



U.S. 97: South Parkway Murphy Interchange Interchange Area Management Plan

REVISED

Technical Memorandum #4 Future Land Use Assumptions

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LIST OF ACRONYMS

IAMP	Interchange Area Management Plan
MPO	Metropolitan Planning Organization
TAZ	Transportation Analysis Zone

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Executive Summary

This memorandum describes future land use assumptions near the proposed South Parkway Murphy Interchange and verifies related inputs for the Bend Metropolitan Planning Organization (MPO) regional transportation model.

The future year for the land use analysis is 2030, and the base year is 2003. The land use scenario for year 2030 is identified in the Murphy Crossing Refinement Plan. The City of Bend has amended its Bend Area General Plan to incorporate the land use and road network shown in the preferred plan for the Murphy Crossing area.

The regional transportation model's future year assumptions for population, employment, and households were compared with base year data along with development potential in the Murphy Crossing Refinement Plan. The conclusion is that the model's employment inputs for year 2030 are consistent with the development projected to occur in the Murphy Crossing planning area, while the model's household inputs for year 2030 appear to be low.

1. Background

The information in this memorandum is part of the evaluation of existing and future conditions for the Interchange Area Management Plan (IAMP) for the proposed South Parkway Murphy Interchange. This evaluation is important because existing land uses and regulations serve as indicators for the intensity of future development and redevelopment. Estimates of future land use conditions will help guide the development of the South Parkway Murphy Interchange, and identify measures to protect the interchange 20 years or more into the future.

The area with the most development potential near the proposed interchange was identified in the Murphy Crossing Refinement Plan (shown as the Murphy Crossing Area in Figure 1), and a preferred plan for the area was developed with proposed land use changes. The preferred plan was revised in the spring of 2006 to incorporate 20 additional acres for residential use, and to reconfigure the public park from a linear park to a town square style park. The current Murphy Crossing Refinement Plan consists of approximately 102 gross acres of mixed land use. The Bend Zoning Ordinance, Bend Area General Plan and the Transportation System Plan map have been amended to incorporate the Murphy Crossing Refinement Plan.

For these reasons, the preferred alternative of the Murphy Crossing Refinement Plan is used in this memorandum as the future land use scenario. The future year used for the land use analysis is 2030, which is the future year for the Bend MPO model. The base year is 2003.

2. Future Land Use Scenario: the Murphy Crossing Refinement Plan

2.1 Development Concept

The preferred plan for the Murphy Crossing area is a mixed-use neighborhood center. The centerpiece of the envisioned network of streets in the Murphy Crossing study area will be an intersection connecting the north-south “frontage” road with a Murphy Road extended from Third Street to Brookwood Boulevard that would become an east-west “connector” street. The intersection will be at-grade. The goal of the local street network is to provide connection to the individual parcels within the study area and to the adjacent residential neighborhoods.

The preferred plan features a central open space and physical pattern of residential development that makes for a “gentle...transition from the existing low-density single-dwelling neighborhood: gradually becoming more dense at the center of the project site.” (Murphy Crossing Refinement Plan: A TGM Quick Response Project-Draft, Urbsworks, June 2005). The land located generally east of the central open space will be designated for multi-use; this portion of the Murphy Crossing planning area is intended to be more intensively developed than the northern and western perimeter of the Murphy Crossing area. The Murphy Crossing area is indicated in Figure 1.

In March 2006, the City of Bend held a neighborhood meeting and proposed a draft plan for the Murphy Crossing Refinement Plan area, with the following revisions to the original June 2005 draft refinement plan:

- The addition of three new residential areas totaling 20 acres
- Relocation of the Parkway ramp terminus to the south
- Reconfiguration of the public park from a linear park to a “Town Square”
- Shifting Romaine Way road alignment to the south

The preferred Murphy Crossing plan uses smaller-scaled retail development to “line” the proposed 92,000 square-foot retail store along the frontage road. This pattern of development has been used effectively by big box retailers in other jurisdictions. The front of the store will be oriented directly facing its associated surface parking lot. In the case of Murphy Crossing, this places the store front facing south at a right angle to the frontage road.

2.2 Future Development

According to the Murphy Crossing Refinement Plan, the 102-acre area designated for the preferred plan concept “includes one of the largest remaining contiguous vacant or under-developed commercial properties in the City of Bend.” The following tables represent an estimate of available land area to be developed for commercial/retail, mixed use, and residential dwelling units in the Murphy Crossing area. Table 1 outlines the net acres available for development in the site area. Table 2 shows estimated building square footage for commercial/retail and mixed use, estimated number of employees, and calculated mixed-use and residential dwelling units. The estimated building square footage under commercial and mixed use is based on the estimates from Urbsworks in the Draft Murphy Crossing Refinement Plan completed in June 2005; they do not

take into account the additional 4.28 acres of General Commercial proposed by the City of Bend in the amended Murphy Crossing Refinement Plan.

Table 1. Murphy Crossing Area under the 2006 Preferred Plan

	Net Acres
Site Area (102.75 Gross Acres)	86.01
General Commercial	24.81
Mixed-Use	15.57
Residential Area	41.56
- Multi-Family	21.11
- Single-Family	20.45
Open Space	4.07

Source: *Staff Findings and Recommendation to Planning Commission, City of Bend, August 28, 2006*

Table 2. Estimated Development Potential of Commercial, Mixed Use, and Residential Areas

	Commercial Area*	Mixed-Use	Residential Area	
Total Net Acreage	24.81AC	15.57AC	21.11AC	
Dwelling Units (DU)	0	321	145 (MF) 35(SF)	= 501 DU
Buildable Area for Employment	311,590sf	385,292sf	0	
Employees**	444	550	0	= 994 employees

* Based on the estimates from *Urbsworks in the Draft Murphy Crossing Refinement Plan (June 2005)* which do not include the additional 4.28 acres of General Commercial proposed by the City of Bend in the amended Murphy Crossing Refinement Plan

** Based on an assumption of 700 sf/employee

Sources: *City of Bend and Murphy Crossing Refinement Plan, Urbsworks Architecture and Urban Design, 2005*

Table 2 summarizes the development potential of the three major area types in the Murphy Crossing planning area: the general commercial area; the mixed-use area; and the residential area. As the table shows, the general commercial area has only employment; the residential areas have only dwelling units; and the mixed-use area includes both employment and dwelling units. The employee projection assumes an allotment of 700 square feet per employee. This assumption is based on methodology developed by the Metro Regional Council in Portland, OR (Metro) for their

1999 Employment Density Study. The 700 figure represents a composite of job density requirements for Office, Retail and Service ITE Land Use Code classifications.

2.3 Population and Employment Information

All of the year 2030 scenarios of the regional transportation model include the Murphy Crossing Refinement Plan land use assumptions.

The MPO model uses data from geographic areas called Transportation Analysis Zones (TAZs). The two TAZs (TAZ 503 and TAZ 505) that most closely overlap the Murphy Crossing preferred plan were chosen for analysis in this memorandum (Figure 1). There is a substantial amount of developed land in TAZ 505 that is not included in the Murphy Crossing planning area. There are portions of the planning area which lie outside of TAZ 503 and 505. Household, population, and employment data for base year 2003 and future year 2030 were provided by the Bend MPO.

Table 3. Population, Employment, and Household Information for Base Year 2003 and Future Year 2030

	2003 Population	2003 Households	2030 Population	2030 Households	2003 Total Employees	2030 Total Employees
TAZ 503	86	35	613	254	25	982*
TAZ 505	587	241	848	348	5	5

* Breaks down as: 463 retail, 165 FIRE (Financial/Insurance/Real Estate), 330 service, and the remaining 23 which cannot be disaggregated further

3. Analysis

As Table 3 shows, the population for TAZs 503 and 505 is projected to grow from 673 total in Base Year 2003 to 1,461 in Future Year 2030, which is an additional 788 residents (326 households) over the forecast period. Table 2 shows that the Murphy Crossing Refinement Plan area has the development potential to build out to a total of 501 dwelling units, with 321 of them Mixed-Use, 145 Multi-Family, and 35 Single-Family.

Overlaying the TAZs with the Murphy Crossing Area Preferred Plan option shows that most Single Family Residential is found in TAZ 505 and most or all of the Multi-Family Residential is located within TAZ 503. All or nearly all of the commercial acreage is contained within TAZ 503; while, as previously noted, a large portion of developed land within TAZ 505 lies outside of the planning area.

According to the MPO regional transportation model, the density per household for TAZs 503 and 505 will remain at 2.4 from Base Year 2003 to Future Year 2030. The annual linear growth rate of household density is calculated at 4.3%.

In the Draft Murphy Crossing Refinement Plan, Urbsworks indicates that there are 385,292 square feet of mixed-use area and 311,590 square feet of General Commercial. The MPO model projects 987 total employees by Future Year 2030 for TAZs 503 and 505, which equals approximately 707 available square feet per employee by the Future Year.

4. Conclusion

The following summary findings are based on the analysis performed comparing the future development estimates with the Bend MPO model:

- The MPO regional transportation model's employment projections for Future Year 2030 are consistent with the future buildout of commercial and mixed-use area in Murphy Crossing.
- The MPO regional transportation model's household projections for Future Year 2030 are low when compared to the future residential development assumptions for the Murphy Crossing planning area indicated in the Murphy Crossing Refinement Plan. Because the Murphy Crossing area covers more than one TAZ, it is uncertain whether or not all of the predicted increase in dwelling units have been allocated to the appropriate TAZs. Based on DEA's analysis, it appears that the model's assumptions provide for about 200 fewer households in year 2030 than originally estimated by Urbsworks in the Murphy Crossing Refinement Plan.

It is recommended that ODOT make an executive decision and determine that either: 1) the Murphy Crossing regional transportation model is valid and produces the most accurate land use scenario for the Murphy Crossing area in year 2030; or 2) the regional transportation model may require manual adjustment of outputs during post-processing to project a higher number of dwelling units in year 2030 for TAZ 503. The results of the model's Year 2030 outputs are to be detailed in Technical Memorandum #5.