INTERIM RULE

Private Rights-of-Way - Streets, Alleys, Shared Courts, Common Greens and Pedestrian Connections

Appendix A - Figures

Note: The figures contained in this appendix are intended to provide examples of how private rights-of-way could be designed. The figures are not prescriptive. The design of private rights-of-way will vary with the conditions of each site and must also conform to other applicable City regulations.

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Determine if the private street will need to be a Fire Apparatus Access Road based on the following:

a. Measure the distance from the public street to the farthest corner of the anticipated building locations. Fire apparatus access roads must be within 150 feet of all portions of the exterior wall of the first floor of the buildings, as measured via an approved route around the exterior of the building. Through a standard exception, this distance can be extended to 250 feet if fire suppression sprinklers are provided. If the access standard cannot be met using the abutting public street, then all (or a portion of) the new private street will need to be a Fire Apparatus Access Road (Standard A).

b. Anticipated height of structures to be served by the private street. Structures over 30 feet in height (measured at the eaves of a sloped roof, or the top of the parapet for a flat roof) require aerial fire access via a Fire Apparatus Access Road (Standard A).

For additional details refer to Fire & Life Safety Requirements for Fire Department Access and Water Supplies (www.portlandoregon.gov/citycode/article/507303).

1. Exceptions to aerial fire access requirements are available with Fire Bureau approval.
2. Turnouts are required for streets greater than 400 feet in length.
3. Private streets over 500 feet in length will be reviewed on a case-by-case basis.

Standard A: Dead end private streets that ARE a Fire Apparatus Access Road, up to 500 feet in length

<table>
<thead>
<tr>
<th>Minimum roadway width for fire access (both sides signed no parking)</th>
<th>Parking allowed on one side (one side signed no parking fire lane)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 feet</td>
<td>28 feet</td>
</tr>
<tr>
<td>26 feet for aerial fire access (structures over 30’ height)</td>
<td>34 feet</td>
</tr>
</tbody>
</table>

Standard B: Dead end private streets that are NOT a Fire Apparatus Access Road (generally must be 200 feet or less in length with structures up to 30’ in height)

<table>
<thead>
<tr>
<th>Minimum roadway width (both sides signed no parking)</th>
<th>Parking allowed on one side (one side signed no parking)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 feet</td>
<td>24 feet</td>
</tr>
</tbody>
</table>

Determine whether on street parking will be provided in the roadway.

The roadway width in both Standard A and Standard B varies based on whether on-street parking will be provided. See Section III.G of this Rule for guidance on whether on-street parking is required. If parking is not required, it may still be provided. Alternate parking configurations outside of the vehicle roadway (i.e. parking bays) are also an option (see Figure 12).
Typical Private Street Section

maximum 50 percent slope
slope begins at least one foot from roadway improvement, and one foot from tract boundary

Typical Private Street Section

6 inches
1 1/2 minus crushed rock

Notes:
1) Longitudinal slope shall be between 1% and 15%.
2) Utility trenching backfilled with 3/4 minus crushed rock compacted to at least 90% of the max. dry density determined by ASTM D1557
3) Soils shall be compacted to at least 90 percent of the max. dry density determined by ASTM D1557
4) See BES Stormwater Management Manual for specific stormwater management requirements (this drawing does not reflect all possible site conditions or design options).
Curbing and Edge Restraint for Concrete Paving Block Roadway Surface

Notes:
1) See Chapter 2 of the BES Stormwater Management Manual for stormwater management requirements, and facility design specifications.
Hammerhead Turnaround
for Private Streets More Than 300 Feet Long

Notes:
1) Dimensions shown are from curb face to curb face. The total size of the street tract will vary, to accommodate setbacks, sidewalks, street trees, stormwater facilities, and any other required right-of-way elements.
Circular Cul-de-Sac Turnaround
for Private Streets More Than 300 Feet Long

Notes:
1) Dimensions shown are from curb face to curb face. The total size of the street tract will vary, to accommodate setbacks, sidewalks, street trees, stormwater facilities, and any other required right-of-way elements.
Hammerhead Turnaround
for Private Streets More Than 300 Feet Long
("T" Alternative)

Notes:
1) Dimensions shown are from curb face to curb face. The total size of the street tract will vary, to accommodate setbacks, sidewalks, street trees, stormwater facilities, and any other required right-of-way elements.
Notes:
1) Dimensions shown are from curb face to curb face. The total size of the street tract will vary, to accommodate setbacks, sidewalks, street trees, stormwater facilities, and any other required right-of-way elements.
Hammerhead Turnaround
for Private Streets that Do Not Exceed 300 Feet Long

20' 0" curb radius

20' 0" curb face

hammerhead may extend from either side of the street

40' 0"

50' 0"

20' 0"

roadway width per Figure 3

Notes:
1) Dimensions shown are from curb face to curb face. The total size of the street tract will vary, to accommodate setbacks, sidewalks, street trees, stormwater facilities, and any other required right-of-way elements.
Notes:
1) Where there is no turnaround, street length is measured to the end of pavement.
Allowed On-Street Parking Configurations

parking lane option

(roadway width per Figure 3)

travel lane

parallel parking bay option

perpendicular parking bay option

curb radius 10'

22' 6" 28' to 33' min.

(minimum roadway width per Figure 3)

width of parking bay = 9 feet x __ spaces + 3 feet (for example, this bay is 30 feet wide, for 3 spaces)

18' 0" min.

(minimum 20 feet, or minimum roadway width per Figure 3 if more than 20 feet)
Private Street Signs

Street name sign

SE MAIN COURT

6"

Retro-reflective weather resistant material, with green lettering at least 4 inches high on a white background.

No parking signs

Red lettering on a white reflective background. See OFC D103.6.

Shared court sign

W3262, diamond-shaped with a black legend and border on a yellow background (see Manual on Uniform Traffic Control Devices).

W16-1, black lettering on a yellow background (see Manual on Uniform Traffic Control Devices).

Notes:
1) A private street name sign shall be posted at the private street entrance.
2) Spacing for no parking signs as approved by the Fire Bureau.
3) In place of no parking signs, curbs may be painted red and marked "NO PARKING FIRE LANE". Lettering shall have a stroke of not less than 1 inch wide by 6 inches high. Lettering shall be white on red background (OFC 503.3).
4) Post signs W3262 and W16-1 at entrance to shared court.
Sidewalk Location Options for Hammerhead Turnarounds

grade-separated sidewalk
accessible curb ramps per Oregon Standard Drawing RD760
tract boundary
this segment of sidewalk surface flush with roadway (must be different surface material than roadway)
curb
grade-separated sidewalk
curb
Street Tree Configuration Options

Option 1, Tree Planting Strip

- 30' 0"
- Sidewalk (where required)
- Curb
- 4 foot planting strip
- Travel lane (roadway width per Figure 3)

Option 2, Stormwater Facility Planting

- Sidewalk (where required)
- Combination curb and gutter
- Travel lane (roadway width per Figure 3)

Option 3, Sidewalk Tree Wells

- 30' 0"
- Sidewalk
- Maintain 3' clear
- Curb
- Travel lane (roadway width per Figure 3)

Option 4, Parking Lane Tree Wells

- Decorative bollards or tree guards around tree
- Combination curb and gutter
- 50' 0"
- Travel lane (roadway width per Figure 3)
- 5' x 5' planting well surrounded by concrete collar curb, flush with roadway surface

Note: Trees that are planted must provide a 13' 6" clearance for fire department access and must not interfere with aerial apparatus access for buildings that exceed 30 feet in height.
Shared Court Clear Zone
(indicated on this drawing by diagonal lines)

Notes:
1) Planters, benches, and other similar amenities shall be designed to retain clear sight lines between 2 feet and 6 feet above grade, both within and outside the clear zone.
2) Trees, shrubs and groundcover planting within the tract shall be a species with an expected growth pattern that will not place dense foliage between 2 feet and 6 feet above grade.
3) Shrubs and groundcover planting shall be less than 1 foot tall in any area within 2 feet of a clear zone that may be used as a vehicle backing area, in order to avoid a bumper hitting.
4) Underground utilities are typically located within the clear zone. Utility requirements may dictate that the clear zone be wider than 12 feet.
Traffic Calming Measures for Shared Courts Over 100 Feet Long

Chicane Offset Option (example)

Pinch Point Option (example)

- landscaped area or planter creates offset in clear zone
- arrangement of tree wells and bollards creates offset in clear zone
- minimum 15-foot inside clear zone curve radius at offset
- pinch point acceptable treatments:
  - bollards;
  - speed bumps/tables;
  - narrowing clear zone by using different paving materials;
  - frame pinch point with progressively taller landscape features.

accessible route (see Figure 18)

landscaped area or planter creates narrower pinch point

12 ft - 0 in clear zone

15 ft - 0 in clear zone
Shared Court Accessibility Options

- Use concrete path within court (not grade separated)
  - Concrete surface surrounding paving block area (flush with roadway) to provide lateral stability for paver blocks and provide accessible route

- Use accessible pavers
  - Sand-set bricks or concrete pavers with flush top edge or a bevel less than or equal to 6 millimeters
  - Regular spacing of street trees provides for more predictable way-finding for visually impaired
  - Flush concrete curb and building wall provide way-finding device for visually impaired

- Use multiple pavement sections
  - Separate section of sand-set bricks or concrete pavers with flush top edge or a bevel less than or equal to 6 millimeters
  - Porous concrete paver blocks

- Minimum 3' clear driveway approach per Portland Transportation requirements

Note: Tree limbs shall be at least 6 feet above the street surface at the trunk of the tree.
Common Green and Pedestrian Connection Improvements

A common green must include at least 400 square feet of grassy area, play area, or dedicated gardening space, which must be at least 15 feet wide on the narrowest dimension.

Notes:
1) Gazebos, sculptures, art installations, ornamental water features, play equipment, benches, picnic tables, and other similar structures may be located within common greens. See Section III.O.
2) Stormwater facilities may be located within common greens or pedestrian connections. See Section III.L for specific standards.

City of Portland, Bureau of Development Services
Private Street Administrative Rule
Figure 19
updated 1/4/09
Grading at Right of Way Edge

Notes:

1) Engineering calculations are required for walls over 4 feet high. Engineering calculations may also be required for walls that are structurally integral to the street, where the site is steeply sloped, and for surcharged soils.
Typical Private Street Utility Configuration (3 Lots)

Notes:

1) This drawing is intended to provide general guidance only. It is not drawn to scale. For specific standards, refer to the most current edition of the BES Sewer Design Manual, the Water Bureau Developer's Manual, and the Oregon State Plumbing Code.

2) Utility trenching is to be backfilled with 3/4 minus crushed rock compacted to 90% of the maximum dry density determined by ASTM D1557.

3) Sewer and water laterals should be routed to individual lots without crossing through stormwater swale or planters. Swales and planters should be set back from driveway locations by several feet to allow installation of utility laterals.

4) Water meters must be located in the public right of way. For lots that have no public street frontage, meters must be in front of the private tract frontage. See BES Stormwater Management Manual Appendix G.3 for information about meter placement if there is a stormwater infiltration facility in the public street right of way.
Typical Private Street Utility Configuration (6 Lots)

Notes:
1) This drawing is intended to provide general guidance only. For specific standards, refer to the most current edition of the BES Sewer Design Manual, the Water Bureau Developer’s Manual, and Oregon State Plumbing Code.
2) Utility trenching is to be backfilled with 3/4 minus crushed rock compacted to 90% of the maximum dry density determined by ASTM D1557.
3) Public sewer easements are for the exclusive use of public sewers. The Chief Engineer (BES) must approve any other utility placed within the easement area.
4) Sewer and water laterals should be routed to individual lots without crossing through stormwater swale or planters. Swales and planters should be set back from driveway locations by several feet to allow installation of laterals.
5) Water meters must be located in the public right of way. For lots that have no public street frontage, meters must be in front of the private tract frontage. See BES Stormwater Management Manual Appendix G.3 for information about meter placement if there is a stormwater infiltration facility in the public street right of way.