





## 172nd / 190th Corridor Plan

# Acknowledgments

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July 28, 2011  
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## Stakeholders

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*Bill Bailey, Gresham Planning Commission*  
*Bruce Butler, Happy Valley Business Alliance*  
*Steve Campbell, Happy Valley Traffic & Safety*  
*Matthew Clark, Johnson Creek Watershed Council*  
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*James Finucane, Land Owner*  
*Kenneth Gores, Area Resident*  
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*Mitch Grubb, Land Owner*  
*Michelle Healy, North Clackamas Park & Recreation*  
*Diana Helm, Damascus City Council*  
*Jason Howard, Johnson Creek Watershed Council*  
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*Tom Scott, Land Owner*  
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## Conventions & Icons

### Green text

Hypertext.  
For PDF version,  
click on text to  
navigate to index,  
glossary, topic or  
website



Click on square to  
return to Table of  
Contents



Strong Consensus



Special note



Caution.  
Issue or item of  
special concern

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## Background

Future traffic demand will come with the buildout of developable land in Happy Valley, Damascus, and Gresham, and there is a need for a north-south connection to accommodate local and regional traffic growth. There are limited locations where this type of connection/facility can occur due to topographic constraints and existing urban buildout.

The 172nd/190th Corridor Plan project is intended to:

- Identify the most feasible corridor alignment
- Design an optimum streetscape
- Plan for appropriate and compatible land uses
- Prepare an implementation action plan

As part of the Public Involvement Plan, stakeholders in the area are being engaged in a series of interviews to better understand and plan the corridor.

## Stakeholders

Stakeholders (20) represent various interests throughout the **corridor**. Stakeholders will be interviewed 3 times during the course of the project.

## Interviews

A **questionnaire** was developed and an initial round of stakeholder interviews were conducted during June and July, 2010. [see **Interview Format & Questions**]

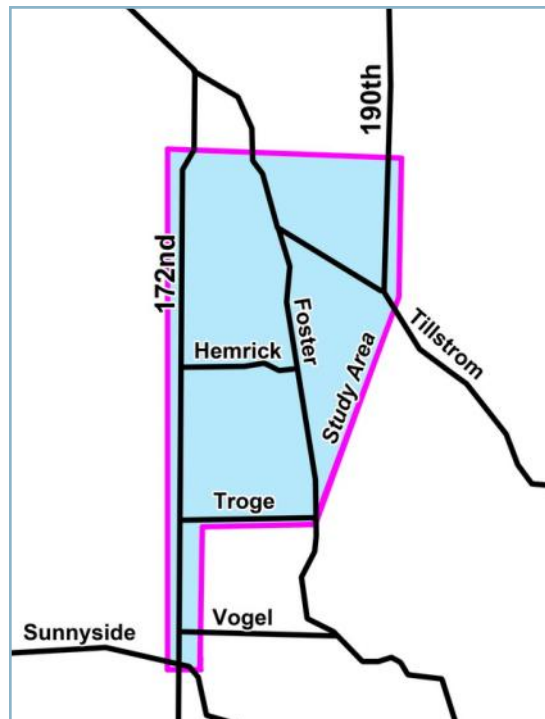
Responses were compiled and organized by the project categories:

- Corridor
- Streetscape

- Land Use
- Public Involvement

The interviewees sketched their preference for a future corridor alignment on the tax lot map or aerial photo provided. The preferred alignments will be scanned, analyzed and displayed on the project website [www.172nd.com](http://www.172nd.com).

This document provides a summary of the interviews and discussion themes.



Project Study Area

Additional interviews will be conducted as the project moves forward, and this document will be expanded accordingly.





# Interview Format & Questions

*Interviewer provides project context; reviews maps; and asks the following questions:*

1. **USE**—How do you use the corridor today? Where do you travel to and from?
2. **FUNCTION**—How should the corridor function in the future?
3. **STREET-SCAPE**—What should the corridor do and look like? (street trees, lights, medians, traffic circles, access, signage, sidewalks, and examples of other corridors that they like *and why*?)
4. **OPPORTUNITIES & CONSTRAINTS**—Where should 172nd and 190th connect, and what should be avoided?
5. **CONCERNS**—Do you have concerns about how the corridor functions now or will function in the future? What are major concerns held by area residents?
6. **INVOLVEMENT**—How would you like to be involved?

7. **MEDIA**—How do people in the area receive news?
8. **COMMUNICATION**—How do you want to receive information? (email, Citizen News, Oregonian, etc.)
9. **OTHER STAKEHOLDERS**—Who else should be involved?

**172<sup>nd</sup> / 190<sup>th</sup> CORRIDOR PLAN  
STAKEHOLDER INTERVIEW QUESTIONNAIRE  
JUNE 2010**

Interviewee	Bruce Butler	Title	Happy Valley Business Alliance
Telephone #		Email	
Interviewer	Ric & Alisha	Date	7/6/10

Interviewer gives project context, reviews local and regional map.

1. How do they use the corridor today? Where do they travel to and from?

2. How should it function in the future?

Interview Form

*Interviewee is:*

- asked to sketch a preferred corridor alignment on one or both the tax map or aerial photo
- informed that all materials are on the public website [www.172nd.com](http://www.172nd.com) and the draft summary will be ready in early August
- asked to participate in two (2) more interviews over the course of the project



## Existing Corridor Functions

Currently 172nd has the following north/south corridor uses:

- **Clackamas County / Interstate 84 Connectivity**
- **Gresham / Clackamas Town Center Connectivity**
- **Gresham / Happy Valley Connectivity:** The most direct route is 190th to Hemrick (or Troge) to 172nd.
- **Gresham / Hwy 212 Connectivity**
- **Happy Valley / Portland Connectivity:** The most direct route is 172nd to Foster to Jenne.
- **I-205 Alternative**
- **Local, Residential, Non-commercial Commute**
- **Park Connectivity:** 172nd provides access to Hood View Park (south of Sunnyside) and Scouters Mountain Park (Metro working to acquire 70-100 acres for a Community Park from Boy Scouts).
- **Portland Connectivity:** Foster Road is the preferred north/south route. Commuters avoid Powell (Highway 26).
- **School Bus Routes:** School bus traffic impedes flows on almost all roads in the study area.

*70% of all 172nd traffic tickets are from non-local commuters travelling to and from Gresham or Portland.*

## Recommended Corridor Function

The interviewees made the following future north/south corridor recommendations:

1. **Consider stream corridor alignment:** A **greenfield** route along the SW/NE stream corridor would allow for efficient connectivity, multi-use pathways and enhanced esthetics. May also impact fewer property owners and retain rural character of 172nd.
2. **Design efficient commuter route:** 172nd should function similar to 212 or Sunnyside.

3. **Design for multi-modal:** Incorporate pedestrian paths/sidewalks and bicycle lanes.
4. **Develop two corridors:** Consider a combination of 172nd, Foster and/or 190th to develop *two* parallel north/south corridors.
5. **Expand the Corridor Study Area (CSA):** Consider expanding the Study Area to the north for additional alignment alternatives. Concern is also expressed that “choke points” in Multnomah County may impact viability of corridor development in Clackamas County.
6. **Improve SE 162nd Avenue:** Develop 162nd from 212 to Sunnyside as a “relief valve” for 172nd.
7. **Improve SE Foster Road:** Develop Foster/Tillstrom Village as a functional, east-west, commercial corridor. Plan as a major or minor collector.
8. **Incorporate regional trails:** The corridor should provide connectivity for regional trails (i.e. Scouters Mountain Trail & Springwater Trail).
9. **Respect property access (driveways):** The number and frequency of driveway accesses should be a major consideration for the 172nd/190th corridor.

## Recommended Connectivity

1. **Avoid bisecting properties**
2. **Avoid buttes, hillsides and significant elevation changes**
3. **Avoid pristine wetlands**
4. **Avoid significant woodlands**
5. **Avoid impacts to community facilities and institutions** (i.e. schools & churches)
6. **Connect 2040 Growth Concept Centers:** Gresham Regional Center, Damascus Town Center, Happy Valley Town Center (new location), Pleasant Valley Town Center, Carver Employment Area.



7. **Connect parks, open space & trails:**  
Coordinate with Metro **Intertwine**, East Butte Loop and Scouters Mountain/Mount Scott Loop.
8. **Follow streambed/wetlands corridor**
9. **Match Pleasant Valley Concept Plan Area circulation**
10. **Minimize number of creek crossings**
11. **Provide two parallel routes:** Corridor should include improvements to **both** 172nd and 190th north/south connections.
12. → **Use existing rights-of-way:** Hemrick would serve as 172nd/190th east-west connection. This approach may have the least impact on land area and be the most receptive to property owners.
13. → **Use new greenfield connection:**  
Route 172nd/190th connection across major open spaces. This approach may have the least impact on existing access and front setbacks (~100 residences on 172nd). This approach may also allow for more efficient through-traffic and multi-modal design.  
172nd would return to a rural collector.

*Interviewees were divided as to their preference for either an existing right-of-way or new corridor.*

## Alignment Scenarios

→ The stakeholder alignment sketches have been digitized and included in the appendix and on the project website at [www.172nd.com](http://www.172nd.com).





## Appearance / Design

Interviewees made the following recommendations regarding corridor appearance and design:

1. **Apply operational landscaping**
2. **Apply low impact development (LID)**
3. **Apply value engineering**
4. **Consider maintenance:** The design should be practical and easy to maintain.
5. **Design to accommodate school bus stops**
6. **Design for local esthetic compatibility and scale**
7. **Design for north/south esthetic continuity**
8. **Design roundabouts for major intersections:** (i.e. 172nd/Hemrick)  
Although most interviewees supported roundabouts, there was concern for pedestrian and cyclist safety. Signalized intersections are preferred near schools.
9. **Develop 4-lane corridor with center turning lane/median.** Some interviewees suggested a 6-lane corridor or two, parallel, multi-lane corridors. Preferred street sections varied from 80-120 feet wide with majority preferring 100-ft range. [see regional street example]
10. **Develop green street:** Street to include green street stormwater management design with drainage bioswales. [see green street example] Also, a “rain garden” design should be considered where appropriate. Maintenance is problematic. Consider pervious pavement as supplement, or in lieu of green street design.
11. **Enhance water quality impact mitigation:** Corridor development should consider impacts to water recharge area under consideration by Clackamas County.
12. **Improve lines of sight**
13. **Include median:** Although almost all interviewees suggested a center median, there were conflicting opinions as to

*Provide efficient corridors and intersections—“skinny roads and big nodes.”*

whether or not it should be elevated, landscaped or striped. Raised medians were recommended for restricting left-turn movements.


14. **Include streetlights:** The type of street light should be consistent and selected from approved standards. Shield and orient to mitigate glare to residents.
15. **Incorporate parks/open space**
16. **Incorporate traffic calming measures:** Provide bulbouts, striping, concrete stamping and other techniques to improve efficiency and safety.
17. **Landscape for stormwater management:** Interlocking canopies and bioswales provide low-cost maintenance and enhanced esthetics.
18. **Limit access:** Restrict access to the corridor where feasible.
19. **Prohibit parking:** The corridor should not allow on-street parking.
20. **Provide clear signage/wayfinding**
21. **Provide multi-use paths, separated pedestrian/bicycle pathways:** Offset trails and bicycle paths are considered safer than monolithic sidewalks and street bicycle lanes on high-speed corridors.
22. **Provide sound walls:** Sound walls should be provided for sensitive and commercial traffic areas.
23. **Set speed limit at 40 or 45mph.** 20mph near school.
24. **Use pavers/concrete stamping:** Where feasible, use texture to demarcate pedestrian crossings and transition to swales.

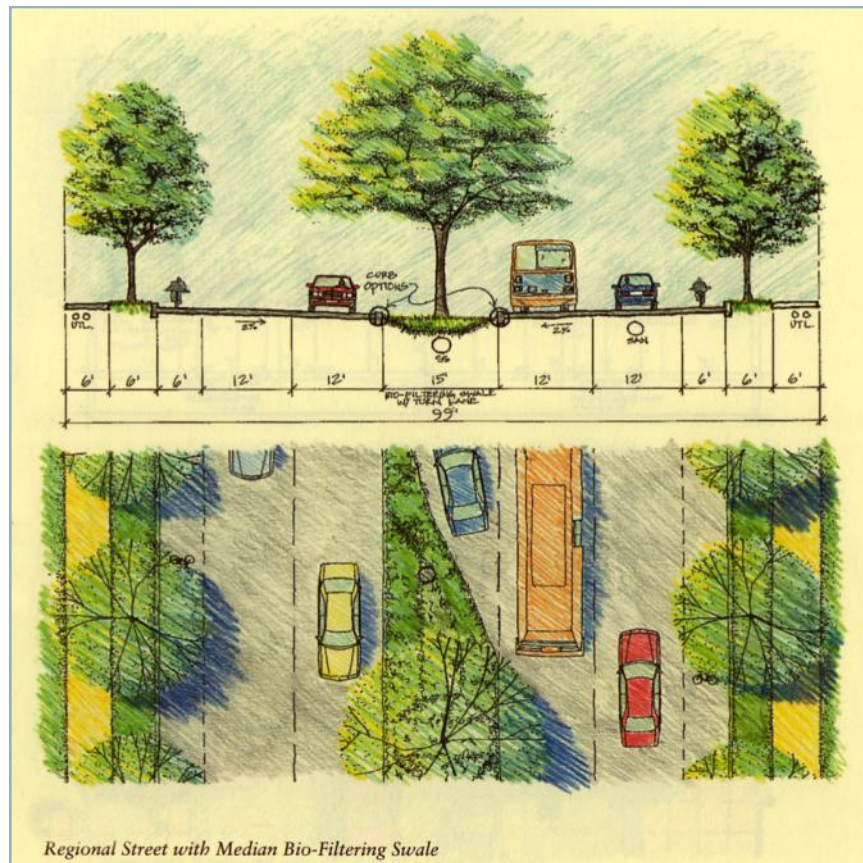
## Recommended Streetscape Examples

1. **Highway 212** (street section)
2. **Kruse Way, Lake Oswego** (pathways)
3. **Jefferson Avenue, Corvallis** (greenstreet)
4. **Northeast Ainsworth Street, Portland** (street trees)
5. **Padden Parkway, Vancouver** (multi-modal street section): The street section is concrete wall, sidewalk, two lanes same



direction, raised/landscaped median, two lanes same direction, multi-use path, concrete wall.

6.  **SE Sunnyside Road**, Clackamas County (street section)
7. **SW Stafford Road/SW Borland Road Intersection**, Clackamas County (roundabout)



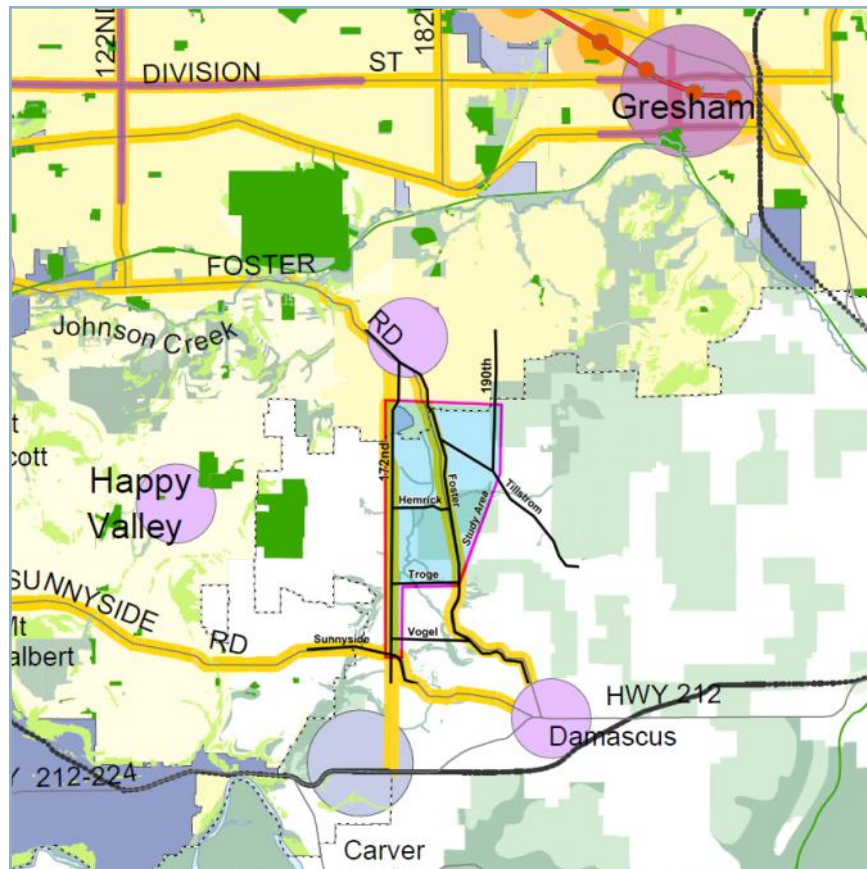
Metro Regional Green Street



## Land Use and Development

The interviewees provided several suggestions related to existing and future land use:

1. **△ Compensate landowners fairly:** Property condemnation should provide landowners with fair market value. **Systems Development Charges (SDCs)** should be factored into right-of-way acquisition.
5. **→ Plan for/with timeline:** **Concurrency** is critical to ensure phased and funded infrastructure.
6. **Promote commercial/office development:** Restrict new single-family and residential development.
7. **Question 10 residential units per acre target density:** Projections for Pleasant Valley and Damascus may indicate lower achievable/desirable densities.



2040 Growth Concept & Project Study Area

2. **Consider wildlife:** Treatment of wetlands and streams should maintain/enhance riparian habitat and fish passage.
3. **Enable local water and sewer connectivity:** Allow property owners options for water and sewer connections.
4. **Mitigate construction impacts:** The length and disruption of construction should be carefully evaluated as part of



## Interviews

Interviewees supported further public involvement and recommended the following:

1. Conduct two (2) additional interviews:  
All interviewees confirmed their willingness to participate in two additional interviews.
2. Send all (PMT, PAC, public) meeting announcements to interviewees.
3. Send email updates and announcements to interviewees.

## Media

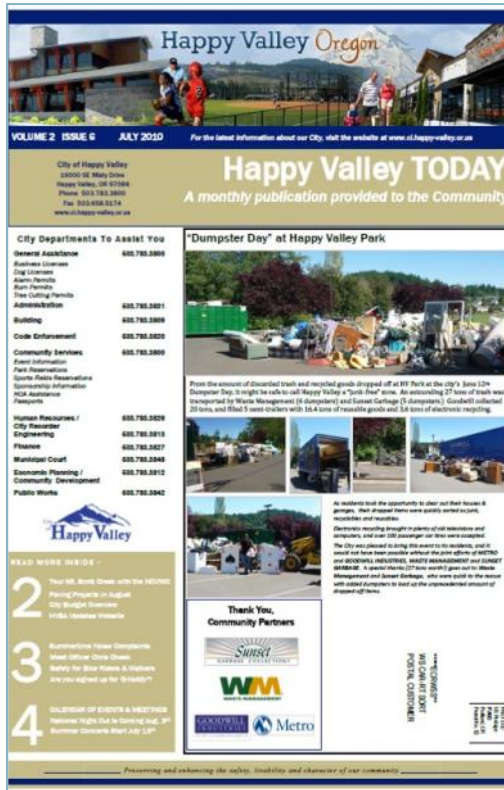
Interviewees recommended the following media:

- **Abundant Life Church Family Email** (newsletter)
- **Clackamas County Citizen News** (newsletter) [www.co.clackamas.or.us/citizennews/](http://www.co.clackamas.or.us/citizennews/)
- **Clackamas County Water Environment Services "User Panel"** (advisory group)
- **Clackamas River Basin Council Clackamas Current News** (newsletter) [www.clackamasriver.org/newsletter/index.htm](http://www.clackamasriver.org/newsletter/index.htm)
- **The Damascus/Boring Observer** (newspaper)
- **The Gresham Outlook** (newspaper)
- **Happy Valley TODAY** (newsletter) [www.ci.happy-valley.or.us/DocumentView.aspx?DID=757](http://www.ci.happy-valley.or.us/DocumentView.aspx?DID=757)
- **The Oregonian** (newspaper)
- **Scouters Mountain Elementary School parents' email** [Russian translation available]

## Contacts

Interviewees identified the following additional individuals/entities for further information:

- **Janet Bebb**, Metro (greenspace/trails)
- **John Bliss**, Property Owner
- **Doug Bollam**, Property Owner
- **Matt Grady**, Developer
- **David Jothen**, Damascus City Councilor
- **Amy Kyle**, WES Community Relations
- **Mike Robinson**, Pleasant Valley Golf Course Representative
- **Darren Wilborn**, Resident
- **Terry Wilson**, Developer
- **Clackamas County Fire District**
- **Clackamas County Water Authority**
- **Clackamas River Basin Council**
- **Damascus Homeowners Association**
- **North Clackamas School District**
- **Providence Hospital**
- **Sheriff's Deputies**



Happy Valley TODAY



## Intersections

△ There is a slight overall preference for a continuous “parkway” travel corridor with the understanding that some T-intersections will be required. Several respondents preferred T-intersections to assist with east-west connectivity.

Some respondents requested that roundabouts be avoided due to impacts on truck transportation and traffic slowing. Conversely, other respondents strongly preferred traffic circles for urban areas for pedestrian safety and traffic calming.

T-intersections and a “Jeffersonian” grid pattern are preferred by several respondents, especially if these correspond with existing property boundaries.

One respondent noted that future land use designations and development may be more important factors in determining intersection design.

## Concept AS10A

There is some concern regarding the cost-effectiveness and ease of flow for this alternative. This concept improves traffic by removing the blind corner at Tilstrom and Foster, but it may not fully address town center planning at Giese and 172nd. This alignment was preferred (along with AT5) by several property owners for its compatibility with future employment center development. This alternative may impact creek habitat and water quality.

✿ Several respondents felt AS10A was the most ideal concept with additional east-west connectivity.

→ This concept is the preferred alternative for the school as it appears to be the safest.

## Concept AT6

This concept has a more fluid sweep with

fewer obstructions, but will also require more right-of-way outside of existing alignments. The parallel route with the Rock Creek may create significant riparian impacts which may be mitigated by improvements associated with greenways and multi-use paths. Several respondents also noted potential topographic constraints.

△ This concept was preferred by some respondents for its legibility and overall criteria. Others felt it did not adequately plan for development of the proposed employment center.

## Concept AT2

There are similar concerns as with AT2 regarding right-of-way acquisition and property impacts. This plan may not synchronize with Gresham planning for Pleasant Valley. This concept may impact the PGE substation and AT&T towers. One respondent preferred that the corridor not emphasize 172nd as a connector. Conversely, another interviewee felt this was the most expedient route. As with AT6, this concept does not support development of the proposed employment center. This concept has fewer environmental impacts than AS10A, AT5 and AT6.

## Concept AT4

This concept utilizes more existing rights-of-way which is preferable to other alignments with greater property impacts. However there are more T-intersections relative to other concepts, and this may ultimately inhibit future connectivity. Several properties will have access issues, and there may be additional impacts to the PGE substation. This route may also be more “circuitous” than another optimal alignment. Like AT2, this concept has fewer environmental impacts than AS10A, AT5 and AT6.

→ AT4 was preferred for its use of existing right-of-way and minimized property/ environmental impacts and associated costs.



△ Conversely, this was also targeted as a poor alternative for its dependency on existing right-of-way and related impacts to residential frontage.

## Concept AT5

This concept has slope issues associated with the butte and will require significant land acquisition. In addition, there are environmental impacts to Rock Creek similar to AS10A.

△ Concept AT5 was one of the *least* liked alternatives for its physical constraints, and *most* liked for development of the proposed employment center. It was also mentioned as a possible hybrid for Concept AT6.

## Streetscapes

→ Streetscapes should change depending on “behind the curb” context. I.e. village street sections should narrow. Appropriate models for streetscape design include:

- Sunnyside
- Marine Drive
- McLoughlin
- Padden Parkway

Medians, sidewalks and landscaping improvements to be considered desirable, but potentially cost-prohibitive—the “desire v. economy” dilemma. Multi-use path on one side and sidewalk on the other may be one option.

✿ Multi-use paths are considered highly desirable if they can be cost-effectively developed concurrent with the corridor plan.

Acquiring additional right-of-way may be expensive, but ultimately allow for more design flexibility and future maintenance cost-savings.

Bioswales and raingardens are preferred methods for handling stormwater, especially for concepts with potential riparian impacts.

✿ The Corridor must have 4 lanes.

Respondents were divided as to the need for a center lane/median. Single directional lanes are not feasible for the projected traffic flow.

✿ S5A and S5B are preferred street sections for *multi-modal connectivity*.

→ S4A and S5F preferred for *cost-efficiency*.

→ S3B Center medians impact emergency access and have maintenance concerns.

→ S5D provides high level of pedestrian/bicycle safety.

→ S5H 10' path sufficient width with additional bicycle lane.

→ The project may benefit from a facilitated discussion cost assumptions and various street development standards (including Metro Green Streets).

## Cycle Lanes

✿ Elevated cycle lanes are not preferred by the majority of interviewees due to cost/budget considerations. [The buffered, multi-use path is the preferred cycle option.]

The type of cyclist should be considered prior to design: commuter, leisure, sport/off-road.

If bike lanes are constructed, pervious surfaces would be preferred for decentralized infiltration of stormwater.

“Bicycle-friendly” elevated cycle lanes provide an additional perception of safety.

Walled-community “corridors” should be avoided.

## Other Topics

✿ Concern was expressed for coordination with City of Gresham transportation planning through Pleasant Valley and northern Gresham.

→ Consider creeks (greenway) as part of connectivity with multi-use paths as part of roadway buffer. I.e. Troge Road adjacent Rock Creek.



△ Access to the corridor (driveways) is a strong concern not yet addressed by the concepts.

△ Acquisition of open land for right-of-way may be less expensive than widening existing roadways with associated impacts to residential development.

Respondents appreciated the level of effort devoted to analyzing and designing the corridor plan.

→ The Johnson Creek Watershed Council's vision is to reconnect Johnson Creek with its natural floodplain, which includes keeping infrastructure 50-100 feet away from creeks. It's critical to avoid raised bed cut & fill type crossings. Longer and wider spans that allow for flooding and wildlife crossings should be prioritized.

△ There are numerous paths and trails proposed for this area that need to have coordinated corridor crossings.





## Interviews

The 3rd series of interviews was conducted mid-summer 2011 with the following stakeholders\*:

- **Catherine Albrecht**, Happy Valley Traffic & Safety
- **Tom Andrusko**, Happy Valley Council
- **Bill Bailey**, Gresham Planning Commission
- **Bruce Butler**, Happy Valley Business Alliance
- **Jeff Corcoran**, Gresham Transportation Subcommittee
- **Kenneth Gores**, Area Resident
- **Matt Grady**, Gramor Development
- **Mitch Grubb**, Resident
- **Michelle Healey**, North Clackamas Parks & Recreation
- **Diana Helms**, Damascus Council
- **Jason Howard**, JCWC Board
- **Dan Johnson**, Clackamas County URA
- **Bruce Kayser**, Kayser Property\*
- **Don Kemp**, Clackamas County WES
- **Charlie McAlister**, Centennial School District
- **George Powell**, Abundance Life Church
- **Donald Schneider**, Area Resident
- **Tom Scott**, Wild Horse Investment\*
- **Randy Shannon**, Damascus Council
- **Terry Wilson**, Realtor\*

\*Bruce Kayser, Tom Scott and Terry Wilson completed a combined interview.

## AS10a

1. Given what you've heard about AS10a and the other alternatives, how comfortable are you with this being the recommended alternative?

Response:

- 🌸 11 quite comfortable
- 5 not comfortable
- 3 ambivalent
- 1 need more information

## AT2

2. If AS10a looks less likely to be completed given the out-of-project area 187th connection, how comfortable are you with AT2 being a backup?

Response:

- 🌸 13 quite comfortable
- 5 not comfortable
- 1 ambivalent
- 1 need more information

## AT6

3. Was there anything you particularly liked about AT6?



Preferences

### Direct Route

This alternative provides a "clear path" with fewer turning movements and intersection conflicts.

### Esthetics

This alternative provides unique opportunities for rural views and esthetic design.

## Ranking

4. To recap, of the three remaining options, please give us your ranked preference, with 1 being best.

Response:

- 🌸 11 AS10a preferred
- 5 AT2 preferred
- 4 AT6 preferred

Comments about the three concepts included:

### 187th Connection

Several respondents consider the ability and/or willingness of Damascus to provide the 187th link to be an unacceptable risk in ranking the alternatives. Several respondents believe that all new fees must be approved by Damascus voters and view this as both a funding and timing threat. Others do not believe the connection is essential to the viability of AS10a.



## **AS<sub>10a</sub> : AT<sub>2</sub> & AT<sub>6</sub>**

AT<sub>2</sub> and AT<sub>6</sub> were perceived by many as being essentially the same concept. If scores for AT<sub>2</sub> and AT<sub>6</sub> are combined, the ratio of support is more evenly divided between AS<sub>10a</sub> and AT<sub>2</sub>/AT<sub>6</sub> (11:9).

## **Comprehensive Plan Compatibility**

In general, AS<sub>10a</sub> is more compatible with the current draft plan for Damascus; corresponds to Pleasant Valley (Gresham) plans; and supports the Happy Valley Town Center.

## **Diffused Flow**

Just over half of the respondents believe that AS<sub>10a</sub> provides parallel north-south connectivity that helps disperse traffic impacts and provides better “transportation balance” for the valley.

## **Direct Flow**

Almost half of the respondents preferred AT<sub>2</sub> or AT<sub>6</sub> for their perception of better and more direct “flow” across the valley.

## **Employment/Industrial Center**

Supporters of the employment center connectivity preferred AS<sub>10a</sub> over the other alternatives.

## **Right-of-Way Acquisition**

AS<sub>10a</sub> is perceived to have less right-of-way acquisition with fewer impacts to property owners, less cost and less time required. Conversely, AT<sub>6</sub> has more required right-of-way acquisition making implementation more difficult. A few respondents voiced concern over condemnation of residences along 172nd.

## **Stream Crossings**

AS<sub>10a</sub> is viewed as superior to the other alternatives in terms of minimizing stream impacts.

## **Improvements**

5. *Are there any improvements you'd make to any of the alternatives at this point?*

## **Box Culverts**

Replace box culverts with full spans to restore connectivity to floodplain.

## **Troge**

If the extension of 187<sup>th</sup> is uncertain, improve Troge to a 5-lane road. This way, AS<sub>10a</sub> would function regardless of what happens south of Troge.

## **Streetscape**

6. *Regarding the draft streetscape improvements, do you have any questions or comments?* [alphabetically listed]

## **Compatibility**

Several respondents voiced concern over the design compatibility of the various street sections on the northern and southern edges of the study area. This concern includes lane configuration, cycle track and stormwater systems.

## **Cycle Track**

There were mixed responses to the cycle track concept. Most respondents supported the “tactile” safety enhancement, but several noted that striped lanes would be less costly, easier to maintain, and less hazardous to novice riders especially if it creates a false sense of security. The cycle track’s safety may be compromised by too many driveways and lack of visual cues. There is some concern over the compatibility between cycle tracks and green street designs.

## **Frontage Road**

Make section as small as possible. [see “Skinny Streets”]

## **Green Streets**

Street alignments and designs will need to meet more stringent requirements to replace stormwater pipes with eco-services, based on a recent meeting with the City of Damascus and WES that was attended by several stakeholders. Simultaneously it was noted that much of this area has soils that do not percolate well enough to construct **bio-swales** or other “green street” designs. Pervious



pavement should be given consideration where appropriate.

### **Interim Designs**

The development program needs to have several streetscape designs that reflect **concurrency**—phased improvements that match development needs and funding. The interim designs should also be synchronized with the urbanization of the valley as rural sections transition to more urban sections.

### **Landscape**

Although Sunnyside has an esthetic design, the lack of funding for maintenance has led to areas of overgrowth and weeds. Several respondents do not prefer trees within the medians for cost, maintenance, safety and visibility—especially in commercial districts where they obstruct views.

### **Roundabouts**

There was an inconsistent response to roundabouts—some were supportive of the concept for “traffic flow,” others opposed it for safety and freight concerns. Of special concern is the “traffic calming” effect on a corridor that should support efficient (high-speed) regional connectivity. It was also noted that roundabouts received a lower level of service rating compared to signalized intersections in all three concepts.

### **School Bus Concerns**

Medians and cycle tracks pose conflicts to bus turning movements and access. Striping is the preferred alternative for both. Eight foot bike lanes allow buses to pull off at a bus stop to avoid stopping traffic.

### **Sense of Place**

Stakeholder concerns revolved around design that reflects unique community character—especially a “rural feel.”

### **Skinny Streets**

Reducing street section widths may improve efficiency, safety and reduce costs where feasible.

### **Utilities**

It is crucial that the public be informed that corridor improvements do not automatically include utility improvements.

△ Clackamas County WES typically charges residents fees for extending lines.

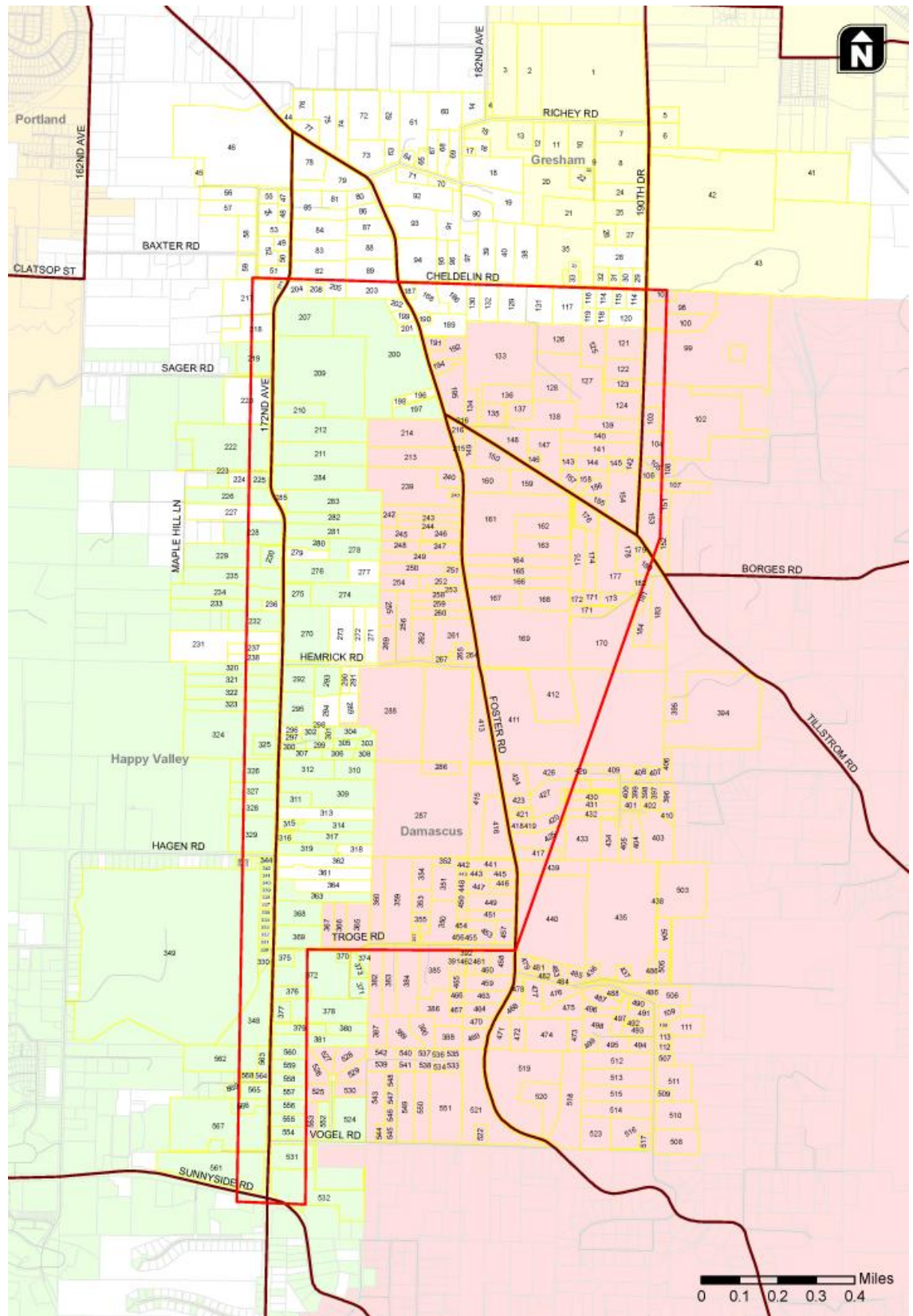
### **Walkable / Pedestrian-Friendly**

Several respondents emphasized walkability and pedestrian-friendly features with special concern for roundabouts and cycle track/pedestrian conflicts.





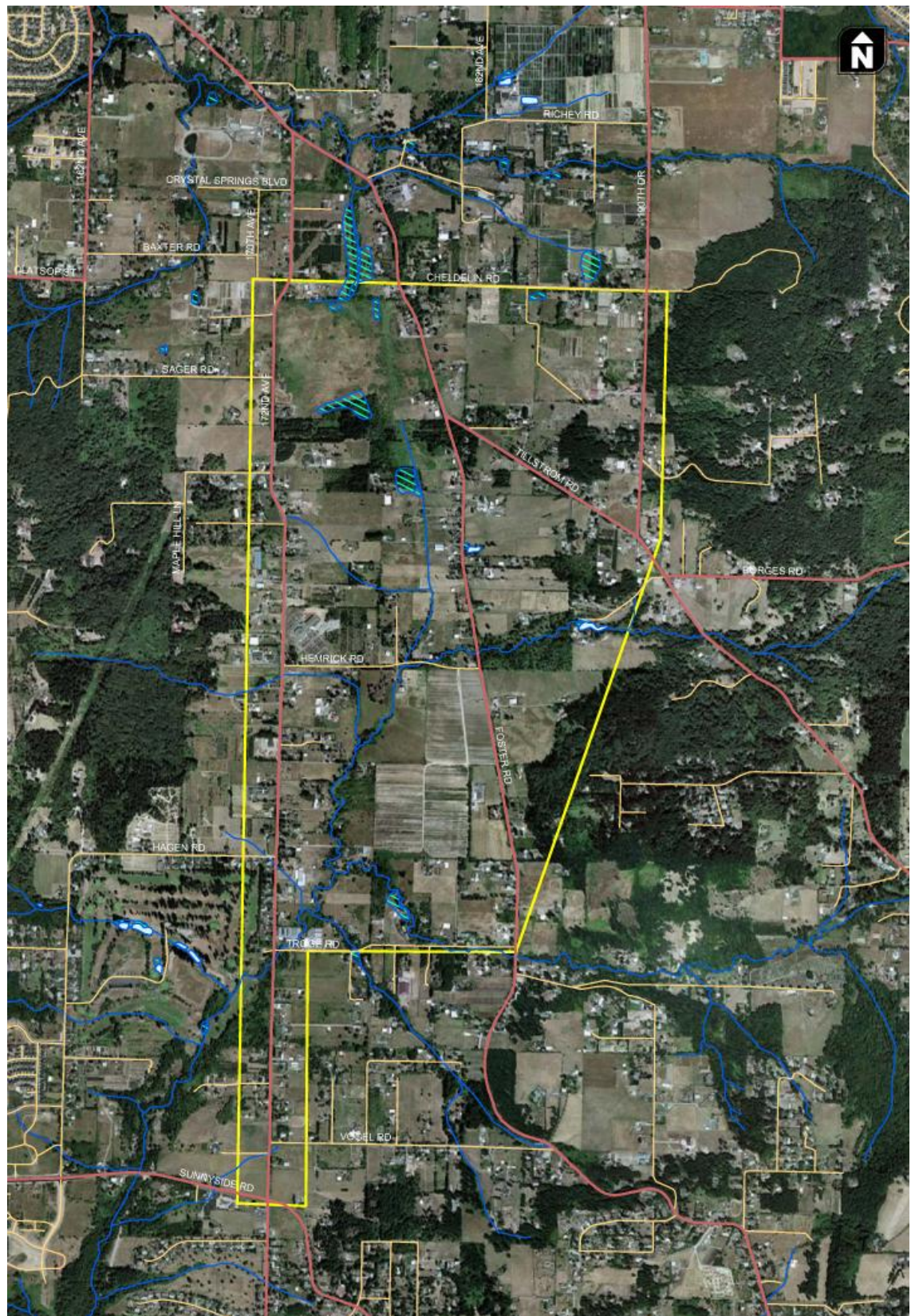
# Tax Lot Boundaries & Jurisdiction





# 172nd / 190th Corridor Plan

# Aerial Photo





## 2nd Interview Questions

1. *Would you prefer a connection between 172<sup>nd</sup> and 190<sup>th</sup> that includes T intersections or a continuous travel corridor? Why?*
2. *What do you like or dislike about concept AS10A?*
3. *Why do you like or dislike about concept AT6?*
4. *What do you like or dislike about concept AT2?*
5. *What do you like or dislike about concept AT4?*
6. *What do you like or dislike about AT5?*
7. *What is your favorite corridor alignment concept and why?*
8. *What elements of the streetscape concepts do you like and dislike?*
9. *What is your opinion of a buffered cycle lane (see S5H)?*
10. *Is there anything in your opinion that the project team is overlooking or missing at this point in the project?*
11. *Other comments or questions?*

THANK YOU!



# 3rd Interview Questions

1. *Given what you've heard about AS10a and the other alternatives, how comfortable are you with this being the recommended alternative?*
2. *If AS10a looks less likely to be completed given the out of project area 187th connection, how comfortable are you with AT2 being a backup?*
3. *Was there anything you particularly liked about AT6?*
4. *To recap, of the three remaining options, please give us your ranked preference, with 1 being best?*  
AS10a  
AT2  
AT6  
*So that we can summarize your feedback for project and advisory committee members, why?*
5. *Are there any improvements you'd make to any of the alternatives at this point?*
6. *Regarding the draft streetscape improvements, do you have any questions or comments?*

THANK YOU!



## Acronyms

- LID** Low Impact Development
- PAC** Project Advisory Committee
- PIP** Public Involvement Plan
- PMT** Project Management Team
- PSA** Project Study Area
- SDC** Systems Development Charge

## Terms

### 2040 Growth Concept

The Metro Region vision for urbanization identifying growth centers and corridors.

### bioswale

A landscape element, often a planted strip along a street or parking lot, for the purpose of capturing surface water runoff and filtering out silt and pollution before the storm water enters the drainage system or groundwater.

### concurrency

Adequate public facilities available when the impacts of development occur.

### corridor

A (generally linear) tract of land in which at least one main line for transport, has been built.

### cycle track

An exclusive bike facility that has elements of a separated path and on-road bike lane. A cycle track, while still within the roadway, is physically separated from motor traffic and is distinct from the sidewalk.

### greenfield

Undeveloped lands such as field and forests.

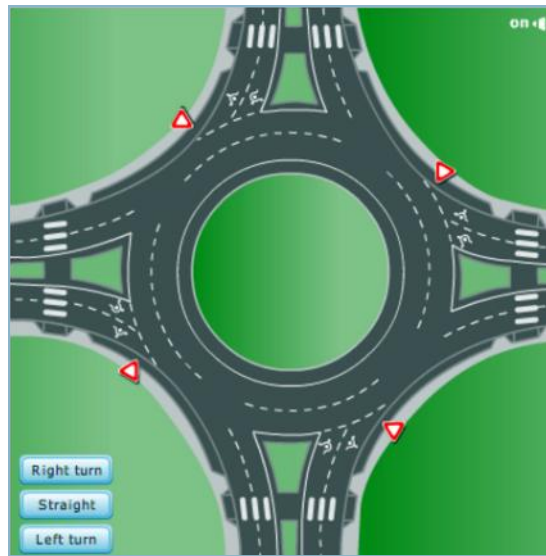
### green street

A street designed to:

- integrate a system of stormwater management

within its right of way

- reduce the amount of water that is piped directly to streams and rivers
- be a visible component of a system of “green infrastructure” that is incorporated into the aesthetics of the community
- make the best use of the street tree canopy for stormwater interception as well as temperature mitigation and air quality improvement
- ensure the street has the least impact on its surroundings, particularly at locations where it crosses a stream or other sensitive area.



4-Lane Roundabout

### The Intertwine

Regional/statewide trail planning initiative. [www.theintertwine.org](http://www.theintertwine.org)

### low impact development (LID)

An approach to land development that uses various land planning and design practices and technologies to simultaneously conserve and protect natural resource systems and reduce infrastructure costs. LID still allows land to be developed, but in a cost effective manner

that helps mitigate potential environmental impacts.

### operational landscaping

An approach to landscaping that focuses on infrastructure functions, environmental conservation and efficient maintenance.

### questionnaire

A research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents.

### roundabout (traffic circle)

A roundabout is a type of circular intersection with yield control of entering traffic, islands on the approaches, and appropriate roadway curvature to reduce vehicle speeds. Modern



roundabouts are different from rotaries and other traffic circles. For example, roundabouts are typically smaller than the large, high-speed rotaries still in use in some parts of the country. In addition, roundabouts are typically larger than neighborhood traffic circles used to calm traffic.

**skinny streets**

Reducing street widths reduces right-of-way, construction and maintenance costs and is an effective traffic calming technique. There are concerns for freight traffic, emergency and service vehicle access and parking conflicts.

**systems development charge (SDC)**

One-time fees assessed on new development to cover a portion of the cost of providing specific types of public infrastructure required as a result of this development.

**traffic calming**

The slowing or reduction of motor-vehicle traffic to improve safety for pedestrians and bicyclists and improve the environment for residents.

**value engineering**

Value engineering is concerned with optimizing the conceptual, technical and operational aspects of a project's deliverables.

