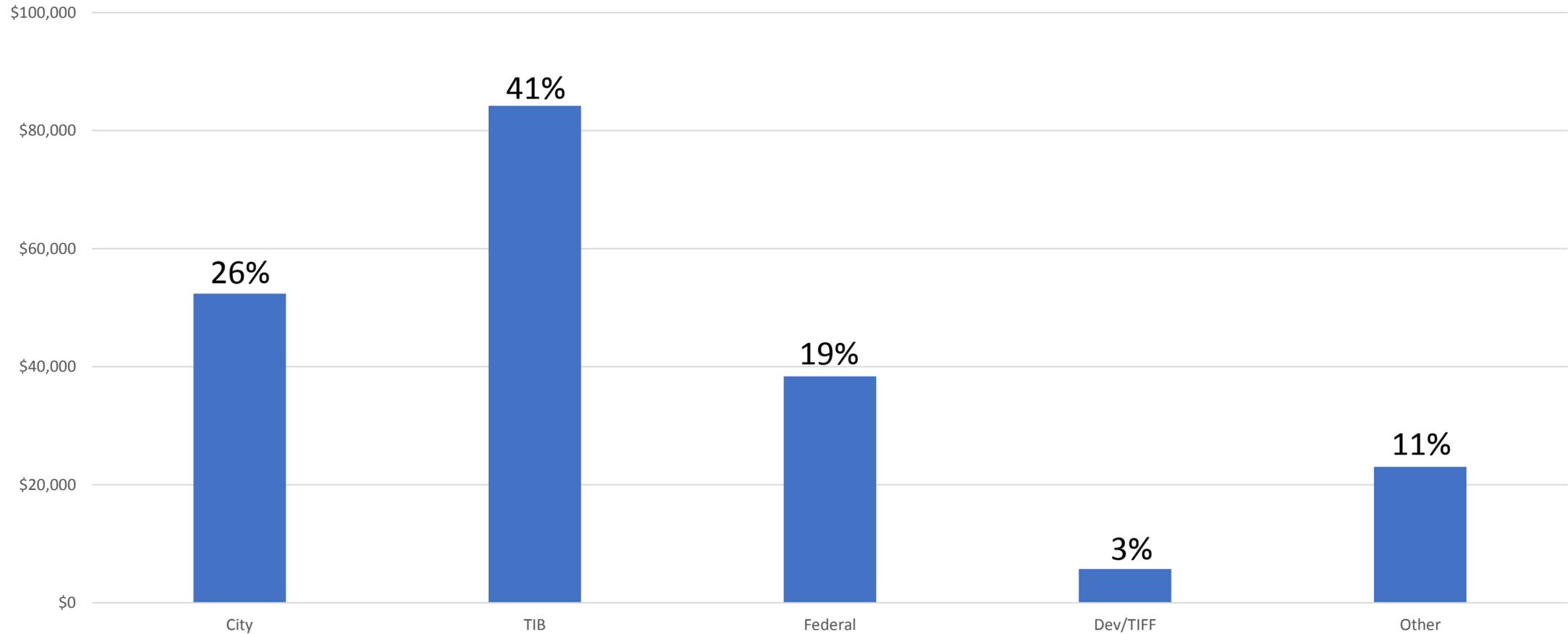
There are only 3 or 4 cornerstone funders for street projects

- Federal
- State
- City street fund, TBDs, bonds
- All Others 

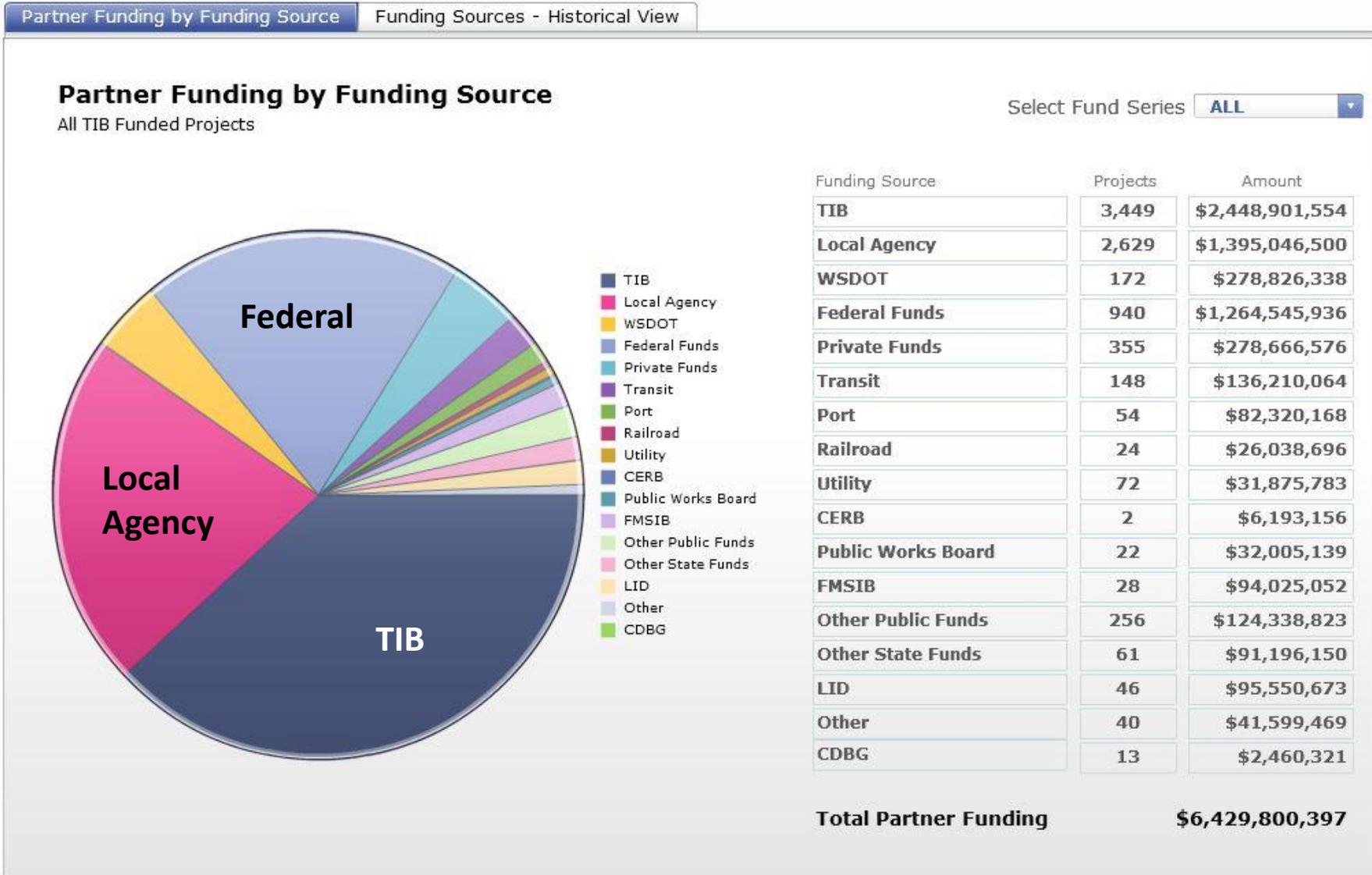
Infrequent but potentially significant funders

- INFRA (FHWA)
- Direct Appropriation
- Major Developer
- Port or Transit District
- Public Works Board
- Freight Mobility Board
- CERB or CDBG
- Local Improvement District

Funding for 2016 TIB Urban projects comes mainly from three sources.



Funding Partners



Establish Competitive Advantage

Strategic Objectives

Set the blocks

Preserve higher value City funds

Work to a strategic mix of funding

Leverage the total capital program

Building Blocks

Project Funding Scenario Planning

| | | | |
|----------------|---------------------------|----------------------|----------|
| Scenario Date: | 5252017 | Scenario Version: | 1 |
| Project Name: | Richland Duportail Bridge | Target Funding Date: | 9/1/17 |
| Scenario Name: | No TIB | Intended Bid Date: | 9/6/2017 |

| Desired State | | Actual State | |
|------------------------|---------------|------------------------|---------------|
| Project Cost | \$ 37,500,000 | Project Cost | \$ 37,500,000 |
| Owner Planned Contribu | \$ 3,800,000 | Owner Planned Contribu | \$ 3,800,000 |
| Target | \$ 9,000,000 | Unsecured | \$ 9,000,000 |
| Secured | \$ 24,700,000 | Secured | \$ 28,500,000 |
| Gap/Owner Impact | \$ - | Gap/Owner Impact | \$ 9,000,000 |
| Owner Total Cost | \$ 3,800,000 | Owner Total Cost | \$ 12,800,000 |

Work to a planned mix of funding

| Owner Sources | | | | | |
|---------------|--------|-----------------|------|---------------|----------------|
| | Source | Current Step | Date | Target Amount | Secured Amount |
| 1 | TBD | Funding Secured | | \$ - | \$ 3,800,000 |
| 2 | | | | \$ - | \$ - |
| 3 | | | | \$ - | \$ - |
| 4 | | | | \$ - | \$ - |
| 5 | | | | \$ - | \$ - |
| TOTAL | | | | \$ - | \$ 3,800,000 |

| State Sources | | | | | |
|---------------|-----------------------|-----------------|------|---------------|----------------|
| | Source | Current Step | Date | Target Amount | Secured Amount |
| 1 | Connecting Washington | Funding Secured | | \$ - | \$ 20,000,000 |
| 2 | Connecting Washington | Funding Secured | | \$ - | \$ 2,000,000 |
| 3 | TIB | | | \$ 9,000,000 | \$ - |
| 4 | | | | \$ - | \$ - |
| 5 | | | | \$ - | \$ - |
| TOTAL | | | | \$ 9,000,000 | \$ 22,000,000 |

| Federal Sources | | | | | |
|-----------------|--------|-----------------|------|---------------|----------------|
| | Source | Current Step | Date | Target Amount | Secured Amount |
| 1 | STP | Funding Secured | | \$ - | \$ 2,700,000 |
| 2 | | | | \$ - | \$ - |
| 3 | | | | \$ - | \$ - |
| 4 | | | | \$ - | \$ - |
| 5 | | | | \$ - | \$ - |
| TOTAL | | | | \$ - | \$ 2,700,000 |

Preliminary Project Recommendations

- 2017 Submit best UAP project
- 2017 Submit best Sidewalk project
- 2018-19 Submit 100th project when timed with PSRC

- Totem Gateway, incl. Cross Kirkland surface improvements
- 100th Avenue NE Residential Segment
- 116th Avenue/NE 124th Street SB RTL, interchange SW
- 124th Ave SW segment (+/- \$200,000)
- TLC Bridge- WSDOT Ped Bike, Capital Budget, TAP



DIVERSITY

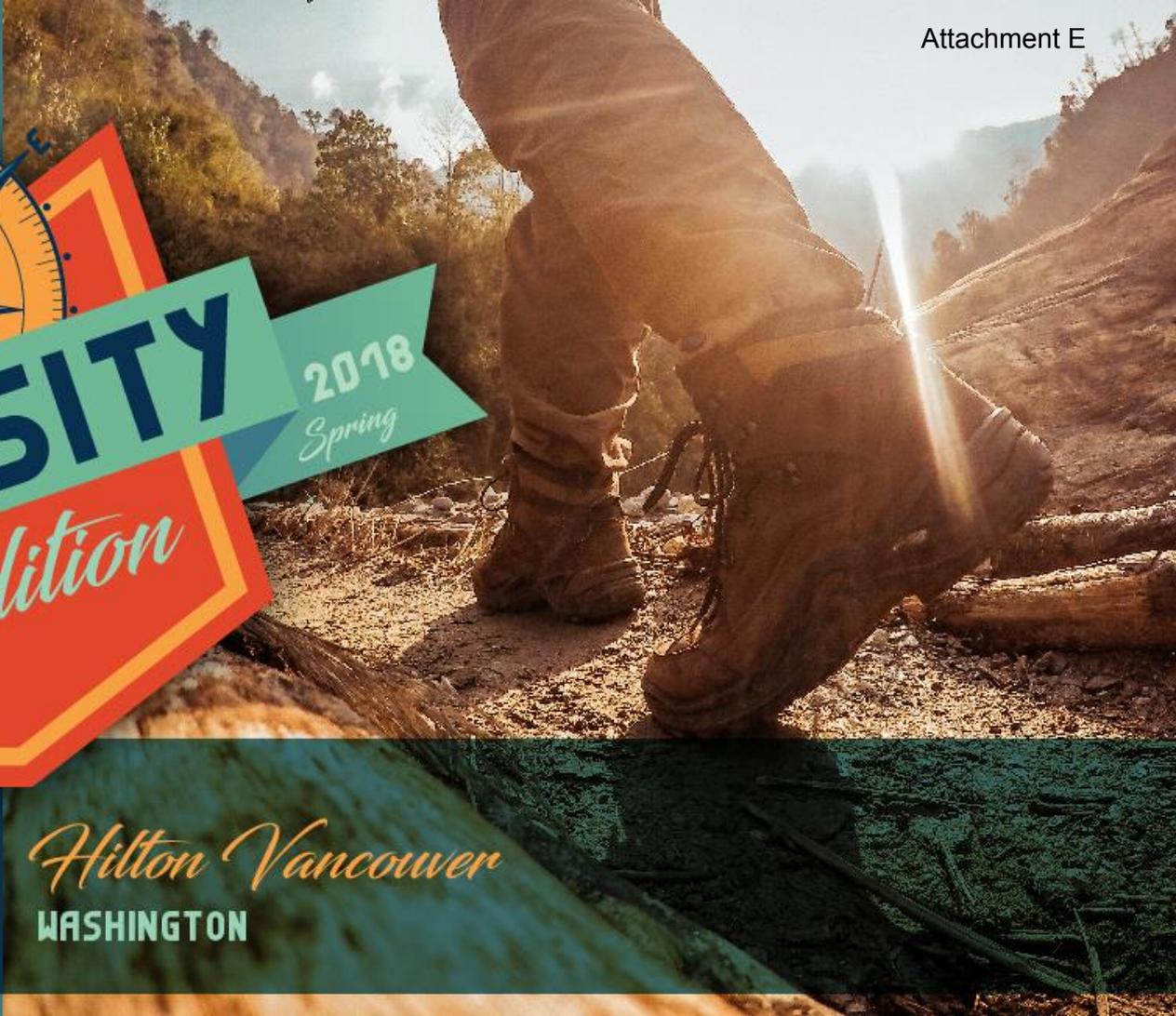
2018
Spring

APWA
Washington

Expedition

April 17 - 20
2018

Hilton Vancouver
WASHINGTON





What Contractors Aren't Telling You

Mark R. Fuglevand, PE

mfuglevand@kbacm.com



- **GOAL** – Correct some common misconceptions which can increase your costs to deliver projects
- **Method** – Surveyed over 75 local contractors
- **Take Away** – Remove some barriers between owners and contractors
- **Resulting in...**

- Lower project costs
- Less stress / conflict
- More collaborative teams

WIN / WIN

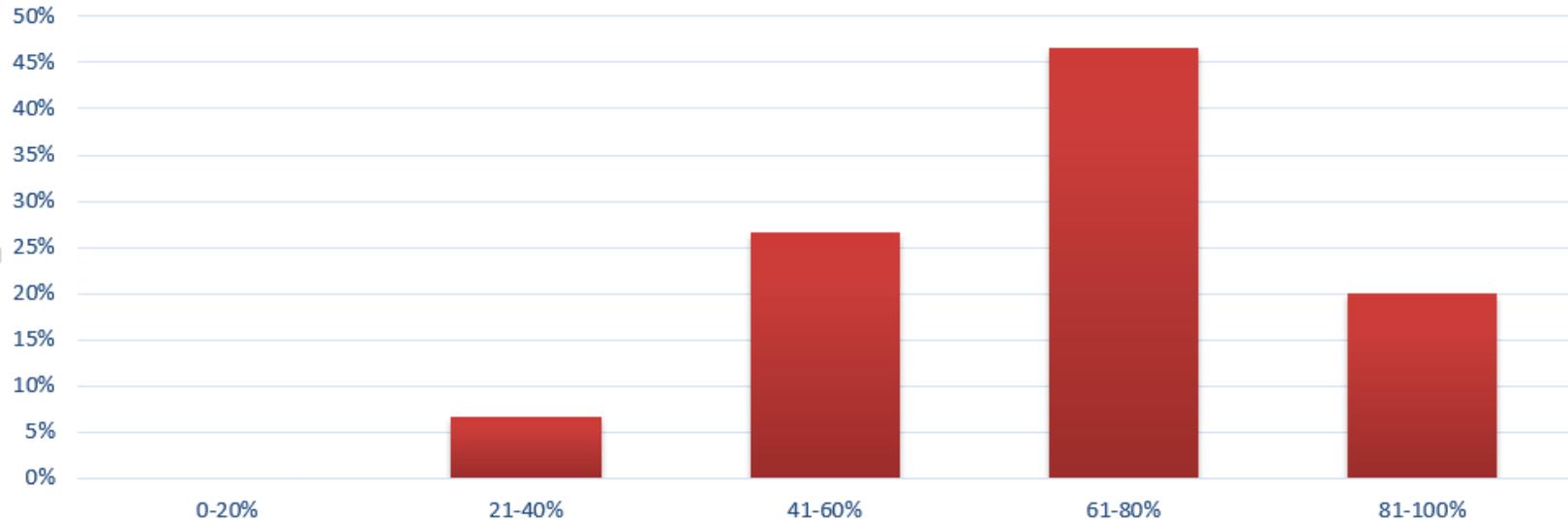
What is your position with your company?



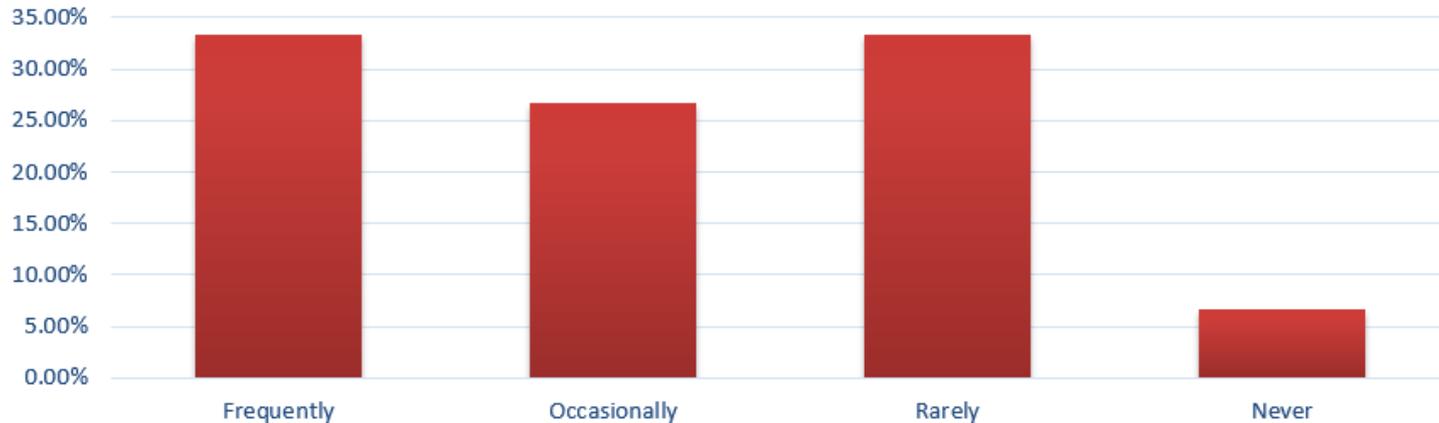
Estimate of your firm's in-state revenue by sector:

| | 0-5 mil | 5-10 mil | 10-20 mil | over 20 mil |
|--|---------|----------|-----------|-------------|
| City /County Transportation Projects | 27% | 9% | 27% | 36% |
| Water/ Wastewater | 36% | 27% | 27% | 9% |
| Highway, Airport, and Transit | 25% | 17% | 17% | 42% |
| Tunnel, Bridge & Structure | 43% | 14% | 14% | 29% |
| Commercial / Residential | 33% | 44% | 11% | 11% |
| Other: Schools, Dam & Power, Private Dev | 100% | 0% | 0% | 0% |
| Annual Revenue | 0.00% | 7.69% | 23.08% | 69.23% |

Percentage of gross revenue that is Self-Performed:



How often are you contacted by municipal agencies to review proposed projects to provide input regarding cost, constructability, etc.?



If an agency requested your input on a project, what would be your response?



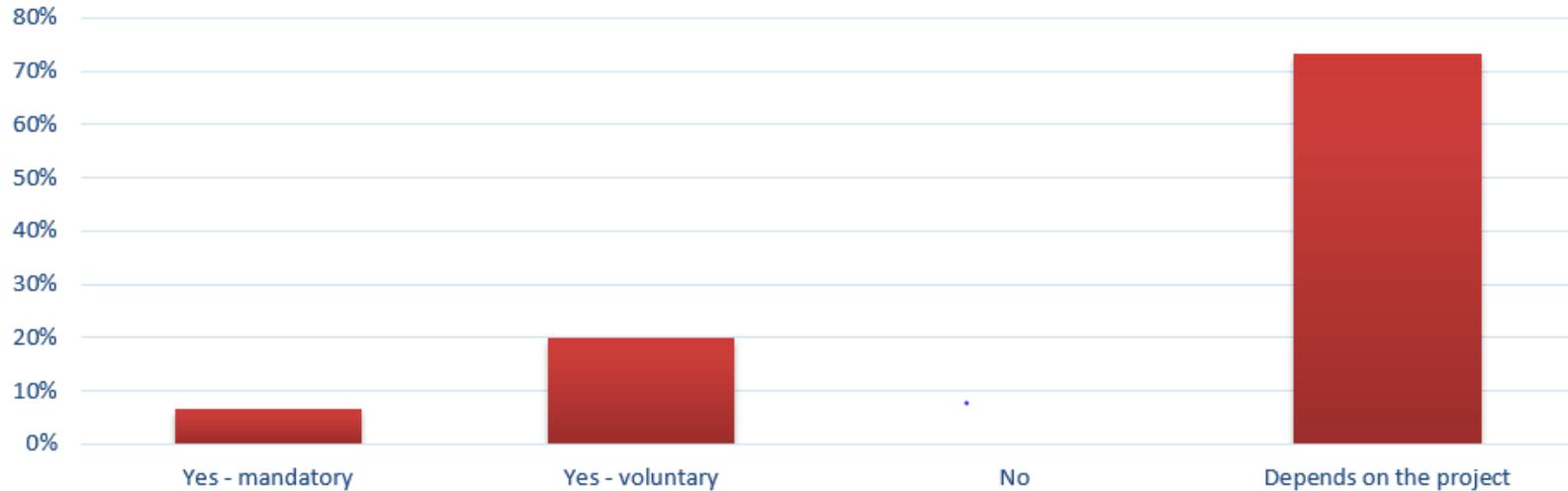
If municipalities sought and incorporated contractor input, would it improve their chances of receiving favorable bids?



Would providing an advanced notice of projects allow your bid to be more competitive?



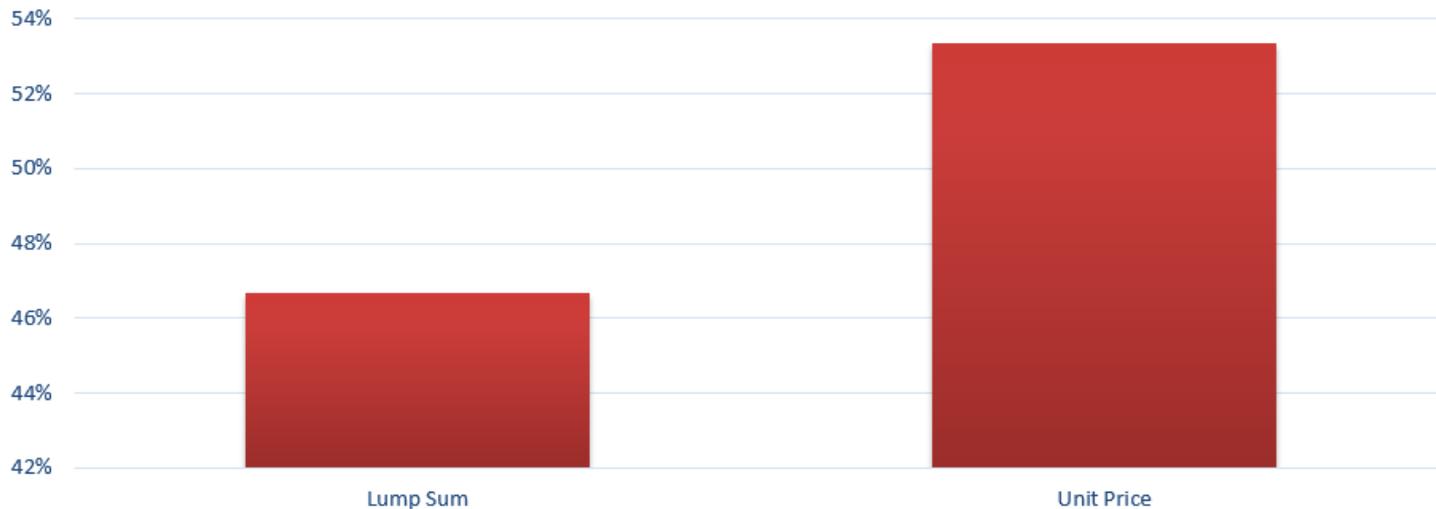
Pre-bids - Do you feel requiring pre-bid meetings is a benefit?



In regards to pre-bid question responses,
they are typically:



Is your bid more competitive if a project is...



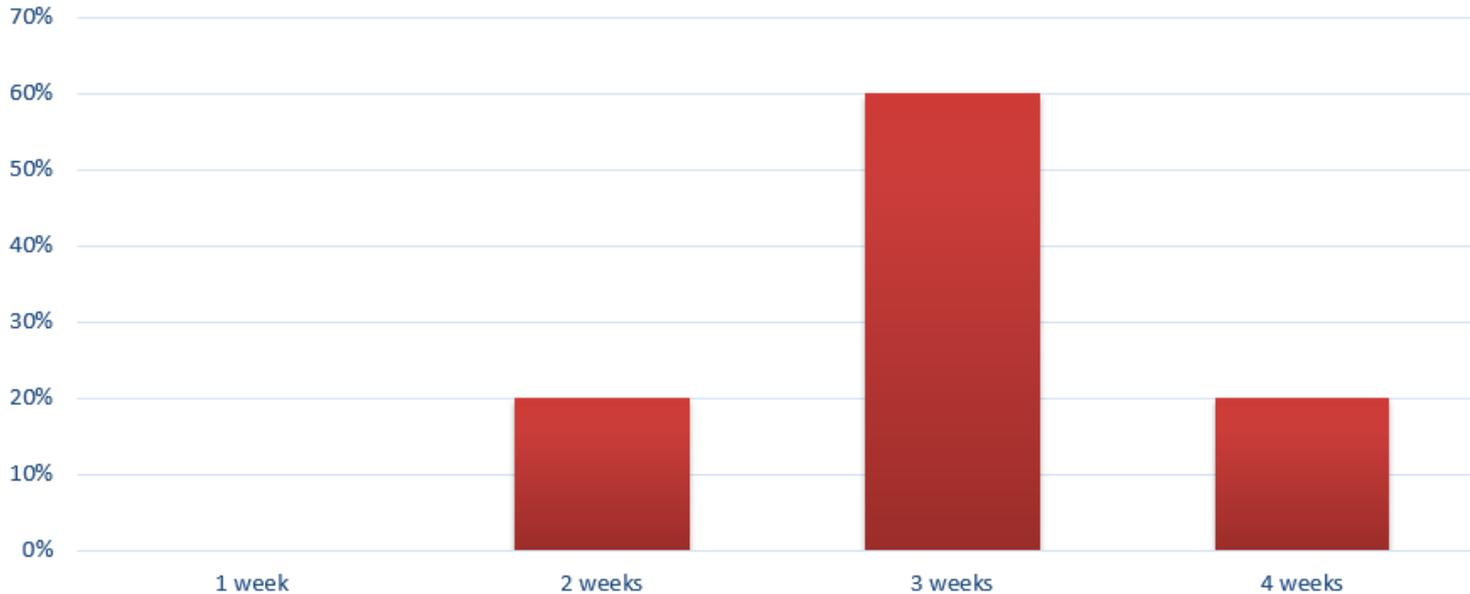
How much does negative experience with an agency influence your bid price?



Are there agencies based on their history or reputation that you will not bid?



What is the optimal time to bid a project?



In your experience, how reliable are the plans and estimated quantities?

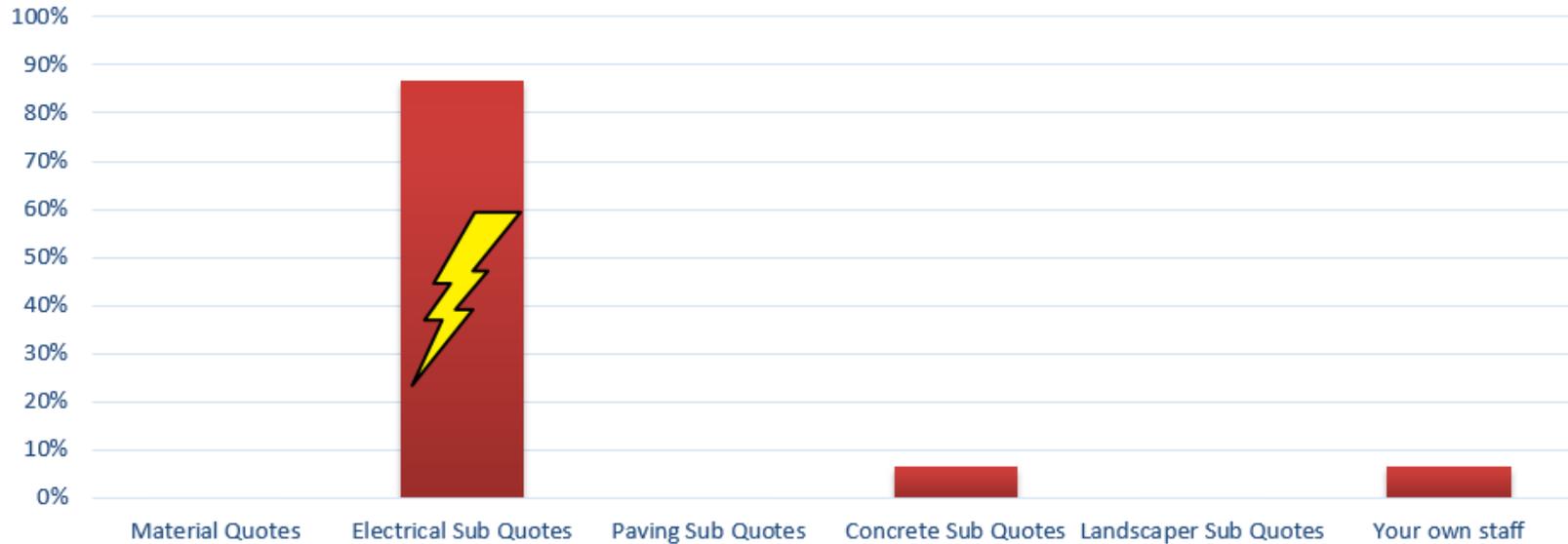
| | 1 | 2 | 3 | 4 |
|--------------------------------|-----|-----|-----|-----|
| Earthwork | 7% | 67% | 27% | 0% |
| Wet Utilities | 7% | 20% | 53% | 20% |
| Dry Utilities | 13% | 13% | 67% | 7% |
| Base and Paving | 0% | 40% | 40% | 20% |
| Curbs and Flatwork | 7% | 13% | 47% | 33% |
| Irrigation and Landscaping | 7% | 40% | 40% | 13% |
| Illumination and Signalization | 7% | 33% | 47% | 13% |
| Traffic Control | 47% | 33% | 20% | 0% |
| Erosion Control | 27% | 33% | 13% | 27% |

1 Unreliable



4 Highly Reliable

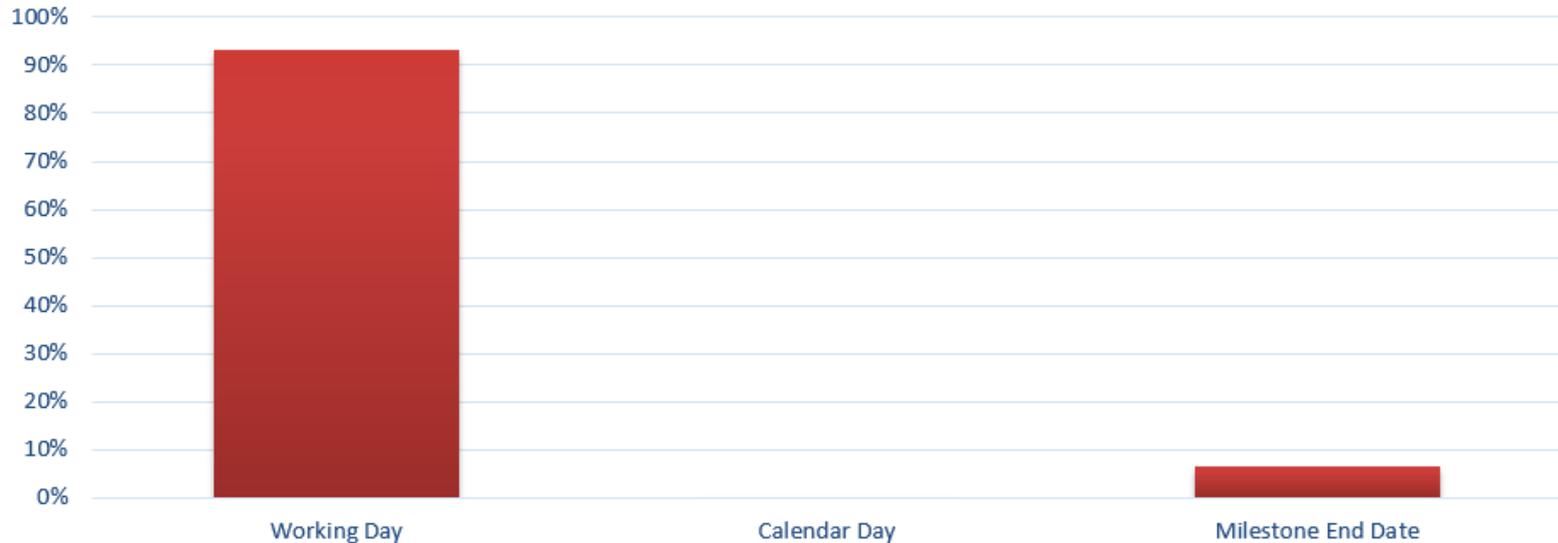
What delays the completion of your bids the most?



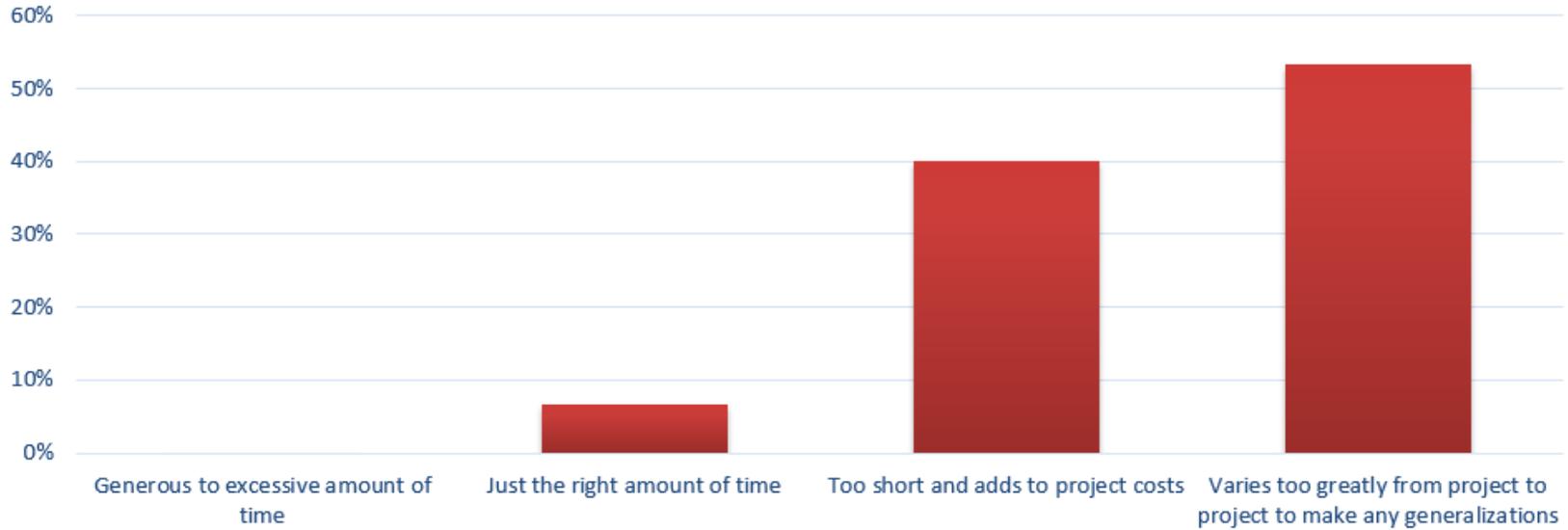
When reviewing a contract, what are the key clauses or areas of your review?

- Liquidated Damages
- Time for Completion, Start Date
- Change Order; Notice, Mark-ups
- Changed Condition
- Insurance Requirements
- Milestone Dates
- Working Hour Restrictions
- Payments and Retainage
- Phasing
- “Incidental” Key Word Search

What is your preferred method for tracking time?



The time allowed to complete the work is typically:



If contract time is too short, do you:



To what degree will any of the following influence the way we deliver projects over the next 5 years:

| | No Influence | Minor Influence | Significant Impact | Revolutionary Impact |
|----------------------------------|--------------|-----------------|--------------------|----------------------|
| Material shortages | 0% | 73% | 27% | 0% |
| Skilled labor shortages | 0% | 7% | 73% | 20% |
| Subcontractor availability | 0% | 33% | 53% | 13% |
| Cost Escalation | 0% | 53% | 47% | 0% |
| Use of Design Build/ GCCM | 0% | 29% | 71% | 0% |
| Decrease in quality of plans | 0% | 40% | 53% | 7% |
| Decrease in workmanship | 7% | 40% | 47% | 7% |
| Increase Regulatory Requirements | 0% | 20% | 47% | 33% |

How appealing are the following contracting approaches?

| | Not at all appealing | Not appealing | Appealing | Extremely appealing |
|---|----------------------|---------------|-----------|---------------------|
| LS traffic control | 60% | 27% | 7% | 7% |
| LS Erosion Control & monitoring | 67% | 27% | 7% | 0% |
| Contractor provided materials Testing and Quality Control | 47% | 40% | 13% | 0% |
| Use of standardized luminaire poles and light standards | 0% | 21% | 64% | 14% |
| Provision to adjust material escalation | 7% | 7% | 60% | 27% |
| Provisions for non-compensated excusable delay for material shortages | 7% | 27% | 47% | 20% |
| Bonus for early completion | 0% | 7% | 33% | 60% |

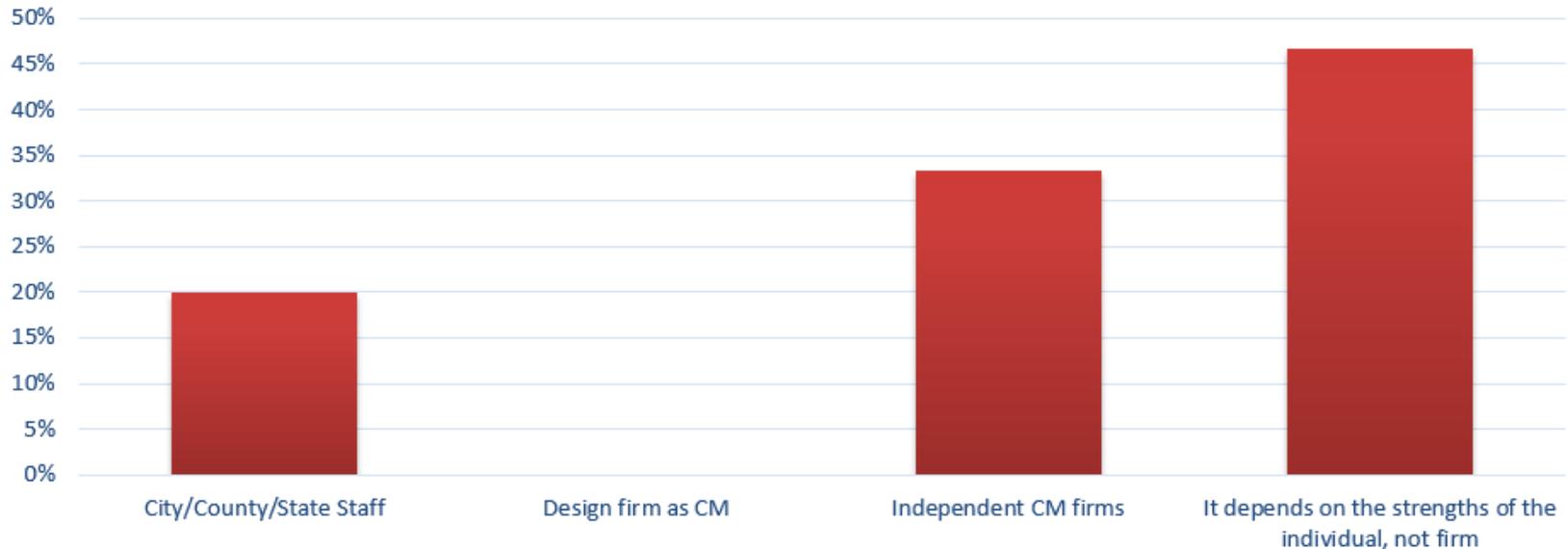
What time of year are you more likely to provide a lower bid



Rank the general competency and professionalism of the following:

| | Outstanding | Strong | Marginal | Unsatisfactory |
|--------------------------|-------------|--------|----------|----------------|
| City and County PM | 0% | 62% | 38% | 0% |
| City and County CM staff | 0% | 23% | 77% | 0% |
| Design Engineering PM | 0% | 38% | 46% | 15% |
| Consultant CM | 0% | 62% | 31% | 8% |
| Contractor PM | 15% | 77% | 8% | 0% |

Which of the following is the most successful at resolving issues?



What single thing should Owners do to get better value (lower bid)?

- Provide payment for legitimate changes.
- Allow use of native material. Have an alternate bid item, if native cannot be used.
- Strive to have a reputation of being a fair and reasonable owner.
- Assign the risk to the party depending on who can control it the most.
- Provide better plans and allow more time to bid.
- Build relationships.
- Provide less confrontational specifications.
- Entertain design or material modifications that do not devalue the project.
- Host a pre-bid to discuss the challenges of the project that you see.

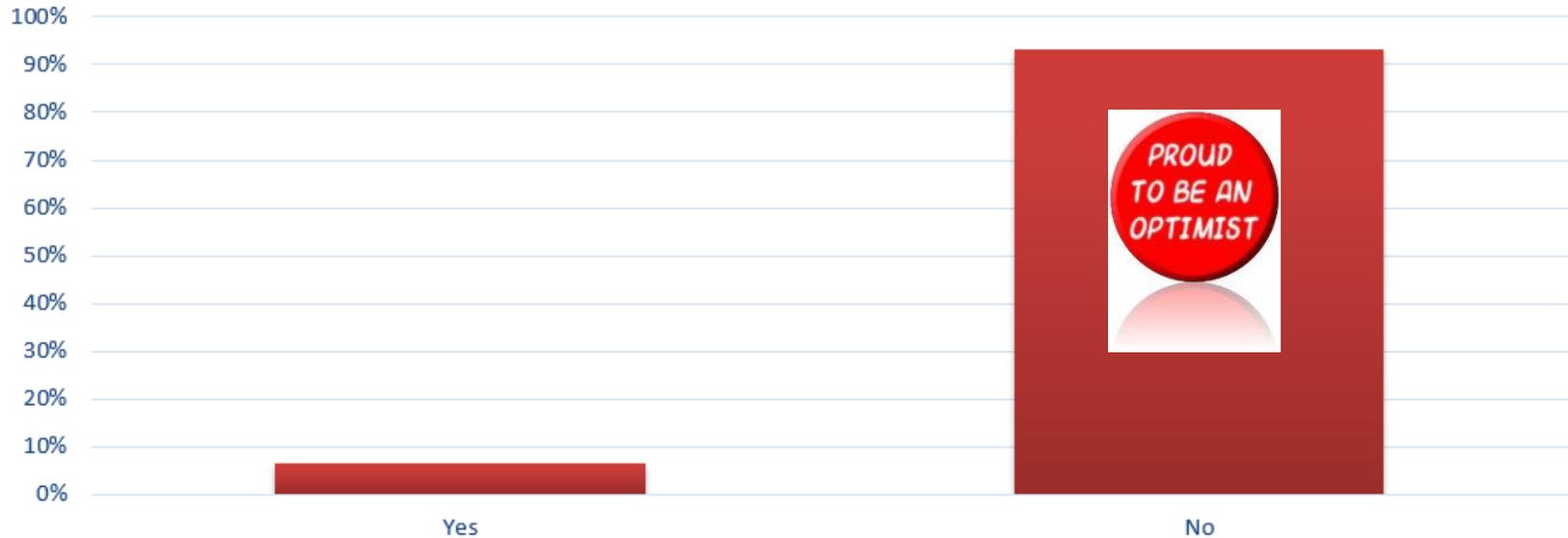
What would cause you to unbalance your bid?

- Wrong/Uncertainty of quantities
- Poorly written specifications
- Inability to receive a meaningful mobilization
- Large contingency quantity (gravel borrow)
- Poor plans and unit items

What factors do you consider in determining a risky project?

- Owners reputation.
- Schedule, Time for Completion
- Subsurface conditions
- Traffic congestion
- Dewatering required
- Quality of the contract documents
- Lump Sum Items for Traffic Control, Erosion Control, others
- Working room or staging to allow required working room

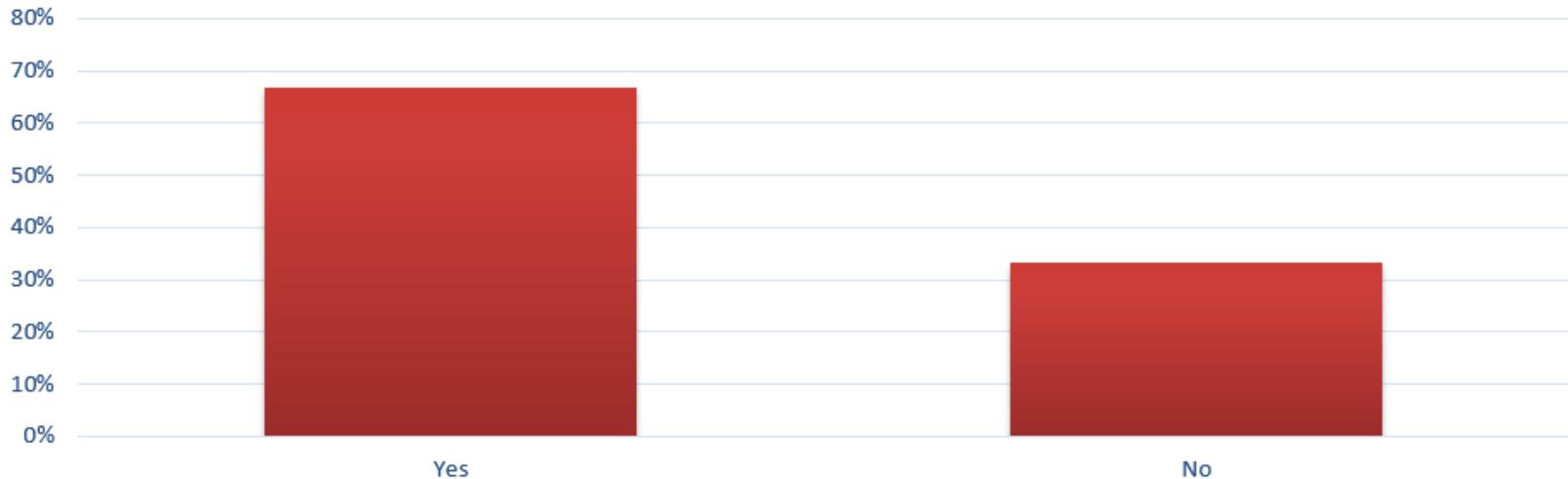
Do you bid a project anticipating a change order?



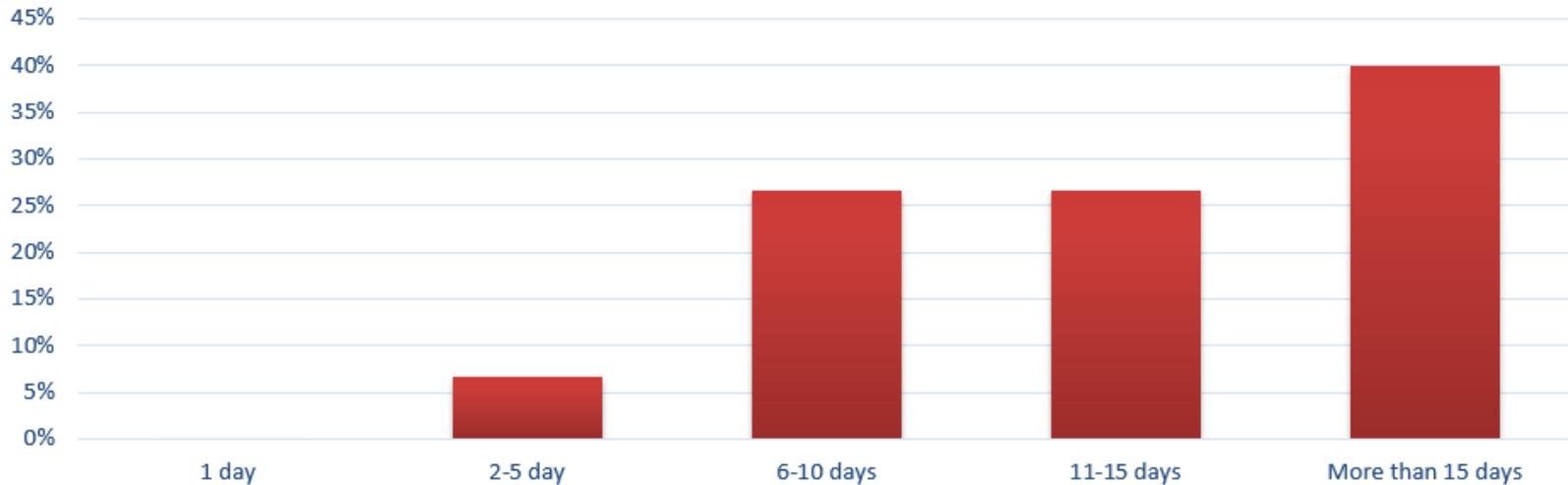
Do you frequently prepare a critical path schedule for a bid?



Do you prefer owners' pre purchase long lead equipment such as signal cabinets?



How many days, prior to bid date, do you start working on the bid?



What is the largest factor in deciding to bid or not bid?

- Project Start Date
- Appetite for scope presented
- Fit with personnel & amount of competition
- Current backlog, our expertise, perceived advantage
- Owner
- Time available to put the bid together
- Location and type of work.

Do you think construction inspectors need more training?

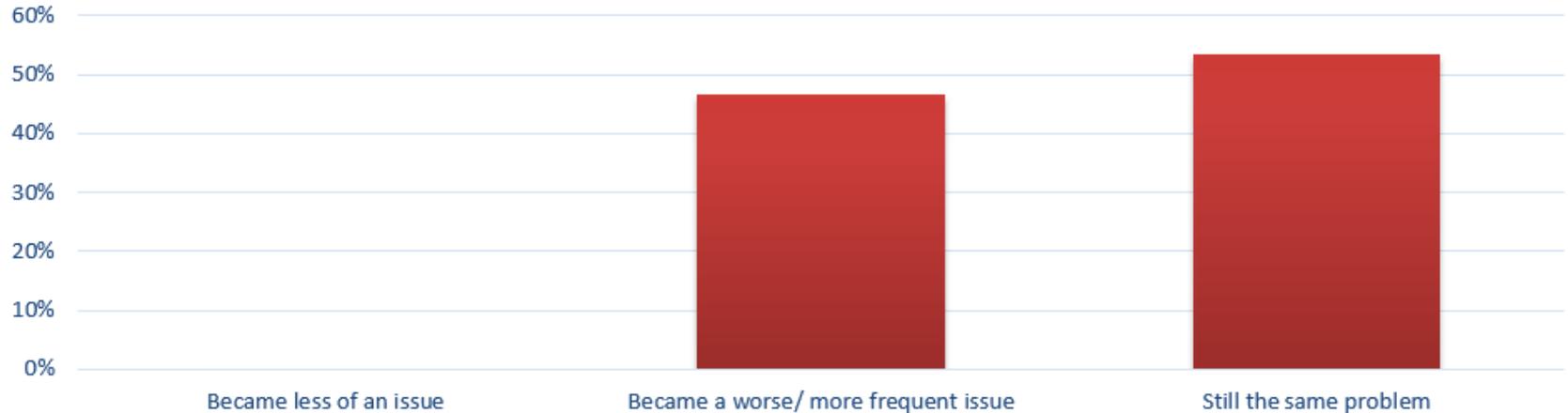


Back To
Sch 🍏 🍏 !!

If yes, what additional training would you recommend?

- Field experience
- Working with an experienced inspector
- How to communicate with the contractor professionally
- Have a mandatory background in the area they are inspecting
- Knowledge of industry and trade practice
- Learning to become more proactive rather than reactive

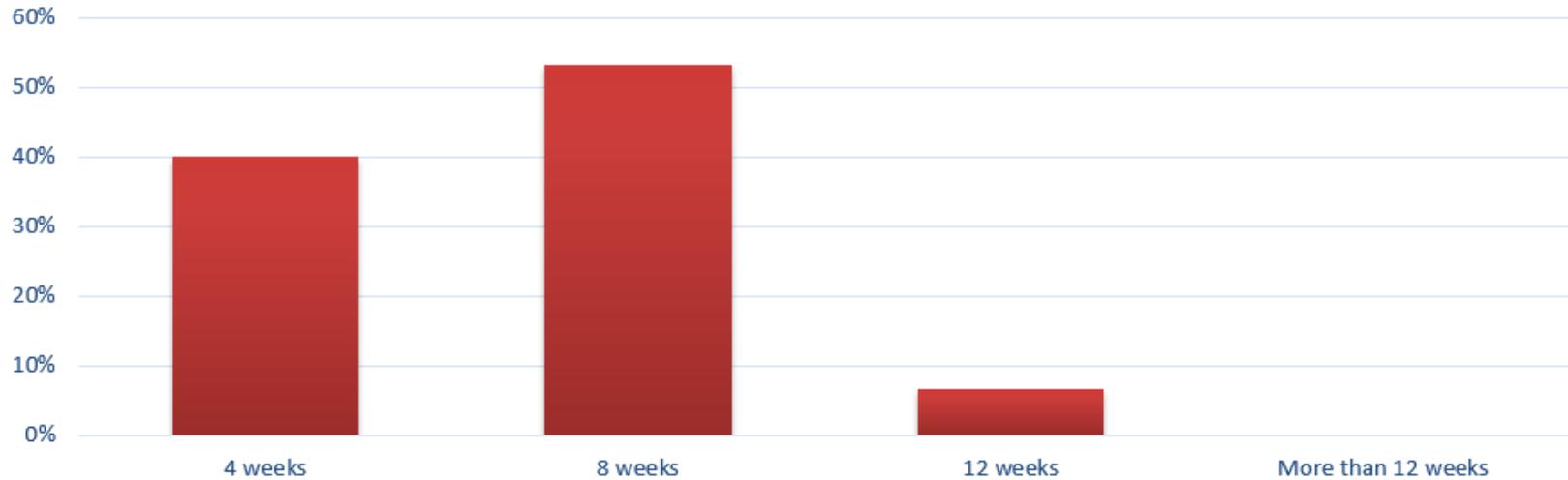
In a survey 12 years ago, 100% of responses agreed working with utilities caused a loss in productivity. Since that time has it



In the past 10 years do you believe the quality of
Plans and Specs has...



How much time would you prefer from the bid opening to the Notice to Proceed?



KEY TAKE AWAYS

- Allow more time for bids, project startup, and completion
- Reputation matters: Open, fair, and honest relationships result in lower costs
- Prices are on the rise: Adequately fund your projects
- Assign risk to the party that can control it best
- Produce high quality bid documents



Thank You

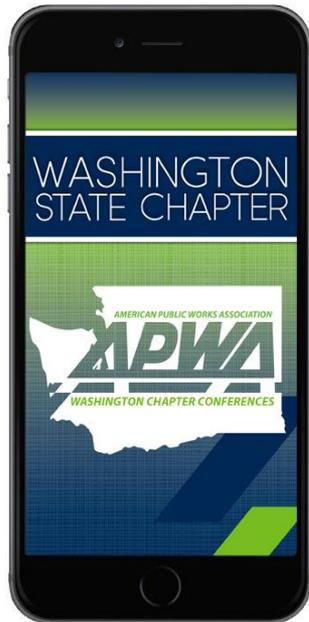


Mark R. Fuglevand, PE

mfuglevand@kbacm.com



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Thank you!