

VI. BUILDING DIVISION

A. PROFILE

The Building Division is under the direction of the Chief Building Official who reports directly to the Director of Planning, Building, and Code Enforcement.

There are 163.8 positions under the direction of the Chief Building Official. The classification and number of positions are shown in Table 17. The budget adjustments for FY 02/03 indicated a reduction of 16.6 positions. There is currently one vacant frozen position in the Terminal/Sr. OS class. The budget office authorized the recent hiring of a terminal operator, but the Division must give up an office specialist in return.

Table 17
Building Division Staff

Classification	Number of Positions
Administration	
Building Official	1.0
Secretary	1.0
Special Projects Inspector	0.4
Analyst	1.0
Accounting Technician	1.0
Account Clerk	3.0
Telephone Section	
Staff Technician	1.0
Senior Office Specialist	2.0
Office Specialists	6.0
Office Specialists	1.0
Supervising Office Specialist	1.0
Senior OS Terminal Operator	5.0
Office Specialist	1.0

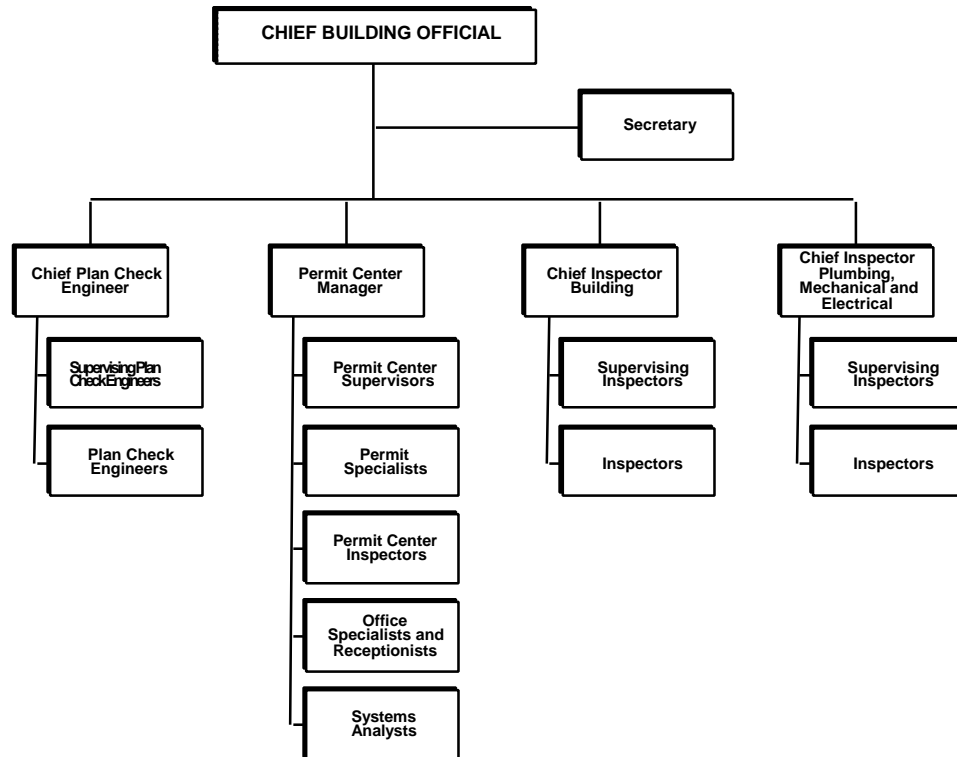
Building Division Staff continued

Classification	Number of Positions
Plan Check Section	
Chief Plan Check Engineer	1.0
Senior Office Specialist	0.5
Associate Plan Check Engineers	2.0
Plan Check Engineers	19.0
Plan Check Engineer (Amanda)	1.0
Supervising Plan Check Engineer	4.0
Associate Architect	1.0
Inspectors	10.0
Planners	2.0
Permit Technician	3.0
Permit Center	
Permit Center Manager	1.0
Senior Office Specialist	0.5
Supervising Inspector (Amanda)	1.0
Permit Technicians/Sr. Permit Tech.	15.0
Receptionist OS 1/11 & Sr. OS	2.0
Permit Center Supervisor (1 Supervising Inspector, 1 Supervising Plan Check Engineer)	1.0
Inspectors	5.0
Senior Office Specialist	1.0
Inspection	
Chief Inspector	2.0
Supervising Inspector	11.0
Inspectors	47.0
Senior Office Specialist	1.0
Information Technology Support	
Network Technician	1.0
Senior Programmers	2.0
Supervising Application Programmer	0.4
Code	
Supervising Inspector	1.0
Inspector	4.0
Permit Tech/Sr. Permit Tech	1.0
Senior Office Specialist	1.0
Total	165.8

Organization

The Building Division is organized as shown in Figure 5. Each of the functional elements reports to the Chief Building Official.

Figure 5
Building Division Organization



The Building Division performs the following basic functions:

- ✍ Takes in and issues applications for building permits.
- ✍ Conducts plan check for building, plumbing, mechanical and electrical permits.
- ✍ Conducts inspections using combined inspectors for all single family dwellings and duplexes, and specialized inspections for commercial and industrial buildings.
- ✍ Maintains building permit files.

Permit activity was taken from official City records and is shown in Table 18. Differences in activities are compared by percentage from year to year for the past five years.

**Table 18
Building Division Permit Activity**

	97-98	98-99	99-00	00-01	01-02*
Total Number of Permits	33,112	40,186 21.4%	41,006 2.0%	37,592 -8.3%	28,005 -25.5%
Permits Issued Online	0	0	0	4,253	1,811 -57.4%
Permit Center Customers	44,389	40,491 -8.8%	38,811 -4.1%	32,806 -15.5%	26,279 -19.9%
Permit Counter Customers in Building Division	31,451	30,667 -2.5%	26,208 -14.5%	24,211 -7.6%	17,605 -27.3%
Facsimile Requests	94,666	110,239 16.5%	91,125 -17.3%	55,208 -39.4%	19,670 -64.4%
Record Search Requests	3,784	3,472 -8.2%	3,455 -0.5%	2,111 -38.9%	983 -53.4%
Phone Records - Total Calls	201,149	202,836 0.8%	189,490 -6.6%	205,976 8.7%	209,114 1.5%
Plan Checks including Building, Plumbing, Mechanical and Electrical	7,607	7,927 4.2%	8,931 12.7%	8,889 -0.5%	6,487 -27.0%
Plan Checks not including Building, Plumbing, Mechanical and Electrical	5,562	5,926 6.5%	6,260 5.6%	6,369 1.7%	4,402 -30.9%
Residential Building Plan Checks	932	1,018 9.2%	1,266 24.4%	1,761 39.1%	951 -46.0%
Residential Plans Express	1,863	2,308 23.9%	2,274 -1.5%	1,638 -28.0%	1,407 -14.1%
Commercial Plans Express	1,057	968 -8.4%	1,108 14.5%	1,121 1.2%	604 -46.1%
Commercial /Industrial Building Plan Check	1,717	1,632 -5.0%	1,612 -1.2%	1,710 6.1%	1,301 -23.9%
Plumbing Plan Check	785	744 -5.2%	810 8.9%	745 -8.0%	433 -41.9%
Plumbing Express Plan Check	0	0	0	130	150 15.4%
Mechanical Plan Check	733	650 -11.3%	697 7.2%	666 -4.4%	429 -35.6%
Mechanical Express Plan Check	0	0	0	133	132 -0.8%
Electrical Plan Check	517	623 20.5%	835 34.0%	863 3.4%	519 -39.9%
Electrical Express Plan Check	0	0	0	149	199 33.6%
Building Fields Inspections	190,011	228,101 20.0%	190,427 -16.5%	206,980 8.7%	190,059 -8.2%

*2001-02 current fiscal year total was projected by City staff based upon previous year.

B. DESCRIPTION OF ACTIVITIES

Permit Processing

Permit applicants come to the Permit Center at City Hall and are greeted by a receptionist who reviews their needs and directs them either to a Permit Specialist or other appropriate location. If their request qualifies for an on-line application, they are directed to a row of computer terminals where they can request a permit in that mode. If necessary, a Permit Specialist assists them to enter the permit request.

The current goal is to have all customers waited on by a Permit Specialist within 30 minutes of the time they arrive in the Permit Center and talk to a receptionist.

Express Permits

Permit applicants can process qualifying plan checks and permit needs through Express Permits. In general, a project qualifies for Express Permit processing if it is a commercial or residential project up to 10,000 square feet of space, or a residential remodeling or alteration. An applicant calls in to request the Express Permit process and is interviewed to determine whether their project is in a sensitive zone, which requires special review. If approved, they are given an appointment to meet with a staff person assigned to process Express Permits. An Express Permit can be issued within one hour if the applicant has what is needed to approve the plans. If they have to return with corrections, they are given another Express Permits appointment.

E-mail and Online Permits

The City of San Jose provides for the public to obtain specific types of permits through their internet Web site. Types of permits covered are those that do not normally require plans.

The following types of permits can be obtained online:

✍ Building

- Chimney repair
- Security bars

✍ Electrical

- Air conditioner addition
- Service change
- Interior lights
- Portable spas
- Receptacles
- Switches

✍ **Plumbing**

- Property line clean-out
- Re-pipe
- Sewer replacement
- Gas line extension

✍ **Mechanical**

- Air conditioning addition
- Exhaust fan
- Fireplace appliance
- Furnace change
- Furnace change with air conditioning
- Gas line extension
- Gas valve (Earthquake)

Plan Check

A City Plan Check Engineer takes in all plans, except those that do not require plan check review and approval. The Plan Checkers communicate corrections directly to the applicants until they are ready for approval. When plans are approved for Building, they are transmitted to Permit Specialists whose specific responsibilities are to assure that all approvals required prior to construction are completed. When all approvals and required documents are received, they contact the applicant to come to City Hall to pay their fees and obtain their permit.

Inspections

Inspections are called in before 2:00 p.m. are given to a staff person for completion the following workday. There is a special team of staff assigned to receive inspection calls.

All inspectors are certified through successful examinations administered by the Codes publishers.

Grading

The Department of Public Works Development Services Division conducts grading plan check and inspections.

Redevelopment

Redevelopment projects constructed by private property owners are plan checked and inspected by qualified Building Division staff. Projects owned by the City are plan checked and inspected by Department of Public Works staff.

Code Enforcement

When Code Enforcement activity results in building permits, the Building Division conducts the plan check, but Code Enforcement Division staff conducts the building inspections.

Building Official

The Chief Building Official directs all operations in the Building Division. He has an Administrative staff that is responsible for finance, code development, permit computer system, collection and maintenance of records, statistics, policies and procedures.

Records Imaging

The Building Division operates a centralized imaging system, which scans all plans, permits, and inspection records into the AMANDA computer system. When inspections are completed, the inspectors turn in request forms with notes related to each inspection. Each form with its notes is scanned into the permit system, which sorts them onto the permit file for easy retrieval.

C. FINDINGS

This review found some exemplary features as well as a variety of opportunities for improvement in the Building Division. Positives include:

- ✍ The Deputy Director/Chef Building Official has surrounded himself with a professional management staff who are well informed and who have access to information and can handle any inquiry without waiting for the Building Official.
- ✍ Systems and records are in place producing response to business activity, performance, and similar needs.
- ✍ The Building Division has taken the lead in development and use of the new AMANDA computer system now being prepared for use throughout the City.
- ✍ The Plan Check Engineers have the highest credentials we have seen. Several have doctorates in Engineering, many have masters degrees, and all are, at the least, registered Professional Engineers.
- ✍ The inspectors come from good backgrounds in construction, and are well positioned to provide specialized as well as combined inspections.
- ✍ The training program for inspectors is one of the finest we have seen.
- ✍ There is a high level of automation in processing.

- ✍ Permits are being issued through e-mail online processing for convenience to customers.
- ✍ The express plan-check process is impressive.
- ✍ There is a cooperative effort to review and approve alternate methods and use of materials process.
- ✍ Permit issuance is expedited through an administrative process where assigned Permit Specialists coordinate all required clearances from other agencies and functions before permit issuance at the counter.
- ✍ The California Building Officials recognized this function as the Building Department of the Year in 2000. The staff works hard to maintain that status.

Opportunities for improvement are discussed along with our recommendations in the following sections of the report.

D. ADMINISTRATION

Appeals Board

The Building Code states in Section 105:

“In order to hear and decide appeals of orders, decisions, or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Board of Appeals consisting of members who are qualified by experience and training to pass on matters pertaining to building construction and who are not employees of the jurisdiction. The Building Official shall be an ex officio member of and shall act as secretary to said Board but shall have no vote on any matter before the Board. The Board of Appeals shall be appointed by the governing body and shall hold office at its pleasure. Board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the Building Official.”

The State Disabled Access laws require an Appeal Board with at least two handicapped members to hear any disabled access matters.

There is a provision in the City Codes for this Appeal Board, however no appointed Board of Appeals members are now in place. While there have been no recent appeals, the City of San Jose should have an Appeals Board on hand if the need arises. The Department could use such a panel in an advisory capacity, as well to hear appeals, if desired. The City Council could establish a fee for administrative costs caused by appeals.

In addition to hearing appeals, the Building Official could use the Appeal Board's input on policies and applications of the Codes and conduct, at the least, annual meetings.

To date, staff has not been successful in finding qualified people to serve on an Appeals Board. However, based on our experience elsewhere, we believe a more concentrated effort can be successful by contacting known industry professionals and encouraging their interest.

34. Recommendation: The City Council should appoint a current Building Codes Appeal Board consisting of members who have appropriate experience.

35. Recommendation: Establish an administrative fee for appeals to be heard by the Building Codes Appeal Board.

Building and Safety Communications with Staff

Input from employees has revealed a desire to improve communication from Division and Department management. They also feel that they should be complimented for work well done, as well as be exposed to and be given a regular briefing on what is going on in the City. This could be accomplished through regular Division meetings along with one-on-one staff contact. While one-on-one staff contact may be difficult due to the large number of staff, it may be possible to meet with several working groups to accomplish this task. All employees need to hear the importance of their work from time to time, as well as any issues. The staff has a desire to be heard on many matters, including several documented in this report.

The Chief Building Official has a master schedule that designates weekly time to meet with Plan Check Engineering and Inspection sections individually. According to staff, other priorities hinder many of those meetings from occurring. It is recommended that senior management and those activities that cause these meetings to be cancelled give increased priority to scheduled meetings between Division management and staff.

36. Recommendation: Conduct periodic meetings between the Chief Building Official and each working group along with their Manager or Chief to review operations and resolve issues.

Expedited Plan Check Services

There is concern from the industry that the City of San Jose should offer a plan check service beyond express plan review when they are willing to pay overtime costs for expedited plan review for larger projects. We have reviewed this possibility with the Chief Building Official.

It is recommended that a process be considered with the following elements:

- ✍ Provide such service to be completed by Plan Check Engineers only when there is one available who is willing to work on an overtime basis.
- ✍ Determine how long the expedited plan check will take.
- ✍ The process should work as follows:
 1. The applicant signs a contract form agreeing to charges plus administrative overhead on an hourly basis.
 2. The applicant signs a statement on the agreement form that they will pay the fees charged regardless of whether the plan is approved or denied.
 3. The contract is assigned a contract number for tracking through finance.
 4. Charges are made directly without use of the dedicated overtime budget.
 5. The Plan Check Engineer works outside of normal work hours on the project, or the assignment is given to a qualified consultant.

37. *Recommendation:* Create and implement an expedited plan review process.

38. *Recommendation:* Consider the use of consultants where an expedited plan check process cannot be supplied by in-house staff.

Insurance Companies of America Audit

In 2001 the Insurance Companies of America conducted an audit to measure the capabilities and qualifications of building department functions in most California jurisdictions. They measure the qualifications of staff, the Building Official, and practices through a system being used throughout the United States. The City of San Jose received a rating of 2 on a scale of 1-10 with 1 being the best. They consider scores of 1-2-3 to be high performance. The City of San Jose ratings were as follows:

Adopted Codes: A perfect score was received.

Training: A score of 6.31 out of a possible 13 points was received. Only budget amounts were reviewed. The fact is that the City of San Jose has one of the most

aggressive staff training programs we have seen. Beyond the budget, there is a significant staff effort here. Every new inspector goes through a rigorous five-week training program before being allowed to conduct inspections. The staff attends two, one-hour ongoing training sessions weekly. Some staff are sent to outside training programs and bring the information back for in-house staff training. It appears that the audit did not take this into consideration. If the City wants to improve this score, they will have to budget at least 2% of the Building Division budget to training. This is a shortsighted approach of this standardized audit.

Certification: A score of 11.75 out of a possible 12 points was received. All of the Plan Check Engineers are certified Professional Engineers. Some have doctorates and many are structural engineers. The inspectors conducting residential plan check are not engineers, however they work only on non-engineering plan review. This is probably where the slight .25-point downgrade occurred. The inspectors are professionally certified.

Building Official Qualifications: A score of 3.40 out of a possible 4 points was received. It was noted that San Jose's Building Official is not certified and we recommend that he achieve this certification. The Building Official has excellent credentials as a Professional Engineer with a masters degree and has many years of experience in the construction industry. The auditors also discounted the grade because they did not have information that peers participate in review before selection for the position. San Jose has a selection interview process that is similar to other jurisdictions.

39. Recommendation: San Jose should change the Building Official job specifications to include CBO certification.

Design Professionals: A score of 2.91 out of a possible 4 points was received. The Division received fewer points because plan review and field inspection supervisors are not graduates or licensed engineers or architects. They comply with these standards for plan check engineers, but not where inspectors are carrying these responsibilities.

In large cities that are comparable in size, volume of work, and construction complexities to San Jose, there is a presence of Mechanical and Electrical Professional Engineers. In San Jose, all electrical and mechanical work is performed by inspectors. Most work submittals for large buildings, high rise buildings, and electrical occupancies contain engineering assumptions and calculations. These should be reviewed by engineering experts to assure non-proprietary compliance in a manner similar to the Building Plan Check Professional Engineers on staff.

40. Recommendation: When position vacancies in Electrical and Plumbing or elsewhere occur, replace two of them with a professional Electrical Engineer and a professional Mechanical Engineer.

Zoning Provisions: A perfect score was received.

Contractors Licensing and Bonding: A perfect score was received.

Designer Licensing: A perfect score was received.

Public Awareness Programs: A score of 1.57 out of a possible 2 points was received. This score was given because the auditors expect to see budget amounts for this effort rather than accomplishments. They expect .5% of the budget dedicated for this effort.

Participation in Code Development Activities: A perfect score was received.

Administrative Policies and Procedures: A perfect score was received.

Plan Review Staffing: A perfect score was received.

Experience of Plan Check Personnel: A score of 1.29 out of a possible 1.50 points was received. When the next audit occurs, this score should improve provided that there is low staff turnover.

Detail of Plan Review: A perfect score was received.

Plan Check Quality Assurance: A score of .5 out of a possible 1 point was received. The concern is that follow-up plan reviews should be made by different plan reviewers at least semi annually. Supervisors can accomplish this.

Field Inspection Staffing: A score of 6.5 out of a possible 9 points was received. There is an unrealistic expectation that inspectors should make a maximum of eight inspections per day without regard to types of inspections and geography. In our opinion, San Jose is taking a realistic approach to staffing.

Experience of Inspection Personnel: A score of 2.72 out of a possible 3 points was received. The auditors found that some staff had less than two years of construction related experience.

Correction Notices and Stop Work Orders: A perfect score was received.

Inspection Checklist: A score of 1.5 out of a possible 2 points was received. The concern is that the checklist is not made a permanent part of the records. In our opinion, and that of most jurisdictions, this is an unreasonable expectation.

Inspections for Natural Hazard Mitigation: A perfect score was received.

Final Inspections: A perfect score was received.

Certificate of Occupancy: A perfect score was received.

Inspection Performance Evaluations for Quality Assurance: A score of .5 out of a possible 1 point was received. The auditors are looking for follow up inspections by a different inspector annually. San Jose does have a quality assurance program through its Supervising Inspectors.

Score: The City of San Jose received a score of 85.95. The range for a 2 rating is 85-92.99. This audit is repeated every five years. As indicated in several sections of this review, it is unfortunate that the Insurance Companies of America pays so much attention to budget allocations and appears to ignore accomplishments. The City of San Jose has received a higher rating than average in the State of California, and is commended for this accomplishment.

Relationship Between Planning and Building and Safety

Input from personnel from Building and Safety reveals widespread criticism and lack of good communication with City Planners. These two functions are part of one Department, and one would think that resolution of these issues should be attainable. Building and Safety staff has stated the following:

- ✍ Individual Planners are inconsistent with one another on priorities, decisions, and processing.
- ✍ There is little or no communications with the Planners.
- ✍ The Planners on the fourth floor give priority to commercial/industrial projects, and many times refer residential permit applicants to Building and Safety for answers that are their responsibility.

While the Planning section of this report deals with Planners activities, it is important to address communication and coordination issues. One way would be to have representatives of both functions meet together on a regular basis to review procedures. Each side has their concerns. Working together, they should be able to document means that will enable improvements in communications, coordination, and for a positive working environment. A matrix could be developed similar to what exists between Building and Fire staff describing responsibilities and coordination.

41. Recommendation: Establish regular meetings between selected representatives of Planning and Building working groups to identify issues and document agreed upon processes as well as improving communications and cooperation.

42. Recommendation: A written matrix should be developed and agreed on which documents responsibilities for Planners and Building staff along with methods of communication and coordination.

- 43. Recommendation:** The Director of Planning, Building, and Code Enforcement should facilitate the process of meet and confer between Building and Planning staff and assure that acceptable communication and coordination occurs.

E. PERMIT CENTER

Coordination and Centralization of Services

One of the significant needs for the City of San Jose for improved customer service is the co-location of all development permit activities to a central location. This would permit the customers to complete all of their business related to permit issuance in the same location. The largest volume of activity is from the Building Division, which currently operates the Permit Center in City Hall. In the current City Hall, space is limited in the Permit Center. But a co-located Permit Center is being planned for the new City Hall and is expected to be operational, if completed on schedule, within three years.

An improvement in the existing City Hall would be to move the Fire permitting functions currently located downtown to the City Hall Permit Center. In order to accommodate space needs to move the permits part of the Fire Prevention Bureau into the current Permit Center, the following options are possible:

- ✍ Relocate the Building Inspectors to a location outside City Hall, making approximately 3,000 square feet available, and co-locate all City inspection functions as recommended in this report.
- ✍ Find outside accommodations for the Public Works Design Group now located on the third floor of City Hall and relocate the Building Division Plan Check section (approximately 30 positions) to that space. The reason is that the design staff does not interface with the public.

In order to co-locate the Bureau of Fire Prevention staff who process permits and related activity to the Permit Center, it may be necessary to relocate the Building Inspectors to make the necessary space available. The issue is whether this move would be of more benefit than having the Inspectors close to the Plan Checkers. In our opinion, the benefit to improve service for customers and minimize their inconvenience is a higher benefit than having the Building Inspectors located close to the Plan Checkers. Currently, communications between the Inspectors and Plan Checkers is minimal. This communication could improve and be enhanced, wherever the Inspectors are located. As a comparison, the Public Works Offsite Inspectors are located several miles from City Hall, with the Engineers in City Hall.

We understand that a recommendation somewhat similar to this was discussed in early 2001 with no action taken. However, we believe the idea is worthy of a more detailed analysis.

While it would also be useful to add Development Services and more Planning functions to the Permit Center, space and cost issues would not likely make this feasible at this time. However, as the Permit Center functions evolve, both Development Services and Planning should continue to examine whether any additional functions could be moved prior to the move to the new City Hall.

The advantage to the action discussed above would be the following:

- ✍ Improved coordination and service to the public could be accomplished now as a progressive move to complete co-location.
- ✍ By starting the co-location and consolidation of some services now, the staff will be in a better state of readiness to make the transition to a completely co-located permit center in the new City Hall.

Currently, there are three Planners and four Fire Protection Engineers operating in the City Hall Permit Center. By leaving the Planners in place but replacing one with a senior position to improve decision-making, customer service could improve. This is recommended in the Planning section of this report. If the Bureau of Fire Prevention staff that deals with development were relocated to the Permit Center area, customers would not have to conduct their business for alarms, fire sprinklers, and Haz-Mat several miles away, as is the case now.

44. Recommendation: Explore the option of moving the Fire Prevention staff into the City Hall Permit Center.

Permit Center Coordination

The current Building Permit Center is managed by a manager within the Building Division. Whether or not co-location of permit services occurs, there is a need for more coordination at the Permit Center. There may be an advantage to assigning a coordinator to oversee Permit Center activity. The coordinator would monitor performance to ensure that goals are being met and that there is cooperation by all divisions and departments who provide permit service. This assignment should be made by the Director of Planning, Building and Code Enforcement.

45. Recommendation: The Director of Planning, Building and Code Enforcement should appoint a Permit Center Manager to be responsible for ensuring that the Permit Center is operating efficiently, all Divisions and Departments are meeting their goals and responsibilities, and a high level of customer service is maintained.

In order to assure that technical expertise and expert decisions are maintained, personnel in the Permit Center should be supervised from their respective divisions or departments for content. For administrative performance, including processing, coordination, and presence in the Permit Center, they should be under the control of the Permit Center Manager. The preparation of Permit Center performance evaluations should include input from the Permit Center Manager. This manager should conduct monthly meetings with supervisors from all divisions or departments that provide staff to critique permitting functions, and to resolve issues with a priority to improve delivery of customer service to the highest level possible.

46. Recommendation: Staff assigned to the Permit Center should be supervised from each respective function for technical and professional content.

47. Recommendation: A Permit Center Manager or his designated representative should have administrative authority for permitting processes and approval of staff absences to assure continued provision of service by each function. Input from the Permit Center Manager should be considered when preparing staff performance reviews.

Intake of Building Permit Applications

Currently, the Building Permit Specialists take in plans for distribution to Building, Public Works, Fire, Planning, and others that require approval before building permits can be issued. It is recommended that this process be continued as it consolidates the intake process. If all Fire Prevention activities are brought into the Permit Center, the only process that would not be included for Permit Specialist intake would be for Haz-Mat. While the Fire Department currently takes in permit applications for fire sprinklers and alarms, that intake could be consolidated and performed by the Building Division Permit Specialists. Fire Prevention is combining these activities to single Fire Protection Engineers, who are a part of the building permit process. Therefore, it is recommended that a single permit station for Haz-Mat permits be established in the Permit Center when the Haz-Mat function is moved into the Permit Center.

48. Recommendation: If Haz-Mat operations are moved to the City Hall Permit Center, provide at least one Permit Center location for issuance of their permits.

Permit Center Wait Time

The current time goal is 30 minutes. The Permit Center Manager has told us that there are times that people have to wait longer, but many are waited on in 30 minutes or earlier. In addition to waiting, limited time for parking at City Hall makes things worse. Our model for maximum wait time is 15 minutes.

Our observations revealed the following:

- ✍ There are 6 Permit Specialists assigned to be on duty at the permit counter sit-down workstations. When they are not on duty due to break time, sick time, lunch hours and vacations, service is impacted because other staff have to be taken from their assignments to fill in, causing their primary tasks to suffer.
- ✍ During lunch period 12-1 PM only two Permit Specialists are on duty. There is signage advising of reduced staff during the lunch hour.
- ✍ When there is high activity or a demand for additional staff assistance, an announcement is made over a loud speaker requesting that other Permit Specialists come to the counter. When this occurs, follow up by Supervisors is needed. We are advised that there is policy for these supervisors to be assigned to monitor activity. We recommend that there be increased diligence to assure the availability of a supervisor at all times that the permit counter is operational. There is also a need to enhance and provide more receptionist space. If there is a reconfiguration to add Fire Department presence to the Permit Center, it is suggested that this space need be considered.
- ✍ Calls for extra Permit Center assistance should be made when there are more than five customers waiting. This should be followed up by the assigned supervisor.
- ✍ There are supposed to be two receptionists assisting people waiting to be assigned to a Permit Specialist. Some customers are there as result of appointments. Others need to initiate a permit application. Others are there for information or an appointment with someone in the Department. Currently they all stand in one line. We have discussed this with the Chief Building Official and Permit Center Manager, and all agree that it would be prudent to create two lines; one for processing applications and the other for appointments and general information. This change will improve service.

49. Recommendation: Have a Permit Center supervisor on duty at all times with responsibility of providing staffing that will assure that there are never more than five people waiting in either line waiting for service.

50. Recommendation: Review policy and determine where additional resources will come from to provide Receptionists duty when needed.

- 51. Recommendation:** If space reconfiguration occurs to accommodate Fire Department presence in the Permit Center, consider adding space for Receptionists for added help and a desk area to open plans.

Process Handout for Permit Center

Of great frustration for customers who come to the Permit Center is not knowing what is expected of them and what they can expect of City staff. There should be a handout available that does the following:

- ✍ Explains procedures and what to expect in the Permit Center.
- ✍ Gives submittal requirement information for Building, Planning, Fire and Public Works.
- ✍ States turnaround time goals.

This handout should be available in sufficient supply at all times for customers in the Permit Center. The handout should also be available by mail when requested, and available on the City Home Page internet site.

- 52. Recommendation:** Prepare and offer a process handout that will be available for customers when they enter the Permit Center, by mail, and on the internet.

Handout Information Sheets

A number of information bulletins are available in racks near the back of the Permit Center room. According to many staff, they are not updated and more are needed. They should also be in a more centralized and accessible location in the Permit Center.

- 53. Recommendation:** Designate staff to review and upgrade all information bulletins, identify those needed and take responsibility to relocate the holding racks to a central location in the Permit Center.

F. PLAN CHECK

Checklists

Currently, individual Plan Check Engineers use a variety of checklists. Some do not use checklists but rely on their knowledge of the applicable codes. We have heard concerns about lack of consistency between Plan Check Engineers. The best way to

achieve consistency and quality plan reviews is to have a checklist consistently used in all plan reviews. We understand that one may be in the process of being developed.

54. Recommendation: Develop and implement checklists for commercial/industrial and residential plans to be used for all plan reviews.

Third Party Consultants Plan Check

It is our understanding that builders have the option in San Jose to use an approved third party consultant to review their building plans. They make direct payment to the consultants (the third party plan checker) for services rendered.

When the approved third party plan check is completed, it is reviewed by an assigned City Plan Check Engineer. We understand that approximately 30% are sent back for correction. It is also our understanding that the City has been urged to continue this practice.

In our opinion, this arrangement can create a conflict of interest in plan check. However, the fact that the third party plan check is reviewed by City staff makes this process more palatable. The role of government review is intended to provide an independent, non-proprietary review of plans and inspections. It can serve a valuable role for the builder in design, value engineering, and quality control. However, given the City's history and apparent success with this program, we believe it should not be changed at this time.

Use of Plan Check Consultants

It is appropriate to use consultants to supplement staff for plan check. This is a logical approach to maintain plan check turnaround time goals.

Some staff claim that consultants create more corrections than City staff, and do not take an approach similar to the City. They also claim that important elements needed on plans do not get covered consistently by consultants.

The solution to uniformity would be for consultants performing plan check for the City to be given the following:

- ✍ Orientation of expectations for their plan checks.
- ✍ A checklist to use which is similar to that used by the City Plan Check Engineers.
- ✍ A staff engineer assigned to perform spot checks and quality control for plans reviewed by consultants.
- ✍ Training for consultants.

55. Recommendation: Create a process that will guarantee that consultants conduct plan check in a scenario similar to the process used by City staff Plan Check Engineers.

56. Recommendation: Retain a team of qualified consultants that will perform qualified plan check review within established time frames when called upon.

Plan Check Data Collection

In order to measure time needed to complete various types of plan checks for staffing and fees, it is necessary to document time spent on each project by Plan Check Engineers and Inspectors who are assigned to this work. The Plan Checker could enter this data daily on the computer screens and the system could tabulate the results by categories of construction.

57. Recommendation: Implement the collection of data that will report time activity on each plan check worked on by each individual staff. Add the entry section to permit screens on the computer system.

Plan Check Turnaround Time

The following table reports the current Building Plan Check Turnaround Time Goals and our recommendations for adjustment.

**Table 19
Plan Check Turnaround Time and Recommendations**

Activity	Current Goals	Recommended Goals
One-Story Residential Addition	1.5 weeks	5 days
Two-Story Residential Addition	2.5 weeks	5 days
Residential Alterations	2.5 weeks	4 days
Custom House	4 weeks	10 days
Residential Tract Models	5 weeks	10 days
Tract Production Houses	1 hour each	1 day
Tenant Improvements (each 20,000 sq ft.)	1.5 weeks	4 days
Minor Structural Plans	2.5 weeks	10 days
New Commercial/ Industrial Construction	5 weeks	15 days
High Rise Buildings	8 weeks	25 days for each ten stories or fraction thereof
Miscellaneous Construction	2 weeks	Over the counter without engineering/10 days with engineering
Express Plan Check	1 hour	Same day, 1 hour
Plumbing	2 hours	Same day, 2 hours
Mechanical	2 hours	Same day, 2 hours

58. Recommendation: The City should adopt the Plan Check goals set forth in Table 19.

Available Time to Conduct Plan Check Work

The Plan Check Engineers are concerned that they are taken away from their desks to do work other than plan check, such as setting fees, project management, talking to people at the permit counter and similar activities. They are under pressure to complete plan checks within specified time limits, and when taken away to perform other tasks it is difficult to meet these time lines. When this occurs, less quality results in the plan review. It would be beneficial if other activities expected of Plan Check Engineers were reviewed and shifted to other resources. We have recommended faster turnaround times in this report. Plan Check Engineers are going to need to have quality time with minimal disturbances to comply.

59. Recommendation: Division Management should review demands other than plan check assigned to Plan Check Engineers and consider assigning them to other resources to allow quality time for them to complete quality plan checks.

Plan Check Orientation for Inspectors

The Inspectors receive plans that contain special seismic and other conditions that need to be identified for assurance of installation on the jobs. Many times they need explanation and interpretation. To assure understanding and identification of special details, an improvement could be achieved by establishing a form where Plan Check Engineers enter notes for special details along with notes that will guide the Inspector and communicate the intent during construction. The notes could be entered into the computer system or scanned with the approved drawings for easy access by the Inspector.

- 60. *Recommendation:* Create a form for Plan Check Engineers to provide comments on each job to identify special details and helpful comments to assure that all elements of the approved plans are implemented.**

Express Plan Check Overflow Work

When it is busy, Plan Check Engineers are asked to help with Express Plan Check. However, they are not given adequate workspace to complete this work when meeting with applicants behind a closed door. As a result, their meetings are held in the public areas where others can hear them. It is suggested that adequate meeting space be arranged for staff when they are asked to perform Express Plan Checks.

- 61. *Recommendation:* When Plan Check Staff are asked to help with overflow Express Plan Check, arrange adequate private space to conduct this work with applicants.**

Research Library

The Plan Check Engineers need to have access to a research library to look up research reports on methods and materials, codes, standards and other documents necessary to their work. These documents are available, but placed throughout the department areas and hard to find. A better system would be to have the information available in one area where it can be maintained and cataloged.

- 62. *Recommendation:* Create and maintain a centralized research library for use by all staff in their work.**

G. INSPECTION

Chief Electrical Inspector Position

The Chief Electrical Inspector position has been eliminated from the Building Division Budget. Currently, the budget includes one Chief Building Inspector and one Chief Plumbing/Mechanical Inspector. The Chief Plumbing/Mechanical Inspector has been acting in the Chief Electrical Inspector position.

The City of San Jose contains one of the highest quantities of high-tech, high-powered equipment anywhere. Comparable cities have Chief Electrical Inspectors. While the Building Official is expert in Engineering and the other Chief positions excel in their fields, there is no one in the organization that can make the kinds of qualified decisions necessary for the myriad of regular and specialized electrical installations that occur in San Jose to protect building occupants and the City.

Job specialties in the Chief Electrical Position official job classification are:

- ✍ Knowledge of City electrical and sign codes and related ordinances.
- ✍ Knowledge of national electrical codes standards.
- ✍ Knowledge of the methods and practices involved in constructing, installing, maintaining, and operating a wide variety of electrical systems, equipment, and appliances, and of standard testing devices.
- ✍ Knowledge of possible defects and faults in electrical wiring and appliances and of corrective measures.
- ✍ Knowledge of California Administrative Code, Title 24, Handicapped and Energy Conservation regulations.
- ✍ Ability to detect and locate defective electrical wiring during construction or installation when defects are most easily found and remedied.

The Building Division has three Electrical Inspector positions that conduct day-to-day oversight and quality control of Inspectors conducting specialty inspections on multi-family, commercial, and industrial projects. They are also called upon frequently to assist the Inspectors who are conducting combined residential inspections. There is no one with a higher level of expertise in the organization who is qualified to deal with decisions, code development, and administrative issues related to electrical matters.

We are of the opinion that it is in the best interests of the City to reinstate the Chief Electrical Inspection position in order to fulfill City responsibility as a qualified third party in enforcing electrical regulations. We are also aware of the current budget constraints facing the City. However, this issue is considered critical. Possibly, when an Inspector position becomes vacant, it could be exchanged for the Chief Electrical Inspector with minimal cost impact.

63. Recommendation: When a position in the Building Division becomes vacant, consider reinstating the Chief Electrical Inspector Position.

Tools and Equipment Permits

There is a concern that obtaining permits and inspection approvals for tools and equipment in existing facilities is difficult and cumbersome. It requires overbearing requests for information, details, and inspections by more than one Inspector. It is possible to create an annual permit for industrial facilities, which would require monthly reporting on the part of the owner and combined inspections by the City, where possible.

Currently, the Building Division has an annual inspections program that is limited to facilities that use their own employees only, and requires separate permits for contractors' work. We believe that this program could be adjusted and also used by contractors. Also, the number of Inspectors calling on the industries could be reduced.

The program could be changed to work as follows.

The owners of manufacturing and processing facilities could apply for and obtain annual tool and equipment permits for installation of tools and equipment that fall within the following exceptions:

1. No hazardous materials are used with the tools and/or equipment.
2. No opening of floors or roofs or walls are required to install the tools or equipment.
3. The gross weight of the equipment does not exceed XX, or XX when installed on a concrete floor, or XX when installed on a floor above grade level. (Weights would be determined by the Building Official.)
4. Electrical demand does not require a new electrical circuit or the demand for the existing circuit. Note: The tool or equipment could be installed under the annual permit if a new permitted and inspected circuit is provided.
5. Gas demand can be connected to a source that does not require connection to an existing main line, or branch line requiring more than 20 feet of pipe installation. Note: The tool or equipment could be installed under the annual permit if a new permitted and inspected gas line is provided.
6. No installation of manufactured gas or chemicals is utilized.

The annual process would work as follows:

- ✍ The owner of the facility would obtain an annual permit. The minimum fee would serve as a non-refundable deposit with the City of San Jose. Records for time used would be maintained by the City, and if costs of the funds on hand

- for that facility are exceeded, the facility would be billed by invoice for costs in excess of the original fee.
- ✍ The facility owner would be responsible for providing a monthly report on forms provided by the City, which would describe each tool or equipment installation completed. The form would report work performed by contractors and include their name, address, contractor's license number and telephone.
 - ✍ A single City Inspector would conduct a combined inspection and approve the installation. Upon approval, the Inspector would affix a City approval stamp. Note: When the tool or equipment is complex beyond the capability of the Inspector, the Inspector could bring in a specialist from the Building and Safety Division.
 - ✍ Plans and manufacturers' information could be provided if requested by the Inspector.
 - ✍ The City would maintain records that documented all approvals.
 - ✍ If no installations were reported, the City would have the authority to conduct a walk-through inspection of the facility as should be stipulated on the annual tool or equipment permit form.
 - ✍ The Chief Inspectors or their designees should administer this program.

64. Recommendation: Create an annual tool or equipment permit and inspection process, which clearly states the kind of devices that qualify for this program and maintains documentation.

Training

There is an impressive training program in the Building Division. Each Inspector attends two one-hour classes weekly, one for combination inspections and one for their specialty. In addition, each new Inspector has to complete a five-week training academy prior to conducting independent inspections. This training is arranged through meetings and coordination with ten supervisors. It may be a more effective use of time and effort if one Supervising Inspector were designated Training Coordinator and made responsible to communicate with staff and maintain the training program.

65. Recommendation: Designate one Supervising Inspector to be Training Coordinator.

Field Inspectors' Hand-Held Computers

Currently, Inspectors document their individual job findings, such as approved, corrections, partial inspection, etc., in handwriting on the Inspection Request forms. These forms are scanned into a separate system, which can be referenced when necessary on individual desktop computers. The new system being prepared for their use would be the same.

If the City of San Jose were to implement hand-held computers for Building Field Inspectors, the following is possible:

- ✍ Inspectors could access the permit database and bring up information they do not currently have available to them in the field.
- ✍ The hand-held computers could be programmed to load and unload directly with the current computer program making their actions available immediately for customers or the office.
- ✍ Handwritten notes now utilized would not be necessary.

There are two basic methods available now for loading data into computers and the database:

✍ **Docking Stations**

This process involves the installation of docking stations where the Inspectors' units are placed in a cradle device when not in use. Data they have recorded is uploaded into the central data system at the end of the workday. When all units are accounted for, the system will download data for the following day's work assignments along with data on hand for each job inspected.

✍ **Systems Transmitting Data Through Internet or Radio Frequencies**

This modern technology will transmit data through the Internet, cell telephones or direct radio communication. It can be accomplished through the use of a PC card in portable computers or a direct or wireless radio connection. With this procedure, inspection actions and dialog can be loaded into the central database immediately and available for distribution to callers versus waiting for Inspectors to arrive at the office and load it into the system. Inspectors can download permit information, data, and information. Communication with the office is easily accomplished.

Of all hardware available, it is recommended that the computer used in San Jose be a pen-based unit or laptop computer. The other types available are smaller and do not carry enough memory to accomplish the job a major jurisdiction like San Jose needs. Also, it is recommended that the units selected be crash-proof due to the abuse they will take in construction areas.

- 66. Recommendation: Install, implement and use a Field Inspector's hand-held computer system.**

Inspection Requests

Currently, a manual call system is being used where five to six Office Specialists answer telephones and take requests for inspections. They stop taking calls for next day inspections at 2:00 P.M., or earlier if the volume exceeds the capability for the number of Inspectors available the next workday. Inspections received are loaded into the computer, which prints an Inspection Request Form the Inspector takes into the field. These forms contain minimal job information and the Inspector has to depend on paperwork available on job sites to determine status or previous corrections. When the Inspector returns the Inspection Request Form with handwritten notes, it is scanned into the computer system by another function located on the first floor of City Hall.

An automated improvement would be to install and implement an Interactive Voice Mail System (IVRS). This system would take inspection calls, retrieve information from the permit computer system, and issue the Inspection Request Form. There are some systems that will respond when the caller wants job status information. With this system, the need for the large volume of staff used for telephone work could be reassigned to other needs. There would still be a necessity for one or two people to help those who insist in talking to a "live" person.

- 67. Recommendation: Install and implement an Interactive Voice Mail Response System (IVRS) to handle calls for inspections.**

Inspection Automation

The inspection system is not well automated. The following needs to be accomplished with priority.

The system now is a hand-written form that provides only the address, permit number, and information received. When the Inspector completes the form after inspection, it is handed in at the office and scanned into the AMANDA computer system. The Inspector is not given any permit information or inspection history, and has to depend on the information printed on the Building Inspection Card and any correction notices posted on the job site.

The Division is working on implementing a computer-generated Inspection Request Form. This form will be more streamlined and effective if printed as result of generation through calls received through an IVRS. We have looked at the form created thus far and have the following suggestions for addition:

1. Add all permit information to include name and telephone number of Architect and / or Engineer of record.
2. Review permit information to allow all information shown on permit to be shown on each Inspection Request Form.
3. Add more space to print proposed work.
4. Add action history for previous inspections for the use by the Inspector.
5. Add a space for the Inspector to indicate the time spent on that particular inspection so it can be recorded and tabulated for staffing analysis and information to analyze costs for fee work.

68. Recommendation: Add additional data to the computer-generated Inspection Request Form.

Inspection Data

While there is a current attempt to have Inspectors report time on jobs, there is an opportunity now to streamline the manner of collection and computerization. The computer program should be programmed to separate information received and sort it into construction categories: i.e.: single-family dwellings, multi-family dwellings, commercial, residential, restaurants, residential remodeling, tenant improvements, residential alterations, commercial alterations, etc. Generation of periodic reports should be available. As an alternative, if it is difficult to accomplish this through scanning, another means of entering this data would be to use some of the Office Specialists who may have time available due to use of the IVR system when implemented.

69. Recommendation: Program the data collection system to collect and sort time spent on each type of construction from the Inspection Request Forms.

Inspection Equipment

The inspectors have access to good small tools to perform their tasks. The one tool that they do not have is a digital level, which is used to check slopes for compliance with handicap access laws and required fall on plumbing drainage and sewer piping, as well as other tasks to determine slopes. Such devices known to be available are the “Smart” levels. There may be other equivalent manufactured digital levels available.

70. Recommendation: Obtain digital levels for use by Inspectors.

Special Conditions Requirements

Planning staff, the Planning Commission, and others place special conditions as a requirement of development and construction in the City. In the past, Planners have not checked conformance with their conditions. However, the City Council recently approved a Condition Compliance program for Planning. Inquiry of Building Inspectors reveals that there is no mechanism to determine these requirements without going upstairs to Planning to find the requirements. Under the new system, a condition “to-do” list will be programmed into AMANDA. This same list could appear on the Inspection Request Forms. When each condition is observed and approved, the Inspector could so indicate on the checklist and verify before occupancy is granted.

- 71. *Recommendation:* Planning and Building should meet to decide the appropriate roles for each to play in condition conformance.**

H. STAFFING ANALYSIS

Table 20 shows time available for Plan Check Engineers each year to work on projects covered by building permits.

**Table 20
Plan Check Engineers**

Activity	Hours
Available Hours Per Year	2,080
Less:	
Vacations	-101
Holidays	-104
Breaks	-109
Sick Leave	-50
Other Leave Funeral/Disability	-41
Personal Leave	-40
Training	-60
Staff Meetings	-45
Monthly Meetings with Building Official	-24
Monthly Meetings with Director	-12
Task Force (Average)	-12
Subtotal	-598
Total Available Hours for Plan Check Engineers	1,482

Table 21 shows time available for Building Inspectors each year to work on projects covered by building permits.

**Table 21
Building Inspectors**

Activity	Hours
Available Hours Per Year	2,080.0
Less:	
Vacations	-168.0
Holidays	-98.0
Breaks	-107.0
Sick Leave	-46.5
Other Leave Funeral/Disability	-44.5
Personal Leave	-8.0
Training	-40.0
Staff Meetings	-28.0
Monthly Meetings with Building Official	-11.0
Monthly Meetings with Director	-11.0
Task Force (Average)	-11.0
Subtotal	-573.0
Total Available Hours for Building Inspectors	1,507.0

Tables 22, 23 and 24 show staff demand after determining average hours expended for each type of construction for Plan Check Engineers and Inspectors in the Calendar year of July 1, 2001 to June 30, 2002.

**Table 22
Staff Demand for Building Activity**

Activity	Average Plan Check Hours	Inspection Hours*	Volume	Plan Check Demand Hours	Inspector Demand Hours
Residential Single Family and Duplex Dwellings	17.0	24.0	40	680	960
Residential Single Family Tract Production Units	2.0	24.0	313	626	7,512
Residential Multiple Family Structures	10.0	60.0	140	1,400	8,400
Residential Additions	18.0	10.0	475	8,550	4,750
Residential Alterations	8.0	6.5	232	1,856	1,508
Residential Express	2.0	6.5	1,600	3,200	10,400
Non Residential Additions and Alterations	21.0	35.0	192	4,032	6,720
Non Residential Express	2.0	3.0	800	1,600	2,400
Commercial/Industrial New Buildings	37.0	129.0	179	6,623	23,091
High Rise Buildings	950.0	1,200.0	5	4,750	6,000
Online Residential Permits		2.0	176	0	352
Online Commercial Permits		2.0	553	0	1,106
Residential Site Work	3.0	4.0	172	516	688
Commercial Site Work	4.0	6.0	48	192	288
Residential Demolition	0.5	0.5	80	40	40
Commercial Demolition	0.5	0.5	62	31	31
Residential Re-roof		0.5	1,849	0	925
Commercial Re-roof		0.5	108	0	54
Online Re-roof		0.5	497	0	249
Temporary Use	0.5	0.5	6	3	3
Total Staff Demand Hours				34,099	75,476
Divided by Total Available Hours				Ö 1,482	Ö 1,507
Total Building Staff Needed				23	50

*Estimates by Building Division

**Table 23
Staff Demand for Electrical Activity**

Activity	Average Plan Check Hours	Inspection Hours*	Volume	Plan Check Demand Hours	Inspector Demand Hours
Residential Multiple Family Structures	4.0	18.0	140	560	2,520
Non Residential Additions and Alterations	8.0	15.0	192	1,536	2,880
Commercial/Industrial New Buildings	4.3	18.6	179	770	3,329
Total Staff Demand Hours				2,866	8,729
Divided by Total Available Hours				Ö 1,482	Ö 1,507
Total Electrical Staff Needed				1.9	5.8

*Estimates by Building Division

Table 24
Staff Demand for Plumbing/Mechanical Activity

Activity	Average Plan Check Hours	Inspection Hours*	Volume	Plan Check Demand Hours	Inspector Demand Hours
Residential Multiple Family Structures	5.0	42.0	140	700	5,880
Commercial/Industrial New Buildings	9.0	19.0	179	1,611	3,401
Total Staff Demand Hours				2,311	9,281
Divided by Total Available Hours				Ö 1,482	Ö 1,507
Total Plumbing/Mechanical Staff Needed				1.6	6.2

*Estimates by Building Division

Summary

The staffing demand and existing staff are shown in Table 25.

Table 25
Building Staffing

Category	Existing Staff	Workload Staff Demand
Plan Check		
Regular Plan Check		23
Electrical		1.9
Plumbing and Mechanical		1.6
Redevelopment		1
Amanda Computer		1
Total	25	28.5
Inspectors		
Building		50
Electrical		5.8
Plumbing and Mechanical		6.2
Total	57	62

Based on this analysis, there is a shortage of Plan Checkers and Inspectors. The difference is made up through overtime, ten working supervisors and contracts. We also believe the data is subject to some error. Based on our experience elsewhere, we believe current staffing is sufficient for the current workload.

72. Recommendation: Continue current positions staffing level with current workload.

I. PUBLIC BUILDING PLAN CHECK AND INSPECTION

The Public Works Architectural Engineering Division currently is responsible for construction of Public Buildings in the City of San Jose. They perform the following functions:

- ✍ Administration of design
- ✍ Construction Management
- ✍ Plan Checks for entire projects
- ✍ Inspections for entire projects

According to the Principal Division Manager of the Public Works Architectural Engineering Division, “building plan check is normally 100 percent done in-house, unless there is a very unusual project.” For example, review of the San Jose Arena, done 10 years ago, in which third party review consultants were used in association with the Architectural Engineering staff. Likewise for the Civic Center, a similar arrangement currently exists. Also in the case of changes being proposed to approved plans after an Architectural Engineering permit is issued, such as using construction methods unfamiliar to staff, which was the case with the Fourth and San Fernando Garage (a Redevelopment Agency funded project reviewed, approved, and inspected by Architectural Engineering). Third party experts were brought in to solve the disputed methods of design and construction proposed by the Agency’s contractor and Construction Manager. These are the exceptions, and they concern structural issues. Mechanical and electrical reviews are performed entirely in-house by Architectural Engineering staff. Building Inspection is all done by Architectural Engineering staff. The Architectural Engineering staff functions include project management for daily activity, materials quantities, change order processing and normal duties connected with project control. The Architectural Engineers and Inspectors are conducting the same plan check and inspections for public buildings that is performed on private property in San Jose by the Building Division of Planning, Building, and Code Enforcement Department.

The current City Municipal Code designates the Public Works Director as Building Official for City Buildings.

The Public Works Architectural Engineering Division has worked on the following volume of projects in the past two years:

- ✍ Fiscal Year 2000-01 – 171 projects with a combined construction value of \$89 million.
- ✍ Fiscal Year 2001-02 – 190 projects with a combined construction value of \$190 million.

Most of the building projects are libraries, police stations, fire stations, the Convention Center, Airport-related buildings, and similar buildings. A new City Hall

building is planned to commence construction this year, which will be an 18-story high rise structure.

The Building Official in the Building Division has raised the issue of whether Architectural Engineering should continue to perform plan check and inspection services for code compliance and conformance to City and State mandated codes in public buildings, or whether the Building Division should participate for independent third party review. The following discusses strengths and weaknesses connected with third party review involvement in public building projects:

Arguments that support plan check and inspections for public buildings to remain in Public Works Architecture and Engineering include:

1. Avoid extra costs associated with use of qualified third party involvement.
2. Self-manage building regulation.
3. Flexibility in code interpretations.
4. Construction could be changed for budget shortfalls or project conditions with least effort of inconvenience.

Arguments that support involvement by Building and Safety Plan Check and Inspections include:

1. It could be shown that City Buildings are held to the same standards used in private development through the City.
2. The Plan Check, Inspection training program and quality control is more stringent than in Architectural Engineering. Building and Safety conducts weekly training in addition to putting new staff through concentrated academy training when employed.
3. Building Division staff plan checks and inspections are conducted by staff that are not responsible for ownership and management of the property or project budget responsibility, avoiding conflict of interest. They conduct themselves with an entire commitment to code compliance.
4. The entire focus and experience of Building Division staff is on building codes and current technologies.

The Deputy Director / Building Official has stated in a memorandum that they could provide plan check and inspection services for less cost than being experienced now. He also states that the Building Division staff has extensive experience with high-rise buildings. After analyzing the above information, it is concluded that in order to utilize the capability and resources of both Architectural Engineering and the Building Division, the following is recommended.

- 73.** *Recommendation:* Architectural Engineering Division Plan Check Engineers and Inspectors should participate in existing weekly training with Building Division staff.
- 74.** *Recommendation:* When the Architectural Engineering Division needs third party service for unusual buildings or conditions, they should use services of the Building Division rather than a private consultant.
- 75.** *Recommendation:* The Principal Manager of Architectural Engineering and the Deputy Director / Building Official of the Building Division shall work together to establish a quality control program for service and spot checking, which will ensure that uniform code compliance is being met on public buildings and assures acceptable coordination.