

LINK21

CONNECT NORTHERN CALIFORNIA

STRATEGIC PROGRAM PLAN

CHAPTER 11: PLANNING AND ENGINEERING

April 2022

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ISSUE AND REVISION RECORD

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		BART/CCJPA REVIEWER(S)	BART/CCJPA APPROVER	
1.A	02/07/2020	Gay Knipper, HNTB	Peter Gertler, HNTB	WPA.01 DRAFT submittal
				<i>Placeholder chapter – no review requirement</i>
2.A	07/30/2020	Greg Oslund, HNTB	Gay Knipper, HNTB	WPA.02 V1 DRAFT submittal
	08/25/2020	Camille Tsao, CCJPA	Sadie Graham, BART	WPA.02 V1 DRAFT submittal review
2.B	10/30/2020	Greg Oslund, HNTB	Gay Knipper, HNTB	WPA.02 V1 DRAFT FINAL submittal
				<i>No review requirement</i>
3.A	04/16/2021	Greg Oslund, HNTB	Steve Lavelle, Intueor	WPA.03 V2 Working DRAFT submittal
	05/13/2021	Sadie Graham, BART	Sadie Graham, BART	WPA.03 V2 Working DRAFT submittal review
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	08/13/2021	Sadie Graham, BART	Sadie Graham, BART	WPA.03 V2 DRAFT submittal review
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4	04/07/2022	Greg Oslund, HNTB	Steve Lavelle, Intueor	WPA.04 DRAFT submittal

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SHAREPOINT PATH

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ACRONYMS AND ABBREVIATIONS

ACRONYM/ABBREVIATION	DEFINITION
BART	San Francisco Bay Area Rapid Transit
CCJPA	Capitol Corridor Joint Powers Authority
PMC	Program Management Consultants
PMT	Program Management Team
SPP	Strategic Program Plan
STC	Salesforce Transit Center

LINK21 PROGRAM TEAM NAMES

TEAM NAME	TEAM MEMBERS
PMC	The HNTB Team
PMT	BART/CCJPA + PMC
Consultants	Consultants supporting program identification/project selection
Link21 Team	PMT + Consultants

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11. PLANNING AND ENGINEERING

11.1. Purpose

The Program Management Consultants (PMC) lead the development of the technical studies in close collaboration with the San Francisco Bay Area Rapid Transit (BART)/Capitol Corridor Joint Powers Authority (CCJPA). The purpose of the technical studies is to:

- Assess and document the high-level technical issues potentially impacting the Link21 Program (Link21), including a review of the lessons learned and the best practices of other megaprojects in the U.S. and abroad.
- Review and develop the concepts identified in prior studies and stakeholder engagement and utilize these concepts to build and evaluate the initial program alternatives within the Business Case Framework.

11.2. Strategy

The planning and engineering studies will be conducted consistent with the overall Link21 development strategy. The strategy is structured around four development and delivery phases:

- Phase 0: Program Definition
- Phase 1: Program Identification
- Phase 2: Project(s) Selection
- Phase 3: Project(s) Delivery

Each phase has specific objectives, deliverables, and outcomes that support the Stage Gate Process described in the *Master Timeline* and *Stage Gate Process* foundational documents and the *Strategic Program Plan (SPP) Chapter 4*. The planning and engineering elements are summarized in the following sections.

11.2.1. Phase 0: Program Definition

Phase 0: Program Definition includes preparation of the initial planning and engineering studies needed to define rationally connected corridors and the potential opportunities and constraints related to service, train technology, and infrastructure within the Link21 study area. At the conclusion of Phase 0, the planning and engineering work will be documented in the *Phase 0 Planning and Engineering Technical Summary Report*, which will serve as the starting point for the development and evaluation of the program concepts in Phase 1.



11.2.2. Phase 1: Program Identification

Phase 1: Program Identification includes the identification and refinement of the program concepts based on the evaluation of concepts conducted by the Business Case Methodology. The final deliverable is the selection of the Link21 Program and the priority project(s) for advancement to Phase 2.

11.2.3. Phase 2: Project Selection

Phase 2: Project Selection considers the prior project(s) planning and engineering in more detail, identifies project alternatives, and prepares conceptual engineering drawings and cost estimates for each project alternative considered in the National Environmental Policy Act (NEPA)/California Environmental Quality Act (CEQA) analysis. The final deliverable is the preferred project alternative for advancement to Phase 3.

11.2.4. Phase 3: Project Delivery

Phase 3: Project Delivery develops the project design from conceptual engineering to final engineering and produces a set of plans, specifications, and estimates suitable for phasing, bidding, and constructing the project. At the conclusion of Phase 3, the project improvements are in place and open for service.