Appendix E

Concept Plan Alternatives
Concept Plan Alternatives

The guiding principles informed the creation of five total concept plan alternative maps. With the exception of the first alternative, the alternative maps aim to balance existing conditions analysis, public involvement, regulatory requirements, and implementation of relevant best practices. Tradeoffs between preservation of open space and development density were made in order to balance the guiding principles; these tradeoffs are illustrated through a “clustered” versus “spread” development pattern.

Concept A is largely a reflection of desires communicated throughout the public involvement process, free of certain regulatory constraints, and best practices. Concepts B and D illustrate a “clustered” pattern of development that favors higher density in certain areas to limit development in others. Concepts C and E illustrate more of a “spread” concept, where urban development encompasses a larger area within the urban reserve but at lower local densities.

To calculate density, net or “buildable” acres are considered. Areas designated as open space/natural, parks, or multi-modal paved road are not considered buildable acres. In areas designated for residential or mixed-use development, the standard assumption is that 17 percent of the gross area is committed to transportation right of way. Consequently, 17 percent of the gross acreage is subtracted from residential and mixed-use lands and the remaining net buildable land is used to calculate density. In rural designated areas, no adjustment for transportation right of way is made (other than what is illustrated in the map) because the buildable lots are large (5 acre minimum), the urban level of services are minimal, and additional roads or driveways would also likely be private. Average housing density (DU/ACRE) is equal to the total number of units divided by the net buildable land. Population is calculated assuming 2.68 people per dwelling unit.

Additionally, because of regulatory requirements to consider surrounding land uses, each of these alternatives assume the development of industrial and/or commercial uses in Urban Reserve 7B, north of Forest Grove and east of the DHUR. Finally, these alternatives assume the increased urbanization of currently unincorporated land between the DHUR and Thatcher Road. This land, currently zoned as “Rural Residential” or “Future Urban,” is located inside the UGB but outside the city limits of Forest Grove.
Concept A
CONCEPT PLAN A
David Hill Urban Reserve Concept Plan
http://www.davidhillconceptplan.com

Landuse Types
- Open Space/Natural
- Neighborhood Park
- Multi-Modal Paved Road
- Rural (5 AC MIN)
- Low-Density Residential (6.5 DU/AC)
- Medium-Density Residential (12.5 DU/AC)
- Medium/High-Density Residential (21 DU/AC)
- High-Density Residential (32 DU/AC)
- Mixed-Use

Trail
Ten lots
Concept A

Concept A reflects the desires communicated throughout the public involvement process, free of certain regulatory constraints, and best practices.

- Approximate total dwelling units: 328
- Approximate total buildable acres: 130.7
- Average density: 2.5 dwelling units per acre

Land Use Elements

- Retains existing rural character
- 47.9 buildable acres of low-density residential development clustered around a 7.3 acre park in the northern section of the urban reserve
- 82.8 acres of rural land, with a maximum of 17 dwelling units

Transportation Elements

- 8.3 acres of paved road, including the section of David Hill Road that travels through the DHUR
- Speed limits no higher than 25 mph
- Street-calming features include: street trees, speed humps, additional signage,
- David Hill Road includes two travel lanes, bicycle lanes, sidewalks and tree planting strips
- Bicycle and pedestrian paths throughout constrained areas, along the current UGB, and through proposed parks; with connection points serving residential areas
- Two additional neighborhood collector roads north of David Hill Road improve connectivity between the DHUR and Thatcher Road
<table>
<thead>
<tr>
<th>LANDUSE</th>
<th>AVG DU/AC</th>
<th>% NET BUILDABLE</th>
<th>ACRES</th>
<th>BUILDABLE ACRES</th>
<th>UNITS</th>
<th>POPULATION</th>
<th>% TOTAL ACRES</th>
<th>% BUILDABLE ACRES</th>
<th>% TOTAL UNITS</th>
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</tr>
<tr>
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<td>82.8</td>
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<td><strong>130.7</strong></td>
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<td><strong>880</strong></td>
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* Mixed Use not included in Totals
Concept B
Concept B

Concept B illustrates a “clustered” pattern of medium- to high-density development located in the northern and northeastern sections of the DHUR. It favors higher density in certain areas to limit development in others. Intensive land uses are focused around David Hill Road and includes a mixed-use “neighborhood center.”

- Approximate total dwelling units: 1023 and
- Approximate total buildable acres: 126.1
- Average density: 8.1 dwelling units per acre

Land Use Elements

- 9.9 acres of low-density residential serves as a transitional buffer between existing development southeast of the DHUR and future development
- Medium/high- and Medium-density residential surrounding a 7.3 acre park north of David Hill Road
- 7.7 acres of high-density residential development at the northeastern corner adjacent to Thatcher Road
- A total of 6.4 acres of mixed-use along David Hill Road, adjacent to the park, and along Thatcher Road to serve the medium/high- to high-density development
- 55.7 buildable acres of rural land

Transportation Elements

- 8.3 acres of paved road, including the section of David Hill Road that travels through the DHUR
- Speed limits no higher than 25 mph
- Street-calming features: street trees, speed humps, and additional signage
- David Hill Road includes two travel lanes, bicycle lanes, sidewalks and tree planting strips
- Bicycle and pedestrian paths throughout constrained areas, along the current UGB, and through proposed parks
- Speed zone along Thatcher Road to slow traffic
- Two additional neighborhood collector roads north of David Hill Road to improve connectivity between the DHUR and Thatcher Road
## CONCEPT B

<table>
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<tr>
<th>LANDUSE</th>
<th>AVG.DU/AC</th>
<th>% NET BUILDABLE</th>
<th>ACRES</th>
<th>BUILDABLE ACRES</th>
<th>UNITS</th>
<th>POPULATION</th>
<th>% TOTAL ACRES</th>
<th>% BUILDABLE ACRES</th>
<th>% TOTAL UNITS</th>
</tr>
</thead>
<tbody>
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<td>0.0%</td>
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<tr>
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<td>0.0%</td>
<td>0.0%</td>
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<tr>
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<tr>
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</tr>
</tbody>
</table>

| TOTAL                                  | 316.8     | 126.1          | 1023  | 2742            | 100%  | 100%       | 100%          |                  |               |

* Mixed Use not included in Totals
Concept C
Concept C

Concept C presents an alternative for lower-density development spread throughout the DHUR.

- Approximate total dwelling units: 798
- Approximate total buildable acres: 110.7
- Average density: 7.2 dwelling units per acre

Land Use Elements

- Low- and medium-density residential surrounding a 7.3-acre park in the northern section
- Medium-density residential immediately adjacent to Thatcher Road
- Low-density south of David Hill Road and along Gales Creek Road
- A total of 117.7 acres of low-density residential
- A total of 15.7 acres of medium-density residential

Transportation Elements

- 17.7 acres of paved road, including the section of David Hill Road that travels through the DHUR
- Speed limits no higher than 25 mph
- Street-calming features: street trees, speed humps, and additional signage
- David Hill Road includes two travel lanes, bicycle lanes, sidewalks and tree planting strips
- Speed zone along Thatcher Road to slow traffic
- Creekwood Place extended north to connect with David Hill Road
- Speed zone along Gales Creek Road to slow approaching traffic
- Traffic signal along Gales Creek Road to facilitate left-turn movements out of the DHUR
- Bicycle and pedestrian paths throughout constrained areas, along the current UGB, and through proposed parks; with connection points serving residential areas
- Two additional neighborhood collector roads north of David Hill Road to improve connectivity between the DHUR and Thatcher Road
<table>
<thead>
<tr>
<th>LANDUSE</th>
<th>AVG DU/AC</th>
<th>% NET BUILDABLE</th>
<th>BUILDABLE ACRES</th>
<th>BUILDABLE UNITS</th>
<th>POPULATION</th>
<th>% TOTAL ACRES</th>
<th>% BUILDABLE ACRES</th>
<th>% TOTAL UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Space/Natural</td>
<td>0</td>
<td>0</td>
<td>158.5</td>
<td>0</td>
<td>0</td>
<td>50%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Rural (5 AC MIN)</td>
<td>0.2</td>
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<td>0.0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Neighborhood Park</td>
<td>0</td>
<td>0</td>
<td>7.3</td>
<td>0</td>
<td>0</td>
<td>2%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Multi-Modal Paved Road</td>
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<td>0</td>
<td>17.7</td>
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<td>6%</td>
<td>0.0%</td>
<td>0.0%</td>
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<td>6.5</td>
<td>0.83</td>
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<td>37%</td>
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<td>13.0</td>
<td>163</td>
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<td>11.8%</td>
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<tr>
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<tr>
<td>High-Density Residential (32 DU/AC)</td>
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<td>0</td>
<td>0%</td>
<td>0.0%</td>
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</table>

| TOTAL                        | 316.8     | 110.7          | 798             | 2138           | 100%       | 100%          | 100%              |              |

* Mixed Use not included in Totals
Concept D
**Concept D** (the preferred alternative)

Concept D presents an alternative for clustered medium/high-density and high-density development located in the northern and northeastern sections of the DHUR. The most intensive land uses are focused around David Hill Road and includes a mixed-use “neighborhood center.” It favors higher density in certain areas to limit development in others.

- Approximate total dwelling units: 1,323
- Approximate total buildable acres: 126.1
- Average density: 10.5 dwelling units per acre

**Land Use Elements**
- Medium/high- and high-density residential surrounding a 7.3-acre park in the northern section of the urban reserve
- 9.9 acres of low-density residential serves as a transitional buffer between existing development southeast of the DHUR and future development
- Low- and medium-density residential just south of David Hill Road
- High-density residential located in the northeastern corner along Thatcher Road
- A total of 6.4 acres of mixed-use along David Hill Road, adjacent to the park, and along Thatcher Road to serve the medium/high- to high-density development
- 55.7 buildable acres of rural land

**Transportation Elements**
- 8.3 acres of paved road, including the section of David Hill Road that travels through the DHUR
- Speed limits no higher than 25 mph
- Street-calming features: street trees, speed humps, and additional signage
- David Hill Road includes two travel lanes, bicycle lanes, sidewalks and tree planting strips
- Speed zone along Thatcher to slow traffic
- Bicycle and pedestrian paths throughout constrained areas, along the current UGB, and through proposed parks; with connection points serving residential areas
- Two additional neighborhood collector roads north of David Hill Road to improve connectivity between the DHUR and Thatcher Road
<table>
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<tr>
<th>LANDUSE</th>
<th>AVG DU/AC</th>
<th>% NET BUILDABLE ACRES</th>
<th>BUILDABLE ACRES</th>
<th>UNITS</th>
<th>% TOTAL ACRES</th>
<th>% BUILDABLE ACRES</th>
<th>% TOTAL UNITS</th>
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<tr>
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<td>55.7</td>
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<tr>
<td>Multi-Modal Paved Road</td>
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**TOTAL** 316.8 126.1 1323 3546 100% 100% 100%

* Mixed Use not included in Totals
Concept E
**Landuse Types**
- Open Space/Natural
- Neighborhood Park
- Multi-Modal Paved Road
- Rural (5 AC MIN)
- Low-Density Residential (6.5 DU/AC)
- Medium-Density Residential (12.5 DU/AC)
- Medium/High-Density Residential (21 DU/AC)
- High-Density Residential (32 DU/AC)
- Mixed-Use
Concept E

Concept E illustrates an alternative for low-, medium- and high-density development “spread”, where urban development encompasses a larger area within the urban reserve but at lower local densities. Intensive land uses are focused around David Hill Road and includes a mixed-use “neighborhood center.”

- Approximate dwelling units: 1,232
- Approximate buildable acres: 110.7
- Average density: 11.1 dwelling units per acre

**Land Use**

- Medium- and medium/high-density residential surrounds a 7.3-acre park in the northern section of the urban reserve
- 8 acres of high-density residential immediately adjacent to Thatcher Road
- 9.9 acres of low-density residential serves as a transitional buffer between existing development southeast of the DHUR and future development
- Low-density south of David Hill Road and along Gales Creek Road
- A total of 6.4 acres of mixed-use along David Hill Road, adjacent to the park, and along Thatcher Road to serve the medium/high- to high-density development

**Transportation**

- 17.7 acres of paved road, including the section of David Hill Road that travels through the DHUR
- Speed limits no higher than 25 mph
- Street-calming features: street trees, speed humps, and additional signage
- David Hill Road includes two travel lanes, bicycle lanes, sidewalks and tree planting strips
- Green street infrastructure
- Speed zone along Thatcher Road to slow traffic
- Creekwood Place extended north to connect with David Hill Road
- Speed zone along Gales Creek Road to slow approaching traffic
- Traffic signal along Gales Creek Road to facilitate left-turn movements out of the DHUR
- Bicycle and pedestrian paths throughout constrained areas, along the current UGB, and through proposed parks; with connection points serving residential areas
- Two additional neighborhood collector roads north of David Hill Road to improve connectivity between the DHUR and Thatcher Road
<table>
<thead>
<tr>
<th>LANDUSE</th>
<th>AVG DU/AC</th>
<th>% NET BUILDABLE ACRES</th>
<th>BUILDABLE ACRES</th>
<th>UNITS</th>
<th>POPULATION</th>
<th>% TOTAL ACRES</th>
<th>% BUILDABLE ACRES</th>
<th>% TOTAL UNITS</th>
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<td>0%</td>
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</tr>
<tr>
<td>Medium/High-Density Residential (21 DU/AC)</td>
<td>21</td>
<td>0.83</td>
<td>13.8</td>
<td>11.4</td>
<td>240</td>
<td>4%</td>
<td>10.3%</td>
<td>19.5%</td>
</tr>
<tr>
<td>High-Density Residential (32 DU/AC)</td>
<td>32</td>
<td>0.83</td>
<td>7.7</td>
<td>6.4</td>
<td>204</td>
<td>2%</td>
<td>5.8%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Mixed-Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>316.8</strong></td>
<td><strong>110.7</strong></td>
<td><strong>1232</strong></td>
<td><strong>3302</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Mixed Use not included in Totals