

## SECTION 3:

# SYSTEM REQUIREMENTS

## Wayfinding Principles:

This set of principles provides the framework for the system and helps to guide the design of its components and their functions.

### **A Unified Language of Wayfinding**

The content and messaging communicated by the TOD wayfinding elements should be consistent so that people have a predictable, seamless, and comprehensible experience throughout their journey.

### **Organized Data and Simplified Sourcing**

The system should be built on a foundation of information that is stored and distributed digitally. Individual agencies will utilize content from the same centralized data stream and will use the same graphic standards in creating maps.

### **Wayfinding is More than Signs**

The system will include a cohesive family of wayfinding elements including fixed signage and digital tools.

### **Information When and Where You Need It**

The system must be user-centered to provide wayfinding information at key points along the way. Information should be available both while planning a trip and while conducting it.

### **Increased Awareness of Each Neighborhood's Riches**

A broad family of elements provides visitors and residents alike the confidence to wander and explore.

### **TOD-Wide Standards, Allowing for Local Identity**

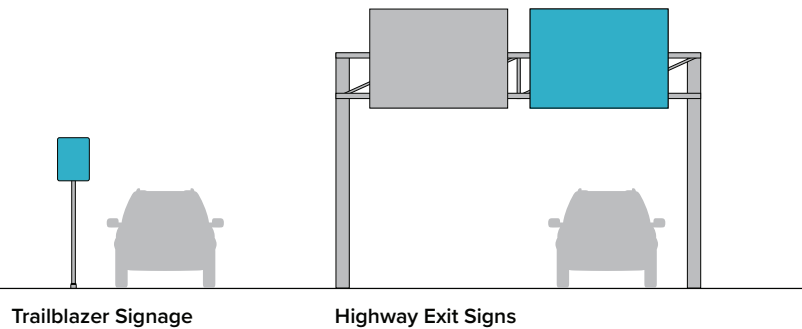
The elements of the system must convey a single image of a unified program, yet have the flexibility to respond to the varying conditions and scale of each neighborhood.

## The 360° Toolkit

Any successful wayfinding system makes complex tasks simple for the user. A range of tools provides the flexibility to serve various users' simultaneous needs, allowing access to the system where, when, and how they deem fit. Understanding the tech-guru and the map-lover is not enough to ensure success; it is also necessary to understand the unique conditions of each environment. The rail corridor is a network of neighborhoods, streets, transit systems, and open spaces. Wayfinding tools must provide the necessary information at the right places at the right moment to connect that network for the user. Implementing each of the recommended wayfinding tools in a prescribed and coordinated manner will ensure that people feel supported at each step in their journey and make navigation feel effortless.

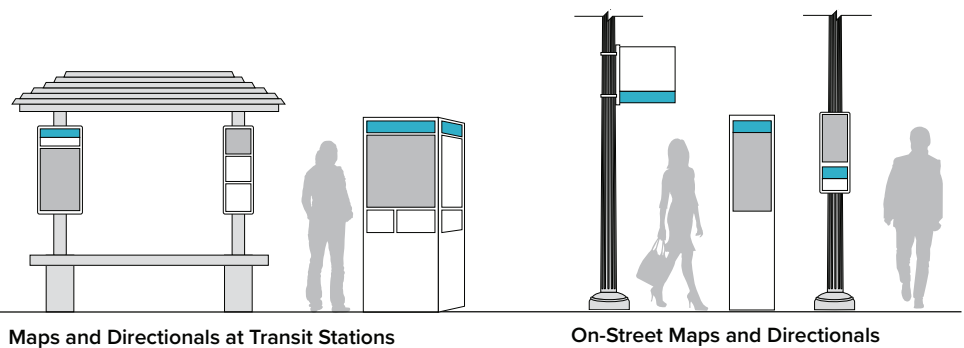
**The toolkit for the TOD Wayfinding System should consist of the following parts:**

- 1. Vehicular Direction Signs:** Limited to stations with Park & Ride / Kiss & Ride facilities

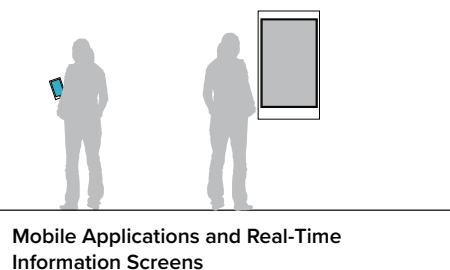


- 2. Information Hubs:** Arrival Orientation, Transit Connections, Neighborhood Cultural Context

- 3. On-Street Navigation:** Pedestrian-scaled Directional Signs, Orientation Maps, Neighborhood Cultural Context



- 4. Digital Tools:** Pre-trip Planning, Neighborhood Exploration, and support for Connections and Departures



**Mobile Applications and Real-Time Information Screens**

# Static System Tools

## VEHICULAR CONNECTIONS TO RAIL

Roadway signage that leads to rail stations with vehicular facilities will increase their visibility and make them easy to find, promoting the use of rail transit.

In general, vehicular signage should be limited to transit stations that have dedicated parking facilities or drop-off areas — Keone‘ae, Kualaka‘i, Waiawa, Hālawā, Hō‘ae‘ae, Puhala, and Iwilei. H-1, H-2, and H-3 freeway signs should be installed only where there is access to a Park & Ride facility, with limited turns required after leaving the freeway. Along surface roads, the use of “trailblazer signs” can aid motorists in locating Park & Ride and Kiss & Ride entrances.

The City seeks to coordinate with HDOT to achieve continuity in messaging from the highway to the rail station, not dictate specific locations under their jurisdiction. See Appendix A for suggested highway sign locations to assist coordination with HDOT.

### Federal Requirements for Freeway “Park-Ride” Signs

#### EXCERPT FROM THE FEDERAL HIGHWAY ADMINISTRATION MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SECTION 2E.35

##### Other Supplemental Guide Signs

###### Support:

**01** Supplemental Guide signs can be used to provide information regarding destinations accessible from an interchange, other than places displayed on the standard interchange signing. However, such Supplemental Guide signing can reduce the effectiveness of other more important guide signing because of the possibility of overloading the road user’s capacity to receive visual messages and make appropriate decisions. “The AASHTO Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways” is incorporated by reference in this Section.

###### Guidance:

**02** No more than one Supplemental Guide sign should be used on each interchange approach.

**03** A Supplemental Guide sign (see Figure 2E-24) should not list more than two destinations. Destination names should be followed by the interchange number (and suffix), or if interchanges are not numbered, by the legend NEXT RIGHT or SECOND RIGHT or both, as appropriate. The Supplemental Guide sign should be installed as an independent guide sign assembly.

**04** Where two or more Advance Guide signs are used, the Supplemental Guide sign should be installed approximately midway between two of the Advance Guide signs. If only one Advance Guide sign is used, the Supplemental Guide sign should follow it by at least 800 feet. If the interchanges are numbered, the interchange number should be used for the action message.

**05** States and other agencies should adopt an appropriate policy for installing supplemental signs using “The AASHTO Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways.” In developing policies for such signing, such items as population, amount of traffic generated, distance from the route, and the significance of the destination should be taken into account.

###### Standard:

**06** Guide signs directing drivers to park - ride facilities shall be considered as Supplemental Guide signs (see Figure 2E-25).

###### Option:

**07** A pictograph (see definition in Section 1A.13) may be used on a Supplemental Guide sign in conjunction with a destination that is associated with governmental agencies, military bases, universities, or other government-approved institutions.

###### Standard:

**08** The maximum dimension (height or width) of a pictograph shall not exceed two times the upper-case letter height of the destination legend and shall not exceed the size of a route shield on the guide sign. If used, the pictograph shall be located to the left of the destination legend it represents, except as provided in Paragraph 9 for the park-ride Supplemental Guide sign.

**09** When a transit pictograph is displayed on the park-ride Supplemental Guide sign, it shall be located on the same line as the carpool symbol, if used, above the word legend.

**10** A pictograph representing a State, county, or municipal corporation or other incorporated or unincorporated community shall not be displayed on a Supplemental Guide sign.

**11** Pictographs shall otherwise comply with the provisions of Section 2A.06.



### Rail Branding

HART is currently developing branding and a logo for the rail. It is recommended to always include the rail station name and the rail logo on signs. Provided the logo is a strong visual mark, it can be beneficial as a quick-reading message on vehicular signs. If utilized, the logo should be consistently applied to both freeway signs and surface road trailblazer signs.

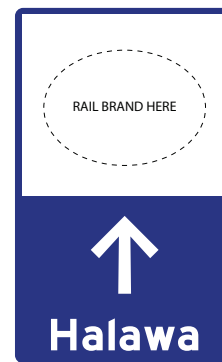
An audit of existing signs, performed in conjunction with this plan, revealed some challenges for the vehicular sign requirement. Signs at the exit for the Keone'ae Station already have the maximum allowed messages per MUTCD. However, there is space on the road side for additional installations. Exits for the Hālawā Station are closer to the urban core where overhead sign structures are required. In most cases, the existing structures are already holding multiple sign panels with the maximum messaging on each panel. Additionally, the "Hālawā" station name is the same as regional identifiers currently displayed on signs, which could cause route destination confusion.



Example freeway signage with rail brand



Typical MUTCD trailblazer sign for Park-Ride facilities



Custom trailblazer sign with rail brand

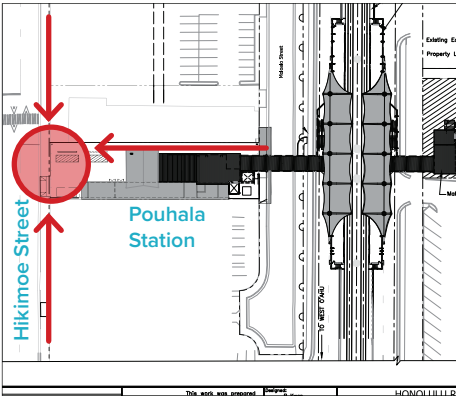


Example of existing highway signage with no space for additional messaging.



Example where "Hālawā" is being used to describe an area, not near the Hālawā rail station.

### INFORMATION HUB



Potential Information Hub location shown near the entrance to the Pouhala Station in Waipahu.



Potential Information Hub location shown for Aloha Tower Marketplace. Information Hubs can be beneficial in high profile or high-traffic areas, in addition to rail station locations.

Information Hubs serve multiple functions: they confirm that you have arrived at the right place, let you get oriented to your surroundings, and give you information about available resources. They are different from other sign types in that they provide **multiple types of content** within a single construct. This content can be provided in either static or digital format depending on the location and needs of the information type. Information Hubs can be made up of a single multi-sided sign structure or a series of signs in close proximity to each other. The design can take multiple formats and be sized as needed for each neighborhood.

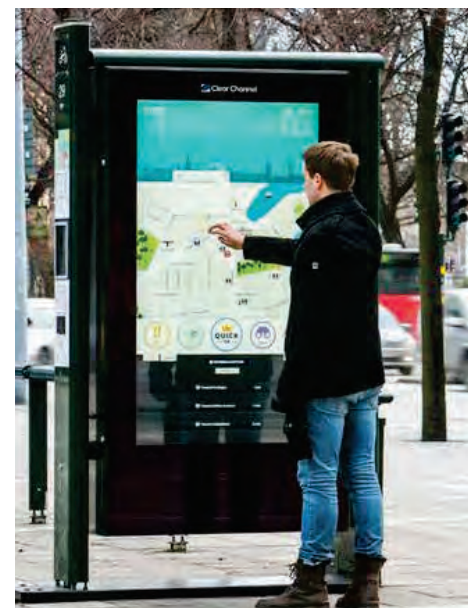
Information Hubs should be located near rail station entrances / exits and near large landmark destinations. Integrating the hubs into bus shelters can reduce visual and physical clutter in the right-of-way as well as reduce costs through consolidation. Additionally, bus shelters are typically large enough to be noticed from a distance. Once people understand that wayfinding information is regularly available at bus shelters, they become a reassuring sight within the landscape.

Transit information should be given priority over other content types. At rail stations, the Information Hub could provide real-time transit information as a digital component. At a public plaza, where digital would be helpful but is potentially not feasible due to city ordinances, transit information might be limited to providing direction to rail stations. Other types of transit information, depending on specific locations, could include: a rail system map, promotion of a transit app, and directions to bus stops or bike facilities.

The Information Hub should always include a neighborhood map with a clear “You Are Here” indicator and encompass the full TOD district. Incorporating directional information to major destinations (wayfinding landmarks) is a key component to orienting people to their surroundings.

Information Hubs are also a great opportunity to provide neighborhood cultural context. This content varies depending on the location and needs of each neighborhood. It can be static or digital, permanent or changeable. The City should seek to partner with area constituents to develop and manage appropriate content.

Examples of Information Hubs in varying forms, scale, and content types





Directional signs installed on existing street pole



Smaller scale map and directional on an existing street pole

## ON-STREET NAVIGATION

Static directional signage assists pedestrians in finding their destinations and connections to transit options. Navigation and orientation should be provided along optimal travel routes such as key streets or complete streets and away from inaccessible routes. In denser urban areas with many destination points and interconnected travel routes, signs could be located mid-block on both sides of the street. In suburban neighborhoods, transit locations and existing infrastructure, such as bus shelters, can be leveraged as places where wayfinding information can be predictably found.

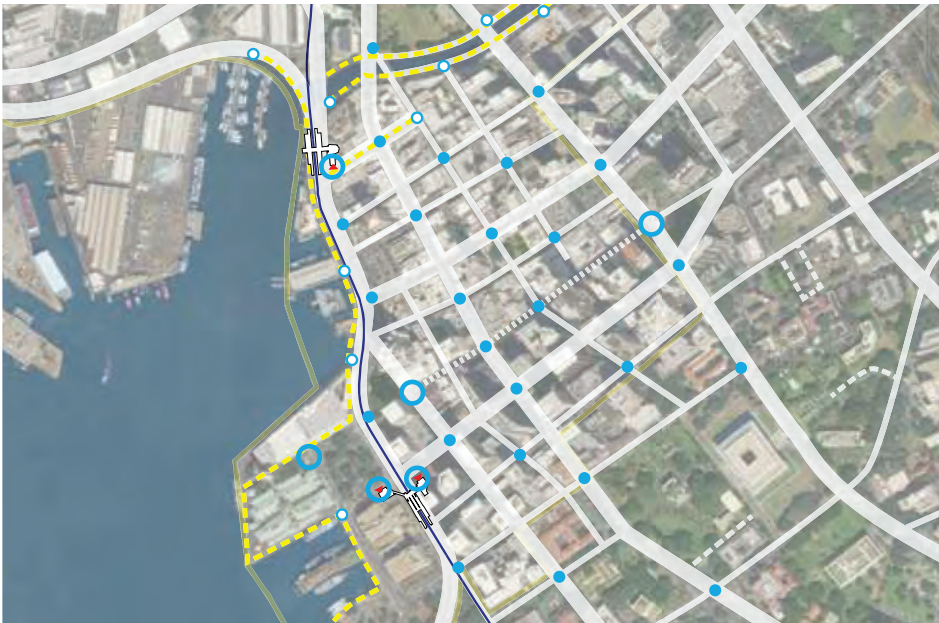
A comprehensive approach to navigation requires a combination of coordinated directional signs and maps. Sign types should be designed to provide each neighborhood with appropriately scaled signage. While scale and form may vary, a consistent use of information hierarchy, information type, color, style, and sign placement will allow the system to maintain uniformity across all TOD Neighborhoods. Existing poles and street infrastructure should be utilized whenever possible, eliminating the need to install new sign posts and foundations, reducing cost and clutter. Incorporating modularity into the design, where panels or parts of panels can be replaced without entire new sign structures, will allow them to be more easily updated and maintained.

Pedestrian directional signs have a limited amount of space and can typically only hold eight to ten destinations before legibility is compromised. Priority should be given to the closest destinations, and anything further away will be the first to be eliminated if space is limited. Walking distances, while useful, are not needed in TOD neighborhoods where the boundaries of the district are only about a 10 minute walk from the rail station. The only destinations that should include walk times are the rail stations and large transit centers. This is especially useful in the dense urban core where stations may be walking distance from each other.

Where possible, orientation maps should be included on street signs to supplement those on the Information Hubs. This will be especially useful in neighborhoods that do not currently have a large number of streets or destinations. Small-scale maps with top-level transit directional information incorporated into a single sign panel identifies the areas as being a part of the TOD Wayfinding System. As the neighborhood grows and more destinations come on board, directional signs can be added.



Larger scale map and directional on a custom sign post



**Key**

- Orientation Point
- Directional Sign (Present)
- ◉ Directional Sign (Future)
- Guideway
- ⊥ Station Footprint
- ▶ Station Entrance

Potential sign locations for a dense urban area, such as around the Chinatown or Downtown Station



Potential sign locations for a suburban neighborhood area, such as around the Pouhala Station

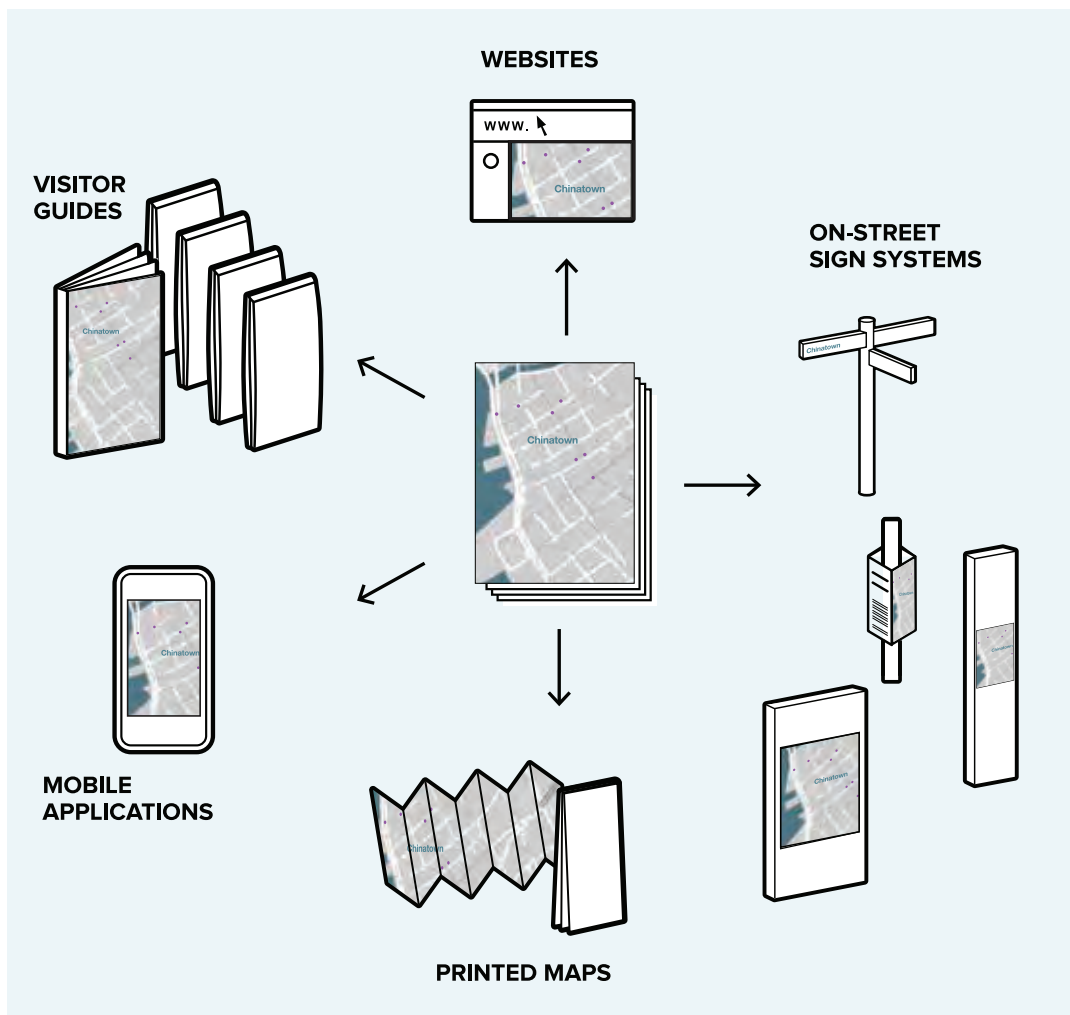
## MAPS

The Neighborhood Map is a vital component of the wayfinding system. The base map information can be derived from the City's centralized GIS database. The TOD Wayfinding Design Manual, to be developed after this Master Plan, will dictate the official and correct nomenclature and graphic standards for the way the map is displayed. Additionally, the TOD Criteria for Destination Inclusion should be used to curate and regulate the information that is displayed on the base map.

At a minimum, the neighborhood map should be integrated into the information presented within rail stations and other transit connections. The map seen within the station should match what is seen within the neighborhoods. Other neighborhood partners could request use of the base map and adjust layers to suit their specific needs. The TOD Wayfinding Graphic Standards could regulate the amount of change allowed, thereby maintaining uniformity with TOD wayfinding signs.

The City will need to maintain the map database and graphic standards so that when content is pushed out to various users, continuity of the base map remains from one application to another.

A single TOD Neighborhood Map provides consistent information published across various wayfinding tools and media.

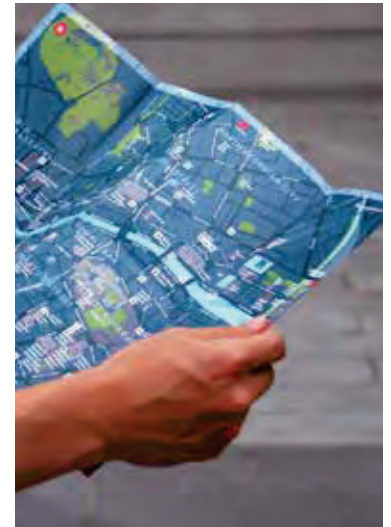




Mapping can have a unique style while still maintaining clear, user-friendly information hierarchy — above are two examples.

### Neighborhood Map Best Practices:

- Orientation of maps is “heads-up” with a “You Are Here” indicator
- Define the neighborhood boundary and include a 5-minute walk radius
- Include an overall rail area map to put the Neighborhood Map in context and show connectivity
- Consider including “mauka” and “makai” symbol indicators for general orientation
- A cartographic overhead drawing style is most legible
- Use a defined color palette with a limited range to allow important information to stand out
- Create a consistent label and symbol hierarchy



Dublin, Ireland, has a comprehensive and cohesive pedestrian wayfinding map applied across multiple sign types. From on-street directional signs, to integration with bikeshare stations, to printed maps distributed by the tourism center.

**A comprehensive wayfinding system with multiple types of static and digital tools requires consistent nomenclature and information hierarchy across all tools. Unifying these elements is the key to success and increases the effectiveness of the system.**

## Nomenclature and Hierarchy

Consistency in messaging is as important as consistency in aesthetics for creating a cohesive wayfinding system. Maintaining standards and consistency allows people to quickly learn how the system works and intuitively know where to find directions to destinations or make transit choices. With uniform nomenclature and information hierarchy, people transitioning from one neighborhood to the next, using one or multiple modes of travel, can easily follow the thread of information taking them to their destinations.

### NOMENCLATURE

Nomenclature refers to the words and symbols used to describe wayfinding destinations in the system. Regardless of whether you are on transit, on the street, using your mobile phone, or listening to verbal announcements, it is important that the names of neighborhoods and wayfinding destinations are referred to consistently. This allows seamless movement from one point to another.

HART assembled a working group to develop culturally relevant and accurate Hawaiian names for the first nine rail stations. Work is ongoing to develop Hawaiian names for the remaining stations. These names, many of which reference the ahupua'a, are deeply connected to each station area. The Hawaiian names are not meant to replace the currently used neighborhood names, but they should always be used when referring to the rail station itself. By doing so, they become common vernacular, and also tie the station name to major destinations within the neighborhood for wayfinding clarity. Additionally, HART is reviewing the hierarchy of nomenclature on entrance signage to include the Hawaiian name with the common neighborhood name in order to promote familiarity to the station name among transit riders. For example, at the station entrance itself, you would see "Hālawa at Aloha Stadium." An announcement on the rail might say "The next stop is Hālawa Station, exit here for Aloha Stadium and Pearl Harbor Historical Sites." Both of these uses would be correct in their context.

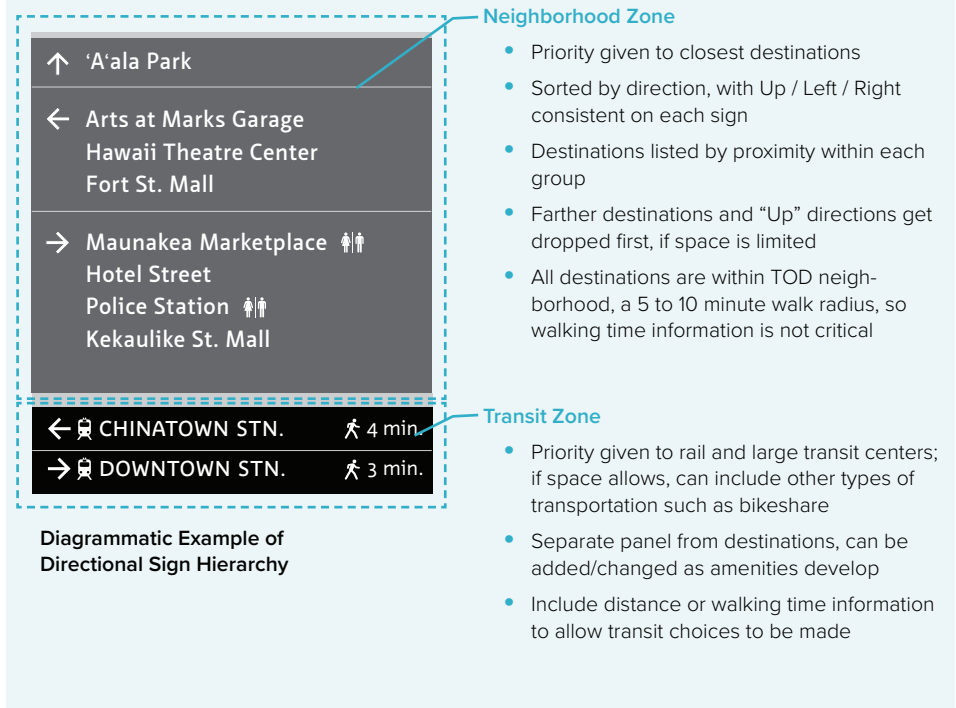
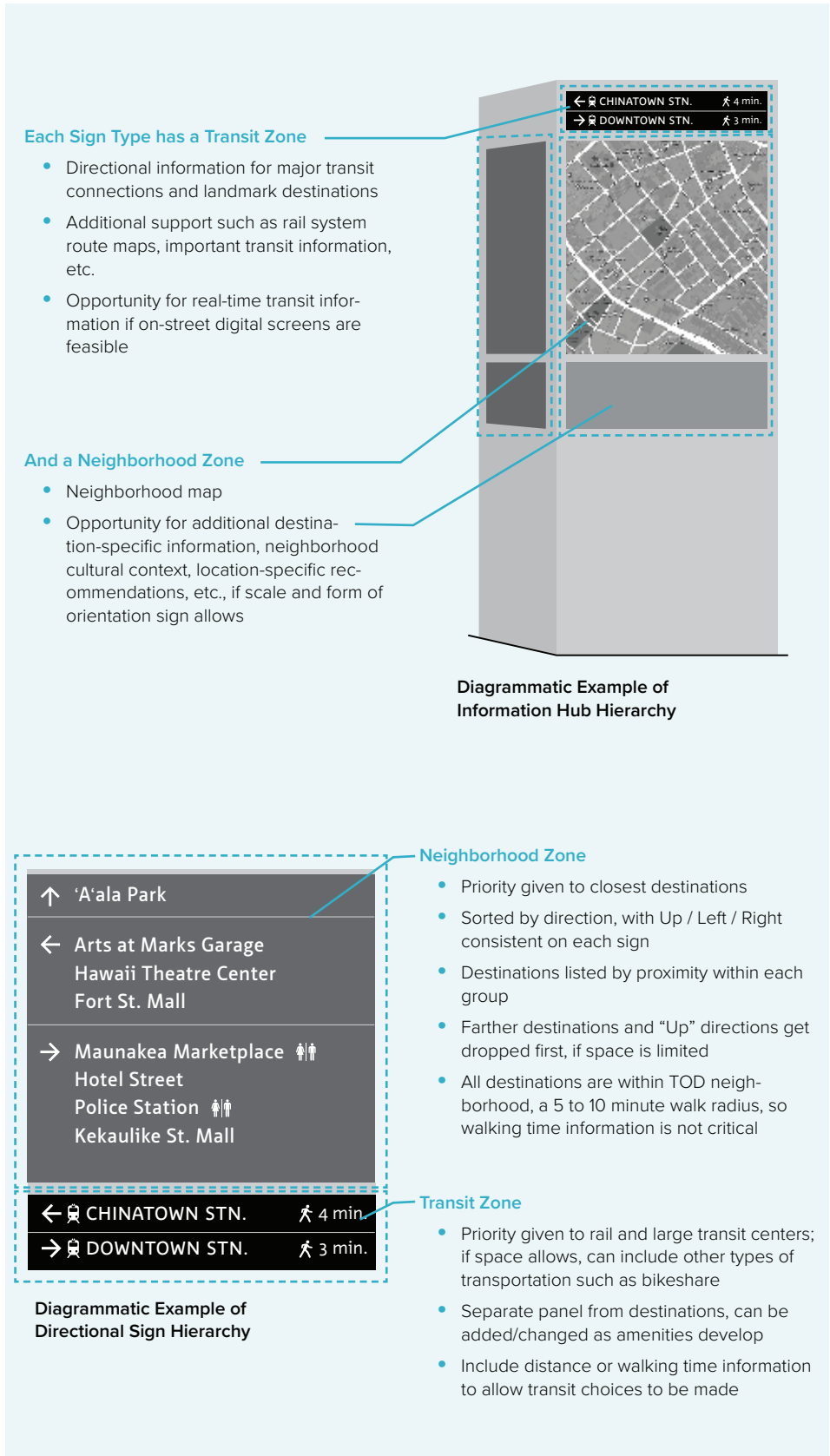
## INFORMATION HIERARCHY

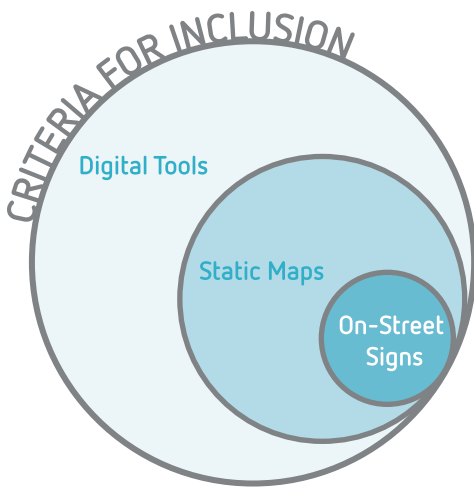
A clear hierarchy provides information in a legible manner that is quickly understood. It divides content into predictable places and gives users information when and where they need it. This is true for the graphic design of sign panels as well as the user interface of digital tools.

For static signage, simplicity is the best approach to planning the message structure. It is important to not over-complicate the hierarchy with too many categories, colors, or decorative elements. The static sign system for TOD neighborhoods should include two primary types of information: Destination Directions and Multi-modal Connections. Individual sign types may articulate this content differently depending on the scale and form of the sign. However, from a user perspective, both types of content should always be available on any given wayfinding sign. Primary information can be supported by secondary information on larger sign types and/or digital tools, both of which have the capacity to deliver more content.

### Recommendations:

- Always include multi-modal connections — prioritize rail, then bus, then bike facilities
- Always include neighborhood destinations — prioritize landmark destinations, then others by proximity





## Criteria For Destination Inclusion

It is necessary to develop a criteria to be applied system-wide for destination inclusion. Developing criteria based on the constraints of various wayfinding tools allows the sign program to be limited, when needed, and enriched, when possible. Static signage is limited by its scale: a typical overhead post-mounted directional sign can only carry 10–12 lines of information. Static maps can provide more detailed information than directional signs, but destinations that are included should still be curated in order to maintain legibility of information. On the other hand, digital tools can allow for almost limitless amounts of information to be presented.

Essentially, any destination that meets one of the descriptions outlined in the TOD Criteria for Destination Inclusion is eligible to participate in the wayfinding program. The first criterion clears the destination to appear on digital tools. The second and third level criteria apply to some destination categories to limit the amount of content on static sign types, as shown in the graphic to the left.

The criteria are a crucial and transparent framework that allows the system to be managed and maintained, without being driven by political pressures from individual stakeholders. The following draft criteria have been developed in conjunction with members of the City.

### GENERAL CRITERIA

The General Criteria are a baseline that must be met by any destinations to be considered part of the wayfinding program. After confirming compliance with the General Criteria, destinations must also meet at least one of the criteria outlined in the TOD Criteria for Destination Inclusion (See Appendix B for a draft). Note, these are initial recommendations from the Design Team.

- **Destinations should be within 1/2 mile of a rail station.** Any destinations outside of the 1/2 mile radius may be considered only if within a 1/4 mile of the TOD neighborhood boundary and within 1/4 mile of an already planned static wayfinding element.
- **Destination must be open to the public year-round.**
- **Destinations must comply with the City's policy on non-discrimination.** The City and County of Honolulu's policy is to provide services, programs and activities to the public without regard to race, color, age, sex, religion, national origin, ancestry, gender identity, gender expression, sexual orientation, disability, or any other classification protected by state or federal law.
- **Destination must provide an ADA accessible entrance.**
- **A destination may use only one (1) primary name or branded name to identify itself on any static or digital wayfinding elements and can only include (1) address as it's point of entry.**