

BUS STOP TYPOLOGY STUDY

KIT OF PARTS DESIGN DOCUMENT



NOVEMBER 2022

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1.0 - Introduction

Purpose of this Document

As a part of its Bus Stop Typology Study, Valley Regional Transit (VRT) seeks to redefine the overall bus stop experience for riders across its service area. Specifically, VRT is introducing a clearly-defined strategy for bus stop designation, orientation, furnishing, branding, and implementation that will enhance transit usability, safety, understandability, and accessibility throughout the entire Treasure Valley region. The Kit of Parts outlines this strategy and serves as a reference and instructional guide for administering VRT's bus stop infrastructure on an ongoing basis.

The Kit of Parts is oriented to fulfill the following objectives:

- Define methodologies and specifications for preferred systemwide bus stop shelter, amenity, technology, and branding improvements;
- Incorporate new agency-wide bus stop branding and graphics specifications that aim to refresh systemwide bus stop signage; and
- Accommodate introduction of new premium service corridors with distinctive branding and enhanced amenities.

By meeting these objectives, the Kit of Parts will help establish a transit network that is easier to understand (with consistent and user-friendly branding upgrades), more approachable and comfortable to use (with bus stop amenity improvements that enhance the transit wait experience), and a more attractive mobility option and transportation mode choice for a wider range of Ada and Canyon County residents.

What is the Kit of Parts?

As a reference and instructional guide, the Kit of Parts determines different bus stop typologies and the design elements that correspond with those typologies, details each specific design element, and defines, for each element, a collection of engineered parts that can be interconnected or optionally-selected to collectively configure that specific element's orientation and implementation. The Kit of Parts considers the following elements as constituting the overall bus stop design:

- Bus Stop Amenities
- Information and Branding
- Bus Stop Pole Features
- Bus Stop Technology Features

Kit of Parts Development Process

The Kit of Parts was developed through a collaborative process involving VRT representatives from across the organization, representing planning, operations, customer service, facilities, information technology, and other functional areas.

The Kit of Parts is informed by agency best practices for bus stop standards and the introduction of premium service bus stop amenities and branding around the U.S. Examples were drawn from peer agency precedents to inspire the design approaches that are appropriate for the VRT context.

The project team analyzed ridership patterns (using both pre-pandemic 2020 and pandemic 2021 data) to understand existing distributions of bus stop boarding and alighting activity across the VRT system. Additionally, the team analyzed other operational and customer experience factors such as transfer locations, multi-modal first/last mile connections, and stops serving major destinations. Both quantitative ridership data and qualitative factors were used to develop criteria and thresholds for recommended bus stop amenities.

Field work was conducted to evaluate existing bus stop conditions around the VRT system which represent multiple generations of investment in amenities (and accordingly, a diverse array of designs, materials, and philosophies for bus stop shelters, amenities, and site conditions). The site evaluation included standard VRT local bus routes, locations served by flex-route and Transportation Network Company (TNC) services, downtown bus stop, transit centers, park & rides, and future premium service corridors (Vista, Fairview, and State). The prototype premium corridor bus stop at Fairview Ave./Main St., built in partnership with the Capital City Development Corporation, was also observed under construction.

The vast majority of VRT bus stop improvements are implemented in portions of the public right of way operated by partner agencies, rather than on sites owned and controlled by VRT. VRT engaged partner agencies including the City of Boise and Ada County Highway District (ACHD) in the development and review of the Kit of Parts.

Examples of feedback from partner agencies included clarifying relationships to existing policies, plans, and design standards, and considering the multi-modal integration of bicycle/pedestrian facilities. VRT and partner agencies also discussed the potential application of the Kit of Parts to support roadway project design and reservation of space for transit improvements through the development application process.

A basis of design document and the Draft Kit of Parts were developed through a series of workshops with VRT and reviewed by partner agency staff. The draft Kit of Parts document was reviewed by VRT's Regional Advisory Council (RAC), a standing committee of the VRT Board of Directors. The RAC provides a forum for transportation and human service staff to share information and to collaborate on mobility issues.

The draft Kit of Parts was presented in an informational presentation to the VRT Board of Directors in June 2022, and was presented in final form for adoption in August 2022.

Kit of Parts Exceptions

The Bus Stop Kit of Parts provides guidance to support a consistent, comfortable, safe, and accessible experience for VRT customers and other users of the surrounding public realm, including pedestrians, bicyclists, and motorists. However, the Kit of Parts cannot not provide a universal blueprint that is applicable to every one of the over 700 stop locations within the VRT service area.

The reader and user of this document are reminded of the need to consider site conditions, roadway design, operational needs, user safety, and prevailing federal, state, and local policies and regulations when applying these guidelines to specific locations. The existence of the Kit of Parts does not obviate the need for site-specific planning and engineering analysis before implementing bus stop improvements.

Examples of variables and design factors to be considered at specific sites include, but are not limited to:

- Existing roadway geometric design.
- Roadway design speed.
- Appropriate bus stop location within the street/ intersection.

- Jurisdictional design standards (e.g. setback of fixed objects from roadway).
- Slopes/grades at or near the bus stop.
- Right-of-way availability, easements, and site constraints.
- Bus operational factors (e.g., frequency, dwell time).
- Visual obstructions/site distance constraints.
- Existing or potential ADA accessibility deficiencies.
- Presence and suitability of bicycle and pedestrian accommodations.
- Presence and suitability of crosswalks/pedestrian crossings.
- Ambient lighting levels.
- Special design standards or design review processes.
- Existence of other hazards, deficiencies, or limitations.

Reference Documents

The following documents are incorporated into the Bus Stop Kit of Parts by reference. They describe policy guidance, regional multimodal transportation planning context, federal Americans with Disabilities Act (ADA) regulations, engineering standards, first/last mile connectivity opportunities, and best practices to be considered in the adaptation of the Bus Stop Kit of Parts to specific stop locations or corridors.

The precedence and jurisdiction of these documents must be considered when applying to a specific location or situation within the Valley Regional Transit service area.

- *Ada County Highway District (ACHD). Roadways to Bikeways Plan, 2018 Addendum.*
- *Ada County Highway District (ACHD). Policy Manual, 2013.*
- *Ada County Highway District (ACHD). Supplemental Specifications to the 2018 ISPWC, 2018.*
- *City of Boise. Boise Citywide Design Standards and Guidelines, Adopted April 2013.*

- *City of Boise. Boise Downtown Design Standards and Guidelines, Revised June 2016.*
- *City of Boise. Transportation Action Plan, April 2016.*
- *City of Caldwell. Caldwell Pathways and Bicycle Route Master Plan, November 2020.*
- *City of Caldwell. 2040 Comprehensive Plan for the City of Caldwell. February 3, 2020.*
- *City of Nampa. Bike & Pedestrian Master Plan, September 2019.*
- *City of Nampa. Transportation Master Plan, July 2019.*
- *Community Planning Association of Southwest Idaho (COMPASS). Regional Park & Ride Study, January 8, 2021.*
- *Community Planning Association of Southwest Idaho (COMPASS). Communities in Motion 2040 2.0, December 2020.*
- *Idaho Transportation Department (ITD). Standard Specifications for Highway Construction, April 2018.*
- *ISPWC Executive Committee. Idaho Standards for Public Works Construction (ISPWC), 2020 Edition.*
- *National Association of City Transportation Officials (NACTO). Transit Street Design Guide, April 2016.*
- *U.S. Access Board. ADA Accessibility Standards, 2010 and 2006.*
- *U.S. Access Board. Public Right of Way Accessibility Guidelines (PROWAG), 2011.*
- *Valley Regional Transit. ADA Accessible Bus Stop Policy and Procedure (Resolution VMC09-003), Approved April 6, 2009.*
- *Valley Regional Transit. Bus Stop Location and Transit Amenities Development Guidelines, Adopted September 23, 2019.*
- *Valley Regional Transit. Marketing Handbook, November 29, 2018.*
- *Valley Regional Transit. ValleyConnect 2.0, Adopted April 2018.*

2.0 - How to Use this Document

This Kit of Parts document is intended for use that is guided by the following key steps:

- a. Understand the basis for the Kit of Parts and the assumptions and strategies that built the framework for each design element by reviewing the background context described in Section 3.
- b. Consider the Kit of Parts' two modules (Premium and Standard), as presented in Section 4, by understanding each module's definition, how stops systemwide are assigned to each module, and how each module will be referenced throughout the rest of the document.
- c. Consider the varying bus stop conditions based on ridership and location-based factors, as well as the ranging site conditions that exist across VRT's system, and understand the definitions of small, medium, and large stop types as defined in Section 4.
- d. In Sections 6 through 9, review all of the components that constitute a design element, determine which sets of components apply to each module and each stop type within that module, view selectable options for each component, and obtain the specifications for each of those options.

Specifically, for each design element, the Kit of Parts identifies a range of components that constitute that element, details how the components apply to either or both the Premium or Standard modules, determines which components are appropriate for the different stop types within those modules, and lists options for each component and their specifications. With this information, the Kit of Parts enables VRT to easily and consistently carry out systemwide stop design, either for existing or new stops.

3.0 - Kit of Parts - Basis of Design and Assumptions

The VRT Kit of Parts was developed around a set of design decisions and assumptions – collectively, the Basis of Design, that guided the detailed development of bus stop features and amenities. The Basis of Design was informed by review of existing VRT practices, peer agency precedents, and the discussion during a Basis of Design workshop conducted with VRT staff on October 28, 2021.

Vision

VRT's overarching vision for the Kit of Parts and its application of amenity and branding elements is based around stops serving as community gateways that provide enhanced freedom to move.

- Application of Vision: VRT's defined vision and its inherent branding applications cohesively guide the integration of all Kit of Parts elements, and is applicable to all of the Kit's proposed amenity and branding alternatives.



General Design Principles

The following general design principles have guided the development of the Kit of Parts and the VRT philosophy towards its implementation.

- **Incremental Implementation:** VRT intends to implement elements of the Kit of Parts in an incremental fashion across its service area. The pace and scope of deployment will be driven by the availability of capital funding, stop prioritization, and opportunistic improvements such as those incorporated into street improvement projects. An exception is implementation of new bus stop signage, which for consistency is anticipated to occur system wide within a short timeframe once the new signage system is selected and fabricated.
- **Commercial Off the Shelf Components:** For maximum cost effectiveness and ability to deploy the most amenities for a given budget, the Kit of Parts is intended to use commercially available pre-fabricated components such as shelters, benches, trash receptacles, etc. Potential exceptions include premium corridor station markers and neighborhood identity/customization elements.
- **Premium Amenities for New Premium Corridor Service:** The Kit of Parts includes two sets of amenities for both standard bus stops as well as new Premium or "best in class" corridors (to be implemented along Vista Ave., Fairview Ave., and State St. Premium transit corridors, which are envisioned in both the VRT ValleyConnect plan (2018) and the City of Boise's Transportation Action Plan (2016)). The Kit of Parts reflects the VRT decision to use distinctive shelters, amenities, technology, and branding to enhance the passenger experience and the Premium service brand in these three corridors.
- **Accessible Stations:** In accordance with federal Americans with Disabilities Act (ADA) regulations, VRT kit of parts elements are intended to meet federal public transportation facilities accessibility requirements. Site-specific analysis will determine the need to implement accessibility improvements to areas adjacent to VRT stations such as sidewalks and intersection curb ramps. **Key aspects of the Basis of Design are summarized in the remainder of this section.**
- **Minimize Site and Utility Work:** Subterranean foundations, power, communications, and other site engineering factors can be major cost drivers in bus stop amenity deployment. To minimize these costs, VRT generally seeks to avoid Kit of Parts elements requiring foundations or utility implementation. Shelters are intended to be bolt-down, and ticket vending machines will require only thickened concrete slabs. Technology devices and lighting are expected to be low power draw, using solar power generation and wireless data communications to avoid hardwired utility connection costs.

Shelters and Amenities

Topic	Basis of Design Assumption
Standard Shelter Kit of Parts	The kit of parts will include a series of stop typologies for use in Standard stop locations throughout the VRT system.
Premium Shelter Kit of Parts	The kit of parts will include a series of stop typologies for use in Premium corridors, incorporating a generally higher level of amenity and distinctive branding.
Kit of Parts Implementation Levels	The Standard and Premium kit of parts will each include at least three levels of implementation, based on ridership, site constraints, and other factors: · Low (basic or minimum) · Medium · High (enhanced or maximum)
Shelters and Amenities in Special Districts	The kit of parts will acknowledge the use of distinctive shelter and amenity designs and components for use in the Downtown District of Boise, designated historic districts, or other areas of special interest. The distinctive designs for shelters, amenities, art etc. to be used in these areas are not included in the Kit of Parts; however standard kit of parts elements may be adapted to these locations if appropriate.
Shelter System	All shelter locations (Standard and Premium corridors), except for in designated downtowns or historic districts, will use commercial off the shelf prefabricated shelter systems.
Shelter System	The shelter system will use bolt-down mounting onto the platform slab per manufacturer specifications. For ease of installation and cost reduction, subsurface foundations, thicken slabs, or other sub grade reinforcements will be avoided. To the maximum extent feasible, shelter size and configuration should provide Sun/wind/ weather protection appropriate to the Treasure Valley's four-season climate.

Topic	Basis of Design Assumption
Benches	Bench alternatives included in the kit of parts will include: · Matching/integrated shelter bench for full-depth shelter locations · Freestanding (backless) bench · Display/advertising bench (with back) · Pole bench (integrated into bus stop sign pole)
Lighting	In locations supplied with shelter, use of shelter-mounted solar LED bus stop lighting systems are preferred. The kit of parts does not include a standard hardwired light pole to be installed on the bus stop platform. If a lighting deficiency is identified in the course of bus stop design, VRT prefers to work with municipal/property owner partners to address lighting deficiencies through additions of new street lights, modifications to existing street lights and existing path lighting systems, etc. Although not the preferred lighting method, a standalone solar powered light is included the Kit of Parts, which could be used to improve lighting where other solutions are not available.
Trash Receptacle	Trash receptables will be a commercial off the shelf, bolt down, non-compacting variety. To the extent possible VRT prefers a standard trash receptacle across the system for ease of maintenance.
Art/Station Identification	The kit of parts will identify opportunities to integrate public art or community identity, either directly by VRT or in partnership with community organizations. Opportunities for integration of public art include: · Shelter panels · Bicycle racks · Railing elements · Bench backs (advertising panel locations) · Station pavement surfaces · Freestanding artworks adjacent to stops

Bus Stop Platforms

Topic	Basis of Design Assumption
Station Footprint	The kit of parts will indicate preferred and minimum dimensions for each platform and stop type. Footprint will consider ADA requirements, sidewalk through passenger travel, adjacent bicycle facilities, or multi-use paths, on-street parking, and available right of way. Site-specific engineering and ADA analysis will generally determine the applicability of the kit of parts in a given location based on site opportunities, constraints, operational needs, regulations, etc.
Constrained Sites	The kit of parts will provide recommendations for amenities at constrained sites, e.g. where depth is insufficient to accommodate a shelter.
Vehicle Length	The kit of parts will assume use of a combination of 35-foot and 40-foot two-door transit coaches. Platform, shelter, and amenity configuration should maximize the possible door placements to reflect vehicles of differing length and/or manufacturer. Where possible, future accommodation of 60-foot articulated coaches should be considered during Premium corridor platform siting and design.
Minimum Stop Improvements	The kit of parts will assume a minimum recommended ADA-accessible station improvement consisting of: 1.) a paved slab for passenger boarding and alighting/ramp deployment at the front door; and 2.) a standard bus stop flag/pole incorporating VRT standard supplemental rider information.

Topic	Basis of Design Assumption
Raised Platforms	Site conditions permitting, major stops may incorporate near-level boarding platforms (approx. 9-10" above pavement) for ease of passenger boarding and reduced station dwell time. Site specific transitions, gradients, roadway geometry, and operational/traffic impacts of bus dwell time are among the factors to be considered in implementing raised platforms.
Platform Edge Warning	Textured platform edge warnings (truncated domes) may be used at major stops and/or elevated platforms, per ADA regulations and ACHD guidelines.
Boarding/Alighting Doors	Unless restricted by site constraints, stops will be configured to allow use of both front and rear doors for passenger boarding and alighting. ADA compliant boarding is assumed at the front door (bus ramp location) only for standard 40-foot and 35-foot coaches.
Boarding Door Location Markings	Stops should incorporate platform markings to indicate the location of ADA accessible boarding or waiting areas.
Platform Railings	Bus stop railings and/or leaning bars will be indicated where required due to drop-offs, slopes, adjacent bicycle facilities, or other constraints for ADA compliance and customer safety.
Reinforced Bus Pad	An in-street reinforced asphalt or concrete bus pad may be implemented to reduce roadway wear and tear from bus braking/acceleration at stop locations. Determination on use of bus pads will be made on a site-specific basis in consultation with ACHD or other public works partners.

Multimodal Integration

Topic	Basis of Design Assumption
Pedestrian Connectivity	Where possible, stops should be located in close proximity to crosswalks and other safe pedestrian crossing locations, providing greatest pedestrian accessibility in all directions from the stop location. Mid-block and other locations that reduce pedestrian accessibility and/or encourage jaywalking should be avoided when possible.
Bicycle Facilities (Parallel)	Bus stop improvements shall incorporate bicycle facilities operating on the same roadways as transit. Separated bike lanes/cycle tracks using island platforms are generally preferred. Mixing of bicycles and buses in a single lane, or crossing of bike lanes to access bus stops, is generally discouraged. VRT will work with local jurisdictions and will conduct site analysis to determine the most suitable bicycle accommodations at a given bus stop location.
Bicycle Facilities (Intersecting)	Where possible, bus stops will be located to provide convenient and safe first/last mile access via intersecting bike lanes, paths, or cycle tracks. Consideration of bike access to/from the bus stop platform, and bicycle storage amenities such as bike racks, should be evaluated during site design.
Bike Racks	Where indicated, bike storage will be provided at stops using a customized or off the shelf bike rack (e.g. ring or U-style, providing two points of contact with the bike). Bike storage shall in no way impede pedestrian/bike path of travel or required ADA clearances.
Bike Share Facilities	Where indicated, bike share facilities will be located adjacent to VRT transit stops. Provisions for dockless bike share (e.g. racks) should be considered for passenger convenience and promote orderliness at stops.

Station Technology

Topic	Basis of Design Assumption
Real-Time Bus Arrival Information	The primary function of electronic passenger information signage will be to provide real-time bus arrival and service information for routes serving a given stop.
Real-Time Data Source	Where deployed, passenger information technologies will utilize GTFS-realtime data feed, generated by VRT's CAD/AVL system, for displaying bus arrival predictions and service alerts.
Passenger Information Signs - Technology	For cost-effectiveness and ease of deployment, e-paper technology is the preferred technology for bus stop signage. E-paper technology will use cellular data communications and solar power to minimum utility costs.
Passenger Information Signs - Format	The kit of parts will include passenger information signage for the following formats: · Signpole-mounted "tablet" format suitable for locations with or without shelters · Large screen format, for deployment in with shelters, in overhead configuration, or on other suitable surfaces (e.g. wall surface at a transit center)
Fare Payment	Standard routes will utilize a pay-when-boarding fare collection model, via the onboard farebox, smartcard validators, and/or mobile payment. Premium routes and high ridership stops, like transit centers, may utilize offboard (platform) ticket vending machines or smartcard validators to reduce station dwell time and provide additional customer payment options.
Security Surveillance Cameras (CCTV)	Security surveillance cameras (CCTV) will generally not be installed at VRT standard or Premium bus stops. Exceptions (e.g. transit centers) will be designed specific to each location, and not as a component of the bus stop kit of parts and as an optional component of the bus stop kit of parts.

4.0 - Kit of Parts - Application to VRT Service Area

Premium and Standard Modules

To accommodate VRT's different transit service typologies and improve their understandability and overall usability, the Kit of Parts includes two modules:

- **Premium:** accounts for the design of stops on defined premium service corridors.
- **Standard:** accounts for the design of all other stops (not serving premium corridors)

How Modules are Applied Systemwide

Stops are generally assigned to modules throughout the VRT system based on the corridor(s) they serve. For stops existing along premium service corridors, the Premium module and its corresponding components apply. For all other stops, the Standard module and its corresponding components apply. Important to note is that some Standard stops may eventually be upgraded to Premium stops as the premium service network is expanded to additional corridors. The Kit of Parts is oriented to account for these upgrades, as the components within each module can be compared and then identified for enhancement, relocation, and/or maintenance as-is, based on stop typology.

Stop Typologies

Site specific conditions dictate the set of design components that are appropriate and/or feasible for implementation at each stop. These factors define each stop's typology. The three stop typologies include the following:

- **Large** – features conditions that warrant the highest level of enhancements due ridership and/or prominence in the network
- **Medium** – features conditions that warrant a moderate level of improvements (typically including shelters) with a balanced approach to amenities to maximize the number of stops that can be improved
- **Small** – features conditions that warrant only basic or minimal upgrades

High Ridership

The Kit of Parts identifies the factors that help determine each stop's typology. Specifically, the factors are categorized and prioritized by their level of importance:

Then, by making connections between relevant conditional factors, those factors' criteria levels, and the various stop typologies, VRT can determine how its stops systemwide are assigned to each typology. The methodology for applying conditional factors to determine a stop's typology, as well as the number of existing stops that correspond with each typology, are detailed in the table on page 20.

High Ridership Criteria Stop Factor	
High Ridership	
Elevated Criteria Stop Factors	
- Key Transfer Location - Serves Park & Ride or TC	
Other Criteria Stop Factors	
- Serves College/University - Serves Hospital - Serves Supermarket - Serves High Proportion of Seniors	- Serves High Proportion of Persons with Disabilities - Site Exposure - Unique Topography



Stop Typology Selection based on Ridership and Other Criteria

The table below indicates the specific criteria used to define stop typologies and determine which types of amenities and branding elements are distributed to each stop. Please note that in subsequent sections, each component listed under the various design elements includes a symbol that indicates which stop types are intended to incorporate that component. The symbols are included in the table below and should be noted while reviewing Sections 6 through 9.

STOP TYPOLOGY:	LARGE	MEDIUM	SMALL
PREMIUM Stops on premium corridors that feature:	 - Meets High Ridership criterion, OR - At least two elevated criteria stop factors, OR - At least one elevated and one other criteria stop factor TOTAL STOPS: 63-65	 - One elevated criteria stop factor, OR - At least one other criteria stop factor TOTAL STOPS: 6-9	 No ridership, elevated, or other criteria stop factors TOTAL STOPS: 39-44
STANDARD Stops not on premium corridors that:	 - Meets High Ridership criterion, OR - At least two elevated criteria stop factors, OR - At least one medium and one other criteria stop factor TOTAL STOPS: 44-57	 - One elevated criteria stop factor, OR - At least one other criteria stop factor TOTAL STOPS: 101-148	 No ridership, elevated, or other criteria stop factors TOTAL STOPS: 476-536

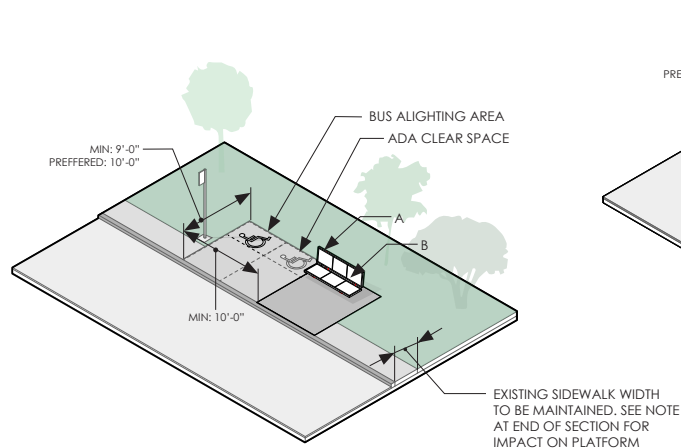
Note that stops in defined historic or downtown districts may vary from this document's defined modules and typologies, as they are subject to specific city design requirements. For example, a specific shelter, amenity, or neighborhood identity features may be incorporated at these locations to complement the surrounding streetscape or meet other adopted design standards. Variations to the kit of parts in these districts will be a joint determination between VRT and the local jurisdiction.

5.0 - Bus Stop Location and Site Considerations

To accommodate available space and size constraints that exist at each bus stop location, the Kit of Parts includes specific configurations and design considerations for different stop sizes, as shown on the following three pages.

Bus Stop Location and Site Considerations

Station Size - Small



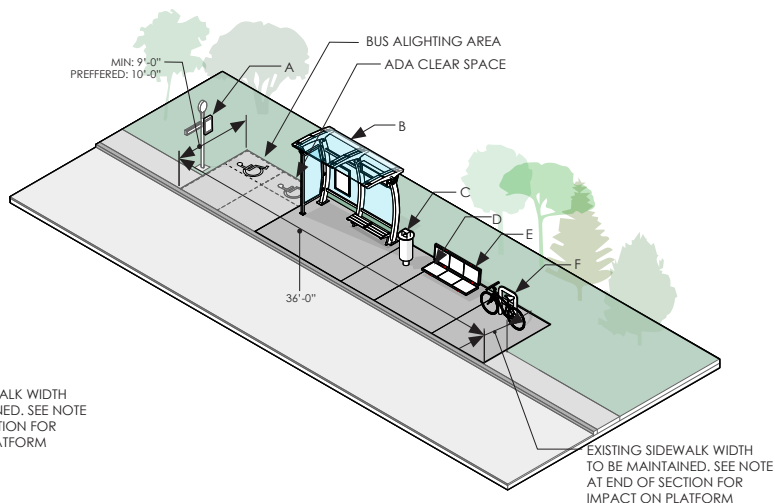
STANDARD

Core:

- Bus Stop Flag
- Concrete Slab

Optional:

- A. Bench
- B. Bench Advertising



PREMIUM

Core:

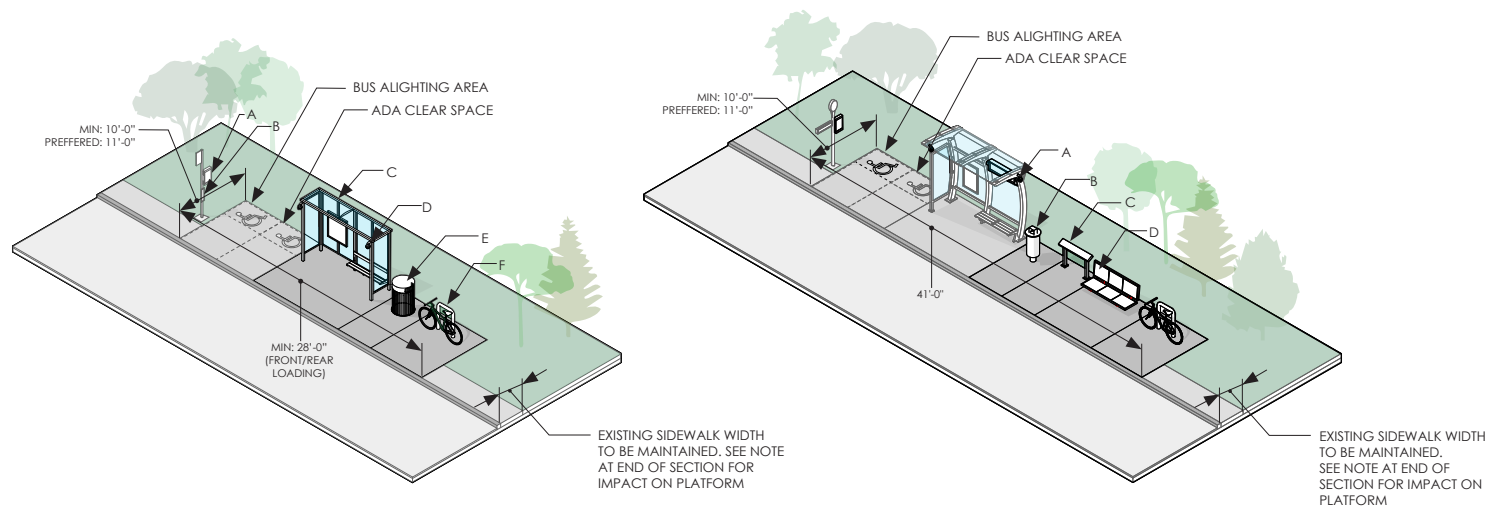
- Bus Stop Flag
- Concrete Slab
- Pole/Shelter Mounted Map

Optional:

- A. Pole/Shelter Mounted E-Paper Sign
- B. Shelter
- C. Trash Receptacle
- D. Bench
- E. Bench Advertising
- F. Bicycle Rack

Bus Stop Location and Site Considerations

Station Size - Medium



STANDARD

Core:

- Bus Stop Flag
- Concrete Slab

Optional:

- A. Pole/Shelter Mounted Map
- B. Pole/Shelter Mounted E-Paper Sign
- C. Shelter
- D. CCTV
- E. Trash Receptacle
- F. Bicycle Rack

PREMIUM

Core:

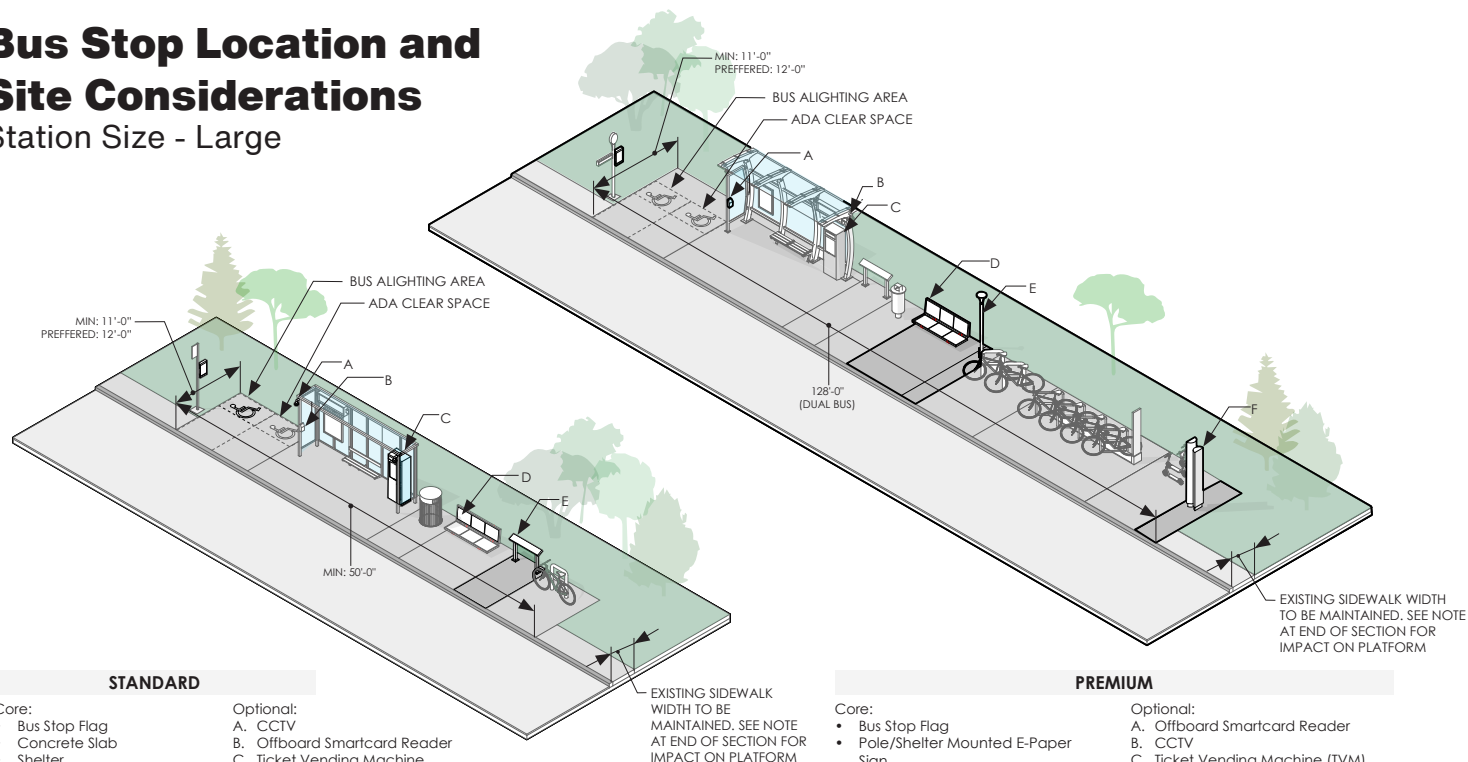
- Bus Stop Flag
- Pole/Shelter Mounted E-Paper Sign
- Concrete Slab
- Premium Branded Shelter
- Bench
- Bicycle Rack
- Pole/Shelter Mounted Map

Optional:

- A. CCTV
- B. Trash Receptacle
- C. Lean Rail
- D. Bench Advertising

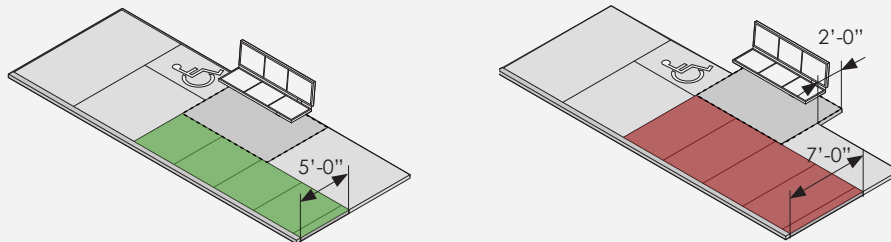
Bus Stop Location and Site Considerations

Station Size - Large



Note - Sidewalk and Platform Depths:

Existing sidewalk widths are to be maintained at platform locations. The width of the sidewalk or pedestrian pathway, plus the required width of amenities and their ADA clear zones, drives the depth requirement of individual platforms.



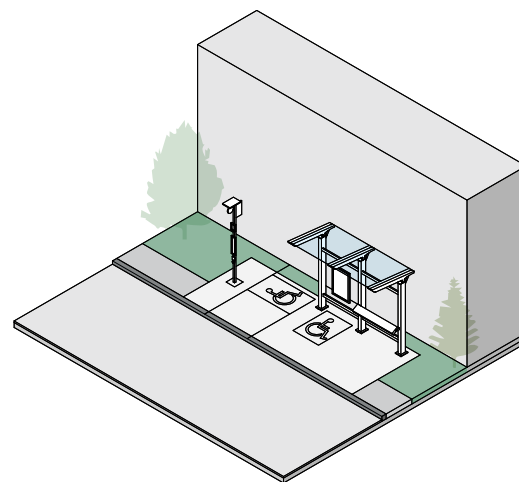
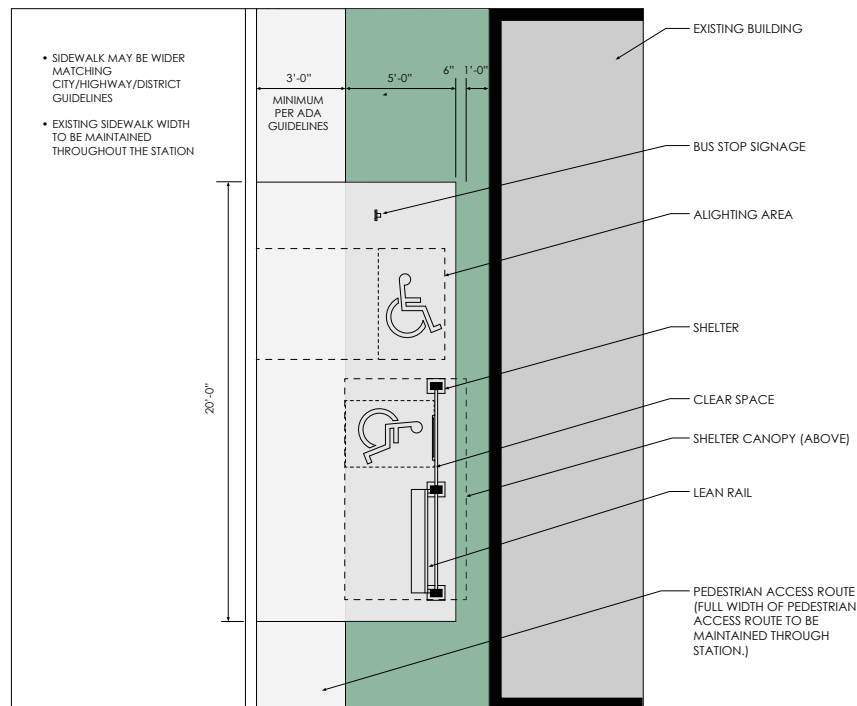
Given the modular nature of platform components, individual component depths (including clear zones) need to be considered in conjunction with the width of the existing pedestrian pathway to determine final platform depths. To aid in this process, typical platform footprints have been provided in the preceding diagrams and dimensions for all components are provided in Section 6.

In the following sections, each component listed under the various design elements includes a symbol that indicates which stop types are intended to incorporate that component. Please note these symbols, as defined in Section 4, while reviewing Sections 6 through 9.

Also, important to note is that various unique site conditions exist at certain stop locations throughout the VRT network. The presence of these conditions may affect the feasibility of implementing one of the Kit of Parts' defined stop types. Therefore, the Kit of Parts includes configurations that accommodate several of the most unique site conditions, including limited widths and lengths and the presence of bicycle and/or pedestrian infrastructure (bike lanes, crosswalks, etc.). The accommodation of these site conditions provides for a level of flexibility in applying the Kit of Parts across the VRT system.

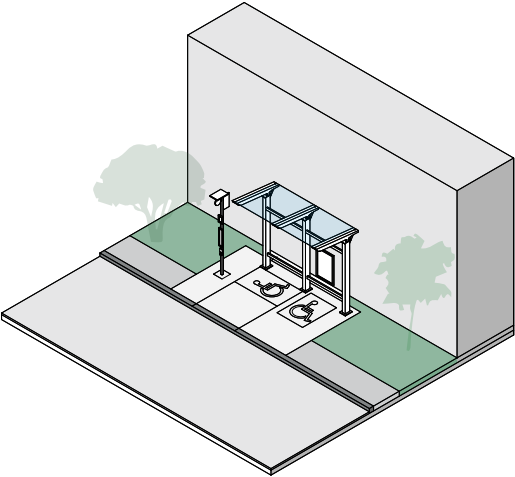
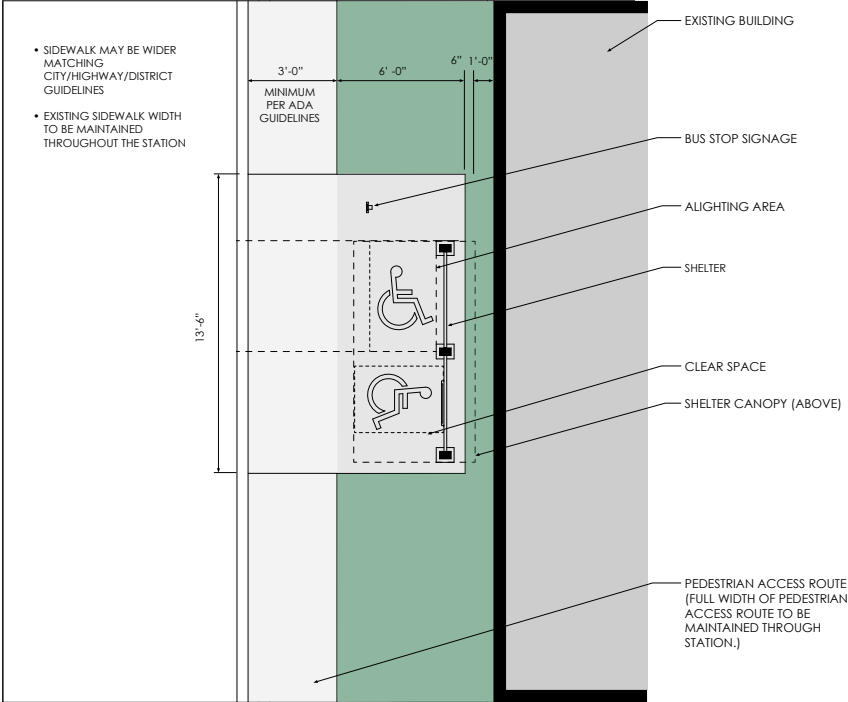
Bus Stop Location and Site Considerations

Sites Constrained by Width



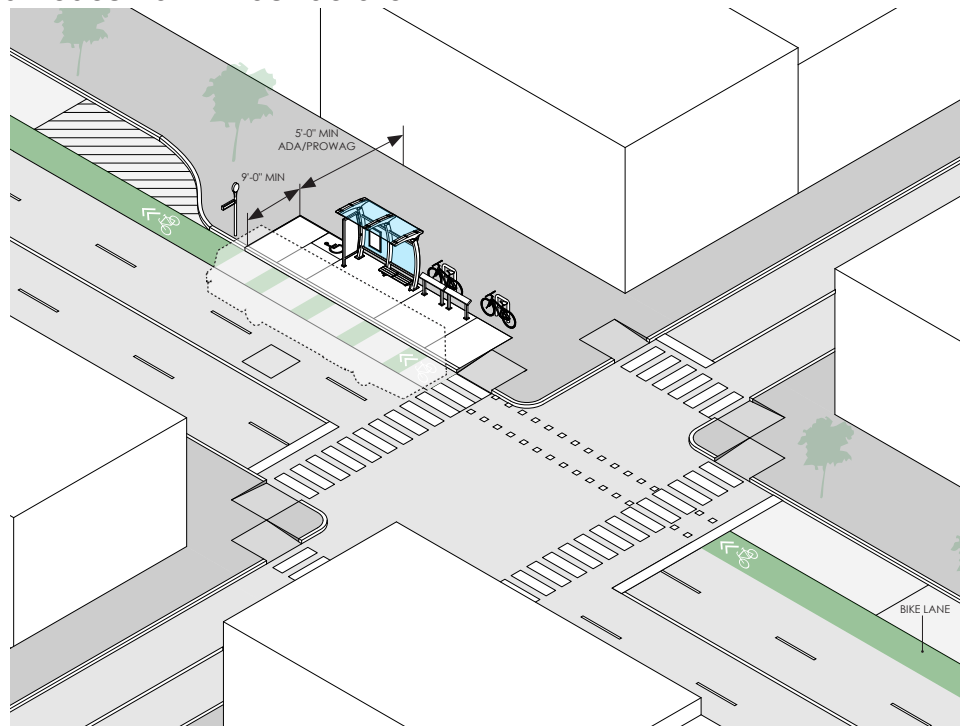
Bus Stop Location and Site Considerations

Sites Constrained by Length



Bus Stop Location and Site Considerations

Bicycle Lane and Pedestrian Infrastructure



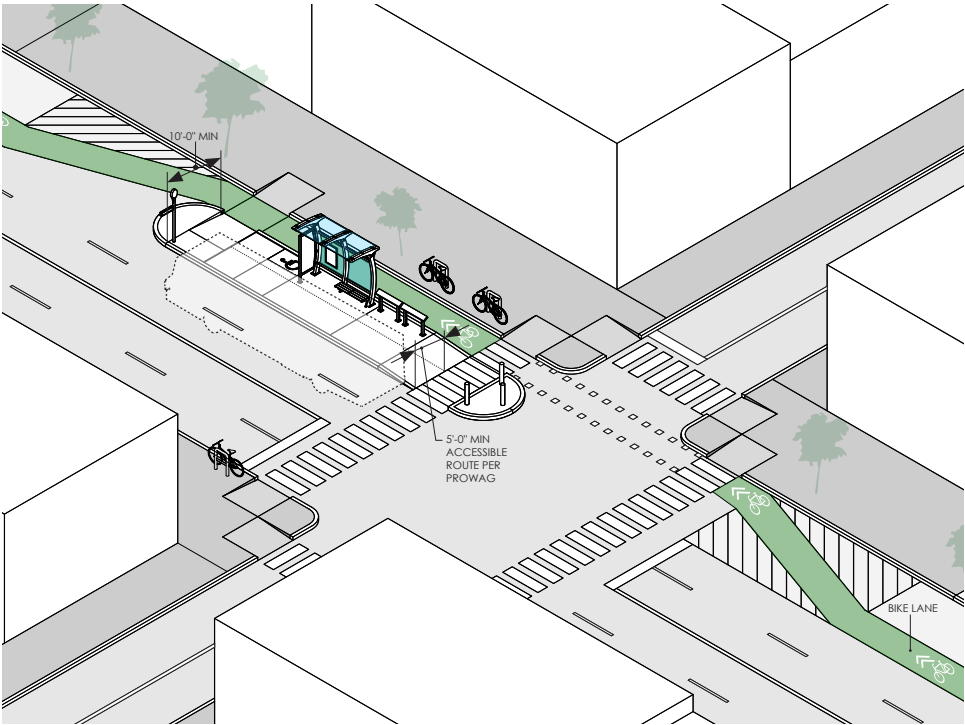
This illustration shows a typical location of a far-side bus stop platform on a multi-lane arterial street with bike lanes. In this instance, the bike lane shares the street space with the bus boarding area at the station platform in a "narrow" configuration.

Coordination with the local jurisdiction is required for site-specific determinations on bicycle facilities as well as ADA accessibility, pedestrian access, lighting, and configuration of travel and parking lanes.

Bulb Out

Bus Stop Location and Site Considerations

Bicycle Lane and Pedestrian Infrastructure



This illustration shows a typical location of a far-side "island" bus stop platform on a multi-lane arterial street with separated bike lanes. In this instance, the bike lane is separated from the bus berthing area, reducing vehicular conflicts. It does, however, require consideration of the bicycle conflict point for pedestrians entering the station, particularly at un-signalized crossings.

Coordination with the local jurisdiction is required for site-specific determinations on bicycle facilities as well as ADA accessibility, pedestrian access, lighting, and configuration of travel and parking lanes.

Side Island

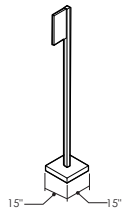
6.0 - Bus Stop Amenities

Amenities for implementation at bus stops can be used to better identify and/or formalize the presence of transit, clarify information and communications about using the transit system, improve comfort and security for transit riders, and enhance the overall usability and

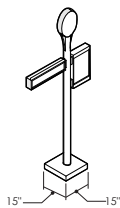
accessibility of transit as a transportation mode choice. The stop amenity design is comprised of the following components, which apply to different modules and bus stop types as specified.



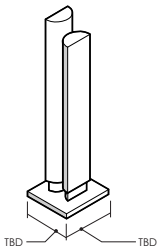
Bus Stop Amenities



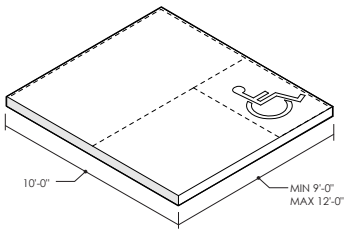
Standard Bus Flag



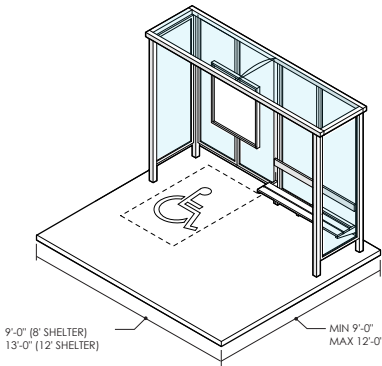
Premium Bus Flag



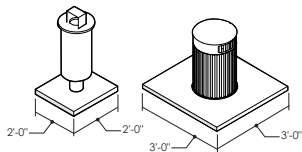
Station Marker



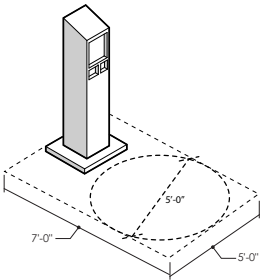
Concrete Slab



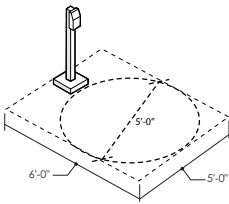
Standard Bus Shelter (Slimline Shown)



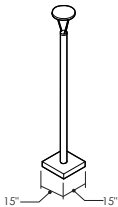
Waste Receptacle



Ticket Vending Machine (TVM)

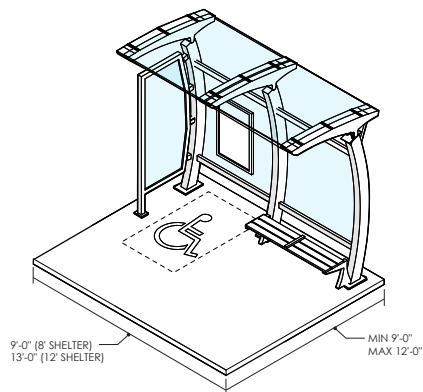


Off-Board Smart Card Validator

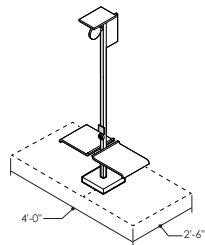


LIGHTING IN ACCORDANCE WITH I.E.S.N.A. STANDARDS, MIN 50 LUX AT GROUND RECOMMENDED

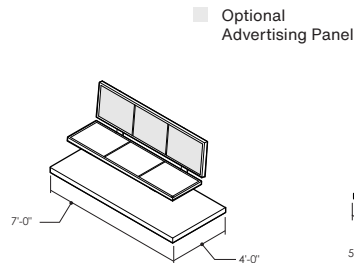
Light Pole



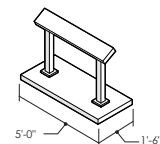
Premium Bus Shelter
(Interlude Shown)



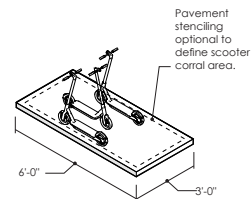
Station Flag
Mounted Seating



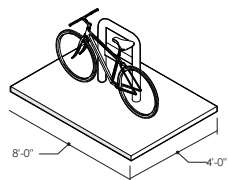
Bench With Optional
Advertising



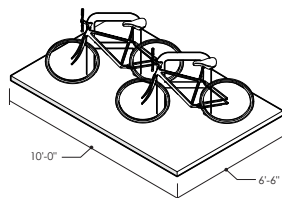
Lean Rail



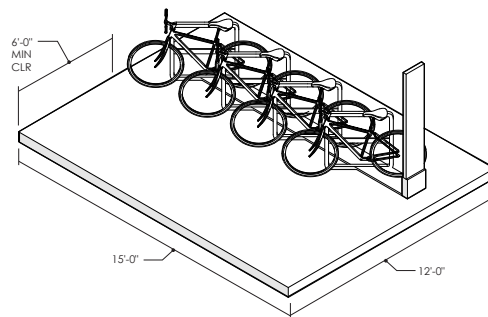
Scooter Corral



Bicycle Rack
(Parallel)

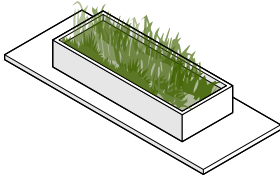


Bicycle Rack
(Angled)

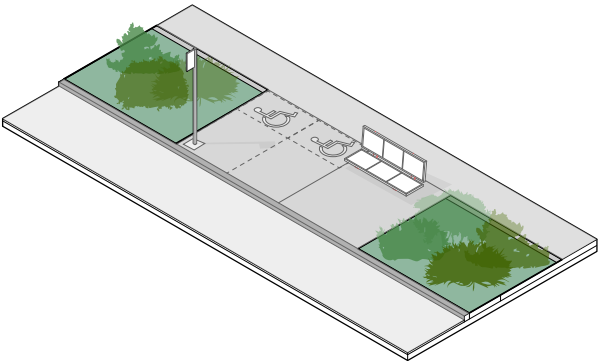


Bicycle Share Station

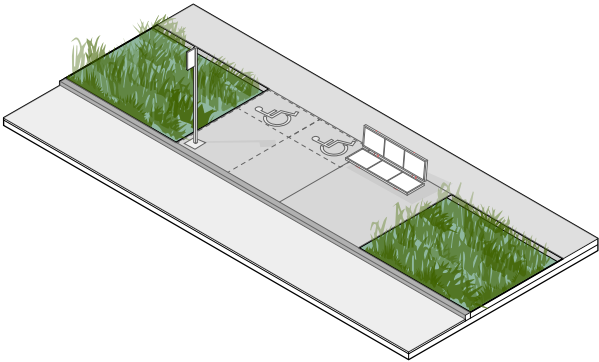
Landscape Elements



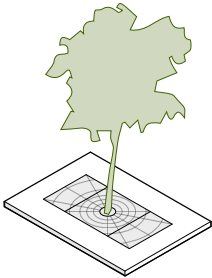
Planter Box



Green Strip



Bioswales



Street Tree

Landscaping to be maintained by appropriate jurisdictions/private property owners

Bus Stop Amenities

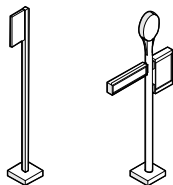
Amenity - Bus Flag



Standard



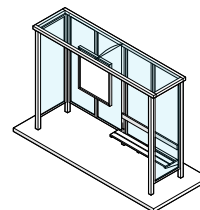
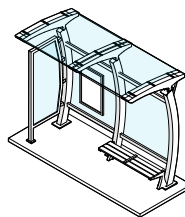
Premium



A bus stop flag sign represents the primary indicator of a bus stop's location. Often featuring key pieces of information such as the transit agency's logo, contact information, transit routes served, and service hours, the bus stop flag sign serves as an identifier or beacon, advertising to the general area the point at which riders can wait to board a bus. Furthermore, the bus stop flag sign can be oriented strategically to promote transit agency branding or service identification, with specific sign designs associated with separate service types. The Kit of Parts calls for the consistent roll-out of bus stop flag signs in coordination with the specifications of the bus stop information and branding design element, as outlined in Section 7.

Bus Stop Amenities

Amenity - Bus Shelter



Standard



Premium

Bus shelters serve primarily as an added rider comfort amenity, and can be used to further establish the presence of transit. Specifically, these improve the customer wait experience by providing shelter from the elements, seating, and a location for posting informational materials. Shelters can take on a wide variety of shapes and forms, and the VRT service area alone has featured numerous shelter designs, based on their time of installation, neighborhood-based design orientation, and bus stop site conditions. The Kit of Parts intends for a more standardized and consistent use of bus shelters across the VRT system, with two main shelter types - one for the premium module, represented by the Interlude shelter model, and one for the standard module, represented by the Slimline shelter model. By distributing shelters across the Treasure Valley region in a consistent manner, with shelter types associated with different service types, this component can promote better and clearer identification of transit services and VRT system approachability, understandability, and usability.

Bus Stop Amenities

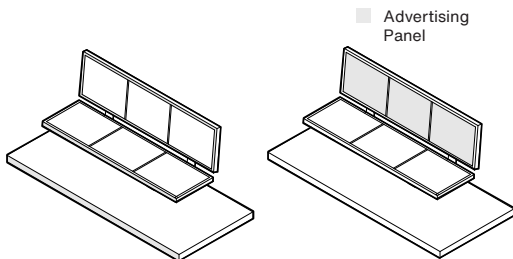
Amenity - Bench



Standard



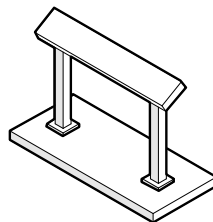
Premium



Bus stops can be equipped with benches in a variety of ways. Primarily, benches act as a rider comfort amenity, allowing customers a place to sit while waiting for the bus. However, benches, depending upon their design, can double as a location for advertising. The Kit of Parts accommodates both of these bench functions, but intends for benches to be implemented consistently across the VRT system, with a consistent look-and-feel and installation location at stops.

Bus Stop Amenities

Amenity - Lean Rail



Standard



Premium

A bus stop lean rail offers customers a place to stand and lean comfortably, providing enhanced comfort as a part of the rider wait experience. Lean rails are usually freestanding, but can be incorporated as a part of other bus stop components, such as shelters. They can also be designed to incorporate transit agency or service-based branding strategies, and can even be oriented to offer space for advertising. In general, the Kit of Parts calls for the use of more basic lean rails that fit with the overall module-based stop design and are used consistently systemwide.

Bus Stop Amenities

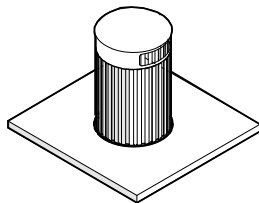
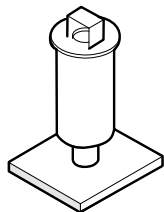
Amenity - Trash Receptacle



Standard



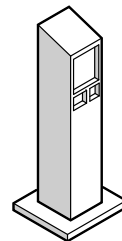
Premium



Furnishing bus stops with trash receptacles allows customers the opportunity to dispose of refuse easily and efficiently and help keep the transit system clean. Trash receptacles for use at bus stops can take on a variety of styles, with some bolted-down for sturdiness and designed strategically to allow for easy refuse removal. The Kit of Parts intends the consistent use of basic trash receptacles systemwide that do not conflict with the overall stop design.

Bus Stop Amenities

Amenity - Ticket Vending Machine (TVM)



Standard



Premium

Ticket vending machines (TVMs) represent an upgraded bus stop amenity component, allowing riders to pay fares before boarding buses. This not only offers an added convenience for riders, who can take care of fare payment while they wait for their bus, but also benefits transit travel times and reliability by allowing buses to load passengers more efficiently (through all doors and without queueing at the front door fare collection box) and therefore minimize dwell times at stops. For the locations where they would be installed, TVMs should be designed to have a minimal footprint and should be oriented for ease of customer use.

Bus Stop Amenities

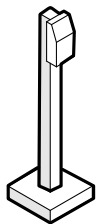
Amenity - Offboard Smart Card Validator



Standard



Premium



VRT offers a smart card fare payment option, which allows riders to pay transit fares by tapping their smart cards on a reader, or validator, each time they ride the bus. Usually, these validators are installed on the buses themselves, so that riders can tap smart cards as they board. However, these validators can be installed at bus stops, representing an added amenity component that enables riders to tap their cards and make fare payments prior to boarding the bus. Similar to TVMs, these validators serve as an added convenience for riders, who can take care of fare payment while they wait for their bus, and an operational benefit that allows buses to load passengers more efficiently and therefore minimize dwell times at stops.

Bus Stop Amenities

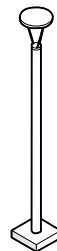
Amenity - Light Pole



Standard



Premium



Light poles represent an important safety amenity component for riders waiting for buses. Specifically, light poles allow for the illumination of stop locations after dark, providing for a safer and more enjoyable wait environment and better enabling approaching bus operators to see waiting passengers. Light poles can be purely functional or can be designed and/or branded in a way that contributes to stop and service type identification. The Kit of Parts does not include a single defined light pole element. Lighting will be provided based on analysis of ambient lighting conditions, using lighting fixtures compatible with existing street or sidewalk lighting. Fixture selection will be coordinated with municipalities and possibly property owners based on the specific site context.

Bus Stop Amenities

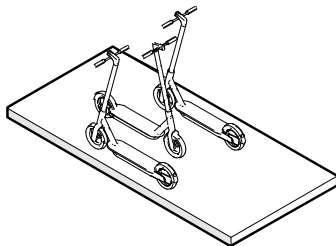
Amenity - Scooter Share Station



Standard



Premium



Equipping a bus stop with a scooter share station provides riders going to or from the stop a first/last mile connection option for connecting with their point of origin or destination. This type of intermodal first/last mile accommodation promotes transit system use by improving access to the system and better enabling individuals to make point-to-point trips across the Treasure Valley region. At a physical bus stop, a scooter share station amenity component would be comprised of a scooter dock, or corral. The Kit of Parts calls for these to be installed at stops in a consistent manner and in a way that does not inhibit rider stop access, bus boarding/offboarding, and general circulation.

Bus Stop Amenities

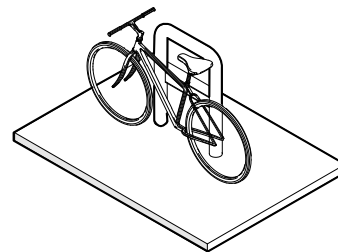
Amenity - Bicycle Rack



Standard



Premium



Similar to scooter share stations, bicycle racks help facilitate first/last mile connection opportunities for riders wanting to use transit to complete a segment of their trip. Bicycle racks can be purely functional or can be designed and/or branded in a way that contributes to stop and service type identification. The Kit of Parts intends for consistent styles of bicycle racks to be used across the two modules and at specific stop types throughout the VRT system.

Bus Stop Amenities

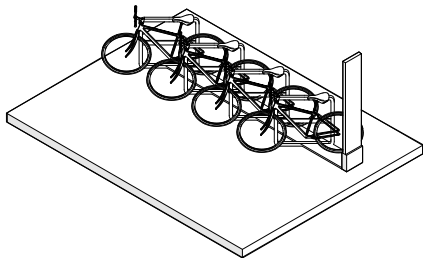
Amenity - Bike Share Station



Standard



Premium



Bike share stations are basically the same as scooter share stations, except that they feature bicycles instead of scooters as the first/last mile mode solution. Bike share stations also usually have a substantially larger footprint than scooter share stations, since they often must offer a heavy-duty rack for multiple bicycles that features a special locking/unlocking mechanism for bike share subscribers. The Kit of Parts calls for these to be installed at stops in a consistent manner and in a way that does not inhibit rider stop access, bus boarding/offboarding, and general circulation.

Bus Stop Amenities

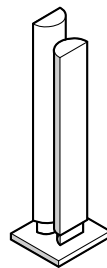
Amenity - Station Marker



Standard



Premium



A station marker represents an upgraded type of stop location identifier, usually indicating a transit agency logo and the stop name in a more noticeable way and serving as a true beacon for approaching customers. While most often associated with rail stations, these amenity components are becoming more frequently used on premium bus routes, working to highlight those premium services available at specific stops. Stop markers can take on different styles, but should feature one consistent style for either the highlighted service type or transit agency.

Landscape Elements

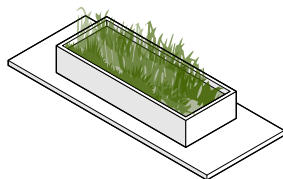
Element - Planter Box



Standard



Premium



Planter Boxes offer a refined approach to integrating planting with the streetscape. Able to support a wide range of natural plants, from smaller shrubs and flowers to trees, planter boxes offer a scalable opportunity to cohesively integrate nature into the sidewalk. With their elevated placements, planter boxes also create a partial separation between the street and sidewalk, planter boxes are able to provide a comfortable delineation between the pedestrian zone of the sidewalk and the roadway. Landscaping to be maintained by appropriate jurisdictions/private property owners.

Landscape Elements

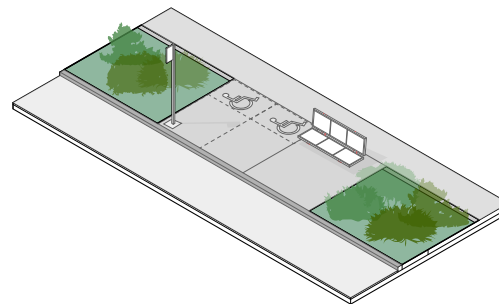
Element - Green Strip



Standard



Premium



Green Strips allow for a natural method of simply and efficiently delineating the road and walking area. Situated at the ground level and covered with grass, green strips are able to support a wide variety of nature, from smaller flowers to larger scale street trees. Their seamless integration at grade creates an extended sidewalk experience, especially for groups of pedestrians that may require extra space. Green Strips offer an efficient and effective method of introducing greenery and natural elements at ground level. Landscaping to be maintained by appropriate jurisdictions/private property owners.

Landscape Elements

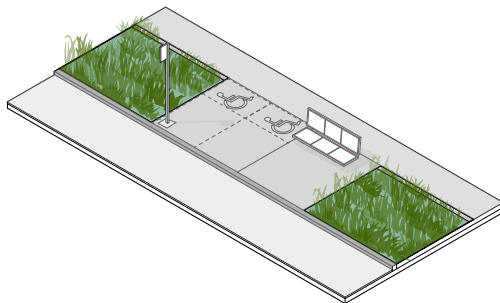
Element - Bioswales



Standard



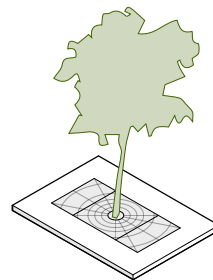
Premium



Bioswales provide the dual benefit of a natural, native planted element with the capacity for water filtration and pollutant absorption. Through the use of a porous filter medium and in conjunction with native planting and grasses, bioswales are able to slow stormwater runoff and filter out pollutants. Bioswales can also be integrated with other landscape elements in the kit, for example, by providing water to street trees at the bus stops. They are thus able to provide benefits both independently and collectively to ensure a maximally efficient and consistent landscaping strategy along the line. Landscaping to be maintained by appropriate jurisdictions/private property owners.

Landscape Elements

Element - Street Trees



Standard



Premium

Street trees integrate a consistent natural element along the transit line, providing shade, shelter and nature to the bus stops. These street trees will share a similar species and trunk size with the existing landscape strategy, ensuring a cohesive streetscape is maintained throughout the system. Even spacing along the block face and consistent porous grating at the tree base maintain continuity with municipal streetscape and urban landscaping guidelines such as the Downtown Boise Streetscape Standards and Specification Manual. Landscaping to be maintained by appropriate jurisdictions/private property owners.

Amenity and Branding Distribution

(Comfort & Convenience Amenities)

Corridor Type	Typology	AMENITIES - COMFORT AND CONVENIENCE						
		Shelter	Bench (No Shelter)	Advertising/ Art Bench	Sign Pole Bench	Leaning Rail	Safety Rail	Trash Receptacle
Standard Stops	Large	■	□	□		□	□	■
	Medium	□	■	□		□	□	□
	Small		□	□	□	□	□	
Premium Corridor Stops	Large	■	□	□		■	□	■
	Medium	■	■	□		□	□	■
	Small		□	□	□		□	□

Community Gateways
Enhancements

Freedom to Move
Enhancements

- **CORE AMENITY:** Applies to all unconstrained locations
- **OPTIONAL AMENITY:** Consider based on stop-specific context and needs

Amenity and Branding Distribution

(Multi-Modal and Lighting)

Corridor Type	Typology	MULTI-MODAL AND LIGHTING				
		Bike Rack	Bike Share Station	Scooter Share Corral	Solar Lighting (if Shelter)	Platform/ Sidewalk Lighting (by others)
<i>Standard Stops</i>	Large	■	□	□	□	□
	Medium	□	□	□	□	□
	Small					□
<i>Premium Corridor Stops</i>	Large	■	□	□	□	□
	Medium	■	□	□	□	□
	Small	□				□

Community Gateways
Enhancements

Freedom to Move
Enhancements

- **CORE AMENITY:** Applies to all unconstrained locations
- **OPTIONAL AMENITY:** Consider based on stop-specific context and needs

Amenity and Branding Distribution

(Technology)

Corridor Type	Typology	AMENITIES - TECHNOLOGY				
		Large e-Paper Sign (Shelter Mounted w Solar)	Small e-Paper Sign (Sign Pole Mount w/ Solar)	Off-board Smartcard Validator	Ticket Vending Machines	CCTV Cameras
Standard Stops	Large	■	□	□	□	□
	Medium		□			□
	Small					
Premium Corridor Stops	Large	■	□	□	□	□
	Medium	□	■			□
	Small		□			

Community Gateways
Enhancements

Freedom to Move
Enhancements

- **CORE AMENITY:** Applies to all unconstrained locations
- **OPTIONAL AMENITY:** Consider based on stop-specific context and needs

Amenity and Branding Distribution

(Static Information)

Corridor Type	Typology	AMENITIES - PASSENGER INFORMATION (STATIC)			
		Map/Info Case (Shelter)	Strip Map (Pole Mount)	Fare Information	Real-Time Info Access (QR Code)
Standard Stops	Large	■	■	■	■
	Medium	□	■	□	■
	Small		□		□
Premium Corridor Stops	Large	■		■	■
	Medium	■		■	■
	Small		■		■

Community Gateways
EnhancementsFreedom to Move
Enhancements

- **CORE AMENITY:** Applies to all unconstrained locations
- **OPTIONAL AMENITY:** Consider based on stop-specific context and needs

Amenity and Branding Distribution

(Bus Stop Signage)

Corridor Type	Typology	BUS STOP SIGNAGE ELEMENTS							
		Stop Flag	Premium Stop Flag	VRT Agency Logo	VRT Website/ Phone #/ QR Code	Route Identifiers	Service Type (Std., Prem., Expr., On-Demand)	Stop ID #	Stop Location/ Name
Standard Stops	Large	■		■	■	■	■	■	□
	Medium	■		■	■	■	■	■	□
	Small	■		■	■	■	■	■	□
Premium Corridor Stops	Large	■	■	■	■	■	■	■	■
	Medium	■	■	■	■	■	■	■	■
	Small	■	■	■	■	■	■	■	□

Community Gateways Enhancements

Freedom to Move Enhancements

- **CORE AMENITY:** Applies to all unconstrained locations
- **OPTIONAL AMENITY:** Consider based on stop-specific context and needs

Amenity Distribution Across Bus Stop Types

Corridor Type	Typology	Community Gateways Enhancements	Freedom to Move Enhancements
Standard Stops	Large	[Icons]	[Icons]
	Medium	[Icons]	[Icons]
	Small	[Icons]	[Icons]
Premium Corridor Stops	Large	[Icons]	[Icons]
	Medium	[Icons]	[Icons]
	Small	[Icons]	[Icons]

■ **CORE AMENITY:** Applies to all unconstrained locations

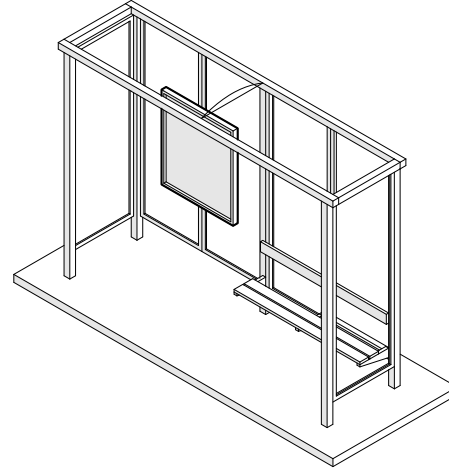
☐ **OPTIONAL AMENITY:** Consider based on stop-specific context and needs

7.0 - Bus Stop Information and Branding

In addition to amenities, strategic information and branding can be incorporated at bus stops to enhance the approachability and understandability of VRT's transit system. The bus stop information and branding design element includes the following components:

- **Stop ID** – Unique number associated with each stop, linking with schedule and real-time information.
- **Route/Fare Information** – Details about the routes serving a specific stop and fare details for those routes.
- **Real-Time Information Access** – A QR code or other static information that explains how users can access real-time transit predictions.
- **Route Map** – A VRT system map that shows all system routes and the current location within the network.
- **Real-Time Transit Predictions** – A digital display of actual, live real-time transit predictions.

The integration of these components at different stop types is shown in the diagram below, and can be applied at stops throughout the VRT system as specified.



Locations for Information and Branding Components

The following diagrams indicate how informational and branding components can be integrated into different stop types.

Bus Stop Information and Branding Components

Standard Station Line



Small



Medium



Large

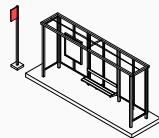
Stop ID



Signage Blade



Signage Blade



Signage Blade

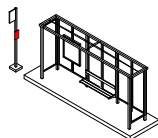
Route/Fare
Information



Secondary Signage



Secondary Signage



Secondary Signage

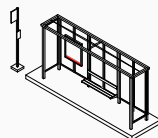
Real Time Info
Access



Secondary Signage



Secondary Signage



Shelter-Mounted Signage

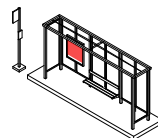
Route Map



Vertical Strip Map



Vertical Strip Map

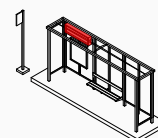


Shelter-Mounted Signage

Real Time
Arrival Info



Pole-Mounted Real Time Info
Signage



Shelter-Mounted
Real Time Info Signage

Bus Stop Information and Branding Components

Premium Station Line



Small

Stop ID



Signage Blade

Route/Fare Information



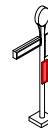
Secondary Signage

Real Time Info Access



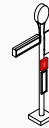
Secondary Signage

Route Map



Vertical Strip Map

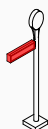
Real Time Arrival Info



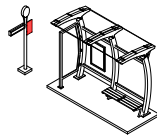
Pole-Mounted Real Time Info Signage



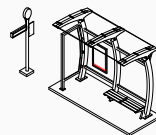
Medium



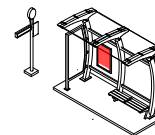
Signage Blade



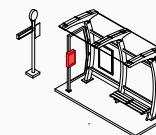
Secondary Signage



Shelter-Mounted Signage



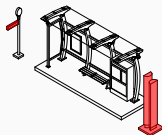
Shelter-Mounted Signage



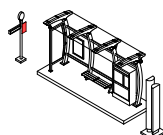
Small Shelter-Mounted Real Time Info Signage



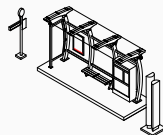
Large



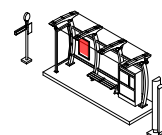
Signage Blade and Station Marker



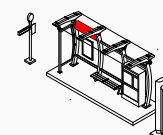
Secondary Signage



Shelter-Mounted Signage



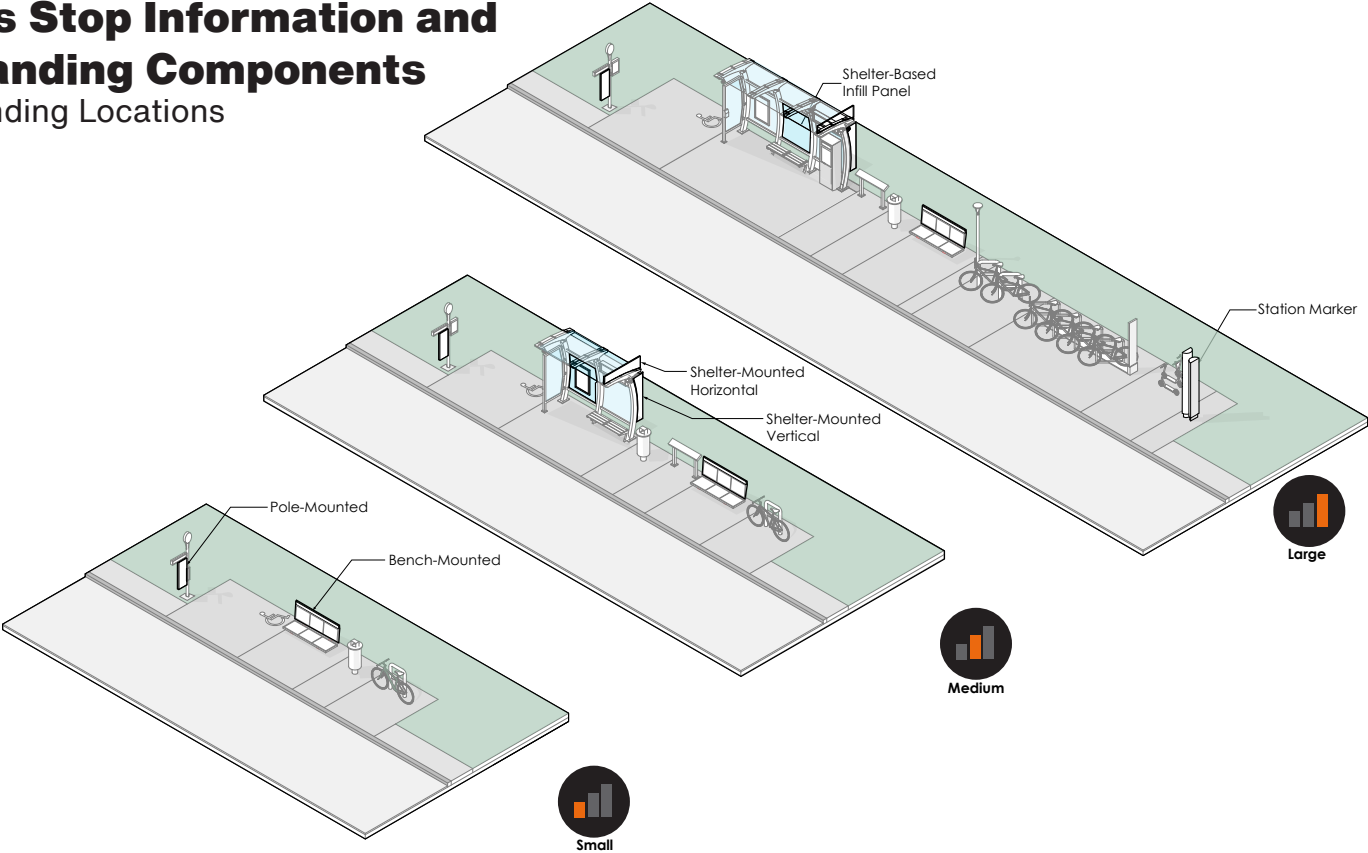
Shelter-Mounted Signage



Large Shelter-Mounted Real Time Info Signage

Bus Stop Information and Branding Components

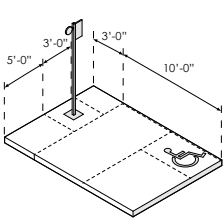
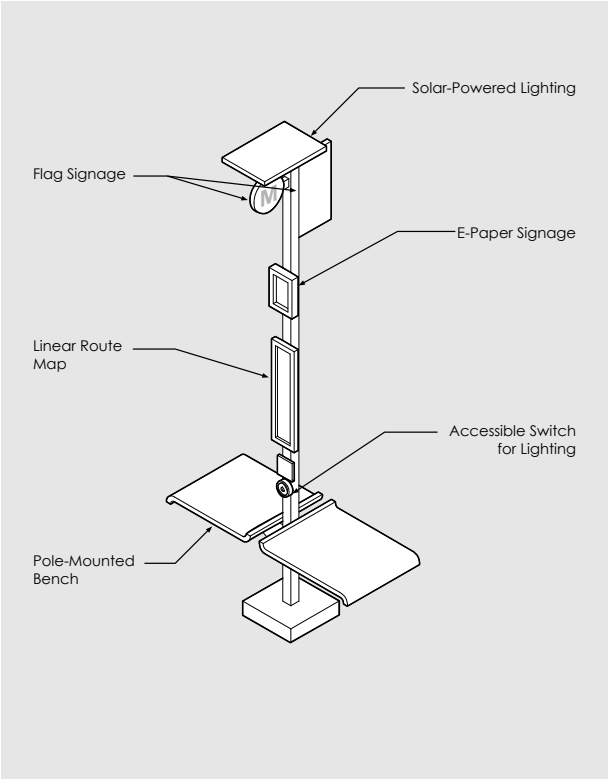
Branding Locations



8.0 - Bus Stop Pole Features

The poles that are implemented at bus stops, usually to identify the stop location and/or feature the stop flag, represent a design element location for a variety of potential transit experience-enhancing components. Specifically, these elements can be innovatively applied to improve comfort, safety, branding, and the overall stop wait experience. Several of these components that are offered for consideration by this Kit of Parts are included in the diagram below. Specifically, while the diagram indicates the types of stops that might be most appropriate for each of these components, the Kit of Parts does not define the actual core and optional stop types for placement, allowing for flexible application of this design element as deemed appropriate.

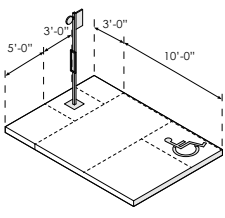
Bus Stop Pole Feature Components



Flag Signage



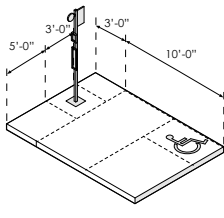
Standard Premium



Linear Route Map



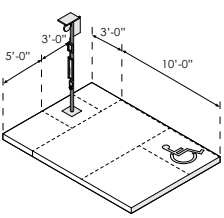
Standard Premium



E-Paper Sign



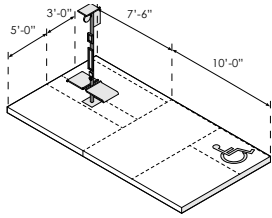
Standard Premium



Solar-Powered Lighting



Standard Premium



Pole-Mounted Bench



Standard Premium

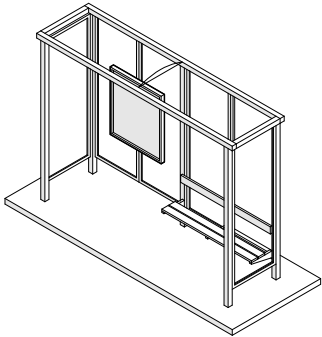
9.0 - Bus Stop Technology Features

Various design element components discussed in previous sections are more technically-advanced and may require some level of special electrical or data connection at the physical stops themselves. These components include the following:

- **E-Paper Signage (Tablet Size for Pole-Mounting)** – This technology component, identified within the bus stop pole amenity design element, relies on e-paper technology to deliver real-time information and notifications. Requiring minimal power and offering a small size, this component offers an opportunity to deliver key customer information, such as real-time transit predictions, service updates, and fare details, on a simple bus stop pole.
- **E-Paper Signage (Larger Screen Size)** – This technology component, identified within the bus stop information and branding design element for use as a real-time information screen, consists of an e-paper screen that constitutes a much larger display. While requiring more area and additional equipment, such as a shelter or a sign frame, for installation, this type of screen offers more space to display a greater amount of information. Based on e-paper technology, this component also requires minimal power.
- **Ticket Vending Machines (TVMs)** – This technology component, identified within the bus stop amenity design element, serves as a standalone machine that potentially requires a dedicated power connection, shelter from the elements, and regular maintenance.

Special considerations should be made for the implementation of these components at stops, based on their connectivity needs. Specifically, technology elements considered for application at stops are detailed in the following diagram. While the diagram indicates the types of stops that might be most appropriate for each of these components, the Kit of Parts does not define the actual core and optional stop types for placement, allowing for flexible application of this design element as deemed appropriate.

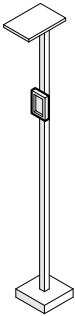
Bus Stop Technology Components



Screen Size Epaper Sign for Shelter



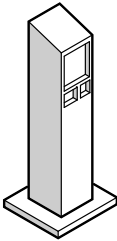
Standard Premium



Tablet Size Epaper Sign for Pole-Mounting



Standard Premium



Ticket Vending Machine (TVM)



Standard Premium

Contact Information

For information on applying the VRT Bus Stop Kit of Parts:

Visit valleyregionaltransit.org

208-345-7433

APPENDIX A

Implementation Costs

Stop Amenity Costs	
Amenity	Unit Cost
Bench	\$ 1,250
Bench Advertising	\$ 1,250
Bicycle Rack	\$ 2,000
Bicycle Share Station	\$ 2,750
Bus Stop Flag	\$ 600
CCTV	\$ 1,500
Concrete Slab Small	\$ 13,770
Concrete Slab Medium	\$ 30,600
Concrete Slab Large	\$ 84,150
Lean Rail	\$ 750
Lighting	\$ 2,500
Offboard Smartcard Reader	\$ 1,200
Pole-Mounted E-Paper Sign	\$ 7,650
Pole-Mounted Map	\$ 175
Premium Branded Shelter	\$ 17,730
Scooter Share Corral	\$ 500
Shelter	\$ 11,625
Shelter-Mounted E-Paper Sign	\$ 1,500
Shelter-Mounted Map	\$ 525
Station Marker	\$ 15,000
Ticket Vending Machine (TVM)	\$ 45,000
Trash Receptable	\$ 750

Stop Cost						
Size	Type	Core Cost		Core Cost w/Concrete		Optional Cost
Small	Standard	\$	600	\$	14,970	\$ 2,500
Small	Premium	\$	775	\$	15,320	\$ 24,525
Medium	Standard	\$	600	\$	31,800	\$ 24,950
Medium	Premium	\$	23,650	\$	77,900	\$ 4,500
Large	Standard	\$	17,725	\$	119,600	\$ 57,350
Large	Premium	\$	27,875	\$	139,900	\$ 64,950
						\$ 232,725

Stop Count						
Size	Standard		Premium		Total	
Small	444	68%	41	36%	485	63%
Medium	148	23%	9	8%	157	21%
Large	57	9%	65	57%	122	16%
Total	649	100%	115	100%	764	100%