# Geary Corridor Bus Rapid Transit Project

FINAL ENVIRONMENTAL IMPACT REPORT (EIR)





SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY

IN PARTNERSHIP WITH



November 2016

This page intentionally left blank.

SCH No. 2008112095

# GEARY CORRIDOR BUS RAPID TRANSIT PROJECT

City and County of San Francisco, California

### FINAL

### ENVIRONMENTAL IMPACT REPORT

#### **PREPARED PURSUANT TO:**

Federal Transit Law (49 U.S.C. Chapter 53); Council on Environmental Quality 40 CFR 1500/1508; 49 U.S.C. § 303 (formally Department of Transportation Act of 1966, §4(f)); National Historic Preservation Act of 1966, §106(54 U.S.C. §300101);
Executive Order 11990 (Protection of Wetlands); Executive Order 11988 as amended (Floodplain Management); Executive Order 13690 (Federal Flood Risk Management Standard); Executive Order 12898 (Environmental Justice); and California Environmental Quality Act Title 24 CCR, California Public Resource Code 21000 et seq.

By the

#### SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY

and the

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

hang Tilly Chang

Executive Director San Francisco County Transportation Authority

Edward D. Reiskin Director of Transportation San Francisco Municipal Transportation Agency

12/6/16

December 6, 2016

This page intentionally left blank.

### **TABLE OF CONTENTS**

CHA	APTER 1 INTRODUCTION	1-1
1.1	Organization of the Final EIR	1-1
1.2	Project Background	1-2
1.3	Publication of Draft EIS/EIR and Public Comments	1-3
1.4	Changes to the Hybrid Alternative/SRA in Response to Public Comments on the Draft	
	EIS/EIR	1-4
	1.4.1 Retention of Webster Street Pedestrian Bridge	1-4
	1.4.2 Retention of Spruce-Cook Local/Express Bus Stops (No Rapid Stops)	1-4
	1.4.3 Additional Pedestrian Improvements	1-4
1.5	CEQA Requirements for a Final EIR	1-5
1.6	Requirements for and Consideration of Recirculation	1-5
1.7	Agency Approvals	1-6
CH	APTER 2 ALTERNATIVES	2-1
2.1	Introduction	2-1
2.2	Planning History	2-2
	2.2.1 No Build Alternative	2-3
	2.2.2 Alternative 2: Side-Lane Bus Rapid Transit	2-4
	2.2.3 Alternative 3: Center-Lane Bus Rapid Transit with Dual Medians and Passing Lanes	2-6
	2.2.4 Alternative 3-Consolidated: Center Lane Bus Rapid Transit with Dual Medians and	
	Consolidated Bus Service	2-7
	2.2.5 Hybrid Alternative (Staff-Recommended Alternative)	2-8
2.3	Changes to the Staff-Recommended Alternative	2-9
	2.3.1 Remove BRT Stops at Spruce/Cook; Retain Local and Express Stops	2-9
	2.3.2 Retain Webster Street Pedestrian Bridge	2-10
	2.3.3 Additional Pedestrian Improvements	2-13
CH	APTER 3 TRANSPORTATION	3-1
3.1	Introduction	3-1
3.2	Corridor Travel Patterns	3-2
3.3	Transit Conditions	3-2
3.4	Automobile Traffic	3-9
3.5	Pedestrian and Bicycle Transportation	3-15
3.6	Parking and Loading Conditions	3-20
CH	APTER 4 AFFECTED ENVIRONMENT, ENVIRONMENTAL	
	CONSEQUENCES, AND AVOIDANCE, MINIMIZATION AND/OR	
	MITIGATION MEASURES	4-1
4.1	Land Use	4-1
4.2	Community Impacts	4-2
4.3	Growth	4-3
4.4	Visual Resources	4-4
4.5	Cultural Resources	4-8

4.6	Utilities	4-10
4.7	Geology/Soils/Seismic/Topography	4-11
4.8	Hazards and Hazardous Materials	4-12
4.9	Hydrology and Water Quality	4-13
4.10	Air Quality and Greenhouse Gas Emissions	4-14
4.11	Noise and Vibration	4-16
4.12	Energy	4-18
4.13	Biological Resources	4-19
4.14	Environmental Justice	4-20
4.15	Constructions Methods and Impacts	4-21
4.16	Irreversible and Irretrievable Commitment of Resources	4-24
4.17	Relationship between Local Short-Term Uses of the Environment and the Maintenance	
	and Enhancement of Long-Term Productivity	4-25
CHA	PTER 5 PUBLIC PARTICIPATION	5-1
5.1	Overview	5-1
5.2	Interagency Consultation	5-1
5.3	Community Involvement	5-1
	5.3.1 Scoping Phase	5-2
	5.3.2 Community Meetings on Project Alternatives	5-2
	5.3.3 Citizens Advisory Committee	5-3
	5.3.4 Meetings with Local Groups and Organizations	5-4
	5.3.5 Corridor Surveys and Visualization Kiosks	5-5
	5.3.6 Informational Materials	5-6
	5.3.7 Cultural Resources Community Consultation	5-6
	5.3.8 Outreach during the Draft EIS/EIR Circulation and Public Comment Period	5-6
	5.3.9 Outreach following the Draft EIS/EIR Circulation Period	5-8
5.4	Community Input Received after the Draft EIS/EIR Circulation Period	5-9
	5.4.1 Responses to Key Issues Raised	5-9
5.5	Current and Future Outreach Efforts	5-12
CHA	PTER 6 FINANCIAL ANALYSIS	6-1
6.1	Capital Costs	6-1
	6.1.1 FTA Small Starts-Funded Project Elements	6-2
	6.1.2 Budgeted/Planned Funding	6-3
	6.1.3 Other Potential Funding Sources	6-4
6.2	Operations and Maintenance Costs	6-7
	6.2.1 Operating Costs	6-7
	6.2.2 Maintenance Costs	6-8
6.3	Coordination with MTC and Plan Bay Area Consistency	6-9
6.4	Financial Analysis Summary	6-9

### List of Tables

Table 2-1	Changes to the Hybrid Alternative/SRA: Spruce/Cook Bus Stops/Service	2-10
Table 6-1	Proposed Geary Corridor Funding Packages	6-3
Table 6-2	Planned and Potential Geary Corridor Funding Sources	6-7
Table 6-3	Annual Operating and Maintenance Costs for Proposed Service	6-8

## List of Figures

Figure 2-1	Schematic Diagram of the Build Alternatives	2-3
Figure 2-2	Proposed Typical Cross-Section of Alternative 2	2-5
Figure 2-3	Proposed Typical Cross-Section of Alternative 3	2-6
Figure 2-4	Proposed Typical Cross-Section of Alternative 3-Consolidated	2-7
Figure 2-5	Hybrid Alternative/SRA	2-11

### Appendices

Appendix A	Errata Summary
Appendix B	Response to Comments
Appendix C	Mitigation Monitoring and Reporting Program
Appendix D	Plan Drawings of the Build Alternatives