

July 21  
2021

CAP Report  
Appendix F //

Conceptual  
Development  
Scenarios  
Memorandum

Task 2.2.1

ODOT EA:  
PE002591000J71

ODOT // I-5 Rose Quarter Improvement Project

# Appendix F //

## CONCEPTUAL DEVELOPMENT SCENARIOS MEMORANDUM

**INDEPENDENT  
COVER ASSESSMENT**

**I-5 ROSE QUARTER  
IMPROVEMENT PROJECT**

# Conceptual Development Scenarios Memorandum

Tasks: 2.2.1, 2.2.3

ODOT EA: PE002591000J71

July 21, 2021

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# Task 2.2.1: Preliminary Development Scenarios

## Memorandum

### Creating the Scenarios

The Independent Cover Assessment (ICA) team's preliminary development scenarios are a means to understand which may be candidates to be considered for further review. They have differing configurations of elements which may be included in the Executive Steering Committee's (ESC) recommendations to the Oregon Transportation Commission to increase the Rose Quarter Improvement Project's (RQIP) potential to provide restorative justice for the Black Historic Albina Community. They describe where there may be opportunities to move streets and highway ramps to create larger, more flexible, and more valuable development parcels for community ownership and control, as well as where to locate those parcels so they can best support the uses the community prioritized in Work Session 1. Based on preliminary scoring of these candidate scenarios for highway covers in the Development Assessment Framework (DAF),<sup>2</sup> at this location within the Central City, the greatest potential for restorative justice can be achieved when the development scenario:

1. Maximizes land area created/designated for community control and use.
2. Creates street edges that foster active street fronts and ground level uses.
3. Creates a more pedestrian and bike-friendly street network.
4. Reduces exposure to air and noise pollution.

Critical to the success of achieving this outcome will be the formation of long-term agreements to support a partnership between the Black Historic Albina Community and other stakeholders to sustain maximum community benefit through real estate value and facilities for community programs serving the Black community after construction of the highway covers is complete. Also critical to the success of post-construction development are the subsequent employment opportunities for BIPOC communities during the construction of the covers.

The ICA team analyzed elements that were supportive of the kind of restorative neighborhood that could sustain the activities the community valued. One conclusion is that a restorative neighborhood with an active center including desired business clusters and residences along pedestrian-friendly streets perform better than those along high-traffic, highway-serving streets. The ICA team looked for opportunities to direct freeway traffic away from highway cover areas that could best support ground level, community-serving activities.

The following is a summary of the ICA team's first five preliminary development scenarios. The elements of each scenario can be considered in the formation of a recommendation to the Oregon Transportation Commission. Concept 1 is the most closely aligned with the existing Rose Quarter Improvement Project design. It meets criteria set in the Environmental Assessment, Finding of No Significant Impact (FONSI) and approximates ODOT's 20% Design.<sup>1</sup> Concepts 4 and 5 make more significant changes to streets, highway ramps, and the configuration and size of the highway covers, with Concept 4 providing the greatest amount of outdoor community gathering space for programming and recreation, and Concept 5 providing the greatest amount of potential development area.

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<sup>1</sup> ODOT's 20% Design is the update of the I-5 Rose Quarter Improvement Project design after the Environmental Assessment. The 20% Design includes a single, continuous highway cover with the ability to support 2-4 story buildings.

<sup>2</sup> I-5 Rose Quarter Independent Cover Assessment

The difference in the configuration of the preliminary development scenarios is the location of ramp terminals, classifications of streets, the amount of developable land on the highway covers and on land within the project area. For this analysis, the following were held constant across all preliminary development scenarios.

1. Zoning height and density regulations.
2. Typical building typologies supporting restorative programming.
3. Open spaces conducive to outdoor activities and uses.
4. The efficiency of building on covers and off covers to maximize value to the community.

Please see [Task 2.2.3: Conceptual Design Assumptions](#), which begins on the following page, for design assumptions underlying the preliminary development scenarios.

Each conceptual development scenario is described on the following pages with a plan and summary. Assessments of these scenarios using the Development Assessment Framework are provided in a separate memo, the Development Assessment Framework Testing Results Memorandum.<sup>2</sup>

The Harriet Tubman Middle School and Lillis Albina Park were not included in the conceptual development scenarios as this area is north of the highway covers. Recommendations for managing air quality for the highway covers are included in [Task 2.2.3: Conceptual Design Assumptions](#). Finally, contract language describing this task is listed in [Appendix A: Development Scenarios Contract Tasks](#).

## Next Steps:

Receive community feedback about the six development scenarios in Work Session 2:

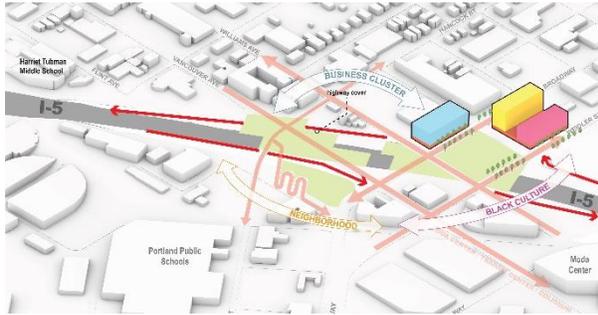
- Identify community priorities and trade-offs.
- Determine two to three development scenarios to develop further for Work Session 3.
- Develop conceptual strategies for air quality improvement at Harriet Tubman Middle School that can be applied to any development scenario.

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<sup>2</sup> "DRAFT Development Assessment Framework Testing Results Memorandum." Independent Cover Assessment Team. 16 April 2021.

# Overview of Preliminary Development Scenarios

## EA Base Case



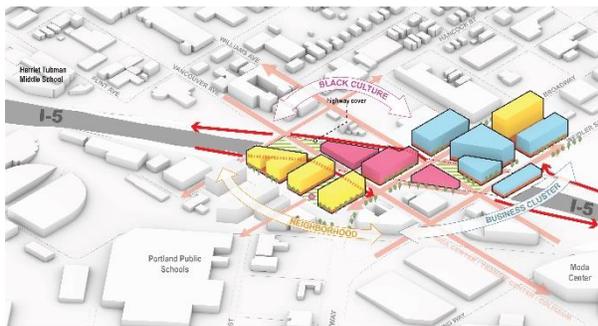
## Benefits

1. Provides two locations for development on high-visibility streets.
2. Improves pedestrian and bike connectivity on the north (via connecting Hancock) and south (via the Clackamas ped/bike bridge) edges of the project area.

## Challenges

1. Creates a relatively low amount of land available for community control/use.
2. Park expected to be affected by air pollution, which limits its usefulness.
3. Focuses traffic on a few streets, making them larger, with more traffic, less opportunity for street parking, and larger and more complicated intersections for bikes, pedestrians, and vehicles.

## Concept 1 Flint / Broadway Boulevards



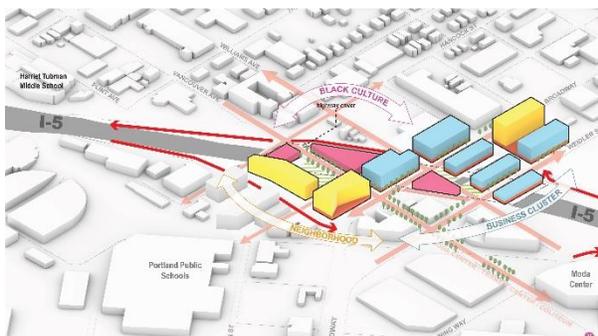
## Benefits

1. Creates a moderate amount of land available for community control/use.
2. Prioritizes creating active streets along Broadway and Flint.

## Challenges

1. Several building sites are adjacent to I-5 or a highway ramp and are expected to be affected by traffic noise and air pollution.
2. Counterflow section between Williams-Vancouver and Broadway-Weidler is not intuitive for pedestrians, bicyclists, or motorists, especially for first-time users.

## Concept 2 Vancouver as Main Street



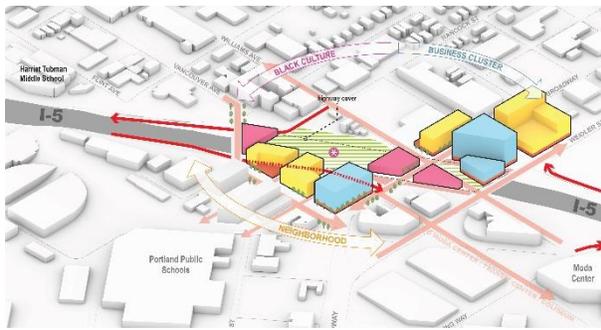
## Benefits

1. Creates a moderate amount of land available for community control/use.
2. Prioritizes creating active streets along Broadway and Vancouver with a strong pedestrian connection to the Moda Center, Transit Center, and Veterans Memorial Coliseum.
3. Small, thin buildings on Broadway and Weidler are expected to be inexpensive to build and could provide small, affordable business space.

## Challenges

1. Several building sites are adjacent to I-5 or a highway ramp and are expected to be affected by traffic noise and air pollution.
2. The northbound on-ramp location prevents sidewalk construction on the west side of Williams between Broadway and Hancock.

### Concept 3 Flint as Main Street



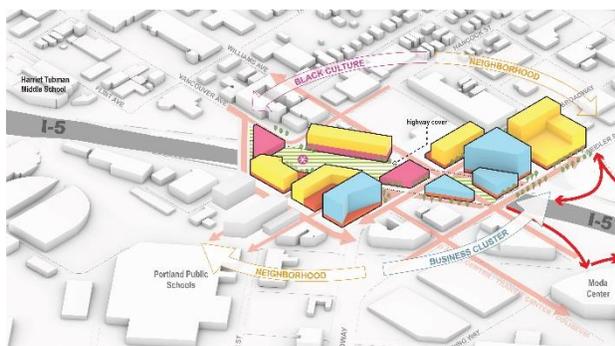
### Benefits

1. Creates a moderate amount of land available for community control/use and a civic space.
2. Prioritizes creating active streets along Broadway and Flint.

### Challenges

1. Several building sites as well as the civic space are adjacent to I-5 or a highway ramp and are expected to be affected by traffic noise and air pollution.
2. Hancock is disconnected across the cover for this scenario and does not allow pedestrians and bicyclists to bypass the high-stress Broadway - Weidler - Vancouver - Williams "box."

### Concept 4 Cultural Center on the Cover



### Benefits

1. Creates a relatively high amount of land available for community control/use and a large civic space to support community events and recreation.
2. Prioritizes creating active streets throughout the cover area, improving the pedestrian environment, and supporting potential future businesses.
3. Relocating highway ramps to the south is expected to reduce exposure of cover to noise and pollution.

### Challenges

1. Less buildable area than shown in concept 5.
2. Ramp relocation impacts adjacent hotel property.

### Concept 5 Restore the Grid



### Benefits

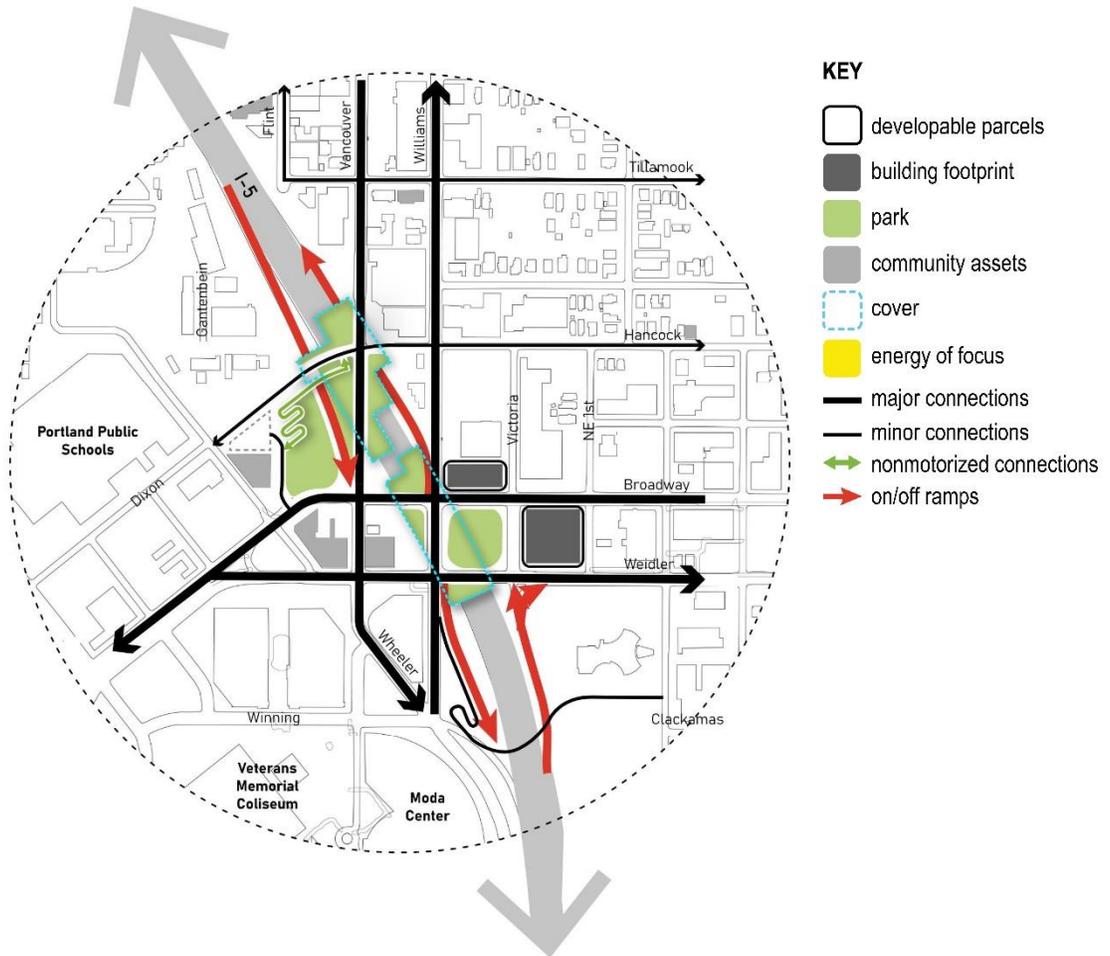
1. Creates a relatively high amount of land available for community control/use and a civic space.
2. Prioritizes creating active streets throughout the cover area, improving the pedestrian environment, and supporting potential future businesses.
3. Relocating highway ramps to the south makes a continuous cover, which is expected to reduce exposure to noise and pollution.

### Challenges

1. Smaller civic space relative to other scenarios limits its capacity to support all types and sizes of community events and recreation.
2. Ramp relocation impacts hotel property.

## Previous Design

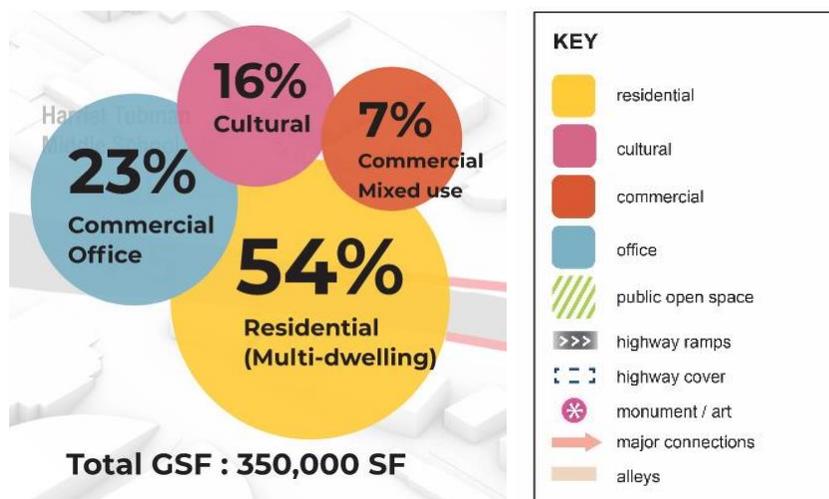
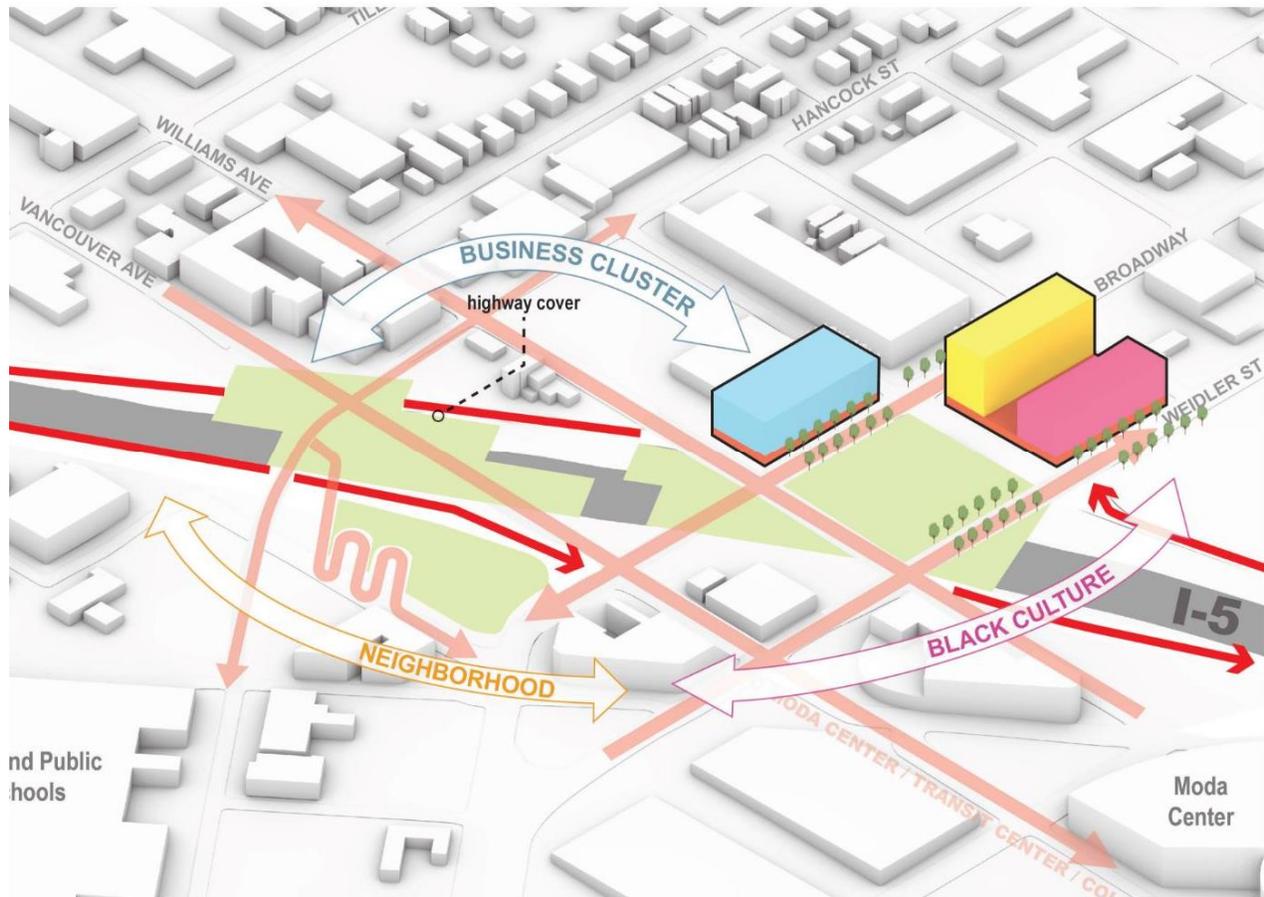
# 0. Environmental Assessment (EA) / Base Case



**The Base Case is the configuration studied in the Environmental Assessment.** An overview of this concept's performance is included on this page, followed by an assessment of the Base Case's ability to support ESC Values and Outcomes with community values.

Note that after the Base Case design was completed ODOT developed a 20% Design which had one continuous highway cover that could support 2-4 story buildings. This design update scores better on the DAF than the Base Case shown here and much of ODOT's 20% Design is mirrored in the ICA's Concept Scenario 1.

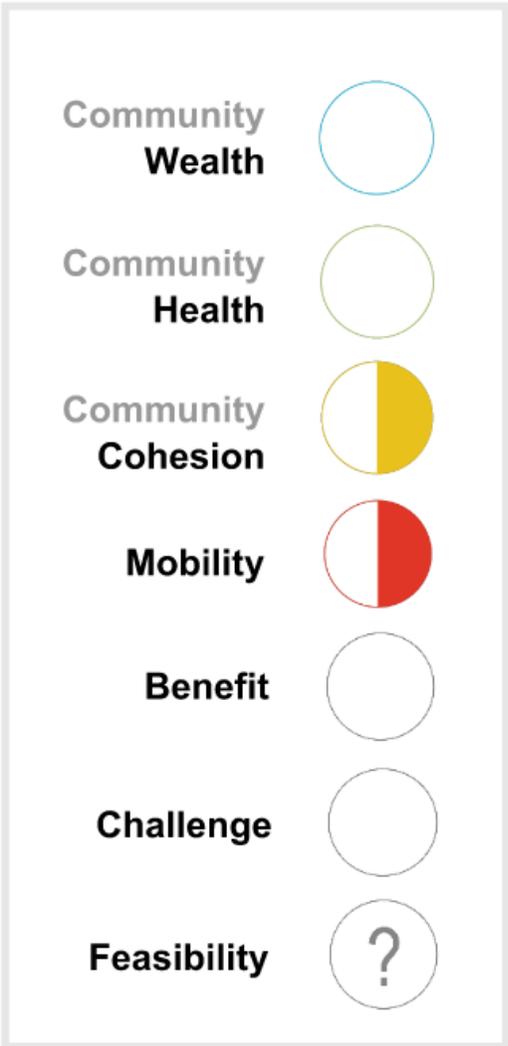
# Environmental Assessment / Base Case, Connecting Green Spaces Program



# Environmental Assessment / Base Case, Connecting Green Spaces

Create a park and planted areas on the highway covers, improving the experience of crossing I-5 and reducing exposure of nearby properties to noise and air pollution. The Base Case is provided for comparison and as a starting point for evaluating the other scenarios.

## DAF Overview<sup>3</sup>



## Benefits, Challenges and Feasibility

### Benefits:

1. Provides two locations for development on high-visibility streets.
2. Improves pedestrian and bike connectivity on the north (via connecting Hancock) and south (via the Clackamas ped/bike bridge) edges of the project area.

### Challenges:

1. Creates a relatively low amount of land available for community control/use.
2. Park expected to be affected by air pollution, which limits its usefulness.
3. Focuses traffic on a few streets, making them larger, with more traffic, less opportunity for street parking, and larger and more complicated intersections for bikes, pedestrians, and vehicles.

### Regulatory/Political Feasibility:

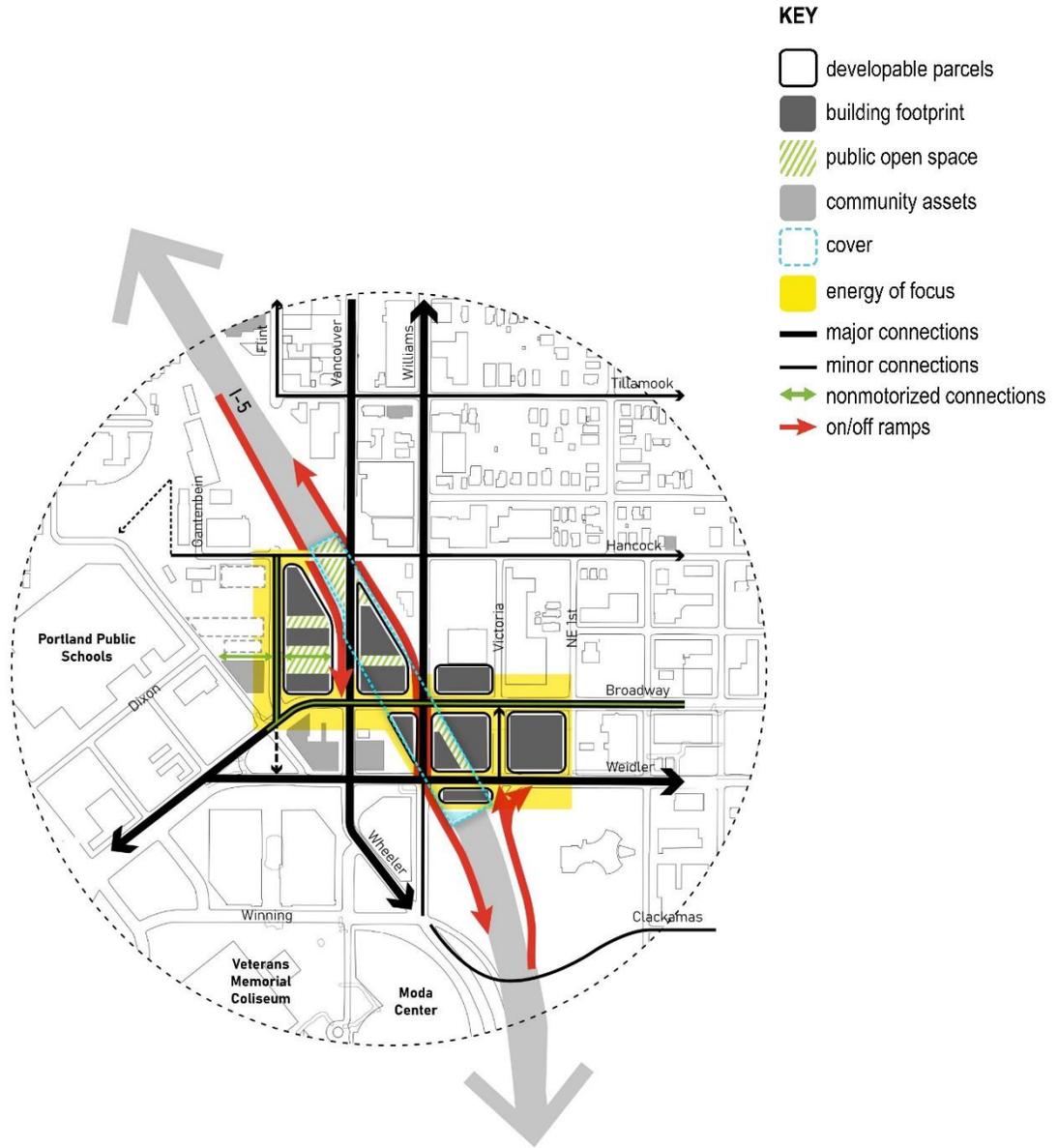
**Unknown:**<sup>4</sup> The project is required to comply with a number of City of Portland plans and policies through the City’s Design Review process, (for the Dixon Hancock Connection, development planning, coordination with Albina Vision Trust (AVT) and their development partner, Edlen & Co., and civic open space design) which are unlikely to be approved without additional coordination and consensus-building.

<sup>3</sup> “DRAFT Development Assessment Framework Testing Results Memorandum.” Independent Cover Assessment Team. 16 April 2021.

<sup>4</sup> Feasibility is a combination of both technical and permitting feasibility. Technical feasibility was assessed at a high level for each conceptual development scenario and each scenario was assumed to be feasible. Work Session 2 will help determine which of these scenarios will be refined with more detailed technical vetting. Some aspects of the scenarios may change. Political and permitting feasibility of each conceptual scenario is unknown at this time. The City of Portland is the authority holding jurisdiction for policy compliance in the project area and when the City returns to the project, they can advise on permitting viability of each scenario.

Conceptual Development Scenarios

# 1. Flint / Broadway Boulevards



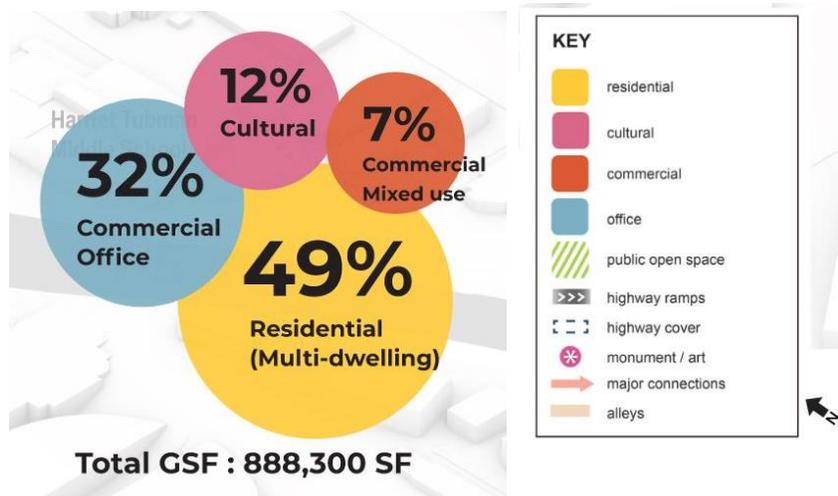
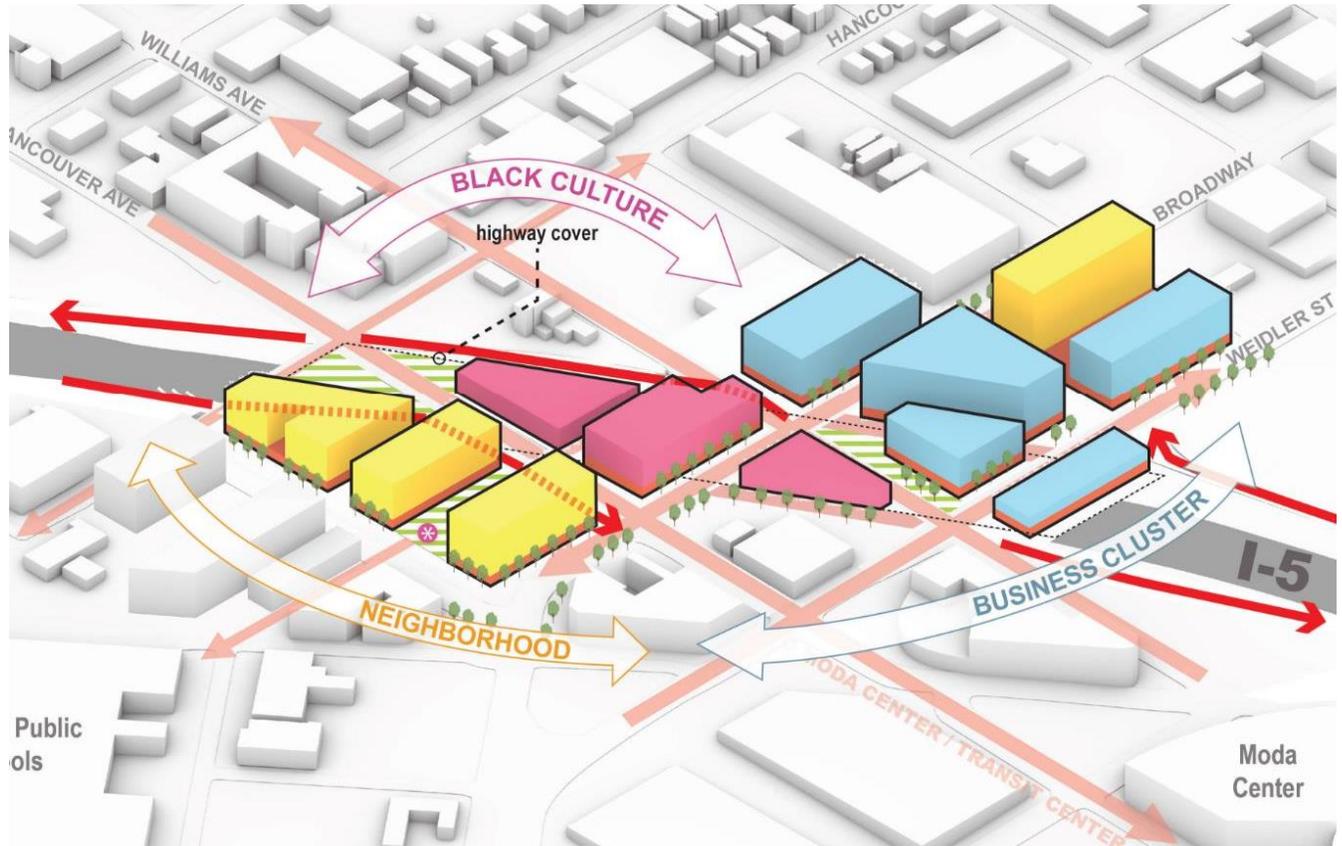
**KEY**

- developable parcels
- building footprint
- public open space
- community assets
- cover
- energy of focus
- major connections
- minor connections
- nonmotorized connections
- on/off ramps

## Concept 1 – Flint / Broadway Boulevards

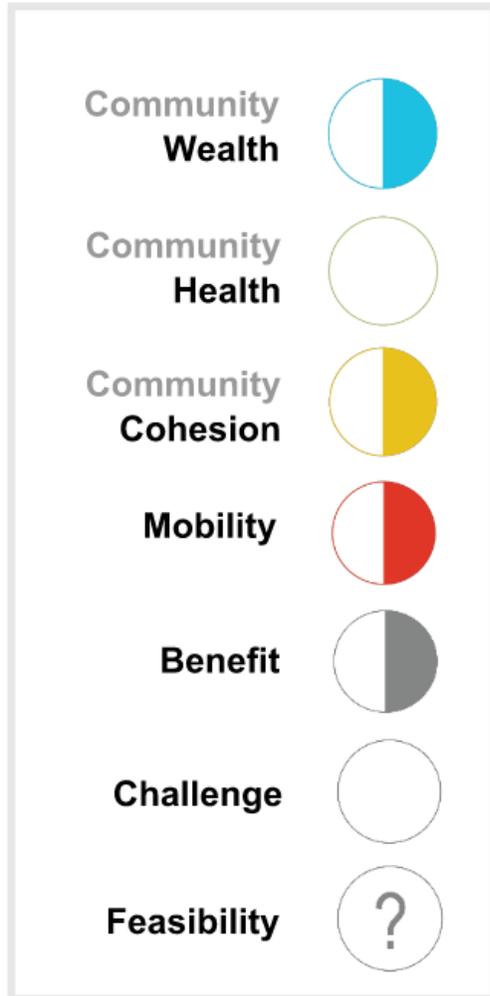
Maximize the potential of the existing highway cover design to serve the community.  
 Create larger sites for development and reinforce east/west I-5 crossings.

# Concept 1 – Flint / Broadway Boulevards Program



## Concept 1 – Flint / Broadway Boulevards

### DAF Overview<sup>5</sup>



### Benefits, Challenges, and Feasibility

#### Benefits:

1. Creates a moderate amount of land available for community control/use.
2. Prioritizes creating active streets along Broadway and Flint.

#### Challenges:

1. Several building sites are adjacent to I-5 or a highway ramp and are expected to be affected by traffic noise and air pollution.
2. Counterflow section between Williams-Vancouver and Broadway-Weidler is not intuitive for pedestrians, bicyclists, or motorists, especially for first-time users.

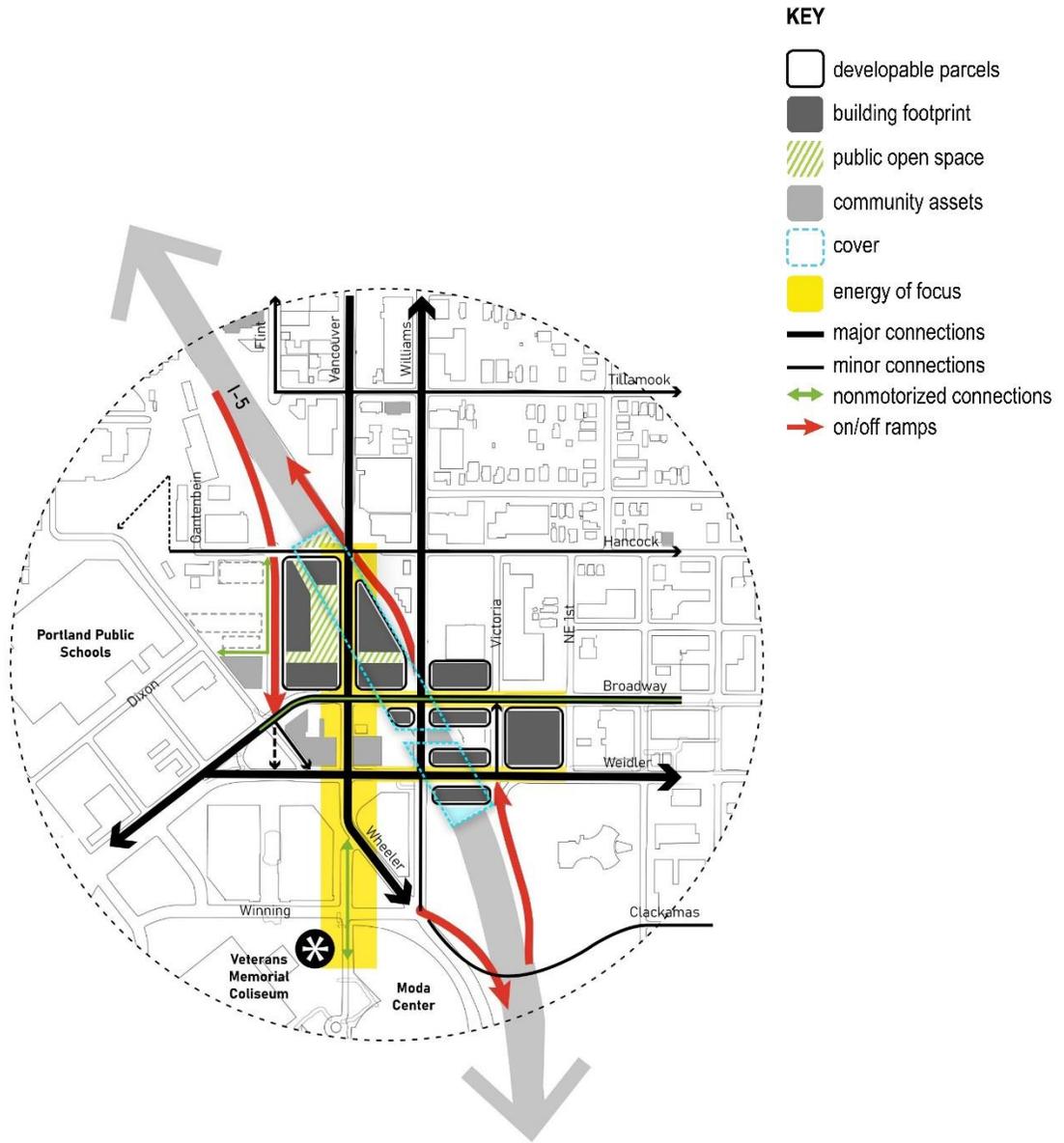
#### Regulatory/Political Feasibility:

**Unknown:**<sup>6</sup> The project is required to comply with a number of City of Portland plans and policies through the City's Design Review process, (for permitting bike and pedestrian access to Dixon via Flint and Hancock, development planning, coordination with AVT and their development partner, Edlen & Co., and civic open space design) which are unlikely to be approved without additional coordination and consensus-building.

<sup>5</sup> "DRAFT Development Assessment Framework Testing Results Memorandum." Independent Cover Assessment Team. 16 April 2021.

<sup>6</sup> Feasibility is a combination of both technical and permitting feasibility. Technical feasibility was assessed at a high level for each conceptual development scenario and each scenario was assumed to be feasible; Work Session 2 will help determine which of these scenarios will be refined with more detailed technical vetting. Some aspects of the scenarios may change. Political and permitting feasibility of each conceptual scenario is unknown at this time. The City of Portland is the authority holding jurisdiction for policy compliance in the project area and when the City returns to the project, they can advise on permitting viability of each scenario.

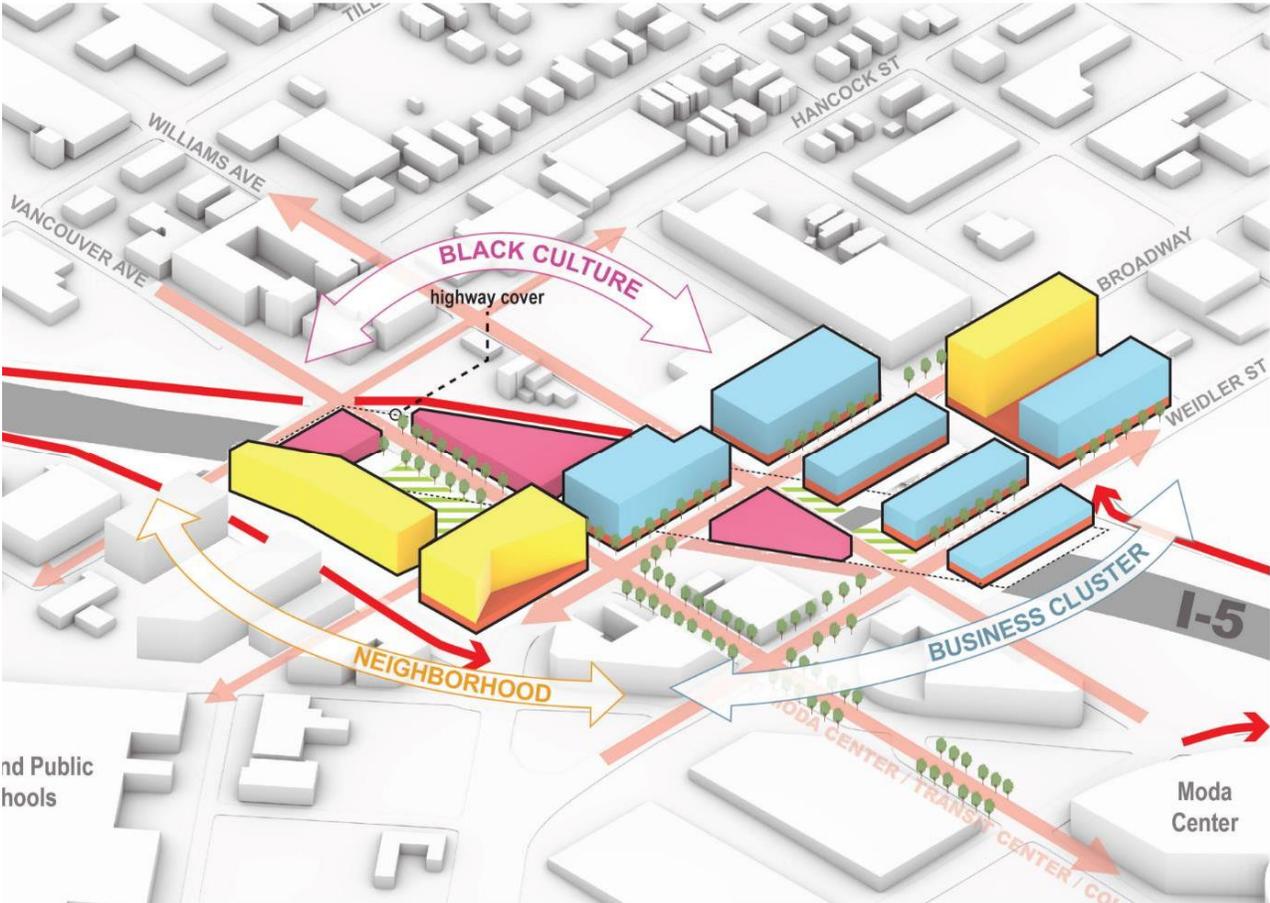
## 2. Vancouver as Main Street



### Concept 2 – Vancouver as Main Street

Relocate southbound off-ramp to improve opportunities for new development. Prioritize Vancouver as a signature street, connecting crowds converging at the Moda Center, Transit Center, and Veterans Memorial Coliseum to new community development on and around the highway cover.

# Concept 2 – Vancouver as Main Street Program



KEY	
<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span>	residential
<span style="display:inline-block; width:15px; height:15px; background-color:purple;"></span>	cultural
<span style="display:inline-block; width:15px; height:15px; background-color:orange;"></span>	commercial
<span style="display:inline-block; width:15px; height:15px; background-color:lightblue;"></span>	office
<span style="display:inline-block; width:15px; height:15px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, green 2px, green 4px);"></span>	public open space
<span style="display:inline-block; width:15px; height:15px; border: 1px dashed gray;"></span>	highway ramps
<span style="display:inline-block; width:15px; height:15px; border: 1px dashed gray;"></span>	highway cover
<span style="display:inline-block; width:15px; height:15px; border: 1px solid gray; border-radius: 50%; text-align: center; line-height: 15px;">✳</span>	monument / art
<span style="display:inline-block; width:15px; height:15px; border-bottom: 2px solid red;"></span>	major connections
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## Concept 2 – Vancouver as Main Street

### DAF Overview<sup>7</sup>



### Benefits, Challenges, and Feasibility

#### Benefits:

1. Creates a moderate amount of land available for community control/use.
2. Prioritizes creating active streets along Broadway and Vancouver with a strong pedestrian connection to the Moda Center, Transit Center, and Veterans Memorial Coliseum.
3. Small, thin buildings on Broadway and Weidler are expected to be inexpensive to build and could provide small, affordable business space.

#### Challenges:

1. Several building sites are adjacent to I-5 or a highway ramp and are expected to be affected by traffic noise and air pollution.
2. The northbound on-ramp location prevents sidewalk construction on the west side of Williams between Broadway and Hancock.

#### Regulatory/Political Feasibility:

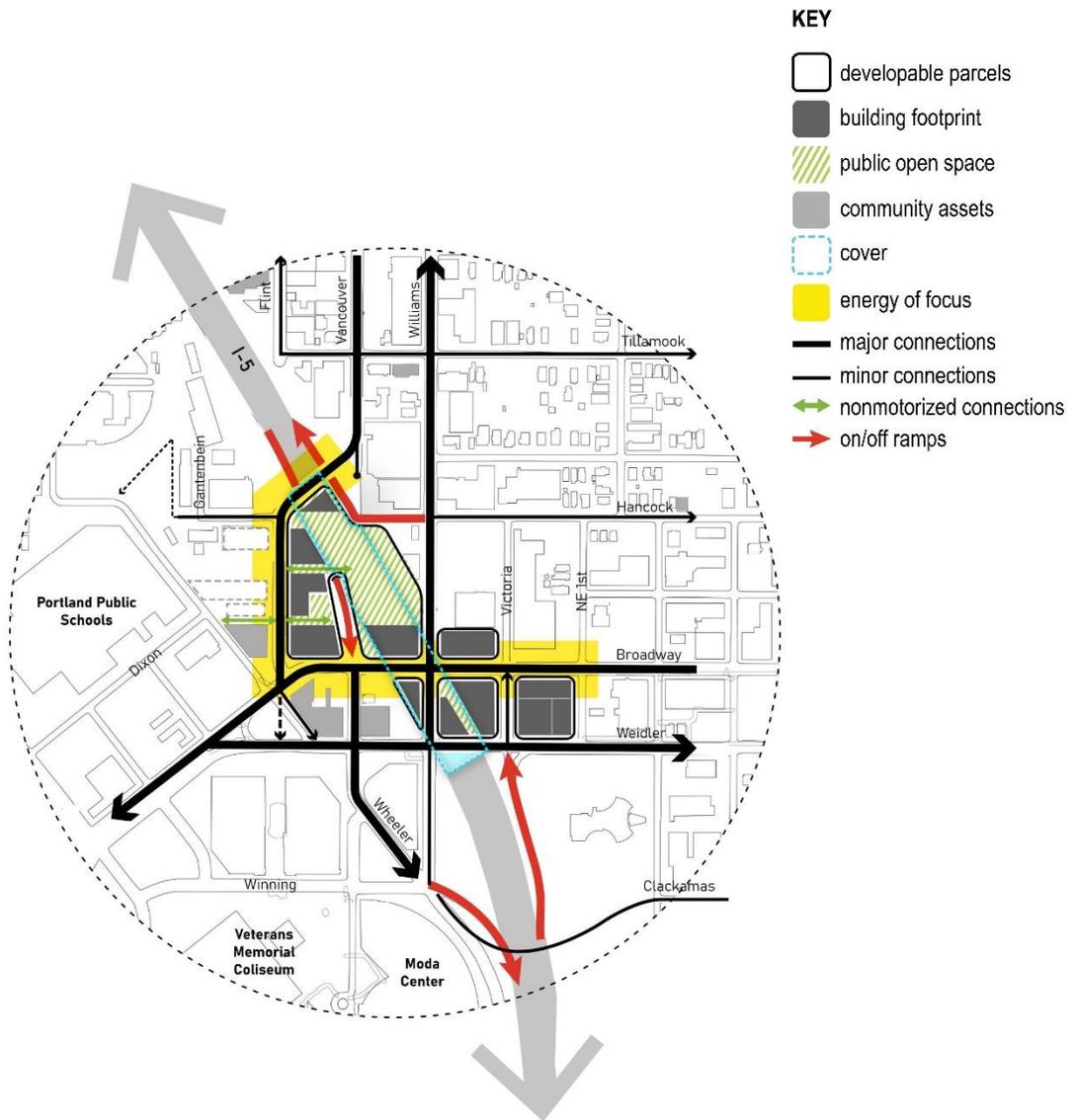
**Unknown:**<sup>8</sup> The project is required to comply with a number of City of Portland plans and policies through the City's Design Review process, (for permitting bike and pedestrian access to Dixon via Flint and Hancock, proposed buildings, coordination with AVT and their development partner, Edlen & Co., and permitting for moving the southbound off-ramp onto Flint, for example), which are unlikely to be approved without additional coordination and consensus-building.

<sup>7</sup> "DRAFT Development Assessment Framework Testing Results Memorandum." Independent Cover Assessment Team. 16 April 2021.

<sup>8</sup> Feasibility is a combination of both technical and permitting feasibility. Technical feasibility was assessed at a high level for each conceptual development scenario and each scenario was assumed to be feasible; Work Session 2 will help determine which of these scenarios will be refined with more detailed technical vetting. Some aspects of the scenarios may change. Political and permitting feasibility of each conceptual scenario is unknown at this time. The City of Portland is the authority holding jurisdiction for policy compliance in the project area and when the City returns to the project, they can advise on permitting viability of each scenario.

## Conceptual Development Scenarios

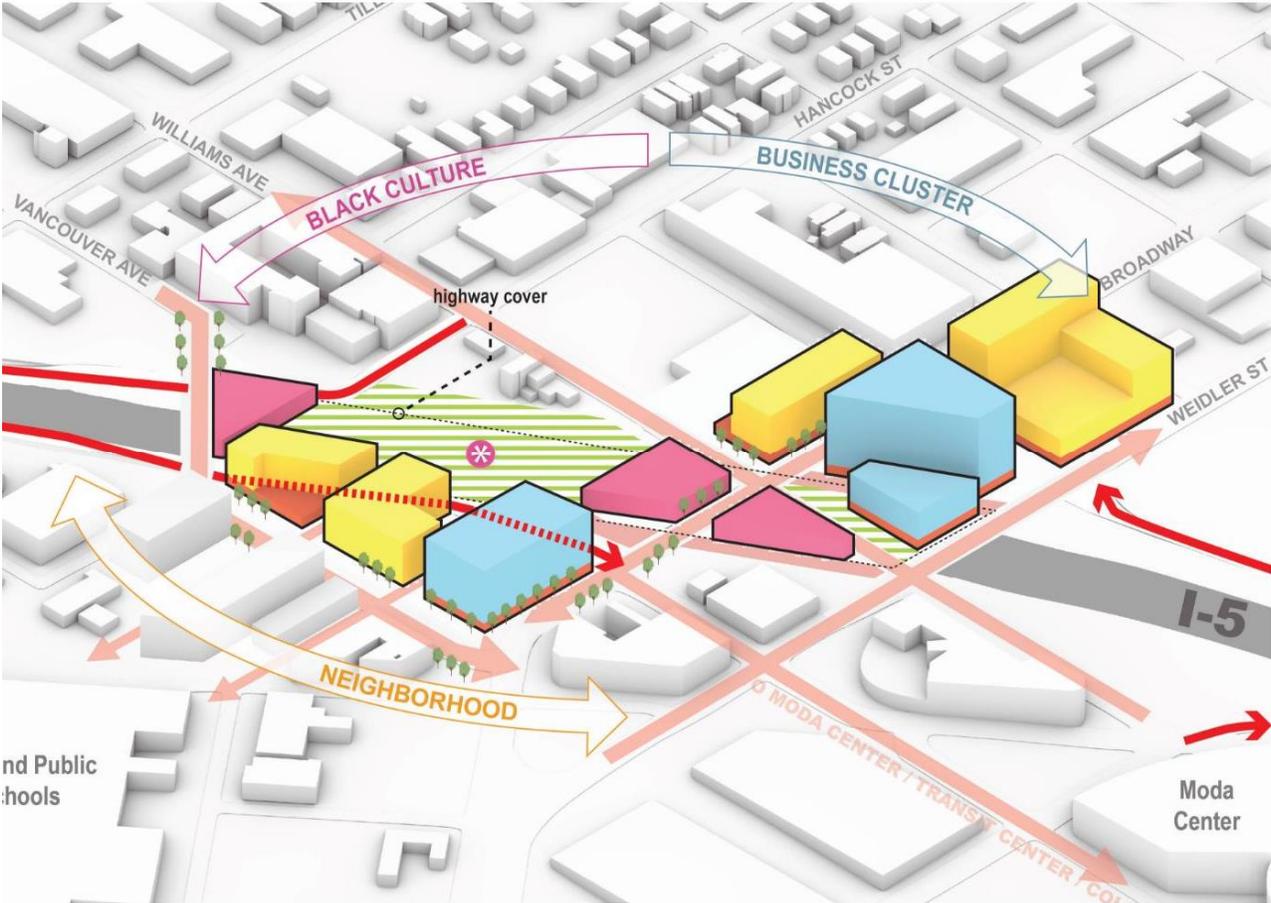
### 3. Flint as Main Street



#### Concept 3 – Flint as Main Street

Build a cover to improve connections and minimize the effect of highway ramps on new development sites. Support active streets along Flint and Broadway. Create a civic space at the north end of the cover.

### Concept 3 – Flint as Main Street Program



## Concept 3 – Flint as Main Street

### DAF Overview<sup>9</sup>



### Benefits, Challenges, and Feasibility

#### Benefits:

1. Creates a moderate amount of land available for community control/use and a civic space.
2. Prioritizes creating active streets along Broadway and Flint.

#### Challenges:

1. Several building sites as well as the civic space are adjacent to I-5 or a highway ramp and are expected to be affected by traffic noise and air pollution.
2. Hancock is disconnected across the cover in this scenario and does not allow pedestrians and bicyclists to bypass the high-stress Broadway - Weidler - Vancouver - Williams "box."

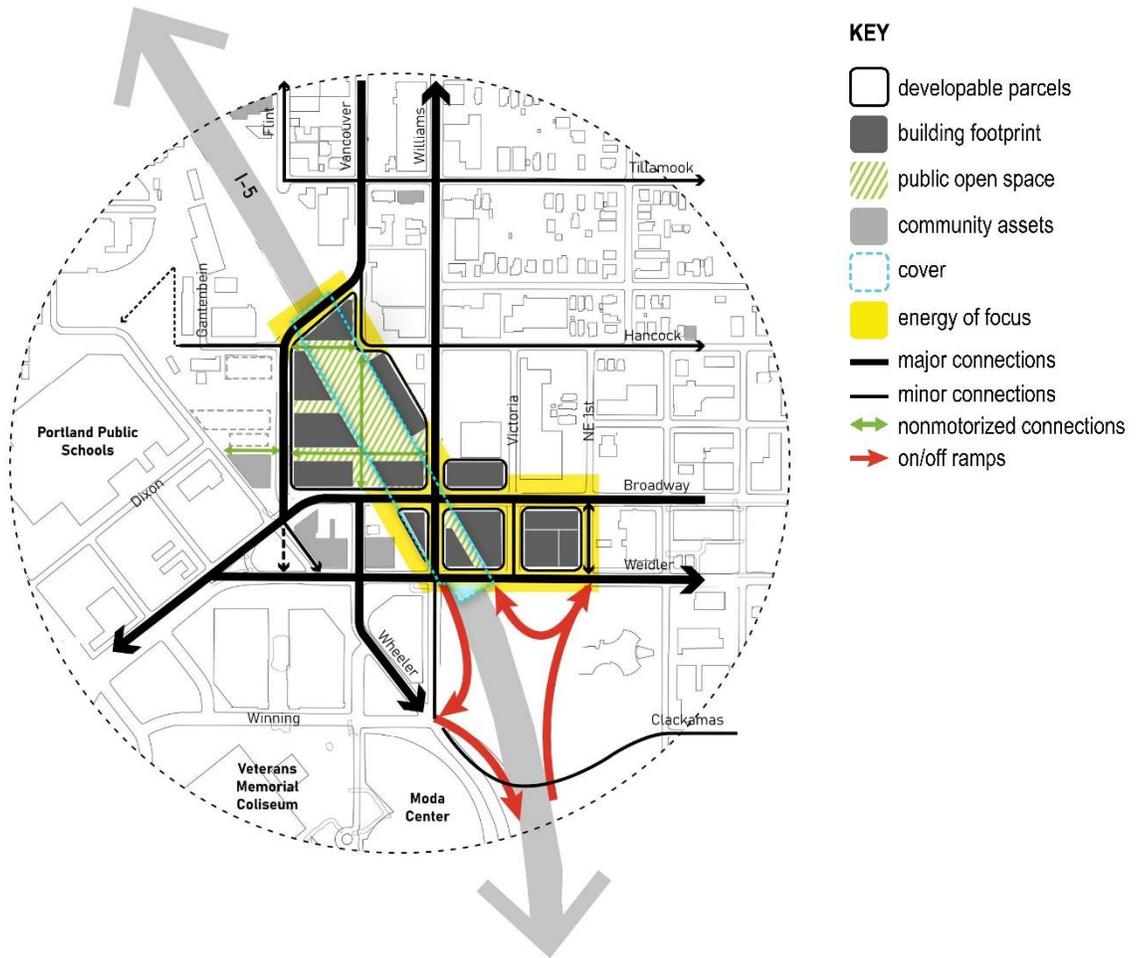
#### Regulatory/Political Feasibility:

**Unknown:**<sup>10</sup> The project is required to comply with a number of City of Portland plans and policies through the City's Design Review process, (for permitting bike and pedestrian access to Dixon via Flint and Hancock, permitting Vancouver to Flint realignment, development plans, permitting for access to properties west of Williams on Hancock, coordination with AVT and their development partner, Edlen & Co., and require coordination with Leftbank and TriMet at Wheeler and Flint, for example), which are unlikely to be approved without additional coordination and consensus-building.

<sup>9</sup> "DRAFT Development Assessment Framework Testing Results Memorandum." Independent Cover Assessment Team. 16 April 2021.

<sup>10</sup> Feasibility is a combination of both technical and permitting feasibility. Technical feasibility was assessed at a high level for each conceptual development scenario and each scenario was assumed to be feasible; Work Session 2 will help determine which of these scenarios will be refined with more detailed technical vetting. Some aspects of the scenarios may change. Political and permitting feasibility of each conceptual scenario is unknown at this time. The City of Portland is the authority holding jurisdiction for policy compliance in the project area and when the City returns to the project, they can advise on permitting viability of each scenario.

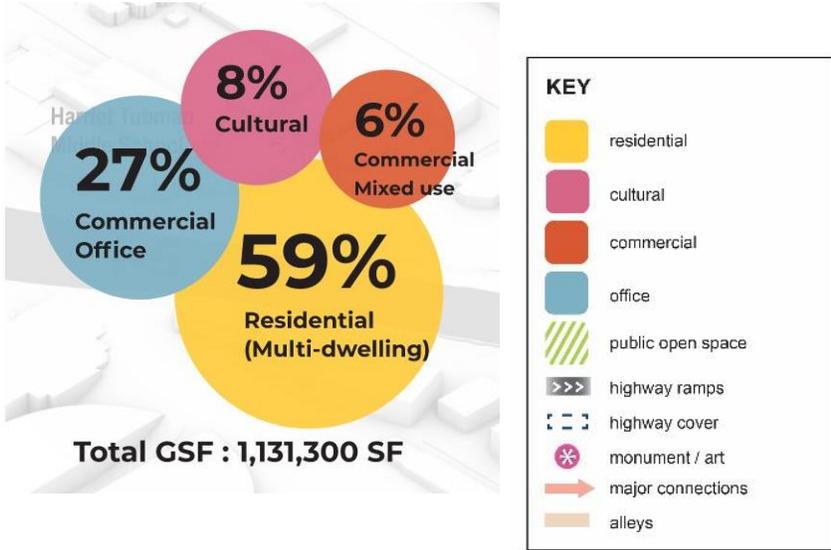
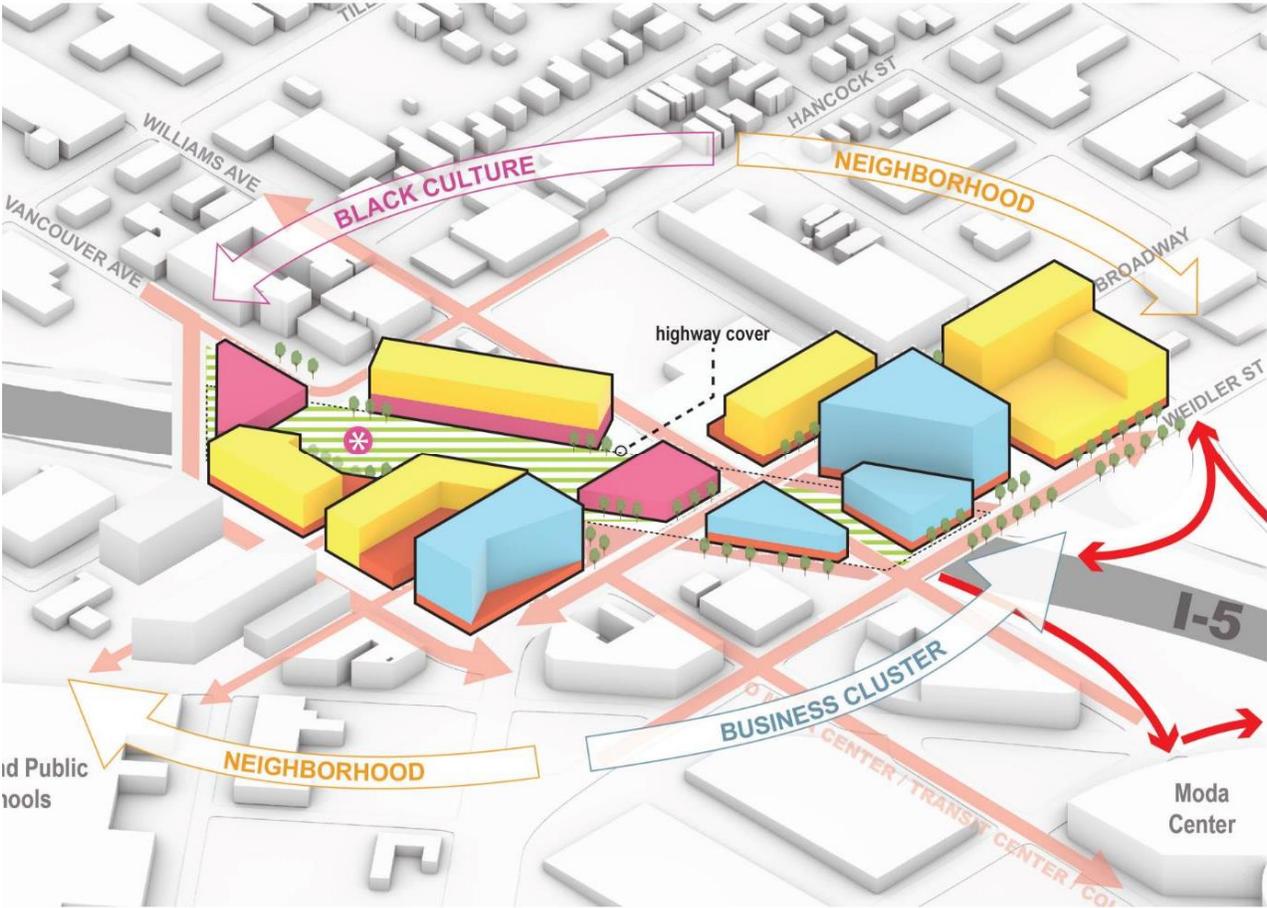
## 4. Cultural Center on Cover



### Concept 4 – Cultural Center on the Cover

Move highway ramps south to make a continuous cover with reduced exposure to traffic noise and pollution. Create a central civic space surrounded by development parcels to be controlled/programmed by the community.

Concept Scenario 4 – Center on the Cover Program



## Concept 4 – Center on the Cover

### DAF Overview<sup>11</sup>



### Benefits, Challenges, and Feasibility

#### Benefits:

1. Creates a relatively high amount of land available for community control/use and a large civic space to support community events and recreation.
2. Prioritizes creating active streets throughout the cover area, improving the pedestrian environment, and supporting potential future businesses.
3. Relocating highway ramps to the south is expected to reduce exposure of cover to noise and pollution.

#### Challenges:

1. Less buildable area than shown in concept 5.
2. Ramp relocation impacts adjacent hotel property.

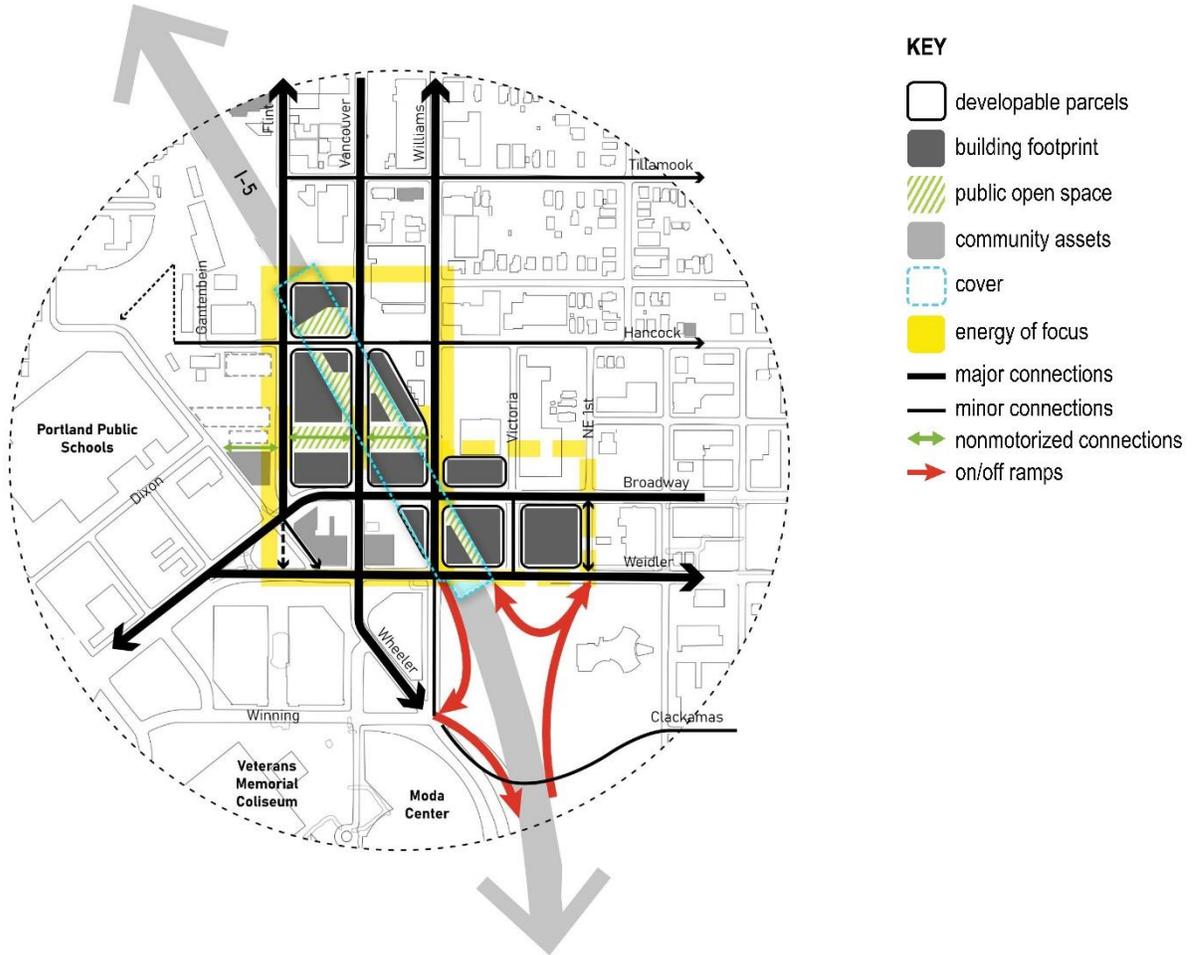
#### Regulatory/Political Feasibility:

**Unknown:**<sup>12</sup> The project is required to comply with a number of City of Portland plans and policies through the City's Design Review process, (for permitting bike and pedestrian access to Dixon and Hancock, permitting for traffic from Vancouver to Flint, development plans, alterations to Crowne Plaza Hotel property, access and egress to events at the Moda Center, coordination with AVT and their development partner, Edlen & Co., and require coordination with Leftbank and TriMet at Wheeler and Flint, for example), which are unlikely to be approved without additional coordination and consensus-building.

<sup>11</sup> "DRAFT Development Assessment Framework Testing Results Memorandum." Independent Cover Assessment Team. 16 April 2021.

<sup>12</sup> Feasibility is a combination of both technical and permitting feasibility. Technical feasibility was assessed at a high level for each conceptual development scenario and each scenario was assumed to be feasible; Work Session 2 will help determine which of these scenarios will be refined with more detailed technical vetting. Some aspects of the scenarios may change. Political and permitting feasibility of each conceptual scenario is unknown at this time. The City of Portland is the authority holding jurisdiction for policy compliance in the project area and when the City returns to the project, they can advise on permitting viability of each scenario.

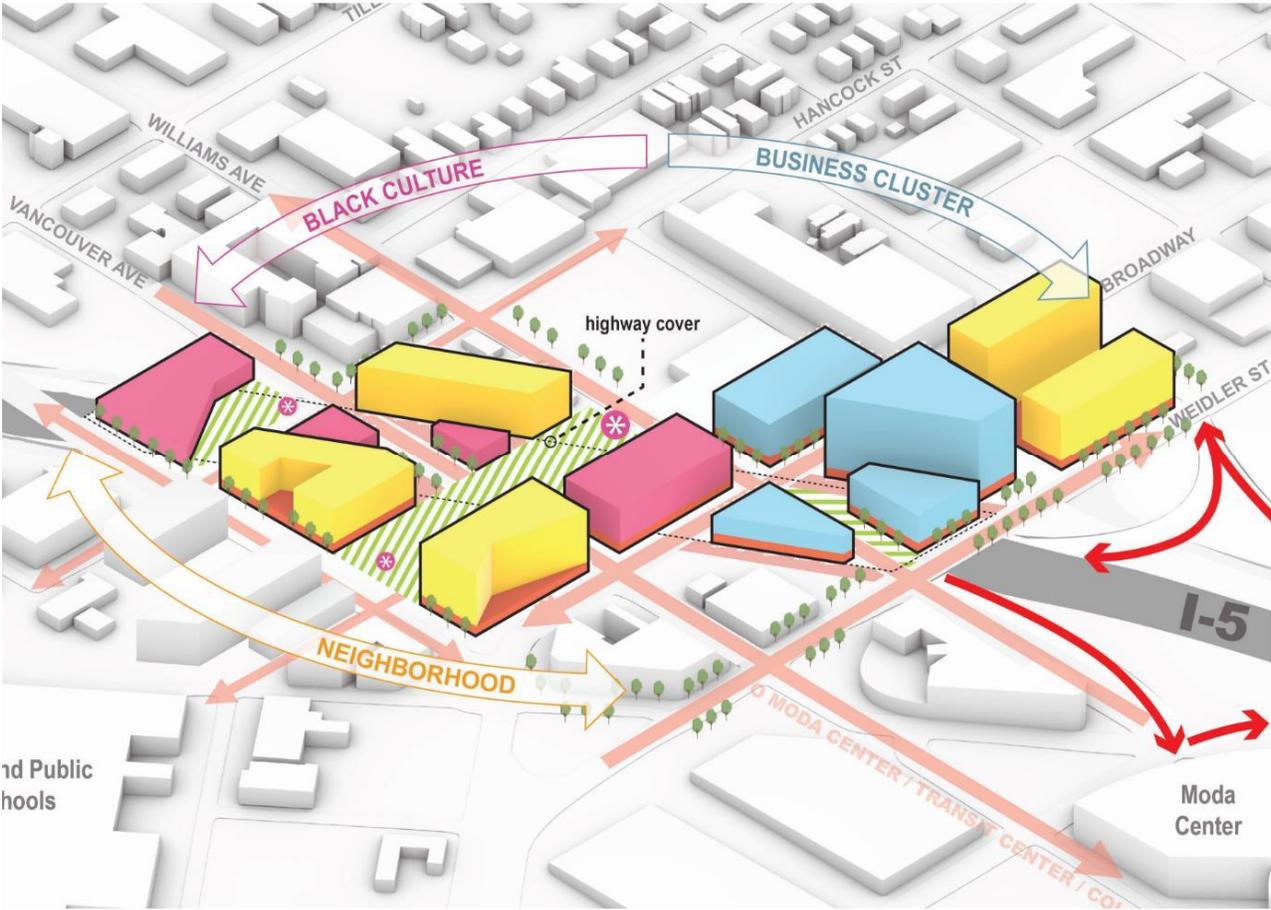
## 5. Restore the Grid



### Concept 5 – Restore the Grid

Move highway ramps south to make a continuous cover, maximize development potential, reduce exposure to traffic noise and pollution, and improve pedestrian and bike travel.

# Concept 5 – Restore the Grid Program



## Concept 5 – Restore the Grid

### DAF Overview<sup>13</sup>



### Benefits, Challenges, and Feasibility

#### Benefits:

1. Creates a relatively high amount of land available for community control/use and a civic space.
2. Prioritizes creating active streets throughout the cover area, improving the pedestrian environment, and supporting potential future businesses.
3. Relocating highway ramps to the south makes a continuous cover which is expected to reduce exposure to noise and pollution.

#### Challenges:

1. Smaller civic space relative to other scenarios limits its capacity to support all types and sizes of community events and recreation.
2. Ramp relocation impacts hotel property.

#### Regulatory/Political Feasibility:

**Unknown:**<sup>14</sup> The project is required to comply with a number of City of Portland plans and policies through the City's Design Review process, (for permitting bike and pedestrian access to Dixon and Hancock, permitting for traffic from Vancouver to Flint, development plans, alterations to Crowne Plaza Hotel property, access and egress to events at the Moda Center, coordination with AVT and their development partner, Edlen & Co., and require coordination with Leftbank and TriMet at Wheeler and Flint, for example), which are unlikely to be approved without additional coordination and consensus-building.

<sup>13</sup> "DRAFT Development Assessment Framework Testing Results Memorandum." Independent Cover Assessment Team. 16 April 2021.

<sup>14</sup> Feasibility is a combination of both technical and permitting feasibility. Technical feasibility was assessed at a high level for each conceptual development scenario and each scenario was assumed to be feasible; Work Session 2 will help determine which of these scenarios will be refined with more detailed technical vetting. Some aspects of the scenarios may change. Political and permitting feasibility of each conceptual scenario is unknown at this time. The City of Portland is the authority holding jurisdiction for policy compliance in the project area and when the City returns to the project, they can advise on permitting viability of each scenario.

## Task 2.2.3: Conceptual Design Assumptions Summary

The ICA team used assumptions and value judgements to guide its work in developing the development scenarios in Task 2.2.1. This section articulates those assumptions.

### Finance & Governance

The goal of the ICA is to analyze changes and alternatives to ODOT's 20% Design that increase the level of benefit the project will provide to the Black Historic Albina Community. The community has expressed concerns that improvements on and around the highway covers may further gentrify the neighborhood, with the unintended consequence of displacing the community and creating additional harm rather than benefit. During our design work, the ICA team assumed that developable area created by the highway cover projects (both on the covers and on land adjacent to the covers and in the project area) could be transferred to the ownership or leasehold of a community-led organization (such as a community development corporation or other organization) upon project completion. The ICA team is also assessing the appropriate governance structure and policies to support the delivery of benefits to the Black community, including but not limited to opportunities for ownership, support for Black-owned businesses, etc.

### Air Quality

#### Recommendations

The ICA team provides the following strategies relative to air quality and assumes these could be implemented as part of the RQIP in the preliminary concept scenarios. Background information for air quality assumptions is included in the air quality report Arup provided for the Independent Cover Assessment.<sup>15</sup>

- Install a permanent air quality monitoring station near I-5 to collect data on pollution from highway.
  - To be owned and maintained by Oregon Department of Environmental Quality or other authority.
  - Suggest monitoring the 6 criteria pollutants, in particular: NO<sub>2</sub>, CO, Ozone, PM<sub>2.5</sub> and PM<sub>10</sub>.
  - Collect particulate matter concentration data from outdoor Purple Air Sensors at Harriet Tubman Middle School, if available. Consider installing Purple Air (or similar) sensors to monitor particles of various sizes.
- Develop a detailed air quality dispersion model to assess pollution hot spots under current conditions and to assess the impact of the design on air quality in the surrounding community.
  - The model would account for background pollution, traffic emissions, physical obstructions, and meteorological data, including wind, to determine impacts on air quality.
  - Air quality at the portal locations and at the ramps is of particular interest as pollution concentrations are likely to be elevated in those areas.
- Develop Health Risk Assessment (HRA)

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<sup>15</sup> "Portland Rose Quarter Independent Cover Assessment: Local Air Quality Review and Recommendations." *Arup*. 18 March 2021.

- The HRA can be used to assess the health impact on the community based on air quality results from the air dispersion model and the time of exposure to that air quality. The HRA can be sensitive to the type of people who would use the facility or and the types of users that would primarily be affected by pollutant exposure.
- Use Design Strategies to Reduce Air Pollution
  - The ICA team assumed design strategies to improve air quality could be implemented as part of the RQIP. Some of these strategies are listed below and a more detailed description can be found on the California Air Resources Board website<sup>16</sup> and the paper *Roadside Vegetation Design to Improve Local, Near-Road Air Quality*.<sup>17</sup>
    - Tall, solid, or vegetative barriers to protect areas close to I-5
    - Proper modeling to locate sensitive uses; see Recommendations above
    - Management of activities to reduce exposure; see Recommendations above
    - Reduction of emissions by preempting signals on surface streets
    - Lowering speeds of nearby vehicular facilities

Finally, the ICA team provides one additional consideration that was not a baseline assumption but came forward during our work to engage local students in air quality study. The opportunity to install monitoring sensors for public transparency, regarding air quality, provides an opportunity for students, community members, and the public agencies managing the highway to communicate, collaborate, and work on a foundation of shared knowledge and expertise.

#### Working Air Quality Assumptions

Without air quality dispersion modeling and a Health Risk Assessment to guide our creation of development scenarios, the ICA team made a rough, baseline assumption that higher pollutant concentrations would be present within 300' of any opening in the highway cover and considered those areas opportunities for less sensitive uses, like retail and office. More sensitive uses, like residential development, were considered best located on sites 300' or more away from an opening to I-5. Outdoor recreation areas are assumed to be best placed 300'-500' from an opening to I-5.<sup>18</sup>

### Programming

The ICA team considered the following list of uses from Work Session 1 as priorities for community development, included them in the Development Assessment Framework, and kept them in mind as we looked for opportunities to support them with development.

#### Community Wealth

- 1) Creating a Black Community Development Corporation (CDC), along with a Black-controlled Community Land Trust that could hold all developable land in trust and cooperate with other partners to leverage community benefits from its development while maintaining permanent affordability

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<sup>16</sup> "Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways." California Air Resources Board. 2017 April 27; Accessed 2021 April 14 at: [Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways | California Air Resources Board](#)

<sup>17</sup> Baldauf, Richard. "Roadside Vegetation Design to Improve Local, Near-Road Air Quality." *Transp Res D Transp Environ*. 2017 May 4; 52(11): 354–361. doi: 10.1016/j.trd.2017.03.013. Accessed 2021 April 14 at: [Roadside Vegetation Design to Improve Local, Near-Road Air Quality \(nih.gov\)](#)

<sup>18</sup> "Portland Rose Quarter Independent Cover Assessment: Local Air Quality Review and Recommendations." *Arup*. 2021 March 18.

- 2) Creating affordable and ownership business spaces of all types and sizes for Black businesses with support services and access to capital
- 3) Developing a Black food sovereignty center/market that provides fresh produce for local businesses and residents, job training, and business enterprise support for supplying large local operators (hospital, convention center, hotel venues)
- 4) Creating permanently affordable rental and ownership housing that is mixed-use, multi-generational, built to high sustainability standards, including different types of living spaces such as live/work for artists and makers
- 5) Establishing a job training and development center for vocational, technical, STEM and clean energy jobs with services for youth and adults
- 6) Developing a quality, culturally appropriate, affordable childcare and child development center for working parents

#### Community Health

- 1) Developing a cultural health & wellness center with programming that addresses mental, physical and spiritual health and provides indoor recreation spaces, health classes, access to healthy food and wellness services and clinics
- 2) Providing a large, accessible outdoor community gathering space for multi-generational celebrations, festivals, events and includes spaces for active recreation use

#### Community Cohesion

- 1) Developing a Black cultural center that showcases the history of Black Portland and creates experiences and education around Black food, Black art and Black music
- 2) Creating public realm aesthetics and art installations in the area that reflect Black culture, art and experience

### Off-Cover vs. On-cover Development

- Land on the highway covers is more suitable for lower density development.
- Land on the highway covers offers opportunity for long-term community lease and control.
- Land on the highway covers is more suitable for commercial/office-type uses, public open space, and buildings in public ownership, such as cultural buildings.
- Land on the highway covers is less suitable for residential development.
- Land off the highway covers is more suitable for high-density development.
- Land off the covers is more suitable for residential development.
- Land off the highway covers offers the greatest opportunity for community ownership.
- Land owned by ODOT, either on the highway covers or off the highway covers, acquired for the project or currently owned land, can be conveyed to a third party representing the Black community.

### Circulation

The ICA team made the following circulation assumptions for each development scenario:

- Maintaining key connectivity to and from ramps is a baseline requirement.
- The circulation system must reassign multimodal circulation through the area due to the expected closure of the Hancock Dixon Connection.
- A high-performing circulation system for the ICA project provides the following:
  - Street network creates developable and accessible land parcels
  - Direct and efficient networks – for all modes
  - Safe and comfortable – minimize conflicts
  - Reduce complexity and confusion – make navigation logical

- Create neighborhood-scale streets
- Improve safety on I-5 (maintain this baseline goal of the I-5 Rose Quarter Improvement Project)
- Reduce congestion on I-5 (maintain this baseline goal of the I-5 Rose Quarter Improvement Project)
- Minimum radius for new, proposed ramps (Options 4 and 5) are based on a design speed of 25 mph where the minimum design speed of those ramps is 35 mph in the base case design. However, the minimum design speed for a loop is 25 mph per ODOT's HDM.

Design exceptions: The base case design had identified about 14 design exceptions from ODOT's HDM. We anticipate Options 4 and 5 will require a similar number of design exceptions as the base case design.

### Environmental Review Implications

- RQIP 20% Design documents do not contribute significant impacts beyond those impacts studied in the EA. Action: Option 1 builds on the 20% Design documents as basis of design that includes additional ideas to enhance restorative justice outcomes without significant impacts beyond those studied in the EA.
- Per 23 Code of Federal Regulations (CFR) Section 771, FHWA will conduct an environmental evaluation to determine if a new environmental document is required.

# Appendix A: Development Scenarios Contract Tasks

## Task 2.2.1 Select Preliminary Concepts for the Development Scenarios

Consultant shall recommend concepts for the Development Scenarios that respond to the values and vision as created in the Development Assessment Framework, in Task 2.1.4. Consultant shall prepare a draft and final written memorandum (the “**Preliminary Development Scenario Memorandum**”) to summarize the Consultant’s Services under this Task 2.2.1, and provide the program components and desired outcomes for the Development Scenarios.

## Task 2.2.3 Conceptual Design Assumptions

Consultant shall develop conceptual design assumptions for each Development Scenario (comparable to design detail prepared in support of the Project’s NEPA EA, which is approximately 5% design) including, but not limited to, the following:

- Design of I-5 mainline and ramp geometry, surface street layouts, bridges, retaining walls, highway covers, and streetcar revisions and light rail revisions.
- Design of each Development Scenario including, but not limited to, mobility and open space system improvements, with input from the APD and ESC.
- Evaluate existing traffic models provided by Agency to assess traffic alternatives, including I-5 mainline operations and weaving, I-5 ramp queuing, intersection operations, and pedestrians and bicycle facilities.

Consultant shall summarize the results of Consultant’s Services under this Task 2.2.3 into a draft and final conceptual design assumptions summary report (the “**Conceptual Design Assumptions Summary**”).