

The ART of TRAVEL



11 Goleta/UCSB
Daily

20 SB/Carpinteria
Daily

Passenger Information
MTD-3702
www.sbmtd.gov

BUS STOP STANDARDS



SANTA BARBARA METROPOLITAN TRANSIT DISTRICT BUS STOP STANDARDS

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1. Introduction

The Santa Barbara Metropolitan Transit District (SBMTD) covers an area of approximately 52 square miles along the southern coastal region of Santa Barbara County. Buses link the communities of Santa Barbara, Goleta, Montecito, Summerland, and Carpinteria from the Ventura County border at the southern terminus to the western end of Goleta. A few of the major destinations served include the University of California campus, the Santa Barbara Municipal Airport, Downtown Goleta, upper State Street, Downtown Santa Barbara, Santa Barbara City College, Montecito, and Carpinteria.

Annual rider ship in fiscal year 2004 was 7,004,053, with an average weekday rider ship (based upon data from October 2003) of 25,417, an average Saturday of 14,380, and an average Sunday count of 10,501.

Eight hundred and fifty two bus stops are located along 273 route miles, while 2,351,305 miles are driven along MTD's 29 individual routes each year. The SBMTD serves its customers within this area by providing a reliable, safe, comfortable means of mobility to those who lack other transportation and for those who choose to use transit as their mode of travel for the day. Students, commuters, shoppers, the elderly and disabled can access the community through the extensive network of conveniently located bus stops.



2. Locating and Establishing a Bus Stop

The purpose of a bus stop is to provide a safe and visible location for passengers boarding and alighting. Bus stops also attract the attention of non-riders, thus providing the opportunity to create a positive image of the MTD.

2.1. Locating a Stop

Stops are located along bus routes according to the following criteria.

- In built up or residential areas, stops will be spaced 2 blocks apart but no closer than 200 yards.
- Stops will be located at bus route intersections. These locations are called transfer points.
- Stops will be located at major activity centers, or within one 1 block where possible.
- In rural or lightly developed areas, stops will be located no more than ½ mile apart.

Additional bus stops are required along new routes when major activity centers such as schools, hospitals and large shopping complexes are built or expanded.



2.2 Establishing a Stop

Bus stops, wherever possible, are located on the far side of an intersection. This position allows the bus operator to exit the stop zone during breaks in traffic provided by traffic signals or stop signs. It is also safer for other road users as the bus does not block the right turn lane or the vision of the motorists going through the intersection.

At each location MTD makes a site inspection of the below criteria, then MTD contacts Public Works, Transportation Division regarding the proposed site of the stop. After approvals from Public Works are received, the neighboring residences or businesses are contacted.

The following criteria dictates actual bus stop placement:

- Effect on traffic
- Passenger safety
- Width of sidewalks
- Ease of transit service operation
- Access for people with disabilities
- All-weather surface to step from/to the bus
- Impact of the bus stop on adjacent properties
- Volumes and turning movements of other traffic
- Proximity to passenger crosswalks and curb ramps
- Types of traffic signal controls (signal, stop, or yield)
- On-Street automobile parking and truck delivery zones
- Convenient passenger transfers to routes with nearby stops
- Bus routing patterns (i.e., individual bus movements at an intersection)
- Adequate curb space for the number of buses expected at the stop at one time

Existing facilities are used where possible. The property owner of an adjacent site may provide physical improvements.



3. Bus Stop Equipment Requirements and Specifications

The purpose of establishing requirements for bus stop equipment is to ensure a clear working plan for the installation or upgrading of all MTD stops.

The minimum requirements for an MTD bus stop shall be

- a) Hard flat boarding surface
- b) Location for MTD bus stop sign (Pole, Light standard, or Shelter)
- c) A red curb or a "No Parking" sign.

All stops are then reviewed for the following needs:

- Bench
- Trash Receptacles
- Information display
- Shelter
- Lighting





3.1 Boarding Surface & Accessibility

A hard flat surface is required for safe boarding, alighting, waiting, and accessibility. A safe boarding surface shall consist of a concrete pad, cement squares, or brick allowing for wheelchair use in all weather. To meet accessibility standards means to have access to the stop (sidewalks, curb cuts, pedestrian crossings), access to amenities (Shelter dimensions, width of walkways), and access at the stop (Level loading area, lift deployment space). These stops shall be marked with the international accessible symbol on the bus stop sign, and also painted blue on the sidewalk to indicate the appropriate boarding position.

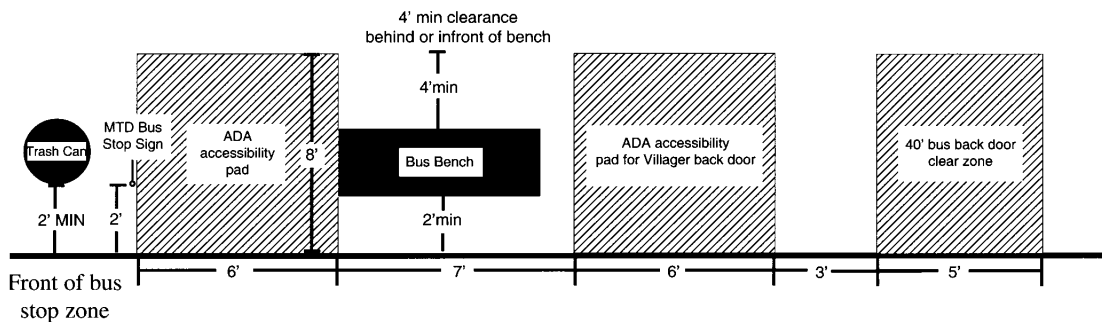
3.1.1 Boarding Surface Requirement:

1. All MTD bus stops must have a hard flat boarding surface.
2. All stops are to meet ADA requirements.

3.1.2 Boarding Surface Specification:

The standard boarding area required for front door access is located at the front of the zone, 6 feet wide by 8 feet deep by 4 inches high. Rear door access requires a minimum area of 14 feet wide by 8 feet deep by 4 inches high, 7 feet from the end of the front door required area. The bus operator must have an unobstructed view of the rear door exit and therefore in most instances the boarding pad between doors will be continuous equaling 27 feet. See Figure 1.

BOARDING & ALIGHTING SURFACE REQUIREMENTS

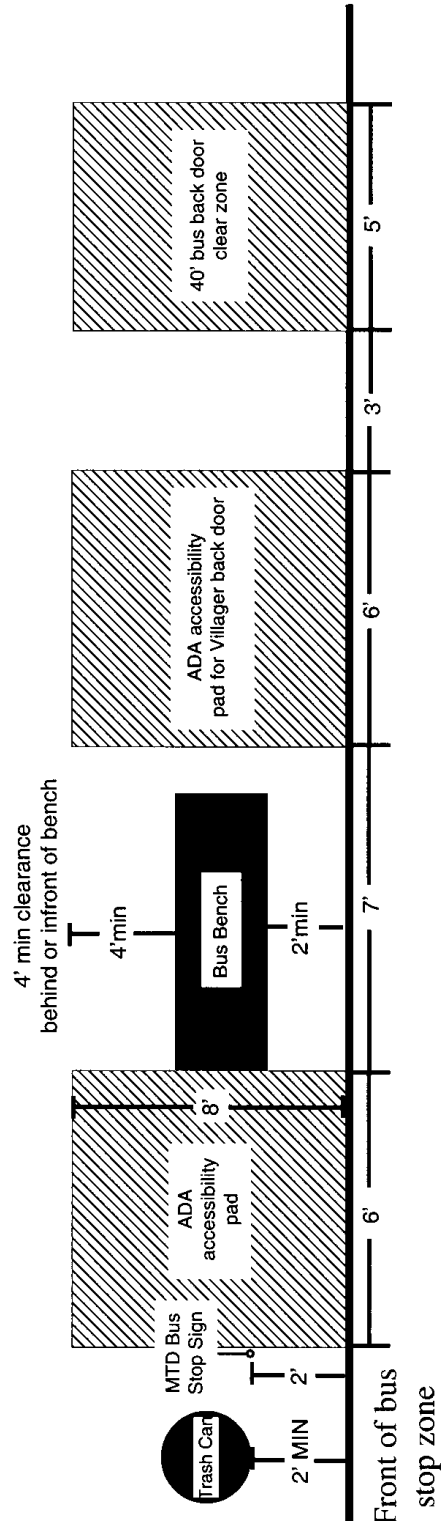


Note: All objects must have a minimum 2' clearance from the road's edge. Minimum Clearance prevents the breaking of mirrors and bus damage.



Figure 1

BOARDING & ALIGHTING SURFACE REQUIREMENTS



Note: All objects must have a minimum 2' clearance from the roads edge.
Minimum Clearance prevents the breaking of mirrors and bus damage.



3.2 Red Curb

A red curb is required at bus stop zones to indicate the area is reserved exclusively for buses. In certain instances the City or County will install a “No Parking Anytime” sign instead of a red curb. The length of the bus zone red curb must allow for the safe entry and exit of the bus. Red curb lengths vary according to speed and volume on the street. High volume and high-speed streets require maximum length of one bus length plus 20’. Also the number of buses using the same stop will increase the length by one bus length plus 10’. The following examples are minimum lengths required.

3.2.1 Red Curb Requirement:

Red curb or a “No Parking Anytime” sign will mark all stops

Maintenance:

Public Works within the District will post established bus zones with “No Parking” signs or paint red cubs at bus stops during their routine painting process.



3.2.2 Far Side Bus Stop Red Curb Specification:

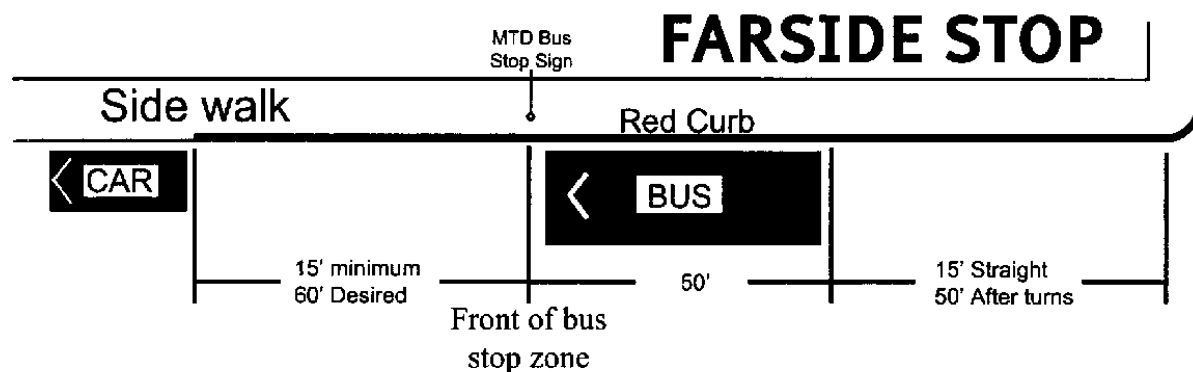
For one vehicle, using the intersection to exit traffic must be 60 feet for a 30-foot bus, to 80 feet for a 40-foot bus. Includes a 15-foot clearance from the corner to the rear of the bus to avoid contact with turning vehicles.

Advantages:

- 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 since the bus can use the intersection to decelerate
- Results in bus drivers being able to take advantage of the gaps in traffic flow that are created at signalized intersections

Disadvantages:

- May result in the intersections being blocked during peak periods by stopping buses
- May obscure sight distance for crossing vehicles
- May increase sight distance problems for crossing pedestrians
- Can cause a bus to stop far side after stopping for red light, which interferes with both bus operations and all other traffic
- May increase number of rear-end accidents since drivers do not expect buses to stop again after stopping at a red light
- Could result in traffic queued into intersection when a bus is stopped in travel lane





3.2.3 Near Side Bus Stop Red Curb Specification:

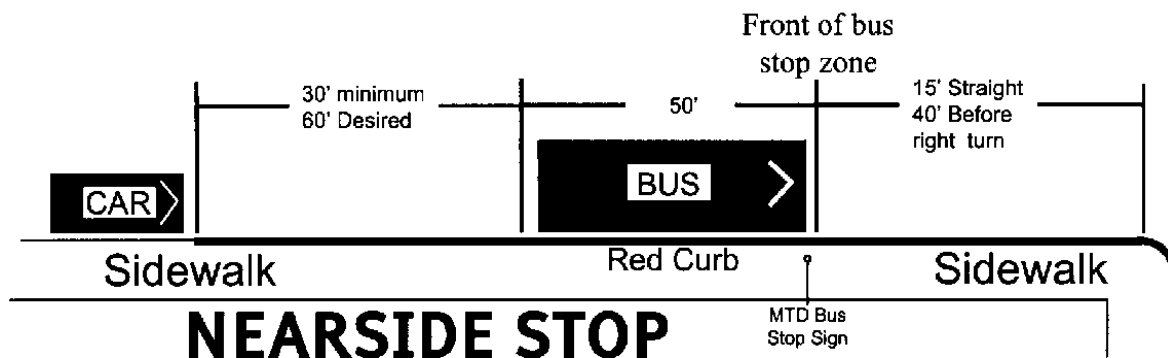
Near side stops require additional red curbing for entering the bus zone. Additional space is required for near side stops to allow a clear sight area in front of the bus, at the corner, for vehicles approaching from the rear to cross over or turn through the intersection. One 30-foot bus using the intersection as the exit area would require 75 feet of clear zone. A 40-foot bus needs 95 feet of red curb.

Advantages:

- Minimizes interferences when traffic is heavy on the far side of the intersection
- Allows passengers to access buses closest to crosswalk
- Results in the width of the intersection being available for the driver to pull away from curb
- Eliminates the potential of double stopping
- Allows passengers to board and alight while the bus is stopped at a red light
- Provides driver with the opportunity to look for oncoming traffic, including other buses with potential passengers

Disadvantages:

- 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 problem for crossing pedestrians





3.2.4 Mid Block Bus Stop Red Curb Specification:

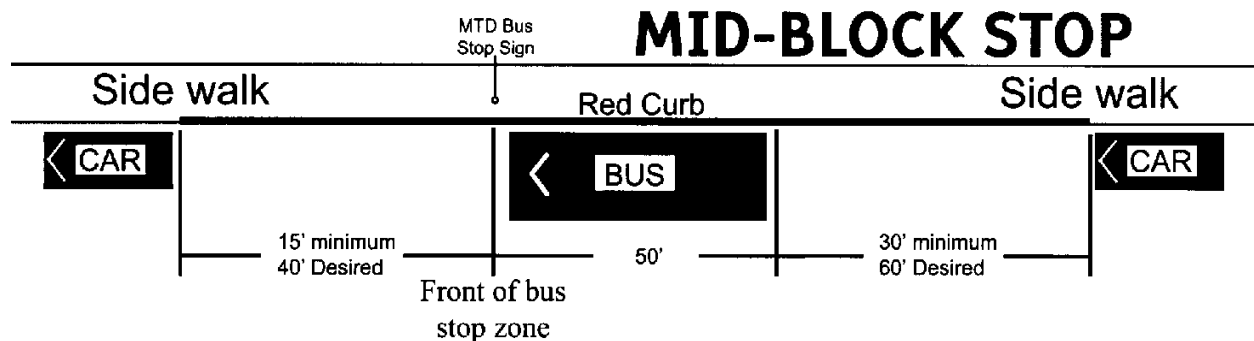
Mid Block Stops requires the same area as a near side stop because the clearance zone required in the near side stop is used as the exit area for the mid block stop. If two or more routes use the same bus stop an additional bus length plus 10 feet must be added for the second bus to stand while riders transfer between buses.

Advantages:

- Minimizes sight distance problems for vehicles and pedestrians
- May result in passenger waiting areas experiencing less pedestrian congestion

Disadvantages

- Requires additional distance for no-parking restrictions
- Encourages patrons to cross street at mid block (jaywalking)
- Increases walking distance for patrons crossing at intersections





3.3 Pole

Poles are installed with a minimum set back from the road or curb edge of 2 feet and positioned at the front end of the stop. If sidewalk is less than 6 feet wide then the pole must be mounted at the backside of the sidewalk to allow for ADA access. A 2 ½" galvanized pipe 10' long will be set in cement in a hole that is 10 inches wide by 18 inches deep. The finish level of the cement will be level with the sidewalk, or one inch below surface when set in dirt. Then the MTD designed pole shown below will be sleeved and secured to the galvanized pipe already set in the ground. When the pipe is installed 2' away from the curb, the pipe will be secured so the sign is facing away from and perpendicular to the roadway. If the pole was installed at the backside of the sidewalk then the sign will be facing towards and perpendicular to the roadway. To reduce sidewalk clutter attempts will be made to use bus shelters or streetlight standards to mount signs.

3.3.1 Pole Requirement:

All bus stops need a MTD pole, Light Standard or shelter to mount the MTD sign. MTD has an agreement with the city's & county to mount signs on light standards in order to limit the amount of clutter on the sidewalk.

3.3.2 Pole Specification:

2 ½" galvanized pipe 7' long will be set in cement. Then the MTD pole is 2-7/8" O.D. with a finial installed on top. Plus horizontal pipes with filigrees & finials for sign attachment. See figure 3 for details of the pole. MTD pole is sleeved over the galvanized pipe Color is powder coated Dark Green RAL 6005.

Additional Signage on MTD Poles other than MTD signs:

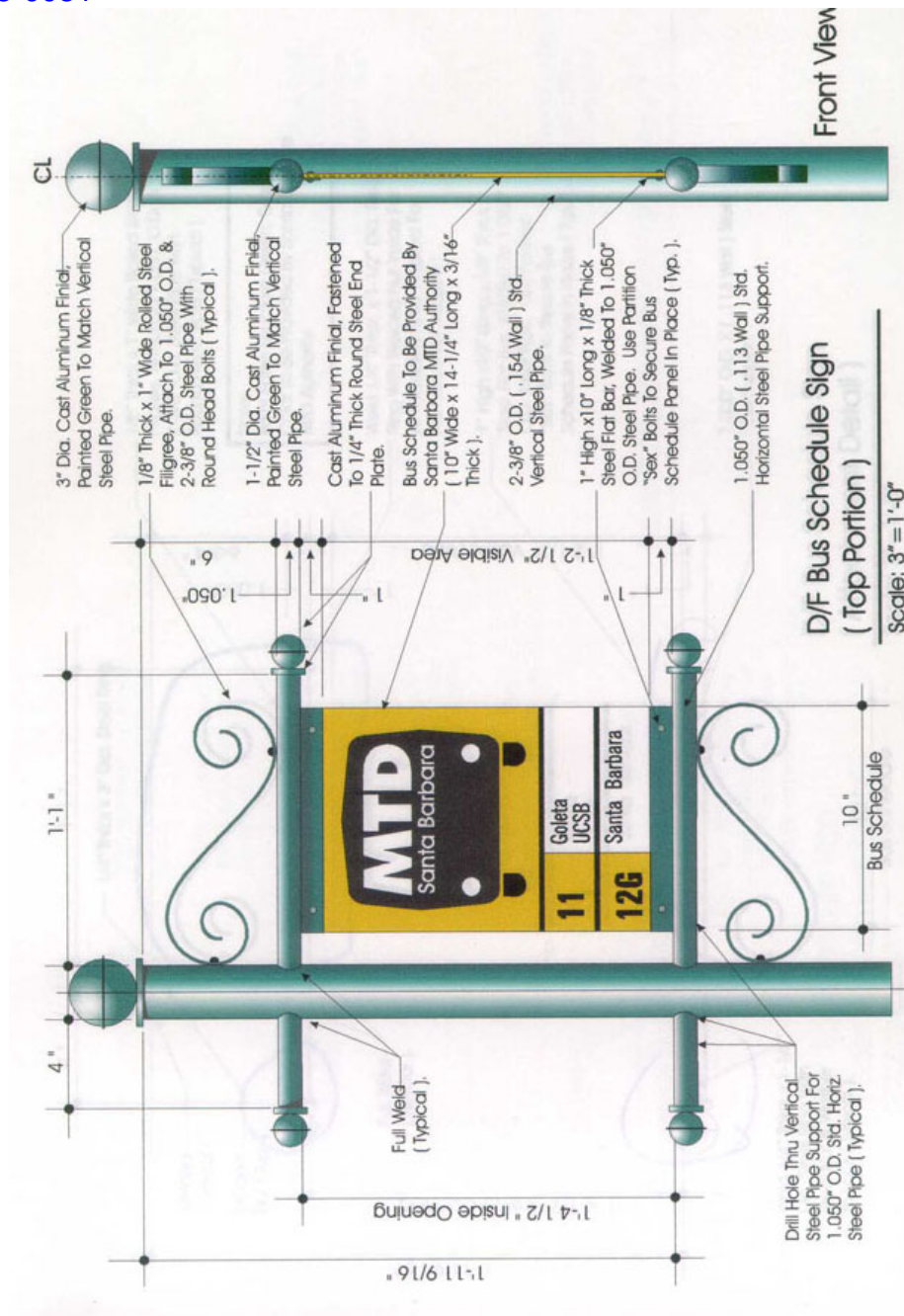
Poles are reserved for MTD Transit Information and any exception must go through the MTD Bus stop Committee. Upon approval by MTD all individuals will be required to have sign approved by appropriate City or County Sign Committees.





Figure 3

Pole is manufactured by
 Tolar Manufacturing Company Inc.
 258 Mariah Circle
 Corona, CA. 92879
 Phone 909-808-0081





3.4 Signs

As of May 2003, signs will be mounted on a MTD design bus pole (see section 3.3 for Pole). Lowest part of the sign is to be mounted 7 feet above the ground. Signs are to be mounted “flag” style and facing away from and perpendicular to the roadway. Signs attached to light standards need to follow the same standards as above. If due to restriction of space and the pole is installed at the back of the sidewalk then the sign needs to be mounted “flag” style and facing towards and perpendicular to the roadway.

3.4.1 Sign Requirement:

All bus stops must have an MTD sign

3.4.2 Sign Specifications

The sign consists of the MTD logo with line identifications & general information (Figure 4). Each sign will have a minimum of one line identifier and general MTD information. The logo sign is 10”x10”x1/16” with additional lines measuring 10”x 2½” making a 2 line sign a total of 14½” high. All four corners are rounded at 3/8” radius. Each additional route destination information line adds 2 ¼ inches to the height (Figure 8). Any stop service by more than five routes will have a traditional bus stop sign at the top of the pole with only the route number listed (Figure 11). Schedule information is to be a required amenity for these bus stops so that the route destination and route information can be displayed (see section 3.5 for Information standards).





Sign Sizes: Sign 2: 10" x 14.5" = Logo with one route and MTD information line
Sign 3: 10" x 16.75" = Logo with two routes and MTD information line
Sign 4: 10" x 19" = Logo with three routes and MTD information line
Sign 5: 10" x 21.25" = Logo with four routes and MTD information line
Sign 6: 10" x 23.5" = Logo with five routes and MTD information line

Sign Design: (See Figure 5)

- Metal with porcelain finish
- Height of sign based on Sign Size above
- All four corners are rounded at 3/8" radius
- 10" x 10" yellow painted surface (pms #107), at top of sign
- 8¼" x 8.233" MTD Bus logo painted in black squarely in center of yellow area
- Both sides of sign to be identical
- Two, 3/8" round holes to be located 2" from top and 2" from bottom of sign, ½" in from left side

3.4.3 Sticker Specification

Sticker Material: Polyvinyl material printed with polyvinyl, UV inks

Sticker Size: 10" x 2¼", horizontal

Sticker Design: (See Figures 6, 7 & 8)

- Traditional Bus Line: 9 pt rectangular border printed as a full-bleed around edge of sticker in corresponding route color. (See Figure 12 for list of color mixes per route.) All four corners of border to have ¼" radius to form rounded corners.
 - : Route number printed in black and centered in a 3½" W x 2¼" H" square, with no borders or fill. Square is positioned at left of sticker.
 - : Route Destination and Information printed in black, left justified, and positioned 3½" in from left of sticker, centered top to bottom. The distance between the route destination and route information is set as a .125" paragraph space.
- Branded Routes: Logo is to be 10" x 2¼" horizontal with a background that completely fills the area. All text is to be clearly visible in font choice, size, and color.
- MTD Information: One of two designs is to be placed at the bottom of EVERY bus stop sign. The design options are based on whether the stop is accessible or not. (See Figure 9)



-
- Sticker Font:** Tiresias Sign Font
- Sticker Font Size:**
- Route Number: 115 pt
 - Route Destination: 60 pt (leading = 72 pt)
 - Route Information: 36 pt (leading = 43.2 pt)
 - MTD Information: 36 pt (leading = 43.2 pt)
- Sticker Text:**
- Route Number: Typed numerically with lower case “x” representing express services when needed. NO OTHER LETTERS are to be included as part of the route number.
 - Route Destination: Route is to be identified by destination or branded name (i.e. Carpinteria Express may be identified as Santa Barbara Express for inbound trips; Crosstown Shuttle, etc.)
 - Route Information: This text is to be limited to identifying service by days of week. Branded services will NOT include this information; ***rather it will be included on the schedule holder, which is to be a required amenity for any bus stop that has a branded service utilizing it.*** Approved Route Information text is limited to:
 1. Daily
 2. Monday – Friday Only
 3. Monday – Saturday Only
 4. Saturday – Sunday Only
 5. School Days Only
- Sticker Positioning:**
- (See attachment 7)
- Choose appropriate size sign (#2-#6) based on routes serving stop. If the number of routes serving stop increases or decreases, the sign is to be changed out so that all of the white space is covered by sign stickers (i.e. route and information)
 - All stickers are to be centered left to right and just touching the previous sticker top to bottom so that the colored borders touch BUT DO NOT overlap. There is to be no white space between borders.
 - Traditional Bus Line stickers are to be placed in sequential order, example: 1, 2, 3, 4, 5, etc. Top to Bottom.
 - Branded Route stickers are to be placed below ALL Traditional Bus Line stickers in alphabetical order.
 - Bottom 2¼” of every sign is reserved for a MTD informational sticker



Stops w/> 5 routes:
(See Figure 11)

Any bus stops that have more than five routes utilizing the stop will have a traditional bus stop sign at the top of the pole **with ONLY the route numbers listed**. The route number stickers are to be as follows:

- Route numbers are to be same font and size as specified above
- Borders are to be same point size as specified above, however the rectangle is to be 3.33" W x 2.25" H
- Stickers are to be positioned from left to right in numerical order and just touching all other stickers so that no white space is visible
- Any branded routes are to be displayed using the same sticker as specified above and positioned alphabetically as normal for traditional bus stop signs
- As always, the bottom most space is reserved for the MTD Information sticker

Schedule information is to be a required amenity for these bus stops so that the route destination and route information can be displayed. The Bus Stop Committee will address the exact way in which the schedule information is to appear for these stops on a case-by-case basis.



Figure 4

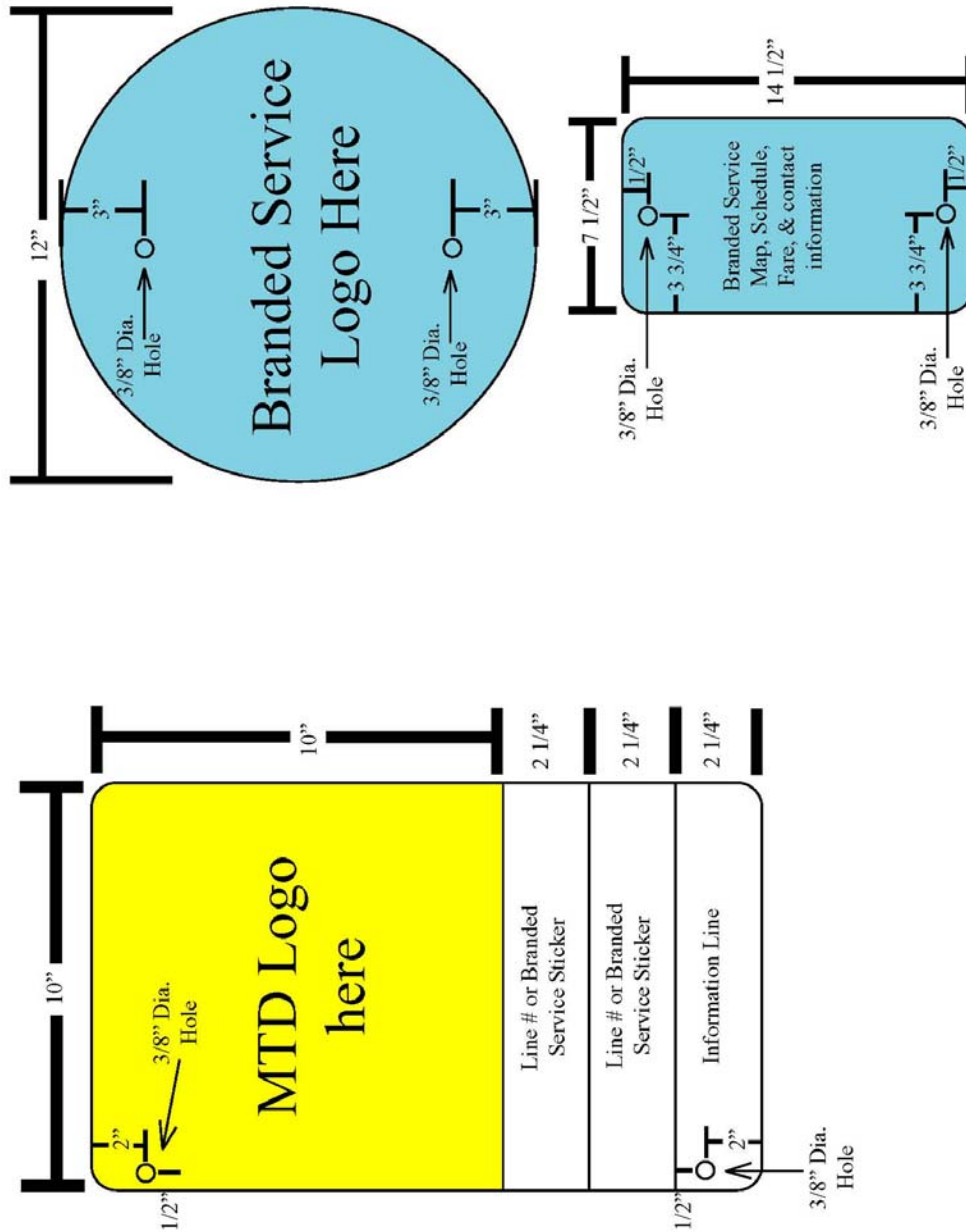




Figure 5

(Attachment #1)

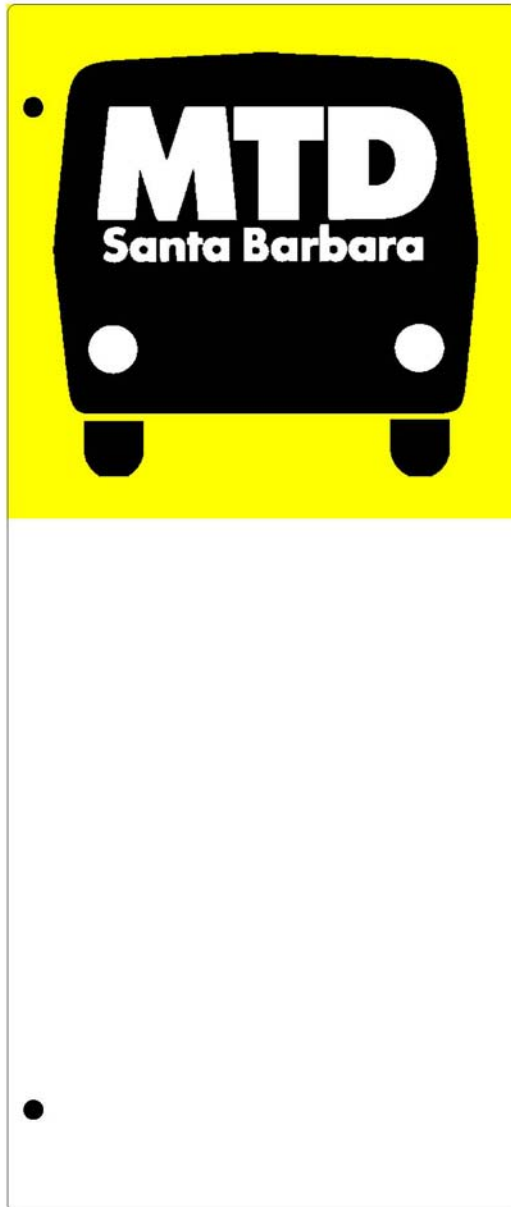




Figure 6

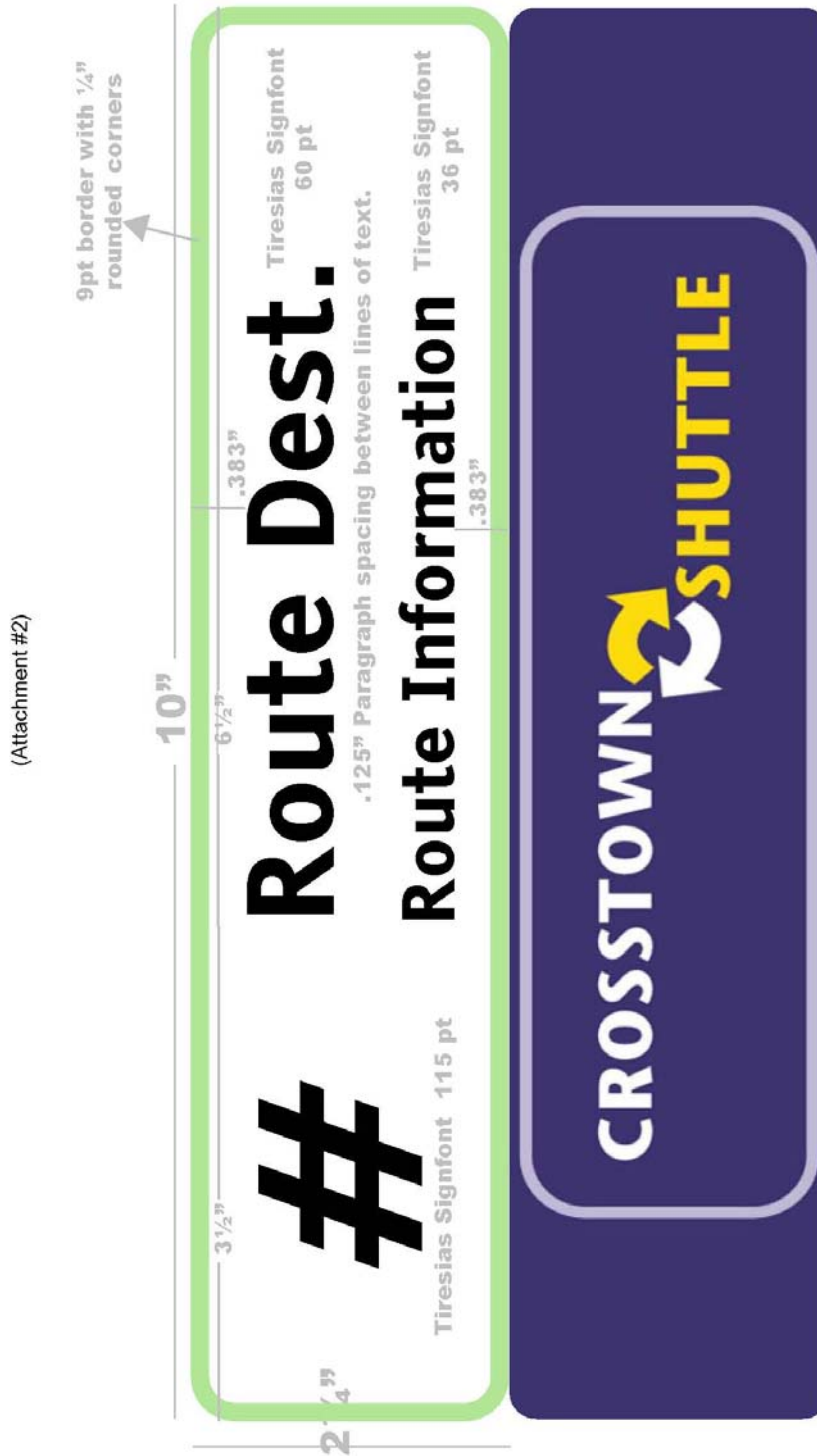




Figure 7





Figure 8





Figure 9

(Attachment #4)

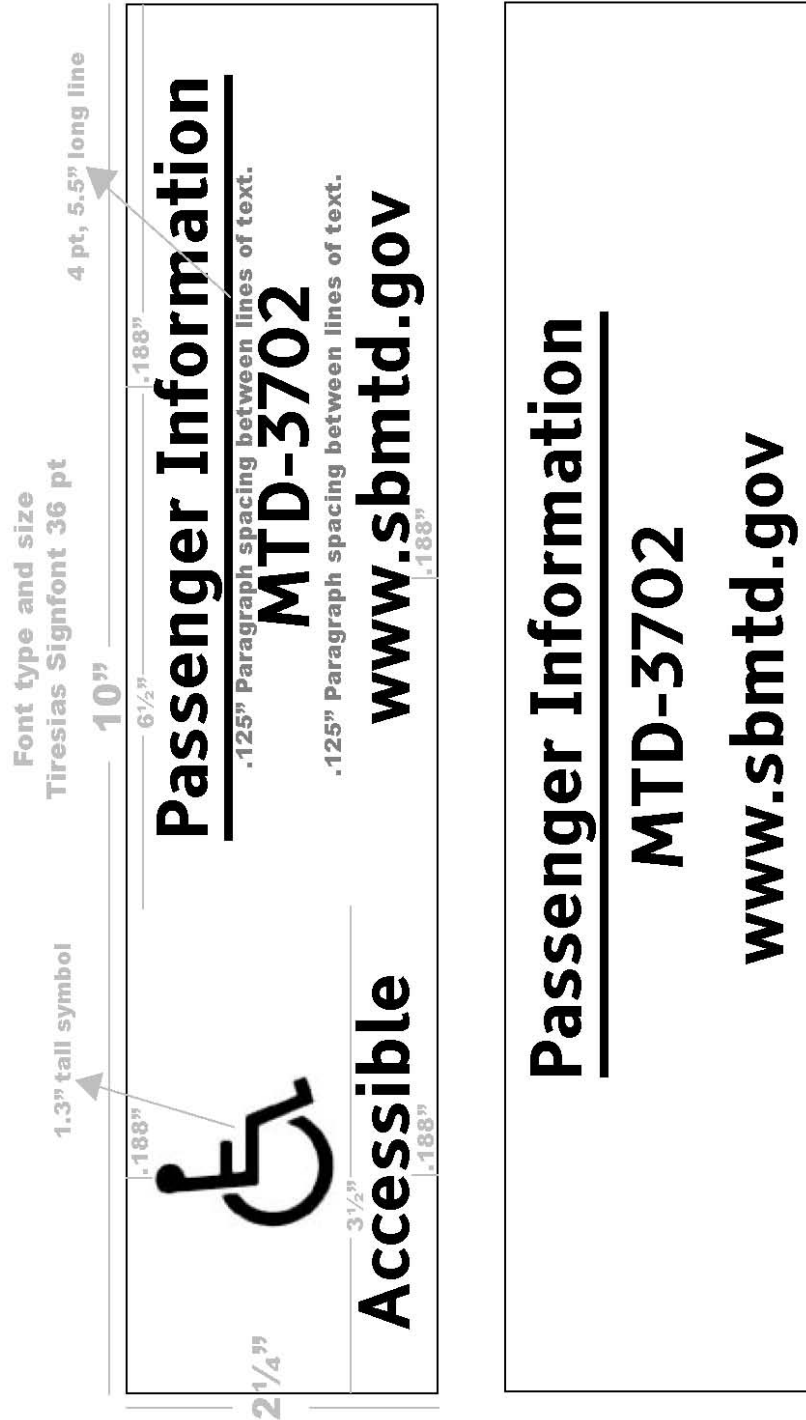




Figure 10

(Attachment #5)


MTD
Santa Barbara


6 **Fairview**
Monday – Saturday Only

11 **UCSB**
Daily

13x **Downtown SB**
Monday – Friday Only

27 **Dos Pueblos HS**
Monday – Friday Only

CROSSTOWN  **SHUTTLE**

 **Accessible**

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Figure 11

(Attachment #8)

1	6	11
12	13x	16
21x	23	27

CROSTOWN SHUTTLE

SEASIDE SHUTTLE

Accessible

Passenger Information
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www.sbmtd.gov



Figure 12

Border Colors for all Routes based on CMYK & RGB Formula

Route Number	Route Name	Color Name	C	M	Y	K	Color	Pantone Color	R	G	B
1	East/West Connection	Claret	0	10 0	20	20		207	190	0	93
3	Oak Park Shuttle	Lime Green	60	0	10 0	0		368	91	189	43
5	Mesa/La Cumbre Connection	Pink	0	60	0	0		204	241	137	175
6	State/Hollister Traveler	Red	0	10 0	10 0	0		485	223	0	41
8	Health Care Link	Blue	10 0	20	0	0		Blue	0	151	213
9	Stow Cyn/UCSB Connection	Beige	20	30	50	0		465	209	181	135
10	Cathedral Oaks	Orange	0	60	10 0	0		716	236	135	14
11	Downtown/UCSB Connection	Red	0	10 0	10 0	0		485	223	0	41
12	UCSB/Goleta Express	Light Brown	30	60	80	0		730	182	122	70
13x	Winchester Canyon Express	Light Grey	0	0	0	40		443	172	172	172
14	Montecito	Dark Brown	60	80	10 0	0		478	121	75	47
15x	SBCC/UCSB Express	Green	10 0	0	10 0	0		347	0	159	98
16	City College Shuttle	Dark Grey	0	0	0	70		425	99	99	99
17	SBCC/Mesa Link	Yellow	0	10	10 0	0		Yellow	247	228	0
20	Carpinteria Connection	Indigo	10 0	10 0	0	0		274	61	17	123
21x	Carpinteria Express	Salmon	0	40	50	0		472	246	177	127
22	Old Mission	Light Purple	30	10 0	0	0		234	179	0	124
23	Winchester Cyn/Ellwood	Sky Blue	40	0	0	0		544	166	216	246
24x	UCSB Express	Light Brown	30	60	80	0		730	182	122	70
25	Ellwood	Black	0	0	0	10 0		Black	0	0	0
26x	North Fairview Express	Light Grey	0	0	0	40		443	172	172	172
27	UCSB Shuttle	Dark Purple	50	10 0	10	10		2425	134	0	107



3.5 Information

Schedule information is to be displayed in a holder that is safe for the public environment. MTD Standard holders are all-metal with rounded corners and powder-coated Dark Green RAL 6005 to match the color of the bus pole. The window should be made of plexy glass, polycarbonate, or tempered safety glass. The schedule holder will be mounted on pole, light standard, or shelter with the bottom of the sign set at 50 inches from the ground. When mounted on a pole or light standard, schedule should be facing the direction of where the passengers are waiting. When mounted on shelter, schedule should be located on support post at the front of the zone facing the road.

3.5.1 Information Requirement:

Schedules will be placed at stops if they meet any of the requirements below:

1. The stop serves as a transfer point.
2. The stop has total boarding on an average weekday of 25 passengers.
3. State & Hollister corridor.
4. The stop is adjacent to a Senior Citizen housing complex, Hospitals, Schools, and stores.
5. Meets requirement in section 3.4.2. Any stop service by more than five routes.

Maintenance:

Service changes necessitate that schedule information be updated. Changes are made by MTD employees and take place as required. During the replacement of schedules the holders are cleaned and the plexy glass is replaced as needed. [Graffiti maintenance takes place on as needed bases.](#)

3.5.2 Schedule Information Holders Specifications:

Manufacture:

Transit Information Products
280 Sally Ride Dr. #3
Concord, CA. 94520
925-676-8900

Model & Size:

Rounded Corner Schedule Holders
RCH-22 8 1/2" wide c 22" tall





3.6 Benches

Benches are to be placed between the front door and rear door loading area. 2' minimum clearance is needed from the curb, and a 4' clearance is needed in front of or behind the bench for ADA requirement. If the clearance of 4' cannot be met then a bench may not be placed in that location. The bench is to be placed on a hard surface and secured.

3.6.1 Bench Requirement:

Benches will be located at all bus stops where possible. Size of bench will depend on the total passenger boarding's on an average weekday.

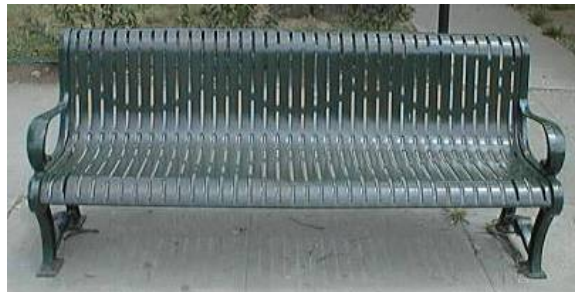
- 4' bench for bus stops with less then 50 passengers boarding's per day.
- 8' bench for bus stops with more than 50 passengers per day.
- Combination of benches as space allows for stops with more then 100 passengers per day.

Maintenance:

Benches need maintenance frequently. This involves tightening loose bolts, removing graffiti, and replacing and repainting wooden boards. Each bench is checked during the maintenance inspection or upon notification of a problem.

3.6.2 Bench Specification:

- Wabash Valley Manufacture, Estate Series, Rib pattern, Plastisol coated bands with cast aluminum frames.
- Legs are to be secured to the ground.
- Color: Green.
- Size options will be 4' or 8' with arms located in the middle of the 8' bench.
- Purchase from Dave Bang Associates, Inc., 1-800-669-2585.





3.7 Trash Receptacles

MTD trash receptacles are placed at bus stops with significant trash problems. The City's of Santa Barbara, Goleta and the County of Santa Barbara have a contract with BFI & Marborg to maintain all MTD trash receptacles in their jurisdiction; City of Carpinteria has a contract with Browning Trash Management to maintain their trash receptacles. The Trash Receptacle is to be placed in the front of the zone near the boarding area. Exact location will be decided on space availability.

3.7.1 Trash Receptacle Requirement:

A trash receptacle will be placed at stops meeting any one of the following criteria.

1. The stop serves as a transfer point for two or more MTD bus lines.
2. The stop is a major garbage generator.
3. The stop has a total boarding on an average weekday of 50.

3.7.2 Trash Receptacle Specification:

- Wabash Valley Manufacture, Insert receptacles, Rib pattern, Plastisol-coated bands.
- Flat lid.
- Surface mount leg.
- Color: Green.
- Purchase from Dave Bang Associates, Inc., 1-800-669-2585.





3.8 Shelters

Bus shelters are provided at bus stops to provide suitable shelter for waiting riders. MTD staff works closely with County of Santa Barbara, and Cities of Carpinteria, Santa Barbara and Goleta staff members to determine when the placement of a new shelter is feasible and necessary.

3.8.1 Shelter Requirement:

A shelter will be placed if it meets any of the requirements below:

1. The stop serves as a transfer point for three or more MTD bus lines.
2. The stop has total boarding by bus stop on an average weekday of 50.
3. The stop serves one or more major trip generators.
4. The stop is adjacent to a Senior Citizen housing complex or Transit Dependant housing complex.

Maintenance:

All shelters require steam cleaning annually and painting every four to five years. Shelters provided by property owners are maintained by them. Because of the variety of designs and location, these individual shelters require unique treatment.



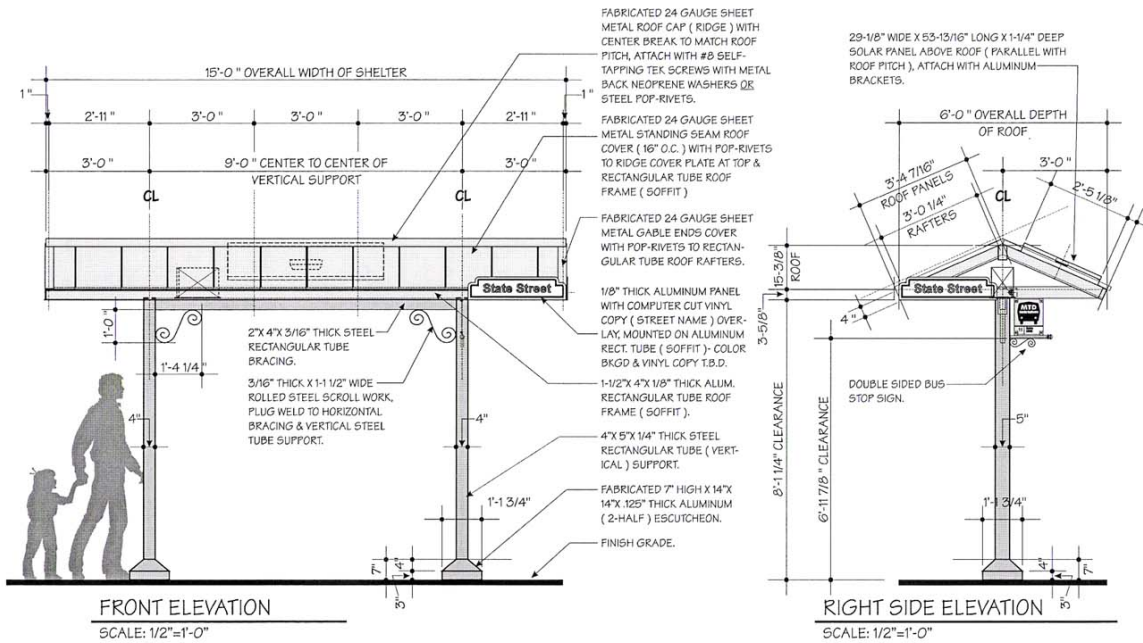


3.8.2 Shelter Specifications:

- All construction is to be approved by MTD & appropriate government agencies. MTD has designed and have basic approval for a shelter manufactured by LNI Manufacture, 1-800-338-3387. All other designs will have to follow normal approval process
- Minimum dimensions:
 - Roof outline should be 6' wide x 15' long which can be made larger according to the site.
 - Bottom of the roof is 8' high from the ground
- Roof Material:
 - Fabricated 24 gauge sheet metal standing seam roof cover (16" O.C.).
- Vertical Posts:
 - 2 steel vertical posts to support roof structure.
 - Example of dimensions - 4"x5"x1/4" rectangular tube.
- ADA requirements:
 - Space needed underneath canopy to allow for a person on a wheelchair to access the attributes of the canopy.
 - Minimum 8' clearance needed between vertical posts – room for one 4' bench and space for a wheelchair.
- Bench & Trash Receptacle for the shelter will be the same as noted in section 3.6 & 3.7.
- Solar lighting is to be used. Battery and lighting need to be mounted underneath roof top. Solar panel will be mounted flat with roof line and located on the side which collects the most sun rays.
- MTD bus stop sign will be attached by support bar and scroll work same as noted in section 3.3.1 & 3.4.1 to the shelter post.
- Schedule holder needs to be mounted as per section 3.5



LNI Manufacture Design Shelter



PROJECT NAME: SANTA BARBARA MTD	DWG NO: 101031	APPROVAL:	DATE:	REV	DATE	BY	REVISION	SHEET
ADDRESS: 550 OLIVE STREET	SCALE: AS NOTED	DATE:		11	4/27/04	PK	DELETE CASE ALUM. CHROME FINISH ESCUTCHEON	2 OF 8
CITY / STATE: SANTA BARBARA, CA 93101	DRAWN BY: PK	DATE:		12	4/13/04	PK	CHANGE ROOF TO STANDING SEAM WITH CAP & GABLE ENDS	
TELEPHONE:	DESIGN DATE: 3/7/04	DATE:		13			REVISED TO RIGHT BELOW BUS SCHEDULE SIGN & ADD REAL ROOF GREEN COLOR	
TAX NUMBER:	SALES PERSON: ORLANDO VARGAS	DATE:		14				



3.9 Lighting

3.9.1 Lighting Requirement:

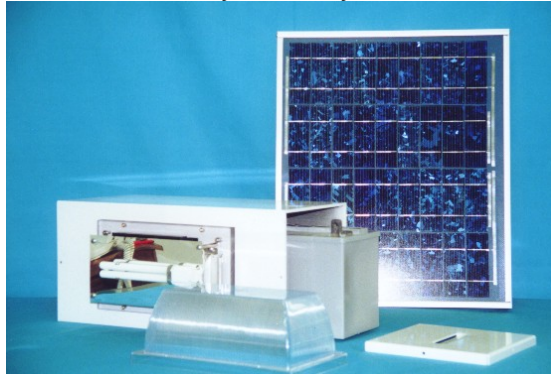
Adequate lighting is essential at all bus stops. The source of lighting may be of ambient sources in locations that have adequate area lighting, and many locations will require an individual light source to properly illuminate the bus stop area and/or shelter. **All shelters must be installed with a lighting source. Stops with out area lighting should be upgraded when the sources are available to install lights on poles.**

Maintenance:

Lighting system will be maintained by MTD.

3.9.2 Lighting Specifications:

The source of electricity may come from either commercial or common area sources when located adjacent to a required mitigation area. Electricity may also come from either county or city based metered or flat rate programs. Solar panels may be used if other options are not available at a specific location. In the event that solar panels are installed they must be placed in an unobtrusive location that meets all City, County and MTD visual guidelines.



Example of Solar Lighting Components





4 Bus Stop Inventory

A database program is used to maintain an inventory of all stops. The following items are maintained in the Database

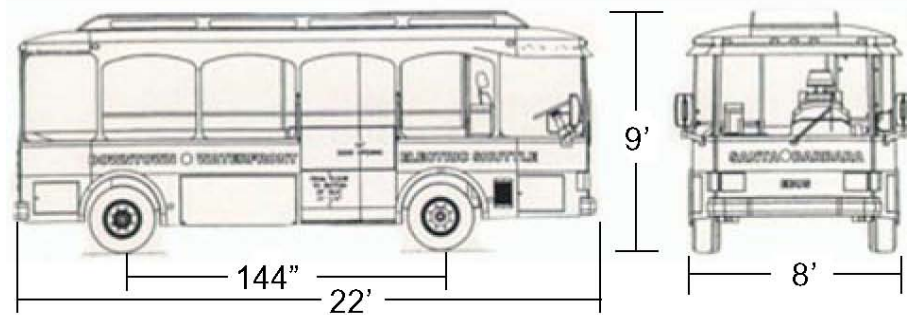
- Unique stop number
- Street location
- Position of Stop (Near/Far side or intersection, etc.)
- Length of red curb
- Accessibility and surface condition
- Bench
- Trash Receptacle
- Logo Sign & number of decal spaces
- Logo mount (on pole/shelter etc)
- Schedule Display
- Shelter
- Lighting

Items are added or deleted as necessary to provide comprehensive, up-to-date records. When additions or deletions are made to a stop, the Bus Stop Maintenance employee will update the database.

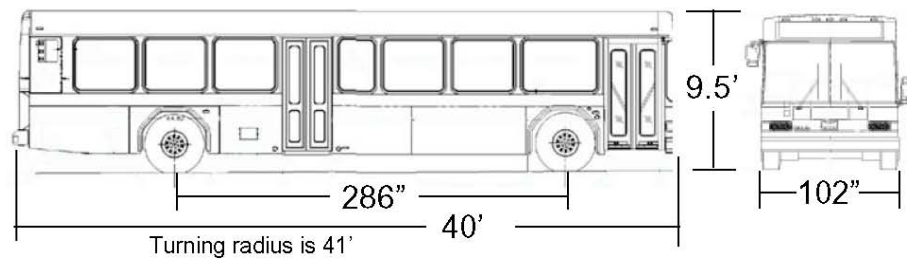


5 Bus Dimensions

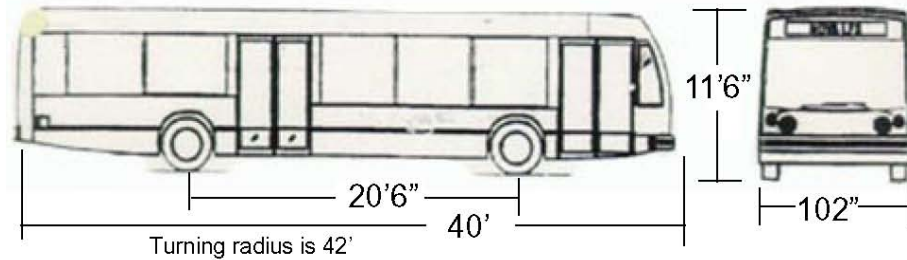
Electric Shuttle Bus



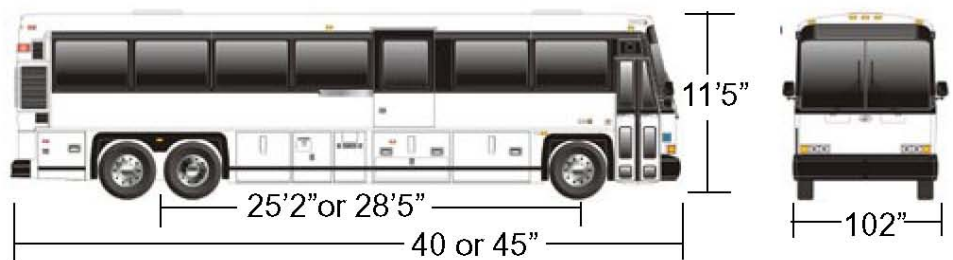
Gillig Diesel Bus



Nova Diesel Bus

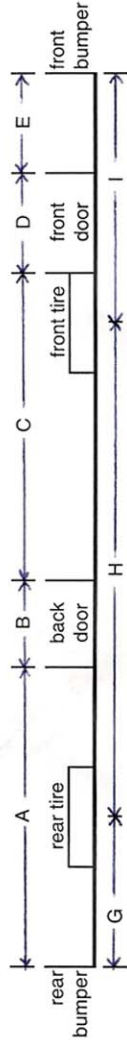


MCI Overland Coach





BUS DIMENSIONS



	Nova		600's		700's		Villager		Shuttle	
Length	480" 40'	480" 40'	480" 40'	348" 29'	361"	30' 1"	267"	22' 3"		
Width	103" 8' 7"	101" 8' 5"	101" 8' 5"	101" 8' 5"	89"	7' 6"	93"	7' 9"		
Turning Radius	42'	41'	41'	29'						
A= Rear bumper to back door	162"	13' 6"	190"	141'	60"	5'	134"	11' 2"		
B= width of back door	40"	3' 4"	34"	2' 10"	51"	4' 3"	xxxxxx	xxxxxx		
C= distance between doors	199"	16' 7"	200"	16' 8"	95"	7' 11"	xxxxxx	xxxxxx		
D= width of front door	52"	4' 4"	40"	3' 4"	51"	4' 3"	41"	3' 5"		
E= front door to bumper	32"	2' 8"	20"	1' 8"	18"	1' 6"	92"	7' 8"		
F= height from ground to lowest point in the back of the bus	17"	1' 5"	16"	1' 4"	12"	1'	10"	10"		
G= rear bumper to center of axle	128"	10' 8"	116"	9' 8"	105"	8' 9"	51"	4' 3"		
H= center of rear axle to center of front axle	245"	20' 5"	286"	23' 10"	157"	13' 1"	147"	12' 3"		
I= front bumper to center of front axle	118"	9' 10"	88"	7' 4"	95"	7' 11"	83"	6' 11"		
J= height from ground to lowest point in the front of the bus.	10"	10"	11"	3' 3"	12"	1'	12"	1'		
tire diameter	39"	3' 3"	43"	3' 7"	38"	3' 2"	30"	2' 6"		
GVWR	13,558 Fr	26,000 Re			29,000		19,500 Net	14,800 Old		
Seating		37		26		26		17		
Wheel Chair Ramp Length	40"	3' 4"	48"	4'	48"	4'	32"	2' 8"		



6 Definition of Terms

The following list defines terms used throughout this document.

Activity Center:

A hospital, a school, a major tourist attraction, a large commercial establishment, a large apartment complex, etc.

Boarding Surface:

A safe boarding surface shall consist either of a concrete pad or a level surface consisting of grass or packed dirt that is well drained.

Local Jurisdictions:

Cities of Santa Barbara, Goleta and Carpinteria; Santa Barbara County; and the Santa Barbara County Association of Governments (SBCAG).

CalTrans:

The California Department of Transportation.

Major Trip Generator:

A hospital, a school, a major tourist attraction, a large commercial establishment, a large apartment complex etc.

Stop Zone:

The length of painted red curb or the No Parking signs designating a bus stop.

SCTAC:

The South Coast Transit Advisory Council was established by the Santa Barbara Association of Governments in accordance with California Senate Bill 498. It serves as an advisory body regarding the needs of transit dependent and disadvantaged persons.

Transfer Point:

A bus stop serviced by two or more routes, thus allowing riders the opportunity to transfer from one bus line to another.

Requirement:

An authorization or justification.



7 Revision List

Section	Page	Date of revision	Note
Distribution list	24	2/22/02	Added Library
Revision List	23	2/22/02	Redesign
Sign	6	4/4/03	Update design
Pole	19	4/4/03	Update design
Information	26	4/4/03	Update design
Bench	27	4/4/03	Update design
Shelter	28	4/4/03	Update design
Light	30	4/4/03	Update
Pole	19	10/27/03	Updated according to new design
Shelter	28	10/27/03	Updated standard
Information	26	10/27/03	Updated standards
Sign	18	10/27/03	Updated Boarder Colors for routes
Shelter Standard	28-30	9/7/04	Updated standard
Bus Dimensions	36-37	9/7/04	Added spread sheet on dimensions
Layout of book	ALL	9/7/04	Updated and rearranged everything



8 Distribution List

MTD Personnel

[Sherrie Fisher](#)
Paul Tumbleson
David Damiano
Steve Mass
Lynnette Coverly
[Rachel Grossman](#)
Library

[General Manager](#)
Passenger Facilities Manager
Community Relations Manager
Transit Development Manager
Public & Personnel Relations Manager
[Planning](#)

City of Santa Barbara

Stacey Wilson Transportation

County of Santa Barbara

Bert Johnson Transportation
[Matt Dobberteen,](#) [Alternative Transportation Manager](#)

City of Carpinteria

[Dale Lipp](#) [Public Works Director](#)
Rick Fulmer Facility Manager

City of Goleta

Steve Wagner Public Works Director
[Marti Schultz](#) [Principal Civil Engineer](#)

Others

Blackbird Architects
CSA Architects