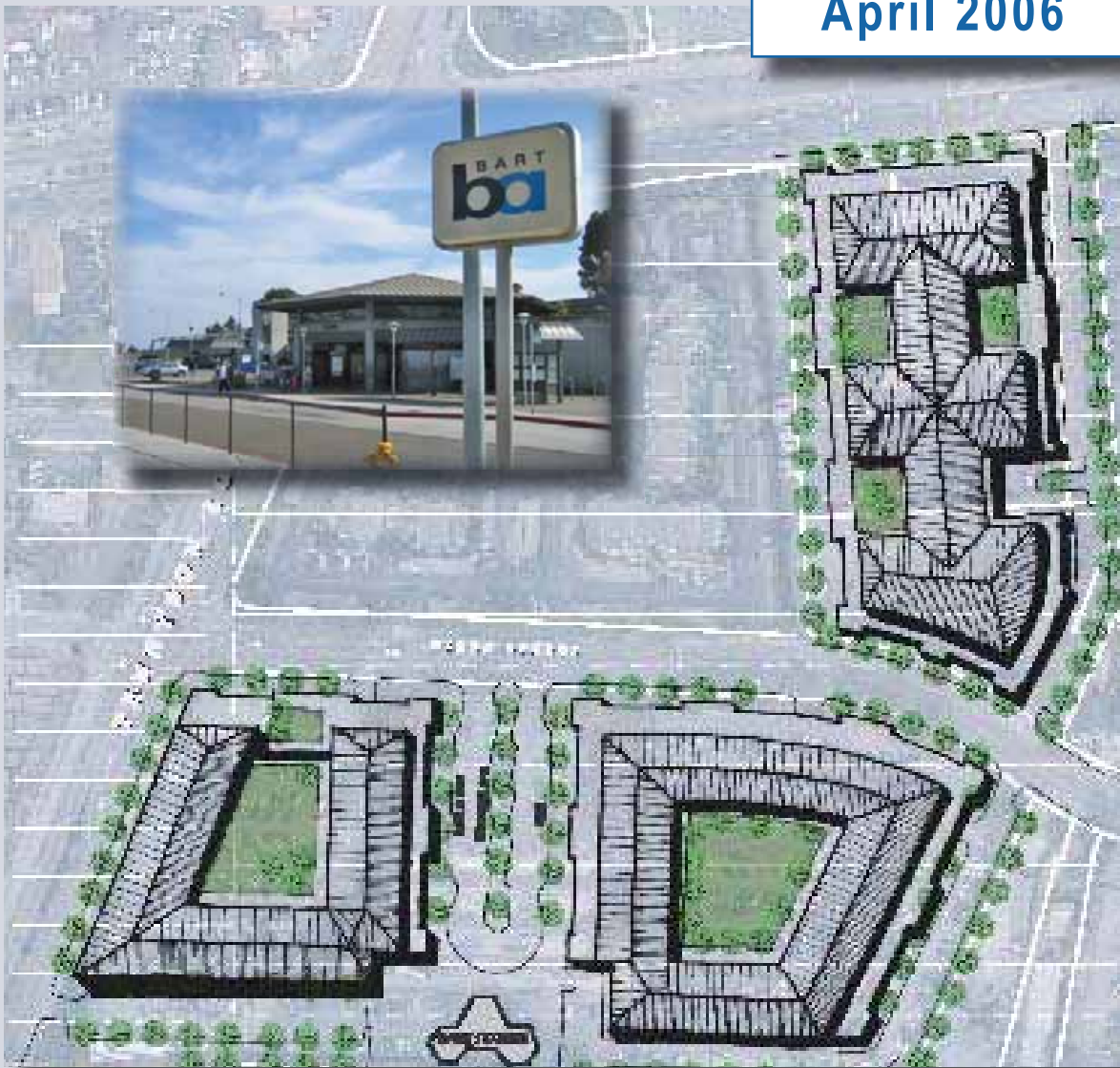




South Hayward BART Development, Design and Access Plan

FINAL REPORT

April 2006



Nelson|Nygaard
consulting associates

In association with:

COMMUNITY DESIGN • ARCHITECTURE
REGION • CITY • NEIGHBORHOOD • BUILDING



Corey, Canapary and Galanis

Acknowledgments

This project was led by the Bay Area Rapid Transit District (BART), in partnership with the City of Hayward. It was made possible by funding from a Caltrans Community-Based Planning Grant.

BART Staff

Val Menotti, Deputy Planning Manager – Stations

Nashua Kalil, Senior Planner

City of Hayward Staff

David Rizk, Senior Planner

Consultant Team

Nelson\Nygaard Consulting Associates

Jeffrey Tumlin, Adam Millard-Ball, Krute Singa, Casey Hildreth

Community Design + Architecture

Phil Erickson, Clark Wilson, Bharat Singh

Strategic Economics

Dena Belzer, Nadine Fogarty

Corey, Canapary & Galanis Research

Jon Canapary

Table of Contents

Chapter 1 Planning Context 1-1
 Purpose of the Plan 1-1
 Policy Context..... 1-4
 Planning Process 1-4

Chapter 2 Proposed Design Plan..... 2-1

Chapter 3 Access Improvements 3-1
 Transit Access 3-1
 Bicycle Access..... 3-9
 Automobile Access and Parking..... 3-9
 Access Survey 3-9
 Usage and Access..... 3-10
 Access Mode..... 3-10
 Demographics 3-10
 Gender..... 3-10
 Age..... 3-10
 Ethnicity 3-10
 Recommendations..... 3-15
 Impact on Mode Share..... 3-20

Chapter 4 Design Guidelines..... 4-1
 A “Vision” 4-1

Chapter 5 Next Steps 5-1

Appendix A Detailed Development OptionsA-1
 Introduction.....A-1

Appendix B Public Workshop Comments.....B-1

Appendix C Replacement Parking AnalysisC-1

Appendix D Intercept Study..... D-1

Appendix E Bus Transfer Analysis E-1

Appendix F BART TOD Policy F-1



Table of Figures

Figure 1-1 Draft South Hayward BART/Mission Boulevard Concept Plan (Subarea 3) 1-1

Figure 1-2 Station Area Location..... 1-3

Figure 1-3 BART Access Hierarchy..... 1-5

Figure 2-1 Bus Bay Requirements at South Hayward 2-2

Figure 2-2 Intermodal Scenario 1 – Existing Location 2-4

Figure 2-3 Intermodal Scenario 2 – Relocate Existing Configuration 2-5

Figure 2-4 Intermodal Scenario 3 – Central Island 2-6

Figure 2-5 Intermodal Scenario 4 – Dixon Street..... 2-7

Figure 2-6 Refined Scenario – Roof Plan 2-10

Figure 2-7 Refined Scenario – Parking Plan..... 2-11

Figure 2-9 Summary of Residual Land Values of Development Scenarios 2-18

Figure 2-10 Ridership and Revenue Impacts..... 2-23

Figure 2-11 Ridership and Revenue Impact of Development Options 2-23

Figure 3-1 Transit Mode Share for Station Area Residents..... 3-2

Figure 3-3 AC Transit Route Map 3-4

Figure 3-2 AC Transit Routes Serving South Hayward BART 3-4

Figure 3-4 Key Pedestrian Access Issues..... 3-7

Figure 3-5 Parking Supply and Occupancy Summary – South Hayward Station..... 3-9

Figure 3-6 South Hayward Patron Survey Findings..... 3-10

Figure 3-7 Access Mode to South Hayward BART Station..... 3-11

Figure 3-8 South Hayward Mode of Access..... 3-13

Figure 3-9 Proposed Access Improvements to South Hayward BART Station 3-15

Figure 3-10 Recommended Access Improvements 3-16

Figure 3-11 Streetscape Enhancements From New Development..... 3-18

Figure 3-12 Access Mode Share at Buildout (60% Replacement Parking)..... 3-22

Figure 3-13 Access Mode Share at Buildout (75% Replacement Parking)..... 3-23

Figure 5-1 Accommodating Parking During Construction 5-3

Figure A-1 Scenario 3A – Maximized Parking A-3

Figure A-2 Scenario 3B – Minimized Parking..... A-5

Figure A-3 Scenario 3C – Maximized Density..... A-7

Figure A-4 Scenario 3D (Separate Parcels East of Dixon) – Roof Layout A-10

Figure A-5 Scenario 3D (Separate Parcels East of Dixon) – Parking Layout..... A-11

Figure A-6 Scenario 3D (Combined Parcels East of Dixon) – Roof Layout..... A-12

Figure A-7 Scenario 3D (Combined Parcels East of Dixon) – Parking Layout..... A-13

Figure B-1 Public Comments..... B-2

Figure B-2 Potential Access Improvements (17 responses)..... B-4

CHAPTER 1 PLANNING CONTEXT

Purpose of the Plan

The South Hayward BART Station is one of the lowest ridership stations in the BART system. Some of the surrounding area, particularly to the north of the station, consists of lower-density, single-family homes; there are also several apartment complexes and townhome-style developments. Mission Boulevard supports some commercial uses, including an auto body property (Perry & Key) and a motel. Numerous parcels, however, are vacant, a remnant of the since-abandoned plans for the Hayward Bypass. The station parking lot is one of the few on any BART line that does not fill to capacity on an average day.

The City of Hayward's current planning efforts for the Mission Boulevard Corridor, however, envisage

a vibrant, pedestrian-friendly neighborhood that takes full advantage of BART. In order to realize this type of neighborhood, the Draft South Hayward BART / Mission Boulevard Concept Plan (Concept Plan), which is scheduled for consideration by City Council in Summer 2006, permits residential densities of up to 100 units per acre, with ground-floor commercial uses. Figure 1-1 shows the portion of the City's Concept Plan that encompasses the BART station area. The Concept Plan was focused on vacant and underutilized commercial parcels to the east of the BART tracks, and excluded the stable, mostly single-family neighborhoods to the west of the tracks and between Tennyson Road and Bowman School.

Figure 1-1 Draft South Hayward BART/Mission Boulevard Concept Plan (Subarea 3)



Some of the primary uses envisioned in the City's Concept Plan for the station area include high-density residential with corner retail on the existing BART parking lots and the Perry & Key site. A grocery store and community center are earmarked for the west side of Mission Boulevard at Valley Vista Avenue – necessitating good pedestrian connections to the BART station and adjacent residential uses. Commercial uses, such as retail, office or services, would be located on the east side of Mission Boulevard at Tennyson Road, while the entire Mission Boulevard corridor from Harder Road to Industrial Parkway would be densified with residential and commercial uses.

This report was prepared for BART to complement the City's planning effort. It documents a focused analysis of access improvements and transit-oriented development (TOD) opportunities in the immediate station area. This effort has been designed to be consistent with the City's Concept Plan, and the two efforts have been undertaken in close coordination. However, this report naturally presents options for the BART station area in a greater level of detail than does the City's Draft Concept Plan.

The City of Hayward General Plan provides the overarching policy context for both plans, and is extremely supportive of transit, walking, and cycling. It also calls for concentrating jobs and housing near transit stations or along major bus routes to reduce congestion. The General Plan identifies the South Hayward BART station as an area for “mixed-use development (e.g. housing above commercial) to ensure a pedestrian-friendly environment that has housing, jobs, shopping, parks and recreation in close proximity.”

One of the most important functions of this plan is to document the history and thought process behind the design of the alternatives. The details of the plan will evolve once a developer is selected. However, this document identifies some of the key constraints behind major decisions on access, types of uses and the level of replacement parking. It also identifies some of the features – such as pedestrian connections to Mission Boulevard and Tennyson Road – that will need to be incorporated into any final design.

This plan encompasses the 9.2 acres owned by BART – the surface parking lots on both sides of Dixon Street, the bus intermodal facility and the station itself (see photo) – as well as key adjacent parcels identified by the City as opportunity sites that may benefit from being developed in tandem. Figure 1-2 shows the study area, which is indicated by the yellow line. Except for the western part towards Mission Boulevard (the Perry & Key site) and public rights-of-way, all this land is owned by BART.



An aerial view of the station area, with BART-owned property outlined.

Figure 1-2 Station Area Location



Policy Context

The framework for this study is set not only by the South Hayward BART/Mission Boulevard Concept Plan developed by the City of Hayward, but also by BART's own recent policy initiatives. These include:

- **Strategic Plan.** BART's 1999 Strategic Plan set the overarching goals of increasing BART ridership while reducing the access share of the single occupancy vehicle by 10%. The Strategic Plan also had one (of seven) focus areas on Land Use and Quality of Life.
- **TOD Policy.** BART's TOD policy, adopted by the BART Board of Directors in July 2005, promotes high-quality, intensive development around stations. The policy allows flexibility in replacing commuter parking lost to development of surface lots (if key goals, including transit ridership growth, can be met), and flexibility in locating parking facilities off BART-owned properties. The policy also commits BART to work proactively with cities and communities to plan for TOD, which covers the larger area around stations, rather than just joint development on BART property. This may involve a Joint Powers Authority approach with cities that can allow flexibility, enhance financing and expedite implementation. The full TOD policy is provided in the Appendix.
- **Access Targets.** BART's policy is to seek to reduce the share of customers who drive alone and park in the system, in favor of increased use of carpools, transit, walking and cycling. BART's Station Access Guidelines set out BART's policies for achieving these goals, including a formal access hierarchy (Figure 1-3), which prioritizes non-auto modes for funding and physical space.

This planning effort is also informed by the A-Line Study conducted by BART in 2005. This provides a broad overview of tradeoffs between

transit-oriented development (TOD) and access strategies along the nine-station corridor between Lake Merritt and Fremont. One of the most relevant conclusions is that South Hayward is not the most appropriate station to increase BART ridership through expanding park-and-ride facilities. This is due to the existing surplus of commuter parking, the station's isolated location away from major freeways and the City and BART's desire for high-density housing.

In contrast, the Hayward BART station has existing commuter parking capacity, and the City of Union City has already expressed a desire to expand commuter parking at the Union City BART Station. The A-Line Study found that BART can achieve a significant increase in ridership without adding parking, presuming TOD is supported by local land-use authorities.

Planning Process

The South Hayward BART Development, Design and Access Plan drew on a range of data sources, planning efforts and stakeholder engagement opportunities. Some of the most important include:

Review of Local and Regional Plans

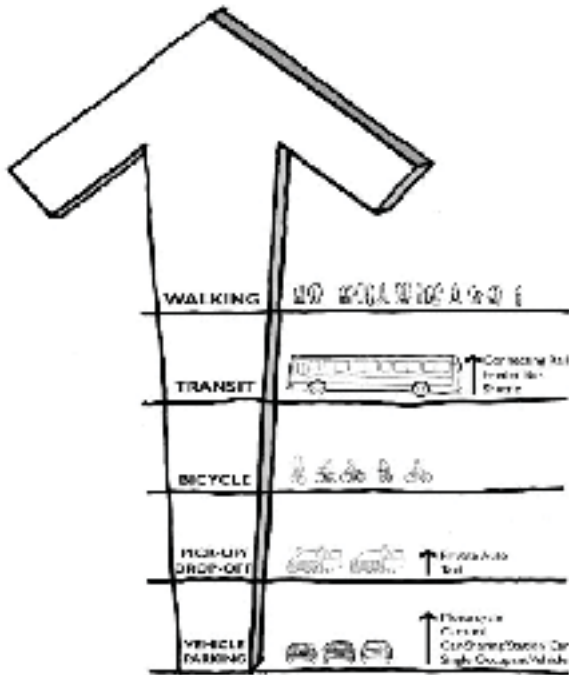
- South Hayward BART/Mission Boulevard Draft Concept Plan (ongoing)
- City of Hayward General Plan (2002)
- City of Hayward Bicycle Master Plan (1997)
- Route 238 Corridor Improvement Project (2005)
- Central Alameda County Community-Based Transportation Plan (2004)

New Data Collection

- Intercept survey of BART patrons (June 2005)
- Bus transfer analysis (June 2005)
- Informal patron interviews (June 2005)

- Supplementary meetings with City and AC Transit staff
- Community workshop to review access and site design issues
- Community workshops and Planning Commission/City Council work sessions held as part of the wider South Hayward BART/ Mission Boulevard Concept Plan

Figure 1-3 BART Access Hierarchy



Source: BART Station Access Guidelines

Input from BART, Partner Agencies and Stakeholders (ongoing)

- Workshop to review the alternative concepts with staff from the following agencies:
 - BART (Planning, Property Development, Customer Access, Maintenance & Engineering)
 - AC Transit
 - City of Hayward Public Works Department
 - City of Hayward Community & Economic Development Department

CHAPTER 2 PROPOSED DESIGN PLAN

The first issue that the design team sought to resolve relates to site circulation and the bus intermodal design, as the circulation framework has fundamental implications for the development alternatives. The first section of this chapter therefore discusses the intermodal scenarios.

The second section presents the development alternatives that were explored through the planning process, culminating in a Refined Scenario. A range of different development options are possible within the physical envelope of this refined scenario; two of the most promising are discussed in detail in this chapter, with others presented in Appendix A. One of the main differences between these two alternative development options is the level of replacement parking – they are therefore referred to as the “60% replacement” and “75% replacement” alternatives.

Intermodal Design

The existing bus intermodal facility is efficient from an operational perspective, but takes up a large amount of land – 0.45 acres – and provides a perceived barrier between the BART station and the wider neighborhood. The first task was to develop a layout for the intermodal facility that efficiently enhances the essential transportation functions, but sets the stage for placemaking, development and improved pedestrian connectivity to the neighborhood. Observations of bus patrons indicated that 63% were transferring to or from BART, with 12% transferring between buses and 25% destined for the neighborhood.

Working with AC Transit and BART staff, the planning team identified several minimum requirements for the intermodal facility in order to

inform the development of alternative intermodal scenarios:

- Nine 60’ independently accessible bus bays to accommodate 40’ buses (articulated buses are not envisioned on routes serving South Hayward). The basis for this requirement is shown in Figure 2-1. This is the same number of bays as provided at present; however, by using the existing bays more efficiently, it provides the flexibility for future service enhancements.
- A turnaround facility, since all routes arrive and depart via Tennyson Road.
- Curb radii and other specifications as detailed in AC Transit’s *Designing For Transit* manual.



The existing intermodal facility cuts off the station from the wider neighborhood. Photo: CD+A

Figure 2-1 Bus Bay Requirements at South Hayward

	Route(s)	Notes
1	99 Mission Northbound	
2	99 Mission Southbound	
3	83 Clawiter (weekdays) 86 Winton (weekdays) 92 Southland (weekends)	83 and 86 have offset frequencies and terminate at South Hayward
4	210 Fremont Boulevard	Terminates at South Hayward
5	77 Soto Northbound	
6	77 Soto Southbound	
7	91 Redwood (both directions)	Off-peak, terminates at South Hayward
8	Future expansion	Could be AC Transit, Union City Transit or shuttle routes
9	Future expansion	

Four scenarios were developed to reconfigure the bus and kiss-and-ride facility.

- Intermodal Scenario 1 would leave the existing bus transfer and drop-off facility in its current location (Figure 2-2)
- Intermodal Scenario 2 would move the bus transfer and drop-off facilities adjacent to Dixon Street, but in roughly the same configuration of bays (Figure 2-3)
- Intermodal Scenario 3 would align the bus transfer facilities perpendicular to Dixon Street, extending from Dixon Street to the station with bus bays located on a central island and drop-off around the perimeter (Figure 2-4)
- Intermodal Scenario 4 (Figure 2-5) explored the possibilities of moving all the bus and drop-off facilities onto Dixon itself

Intermodal Scenarios 1 and 2 are operationally efficient, but require the most land area and cut the station off from the neighborhood. In addition, they create an awkward remnant parcel between the station and the bus intermodal (Intermodal Scenario 2), or between the intermodal and

Dixon Street (Intermodal Scenario 1). It would be difficult to use this piece of land for either new development or quality, defensible public open space.

Intermodal Scenario 4 would be the most efficient option in terms of land consumption. However, it would complicate transfers between bus routes and provide a barrier to east-west pedestrian movements between the station and neighborhood. Most importantly, it would require a roundabout or turnaround on Dixon Street to the south of the station, about which AC Transit and the City had concerns due to bus and traffic operations and the land required.

Intermodal Scenario 3 was therefore selected as the preferred option. It offers a compact design that provides easy bus-bus and bus-BART transfers, minimizing the distance between bus stops and the faregates. The option also integrates a plaza and public space with the intermodal facility, providing wide sidewalks and opportunities for placemaking elements.

Bus stops would be located on the central island, in order to avoid impacts on adjacent uses from idling buses and consolidate bus-to-BART pedestrian movements. Taxis and kiss-and-ride vehicles would be located on the outside of the plaza, and signage and paving would provide guidance to motorists. This space-efficient design is similar to that at Los Angeles Union Station (*see image*). The plans envisage a transit plaza in front of the station itself that would extend along an enhanced streetscape connecting the station with Dixon. The desired retail/residential mix flanking the 25-foot sidewalks would be the primary place-making elements at the station. Dixon Street would provide limited on-street retail parking. However,

curbspace in the station area should be managed flexibly to meet operational needs. For example, should future transit expansion warrant additional bus bays, this may displace some drop-off or taxi activity onto Dixon Street or Tennyson Road.



The bus intermodal at Union Station, Los Angeles, is also used by drop-off traffic

While this remains the preferred option, however, there are several issues with Intermodal Scenario 3 which require further analysis, for example traffic analysis of detailed development plans:

- The quality and character of the main **placemaking** elements related to this central plaza, and the relationship of the residential units and doorways fronting onto the plaza
- **Circulation** patterns, including concerns raised by the City of Hayward and AC Transit regarding the proposed circulation (buses on the inside, with drop-off and taxis on the outside). This is particularly important if any parking garages have a primary entrance on to the loop facility
- **Pedestrian crossings** from the central island to the station
- AC Transit concerns about **congestion impacts on bus movements** due to the close proximity of the bus intermodal entrance to the exit

Figure 2-2 Intermodal Scenario 1 - Existing Location

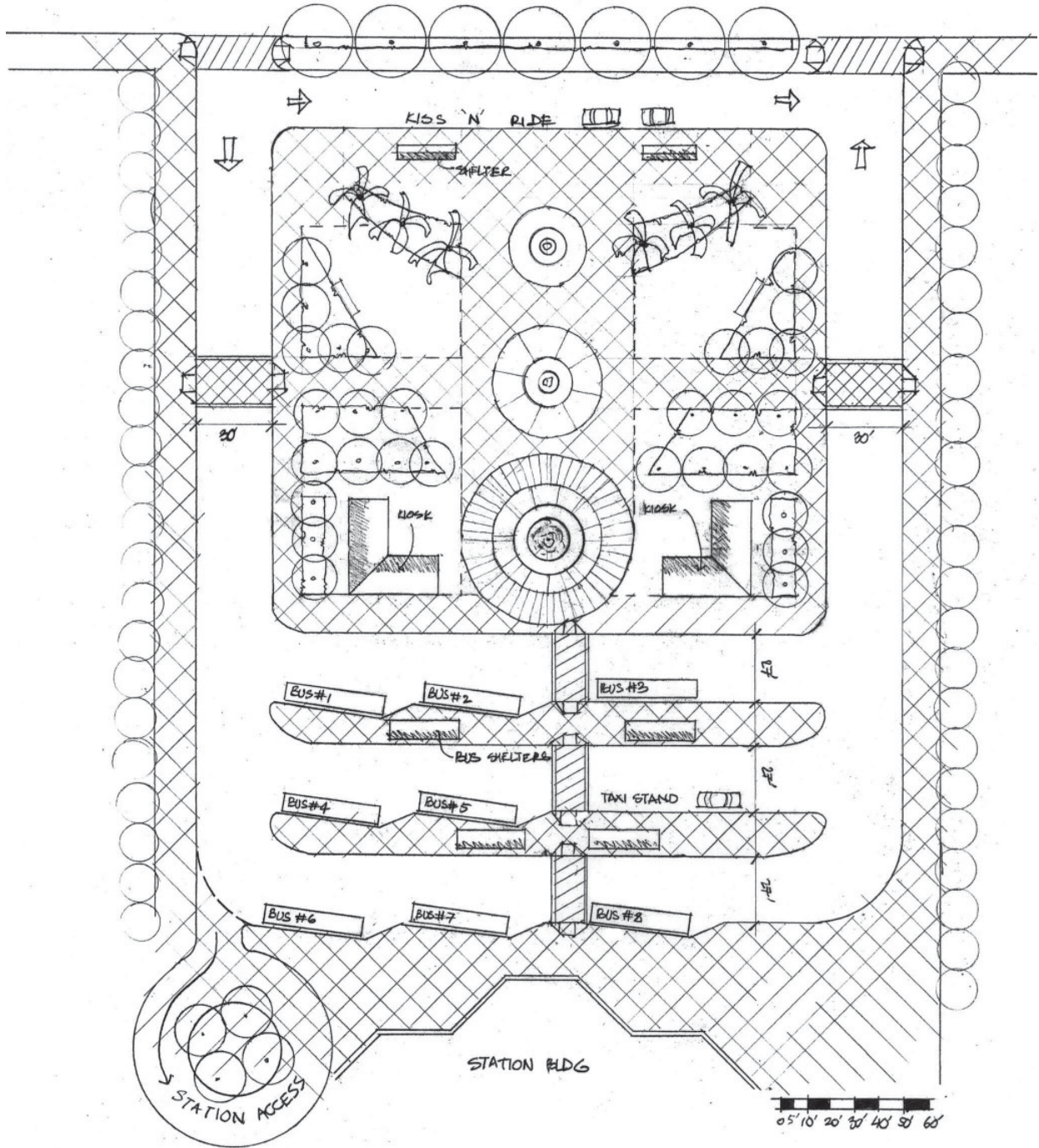


Figure 2-3 Intermodal Scenario 2 - Relocate Existing Configuration

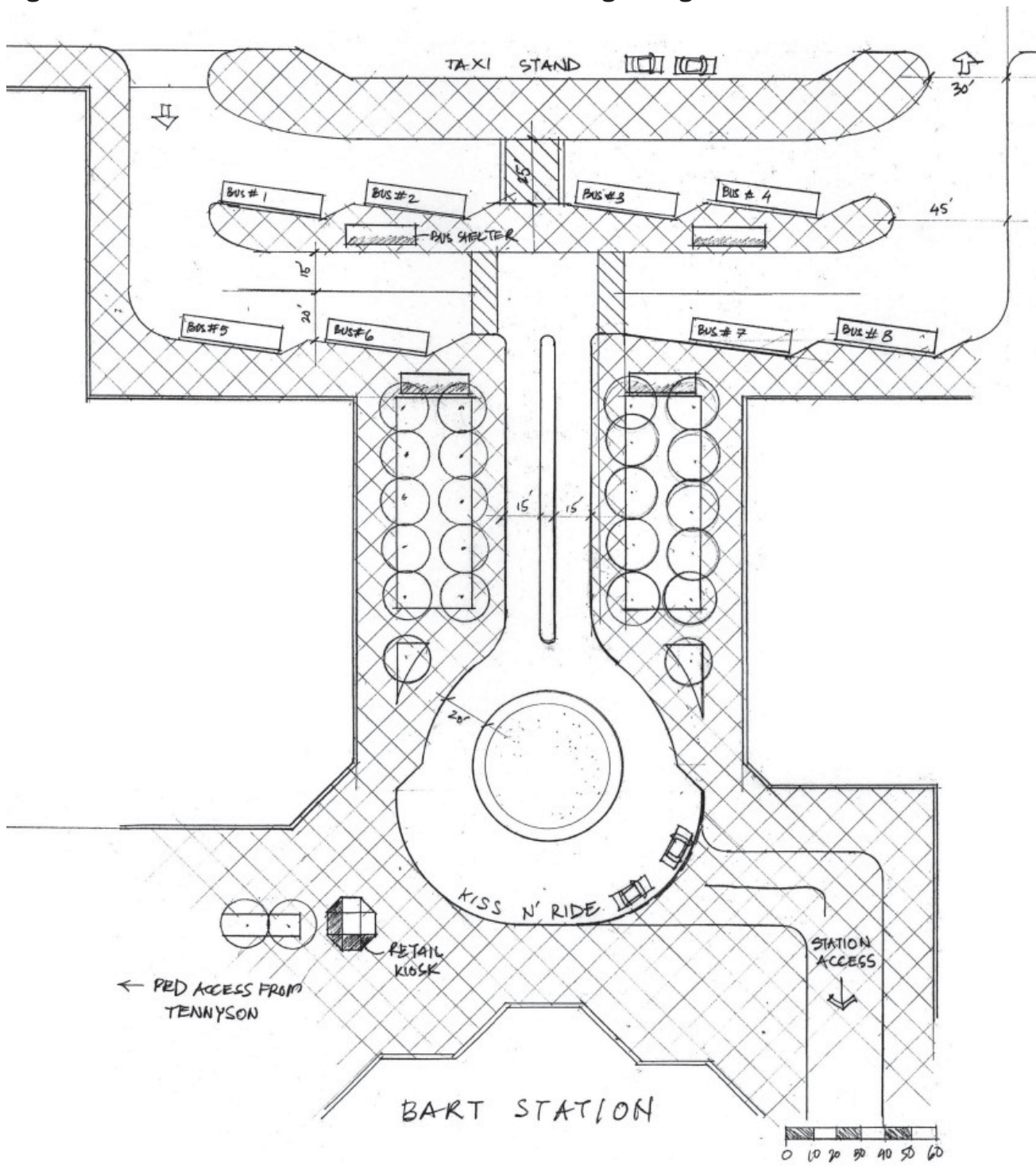
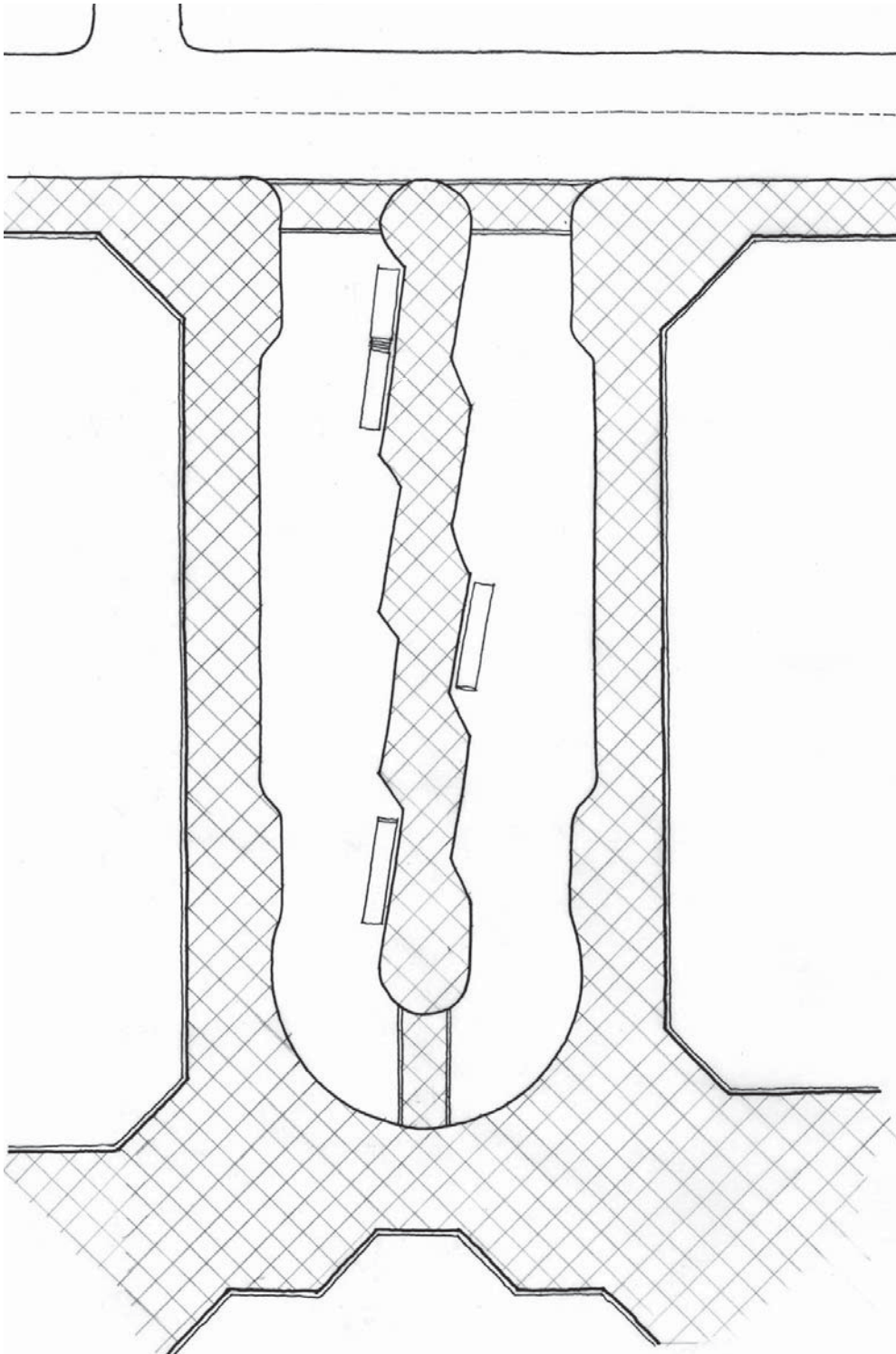


Figure 2-4 Intermodal Scenario 3 - Central Island



ERROR: undefined
OFFENDING COMMAND: load

STACK:

```
{pdf_charpath --stroke-- }  
/_pdf_showproc  
[0.401952 3.44024 0.389851 3.33667 0.559326 4.78718 0.526579 4.50691  
0.380408 3.25585 ]  
(BAY#8)  
-savelevel-
```