EXECUTIVE SERVICE CORPS

A Division of

ZERO-BASED MANAGEMENT REVIEW

OF THE
CITY OF SAN DIEGO’S
ENGINEERING AND CAPITAL
PROJECTS DEPARTMENT

July 30, 1998

A Report by
Nonprofit Management Solutions/Executive Service Corps
(formerly Support Center/Executive Service Corps)
For the City Manager and
City Council Select Committee for
Government Efficiency and Fiscal Reform
Foreword

Nonprofit Management Solutions/Executive Service Corps is pleased to forward this Zero-Based Management Review, which represents hundreds of hours of research and interviews undertaken by volunteer consultants, experienced in the area of their study focus.

We wish to express our gratitude for the generous contribution of time, talent and expertise these citizen consultants provided to produce the recommendations forwarded to the City of San Diego at this time.

When citizens and government and elected officials work together...

THE RESULTS CAN BE OUTSTANDING!
BACKGROUND

This report is a product of a five-year Zero-Based Management Review effort originated by the Mayor's Change² Committee, sponsored by the City Manager, performed under the aegis of the City Council Select Committee for Government Efficiency and Fiscal Reform, and coordinated under the management of the Nonprofit Management Solutions/Executive Service Corps (NMS).

A select corps of citizen volunteer consulting teams are recruited, trained and supported by NMS to conduct departmental systems assessments. The corps is comprised of recently retired and semi-retired individuals, as well as loaned executives and working professionals representing a broad range of private and public sector business background. All have demonstrated a commitment to management effectiveness and an ability to contribute through their knowledge, experience and expertise.

A typical assignment involves the recruitment of executive-level volunteers who possess the management skills and experience appropriate for their task. A kick-off meeting is conducted with the City Manager, Linc Ward of the Select Committee, the two-person study team, and appropriate levels of management in the operations to be reviewed. The team spends several sessions in the field, applying a macro management viewpoint. They also conduct research of comparative practices in other cities across the nation. Their reviews focus on operations to determine answers to the following questions:

♦ Is this work function consistent with City goals and direction?
♦ Should it be done at all?
♦ Is this work function consistent with other related functions?
♦ Can this function be done elsewhere?
♦ Is this work function (and its related functions) effective and efficient?
♦ Is it competitive with private industry?

At the end of their review, the team prepares a report for the local management staff, the City Manager, and the Select Committee on Government Efficiency and Reform. The Select Committee's Chair Byron Wear, and Councilmembers Judy McCarty and Barbara Warden, meet periodically with Linc Ward and the City Manager to assess implementation progress on these volunteer citizen consultant reports and recommendations.

Nonprofit Management Solutions/Executive Service Corps is a major provider of comprehensive management assistance to nonprofit organizations in the region since 1984. NMS has built a significant track record of high-quality service to public and private nonprofit institutions, including Arts and Culture, San Diego Community
Foundation, Neighborhood House, the Public Health Departments of San Diego and San Bernardino Counties, along with other public and private institutions.

NMS is a volunteer-driven and client-centered nonprofit technical assistance resource. Its purpose is to provide public benefit organizations, including cities and nonprofit agencies, with high-quality management assistance through cost-effective consulting and training programs and services.
The Engineering and Capital Projects Department was visited by four teams of private industry executives during February-April 1998. The Divisions and functions reviewed by these citizen volunteers are listed below. Other areas of activity that were not reviewed at this time were Water/Wastewater Facilities Design, Contract Services, Police Fire & Library Projects and CDGG/Private Agency Projects.

♦ Transportation and Drainage Design Division
  Review Team members: Robert Annett
  Ralph Grahl

♦ Public Buildings & Parks Division
  Review Team members: Kenneth Dillard
  Al Schmitt

♦ Citizens Advisory Committees
  Review Team members: Dudley Beckett
  Sydney Zussman

♦ Field Engineering Division
  Review Team members: Norman Dargie
  Robert Schwartz

♦ Contract Services Division
  Review Team Members: Gene Sapper
  James Schmidt

**Director:** Linc Ward, Chair of Zero-Based Management Review Sub-Committee of the City Council Select Committee.

**Coordinator:** Joel J. Snyder, Ph.D., Volunteer Consulting Services, Support Center/Executive Service Corps.

These volunteers represent some of the finest executive and professional skills in the community, bringing a wealth of management and operational experience, success and know-how to each team assignment and to the City of San Diego.
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I. **OVERVIEW**

A. **DEPARTMENT OVERVIEW**

1. The Engineering and Capital Projects Department (E&CP) is organized into six major divisions, with an annual operating budget of approximately $30 million and an average staff of 340. Its mission is the development and enhancement of the urban environment, and to provide quality public facilities. The Department has an average annual General Fund operating budget of $14.2 million. The average annual Transient Occupancy Tax component of the department budget is $722,000. The remaining portion of the department is funded by water and sewer projects (about $14 million).

2. E&CP provides a wide array of engineering services for the City. It conducts management and administration of design and construction contracts for capital improvement projects, such as The House of Hospitality, The Balboa Park Activity Center, Malcolm X Library, Rancho Bernardo Recreation Center, Trunk Sewers on Morena Blvd., Rose Canyon, Encanto, Valencia Park, and Home Avenue; University Heights Reservoir and the San Diego Stadium Expansion. The Department also processes construction contracts for advertising and award, surveys and inspects public improvement projects, and tests construction materials. It administers the City’s Equal Opportunity Contracting Program, and maintains standard specifications and standard plans for public works construction citywide.

B. **OBJECTIVES AND SCOPE OF REVIEW**

1. Four ZBMR teams reviewed four divisions: Public Buildings and Parks; Transportation and Drainage; Field Engineering Divisions; and Contract Services Division. A fifth team reviewed the Department’s interface with citizen project review committees and Boards.

2. The scope of ZBMR teams was to carry out macro-management surveys of major operations and to recommend ways to improve managerial efficiency and effectiveness. More than twenty interviews with division deputy directors, section managers and senior engineers were conducted. Numerous status reports and summary data were reviewed in the various sections, to complete an accurate picture of key issues. Specific reports from each ZBMR team are included as attachments to this overview.
II. SUMMARY OF SIGNIFICANT RECOMMENDATIONS

A. The Department conducts some of its engineering management functions without precise, objective factors for planning and controlling its assigned projects or its available resources. During interviews with ZBMR teams, Department staff members used terms such as, “hip pocket estimates” or “moving target” goals. Project status and cost tracking for Capital Improvement Program (CIP) projects seemed limited to a project manager’s own initiative. In some cases project managers were not using available information nor existing processing systems to manage costs. Existing project status reports that were reviewed appeared vague and misleading. In effect, this loose climate is inevitably wasteful, slower than necessary and difficult to manage effectively or efficiently. Typical project timelines run three years or longer, including two years for the Department’s own engineering design process.

B. Current project costs are nearly impossible to pin down, partly because of design revisions and delays and also because of general fund charges that are unbudgeted or underfunded among divisions or projects. Some services are underfunded because true costs have not been calculated, or cannot be estimated. For example, four other City agencies, including Real Estate Assets, Development Services, Environmental Planning and Permits, charge their own costs to the Department’s projects without preliminary estimates or prior agreement on set limits. The Department has identified the need for more accurate scheduling of these transfer costs to budgets for their projects. Field Engineering Division has developed some accurate cost estimates for construction management work, but they have not been widely implemented. Until the Department chooses to track such activity-based costs, no one can be held accountable for any specific project budget goals – a true “moving target” for which project managers are not fiscally committed at present.

C. This diluted picture of true costs extends to project funding for many design jobs. For example, 11 of 24 design projects listed by the Park Facility Section involved funding transfers, shortfalls and alternative fiscal sources. Fortunately multiple funding impacts Parks and Public Buildings more than other CIP projects. However, if all 74 design projects in the Public Buildings & Parks Division lack reliable, up-to-date cost accounting data or accurate estimates of total costs, this jeopardizes the accuracy of nearly $40 million planned expenditures for the projects in design process in this division alone. A complex mixture of funding sources gains flexibility only by benefiting one project at the expense of others. Confusion about actual project costs is an invitation to waste and duplication.
D. How much does the lack of accurate estimates raise the costs of the projects? As an example, in one Balboa Park project, the City spent $7.5 million. Nearly $2.5 million of this, or a third of the total, was consumed in its design and review process. The actual construction contract was $5.0 million. When this $2.5 million charge is compared to private industry architect design fees of 15-25% of a project’s cost, the extra expense of the Department’s current design work amounts to an excess of $4-5 million on current projects.

E. Other hard to control sources of excessive delays and unplanned design and construction costs are the myriad community groups councils and advisory boards created by the City’s Charter. Although citizen impact on the Department’s projects varies widely, the ZBMR team estimates that more than 60 similar, overlapping groups are reviewing CIP projects large and small. Project managers often find themselves having to attend one committee multiple times only to be sent on to a subsequent committee. The direction from these committees is more often than not duplicative, as well as conflicting. Projects are delayed, and costs are increased. The Department estimates that as much as 6% of a project’s budget is spent on this plan-check-review process. In Public Buildings & Parks Division, this amounts to an estimated $2.4 million added to project design cost. Besides design and construction money, inordinate amounts of staff time, consultants’ fees and administrative support pour into this expense. The public review process is not limited to one Department. Park and Recreation Department also spends nearly $100,000 annually to staff its Park and Recreation Board and Committees. The increased time, as much as 17 months, and escalated costs, up to 18% for a small one-acre recreation park plot, bear heavily on overall CIP project costs and efficiency.

F. Nothing less than broad changes, on the order of reengineering, will suffice to significantly improve existing engineering operations, or reduce future project costs. Several major steps must be taken.

1. First and foremost is rapid, Department-wide implementation of computer-based project tracking and cost data. Private industry has employed computer-based data files for this purpose for many years. This technological upgrade should be vigorously applied to process improvements and project cost reductions on behalf of public works.

   a. Early this year the Department began an effort to acquire and utilize Primavera, a common project scheduling system, to its fullest extent for all design projects. It is in a second year of application for the Water and Wastewater client-oriented section. An engineering and integrated cost
database for CIP work, called CIPRES, also has been designed and is in initial use in this section. CIPRES includes management information to support planning and staffing, assignments, project GANTT updates, budget and cost projections, cash flow analyses, and plan-check-revision timelines, among other decision support tools.

b. The Department has given high priority to incorporating information contained in AMRIS and CAPPS, in order to provide reports and readily accessible information that engineers and management can use to track comprehensive detailed project costs. So far, they have made but little progress.

c. The envisioned reporting system will incorporate data from Primavera, AMRIS, and CAPPS and will monitor performance measures identified in the department’s performance based budget. This new process must receive management’s top priority, such “A” priority on the City Manager’s centralized priorities for development.

2. Understandably, experienced senior engineers who already manage numerous projects may not feel comfortable with new formats of complex, interwoven time and cost data. Some staff have expressed doubts about Primavera’s capacity to assist them, without dependable project fund commitments. Moreover, six months or more may be required by some to learn how to use the software. In any case, a senior engineer’s personal capacity to adapt to the computer age should be made a key factor of performance evaluation. Shortened timelines to completion are reasons enough for vigorous, project management implementation. Reducing inaccurate information will certainly result in fewer delays caused by lack of project status data. These benefits would be realized throughout the project and not only in the design phase.

3. The city-wide Restructuring of the Engineering Department among others two years ago was expected to save an estimated $1.7 million, by flattening organizations somewhat and reducing clerical duplication. However, engineering staffs were not cutback. They simply moved from old client departments into their new department sections, with few staffing adjustments. The ZBMR team strongly recommends continued, vigorous action in this area. The City’s structure still suffers from a variety of overlapping engineering design activities, lodged in two other departments besides E&CP. At this time with two years experience it is appropriate to look for more opportunities in this Department as a
start, to restructure client-oriented, specialized sections and divisions into larger, more functional groups. A process reorientation would help to achieve better staffing flexibility, loosen up rotational assignments and cross-training, and find labor cost areas for FTE reductions. More savings also could be gained from reducing some engineer levels to lower-grade technicians, and continuing to flatten supervisory ranks, added opportunities also exist in reducing the size of the 13 person Equal Opportunity Contracts Section.

4. Overhead rates, non-general fund revenue recovery ratios, and loaded labor costs are listed in TABLE ONE. Some of the wide differences are the result of different tasks, but to a great extent the range illustrates a low priority on controlling costs, vs. transfer of costs from enterprise to general fund revenues. In effect managers don’t emphasize cost controls of their basic rates. These now vary from 55 to 127 percent of divisions' direct wages. (See TABLE ONE) There are myriad underlying issues that inhibit the department’s ability to operate in a fiscally prudent manner and, to the degree practical for a public agency, operate like a business.

**TABLE ONE**

ENGINEERING AND CAPITAL PROJECTS DIVISIONS’ OVERHEAD RATES* AND REVENUE RECOVERY RATIOS

<table>
<thead>
<tr>
<th>Division</th>
<th>Dept. Indirect Costs/Rate</th>
<th>General City Indirect Costs/Rate</th>
<th>Total Overhead Rate</th>
<th>Budgeted FY98 Revenue Recovery Ratios</th>
<th>Loaded Labor &amp; Overhead Cost</th>
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<tr>
<td>Transportation &amp; Drainage Design</td>
<td>102.3%</td>
<td>24.9%</td>
<td>127.2%*</td>
<td>116.2%</td>
<td>$2,513,213</td>
</tr>
<tr>
<td>Public Buildings &amp; Parks</td>
<td>65.9%</td>
<td>28.0%</td>
<td>93.9%</td>
<td>77.6%</td>
<td>$635,211</td>
</tr>
<tr>
<td>Field Engineering</td>
<td>47.4%</td>
<td>7.8%</td>
<td>55.2%</td>
<td>101.1%</td>
<td>$2,676,123</td>
</tr>
<tr>
<td>Contract Services</td>
<td>105.4%</td>
<td>14.7%</td>
<td>120.0%*</td>
<td>79.3%</td>
<td>$797,919</td>
</tr>
</tbody>
</table>

* These rates are second and third highest of all City departments/divisions.

a. The wide variance in Divisions' overhead rates should be reviewed. This overhead includes both department and general city indirect costs. Typically, a division or department has its overhead rate for a fiscal year calculated with audit-based data from two years beforehand, adjusted
by a “roll forward” factor, to adjust from budget to actual expenditures. The Department plans to initiate a process to more accurately set overhead rates and to develop steps they can take to control these costs. Some areas for more efficiency reside in indirect labor charges, i.e., budget, administration, information services, training, etc. However, the major arena for improving work efficiency lies within direct labor costs, such as work associated with the excessive funding or design delays described above, or the misuse of “special pay” provisions.

b. In general the Department is in a “Catch 22” cost situation. Some indirect costs are allocated for recovery by the City, but some of its direct costs cannot be charged to either general or other revenue funds. This compels the Department to “work for free,” versus revenue recovery. TABLE ONE indicates that as little as 77% of a division’s budget is recovered from other fund resources. In the current year this shortfall may cost the Department over $225,000. Direct costs that are non-billable from the general fund exceed $1 million, and they have increased 5% in the current year. These expenses can be minimized too. The Department must budget for these services more accurately, before it can improve efficiencies. All in all $300,000 in more recovered costs is a realistic goal, if full cost recovery becomes city-wide Council policy. The Department currently has no calculated dollar total for this expense. An accurate performance budget cost accounting system that identifies project cost transfers is essential for improving its financial resource control.

c. Revisions to overhead rates can be negotiated more accurately. The Department cannot cure this problem on its own, and financial adjustments without real reductions in labor costs would have no real meaning. However, the Department this year will begin to track on a continuing basis the value of un-reimbursable work, to establish realistic fiscal goals for improving its overall costs.

5. To cope with citizen review panels, the Department should participate in a broad interdepartmental effort to establish CIP partnering processes and cost plus time schedules to inform citizens on these projects. At a minimum, a 17-month review schedule should be cut in half. A best case 3-month framework for the plan-check-revise activity of any design should be a Department-wide planning goal that citizen groups support as well.
III. ESTIMATES OF FISCAL IMPACT

An estimated total of $1.25 million of the Department’s total operating budget of approximately $30 million can be used more efficiently as a result of first priority, near-term improvements:

A. FIRST PRIORITY DEPARTMENT GENERAL FUND OPERATIONS

1. Minimize providing project engineering and contract services without full revenue recovery, especially for Contract Services and Public Buildings and Parks Divisions. Increased revenue recovery transfers to the Department would properly account for at least $200,000 of its operating budget, including realistic portions of its indirect costs.

2. In addition, the Department should accurately track all costs of its services to general fund accounts that are not usually transferred between city departments. This performance-based credit to its operating budget, to the extent allowed by Council policies, could amount to $300,000 more than is now directly appropriated for operations in support of other City Departments.

3. Restructuring of engineering staffs to reduce or reassign 3-5 senior civil engineer positions, not including engineers currently assigned to enterprise fund projects. Four positions could be reclassified immediately. This would reduce the Department’s current labor cost approximately $100,000-$200,000. Downgrading another 5 engineers to admin/technical assistants would save another $100,000 approximately. Section staff levels of the Equal Opportunities Contracting Program also should be reviewed, adding to the labor savings possible.

4. An immediate arena for savings is to reduce existing labor charges. The Department’s general fund direct personnel costs are $9 million annually; a 5% productivity gain in labor costs in the general fund would release $450,000 for more productive uses. To the extent these labor costs are not paid by project revenues, this savings would directly benefit general fund expenditures. For example, TABLE ONE indicates that about 7 percent of current labor costs or $1 million will not be recovered. A 5% productivity gain would save $50,000.

B. INTERDEPARTMENTAL ACTIONS

1. Analyze and adjust Divisions’ direct and indirect rates, in keeping with city-wide public works policies. Accurately account for true
operating costs charged to city-funded Capital Improvement Program projects, to attain a goal of 20-25% maximum in project management expenses, compared to 30% at present. For example, reductions in project management costs reductions for $80 million of current projects in construction would approach $4 million over the period of these CIP projects, or $1.3 million annually. Approximately $400,000 would impact general fund expenses on these projects.

2. In conjunction with Park and Recreation Department, update and streamline operating procedures for Park and Recreation Board citizen advisory committees. The public review process is cumbersome and expensive. Policy and procedures need to be updated. Some moribund advisory panels should be consolidated into a partnering structure. Consultants' standards should be tightened and CAD processes required for panel presentations. All in all, shorter review schedules and clearly stated costs for citizen reviews should greatly improve the essential input from these public reviews, while avoiding project costs. A goal of fifty percent would avoid estimated costs to general funds of about $1.2 million, or about $400,000 annually.
C. **CIP PROJECT COST CONTROLS INITIATIVE**

1. The introduction and vigorous use of computer-based project tracking systems offers future savings, once the learning curve has been assimilated. Better information, project scheduling and more accurate budget projections are expected benefits, compared to present. Eventually, this would generate lower engineering management expenses, as well as lowered costs of long lead-time project reviews, changes and approvals. Not all of these savings could be realized at once; a feasible near-term fiscal year goal would be difficult to specify. Some of expected savings might be applied to improved project quality. Nevertheless, on a project by project basis a Department wide cost savings goal should be quantified of at least five percent. Initial actions recommended are:

   a. Assign the City Manager’s “A” priority to implementation of computer-based project management tracking and cost data systems.

   b. Staff two technical/administrative sections to construct Primavera and related databases and to train all project engineers to input and access relevant information.

2. As a Departmental goal, identify several general fund CIP projects for analysis of cost avoidance and budgeted savings of five percent, or $1.63 million, of the estimated $32.7 million city-funded CIP expenditures.

3. Extend a five percent savings goal to each fiscal year, on a project by project schedule. For example, over a three-year project cycle, each year’s savings would equate to more than $500,000.

D. Long-term fiscal savings can obtained by reducing engineering design and construction management costs for the Department’s projects, mainly through extensive use of up-to-date project tracking tools, and by streamlining public review activities. These major improvements will require implementation effort and expense. However, long-term project design savings of $5 million annually in the total $300 million Capital Improvement Program can be attained eventually:

1. Reduce estimated budget escalations of CIP projects as a result of citizen reviews for all Public Buildings & Parks and Transportation and Drainage Divisions’ projects in design process, to realize a $1.7 million in avoided CIP costs.
2. Vigorously pursue computer-based project management systems for all CIP projects, to eliminate at least five percent of current CIP planned expenditures, worth $16 million long term.

3. Accurately account for all Departmental project management costs charged to CIP projects, to attain a goal of 20-25% maximum of construction budgets. This would save taxpayers about $4 million, compared to existing project management expenses, although budgeted revenue recovery ratios to the Department's operating funds would also be reduced by similar amounts.
### TABLE TWO

**SUMMARY OF FISCAL IMPACT**

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<th>General Fund</th>
<th>Other Revenues</th>
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#### FIRST PRIORITY DEPARTMENT GENERAL FUND OPERATIONS

Accurately account for costs of services provided to non-general fund projects and attain full revenue recovery: +$ 200,000

Track and minimize non-billable direct costs to general fund projects to the extent allowed by Council policy (2% increase): ($ 300,000)

Restructure specialized engineering design sections; reduce senior engineering staffs by 5; downgrade 5 assistant engineers (realign 4 positions in FY99; review staff positions in Contract Services, EOCP): +$ 500,000 ($794,500)

**OPERATING EFFICIENCIES ESTIMATED TOTAL:** $ 700,000

#### NEAR-TERM CIP PROJECT PLANNING AND CONTROLLING

Implement computer-based cost and scheduling systems to achieve cost avoidance goals of five percent to general fund projects (annual goal): $ 500,000 $16.3 million

Streamline citizens’ partnering review processes; cut delays and costs by fifty percent in CIP general fund projects: $ 400,000 $ 1.7 million

**ESTIMATED NEAR TERM CIP PROJECT COSTS SAVED:** $ 900,000

#### DEPARTMENTAL GENERAL FUND FISCAL IMPACT OF ZBMR RECOMMENDATIONS:

$1,600,000 $18.4 million

**ESTIMATED LONG TERM CIP COST AVOIDANCE:** $18 million
ATTACHMENT ONE:

TRANSPORTATION AND DRAINAGE DESIGN DIVISION

I. GENERAL BACKGROUND

A. In Fiscal Year 1996 the Department was reorganized. Three existing programs [Transportation Planning, Engineering Design and Traffic Engineering & Traffic Demand Management (TDM)] were reorganized into the Transportation and Drainage Division and Public Buildings and Parks Division.

Within the Transportation and Drainage Division, the restructured senior staff was flattened and administrative services were combined. Its three design sections, transferred out of the Engineering Design Program, were made approximately equal in assigned engineering staff. The Division’s current staff of 58 and operating budget of $5,154,396 oversees about 112 projects in design, for a total of $16,812,859. Another 76 projects are in construction for a total of $43,108,072. This $60 million total does not include ongoing emergency repairs to roads and drainage facilities damaged by winter storms in 1997-1998, or projects with other funding sources. The Division’s operating budget represents 8.6% of projected construction costs. Given the wide variety of project types designed or managed by the Division, planning and project monitoring are difficult and confusing.

B. SCOPE OF THE REVIEW: Zero-Based Management team members included Robert Annett, a mechanical engineer with extensive senior level management experience in manufacturing and environmental air pollution control systems. Working with Mr. Annett was Ralph B. Grahl, a senior civil engineer and former City Engineer for the City of National City. This team conducted extensive site interviews with the Division’s senior engineers and Deputy Director, and they reviewed project status reports and other administrative data.

II. MAJOR FINDINGS

A. Perhaps due to the complexity of the Division’s functions, accurate, reliable measurements of project status and project cost are almost impossible to determine. No computer-based, division-wide system is in
place to track physical or cost status. Thus, Division managers cannot easily identify work backlogs or project deadline priorities.

B. Information systems to track and monitor projects are being developed (Primavera).

1. The ZBMR team learned that the Division’s Primavera computerized system will be operated by a dedicated system operator. All inputs from other design Sections will flow from the operator to the Sections. This operating design will create delays in the information flow and preclude timely data from getting back to the Sections that need the information. Clearly, any data management system will need to be networked out to engineers in the design sections at the job order level, and not only consolidated in centralized databases.

2. Areas for continued development include creating a system for real time project budget data. The current AMRIS database can provide project dollar expenditures. However, a combined status report via PARADOX is only in its early design phase. Even when these resource management tools are operating, project managers will need to be trained to know whether they are over or under budget.

3. Many projects are under-funded, or only budgeted in phases, due to the long design and construction timelines and changes requested by the political process. This constant transfer of funds among projects adds to project tracking confusion. Originally a multi-year capital improvements plan existed. However, recent revenue shortages and an “ad hoc” response to demands of political officials have eroded any semblance of long-term CIP planning. On some transfers, nine authorizations are required to move funds from one job to another.

4. Some section engineers doubt that Primavera will be a useful tool for their projects. In any case, the low cost ($400-600) for the system software suggests that several processing sections using Primavera could function via a network in design sections. The Division’s plan to implement Primavera has been waiting several months for approval to hire a qualified person critical for implementation. However, a general consensus that Primavera will not provide what is necessary to monitor project status, may explain why this tracking system appears to lack priority. What is plain is that no objective, up-to-date monitoring system exists in the Transportation & Drainage Division at present.
5. A sampling of existing management reports indicates that these manual status sheets could be restructured to help Project Managers and Division Deputy Directors to deal with key issues better. Existing reports seem to be full of clerical generalities. No quantified information or data summaries that report status information and recommend corrective actions are generally included, which suggests that the project managers themselves do not have such data either.

C. The Division’s workflow is worsened by periodic public inquiries regarding highly visible projects, or political pressure on behalf of special projects. For example, the Mayoral Bay to Bay Project Design, Ocean Beach street flooding, and Mission Bay drainage were three such projects that responded to public or political requests for information, on a priority basis. Project status reports requested by City Council staff also raise a project’s priority for completion and divert management attention from other needed infrastructure projects, not so visible to the voting population. This lack of readily accessible project status data and the political demand for it have combined to generate a feeling among the engineering staff that the City may be in for infrastructure emergencies in the future that will be both disruptive and inordinately expensive.

1. Citizens advisory groups and project review community groups often delay projects pending (committee process, legitimate change request, environmental opposition, etc.). Three road and bridge projects, involving $25.2 million in construction costs are in this category. Long delays obviously increase ultimate costs – estimated to approach $66.8 million in these projects. In addition such delays put the $844,270 spent on design to date, plus the $6.4 million to be funded from state revenues in serious risk.

2. The Division has employed a “partnering process’ successfully in one case, a Peñasquitos road widening project. This concept should be incorporated for other major transportation and drainage projects. Project manager engineers should be trained to participate with community interests in partnering sessions.

D. Lack of an identifiable backlog or list of projects and attendant priorities precludes management from making projections of staffing levels, equipment requirements and in general planning for an efficient operation. For example a current job order list assigned 34 design or construction jobs to one assistant engineer but only 5-7 jobs to each of several other associate engineers. In one section an associate engineer carried three times the number of job orders as his fellows. To some extent the dollar cost or complexity of the various projects explains this disparity. However, the large number of projects assigned might suggest that intensive,
detailed engineering analysis is not required in all cases. Lower-paid draftsmen technicians could do some of the work, instead of senior or associate engineers.

E. **HUMAN RESOURCE MANAGEMENT:**

1. There seems to be a broad, general need for more cross training of employees to facilitate better utilization of human resources and greater flexibility.

2. Performance evaluation cannot be based on measurable results because of the “moving target” project management that prevails. Employee evaluation forms are subjective in nature. This can and should be changed to hold employees accountable for meeting agreed-upon goals/objectives, especially based on project timelines and costs.

3. Engineering staffs should be included in incentives or bonuses for projects that they manage on-time and under budget.

III. **SPECIFIC RECOMMENDATIONS**

A. Implement more accurate project scheduling, cost monitoring and management information reporting system. As a first step, utilize the reporting structure and database developed by Water and Wastewater project managers.

B. Install existing Primavera software into Design Sections A, B, C, and Traffic Control; reduce two centralized project control section positions or assign these resources to assist and train design sections.

C. Establish a Division-wide project status reporting system to satisfy public inquiries and to assist management workflow planning and resources allocation vis-à-vis political priorities.

D. Upgrade engineer performance evaluation reports to delete subjective personality traits and to incorporate critical success factors job-related to project design and administration.

E. Institute cross-sectional training and expand rotational assignments for qualified personnel, both within the Division and the Citywide Engineering functions.

F. Investigate the feasibility of project assignments in order to convert 2-3 engineer level positions to assistant levels, or to draftsmen technicians.
ATTACHMENT TWO:

PUBLIC BUILDING AND PARKS DIVISION

I. GENERAL BACKGROUND

A. This review is of the Public Building and Parks Division of the City of San Diego, Engineering and Capital Projects Department. The Division consists of four units with 17.5 positions funded by $1.6 million General Fund, and 9 positions funded from other capital project sources. These units are:

1. Mission Bay and Balboa Park Projects
2. Park Facility Projects
3. Police, Fire & Library Projects
4. Community Development Block Grant (CDBG)/Private Agency Projects

The Division’s mission Statement says “To provide cost and time sensitive project management for public buildings and parks facilities through working with client departments, community members and facility users.”

B. SCOPE OF REVIEW: Four meetings and five interviews were conducted with section engineers and project officers. The ZBMR team included Al Schmitt, retired director of engineering, Kelco, and Kenneth Dillard, former CEO of Greater El Monte Community Hospital, and Administrator of Harbor UCLA Medical Center. They found the Division's staff cooperative and provided all requested data, including the use of e-mail to communicate with City Employees.

II. MAJOR FINDINGS

A. Frequently, other City departments can seriously delay projects, but the other departments do not bear responsibility for a project's completion on time. Additionally, citizen advisory groups do not understand their own approval authority, or which councils are only advisory. This confusion needs to be clarified by the City Council; until then, project delays cannot be controlled by project engineers.

B. The combined City and Department overhead for the Division is about 94-102% of direct salaries plus benefits. Private organizations typically have
an overhead rate of 100% or more. Although relatively efficient, the Division's cost recovery is low compared to other Divisions.

C. In one case, a private contractor was given authority to provide the same project management services that this division was assigned. This delegation to the contractor while City engineers were available may be costing the City as much as $1,000,000 more than was necessary.

D. The Division engages in lump sum bidding and could probably cut some project costs by a time and material bidding process. In that case contractors would be pre-selected for specific types of work and pre-approved by the City Council.

E. Financial status reports on projects are not requested promptly or are delayed 2 to 3 weeks which makes up-to-date financial control very difficult. Moreover, in some projects with other funding sources, such as CDBG, the potential for inefficiencies is large, because of a feeling that funds are always available for whatever was spent.

F. Apparently, there are over-budget positions that have been continued from year to year. These need to be cut or else properly funded so that actual planned costs are reflected in expenditures.

G. The budget is constructed on the basis of history rather than identified need; also, senior engineers perceived that their departmental overheads were not determined by current costs but reflected prior history.

H. Training dollars are needed, because in the past this cost has been cut to meet overall budget requirements. Project tracking software and technical skills to use it are top areas for capacity building efforts.

I. Other organizations using the services of the group should pay full price for the services; not a fraction of a project’s cost. This will expedite the projects and reduce staff time required at meetings, since each project review meeting will be costing the project sponsor additional funds.

III. SPECIFIC RECOMMENDATIONS

A. Target a continued reduction of the Division’s overhead rate by 20%. This would result in cost savings of about $60-100,000 per year.

B. Provide a system for delegation of authority so that once a project budget and schedule is approved by the City Council, all actions necessary to the project completion can be controlled at appropriate management levels.
This would reduce the amount of time required for project implementation and thus, result in cost savings.

C. Do not allow developers and other outside agencies to become project managers, when Division staff are able to exercise this management responsibility. This will assure that the City facilities will conform to current standards and reduce duplication of effort. This duplication could be as high as $1,000,000 on a larger project. Savings are real and will show up in lower life costs of the facility, when built to satisfy the City’s stringent public buildings codes.
ATTACHMENT THREE:
SAN DIEGO ADVISORY COMMITTEES

I. GENERAL BACKGROUND

A. The requirement for certain public projects to be reviewed by several citizens’ advisory committees is a splendid concept and should be perpetuated. However, in its current form, it adds significant time and cost to these projects. The advisory committees decision making role, rather than an advisory role, has caused confusion in the design and construction process. Upgraded and changed in the 60’s, the 70’s and the 80’s, the evolution of the committees have “layered” new groups onto the process, burdening staff and increasing costs to the City. It appears that many policies and practices of this department have become antiquated, and some committees serve narrow interests rather than the whole community.

B. SCOPE OF THE REVIEW: The ZBMR team reviewed advisory committees’ activity in relation to projects of Transportation & Drainage and Public Buildings & Parks Divisions. Its members included Dudley Beckett, President, PhoneLink and former Regional Vice President of JW Robinson’s; and Sydney Zussman, retired President of the New England Oldsmobile Dealers Association and West Street Motors. The team conducted several interviews with senior engineers and committee advisors. It also observed the Design Review Advisory Committee in session, and analyzed available documents and advisory committees’ minutes from several sessions. The team reviewed organizational procedures, with specific emphasis on committee effectiveness. They hoped to determine if any synergy resulted from the sessions.

II. THE TREE OF ADVISORY COMMITTEES FOR PARKS & RECREATIONS PROJECTS

A. The City of San Diego’s Municipal Code provides that the Mayor appoint an eleven member Park and Recreation Board to advise the City council, through the City Manager, on public policy regarding parks and recreational activities. Over the years this apparatus for citizens review has proliferated into 13 standing committees, plus 45 Recreation Councils for 41 Recreation Districts. Each committee is assisted by a city staff member from Park and Recreation Department. In addition to these 59 Park and Recreation Committees are a large number of city-wide community planning groups, town councils, environmental advisory panels, citizens’ user groups and socially motivated special interests.
Occasionally their points of view press into the park and recreation project review process. A recent example occurred during a Park Board review of planning for off-leash park areas for dogs. More than 80 speakers' requests were filed for that session.

B. Several standing advisory committees the Park Board has set up appear to duplicate each others’ functions, or include members who also meet in other committees to discuss or review the same project proposals. Chairs of standing committees have membership on the Park Board also. There are currently 4 geographic area committees; 4 metropolitan recreational area committees; 4 special park citizen advisory committees; and a “functional” Design Review committee, composed of members with specific training and interest in design, architecture, landscaping or technical training. This committee brings a professional expert oversight to the citizen-public voice. As this structure stands now, four advisory committee presentations at least are required to build a small park restroom, if no changes in the original schematics or cost estimates are imposed by advisory committees.

C. The most current Park Board Operating Procedure is now 11 years old. It provided that the advisory committees were to recommend that the Park Board approve or disapprove any project. They also had the power to continue a proposal for one month, preventing its submission to the Park Board level, without consent of interested parties. In recent years standing committees have acquired de facto power to approve or disapprove, presumably in the shadow of the Park Board itself, which again approves projects that finally reach it. A cursory review of the Design Review Committee’s minutes illustrated its authority: “unanimously approved,” or “approved on conditions of…” were routinely recorded for projects under review.

D. The responsibilities of these committees include the construction and use of park and recreation facilities “in the best interests of all citizens,” a broadly inclusive mandate that frequently involves several community groups. An example of this process is Mission Bay Park Committee. The City’s overall master plan for park development and the Coastal Commission provide guidelines for any project in the park area. Once these criteria are satisfied and community user groups have testified about wants and desires, Division design engineers prepare rough schematic renderings and cost estimates to present to the Mission Bay Park Committee. If approved, the project is next presented to two or three more recreation councils in the geographic area. In addition, environmental impact studies may be demanded. If approved again, the project moves to the Design Review Committee. Here the professional and technical members make their decisions, rarely for cost benefits. More often increased features and expenses are the end result. Some projects have involved “deductive alternates” to trade-off or control costs of
changes that are nice but not essential. However, neither the Park Board nor Design Review Committee have explicit guidelines to measure the cost-benefit of changes to park projects.

E. Park Board’s Design Review Committee was also evaluated by means of observation and records review.

1. The Design Review Committee session, April 8, 1998, included seven action items on its agenda. These projects were supported by a state agency, a private citizen, eight city staff from five separate organizations, and six consultants. In effect one session generated the need for 16 presenters, at a cost multiplier far beyond the division’s estimate of 4 man hours for one senior engineer.

2. The Design Review’s staff report of action recorded from its March 11 meeting included numerous conditional approvals, such as “…with the condition that the architect put additional thought into…” or “…subject to the following conditions; 1) consider staining… 2) review tree spacings…” These obscure recommendations invite repeated presentations and revisions. Cost escalation is the result. The ZBMR team concluded that the Design Review Committee assumed it exercised project approval authority. An elitist attitude was noticeable in this session, although its professional evaluations were sound.

3. Staff presentations also varied widely, from one-page memos of previous decisions to several documents, including plans, site maps and project renderings. Lack of consistency, and vague recommendations are alarming, in view of the level of qualified professionals on this committee. One can guess that public panels at recreation council levels are even less precise in their deliberations.

4. The team strongly recommends that the Park Board and its subordinate committees be reengineered and refocused to balance intrinsic recreational values with cost benefit project criteria. To accomplish this goal several practical steps can be carried out:

   a. Each committee should reassess its specific roles and functions. If appropriate some groups should disband, or be converted into ad hoc sessions, to convene as a specific need arises. The goal of revised guidelines at all levels would be to eliminate hierarchical, bureaucratic project reviews through several overlapping committees.
b. The Recreation Councils, Design Review experts, project managers, consultants or contractors, and other related staff agencies should all be invited to a project’s advisory reviews. A targeted response time of 30 days should be established for revisions and feedback from participants/partners of these citizen’s committees. Only a few controversial projects should require more than two reviews, over a 30-60 day period. Even these more difficult park and recreational projects should move along an agreed timeline towards design approval. All committees must be given clear understanding of their advisory role, and the costs to the projects for this process.

c. City Council members, in light of expressed concern over fiscal costs and budget management, need to be totally in support of the concept of citizen reviews AND the pressing need for the process of citizen reviews to be revamped and made more responsive to costs and efficiency.

III. ZBMR ESTIMATES OF COST AND TIME

A. There are no historically reliable Department-wide estimates of the dollar costs or time delays for these advisory reviews and approvals. Potentially opposed citizens or special interests can delay or prevent needed public infrastructure projects from ever being completed, and some groups have done so intentionally. For example, three transportation road and bridge projects, with a total estimated construction cost of $29.6 million, are on hold due to community special interests or environmental agendas. The design phase of these projects has already spent $844,271 that would be wasted if they were not completed. Worse, long delays have threatened state funding sources that were once recoverable to the city. Delays also add at least 5 percent per year for inflation or other likely cost escalations. In effect, this amounts to a pending bill of another $37 million for the three projects, in the name of citizen advisory reviews. In these three projects, costs would be doubled if completed at all.

B. The time required for repetitive citizen advisory reviews varies widely and is impossible to predict for each project. However, two representative Park advisory committees’ reviews were analyzed for the ZBMR team. The Coral Cove Park Committee review required 14 sessions and added 17 months to the design process, to oversee a one acre park plot development. In the second case, the Balboa Park Organ Pavilion Restroom Replacement project required seven sessions over a five-month time span. Each project spent less than $200,000, but cost the Division 50 to 60 extra man hours to design or redesign, not counting consultants’
fees to prepare schematic and graphic displays for briefing purposes. The Division estimates that the entire design review process adds six percent to the taxpayers' bottom line, or $2.4 million, to the design phase to pay for these citizen advisory committees.

C. **PUBLIC BUILDINGS & PARKS DIVISION:**
(Police, Fire and Library Projects were not included in this review)

1. Current projects in design process: 74 with planned expenditures of $40,603,575
   Current projects in construction: 29 with planned expenditures of $37,340,466
   Total of 102 Division projects: $77,944,041

2. The Division utilizes in-house staff, as well as consultants for design, development and supervision of projects through completion.

D. **TRANSPORTATION AND DRAINAGE DESIGN DIVISION:**

1. Current projects in design process: 112 with planned expenditures of $16,812,859
   Current projects in construction: 76 with planned expenditures of $43,108,072
   Total of 188 Division projects: $59,920,931

2. The Division primarily utilizes in-house staff for design, development and supervision of projects through completion. Not as many of its projects face citizen advisory changes, but a few projects have felt heavy impact from citizens' input. An estimated 6 percent of design cost might fit this division also, or $1 million.

IV. **FINDINGS**

A. Advisory Committee functions and processes for both Divisions are similar. However, appropriately so, both have their individual process differences. The major differences between divisions are the costs involved through the scope of work and actual dollars expended or lost due to delays in the committee process.

1. Public Buildings & Parks Division's 74 projects in design include several cases that illustrate the advisory committee process:

   a. Job # 21840.4, Balboa Park Activity Center, had an overall budget of $7,500,000. A construction bid was awarded for $5,022,289. It would appear the planning, design committee process, and architecture fees would account for the balance of $2,478,000 expenditures.
b. Job # 29-418.0 Clairemont Community Park Improvements. Project will be canceled for lack of funds. It’s original budget of $20,000 escalated to $76,000.

c. Pacific Beach Recreation Center-Improvements with an estimated budget of $126,000 may be canceled for lack of funds.

d. In a brief summary of the status of 24 park projects, the design engineers did not account for all costs connected to each job. As a consequence actual breakdown of costs could not be evaluated. As a minimum, monthly breakdowns of cost of each project can be developed by the Division using fiscal data requested from the City’s accounting offices. Such a report should show Project Planned Cost, with period to date expense incurred, staff and committee costs, architecture planning and design costs, other consultant costs, construction costs, change costs, administrative costs and total costs.

2. The internal Transportation Division procedures for citizen advisory committees should be reviewed and updated. This Division has experimented with a “Partnership” type approach to committees, such as partners in managing all cost aspects, partners with governmental agencies, partners with consultants, architects, contractors and citizen committee members. This concept should receive further study and wider use. All interested partners should attend each planning review meeting. A similar partnering approach to advisory committees is used by the Community and Economic Development Department.

B. The architecture and consultant guidelines for committee presentations should be updated to reflect the technology of the day. One-dimensional paper plans require a second meeting to approve the first changes. Without up-to-date standards for CAD presentations, project consultants are more likely to contribute to the delays for repetitive follow-up citizen reviews. Proper computer generation of three-dimensional plans, which can be projected on a screen, would show all pertinent information, (in color). This should be the minimal standard for any planning committee meeting. The three-dimensional projections should require photos of current project now and what the completed project will be. Any changes to the plan could be made and reviewed at the time it is projected on the screen. This would save staff time, consultant fees and expedite plan completion with fewer delays.
C. Project managers should receive training and preparation for meetings with advisory committees, similar to orientation workshops recently reinstituted by the Park and Recreation Department.

V. CONCLUSIONS

A. The entire citizen advisory committee process needs an interdepartmental, objective review to discern which committees are essential to the process, and how the citizens’ voice can be heard more effectively. Updated procedures are in order.

1. The Park Board should be directed to disband many of its overlapping committees, restructure the Design Review Committee’s functions, and waive review of projects that cost less than a set budget, represent a standardized installation, or do not engender advisory inputs.

2. Use of a qualified facilitator would assist various committees to understand what can and cannot be accomplished within the limitations of funding, the laws, and various agencies involved with the project. Interested governmental agencies should have a representative present whenever key project reviews are on the agenda, to advise this review process.

3. Various governmental agencies should have pre-agreement on all their individual issues, and an agreed time and action calendar should be developed for each project. Such a Time-Line should be administered, coordinated and facilitated by Department staff, and adhered to by citizen advisory committees as well.

B. The Department’s procedures for assisting advisory committees should be reviewed and updated, in coordination with Park and Recreation Department staff or other client departments. At best the Department should develop a “Partnership” type advisory process, as described in IV.A.2. above.

C. Compute the impact of cost reductions in light of timely implementation of a properly managed planning process, utilizing a trimmed down version of the various committees. Establish a goal of reducing overall design time by 50% with time and action calendars.

1. Establish a budget guideline for the Department under certain limited functions that could bypass some advisory review committees.
2. Determine the practicality of a small discretionary budget for the department’s use in meeting demand for small incidental projects. This methodology would implement a partnership with the users on a standing basis.

D. Estimated Advisory Committee Expense Savings: Although citizen advisory committees increase the burden of costs and delays, they are only a part of the outdated design review process now in use. Drastic updating promises very big fiscal gains.

1. Recognizing that the Departments expenditures are dynamic through various fiscal years, our expense savings are based on this year’s current fixed budgets. Future savings may then be calculated as a simple percentage of the total budget. We believe the Transportation & Drainage Division could realize as much as 20% savings annually in its review costs of $1 million. Improved partnering committee procedures and updating the department’s standards for consultant presentations would avoid $200,000 annually, not counting wasted design efforts for dead-end projects.

2. The cost structure of Job 21-840.4 Balboa Park Activity Center included $2.5 million, or 33% for design costs, including the 6 percent for ubiquitous reviews. As a result we believe the Public Buildings & Parks Division could reduce at least 20% of these costs, through implementing improved committee procedures and updating standards for consultant presentations. This equates to a potential fiscal opportunity of another $480,000 annually.

3. We believe similar savings in Police, Fire and Library, and CDGG-funded projects that receive citizen advisory committee reviews also could be realized, bringing the Department’s total of avoided costs to nearly $1 million, by streamlining citizen advisory review processes.
ATTACHMENT FOUR:

FIELD ENGINEERING DIVISION

I. GENERAL BACKGROUND

A. The Field Engineering Division of the Engineering and Capital Projects Department was reviewed during April 1998. The Division operates a $6-7 million budget and employs 112, including 67 engineers and associate engineers. The Division’s three sections are:

1. **Construction Management Inspection** – This section inspects all work within the public right-of-way and land development on private property financed by either public or private funds. Projects monitored by this group include: water and sewer, public buildings, bridges, storm drains, streets, signals, and City parks.

2. **Construction Materials Testing (Lab)** – This section performs tests on construction materials for public projects. Approximately 35,000 separate laboratory or field tests are conducted in one year.

3. **Land Survey** – This section performs design surveys for City departments. It does construction staking for City contract work and verifies survey work done by private firms at subdivider’s expense. It conducts an on-going program to extend the City’s survey control system for the use of both the public and private engineering operations.

B. **SCOPE OF THE REVIEW**: Two ZBMR team members, Robert Schwartz, retired Systems Engineering Manager, Hughes Aircraft; and Norman Dargie, retired President, Pacific Southwest Airmotive, interviewed supervisors and engineers in all three sections of the Division. They found these people to be dedicated, diligent, and knowledgeable in carrying out their jobs. Their engineering and technical expertise was above average to excellent. However, the management process they work with needs major improvement in terms of planning, organizing and controlling assigned tasks.

II. MAJOR FINDINGS

A. Supervisors’ overriding problem is in anticipating their workload due to problems in forecasting and planning. The level of planning information is
inadequate and subject to frequent change. Therefore, first-line supervisors cannot forecast future manpower requirements, causing inefficient workload assignments and wasted resources.

B. The Field Engineering facilities are relatively new and very functional. The material laboratory building is next door and very convenient. The laboratory building is spacious and large enough for additional equipment necessary to handle several times the present workload. However, the team found the lab in a dirty, sloppy condition. It did not appear to be efficiently used.

C. The engineering staff and support personnel are adequate for the present work. From our inquiries, the staff has indicated that the workload will expand considerably to serve a number of pending projects, such as stadium and convention center expansion. This will entail the hiring and training of new people. However, front line supervision is in a quandary as to what the manpower requirements will be even 30 to 90 days away. This expected workload expansion illustrates the impact that fluctuating workloads impose on the Division, but there was little evidence of forecasted peaks and valleys or to estimate future manpower and cost requirements.

D. Field Engineering routinely requires a month to respond to requests for service, although its service levels for most requests are expected to be met in less than one week. The ZBMR team found no major planning efforts to group tasks, improve field travel, prioritize requests for service, or simplify necessary paper records, to raise existing operational productivity. Instead the Division’s annual budget and number of positions have remained relatively constant, despite its uneven workload. Moreover, the citywide restructuring plan in FY 1996 that set up a Capital Improvement Business Center has had no measurable effect on the Division’s resources or structure.

E. The Field Engineering Division has established a Construction Maintenance Course to provide a better understanding of the City Construction Codes and Inspection Procedures. City employees, private contractors, and individuals may attend. This course has saved time and effort and has avoided many misconceptions. Division management has shown initiative and expertise in developing and providing this course. However, other topics are difficult to keep current, because of funding and the downtime necessary for such training. Once trained, skilled engineers tend to move to other tasks or assignments on a voluntary basis, creating a climate of temporary assignments for key staff.
III. SPECIFIC RECOMMENDATIONS

A. The rotation of professional personnel is probably too extensive in the Engineering and Capital Projects Department. The field forces perceive there is no department-wide policy/plan. It appears that voluntary rotation lacks adequate ground rules. Personnel who have worked in three to five different jobs have more of a chance for promotion, so they pursue cross training in many disciplines. This leads to people staying in a position only a minimum amount of time. The disruptions and lack of well-trained people in the various groups has been a problem for effective use of human resources.

B. Individuals who appear to have management capability should be designated by Department and Division management. The designated individuals should be cross-trained and groomed for supervisory and managerial positions, on a strategically planned progression of responsibilities. Other rotation of personnel should be limited to the convenience of the Department.

C. It is recommended that the Assistant City Managers (Department level) meet on a regular basis to do strategic and tactical planning for Capital Improvements staffing requirements. From that strategic planning effort, the Division Management can form detail work schedules and manpower loading with their first-line supervision. Better coordination between groups and departments, etc. is essential. This simple change in management planning would lead to 10-15 percent productivity improvements, or a savings of $750,000 in labor cost alone. The Assistant Deputy Director should be trained and equipped to conduct overall project coordinating and expediting for the Division.

D. Currently, there is no real-time cost feedback. However, the Division could develop its own reports, using data from the City Accounting Department. The time cards have project numbers and task numbers recorded, but these numbers, apparently, are not tabulated nor presented to management. If they are tabulated, the computer runs are not available to the working groups, who, therefore, cannot correlate costs on jobs by project and task. Only 70% of Division costs are currently charged to specific projects, which greatly magnifies the Division’s unfunded labor costs. Thus, the recovery ratio varies from 20% to 120% of expenditures on various accounts. The need to track overhead costs in relation to revenue recovery ratios has not received the attention it should require.

E. Capital needs seem to be nominal. New or added equipment necessary to make the Field Engineering Department more efficient consists of:

1. P.C. and lap top computers – six of each.
2. Cellular telephones for teams or individuals working in the field. (Pagers are inadequate, since telephones are unavailable in many field sites.)

3. The Land Survey Unit needs another G.P.S. (Ground Positioning System) and a Rover vehicle. The additional equipment would increase productivity significantly.

4. There is a scarcity of phones in the Quality Laboratory.

5. One of the Survey Team’s compact pick-ups has over 155,000 miles and should be replaced during the next fiscal year.

6. There is a shortage of funds for important reference books. Funding should be budgeted for each year to maintain the Unit Reference Libraries.

F. Workload variations at the Supervisory Function level change considerably from month to month. There are shortages of personnel at times to carry out the unit functions. At other periods, too much manpower is available. At the current time, funding comes from one source, San Diego City Projects, general funds, with minor exceptions. If the Field Engineering Division could contract with other entities, such as the smaller cities surrounding San Diego, Caltrans, Metropolitan Transit Authority, etc., the larger workload would help make more productive use of staff and facilities.

G. The Survey Unit and the Quality Control Laboratory both are scheduled to conduct competitive reviews in August. This process is essential to improving overall effectiveness and to prepare for bidding outside work projects. As a first step, a thorough cost analysis of existing labor and overhead changes should be conducted. These costs can be examined for process improvement opportunities and can be brought more in line with competitive public and private field engineering organizations. These two groups should be reviewed in detail by Department Management after being groomed to a "competitive edge".

H. During the reviews of the various engineering groups, we noted three or four individuals who were very senior and specialized. The top position for these individuals is Senior Civil Engineer or equivalent, which pays a maximum of $66,120 annually. Several of these senior specialized people could do much better salary-wise in private industry. If they were lost they could not be replaced easily. It is recommended that a specialist-level classification be added to the classification list. It could be used throughout the city for senior specialists in all divisions.
I. At the supervisory and direct working levels, coordination between different departments and divisions can be improved considerably. For example, a designated coordinator, to coordinate the timing and work between the Water and Wastewater Department and the Water and Wastewater Inspection function under Field Engineering would speed up projects and limit wasted effort. There are many other examples of this kind of official coordination that would be beneficial.
ATTACHMENT FIVE:

CONTRACT SERVICES DIVISION

I. GENERAL BACKGROUND

A. Contract Services Division includes four sections and 23-24 staff positions. Its FY97 total expenditures were $1,368,541. The Division was created from a 1995-1996 restructuring to provide better services coordination, faster response to internal and external contract customers, through more accessible single points of service. The Division’s sections include the Equal Opportunity Contracting Program, which was consolidated intact into the new Division. Other functional sections are Contract Processing, Contract Award-Consultant and Contract Award-Construction.

B. SCOPE OF THE REVIEW: James Schmidt, a Zero-Based Management Review team member with senior management experience in banking, met with Anita Welker to review contractor bonding procedures. Gene Sapper, local construction firm owner, met with Carol Frederick, head of Contract Processing and Construction Award, and Rosemary Stefanatz, contracts administrator, to review contract administration procedures.

II. MAJOR FINDINGS

A. CONTRACT PROCESSING:

1. Background: Last year a task force was formed to improve large contract administrative processing and to reduce the time to award construction contracts after bid openings. In the past this time required 49 working days. Protests, legal issues and other problems also added to the delays.

2. A review of current contract award processing found some improvement in the administrative process. Average time to award, once a project manager has completed documentation, is about eleven weeks. This includes a 2-4 week bid advertisement. After bid opening, contractors are given a 7-day period to accept the award. Contract Services takes one week more to apply equal opportunity contract guidelines, process the contract award signature and receipt of contractor’s bonds and insurance. The
total expected processing time is about 15 weeks from a contract bid request to award after bid opening.

3. The Contract Services “streamlining task force action plan”, to improve contract processing and shorten time to contract has had a positive effect. This year the Division has shortened its contract services about 33-35 percent. This average time savings has occurred across three critical milestones compared to the previous fiscal year:

   a. Time to complete a contract master mark-up has shortened from 5.1 to 3.4 days on average.

   b. Time from bid open to contract award date has been cut from 42.7 to 27.4 days on average.

   c. Total working days from project submission to award date has dropped from 157 to 105 days on average.

4. More processing improvements are expected, from as needed construction contracts for standard improvements, and up to date contractor surveys for small construction projects.

5. Most of avoidable delays stem from project managers, some of whom are unaware of the necessary funding requirements or technical specifications required by contract provisions. A contract processing management analyst was recently staffed to better coordinate routing of documents and to provide closer liaison with project managers. This change has smoothed out several recurring snags, but the Division cannot take full responsibility for accurate project documentation. Project managers need continual, updated training to be able to promptly initiate a contract award process, and to support their contract tracking through required approval phases. The professional degree of completed technical content in a work request is an unavoidable responsibility of senior engineers and section supervisors throughout the Department. The ZBMR team recommends four steps to improve this problem area:

   a. Contract Services should provide specific feedback to the Director, based on contract mark-up activities to highlight common areas for renewed training or management attention.

   b. Highest priority for contract processing should be assigned to bid requests that fully comply with existing contract
guidelines or that do not require continual changes or amendments, as a result of sloppy project data to begin with.

c. Consultant’s standards for contract submission should be tightened up and project engineers made responsible for assuring their compliance.

d. Standard terms and contract conditions required by the various funding sources should be compiled and made available to project managers to assist them in preparing the technical aspects of their contract requests.

B. CONTRACTOR BONDING: The existing procedure for a Contract Administrator is to evaluate the bid bonds which guarantee that the bidder on city projects will honor the bid dollar amount that is contracted. Ms. Welker checks to make certain the bonding company is qualified in the Best Insurance rating guide. Jacqueline Mittelstadt, of the City Attorney’s office, reviews the documentation also to make certain the attorney-in-fact who signs the bond has the authority to do so.

1. Mr. Schmidt noted that, unlike insurance, the contract bond issuer never underwrites a bond expecting a possible loss. A surety bond is a guarantee for the job and the payment of all bills, if the contractor does not do so. After the bid bond is issued, the contractor company provides the performance and payment bond to the City as obligee. However, the City does not want to have a loss, and even if the bonding company pays, the delay and administrative overhead can be substantial. There also would be extra attorney fees.

2. A conference was arranged between Ms. Welker and Jack Lupien, John Burnham Insurance, who is a premier insurance agent specialized in contractor bonding. His staff of seven handles surety bonds for major firms like Hazard Construction. He provided needed information and the Treasury list of approved bonding companies, which was not available to the Section beforehand. Mr. Lupien agreed to be available on a “pro bono” basis and will provide additional information about bonding companies that Contract Services has approved.

3. Overall, surety-bonding procedures were reasonably efficient and effective. The primary need, provided by Mr. Schmidt and Mr. Lupien, was for updated information and training for newly appointed staff members.
C. Equal Opportunity Contracting Program (EOCP): This section has administered the City-wide EOCP for all Capital Improvement Program projects for more than twenty years. With the 1996 reorganization, it was assigned to Contract Services Division, where its 13 staff members represent half of Division’s personnel resources. The ZBMR team did not conduct field interviews or a detailed labor study of the EOCP Section. Its relatively unchanged staff and budget in the face of a changing mission suggested that a summary review of the Section’s current reports would be illustrative:

1. In recent years EOCP’s focus on equal access to contracting opportunities has come under public scrutiny. Among the changes in its mandates was elimination of city-funded goal-based programs for minority/ women and disadvantaged business enterprises (MBE/WBE) in 1993. More recently, Proposition 209 removed similar MBE/WBE contract set-asides from state-funded contracts. These rescinded legal directives did not apply to federally funded projects, which currently include 150 Community Development Bloc Grant contracts. Part of the Metropolitan Wastewater Department’s construction projects also fall under federal labor regulations with MBE/WBE provisions, as “Mega Construction Projects.” These reduced legal mandates currently apply to about half of the CIP projects under contract by the Department. Given its evolving roles, the EOCP Section has two options: expand the work to fill available staff positions, (which appears to have been done), or to reorganize around priority tasks and reduce labor costs to carry them out efficiently.

2. City Council policy recently directed the City Manager to implement nine recommendations of its MBE/WBE Predicate Study. Undoubtedly, this task will fall to the EOCP section. It has formally certified 788 local MBE/WBE companies, including 652 small MBE/WBE owned businesses. The Section also administers a parallel Equal Opportunity Employment Program (EEO) for the City’s contractors, vendors and suppliers, independent of the city’s Equal Opportunity Commission. Among the 9,023 program activities counted in 1996, 200-300 advanced both MBE/WBE and EEO objectives. This is in keeping with the Section’s philosophy to “focus on a broad spectrum of actions” to achieve the EOCP purposes.

3. In addition to its EOCP responsibilities, the Section’s Labor Compliance Program enforces prevailing wage standards for contractors, and under state and federal regulations, certification of numerical quotas for new hires and apprenticeship of MBE/WBE and economically disadvantaged workers. These responsibilities
accounted for more than 7000 of the 9000 activities reported in 1996, about 82 per cent of the total, in contrast to the 6-7 per cent of activities listed specifically for either MBE/WBE or EEO programs, or the 11-12 per cent of contract processing actions or conferences the Section conducted in the bid-award functions of its Division. The numbers of these administrative actions do not reflect the significance of the Section’s EOCP influence, but they suggest what the staff does to keep busy.

4. The Predicate Study reported that the Section’s voluntary programs in the past five years did not accomplish its EOCP intentions nearly as well as legal mandates. To the extent that the Section’s emphasis on EOCP is still tied to mandatory quota enforcement, although limited to federal or federally-funded assisted projects, its staffing and activities should be carefully reviewed and reassigned accordingly.

5. The ZBMR team initially considered across the board staff reductions. However, a more detailed discussion with Division management strongly argued for more thorough analysis, including a comprehensive strategic EOCP plan. The ZBMR team endorses this objective. It stands to reason that some qualified staff of the Section should be assigned to a revitalized voluntary EOCP Program. Labor Compliance functions should also be reviewed for efficiency and effectiveness. Given the 30 per cent improvement in contract processing already achieved by the Division, a similar approach should be able to reevaluate and modernize its EOCP activities as well.
Addendum C

ZERO-BASED MANAGEMENT REVIEW
VOLUNTEER CITIZEN REVIEWERS
EXECUTIVE BACKGROUNDS

Robert Annett
Business Manager, RJ Environmental, Inc.; former Director of Operations, Calvert Environmental; manager of numerous mechanical engineering assignments for General Electric

Dudley Beckett
President, PhoneLink; former Regional Vice President of JW Robinson's stores; General Manager, Bullock's Mission Valley

Norm Dargie
Retired President, Southwest Airmotive; concurrent Vice President, Maintenance and Engineering, Pacific Southwest Airlines

Kenneth Dilliard
Consultant, retired President & CEO, San Miguel Association; retired CEO, Greater El Monte Community Hospital; former Administrator, Harbor UCLA Medical Center

Ralph Grahl
Civil Engineer; retired General Manager, San Diego County Water Authority; City Engineer, National City

Gene Sapper
Chairman, Sapper Construction Co.; former member of the Mayor of San Diego's Change² Committee

James C. Schmidt
Retired Vice Chairman, Great American Bank; past Director, California Chamber of Commerce

Al Schmitt
Retired Director, Engineering, Kelco Company; former Plant Engineer, Merck Chemical Manufacturing Division

Robert Schwartz
Retired Systems Manager, Hughes Aircraft

Sydney Zussman
Retired President of the New England Oldsmobile Dealers Association; former President and Owner, West Street Motors, Lawrence, MA