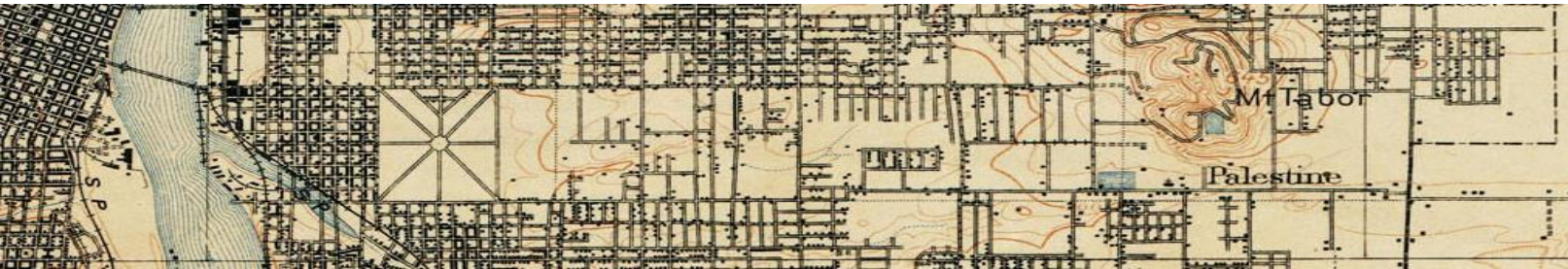


DIVISION

TRANSIT PROJECT



Policy and Budget Committee Meeting

June 15, 2017

Project Scope

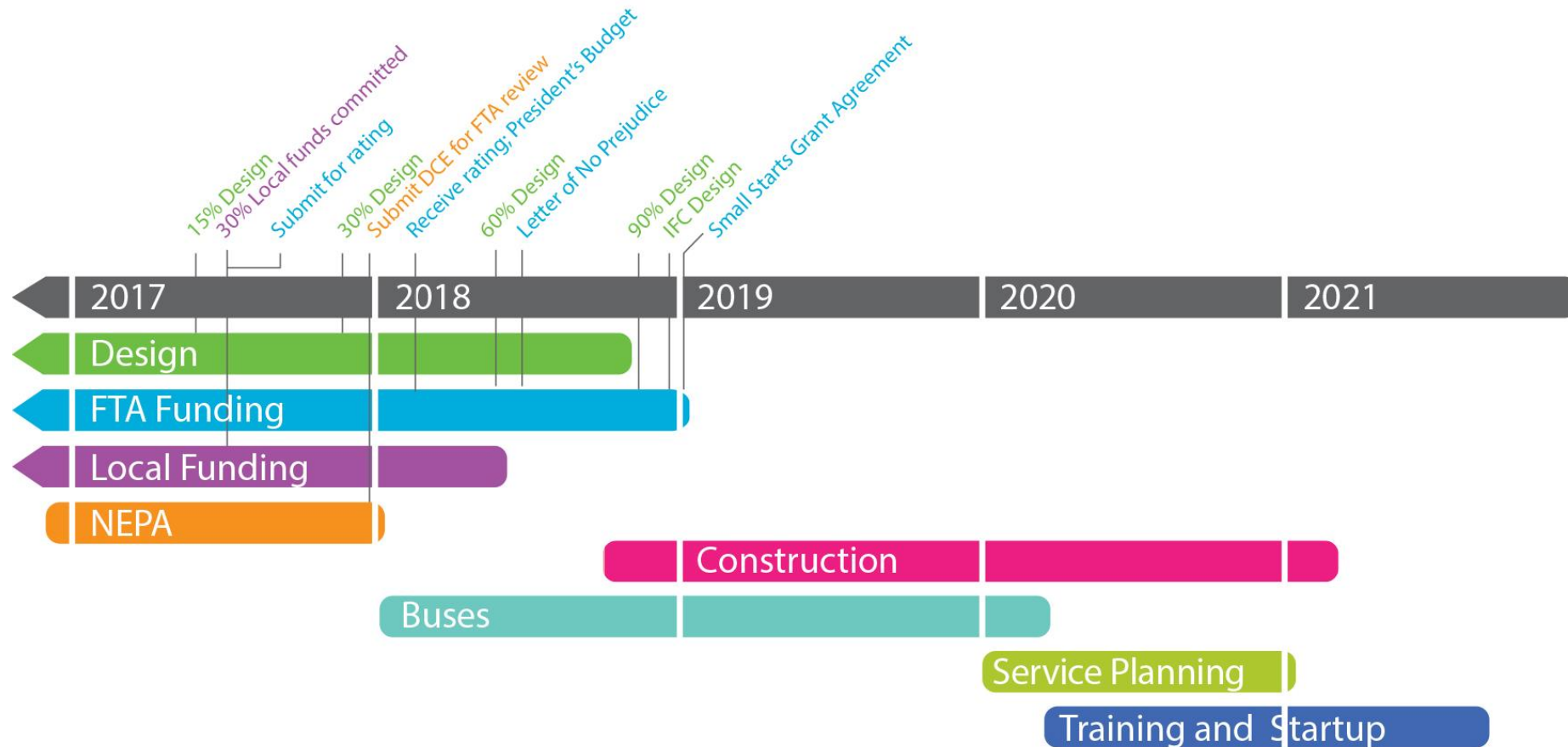


- **14 miles** of enhanced service from Downtown Portland to Cleveland Park & Ride
- **41 Stations with 82 Platforms** – 1/3 mile approximate station spacing
- **15% average improvement** in travel times over existing service
- Utilization of existing bus stop infrastructure at OMSI, South Waterfront, SW Lincoln St. and the Transit Mall

Project Status

- Finalizing 10% Design Cost Estimate and preliminary Value Engineering
- Wrapping up 6 month effort to achieve 15% Preliminary Design.
 - Intensive work with regional partners (TriMet, Metro, City of Gresham, City of Portland, Multnomah County, ODOT) and design consultants
 - Represents initial proposal for public and stakeholder vetting
- Transitioning to new design team (WSP) – 15% through to construction
- Looking forward to presenting the current design proposal at the June 29th Open House.

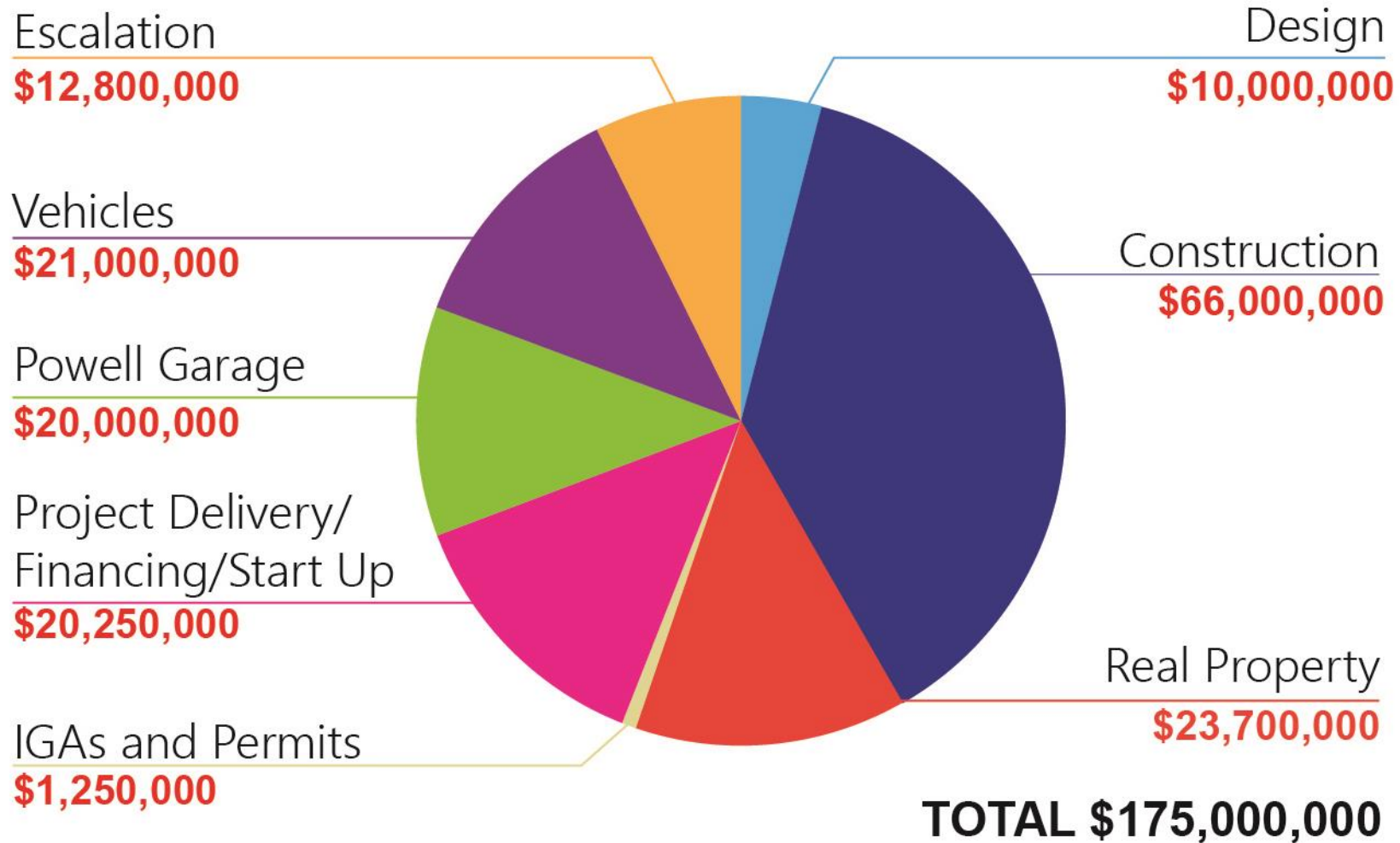
Project Schedule



Bridge Status – Tilikum Crossing Confirmed

- LPA preference, and reliability concerns
- Traffic analysis and findings
- Evaluation of capacity and risk at SW Naito/Lincoln/and 4th Ave.
 - Division Transit Project
 - Southwest Corridor
 - Central City Multi-Modal Project
- Design efforts on future projects to continue coordination related to opportunities and challenges.

Project Budget Breakdown



Design Effort and Charge

- Work collaboratively with regional partners to design and deliver this project with:
 - Integrity
 - Transparency
 - Accountability
- Solicit feedback from public and stakeholder groups to help inform the design process and outcome
- Work to create a balance between community needs, project performance and project cost.
- Deliver a project within the parameters of the FTA budget cap (\$175M), and scheduled milestones.

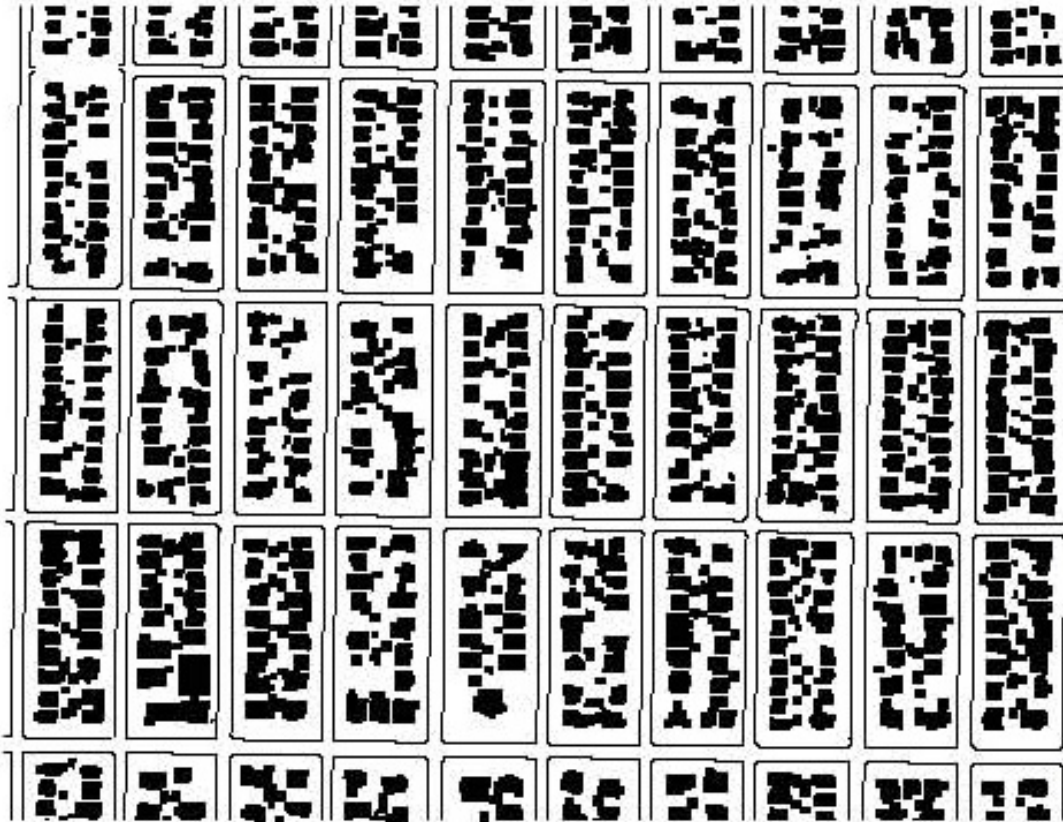
Design Considerations

- Overview of the context and the complexities
- Uncover some of the difficult balancing acts
 - Station placement and impacts
 - Multimodal accommodation and access
 - Range of costly but non-critical items

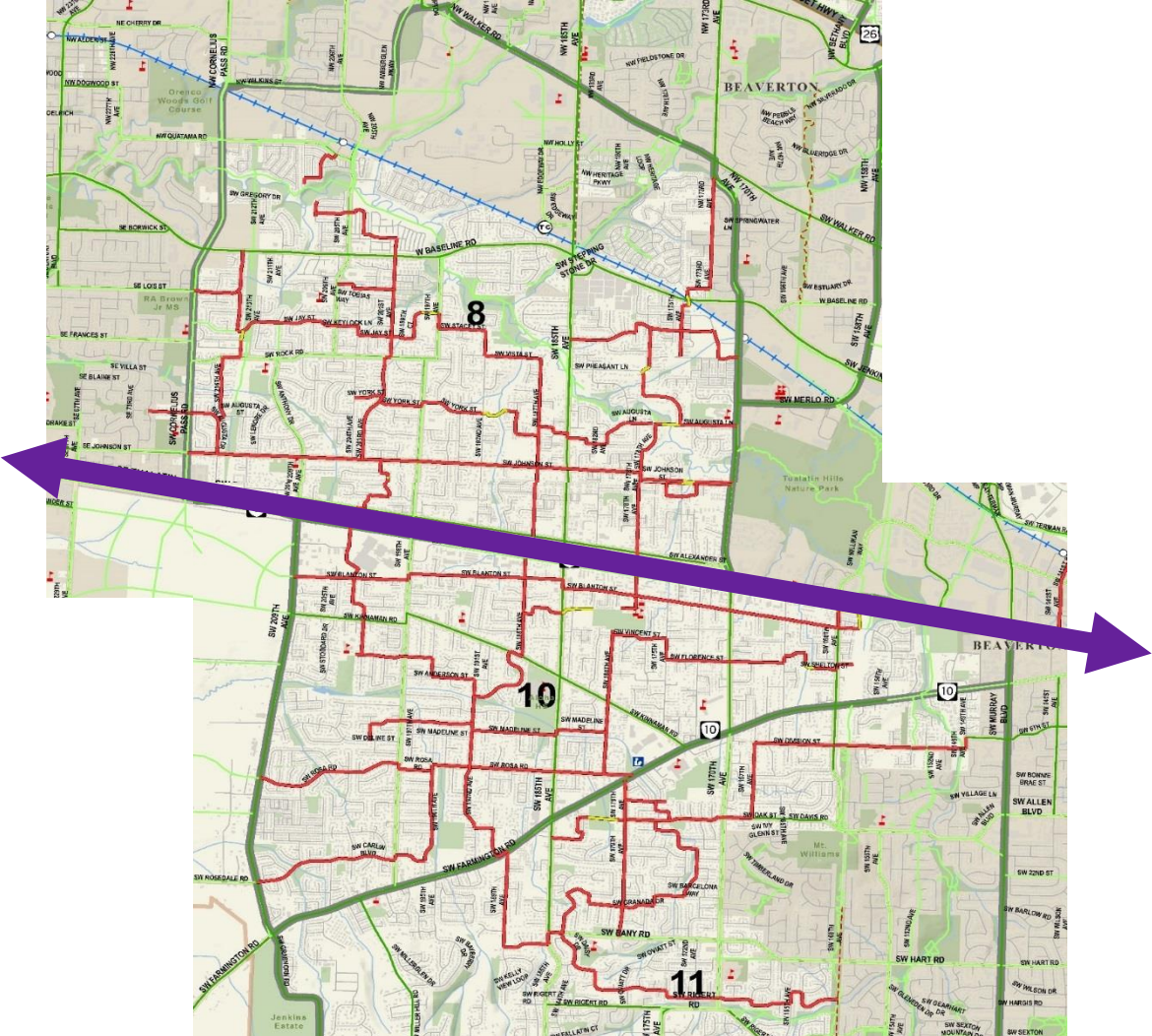
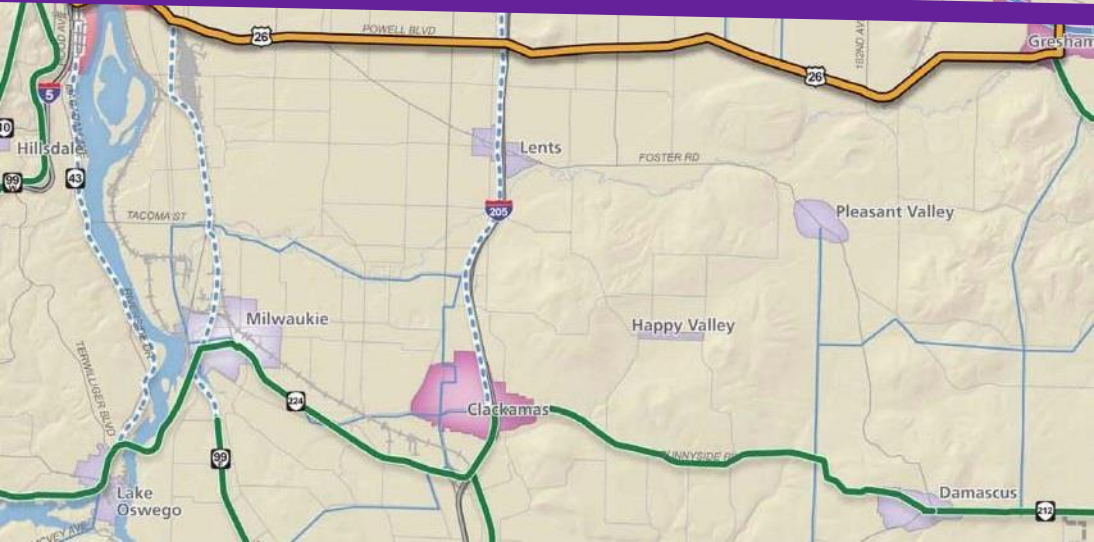
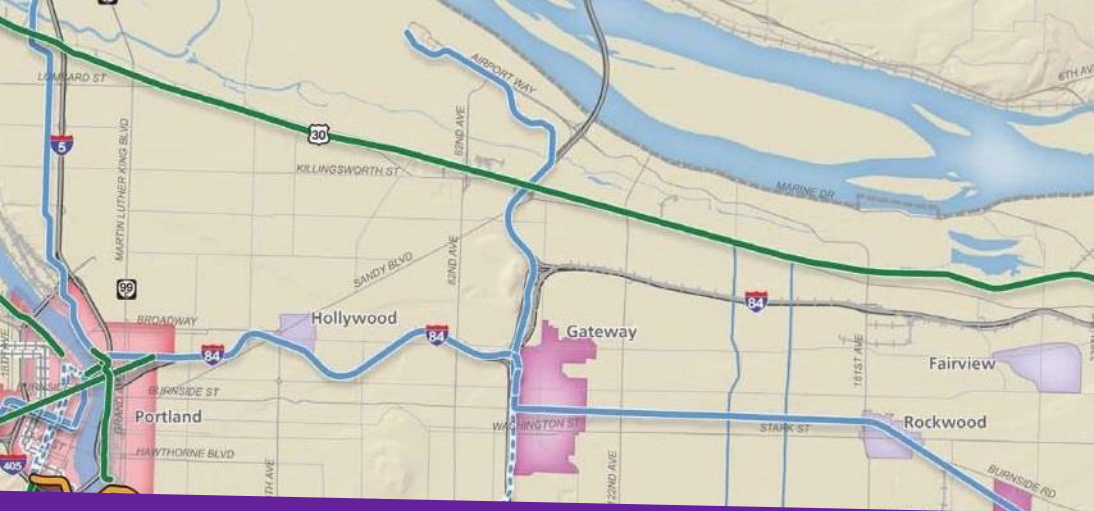
CONTEXT
TRANSFORMATION
BALANCE
INCREMENTALISM

CONTEXT...and its consequences

fragmented and discontinuous transportation system

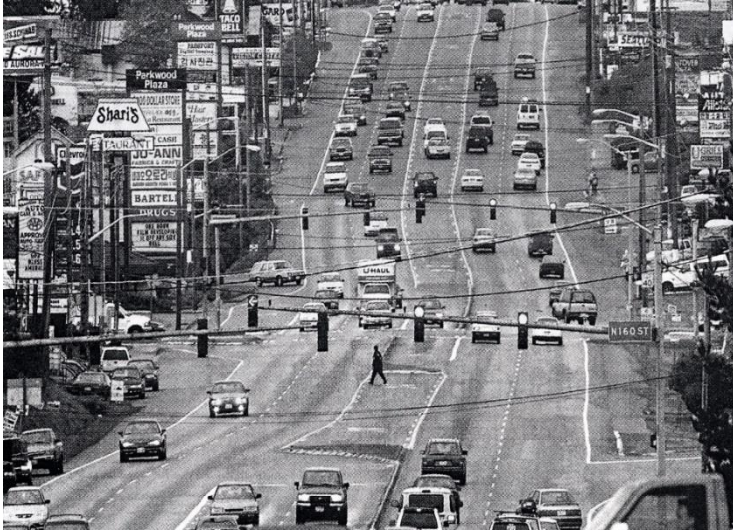


main arterials are the ONLY elements of continuity



so, everyone for every purpose relies on them





Freight and business-supportive functions



Neighborhood circulation and access



Transit and pedestrian and cycling movements

because often, this is the only direct way to get around

land use characteristics are just as varied...

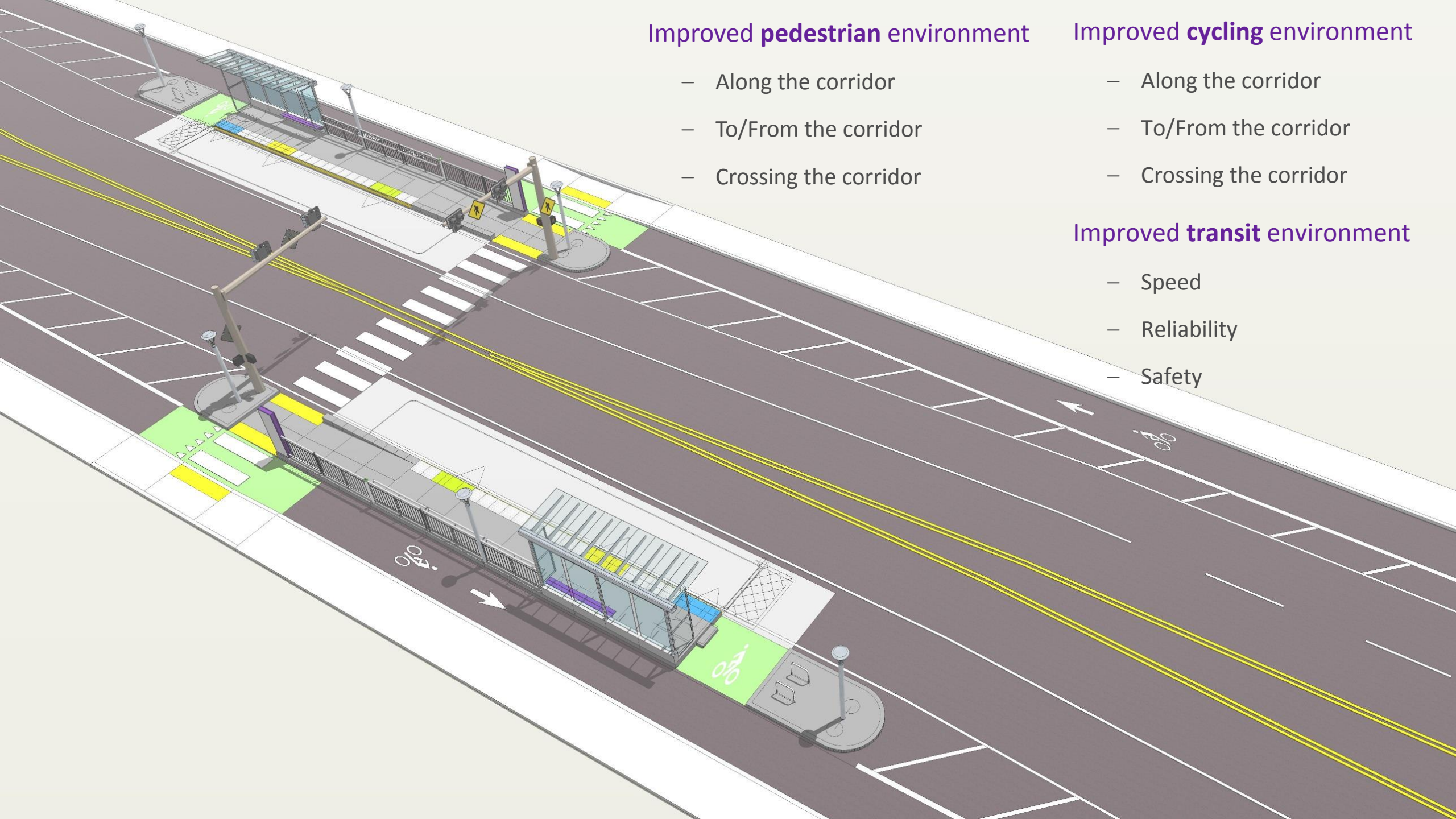


- Former county or un-incorporated land with **little regulation and urban services**
- Variety of uses and frontage types from a variety of development eras – **no consistent form**
- Diverse buildings, **diverse uses**, diverse communities
- Single family rural residential, carpark multifamily, business, auto-centric, mobile homes, flag lot development, new housing types
- Code adoptions and ideas call for transformation but currently **lack the vision for the “whole” place**

...and along comes transit and TRANSFORMATION

everybody wants everything for everyone at all times, now...





Improved **pedestrian** environment

- Along the corridor
- To/From the corridor
- Crossing the corridor

Improved **cycling** environment

- Along the corridor
- To/From the corridor
- Crossing the corridor

Improved **transit** environment

- Speed
- Reliability
- Safety

but we've got to calibrate the magnitude and speed of transformation

- don't want to eliminate access to homes or businesses
- don't want to limit this community's overall mobility
- don't want to impinge on this conduit of economic vitality



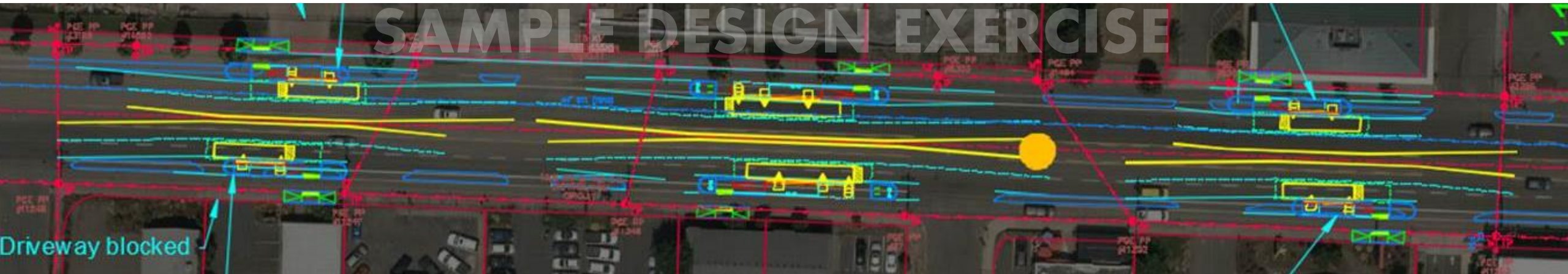
...so lets talk about BALANCE

Platform Placement

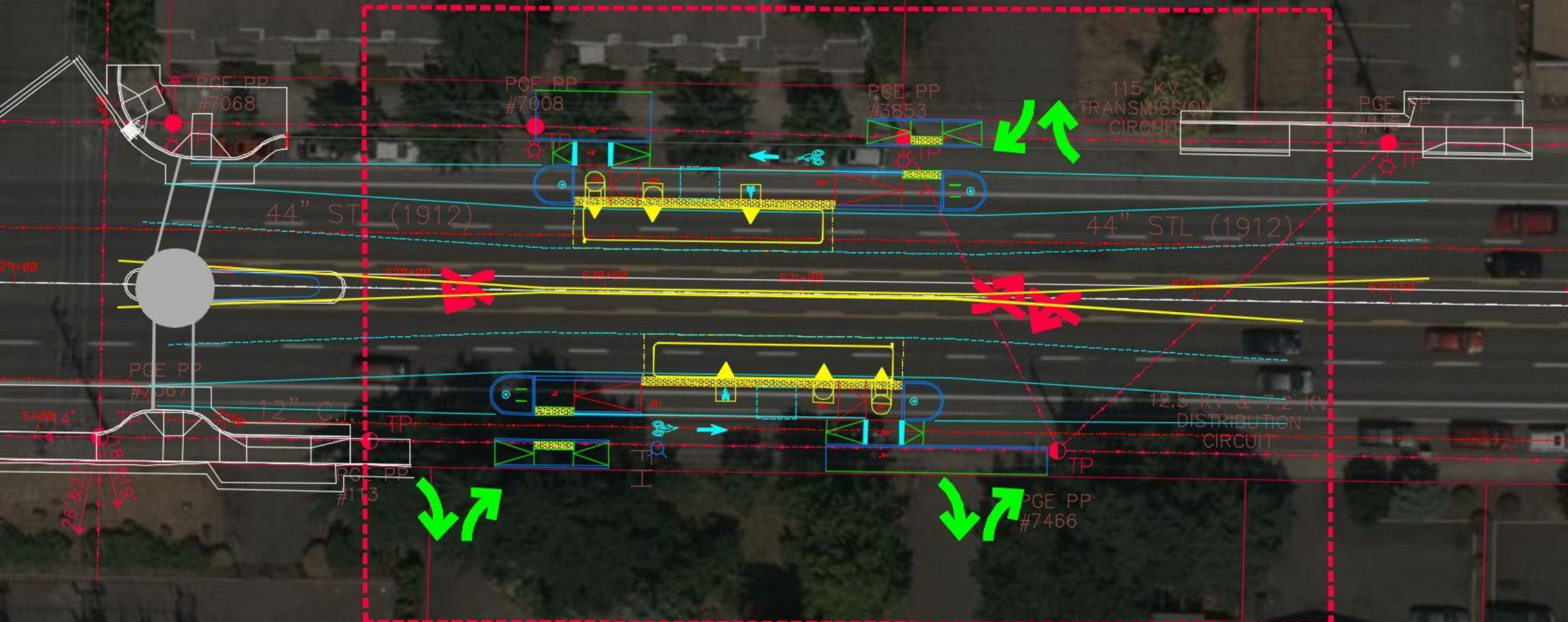
- Minimize removing driveways
- Avoid utility relocation
- Align with existing crossings
- Avoid impacts and acquisition
- Avoid triggering turn prohibitions



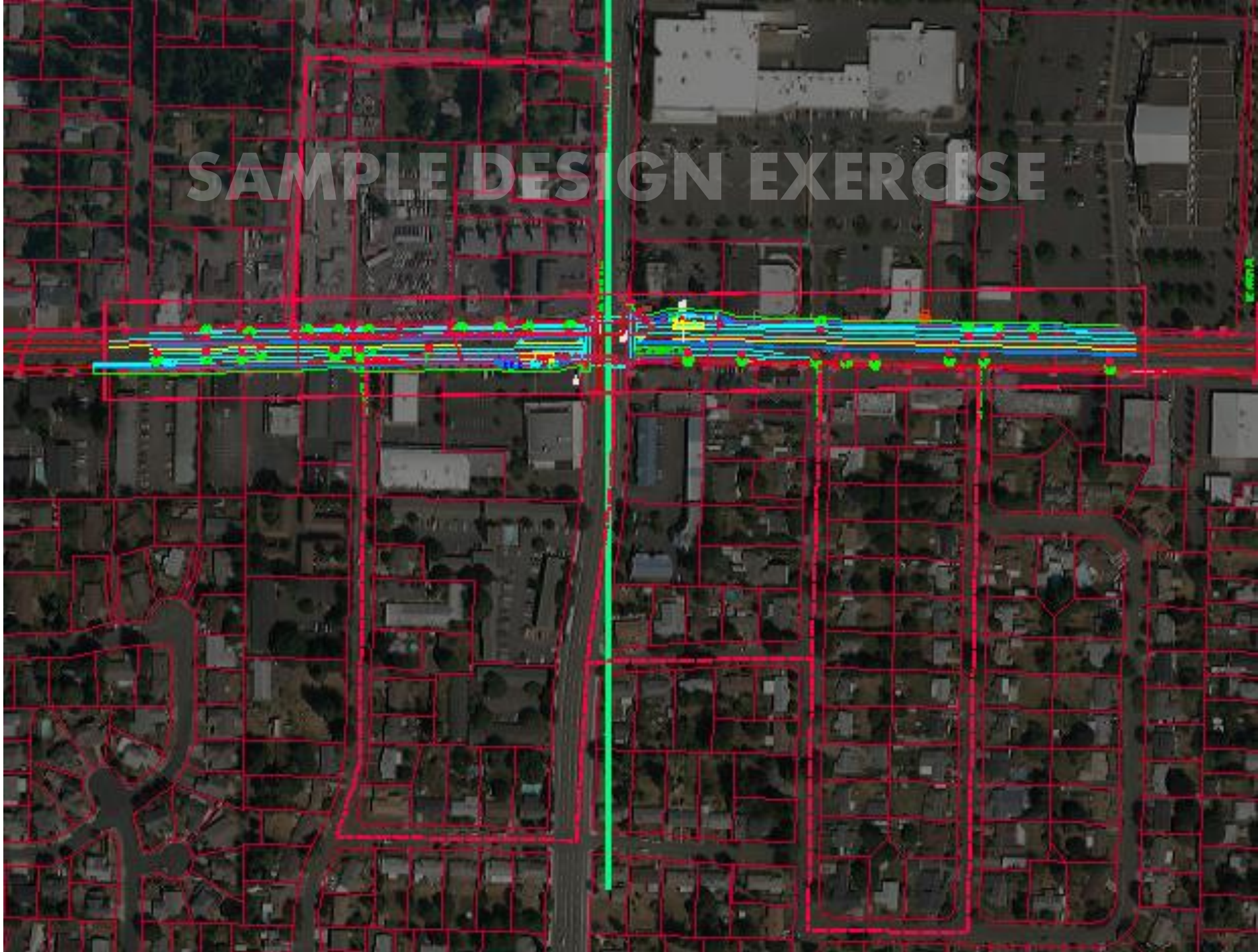
between many rocks and hard places...



SAMPLE DESIGN EXERCISE



SAMPLE DESIGN EXERCISE





Crossing Proximity

- Existing minor signals
- Existing major signals
- New signals
- HAWKS
- RRFB

sometimes bigger solutions are warranted





and other considerations must be balanced...

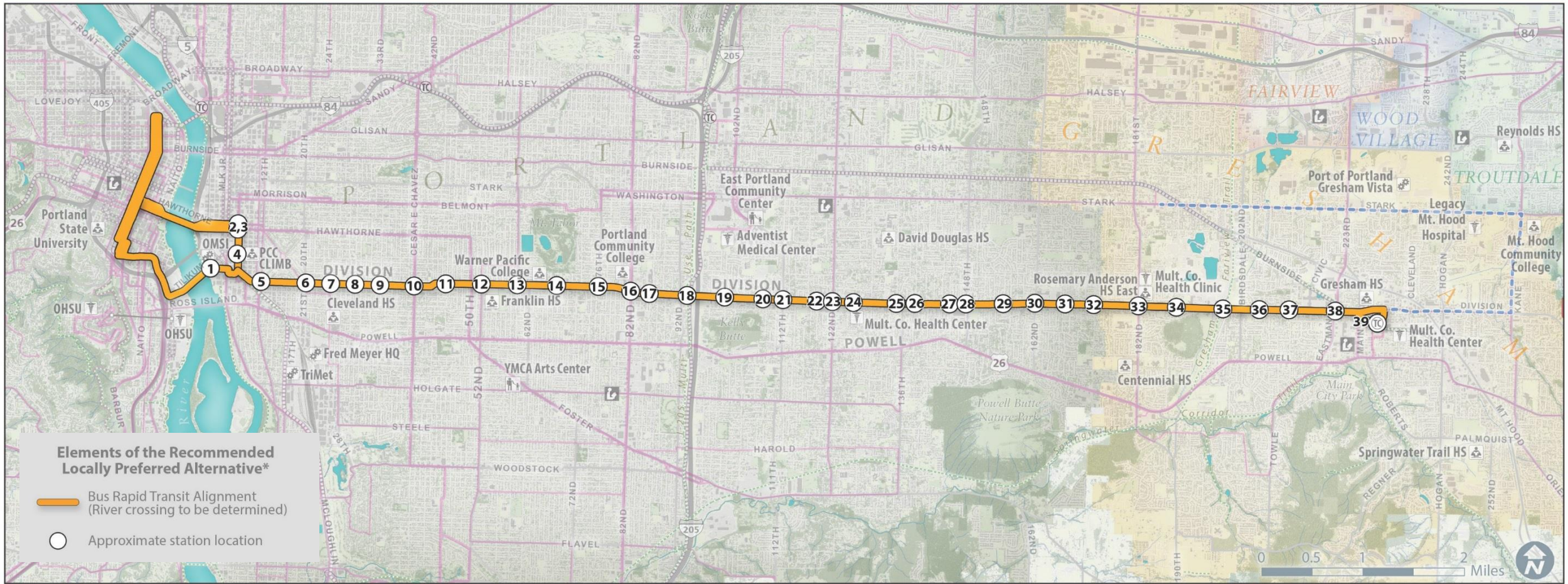


can we define the right INCREMENT of change?



- Safety is critical and immediate change is needed
- Want better service but not displacement
- Expend the limited funds on the right features for people
- Transit dollars come with performance strings attached
- Want transition and transformation of transport/land use
- But have to balance that against the impacts now

Powell-Division Transit and Development Project: Recommended Locally Preferred Alternative



LPA Map

approximate station locations



- LPA provided approximate station locations
- We tested, designed and analyzed those locations
- Changes and refinements are expected through design
- Showed you some examples of station placement last month
- Changes have occurred and are necessary due to:
 - Context
 - Impacts
 - Ridership
 - Operations
- Lets talk through some of these key changes
- Walk through this east to west

LPA to Now

design informs stations



Map Key	Station Location	Map Key	Station Location	Map Key	Station Location	Map Key	Station Location
1	OMSI	11	Division & 43rd	21	Division & 112th	31	Division & 168th
2	Madison & 7th	12	Division & 51st	22	Division & 119th	32	Division & 174th
3	Hawthorne & 7th	13	Division & 60th	23	Division & 122nd	33	Division & 182nd
4	Harrison & 7th	14	Division & 68th	24	Division & 130th	34	Division & 190th
5	Division & 12th	15	Division & 76th	25	Division & 135th	35	Division & Eastwood Fairview Trail
6	Division & 20th	16	Division & 82nd	26	Division & 139th	36	Division & Angeline
7	Division & 26th	17	Division & 87th	27	Division & 145th	37	Division & Civic Drive
8	Division & 30th	18	Division & MAX	28	Division & 148th	38	Division & Eastman
9	Division & 34th	19	Division & 101st	29	Division & 156th	39	Gresham Transit Center
10	Division & Chavez	20	Division & 109th	30	Division & 162nd		

LPA Station List

design informs placement



Map Key	Station Location	Map Key	Station Location	Map Key	Station Location	Map Key	Station Location
1	OMSI	11	Division & 45th	21	Division & 112th	31	Division & 167th
2	Maple & 25th removed	12	Division & 51st	22	Division & 115th Removed	32	Division & 174th
3	Harborview & 25th removed	13	Division & 60th	23	Division & 122nd	33	Division & 182nd
4	Harborview & 27th removed	14	Division & 68th	24	Division & 127th	34	Division & 187th Removed
5	Division & 12th	15	Division & 76th	25	Division & 135th	35	Division & Gresham-Fairview Trail
6	Division & 20th	16	Division & 82nd	26	Division & 138th Removed	36	Division & Bella Vista
7	Division & 26th	17	Division & 85th	27	Division & 145th	37	Division & Wallula/212th
8	Division & 30th	18	Division & MAX	28	Division & 148th	38	Division & Eastman
9	Division & 34th	19	Division & 101st	29	Division & 156th	39	Gresham Transit Center
10	Division & Chavez	20	Division & 105th Removed	30	Division & 162nd		NE 8th & Cleveland

Removed from LPA due to Tillikum Bridge Selection

Removed from LPA due to context, impacts, ridership, spacing proximity and operations

Added due to operational constraints at Gresham TC

LPA Station List

design informs placement



1. NW Irving St/5th & Hoyt
2. NW 6th & Flanders/5th & Davis
3. SW 6th & Washington/5th & Stark
4. SW 5th/6th & Salmon
5. SW 6th& Jefferson/5th& Columbia
6. 5th & Hall
7. SW Lincoln Street
8. South Waterfront/SW Moody
9. OMSI/Water
10. Division & 12th
11. Division & 20th
12. Division & 26th
13. Division & 30th
14. Division & 34th
15. Division & Cesar Chavez Blvd.
16. Division & 43rd
17. Division & 51st
18. Division & 60th
19. Division & 68th
20. Division & 76th
21. Division & 82nd
22. Division & 87th
23. Division & Max Green Line
24. Division & 101st
25. Division & 112th
26. Division & 122nd
27. Division & 130th
28. Division & 135th
29. Division & 145th
30. Division & 148th
31. Division & 156th
32. Division & 162nd
33. Division & 168th
34. Division & 174th
35. Division & 182nd
36. Division & Eastwood
37. Division & Angeline
38. Division & Civic Drive
39. Division & Eastman Pkwy.
40. Gresham Transit Center
41. NE 8th & Cleveland Station



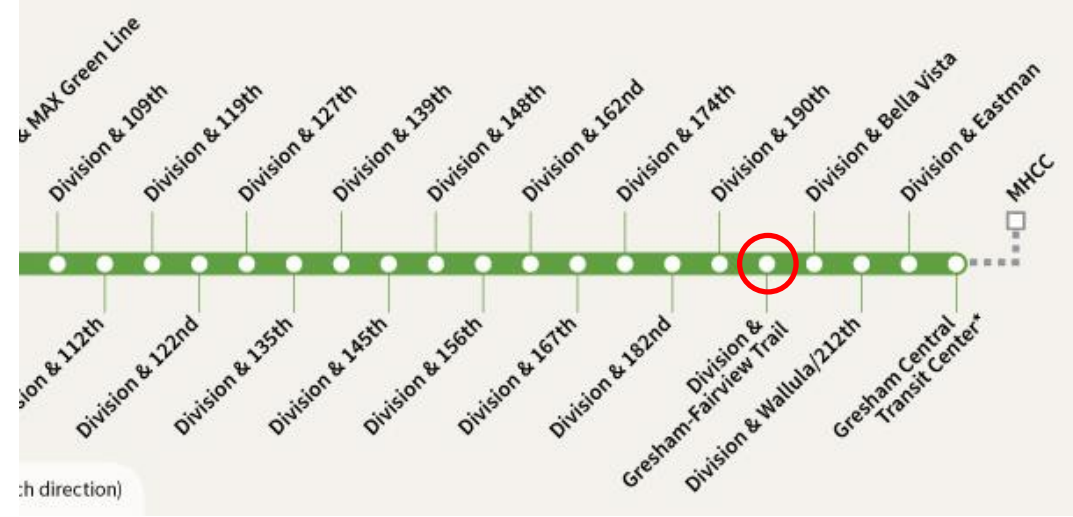
Recommended Station List

design informs placement

Gresham-Fairview Trail

Why in project?

- Identifiable geographic point
- Good spacing but never wedded to the “address”



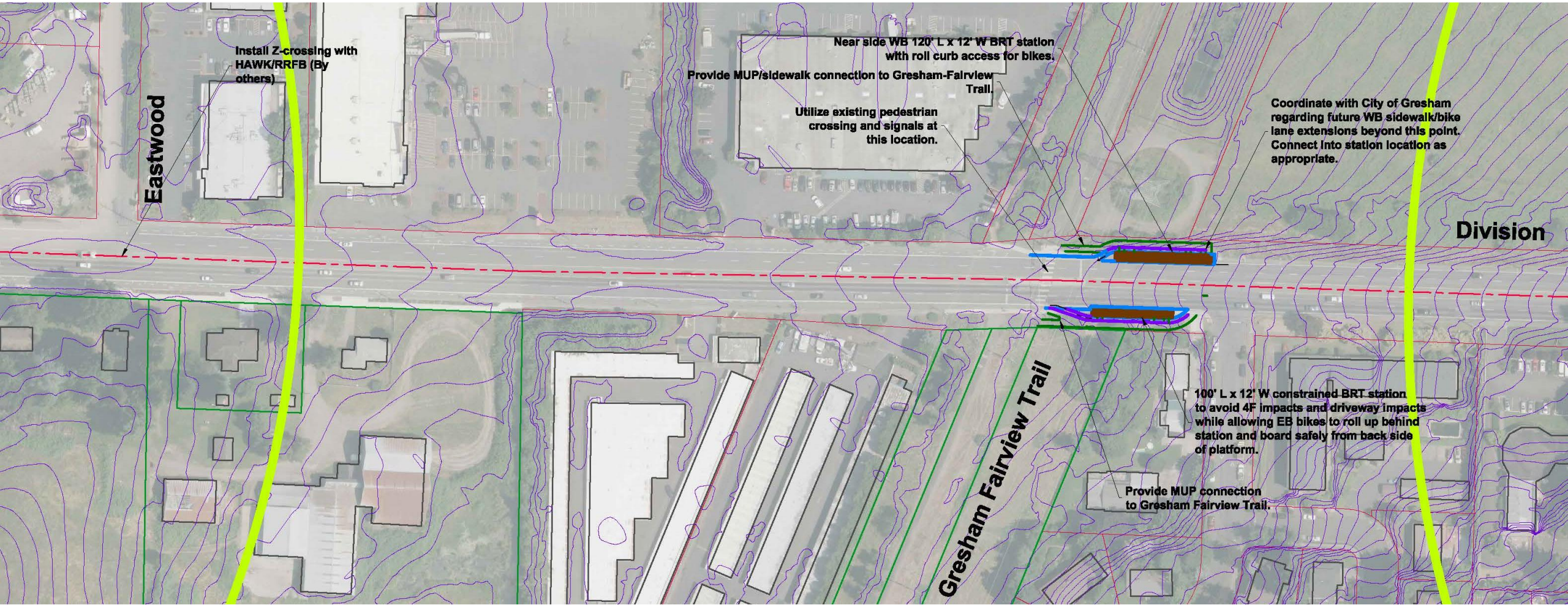
Eastwood Ridership Data (Fall 2016)

Route #	Direction	Stop Location	Ons	Offs	Total	Monthly Lifts
4	E	3100 Block NW Division	12	21	33	5
4	W	NW Division & Eastwood	20	16	36	10

Gresham-Fairview Trail Station

EXPLORATION...

Not near ridership or destinations



Gresham-Fairview Trail Station

DISCOVERED:

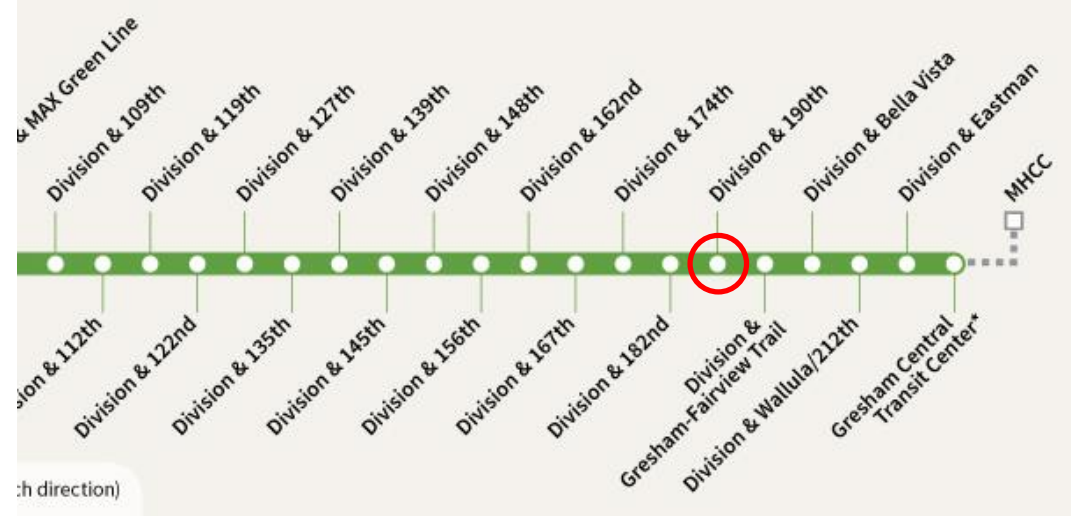
- Low ridership in comparison to nearby stop
- Not close to businesses and destinations
- Improve overall spacing with shift west
- Increase multimodal safety with signal near station
- Avoid potential environmental impacts at open space/trail

RECOMMENDATION: move station to Eastwood Ave

190TH Station

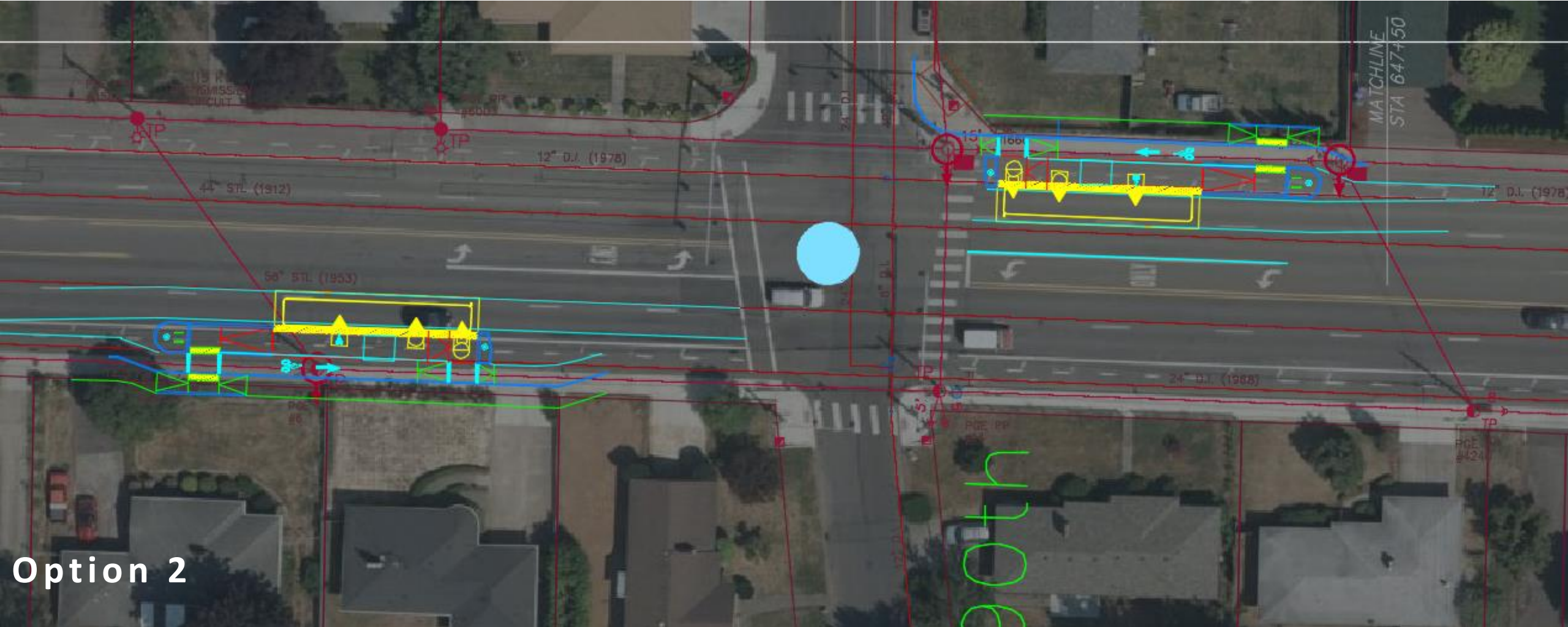
Why in project?

- Provided even spacing to avoid 'gap' between stations



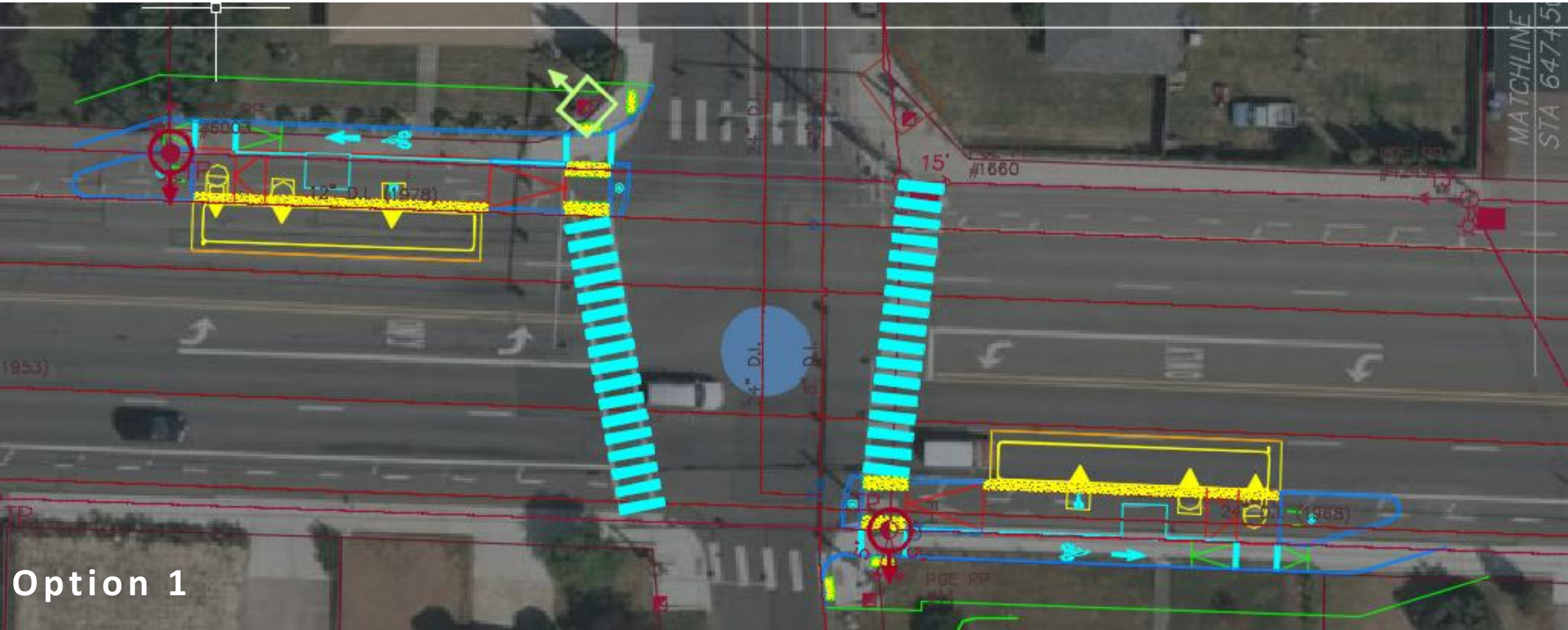
190th Ave Station EXPLORATION...

Attempted to place the station with minimal impacts to single family homes all along this stretch



190th Ave Station EXPLORATION...

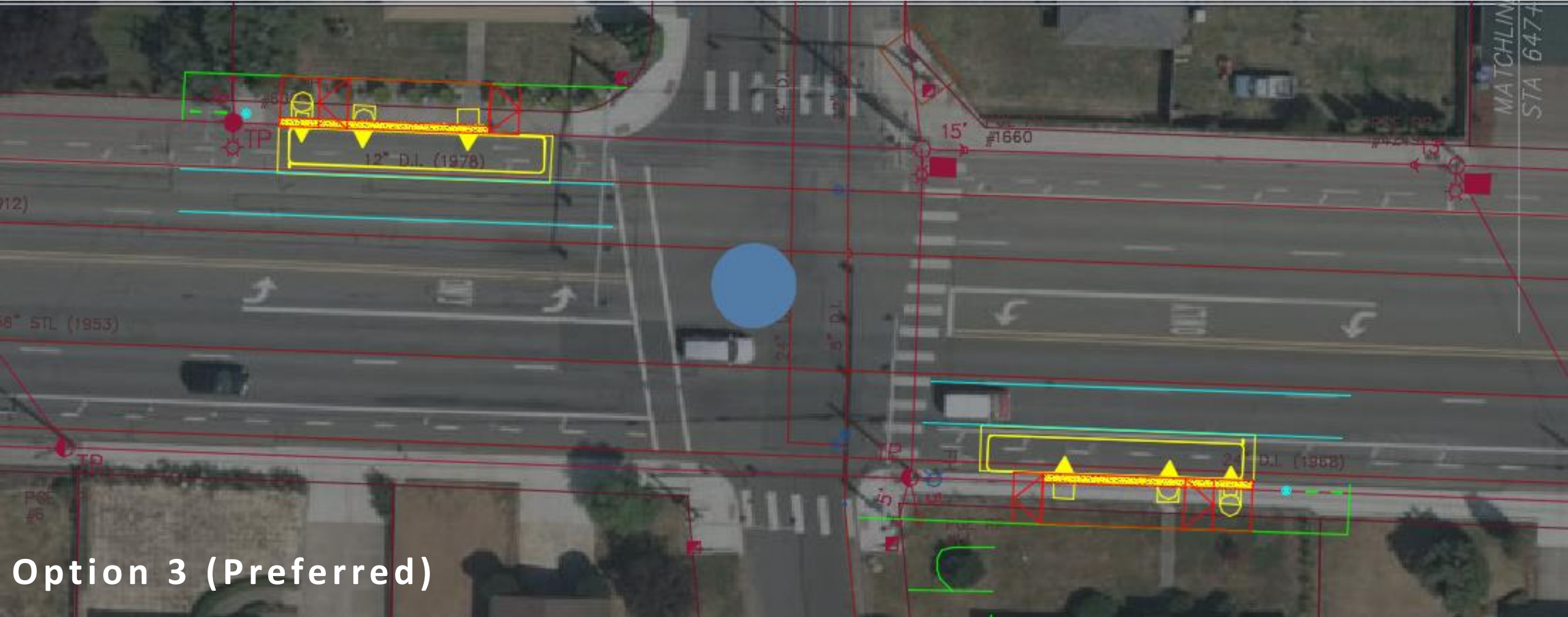
Each option impacted driveways,
front lawns and circulation



Option 1

190th Ave Station EXPLORATION...

Impacts of preferred alternative still deemed too high by City of Gresham for the ridership at this location



Option 3 (Preferred)

190TH Station

DISCOVERED:

- Ridership is low

190th Ridership Data (Fall 2016)

Route #	Direction	Stop Location	Ons	Offs	Total	Monthly Lifts
4	E	SE Division & 190th	8	18	26	14
4	W	SE Division & 190th	15	6	21	11

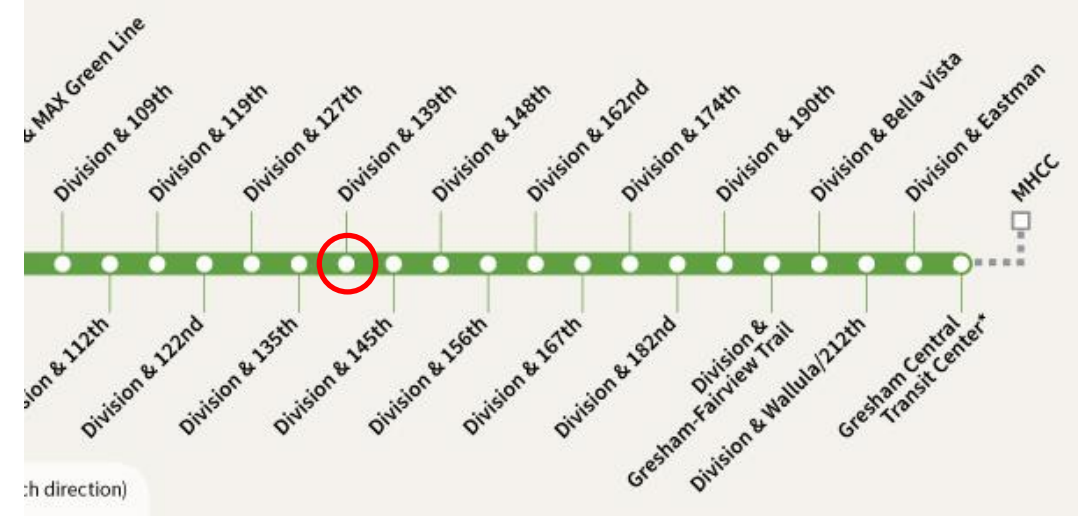
- Impacts to City of Gresham recent investments and single family homes not desirable

RECOMMENDATION: remove station

139TH Station

Why in project?

- General location was desirable for spacing/coverage more than ridership

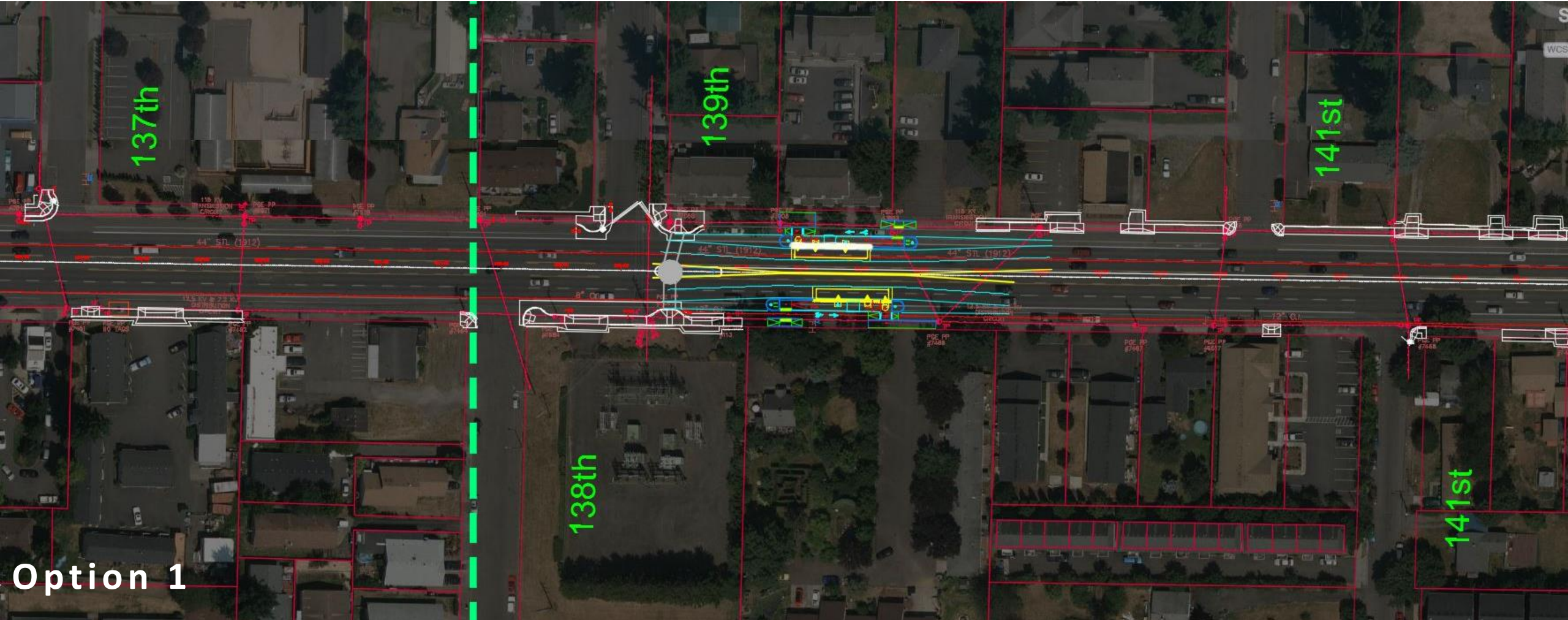


190th Ridership Data (Fall 2016)

Route #	Direction	Stop Location	Ons	Offs	Total	Monthly Lifts
4	E	SE Division & 139th	16	33	49	6
4	W	SE Division & 139th	69	18	87	11

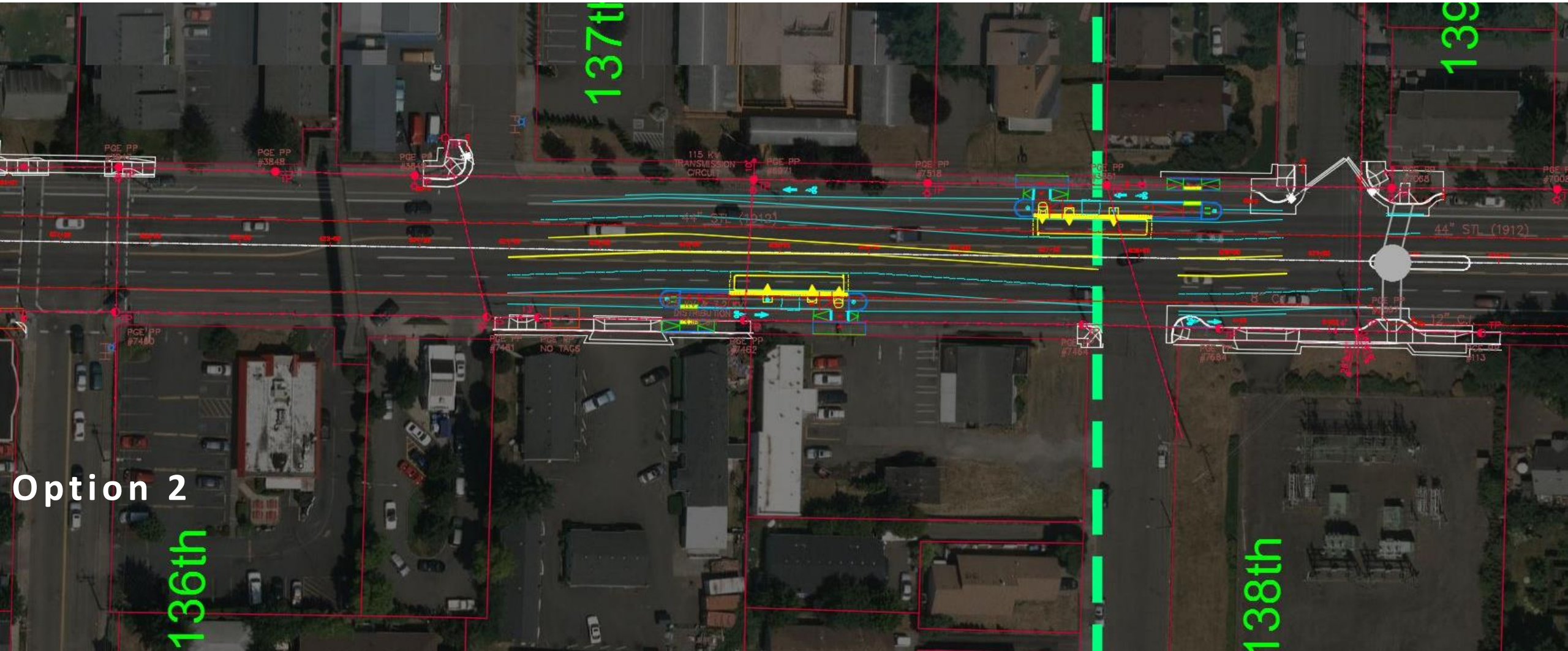
139th Ave Station EXPLORATION...

Attempted to place the station in coordination with EPAT improvements and minimal impacts, but this removed CTL and restricted left turn movements



139th Ave Station EXPLORATION...

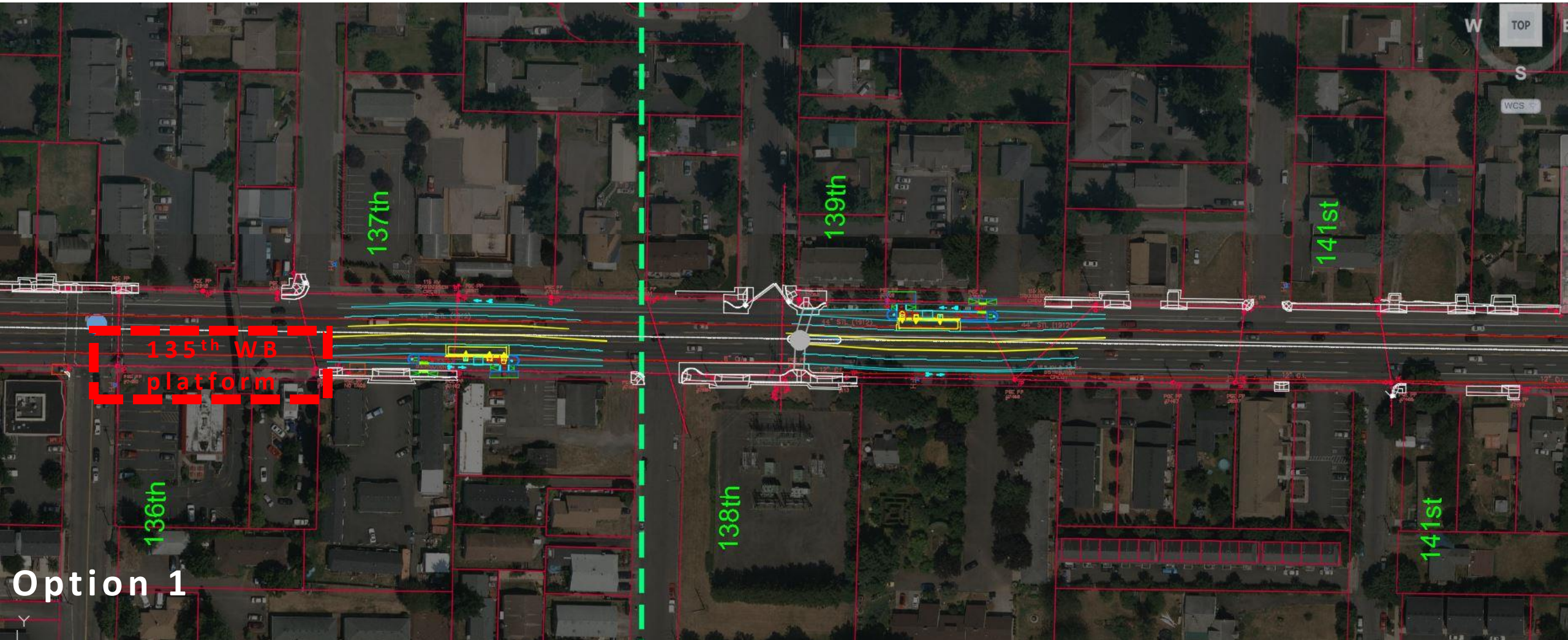
This option also removed the center turn lane, precluded certain movements and chicaned the travel lanes near the pedestrian crossing



Option 2

139th Ave Station EXPLORATION...

And this option started to slide the platforms so far to the west that it was right on top of the 135th station platform



Option 1

139TH Station

DISCOVERED:

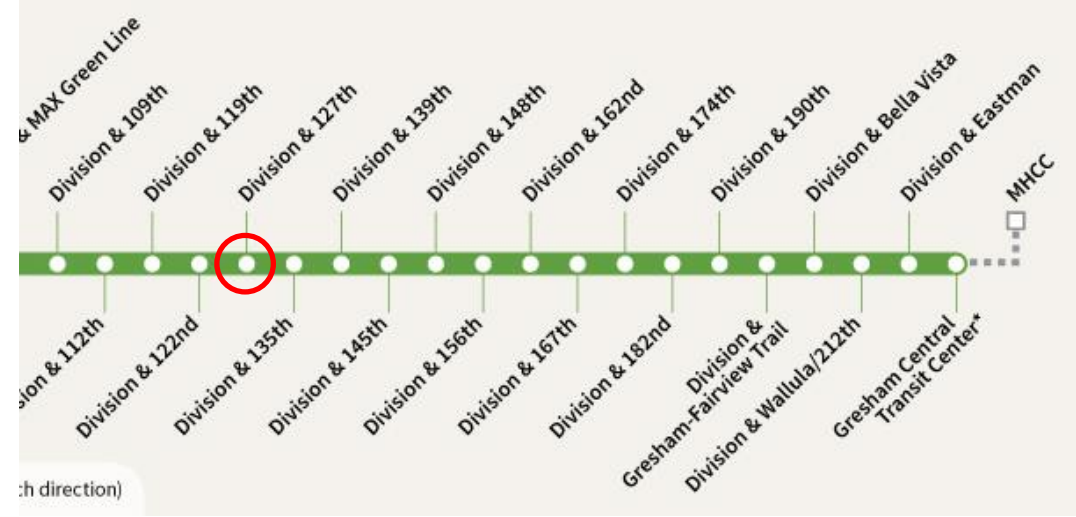
- Context and impacts required large sliding moves that put platforms too close to other station locations
- With 135th and 145th in direct proximity, the station density exceeds ridership in this reach

RECOMMENDATION: removal from project

127th Station

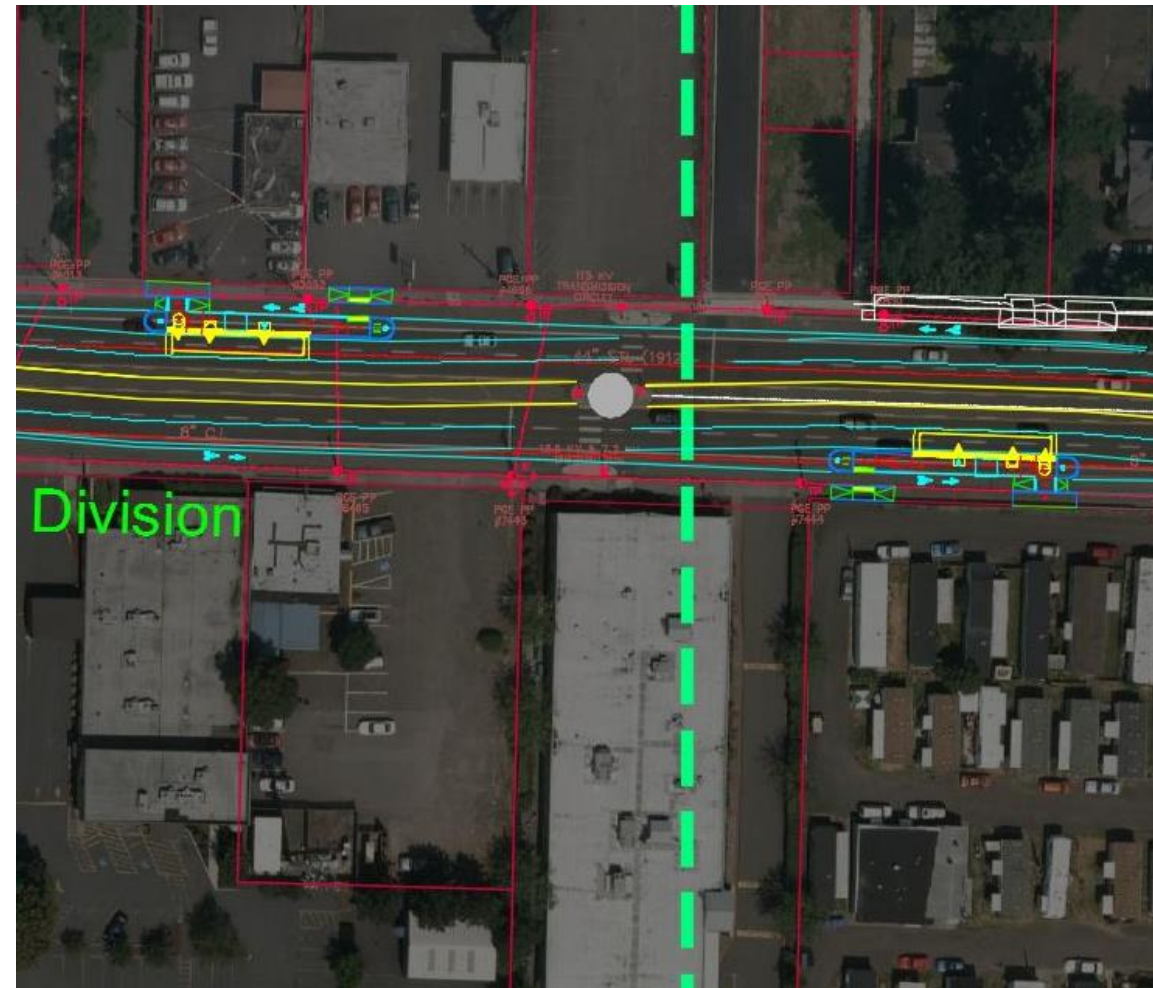
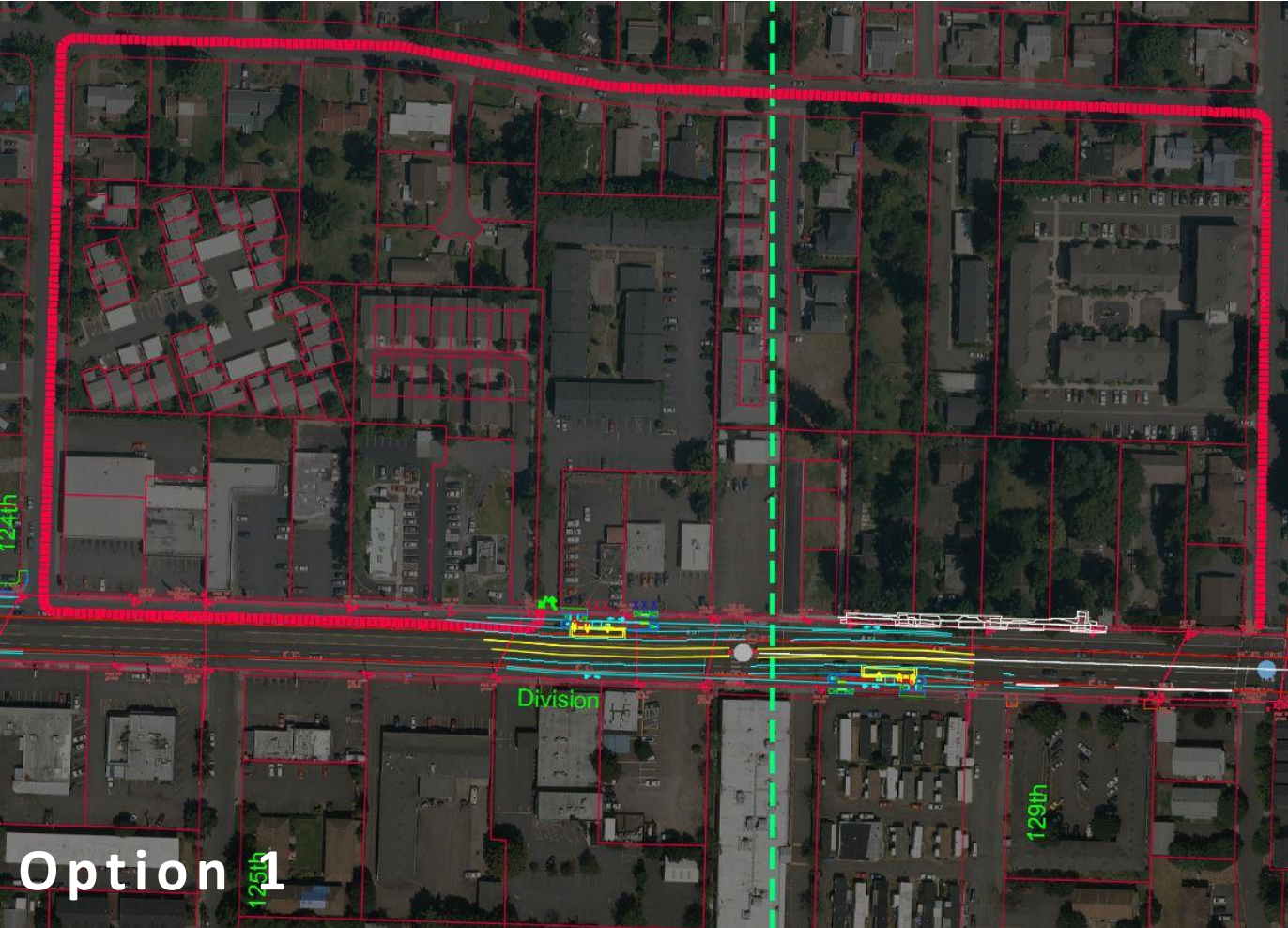
Why in project?

- No stop at 127th today – 125th and 130th only
- Stations originally proposed at 125th and 130th
- Recommendation for LPA to consolidate at 127th to avoid impacts



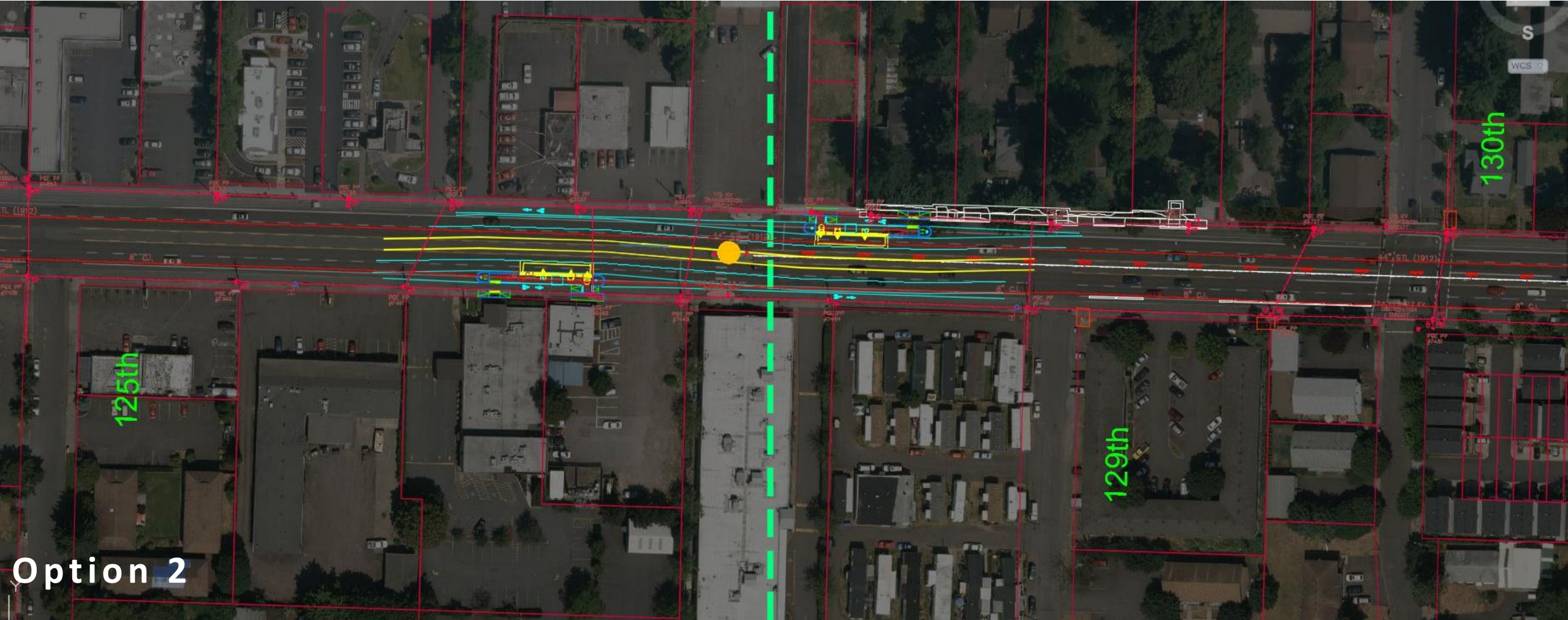
127th Ave Station EXPLORATION...

Initial option required extensive out of direction travel for a multi-family housing development and landlocked/removed access to a Midway business



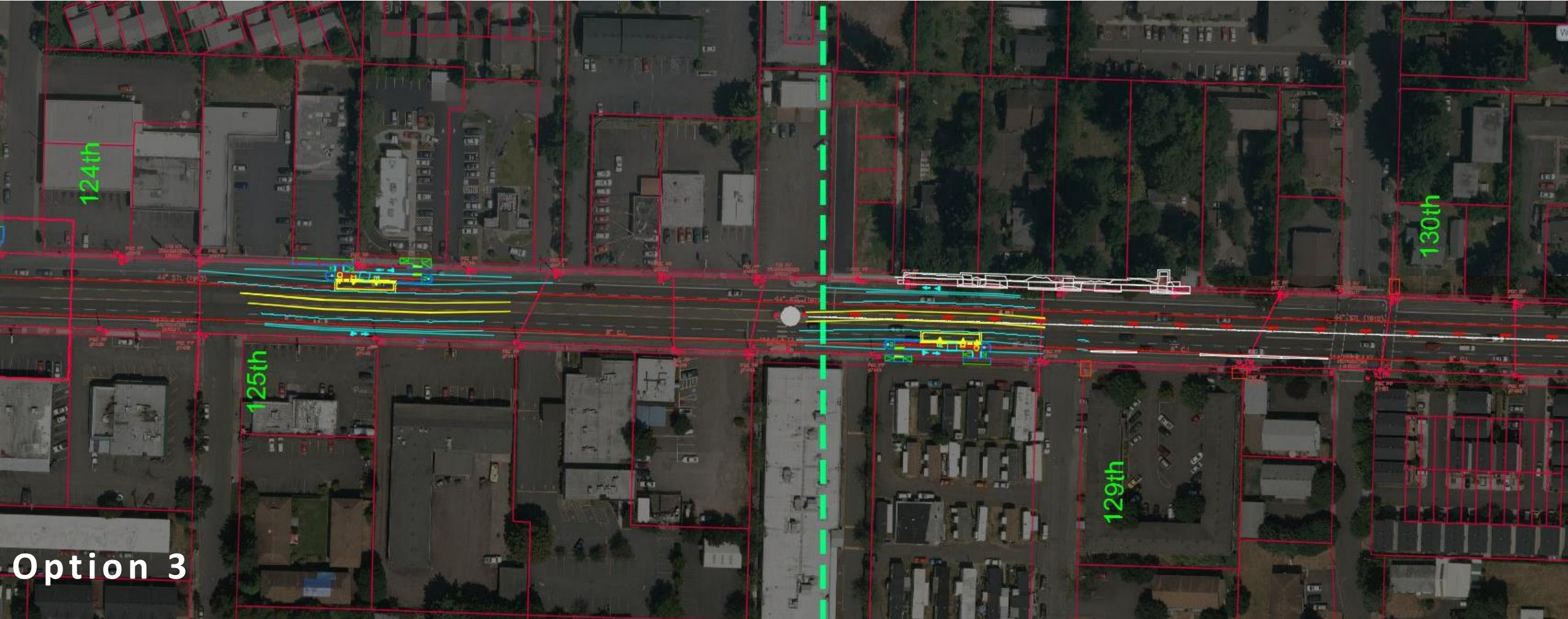
127th Ave Station EXPLORATION...

Option 2 preserved the pedestrian crossing, slid the WB platform and impacted new properties. EB platform shifted closer to 122nd



127th Ave Station EXPLORATION...

Option 3 avoided the residential impacts in the WB direction and slid the platform even further west and still impacted business circulation



127th Station

DISCOVERED:

- Context at 127th required sliding stations away from the “address”
- Slid too close to 122nd WB and slid too far away from each other
- Higher ridership at 130th due to proximity to David Douglas HS – largest high school in Oregon
- Safer pedestrian crossing and multi-modal interaction at 130th



130th Ridership Data (Fall 2016)

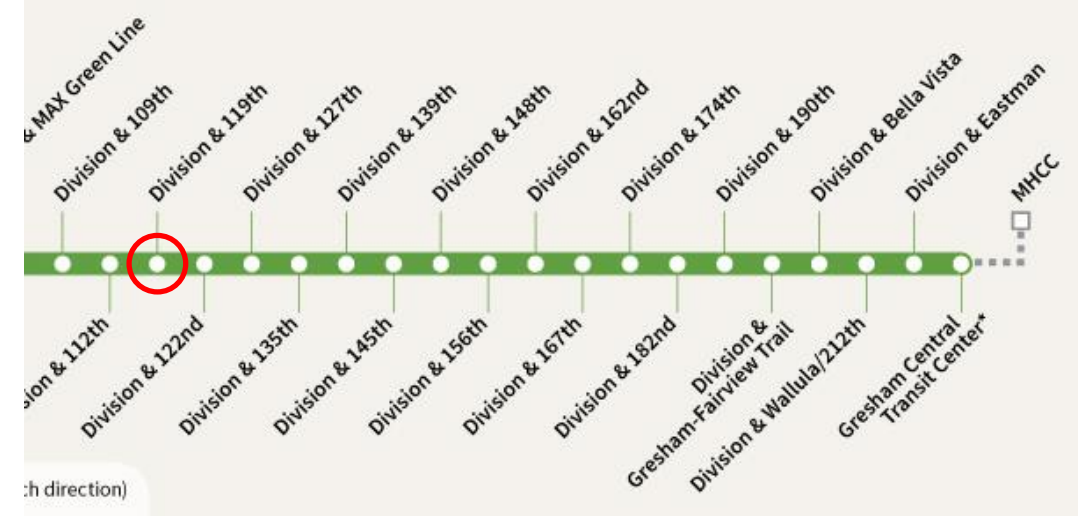
Route #	Direction	Stop Location	Ons	Offs	Total	Monthly Lifts
4	E	SE Division & 130th	48	106	154	25
4	W	SE Division & 130th	128	49	177	28

RECOMMENDATION: move 127th station to 130th

119TH Station

Why in project?

- Appears to have decent ridership

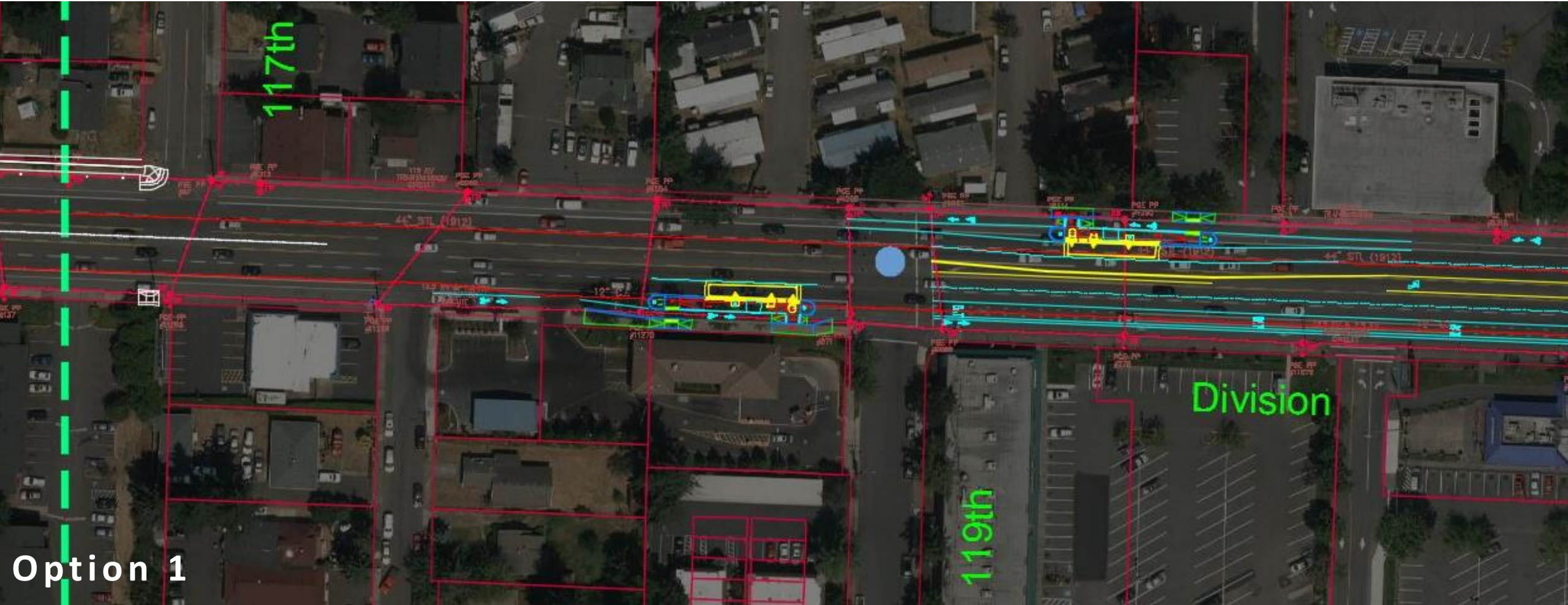


119th Ridership Data (Fall 2016)

Route #	Direction	Stop Location	Ons	Offs	Total	Monthly Lifts
4	E	SE Division & 119th	34	136	170	65
4	W	SE Division & 119th	56	18	74	30

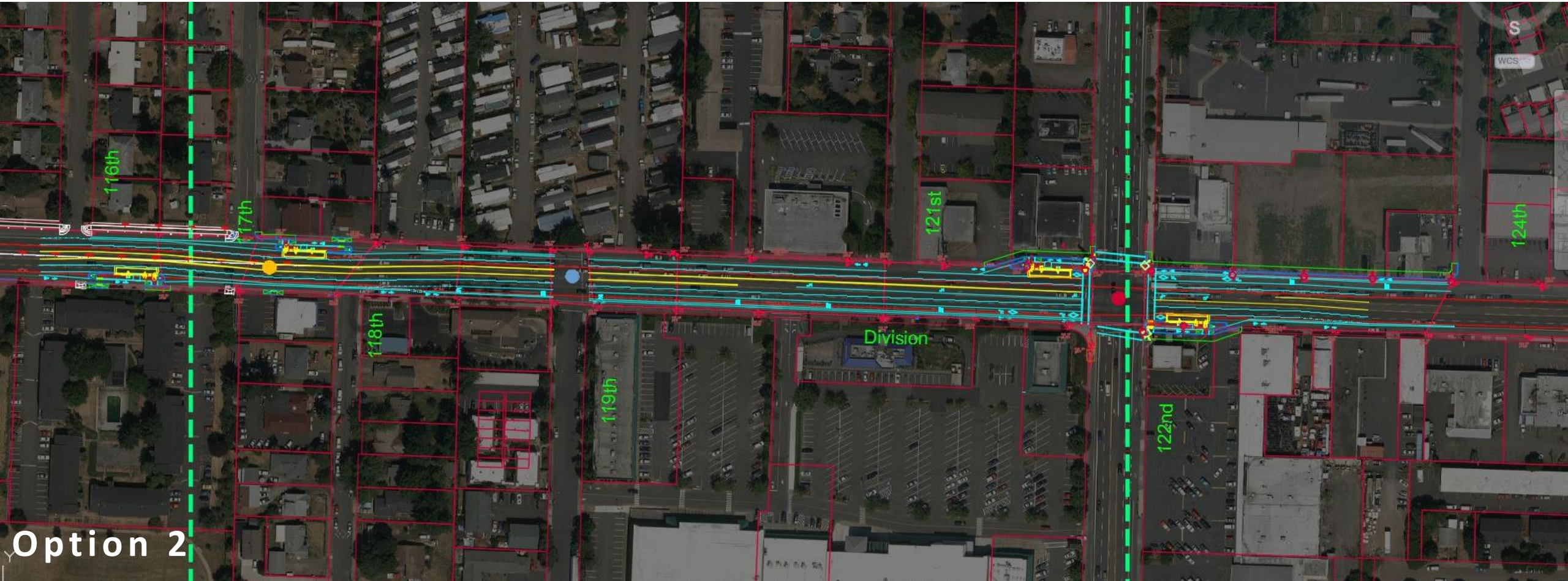
119th Ave Station EXPLORATION...

Option 1 eliminated left turns WB to SB onto 119th and would limit access to the retail center.
Placement of EB platform fouls TSP at 122nd signal.



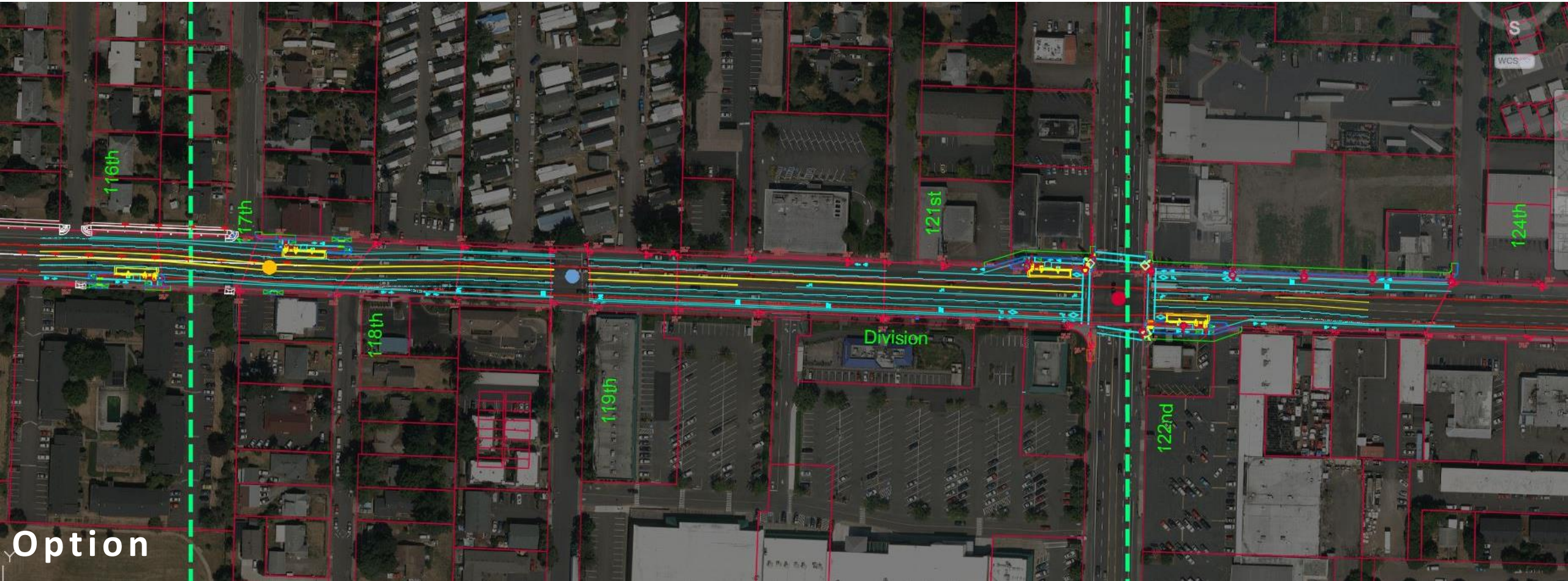
119th Ave Station EXPLORATION...

Sliding station pair away from 122nd to a location with acceptable placement and impacts, puts the station very close to the requested station at 112th.



119th Ave Station EXPLORATION...

Option 3 slides the station further and further from the “address” and still has impacts to business access on the north side



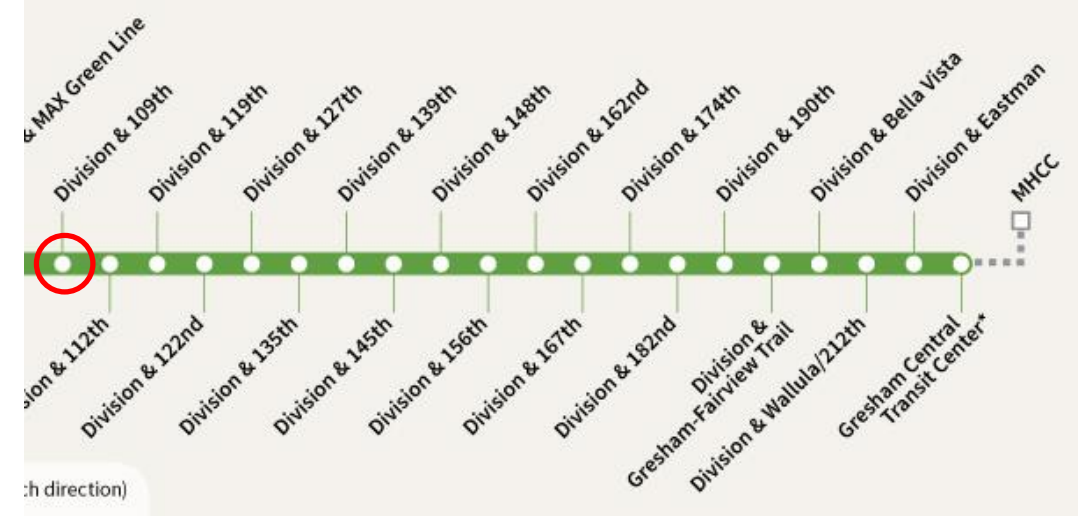
DISCOVERED:

- 122nd has the worst congestion and lowest transit reliability on the corridor.
- Station placement in EB direction at 119th, fouls the TSP on the approach to 122nd Ave
- Appearance of ridership, is the ghost of bad performance at 122nd today

RECOMMENDATION: removal from project

109th Station

Why in project?



- Request from a steering committee member for station here
- Anticipate an opportunity for future land use transformation
- Filled a void in the spacing from 101st to 116th (112th added too)

109th Ridership Data (Fall 2016)

Route #	Direction	Stop Location	Ons	Offs	Total	Monthly Lifts
4	E	SE Division & 109th	11	26	37	3
4	W	SE Division & 110th	14	5	19	1

109th Ave Station EXPLORATION...

Option 1 eliminated left turns into the quarry and numerous other businesses along south side



Option 1

109th Ave Station EXPLORATION...

Option 2 slid the platform further to the west and started to crowd the station at 101st and miss the relationship to the future developments



Option 2

109TH Station

DISCOVERED:

- In order to avoid significant impacts, slid the station around to the point of proximity with 101st or 112th
- Ridership didn't warrant the circulation and access impacts to businesses at 109th

RECOMMENDATION: removal from project

- NEXT STEPS

- Presenting to the CAC tonight
- Open House on June 29 at PCC's Southeast Campus in Division
- Next Policy and Budget Meeting in three months, or as needed
- Meet with CAC on monthly basis
- Meeting with CAT and BAC in coming months to discuss vehicle and platform design
- Additional comments welcome through Open House forums (in-person/on-line)

1. NW Irving St/5th & Hoyt
2. NW 6th & Flanders/5th & Davis
3. SW 6th & Washington/5th & Stark
4. SW 5th/6th & Salmon
5. SW 6th& Jefferson/5th& Columbia
6. 5th & Hall
7. SW Lincoln Street
8. South Waterfront/SW Moody
9. OMSI/Water
10. Division & 12th
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23. Division & Max Green Line
24. Division & 101st
25. Division & 112th
26. Division & 122nd
27. Division & 130th
28. Division & 135th
29. Division & 145th
30. Division & 148th
31. Division & 156th
32. Division & 162nd
33. Division & 168th
34. Division & 174th
35. Division & 182nd
36. Division & Eastwood
37. Division & Angeline
38. Division & Civic Drive
39. Division & Eastman Pkwy.
40. Gresham Transit Center
41. NE 8th & Cleveland Station



Recommended Station List

design informs placement

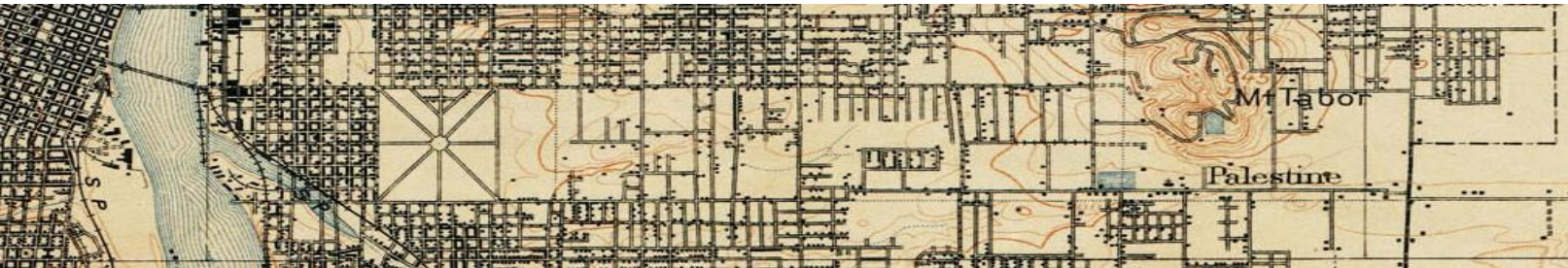
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- **41 Stations with 82 Platforms** – 1/3 mile approximate station spacing
- **15% average improvement** in travel times over existing service
- Utilization of existing bus stop infrastructure at OMSI, South Waterfront, SW Lincoln St. and the Transit Mall

DIVISION

TRANSIT PROJECT



Policy & Budget Committee Meeting

15 June 17