Santa Cruz County Regional Transportation Commission's

Interagency Technical Advisory Committee (ITAC)

AGENDA
Thursday, August 20, 2015
1:30 p.m.

RTC Conference Room
1523 Pacific Avenue, Santa Cruz, CA

1. Call to Order

2. Introductions

3. Oral communications

   The Committee will receive oral communications during this time on items not on today's agenda. Presentations must be within the jurisdiction of the Committee, and may be limited in time at the discretion of the Chair. Committee members will not take action or respond immediately to any Oral Communications presented, but may choose to follow up at a later time, either individually, or on a subsequent Committee agenda.

4. Additions or deletions to consent and regular agendas

CONSENT AGENDA

All items appearing on the consent agenda are considered to be minor or non-controversial and will be acted upon in one motion if no member of the Committee or public wishes an item be removed and discussed on the regular agenda. Members of the Committee may raise questions, seek clarification or add directions to Consent Agenda items without removing the item from the Consent Agenda as long as no other committee member objects to the change.

5. Approve Minutes of the June 18, 2015 ITAC meeting – *Page 3*
6. State Highway Operation and Protection Program (SHOPP) Programmed/Funded Project Semi-Annual List – *Page 6*

REGULAR AGENDA

7. Status of ongoing transportation projects, programs, studies and planning documents - Verbal updates from project sponsors

8. Stand Alone Bike Model Tool – *Page 9*
   a. Staff report and presentation from Gina Schmidt, AMBAG GIS Coordinator

9. Metropolitan Transportation Plan (MTP)/Sustainable Communities Strategy (SCS) Updates a. – *Page 10*
   a. Staff Report
   b. Verbal presentation from Eliza Yu, AMBAG Planner
   c. Memorandum to AMBAG Board on Public Involvement Plan
   d. Draft 2040 Public Involvement Plan

10. METRO's Draft Bus Stop Guide – *Page 27*
    a. Staff report and presentation from Erich Friedrich, METRO Transportation Planner
    b. Administrative Draft Bus Stop Guide

11. Caltrans Transportation Concept Report Updates
    a. Verbal update from Kelly McClendon, Caltrans District 5

12. Funding Program Updates - Verbal
    i. Caltrans Planning Grants – Call for Projects August 17, applications due October 30 Information will be online: http://www.dot.ca.gov/hq/tpp/grants.html
    ii. State Transportation Improvement Program (STIP) – currently no STIP capacity for the two new years of STIP; many projects to be re-spread (delayed) statewide
    iii. Regional Surface Transportation Program (RSTP) – anticipated RTC "Call for Projects" Fall 2015
    iv. Active Transportation Program (ATP) – CTC Staff Recommendations available by September 15, program adoption October 21-22, 2015
    v. AB2766 – Air District approval scheduled for September 16, 2015
    vi. Affordable Housing and Sustainable Communities Program (AHSC) – Draft Revised Guidelines anticipated Fall 2015, call for projects anticipated January 2016
    vii. FY15/16 Low Carbon Transit Operations Program applications due November 1, 2015
    viii. Others

13. Adjourn. The next ITAC meeting is scheduled for 1:30pm on September 17, 2015 in the SCCRTC Conference Room, 1523 Pacific Avenue, Santa Cruz, CA.

HOW TO REACH US: *Santa Cruz County Regional Transportation Commission*
1523 Pacific Avenue, Santa Cruz, CA 95060; phone: (831) 460-3200 / fax (831) 460-3215
email: info@sccrtc.org / website: www.sccrtc.org

AGENDAS ONLINE: *To receive email notification when the Committee meeting agenda packets are posted on our website, please call (831) 460-3200 or email rmoriconi@sccrtc.org to subscribe.*

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Santa Cruz County
Regional Transportation Commission
Interagency Technical Advisory Committee (ITAC)

MINUTES

Thursday, June 18, 2015, 1:30 p.m.
SCCRTC Conference Room
1523 Pacific Ave, Santa Cruz, CA

ITAC MEMBERS PRESENT
Eliza Yu, AMBAG
Taylor Bateman, Scotts Valley Planning
Russell Chen, County Planning Proxy
Murray Fontes, Watsonville Public Works and Planning Proxy
Scott Hamby, Scotts Valley Public Works
Steve Wiesner, County Public Works
Joshua Spangrud, Santa Cruz Public Works
Claire Fliesler, Santa Cruz Planning

STAFF PRESENT
Rachel Moriconi
Karena Pushnik
Tegan Speiser
George Dondero

OTHERS PRESENT
Eric Child, Santa Cruz Resident
Jack Nelson, Campaign for Sensible Transportation

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1. **Call to Order:** Chair Wiesner called the meeting to order at 1:30pm.

2. **Introductions:** Self introductions were made.

3. **Oral Communications:** Jack Nelson shared his opinion on highway projects, reducing demand for road systems, and climate change costs to society should be considered in decisions.

4. **Additions/Changes to consent and regular agenda:** None.

CONSENT AGENDA

Fontes moved and McClendon seconded approval of the consent agenda. The motion passed unanimously with Chen, Fontes, Fliesler, Hamby, Bateman, Spangrud, Wiesner, and Yu voting "yes".

5. Approved minutes of the March 19, 2015 ITAC meeting.

REGULAR AGENDA

6. Status of ongoing transportation projects, programs, studies and planning documents - Verbal updates from project sponsors

Caltrans: reported about the Highway 17 Management/Access Plan meeting and distributed fact sheets. He also provided updates on the Highway 129 realignment project and Highway 17 wildlife connectivity project. He agreed to provide updated information on the Highway 9 project completion schedule.

Scotts Valley: Scott Hamby reported that the city re-evaluating turning lane needs for Mt. Hermon Road, Whispering Pines Drive, and Scotts Valley Drive; Scotts Valley applied for a $1.3 million Active Transportation Program (ATP) grants, including new sidewalks on Kings Village Road.

RTC: RTC staff reported on the SAFE on 17 - 2014 Annual Report.

AMBAG: Eliza Yu announced the Planning Director's Forum taking place the first week of August; she reported that AMBAG has also started work on the Sustainable Community Strategy Implementation and Rural Transit project.

City of Santa Cruz: Claire Fliesler reported that the Wharf roundabout project is nearly complete; the city is working on a Major Corridor Analysis that includes Ocean Street, Water Street, Soquel, and Mission Street; the city has begun work on developing an Active Transportation Plan; she also reported the city is completed resurfacing the path on West Cliff Drive from Lighthouse to Mitchell Cove. Josh Spangrud noted that the city is also in working on speed feedback signs near schools and have a major repaving pavement program planned for the end of summer.

City of Watsonville Public Works: Murray Fontes reported that Safe Route to Schools projects are starting soon; bids for a new skate park are due this month; Highway 152 relinquishment/plans to make complete street design changes for Main Street; and an application submission for the Active Transportation Program (ATP) grant for Segment 18 of the Monterey Bay Sanctuary Scenic Trail Network (MBSST).

County Planning: Russell Chen reported about storm damage repair projects scheduled for construction this summer, including project on Redwood Lodge, Highland Way, El Rancho Dr., Glenwood Dr, and Graham Hill Road.; several bridge projects; Felton Covered Bridge; guardrails on Alba and Granite Creek Roads; sidewalks infill on Dolphin Dr.; Twin Lakes beach front project out to bid; Rio del Mar roundabout is finished; slurry seal construction on 17th Ave, Felt, and 24 Ave; storm damage repair on Nelson Road completed; and the acute need for funds for paving and road maintenance.

7. Caltrans District System Management Plan

Kelly McClendon reported on the draft Caltrans District System Management Plan. He noted that the plan identifies projects on the horizon and recommendations for managing existing systems. He clarified that the plan includes projects currently programmed to

receive funds, as well as priorities for new funds. He asked for input to ensure the plan includes all projects and modes on the state highway system.

8. Independent Survey on New Local Revenue Options

Karena Pushnik reported that RTC staff and community groups have been looking at options for a local transportation funding measure for the November 2016 ballot. She presented the results of a privately-funded poll of likely voters. She noted that this work builds on the approved Regional Transportation Plan (RTP) which assumes a new 1/2-cent sales tax and vehicle registration fee. The committee discussed the poll results and what voters might support.

9. Cruz511 Traveler Information Service for Santa Cruz County

Tegan Speiser provided an overview of the Cruz511 mobile-friendly website that provides real-time traffic information, encourages the use of alternative transportation and supplies a wide range of traveler information and resources.

The committee discussed how Cruz511 will assist in teaching people how to use public transit and inquired on how more bike resources could be incorporated into the site.

10. Draft Passenger Rail Feasibility Study

Rachel Moriconi and Karena Pushnik provided an overview of the Draft Passenger Rail Feasibility Study. Committee members provided feedback on the study and shared outreach ideas.

11. Adjournment: The meeting adjourned at 3:33 p.m.

Minutes prepared by: Jennifer Rodriguez and Rachel Moriconi

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PROGRAMMED/FUNDED SHOPP PROJECTS
in Santa Cruz County
July 2015 Semi-Annual List

Route	Post Miles	EA Project Identifier	PPNO	Project Description	Project Name	Current Project Phase	Ready To List (Target)	Project Manager Phone # Email	Cost ($1,000) CON/RW
Programmed in 13/14 FY									
1	8.0/14.9	0C901 0500000029	9000	Near the city of Santa Cruz, from 0.4 mile south of Freedom Blvd to 0.4 mile north of Ocean Street. Install CCTV and signs.	SCR Traffic Surveillance Station-CCTV	CON	4/12/2013(A)*	Luis Duazo 805-542-4678 luis.duazo@dot.ca.gov	$507 Award/$13
9	3.8/18.7	0Q590 0500000317	1988	At and near Boulder Creek at various locations, from 0.9 mile south of Glengarry Road to 0.2 mile north of McGaffigan Mill Road. Pollution source control.	Hwy 9 Source Control	CON	5/13/2014(A)*	Doug Hessing 805-549-3386 doug.hessing@dot.ca.gov	$2,000 Award/$46
1	20.2/37.4	1C860 0513000004	2436	Near the city of Santa Cruz, from north of Western Avenue to the San Mateo County line. Rehabilitate pavement. **(Note: Includes work from 05-1C310)**	Santa Cruz 1 North CAPM	CON	6/4/2014(A)*	Doug Hessing 805-549-3386 doug.hessing@dot.ca.gov	$10,951 Award/$0
17	9.4/10.1	1C180 0512000077	2361	Near Scotts Valley, from north of Glenwood Cutoff to south of Glenwood Drive. Widen shoulders and construct retaining wall.	Laurel Curve NB Shoulder Widening	CON	10/25/2013(A)*	Steve DiGrazia 805-549-3437 steve.digrazia@dot.ca.gov	$3,961 Award/$0
VAR	VAR	1F210 0513000068	2494	In Santa Cruz, Monterey, San Benito, San Luis Obispo, and Santa Barbara counties on various route at various locations. Upgrade landscape irrigation control system. **(State-only funded in various counties)**	Water Conservation North - Emergency Force Account	CON	N/A	Lance Gorman 805-549-3315 lance.gorman@dot.ca.gov	$1,700 ER Deleg Award/$0
Programmed in 14/15 FY									
VAR	VAR	0R510 0500000363	2235	In Monterey and Santa Cruz counties at various locations on Routes 1, 9, 68, and 218. Upgrade pedestrian curb ramps. **(Project in SCr; some work in MON)**	Santa Cruz / Monterey ADA	PS&E/RW	4/2/2015(A)*	Kathy DiGrazia 805-542-4718 kathy.digrazia@dot.ca.gov	$1,003 Vote/$300
1	16.9/17.1	1A870 0512000034	2341	In the city of Santa Cruz, from the northbound on-ramp from southbound Route 17 to the northbound off-ramp to Ocean Street. Restripe and widen shoulders.	Santa Cruz 1/17 Shoulder Widening	PS&E/RW	5/22/2015(A)*	Luis Duazo 805-542-4678 luis.duazo@dot.ca.gov	$1,142 Vote/$0

NOTE: For general informaton about the SHOPP program
contact Lindsay Leichtfuss at (805) 549-3788 or by email at lindsay.leichtfuss@dot.ca.gov
*List is provided in January and July of each year.

PROGRAMMED/FUNDED SHOPP PROJECTS
in Santa Cruz County

July 2015 Semi-Annual List

Route	Post Miles	EA Project Identifier	PPNO	Project Description	Project Name	Current Project Phase	Ready To List (Target)	Project Manager Phone # Email	Cost ($1,000) CON/RW
129	9.5/10.0	0T540 0500000857	2285	In Santa Cruz County, west of Chittenden Road. Improve roadway alignment.	Hwy 129 Realignment	PS&E/RW	4/1/2015(A)*	Doug Hessing 805-549-3386 doug.hessing@dot.ca.gov	$5,830 Vote/$101
VAR	VAR	1G190 0514000123	2589	In Santa Barbara, Monterey, San Benito, San Luis Obispo and Santa Cruz counties at various locations. Replace overhead signs with retro-reflective sheeting. **(Project in SB; some work in SCr)**	Replace Overhead Signs	PS&E/RW	5/26/2015(A)*	Aaron Henkel 805-549-3084 aaron.henkel@dot.ca.gov	$3,793/$5
VAR	VAR	0J490 0514000120	4900	In Santa Barbara, Monterey, San Benito, Santa Cruz, and San Luis Obispo counties at various locations. Upgrade highway signs and lighting. **(Project in SB; some work in SCr)**	Exit Retrofit Signs	PS&E/RW	5/12/2015(A)*	Lisa Lowerison 805-542-4764 lisa.lowerison@dot.ca.gov	$3,000/$0
VAR	VAR	1G280 0514000134	2592	In Santa Barbara, San Luis Obispo, Monterey, and Santa Cruz counties at various intersections. Upgrade signalized intersections to include Accessible Pedestrian System (APS) push buttons and countdown pedestrian heads. **(Project in SB; some work in SCr)**	Acclerated APS	PS&E/RW	6/16/2015(A)*	Kathy DiGrazia 805-542-4718 kathy.digrazia@dot.ca.gov	$1,701/$20

Programmed in 15/16 FY

17	0.7/1.4	0Q600 0500020290	1989	In Santa Cruz, from 0.7 mile north of Route 1/17 Separation to Beulah Park Undercrossing. Storm water mitigation.	Hwy 17 Storm Water Mitigation	PS&E/RW	3/1/2016	Doug Hessing 805-549-3386 doug.hessing@dot.ca.gov	$8,543/$37
1	R7.5/17.4	1C100 0512000074	2358	In and near the city of Santa Cruz, on Route 1, also on Route 17 (PM 0.0/6.3) at various locations. Construct roadside paving, access gates, and relocate facilities.	Santa Cruz Worker Safety	PS&E/RW	4/26/2016	Luis Duazo 805-542-4678 luis.duazo@dot.ca.gov	$1,222/$0
17	8.3/9.4	0T980 0500020244	2311	Near Scotts Valley, from south of Sugarloaf Road to 0.1 mile south of Laurel Road. Shoulder widening and concrete guardrail.	Hwy 17 Shoulder Widening and Concrete Guardrail	PS&E/RW	6/25/2015(A)*	Doug Hessing 805-549-3386 doug.hessing@dot.ca.gov	$6,517/$250

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PROGRAMMED/FUNDED SHOPP PROJECTS
in Santa Cruz County
July 2015 Semi-Annual List

Route	Post Miles	EA Project Identifier	PPNO	Project Description	Project Name	Current Project Phase	Ready To List (Target)	Project Manager Phone # Email	Cost ($1,000) CON/RW
Programmed in 16/17 FY									
129	1.8/9.9	1F030 0513000037	2476	Near Watsonville in Santa Cruz County. Also in San Benito County at School Road. Place open graded friction pavement and upgrade guardrail. **(Project in SCR; some work in SBt)**	129 Open Grade Overlay and MBGR Upgrade	PS&E/RW	10/13/2016	Doug Hessing 805-549-3386 doug.hessing@dot.ca.gov	$6,946/$14
152	3.7/8.2	1G400 0515000009	2598	Near Watsonville, from Carlton/Casserly Road to Pole Line Road. Install centerline rumble strips.	SCr 152 Centerline Rumble Strip	PS&E/RW	7/22/2016	Doug Hessing 805-549-3386 doug.hessing@dot.ca.gov	$463/$0
Programmed in 17/18 FY									
1	10.2/17.5	1C850 0512000240	2432	Near the city of Santa Cruz, from North Aptos Underpass to Route 9. Rehabilitate pavement.	SCR-1 Pavement Overlay	PA&ED	2/1/2018	Luis Duazo 805-542-4678 luis.duazo@dot.ca.gov	$14,971/$0
152	1.3/R2.0	1E020 0513000025	2464	In Watsonville, from Wagner Avenue to Holohan Road. Construct pedestrian infrastructure.	SCR 152 ADA	PA&ED	1/11/2018	Kathy DiGrazia 805-542-4718 kathy.digrazia@dot.ca.gov	$1,565/$195
17	0.1/0.4	1C670 0512000194	2422	Near the city of Santa Cruz, from southbound exit ramp to Route 1 to entrance ramp from Pasatiempo Drive. Widen shoulder and construct retaining wall.	Pasatiempo Shoulder Widening	PA&ED	4/2/2018	Luis Duazo 805-542-4678 luis.duazo@dot.ca.gov	$5,713/$93
9	22.1/23.8	1C650 0512000185	2418	In Castle Rock State Park, from 5 miles south to 3.3 miles south of Route 35. Widen shoulders, replace guardrail and construct centerline rumble strips.	Hwy 9 Center Rumble and Guardrails	PA&ED	7/14/2017	Doug Hessing 805-549-3386 doug.hessing@dot.ca.gov	$7,658/$0
129	3.2/3.5	1F350 0513000103	2506	Near Watsonville, at Carlton Road. Improve intersection.	Hwy 129/Carlton Rd. Accel and Decel Lanes	PA&ED	3/29/2018	Doug Hessing 805-549-3386 doug.hessing@dot.ca.gov	$2,045/$277
17	0.7/1.4	0Q601 0514000145	1989Y	In Santa Cruz, from 0.7 mile north of Route 1/17 Separation to Beulah Park Undercrossing. Landscape mitigation for PPNO 1989.	Hwy 17 Source Control Landscape Split	PS&E/RW	7/6/2017	Doug Hessing 805-549-3386 doug.hessing@dot.ca.gov	$507/$0

(A)* = Actual date RTL was achieved.

Note: Construction Award or Vote costs are actuals;otherwise Construction costs are estimates.

NOTE: For general informaton about the SHOPP program
contact Lindsay Leichtfuss at (805) 549-3788 or by email at lindsay.leichtfuss@dot.ca.gov
*List is provided in January and July of each year.

AGENDA: August 20, 2015

TO: Interagency Technical Advisory Committee (ITAC)

FROM: Gina Schmidt, GIS Coordinator
Association of Monterey Bay Area Governments

RE: Stand Alone Bike Model Tool

RECOMMENDATION

Receive a presentation from the Association of Monterey Bay Area Governments (AMBAG) on the Stand Alone Bike Model Tool.

BACKGROUND/DISCUSSION

Funded by the Monterey Bay Unified Air Pollution Control District's (MBUAPCD) AB2766 Emission Reduction Grant Program, the Stand Alone Bike Model (SABM) Tool will assist the Air District and local planners in conducting analyses of bicycle projects while assisting AMBAG with meeting Senate Bill 375-mandated regional greenhouse gas (GHG) targets.

AMBAG staff, in collaboration with MBUAPCD, has now completed and released the SABM tool. AMBAG staff appreciates the ITAC's participation and support of this project. AMBAG will provide a live demonstration of the SABM tool at the ITAC meeting. The tool will be available online for download.

For more information on the bike model tool, please contact Gina Schmidt at gschmidt@ambag.org or 831-264-5098.

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AGENDA: August 20, 2015

TO: Interagency Technical Advisory Committee (ITAC)

FROM: Rachel Moriconi, Senior Planner

RE: 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) Update

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RECOMMENDATION

Receive an update from the Association of Monterey Bay Area Governments (AMBAG) on the 2040 Metropolitan Transportation Plan (MTP)/Sustainable Communities Strategy (SCS) and provide input on the Public Involvement Plan (Attachment 2).

BACKGROUND

As the Metropolitan Planning Organization (MPO) for the tri-county region of Monterey, San Benito and Santa Cruz counties, the Association of Monterey Bay Area Governments (AMBAG) is responsible for preparing and adopting a Sustainable Communities Strategy (SCS) as part of the Metropolitan Transportation
Plan (MTP). This effort is done in collaboration with regional transportation agencies and local jurisdictions. The last MTP/SCS, which identified transportation needs and land use strategies to achieve state greenhouse gas reduction goals through 2035 was adopted in 2014. AMBAG is now working on the SCS Implementation Project and has started working on the next MTP/SCS update which will identify transportation needs and strategies through 2040.

DISCUSSION

At this meeting, Eliza Yu from AMBAG will present information on several aspects of SCS Implementation and updates including:

1. Information on the SCS Implementation Project and Rural Transit Improvement Initiative aimed at providing local jurisdictions with policy tools and prioritizing transit projects.
2. Updates on the 2018 Regional Forecast
3. The Draft 2040 Public Involvement Plan (~~Attachments 1 & 2~~)

Staff recommends that the ITAC provide input on the Public Involvement Plan (~~Attachment 2~~) at this meeting.

SUMMARY

AMBAG will provide updates on the Metropolitan Transportation Plan (MTP) and Sustainable Communities Strategy (SCS) at this meeting.

Attachments:

1. Memorandum to AMBAG Board on Public Involvement Plan
2. Draft 2040 Public Involvement Plan

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MEMORANDUM

TO:	**AMBAG Board of Directors**
FROM:	**Maura Twomey, Executive Director**
RECOMMENDED BY:	**Eliza Yu, Planner**
SUBJECT:	**Draft 2040 Public Involvement Plan**
MEETING DATE:	**August 12, 2015**

RECOMMENDATION:

This item is informational only.

BACKGROUND:

The *Draft 2040 Public Involvement Plan* is a subset of the 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) Update that will guide AMBAG and the regional planning agencies in the public participation process for the MTP/SCS and for the respective Regional Transportation Plans (RTPs). AMBAG, as the federally designated Metropolitan Planning Organization (MPO) for the Monterey Bay Region, updates the Public Involvement Plan every four years in conjunction with the MTP/SCS. The prior Public Involvement Plan was adopted in June 2014 to comply with Senate Bill 375 (SB 375) and Moving in Progress for the 21st Century (MAP-21), which was enacted in 2012.

DISCUSSION:

AMBAG is required to update the Public Involvement Plan in conjunction with the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) update process. The Public Involvement Plan under SB 375 and MAP-21 will include increased involvement and collaboration with members of the public, decision makers and staff from the regional transportation planning agencies within the region.

An updated Public Involvement Plan within the 2040 MTP/SCS is the required guide for all public involvement MTP/SCS activities conducted by AMBAG. As such, this plan will contain the procedures, strategies and techniques used by AMBAG to inform and educate the public throughout the 2040 MTP/SCS process.

P.O.Box 809 Marina, CA 93933-0809 [ph] 831.883.3750 [fax] 831.883.3755 http://www.ambag.org info@ambag.org

FINANCIAL IMPACT:

The 2040 Public Involvement Plan and 2040 MTP/SCS Update is financed by the Federal Highway Administration and Federal Transit Administration planning grant funds, which are included in both the OWP and the AMBAG budget.

COORDINATION:

The *Draft 2040 Public Involvement Plan* is prepared in coordination and consultation with the regional transportation planning agencies: San Benito County Council of Governments (SBtCOG), Santa Cruz County Regional Transportation Commission (SCCRTC), and Transportation Agency for Monterey County (TAMC).

ATTACHMENT:

Draft 2040 Public Involvement Plan

APPROVED BY:

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Maura F. Twomey, Executive Director

2040 MTP/SCS Draft Public Involvement Plan

Association of Monterey Bay Area Governments

July 2015

Contents

I. Introduction

Development of the 2040 MTP/SCS will be a multi-year effort that began in 2015. A comprehensive Public Involvement Plan (PIP) to support the 2040 MTP/SCS is a key part of the process. The purpose of this PIP is two-fold: (1) to support the development of the 2040 MTP/SCS by providing every available opportunity for the general public, partner agencies, and stakeholders to provide feedback; and (2) to further improve transportation decision making in the region by reaching out to underserved communities within the Monterey Bay Region more effectively.

A critical component in preparing the 2040 MTP/SCS is to provide guidance in the structuring of regional transportation planning processes to ensure that, to the greatest extent possible, interagency consultation and public participation were an integral and continuing part of the regional transportation decision making process. The participation policies and procedures described in this PIP are structured to enable all participants the ability to express their genuine regional values and interests in the shaping and implementation of regional policies and decisions regarding the transportation system.

SB 375 requires AMBAG to adopt a Public Involvement Plan (PIP) for the development of the SCS and must include the following public involvement activities* and techniques:

1. Outreach efforts to encourage the active participation of a broad range of stakeholder groups in the planning process, consistent with AMBAG's 2015 Public Participation Plan, including, but not limited to, affordable housing advocates, transportation advocates, neighborhood and community groups, environmental advocates, transportation disadvantaged representatives, home builder representatives, broad-based business organizations, landowners, commercial property interests, and homeowner associations.

2. Consultation with congestion management agencies, transportation agencies, and transportation commissions.

3. Workshops throughout the Monterey Bay region to provide the public with the information and tools necessary to provide a clear understanding of the issues and policy choices. At least one workshop shall be held in each county in the region. Each workshop, to the extent practicable, shall include urban simulation computer modeling to create visual representations of the SCS and the alternative planning strategy.

* Government Code Section 65080(b)(2)(B)(iii)

4. Preparation and circulation of a Draft SCS and an alternative planning strategy, if one is prepared, not less than 55 days before adoption of a final regional transportation plan.

5. At least three public hearings on the Draft 2040 MTP/SCS and alternative planning strategy, if one is prepared. To the maximum extent feasible, the hearings shall be in different parts of the region to maximize the opportunity for participation by members of the public throughout the Monterey Bay region.

6. A process for enabling members of the public to provide a single request to receive notices, information, and updates.

The public participation policies and procedures described in this PIP are structured to comply with all applicable federal and state legislation, rules, and express the genuine regional value and interest for all residents of the Monterey Bay region to participate in the shaping and implementation of the 2040 MTP/SCS. In pursuing its mission, "AMBAG provides strategic leadership and services to collaboratively analyze, plan and implement regional policies for the benefit of the Counties and Cities of the Monterey Bay region balancing local control with regional collaboration." AMBAG strives to inform and involve its local jurisdictions and all members of the general public throughout its 2040 MTP/SCS development process.

II. Goals and Objectives

AMBAG and partner agencies in the Monterey Bay region seek the participation of a diverse set of communities with an interest in regional planning efforts, including low income households, minority populations, Limited English Proficiency (LEP) populations, persons with disabilities, representatives from community and service organizations, tribal organizations, and other public agencies.

A. Public Participation Plan

The *2015 Public Participation Plan*'s seven guiding principles provide the framework for this PIP, which are as follows:

1. Valuing public participation and promoting broad based involvement by members of the community

2. Providing varied opportunities for public review and input

3. Treating all members of the public fairly, and respecting and considering all public input as an important component of the planning and implementation process

4. Promoting a culture of dialogue and partnership among residents, property owners, the business community, organizations, other interested members of the public, and public officials

5. Involving underserved communities and community groups, as well as other organizations

6. Encouraging active public participation throughout the entire process

7. Providing communications and agency reports that are clear, timely and broadly distributed

AMBAG has established a set of activities and goals to achieve each of our seven guiding principles by creating a framework and action plan for each outreach goal. These goals are agencywide and can also be utilized and implemented in all major plans and projects within the Monterey Bay region, such as the 2040 MTP/SCS.

1. Broad Based Involvement

Goal: Value public participation and promoting ***broad based involvement*** by members of the community.

Activity: In addition to having a list of stakeholders and working collaboratively with our partner agencies, AMBAG will also interact and outreach to community groups within the Monterey Bay Region, as input from a variety of perspectives helps to enhance the process and results. AMBAG structures its major planning initiatives and funding decisions to provide for meaningful opportunities to help shape outcomes. For example, because AMBAG's 2040 MTP/SCS is the blueprint for both new policies and investments for the Monterey Bay Region, updating and developing the MTP/SCS is one of the best projects for interested persons to get involved.

2. Opportunity

Goal: Provide varied ***opportunities for public review and input.***

Activity: AMBAG will engage with partner agencies, committees, working groups, and the public to obtain comments and suggestions during the development of future updates to the MTP/SCS and MTIP. When the drafts of our major plans, programs, and documents are released, the public review period for each document vary from 30-55 days. AMBAG will announce these public review periods through various media outlets, thereby providing as many opportunities as possible for the public to read and provide comments on the drafts of our major documents to be implemented in the future. Below is a list of potential ways that AMBAG will make this information available to the public:

- Websites
- News Releases
- Articles
- Press Conferences
- Radio and Television
- Newsletters, Brochures and eNews
- Agency Reports
- Posters and Inserts
- Project Flyers and Folders
- Advertising
- Online Social Media Networks
- Mapping

3. Environmental Justice

Goal: Treat all members of the public fairly, and ***respect and consider all citizen input*** as an important component of the planning and implementation process.

Activity: AMBAG plans to actively reach out to the traditionally underserved and underrepresented communities within the Monterey Bay Region and enhance efforts to involve rural communities in all major transportation planning processes. AMBAG will undertake specific strategies to involve all members of the general public in AMBAG's regional transportation planning and investment decisions. AMBAG's 2015 Title VI Plan delves into these strategies in the Limited English Proficiency (LEP) Plan found in Appendix E of the Title VI Plan, which outlines how we plan to outreach to underserved and underrepresented groups. One size does not fit all as input from diverse perspectives enhances the process.

4. Engagement

Goal: Promote a ***culture of dialogue and partnership*** among residents, property owners, the business community, organizations, other interested citizens, and public officials.

Activity: Early engagement is best. Create support materials that are easy to understand and visually engaging in both print and electronic format and make them accessible at meetings and on AMBAG's website. Plan workshops and/or public hearings at convenient venues and times across the region and/or provide virtual participation if feasible; and ensure such events are fully accessible to the general public, including low income, minority, and rural communities, disabled and Limited English Proficiency (LEP) populations.

5. Involvement of Underserved Communities

Goal: ***Involve underserved communities and local community groups,*** as well as other organizations.

Activity: Reach out to local community groups and smaller/rural communities that feel like they don't have a voice and involve them in the public participation process as much as possible. An open and transparent public participation process will help empower affected low income communities and communities of color to participate in the decision making process. Engaging interested persons in regional transportation issues is challenging, yet possible, by making it relevant, removing barriers to participation, and saying it simply.

6. Encouragement

Goal: ***Encouraging active public participation*** throughout the whole process.

Activity: Ask thought provoking questions in workshops and outreach meetings and engage audiences in strong discussions. Public participation is a dynamic activity that requires teamwork and commitment from all of the Monterey Bay region's agencies, from the regional level to the local level. Include engagement exercises to maximize participation.

7. Clear Communication

Goal: Providing communications and agency reports that are ***clear, timely and broadly distributed.***

Activity: Make all types of communication clear, accessible, and easy to understand. Potential methods include: add a translation link in Spanish for Limited English Proficiency (LEP) citizens through a Google Translation Widget on our website, and distribute all flyers, online notices, announcements and other materials in both English and Spanish. We will also provide hearing impaired and visually impaired citizens assistance in online and physical media distributions through physical outreach materials printed in larger font and in braille, upon request. Effective public outreach and involvement requires collaborating with regional local governments, stakeholders and advisory groups such as our partner agencies.

B. Title VI Plan

The *2015 Title VI Plan* is a comprehensive document that guides AMBAG in the Title VI process. The *2015 Title VI Plan* emphasizes the AMBAG Title VI process and procedures, including the use of public outreach techniques and innovative strategies to specifically include Limited English Proficiency (LEP) Populations throughout the region. The LEP population we have identified in our LEP Plan will help set a precedent for future public workshops and events throughout the Monterey Bay region. A Title VI Plan is the required guide for all Title VI related activities conducted by AMBAG, this PIP will stay consistent with the *2015 Title VI Plan* and will incorporate the procedures, strategies and techniques that will be used by AMBAG for increasing public involvement and make more of an effort to include LEP populations in the 2040 MTP/SCS process.

III. Public Engagement

AMBAG will engage the community throughout the development of the 2040 MTP/SCS. These activities include:

- Community workshops and events
- Public hearings
- A project website
- Visual graphics and media techniques
- Interactive surveys in English and Spanish (other languages as needed)
- Preparation of handout materials, flyers, information sheets, frequently asked questions (FAQs), etc.
- Consultation with the Regional Advisory Committee (RAC), a group of key stakeholders made up of environmentalists, business leaders, community activists, and other members of the public will be conducted.

A. Face to Face Interactions

Public Outreach

Public Workshops

Workshops will be held throughout the Monterey Bay region at key milestones throughout the 2040 MTP/SCS development process. Materials will be provided in English and Spanish; and translation services will be available at the workshops. These workshops will be held outside of typical work hours and at more convenient locations to make them more accessible to the public.

In addition, pop-up community events will be conducted to further interact with members of the public to learn about, give feedback on, and engage in the process of developing the 2040 MTP/SCS. These pop-up events may take place at high-traffic locations such as farmer's markets, First Friday art gatherings, neighborhood block parties, church events, etc.

Public Hearings and Comment Forms

Public hearings will be conducted to receive comments on the Draft 2040 MTP/SCS Plan. The public hearings will be held at various locations throughout the region and will be advertised in local newspapers, flyers, press releases and email announcements to reach a wide variety of audiences who may be

interested in receiving an opportunity to provide their input on the Draft 2040 MTP/SCS.

Comment forms will be provided to capture additional comments. Participants are encouraged to give these forms to those who could not attend the workshops. Comment forms can be folded for easy mailing, or participants could send comments to info@movingforwardmb.org or through the project website.

Public Information

AMBAG will create and distribute clear, concise, and engaging information to support public involvement efforts. These materials will have a consistent look and feel, reflecting the branding that will be developed for the 2040 MTP/SCS.

Below is a menu of materials that may be used to provide information about the 2040 MTP/SCS and its components; the development process; why this process is relevant to the region's residents; and information about how, when, and why stakeholders should get involved. All materials will be written in easy-to-understand terms with limited jargon, and will be provided in a variety of languages and formats as needed. Materials will be distributed via a range of channels, including electronically (e-mail and website); at presentations, meetings, and events; at community locations (libraries, recreation centers, senior centers, and stores); and in the media (notices and advertisements). Materials will be updated as needed throughout the process.

Project Fact Sheet

A project fact sheet will be created to provide basic information about the 2040 MTP/SCS, its components, purpose, timeline, and information on how the general public can get involved in the process.

Flyers and Press Releases

Each flyer will have engaging images, a summary of opportunities for public involvement, key messages, and basic information about the 2040 MTP/SCS and its timeline. Flyers and notices will be prepared in English and Spanish. These flyers will be distributed to local agencies and those who plan to sign up for email updates on the website. A press release will be sent to local television, radio, and newspaper media outlets.

Public Notices

Notices for public meetings and opportunities for public comment will be published via:

- Online media outlets (project website, partner agencies websites, social media)
- Printed materials (advertisements in newspapers, printed flyers posted at strategic locations, etc.)
- Announcements (radio, meetings)

In addition, to stay consistent with AMBAG's 2015 Title VI Plan, all public notices will be printed and uploaded in English, Spanish, and Tagalog to ensure all Limited English Proficiency populations within the Monterey Bay region will be included in the 2040 MTP/SCS process.

B. Online Tools and Surveys

Project Website

A project website will be the central portal for information about the project and upcoming events. The website address will be provided on all outreach materials and will be updated regularly to maintain current content and will be the primary portal for public information about the 2040 MTP/SCS, incorporating interactive elements to provide opportunities for broad participation. Direct communication and website information will be synched from the project website and the AMBAG website for easier accessibility.

Media Outlets

Social Media

Online publication and web based comment of plans/programs will be created during the 2040 MTP/SCS process, including an increased use of illustrations on affiliated social media networks, such as Twitter and Facebook.

AMBAG staff and board members will also increase emphasis on public access television, radio and internet radio, coordinate media stories between our partner agencies and media outlets, and target marketing/notices highlighting how planning documents may impact them throughout the 2040 MTP/SCS process.

Newspapers and Newsletters

AMBAG will prepare and forward news releases to print and broadcast media on the 2040 MTP/SCS and advertise through display ads in local newspapers throughout the Monterey Bay region. AMBAG's monthly e-newsletter will report progress, encourage participation, and provide up to date information about opportunities for participation.

Surveys

Surveys will be conducted as needed for the 2040 MTP/SCS, which also can help us design future outreach strategies. These surveys will be conducted at key milestones of the planning process. To help increase awareness and to reach more people than conventional workshops, surveys will be created in English and Spanish (and other languages as needed), at critical points throughout the development of the 2040 MTP/SCS.

IV. Consultation and Coordination Efforts

A variety of committees and boards will be consulted throughout the planning process and at key milestones to solicit feedback, provide project updates, and relay community input from the workshops and surveys. These committees and boards are made up of elected officials, staff from local jurisdictions and agencies, local leaders and organizers, and members of the general public.

AMBAG Board of Directors

The AMBAG Board of Directors consists of 21 jurisdictions within Monterey, San Benito, and Santa Cruz counties. An elected official from each jurisdiction is appointed by that jurisdiction's City Council or Board of Supervisors, with each of the 18 cities represented by one member and each of the three counties by two members, forming the 24 member AMBAG Board of Directors. A representative from TAMC, SBtCOG, SCCRTC, Santa Cruz METRO, Monterey-Salinas Transit, Caltrans, and the Monterey Unified Air Pollution Control District each serve as an ex-officio member.

The AMBAG Board meets monthly and sets policy. Day-to-day oversight is provided by the Executive Director, who is appointed by and serves at the pleasure of the Board of Directors.

The AMBAG Board will meet many times throughout the planning process to receive project updates, provide policy direction, determine hybrid and preferred scenarios, and ultimately to adopt the MTP/SCS. Board members will be encouraged to take leadership positions on the MTP/SCS to encourage public understanding and engagement.

Planning Directors Forum

The Planning Directors Forum (PDF) consists of planning directors and staff from the 21 jurisdictions within Monterey, San Benito, and Santa Cruz counties, the three regional transportation planning agencies, the two transit operators, Caltrans District 5, and AMBAG; as well as other stakeholders. The PDF will meet regularly to address regional land use and transportation planning issues. The PDF will meet throughout the planning process and at key milestones to identify priorities, help establish initial scenario development, review draft workshop materials, and to receive project updates including feedback from the community workshops and online surveys.

Regional Advisory Committee

The Regional Advisory Committee (RAC) consists of environmentalists, business leaders, community activists, and local planning commissioners. The RAC meets regularly to provide input on land use and transportation issues. The RAC will meet throughout the planning process and at key milestones to collaboratively identify priorities, provide input on the development of the 2040 MTP/SCS, and to receive project updates.Regional Transportation Planning Agencies

In the Monterey Bay region, there are three Regional Transportation Planning Agencies: San Benito County Council of Governments (SBtCOG), Santa Cruz County Regional Transportation Commission (SCCRTC), Transportation Agency for Monterey County (TAMC). Each of these three RTPAs consists of agency staff and board members, including staff from local jurisdictions, elected officials, and appointed members. The RTPAs Boards of Directors set policy and provide a source of funding for transportation planning projects within each county. AMBAG staff will meet with the three RTPAs' Boards at key milestones to present findings, provide project updates, and receive input on the MTP/SCS development, project identification, and priorities.

Technical Advisory Committees

The Technical Advisory Committees (TACs) are made up of staff from local jurisdictions and agencies, including local transit service providers and the RTPAs. The TACs review and provide technical guidance and advice on transportation projects and programs within each county, and makes recommendations to the RTPA boards or directors. AMBAG staff will meet with the TACs at key milestones throughout the planning process to confirm transportation priorities, projects, and funding sources.

Stakeholder Contact List

A master stakeholder contact list will be maintained for distribution of press releases, flyers, and project updates. This list includes members of the AMBAG Board, the Planning Directors Forum, Regional Advisory Committee, and other related groups. In addition, media outlets, local organizations, and workshop and survey participants who provided a valid email address will be included.

Please refer to Appendix D in AMBAG's 2015 Public Participation Plan for the current list of stakeholders within the Monterey Bay region.

AGENDA: August 20, 2015

TO: Interagency Technical Advisory Committee (ITAC)

FROM: Erich R. Friedrich, METRO Senior Transportation Planner

RE: METRO's Draft Bus Stop Guide

RECOMMENDATION

Review and comment on METRO's Draft Bus Stop Guide (Attachment 1).

BACKGROUND/DISCUSSION

In 2014, Santa Cruz Metropolitan Transit District (METRO) staff reviewed procedures and standards for bus stop installation, modification and amenity uses. The conclusion of the review was that METRO needed to update and consolidate its documentation regarding bus stops so that both METRO staff and outside parties can have clear guidance of how to design, construct and place amenities at bus stops throughout Santa Cruz County.

METRO staff used current practice and peer documents to craft this updated Bus Stop Guide. The Bus Stop Guide also includes a new development check list for local municipalities to use for ensuring that transit is taken into consideration when new developments or roadway improvements are being considered for permits. The document is sectioned as follows:

1. Procedures for Public and Private Developers
2. Bus Stop Placement and Design
3. ADA Standards
4. Bus Stop Elements and Amenities
5. On-Street Design
6. Transit-Friendly Design
7. Appendix

This first version is intended to reflect current practice and consolidate all procedures and standards into one document. However, the METRO Bus Stop Guide as a whole and as its individual chapters are intended to be a 'living document' and it is anticipated to be periodically updated as new industry best practices develop, new equipment or amenities become available, or other changes as needed arise.

METRO Staff is asking that the Interagency Technical Advisory Committee review and comment on the new METRO Bus Stop Guide.

SUMMARY

METRO staff is seeking input on the draft Bus Stop Guide which provides guidance to local jurisdictions of how to design, construct and place amenities at bus stops throughout Santa Cruz County.

Attachment
1. Draft Bus Stop Guide

Attachment 1

SANTA CRUZ METRO

Bus Stop Guide

Administrative Draft

Santa Cruz METRO Planning Department

An internal resource for Santa Cruz METRO and a procedural guide for municipalities and developers.

Table of Contents

Santa Cruz METRO Bus Stop Guide

Introduction

Purpose:

This manual is intended to act as both an internal resource for SANTA CRUZ METRO and as guidance for municipalities and developers to create and review development proposals to ensure that they are consistent with SANTA CRUZ METRO standards for providing adequate accessibility and amenities at bus stops.

In general, SANTA CRUZ METRO is solely responsible for the siting and installation of new bus stops, whether those stops are simply a signpost in the ground, a passenger shelter, or a transit hub with enhanced passenger amenities. SANTA CRUZ METRO staff members provide initial recommendations regarding where bus stops will be placed and what amenities, if any, will be installed. SANTA CRUZ METRO then works with the appropriate jurisdiction to obtain permits for the installation of the bus stop and determines the final location. If SANTA CRUZ METRO constructs concrete passenger pads or shelters at a bus stop, it is responsible for ensuring that the bus stop meets all federal and local regulations, including those associated with the Americans with Disabilities Act (ADA).

While it is SANTA CRUZ METRO's role to provide public transit service and install bus stops in Santa Cruz County, it is generally the role of municipalities and developers to provide infrastructure for pedestrians, motorists, and bicyclists to access that transit service. Thus, when new development or redevelopment occurs at or near an existing SANTA CRUZ METRO bus stop location, it is the developer's (or municipality's) responsibility to ensure that the bus stop can be adequately served by SANTA CRUZ METRO's transit vehicles and easily accessed by transit customers. Adherences to the Americans with Disabilities Act (ADA) guidelines as well as roadway design standards are important to providing access to transit.

SANTA CRUZ METRO encourages developers to take existing and proposed bus stops into account from the beginning of the planning and design processes. Developers and local officials should seek the guidance of SANTA CRUZ METRO staff in making design decisions on development and local infrastructure that affects transit stops. Please note, however, that it is the responsibility of the developer to ensure that all construction and design regulations are met, particularly when they are more stringent than SANTA CRUZ METRO guidelines.

Goals:

- Bus stops should be placed in convenient locations that do not compromise the safety of customers, pedestrians, bicyclists, or vehicles.
- Bus stops should be spaced for optimal customer convenience that maximizes the efficient operation of transit services while not requiring riders to walk excessive distances (i.e. greater

than one half mile) to the nearest bus stop.

- Bus stops should be clearly and consistently identifiable with up-to-date information for riders about services at the bus stop.
- Bus stops should have appropriate amenities based on the usage of that stop and the surrounding land use.
- Bus stops should be accessible. Americans with Disabilities Act (ADA) considerations will be given top priority in the location and design of new and existing bus stops.
- Bus stops should be well-maintained and free of trash and vandalism.
- Facilities surrounding bus stops such as roadways and pedestrian amenities should be transit-supportive and designed according to sound engineering practices.

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1. Procedures for Public and Private Developers

Land use and development affects SANTA CRUZ METRO's current and future transit services, and thus SANTA CRUZ METRO should be consulted with and involved in development projects from an early stage. SANTA CRUZ METRO staff should be involved in the design and planning of the following activities: bus stop installation or upgrades, residential and commercial developments along existing SANTA CRUZ METRO routes, and new developments that will be served by transit. SANTA CRUZ METRO staff will work with developers, businesses, and municipalities to integrate transit design features in development plans and to identify viable transit service options if desired. SANTA CRUZ METRO staff should provide site and development plan reviews for a variety of projects. Depending on the nature and complexity of the project, SANTA CRUZ METRO staff will typically respond within 10 business days of receipt of the plans regarding any necessary changes or the possibility of follow-up meetings. It is possible that large or complex projects could take 30 days or more.

1.1 Technical Review and Assistance

SANTA CRUZ METRO offers in-house development plan and transit service reviews to municipalities, developers and others in the development community. These reviews are conducted by SANTA CRUZ METRO's Planning Department and are designed to promote the incorporation of public transportation features in both urban and suburban developments and striving for a transit-friendly integration of facilities into new and existing developments. In every municipality, development and roadway improvement plans must be review by SANTA CRUZ METRO and the standards put forth in this manual must be followed. SANTA CRUZ METRO staff will analyze such plans and, when appropriate, require design alterations to make developments more easily-served by transit, and participate in processes and meetings held by the Planning Commissions, the Board of Supervisors, and the City Councils. In order to review development plans and provide appropriate feedback, SANTA CRUZ METRO requests the following items from the developer or municipality:

- Name of the municipality or developer requesting the review
- Your contact person associated with the review
- Project name
- Type of review:
    - Advisory review (not part of a formal plan review process)
    - Development plan approval (part of a formal plan review process)
    - Requested date for SANTA CRUZ METRO response
- One paper copy and one electronic copy of the development plan, including the following at a minimum:
    - Right-of-Way Design and Construction Plans
    - Streetscaping/Landscaping Plan
    - Maintenance-of-Traffic (MOT) Plan
    - Plan Profile

Detailed plan information allows SANTA CRUZ METRO to identify any needs and requirements related to transit service and bus stop sites. If a site is not designed to accommodate SANTA CRUZ METRO's transit vehicles and design criteria, SANTA CRUZ METRO reserves the right to withhold transit service until necessary changes are made. This includes ADA accessibility at the bus stop level as well as vehicle access requirements such as turning radii and pavement design.

In order to determine which plans are likely to affect transit service now or in the future, or conversely not affect transit service, only development and roadway improvement plans that meet one or more of the following criteria should be reviewed:

- Projects in identified transit corridors in General, Community, or Specific Plans
- Existing streets with transit routes
- Major streets or corridors
- Major activity centers: higher density residential, commercial, industrial areas, educational facilities, medical institutions, government centers, etc,
- Streets that would logically connect existing or planned transit routes or connecting areas which have or are planned to have transit routes
- Any other project that in the municipality's opinion should be assessed for current or future transit needs

1.2 Development and Roadway Improvement Plan Reviews

SANTA CRUZ METRO will review development and roadway improvement plans to identify transit needs and opportunities and provide feedback on the designs. Ongoing communication between SANTA CRUZ METRO, the appropriate city and county, and the developer may be necessary in order to solidify details of:

- Transit routes and modifications
- Bus stop placement
- Bus stop design, including ADA-compliance and adherence to federal regulations
- Temporary reroutes and bus stops

Appendix Item A is a checklist for developers and/or municipalities to use when applying and assessing proper permits for a project. This checklist should be followed as a part of the project planning and permit application phase.

If situations occur where SANTA CRUZ METRO and the developer and/or municipality are unable to agree on proposed plans, bus stop locations, bus stop designs or amenities, or other issues, the issue is to be raised to higher levels. Normally a meeting at the director level in an attempt to resolve issues. If the issue remains, and additional meeting will be held at the Chief Executive/City Manager level. If the issue is still unresolved, representatives from the parties involved may address the issue with proper Planning/Public Works Commissions, Board of Directors and City Councils at a regular meeting.

1.3 Transit Routes and Modifications/Detours

Whenever a construction project will affect current SANTA CRUZ METRO transit routes, SANTA CRUZ METRO staff must be involved in reviewing plans to ensure that the routes are still serviceable by SANTA CRUZ METRO vehicles. Roadway design and streetscaping features discussed later in this document will be particularly pertinent to this review.

When development projects occur outside of SANTA CRUZ METRO's current transit routes but the developer would like for the site to be served by transit, SANTA CRUZ METRO must also be involved in the planning and design process to analyze the possibility of future transit service and provide input into how the site can be designed to best accommodate that service.

1.4 Requests for Bus Stop Removal, Relocation, Addition, or Modification

Because of the number of factors involved in decisions about bus stop locations, staff or public requests to remove, relocate, modify or add a stop along an existing line will be directed to a form entitled "Bus Stop Modification Request." Once implemented, the Bus Stop Modification Request form will be directed to METRO Planning Department staff, which will assess the request using an internal assessment form. Examples of both of these forms are attached. This form summarizes the many issues that must be considered in regards to bus stop placement or improvement that are fully detailed in the text of this document, including land use, population density, spacing, setting accessibility, transfer opportunities, ridership, and existing amenities. SANTA CRUZ METRO staff may deem it necessary to take further steps in order to make an appropriate decision, including site investigations, discussions with adjacent property owners, consultations with municipalities, or solicitation of additional public input. SANTA CRUZ METRO staff will then use the information on the assessment form, and any additional information necessary to make a recommendation whether to add, remove, modify or relocate the bus stop. That recommendation is then forwarded to SANTA CRUZ METRO's Maintenance Manager for final approval. Requestors may appeal the action by writing the SANTA CRUZ METRO's Board of Directors. Section 1.5 outlines the process for reviewing bus stop modification requests in greater detail.

1.5 Review of Bus Stop Additions, Removals, Relocation, and Amenity Changes

Periodically SANTA CRUZ METRO may make alterations to bus stops as needed or in response to a request from an outside party such as a resident, municipality, developer, etc. In order to ensure that bus stop modifications are made to be consistent with this bus stop guide, a standard review processes is outlined below:

- The person or agency making the request must fill out the Bus Stop Modification Request form. This form is then forwarded to the METRO Planning Department for review.

- The METRO Planning Department reviews:
    - Basic information about the current bus stop and/or requested bus stop (location, placement, routes served, surrounding land uses, existing conditions)

- Proximity to other existing or planned bus stops while attempting to maintain a minimum of 880ft between stops
- Roadway and Right-of- Way conditions or considerations – Major arterial roads are preferred for bus stops with more amenities. A Bus Stop modification on Caltrans Right-of-Way requires encroachment permits and Caltrans design standards. Speed limits and lanes determine the need for a bus pull out or bulb out.
- Pedestrian and ADA Accessibility conditions or considerations – sidewalks must be in good repair with minimal obstacles and appropriate width (>4ft). If the bus stop is not ADA accessible, major modifications are needed and could potentially require engineering plans, encroachment permits, and major construction.
- Boarding counts to determine the classification of the bus stop
- Condition of existing amenities, if any

- The Planning Department will use this assessment to make an initial recommendation to approve or deny a bus stop modification request.

- SANTA CRUZ METRO's Maintenance Manager (or designee) will review the assessment and recommendation and make the final decision of approval or denial of a bus stop modification request.

The Bus Stop Modification Request form and the Assessment of Bus Stop Request can be found as Appendix Item B.

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2. Bus Stop Placement and Design

Construction projects that significantly alter the roadway or surrounding land uses may require a re-evaluation of the placement of SANTA CRUZ METRO bus stops. Likewise, the placement of new bus stops or relocation of existing stops due to development or construction will necessitate early involvement from SANTA CRUZ METRO staff to identify appropriate bus stop locations. A number of factors, discussed in this document, contribute to the final decisions regarding bus stop placement. During the planning process, SANTA CRUZ METRO will advise on street and site designs that best accommodate bus stops.

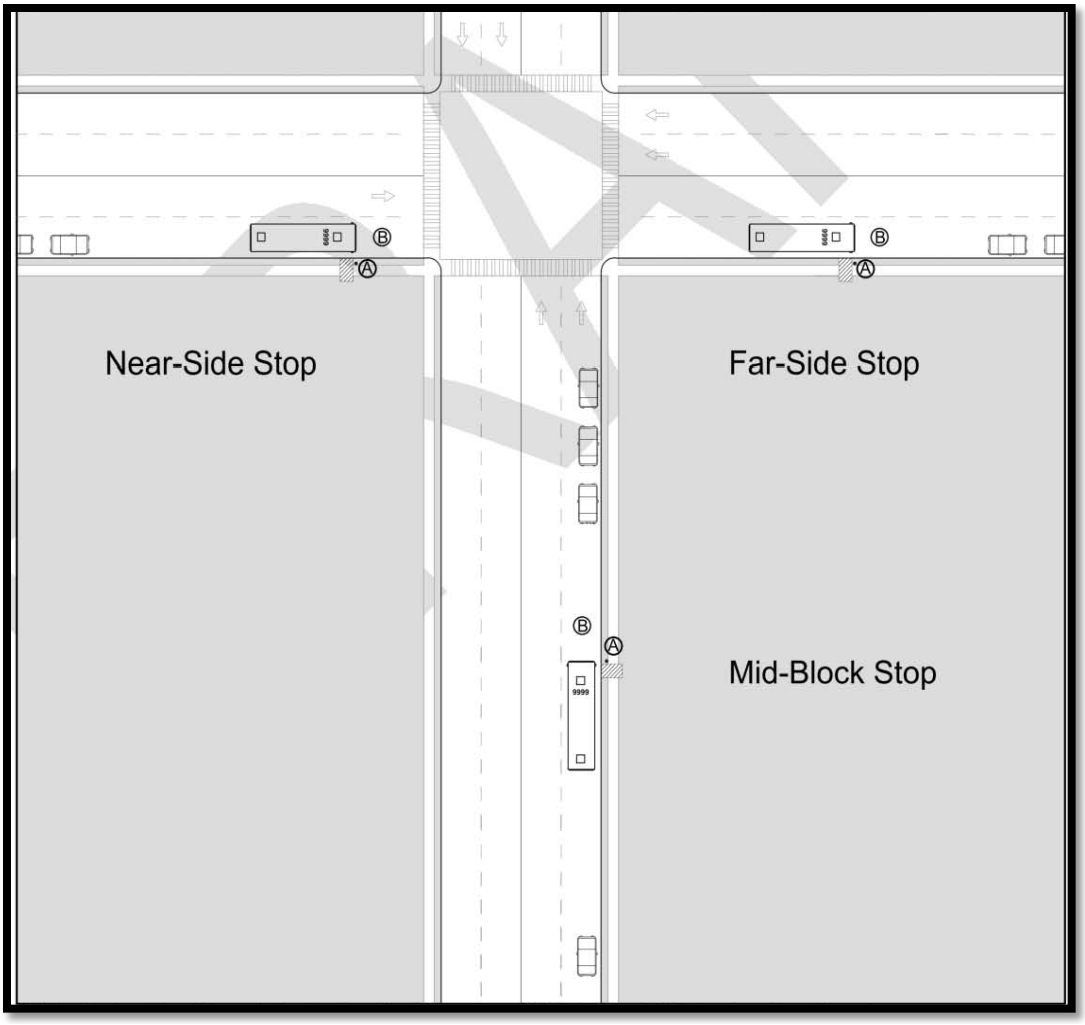
The design of bus stops and surrounding areas is very important to SANTA CRUZ METRO for the safety and convenience of passengers as well as for adherence to the requirements of the Americans with Disabilities Act. Bus stop design and amenities are detailed in Chapter 4 of this document, and there are several factors that influence the type of bus stop to be designed and what amenities will be included at each location. Developers should work with SANTA CRUZ METRO at the early stages of site and project planning to identify the opportunities and needs for new or altered bus stops.

Developers should work with SANTA CRUZ METRO and the municipality to design site plans that accommodate bus stop loading pads, passenger shelters, bus bulbs, bus bays, and other amenities where merited. While SANTA CRUZ METRO recognizes that certain communities and neighborhoods may want to install custom bus shelters in some locations, SANTA CRUZ METRO prefers to install its standard shelters for ADA accessibility and maintenance reasons. However, if non-standard shelters are to be installed, the design must first be approved by SANTA CRUZ METRO staff and a formal maintenance agreement will be produced. These issues are also addressed in Chapter 4.

2.1 Placement of Bus Stops

On-street bus stops are generally placed in one of three locations: far-side (located immediately after an intersection); near-side (located immediately before an intersection); and mid-block (located between intersections). The specific roadway dimensions associated with placement of bus stops are addressed further below. A general representation of the three main bus stop locations is shown below:

Each different bus stop location offers advantages and disadvantages to vehicle drivers, bicyclists, and pedestrians. These benefits and drawbacks are listed below. In general, SANTA CRUZ METRO has found that far-side bus stop locations are safer for pedestrians and facilitate faster travel times. However, it is important to note that the final decision on bus stop location is dependent on ease of operation, transfer situations, space availability, traffic volumes, and safety considerations. SANTA CRUZ METRO performs on-site evaluations of each proposed bus stop location to analyze these operating and safety conditions and identify the most appropriate bus stop location for each situation.


Near-Side Stop
Far-Side Stop
Mid-Block Stop

Location related to Intersection	Advantages	Disadvantages	Where Recommended
Far side	• Minimizes conflicts between right-turning vehicles and buses • Provides additional right turn capacity by making curb lane available for traffic • Minimizes sight distance problems on approaches to intersection • Encourages pedestrians to cross behind the bus • Creates shorter deceleration distances for buses and minimizes area needed for curbside bus zone • Results in bus drivers taking advantage of gaps in traffic flow created at traffic signals	• May result in intersections being blocked during peak periods by parked buses • May obscure sight distance for crossing vehicles • May increase sight distance problems for pedestrians • Can cause a bus to stop far-side after stopping for a red light (double stopping) • May increase number of rear-end accidents since drivers do not expect buses to stop again after a red light • Could result in traffic queued into intersection • May interfere with right-turn movement from cross street	• There is a high volume of turns • Route alignment requires left turn immediately before stop • Complex intersections with multi-phase signals or dual turn lanes • Traffic is heavier on the near-side • Existing pedestrian conditions are better on far-side • Traffic conditions and signals may cause delays if near-side • Intersections have transit signal priority treatments
Near side	• Minimizes interference when traffic is heavy on the far side of the intersection • Allows passengers to access buses closest to the crosswalk • Results in the width of the intersection being available for the driver to pull away from the curb • Eliminates double stopping • Allows passengers to board and alight while the bus is stopped at a red light • Provides driver with opportunity to look for oncoming traffic	• Increases conflicts with right-turning vehicles • May result in stopped buses obscuring curbside traffic control devices and crossing pedestrians • May cause sight distance to be obscured for cross vehicles stopped to the right of the bus • May block the through lane during peak period with queuing buses • Increases sight distance problems for crossing pedestrians	• Traffic is heavier on the far-side • Existing pedestrian conditions are better than on the far-side • Pedestrian movements are safer on near-side • Bus route continues straight through the intersection
Mid block	• Minimizes sight distance problems for vehicles and pedestrians • May result in passenger waiting areas experiencing less pedestrian congestion • May be closer to passenger origins or destinations on long blocks	• Requires additional distance for no-parking restrictions • Encourages unsafe pedestrian crossing • Increases walking distance for patrons crossing intersections, or requires special features for patrons crossing at mid-block locations	• When the route alignment requires a right turn and curb radius is short • Problematic traffic conditions at the intersection • Passenger traffic generator is located mid-block • Compatible with corridor or district plan

2.2 Bus Stop Spacing

Bus stop spacing has a major impact on transit vehicle and system performance as well as customer ease of access. Stop spacing also affects overall travel time. In general, the trade-off is between:

Close stops (every block or 1/8 to 1/4 mile), short walk distances, but more frequent stops and a longer bus trip.	**Versus**	Stops farther apart, longer walk distances, but more infrequent stops, higher speeds, and therefore, shorter bus trips.

SANTA CRUZ METRO's target is to have bus stops be no less than 880 feet apart and no greater than 1,760 feet apart, depending upon whether this is in an urban or rural setting and other physical and operational constraints.

2.3 Installation Considerations

In addition to considering where a bus stop should be placed relative to an intersection, the decision to install a bus stop at a certain location should take into account the following factors:

- Adjacent land use and activities, including major trip generators and origins/destinations of potential customers
- Bus route alignment (for example, turning movements at an intersection)
- Intersecting transit routes and transfer possibilities
- Pedestrian access – accessibility should be considered in the placement of all new bus stops; though the construction of sidewalks and other pedestrian infrastructure is often beyond the control of SANTA CRUZ METRO, bus stops should be placed in accessible areas to the extent possible given existing conditions
- Existing right-of way - wherever possible, bus stops should be located where there is adequate right-of-way space for the construction of passenger amenities
- Traffic conditions (volume and speed) and traffic control devices
- Ambient lighting, especially at night

2.4 Safety Considerations

For the safety of pedestrians as well as drivers, bus stops should not be placed in the following locations:

- Over the crest of a hill, where oncoming traffic will be unable to see a stopped bus
- Around a blind curve, where oncoming traffic will be unable to see a stopped bus
- On the side of a roadway with limited space for pedestrian movement (i.e. constrained by a ditch, guardrail, or retaining wall)
- On limited-access roads

2.5 Other Placement Considerations

- Bus stops should be easy to see for pedestrians, bicyclists, drivers, and bus operators
- Buses should not block residential or commercial driveways when stopped; if blocking a driveway is necessary for operational reasons, it is better to fully block a driveway rather than partially so that vehicles do not attempt unsafe maneuvers in front of or behind the stopped bus
- Bus stops should preferably be placed close to existing pedestrian crossings, good pedestrian infrastructure, and adequate lighting
- Bus stops should not be placed mid-block when not close to a protected crosswalk
- In high-transfer locations, bus stops should be located so as to minimize the intersection crossings required of transferring patrons
- In areas with on-street parking, parking restrictions will need to be put in place to ensure bus access to the curb
- Special consideration should be given to bus stop locations in residential areas without sidewalks

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3. ADA Standards

The Americans with Disabilities Act of 1990 (ADA) is broad legislation intended to make American society more accessible to people with disabilities. It consists of five sections or titles (employment, public services, public accommodations, telecommunications, and miscellaneous). Titles II and III (public services and public accommodations) affect bus stop planning, design, and construction. Although the definition of disability under the ADA is broad, bus stop placement and design most directly affect persons with mobility and visual impairments. These impairments, which relate to the more physical aspects of bus stop accessibility, have received the most attention.

3.1 ADA Waiting or Accessory Pad

A waiting or accessory pad is a paved area at a bus stop provided for bus patrons and can contain either a bench or a bus shelter. Bench and shelter amenities, such as trash receptacles or bike racks, can also be located on the waiting pad. The size of the waiting pad depends on several factors. The length and width of shelters and benches, clearance requirements for street furniture, location of wheelchair lift extension (front or back door of bus), and the length of the bus are common size-determining factors. Transit agencies, typically, have one or two accessory-pad variations to accommodate different configurations and components that may be installed.

Waiting pads are usually separated from the sidewalk to preserve general pedestrian flow. It is generally recommended that 5 feet of clearance be preserved on sidewalks to reduce potential pedestrian conflicts and limit congestion during boardings and alightings. The pad can be located on either side of the sidewalk, depending on available right-of-way space, utility poles, or buildings. In either case, a paved surface should be provided from the waiting pad to the back-face of the curb to enhance access and comfort. ADA mobility guidelines should be followed when street furniture is to be included on a waiting pad. A waiting pad should accommodate a 5-foot (measured parallel to the street) by 8-foot (measured from the back face of the curb) wheelchair landing pad that is free of all street furniture and overhangs.

3.2 Obstacles

Examine all the paths planned from the alighting point at the bus stop to destinations off the bus stop premises. Determine whether any protrusions exist that might restrict wheelchair movements. If protrusions exist and they are higher than 27 inches or lower than 80 inches, a person with a vision impairment may not be able to detect an obstacle (such as a phone kiosk) with a cane. A guide dog may not lead the person with the impairment out of the path. Although it may not be the transit agency's responsibility to address accessibility problems along the entire path, an obstacle anywhere along the path may make it inaccessible for some transit users with disabilities.

3.3 Surfaces

Surfaces must be stable, firm, and slip-resistant. Such provisions are beneficial for all transit users, but especially for those who have disabilities. Avoid abrupt changes in grade, and bevel those that cannot be eliminated. Any drop greater than 1/2 inch or surface grade steeper than 1:20 requires a ramp.

A full list of ADA standards for transit can be found in appendix item D-1.

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4. Bus Stop Elements and Amenities

Security, access, facility attractiveness and several other factors should be considered when establishing or updating bus stops. SANTA CRUZ METRO has authority to install and construct bus stops throughout Santa Cruz County as discussed in Section 1.5. The purpose of this section is to establish a secure, attractive, and accessible waiting area at each stop by providing guidance for appropriate amount of bus stop amenities.

4.1 Bus Stop Hierarchy & Amenity Standards

Class A - > 50 boardings per day, > 30 bus departures per day, Medium to High Residential, Office, and/or Commercial Land Use

These are the stops with high boardings per day that should have at a minimum a shelter, map and route information, and an optional bicycle rack. These stops may also need a bus pull out area if there are long dwelling times.

Class B - 15 – 50 boardings per day, 10-30 bus departures per day, Low to Medium Residential and some Commercial or Office Land Use

These stops have moderate boardings per day and should be equipped with a Simme seat or a bench. Additional amenities could include map and route information, and an optional bicycle rack depending on the location. Consideration should be given in areas with higher than average elderly and disabled populations for the installation of a shelter.

Class C - < 15 boardings per day, <10 bus departures per day Rural and/or Low Residential Land Use

These are the stops with the lowest use and should have at least a sign posted including map and route information.

If a bus stop meets the amenities criteria it may be considered for a shelter or bench and trash receptacle placement by SANTA CRUZ METRO. Meeting these criteria does not guarantee installation of any amenity. All stops are analyzed against the criteria in this section and further adjusted for amenities based on the comprehensive site review. Existing site conditions and pedestrian infrastructure, public right-of-way availability, accessibility and safety issues, and other concerns must be encompassed in a comprehensive site review and addressed before future shelter or bench placements are confirmed.

All bus stops should have:

- Adequate lighting at the stop or nearby
- ADA accessibility and pedestrian safety consideration
- A bus stop sign with stop number designation as well as map and route information

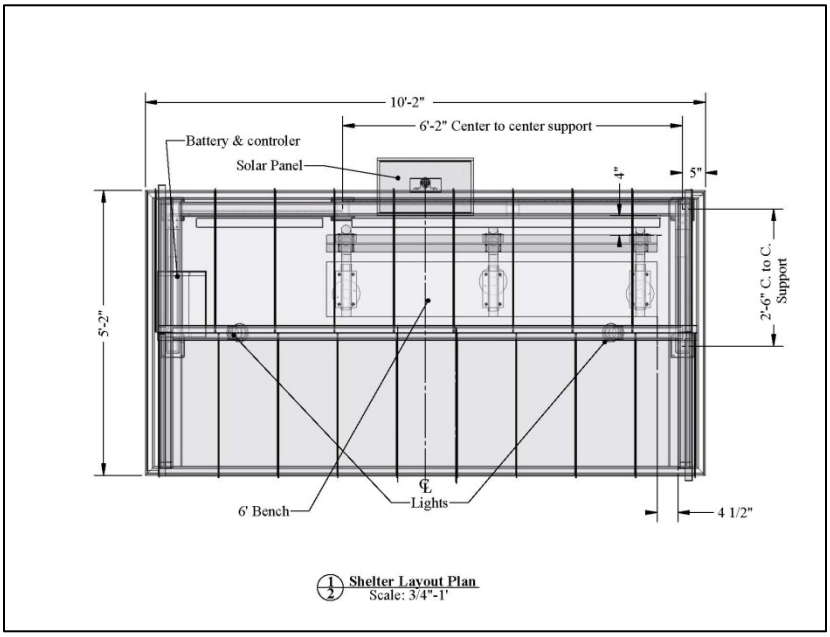
4.2 Bus Stop Amenities – Curbside Design

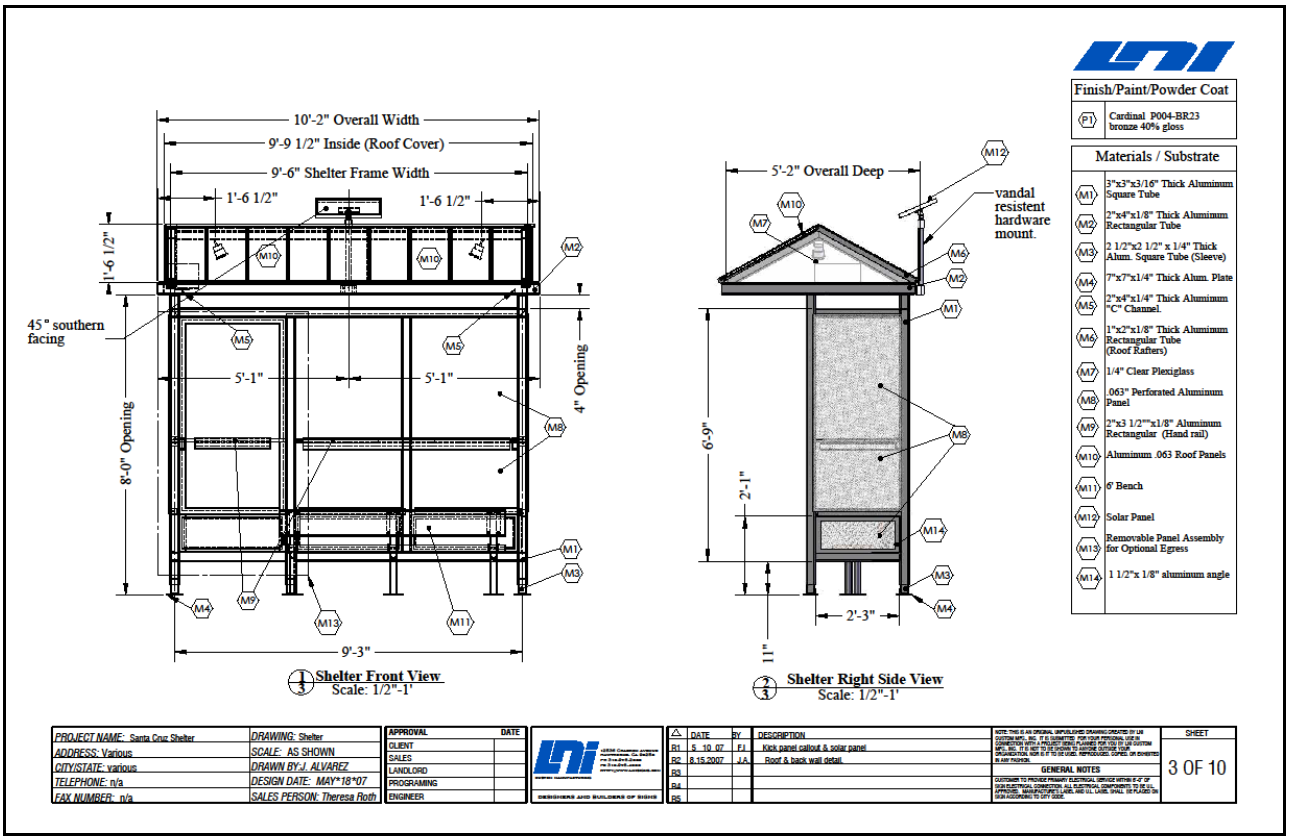
4.2.1 Shelters:

Shelters should generally be placed so that they are facing the travel lane to ensure that the bus operator can easily see the waiting passengers and that there is minimal walking distance from the waiting area to the boarding area. Shelters should not be placed within 15 feet of a fire hydrant or a ADA-accessible parking space. If a shelter is installed adjacent to a building or structure, a minimum of a 12-inch gap should be preserved to allow for trash removal and cleaning of the shelter. Finally, the location of utility access points should be taken into account when installing shelters. No matter how the shelter is placed, all shelters must meet both local jurisdictional accessibility requirements and DOT's ADA Standards:

- Maintain Clear Floor or Ground Space within Shelter: Provide a minimum clear floor or ground space of 30 x 48 inches, entirely within the shelter to accommodate wheelchair users. SANTA CRUZ METRO's standard shelter is designed for a forward approach to the Clear Floor or Ground Space. However, other shelter designs may accommodate parallel approaches.
- Include an ADA Landing Pad: When constructing a bus stop with a shelter, a 60 x 96 inch landing pad that is clear of obstructions must also be built. See the section above for more details about the ADA landing pad.
- Connect Shelter to ADA Landing Pad and Sidewalk Network: Connect the shelter to the ADA landing pad and the sidewalk network via an accessible route.
- Supply bench seats that inhibit lying down
- Use graffiti-resistant film
- Reference diagrams and appendix

Basic specifications for SANTA CRUZ METRO's preferred LNI (or equivalent) shelters are below:





4.2.2 Benches and Simme Seats

Benches are installed inside all standard shelters. Benches may also be installed independently at bus stops that do not have shelters. Efforts should be made to locate benches near bus stops where they do not create barriers to accessible bus boarding or sidewalk usage.

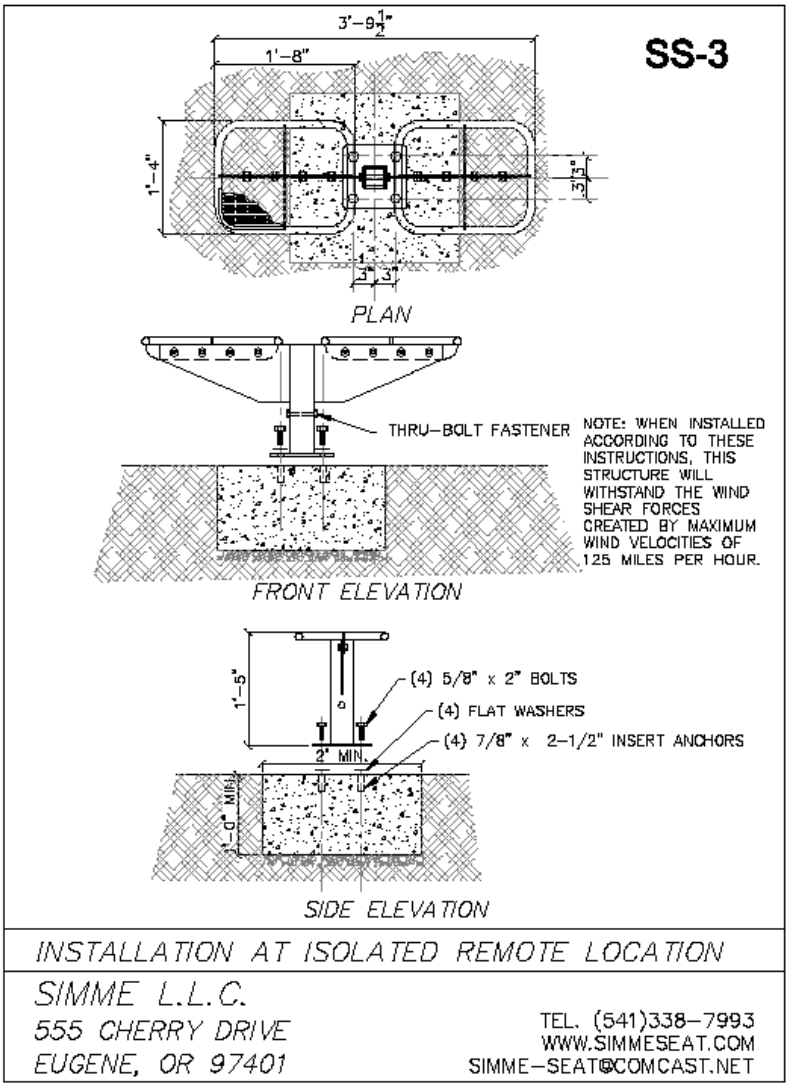
The design factors for benches should include:

- Benches should be placed facing the street
- Strength and durability of structure and materials
- Resistance of materials and paint treatments to weather conditions, graffiti, cutting, fire, and other forms of vandalism
- Benches should be placed on the back side of sidewalk a minimum of six to nine feet from the bus sign post, to allow pedestrians to move past people sitting on the bench.
- Ensure that there are no conflicts with wheelchair accessibility and loading at the bus stop
- Benches should be anchored to prevent unauthorized movement.
- Benches should inhibit lying down

A Simme Seat is an alternative passenger waiting amenity that incorporates the bus stop sign pole with two seats attached at the appropriate height. This feature can be used as an alternative when bus shelters become a nuisance and attract loitering. Below is a photo and installation specs:

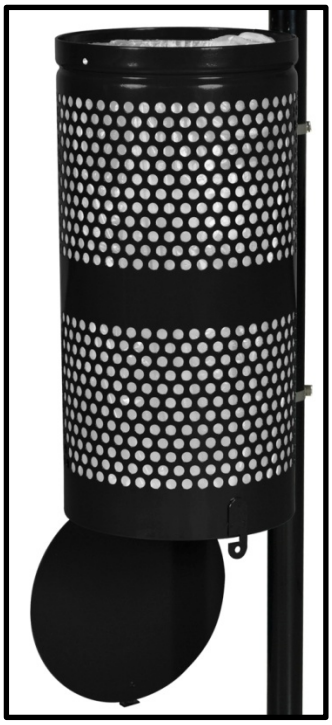
1: If at a sidewalk (lag bolted to concrete):

2: If in a remote area (need concrete footing):



Appendix 3

4.2.3 Trash Receptacles



SANTA CRUZ METRO places trash receptacles at some bus stop locations with shelters, at other high-ridership stops, and at locations where litter has become problematic. SANTA CRUZ METRO will consider placement of a trash receptacle at bus stop locations with 50 or more boardings per day. Trash receptacles should be installed where they do not create an obstruction or interfere with the accessibility of the bus stop or the adjacent sidewalk. Trash receptacles shall not be placed on the wheelchair landing pad or in the clear floor or ground space within the shelter. They must not obstruct pathways between the sidewalk, shelter access (where applicable), the landing area, or posted information. The receptacles should be secured to the pavement to prevent accidental tipping or unauthorized movement.

4.2.4 Signs and Sign Posts

SANTA CRUZ METRO's bus stop sign should be securely mounted on its own post at an angle perpendicular to the street. The signs should be placed at least 2 feet away from the face of curb in order to be clear of side mirrors of a bus (note also that all signs within the bus stop area, including signs installed by other parties, should be set back at least 2 feet from the face of curb).

For best visibility, bus stop signs should usually be placed 2 feet from the face of curb and no further than 4 feet away from the face of curb so that they are still clearly visible to patrons and bus drivers. However, the exact distance of the sign from the curb will vary depending on site conditions, and only in limited circumstances shall the sign be placed beyond the 4' desired limit and in a location where it is visible to the bus operator.

4.2.5 Lighting

Adequate lighting at bus stop facilities allows bus drivers and approaching traffic to see waiting passengers at night. Lighting also provides added security for those waiting at the stop, in addition to illuminating route and schedule information for patrons. Lighting can be provided by a nearby streetlight, ambient light from the adjacent businesses, lighting installed within the shelter, or a stand-

alone light pole. Transit stops without sheltered lighting should be located within 50 feet of an overhead light source. Bus stop light fixtures or shelter illumination should be between 1.5 to 2.0 foot-candles. However, shelter lighting should be on the lower range as to not create a spotlight affect that makes it difficult for passengers waiting inside the shelter to see outside.

4.2.6 Bicycle Racks

SANTA CRUZ METRO will incorporate bicycle racks into the design of SANTA CRUZ METRO-owned facilities such as park & rides and transit centers and when developing or renovating these locations. Municipalities and other parties may install bicycle racks near bus stops, as long as they do not obstruct or interfere with the accessibility of the bus stop or adjacent sidewalk. Bicycle racks should never be placed on the wheelchair landing pad, within the shelter, or blocking access from the shelter to the boarding area or access to the sidewalk network. Bicycle racks installed should conform to municipal standards.

Basic guidelines for curb side placement of bus stop amenities can be found as Appendix Item C.

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5. On-Street Design

The size, weight, and operational characteristics of transit vehicles require special consideration in the design and construction process. Site layout and roadway design should incorporate the bus design and operational characteristics described in this manual. Proper design will enhance bus operations and traffic flow, help maintain roadway surfaces, and reduce obstacles for motorists, bicyclists, pedestrians, and bus operators.

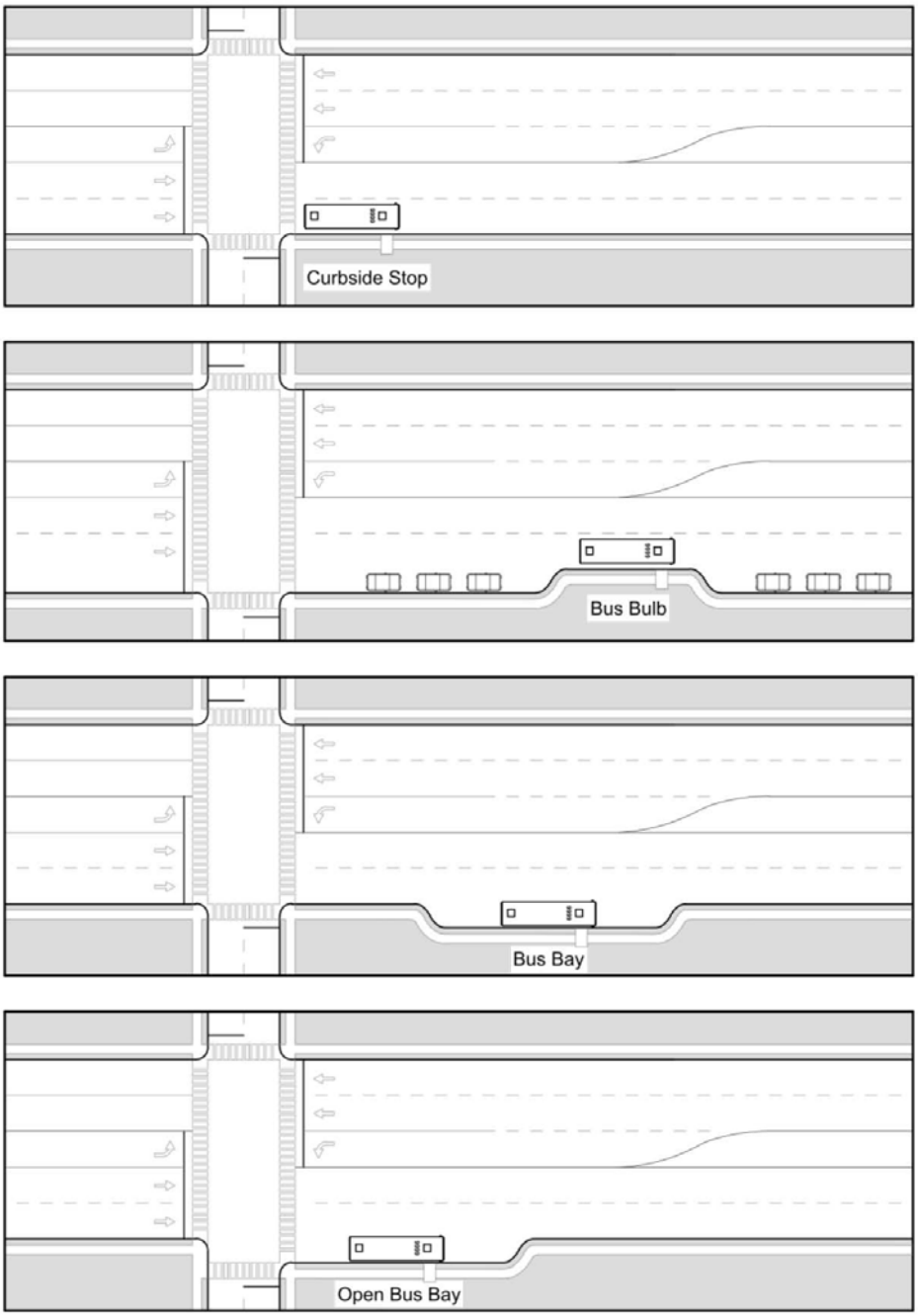
Factors that should be considered when designing a site that will be served by SANTA CRUZ METRO transit vehicles include:

- anticipated vehicle speeds
- traffic volume
- on-street parking conditions
- intersection radii
- bus dimensions
- presence of bicycle lanes
- sight distances
- land uses and surrounding development types (urban/rural)

The majority of SANTA CRUZ METRO's bus stops are on-street bus stops that occur in the curb lane, a shoulder, or a parking lane. Dedicated transit facilities such as bus turnouts, bulbs, and turnarounds can also be incorporated into roadway designs to provide safe, off-street service points that do not interfere with traffic movement and help promote a vehicle's safe re-entry into traffic. These facilities should be designed to accommodate all of SANTA CRUZ METRO's transit vehicles and allow for necessary vehicle acceleration and deceleration. Developers must contact SANTA CRUZ METRO in the early stages of design and development before the installation of any type of bus stop. General illustrations of the different types of possible street-side bus stops are included below.

The remainder of this chapter will be divided into sections that provide more specific information on the following subjects:

- General street design to accommodate transit vehicles
- Design of on-street bus stop zones
- Design of dedicated bus facilities (turnouts, bulbs, and turnarounds)



5.1 Lane Width

SANTA CRUZ METRO's buses operate most easily on lanes 12 feet or wider. However, this width is not always possible depending on the context of the roadway, and SANTA CRUZ METRO buses do operate on roadways with lane widths less than 12 feet due to limited right-of-way. On public roads, lane width

is decided by the appropriate municipality or jurisdiction. In private developments where SANTA CRUZ METRO buses will operate, SANTA CRUZ METRO recommends lane widths of 12 feet or more.

5.2 Roadway Grade

Changes in grade affect how well buses can easily negotiate changes in the roadway with adequate ground clearance for passenger safety and comfort. Changes in grade should be gradual (6% or less) to prevent buses from “bottoming out” or causing damage to the vehicle or roadway.

5.3 Roadway Pavement

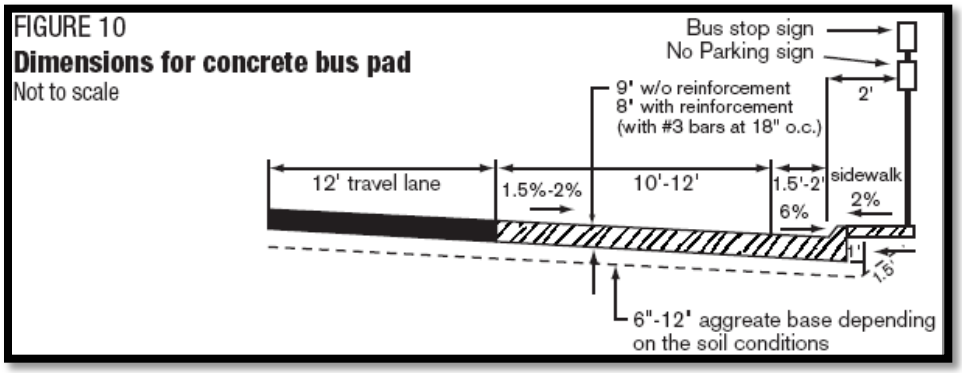
For public roads, developers should follow appropriate state or municipal standards. However, if the roadway will be used by SANTA CRUZ METRO vehicles, the pavement should be constructed to handle vehicles with a bus axle weight of 27,760 lbs.

5.4 Concrete Bus Pads

For heavily-used bus stop areas, including bus bays and terminals, the rigid pavement design is strongly recommended. Due to the loads and shear forces applied to pavement surfaces during bus starting and stopping movements, this pavement surface has the best potential to retain its shape and resist breaking down over time.

The installation of concrete bus pads is up to the discretion of the appropriate municipality. The locations of recommended concrete pads will be influenced by bus frequency, speed, and existing pavement condition. Concrete bus pads should be installed to be the width of the curb lane and preferably extend the entire length of the appropriate bus stop zone. Thus, the concrete pads should be at least 125’ long for near-side bus stops, 125’ long for far-side bus stops, and 150’ long for mid-block bus stops. In areas where more than one bus will arrive at the bus stop at one time, the length of the concrete pad should be extended by at least 50’ for each additional expected bus (70’ for each articulated bus). SANTA CRUZ METRO should be consulted to determine the number of buses expected to arrive or dwell at a bus stop simultaneously.

FIGURE 10
Dimensions for concrete bus pad
Not to scale



5.5 Typical Bus Turning Radii

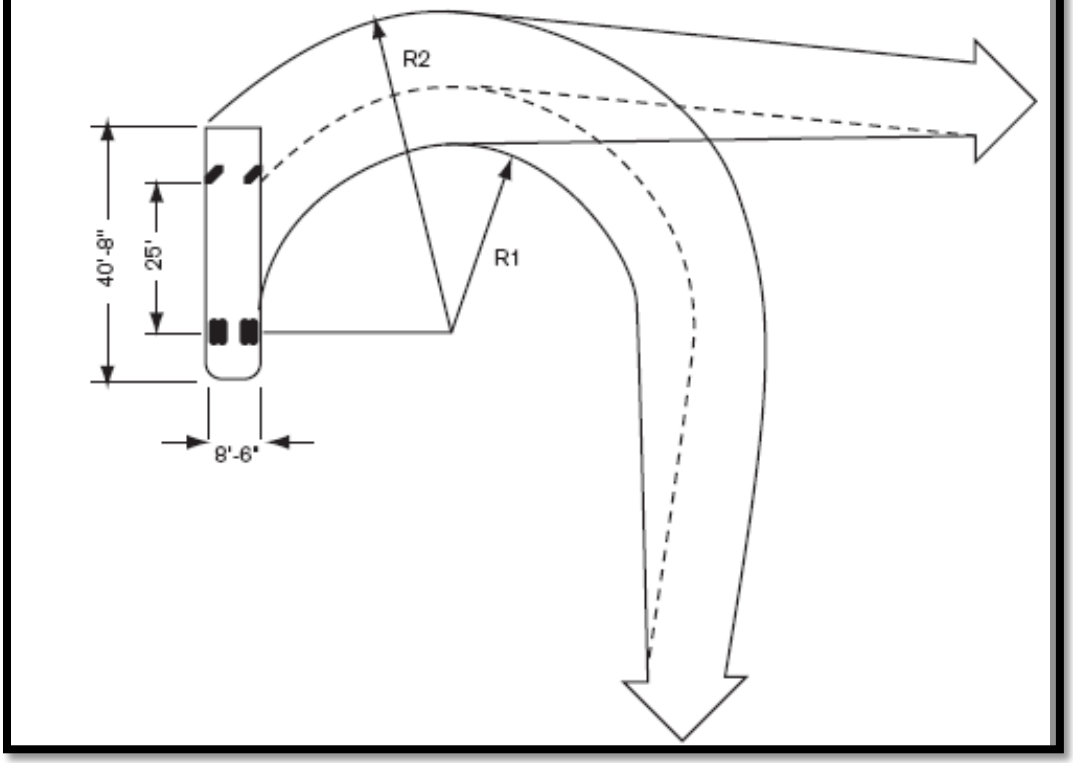
The turning radius of SANTA CRUZ METRO's transit vehicles affects the design of intersections, roundabouts, and dedicated bus facilities such as turnarounds and park and rides. While the curb radius and other roadway design features of municipal streets is governed by the appropriate municipality, the typical turning radius of SANTA CRUZ METRO's vehicles should be considered, as it will affect the ability of SANTA CRUZ METRO to operate safely on roadways with minimal encroachment into other lanes of traffic. Private developments that are intended to receive bus service should design facilities that will accommodate smooth and easy turning movements by SANTA CRUZ METRO's vehicles. Such developments should be designed to accommodate a 30-foot inner turning radius and 60-foot outer turning radius.

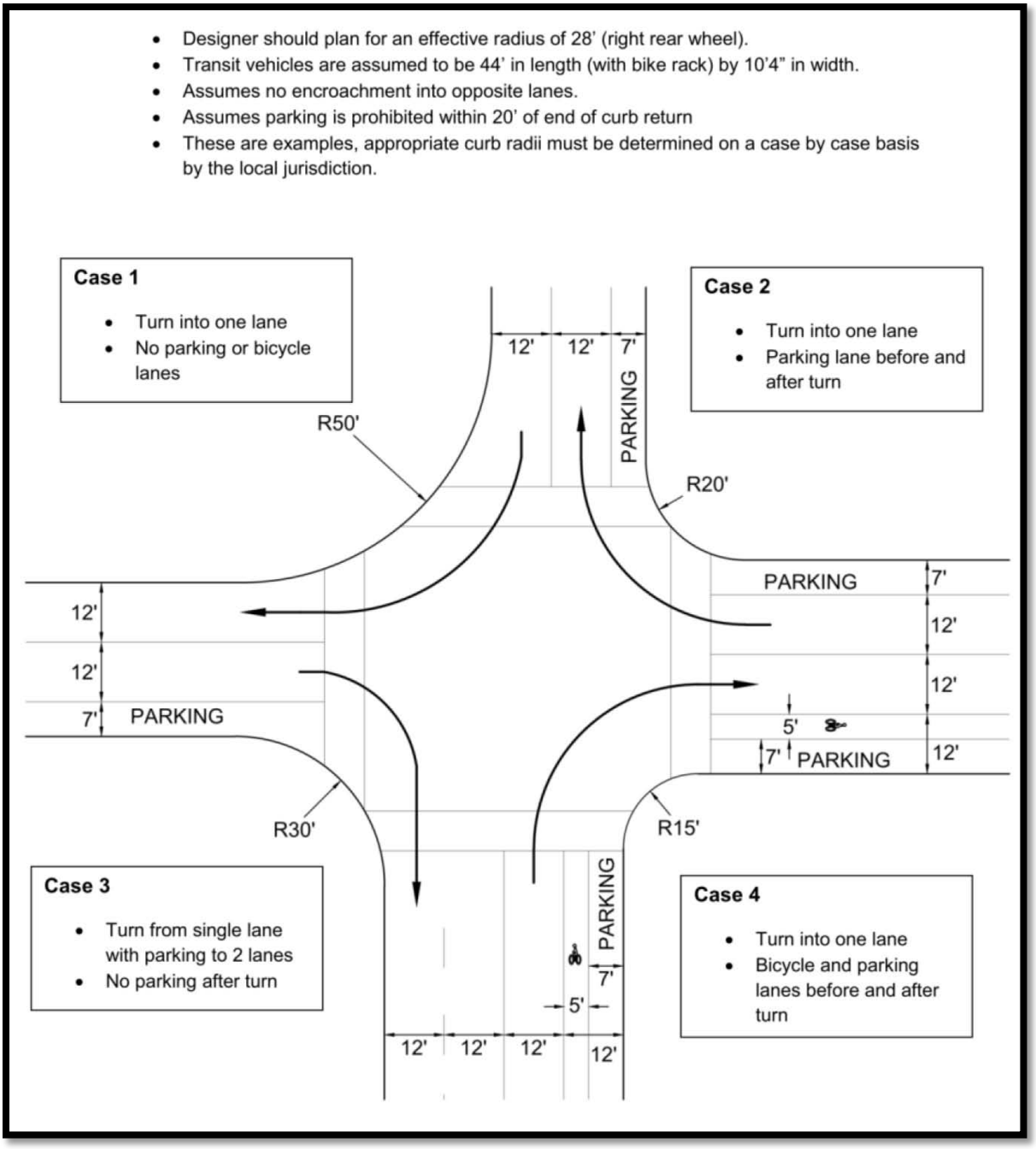
Bus turning radii for large buses

Not to scale

	Radius (R1) of inner rear wheel	Radius (R2) of outer front corner
Minimum	28'	50'
Desirable	30'	55'

For 40' vehicles and articulated vehicles



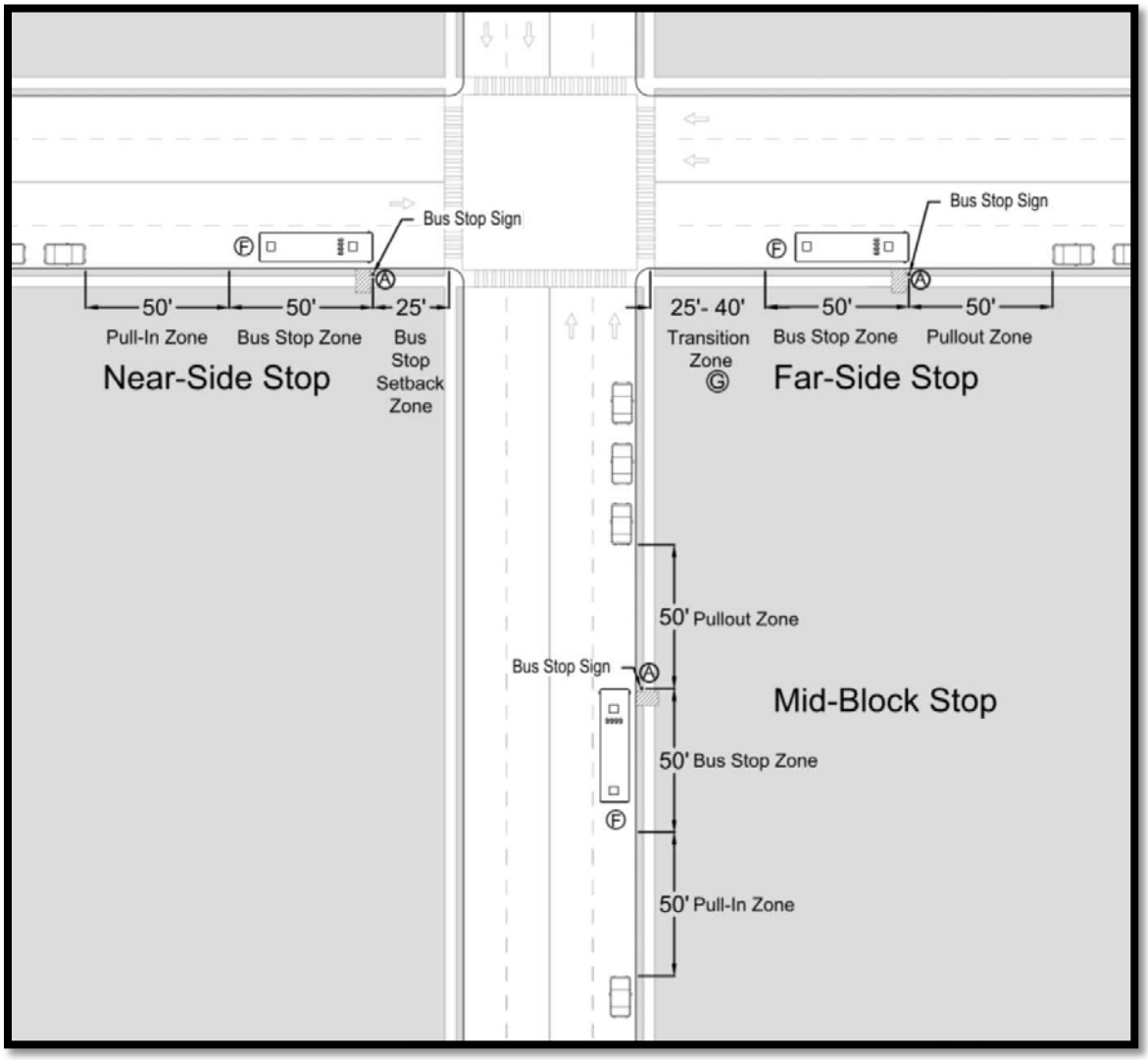


5.6 Street-side Dimensions

As described above, on-street bus stops are generally placed in one of three locations: near-side of the intersection, far-side of the intersection, or mid-block (between two intersections). On-street bus stops in the traffic lane are most appropriate on roadways with a speed limit of 35 mph or less. On higher-speed roads, bus bays may be preferred for the safety of pedestrians, bus operators, and drivers.

However, specific traffic conditions and existing right-of-way constraints will dictate what type of bus stop should be installed.

The figure below illustrates the three on-street bus stop locations along with measurements for parking setbacks. The measurements shown below illustrate the desired "clear zone" that should be provided at each bus stop location to provide for the safe movement of buses into and out of the parking or curb lane (20 feet should be added to each clear zone that will accommodate articulated buses). This clear zone is necessary when parking or other obstructions are located in the same lane in which the bus will be stopping. On roadways with only one thru-lane, bus stop zones should still be demarcated on either end by "no stopping" signs. SANTA CRUZ METRO realizes that these clear zones are not always possible given existing site conditions. However, these dimensions should be pursued to the extent possible, and SANTA CRUZ METRO should be contacted when designing bus stop zones so that operational data can be used to estimate necessary space requirements. Note that measurements given in the following illustrations only apply to bus stop zones where one bus at a time is expected in the zone. In other locations, where more than one bus may arrive and dwell at the same time, additional space is needed. In general, bus zones should increase by 50 feet for each additional standard bus and 70 feet for each additional articulated bus that is expected to use the zone simultaneously.

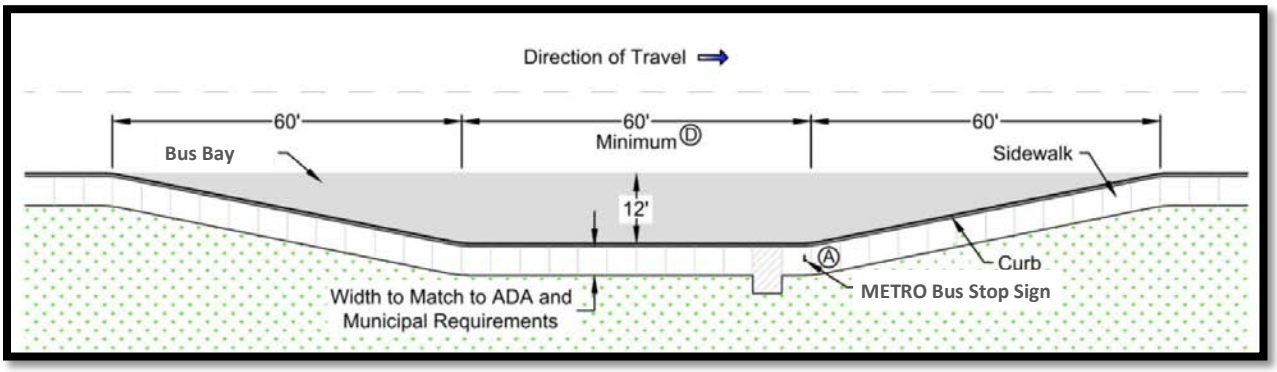


5.7 Bus Bays

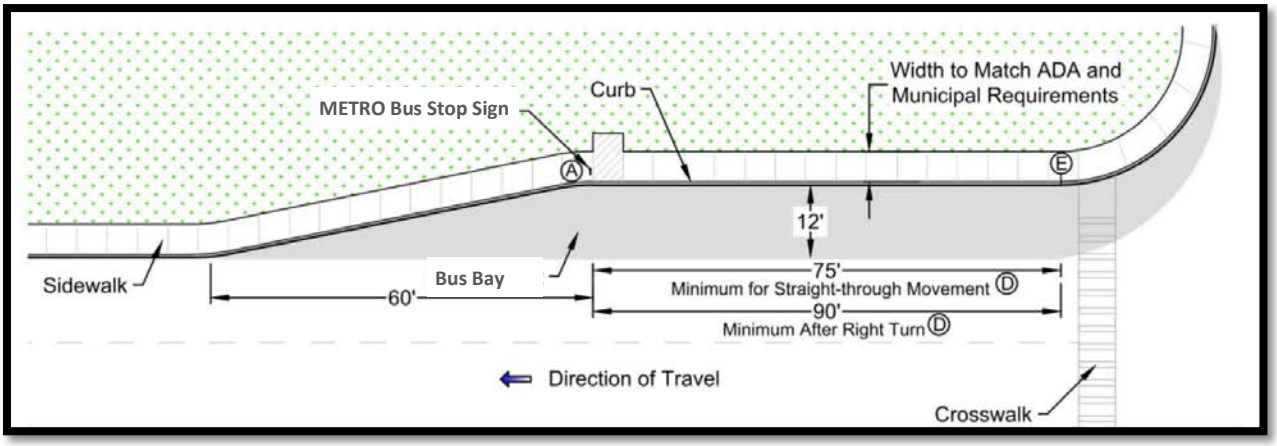
Bus Bays are areas that are cut out of the roadway so that a bus can pull out of the traffic lane and passengers may board and alight safely. Sometimes these facilities require additional right-of-way acquisition and should always be coordinated with enhanced pedestrian facilities.

While bus bays are more commonly recommended for roadways with speed limits of 35 mph or above, bus bays can also be useful on lower-speed roads when they will be used as a layover location or otherwise provide a place for buses to dwell for a longer period of time. SANTA CRUZ METRO recommends two different approaches for constructing bus bays depending on what type of roadway they will be built on.

Mid Block Bus Bay:

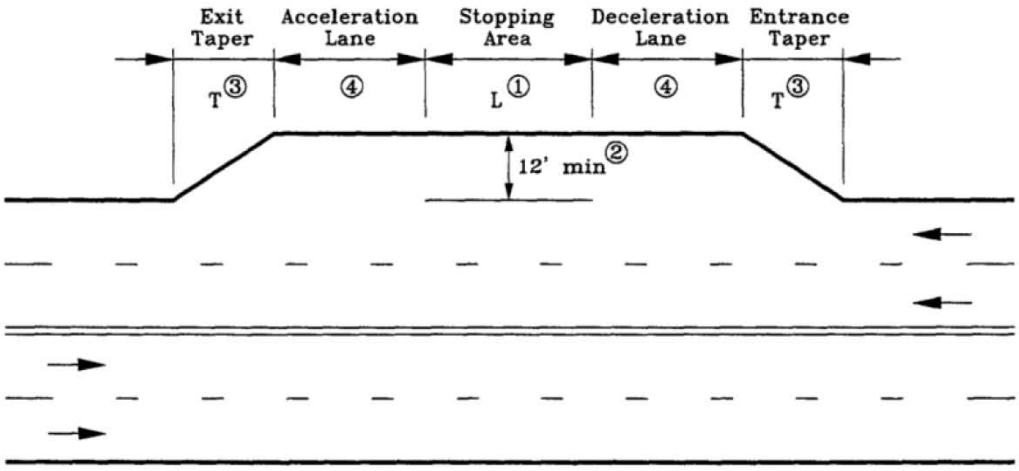


Far Side Bus Bay:



(Courtesy of COTA)

The type of bus bay design, described in the Transit Cooperative Research Program Report 19, is well suited for higher-speed, higher-volume roadways where long entrance and exit tapers should be provided so that the bus can achieve both deceleration and acceleration outside of the through-traffic lane. These bus bays are designed to provide minimal interruption to through-traffic on a busy road, and the dimensions vary with the speed limit of the roadway.



Notes:

1) Stopping area length consists of 50 feet for each standard 40-foot bus and 70 feet for each 60-foot articulated bus expected to be at the stop simultaneously. See Table 3 for the suggested bus stop capacity requirements based on a range of bus flow rates and passenger service times.
2) Bus bay width is desirably 12 feet. For traffic speeds under 30 mph, a 10-foot minimum bay width is acceptable. These dimensions do not include gutter width.
3) Suggested taper lengths are listed in table below. Desirable taper length is equal to the major road through speed multiplied by the width of the turnout bay. A taper of 5:1 is a desirable minimum for an entrance taper to an arterial street bus bay while the merging or re-entry taper should not be sharper than 3:1.
4) Minimum design for a busy bay does not include acceleration or deceleration lanes. Recommended acceleration and deceleration lengths are listed in the table below.

Through Speed (mph)	Entering Speed[a] (mph)	Length of Acceleration Lane (Feet)	Length of Deceleration Lane[b] (Feet)	Length of Taper (Feet)
35	25	250	184	170
40	30	400	265	190
45	35	700	360	210
50	40	975	470	230
55	45	1400	595	250
60	50	1900	735	270

[a] Bus speed at end of taper, desirable for buses to be within 10 mph of travel lane vehicle speed at the end of the taper.
[b] Based on 2.5 mph/sec deceleration rate.

(Courtesy of TCRP)

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6. Transit-Friendly Design & Pedestrian Access

The land use and transportation system patterns of a city or neighborhood strongly affect the efficiency and viability of public transportation. In general, the two main factors that affect the level of service of public transportation to an area and its population are pedestrian accessibility and development density. Pedestrian accessibility is important because every transit rider is also a pedestrian. Most trips to and from the transit stop are made by foot, and thus sidewalks and other pedestrian amenities are essential to completing trips by transit. This is especially true for certain segments of the population, such as the elderly and persons with disabilities, who rely on quality pedestrian infrastructure for mobility. The quality of pedestrian access is driven by two factors: the directness and continuity of the sidewalk network and the proximity of the buildings to that sidewalk network.

Development density is also important for the success of public transportation because public transportation is, by definition, designed to transport large numbers of people from one general location to another. To be cost-efficient and provide an adequate level of service, transit must be able to reach relatively large concentrations of people. This does not mean that very high density development (such as downtown San Francisco) is required for successful public transportation. Medium-density residential developments and commercial developments with strong activity centers are sufficient to support convenient transit service with high ridership potential. Additionally, lack of density can be offset in some instances with the use of park & ride lots and other unique services tailored for specific applications.

In a more general sense, transit-friendly design can be accomplished by following “complete streets” principles when designing internal and external transportation systems. The Monterey Bay Area Complete Streets Guidebook is an excellent resource for learning about and implementing complete streets principles. The toolkit can be found online at: http://sccrtc.org/wp-content/uploads/2013/08/final-2013-complete-streets-guidebook.pdf

7. Appendix

Contents:

Development Review Checklist for Consideration of Transit

SANTA CRUZ METRO will review development and roadway improvement plans to identify transit needs and opportunities and provide feedback on the designs. Ongoing communication between SANTA CRUZ METRO, the appropriate city and county, and the developer may be necessary in order to solidify details of:

- Transit routes and modifications
- Bus stop placement
- Bus stop design, including ADA-compliance and adherence to federal regulations
- Temporary reroutes and bus stops

Below is a checklist to be completed to ensure transit considerations for developments and roadway improvements:

Transit Circulation and Bus Stop Placement			
	Yes	**No**	**N/A**
Has SANTA CRUZ METRO been contacted to verify that transit service currently exists adjacent to a proposed development, or may be feasible in the future?			
Are large developments designed to permit safe routing of buses through the development? Note: deviating from primary routing to service a development adds travel time, and will be considered only if SANTA CRUZ METRO deems it appropriate			
For all roadways and driveways, do all grades conform to SANTA CRUZ METRO's Bus Stop Guide?			
For all roadways and driveways that will accommodate buses, are lane widths 10-12 ft?			
For all roadways, driveways, and bus stops that will accommodate buses, have pavement cross-sections been designed to conform to SANTA CRUZ METRO's Bus Stop Guide (ideally including concrete bus pads)?			
Will structures and landscaping permit sufficient vertical and horizontal clearances for buses?			
Are proposed bus stops connected to primary destinations with an ADA-compliant pedestrian access path free of obstacles?			
Bus Stop Amenities and Designs			
Has SANTA CRUZ METRO been contacted to explore whether a new or relocated bus stop can be provided on or adjacent to the proposed project?			
If a bus stop currently exists on or adjacent to the proposed project, has SANTA CRUZ METRO been contacted to explore specific bus stop improvements and/or changes to the existing bus stop amenities?			
If the project requires bus stop improvements or amenity changes, have the proposed elements been designed to be consistent with SANTA CRUZ METRO's Bus Stop Guide?			
If new or relocated transit stops are proposed or required, are the designed to be located in a safe, visible, and well-lit location, in reasonable proximity to primary destinations, as well as consideration for bus stops service the opposite direction?			

Bus Stop Modification Request

-Request to Add, Remove, Modify, or Relocate a Santa Cruz METRO Bus Stop-

Please fill out form completely and include accurate contact information so that we may respond to your request

Requestor

Name:

Company/Affiliation (if applicable):

Address:

Phone Number or Email:

Date of Request:

Request to: Relocate Modify
(circle one or more)

If modify: Add Remove

- Shelter
- Simme Seat
- Bench
- Trash Receptacle

(circle one or more)

What bus route(s) serves this stop?

Reason for Request (Required):

Description of Bus Stop

Bus Stop Number (found posted on the bus stop signage):

Nearest Intersection:

Direction of travel: Northbound Southbound Eastbound Westbound
(circle one)

Thank you for your input. Your request will be reviewed by Santa Cruz METRO's Planning Department using established criteria to make a determination. Bus stop changes are affected by several factors, including: ridership, bus stop spacing, land use, population density, existing roadway and pedestrian conditions, and important destinations. After a comprehensive review, the Planning Department will recommend an action to Santa Cruz METRO's Maintenance Manager for final ruling.

Assessment of Bus Stop Request

(Internal Use Only - Planning Staff)

Requestor:

Name:
Company/Affiliation (if applicable):
Address:
Phone Number or Email:
Date of Request:

Request to:	Add	Remove	Relocate	Modify
Modify:	install shelter	install bench	install Simme Seat	install trash receptacle

Assessment:

Description of Current Bus Stop/Location (if applicable)
Bus Stop ID:
Nearest Intersection:

Direction of Travel:	Northbound	Southbound	Eastbound	Westbound
Placement:	Nearside	Farside	Midblock	

Routes Served:
Number of Departures:

Description of Requested Bus Stop Location (if applicable)
Nearest Intersection:

Direction of Travel:	Northbound	Southbound	Eastbound	Westbound
Placemen:	Nearside	Farside	Midblock	

Routes Served:
Number of Departures:

Location Land Use/Density:

Surrounding Land Use:	Residential	Office	Education	Retail	Park	Mixed
	Central Business District		Other:			

Density:
Nearby sensitive land uses:

Nearest Active SCMTD Bus Stop:
Prior Stop:
Next Stop:

Existing Road Conditions:

Street Type:	Local	Collector	Arterial

Number of Lanes:
Speed Limit:
Nearby major destinations:
Right of Way/Jurisdictional Concerns:

Existing Pedestrian/Accessibility Conditions:

Sidewalks to/from stop location: Yes No Partial
Curb ramps at intersections: Yes No Partial
Crosswalk or traffic controlled intersection: Yes No

Ridership and Transfers:

Average Weekday Boardings:
Average Weekend Boardings:
Can transfers occur at this location: Yes No

Existing Amenities (if applicable):

Shelter ADA Landing Pad Trash Receptacle Lighting Bike Rack
Simme Seat Bench Other:

Bus Shelter Request:

Does the location meet average boarding requirements? Yes No
Do existing conditions permit shelter installation? Yes No
Is there an existing shelter at a nearby stop? Yes No
Is surrounding land use, density, and/or major destinations consistent with shelter requirements? Yes No

Bench / Simme Seat Request:

Does the location meet average boarding requirements? Yes No
Do existing conditions permit bench/Simme Seat installation? Yes No
Is there an existing bench/Simme Seat at a nearby stop? Yes No

Trash Receptacle Request:

Is the stop at a driver recovery location and/or a bus shelter? Yes No
Does the stop meet average boarding requirements? Yes No
Is the stop near a restaurant/food establishment? Yes No
How many requests have been received at this stop:

Assessment: **Request Approved** **Request Denied**

Reasoning for Assessment:

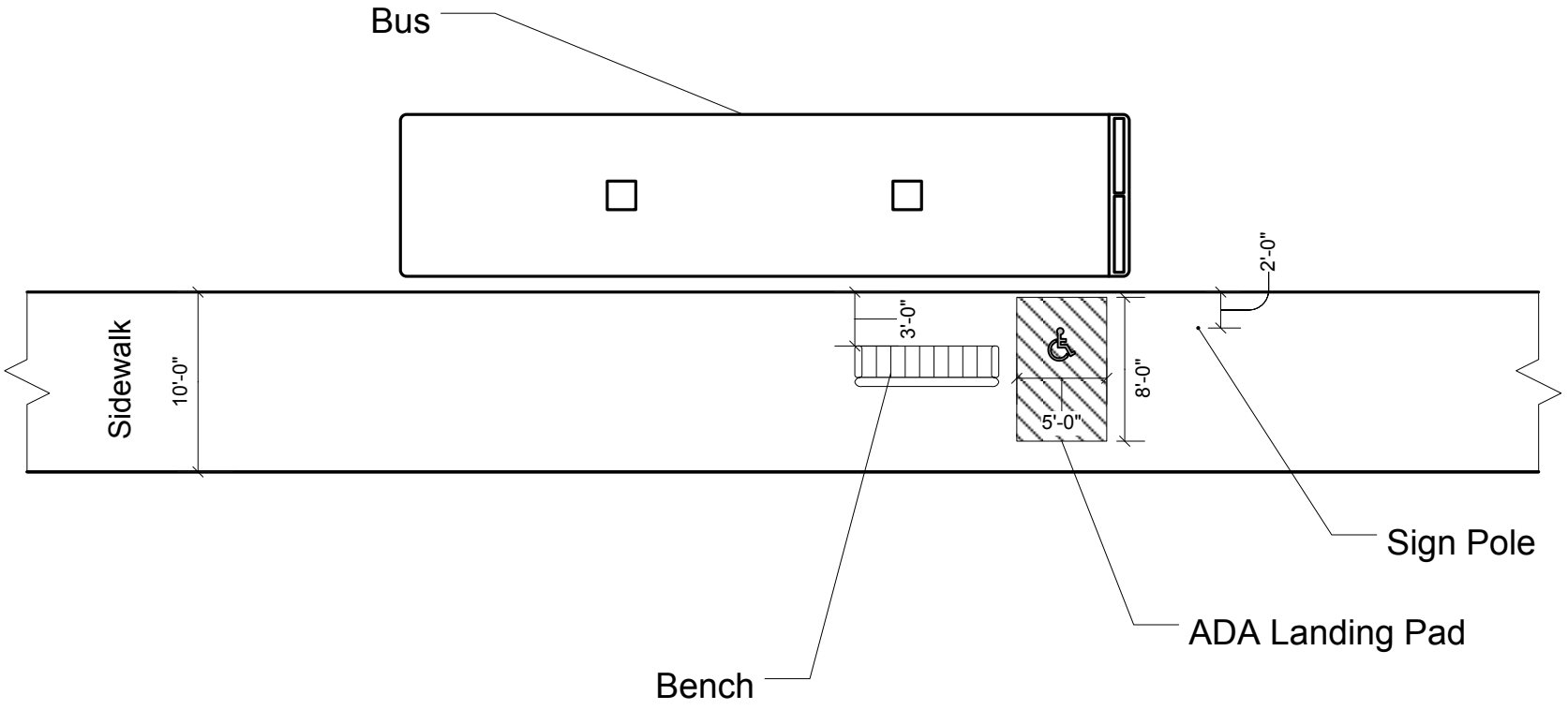
Assessor:

Date of Assessment:

Maintenance Manager Ruling:

Follow Up Action:

Typical Bus Stop Layout With Bench



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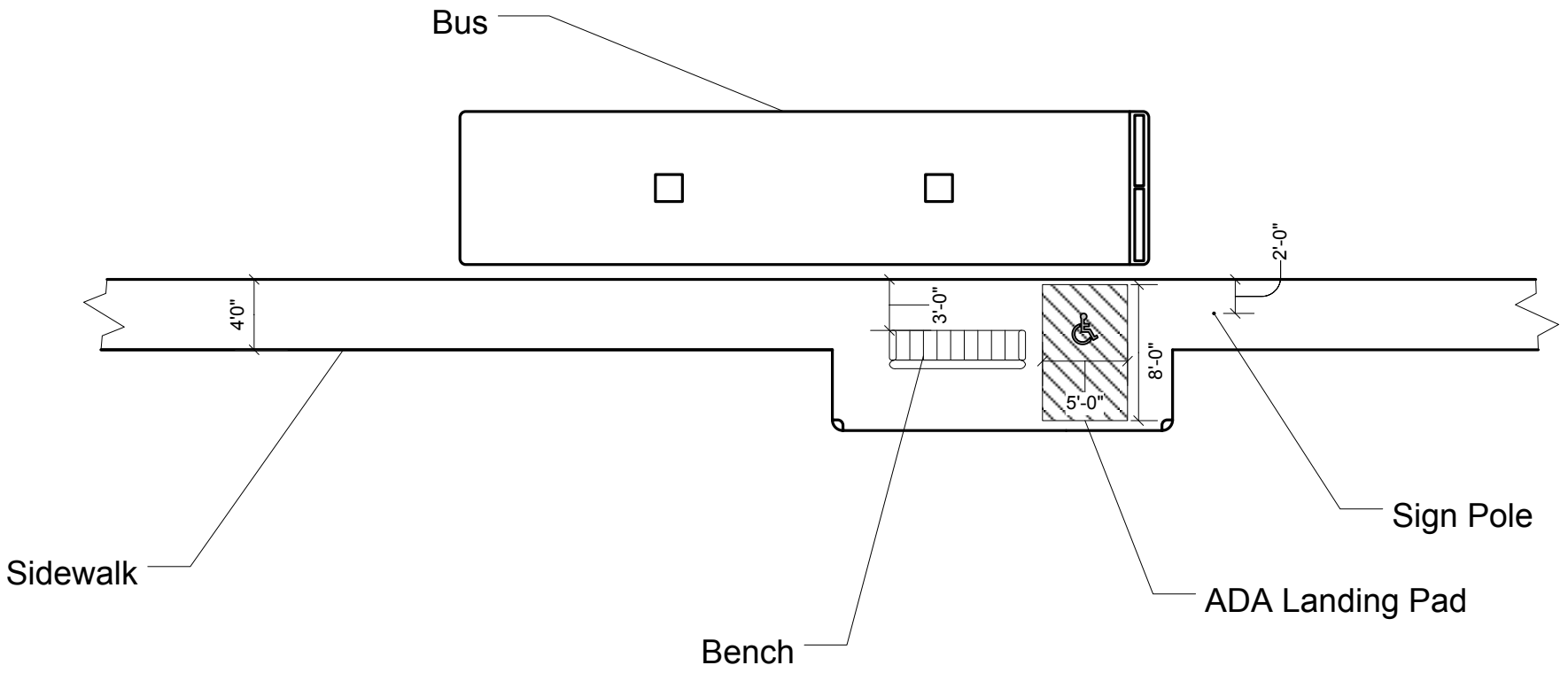
SANTA CRUZ METRO

Typical Bus Stop Layout
With Bench – Narrow Sidewalk



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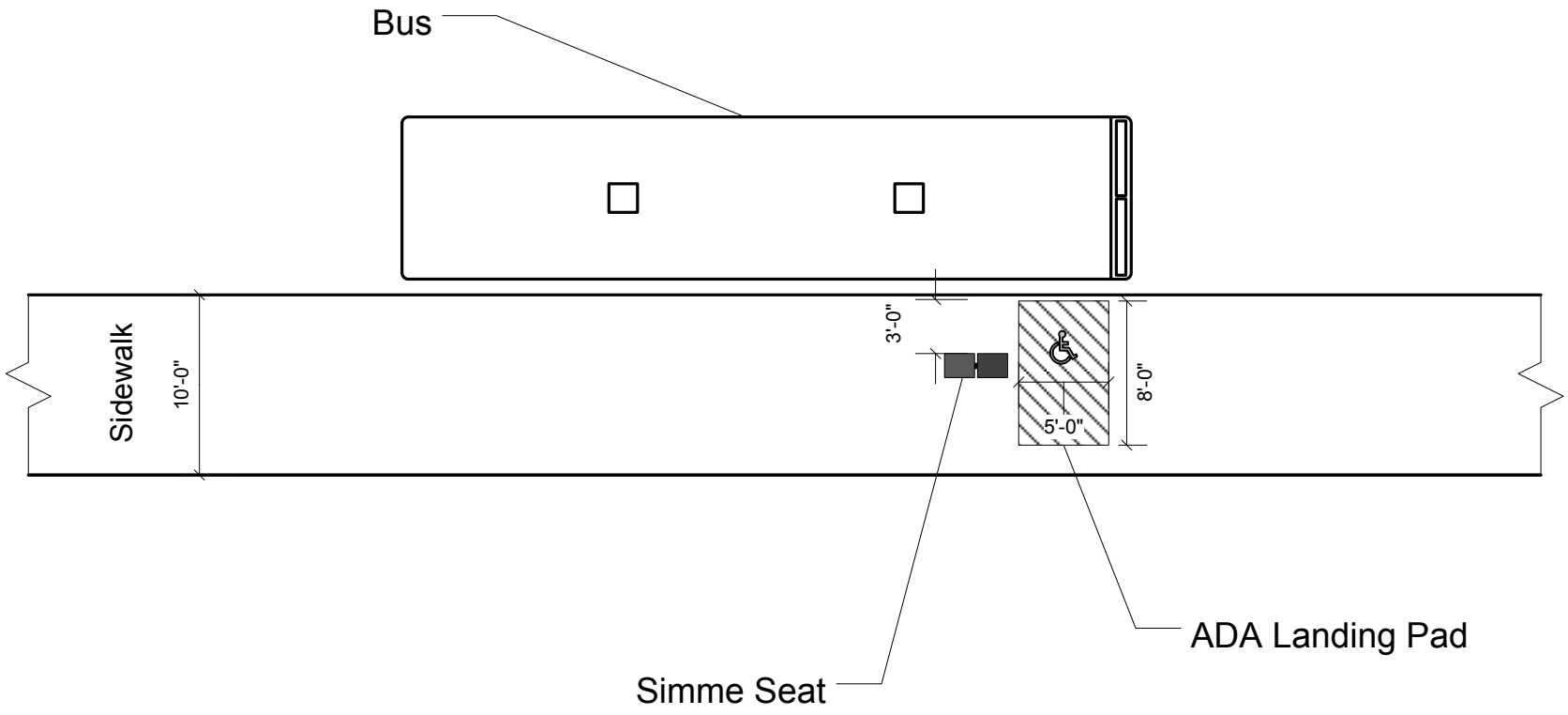
SANTA CRUZ METRO

Typical Bus Stop Layout With Simme Seat



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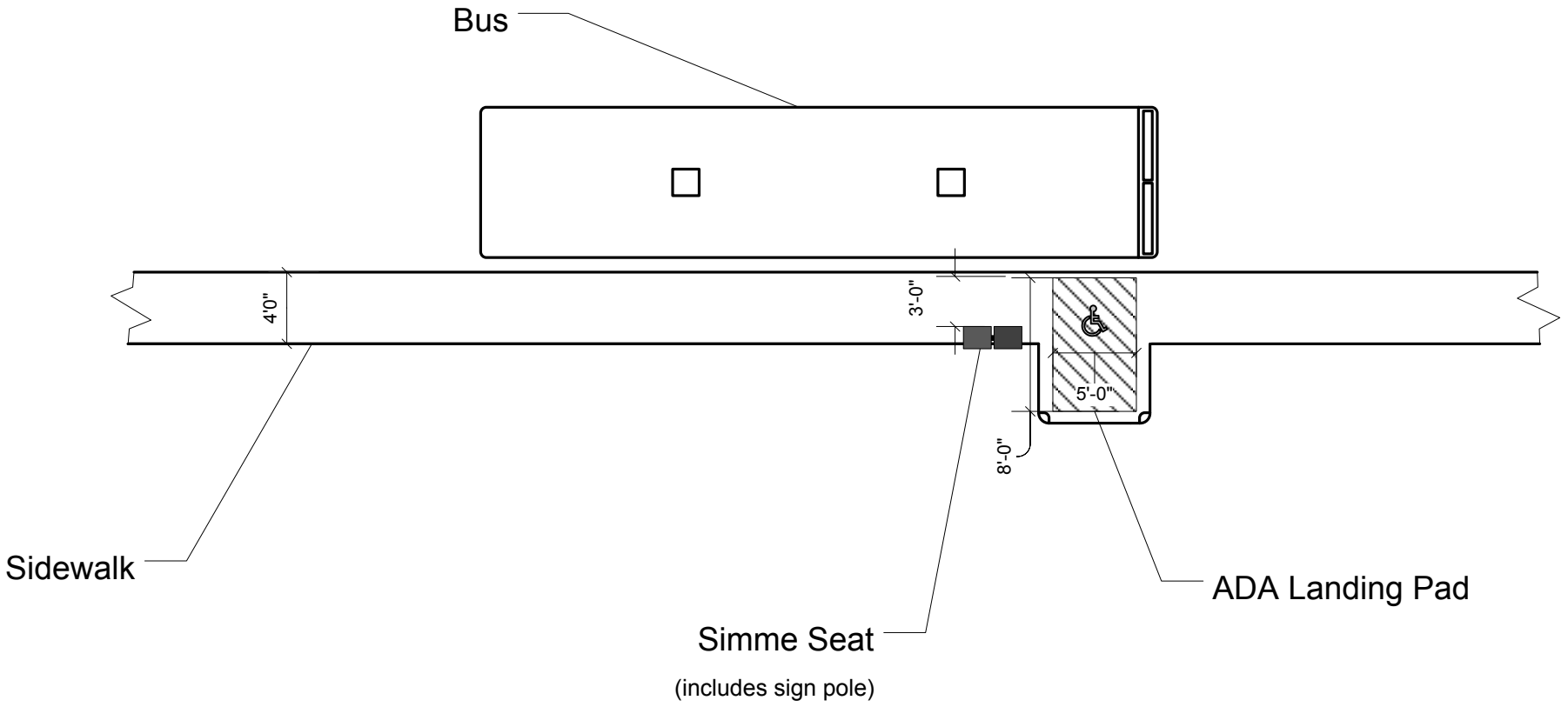
SANTA CRUZ METRO

Typical Bus Stop Layout
With Simme Seat – Narrow Sidewalk



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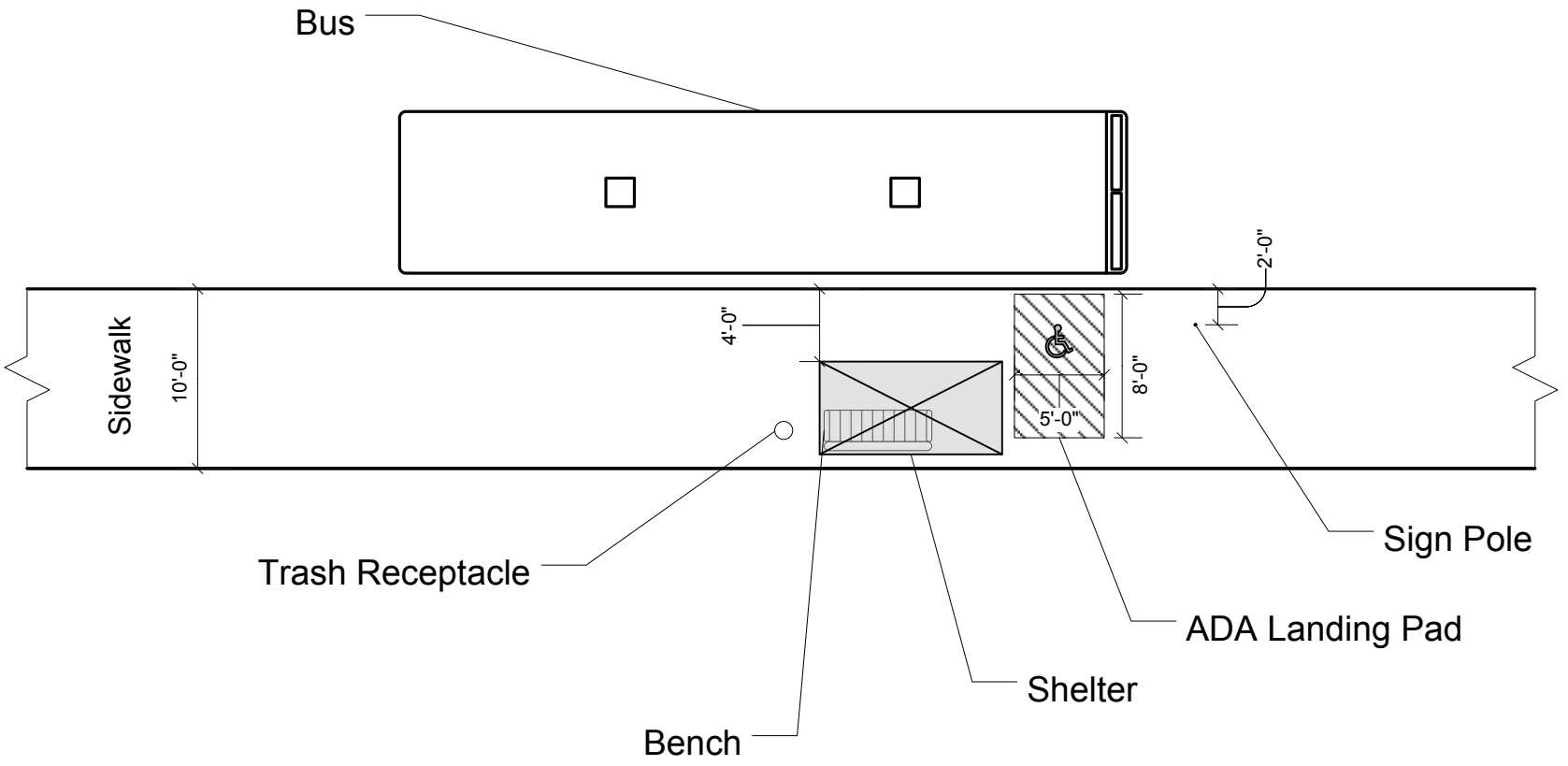
SANTA CRUZ METRO

Typical Bus Stop Layout With Shelter



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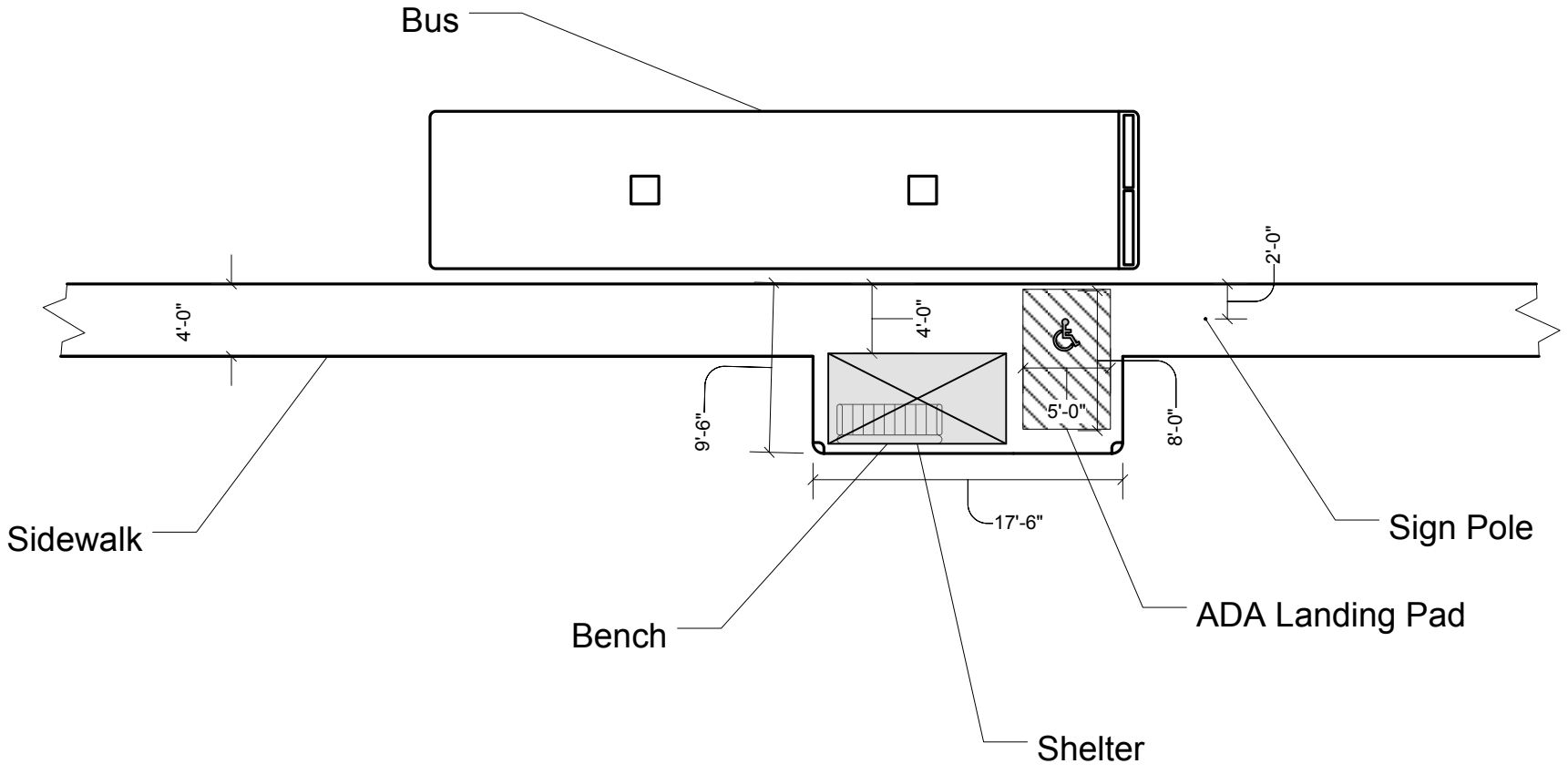
SANTA CRUZ METRO

Typical Bus Stop Layout
With Shelter – Narrow Sidewalk



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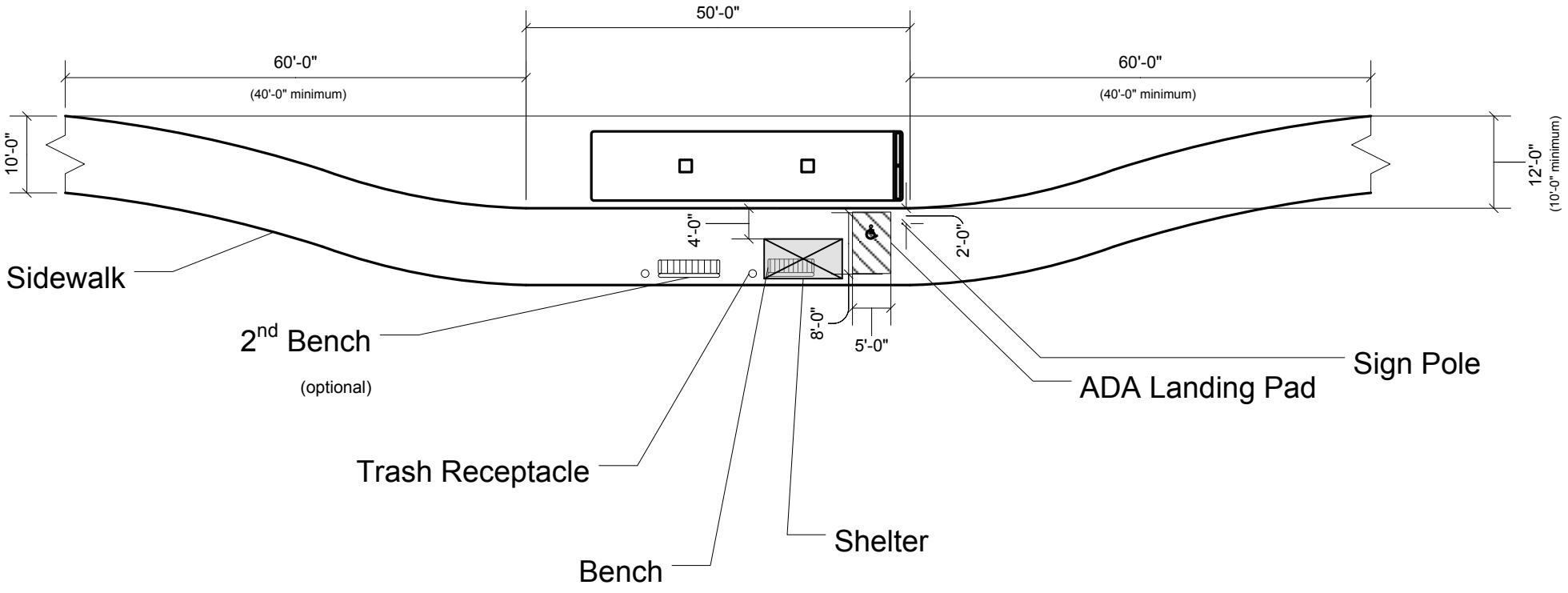
SANTA CRUZ METRO

Typical Bus Stop Layout With Shelter – Bus Bay

Appendix C-7



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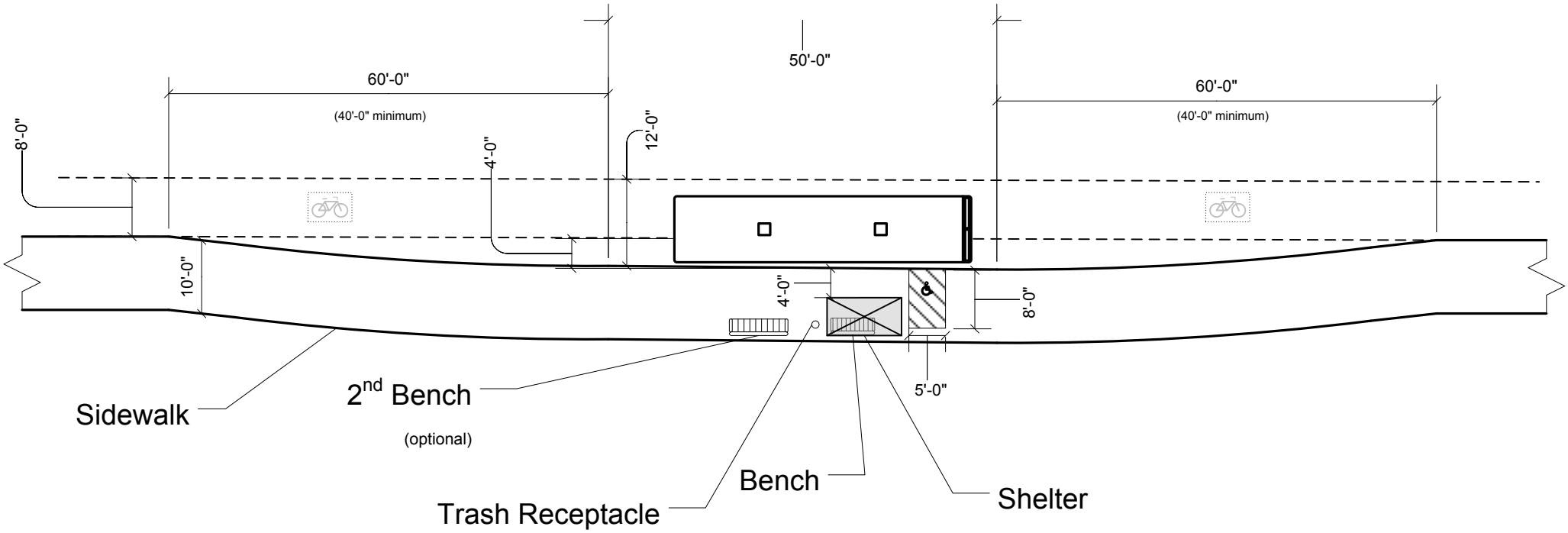
SANTA CRUZ METRO

Typical Bus Stop Layout With Shelter – Bus Bay and Bicycle Lane



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SANTA CRUZ METRO

ADA Standards for Transportation Facilities – Excerpts Related to Transit

-Source: United States Access Board 2010-

402 Accessible Routes

402.1 General. Accessible routes shall comply with 402.

402.2 Components. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable requirements of Chapter 4.

Advisory 402.2 Components. Walking surfaces must have running slopes not steeper than 1:20, see 403.3. Other components of accessible routes, such as ramps (405) and curb ramps (406), are permitted to be more steeply sloped.

403 Walking Surfaces

403.1 General. Walking surfaces that are a part of an accessible route shall comply with 403.

403.2 Floor or Ground Surface. Floor or ground surfaces shall comply with 302.

403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

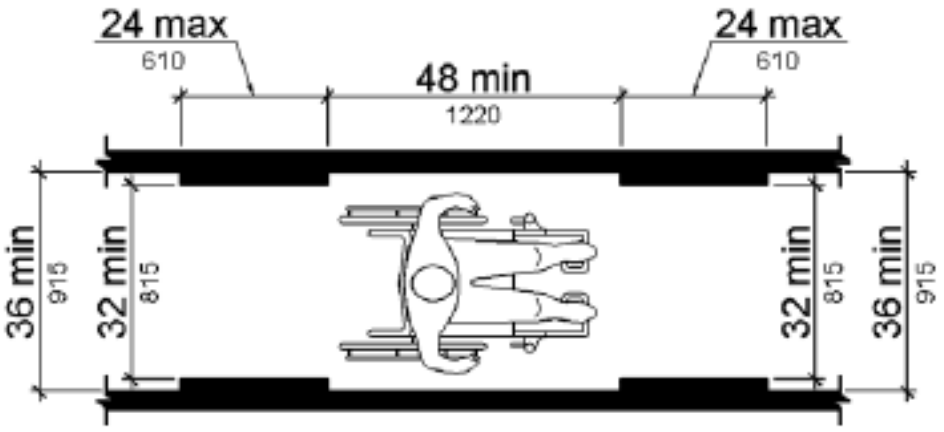
403.4 Changes in Level. Changes in level shall comply with 303.

403.5 Clearances. Walking surfaces shall provide clearances complying with 403.5.

**EXCEPTION: Within employee work areas, clearances on common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

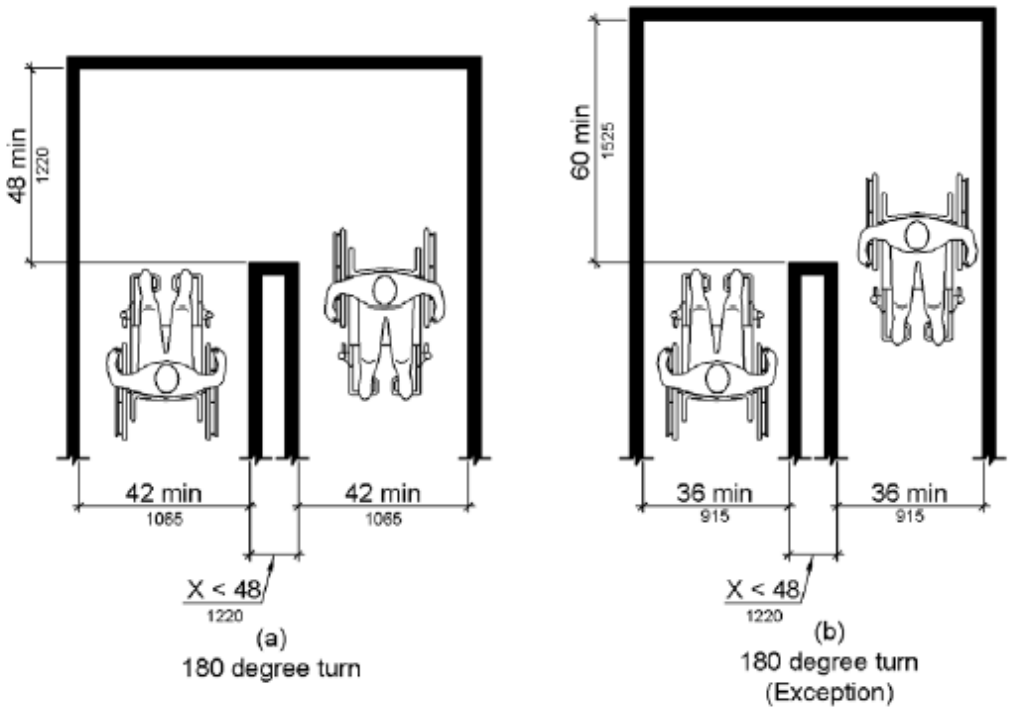
403.5.1 Clear Width. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.

**EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.



403.5.2 Clear Width at Turn. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn.

**EXCEPTION: Where the clear width at the turn is 60 inches (1525 mm) minimum compliance with 403.5.2 shall not be required.



403.5.3 Passing Spaces. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either: a space 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum; or, an intersection of two walking surfaces providing a T-shaped space complying with 304.3.2 where the base and arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection.

403.6 Handrails. Where handrails are provided along walking surfaces with running slopes not steeper than 1:20 they shall comply with 505.

Advisory 403.6 Handrails. Handrails provided in elevator cabs and platform lifts are not required to comply with the requirements for handrails on walking surfaces.

810 Transportation Facilities

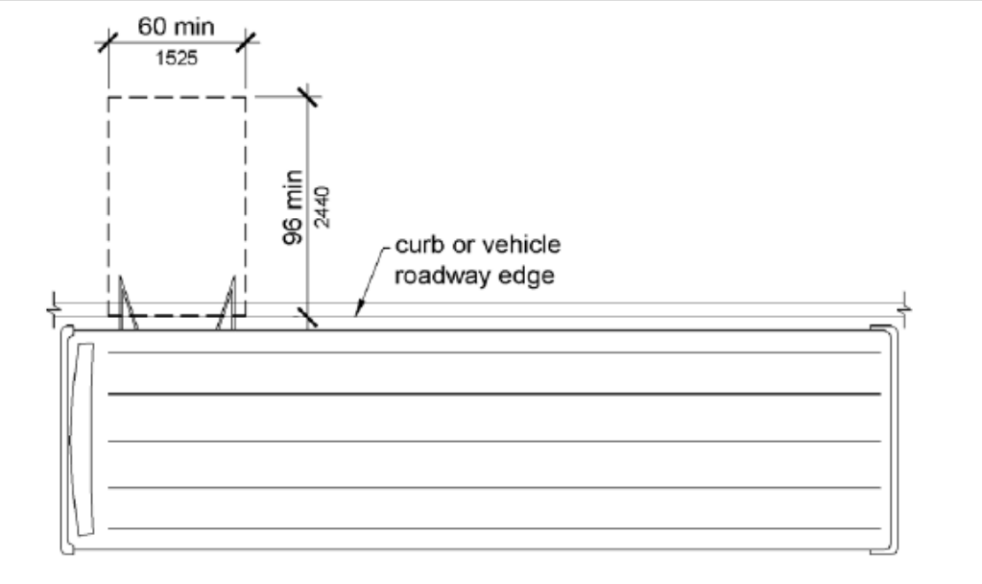
810.1 General. Transportation facilities shall comply with 810.

810.2 Bus Boarding and Alighting Areas. Bus boarding and alighting areas shall comply with 810.2.

Advisory 810.2 Bus Boarding and Alighting Areas. At bus stops where a shelter is provided, the bus stop pad can be located either within or outside of the shelter.

810.2.1 Surface. Bus stop boarding and alighting areas shall have a firm, stable surface.

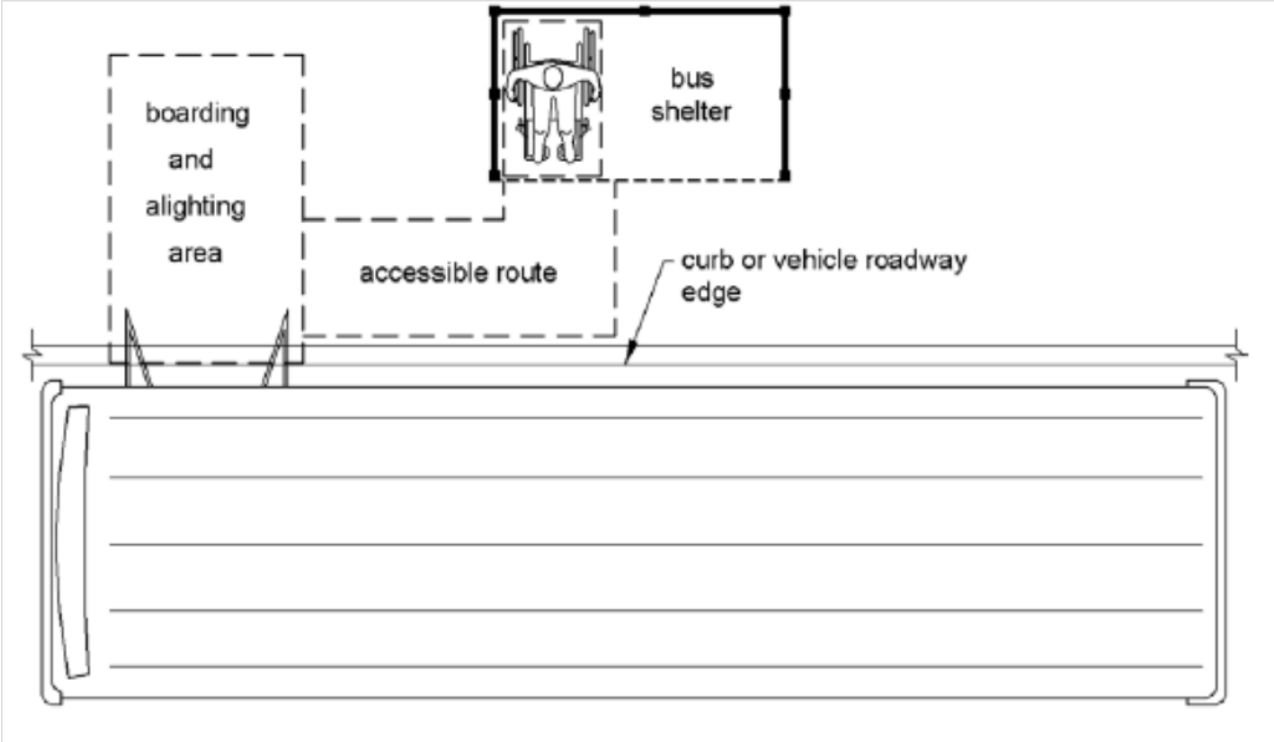
810.2.2 Dimensions. Bus boarding and alighting areas shall provide a clear length of 96 inches (2440 mm), measured perpendicular to the curb or vehicle roadway edge, and a clear width of 60 inches (1525 mm), measured parallel to the vehicle roadway. Public entities shall ensure that the construction of bus boarding and alighting areas comply with 810.2.2, to the extent the construction specifications are within their control.



810.2.3 Connection. Bus stop boarding and alighting areas shall be connected to streets, sidewalks, or pedestrian paths by an accessible route complying with 402.

810.2.4 Slope. Parallel to the roadway, the slope of the bus stop boarding and alighting area shall be the same as the roadway, to the maximum extent practicable. Perpendicular to the roadway, the slope of the bus stop boarding and alighting area shall not be steeper than1:48.

810.3 Bus Shelters. Bus shelters shall provide a minimum clear floor or ground space complying with 305 entirely within the shelter. Bus shelters shall be connected by an accessible route complying with 402 to a boarding and alighting area complying with 810.2.



810.4 Bus Signs. Bus route identification signs shall comply with 703.5.1 through 703.5.4, and 703.5.7 and 703.5.8. In addition, to the maximum extent practicable, bus route identification signs shall comply with 703.5.5.

**EXCEPTION: Bus schedules, timetables and maps that are posted at the bus stop or bus bay shall not be required to comply.