



FINAL SAR 04-1

STRATEGIC ANALYSIS REPORT

on the Implications of Relocating the Central Freeway Touchdown Ramps

Initiated by Commissioner Dufty

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I. SUMMARY

Since the demolition of the elevated structure of the Central Freeway north of Market St., questions have resurfaced about the possibility of shortening the freeway, possibly as far back as Bryant Street. This SAR evaluates the implications of such a hypothetical decision, taking into account the current status of the replacement project. Conceptual alternatives for a touchdown are analyzed, to draw preliminary conclusions about order-of-magnitude costs, and effects on traffic patterns and on the timetable for delivery of a final project. The SAR finds that a ramp relocation decision has potentially significant legal/regulatory, funding and project schedule impacts, stemming mainly from a change in the project definition, which could to trigger a new cycle of planning, environmental clearance, detailed design, and construction, amounting to over six years of additional work. The SAR also finds that the new total project costs would range between \$173 and \$238 million, a significant increase over the current project. Though a conceptual look at best, given the time and resource limitations of this report, the SAR suggests that pulling the freeway back to Bryant St. would require a 10-lane surface road, with some major challenges to traffic management in the surrounding neighborhoods, to accommodate the over 4,000 vehicles per hour that would circulate in each direction. The SAR proposes some possible follow up studies, with particular emphasis on land use, traffic management and the identification on funding resources, as a precursor to any long-range decisions regarding the configuration of the Central Freeway.

About SARs: Purpose of Document

This Strategic Analysis Report (SAR), initiated at the request of Commissioner Dufty, examines the potential implications of changing the location of the Central Freeway touchdown ramps currently planned at Market Street, and establishes the viability of such an action under the current project conditions, and subject to funding and other constraints. The SAR identifies follow-up actions and studies that may be needed in order to formulate policy decisions on certain aspects of this project.

This SAR is designed to inform policy-level decision-making by the Authority Board. Technical discussion has been condensed, and only the facts essential to outline the policy-level issues are included. Additional information is available from the sources cited, or by calling Tilly Chang, Manager of Planning, at (415) 522-4832.

II. THE ISSUE 

The Central Freeway Replacement Project (CFRP) is located in the Hayes Valley Neighborhood of San Francisco. The central Freeway is part of U.S. Highway 101 and connects I-80 (Bay Bridge) and the northeast area of the city. The 1989 Loma Prieta Earthquake damaged the Central Freeway and catalyzed over a decade of planning and debate over how to replace this key traffic distribution link that connects San Francisco’s street network to the regional freeway system.

In late March 2003, the Central Freeway section from Mission Street to Fell Street was demolished, making Mission Street the temporary terminus. The removal of the elevated structures over Market and Valencia streets has brought light and a feeling of openness back into the immediate area and prompted neighborhood groups to request that the City consider relocating the touchdown ramps to a point south of Mission Street, possibly at Bryant Street.

The relocation of the touchdown to Bryant Street would essentially eliminate the Central Freeway, reversing a transportation planning decision that resulted in five decades of negative urban design impacts and blight on the surrounding neighborhoods. It would also potentially have project development and delivery implications, and very significant operational and safety impacts on the local street network as well, for transit services, pedestrians and bicycle users.

We have conducted a two-part review of the implications of pursuing a change to the Central Freeway project design. In Part I, we assess the viability of a design change with regard to the legal, cost/funding and schedule consequences likely to result from re-opening project design at this stage. For example, changing project designs may trigger legal consequences related to state and local project agreements, and might also introduce new requirements such as obtaining voter approval of new designs. The SAR also examines the potential for project cost changes (both increases and

decreases) potentially associated with termination of construction contracts, extending project mitigation measures, designing a new highway facility and local street network interface/distribution system, securing environmental clearances, and demolition and project construction activities. The SAR further evaluates the potential implications for funding and the prospects of identifying additional funding to cover increased project costs. Finally, the Part I analysis estimates project schedule impacts.

In Part II, we evaluate the feasibility of alternative Central Freeway touchdown designs, and their associated costs and benefits. The current project design reflects significant community planning, technical analysis, and regulatory approvals. In order to be feasible, any alternative solution would need to address requirements such as adequacy of traffic operations (both at the interface with the local and regional transportation network), engineering feasibility and constructability, land use compatibility, community approval and deliverability within funding constraints. This section explores these issues by conducting an order-of-magnitude evaluation of an alternative conceptual design that would touchdown at or near Bryant Street. For purposes of this analysis, we assumed that the freeway would touch down on 13th/Division Street, somewhere between South Van Ness and Bryant Streets.

“...RELOCATION OF THE TOUCHDOWN TO BRYANT STREET WOULD ESSENTIALLY ELIMINATE THE CENTRAL FREEWAY, REVERSING A TRANSPORTATION PLANNING DECISION THAT RESULTED IN FIVE DECADES OF NEGATIVE URBAN DESIGN IMPACTS... IT WOULD ALSO HAVE POTENTIALLY VERY SIGNIFICANT OPERATIONAL AND SAFETY IMPACTS .”

III. REVIEW OF OTHER DOCUMENTS 

This section reviews key transportation plans, policies, and other documents that provide background to the Central Freeway Replacement Project.

Voter-Approved Mandates (1997, 1998, 1999)

Reflecting the complexity of the Central Freeway Replacement Project, voters considered four ballot measures on the project design over a period of two years in the late 1990s.

In November, 1997, San Francisco voters approved Proposition H requiring retrofit of the Central Freeway, including widening the single-deck portion from Mission to Fell to accommodate two-way traffic.¹ The measure also called for the city and Caltrans to study ways of restoring access to Franklin and Gough Streets, where pre-earthquake freeway ramps provided access

to/from Van Ness Avenue and Civic Center. The measure was sponsored by the "San Francisco Neighbors Association", a group of residents of the Richmond and Sunset district neighborhoods in the western half of San Francisco.

In November 1998, voters overturned Prop H, with the passage of Prop E which authorized Caltrans to retrofit the existing Central Freeway structure from the Interstate 80/Highway 101 interchange to Mission Street, bringing the freeway to surface level at Market Street, and constructing a surface-level boulevard from Market Street to Fell Street. The measure approved what was known as the "Octavia Boulevard" plan (see Appendix A: Chronology of Key Events). Environmental groups and Hayes Valley residents galvanized support for the measure.

In November 1999 voters considered two propositions, Prop I and Prop K. Prop I called for demolition of the Central Freeway from Market Street to Fell Street, and creation of a new "Octavia Boulevard" in its place, essentially affirming the 1997 vote to approve Prop E (see Appendix B: Schematic of the CFRP, as found in Prop E). Caltrans would be asked to retrofit the existing Central Freeway structure from the I-80/Highway 101 juncture to Mission Street, and to bring the Freeway to surface level at Market Street. Proposition J was defeated. It would have retrofitted the existing single-deck structure from Mission to Fell, similarly to 1997's Proposition H. Prop I expressed an intent that housing, mixed use and/or complementary developments be constructed on the excess Central Freeway parcels.

Prop I essentially reaffirmed the Central Freeway Replacement project definition included in Prop E. Following passage in November 1999, the Prop I ordinance, known as "The Central Freeway Corridor Housing and Transportation Improvement Act" became city law.²

SB798 (1999) and Caltrans/City Cooperative Agreement (2000)

In February 1999 (following passage of Prop E and before Passage of Prop I) the State legislature passed SB798, codified in California Streets and Highway Code Section 72.1, which recognized Prop E as the voter-approved choice for the Central Freeway Replacement Project. It further stated that the project qualifies for a CEQA statutory exemption. Finally, it required that the Octavia Boulevard project be financed through the sale of excess Central Freeway right-of-way.

Subsequent to passage of SB798, the City and Caltrans entered into a Cooperative Agreement (November 2000), which implements California Streets and Highway Code Section 72.1 per SB798. The Cooperative Agreement sets forth the "respective obligations of the parties with respect to the transfer of the [Octavia Street] Property and the development, construction and maintenance of the Central Freeway Replacement Project".

The agreement defines the Central Freeway Replacement Project and sets out the respective responsibilities of the City and State:

a. "State is responsible at the State's sole cost, for the Freeway Project, including i) demolition of the existing Central Freeway

Structure, ii) construction of a new freeway between Mission and Market Streets, and iii) construction of new ramps to and from that new freeway."

b. "[The] City is solely responsible, at the City's sole cost, for i) preparation and operation of the interim traffic management plan, ii) the Octavia Street Project, including improvement of Octavia Street as a ground level boulevard north from Market Street; and iii) bringing portions of three City Streets, Mission Street, South Van Ness Avenue and Van Ness Avenue which are to be adopted as a traversable portion of SR101 up to a State of Good Repair, acceptable to State."

Authority and Board of Supervisors Resolutions

The Board of Supervisors took an active role in the steering of this project because of the high level of public interest in the issue. Following approval of Prop E, the Board of Supervisors passed Resolution 115-99 creating the Central Freeway Project Office to oversee implementation of the Octavia Boulevard project and establishing the roles and responsibilities of the various city departments and agencies involved in the project. This included designating the Department of Public Works (DPW) as the lead agency for the project, and requesting that the Transportation Authority perform certain project functions including: acting as fiscal agent for the project, developing an interim traffic management plan, staffing a Central Freeway Citizens Advisory Committee (CFCAC), and securing environmental clearance for the project.

On April 29, 1999, DPW and the Authority executed a Memorandum of Agreement (Attachment E) clarifying the roles and responsibilities of each party, addressing all of the aforementioned Authority and Board of Supervisors resolutions, and detailing the responsibilities that the Authority has as fiscal agent for the project. The latter includes:

"(c) Be the recipient and administrator of all grants of State, Federal or other funds for the Project, and ensure compliance with all applicable State, Federal and local requirements for the administration and auditing of such project funds".

In order to fulfill the role of fiscal agent for the project, in March 2002, the Authority adopted Resolution 02-54 approving allocation procedures. In December 2002, the Authority approved Resolution 03-40 approving the baseline project budg-

"PROP I ESSENTIALLY REAFFIRMED THE CENTRAL FREEWAY REPLACEMENT PROJECT DEFINITION THAT THE VOTERS APPROVED IN PROP E IN 1998. FOLLOWING PASSAGE IN 1999, THE PROP I ORDINANCE, KNOWN AS 'THE CENTRAL FREEWAY CORRIDOR HOUSING AND TRANSPORTATION IMPROVEMENT ACT', BECAME CITY LAW".

¹ The upper deck of the Central Freeway had previously been removed between Mission and Fell Streets; thus the freeway only accommodated one-way northbound traffic in this segment.

² Once a voter initiative is approved by the voters, it becomes law either on the date included in the initiative or when it is published in the municipal code in Chapter 3 of the Administrative Code. Per conversation with Deborah Muccino, Board of Supervisor Rules Committee, December 4, 2003.

et of \$44.8 Million, and a schedule for the project. The budget was developed in coordination with the Central Freeway Project Office, led by DPW. Most recently in July 2003, through Resolution 04-02, the Authority approved the detailed engineering design for the Octavia Boulevard, developed by the Project Office.

Market and Octavia Better Neighborhoods Plan

Several policies in the Draft Plan comment on the CFWP. Policy 4.2.1 calls for construction of Octavia Boulevard as called for in the approved schematic design. Policy 4.2.2 calls for a flat, at-grade crossing at Market, and as narrow a design as possible. It also urges that the Central Freeway design touches the facility down “as far south of Market Street as possible.” Policy 4.2.8 seeks further dismantling of the Central Freeway in order to provide a significantly improved new public space, relieve Northern Mission and SOMA neighborhoods of the negative impacts of the Freeway, and improve traffic flow in the corridor and surrounding street network. Specifically, the Plan states that the city should study pulling the Central Freeway back to East of Bryant Street, and rebuilding Division Street as an extension of Octavia Boulevard. Finally, the Plan proposes that the long-term policy of the city should be to seek the ultimate removal of the Central Freeway west of Bryant Street, and to rebuild Division Street as an extension of Octavia Boulevard, should the opportunity present itself at some point in the future.

Land Use and Rezoning Plans

The Central Freeway is located at the intersection of three of the Planning Departments designated Eastern Neighborhoods: SOMA, the Mission, and Showplace Square-Potrero-Central Waterfront. Taken as a whole, the Eastern Neighborhoods have the widest mix of land uses in the city, with residential, office, retail, and production/distribution/repair all coexisting in close proximity. The area immediately adjacent to the central freeway has a high concentration of office, retail (predominantly big box) and PDR uses, and very few residential units.

Based on rezoning option B presented in the Planning Department’s “Rezoning Options Workbook” first draft, the land uses immediately surrounding the Central Freeway are expected to change very little. Under option B, adjacent land uses are zoned as core PDR, PDR/commercial, or PDR/residential (in the case of showplace square, to the east of the central freeway). Option A presents and even higher pre-

dominance of PDR/commercial uses, while Option C presents a higher mix of PDR/residential. For discussion purposes, in this SAR, we assume rezoning option B.

Project Environmental Assessment and FONSI

Both an elevated structure as proposed in Prop H (Alt 1B) and surface alternative (Alt 8B) were evaluated between Fell Street and Market Street in the 1998 San Francisco Central Freeway Replacement Project Environmental Assessment (EA) /Finding of No Significant Impact (FONSI). The EA/FONSI was prepared pursuant to the National Environmental Policy Act (NEPA), and published by Caltrans and the Federal highway Administration in March 1998. The EA concluded that none of the proposed project alternatives would have a significant effect on the environment. A NEPA Reevaluation analyzed the Octavia Boulevard Alternative, comparing it with information in the approved EA/FONSI for Alternative 8B and found no new significant environmental impacts that were not previously addressed and mitigated for the surface alternative (Alt 8B) in the approved EA/FONSI. The Central Freeway Replacement Project, as defined in the cooperative agreement, is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to legislation following the Loma Prieta Earthquake intended to expedite construction of seismic retrofit projects. SB798 reaffirmed this environmental exemption, through reference to the state Public Resources Code.

Transportation Authority Central Freeway SAR

The 1997 Central Freeway SAR identified the range of costs and performance outcomes for four major Central Freeway design alternatives. Alternatives were evaluated on the basis of their traffic handling capabilities, transit impacts, effects on pedestrian and bicycle safety, construction costs and completion times. The SAR did not make recommendations on which alternative should be built, but did note that the options represented a range of trade-offs between construction costs and transportation system performance. The SAR’s Alternative 8B is consistent with the current project design.

Transit Plans

Building upon MUNI’s Four Corridors Plan and Vision Plan the recently approved Prop K Expenditure Plan identified future BRT transit corridor development on Van Ness Avenue and Potrero Avenue as well as TPS improvements on Mission and 16th Street. MUNI’s Short-Range Transit plan also proposes several transit improvements in the vicinity of the Central Freeway, including extension of services to the Showplace Square and Potrero Hill neighborhoods. In the longer-term, transit plans call for development of Folsom Street as TPS street.

Bicycle Plans

The Mission Creek Bikeway and Greenbelt Project has been proposed to connect the 16th Street corridor, beginning at 16th and Harrison Streets, with the new Mission Bay development. The bikeway’s concept plan was endorsed in June, 2002 by Board

of Supervisors Resolution No. 456-02 calls for an origin at the 16th / Harrison / Treat intersection (Mission District). The proposed route would follow an easterly route underneath the 101 and 280 freeways and terminate along Mission Creek at the northern end of Mission Bay. This bikeway could provide an additional east-west connection between the Mission District and Mission Bay, currently only being served by the 16th / 17th Street route combination. MTC included this project in its 2001 Regional Bicycle Plan Project List and recently funded the planning phase of the project. Any Central Freeway touchdown in the vicinity of Bryant Street would impact this project.

“...A CHANGE IN THE PROJECT DEFINITION WOULD TRIGGER THE NEED TO RETURN TO THE VOTERS TO CHANGE CITY POLICY.”

IV. STRATEGIC ANALYSIS: FINDINGS



PART I: VIABILITY

Our Part I analysis finds that there are significant legal/regulatory, funding, and project schedule impacts of relocating the Central Freeway touchdown ramps to a new site south of the current Market Street location, stemming from the *change in the project definition* that would be required by a new Central Freeway project design.

CFRP Definition

As described above, according to San Francisco Propositions E and I, state law, and binding agreements entered into by the City (including Board of Supervisors and Authority Board Resolutions, and a Cooperative Agreement with the State), the Central Freeway Replacement Project (CFRP) is defined as two sub-projects that together form a system to transport and distribute vehicular traffic between the regional highway system and local roadway network. The CFRP is comprised of:

- a. "the State's Freeway Project (consisting of the State's demolition of the existing Central Freeway, construction of a new freeway between Mission Street and Market Street, and construction of ramps to, and from, the new freeway) and
- b. the City's Octavia Street project," including the improvement of Octavia Street as a ground level boulevard north from Market Street.

For purposes of this analysis, we assumed that the freeway would touch down on 13th/Division Street, somewhere between South Van Ness and Bryant Streets. This requires a change in the project definition which appears to be inconsistent with voter-approved measures and which would at least call into question the subsequent actions, agreements and regulatory findings that relied upon the original project definition.

Broadly stated, a significant change in project definition amounts to proposing a different CFRP project. Under applica-

ble State and Federal environmental laws and transportation funding statutes and regulations, this in turn would trigger a new cycle of planning, design, and construction activities, with associated funding and schedule impacts, which are briefly discussed below.

Legal and Regulatory Implications

Consistency with Prop E and Prop I: It would appear that the hypothetical new project definition would be inconsistent with voter-approved mandates, Prop E and Prop I. This is significant because Prop E was recognized by the Legislature as the voter's choice in SB798 (February 1999) which was later implemented through the City's Cooperative Agreement with Caltrans in 2000. It is also significant because a change in the project definition would trigger the need to return to the voters to change City policy.³

Consistency with SB798 and the City's Cooperative Agreement with the State: The new project definition would appear to be inconsistent with California state law (SB798 - February 1999) and the subsequent Cooperative Agreement between the City and Caltrans (November 2000) implementing state law SB798.

This is significant because a change in the project definition would almost certainly require the Legislature to again revise the State Streets and Highways Code Section 72.1, and put the City and Caltrans in the position to have to revisit Cooperative Agreement No. 4-1828C which implements that section of the Code. Given the transportation funding crisis in the State, it is not easy to predict the outcome at the Legislature. Caltrans has already served notice to the effect that it would require a reopening and re-negotiation of the Cooperative Agreement. Among other things, these documents accomplished the critically important step of clearing the Central Freeway Replacement Project for a CEQA statutory exemption (see next section), and directed the financing of the Octavia Boulevard through the sale of excess Central Freeway right-of-way, to be transferred from the State to the City.

Environmental Review and Clearance: The current project was cleared by a March 1998 Environmental Assessment with a Finding of No Significant Impact (FONSI) and subsequent NEPA Re-evaluation in 2000. The project is statutorily exempted from CEQA under provisions for emergency projects in the State Public Resources Code and this was SB798 states that the Central Freeway Replacement Project qualifies for a CEQA statutory exemption per Streets and Highways Code section 180.2, which in turn refers to a provision in the State Public Resources Code that cites "specific actions necessary to prevent or mitigate an emergency." This is significant because Caltrans has already completed seismic retrofit work on the portion of the Central Freeway that is still standing. Consequently, the expedited environmental review process (EA) used to clear the project originally would not be available for the new project.

From the above considerations flow the following findings:

3. According to Deborah. Muccino, of the the Board of Supervisors Rules Committee, the only way to overturn a voter initiative is with another voter initiative. The Board of Supervisors cannot simply pass an ordinance to overturn an initiative, (per conversation on December 4, 2003).

a. *Need for a new EIS/EIR:* Because the seismic retrofit of the Central Freeway is completed, this exemption would not be available to the proposed new project. Moving the touchdown back would have potentially significant adverse impacts (such as traffic impacts, right-of-way acquisition, noise, etc.). Thus, a new EIR/EIS would almost certainly be required.

b. *Potential Risk to Octavia Blvd Environmental Clearances:* Since the current Octavia Boulevard portion of the Central Freeway Replacement Project was cleared by the same EA and subsequent NEPA Reevaluation, a change in the project definition may affect the defensibility of the environmental clearance for the Octavia Boulevard project in case of litigation.

Transfer of State Parcels: The new project definition could be found to be inconsistent with the City's Cooperative Agreement with Caltrans, including provisions governing the transfer of parcels of land to the City to finance construction of Octavia Boulevard.

The Cooperative Agreement provides for the transfer of 23 land parcels from Caltrans to the City as required under SB798. According to Caltrans, the new project would constitute "changes" [that] would require return of these properties to the State". Some of the parcels that Caltrans transferred to the City and that Caltrans would seek to be returned have already been sold. It is unclear what the City's obligations would be to return the actual parcels or just the proceeds from the sales of those parcels, in order to satisfy Caltrans' expectations under the cooperative agreement. Our opinion is that the City would probably not meet the terms of the agreement (to build the project as described). This is significant because, without speculating about how this issue would ultimately be addressed, (e.g. return of the land, proceeds from the sale of land, negotiated settlement, etc.) we believe there would be significant legal and financial implications for the City. This, in turn, could put the Octavia Boulevard project at financial risk (see below under Funding).

Cost and Funding Implications

We have assessed several areas where costs may be affected by a change in the project definition. The current project cost for the CFRP is provided below in Table 1.

Table 1: Project Cost Estimates for Current CFRP

Octavia Boulevard Project ⁴	\$44,800,000
Central Freeway ⁵	\$45,400,000
Total Cost	\$90,200,000

Construction Contract Damages: Caltrans awarded the construction contract and began construction testing activities for the Central Freeway Market Street touchdown in October 2003. The City's Department of Public Works awarded the construction contract for Octavia Boulevard in late 2003 and construction is expected to begin in Spring 2004. It is anticipated

that major construction will be completed by mid-2005. With a change in the project design, the project budget would have to account for compensation for termination of Caltrans' construction contract with ProVen, Inc., which was awarded on a "cost + schedule" (known as A+B) basis. This cost depends on whether the project is delayed or halted, and at what point this action would be taken. These costs are not estimated in this SAR.

Traffic Mitigation Plan: The general configuration of the project would require continuation and likely expansion of the current Traffic Mitigation Plan. The project currently spends \$120,000 per month on Parking Control Officers.⁶ Ostensibly, there would need to be a continued PCO presence throughout the planning, design and construction phases of the new project, over the next several years (see Schedule section, below).

Planning and Design: Designs for the proposed CFRP with Central Freeway touchdown at Market Street is completed. Planning and design costs for a new Central Freeway with touchdown on 13th/Division Street would be a new and unbudgeted cost. For the Central Freeway portion of the project, we assume that the City would likely need to bear the cost of a new planning and design effort, as Caltrans has fulfilled its obligation under the Cooperative Agreement to plan for and design the current Central Freeway project. For the Octavia Boulevard portion, we note that there will be some differences in traffic circulation patterns that may require modifications to the current boulevard design. A new surface facility would also need to be designed to connect Octavia Boulevard at Market Street to the touchdown on 13th/Division Street, along with improvements to adequately and safely distribute and manage traffic. Planning and design activities (inclusive of environmental analysis) are included in estimates of the cost to construct a new touchdown ramp and surface boulevard below.

Environmental Review and Clearance: As noted above, the new Central Freeway Project would almost certainly need to undergo environmental review and clearance, likely to be a more extensive undertaking than the EA.

Demolition: The project costs would include demolition of the existing Central Freeway segment from Mission Street to the new touchdown site. The estimated cost of demolition is factored into the project construction costs below.

Construction of a new Local Street Network Interface and Central Freeway ramps: A new local street network interface at 13th Street would need to be built in order to handle local traffic on Division/13th Street, and access and distribution of traffic to and from the Central Freeway ramps. The new project cost would also construction and construction-related activities (TMP) for the new Central Freeway touchdown on 13th Street, including ramps and connections to I80/Highway 101. We have estimated that a new design that provides for Central Freeway touchdown on Division Street between Bryant and Harrison lead-

4. Source: Transportation Authority Board Resolution 03-40.
 5. Caltrans Resident Engineer W. Khalisse, November 25, 2003.
 6. Department of Public Works Engineer, R. Kong, October 24, 2003.

ing to a surface boulevard that connects to the Octavia Boulevard at Market Street could cost between \$128 - \$193 Million (see Table 2). Combined with the planning, design and environmental costs described above, the total cost of a new Central Freeway touchdown and boulevard on Division Street could range between \$173 million to \$238 million. We provide further detail and analysis of the Central Freeway touchdown options in Part II: Feasibility Analysis.

Table 2: Project Cost Estimates for New CFRP⁷

Touchdown Ramp	\$ 48,900,000
Temporary Ramp	\$ 21,680,000
<u>Boulevard Extension</u>	<u>\$ 46,180,600</u>
subtotal	\$116,760,000
<u>+ 4 Years Escalation @2.5%/YR</u>	<u>\$ 12,100,000</u>
Total Construction Cost	\$128,860,000
Concept Level Cost Range:	\$128 - \$193 million
<u>+ Octavia Boulevard Cost:</u>	<u>\$ 45 million</u>
Total Cost Estimate	\$173 - \$238 million

Given the potential doubling of project costs, and current state and local budget situation, there are significant funding implications and challenges of changing the Central Freeway design.

Fiscal Impact of Land Sales: It is estimated that the Central Freeway parcels transferred by the State to the City are worth approximately \$41 Million. If the City were to return the land to the State, the City would not be able to generate property tax revenues estimated at \$562,500/year (1.25% based on land value).⁸

Octavia Boulevard Sub-Project: If, as discussed above in the Legal section, Caltrans were to succeed in reclaiming the land parcels, or revenues from the sale of the land, this would create a serious funding gap for the Octavia Boulevard project, as proceeds from the sale of the parcels constitute virtually the entirety of the Octavia Boulevard funding plan. No local or state funds are currently available to replace the funding that would be lost. No specific funding is contemplated for this project in the Prop K Expenditure Plan. At the State level, the situation is nothing short of dire with the California Transportation Commission considering elimination of certain projects and funding programs.

Central Freeway Sub-Project: The current funding plan for the Central Freeway sub-project includes Federal Emergency Relief funds, which have already been spent, and State Highway Operations and Protection Program (SHOPP) funds which are discretionary to Caltrans. Given the state's budgetary environment, there is absolutely no guarantee that Caltrans District 4 can retain SHOPP funds for the Project. Furthermore, given the current California Transportation Commission (CTC) approach to advance only ready-to-go projects, it is almost certain that SHOPP funds earmarked for the current touchdown construc-

tion project would be reprogrammed to projects elsewhere in the State. Because the City would be changing an approved project design for local reasons, we assume that the City would be expected to pick up a significant portion of the costs of a new project. As noted above, the CTC's recent fund estimate forecasts no *new* revenues in the STIP until after FY08/09. Other potential sources of funding include seeking a new federal earmark or prioritization in expenditure plans for future new revenues at the local and regional levels, such as a regional gas tax. It is fair to say that these revenues are speculative at best.

Project Schedule Implications

We have assessed the project schedule implications of a new Central Freeway Replacement Project design. Our preliminary estimate is that the total project development cycle would take at least six years, contingent upon availability of funding, before the facility could be opened to the public.

“...OUR PRELIMINARY ESTIMATE IS THAT THE TOTAL PROJECT DEVELOPMENT CYCLE WOULD TAKE AT LEAST SIX YEARS, CONTINGENT UPON AVAILABILITY OF FUNDING, BEFORE THE FACILITY COULD BE OPENED TO THE PUBLIC.”

Planning and Conceptual Design: This process would involve all relevant City departments and State and Federal regulatory agencies. The new project would be more complex. For example the federal interest in the project would be increased due to the need to ensure that the new touchdown designs accommodate and not worsen mainline highway 101/80 operations. Therefore, we estimate this stage of project development would take a minimum of two years, including obtaining a record of decision (ROD) from the Federal Highway Administration (FHWA).

Public Process: The new project schedule would include a substantial public participation process. The current Project's Citizens Advisory Committee (CFCAC) was created in March 1999 and met for 4 years, before it approved the final design in June 2003. A similar public process would presumably be required for any changes to the project, with more neighborhoods involved (Northeast Mission, Japantown, SOMA, Showplace Square and Potrero Hill, etc). As noted above, ratification by the voters may be required as well. We estimate that this process would take at least 12 months (with some possible overlap with other stages).

Preliminary Engineering and Environmental Review/Clearance: Technical work in support of the environmental analysis stage of the project development process could take an additional 18 months to 2 years.

Final Design: This stage would involve development of final

7. Authority staff estimates.
8. R. Kong, October, 2003.

plans and specifications, including technical review and obtaining design exceptions from FHWA and Caltrans as needed. It would take at least 1 year.

Right-of-way Acquisition and Construction: The new Central Freeway touchdown design and 13th/Division Street Boulevard would require additional right-of-way to meet the capacity requirements of the new design. We assume right-of-way acquisition would take place in parallel with the planning, design and environmental phases of the project. Given the complexity of the project, construction would likely take about 18-24 months, depending on the difficulties presented by the ultimate design, particularly in the vicinity of the I-80/Highway 101 interchange, and by other major construction activities in the area, such as the replacement of the west approach to the Bay Bridge.

PART II: FEASIBILITY ANALYSIS

A. Existing Conditions and Operational Analysis

History of the CFRP: The current Central Freeway facility has been changed dramatically since the 1989 Loma Prieta Earthquake damaged the original Central Freeway which consisted of four ramps north of Market Street, Franklin and Gough Street, and Oak and Fell Street. After the 1989 earthquake, Caltrans demolished the Franklin and Gough Street ramps. Demolition of the Oak Street ramp followed in 1996. Subsequently Caltrans seismically retrofitted the remaining Central Freeway structure. In early 2003 Caltrans demolished the Fell Street off-ramp, the remaining piece of the Central Freeway north of Mission Street. This demolition was accompanied by implementation of a Traffic Mitigation Plan (TMP) which incorporated many of the detours of the 1996 demolition and several temporary improvements such as signal retimings, restricted parking on many corridors south of Market and utilization of parking control officers (PCOs) on the designated detour routes.

The Traffic Management Plan will continue until the both elements of the project are complete.

Existing Conditions: The Central Freeway at its most complete stage extended from the I-80 juncture to the Bay Bridge westerly to Gough/Franklin Streets with southbound on and northbound off ramps at 9th/10th Streets, Mission/South Van Ness, Gough/Franklin, and Oak/Fell Streets; all one-way surface street couplets. Today, the Mission/ South Van Ness and 9th/10th Street ramps remain open and provide the sole means of surface street access to and from the Central Freeway.

Table 3 shows Central Freeway off-ramp volumes under a series of conditions, indicating that the combination of the 9th Street, Mission Street, and Fell Street off-ramps previously accommodated approximately 5,350 vehicles per hour. The combination of 9th street, Mission Street, and the new Market Street ramps with the new Octavia Boulevard extension is forecast to accommodate approximately 4,200 vehicles per hour.

Table 3: Central Freeway Off-Ramp PM Peak Hour Traffic Volumes

Off-Ramp Location	1997	November 2003	Current Market St.	Proposed Bryant St.
Fell Street	2,632	Demolished	Demolished	Demolished
Mission Street	1,403	1,700	1,370	Demolished
9 th Street	1,320	1,450	1,300	1,300
Market Street	N/A	N/A	1,500	N/A
Harrison/Bryant	N/A	N/A	N/A	2,870
Total	5,355	3,150	4,170	4,170

Notably, the Mission and 9th Street off-ramps are currently bearing the brunt of traffic divisions. Together, they are currently accommodating approximately 60 percent of what was previously accommodated by the three sets of ramps remaining after demolition of the Franklin/Gough ramps (Fell Street, Mission Street and 9th Street). Indeed, evaluations of the level of service at the intersections of Mission/13th/Duboce, 13th/ South Van Ness, 10th/ Bryant, and 9th /Bryant found these intersections operating close to or at capacity (LOS D or E/F).

This is in part explained by the origin-destination pattern of Central Freeway demand. Pre-demolition surveys indicated between 80 and 90 percent of drivers using the Fell Street off-ramp were oriented to destinations north of Market Street. Of these, 86 percent indicated they planned to continue driving; they were simply going to find alternate routes and/or start their trip earlier (36%). Post-demolition traffic counts on alternate routes into, out of, and across the City have demonstrated this to be true with the balance of traffic (beyond the remaining 60% capacity of Mission/Duboce and 9th Street ramps) shifting to both alternate routes and times of travel. In the peak hour, traffic exiting onto 9th Street has not expanded significantly (9.8%) because the ramp (9th Street corridor) was previously operating close to/at capacity. However, on a daily basis the 9th Street corridor is accommodating an increase of 46 percent and now operates close to capacity (LOS E/F) for extended periods. Commensurate types of increases in traffic have been found to occur on Junipero Serra, Mission Street, Duboce Avenue, 7th Street, etc. In summary, today (November, 2003) essentially the entire roadway network providing access to and from the remaining ramps to and from the Central Freeway operate at capacity for extended periods on both weekdays and weekends.

Market Street Touchdown Ramps: The City's currently planned Oak/Fell replacement project consists of rebuilding the section of overhead freeway structure from Mission Street to Market Street where it will terminate with a set of ramps touching down to the surface roadway network aligned with a new Octavia Boulevard. The concept is to replace a previously avail-

able link to and from the Western Addition, Richmond, and Sunset Districts which was separate from Mission/South Van Ness/Gough Franklin/ and the 9th/10th /Hayes/Oak and Fell Street corridors. When completed it will accommodate traffic temporarily forced to divert to a variety of routes including the heavily congested 9th/10th and Mission/ South Van Ness corridors.

A key aspect of the Market Street Touchdown Ramp alternative is being able to re-attract up to approximately 3,000 vehicles per hour (1,500 in each direction), relieving the saturated 9th/10th, 19th/Junipero Serra, 7th, and Duboce corridors and convey them over Mission Street (a transit priority street) to the new extension of Octavia Boulevard and the Oak/Fell Street couplet. This in turn will allow a significant reduction in parking restrictions and need for traffic control officers, improved pedestrian safety, and the return of general accessibility to properties fronting on these corridors while maintaining existing transit levels on Mission Street.

According to the MTA, there have already been many impacts to transit operations on TPS streets (Mission and Bryant Streets). Several lines (14, 47, 49, etc.) have been experiencing delays since demolition of the Central Freeway ramps.

B. Feasibility of Touchdown Near Bryant Street

Maintaining acceptable levels service on surface streets between the new touchdown ramps and Market Street will be very difficult. Our preliminary analysis finds that 13th Street will need to be at least four lanes in each direction between ramps at Harrison/Bryant and Mission Street. No left turns can be allowed from 13th Street, Harrison Street, or Folsom Street. The extension of Octavia Boulevard will need to be three lanes in each direction at Mission before narrowing to two in each direction closer to Market in order to be able to maintain any kind of transit service on Mission.

The following discussion with attached figures and tables provides a more detailed overview of geometric requirements with touchdown of the freeway at Bryant or Harrison Streets.

Lane Requirements: Touchdown of the Central Freeway at Harrison or Bryant Street would end the freeway facility four to five major blocks east of Market Street. This will require traffic previously using the Fell, Mission, South Van Ness, and planned Market Street ramps to travel a significant distance on surface streets to reach upper Market and areas north of Market.

Currently there is a limited number of routes available to vehicles traveling between the proposed ramp junctures and areas north of Market. To the north, the 9th/10th Street corridors currently operate in excess of capacity with on-street parking restrictions and traffic control officers required for extended periods to accommodate demand. To the south crossing the Mission, there currently are no travel corridors with sufficient capacity. Major changes would be required on 14th and 15th Streets to provide an alternate route with a significant capacity. Division and 13th Streets will need to provide a primary segment of the linkage between the freeway junctures and the North of Market area.

Based on preliminary analyses, it is projected that the new facil-

ity will need to handle over 4,000 vehicles per hour in each direction immediately west of the ramp junctures. Accommodating this level of traffic on a surface facility with at-grade intersections requires a major arterial or expressway type of configuration. Figure 2 in Appendix C summarizes anticipated lane configuration requirements needed to accommodate this concentrated level of traffic. Figure 2 shows lane requirements of five lanes in each direction with three on and off the freeway ramps and an additional two lanes in each direction for the continuation of Division Street at the ramp juncture. Assuming the ramps touchdown at Harrison, 13th Street can narrow to four lanes in each direction before Folsom and continue with four lanes towards Mission. Prior to Mission it will need to widen again to six lanes west-bound with three lanes continuing onto the extension of Octavia Boulevard and three continuing onto Duboce Avenue.

Central Freeway Touchdown at Harrison or Bryant: We have developed five conceptual alternatives of

how the Central Freeway could be terminated in the Bryant or Harrison Street vicinity. These alternatives DO NOT meet current Caltrans standards, but their design features are consistent with the existing US-101/I-80 interchange. Caltrans and the Federal Highway Administration would be required to approve several mandatory and advisory design exceptions. These alternatives are briefly described as follows:

- 1A - Harrison Terminus - Structure on Existing Alignment
- 1B - Harrison Terminus - Structure on Offset Alignment
- 2A - Bryant Terminus - Structure on Existing Alignment
- 2B - Bryant Terminus - Structure on Offset Alignment
- 2C - Bryant Terminus - Structure on North Offset Align.

The Alternatives fall into two general categories: touching down at Bryant or Harrison, and utilizing the existing alignment or being offset. Offsetting the alignment typically would allow for a project that is easier to construct, because much of the construction could occur away from current traffic patterns.

Constructability: One pressing concern with all the alternatives is their constructability, the need to acquire right of way, and the balance between the two. The current traffic system is operating at capacity and an assumption has been made that any construction cannot result in the loss of traffic handling capacity to or from the highway system.

While the offset alternatives would typically appear to achieve this, even these would require extended periods of closures. Given the lack of capacity on other ramps or local streets, we see no alternative except to construct a temporary ramp to meet

“... FREEWAY AND SURFACE STREET TRAFFIC DEMAND IS OVER 4000 VEHICLES PER HOUR IN EACH DIRECTION IMMEDIATELY WEST OF THE TOUCHDOWN. ACCOMMODATING THIS LEVEL OF TRAFFIC ON A SURFACE FACILITY REQUIRES A MAJOR ARTERIAL OR EXPRESSWAY TYPE OF CONFIGURATION.”

the traffic demand. This ramp would serve to maintain traffic while creating a work space to allow for the construction of the permanent ramps. This need to allow space for construction is not limited to the ramp construction.

We foresee a similar situation occurring along the current Thirteenth Street, where it will be necessary to place the new Bryant/Harrison Street ramp traffic before the construction of the new arterial is complete. This will result in construction inefficiencies or the need to acquire additional right of way to allow for the construction of a temporary roadway.

13th/Division Boulevard: The new arterial between the end of the Central Freeway ramp and Market Street would be of a character significantly different than the current Octavia Boulevard. At the off-ramp, a ten lane arterial facility is required to accommodate a comparable level of traffic forecast for the current Market Street touchdown design, without consideration being given to local realm streets contained on Octavia Boulevard. The road would continue to be eight to ten lanes wide until it crosses Mission Street where it would split between Market Street and Octavia Boulevard destined traffic.

Total Cost: As summarized in a previous section, we have estimated all the elements of Alternative 1A (see Appendix D for ramp configuration) to fall within the construction cost range of \$128 - 193 million. We expect this to be the lowest cost alternative because it is the most right of way conservative.

C. Evaluation of Alternative 1A

Evaluation criteria encompassed many aspects of system performance as well as consideration of the effects of Alternative 1A on land use and neighborhood development. As with the above engineering concepts and cost estimates for the new touchdown and surface arterial, these traffic analyses are preliminary and would require further detailed study if any of these options is to be pursued.

Comparability of Service: The new alternative 1A was evaluated in terms of its ability to handle comparable volumes of traffic while maintaining reasonably similar travel times to the original and current project networks.

Table 4 provides a summary of estimated relative northbound travel times between the Central Freeway just west of the 9th Street off-ramp and Fell/Laguna Streets for these three scenarios. Alternative A assumes Caltrans' previous Alternative 1A/1B with the Central Freeway terminating at Oak/Fell with an off-ramp to Fell Street. Alternative B assumes the currently planned Market Street touchdown and the new Octavia Boulevard extension. Alternative C assumes the new touchdown at Bryant Street with a new arterial on 13th/Division Street leading to Octavia Boulevard north of Market Street.

As shown in Table 4, travel times for Alternative 1A would be 4.8 minutes to 6 minutes between Bryant and Fell Streets, compared with between 3.2 minutes to 4 minutes for the current

CFRP. This ranges from a 20% - 87% increase over the entire Bryant Street to Fell Street segment. Here we note that -- in order to be consistent with the Caltrans analysis for the current project -- the travel time analysis assumed extremely good signal progression in the peak direction (25 mph on Octavia Boulevard).

Table 4: Estimated PM Peak Hour Travel Times⁹

Alternative	Travel Time in Seconds by Roadway Segment			
	Bryant to Mission	Mission to Market	Market to Fell	Total
CFW to Fell St.	50-70	100-120		150-190
CFW to Market St. + Octavia	110-130	40-60	40-50	190-240
CFW to Bryant St. + Octavia	200-240	50-70	40-50	290-360

Although the traffic handling capabilities are similar, the surface street operation of the arterial, particularly at intersections, introduces delays over the current project. Alternative 1A travel times are 50% to 1.4 times higher than the Fell Street off-ramp scenario. Assuming mid-point values, over the course of a short 10 minute auto trip, the additional 1.9 minutes of Alternative 1A travel time can result in a 20% increase in total trip times. However, for a longer trip of say 40 minutes, the effect is reduced to a 5% increase.

Impacts on mainline highway network operations:

Although Alternative 1A was designed to handle similar traffic volumes to the current project it does not perform equally well with respect to regional freeway operations. This is because of the lost storage capacity for queues that were built in to the Market Street touchdown/Octavia Boulevard solution. Queues of up to 1/2 mile were projected under the current project and these would likely shift further south onto Northbound 101 under Alternative 1A, or would divert to streets like Potrero Avenue and Guerrero Street. Queues to the north onto I-80 would probably divert at 5th Street and 8th Street, increasing the loads on the local network at those points. The new project would likely attempt to mitigate these effects by dedicating as much green time and signal coordination as possible on Division/13th Street Boulevard., though this would be at the further expense of cross-street traffic (e.g. Harrison, Folsom, Mission and S. Van Ness), including pedestrian and bicycle travelers. Alternatively, the surface facility could be designed as an expressway with fewer cross-traffic intersections, similar to Richardson Avenue (the transition from Doyle Driv to Lombard Street), instead of as an arterial.

Impacts on current and future transit service: As noted above, transit services have already been affected by CFRP demolitions. The Market Street touchdown was designed with a view

9. Authority staff estimates.

to minimizing impacts to transit operations, though impacts are expected to the 6, 7, 66, 71, 71L and F-lines. Alternative 1A would impact these lines and additionally potentially cause delays to the 26, 14, 49, 12, 27 and 47 lines, according to DPT/MUNI due to the need to handle Central Freeway vehicle flows.¹⁰ The largest projected delay is to the transit lines on Mission Street (14, 26, 49), where northbound traffic delays are projected to increase from 31 seconds to 117 seconds per cycle, a 277% increase.

Impacts on bicycle and pedestrian safety/connectivity: The new surface arterial on Division/13th Street will be similar or wider than Van Ness Avenue in front of City Hall, with the parking removed and cars against the curb. We have assumed no left turns or bicycle features on the Division Street/13th Street surface roadway under Alternative 1A. The proposed Mission Creek Bikeway would not be feasible under Alternative 1A.

We have assumed 15 foot sidewalks to allow for trees, lighting and a physical separation between automobile traffic and pedestrians since there is no buffer provided by a parking strip. We have also assumed a 10 foot median, which allows for planting, lighting, and a substantial pedestrian refuge since crossing times may be inadequate for pedestrians to cross the roadway in a signal phase.

To put this impact in perspective, we estimate the crossing time at Folsom Street and Division/13th Street, where the new arterial is assumed to be provided with 70% of the cycle “green time” so that it can accommodate needed traffic flows. Assuming a 136 foot cross-section at Folsom Street, a pedestrian walking at 2.5 feet per second would only be able to traverse 81 feet in the 32.4 second green phase (27% of cycle time), a distance that is short of the full width of the new arterial. Pedestrian refuges are thus designed to a wide standard at 10 feet. At South Van Ness Avenue, a pedestrian crossing is only possible on the west side of the street, due to the high volume of left turns from Duboce Street northward.

Impacts on circulation and cross-street traffic operations: As discussed above, because most of the traffic to and from the Central Freeway is destined to or originates from points north/northwest of Market Street, we do not see a large change in the distribution of traffic onto the local street network, despite touching down the Central Freeway five blocks east of Market Street. In fact, the majority of traffic signal green time along the corridor would need to be devoted to Division/13th/Octavia, which in turn would result in significantly increased delay to cross street traffic. It is estimated that delay to northbound S. Van Ness Avenue traffic delay increases from 31 seconds to 82 seconds, a 160% increase. Delays to northbound traffic on Folsom Street increase from 30.1 seconds to 37.9 seconds, or roughly 26%. It should also be noted the LOS analysis assumes no left turns allowed from westbound 13th Street to Harrison, Folsom, South Van Ness, or Mission Street as well as no left turns from southbound Harrison or Folsom to eastbound 13th Street and the freeway ramps.

A previous traffic analysis for the Market/Octavia Better Neighborhoods study has suggested that the intersection of Mission Street, Otis Street and South Van Ness Avenue is a key bottleneck for the surrounding street system due to its need for three phases to


accommodate northbound Central Freeway to Van Ness Avenue traffic. Eliminating this bottleneck by creating a more direct connection between the Central Freeway and Van Ness Avenue potentially could expand traffic capacity in this area, although the desirability of directing more traffic onto Van Ness Avenue is unclear since doing so may jeopardize future bus rapid transit operations in the Van Ness Avenue corridor.

Neighborhood and land use impacts: Perhaps the most important potential benefit of a relocation of the Central Freeway ramps away from Market Street is the possibility to rethink the entire urban fabric around the Division/13th Street area. As noted above, current land uses along the corridor are a mixture of retail (including big-box retail), production/distribution/repair (PDR), and limited housing. With the removal of the elevated Central Freeway structure, property values would likely increase in the alignment corridor, although some adjacent parcels may disbenefit from a loss of parking and access impacts. In particular, there would be potentially significant traffic impacts to the businesses and residents in the vicinity of the immediate area of the touchdown. In addition, as mentioned above, the surface arterial construction would require rights-of-way acquisition from adjacent land parcels.

Any decision to change the CFRP design should be guided by a thorough land use and transportation planning study to determine the future long-term development path of this area. This would include an in-depth discussion of the effect of proposed changes on all the communities involved, and of modifications to existing land use policy and/or zoning regulations, as necessary to achieve community and city goals for the area. Given the range of policy implications, we do not attempt to speculate about what the outcome of these discussions might be.

V. Next Steps

Any effort to further explore the concept of a relocation of the Central Freeway touchdown ramps away from Market Street, particularly as a long-term corridor and neighborhood revitalization strategy, should include at least an in-depth evaluation of the following four areas:

1. Any decision to change the CFRP design should be guided by a thorough evaluation of the future long-range land use plans and zoning changes for the Division/13th Street corridor and neighborhood area. 
2. Detailed traffic operations and safety analyses, with particular emphasis on impacts on current and future transit, and conflicts between bicycles, pedestrians and automobiles.
3. Engineering and constructability issues including right-of-way requirements and overall cost estimates.
4. Identification of additional funding sources.

10. G. Norman, letter Dated October 24, 2003.

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VII. AUTHORITY STAFF CREDITS



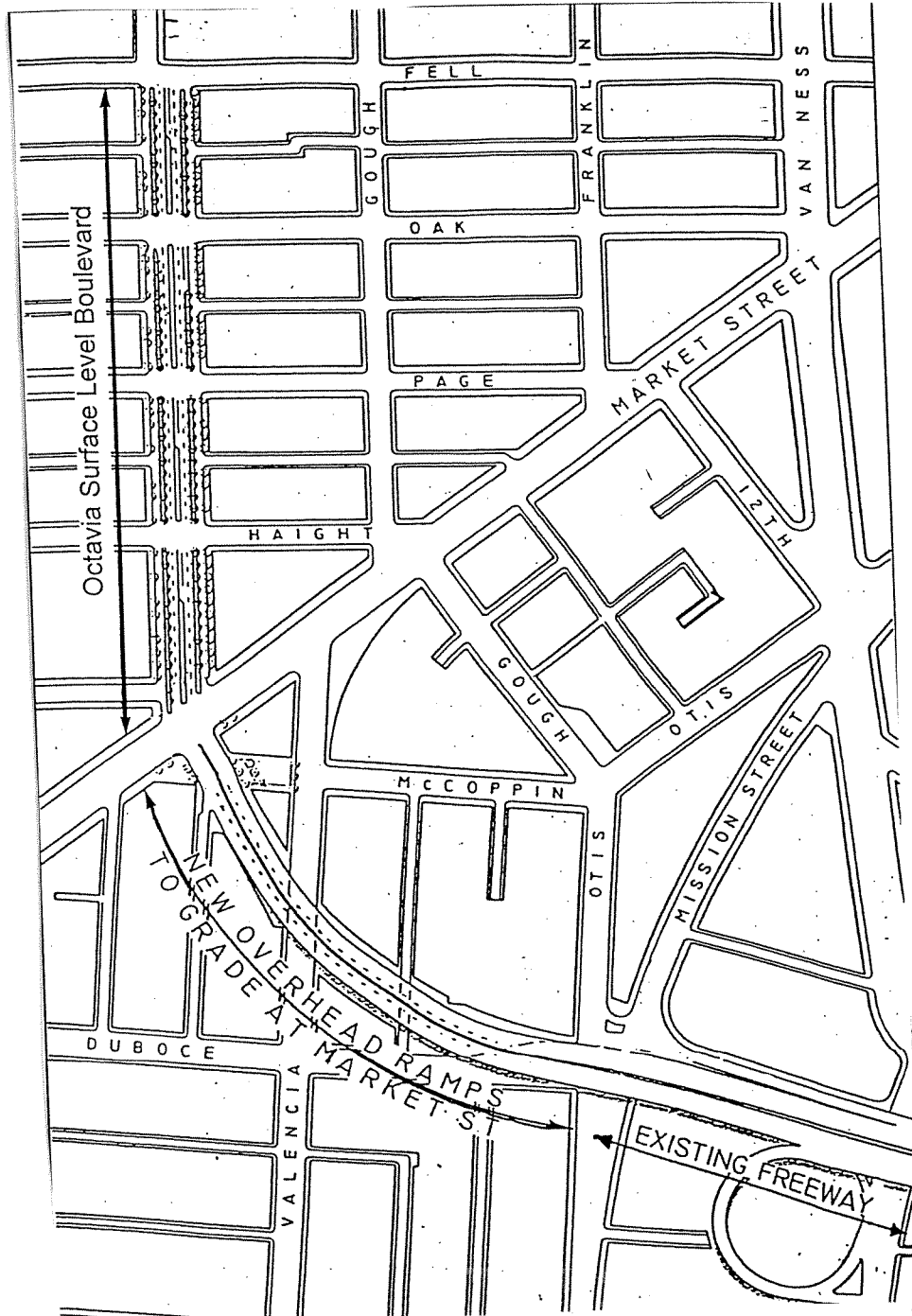
The Authority is indebted to the staff members for their contribution to making this SAR possible. The principal author SAR was Tilly Chang, Manager of Planning, with assistance from Paul Ward, Manager of Capital Projects, and consultants John Wilson and Parsons Engineering. The report also benefitted from review by staff of the Planning Department, Muni, Department of Parking and Traffic, Department of Public Works and Caltrans. Jeffrey Tumlin and Mathew Ridgeway also provided valuable input. Maria Lombardo, Deputy Director, provided overall guidance on the report and research assistance was provided by Adam Leigland, Forest Atkinson and Steven Nguyen.

JOSE LUIS MOSCOVICH, EXECUTIVE DIRECTOR

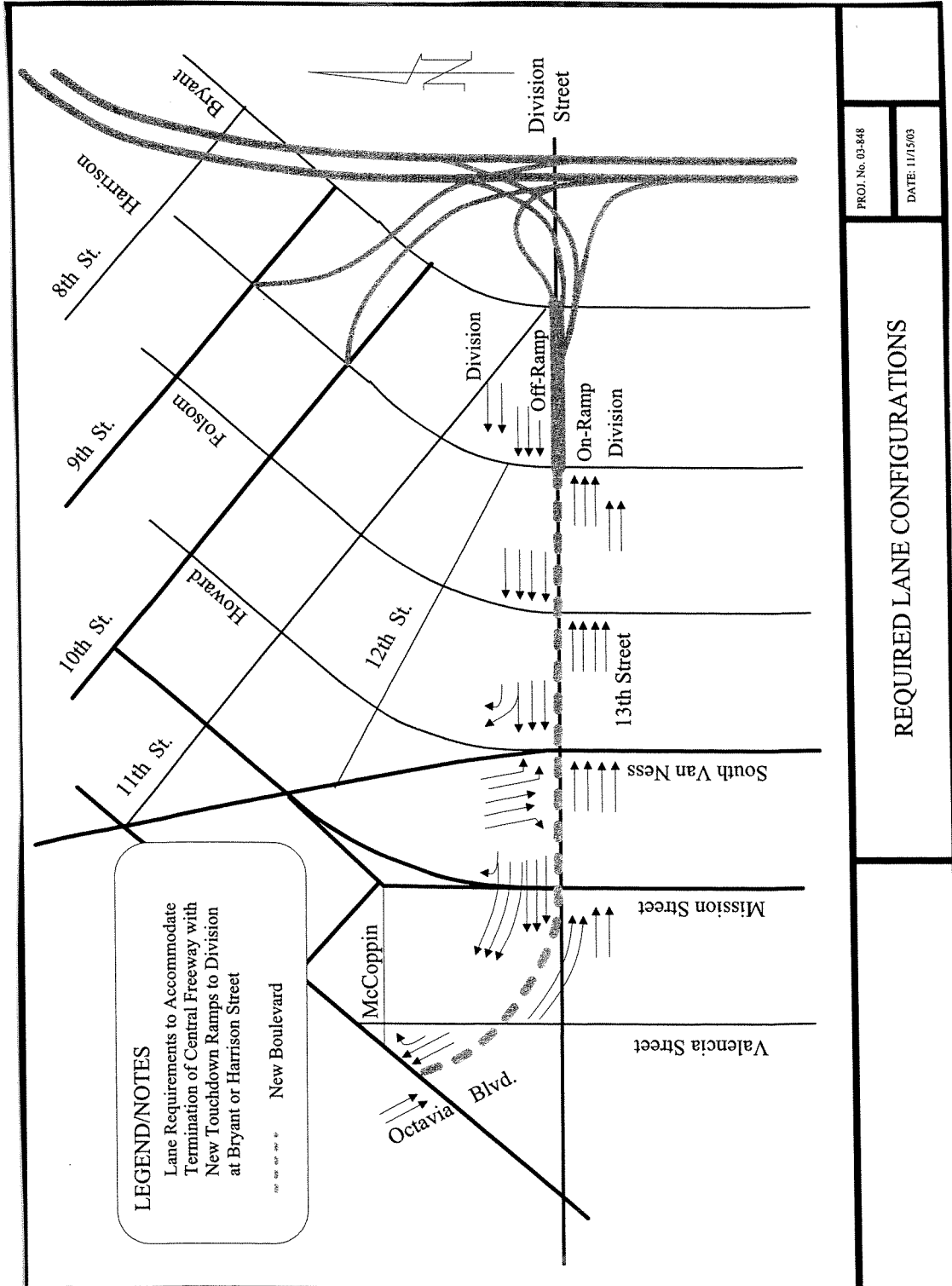
Appendix A: Chronology of Key Events

- 11/97 San Francisco voters pass Proposition H
- 11/98 San Francisco voters pass Proposition E, which overturns 1997's Prop H and calls for retrofitting the existing structure from the I-80/US-101 split to Mission Street, bringing the freeway to surface level at Market Street, and constructing a surface-level boulevard from Market Street to Fell Street.
- 2/99 California State Legislature passes SB798 (codified at Streets and Highway Code Section 72.1), recognizing the project described in Prop E is the voters' choice.
- 2/99 Board of Supervisors passes Resolution 115-99, creating a Central Freeway Project Office (CFPO) and placing the CFPO in charge of project development.
- 3/99 Pursuant to Res 115-99, SFCTA and DPW enter into a Memorandum of Agreement to clarify agency roles and responsibilities with respect to the Central Freeway project.
- 11/99 San Francisco voters pass Proposition I. Prop I called for demolition of the Central Freeway from Market to Fell and creation of a new "Octavia Boulevard" in its place.
- 9/00 Caltrans Cooperative Agreement No. 4-1828-C, sets forth the "respective obligations of the parties with respect to the transfer of the Property and the development, construction and maintenance of the Central Freeway Replacement Project".
- 10/01 Board of Supervisors passes Resolution 824-01 which directs that the allocation of revenue from the sale of excess Central Freeway right-of-way shall proceed according to Prop I.
- 3/03 Demolition of the Central Freeway begins
- 6/03 The CFCAC unanimously adopts a motion of support for the design of the Central Freeway/Octavia Boulevard project
- 7/03 SFCTA passes Resolution 04-02, unanimously approving the detailed design of the Central Freeway/Octavia Boulevard project.
- 7/03 Demolition of the Central Freeway is complete
- 8/03 SFCTA requests SAR to examine implications of changing the location of the Central Freeway touchdown
- 9/03 CaDOT awards Central Freeway Replacement Project construction contract to Proven Management, Inc. on September 18, 2003.
- 10/03 Construction begins on Central Freeway portion of the project.
- 10/03 DPW bid opening for Octavia Boulevard Construction package; lowest bidder was Northwest Construction

Appendix B: Central Freeway Replacement Project (Prop E)



Appendix C: Projected Lane Requirements



Appendix D: Possible Ramp Configuration

