

DIVISION

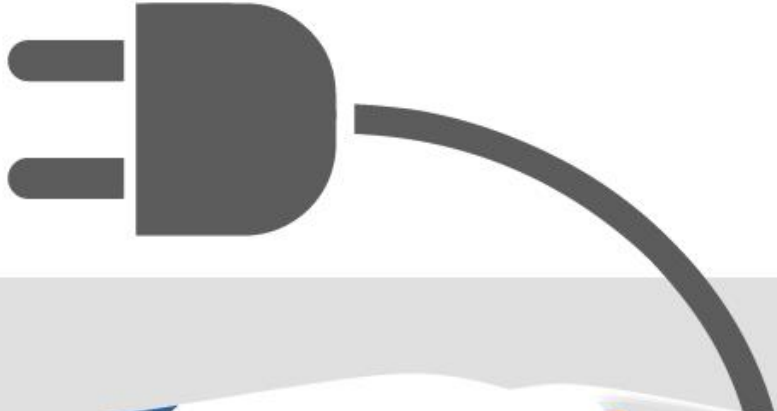
TRANSIT PROJECT



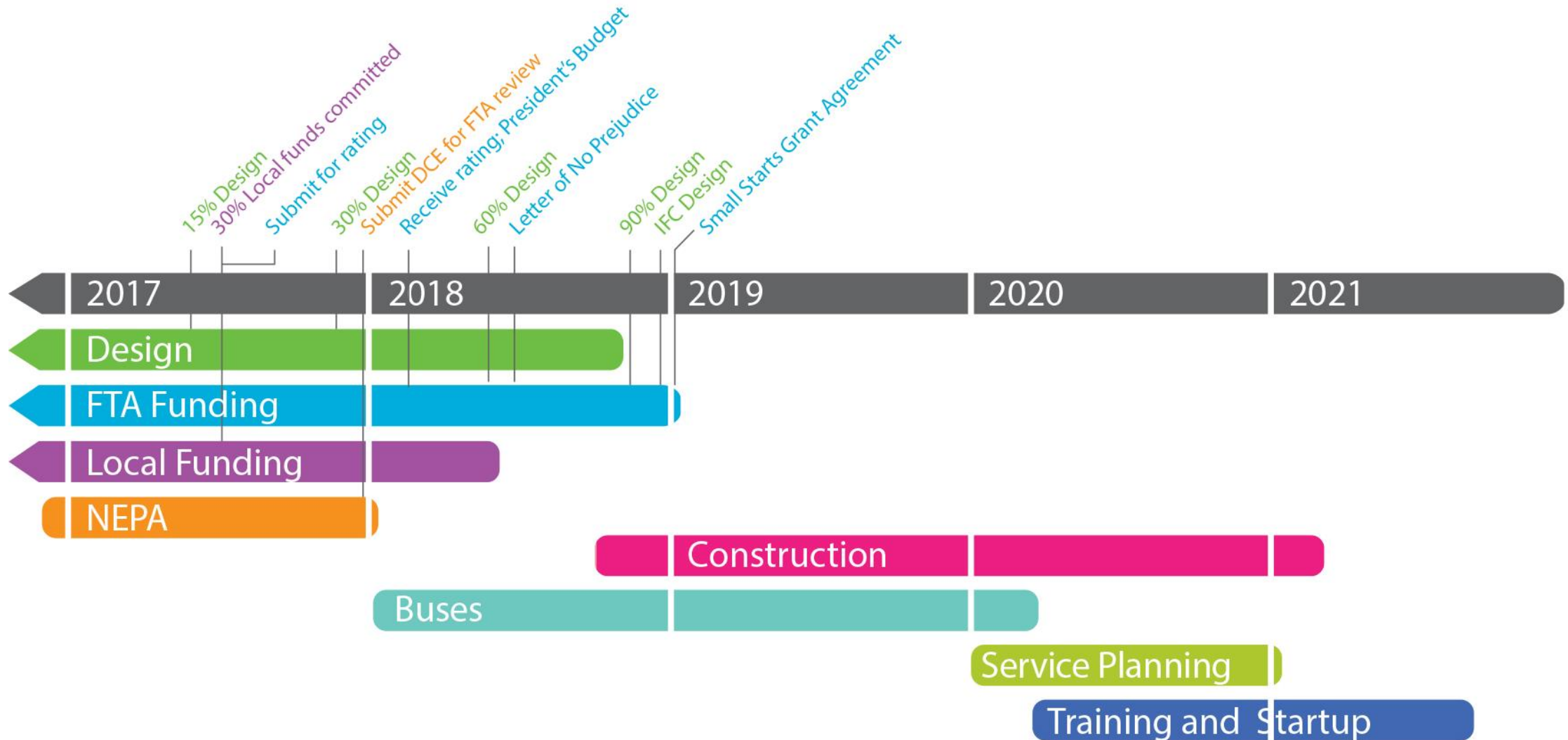
Community Advisory Committee

October 19, 2017

Electric Bus Update



Project Schedule



Current Milestones

- **30% Design**
 - Significant FTA milestone
- **FTA Rating and Financing Approach**
 - Establishes ranking for funding recommendation
- **NEPA Work**
 - Evaluates broad spectrum project impacts
- **Policy and Budget Committee Direction**
 - Providing input/insight/and direction as project progresses towards 60% Design

Upcoming Milestones

- Advertise RFP for Pre-Construction Services - CM/GC (January 2018)
- Advertise RFP for Amenity Pre-Fabrication Design Services (January 2018)
- President's Budget / Rating (February 2018)
- Advertise RFP for Bus Procurement (February 2018)
- NEPA Concurrence (March 2018)

Advancing from 15% to 30% Design

- Federal Transit Administration (FTA) Submittals
- Budget Balancing
- Station Design Refinements
- Performance Improvements
- Outreach

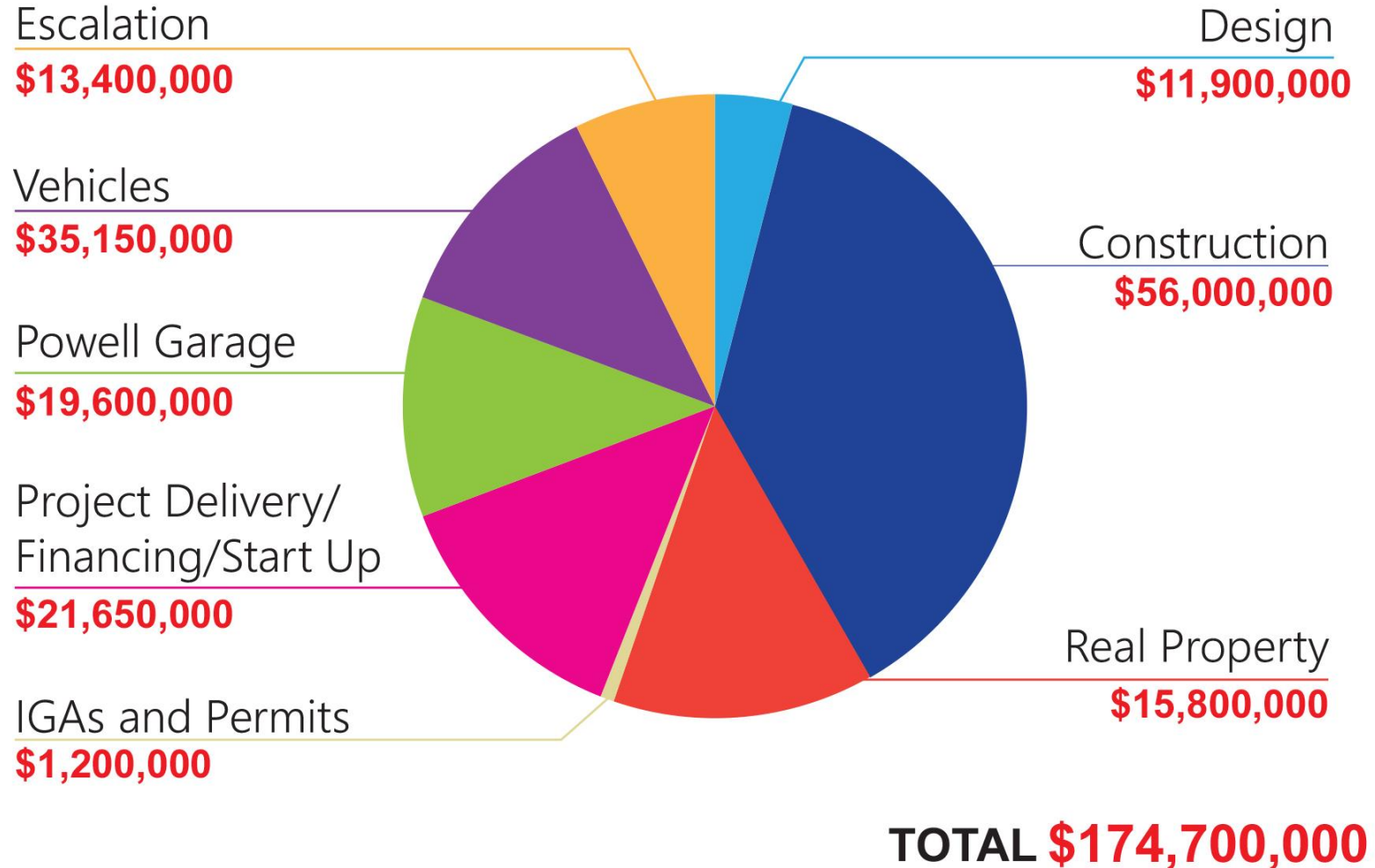
FTA Submittals

- **FTA Project Rating**
 - Submitted for rating in September
 - Change in financing structure
 - 50/50 local / federal match for a more competitive rating
 - Rating expected to be medium-high
- **NEPA - Documented Categorical Exclusion (DCE)**
 - Utilizes 30% documents as basis of design
 - Represents resolve in placement and scope related to major project elements
 - Analysis completed in December and submitted in January

Budget Balancing- 15% - 30% Design

- **15% Design Cost Overage** - at \$10M
- **Concern over Performance Cuts** - Needed at 15% to help reduce costs, but believe the cuts were too deep
- **Reducing Costs Through Design Solutions** - In lieu of line-item cuts
- **30% Design** - Focus on :
 - Station amenity costs
 - Impacts to utility poles
 - Property impacts that drive ROW costs
 - Bring back removed performance elements
 - Community feedback

Balanced Budget Breakdown



Project Scope



- **14 miles** of enhanced service from Downtown Portland to Gresham Central
- **42 Stations** with **83 Platforms** – 1/3 mile approximate station spacing
- **15% - 20% average improvement** in travel times over existing service
- Utilization of existing bus stop infrastructure at OMSI, SWF, SW Lincoln Street and the Transit Mall

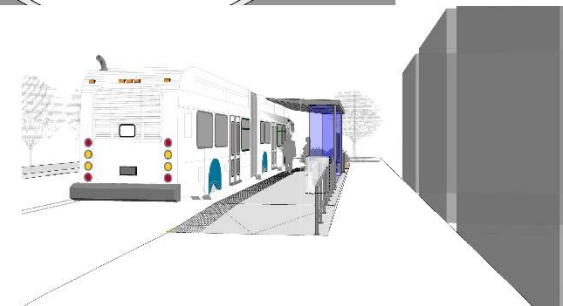
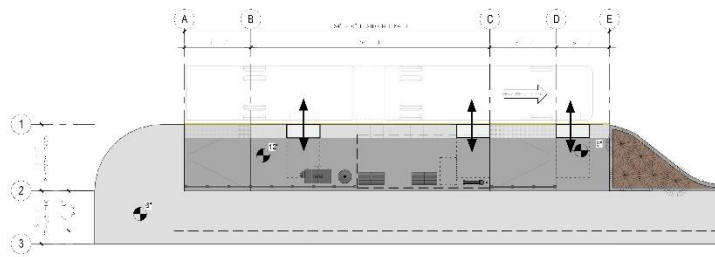
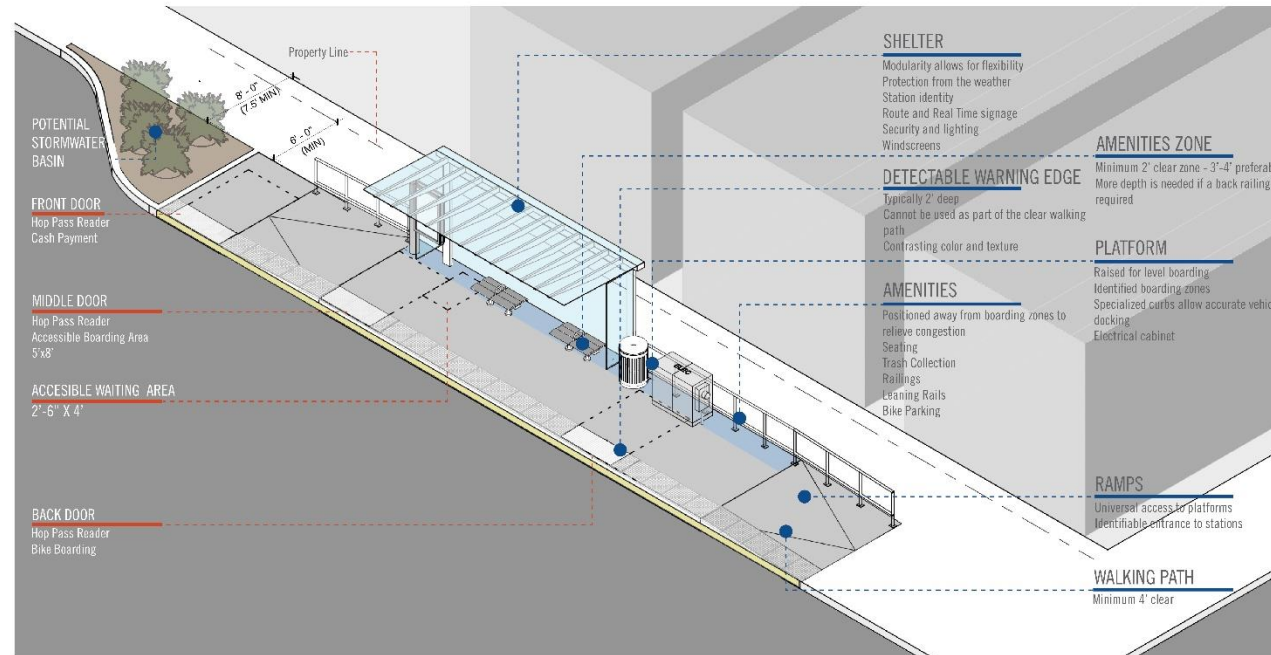
Design Refinements - Stations

- **Reduce station platform lengths** – Pursue ramping in bike lanes and sidewalks where possible
- **Fine-tune platform placement** – Utilize flexibility in refined platform design
- **Reduce property acquisition** – Use station design to address ROW impacts
- **Reduce utility pole impacts** – Utilize platform design and placement
- **Station Addition** – Added Station at 116th to address DMA and EPAP input.

Typical Station Types (Integrated)

INTEGRATED TYPE STATION

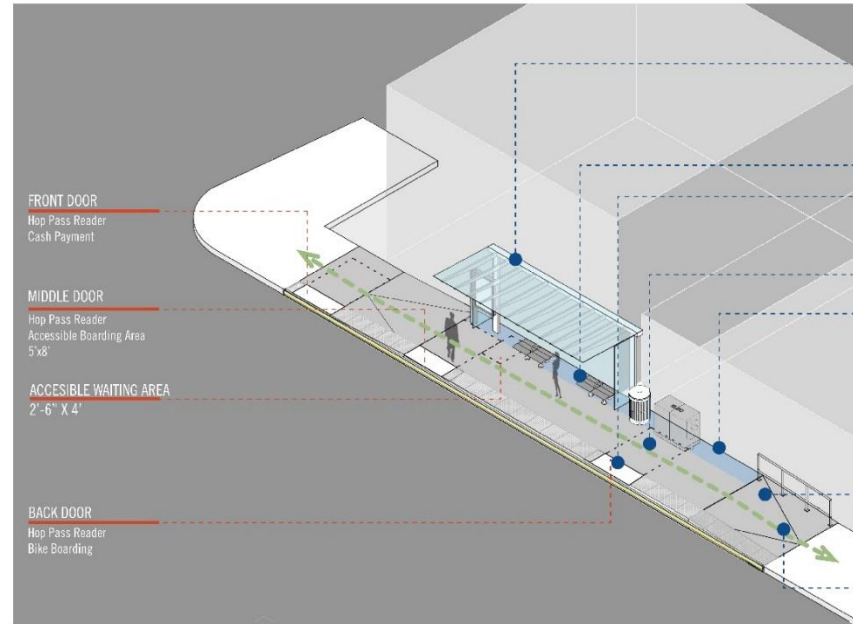
Integrated 1- By-Pass



Typical Station Types (Integrated)

INTEGRATED TYPE STATION

Integrated 2 - Pass-Through



FRONT DOOR

Hop Pass Reader
Cash Payment

MIDDLE DOOR

Hop Pass Reader
Accessible Boarding Area
5 x 8'

ACCESSIBLE WAITING AREA

2'-6" X 4'

BACK DOOR

Hop Pass Reader
Bike Boarding

SHELTER

Modularity allows for flexibility
Protection from the weather
Station Identity
Windscreens
Security and lighting
Route and Real Time signage

DETECTABLE WARNING EDGE

Typically 2' deep
Cannot be used as part of the clear walking path
Contrasting color and texture

AMENITIES

Positioned away from boarding zones to relieve congestion
Seating
Trash Collection
Railings
Leaning Rails
Bike Parking

AMENITIES ZONE

Minimum 2' clear zone - 3'-4' preferable
More depth is needed if a back railing is required

PLATFORM

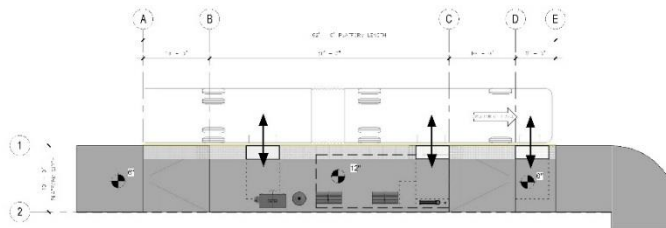
Raised for level boarding
Identified boarding zones
Specialized curbs allow accurate vehicle docking
Electrical Cabinet

RAMPS

Universal access to platforms
Identifiable entrance to stations

WALKING PATH

Minimum 4' clear



PLAN



PERSPECTIVE



Typical Station Types (Integrated)

INTEGRATED TYPE STATION Integrated 3 - Rear Access



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WALKING PATH

Minimum 4' clear

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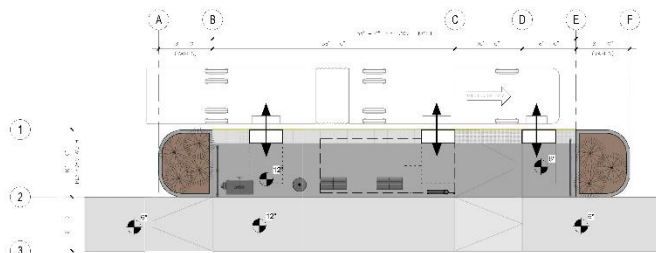
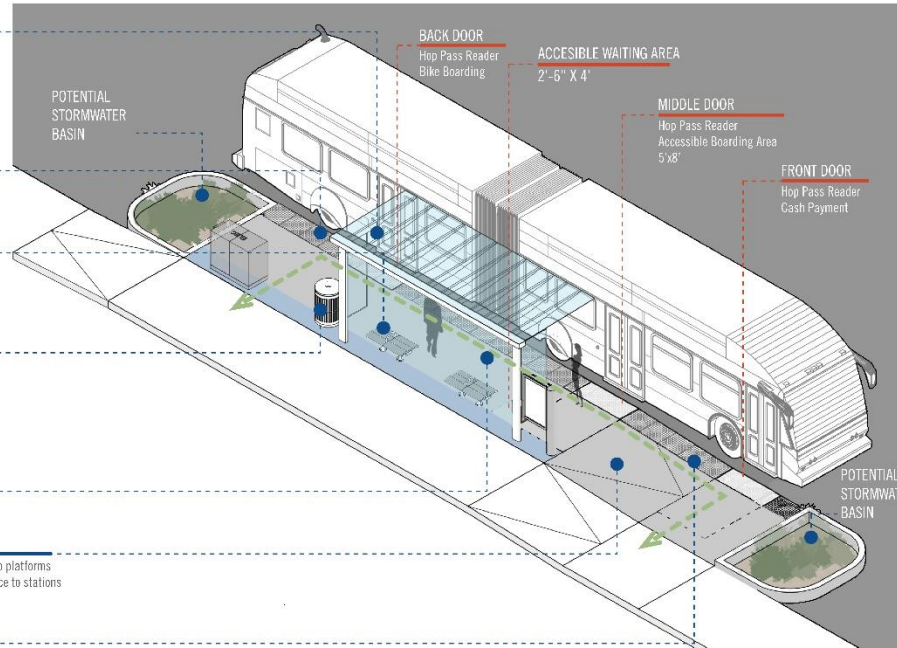
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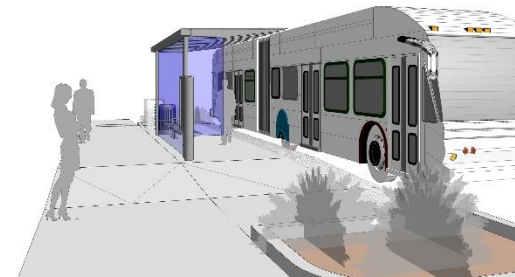
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PLAN



PERSPECTIVE

Typical Station Types (Island)

ISLAND TYPE STATION

Island 1 - Intersection



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AMENITIES

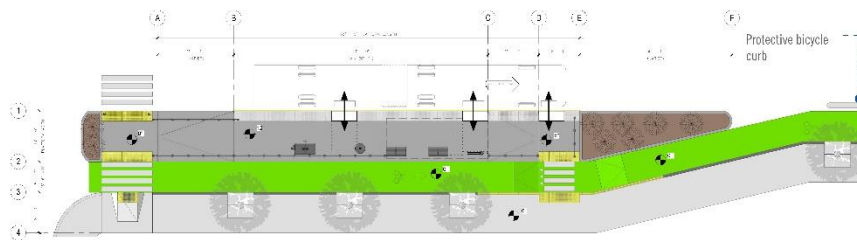
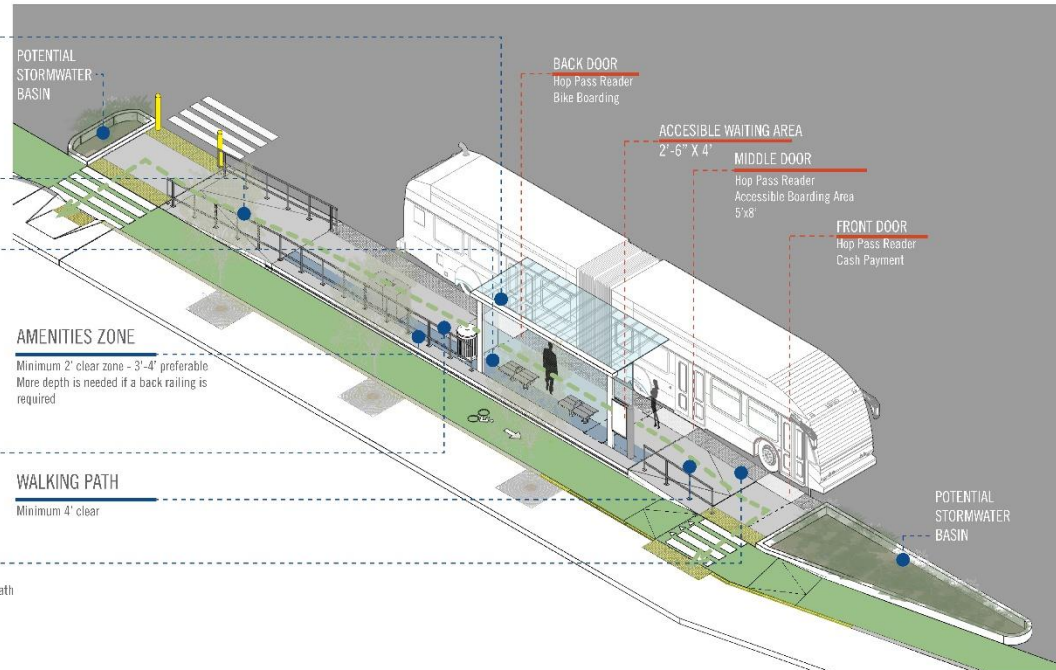
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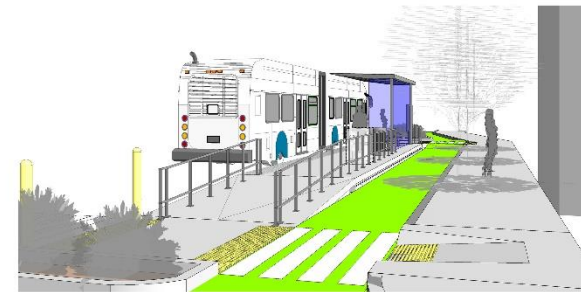
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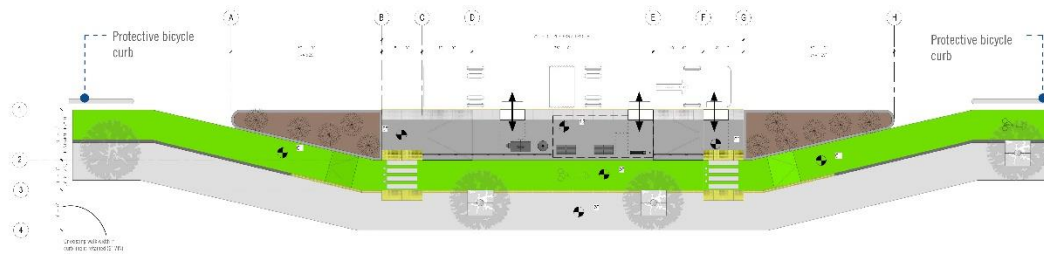
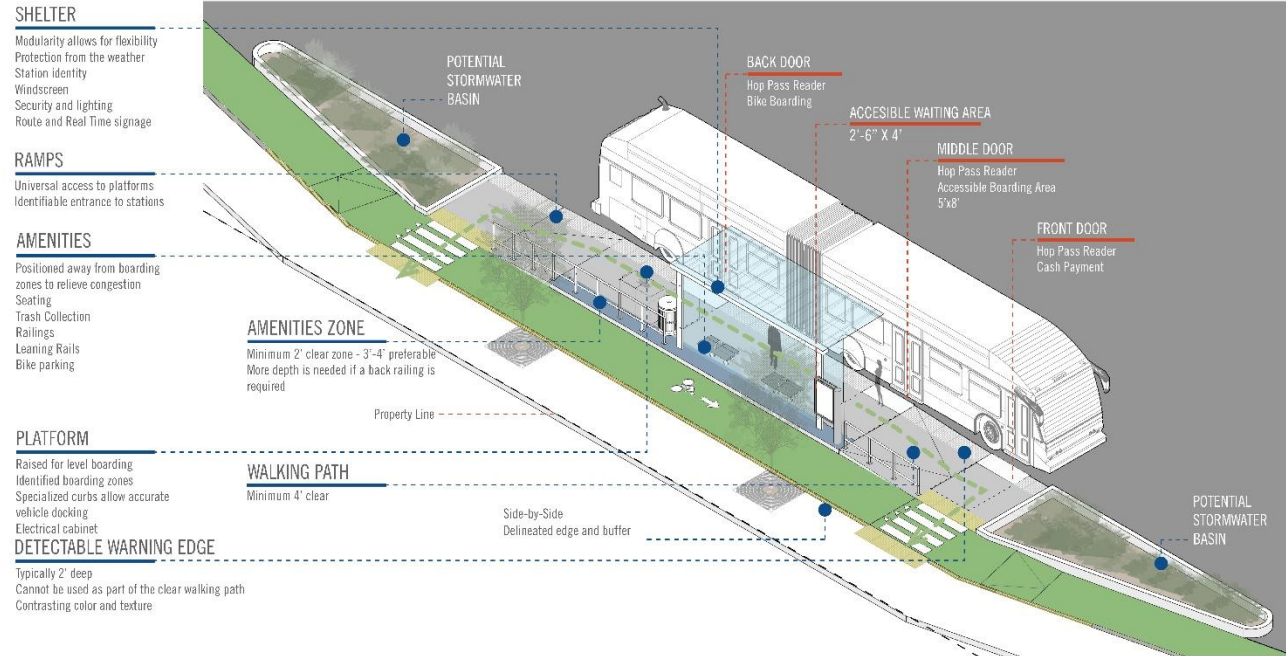


PERSPECTIVE



Typical Station Types (Island)

ISLAND TYPE STATION Island 2 - Midblock



Typical Station Types (Island)

ISLAND TYPE STATION

Island 3 - Rear Access



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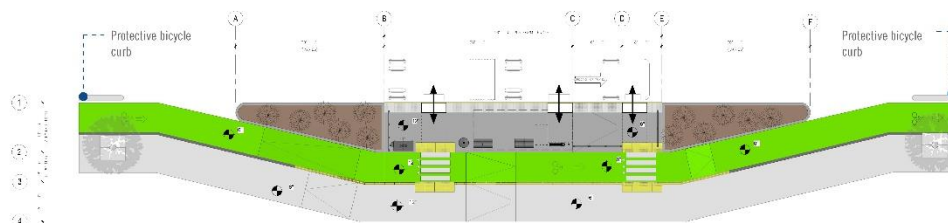
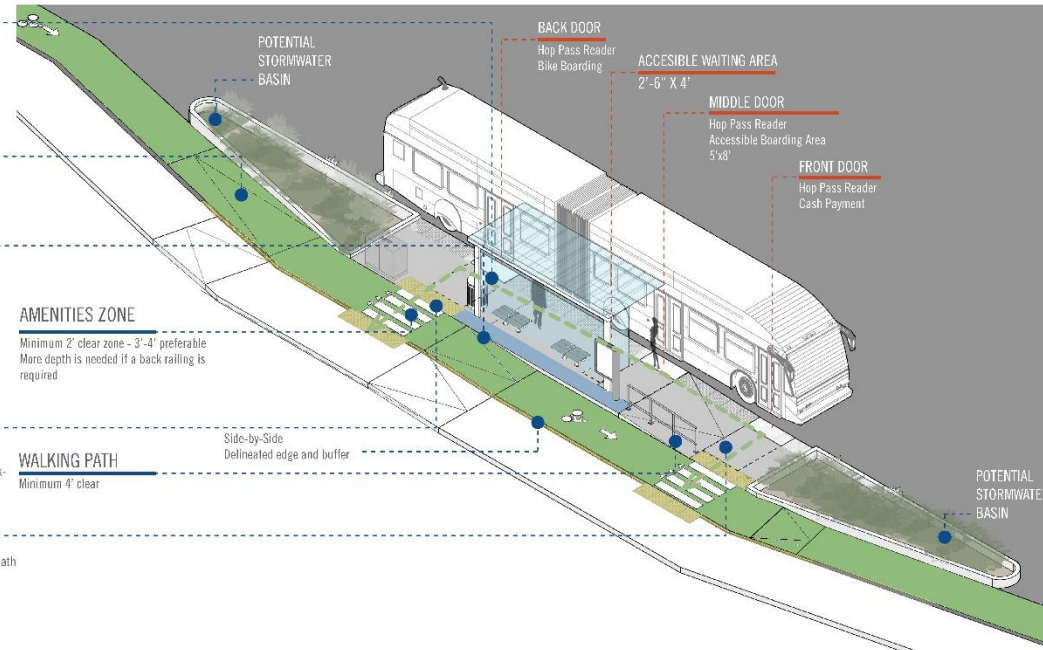
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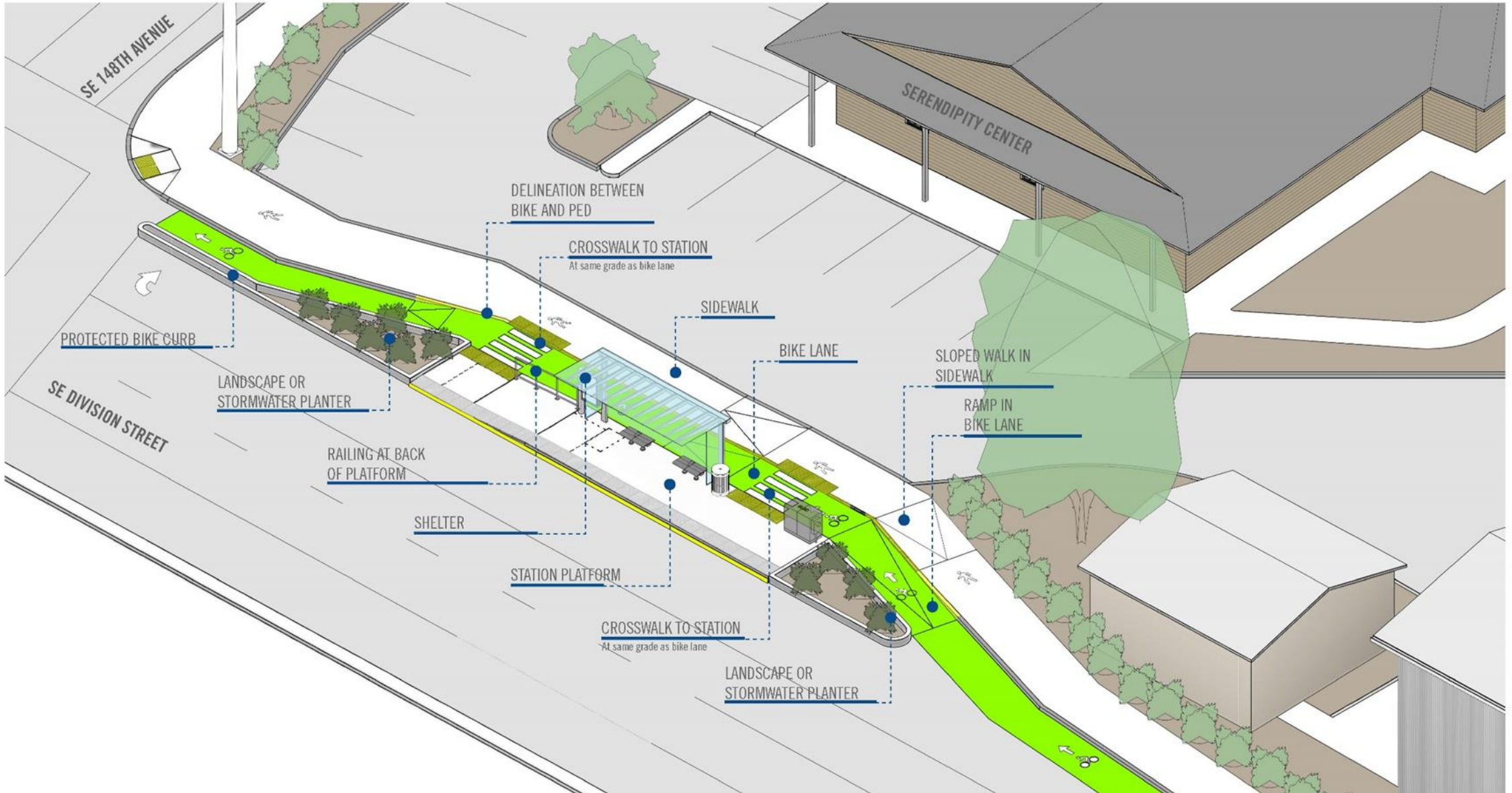
PLAN



PERSPECTIVE



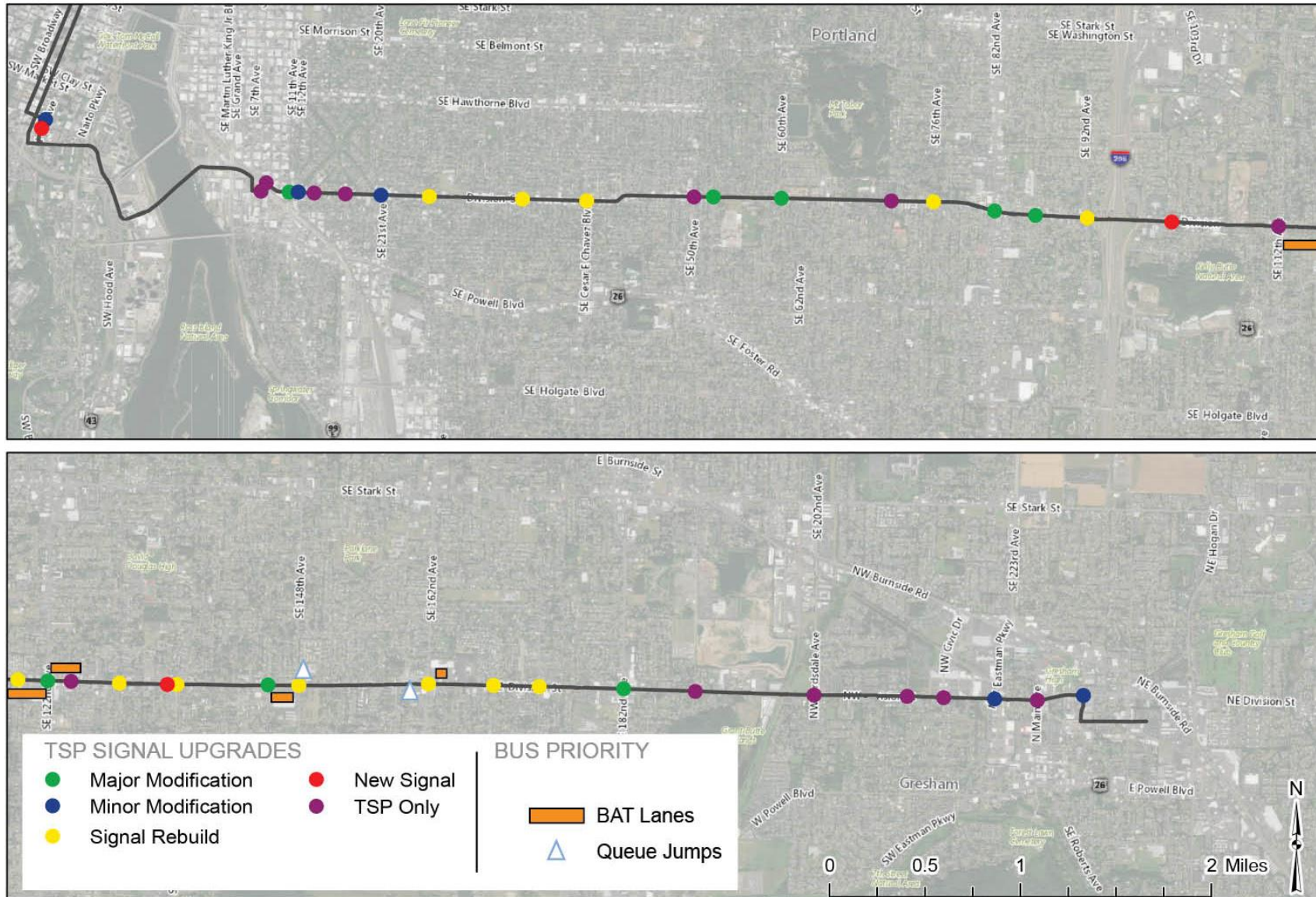
Island Station (SE 148th & SE Division – Eastbound)



Design Refinements - Performance

- **Increased Investment in Signal Upgrades**
- **Additional Refinements to Traffic Signal Priority (TSP)**
- **Extended Business Access and Transit (BAT) Lanes**
- **Traffic Models & Projections**
 - Used to Validate Design Decisions
 - Consistent with 2021 Opening Day
 - Current Performance around 18% improvement over existing service
- **Continue to Pursue TSP Advancements**
 - Technology
 - Policy

Performance – Signals – TSP – BAT Lanes



Design Refinements - Outreach

- **Monthly Community Advisory Committee (CAC) meetings**
- **Community and CAC Workshops**
- **One-On-One Business Outreach at Station Areas**
- **Open Houses – Community & Operator**
- **CAT Subcommittee**
- **Bicycle Advisory Committee/Pedestrian Advisory Comment**
- **Outreach Staff Informing Design Approach**