



CITY OF LONG BEACH

DEPARTMENT OF PUBLIC WORKS

C-14

333 WEST OCEAN BOULEVARD • LONG BEACH, CA 90802 • (562) 570-6383 • FAX (562) 570-6012

October 7, 2008

HONORABLE MAYOR AND CITY COUNCIL
City of Long Beach
California

RECOMMENDATION:

Authorize the City Manager to enter into a one-year term agreement with MWH Americas, Inc., (MWH) in an amount not to exceed \$154,000 (with a net cost to the City of Long Beach of \$22,000) to provide statistical and data gathering services for the California Multi-Agency Capital Improvement Program (CIP) Benchmarking Study Group in which the City of Long Beach participates. (Citywide)

DISCUSSION

Prior to 2001, seven of the largest cities in California were expected to award billions of dollars in public works infrastructure construction contracts without the benefit of any organized benchmarking data to assist in the process. Each of these cities had accumulated their own respective experiences in managing not only actual construction costs but the significant additional project delivery costs associated with planning, design, environmental documentation, value engineering, permits, construction management and startup.

To access this collective and valuable experience, in October 2001, the City of Los Angeles, Department of Public Works, Bureau of Engineering initiated a benchmarking study through the cooperative effort of individuals responsible for the development and implementation of capital improvement projects in the cities of Long Beach, Oakland, Sacramento, San Diego, San Jose, and San Francisco. The objective of this study was to provide a general analysis of the efficiency of capital project delivery systems within various agencies in California, based on the observed performance and the processes implemented over previous years. This study became known as the *California Multi-Agency CIP Benchmarking Study* (Study). The first Study was published in 2002, with subsequent annual updates published each year thereafter. The Study has evolved over the years into three main areas: Performance Benchmarking, Best Management Practices and Discussions of Current Project Delivery issues also known as "on-line discussions" (Exhibit A).

**DIRECTOR'S OFFICE
BUDGET & PERSONNEL**
333 W. Ocean Blvd., 9th Floor
Long Beach, CA 90802
Ph. (562) 570-6383
Fax (562) 570-6012

ENGINEERING
333 W. Ocean Blvd., 9th Floor
Long Beach, CA 90802
Ph. (562) 570-6634
Fax (562) 570-6012

**ENVIRONMENTAL
SERVICES**
2929 E. Willow Street
Long Beach, CA 90806
Ph. (562) 570-2850
Fax (562) 570-2861

FLEET SERVICES
2600 Temple Avenue
Long Beach, CA 90806
Ph. (562) 570-5400
Fax (562) 570-5414

PUBLIC SERVICE
1601 San Francisco Avenue
Long Beach, CA 90813
Ph. (562) 570-2782
Fax (562) 570-2729

The environment in which cities are planning, designing, and constructing their capital improvement programs has been in a state of constant change over the past few years. Rapid increases in construction costs, more stringent environmental regulations along with the ever present pressure of budget shortfalls are only a few of the challenges faced by California cities. Participation in the statewide benchmarking process has allowed the City of Long Beach to normalize its CIP project delivery performance in a constantly evolving environment, and to learn from the other participants how they are overcoming these challenges.

In order to make the most effective use of the group's time and to have access to the expert capability required to process large amounts of data, the benchmarking group retains the services of a consultant to provide data gathering and statistical analysis services. The cities in the group have typically rotated the responsibility of taking the lead with the consultant, MWH. The contract term with San Jose's agreement with MWH ended September 30, 2008. Because it is now the responsibility of Long Beach to assume the lead, staff proposes that Long Beach execute a new agreement with MWH effective October 1, 2008.

This matter was reviewed by Deputy City Attorney Amy R. Burton on September 15, 2008 and by Budget Management Officer Victoria Bell on September 18, 2008.

TIMING CONSIDERATIONS

In order to avoid disruption to the work of the benchmarking group, City Council action on this matter is requested on October 7, 2008 to authorize execution of a new agreement with MWH effective October 1, 2008.

FISCAL IMPACT

The contract award is for an estimated amount of \$154,000. Sufficient funds to cover the contract are budgeted in the General Fund (GP 100) in the Department of Public Works (PW). Please note that contract costs are shared equally by each of the seven cities resulting in a net cost to the city of Long Beach of \$22,000 for participation in the study.

SUGGESTED ACTION:

Approve recommendation.

Respectfully submitted,


MICHAEL P. CONWAY
DIRECTOR OF PUBLIC WORKS

PICLMWH Contract.doc

MAC:RS:db

Attachment

APPROVED:


PATRICK H. WEST
CITY MANAGER

League of California Cities - Annual Conference

September 5 – 8, 2007

PRESENTATION HANDOUT

Panel: Mark Christoffels, City Engineer, City of Long Beach
Gary Lee Moore, City Engineer, City of Los Angeles
Dave Sykes, Asst. Director, Dept. of Public Works, City of San Jose

California Multi-Agency Capital Improvement Program Benchmarking Study

Introduction

Over the next several years, seven of the largest cities in California are expected to award nearly \$6 billion in public works infrastructure construction contracts. While \$6 billion for public works improvements is a significant amount, it does not represent the entire infrastructure cost. There are additional, significant costs – over and above construction – to deliver these projects. The costs associated with the project delivery process – planning, design, environmental documentation, value engineering, permits, construction management and startup – are influenced by many factors such as project size and complexity, new construction vs. rehabilitation, internal organization, project prioritization, clear guidelines, and more.

With all of this construction on tap in California, would it be possible – and beneficial – for cities to collaborate, pool their knowledge and experience on these cost-influencing factors, then benchmark their project delivery processes to learn from each other's successes, while keeping project delivery costs to a minimum? The answer these cities found is a definite yes.

In October 2001, the City of Los Angeles, Department of Public Works, Bureau of Engineering initiated a benchmarking study through the cooperative effort of individuals responsible for the development and implementation of Capital Improvement Projects (CIP) in seven of the larger California cities. The objective of this study was to provide a general analysis of the efficiency of capital project delivery systems within various agencies in California, based on the observed performance and the processes implemented over previous years. This study became known as the *California Multi-Agency CIP Benchmarking Study*.

Although it is highly effective for municipalities tasked with delivering Capital Improvement Projects to collaborate on their experiences and methods, it is also very rare that this actually occurs. This paradigm was challenged in 2002 when the first *California Multi-Agency CIP Benchmarking Study* (Study) was published. This year's *Update 2007*, to be published this fall, will mark 6 years of continuous collaboration between the participating Cities and represents an accomplishment unparalleled in the industry.

Since the participating agencies initiated these efforts, interest within the industry has been sparked. As a result, other benchmarking efforts, both large and small, have started to spring up in various parts of the country, such as municipalities in New York and Arizona, the Port of Long Beach, and large water utilities in the western United States. The *California Multi-Agency CIP Benchmarking Study* participants applaud these efforts and look forward to a time when more agencies are sharing their best ideas for the benefit of all and owners can turn to one another to gather insight on how to best address the challenges they face.

The *California Multi-Agency CIP Benchmarking Study* has evolved to consist of three main areas; Performance Benchmarking, Best Management Practices, and Discussions of Current Project Delivery Issues also known as "on-line discussions".

The Study

Performance Benchmarking

Performance benchmarking involves collecting all documented project costs and creating data models of the component costs of project delivery versus the total construction cost. Project delivery costs are defined as the sum of agency, internal client, and consultant costs associated with project planning, design, bid, award, construction management, and closeout activities.

The performance curves included in the 2007 report will have been developed from data on projects completed on or after January 1, 2002. Outlier projects have been identified and eliminated. The remaining 698 projects used in the analyses were all delivered using the design-bid-build delivery method and each has a total construction cost of greater than \$100,000. **Table 1** shows the study results over the past 5 years and **Table 2** shows the type and number of projects included in the 2007 analysis.

Also of interest was the agencies' special study on the use of consultants in project delivery. **Table 3** shows the seven agencies' various level and proportionate use of consultants the during the design and construction management phases and for total project delivery. Also shown is each agencies corresponding project delivery costs as a percentage of total construction cost and the average and median size of the projects.

**Table 1 - Project Delivery Costs by Project Completion Year
(As % of Total Construction Cost)**

Year	Design	Construction Management	Project Delivery (Total)
2002	18%	16%	34%
2003	19%	17%	36%
2004	23%	17%	40%
2005	22%	17%	39%
2006	22%	17%	39%
Average	21%	17%	38%

Table 2 - Project Distribution Matrix

Category	Municipal Facilities (127)			Streets (213)					Pipe Systems (256)			Parks (102)		
	Libraries	Police/Fire Stations	Comm./Rec. Center/Child Care/Gym	Widening/ New/ Grade Separation	Bridges	Street Recon	Bike/Ped/ Streetscape	Signals	Gravity System	Pressure System	Pump Stations	Play-grounds	Sport-fields	Rest-rooms
# of Projects	42	27	58	26	13	50	55	69	218	25	13	80	9	13

Total - All Categories: **698**

Table 3 – Agency Use of Consultants

AGENCY	DESIGN			CONSTRUCTION MANAGEMENT			PROJECT DELIVERY			TCC	
	In-House	Consultants	Total % of TCC ^{2,3}	In-House	Consultants	Total % of TCC	In-House	Consultants	Total % of TCC	Average	Median
	% of Design ¹	% of Design		% of CM	% of CM		% of PD	% of PD			
Agency A	74%	26%	22%	97%	3%	15%	84%	16%	37%	\$1.2	\$0.7
Agency B	61%	39%	17%	67%	33%	11%	64%	36%	28%	\$0.8	\$0.3
Agency C	85%	15%	19%	96%	4%	17%	90%	10%	36%	\$1.7	\$0.7
Agency D	59%	41%	21%	93%	7%	20%	76%	24%	41%	\$2.5	\$1.4
Agency E	28%	72%	20%	69%	31%	15%	45%	55%	34%	\$2.0	\$0.5
Agency F	60%	40%	22%	90%	10%	20%	72%	28%	41%	\$1.1	\$0.4
Agency G	65%	35%	21%	100%	0%	14%	77%	23%	36%	\$0.8	\$0.5
OVERALL	63%	37%	21%	91%	9%	17%	86%	25%	38%	\$1.5	\$0.6

Best Management Practices

At the start of the Study, the agencies examined over 100 practices used in the design and construction management phases of project delivery. They selected practices to include in this Study those they did not already commonly use, but believed should be implemented as BMPs. Practices are added annually by the agencies to address specific challenges they encounter or reflect new learnings by the participants. Agency implementation of the selected practices has been and will continue to be tracked during the lifetime of the Study. Following is a list of sample BMP’s that have been developed and implemented during the Study period.

- Define capital projects well with respect to scope and budget including community and client approval at the end of the planning phase.
- Establish and utilize a Board/Council project-prioritization system.
- Provide a detailed, clear, precise scope, schedule and budget to designers prior to design start.
- Define requirements for reliability, maintenance, and operation prior to design initiation.
- Develop and use a standardized Project Delivery Manual.
- Perform a formal Value Engineering Study for projects larger than \$1 million.
- Delegate authority to the City Engineer/Public Works Director or other departments to approve change orders up to the contingency amount.
- Classify types of change orders.
- Involve the Construction Management team prior to the completion of design.
- Delegate authority below Council to make contract awards under \$1 Million.
- Provide formal training for Project Managers on a regular basis.
- Implement and use a consultant rating system that identifies quality of consultant performance.
- Implement as-needed, rotating, or on-call contracts for design and CM work that all work to be authorized on a task order basis to expedite the delivery of smaller projects.

Online Discussion Forum

Among the primary benefits, accruing to the participating agencies during this ongoing Study has been the opportunity to discuss the challenges of public works project delivery with their peers. These successful open forum communications included online discussions of over thirty topics that influence

project delivery efficiency. Many of these topics have evolved into recommended Best Management Practices. A partial listing of topic discussions follow:

- What type of insurance does each agency require of its contractors?
- What are the agencies' LEED certification requirements?
- What is each agency's department organizational structure?
- What are the agencies' staff recruitment issues?
- What is each agencies consultant selection process and how are contract negotiations handled?
- What are the agencies' prevailing wage requirements?
- How is each agency handling on-line bidding?
- What are the agencies' MBE/WBE/DBE requirements?
- How is construction cost estimating handled in the agencies?
- What are the procedures for utility relocations at each agency?
- What is each agency's change order policies and procedures?

Reviews

The Study has been a success not only for the data that it has produced regarding CIP project delivery for the large cities in California, but also for the benefits it has provided for the participating agencies. The following are quotes regarding what this study has meant to the participating agencies:

- The City of San Jose offers: "What is great is that we learn new things at every meeting that lead to ways we can challenge ourselves to improve our processes and procedures. The online forum has also proved to be a very valuable tool between meetings and has generated some very informative discussions on a broad range of topics."
- The City and County of San Francisco noted "The results of the study have validated our agency's performance when we underwent a recent management audit by the City Controller. Reviewing the Best Management Practices adopted by the various agencies has encouraged us to consider new and better ways to deliver our services."
- The City of Los Angeles commented that "[t]he discussion forum has been especially useful in analyzing certain aspects of the way we do business in the City of Los Angeles. ... It also allows the City of Los Angeles to share our experience and business practices with other major cities, and helps to make our practices and policies more consistent with cities throughout the state."
- The City of Long Beach offers this comment: "Participation in the statewide benchmarking process has allowed the City of Long Beach to normalize its project delivery performance against this ever-changing environment (of public works construction), and to learn from the other participants how they are overcoming these challenges."
- According to the City of Sacramento, "We have also found that the online discussion forum is an invaluable resource when we are researching a new policy or practice, as all of the participating agencies are very generous in sharing their own knowledge, standards, and practices."
- The City of San Diego notes, "The discussion of [BMPs] helps provide a framework and examples of how to implement needed improvements. Online discussions between agencies result in immediate feedback for issues that come up from time to time. These online discussions provide the ability to discuss specific project tasks, specifications, and miscellaneous requirements."

More Study Information

For more detailed information regarding the *California Multi-Agency CIP Benchmarking Study* visit the website at <http://eng.lacity.org>