



**FINAL AGENDA**

FORREST C. SOTH CITY COUNCIL CHAMBER  
4755 SW GRIFFITH DRIVE  
BEAVERTON, OR 97005

REGULAR MEETING  
MAY 15, 2006  
6:30 P.M.

CALL TO ORDER:

ROLL CALL:

PROCLAMATIONS:

Peace Officers' Memorial Day: May 15, 2006

National Public Works Week: May 21-27, 2006

PRESENTATIONS:

06078 Beaverton Human Rights Advisory Commission Human Rights Essay Contest Award Presentation

06079 SW 125th Avenue Extension - Project Update

VISITOR COMMENT PERIOD:

COUNCIL ITEMS:

STAFF ITEMS:

CONSENT AGENDA:

Minutes of the Regular Meeting of May 8, 2006

06080 Liquor Licenses: New Outlet - Za Majestic

06081 Resolution Authorizing the Mayor to Sign an Intergovernmental Agreement (IGA) with the Oregon Department of Transportation (ODOT) for a 2005-2007 Transportation and Growth Management (TGM) Grant for a Downtown Parking Solutions Strategy (Resolution No. 3857)

Contract Review Board:

06082 Contract Award - Annual Audit Services

PUBLIC HEARINGS:

06083            Public Hearing on Biggi Investment Partnership Measure 37 Claim  
(Continued from March 20, 2006 Meeting)

ORDINANCES:

First Reading:

06084            TA 2006-0002 (Floodplain Text Amendment) (Ordinance No. 4392)

EXECUTIVE SESSION:

In accordance with ORS 192.660 (2) (h) to discuss the legal rights and duties of the governing body with regard to litigation or litigation likely to be filed and in accordance with ORS 192.660 (2) (e) to deliberate with persons designated by the governing body to negotiate real property transactions and in accordance with ORS 192.660 (2) (d) to conduct deliberations with the persons designated by the governing body to carry on labor negotiations. Pursuant to ORS 192.660 (3), it is Council's wish that the items discussed not be disclosed by media representatives or others.

ADJOURNMENT

This information is available in large print or audio tape upon request. In addition, assistive listening devices, sign language interpreters, or qualified bilingual interpreters will be made available at any public meeting or program with 72 hours advance notice. To request these services, please call 503-526-2222/voice TDD.

# PROCLAMATION

OFFICE OF THE MAYOR  
CITY OF BEAVERTON



**WHEREAS,** the Congress of the United States of America has designated the week of May 15<sup>th</sup> to be dedicated as "National Police Week" and May 15<sup>th</sup> of each year to be "Peace Officers' Memorial Day" in honor of the Federal, State and Municipal Officers who have been killed or disabled in the line of duty; and

**WHEREAS,** it is known that every 57 hours an American Police Officer will be killed in the line of duty somewhere in the United States and 189 officers will be seriously assaulted in the performance of their duties; and

**WHEREAS,** law enforcement officers are our guardians of life and property, defenders of the individual right of freedom, warriors in the war against crime, and dedicated to the preservation of life, liberty and the pursuit of happiness; and

**WHEREAS,** the City of Beaverton is very proud of our law enforcement officers and wish to recognize their commitment to the public safety profession; and

**WHEREAS,** the Beaverton Police Department provides the highest quality service, preserving human rights, lives and property; and

**WHEREAS,** Beaverton Police are committed to the highest professional standards, working in partnership with our citizens, to meet the challenges of reducing crime, creating a safer environment, and improving our quality of life;

**NOW, THEREFORE,** I, ROB DRAKE, MAYOR, City of Beaverton, Oregon, do hereby proclaim May 15, 2006 as:

## PEACE OFFICERS' MEMORIAL DAY

and, the week of May 14 - 20, 2006 as:

## NATIONAL POLICE WEEK

In the City of Beaverton to call attention to the Beaverton Police for the outstanding service they provide to our community. I also call upon our citizens to express their thanks to the men and women who make it possible for us to leave our homes and family in safety each day and return to our home knowing they are protected by men and women willing to sacrifice their lives if necessary, to guard our loved ones, property, and government against all who would violate the law.



A handwritten signature of Rob Drake in black ink, written over a horizontal line.

Rob Drake  
Mayor

# **PROCLAMATION**

## **OFFICE OF THE MAYOR CITY OF BEAVERTON**



**WHEREAS,** public works services provided in our community are an integral part of our citizens' everyday lives; and

**WHEREAS,** the support of an understanding and informed citizenry is vital to the efficient operation of public works systems and programs such as water, sewers, streets, highways, and public buildings; and

**WHEREAS,** the health, safety, and comfort of this community greatly depends on these facilities and services; and

**WHEREAS,** the quality and effectiveness of these facilities are vitally dependent upon the efforts and skill of public works officials; and

**WHEREAS,** the efficiency of the qualified and dedicated personnel who staff public works departments is materially influenced by an understanding of the importance of the work they perform.

**NOW, THEREFORE,** I, ROB DRAKE, MAYOR, of the City of Beaverton, Oregon, do hereby proclaim May 21 - 27, 2006, as

### **NATIONAL PUBLIC WORKS WEEK**

in the City of Beaverton and call upon all citizens to recognize the contributions that public works officials make every day to our health, safety, and comfort.



A handwritten signature in cursive script that reads "Rob Drake".

Rob Drake  
Mayor

## AGENDA BILL

Beaverton City Council  
Beaverton, Oregon

**SUBJECT:** Beaverton Human Rights Advisory  
Commission Human Rights Essay Contest  
Award Presentation

**FOR AGENDA OF:** 05-15-06    **BILL NO:** 06078

**Mayor's Approval:** 

**DEPARTMENT OF ORIGIN:** HR *web*

**DATE SUBMITTED:** 04-21-06

**PROCEEDING:** Presentation

**EXHIBITS:** None

### BUDGET IMPACT

EXPENDITURE REQUIRED \$0	AMOUNT BUDGETED \$0	APPROPRIATION REQUIRED \$0
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#### **HISTORICAL PERSPECTIVE:**

The Beaverton Human Rights Advisory Commission sponsored the second annual essay contest this year asking Beaverton school children what they think about human rights. An essayist could use any medium to convey their ideas – written or spoken word, film, music, clay, paint, etc. The Commission received over 70 entries ranging from essays and poems to movies and music. Commissioners judged the entries on the ability to show a comprehensive understanding of acceptance in a creative style.

#### **INFORMATION FOR CONSIDERATION:**

2006 Human Rights Essay Contest Winners

##### Elementary School:

Winner: Ryan Rothstein, Grade 5 – Poem – "I"

Runner up: Brianna Getchell, Grade 5 – Art – "No Different, In Ways"

Runner up: Drew Wilson and Robbie Stackhouse, Grade 5 – Film – "Human Rights Documentary"

##### Middle School:

Winner: Franklin Chen, Grade 8 – Poem – "An African"

Runner up: Evan Henderson, Grade 8 – Essay – "Courage"

Runner up: Tony Athanasakos, Grade 8 – Essay – "Human Rights"

##### High School:

Winner: Kyle Parisi, Grade 12 – Song – "For The Rights of Man"

Runner up: Franchesca Mazzarri-Valverde, Grade 9 – Poem – "Our Angel Glenn Michael Parry"

Runner up: Sasha Boyechko, Grade 11 – Essay – "Human Rights In Decline"

**RECOMMENDED ACTION:**

Listen to the presentation.

**AGENDA BILL**

**Beaverton City Council  
Beaverton, Oregon**

**SUBJECT:** SW 125<sup>th</sup> Avenue Extension – Project Update

**FOR AGENDA OF:** 5-15-06 **BILL NO:** 06079

**Mayor's Approval:** *[Signature]*

**DEPARTMENT OF ORIGIN:** Public Works *[Signature]*

**DATE SUBMITTED:** 5-9-06

**CLEARANCES:** Capital Projects *[Signature]*

**PROCEEDING:** Presentation

**EXHIBITS:** Agenda Bill 99-245

**BUDGET IMPACT**

EXPENDITURE REQUIRED \$-0-	AMOUNT BUDGETED \$-0-	APPROPRIATION REQUIRED \$-0-
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**HISTORICAL PERSPECTIVE:**

The preliminary design and schedule for 125<sup>th</sup> Avenue Extension Project (from Brockman/Greenway to Hall Boulevard) was last formally discussed with Council in a public hearing in August 1999 (reference AB No. 99-245).

**INFORMATION FOR CONSIDERATION**

Staff will make a presentation that includes the following:

- Project status update – completed Phase 1, Phase 2 design in FY 06-07, and subsequent phases
- Current project cost estimates
- Alternatives to fund, phase, and construct the remainder of the project

**RECOMMENDED ACTION:**

Council hear the presentation.

**AGENDA BILL**

**Beaverton City Council  
Beaverton, Oregon**

99-245

**SUBJECT:** Recommendations on the Preliminary Design of the 125<sup>th</sup> Avenue Extension (North/South Arterial) Project

**FOR AGENDA OF:** 8-2-99 **BILL NO:** 99-245

**Mayor's Approval:** *[Signature]*

**DEPARTMENT OF ORIGIN:** Eng *TR*

**DATE SUBMITTED:** 7-13-99

**CLEARANCES:** Finance *[Signature]*  
City Attorney *[Signature]*

**PROCEEDING:** Public Hearing

- EXHIBITS:**
- A. 9-14-98 Work Session Agenda Bill
  - B. Final PAC and Staff Recommendations
  - C. PAC Meeting #7 Summary
  - D. Newsletter #3
  - E. Noise Impact Analysis Results Report
  - F. PAC Meeting #8 Summary
  - G. Preferred Design Alternative

**BUDGET IMPACT**

EXPENDITURE REQUIRED \$-0-	AMOUNT BUDGETED \$-0-	APPROPRIATION REQUIRED \$-0-
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**HISTORICAL PERSPECTIVE:**

On June 17, 1996, Council approved a work plan for preliminary engineering and public involvement for the SW 125<sup>th</sup> Avenue Extension (N/S Arterial), CIP Project No. 3158. In approving the work plan, Council approved a \$200,000 budget and City staff-led approach to project development. The City retained Trudy Rippe as the public involvement consultant on July 7, 1997, and a Project Advisory Committee (PAC) was formed in September 1997. The City also retained DKS Associates in November 1997, and David Evans & Associates (DEA) in December 1997 to conduct a traffic study and perform an air quality and noise analysis, respectively.

The City and PAC met eight times and held three public open houses to discuss potential design alternatives for the 125<sup>th</sup> Avenue Extension. The City distributed a newsletter to area businesses and residents prior to each public open house. The first two newsletters informed these citizens of the various design alternatives and included surveys to gather their feedback. At the PAC's seventh meeting on May 12, 1998, the PAC made their final recommendations on the major design alternatives. The PAC's recommendations were presented and discussed in the third and final newsletter and at the final Open House held July 14, 1998.

On September 14, 1998, Council held a work session to review and discuss the Project Advisory Committee's (PAC) recommendations. The major discussion topics were the four major design alternatives, the Green Lane connection with Hall Boulevard, storm drainage, and sound walls.

**Agenda Bill No:** 99-245

**INFORMATION FOR CONSIDERATION:**

Attached to this Agenda Bill as Exhibit A is Agenda Bill No. 98-258 for the September 14, 1998, work session and Exhibits 3, 4, 5, and 7 from that Agenda Bill. Exhibits referred to in Agenda Bill No. 98-258 and not attached in this Agenda Bill are available upon request. Exhibit B summarizes the PAC's recommendations on the major design alternatives and additional staff recommendations beyond the PAC's recommendations. Exhibit C is a record of PAC meeting #7 and summarizes the PAC's comments and recommendations on the major design alternatives. Exhibit D is the project newsletter for the final July 1998 Public Open House and contains a map of the PAC's Preferred Design Alternative.

As noted in Exhibit B, staff recommend converting Green Lane to a cul-de-sac at Hall Boulevard in conformance with the City's Comprehensive Plan, which will eliminate any chance of cut-through traffic from the 125<sup>th</sup> Extension to southbound Hall Boulevard. The PAC did not oppose this recommendation, but took no action on it.

Exhibit E contains the Noise Impact Analysis Results Report and recommends sound walls adjacent to approximately 75 percent of the adjacent residences to reduce traffic noise levels to acceptable levels. However, staff recommend that sound walls be constructed adjacent to all residences along the 125<sup>th</sup> Extension, which is consistent with the Council's work session discussion about the additional sound walls being a good neighbor policy. Although the additional sound walls will be adjacent to residences that are not considered to be in the noise impact zone as defined by the Oregon Department of Transportation and Federal Highway Administration, the sound walls will provide a benefit by reducing noise levels.

Exhibit F is a record of PAC Meeting #8 (the final PAC meeting) and summarizes the additional PAC comments and recommendations that were made at that meeting. Exhibit G, dated July 1999, is a composite map of the PAC's Preferred Design Alternative and staff recommendations. This Preferred Design Alternative has two recommendations that concern the side street connections and the roadway cross-section (no continuous center median) and deviate from the City's Comprehensive Plan. Transportation System Plan Implementing Ordinance Amendments to the Comprehensive Plan, Development Code, Engineering Design Manual, and City Code were approved by Council on June 28, 1999, and will be effective 30 days after second reading of the ordinance, which is expected to occur in September 1999. These amendments include side street connections of Stillwell Lane to the east, Davies Road to the West, and Barberrry Drive to the east. If the Preferred Design Alignment is approved by Council, a Comprehensive Plan Amendment will be necessary to eliminate the Davies Road (west) and Stillwell Lane (east) connections, and a Variance from the Development Code Standards will be necessary for the proposed roadway cross-section.

Because full funding for the 125<sup>th</sup> Avenue Extension project is not available, the PAC suggested that the project could be constructed in phases, but to limit the total number of construction phases. The Greenway/Brockman/125<sup>th</sup> Avenue intersection reconstruction is a logical first phase for the 125<sup>th</sup> Avenue Extension project. The limits of the reconstruction would extend 850 feet east and west of the intersection on Brockman and Greenway and consist of regrading the hill west of the intersection on Brockman to improve intersection sight distance. Staff recommend proceeding with the final design of that intersection reconstruction beginning next fiscal year (FY 2000/2001). The total estimated cost of the intersection reconstruction is \$2,100,000, which includes \$1.5 million for construction and right of way acquisition and \$600,000 for final engineering and construction administration. Based on current rates of TIF Fund revenue, enough funding would be available for construction of the intersection reconstruction in the fiscal year following completion of the design (FY 2001/2002).

Staff are proposing that the second phase be the design and construction of storm water detention, water quality, and wetland mitigation facilities that are needed for the 125<sup>th</sup> Avenue Extension project and are also needed to reduce downstream flooding. The total estimated cost of this phase is \$800,000 (in 1999 dollars), which includes \$600,000 for construction and \$200,000 for final engineering and construction administration. This phase would include improvements in the Green Lane storm water detention facility to increase its storage capacity. These improvements are scheduled in the

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Capital Improvements Plan (CIP) as Storm Drainage Project No. 541 in FY 2003/2004. This work was estimated to cost approximately \$128,000 in 1998 and is now estimated to cost approximately \$150,000. This second phase of the 125<sup>th</sup> Avenue Extension project could conceivably be designed in FY 2002/2003 and constructed in FY 2003/2004. The third phase of the project would consist of the remaining improvements, estimated to cost approximately \$8 million for final design and construction, which therefore would need to be accumulated over a multi-year period. The following chart is a proposed schedule for the design and construction of phases 1 and 2 of the 125<sup>th</sup> Avenue Extension project assuming no other CIP projects require TIF funding through FY 2001/2002 (as shown in the CIP):

**PROPOSED SCHEDULE FOR PHASES 1 AND 2 OF THE 125<sup>th</sup> EXTENSION PROJECT**

PROJECT PHASE	2000					2001					2002					2003																					
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D							
Design of Phase 1	[Shaded]																																				
Construction of Phase 1																																					
Design of Phase 2																																					
Construction of Phase 2																																					

Phase 1: Greenway/Brockman/125<sup>th</sup> Avenue intersection reconstruction  
Phase 2: Storm water detention, water quality, and wetland mitigation facilities

Included in this fiscal year's budget (FY 1999/2000) is \$15,000 for the purchase of two parcels of land within the proposed 125<sup>th</sup> Avenue Extension right of way. Upon Council's approval of the Preferred Design Alignment, staff will proceed on the purchase of these parcels. This is in addition to the right of way that is required on Brockman for the proposed 125<sup>th</sup> Avenue/Greenway/Brockman Road intersection reconstruction.

**RECOMMENDED ACTION:**

1. Approve the design recommendations summarized in Exhibit B and displayed on the map in Exhibit G for the SW 125<sup>th</sup> Avenue Extension Project.
2. Direct staff to include the following projects for funding consideration in the City's future Capital Improvements Plans:
  - \$600,000 in the FY 2000/01 CIP for the design phase of the Greenway/Brockman/125<sup>th</sup> Avenue intersection reconstruction project.
  - \$1,500,000 in the FY 2001/02 CIP for construction of the Greenway/Brockman/125<sup>th</sup> Avenue intersection reconstruction project.
3. Direct staff to include the second and third phases of the 125<sup>th</sup> Avenue Extension project for consideration in future Capital Improvement Plans as funding resources become available.

# EXHIBIT A

## AGENDA BILL

Beaverton City Council  
Beaverton, Oregon

**SUBJECT:** Project Advisory Committee  
Recommendations on the Preliminary  
Design of the 125<sup>th</sup> Extension (North/South  
Arterial) Project

**FOR AGENDA OF:** 9-14-98 **BILL NO:** 98-258

**Mayor's Approval:** *[Signature]*

**DEPARTMENT OF ORIGIN:** Engineering *[Signature]*

**DATE SUBMITTED:** 8-25-98

**CLEARANCES:**

Capital Projects  
Division *[Signature]*  
Finance *[Signature]*  
City Attorney *[Signature]*

**PROCEEDING:** Work Session

**EXHIBITS:**

1. Newsletter #1
2. Community Transportation Needs and Values Survey Results
3. Newsletter #2
4. Citizen Preference Survey #2 Compilation
5. PAC Meeting #7 Summary
6. Newsletter #3
7. Public Open House #3 Summary
8. Noise Impact Analysis Results Report
9. 125<sup>th</sup> Extension Traffic Analysis
10. Funding Information Sheet
11. PAC Meeting #8 Summary

### BUDGET IMPACT

EXPENDITURE REQUIRED \$-0-	AMOUNT BUDGETED \$-0-	APPROPRIATION REQUIRED \$-0-
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#### HISTORICAL PERSPECTIVE:

On June 17, 1996, Council approved a work plan for preliminary engineering and public involvement for the SW 125<sup>th</sup> Avenue Extension (N/S Arterial), CIP Project No. 3158. In approving the work plan, Council approved a \$200,000 budget and City staff-led approach to project development. The City retained Trudy Rippe as the public involvement consultant on July 7, 1997 and a Project Advisory Committee (PAC), composed of members listed on page 8 of Exhibit #3, was formed in September 1997. The City also retained DKS Associates in November 1997, and David Evans & Associates (DEA) in December 1997, to conduct a traffic study and perform an air quality and noise analysis, respectively.

The City and PAC met eight times and held three public open houses to discuss potential design alternatives for the 125<sup>th</sup> Avenue Extension. The City distributed a newsletter to area businesses and residents prior to each public open house. The first two newsletters informed these citizens of the various design alternatives and included surveys to gather their feedback. At the PAC's seventh meeting, on May 12, 1998, the PAC made their final recommendations on the major design alternatives. The PAC's recommendations were presented and discussed in the third and final newsletter and at the final Open House held July 14, 1998.

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**INFORMATION FOR CONSIDERATION:**

The first newsletter, Exhibit #1, includes a *Community Transportation Needs and Values Survey*. The City received 208 responses through the mail and from Public Open House #1, providing a valuable foundation of community perspectives. Exhibit #2 consists of the survey results and comments; Page 1 of Exhibit #3 lists the most important and key concerns from the survey.

In response to the survey results, the City generated various preliminary design alternatives, including two horizontal alignments, two vertical profiles and three roadway cross sections. The preliminary design alternatives ranged in cost between approximately \$8 and \$11 million. The second newsletter, Exhibit #3, contained the preliminary design alternatives, design comparisons and project technical report results. This newsletter also included a survey requesting citizens to state their preferences on the design alternatives. The City received 212 responses through the mail and from Public Open House #2. The survey compilation is provided in Exhibit #4.

After reviewing the survey responses, the PAC made their recommendations on the design alternatives. The recommendations are located in Exhibit #5. The final newsletter, Exhibit #6, contains a map and description of the key design features of the PAC's *Preferred Design Alternative*. At today's cost, the *Preferred Design Alternative* is estimated at \$9.4 million for final engineering and construction. The alternative is located almost completely within existing City right-of-way, depressed below the existing grade and includes sound walls, thereby minimizing impacts to adjacent neighborhoods. The remaining right-of-way to be acquired is estimated to cost \$15,000.

The *Preferred Design Alternative* was displayed at the final open house. Comments from the open house are provided in Exhibit #7. Many of the comments from the open house relate to the potential sound wall locations. Sound wall locations were identified in a noise impact study, which is attached as Exhibit #8. The study is considered preliminary, due to the multitude of design scenarios, and the final recommendations might change in final design. Also, a new noise model was released after the completion of the noise impact study. If the final noise impact study conducted in final design warrants sound walls in locations currently not identified, the cost of the project could increase \$400,000.

To assist Council in their review, staff prepared a cost estimate for alternative improvements that would be necessary without the 125<sup>th</sup> Extension. These improvements were identified in DKS Associates' traffic analysis to maintain acceptable levels of service for traffic operation at key intersections. DKS Associates' traffic analysis is located in Exhibit #9 and the mitigation projects are listed in Table 6 of page 15. Although these improvements would maintain acceptable levels of service at key intersections, they would not reduce traffic volumes on Sorrento, Hart and Greenway/Brockman roads similar to the 125<sup>th</sup> Avenue Extension. The mitigation improvements are estimated to cost \$11.6 million for right of way, engineering and construction.

At PAC meeting #8 and Open House #3, a *Funding Information Sheet* was provided and is attached as Exhibit #10. In September, Metro will be accepting applications for projects to be funded with State and Federal funds in Fiscal Years 2001-2003. City staff is preparing the necessary materials for projects that appear to meet the funding criteria. The 125<sup>th</sup> Extension Project is one of the projects being considered. The project list will be presented for Council's consideration on the September 21 Council agenda. The City's final applications are due to Metro, tentatively, by September 30, 1998.

Exhibit #11 contains additional PAC recommendations discussed at the final PAC meeting. The additional recommendations include suggestions for posted speed, sound wall locations, construction phasing, an eastbound right turn lane from Brockman onto 125<sup>th</sup> Avenue, and public involvement.

**RECOMMENDED ACTION:**

Review and discuss the Project Advisory Committee's preliminary design recommendations for the SW 125<sup>th</sup> Avenue Extension Project.

Agenda Bill No: 98-258

# EXHIBIT B

## PAC AND STAFF RECOMMENDATIONS

### PAC Recommendations:

- Roadway alignment that is within the existing City right of way.
- Depressed roadway profile that averages 5 feet in depth below the existing ground.
- Side street connections that include Barberry Drive (west), Green Lane (east), and Stillwell Lane (east).
- Roadway cross section that includes two, 12-foot wide vehicle travel lanes, with center turn lanes at intersections, 6-foot wide bike lanes, 8-foot wide planter strips, and 6-foot wide sidewalks.

### Staff Recommendations:

- Convert Green Lane into a cul-de-sac at Hall Boulevard.
- Sound walls adjacent to all residences along the 125<sup>th</sup> Extension.

### Additional PAC Recommendations:

- Post the speed no greater than 40 miles per hour along the 125<sup>th</sup> Avenue Extension.  
Include pedestrian islands on the 125<sup>th</sup> Avenue Extension to provide safe refuge for pedestrians.  
Evaluate further lowering the roadway an additional two feet between roadway stations 50+00 and 57+00 in final design.
- Install a stop sign at the Stillwell Lane and Indian Hills intersection, convert Sorrento Road and Barberry Drive into a four way stop, and provide a traffic calming treatment (center island, narrow travel lanes, or special landscaped entry) to the intersection of Stillwell Lane (east) and the 125<sup>th</sup> Avenue Extension.  
Limit construction phasing to minimize impacts to the neighborhood.
- Include an eastbound right turn lane from Brockman onto 125<sup>th</sup> Avenue.
- Continue public involvement in the final design phase.

# 125TH AVENUE EXTENSION PROJECT



## PROJECT ADVISORY COMMITTEE MEETING #7 SUMMARY

The seventh Project Advisory Committee (PAC) meeting for the 125th Avenue Extension Project was held on May 12, 1998, from 6:30 to 9:00 p.m. at Conestoga Middle School Library. The meeting's purpose was to discuss community comments and roadway design preferences (indicated by comments at the Open House and in the survey), and to make recommendations that would narrow down the alternatives and options. For more detailed information please refer to the handouts listed at the end of this summary.

### I. WELCOME/PROJECT BUSINESS

PAC members and nine attendees from the Cresmoor/Ridgecrest neighborhood were welcomed. The Cresmoor residents were informed that they could comment to the PAC when Preliminary Alternative #2 (Green Lane Alignment) is discussed. Eric Johansen was ill but sent copies of his recommendations on the various options and alternatives, and asked that they be included in the overall the PAC tabulations for the meeting. They were accepted by the committee as valid.

**PAC #6 Meeting Summary:** The meeting summary for the PAC #6 meeting was adopted with a few minor revisions that will be included in the final summary and sent to PAC members with their next meeting packet.

**PAC Member Reports:** Greenway NAC and South Beaverton NAC will hold a joint meeting on May 21, 1998. Joel Howie is on the meeting agenda and will make a 125th Avenue Extension Project presentation. Jim Persey hoped the Greenway NAC would be able to make a recommendation on the narrowed alternatives and options. He will report those recommendations at PAC Meeting #8.

**Comprehensive Plan Amendment Process:** The Green Lane alignment and/or the connection of Davies Road (east) would necessitate a comprehensive plan amendment. Any change or deviation from the City's adopted comprehensive plan, or functional classification map requires the change to go through the City's comprehensive plan amendment process. This is the most thorough City review process which requires reviewing the issue, its impacts, and need, and how it meets design standards. The process takes at least 120 days and includes hearings and/or meetings with the Planning Commission and the City Council. Anyone can pay the City fees and initiate a comprehensive plan amendment review. If an applicant does not accept the City's ruling, then the case may be appealed to the Oregon Land Use Board of Appeals (LUBA).

**Tri-Met:** Tri-Met has responded verbally to Joel Howie and said that they have no future plans to use 125th Avenue as a bus route.

**Public Open House Summary:** The project's second Public Open House was attended by 92 residents. The purpose of the Open House was to provide project information to the public, and seek citizen comments and preferences on the latest design alternatives. All of the PAC members attended and assisted

design team members at the information stations around the room. Attendees filled out *Citizen Preference Survey #2* (from the newsletter) after reviewing and discussing the project information. Forty-five surveys were completed and returned at the meeting. Since most of the attendees were adjacent property owners or had residences on possible side street connections, the survey results showed strong favor for the existing right of way Preliminary Alternative #1; depressed roadway; Cross Section "C" with no center median, and 8-foot wide planter strips; and connection of Barberry Drive (west) only.

**PAC member comments included:**

- ▶ Lots of people I talked to didn't like Cross Section "B" because it would be inadequately maintained, like Greenway is today.
- ▶ Is the City Council getting regular project documentation and information? (Team response: Yes. They receive the same packet information as PAC members.)

**II. CITIZEN PREFERENCE SURVEY #2 SUMMARY**

The final Citizen Preference Survey #2 was distributed with a brief tabulation of results. Two hundred and twelve (212) surveys were returned and tabulated. The broader community comments indicated sensitivity to those who live along the corridor.

Respondents favored Alternative #1 even though there was fairly strong support for Alternative #2. It came down to a debate about wetlands vs. people impacts. There was also some confusion over whether the intersection at 125th Avenue/Hall Boulevard is to be signalized. It was not indicated on the design maps and some people selected Alternative #2 solely on the basis that it had a signal and Alternative #1 did not.

The depressed roadway option was strongly favored by nearby property owners although the broader community slightly favored the at-grade option; mainly due to its lower cost. However, many respondents had no preference and deferred this to the adjacent property owner preference. Cross Section "C" was heavily supported because of its lower cost, fewer impacts to adjacent properties, and ease of maintenance.

Barberry Drive (west) was the most favored side street connection, with Stillwell Lane (east), then Stillwell Lane (west) with substantially fewer points in the tabulation process, and then Davies Road scored significantly lower still. The biggest issue seemed to be community connectivity vs. additional traffic volumes in neighborhoods.

**III. PAC RECOMMENDATIONS**

PAC members were reminded of the committee's role in the process. Members are to consider that if the road is built, then what is the best design for the community? They were instructed to address design issues, consider their merit, and remember they are not making a determination on whether the project is to be constructed in the near future. That decision will be made by the City Council. Each member was also encouraged to refer to the project goal and objectives for guidance. The committee discussed, then made recommendations on each of the four topics listed below. They agreed that a simple majority vote (by show of hands) would move the option forward for further evaluation. Each member had one vote on each alternative, or option. Voting tabulations are indicated below, and those that moved forward are highlighted by italics.

**A. Preliminary Alternatives:** Prior to committee discussion on this topic, the residents of the Cresmoor/Ridgecrest neighborhood commented to the PAC. Their comments included:

- (Diana Fisher) I live on Cresmoor Drive. After the Open House we wrote a petition and circulated it through our neighborhood on two Sunday evenings. Every person we spoke to was very strongly opposed to the Green Lane alignment and signed the petition. We have narrow streets and poor visibility on curves. The petition was submitted to the PAC and included photos of the narrow neighborhood streets that would prove unsafe and inadequate to carry additional volumes of vehicles. The petition was signed by 32 neighbors and states, "1) The volume of traffic in our neighborhood would significantly change the character of our quiet residential area. 2) With the high volume of children going to and from Vose School, the safety of our children would be seriously compromised. 3) The proposed routes are not efficient to begin with (this section detailed each street's impacts)." Refer to the petition for more detailed information.
- (Christy Turner) Ms. Turner needed to leave early but wrote her concerns to be read to the PAC. She has a 9 and an 11-year old who regularly cross the street to get to the park. Kids play in the street on Cresmoor, have basketball hoops at the side of the road, and safety is the biggest concern. Increasing vehicle volumes and speeds would be extremely dangerous.
- (Jim Buck) My biggest concern is about encouraging more cut-through traffic on roads that are inadequate to handle it.
- (Didn't give name.) The stop signs at Clifford and Anne may cause conflicts. There are many small children in the area. The neighborhood is dark, and when it rains, water collects on Cresmoor near Hall Blvd. This can be dangerous for people unfamiliar with the street. Also, people coming around the corner on Cresmoor go across into the other lane and is dangerous.
- (Nancy Forman) I live on the south end of Green Lane. If the Green Lane alignment is selected, the road will come through my bedroom. This is a very emotional issue for us. We don't want to move. Already we've had trees removed for the Forest Glen Townhouses, and it is noisier as a result. We don't need even more impacts. It will ruin the environment and livability. Don't select the Green Lane alignment. Have there been statistics kept on accidents at the Green Lane/Hall Blvd. intersection? They are numerous.
- (Christopher Redmond) I live on Alpine Drive and favor Alternative #1. If Green Lane is truly the best alternative, then something will need to be done to control traffic through the Cresmoor/Ridgecrest neighborhood. Don't forget the impact of Denney Road. Consider traffic calming on Alpine, Cresmoor, Bel Aire, Blakeney, and Clifford if the Green Lane option is chosen. I think additional traffic volumes on Denney Road due to the completion of the 125th Avenue Extension, indicated in traffic study are very low, and there will be far more vehicles attracted to cut-through the neighborhoods.

**PAC member comments included:**

- ▶ The attending residents were asked if they were willing to accept the limited access of right turns in and out on Cresmoor if the existing right of way alignment is selected. All residents said it would be acceptable, and that many of them never make a left turn now because it is so dangerous.
- ▶ The handout indicated approximately a one-acre wetland impact with the existing right of way alignment and 0.1-acre impact with Green Lane. The Army Corps of Engineers determines and oversees the mitigation process. Wetlands are often mitigated at three to four times the original

area that is impacted, if mitigated outside the impacted area. It is preferred that mitigations be completed on site, or at least within the watershed basin.

- ▶ I don't think we should build a road to solve one traffic problem by putting on another neighborhood (Cresmoor/Ridgecrest neighborhood).
- ▶ I have never liked the Green Lane alignment. It encourages cut-through traffic on neighborhood streets. Don't push the problem onto someone else.
- ▶ Why can't we just close Cresmoor and use the Green Lane alignment? The impact to the wetland will be too great with the other alternative. (Team response: The State of Oregon will not allow closure of any existing streets along Hall Blvd. This is mandated within the State's Transportation Planning Rule.)

**PAC RECOMMENDATIONS ON PRELIMINARY ALTERNATIVES:**

*The PAC recommended (12 to 1) in favor of moving Preliminary Alternative #1 (existing right of way alignment) forward. The PAC voted (12 to 1) against moving Preliminary Alternative #2 (Green Lane alignment) forward, and it will be dropped from further consideration.*

**B. Roadway Options:**

**PAC member comments included:**

- ▶ Will the grade be above houses in some areas with the at-grade option? (Team response: No. It would be approximately 5-feet above the current yard levels for some adjacent residences, between Stations 55-61, and would have sound walls on top of the slope.)
- ▶ For both roadway options, the top of the sound wall remains constant, although the overall height may vary depending upon whether it sits on a slope or a retaining wall. There appear to be more noise reductions with cross section "C" if depressed.
- ▶ The depressed roadway has less visual impact on the community. I realize it is more expensive, but it will keep with the residential character of the area. Aesthetics are the best for the neighbors and drivers.
- ▶ All of the neighbors I've talked with want the roadway depressed.
- ▶ The at-grade roadway does end up being depressed in the Barberry Drive/Green Lane area to lessen the grade, and improve sight distance.
- ▶ It seems that it would be safer if it is depressed. Elevations on both options are the same at Hall Boulevard, but the beginning roadway grade for the depressed section is less steep, than the at-grade option, near the Brockman/Greenway intersection.
- ▶ Neighbors will see some sound walls with the depressed section, but the noise reduction is best.

**PAC RECOMMENDATIONS ON ROADWAY OPTIONS:**

*The PAC recommended (11 in favor, 1 against, and 1 abstain) in favor of moving the Depressed Roadway Option forward. The PAC voted (4 in favor, 1 abstain, and 8 against) against moving the At-Grade Roadway Option forward and it will be dropped from further consideration.*

- C. Side Street Connections:** The team received an update and modification of the original traffic study traffic volumes on Davies (east) and Stillwell (east), within the northeast project quadrant. A closer look was taken at the traffic movements and volumes. A Davies Road connection will not make traffic volumes double. The computer model originally estimated a higher zoning density in

the area and assumed that apartments in the quadrant would not empty directly onto Hall Boulevard. When those items were corrected in the model, it substantially reduced the peak hour volumes at the Davies Road (east), Stillwell Lane (east), and Oxbow Terrace intersections with Greenway.

At the Open House a citizen suggested the connection of Davies Road (west) which would displace several homes, but would not have driveways accessing the new connection. He thought it would be good to have a side street connection halfway between Hall Boulevard and Brockman Road/Greenway. The design team developed three options and presented them to the PAC (see handout). The PAC recommended they be dropped from further consideration because of the financial costs, impacts to existing homes and neighborhoods, and the potential for encouraging more cut through traffic.

**PAC member comments included:**

- ▶ All the residents living on the west side of the 125th Avenue Extension will cut through on Davies, if it is connected. It is human nature to take this short cut. It will attract more cars than indicated in the study, and many of them will just be going to Albertson's.
- ▶ With this modification in the computer model coming at this late date, I'm wondering what else might be incorrect in the traffic study in other areas. (Team response: We are confident that it is accurate on the west side because there is a potential for increased development in that area, which has been taken into consideration.)
- ▶ Apartment residents will cut through Davies, if it is connected, and will take a right turn onto 125th to Hall Boulevard to avoid taking a left onto Greenway.
- ▶ Stillwell Lane (east) seems necessary for an additional access for Oxbow Terrace residents and as an alternative emergency access. People on this street want the connection. It shouldn't get cut through traffic. (Two additional PAC members said they completely agreed with these statements.)
- ▶ Stillwell Lane (west) has driveway conflicts, and cars will back up waiting to turn left onto 125th Avenue. Barberry, and Stillwell (east) should be connected but not Davies. We need to be careful about creating potential traffic conflicts.
- ▶ Stillwell (west) vehicle stacking conflicts are caused from vehicles traveling along Carr, to Sorrento, to Stillwell, to the 125th Avenue Extension, and also in the reverse direction. The intent is to get traffic off of Sorrento and this connection will only add to it.
- ▶ Once 125th Avenue Extension is constructed, it will remove a lot of traffic off of Carr.
- ▶ Stillwell (west) has numerous problems and won't remove that many cars from other neighborhood streets anyway.
- ▶ It seems reasonable to move 170 cars per hour off of a road Stillwell (west) with driveways that are dangerous, onto Barberry where it will add only 125 vehicles per hour.
- ▶ There are two lanes used by condo owners to access Barberry but no driveways that would have cars backing onto Barberry.
- ▶ A Stillwell (west) connection achieves very little.
- ▶ Is it possible to make additional connections over time if they become necessary? (Team response: This public process would need to be repeated when considering any future connections.)

**PAC RECOMMENDATIONS ON SIDE STREET CONNECTIONS:**

***Stillwell Lane (east) Connection - 12 in favor and 1 against -Moved forward.***

***Stillwell Lane (west) Connection - 5 in favor and 8 against -Dropped.***

**Barberry Drive (west) Connection - 12 in favor and 1 against - Moved forward.**  
**Davies Road (east) Connection - 1 in favor and 12 against - Dropped.**

**D. Cross-Sections:**

**PAC member comments included:**

- ▶ "C" is the cheapest. Since we voted for the depressed roadway which costs more than the at-grade roadway, it is only right that we try to save on the cross section. This cross section was favored by the community anyway.
- ▶ I'm concerned that cross section "C" might not work between Barberry and Hall. We may need to use a combination in the design.
- ▶ There is an advantage to having some kind of median at intersections for pedestrian use and safety.
- ▶ Are there ways to lower speeds on 125th Avenue? (Team response: Yes. The two-lane roadway discourages higher speed, and so does a median.)
- ▶ A two-lane street does slow speeds, even without a median. All three cross sections encourage lower speeds.
- ▶ Maintenance is an issue and "C" is easiest to maintain.
- ▶ Will light glare be a problem on any cross section? (Team response: In diagramming out the potential for glare, it appears to be very minimal [see handout]. If there are problems after construction, visors or shields can be added to lights where needed. BDR will address this issue and want to know in advance where the problems might occur.)

**PAC RECOMMENDATIONS ON CROSS SECTIONS:**

**Cross Section "A" - 3 in favor and 10 against - Dropped.**

**Cross Section "B" - 2 in favor and 11 against - Dropped.**

***Cross Section "C" - 10 in favor and 3 against - Moved forward. The PAC realizes it may be necessary to use a combination of cross sections, to allow for medians only at intersections for pedestrians, and agreed with this variance from cross section "C" where necessary.***

**IV. OUTSTANDING ISSUES FOR FUTURE CONSIDERATION**

Committee members suggested several outstanding issues that need further discussion. They include: traffic calming devices on Barberry Drive (west) and Stillwell Lane (east); funding; sound wall construction prior to roadway construction; potential construction phasing; speeds; and sound walls. These issues will be addressed in a future meeting.

**V. WHAT'S NEXT?**

June 2, 1998 PAC Meeting #8 (Conestoga Middle School Library, 6:30 p.m.)

July 14, 1998 Public Open House #3 (Elsie Stuhr Center)

(This date was changed to July 14, 1998 after the meeting to provide ample time to adequately prepare for the third Open House.)

---

**Attendees:**

Jim Persey  
Milton Missfeldt  
Byron DeLuca  
Randy Smith  
Carl Prenner  
Kathy Burry  
Ed Vilhauer  
Dan Maks  
Bob Glasgow  
Joel Howie  
Terry Wakdele  
Randy Wooley  
John Osterberg  
Trudy Rippe

**Community Members:**

Nancy Forman  
Howard Schaffer  
Marlene Schaffer  
Diana Fisher  
Jim Fisher  
Christy Turner  
Jim Buck  
Joe Selig  
Matt Foster  
Terry Hanlin

**Handouts:**

Meeting Agenda  
Draft PAC #6 Meeting Summary  
Public Open House #2 Summary  
Citizen Preference Survey #2 Compilation  
Estimated Cost Comparison Table  
Project Goal and Objectives  
Sound Wall Heights and Locations  
Davies Road (west) Connection Options  
Updated Traffic Volumes  
Illumination Diagram  
Citizen Preference Survey #2 Tabulation  
Eric Johansen's Comments on Preference Survey  
Wetland Impact Map  
Retaining Wall Heights and Locations

EXHIBIT D

CITY OF  
BEAVERTON

# 125TH AVENUE

EXTENSION PROJECT



JULY 1998

## COME TO PUBLIC OPEN HOUSE #3 — SEE THE PREFERRED DESIGN ALTERNATIVE

*Plan now to join us for this important meeting. Drop by anytime between 6:30 and 8:30 p.m. to review the design and discuss your questions and ideas one-on-one with Project Design Team and Project Advisory Committee members.*

When: Tuesday, July 14, 1998  
6:30 to 8:30 p.m.  
Brief presentations at  
6:30 and 7:30 p.m.

Where: Elsie J. Stuhr Adult Leisure Center  
Manzanita Room  
5550 S.W. Hall Boulevard, Beaverton  
(Use the entrance with the double  
doors on the left side of the building.)

City of Beaverton

## 125TH AVENUE EXTENSION PROJECT



JOEL HOWIE, PROJECT ENGINEER  
CITY OF BEAVERTON, PO Box 4755  
BEAVERTON, OR 97076

### DO YOU HAVE QUESTIONS?

CALL: 125th AVENUE EXTENSION  
PROJECT HOTLINE: 698-5373

WRITE: Joel Howie, Project Engineer  
City of Beaverton  
PO Box 4755  
Beaverton, OR 97076

FAX: Joel Howie at 526-2550

E-MAIL: [jhowie@ci.beaverton.or.us](mailto:jhowie@ci.beaverton.or.us)

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# COMMUNITY MEMBERS GUIDE THE DESIGN

Community members have played a significant role in the development of the design alternatives. At each step in the design process, citizens have reviewed the evolving concepts and technical information, and have voiced their values, ideas and concerns directly to the project design team and Project Advisory Committee (PAC) members.

In October 1997, 2,000 newsletters were sent to area businesses and residents announcing Public Open House #1, and 3,010 newsletters were mailed prior to the April 1998 Public Open House #2. One hundred and fifty two (152) residents attended the two open houses. Community surveys were included in each newsletter and so far 420 have been returned, reviewed and discussed by project design team and PAC members. The PAC has met eight times, and our "Project Transportation Hotline" has been called by numerous community members requesting the latest project information.

After the completion of the technical project studies, residents and PAC members were asked to compare several roadway design options, and to state their preferences. Those preferences guided the project design team and PAC in narrowing the design alternatives, leading directly to the development of the Preferred Design Alternative (shown on the front page). *The Preferred Design Alternative provides safe travel for vehicles, pedestrians and bicyclists, reduces cut-through traffic on neighborhood streets and improves community connectivity.* Cost considerations also are very important to community members. The three preliminary design alternatives varied in cost between approximately \$8 and \$11 million. *At today's cost, the Preferred Design Alternative is estimated at \$9.4 million. The alternative design*

*alignment is located almost completely within existing city right of way, is depressed below the existing grade and includes sound walls, thereby minimizing impacts to adjacent neighborhoods.*

Community members preferred a cross section without a continuous center median because of lower cost, reduced impacts to adjacent properties from a narrower roadway and ease of landscape maintenance. Also, the design is consistent with the existing 125th Avenue south of the Brockman Road/Greenway intersection. The 8-foot planter strip landscaped with trees was preferred to enhance the pedestrian environment and neighborhood appearance, and provide a safety buffer between vehicles and pedestrians.

*The connection of side streets to the new roadway has been a very difficult issue. Survey responses indicated a notable preference for a Barberry Drive (west) connection, because residences along this roadway do not face the street, and driveways do not access directly onto Barberry Drive, east of Sorrento.*

It was also felt that the Stillwell Lane (east) connection would provide additional emergency and residential access for the Oxbow Terrace/Indian Hills neighborhoods, considering that Oxbow Terrace access to Greenway will be limited to right turns in and right turns out only. It is anticipated that the Stillwell Lane (east) connection will not attract cut-through traffic. Also, Barberry Drive (west) and Stillwell Lane (east) connections are included in the City's comprehensive plan. A Stillwell Lane (west) connection had support, but because of safety concerns that included the potential for cut-through traffic, a steep roadway grade and potential conflicts with vehicles backing out of driveways, this connection was dropped from further consideration. A Davies Road (east) connection to 125th Avenue, which is not included in the City's comprehensive plan, might attract cut-through traffic and create potential driveway conflicts, so it was also dropped from further consideration.

## WHERE DO WE GO FROM HERE?

Since October 1997, the design team, PAC and community members have been working together to develop the best least impacting roadway design for the future 125th Avenue Extension. This roadway project included in the City's comprehensive plan and capital improvement programs as well. As a result, the remaining issue to be resolved is a matter of *if* the roadway will be completed, but *when* it will be completed. Much of this timing depends upon when final design and construction funds are identified and designated for the project.

The City Council will hold a work session in August 1998 to review, evaluate and discuss the project, identify funding options and priorities, and establish a timetable for preliminary and final design and construction (if it is to be completed within the near future). Community members may attend the work session, but the session will not be a formal public hearing and public testimony will not be taken. Depending upon the outcome of the work session, the Council might schedule a public hearing. Meeting notices will be sent to the 3,010 community members on the project's mailing list prior to these meetings.

## PROJECT SCHEDULE STEPS

- 1 Alternative Design Development  
October '97 - September 1998
- 2 Community Alternative Selection  
March - September 1998
- 3 Identify Funding Sources  
April - September 1998
- 4 City Council Review Process  
August - September 1998



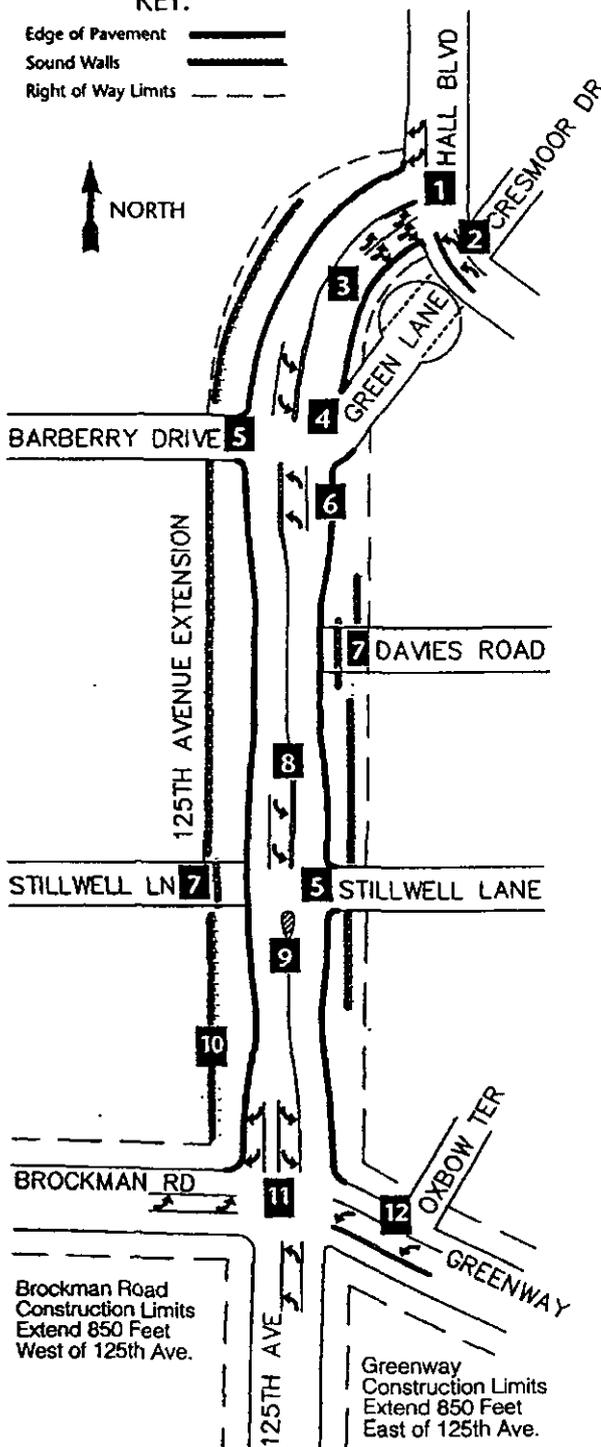
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## Preferred Design Alternative

### KEY:

- Edge of Pavement
- Sound Walls
- Right of Way Limits



MAP NOT TO SCALE

The Preferred Design Alternative (shown below and to be displayed at the upcoming Open House on July 14, 1998), is responsive to numerous community concerns, reflects many resident ideas, and best meets the project's goal and objectives. To find more detailed information about the project's public process, please see the back page of this newsletter. Numbers on the map below correspond to the descriptions of the key roadway design features.

- 1 A SIGNALIZED "T" INTERSECTION AT 125TH AVENUE EXTENSION AND HALL BOULEVARD provides left and right turn lanes.
- 2 CRESMOOR DRIVE ACCESS AT HALL BOULEVARD is limited to right turns in and right turns out only, because of safety concerns due to vehicle turning conflicts. Left turns are prohibited by an obstruction/median in the center of Hall Blvd.
- 3 APPROXIMATELY ONE ACRE WETLAND MITIGATION to be completed on site or within the watershed basin, if possible.
- 4 GREEN LANE CONNECTION with the 125th Avenue Extension potentially ends in a cul-de-sac near Hall Boulevard. However, it may be necessary to provide additional emergency vehicle and neighborhood access to Hall Blvd., limited to right turns in and right turns out only. A stop sign will be located on Green Lane where it intersects with 125th Avenue extension.
- 5 BARBERRY DRIVE (WEST) AND STILLWELL LANE (EAST) CONNECT to the 125th Avenue Extension. Traffic studies indicate that a Barberry Drive connection makes the largest impact on reducing neighborhood traffic volumes, particularly on Sorrento Road. The Stillwell Lane (east) connection provides an additional emergency vehicle and neighborhood access to the Oxbow Terrace/Indian Hill neighborhood. Stop signs will be located on Barberry Drive (west) and Stillwell Lane (east) where they intersect with the 125th Avenue Extension.
- 6 PEDESTRIAN AND BICYCLE FACILITIES include a 6-foot wide on-street bike lane and 6-foot wide sidewalk on each side of 125th Avenue Extension. An 8-foot wide planter strip between the roadway and sidewalk will be landscaped with trees.
- 7 BICYCLE AND PEDESTRIAN ACCESS provided through specially designed breaks in the sound walls on Davies Road (east) and Stillwell Lane (west) for improved neighborhood connectivity.
- 8 DEPRESSED ROADWAY DESIGN (average 5-feet in depth) minimizes visual and noise impacts to adjacent residences.
- 9 TWO, 12-FOOT WIDE, VEHICLE TRAVEL LANES, without a continuous center median, accommodate anticipated traffic needs to the year 2015. However, left turn lanes from 125th Avenue to Barberry Drive (west) and Stillwell Lane (east) will provide vehicle storage, and small median islands allow for safer pedestrian crossing.
- 10 SOUND WALLS significantly reduce noise levels on adjacent properties to acceptable levels. Sound wall heights vary from six to ten feet, depending upon land topography, earth berms or heights of retaining walls.
- 11 BROCKMAN ROAD/GREENWAY INTERSECTION improvements include left turn lanes in all four directions, additional signalization and regrading of the hill just west of the intersection on Brockman to improve intersection sight distance.
- 12 OXBOW TERRACE ACCESS at Greenway is limited to right turns in and right turns out only, because of safety concerns due to vehicle turning conflicts, particularly during peak hours.

---

**EXHIBIT E**

**Noise Impacts Analysis  
Results Report**

**Beaverton 125<sup>th</sup> Avenue Extension**

**April, 98**

*Prepared for:*

**The City of Beaverton  
Beaverton, Oregon**

*Prepared by:*

**Michael Minor & Associates  
Portland, Oregon**

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*A detailed table of contents follows the Executive Summary*

# Executive Summary

## *City of Beaverton 125<sup>th</sup> Avenue Extension Project*

### **S. EXECUTIVE SUMMARY**

At the request of the City of Beaverton, a technical noise analysis of the proposed 125<sup>th</sup> Avenue Extension was performed. The proposed extension would connect 125<sup>th</sup> Avenue to Hall Boulevard along an existing strip of undeveloped land. The purpose of this analysis is to predict the Existing, Future No-Build, and Future Build (year 2015) noise levels in the project area, and identify project related noise impacts. Where impacts were found potential noise mitigation measures were examined.

Under the Build Alternative, two horizontal roadway alignments, each with two vertical profiles and three speed combinations were analyzed for potential traffic noise impacts. The Build alternatives are denoted as Plan A Profile C, Plan A Profile D, Plan B Profile E, and Plan B Profile F.

Under Plan A, the proposed 125<sup>th</sup> Avenue alignment would intersect with Hall Boulevard at the existing undeveloped land located north of Green Lane. Plan B intersects Hall Boulevard on Green Lane. Under Profiles C and E, the roadway is depressed below grade for much of the alignment. Under Profiles D and F the roadway is near at grade for most of the alignment with depressed sections at the southern end, near Brockman Street, and again south of Barberry Drive.

Seventeen noise monitoring sites were selected in the project area. The sites were used to measure noise levels at the first row of residences, determine shielding effects from buildings, and determine the transmission of noise in the project area. The measured equivalent sound pressure levels ( $L_{eq}$ ) ranged from 50 to 72 dB on the A-weighted scale (see the Criteria and Methodology section for a discussion of terminology). The noise monitoring data was used to calibrate a computer highway traffic noise prediction model. This model was used to estimate Existing, Future Build, and Future No-Build noise levels at 51 representative receivers.

Traffic noise impacts are identified by the Oregon Department of Transportation traffic noise impact criteria. Peak-hour traffic related noise levels that meet or exceed 65 dBA  $L_{eq}$ , or that increase more than 10 dBA over the existing noise levels, are considered as traffic impacts for residential land use. Table ES-1 shows a summary of noise impacts for the Existing, Future No-Build Alternative, and Future Build Alternatives.

**Table ES-1  
Noise Impact Summary**

Scenario	Impacted Structures		
	Residential (35, 40, 45 mph)	School (35, 40, 45 mph)	Commercial (35, 40, 45 mph)
Existing	8	0	0
No-Build	11	0	0
<b>Build Alternatives</b>			
<i>Plan A Profile C</i>	27, 29, 45	0	0
<i>Plan A Profile D</i>	51, 53, 68	0	0
<i>Plan B Profile E</i>	27, 29, 45	0	0
<i>Plan B Profile F</i>	51, 53, 68	0	0

The impacts identified from the noise analysis and modeling are summarized as follows:

- Noise level increases of 1 to 3 dBA will occur under the No-Build Alternative, and increases of 1 to 17 dBA can be expected under the Build Alternative.
- Under the Build Alternative, several receiver locations have noise level increases of over 10 dBA.
- The high number of impacts is due to the low (50 to 52 dBA) existing noise environment at many residents located adjacent to the proposed alignment.

As required, a noise mitigation analysis was performed. The mitigation analysis was performed for the worst case build noise levels, identified at the 45 mph speed option. Even though there are other noise impacts identified in the area, (such as Hall Boulevard, Greenway, and other collector streets) no noise mitigation was examined for these roadways because no roadway improvements are planned under the Future-Build Alternative. All project related noise impacts under the Plan A alignment were mitigated through the use of noise barriers. Below is a summary of the proposed noise walls.

#### **Plan A Profile C**

*Eastern Side:* A noise wall 1300 feet long and 8 feet high, mitigates noise levels for 13 receivers at \$14,400 per receiver, for a total cost of \$187,200. Noise reductions of 6 to 10 dBA for front-line receiver locations should be achieved.

*Western Side:* A noise wall 2900 feet long and 6 to 10 feet high, mitigates noise levels for 27 receivers at \$13,733 per receiver, for a total cost of \$370,800. Noise reductions of 5 to 10 dBA for front-line receiver locations should be achieved.

#### **Plan A Profile D**

*Eastern Side:* A noise wall 1900 feet long and 4 to 8 feet high, mitigates noise levels for 21 receivers at \$11,314 per receiver, for a total cost of \$237,600. Noise reductions of 7 to 11 dBA for front-line receiver locations should be achieved.

*Western Side:* A noise wall 3300 feet long and 6 to 10 feet high, mitigates noise levels for 51 receivers at \$8,611 per receiver, for a total cost of \$439,200. Noise reductions of 5 to 10 dBA for front-line receiver locations should be achieved.

Plan B Profile E noise walls would be similar in size, location, and cost as those given for Plan A Profile C. Noise walls for Plan B Profile F would be similar in size, location, and cost as those given for Plan A Profile D. All Project related noise impacts, except to the townhomes on Green Lane would be mitigated under the Plan B alignment.

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# 1. INTRODUCTION

This technical report was prepared to address potential noise impacts related to the proposed 125<sup>th</sup> Avenue Extension Project (the Project). Information contained in this report includes agency coordination, the existing land use and noise environment, analysis methodology, future-condition noise levels, noise impacts, and any potential noise mitigation measures that may be used to address noise impacts associated with the project.

## 1.1. Project Description

The proposed 125th Avenue Extension is located between Hall Boulevard and the *existing* 125<sup>th</sup> Avenue and Brockman Street/Greenway intersection. During an earlier preliminary design in the early 1980's, a noise study was performed for this project. However, due to funding constraints and other priority projects, the City of Beaverton (the City) did not build the extension at that time. Recently, the City Council funded public involvement and preliminary design for the Project, and it is appropriate to reevaluate existing and potential noise pollution impacts.

A Project Advisory Committee (PAC) for the extension project was formed, and numerous committee meetings have been held. Also, the City and PAC held an open house with the community, and questions were asked regarding potential noise impacts from the proposed extension project. The City developed four preliminary design alternatives (two vertical profiles with two horizontal alignments each) in response to PAC and community discussions. It is expected that the posted speed for this roadway will be designated 35, 40, or 45 mph.

## 1.2. Analysis Requirements

This report was prepared as required by the Oregon Department of Transportation (ODOT) and the City of Beaverton. A traffic noise analysis is required whenever a project includes a new roadway, an increase in the number of traffic lanes, or the realignment of an existing roadway. The methodology used is defined in the ODOT Noise Manual, 1996 and the United States Department of Transportation (USDOT) Federal Highway Traffic Noise Standards [Title 23 of the Code of Federal Regulations (CFR) Part 722, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*]. A complete description of the procedures and methodology used in the analysis is given in the Methodology Section. A bibliography of the technical support documents used for this report is presented in Appendix A.

## **2. AGENCY COORDINATION AND INVOLVEMENT**

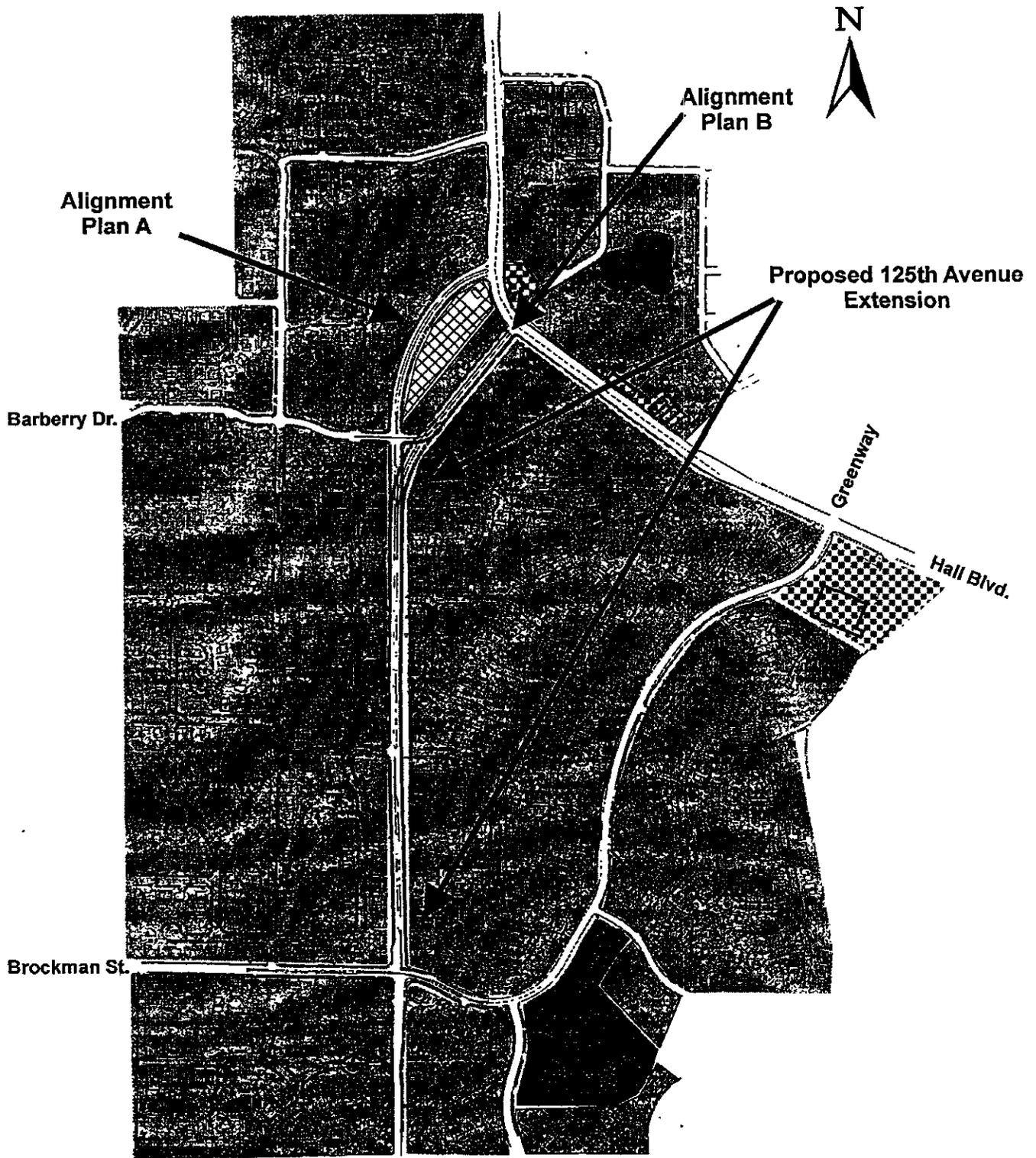
The project area was examined to determine the level of analysis necessary to meet the Federal Highway Administration (FHWA) and ODOT traffic noise analysis requirements. Inspection of the area for potential receiver locations and noise reducing effects of topography and existing structures was performed and is used in the analysis. Coordination was conducted with the City for information related to this project, and with ODOT for noise analysis procedures. Information used in the analysis includes aerial computer drawings, topographical maps, road alignments, traffic volumes, vehicle mix, and traffic speeds.

Traffic volumes and speeds for 125<sup>th</sup> Avenue, Brockman Street, Sorrento Road, Greenway and Hall Boulevard were provided by the City and DKS Associates (DKS). Vehicle mix was determined through field counts performed during noise measurements. Existing 1996 traffic information and year 2015 traffic estimates for the project roadways are contained in Appendix B.

## **3. LAND USE**

The land use in the area is primarily residential. There is some commercial land use along Hall Boulevard, near the project area. There are also some schools and churches in the project area.

An FHWA traffic noise study requires an analysis based on the existing land use, not the land use zone. Therefore, if a single family residence is located in an area that was zoned commercial or industrial, the residential impact criteria still applies (See Section 4.3 for the FHWA Traffic Noise Impact Criteria). The proposed 125<sup>th</sup> Avenue alignments and existing area land use categories used in the analysis are shown on Figure 3-1. Each of the four land uses in the project area is represented by a different shading or hatch pattern.



**Figure 3-1**  
**Existing Project Area Land Us**  
**125<sup>th</sup> Avenue Extension Project**

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE, IT IS DUE TO THE QUALITY OF THE ORIGINAL.

## 4. METHODOLOGY

The following sections describe the methodology used to perform the noise analysis for this project. Included is a brief description of acoustic terminology, methods of analysis, and the criteria used to determine impacts.

### 4.1. Acoustic Terminology

All noise levels referred to in this report that are for the purpose of evaluating potential impacts are stated as hourly equivalent sound pressure levels ( $L_{eq}$ ) in terms of decibels on the A-scale (dBA). Noise levels stated in terms of dBA approximate the response of the human ear by filtering out some of the noise in the low- and high- frequency ranges that the ear does not detect well. The A-scale is used in most ordinances and standards. The equivalent sound pressure level is defined as the average noise level, on an energy basis, for a stated period of time (e.g., hourly). A general introduction to acoustics is given in Appendix C.

### 4.2. Method of Analysis

Projected traffic noise level conditions were calculated using the *FHWA Highway Traffic Noise Prediction Model* (USDOT, 1978) as coded in the computer model described in the *Noise Barrier Cost Reduction Procedure STAMINA 2.0/OPTIMA User's Manual* (1982), developed for FHWA. Input to the model included traffic volume and speed data generated by the City and DKS. A complete listing of the traffic data is included Appendix B. Noise emission levels used in the model were nationwide averages for automobiles, medium trucks, and heavy trucks. The noise reducing effects of front-line<sup>1</sup> residences, roadway depressions, and topography were included in the calculations where appropriate. A complete data summary and mitigation analysis is given in Appendix D.

### 4.3. Impact Criteria

The FHWA and ODOT have criteria used to assess noise impacts related to traffic on public streets and roadways. The Oregon Department of Environmental Quality (ODEQ) also has a Noise Control Ordinance that is not applicable to traffic on public roadways but would be applicable to any construction activities outside the normal construction hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday. Each of the regulations is presented in the following three sections, and used where applicable in the analysis.

---

<sup>1</sup> For the Purpose of this report, "front-line" refers to noise sensitive receivers located directly adjacent to the project roadway.

### 4.3.1. Federal Highway Administration

The traffic noise impact criteria, against which the project traffic noise levels are evaluated, are taken from Title 23 of the Code of Federal Regulations (CFR) Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise." The criteria applicable for residences, churches, schools, recreational uses, and similar areas is an exterior, hourly equivalent sound level ( $L_{eq}$ ) that approaches or exceeds 67 dBA. The criteria applicable for other developed lands, such as commercial and industrial uses, is an exterior  $L_{eq}$  that approaches or exceeds 72 dBA. There are no criteria for underdeveloped lands or construction noise. A summary of the FHWA noise regulations is contained in Table 4-1.

**Table 4-1**  
**FHWA Roadway Noise Abatement Criteria**

Land Use Category	Hourly $L_{eq}$ (dBA)
<b>Type A:</b> Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose	57 (exterior)
<b>Type B:</b> Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, (exterior) motels, hotels, schools, churches, libraries and hospitals	67 (exterior)
<b>Type C:</b> Developed lands, properties or activities not included in the above categories	72 (exterior)
<b>Type D:</b> Undeveloped land	—
<b>Type E:</b> Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums	52 (interior)

### 4.3.2. ODOT State Noise Regulations

ODOT considers a traffic noise impact to occur when predicted project related traffic noise levels approach, within 2 dBA, the criteria level in Table 4-1, or substantially exceed existing levels. Therefore, residential impacts occur at 65 dBA, and commercial impacts occur at 70 dBA. Also, ODOT considers a 10 dBA increase over the existing noise levels as a substantial increase, and therefore an impact.

### 4.3.3. ODEQ Noise Regulations

The Oregon Department of Environmental Quality also sets standards for new and existing industrial and commercial noise sources. The standards are divided into the following three categories: existing noise sources, new noise sources, and new noise sources located in quiet areas. The regulations, given in Table 4-2, would only be used if construction was planned during the nighttime, or on Sundays or holidays.

**Table 4-2**  
**Oregon DEQ Industrial and Commercial Noise Source Standards**

Statistical Descriptor	Existing Noise Source		New Noise Source		New Source in Quiet Area	
	7am – 10pm	10pm – 7am	7am – 10pm	10pm – 7am	7am – 10pm	10pm – 7am
L <sub>50</sub>	55	50	55	50	50	45
L <sub>10</sub>	60	55	60	55	55	50
L <sub>01</sub>	75	60	75	60	60	55

## 5. EXISTING ENVIRONMENT

The existing noise environment is composed of traffic noise and miscellaneous residential and commercial activities. Noise monitoring was performed and used to establish the existing noise environment and calibrate the noise prediction model. Details on the number of monitoring locations, existing noise levels, and traffic conditions in the 125<sup>th</sup> Avenue Extension Project area are given in the following sections.

### 5.1. Noise Monitoring Procedures

The sound-level meters used for the measurements were Bruel & Kjaer types 2231 and 2236. The sound-level meters meet or exceed American National Standards Institute (ANSI) S1.4-1983 for Type 1 Sound Measurement Devices. All measurement procedures complied with ANSI S1.13-1971. System calibration was performed before and after each measurement session with a Bruel & Kjaer Type 4231 sound-level calibrator.

#### 5.1.1. Monitoring Locations

Noise levels were monitored at seventeen locations in the project area. Dominant noise sources included traffic noise on major arterial and collector streets such as Brockman Street, Sorrento Road, Greenway, and Hall Boulevard. Monitored noise levels ranged from 50 dBA to 74 dBA L<sub>eq</sub> for receivers located in the Project area. The noise monitoring results, receiver notation, address, and land use are given in Table 5-1. The noise monitoring locations are shown graphically on Figure 5-1.

**Table 5-1****Project Area Noise Monitoring**(1 - hour  $L_{eq}$  based on 10 minute measurement periods)

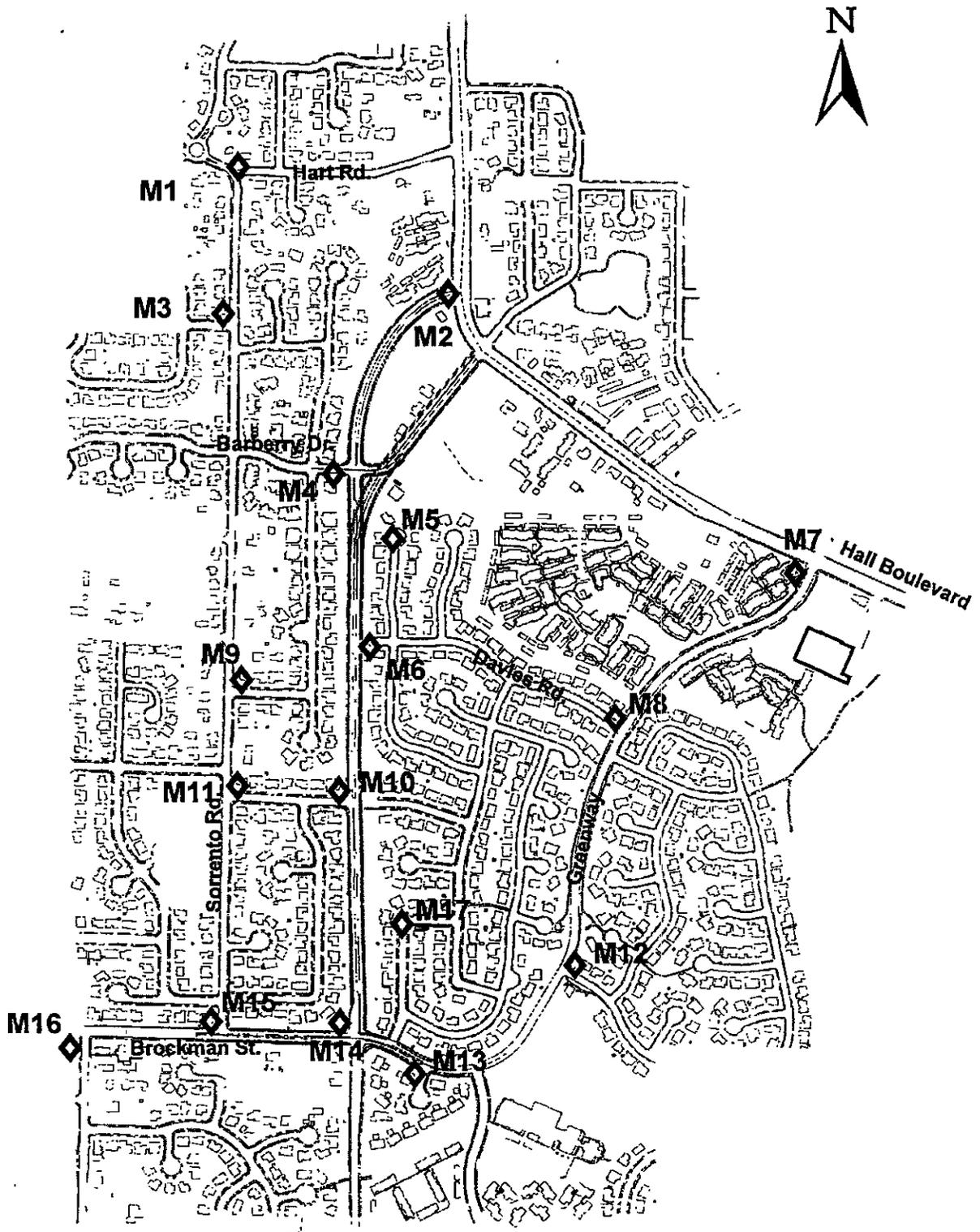
Receiver Notation	Monitoring Location	Land Use <sup>1</sup>	PM Reading ( $L_{eq}$ ) <sup>2</sup>
M1	12735 Hart Road (near stop sign)	RS	<b>72</b>
M2	Hall Boulevard and Proposed 125 <sup>th</sup> Avenue Intersection	UD	<b>74<sup>3</sup></b>
M3	12805 Hanson Road (on Sorrento Road)	RS	<b>67</b>
M4	7910 Connemara Terrace (dead end on Barberry Drive)	RS	51
M5	8055 Berry Hill Court	RS	50
M6	12460 Davies Road (dead end on Davies Road)	RS	52
M7	Glenbrook Apartments (Hall Boulevard and Greenway)	RS	<b>71</b>
M8	12055 Davies Road (on Greenway)	RS	<b>69</b>
M9	12825 Remundo Lane (on Sorrento Road)	RS	66
M10	12505 Stillwell Lane (dead end on Stillwell Lane)	RS	52
M11	12715 Stillwell Lane (on Sorrento Road)	RS	64
M12	9375 Parkway Lane (on Greenway)	RS	<b>71</b>
M13	9135 Chelan Place (on Greenway)	RS	<b>69</b>
M14	Brockman Street and Proposed 125 <sup>th</sup> Avenue Intersection	RS	<b>72</b>
M15	Intersection of Brockman Street and Sorrento Road	RS	<b>72</b>
M16	9025 130 <sup>th</sup> Avenue (on Brockman Street)	RS	<b>69</b>
M17	8745 Oxbow Terrace	RS	51

1. Land Use Categories: RS = Residential; COM = Commercial; UD = Undeveloped

2. Measured noise levels in bold meet or exceeds the ODOT traffic noise impact criteria.

3. There is no FHWA impact criteria for undeveloped lands

Most front-line receivers along Greenway, that do not have some form of shielding from the roadway, will currently exceed the residential impact criteria. Most receivers, however, are set back from the roadway and have five to six foot fences that are expected to reduce the existing noise levels to 62 to 65 dBA in the residences yard. Noise levels at the Hart Road/Sorrento Road intersection also exceeded the impact criteria. This is due to the large volume of traffic at the three-way stop. Noise levels at front line residences along Sorrento Road range from 64 dBA for receivers set back from the roadway, to 72 dBA at the intersection of Brockman Street and Sorrento Road. Noise levels at receiver locations adjacent to the proposed 125<sup>th</sup> Avenue Extension ranged from 50 to 52 dBA.



◆ Noise Monitoring Location

Figure 5-1  
 Project Area Noi Monitoring Locations  
 125<sup>th</sup> Avenue Extension Project

## 6. NOISE MODELING

An analysis of existing and future noise levels was performed using noise modeling. The modeling was performed for 51 representative receiver locations. Each of the modeled receivers represents a group of nearby receivers that are expected to have the same noise levels.

### 6.1. Modeling Methodology

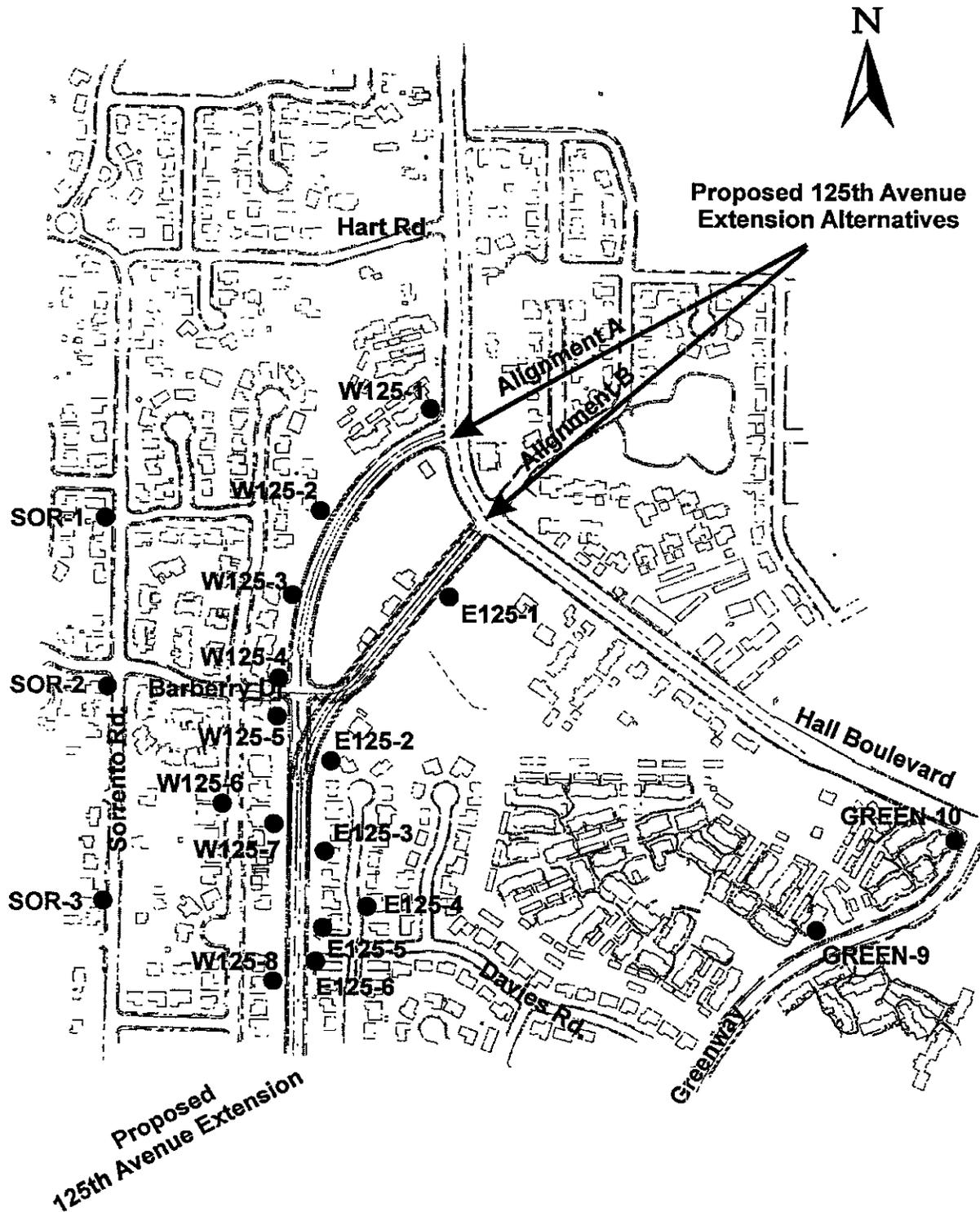
Noise modeling was performed using the FHWA noise model as described in Chapter 4. To assure that the modeled noise levels are correct, a model calibration was performed. During the calibration process, measured noise levels at several front-line receivers were compared to modeled data. The model calibration data is presented in the following section.

#### 6.1.1. Model Calibration

Existing traffic noise levels were also modeled, as previously described, to test the agreement of calculated and measured noise levels. Actual traffic volumes and speeds, as observed during the noise monitoring, were used as input to the model. Distance from the monitoring location to the roadway centerline was measured using existing graphics files. A comparison of 8 of the 17 monitoring locations was performed to establish the sound propagation characteristics in the Project area. Table 6-1 lists the measured and modeled noise levels.

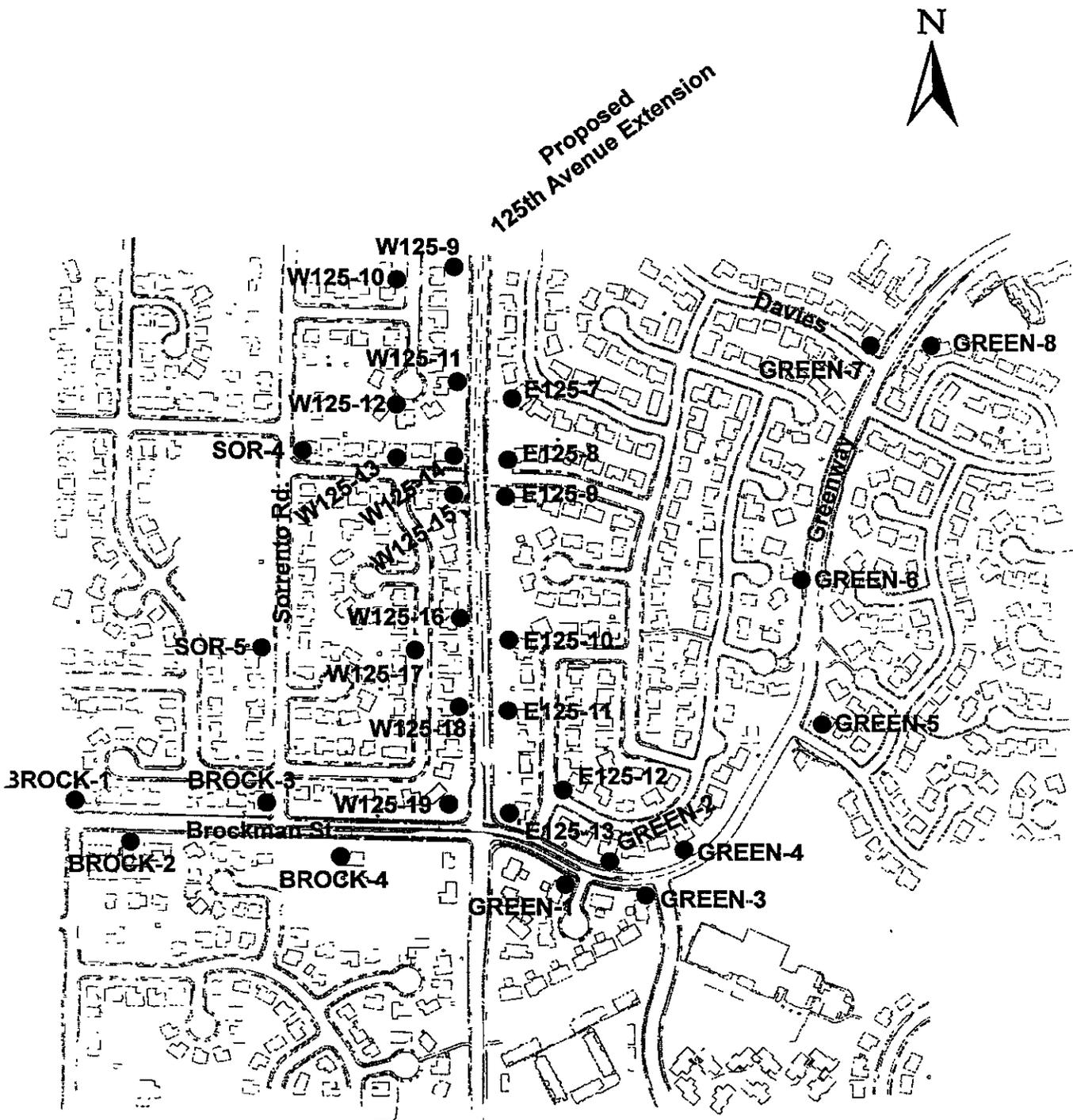
Receiver	Measured	Modeled	Difference
M2	74.0	74.7	+0.7
M5	50.0	51.5	+1.5
M6	52.0	50.4	-1.6
M7	74.2	73.1	-1.1
M8	69.0	67.7	-1.3
M11	64.0	62.1	-1.9
M14	72.0	71.7	-0.3
M16	69.0	68.9	-0.1
M17	51.0	52.8	+1.8

The modeled and measured noise results agree within 2 dBA. Because a 2 dBA change in noise levels is barely perceptible to the average human ear, an agreement of +/- 2 dBA or less is considered acceptable by FHWA and ODOT standards for modeled and measured noise level deviations.



Noise Modeling Location

Figure 6-1  
 Project Area Noise Modeling Locations  
 125<sup>th</sup> Avenue Extension Project  
 (Continued on Figure 6-2)



Noise Modeling Location

Figure 6-2  
 Project Area Noise Mod ling Locations  
 125<sup>th</sup> Avenue Extension Project  
 (Continued from Figur 6-1)

## **6.2. Existing Modeled Noise Levels**

Existing noise levels were modeled for receivers that are adjacent to the Project area and for receivers on nearby collector streets and arterial roadways. Currently, approximately 57 residential structures are expected to meet, or exceed the ODOT traffic noise impact criteria. All of the impacts are at front-line receivers located along Hall Boulevard, Greenway, and Brockman Street.

Existing modeled noise levels in the area range from 50 to 73 dBA during the peak traffic hour. The highest noise levels were modeled for residences located on or near Hall Boulevard, Greenway, and the 125<sup>th</sup> Avenue – Brockman Street – Greenway intersection. Noise levels in these areas ranged from 65 to 73 dBA, with many residents currently exceeding ODOT traffic noise impact criteria. Traffic noise exceedances of this type are not uncommon for residential areas located along or near collector and arterial commuter routes, such as Hall Boulevard, Greenway, and 125<sup>th</sup> Avenue.

### **6.2.1. Existing Noise Levels Adjacent to 125<sup>th</sup> Avenue Extension**

Modeled noise levels for receivers along the proposed 125<sup>th</sup> Avenue extension were in the 70's near Hall Boulevard and Greenway, and in the lower to mid 50's between Davies Road and Stillwell Lane. Table 6-2 lists each of the representative receiver locations, land use, number of structures expected to have the same noise level, and the modeled noise levels for the existing conditions. The receivers are grouped into two sections, the eastern side of 125<sup>th</sup> Avenue (denoted E125-X), and the western side of 125<sup>th</sup> Avenue (denoted by W125-X). Only those receivers adjacent to the proposed 125<sup>th</sup> Avenue extension are given in Table 6-2.

### **6.2.2. Existing Collector and Arterial Roadway Noise Levels**

Noise levels at other receiver locations, such as along Sorrento Road, Davies Road, and Barberry Drive ranged from 50 to 64 dBA during the peak traffic hour. Noise levels along Greenway, Sorrento Road and Brockman Street are expected to reduce by as much as 10 to 15 dBA during nighttime hours (between 10:00 p.m. and 7:00 a.m.).

Table 6-3 lists the modeled noise levels on nearby collector and arterial roadways that may have noise level changes related to the Project. Receivers along Brockman Street and Greenway are denoted BROCK-X and GREEN-X, respectively. Receivers located along Sorrento Road are denoted by SOR-X.

**Table 6-2**  
**Existing Modeled Noise Levels in Project Area**

Receiver Notation	Land Use	Approximate Number of Structures Represented	Noise Level (dBA L <sub>EQ</sub> ) <sup>1</sup>
W125-1	Residential	2	<b>73</b>
W125-2	Residential	4	58
W125-3	Residential	2	56
W125-4	Residential	2	53
W125-5	Residential	3	52
W125-6	Residential	6	52
W125-7	Residential	4	51
W125-8	Residential	4	51
W125-9	Residential	3	51
W125-10	Residential	4	51
W125-11	Residential	3	51
W125-12	Residential	3	52
W125-13	Residential	3	52
W125-14	Residential	2	51
W125-15	Residential	2	51
W125-16	Residential	6	53
W125-17	Residential	7	53
W125-18	Residential	5	56
W125-19	Residential	4	<b>68</b>
E125-1	Residential	3	64
E125-2	Residential	3	52
E125-3	Residential	4	51
E125-4	Residential	5	51
E125-5	Residential	2	51
E125-6	Residential	2	51
E125-7	Residential	5	50
E125-8	Residential	2	50
E125-9	Residential	2	50
E125-10	Residential	4	53
E125-11	Residential	4	54
E125-12	Residential	4	58
E125-13	Residential	2	<b>71</b>

1. Noise levels in bold meet or exceed the ODOT traffic noise impact criteria

**Table 6-3**  
**Existing Modeled Noise Levels on Nearby Collector and Arterial Roadways**

Receiver Notation	Land Use	Approximate Number of Structures Represented	Noise Level (dBA L <sub>Eq</sub> ) <sup>1</sup>
SOR-1	Residential	7	64
SOR-2	Residential	5	62
SOR-3	Residential	7	62
SOR-4	Residential	8	62
SOR-5	Residential	7	62
BROCK-1	Residential	4	<b>69</b>
BROCK-2	Residential	6	<b>68</b>
BROCK-3	Residential	4	<b>69</b>
BROCK-4	Residential	3	<b>67</b>
GREEN-1	Residential	2	<b>68</b>
GREEN-2	Residential	4	<b>69</b>
GREEN-3	Residential	2	<b>68</b>
GREEN-4	Residential	3	<b>69</b>
GREEN-5	Residential	2	<b>69</b>
GREEN-6	Residential	6	<b>66</b>
GREEN-7	Residential	6	<b>65</b>
GREEN-8	Residential	3	<b>65</b>
GREEN-9	Residential	3	<b>65</b>
GREEN-10	Residential	1	<b>73</b>

1. Noise levels in bold meet or exceed the ODOT traffic noise impact criteria

## 7. IMPACT ANALYSIS

Under the Build Alternative, two roadway alignments, each with two profiles and three speed combinations were analyzed for potential traffic noise impacts. The following list provides a summary of the alternatives considered. Each of the alternatives is discussed in detail in the following sections.

- Plan A with Profile C at 35, 40, and 45 mph
- Plan A with Profile D at 35, 40, and 45 mph
- Plan B with Profile E at 35, 40, and 45 mph
- Plan B with Profile F at 35, 40, and 45 mph

In addition to the Plan and Profiles given above, future condition noise levels were also modeled with and without intersections at Stillwell Lane, Davies Road, and Barberry Drive for the Plan A alignments.

Under Plan A, the proposed 125<sup>th</sup> Avenue alignment would intersect with Hall Boulevard at the existing undeveloped land located north of Green Lane. The Plan A alignment has two profile options, Profile C and Profile D. Under Profile C, the roadway is depressed below grade for much of the alignment. Intersections of 125<sup>th</sup> Avenue with Stillwell Lane, Davies Road, and Barberry Drive require at-grade connections. The portions of the roadway located below grade will have retaining walls along both sides of the roadway. Future Build noise levels under Profile C use *reflective* calculations for the retaining walls.

Under Plan A with Profile D, the roadway is depressed at the southern end, near Brockman Street, and again south of Barberry Drive. Other slightly depressed portions of the roadway include a portion south of Stillwell Lane and in the northern end near the Hall Boulevard intersection. Under Profile D, the 125<sup>th</sup> Avenue Extension would be bordered on either side by earthen berms. Future Build noise levels under Profile D use *absorptive* calculations for the earthen berms. The Profiles for both alignment alternatives are shown in Figures 7-1 and 7-2.

Under Plan B, the proposed 125<sup>th</sup> Avenue alignment would intersect with Hall Boulevard at the existing Green Lane/Hall Boulevard intersection. South of Barberry Drive, Plan B Profile E is similar to Plan A Profile D, and Plan B Profile F is similar to Plan A Profile D. Under Profile E, the roadway is depressed below grade for much of the alignment, and under Profile F the roadway is depressed primarily in central and southern sections. Intersections of 125<sup>th</sup> Avenue with Stillwell Lane, Davies Road, and Barberry Drive require at-grade connections. The portions of the roadway located below grade for Profile E will have retaining walls along both sides of the roadway. Depressed roadway sections under Profile F will use earthen berms.

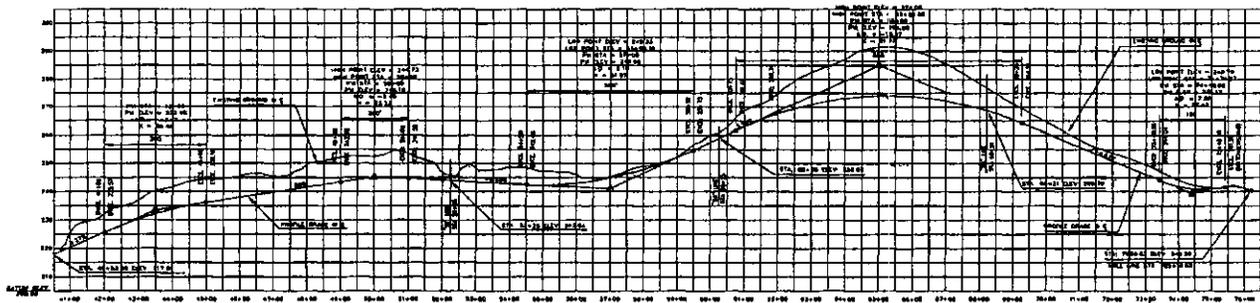
## 7.1. Future No-Build Analysis

Under the No-Build Alternative, noise levels in the area will increase as future traffic levels increase. Future noise levels were modeled for the 32 representative receiver locations in the project area and an additional 19 receivers located adjacent to collector and arterial roadways in the project area. The results of the noise modeling for Future No-Build traffic levels are given in Table 7-1 for the 125<sup>th</sup> Avenue Project area. Table 7-2 contains the results of the noise modeling for other nearby roadways that may have a change in noise levels with the Project.

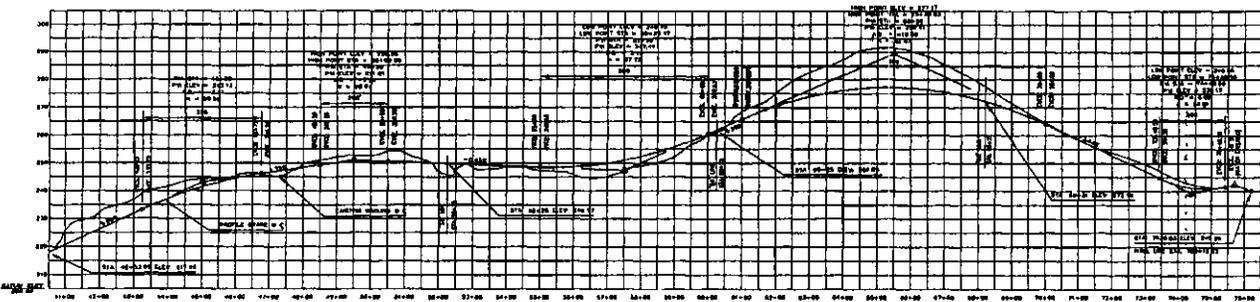
The modeled noise levels ranged from 51 to 75 dBA during the peak traffic hour. Noise level increases of 1 to 2 dBA over the existing values can be expected for front-line receivers along Greenway and Brockman Street. Noise levels will also increase along Sorrento Road by as much as 2 dBA during peak traffic hours. A total of 67 residential structures are expected to meet or exceed the impact criteria under the No-Build Alternative. All receivers that exceed the criteria are located along Brockman Street – Greenway, Sorrento Road (north of Barberry Drive) and Hall Boulevard.



**Plan B Profile E**



**Plan B Profile F**



**Figure 7-2**  
**Profiles for Alignment B**  
**125th Avenue Extension Project**

**Table 7-1**  
**Future No-Build Versus Existing Noise Levels for Project Area**  
 (peak hour levels in dBA - L<sub>eq</sub>)

Receiver Notation	Land Use	Impact Criteria	Existing Levels <sup>1</sup>	No-Build Levels <sup>1</sup>	Change In Levels	Structures Impacted <sup>2</sup>
W125-1	Residential	65	<b>73</b>	<b>75</b>	2	2
W125-2	Residential	65	58	60	2	
W125-3	Residential	65	56	58	2	
W125-4	Residential	65	53	54	1	
W125-5	Residential	65	52	54	2	
W125-6	Residential	65	52	53	1	
W125-7	Residential	65	51	53	2	
W125-8	Residential	65	51	52	1	
W125-9	Residential	65	51	52	1	
W125-10	Residential	65	51	52	1	
W125-11	Residential	65	51	52	1	
W125-12	Residential	65	52	53	1	
W125-13	Residential	65	52	53	1	
W125-14	Residential	65	51	52	1	
W125-15	Residential	65	51	52	1	
W125-16	Residential	65	53	54	1	
W125-17	Residential	65	53	54	1	
W125-18	Residential	65	56	57	1	
W125-19	Residential	65	<b>68</b>	<b>69</b>	1	4
E125-1	Residential	65	64	<b>66</b>	2	3
E125-2	Residential	65	52	53	1	
E125-3	Residential	65	51	52	1	
E125-4	Residential	65	51	52	1	
E125-5	Residential	65	51	52	1	
E125-6	Residential	65	51	52	1	
E125-7	Residential	65	50	51	1	
E125-8	Residential	65	50	51	1	
E125-9	Residential	65	50	51	1	
E125-10	Residential	65	53	54	1	
E125-11	Residential	65	54	55	1	
E125-12	Residential	65	58	59	1	
E125-13	Residential	65	71	<b>72</b>	1	2
<b>Total Number of Impacted Structures</b>						<b>11</b>

1. Noise levels in bold meet or exceeds the traffic noise impact criteria.
2. The number of nearby structures that are estimated to have the same noise level as the modeled location.

**Table 7-2**  
**Future No-Build Versus Existing Noise Levels for Collector and Arterial Roadways**

(peak hour levels in dBA – L<sub>eq</sub>)

Receiver Notation	Land Use	Impact Criteria	Existing Levels <sup>1</sup>	No-Build Levels <sup>1</sup>	Change In Levels	Structures Impacted <sup>2</sup>
SOR-1	Residential	65	64	<b>65</b>	1	7
SOR-2	Residential	65	62	63	1	
SOR-3	Residential	65	62	63	1	
SOR-4	Residential	65	62	63	1	
SOR-5	Residential	65	62	63	1	
BROCK-1	Residential	65	<b>69</b>	<b>70</b>	1	4
BROCK-2	Residential	65	<b>68</b>	<b>69</b>	1	6
BROCK-3	Residential	65	<b>69</b>	<b>70</b>	1	4
BROCK-4	Residential	65	<b>67</b>	<b>68</b>	1	3
GREEN-1	Residential	65	<b>68</b>	<b>68</b>	1	2
GREEN-2	Residential	65	<b>69</b>	<b>70</b>	1	4
GREEN-3	Residential	65	<b>68</b>	<b>68</b>	0	2
GREEN-4	Residential	65	<b>69</b>	<b>70</b>	1	3
GREEN-5	Residential	65	<b>69</b>	<b>69</b>	0	2
GREEN-6	Residential	65	<b>66</b>	<b>66</b>	0	6
GREEN-7	Residential	65	<b>65</b>	<b>65</b>	0	6
GREEN-8	Residential	65	<b>65</b>	<b>66</b>	1	3
GREEN-9	Residential	65	<b>65</b>	<b>66</b>	1	3
GREEN-10	Residential	65	<b>73</b>	<b>75</b>	1	1
<b>Total Number of Impacted Structures</b>						<b>56</b>

1. Noise levels in bold meet or exceeds the traffic noise impact criteria.
2. The number of nearby structures that are estimated to have the same noise level as the modeled location.

## 7.2. 125<sup>th</sup> Avenue Future Build Analysis

Under the Future-Build Alternative, noise levels in the area will increase as future traffic levels increase. Future noise levels were modeled for the 51 representative receiver locations in the project area. Future Build noise levels were predicted for each of the two alignments, using each of the proposed profiles, at speeds of 35, 40, and 45 mph. A summary of the future noise level predictions for plans A and B are given in Sections 7.2.1 and 7.2.2, respectively. Complete future data is contained in Appendix D.

### **7.2.1. Plan A**

Under Plan A, the modeled noise levels ranged from 53 to 74 dBA during the peak traffic hour. Noise level increases of 1 to 16 dBA over the existing levels can be expected for front line receivers along the proposed 125<sup>th</sup> Avenue Extension depending on the alignment, profile and speed chosen. Noise levels at residences along Greenway are predicted to range from 64 to 74 dBA, and from 67 to 70 dBA along Brockman Street. Noise levels will remain at the existing levels along Greenway and Brockman Street under the Build Alternative. Under the Future-Build Alternative, noise levels along Sorrento Road vary from -1 dBA to 1 dBA when compared to the existing noise levels during peak traffic hours. The profiles for the Plan A alignment are discussed in the following two sections.

#### **7.2.1.1. Plan A with Profile C**

Under Plan A with Profile C, without any intersections, there are 27 receivers located adjacent to the proposed extension that meet or exceed the impact criteria at the 35 mph speed option. For the 40 mph speed option, there are 29 impacts, and at 45 mph the impacts increase to 45 structures. Noise levels are expected to increase by 1 to 17 dBA, with the largest increases occurring between Stillwell Lane and Barberrry Drive. Future-Build noise levels of 52 to 65 dBA can be expected at the 35 mph speed option, and at 40 mph, future-build noise levels will range from 53 to 66 dBA. At the 45 mph speed option, future-build noise levels were calculated between 53 to 67 dBA. Table 7-3 lists the impact criteria, existing noise levels, future-build noise levels, and number of impacts for each of the speed options.

If intersections were provided at Stillwell Lane, Davies Road, and Barberrry Drive, noise levels at those residences near the intersection would have additional noise level increases of 1 to 2 dBA over those given in Table 7-3. The increased noise levels results in four more impacts under the 45 mph speed option, making total of 49 residences that meet or exceed the impact criteria. The number and location of impacts remains the same for the 35 and 40 mph speed options. A complete comparison of the noise levels for each of the three speed options, with and without intersections is given in Appendix D.

**Table 7-3**  
**Future Build Plan A Profile C vs. Existing Noise Levels without**  
**Intersections**

(peak hour levels in dBA – L<sub>eq</sub>)

Receiver Notation	Impact Criteria	Existing Levels <sup>1</sup>	Build Levels <sup>1</sup>			Structures Impacted <sup>3</sup>		
			35mph	40mph	45mph	35mph	40mph	45mph
W125-1	65	<b>73</b>	<b>74.3</b>	<b>74.4</b>	<b>74.6</b>	2	2	2
W125-2	65	58	<b>64.6</b>	<b>65.8</b>	<b>66.9</b>	4	4	4
W125-3	65	56	59.9	61.1	62.3			
W125-4	65	53	59.8	61.1	<b>62.3<sup>2</sup></b>			2
W125-5	65	52	55.1	56.2	57.4			
W125-6	65	52	52	52.5	53			
W125-7	65	51	59.1	60.4	<b>61.6<sup>2</sup></b>			4
W125-8	65	51	<b>64.6<sup>2</sup></b>	<b>66.1<sup>2</sup></b>	<b>67.4<sup>2</sup></b>	4	4	4
W125-9	65	51	52.7	53.4	54.1			
W125-10	65	51	<b>61.7<sup>2</sup></b>	<b>63.1<sup>2</sup></b>	<b>64.4<sup>2</sup></b>	4	4	4
W125-11	65	51	58.6	60	<b>61.2<sup>2</sup></b>			3
W125-12	65	52	53.6	54.4	55.2			
W125-13	65	52	52.5	53.2	53.9			
W125-14	65	51	56.5	57.7	58.9			
W125-15	65	51	56.5	57.8	59			
W125-16	65	53	59.2	60.6	61.8			
W125-17	65	53	54.8	55.7	56.5			
W125-18	65	56	61.7	62.9	64.1			
W125-19	65	<b>68</b>	<b>69.5</b>	<b>70.1</b>	<b>70.7</b>	4	4	4
E125-1	65	64	<b>65.3</b>	<b>65.5</b>	<b>65.6</b>	3	3	3
E125-2	65	52	56.3	57.4	58.4			
E125-3	65	51	54.6	55.7	56.7			
E125-4	65	51	54	55	55.9			
E125-5	65	51	<b>60.6<sup>2</sup></b>	<b>62<sup>2</sup></b>	<b>63.3<sup>2</sup></b>	2	2	2
E125-6	65	51	<b>64.5<sup>2</sup></b>	<b>66<sup>2</sup></b>	<b>67.3<sup>2</sup></b>	2	2	2
E125-7	65	50	57.3	58.7	<b>59.9<sup>2</sup></b>			5
E125-8	65	50	58.8	<b>60.1<sup>2</sup></b>	<b>61.3<sup>2</sup></b>		2	2
E125-9	65	50	58.2	59.5	<b>60.7<sup>2</sup></b>			2
E125-10	65	53	53.4	54.3	55.3			
E125-11	65	54	54.5	55.4	56.3			
E125-12	65	58	57.7	58.3	58.9			
E125-13	65	<b>71</b>	<b>71.1</b>	<b>71.6</b>	<b>72.1</b>	2	2	2
<b>Total Number of Impacted Structures</b>						<b>27</b>	<b>29</b>	<b>45</b>

1. Noise levels in bold meet or exceeds the traffic noise impact criteria.
2. Noise level meets or exceeds the 10 dBA substantial increase criteria.
3. The number of nearby structures that are estimated to have the same noise level as the modeled location.

### **7.2.1.2. Plan A with Profile D**

Under Plan A with Profile D, without any intersections, there are 51 receivers located adjacent to the proposed extension that meet or exceed the impact criteria at the 35 mph speed option. For the 40 mph speed option, there are 53 impacts, and at 45 mph the impacts increase to 68 structures. Noise levels are expected to increase by 1 to 17 dBA, with the largest increases occurring between Stillwell Lane and Barberrry Drive. Future-Build noise levels of 53 to 65 dBA can be expected at the 35 mph speed option, and at 40 mph, future-build noise levels will range from 54 to 67 dBA. At the 45 mph speed option future-build noise levels were calculated between 55 and 68 dBA. Table 7-4 lists the impact criteria, existing noise levels, future-build noise levels, and number of impacts for each of the speed options.

If intersections are provided at Stillwell Lane, Davies Road, and Barberrry Drive, noise levels at those residences near the intersection would have additional noise level increases of 1 to 2 dBA. The increased noise levels results in 5 more impacts under the 45 mph speed option, making total of 73 residences that meet or exceed the impact criteria. There are also and extra two impacts under the 40 mph speed option, bringing the total number of impacts to 55. The number and location of impacts remains the same for the 35 mph speed option. A complete comparison of the noise levels for each of the three speed options, with and without intersections is given in Appendix D.

### **7.2.2. Plan B**

Noise levels under Plan B are similar to those predicted under Plan A. Under Plan B, the modeled noise levels ranged from 52 to 74 dBA during the peak traffic hour. Noise level increases of 2 to 17 dBA can be expected for front line receivers along the proposed 125<sup>th</sup> Avenue Extension depending on the alignment, profile and speed chosen. Noise levels along Greenway are predicted to range from 65 to 75 dBA, and from 66 to 70 dBA along Brockman Street. Noise levels will also increase along Sorrento Road by as much as 2 dBA during peak traffic hours. Each of the potential profiles for the Plan B Alignment is briefly discussed in the following two sections.

#### **7.2.2.1. Plan B with Profile E**

Under Plan B with Profile F, there are between 27 and 45 potential residential impacts along the proposed 125<sup>th</sup> Alignment. The number of impacts increases as the proposed speed for the alignment increases and when intersections are added at Stillwell Lane, Davies Road, and Barberrry Drive. Receivers that are located near the intersection openings will have noise level increases of 7 to 18 dBA. The impacts are the same as under Plan A Profile C south of Davies Road. North of Davies, noise levels are slightly reduced at receivers W125-3, W125-4, and W125-5. The noise impacts at W125-2 is eliminated, and the new townhomes located along Green Lane will have traffic noise impacts.

**Table 7-4**  
**Future Build Plan A Profile D vs. Existing Noise Levels w/o Intersections**  
 (peak hour levels in dBA - L<sub>eq</sub>)

Receiver Notation	Impact Criteria	Existing Levels <sup>1</sup>	Build Levels <sup>1</sup>			Structures Impacted <sup>3</sup>		
			35mph	40mph	45mph	35mph	40mph	45mph
W125-1	65	<b>73</b>	<b>74.4</b>	<b>74.5</b>	<b>74.6</b>	2	2	2
W125-2	65	58	<b>65.4</b>	<b>66.7</b>	<b>67.9<sup>2</sup></b>	4	4	4
W125-3	65	56	63.7	<b>65</b>	<b>66.3<sup>2</sup></b>		2	2
W125-4	65	53	58.7	60	61.2			
W125-5	65	52	57.3	58.6	59.8			
W125-6	65	52	53.4	54.2	54.9			
W125-7	65	51	<b>64.3<sup>2</sup></b>	<b>65.8<sup>2</sup></b>	<b>67.1<sup>2</sup></b>	4	4	4
W125-8	65	51	<b>64.8<sup>2</sup></b>	<b>66.3<sup>2</sup></b>	<b>67.6<sup>2</sup></b>	4	4	4
W125-9	65	51	56.3	57.5	58.6			
W125-10	65	51	<b>63.9<sup>2</sup></b>	<b>65.4<sup>2</sup></b>	<b>66.7<sup>2</sup></b>	4	4	4
W125-11	65	51	<b>64.8<sup>2</sup></b>	<b>66.3<sup>2</sup></b>	<b>67.6<sup>2</sup></b>	3	3	3
W125-12	65	52	56.7	57.8	59			
W125-13	65	52	56.2	57.3	58.3			
W125-14	65	51	<b>63.6<sup>2</sup></b>	<b>65<sup>2</sup></b>	<b>66.3<sup>2</sup></b>	2	2	2
W125-15	65	51	<b>61.4<sup>2</sup></b>	<b>62.9<sup>2</sup></b>	<b>64.2<sup>2</sup></b>	2	2	2
W125-16	65	53	60.8	62.2	<b>63.5<sup>2</sup></b>			6
W125-17	65	53	56.5	57.5	58.6			
W125-18	65	56	62.2	63.4	<b>64.6</b>			5
W125-19	65	<b>68</b>	<b>69.5</b>	<b>70.1</b>	<b>70.8</b>	4	4	4
E125-1	65	64	<b>65.4</b>	<b>65.5</b>	<b>65.7</b>	3	3	3
E125-2	65	52	58.2	59.5	60.6			
E125-3	65	51	54.4	55.5	56.6			
E125-4	65	51	54.6	55.6	56.6			
E125-5	65	51	<b>60.5<sup>2</sup></b>	<b>61.9<sup>2</sup></b>	<b>63.2<sup>2</sup></b>	2	2	2
E125-6	65	51	<b>64.7<sup>2</sup></b>	<b>66.2<sup>2</sup></b>	<b>67.6<sup>2</sup></b>	2	2	2
E125-7	65	50	<b>62.8<sup>2</sup></b>	<b>64.3<sup>2</sup></b>	<b>65.6<sup>2</sup></b>	5	5	5
E125-8	65	50	<b>62.1<sup>2</sup></b>	<b>63.6<sup>2</sup></b>	<b>64.9<sup>2</sup></b>	2	2	2
E125-9	65	50	<b>62.8<sup>2</sup></b>	<b>64.3<sup>2</sup></b>	<b>65.6<sup>2</sup></b>	2	2	2
E125-10	65	53	<b>63<sup>2</sup></b>	<b>64.5<sup>2</sup></b>	<b>65.8<sup>2</sup></b>	4	4	4
E125-11	65	54	62.3	63.8	<b>65.1<sup>2</sup></b>			4
E125-12	65	58	58.2	58.9	59.6			
E125-13	65	<b>71</b>	<b>71.1</b>	<b>71.5</b>	<b>72</b>	2	2	2
<b>Total Number of Impacted Structures</b>						<b>51</b>	<b>53</b>	<b>68</b>

1. Noise levels in bold meet or exceeds the traffic noise impact criteria.
2. Noise level meets or exceeds the 10 dBA substantial increase criteria.
3. The number of nearby structures that are estimated to have the same noise level as the modeled location.

#### 7.2.2.2. Plan B with Profile F

Under Plan B with Profile F, as many as 68 residential structures are expected to exceed the impact criteria. Noise level increases of 1 to 18 dBA are projected for the residences along

the proposed 125<sup>th</sup> Avenue Extension. The impacts are the same as under Plan A Profile C south of Davies Road, North of Davies Road, the same changes given under Profile B Plan E apply.

### 7.3. Collector and Arterial Roadway Comparison

Collector and arterial roadways near the proposed 125<sup>th</sup> Avenue Extension Project that may experience a change in noise levels as result of the project were analyzed. Noise levels increases of 1 to 2 dBA can be expected for front-line receivers located along Sorrento Road, Brockman Street, and Greenway with or without the project. There are a total of 56 residences that are expected to exceed the traffic noise criteria in the future, compared to 49 that currently exceed the criteria. The additional future noise impacts are along the northern end of Sorrento Road, and are not related to the Project.

**Table 7-5**  
**Future Build Noise Levels vs. Existing Noise Levels**  
(peak hour levels in dBA – L<sub>eq</sub>)

Receiver Notation	Impact Criteria	Existing Levels <sup>1</sup>	No-Build Levels	Build Levels <sup>1</sup>	Change vs. Existing		Structures Impacted <sup>3</sup>
					No-Build	Build	
SOR-1	65	64	<b>65</b>	<b>65</b>	+1	+1	7
SOR-2	65	62	63	63	+1	+1	
SOR-3	65	62	63	63	+1	+1	
SOR-4	65	62	63	63	+1	+1	
SOR-5	65	62	63	63	+1	+1	
BROCK-1	65	<b>69</b>	<b>70</b>	<b>70</b>	+1	+1	4
BROCK-2	65	<b>68</b>	<b>69</b>	<b>70</b>	+1	+2	6
BROCK-3	65	<b>69</b>	<b>70</b>	<b>70</b>	+1	+1	4
BROCK-4	65	<b>67</b>	<b>68</b>	<b>69</b>	+1	+2	3
GREEN-1	65	<b>68</b>	<b>68</b>	<b>68</b>	0	0	2
GREEN-2	65	<b>69</b>	<b>70</b>	<b>69</b>	+1	0 <sup>4</sup>	4
GREEN-3	65	<b>68</b>	<b>68</b>	<b>67</b>	0	-1	2
GREEN-4	65	<b>69</b>	<b>70</b>	<b>69</b>	+1	0 <sup>4</sup>	3
GREEN-5	65	<b>69</b>	<b>69</b>	<b>69</b>	0	0	2
GREEN-6	65	<b>66</b>	<b>66</b>	<b>66</b>	0	0	6
GREEN-7	65	<b>65</b>	<b>65</b>	<b>65</b>	0	0	6
GREEN-8	65	<b>65</b>	<b>66</b>	<b>66</b>	+1	+1	3
GREEN-9	65	<b>65</b>	<b>66</b>	<b>66</b>	+1	+1	3
GREEN-10	65	<b>73</b>	<b>75</b>	<b>75</b>	+2	+2	1
<b>Total Number of Impacted Structures</b>							<b>56</b>

1. Noise levels in bold meet or exceeds the traffic noise impact criteria.
2. Noise level meets or exceeds the 10 dBA substantial increase criteria.
3. The number of nearby structures that are estimated to have the same noise level as the modeled location.
4. Noise reductions at Green-2 and Green-4 were less than 1 dBA.

### 7.3.1. Collector and Arterial Roadway Noise Benefit Analysis

The proposed 125<sup>th</sup> Avenue extension has the potential of diverting traffic off other streets, such as Greenway and Brockman Street. A comparison of the future build versus the future no build noise levels was performed to compare the noise levels with and without the 125<sup>th</sup> Avenue extension. Noise levels along Brockman Street remain at the same levels under the Build or No Build alternatives, with slight (1 dBA) increases along the north side of the street. Noise levels along Greenway are reduced by 1 dBA at receivers near the 125<sup>th</sup> Avenue Greenway intersection. All other receivers in the area are expected to have equal noise levels under the Build and No Build alternatives.

### 7.4. Construction Noise Impacts

Construction noise would be generated by heavy equipment used during major construction periods under the Build Alternative. Construction activities would occur throughout the project area as close as 50 feet from existing structures in the project area. Estimates of maximum hourly noise levels at the closest receivers for various stages of construction are provided in Table 7-6.

<b>Construction Phase</b>	<b>Loudest Equipment</b>	<b>Noise Level at 50 feet (dBA)</b>
Clearing and grubbing	Bulldozer, backhoe	86
Earthwork	Scraper, bulldozer	88
Foundation	Backhoe, loader	85
Base preparation	Trucks, bulldozer	88
Paving	Paver, trucks	89

Source: U.S. Department of Transportation. Highway Construction Noise: Measurement, Prediction, and Mitigation. 1977.

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## 8. NOISE MITIGATION ANALYSIS

Several traffic noise abatement measures are evaluated whenever noise impacts occur. These include traffic management measures, highway design measures, and noise walls. Each of these potential mitigation measures is discussed with relation to the project.

### 8.1. Traffic Management Measures

Traffic management measures include modification of speed limits and restricting or prohibiting truck traffic. Restricting truck use on the project roadways would reduce noise levels at nearby receivers because trucks are much louder than cars. However, the level of truck traffic associated with the Project is so low that diverting trucks will not result in a change in the level of impacts.

### 8.2. Highway Design Measures

Highway design measures include altering the roadway alignment and depressing roadway cut sections. In some cases, the alteration of roadway alignments could decrease noise levels by moving the noise source farther away from the affected receivers. Changing the alignment, while lowering the noise levels on one side of the roadway, would increase the noise levels on the other. Therefore, moving the roadway alignment was not considered for mitigation.

Incorporating depressed roadway cut sections was considered as part of the project. All of the profiles contain some form of depressed roadway between Brockman Street /Greenway and Hall Boulevard. Plan A with Profile C and Plan B with Profile E have the roadway depressed throughout most of the alignment, with potential openings along the western side of 125<sup>th</sup> at Stillwell Lane and Barberry Drive, and along the east side at Stillwell Lane and Davies Road. The higher elevation level of the roadway under the D and F profiles accounts for the slightly higher noise levels when compared to the C and E profiles.

### 8.3. Noise Barriers

Construction of noise barriers between the roadways and the affected receivers would reduce noise levels by physically blocking the transmission of traffic-generated noise. Barriers can be constructed as walls or earthen berms. Earthen berms require more right-of-way than walls, and are usually constructed with a 3-to-1 slope. For this project earthen berms were not feasible because of the right-of-way requirement.

Noise walls should be high enough to break the line-of-sight between the noise source and the receiver. They must also be long enough to prevent significant flanking of noise around the ends of the walls. Openings in the wall, such as for driveways and walkways, can significantly reduce the barrier effectiveness.

## 8.4. Build Alternatives Noise Mitigation

Traffic noise impacts were identified under all of the build alternatives. The following sections provide potential noise mitigation measures for receivers located along the proposed 125<sup>th</sup> Avenue Extension. The mitigation analysis was performed for the worst case build noise levels, identified at the 45 mph speed option. Even though there are other noise impacts identified in the area, (such as Hall Boulevard, Brockman Street, Greenway, and other connecting streets) no noise mitigation was examined for these roadways because no roadway realignment changes or changes in number of travel lanes are planned under the Future-Build Alternative.

Mitigation measures that were examined and eliminated include traffic management measures, modification of the roadway alignment (east – west), and earthen berms. These measures were eliminated for the following reasons:

### *Traffic Management Measures*

- Roadway speed restrictions were considered as a form of mitigation with an analysis of noise levels performed for 35, 40, and 45 mph speed options.
- Restriction of truck traffic was rejected as a form of mitigation because of the low truck traffic volume expected on the roadway. Restricting truck traffic would not reduce the noise levels or level of noise impacts in the area.

### *Modification of Roadway Alignment*

- Moving the roadway alignment east or west would reduce the noise levels on one side of the road, while increasing them on the other. Other roadway modifications, such as a depressed roadway, are included as part of the project and may be modified during final design to improve the overall noise mitigation benefits.

### *Earthen Berms*

- Earthen berms of the height necessary to provide sufficient noise mitigation would require more right-of-way than is available in the project area. Plan A Profile D and Plan B Profile F use earthen berms as part of the design; however, there is not sufficient right-of-way to increase the berms height and provide noise mitigation of the level required for noise mitigation.

### 8.4.1. Plan A

Under Plan A with either Profiles, noise barriers were identified as the most effective method of reducing noise levels in the project area. Noise barriers, as modeled for the project under Plan A, are described in the following sections. Details on the noise walls considered, noise levels, and wall calculations are given in Appendix D.

#### **8.4.1.1. Plan A with Profile C**

Two noise walls are proposed for the project area, one for each side of the roadway. The eastern wall is located along the eastern side of the roadway from approximately 500 feet south of Stillwell Lane and continues north to approximately 200 feet north of Davies Road. The total length of the wall is approximately 1300 feet, and the height of the wall is 8 feet along the entire alignment. The wall will reduce noise levels at receivers boarding 125<sup>th</sup> Avenue by 6 to 10 dBA. Receiver locations E125-5 to E125-9 represent 13 single family residents that would benefit from the structure. All noise impacts along the eastern side of the roadway would be eliminated with the wall. If intersections were provided at Stillwell Lane, Davies Road, or Barberry Drive, noise levels at residents located at the intersection will be 1 to 2 dBA higher than without the intersections.

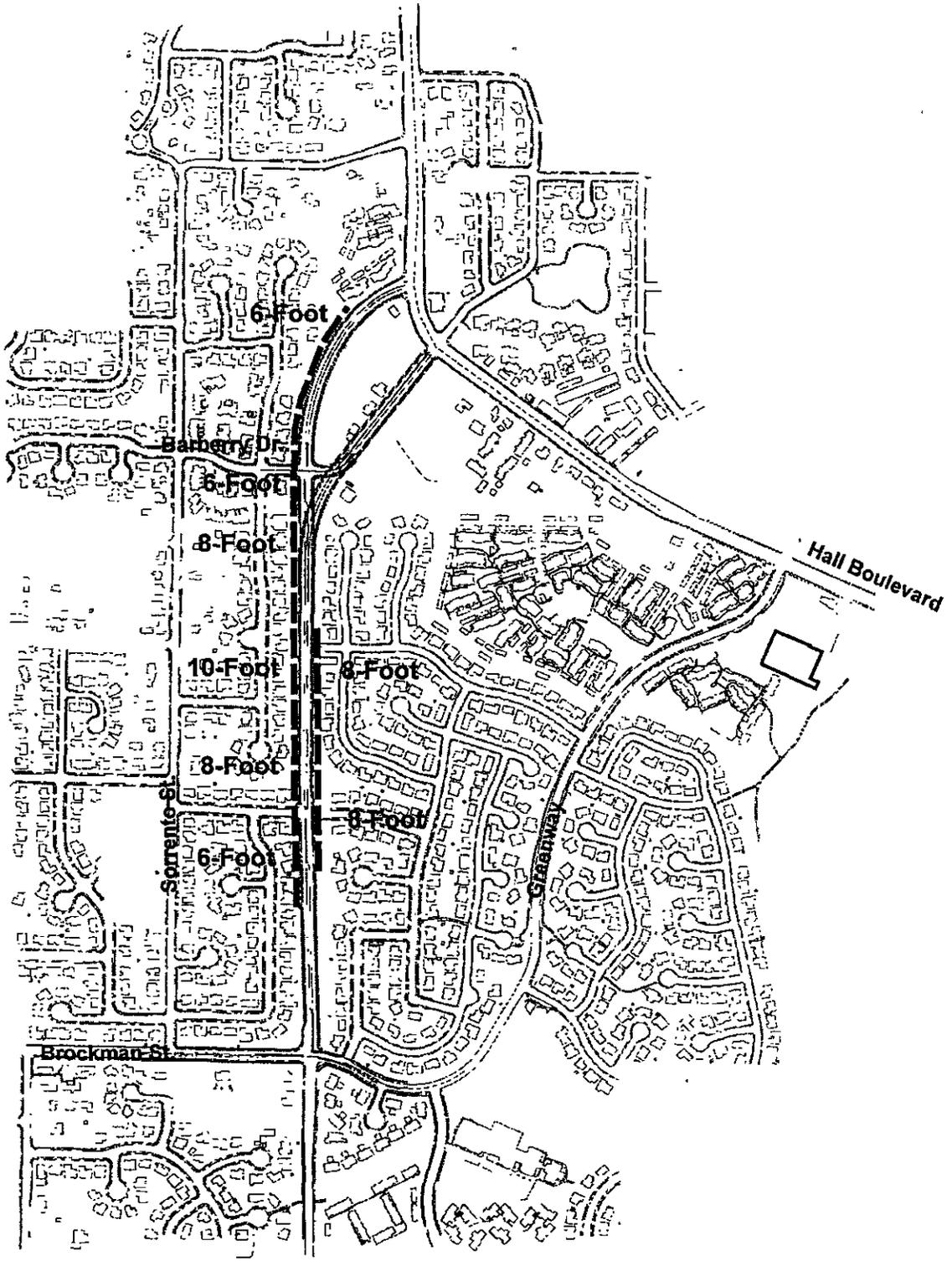
The western noise wall begins approximately 275 feet north of Brockman Street. The 2,900 foot wall varies in height from 6 feet in the south end, to 8 feet north of Stillwell Lane, and to 10 feet from Remundo Lane to approximately 600 feet south of Barberry Drive. The wall then steps down to 8 feet for approximately 400 feet, then steps down again to 6 feet for the remainder of the noise wall. The wall will reduce the noise levels at 27 residents by 5 dBA or more, eliminating all impacts that are directly related to the project.

The approximate cost of the eastern noise wall is \$187,200, or \$14,400 per benefited receiver location. The cost for the western noise wall is estimated at \$370,800, or \$13,733 per benefited receiver. Cost estimates use \$18.00 per square foot. The mitigated Future-Build noise levels for the 125<sup>th</sup> Avenue Plan A Profile C are given in Table 8-1, and Figure 8-1 shows the approximate location of the noise wall. Figures 8-2 and 8-3 provide noise wall intersection details for Stillwell Lane, Davies Road, and Barberry Drive.

**Table 8-1**  
**Mitigated Noise Level Comparison Plan A Profile C Without Intersections**  
 (peak hour levels in dBA -  $L_{eq}$ )

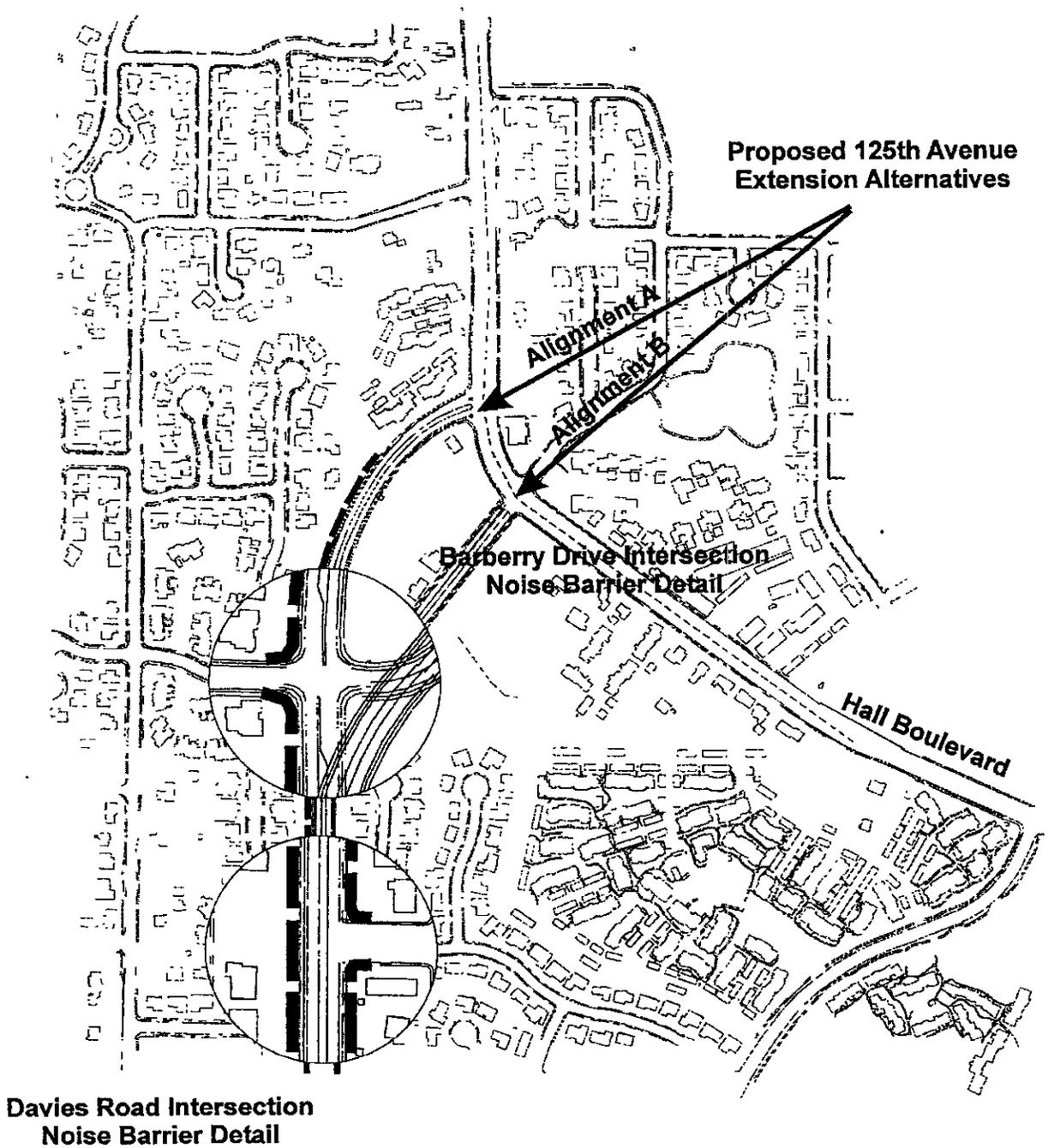
Receiver Notation	Impact Criteria	Existing Levels <sup>1</sup>	Mitigated Levels	Change In Levels	Reduction	Wall Height	Structures Impacted <sup>2</sup>
W125-1	65	<b>73</b>	<b>75</b>	2	N/A	N/A	2
W125-2	65	58	61	3	6	6	
W125-3	65	56	56	0	6	6	
W125-4	65	53	55	2	7	6	
W125-5	65	52	53	1	4	6	
W125-6	65	52	52	0	1	6	
W125-7	65	51	55	4	7	8	
W125-8	65	51	58	7	10	10	
W125-9	65	51	51	0	3	10	
W125-10	65	51	57	6	8	10	
W125-11	65	51	55	4	6	8	
W125-12	65	52	53	1	2	6	
W125-13	65	52	52	0	2	6	
W125-14	65	51	54	3	5	6	
W125-15	65	51	55	4	5	6	
W125-16	65	53	62	9	N/A	N/A	
W125-17	65	53	57	4	N/A	N/A	
W125-18	65	56	64	8	N/A	N/A	
W125-19	65	<b>68</b>	<b>71</b>	3	N/A	N/A	4
E125-1	65	64	<b>66</b>	2	N/A	N/A	3
E125-2	65	52	58	6	N/A	N/A	
E125-3	65	51	57	6	N/A	N/A	
E125-4	65	51	56	5	N/A	N/A	
E125-5	65	51	56	5	7	8	
E125-6	65	51	57	6	10	8	
E125-7	65	50	54	4	6	8	
E125-8	65	50	55	5	6	8	
E125-9	65	50	55	5	6	8	
E125-10	65	53	55	2	N/A	N/A	
E125-11	65	54	56	2	N/A	N/A	
E125-12	65	58	59	1	N/A	N/A	
E125-13	65	71	<b>72</b>	1	N/A	N/A	2
<b>Total Number of Impacted Structures</b>							<b>11</b>

1. Noise levels in bold meet or exceeds the traffic noise impact criteria.
2. The number of nearby structures that are estimated to have the same noise level as the modeled location.



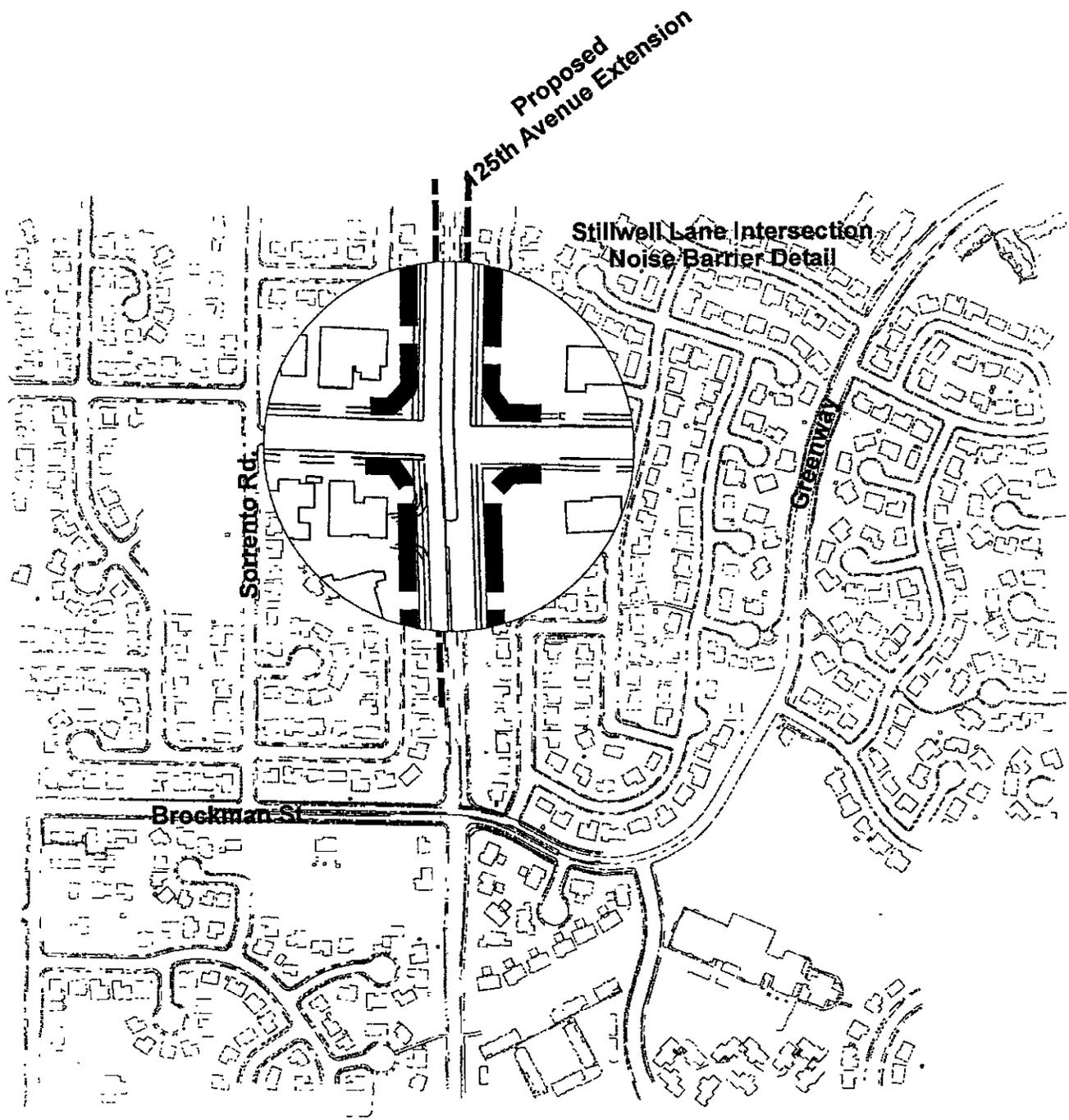
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**Noise Barrier Notation**

**Figure 8-1**  
**Noise Barrier Locations**  
**Plan A Profile C**  
**Plan B Profile E**  
**(intersection details on figure 8-2 and 8-3)**



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 Noise Barrier Notation

**Figure 8-2**  
**Noise Barrier Locations**  
**Intersection Details**  
 (Continued on Figure 8-3)



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**Noise Barrier Notation**

**Figure 8-3**  
**Noise Barrier Location**  
**Intersection Details**  
 (Continued from Figure 8-2)

#### **8.4.1.2. Plan A with Profile D**

The eastern noise wall under Profile D starts approximately 200 feet north of Brockman Street and extends north to 160 feet north of Davies Road. The walls height varies from 4 feet in the south end, to 8 feet at Stillwell Lane to the walls end north of Davies Road. The wall reduces noise levels at impacted residents by 7 to 12 dBA, and eliminates the Project related traffic noise impacts. Twenty-one impacted residents are expected to benefit from the 1,900 foot noise wall.

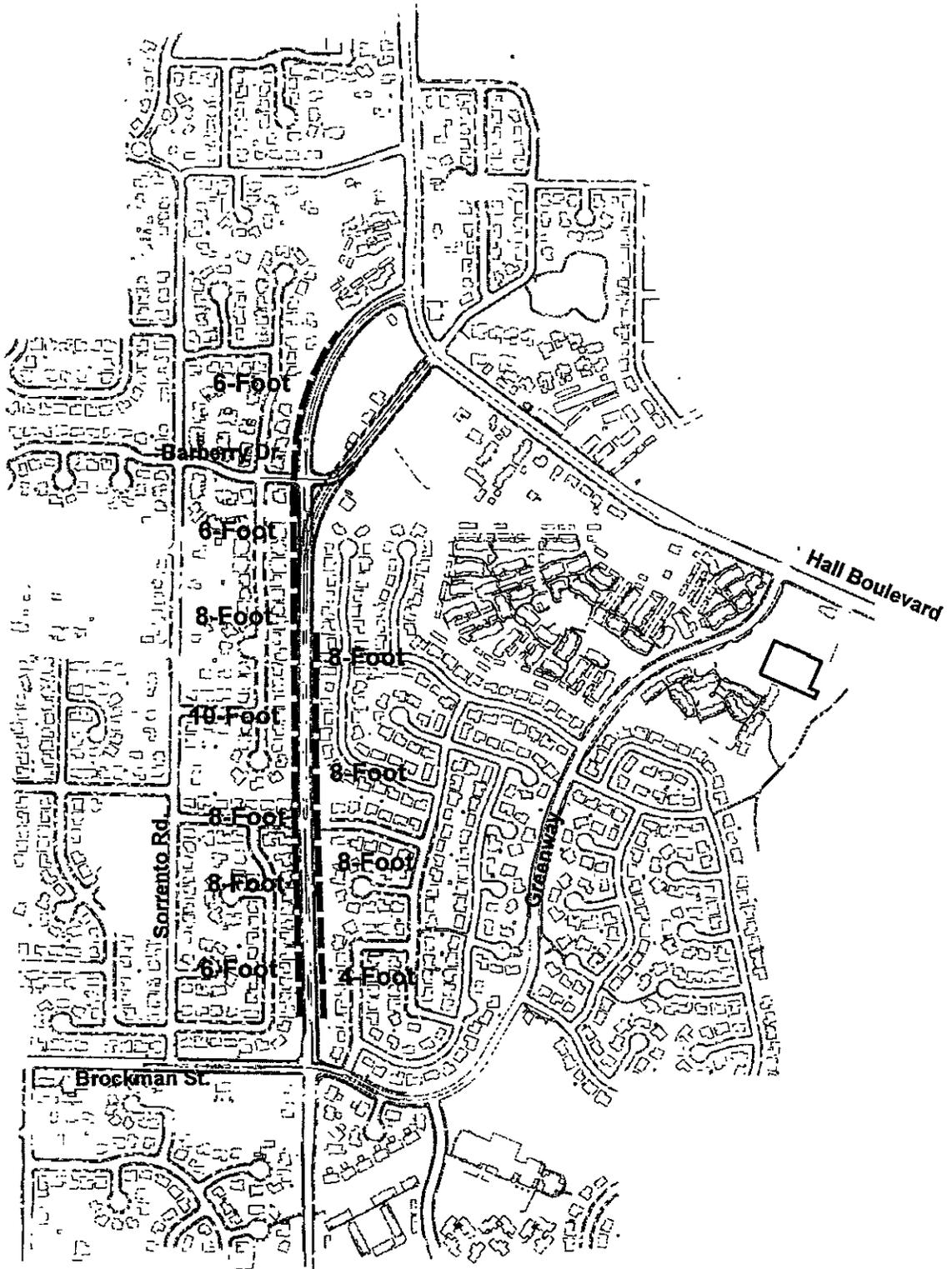
The western wall also starts approximately 200 feet north of Brockman Street and extends north to about 300 feet south of the 125<sup>th</sup> Avenue/Hall Boulevard intersection. The 3,300 foot noise wall will reduce noise levels at 51 impacted residential locations to within the impact criteria, eliminating Project related impacts. Noise reductions of 5 to 12 dBA are predicted at front-line residents along the alignment.

The approximate cost of the eastern noise wall is \$237,600, or \$11,314 per benefited receiver location. The cost for the western noise wall is estimated at \$439,200, or \$8,611 per benefited receiver. Cost estimates use \$18.00 per square foot. The mitigated Future-build noise levels for the 125<sup>th</sup> Avenue Plan A Profile D are given in Table 8-2, and Figure 8-4 shows the approximate location of the noise wall. Figures 8-2 and 8-3, shown previously, provide noise wall intersection details for Stillwell Lane, Davies Road, and Barberry Drive.

**Table 8-2**  
**Mitigated Noise Level Comparison Plan A Profile ~~X~~ Without Intersections**  
 (peak hour levels in dBA -  $L_{eq}$ )

Receiver Notation	Impact Criteria	Existing Levels <sup>1</sup>	Mitigated Levels	Change in Levels	Reduction	Wall Height	Structures Impacted <sup>2</sup>
W125-1	65	<b>73</b>	<b>75</b>	2	N/A	N/A	2
W125-2	65	58	61	3	7	6	
W125-3	65	56	59	3	7	6	
W125-4	65	53	56	3	5	6	
W125-5	65	52	55	3	5	6	
W125-6	65	52	52	0	3	6	
W125-7	65	51	55	4	12	8	
W125-8	65	51	60	9	8	10	
W125-9	65	51	53	2	6	10	
W125-10	65	51	60	9	8	10	
W125-11	65	51	59	8	9	10	
W125-12	65	52	56	4	3	10	
W125-13	65	52	55	3	3	6	
W125-14	65	51	58	7	9	8	
W125-15	65	51	57	6	7	8	
W125-16	65	53	56	3	8	N/A	
W125-17	65	53	55	2	5	N/A	
W125-18	65	56	60	4	5	N/A	
W125-19	65	<b>68</b>	<b>71</b>	3	N/A	N/A	4
E125-1	65	64	<b>66</b>	2	N/A	N/A	3
E125-2	65	52	61	9	N/A	N/A	
E125-3	65	51	57	6	N/A	N/A	
E125-4	65	51	57	6	N/A	N/A	
E125-5	65	51	56	5	7	8	
E125-6	65	51	57	6	11	8	
E125-7	65	50	56	6	11	8	
E125-8	65	50	57	7	8	8	
E125-9	65	50	57	7	9	8	
E125-10	65	53	54	1	12	4	
E125-11	65	54	56	2	10	4	
E125-12	65	58	60	2	N/A	N/A	
E125-13	65	71	72	1	N/A	N/A	2
<b>Total Number of Impacted Structures</b>							<b>11</b>

1. Noise levels in bold meet or exceeds the traffic noise impact criteria.
2. The number of nearby structures that are estimated to have the same noise level as the modeled location.



-----  
 Noise Barrier Notation

**Figure 8-4**  
**Noise Barrier Locations**  
**Plan A Profile D**  
**Plan B Profile F**  
 (intersection details on figure 8-2 and 8-3)

#### **8.4.1.3. Plan B**

Under Plan B with either profiles, noise barriers were identified as the most effective method of reducing noise levels in the project area. Noise barriers, as modeled for the project under Plan B, are described in the following sections.

#### **8.4.1.4. Plan B with Profile E**

The mitigation measures for Plan B Profile E would be the same as Plan A Profile C, except the wall would follow the Plan B alignment and end approximately 600 feet south of the 125<sup>th</sup> Avenue/Hall Boulevard intersection. The noise wall would be cost effective, and eliminate all project related impacts, except the impact at E125-1, the new townhomes located along Green Lane. The townhomes are located to close to the roadway alignment and require access to Green Lane for driveways, and therefore a noise wall could not be used as mitigation.

#### **8.4.1.5. Plan B with Profile F**

The mitigation measures for Plan B Profile F would be the same as Plan A Profile D, except the wall would follow the Plan B alignment and end approximately 600 feet south of the 125<sup>th</sup> Avenue/Hall Boulevard intersection. The noise wall would be cost effective, and eliminate all project related impacts, except the impact at E125-1, the new townhomes located along Green Lane. The townhomes are located to close to the roadway alignment and require access to Green Lane for driveways, and therefore a noise wall could not be used as mitigation.

### **8.5. Unavoidable Impacts**

Traffic noise levels will continue to meet or exceed the criteria along Brockman Street, Greenway, and Hall Boulevard, with or without the proposed project. Noise levels at receivers that are located adjacent to these roads will have future noise levels 1 to 3 dBA higher than the current levels. Future noise levels of 65 to 70 dBA are expected along all of these roadways.

Under the build alternative, the only project related impact that could not be mitigated are the townhomes on Green Lane under alignment Plan B.

### **8.6. Construction Noise Mitigation**

There are currently no FHWA criteria for construction noise impacts. Offsetting the relatively high noise levels is the fact that the construction will be of short duration and the levels in Table 7-6 can be expected only when the equipment is within 50 feet of the receiver. All buildings bordering on project roadways can expect maximum construction noise levels in the 80 to 90 dBA range when equipment is operating on the roadway immediately next to them. These noise levels will decrease as the construction operations move farther away.

Several construction noise abatement methods can be implemented to limit the impacts. Operation of construction equipment can be prohibited within 1,000 feet of any occupied dwelling unit at nighttime hours (10:00 p.m. to 6:00 a.m.) or on Sundays or legal holidays, when noise would have the most severe effect. All engine-powered equipment can be required to have mufflers installed according to the manufacturer's specifications, and all equipment can be required to comply with pertinent equipment noise standards of the U.S. Environmental Protection Agency.

## 9. CONCLUSION

Construction of the 125<sup>th</sup> Avenue extension could result in 27 to 68 residential noise impacts. With the proper mitigation measures, noise levels increases in the area can be contained and all project related impacts eliminated. Currently, noise levels at residents located adjacent to the proposed 125<sup>th</sup> Avenue alignment range from 51 to 72 dBA  $L_{eq}$  during peak traffic hours. The lowest noise levels were measured at residents located along the dead-end roads adjacent to the alignment. The higher noise levels were measured near Hall Boulevard and along Brockman Road and Greenway.

The project related noise analysis can be summarized as follows:

- Noise level increases of 1 to 3 dBA will occur under the No-Build Alternative, and increases of 1 to 17 dBA can be expected under the Build Alternative.
- Under the Build Alternative, several receiver locations have noise level increases of over 10 dBA.
- The high number of impacts is due to the low (50 to 52 dBA) existing noise environment at many residents located adjacent to the proposed alignment.
- Noise walls located along both sides of the roadway can be used to mitigate all project related impacts for all plans and profiles considered. All of the recommended noise walls meet the ODOT cost effectiveness criteria, reducing noise levels by as much as 12 dBA. The length and heights of the proposed walls are given in Chapter 8.
- Noise levels will increase slightly (1 to 3 dBA) at receivers located along Barberry Drive, Davies Road and Stillwell Lane if intersections with 125<sup>th</sup> Avenue are provided at these locations.
- Noise levels at many residents located near Hall Boulevard, and along Brockman Road and Greenway, will continue to exceed the traffic noise impact criteria. Construction of the 125<sup>th</sup> Avenue extension is not expected to result in any noticeable change in noise levels along any arterial or collector roads near the project area.

Appendix A  
**Bibliography**

Oregon Department of Transportation. *Traffic Noise Analysis and Mitigation Manual*, ODOT, Salem, OR. Revised 1996

U.S. Department of Transportation. *Federal-Aid Highway Program Manual*, Volume 7, Chapter 7, Section 3, Transmittal 348. Federal Highway Administration, Washington, D.C. August 1982.

U.S. Department of Transportation. *FHWA Highway Traffic Noise Prediction Model, Report No. FHWA-FD-77-108*. Federal Highway Administration, Washington, D.C. December 1978.

U.S. Department of Transportation. *Guidance Material for the Preparation of Environmental Documents*, FHWA Technical Advisory T6640.8A. Federal Highway Administration, Washington, D.C. 1987.

U.S. Department of Transportation. *Highway Construction Noise: Measurement, Prediction and Mitigation*. Federal Highway Administration, Washington, D.C. 1977.

U.S. Department of Transportation. *Noise Barrier Cost Reduction Procedure, Stamina 2.0, Optima User's Manual*, Report No. FHWA DP-58-1. Federal Highway Administration, Washington, D.C. April 1982.

U.S. Department of Transportation. *Sound Procedures for Measuring Highway Noise: Final Report*, FHWA DP-45-1R. Federal Highway Administration, Washington, D.C. August 1981.

Appendix B  
**Traffic Counts**

**Existing Condition Traffic Volumes and Speeds**

Modeled Roadways (From XX to XX)	Peak Totals	Roadway Modeled	Percentages			Modeled		Corrected	
			Cars	MT	HT	Speeds	Cars	MT	HT
125th Extension (Barberry to Hall)	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12th Extension (Brockman to Barberry)	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
125th Avenue (South of Brockman)	860	Yes	0.986	0.012	0.002	35	848	11	2
Hall Boulevard (Continuos)	2440	Yes	0.940	0.050	0.010	45	2294	122	24
Greenway (Brockman/125th to Hall)	1150	Yes	0.988	0.009	0.004	35	1136	10	4
Brockman (West of 125th/Greenway)	1155	Yes	0.988	0.009	0.004	35	1141	10	4
Sorrento ( Barberry to Hall)	700	Yes	0.990	0.010	0.001	35	693	7	1
Sorrento ( Brockman to Barberry)	490	Yes	0.990	0.010	0.001	35	485	5	0
<b>Neighborhood Collector Roads (not modeled)</b>									
Hart Road (Sorrento to Hall)	1095	No	0.990	0.010	0.001	35	1084	11	1
Stillwell (East of 125th)	0	No	0.990	0.010	0.001	35	0	0	0
Stillwell (West of 125th)	20	No	0.990	0.010	0.001	35	20	0	0
Barberry (East of 125th)	0	No	0.990	0.010	0.001	35	0	0	0
Barberry (West of 125th)	30	No	0.990	0.010	0.001	35	30	0	0
Davies (East of 125th)	0	No	0.990	0.010	0.001	35	0	0	0

**Future No-Build Traffic Volumes and Speeds**

Modeled Roadways (From XX to XX)	Peak Totals	Roadway Modeled	Percentages			Modeled Speeds	Corrected		
			Cars	MT	HT		Cars	MT	HT
125th Extension (Barberry to Hall)	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
125th Extension (Brockman to Barberry)	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
125th Avenue (South of Brockman)	1125	Yes	0.986	0.012	0.002	35	1109	14	2
Hall Boulevard (Continuous)	2765	Yes	0.940	0.050	0.010	45	2599	138	28
Greenway (Brockman/125th to Hall)	1400	Yes	0.988	0.009	0.004	35	1383	12	5
Brockman (West of 125th/Greenway)	1430	Yes	0.988	0.009	0.004	35	1412	12	5
Sorrento ( Barberry to Hall)	810	Yes	0.990	0.010	0.001	35	802	8	1
Sorrento ( Brockman to Barberry)	590	Yes	0.990	0.010	0.001	35	584	6	1
<b>Neighborhood Collector Roads (not modeled)</b>									
Hart Road (Sorrento to Hall)	1230	No	0.990	0.010	0.001	35	1218	12	1
Stillwell (East of 125th)	0	No	0.990	0.010	0.001	35	0	0	0
Stillwell (West of 125th)	20	No	0.990	0.010	0.001	35	20	0	0
Barberry (East of 125th)	0	No	0.990	0.010	0.001	35	0	0	0
Barberry (West of 125th)	30	No	0.990	0.010	0.001	35	30	0	0
Davies (East of Sorrento/125th)	0	No	0.990	0.010	0.001	35	0	0	0

**Future Build Traffic Volumes and Speeds**

Modeled Roadways (From XX to XX)	Peak Totals	Roadway Modeled	Percentages Cars	Percentages		Modeled Speeds	Cars	Corrected	
				MT	HT			MT	HT
125th Extension (Barberry to Hall)	1600	Yes	0.986	0.012	0.002	35/40/45	1577	20	3
126th Extension (Brockman to Barberry)	1600	Yes	0.986	0.012	0.002	35/40/45	1577	20	3
125th Avenue (South of Brockman)	1480	Yes	0.986	0.012	0.002	35	1459	18	3
Hall Boulevard (Continuous)	2320	Yes	0.940	0.050	0.010	45	2181	116	23
Greenway (Brockman/125th to Hall)	1110	Yes	0.988	0.009	0.004	35	1096	10	4
Brockman (West of 125th/Greenway)	1590	Yes	0.988	0.009	0.004	35	1570	14	6
Sorrento ( Barberry to Hall)	570	Yes	0.990	0.010	0.001	35	564	6	1
Sorrento ( Brockman to Barberry)	465	Yes	0.990	0.010	0.001	35	460	5	0
<b>Neighborhood Collector Roads (not modeled)</b>									
Hart Road (Sorrento to Hall)	1045	No	0.990	0.010	0.001	35	1035	10	1
Stillwell (East of 125th)	195	No	0.990	0.010	0.001	35	193	2	0
Stillwell (West of 125th)	360	No	0.990	0.010	0.001	35	356	4	0
Barberry (East of 125th)	435	No	0.990	0.010	0.001	35	431	4	0
Barberry (West of 125th)	435	No	0.990	0.010	0.001	35	431	4	0
Davies (East of 125th)	245	No	0.990	0.010	0.001	35	243	2	0

## Appendix C

### General Introduction to Acoustics

Human response to noise is subjective and can vary greatly from person to person. Factors that can influence individual response include the intensity (loudness), frequency, and time pattern; the amount of background noise present before an intruding noise; and the nature of the work or activity (e.g., sleeping) that the noise affects.

The unit used to measure the loudness of noise is the decibel (dB). To better approximate the sensitivity of the human ear to sounds of different frequencies, the A-weighted decibel scale was developed. Because the human ear is less sensitive to higher and lower frequencies, the A-weighted scale reduces the sound level contributions of these frequencies. When the A-weighted scale is used, the decibel levels are denoted as dBA.

A 10-dBA change in noise levels is judged by most people as a doubling of sound level. The smallest change in noise level that a human ear can perceive is about 3 dBA, and increases of 5 dBA or more are clearly noticeable. Normal conversation ranges between 44 and 65 dBA when speakers are 3 to 6 feet apart.

Noise levels in a quiet rural area at night are typically between 32 and 35 dBA. Quiet urban nighttime noise levels range from 40 to 50 dBA. Noise levels during the day in a noisy urban area are frequently as high as 70 to 80 dBA. Noise levels above 110 dBA become intolerable and then painful, while levels higher than 80 dBA over continuous periods can result in hearing loss. Table 1 shows sound levels for some common noise sources and compares their relative loudness to that of an 80 dBA source such as a garbage disposal or food blender. Constant noises tend to be less noticeable than irregular or periodic noises.

All noise levels referred to in this report are stated as sound pressure levels in terms of decibels on the A-scale (dBA). The A-scale is used in most ordinances and standards including the applicable standards for this project. To account for the time-varying nature of noise several noise metrics are useful. The equivalent sound pressure level ( $L_{eq}$ ) is defined as the average noise level, on an energy basis, for a stated time period (for example, hourly).

Other commonly used noise descriptors include the  $L_n$ ,  $L_{max}$ , and  $L_{min}$ . The  $L_{max}$  and  $L_{min}$  are the greatest and smallest RMS (root-mean square) sound levels, in dBA, measured during a specified measurement period. The sound level descriptor  $L_n$  is defined as the sound level exceeded "n" percent of the time. For example, the  $L_{25}$  is the sound level exceeded 25 percent of the time; therefore during a 1-hour measurement, an  $L_{25}$  of 60 dBA means the sound level equaled or exceeded 60 dBA for 15 minutes during that hour. Noise descriptors used in the following discussion include the  $L_{eq}$ ,  $L_{50}$ ,  $L_{90}$  and the  $L_{max}$ .

**Table 1**  
**Sound Levels and Relative Loudness of Typical Noise Sources**  
**found in Indoor and Outdoor Environments**

Noise Source or Activity	Sound Level (dBA)	Subjective Impression	Relative Loudness (human judgment of different sound levels)
Jet aircraft takeoff from carrier (50 ft)	140	Threshold of pain	64 times as loud
Jet aircraft (100 ft)	130		32 times as loud
Loud rock concert near stage Jet takeoff (200 ft)	120	Uncomfortably loud	16 times as loud
Prop plane takeoff (100 ft)	110		8 times as loud
Jet takeoff (2,000 ft)	100	Very loud	4 times as loud
Heavy truck or motorcycle (25 ft)	90		2 times as loud
<b>Garbage disposal, food blender (2 ft), Pneumatic drill (50 ft)</b>	<b>80</b>	<b>Moderately loud</b>	<b>Reference loudness</b>
Vacuum cleaner (10 ft)	70		1/2 as loud
Passenger car at 65 mph (25 ft)	65		1/4 as loud
Large store air-conditioning unit (20 ft)	60		1/4 as loud
Light auto traffic (100 ft)	50	Quiet	1/8 as loud
Bedroom or quiet living room Bird calls	40		1/16 as loud
Quiet library, soft whisper (5 ft)	30	Very quiet	
High quality recording studio	20		
Acoustic test chamber	10	Just audible	
	0	Threshold of hearing	

Sources: Beranek (1988) and EPA (1971)

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# 125TH AVENUE EXTENSION PROJECT



## PROJECT ADVISORY COMMITTEE MEETING #8 SUMMARY

The eighth Project Advisory Committee (PAC) meeting for the 125th Avenue Extension Project was held on June 2, 1998, from 6:30 to 9:00 p.m. at Conestoga Middle School Library. The meeting's purpose was to discuss the project's third Open House and review other outstanding issues prior to the City Council Work Session in August 1998. For more detailed information please refer to the handouts listed at the end of this summary.

### I. WELCOME/PROJECT BUSINESS

**PAC #7 Meeting Summary:** The meeting summary for the PAC #7 meeting was adopted with a few minor revisions that will be included in the final summary and sent to PAC members with their next meeting packet.

**PAC Member Reports:** Jim Persey reported that the May 1998 Greenway NAC meeting was not well attended, and as a result did not have any specific project recommendations at this time. However, the Greenway NAC is well represented on the project's PAC. Wetland impacts were a concern discussed at the meeting.

### II. DISCUSSION OF OUTSTANDING ISSUES

#### A. Posted Speed:

Posted speed for the new 125th Avenue Extension has typically been determined by the state. The state process is now being revised and may allow cities to evaluate and request posted speed limits in the future. The city may be able to vary the state's recommendation by 5 mph, plus or minus. The City's Traffic and Planning Commissions are reviewing existing 125th Avenue posted speeds now. The City may determine a temporary posted speed until the state makes its determination.

#### **PAC member comments included:**

- ▶ The speed on the new section should be the same as on the existing section.
- ▶ People are going too fast on 125th Avenue now. It should be lowered to a posted speed of 35 mph overall its length.
- ▶ To determine the best posted speed for the extension, all side streets and other connecting roadway speeds must be considered. If you slow down an arterial, it puts more vehicles into the neighborhoods. The purpose of this road is to get traffic through the area, not make it slow down and increase congestion. A 35 mph speed may be too slow and may not be reasonable.
- ▶ Existing 125th Avenue has many access points, including schools, traffic signals, and a 7-Eleven store. These tend to keep speeds down now.
- ▶ Air pollution and noise impacts are less if the speed is higher. This section will have sound walls while the existing section does not.
- ▶ Sound impacts are not a consideration at 35 or 40 mph, but child safety is.
- ▶ There is more activity along the south end of 125th Avenue and so maybe it should be posted

at 35 mph and the extension at 40 mph.

- ▶ A new signal at the new high school will also help control speeds.

**PAC RECOMMENDATIONS ON POSTED SPEED:**

**The PAC unanimously recommended that the posted speed for the 125th Avenue Extension be no greater than 40 mph, because of child safety concerns.**

**B. Pedestrian Islands:**

The Preferred Design Alternative includes pedestrian islands located on 125th Avenue Extension at Barberry Drive and Stillwell Lane. These islands will provide a safe refuge for pedestrians when crossing 125th Avenue Extension. A pedestrian signal on 125th Avenue Extension is not expected to meet warrants and will not be constructed with the project. Signalized intersections at Brockman and Hall Boulevard will provide additional safe crossings.

**PAC member comments included:**

- ▶ The break in the sound wall at Stillwell Lane should encourage pedestrians to use the south sidewalk. That way they will be able to use the larger island on 125th Avenue Extension when crossing.
- ▶ There is no sidewalk on the north side of Stillwell Lane now so a break in the sound wall on the north side will not be needed.

**C. Sound Walls:**

Randy Smith sent a memo to the project team inquiring about sound wall heights and asking if the sound wall heights could be reduced if the roadway is depressed an additional two feet, along 125th Avenue Extension between Stations 50 and 57. Most adjacent fences on the east side in this section are currently 6-feet high and by lowering the roadway, the sound walls would not extend above the fences. Preliminary figures indicate that an additional 10,000 cubic yards of material would need to be removed thus creating more retaining walls, at an approximate cost of \$100,000. The noise consultant will be contacted about the sound wall issues discussed during this meeting. Of course, many of these issues are typically addressed during the final design process. This information will be available at the upcoming Open House.

- ▶ Putting a sound wall on the west side of 125th, but not the east side (north of Davies Road), will cause noise to reflect back to the homes on the east. The roadway is closer to our homes on the east side because of the additional width necessary to install left turn lanes at Barberry Drive. It seems that we need sound walls to protect us against the increase in noise levels.
- ▶ Visual impacts are important from the adjacent properties. An 8-foot sound wall is very intrusive.
- ▶ The sound walls that are included with this project are the exception rather than the rule. Other residents don't get them. The City is really providing many amenities with this project that is out of the norm, in an effort to reduce impacts.

**PAC RECOMMENDATION ON SOUND WALLS:**

**The PAC recommended that evaluation of whether to depress the roadway an additional two feet between Stations 50 and 57, be included in the final design process.**

**D. Green Lane Connection:**

The City's comprehensive plan indicates that Green Lane will connect with the 125th Avenue Extension and end in a cul-de-sac at Hall Boulevard. If Green Lane also is connected with Hall Boulevard, turns would be limited to right turns in and right turns out only. It is anticipated that traffic volumes on Green Lane would increase by approximately 1,000 vehicles per day. City standards state that cul-de-sacs shall not be located on roadways no longer than 600 feet. Green Lane will be greater than 800 feet in length. As a result a comprehensive plan amendment would be needed to connect Green Lane at Hall Boulevard.

**PAC member comments included:**

- ▶ People will use this as a cut through to Hall Boulevard when 125th Avenue gets congested.
- ▶ This connection will encourage a lot of use and will attract a lot of traffic. This connection would be a significant change from the comprehensive plan. Whether to connect Green Lane at Hall Boulevard was a much discussed issue at the Board of Design Review sessions prior to its inclusion in the comprehensive plan.
- ▶ If Green Lane is connected to Hall Boulevard and it attracts a significant amount of traffic, can it then be cul-de-sac'd at a later date? Maybe it would be better to open it at Hall Boulevard if it is needed.
- ▶ The City Council may not endorse this connection. Could Randy McCourt more closely calculate the increase in traffic volumes as a result of opening Green Lane onto Hall Boulevard?

**PAC RECOMMENDATION ON GREEN LANE CONNECTION WITH HALL BOULEVARD:**

**The PAC unanimously recommended that a Green Lane connection with Hall Boulevard be evaluated within the final design process, and go through a public hearing.**

**E. Traffic Calming on Connected Side Streets:**

The Traffic Commission has developed policies that prioritize traffic calming improvement projects for existing streets. Speed humps are generally placed between 300 and 500 foot intervals. Since neither Barberry Drive (west) or Stillwell Lane (east) are long enough for these distances, it does not appear that speed bumps are reasonable. The Sorrento/Barberry intersection will most likely become a four-way stop (with stop signs). And Stillwell Lane (east) most likely will have a stop sign added at the Indian Hills intersection. These additional stops should encourage slower speeds through these neighborhoods. Also, Barberry Drive has a slight curve that slows traffic as well. It is unusual to add traffic calming devices on a minor collector (or neighborhood route in the Draft TSP) like Barberry Drive, since traffic should not be diverted to other neighborhood streets. Stillwell Lane (east) will be extended west to meet the new 125th Avenue Extension. As a result, this side street may be narrowed, a center island added, or a special landscaped entry at the 125th Avenue intersection, which will serve to calm traffic on Stillwell Lane (east).

**PAC member comments included:**

- ▶ There should definitely be a stop sign at Stillwell Lane (east) and Indian Hills. It will slow traffic down.
- ▶ Whatever entry treatments are used on Stillwell Lane (east) onto 125th Avenue Extension, they must include smooth transitions for bicycle connectivity.

- ▶ Bicyclists will travel Stillwell Lane (east) on the north side when crossing 125th Avenue even though pedestrians should use the sidewalk on the south side.

**PAC RECOMMENDATIONS ON STILLWELL LANE (EAST) INTERSECTION WITH 125TH AVENUE EXTENSION:**

The PAC recommended the addition of a stop sign at the Stillwell Lane (east)/Indian Hills intersection, a four-way stop (with stop signs) at the Sorrento Road/Barberry Drive intersection, and a special traffic calming treatment to the intersection of Stillwell Lane (east and 125th Avenue Extension.

**F. Funding:**

Four potential funding sources were presented. The sources include: 1) Major Streets Transportation Program (MSTIP), 2) City of Beaverton's Capital Improvements Plan (CIP), 3) Federal or state funding through the Intermodal Surface Transportation Efficiency Act (ISTEA), Transportation And Equity Act for the 21st Century (TEA-21), and Oregon's Statewide Transportation Improvement Program (STIP), and/or 4) A Local Improvement District (LID). These four options will be presented to the City Council for their consideration at the August work session. For more funding information details please refer to the funding handout.

**G. Construction Phasing:**

If full funding for the construction cannot occur at once then a phased approach is possible. It may prove to be more costly, but construction can be broken into several phases and completed over several years rather than the normal two construction seasons. Traffic will move along one lane in each direction during construction, although some short delays are anticipated. The potential phases, and a rough estimate of preliminary costs include:

1. Final engineering and surveying (\$850,000)
2. Wetland Mitigation (\$520,000)
3. Greenway/Brockman/125th Improvements (\$1.5 million)
4. Water quality and drainage facilities (\$60,000)
5. Retaining walls, sound walls, and roadway excavation (\$3.5 million)
6. 125th Avenue roadway construction, including: subgrade, asphalt, curbs, illumination, and storm drains (\$2.5 million)
7. Roadway striping, landscaping, and signing (\$400,000)

**PAC member comments included:**

- ▶ It will be hard on the community if construction lasts too long.
- ▶ This has been dedicated as a roadway since 1972. It's time to just do it.
- ▶ It seems like Phases 1&2 could be separated out but Phases 3-7 should be accomplished in as short a time frame as possible.
- ▶ Are there any other alternatives for similar costs that would accomplish the same goals? Have we reviewed all reasonable options? (Team response: An earlier evaluation of potential option indicated that the widening of Greenway between 125th Avenue and Hall Boulevard, improvements to the Greenway/Hall Boulevard intersection, and additional lanes accessing Hwy 217 would most likely be higher in costs and community impacts.

**PAC RECOMMENDATION FOR PHASED CONSTRUCTION:**

The PAC recommended that Phases 1&2 could be separated from the rest of the project because of funding constraints, but that Phases 3-7 be combined into only one construction phase, to minimize community impacts.

**H. Right Turn from Brockman onto 125th Avenue:**

The 125th/Brockman/Greenway intersection design indicates a designated left turn lane for eastbound Brockman Road traffic turning northbound onto the 125th Avenue Extension. No designated right turn lane is indicated for eastbound Brockman Road traffic turning south bound onto 125th Avenue. The City does not anticipate taking any additional right of way for the intersection improvements. City staff will research the High School's traffic study and identify expected traffic volumes and potential impacts for this turning movement.

**PAC member comments included:**

- ▶ The high school will increase traffic needing to make this right turn onto 125th Avenue.
- ▶ Traffic will back up behind people needing to turn right in the regular lane. This will cause congestion and drivers will lose patience, making it a dangerous situation.
- ▶ The right lane will be needed. It's cheaper to include it now with this project than to wait.
- ▶ The property needed to add the right turn belongs to GTE. It seems like this issue was discussed in the 80's and that their property would be needed for these improvements.
- ▶ A right turn onto 125th Avenue at this location is not shown in the Draft Transportation System Plan (TSP).
- ▶ There are many other roads in the City that are becoming unsafe and need right turn lanes too.

**PAC RECOMMENDATION FOR A DESIGNATED RIGHT TURN FROM BROCKMAN ONTO 125TH AVENUE:**

The PAC recommended (with one no vote, and one abstention) adding a right turn lane from Brockman onto 125th Avenue (south) with the project's intersection improvements.

**I. Cresmoor Traffic Needing to Turn Left Onto 125th Avenue Extension:**

Large numbers of vehicles are not expected to make a right turn onto Hall Boulevard from Cresmoor Drive and then make a left turn onto the 125th Avenue Extension. Left lane vehicle stacking on Hall Boulevard at this intersection will often extend south beyond the Cresmoor Drive intersection, making it impossible to use this route from Cresmoor Drive.

**PAC member comments included:**

- ▶ This route seems unsafe for most of the day. Area residents will realize this and use other routes, which they are already doing anyway.
- ▶ There are other options for the Cresmoor/Ridgecrest area. People can turn right onto Hall Boulevard, then left onto Hart, and another left to Sorrento. There will be few cars taking this route, so it won't create a significant amount of traffic on Sorrento. Or people can go to Bel Aire Lane to Hall Boulevard.

**J. Final Design Public Process:**

At several points in the PAC meeting, references were made to including a public participation process during final design. This process would primarily involve adjacent property owners in further

discussions design and construction issues. The PAC felt strongly about continuing this community/City relationship for the remainder of the project.

**PAC RECOMMENDATION FOR A PUBLIC PROCESS DURING FINAL DESIGN:**

**The PAC unanimously recommended adjacent property owners (and possibly the existing PAC) have an ongoing opportunity for review and input during the final design phase. This will assure that many outstanding issues are resolved with community consultation.**

**III. PUBLIC OPEN HOUSE #3 PREPARATIONS**

The third Public Open House will be held on July 14, 1998 at the Elsie Stuhr Center. PAC members will actively participate by helping City staff at the issue stations. Most members will be assigned to a similar station as they had at the last Open House, because they did such a good job with those assignments. The Open House format and assignments will be sent to PAC members prior to that meeting. An area will be reserved in the room for a question and answer group but otherwise the Open House will be very similar in layout as the last meeting. Newsletters will be sent by first class mail two weeks prior to the Open House and will describe the preferred alternative and the public process. No survey will be included. However, attendees at the Open House will be encouraged to fill out comment forms.

**IV. WHAT'S NEXT?**

Public Open House #3 will be held on July 14, 1998. The City Council work session will be held on August 24, 1998 (changed from the tentative August 10 date). The PAC will hold one more meeting after the City Council work session, perhaps at Ann Fraaney's home in September. A date for that meeting has not yet been selected.

**Attendees:**

Jim Persey  
Milton Missfeldt  
Ann Fraaney  
Randy Smith  
Carl Prenner  
Kathy Burry  
Ed Vilhauer  
Bob Glasgow  
Joel Howie  
Terry Waldele  
Randy Wooley  
John Osterberg  
Trudy Rippe

**Handouts:**

Meeting Agenda  
Draft PAC #7 Meeting Summary  
Funding Information Sheet  
Preferred Alternative Map  
Revised Table 2 from Traffic Study Technical Memo  
Preferred Alternative Detailed Costs  
Profile G

**Community Members:**

Boyd Osgood

# EXHIBIT G

CITY OF  
BEAVERTON

# 125TH AVENUE

EXTENSION PROJECT



JULY 1999

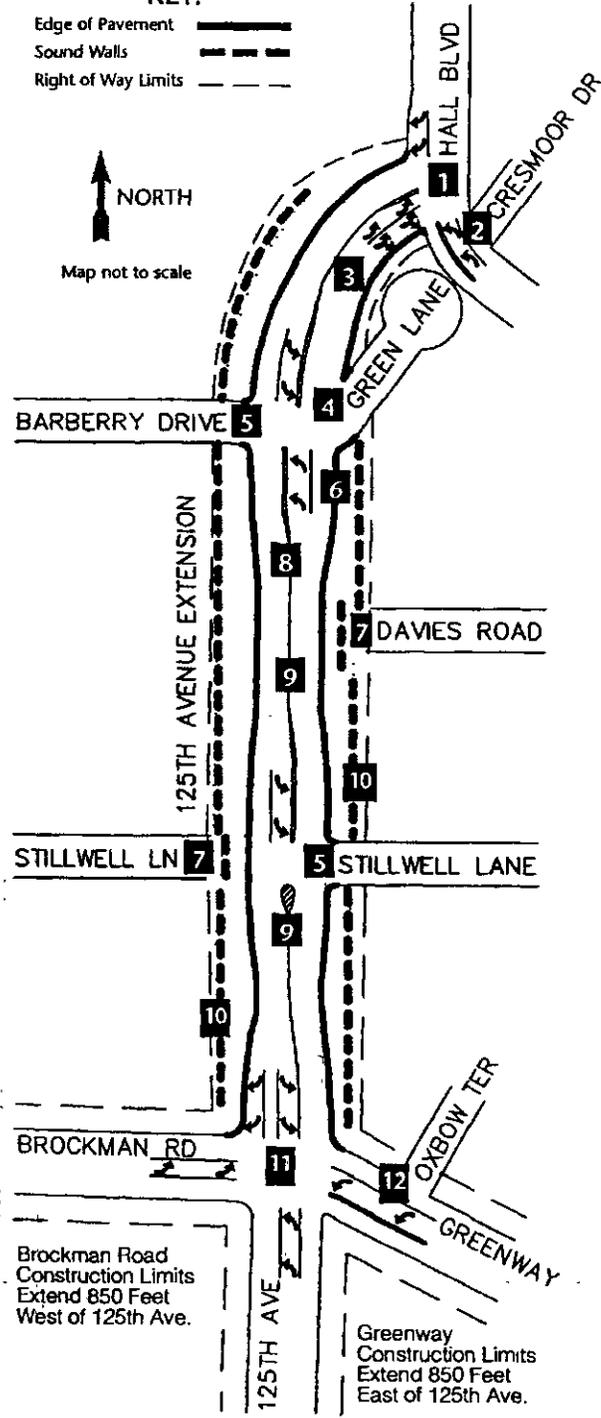
## Preferred Design Alternative

### KEY:

- Edge of Pavement ———
- Sound Walls - - - - -
- Right of Way Limits - - - - -



Map not to scale



The Preferred Design Alternative is responsive to numerous community concerns, reflects many residents' ideas, and best meets the project's goal and objectives. Numbers on the map below correspond to the descriptions of the key roadway design features.

- 1 A SIGNALIZED "T" INTERSECTION AT 125TH AVENUE EXTENSION AND HALL BOULEVARD provides left and right turn lanes.
- 2 CRESMOOR DRIVE ACCESS AT HALL BOULEVARD is limited to right turns in and right turns out only, because of safety concerns due to vehicle turning conflicts. Left turns from Cresmoor onto Hall are prohibited by an obstruction/median in the center of Hall Blvd.
- 3 APPROXIMATELY ONE ACRE WETLAND MITIGATION to be completed on site or within the watershed basin, if possible.
- 4 GREEN LANE IS CONNECTED with the 125th Avenue Extension and ends in a cul-de-sac near Hall Boulevard. A stop sign will be located on Green Lane where it intersects with 125th Avenue extension.
- 5 BARBERRY DRIVE (WEST) AND STILLWELL LANE (EAST) CONNECT to the 125th Avenue Extension. Traffic studies indicate that a Barberry Drive connection makes the largest impact on reducing neighborhood traffic volumes, particularly on Sorrento Road. The Stillwell Lane (east) connection provides an additional emergency vehicle and neighborhood access to the Oxbow Terrace/Indian Hill neighborhood. Stop signs will be located on Barberry Drive (west) and Stillwell Lane (east) where they intersect with the 125th Avenue Extension.
- 6 PEDESTRIAN AND BICYCLE FACILITIES include a 6-foot wide on-street bike lane and 6-foot wide sidewalk on each side of 125th Avenue Extension. An 8-foot wide planter strip between the roadway and sidewalk will be landscaped with trees.
- 7 BICYCLE AND PEDESTRIAN ACCESS provided through specially designed breaks in the sound walls on Davies Road (east) and Stillwell Lane (west) for improved neighborhood connectivity.
- 8 DEPRESSED ROADWAY DESIGN (average 5-feet in depth) minimizes visual and noise impacts to adjacent residences.
- 9 TWO, 12-FOOT WIDE, VEHICLE TRAVEL LANES, without a continuous center median, accommodate anticipated traffic needs to the year 2015. However, left turn lanes from 125th Avenue to Barberry Drive (west) and Stillwell Lane (east) will provide vehicle storage, and small median islands allow for safer pedestrian crossing.
- 10 SOUND WALLS significantly reduce noise levels on adjacent properties to acceptable levels. Sound wall heights vary from six to ten feet, depending upon land topography.
- 11 BROCKMAN ROAD/GREENWAY INTERSECTION improvements include left turn lanes in all four directions, additional signalization and regrading of the hill just west of the intersection on Brockman to improve intersection sight distance.
- 12 OXBOW TERRACE ACCESS at Greenway is limited to right turns in and right turns out only, because of safety concerns due to vehicle turning conflicts, particularly during peak hours.

Brockman Road  
Construction Limits  
Extend 850 Feet  
West of 125th Ave.

Greenway  
Construction Limits  
Extend 850 Feet  
East of 125th Ave.

## **DRAFT**

BEAVERTON CITY COUNCIL  
REGULAR MEETING  
MAY 8, 2006  
6:30 P.M.

### CALL TO ORDER:

The Regular Meeting of the Beaverton City Council was called to order by Mayor Rob Drake in the Forrest C. Soth City Council Chamber, 4755 SW Griffith Drive, Beaverton, Oregon, on Monday, May 8, 2006, at 6:33 p.m.

### ROLL CALL:

Present were Mayor Drake, Couns. Catherine Arnold, Betty Bode, Bruce Dalrymple, Dennis Doyle, and Cathy Stanton. Also present were City Attorney Alan Rappleyea, Chief of Staff Linda Adlard, Finance Director Patrick O'Claire, Community Development Director Joe Grillo, Public Works Director Gary Brentano, Human Resources Consultant Barbara Huson, Deputy Police Chief Chris Gibson and Deputy City Recorder Catherine Jansen.

### PROCLAMATIONS:

Mayor Drake proclaimed May 7-13, 2006, Building Safety Week.

### PRESENTATIONS:

#### 06073 Beaverton Arts Commission's Annual Art Awards

Carol Rogat, President, Beaverton Arts Commission, said the Commission annually recognizes artists for outstanding achievements and those who have made a significant contribution in support of the arts. She said the 2006 award winners would be recognized at this meeting. The awards presentation opened with a solo performance by cellist Angie Zhang.

Mayor Drake presented the awards to the following 2006 Annual Art Award recipients:

Volunteers of the Year: Charmaine Anderson, Kathy Marsh and Denny Lumsden

President's Award: Beverly Hahn, Chico's Fund-raiser

Visual Arts in the Community Award: Painter's Showcase

Performing Arts in the Community Award: Jinn Davis for bringing live, musical concerts to Beaverton school children during lunch

Art Leadership Award: Misty Cassidy, Art Literacy Coordinator, Jennifer Mitchell and Pam Schuller of Chehalem Elementary School

Business of the Year: Emily Andrews Portrait Design

Organization of the Year: Tualatin Hills Park and Recreation District in recognition of their Concert in the Park Series & Artist Gallery at Cedar Hills Recreation Center

Mayor Drake and Coun. Doyle presented the awards to the youth recipients:

Outstanding Achievement in the Performing Arts by an Elementary School Student: Angie E. Zhang, Findley Elementary School.

Outstanding Achievement in the Visual Arts by an Elementary School Student: Levi Arthur, Barnes Elementary School.

Outstanding Achievement in the Performing Arts by a Middle School Student (Tie): Paige Loeffler and Scott Pilette, Cedar Park Middle School.

Outstanding Achievement in the Visual Arts by a Middle School Student (Tie): Chantalle Guptill and Maya Lall, Arts and Communication Magnet Academy.

Outstanding Achievement in the Performing Arts by a High School Student: Timothy Holmsley, Westview High School.

Outstanding Achievement in the Visual Arts by a High School Student (Tie): Rebecca Begis, Arts and Communication Magnet Academy and Amanda Foster, Southridge High School.

The award presentation closed with a recorded performance of Timothy Holmsley as Finch in Westview High School's production of "How to Succeed in Business Without Really Trying."

Mayor Drake thanked everyone for the fine presentation.

Coun. Doyle said it was a pleasure to serve as Council liaison to the Beaverton Arts Commission. He said this was a small sample of the talent in Beaverton and all parents should be proud of their children's participation in the arts. He encouraged everyone to attend the schools' play productions as they were excellent shows.

Coun. Stanton said she hoped a stagecraft category would be added to the awards someday. She complimented the excellent work of the stagecrafters who provide the costumes, setups and lighting for the plays. She said the arts were an important part of everyone's lives and she encouraged participation and support of the arts.

Coun. Bode said she appreciated the talent of the artists. She said this program was a great example of the partnership between the City and the Beaverton School District. She commended the Arts Commission for going into the schools and working with the teachers and students. She complimented everyone for doing a great job.

Coun. Arnold said with the current trend in schools to cut back on art and music, she wanted to thank the Arts Commission for its extra effort to help children flourish in the arts.

Coun. Dalrymple said his children had participated in the arts and music when they were in school. He said it was great to see these programs were alive and well; he was glad that the Tualatin Hills Park and Recreation District was acknowledged for its efforts in the arts.

Mayor Drake thanked the Commission for the presentation.

**RECESS:**

Mayor Drake called for a brief recess at 7:04 p.m.

**RECONVENED:**

Mayor Drake reconvened the meeting at 7:14 p.m.

**VISITOR COMMENT PERIOD:**

There were none.

**COUNCIL ITEMS:**

Coun. Stanton said the Volunteer Recognition Event would be held Friday, May 12, 2006, at 7:00 p.m., at City Hall in the Council Chamber. She also noted there was an excellent turnout at the Leadership Prayer Breakfast last Thursday morning.

**STAFF ITEMS:**

Finance Director Patrick O'Claire said the City was proceeding with the \$10 million water revenue bond issue. He said as part of the process the City was rated on the financial status of the Water Fund. He said the ratings were from Moody's and Standards & Poors. He said the rating from Moody's was upgraded from A2 to A1. He said this was one step from the highest rating possible (triple A). He said that was very good for the City. He said the Standard & Poors rating should come later this week.

O'Claire said the City was notified that it received the Comprehensive Annual Financial Achievement Award for the fiscal year audit ending June 30, 2005. He said in the future a presentation would come to Council to recognize the staff member responsible for putting the financial report together.

O'Claire said the proposed Fiscal Year 2006-2007 Budget would be available to the Budget Committee and City Council this Friday (May 12, 2006).

City Attorney Alan Rappleyea said last week he sent a memorandum to Council regarding payday loan ordinances. He said the memo highlighted the differences between the Senate Bill 1105 (SB 1105), just adopted by the State Legislature, and the ordinances adopted by Portland and Gresham. He said SB 1105 capped the interest

rate at 36% annually, limited fees to \$10 per \$100 borrowed on the first loan, gave 31 days for people to pay back the loan and limited rollovers to two. He said SB 1105 would go into effect July, 2007, and it did not include some of the protections that were in the cities' ordinances. He said the city ordinance protections were: the right to make payments after the maximum rollovers; the requirement to pay down before renewing the loan; and the right to cancel a loan within 24 hours. He said the Portland ordinance was upheld by the Circuit Court and it is expected to be appealed to the Court of Appeals. He said there should be an answer on the appeal within a year.

Rappleyea said the Biggi Measure 37 Claim was scheduled for public hearing next Monday (May 15, 2006). He said the parties were trying to settle the claim and a 30-day extension was requested to allow more time to work out the settlement. He said at the next meeting Council would receive a request to continue the hearing.

Coun. Stanton asked the City Attorney if the passage of SB 1105 precluded the City from passing its own ordinance which could be modeled after the other cities' ordinances.

Rappleyea said SB 1105 did not pre-empt cities from passing their own ordinances.

Coun. Stanton asked the Councilors if they wished to proceed on the issue of adopting an ordinance regulating payday loan businesses. She suggested holding a work session and hearing to determine if an ordinance is needed in Beaverton.

Mayor Drake said the effective date of SB 1105 was July, 2007. He said the Legislature would convene in January and could modify the bill sometime between January 1 and the effective date in July. He said that could have an impact on the Council's decision.

Coun. Stanton said that regardless of what action the Legislature takes in January, she would like to move forward now.

Coun. Bode said she supported proceeding on this issue. She suggested holding a work session to review a draft ordinance and to compare the draft ordinance with the ordinances adopted by the other cities. She said the work session could be followed with a public hearing on the same evening.

Coun. Doyle said he agreed with Coun. Stanton regarding moving forward quickly. He said it was uncertain what the Legislature would do in January. He said he thought if Beaverton stepped up to a leadership role, with the other cities, that would help ensure that no major modifications would occur during the next legislative session.

Coun. Dalrymple said he agreed with Couns. Doyle and Bode. He said the City should continue to send a strong message to the Legislature on its position. He said he agreed with having a work session, followed by a public hearing. He said it was important to also hear from the representatives of the payday loan businesses at the hearing.

Coun. Arnold said she would like to review this issue. She said she had questions about SB 1105 and she wanted to have a better understanding of the bill. She said she would also like to hear the thinking behind the bill; the pros and cons. She said she would not want to pass an ordinance that would be overturned or would irritate the Legislature.

Coun. Stanton asked that a work session be held first and the public hearing two weeks later for noticing purposes. She added that during the work session there may be questions that staff would need time to research and this would allow the public sufficient time to review the ordinance before the hearing.

Coun. Bode reiterated that the work session would incorporate a draft ordinance and the three ordinances from the other cities. She asked when this item could be scheduled.

Mayor Drake said this upcoming summer would be very busy for the Council. He said staff would return with recommended dates and there would be thorough notification.

Coun. Doyle said he hoped this could be done in June.

Coun. Stanton referred to the work session that occurred earlier this year. She said she did not think it would take long to gather the information for the work session and then have the public hearing a couple of weeks later.

Rappleyea said staff would move forward on this matter. He said there might be a delay based on the Court of Appeals action, but information could still be gathered for the work session.

Coun. Stanton said she did not want this issue to be held up because the City was waiting for action at the State level; it could take a year for the State to act. She stressed she wanted the City to move forward.

Mayor Drake said he would get back to Council with possible dates.

Coun. Stanton congratulated O'Claire on the achievement award.

#### CONSENT AGENDA:

Coun. Bode **MOVED, SECONDED** by Coun. Doyle, that the Consent Agenda be approved as follows:

Minutes of the Regular City Council Meeting of May 1, 2006

06074 Liquor License Application: Greater Privilege - Thai Kitchen; New Outlet - Urban Rhythms Coffee Co.; Change of Address - Co-Ho Imports Oregon

06075 Boards and Commissions Appointment - Bruce Flath, Beaverton Arts Commission

Contract Review Board:

06076 Bid Award - Sandberg Subdivision Sanitary Sewer Rehabilitation Project

Question called on the motion. Couns. Arnold, Bode, Dalrymple, Doyle and Stanton voting **AYE**, the **MOTION CARRIED** unanimously. (5:0)

#### ORDINANCES:

**Second Reading:**

City Attorney Alan Rappleyea read the following ordinance for the second time by title only:

06072 An Ordinance Annexing Four Parcels Located in the General Vicinity of SW Laurelwood Avenue and SW Hazelnut Lane to the City of Beaverton Expedited Annexation 2006-0001 (Ordinance No. 4391)

Coun. Stanton MOVED, SECONDED by Coun. Doyle, that the ordinance embodied in Agenda Bill 06072 now pass. Roll call vote. Couns. Arnold, Bode, Dalrymple, Doyle, and Stanton voting AYE, the MOTION CARRIED unanimously. (5:0)

**EXECUTIVE SESSION:**

Coun. Bode MOVED, SECONDED by Coun. Doyle, that Council move into executive session in accordance with ORS 192.660(2)(h) to discuss the legal rights and duties of the governing body with regard to litigation or litigation likely to be filed. Couns. Arnold, Bode, Dalrymple, Doyle and Stanton voting AYE, the MOTION CARRIED unanimously. (5:0)

**RECESS:**

Mayor Drake called for a brief recess at 7:33 p.m. to setup for the executive session.

**RECONVENED:**

Mayor Drake reconvened the meeting at 7:39 p.m.

The executive session convened at 7:39 p.m.

The executive session adjourned at 8:15 p.m.

The regular meeting reconvened at 8:15 p.m.

**ADJOURNMENT**

There being no further business to come before the Council at this time, the meeting was adjourned at 8:15 p.m.

\_\_\_\_\_  
Catherine Jansen, Deputy City Recorder

**APPROVAL:**

Approved this     day of     , 2006.

\_\_\_\_\_  
Rob Drake, Mayor

**AGENDA BILL**

Beaverton City Council  
Beaverton, Oregon

**SUBJECT:** LIQUOR LICENSES

**FOR AGENDA OF:** 05/15/06 **BILL NO:** 06080

**NEW OUTLET**

Za Majestic  
16055 SW Regatta Lane  
Beaverton, OR

**MAYOR'S APPROVAL:** 

**DEPARTMENT OF ORIGIN:** Police 

**DATE SUBMITTED:** 05/02/06

**PROCEEDING:** Consent Agenda

**EXHIBITS:** None

**BUDGET IMPACT**

EXPENDITURE REQUIRED \$ 0	AMOUNT BUDGETED \$ 0	APPROPRIATION REQUIRED \$ 0
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**HISTORICAL PERSPECTIVE:**

A background investigation has been completed and the Chief of Police finds that the applicant meets the standards and criteria as set forth in B.C. 5.02.240. The City has published in a newspaper of general circulation a notice specifying the liquor license request.

**INFORMATION FOR CONSIDERATION:**

Iguchis, Inc. has made application for a Full On-premises sales license under the trade name of Za Majestic. The establishment will serve Japanese food. It will operate seven days a week, Sunday through Thursday, from 11:00 a.m. to 9:00 p.m., and Friday and Saturday, from 11:00 a.m. to 11:00 p.m. There will be no entertainment offered. A Full On-Premises Sales License allows the sale of distilled spirits, malt beverages, wine and cider for consumption at the licensed business.

**RECOMMENDED ACTION:**

The Chief of Police for the City of Beaverton recommends City Council approval of the OLCC license.

**AGENDA BILL**  
**Beaverton City Council**  
**Beaverton, Oregon**

**SUBJECT:** Resolution Authorizing the Mayor to Sign an Intergovernmental Agreement (IGA) with the Oregon Department of Transportation (ODOT) for a 2005-2007 Transportation and Growth Management (TGM) Grant for a *Downtown Parking Solutions Strategy*

**FOR AGENDA OF:** 05/15/06 **BILL NO:** 06081

**Mayor's Approval:** 

**DEPARTMENT OF ORIGIN:** Mayor's Office

**DATE SUBMITTED:** 05/01/06

**CLEARANCES:** City Attorney  
Econ. Dev.  
Finance



**PROCEEDING:** Consent

- EXHIBITS:**
1. Resolution Authorizing IGA
  2. Draft IGA Including Statement of Work

**BUDGET IMPACT**

EXPENDITURE REQUIRED \$0	AMOUNT BUDGETED \$0	APPROPRIATION REQUIRED \$0
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**HISTORICAL PERSPECTIVE:**

The *Beaverton Downtown Regional Center Development Strategy* that was completed in July 2004 states that "one of the most significant barriers to achieving the density in downtown Beaverton required by the 2040 Center design type is adequate parking...within the next 10 years, the City must ensure that structured parking is available in downtown Beaverton."

On May 16, 2005, the City Council authorized the Mayor to sign a resolution supporting the City's Transportation and Growth Management (TGM) grant application for the 2005-2007 biennium for a Parking Solutions Strategy. The application, submitted jointly with the City of Hillsboro, was approved by ODOT.

**INFORMATION FOR CONSIDERATION:**

By authorizing the Mayor to sign the attached Intergovernmental Agreement (IGA), the City will commit to joint management of the project with the Oregon Department of Transportation (ODOT) and completion of the project by June 30, 2007. A Statement of Work within the IGA details project tasks, deliverables, and the project schedule.

The grant was awarded jointly to the cities of Beaverton and Hillsboro. The total grant award was for \$86,000, with a cash match from each City in the amount of \$7,500 – for a total project budget of \$101,000. The City provided ODOT with the cash match for the project in April 2006 with funds from the 05/06 budget. The contractual relationship for this project is between ODOT and the consultant team (Parametrix and Rick Williams). The project will be guided by an advisory committee from each City. The Beaverton project area advisory committee will consist of: area property owners and business owners, City staff, and representatives of groups and governmental agencies including the Central Beaverton Neighborhood Association Committee, Beaverton Chamber of Commerce, Beaverton Planning Commission and Traffic Commission, Beaverton School District, Metro, TriMet, Westside Transportation Alliance, and ODOT.

**RECOMMENDED ACTION:**

Authorize the Mayor to approve the Intergovernmental Agreement (IGA) with ODOT in a form approved by the City Attorney.

RESOLUTION NO. 3857

**A RESOLUTION AUTHORIZING AN INTERGOVERNMENTAL AGREEMENT  
WITH THE OREGON DEPARTMENT OF TRANSPORTATION (ODOT)**

**WHEREAS,** the Transportation and Growth Management program awards grants to local governments for planning projects intended to better integrate transportation and land use planning, and find new ways to manage growth to achieve compact pedestrian, bicycle, and transit friendly urban development; and

**WHEREAS,** pursuant to ORS 190.110, State agencies may enter into agreements with units of local government to perform any or all functions and activities that a party to the agreement, its officers, or agents have authority to perform; and

**WHEREAS,** ODOT has proposed an intergovernmental agreement with the City to address areas of common interest related to the preparation of a Downtown Parking Solutions Strategy; now therefore

**BE IT RESOLVED BY THE COUNCIL OF THE CITY OF BEAVERTON, OREGON:**

The Mayor is authorized to sign an intergovernmental agreement with ODOT for the Downtown Parking Solutions Strategy project. A proposed intergovernmental agreement is attached to this Resolution and will be subject to review and approval by the City Attorney prior to signature by the Mayor

Adopted by Council this \_\_\_\_\_ day of \_\_\_\_\_, 2006

Approved by the Mayor this \_\_\_\_\_ day of \_\_\_\_\_, 2006

Ayes: \_\_\_\_\_

Nays: \_\_\_\_\_

ATTEST:

APPROVED:

\_\_\_\_\_  
SUE NELSON, City Recorder

\_\_\_\_\_  
ROB DRAKE, Mayor

## INTERGOVERNMENTAL AGREEMENT

### City of Beaverton and City of Hillsboro, City of Beaverton/City of Hillsboro Parking Solutions Strategy

THIS INTERGOVERNMENTAL AGREEMENT ("Agreement") is made and entered into by and between the STATE OF OREGON, acting by and through its Department of Transportation ("ODOT" or "Agency"), City of Beaverton ("Beaverton") and City of Hillsboro ("Hillsboro"). Beaverton together with Hillsboro shall be referred to collectively as "Grantees" or individually without distinction "Grantee".

### RECITALS

1. The Transportation and Growth Management ("TGM") Program is a joint program of ODOT and the Oregon Department of Land Conservation and Development.
2. The TGM Program includes a program of grants for local governments for planning projects. The objective of these projects is to better integrate transportation and land use planning and develop new ways to manage growth in order to achieve compact pedestrian, bicycle, and transit friendly urban development.
3. This TGM Grant (as defined below) is financed with federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users ("SAFETEA-LU") funds. Local funds are used as match for SAFETEA-LU funds.
4. By authority granted in ORS 190.110 and 283.110, state agencies may enter into agreements with units of local government or other state agencies to perform any functions and activities that the parties to the agreement or their officers or agents have the duty or authority to perform.
5. Grantees have been awarded a TGM Grant which is conditional upon the execution of this Agreement.
6. The parties desire to enter into this Agreement for their mutual benefit.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

### SECTION 1. DEFINITIONS

Unless the context requires otherwise, the following terms, when used in this Agreement, shall have the meanings assigned to them below:

A. “Consultant” means the personal services contractor(s) (if any) hired by ODOT to do the tasks indicated in Exhibit A as being the responsibility of such contractor(s).

B. “Consultant’s Amount” means the portion of the Grant Amount payable by ODOT to the Consultant for the deliverables described in Exhibit A for which the Consultant is responsible.

C. “Direct Project Costs” means those costs which are directly associated with the Project. These may include the salaries and benefits of personnel assigned to the Project and the cost of supplies, postage, travel, and printing. General administrative costs, capital costs, and overhead are not Direct Project Costs. Any jurisdiction or metropolitan planning organization that has federally approved indirect cost plans may treat such indirect costs as Direct Project Costs.

D. “Federally Eligible Costs” means those costs which are Direct Project Costs of the type listed in Exhibit D incurred by Grantees and Consultant during the term of this Agreement.

E. “Grant Amount” or “Grant” means the total amount of financial assistance disbursed under this Agreement, which consists of Beaverton’s Amount, Hillsboro’s Amount and the Consultant’s Amount.

F. “Beaverton's Amount” means the portion of the Grant Amount payable by ODOT to Beaverton for performing the tasks indicated in Exhibit A as being the responsibility of Beaverton.

G. “Beaverton's Matching Amount” means the amount of matching funds which Beaverton is required to expend to fund the Project.

H. “Beaverton's Project Manager” means the individual designated by Beaverton as project manager for the Grantees for the Project.

I. “Hillsboro's Amount” means the portion of the Grant Amount payable by ODOT to Hillsboro for performing the tasks indicated in Exhibit A as being the responsibility of Hillsboro.

J. “Hillsboro's Matching Amount” means the amount of matching funds which Hillsboro is required to expend to fund the Project.

K. “ODOT’s Contract Administrator” means the individual designated by ODOT to be its contract administrator for this Agreement.

L. "PSK" means the personal services contract(s) executed between ODOT and the Consultant related to the portion of the Project that is the responsibility of the Consultant.

M. "Project" means the project described in Exhibit A.

N. "Termination Date" has the meaning set forth in Section 2.A below.

O. "Total Project Costs" means the total amount of money required to complete the Project.

P. "Work Product" has the meaning set forth in Section 5.J below.

## SECTION 2. TERMS OF AGREEMENT

A. Term. This Agreement becomes effective on the date on which all parties have signed this Agreement and all approvals (if any) required to be obtained by ODOT have been received. Further, ODOT's obligation to make any disbursements under this Agreement is subject to payment of Beaverton's Matching Amount and Hillsboro's Matching Amount by Beaverton and Hillsboro to ODOT. This Agreement terminates on June 30, 2007 ("Termination Date").

B. Grant Amount. The Grant Amount which includes Beaverton's Matching Amount of \$7,500 and Hillsboro's Matching Amount of \$7,500 shall not exceed \$101,000.

C. Beaverton's Amount. Beaverton's Amount shall not exceed \$0.

D. Hillsboro's Amount. Hillsboro's Amount shall not exceed \$0

E. Consultant's Amount. The Consultant's Amount shall not exceed \$101,000.

F. Beaverton's Matching Amount. Beaverton's Matching Amount is \$7,500.

G. Hillsboro's Matching Amount. Hillsboro's Matching Amount is \$7,500.

## SECTION 3. DISBURSEMENTS

A. Subject to submission by Grantee of such documentation of its costs and progress on the Project (including deliverables) as are satisfactory to ODOT, ODOT shall reimburse to a Grantee only for Direct Project Costs that it incurs after the execution of this Agreement up to that Grantee's portion of the Grant Amount. Generally accepted

accounting principles and definitions of ORS 294.311 shall be applied to clearly document verifiable costs that are incurred.

B. Each Grantee shall present progress reports, and deliverables to ODOT's Contract Administrator no less than every other month.

C. ODOT shall make interim payments to Grantee for deliverables identified as being that Grantee's responsibility in the approved statement of work set out in Exhibit A within 45 days of satisfactory completion (as determined by ODOT's Contract Administrator) of such deliverables.

D. ODOT reserves the right to withhold from Grantee payment equal to ten percent (10%) of each disbursement owed to that Grantee until 45 days after ODOT's Contract Administrator's approval of the completion report described Section 5.L(2), at which time the balances due to and under this Agreement shall be payable.

E. Within 45 days after the latter of the Termination Date of this Agreement or compliance with Section 5.L. below, ODOT shall pay the balances due to and under this Agreement.

F. ODOT shall limit reimbursement of travel expenses in accordance with current State of Oregon Accounting Manual, General Travel Rules, effective on the date the expenses are incurred.

#### **SECTION 4. GRANTEES' REPRESENTATIONS, WARRANTIES, AND CERTIFICATION**

A. Each Grantee represents and warrants to ODOT as follows:

(1) (As to Beaverton) It is a City duly organized and existing under the laws of the State of Oregon. (As to Hillsboro) It is a City duly organized and existing under the laws of the State of Oregon.

(2) It has full legal right and authority to execute and deliver this Agreement and to observe and perform its duties, obligations, covenants and agreements hereunder and to undertake and complete the Project.

(3) All official action required to be taken to authorize this Agreement has been taken, adopted and authorized in accordance with applicable state law and its organizational documents.

(4) This Agreement has been executed and delivered by its authorized officer(s) and constitutes its legal, valid and binding obligation enforceable against it in accordance with its terms.

(5) The authorization, execution and delivery of this Agreement by it, the observation and performance of its duties, obligations, covenants and agreements hereunder, and the undertaking and completion of the Project do not and will not contravene any existing law, rule or regulation or any existing order, injunction, judgment, or decree of any court or governmental or administrative agency, authority or person having jurisdiction over it or its property or violate or breach any provision of any agreement, instrument or indenture by which it or its property is bound.

(6) The statement of work attached to this Agreement as Exhibit A has been reviewed and approved by its necessary official(s).

B. As federal funds are involved in this Grant, it, by execution of this Agreement, makes the certifications set forth in Exhibits B and C.

## **SECTION 5. GENERAL COVENANTS OF GRANTEES**

Each Grantee covenants and agrees as follows:

A. Beaverton shall be responsible for the portion of the Total Project Costs in excess of the Grant Amount. Beaverton shall complete the Project; provided, however, that Beaverton shall not be liable for the quality or completion of that part of the Project which Exhibit A describes as the responsibility of the Consultant or Hillsboro.

B. It shall, in a good and workmanlike manner, perform the work, and provide the deliverables, for which it is identified in Exhibit A as being responsible.

C. It shall perform such work identified in Exhibit A as its responsibility as an independent contractor and shall be exclusively responsible for all costs and expenses related to its employment of individuals to perform such work. Grantee shall also be responsible for providing for employment-related benefits and deductions that are required by law, including, but not limited to, federal and state income tax withholdings, unemployment taxes, workers' compensation coverage, and contributions to any retirement system.

D. All employers, including Grantee, that employ subject workers as defined in ORS 656.027, shall comply with ORS 656.017 and shall provide workers'

compensation insurance coverage for those workers, unless they meet the requirement for an exemption under ORS 656.126(2). It shall require and ensure that each of its subcontractors complies with these requirements.

E. It shall be responsible, to the extent permitted by the Oregon Tort Claims Act, ORS 30.260-30.300, only for the acts, omissions or negligence of its own officers, employees or agents.

F. It shall not enter into any subcontracts to accomplish any of the work described in Exhibit A, unless it first obtains written approval from ODOT.

G. It agrees to cooperate with ODOT's Contract Administrator. At the request of ODOT's Contract Administrator, it agrees to:

- (1) Meet with the ODOT's Contract Administrator; and
- (2) Form a project steering committee (which shall include ODOT's Contract Administrator) to oversee the Project.

H. It shall comply with all federal, state and local laws, regulations, executive orders and ordinances applicable to the work under this Agreement, including, without limitation, applicable provisions of the Oregon Public Contracting Code. Without limiting the generality of the foregoing, Grantees expressly agree to comply with: (1) Title VI of Civil Rights Act of 1964; (2) Title V and Section 504 of the Rehabilitation Act of 1973; (3) the Americans with Disabilities Act of 1990 and ORS 659A.142; (4) all regulations and administrative rules established pursuant to the foregoing laws; and (5) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations.

I. It shall maintain all fiscal records relating to this Agreement in accordance with generally accepted accounting principles. In addition, it shall maintain any other records pertinent to this Agreement in such a manner as to clearly document its performance. It acknowledges and agrees that ODOT, the Oregon Secretary of State's Office and the federal government and their duly authorized representatives shall have access to such of its fiscal records and other books, documents, papers, plans, and writings that are pertinent to this Agreement to perform examinations and audits and make copies, excerpts and transcripts.

It shall retain and keep accessible all such fiscal records, books, documents, papers, plans, and writings for a minimum of three (3) years, or such longer period as may be required by applicable law, following final payment and termination of this

Agreement, or until the conclusion of any audit, controversy or litigation arising out of or related to this Agreement, whichever date is later.

J. (1) All of Grantee's work products related to the Project that results from this Agreement ("Work Product") is the exclusive property of ODOT. ODOT and Grantee intend that such Work Product be deemed "work made for hire" of which ODOT shall be deemed the author. If, for any reason, such Work Product is not deemed "work made for hire", Grantee hereby irrevocably assigns to ODOT all of its rights, title, and interest in and to any and all of the Work Product, whether arising from copyright, patent, trademark, trade secret, or any other state or federal intellectual property law or doctrine. Grantee shall execute such further documents and instruments as ODOT may reasonably request in order to fully vest such rights in ODOT. Grantee forever waives any and all rights relating to the Work Product, including without limitation, any and all rights arising under 17 USC §106A or any other rights of identification of authorship or rights of approval, restriction or limitation on use or subsequent modifications.

(2) ODOT hereby grants to Grantee a royalty free, non-exclusive license to reproduce any Work Product for distribution upon request to members of the public.

(3) Grantee shall ensure that any work products produced pursuant to this Agreement include the following statement:

"This project is partially funded by a grant from the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), local government, and State of Oregon funds.

The contents of this document do not necessarily reflect views or policies of the State of Oregon."

(4) The Oregon Department of Land Conservation and Development and ODOT may each display appropriate products on its "home page".

K. Unless otherwise specified in Exhibit A, it shall submit all final products produced in accordance with this Agreement to ODOT's Contract Administrator in the following form:

- (1) two hard copies; and
- (2) in electronic form using generally available word processing or graphics programs for personal computers via e-mail or on compact diskettes.

L. Within 30 days after the Termination Date,

(1) (As to Beaverton) Beaverton shall pay to ODOT Beaverton's Matching Amount less Federally Eligible Costs previously reported as Beaverton's Matching Amount. (As to Hillsboro) Hillsboro shall pay to ODOT Hillsboro's Matching Amount less Federally Eligible Costs previously reported as Hillsboro's Matching Amount. ODOT may use any funds paid to it under this Section 5.L (1) to substitute for an equal amount of federal SAFETEA-LU funds used for the Project or use such funds as matching funds; and

(2) Beaverton shall provide to ODOT's Contract Administrator, in a format provided by ODOT, a completion report. This completion report shall contain:

(a) The permanent location of Project records (which may be subject to audit); and

(b) A list of final deliverables; and

shall provide, and shall cause to provide, to ODOT the following:

(a) A summary of the Total Project Costs, including a breakdown of those Project costs that are reimbursable hereunder and those costs which are being treated by Grantee as 's Matching Amount or 's Matching Amount, as the case may be; and

(b) Grantee's final disbursement request.

## **SECTION 6. CONSULTANT**

A. If the Grant provided pursuant to this Agreement includes a Consultant's Amount, ODOT shall enter into a PSK with the Consultant to accomplish the work described in Exhibit A as being the responsibility of the Consultant. In such a case, even though ODOT, rather than Beaverton and Hillsboro is the party to the PSK with the Consultant, ODOT, Beaverton and Hillsboro agree that as between themselves:

- (1) Selection of the Consultant will be conducted by ODOT in accordance with ODOT procedures with the participation and input of Beaverton's Project Manager;
- (2) ODOT will review and approve Consultant's work, billings and progress reports after having obtained input from Beaverton's Project Manager;
- (3) Beaverton's Project Manager shall be responsible for prompt communication to ODOT's Contract Administrator of its comments regarding (1) and (2) above; and

B. Beaverton will appoint a Project Manager to:

- (1) be the Grantees' principal contact person for ODOT's Contract Administrator and the Consultant on all matters dealing with the Project;
- (2) monitor the work of the Consultant and coordinate the work of the Consultant with ODOT's Contract Administrator and personnel of Grantees, as necessary;
- (3) review any deliverables produced by the Consultant and communicate any concerns it may have to ODOT's Contract Administrator; and
- (4) review disbursement requests and advise ODOT's Contract Administrator regarding payments to Consultant.

Hillsboro hereby expressly authorizes Beaverton's Project Manager to act on its behalf in regard to this Agreement and ratifies the actions of Beaverton's Project Manager in regard thereto.

#### **SECTION 7. ODOT'S REPRESENTATIONS AND COVENANTS**

A. ODOT certifies that, at the time this Agreement is executed, sufficient funds are authorized and available for expenditure to finance ODOT's portion of this Agreement within the appropriation or limitation of its current biennial budget.

B. The statement of work attached to this Agreement as Exhibit A has been reviewed and approved by the necessary official(s) of ODOT.

C. ODOT will assign a Contract Administrator for this Agreement who will be ODOT's principal contact person regarding administration of this Agreement and will

participate in the selection of the Consultant, the monitoring of the Consultant's work, and the review and approval of the Consultant's work, billings and progress reports.

D. If the Grant provided pursuant to this Agreement includes a Consultant's Amount, ODOT shall enter into a PSK with the Consultant to perform the work described in Exhibit A designated as being the responsibility of the Consultant, and in such a case ODOT agrees to pay the Consultant in accordance with the terms of the PSK up to the Consultant's Amount.

## **SECTION 8. TERMINATION**

This Agreement may be terminated by mutual written consent of all parties. ODOT may terminate this Agreement effective upon delivery of written notice to each Grantee, or at such later date as may be established by ODOT under, but not limited to, any of the following conditions:

A. Beaverton or Hillsboro fails to complete work specified in Exhibit A as its responsibility in accordance to the terms of this Agreement within the time specified in this Agreement, including any extensions thereof, or fails to perform any of the provisions of this Agreement and does not correct any such failure within 10 days of receipt of written notice or the date specified by ODOT in such written notice.

B. Consultant fails to complete work specified in Exhibit A as its responsibility in accordance to the terms of the PSK within the time specified in the PSK, including any extensions thereof, and does not correct any such failure within 10 days of receipt of written notice or the date specified by ODOT in such written notice.

C. If federal or state laws, regulations or guidelines are modified or interpreted in such a way that either the work under this Agreement is prohibited or ODOT is prohibited from paying for such work from the planned funding source.

D. If ODOT fails to receive funding, appropriations, limitations or other expenditure authority sufficient to allow ODOT, in the exercise of its reasonable administrative discretion, to continue to make payments for performance of this Agreement.

In the case of termination pursuant to A, B, C or D above, ODOT shall have any remedy at law or in equity, including but not limited to termination of any further

disbursements hereunder. Any termination of this Agreement shall not prejudice any right or obligations accrued to the parties prior to termination.

## SECTION 9. GENERAL PROVISIONS

A. Time is of the essence of this Agreement.

B. Except as otherwise expressly provided in this Agreement, any notices to be given hereunder shall be given in writing by personal delivery, facsimile, or mailing the same, postage prepaid, to ODOT or a Grantee at the address or number set forth on the signature page of this Agreement, or to such other addresses or numbers as a party may hereafter indicate pursuant to this Section. Any communication or notice so addressed and mailed is in effect five (5) days after the date postmarked. Any communication or notice delivered by facsimile shall be deemed to be given when receipt of the transmission is generated by the transmitting machine. To be effective against ODOT, such facsimile transmission must be confirmed by telephone notice to ODOT's Contract Administrator. Any communication or notice by personal delivery shall be deemed to be given when actually delivered.

C. ODOT and Grantees are the only parties to this Agreement and are the only parties entitled to enforce the terms of this Agreement. Nothing in this Agreement gives, is intended to give, or shall be construed to give or provide any benefit or right not held by or made generally available to the public, whether directly, indirectly or otherwise, to third persons (including but not limited to any Consultant) unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Agreement.

D. Sections 5(I), 5(K), 5(L) and 9 of this Agreement and any other provision which by its terms is intended to survive termination of this Agreement shall survive.

E. This Agreement shall be governed by and construed in accordance with the laws of the State of Oregon without regard to principles of conflicts of law. Any claim, action, suit or proceeding (collectively, "Claim") between ODOT (and/or any other agency or department of the State of Oregon) and a Grantee that arises from or relates to this Agreement shall be brought and conducted solely and exclusively within the Circuit Court of Marion County for the State of Oregon; provided, however, if a Claim must be brought in a federal forum, then it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this Section be construed as a waiver by the State of Oregon of any form of defense or immunity, whether it is sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States or otherwise, from any Claim or from the jurisdiction of any court. BEAVERTON AND HILLSBORO EACH,

BY EXECUTION OF THIS AGREEMENT, HEREBY CONSENTS TO THE IN PERSONAM JURISDICTION OF SAID COURTS.

F. This Agreement and attached Exhibits (which are by this reference incorporated herein) constitute the entire agreement between the parties on the subject matter hereof. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this Agreement. No modification or change of terms of this Agreement shall bind a party unless in writing and signed by all parties and all necessary approvals have been obtained. Budget modifications and adjustments to the work described in Exhibit A must be processed as an amendment(s) to this Agreement and the PSK (if applicable). No waiver or consent shall be effective unless in writing and signed by the party against whom such waiver or consent is asserted. Such waiver, consent, modification or change, if made, shall be effective only in the specific instance and for the specific purpose given. The failure of ODOT to enforce any provision of this Agreement shall not constitute a waiver by ODOT of that or any other provision.

On June 18, 2003, the Oregon Transportation Commission ("Commission") approved Delegation Order No. 2, which authorizes the Director of ODOT to approve and execute agreements for day-to-day operations when the work is related to a project included in the Statewide Transportation Improvement Program ("STIP") or a line item in the biennial budget approved by the Commission

On April 12, 2004, the Director approved Subdelegation Order No. 10 in which the Director delegates authority to the Division Administrator, Transportation Development, to approve and execute personal service contracts and agreements over \$75,000 for programs within the Transportation Development Division when the work is related to a project included in the STIP or in other system plans approved by the Commission or in a line item in the legislatively adopted biennial budget.

*City of Beaverton*

Fax: 503-526-2479  
E-Mail: [jpolley@ci.beaverton.or.us](mailto:jpolley@ci.beaverton.or.us)

By: \_\_\_\_\_  
(Official's Signature)

John Southgate  
City of Hillsboro  
150 E. Main St  
Hillsboro, OR 97123  
Phone: 503-681-6100  
Fax: 503-681-6232  
E-Mail:

\_\_\_\_\_  
(Printed Name and Title of Official)

Lidwien Rahman, Contract Administrator  
Transportation and Growth Management Program  
123 NW Flanders  
Portland, OR 97209-4037  
Phone: 503-731-8229  
Fax: 503-731-3266  
E-Mail: [lidwien.rahman@odot.state.or.us](mailto:lidwien.rahman@odot.state.or.us)

Date: \_\_\_\_\_

*City of Hillsboro*

By: \_\_\_\_\_  
(Official's Signature)

\_\_\_\_\_  
(Printed Name and Title of Official)

Date: \_\_\_\_\_

**ODOT**

STATE OF OREGON, by and through  
its Department of Transportation

By: \_\_\_\_\_  
Craig Greenleaf, Deputy Director  
Transportation Development Division

Date: \_\_\_\_\_

Jennifer Polley  
City of Beaverton  
PO Box 4755  
Beaverton, OR 97076-4755  
Phone: 503-526-2222

**ATTORNEY GENERAL'S OFFICE**

Approved as to legal sufficiency by the  
Attorney General's office.

By: \_\_\_\_\_  
(Official's Signature)

Date: \_\_\_\_\_

## **EXHIBIT A – STATEMENT OF WORK**

CITY OF BEAVERTON/CITY OF HILLSBORO

PARKING SOLUTIONS STRATEGY PROJECT

### Definitions:

Cities	The Cities of Beaverton and Hillsboro
OAR	Oregon Administrative Rule
ODOT/Agency	Oregon Department of Transportation
PAC	Project Advisory Committee (City staff, ODOT rep, chair of each SAC, Metro rep, WTA rep, and Tri-Met rep)
PMT	Project Management Team (Project Managers for each City, Consultant Project Manager, and TGM Grant Manager)
RTP	Regional Transportation Plan
SAC	Downtown Stakeholder Advisory Committee (citizen, business, property owners, and neighborhood reps)
TGM	Transportation and Growth Management Program
TPR	Transportation Planning Rule
WTA	Westside Transportation Alliance

### **Purpose:**

The 2040 Growth Concept envisions higher-density, mixed-use, pedestrian oriented development within Centers throughout the Portland Region. The Cities of Beaverton and Hillsboro (Cities) want to achieve such greater, urban mixed use intensity within their downtown core areas. For the purpose of this grant, both jurisdictions have defined Project Areas within their Regional Centers (see attached maps).

Difficulty in providing appropriate parking (due to insufficient space per business or use requirements by local codes) has long been a major barrier to achieving density in the Beaverton and Hillsboro Regional Centers. Other major barriers include excessive on-site parking code requirements that most downtown core area properties cannot satisfy; downtown buildings constructed during the late 19<sup>th</sup> and early 20<sup>th</sup> century when vehicular parking needs were not contemplated by these rural communities; and, extensive downtown parcelization which precludes efficient, code-compliant building renovations and on-site parking accommodation.

The purpose of the Parking Solutions Strategy Project (Project) is to develop strategies and tools that can be used by each City to assist in the transition of Downtown Beaverton and Hillsboro from suburban communities to urban communities by reducing the existing barriers to revitalization created by inadequate parking.

#### Goal and Objectives:

The goal of this project is to manage the supply and demand for parking to support downtown redevelopment. This goal can be attained by formulating and recommending solutions that efficiently and strategically resolve parking needs within the downtown core areas of the Beaverton and Hillsboro Regional Centers. Achieving this goal will help the Cities of Beaverton and Hillsboro accomplish the following project objectives:

- Remove barriers to Regional Center redevelopment;
- Achieve Regional Center redevelopment density and mix objectives;
- Reduce vehicle emissions;
- Achieve the modal targets in Chapter 1 of the Regional Transportation Plan (RTP);
- Maintain local plan consistency as required with the State transportation plan, the Transportation Planning Rule (TPR), and the RTP;
- Implement the specific requirements of the TPR, OAR 660-012-045 (c) and (d), and of the Metro Code, Sections 3.07.210 - 3.07.220 - Regional Parking Policy;
- Manage the supply of parking that will result in the most efficient investment of public funds for parking in the Regional Centers;
- Encourage shared parking;
- Minimize the amount of land in the downtowns devoted to parking;
- Support downtown commerce and revitalization;
- Support and enhance the investment in light rail; and
- Provide a reproducible model for other redeveloping Regional Centers.

#### **Transportation Relationship And Benefit:**

The provision and management of parking are a critical element of any strategy for achieving the modal targets of the RTP, for implementing the parking requirements of the Metro Urban Growth Management Functional Plan and for complying with the TPR. As was shown in the 2003-05 Metro TGM grant on “Non SOV Modal Target Actions”,

parking-related actions, including pricing, are among the most effective for achieving Metro's modal targets in Centers. In addition, this project addresses major barriers to implementation of the Metro 2040 Growth Concept in the Regional Centers of Beaverton and Hillsboro, namely excess parking requirements in the local Development Codes which stand in the way of urban redevelopment and infill. The 2040 Concept itself is Metro's land use strategy for compliance with the TPR.

## **STATEMENT OF WORK**

### **Deliverables/Responsibilities:**

Throughout the project, Cities shall be responsible for the logistics for open houses and focus groups and preparing meeting agendas and meeting notes for PAC and SAC meetings.

- Project Advisory Committee (PAC) to hold periodic meetings (a total of 4 meetings are estimated) as needed to provide technical Project guidance;
- Stakeholder Advisory Committees (SACs) to hold a total of two (2) meetings and two (2) open houses (one meeting and open house in each community);
- Consultant shall prepare for and attend up to two (2) SAC meetings, two (2) public open houses, four (4) PAC meetings, four to six (4-6) Project Management Team (PMT) meetings, and conduct up to four (4) Focus Groups and up to six (6) individual interviews with Downtown stakeholders (i.e., business owners, property owners, developers, citizen representatives, others);
- Consultant shall prepare presentation and related materials for Planning Commissions and City Councils in each City; and
- If additional SAC meetings are deemed necessary by one or both of the Cities, these meetings shall be paid for outside of the contract with the consultant at an hourly rate that is established in the consultant contract.

### **PRODUCT DELIVERY**

*Three copies of all written (text) products is required as well as an electronic version. All graphic products must be delivered in hard copy and most will be required in the electronic format as practical. City Deliverables presume one of each deliverable for each City. Consultant will provide a total of eight copies of the final product – three for each City, and two for ODOT.*

## **TASK 1: PROJECT START-UP AND MANAGEMENT**

### **Objective:**

Refine project's public involvement program featuring a Project Advisory Committee (PAC) to guide Project work program performance and a separate Downtown Stakeholder Advisory Committee (SAC) for each jurisdiction for community project guidance.

### **Sub Tasks:**

1. The Cities shall establish a SAC for each jurisdiction:
  - a. Beaverton - Representatives from:
    - Project Area property owners, business owners, and residents;
    - Central Beaverton Neighborhood Association Committee (NAC);
    - Beaverton Chamber of Commerce or interested business group;
    - Planning Commission and Traffic Commission; and
    - Beaverton School District.
  - b. Hillsboro - Representatives from:
    - Greater Hillsboro Area Chamber of Commerce;
    - Hillsboro Downtown Business Association (2);
    - Tuality Community Hospital;
    - Pacific University;
    - High Technology industry;
    - Washington County; and
    - Citizen Representatives;
2. Cities shall establish a Project Management Team (PMT) consisting of the Project Managers for the two Cities, the Consultant project Manager, and the TGM Grant Manager. Consultant Project Manager shall attend four to six (4-6) meetings with the Project Management Team. The PMT shall determine the meeting schedule;
3. Cities shall establish a Project Advisory Committee (PAC) which will include:
  - a. Beaverton and Hillsboro staff;
  - b. ODOT representative;
  - c. Chair of each Downtown Stakeholder Advisory Committee from each jurisdiction;
  - d. Metro representative(s);
  - e. Westside Transportation Alliance; and
  - f. Tri-Met Representative.
4. Cities and Consultant Project Manager shall refine the schedule for the Project Public Involvement Program; and

5. Cities shall prepare Project Notebooks for each Project Area for each member of the PAC, PMT, and SAC containing relevant background information and current City Downtown vision, goals, objectives, policies and regulations.

### **Consultant Deliverables**

None

### **Cities Deliverables**

1. SAC Roster for each jurisdiction;
2. PMT Roster;
3. PAC Roster for each jurisdiction;
4. Refined Project Public Involvement Program schedule; and
5. Project Notebooks for each Project Area to be distributed to each member of the PAC, PMT, and SAC.

*Tasks 2 and 3 are concurrent.*

## **TASK 2: INVENTORY OF EXISTING DOWNTOWN PARKING CONDITIONS**

### **Objective:**

Summarize and analyze the existing conditions related to parking for the Project Areas of both Beaverton and Hillsboro through the review of existing Downtown studies and plans and input from City Staff and downtown businesses.

### **Sub Task:**

1. Cities shall compile existing information and perform additional data gathering, analysis, and mapping where necessary to create an inventory of each Project Area's existing conditions that includes:
  - a. Data and maps on existing and planned land uses including civic, institutional, commercial, retail, service and residential uses;
  - b. Downtown transportation connections with entire City and the Portland Region, including connections with light-rail, commuter rail, and other public transit facilities/services;
  - c. Maps and description of existing downtown parking districts within each City (if applicable), including their geographic locations, user fees or rates, annual revenues and operating costs, and current use or allocation of parking district revenues;
  - d. Locations of existing and planned parking facilities and spaces by types (e.g. on-site, surface, structure parking, on-street, preferential parking, bicycle

- parking, shared parking, employee vs. customer parking) using previous studies as a starting point;
- e. Inventory of current parking usage by location, type, duration, time of day, turnover;
  - f. Review of and mapping of ownership patterns and identification of vacant and “redevelopment opportunity” properties suitable for, and strategically located for, consolidated public and private Downtown parking. For such sites and buildings, inventory information must include assessed and market values and recorded encumbrances on property titles;
  - g. Right-of-way areas maps for the purpose of analyzing street widths for on-street diagonal parking opportunities;
  - h. Summary of 1998 Beaverton Regional Center Parking Strategy reports;
  - i. Existing parking demand for employees in each area to include the percentage of employees who travel by single occupancy vehicle, the number of employers who provide free parking for employees and, the number of employers who subsidize employee public transit passes; and
  - j. Existing parking needs and associated issues specific to each Project Area including, but not limited to, current supply and fee for on-street parking, location of on-street parking, etc.
2. Cities shall provide Existing Conditions Inventory and associated maps and databases electronically to Consultant.
  3. Memo #1: Consultant shall recommend to Cities a methodology for conducting parking inventory. This memo must be tailored for each city to address any individual conditions and issues found in each city.
  4. Draft Memo #2: Evaluation of Existing Conditions: After reviewing existing conditions inventory prepared by Cities, Consultant shall prepare draft Memo #2 that evaluates the performance of existing Project Areas in meeting applicable City, Regional and/or State parking standards and assesses the constraining effects of these standards, if any, on revitalization, expansion, and/or redevelopment of Downtown properties and businesses, in other words: define the current problems, if any. Consultant shall send Draft Memo #2 electronically and in hard copy to the PMT for review and comment.
  5. Focus Groups: Cities shall perform logistics for and Consultant shall facilitate two (2) focus groups (one in Beaverton and one in Hillsboro) to gather information and discuss existing conditions and barriers to development related to parking. Consultant shall record comments and prepare written summary and distribute to Cities and Agency Contract Administrator.
  6. PMT Meeting #1: Cities shall perform logistics, including recording minutes and Consultant shall attend one (1) PMT meeting to discuss Draft Memo #2 and report on existing conditions and information gathered from the two (2) focus groups.
  7. Cities shall distribute draft Memo #2 to PAC for review and comment.

8. Consultant shall revise draft Memo #2 based on PMT review and comment and PAC comment.

**Consultant Deliverables:**

1. Memo #1 Recommended Methodology for conducting parking usage inventory tailored to each City, distributed to PMT.
2. Draft Memo #2, Evaluation of Existing Conditions, distributed to PMT.
3. Two Focus Group Meetings facilitation, meeting materials, and record of comments.
4. PMT Meeting #1 attendance.
5. Final Memo #2, distributed to PMT.

**Cities Deliverables:**

1. A summary memo with associated electronic maps and databases by each City that inventories existing conditions affecting parking, including all elements listed under Task 2, Subtask 1.
2. Two Focus Groups, notice, and logistics.
3. PMT #1 notice, logistics, participation, and meeting minutes.
4. Review of Consultant Draft Memo #2 with written comments back to Consultant..

**TASK 3: IDENTIFICATION AND ANALYSIS OF BARRIERS TO IMPLEMENTING DOWNTOWN PARKING SOLUTIONS**

**Objective:**

Identify and understand the nature, scope, and deterrent effects of current downtown parking solution barriers in each community, and remove and/or reduce these barriers by providing for the most efficient use of parking spaces.

**Sub Tasks:**

1. Draft Memo #3: Consultant shall prepare draft Memo #3 that identifies and analyzes opportunities and barriers to implementing parking solutions in the Project Areas. In developing Memo #3, Consultant shall do the following:
  - a. Describe, assess, and depict in matrix format the effectiveness of opportunities for the development of potential alternative parking management strategies (excluding shared parking and parking structures) in each Project Area, including, but not limited to,
    - parking pricing/parking meters;
    - timed parking;
    - additional parking enforcement;
    - employee preferential parking for high occupancy vehicles;

- programs that encourage employers to eliminate parking subsidies, subsidize transit passes or use cash-out programs;
  - other parking demand reduction strategies; and
  - additional on-street parking.
- b. Qualitatively evaluate any traffic impacts of the potential parking management strategies, including an evaluation of traffic safety and operations related to proposed locations of on-street diagonal parking relative to parallel parking. Resources and factors to consider shall include, but shall not be limited to:
- Current City plan policies and studies and applicable regional, state planning and federal requirements;
  - City, regional and state laws and rules relevant to establishing parking districts, shared and structured parking facilities, and legal issues dealing with the management of parking districts and facilities;
  - Downtown land and building ownership patterns and their assessed and market values;
  - Existing transportation demand management programs offered by the Westside Transportation Alliance, Metro, and the State of Oregon;
  - Current and future demand for short- and long-term parking;
  - Current and future market demand for downtown sites and business spaces;
  - Input from retail, office and service professionals, realty and financing experts, and experienced building contractors from the Portland Metro area; and
  - Applicable downtown parking solutions from elsewhere in the country;
- c. Describe and assess (in matrix format) the barriers and constraints to various potential parking management strategies, including shared parking and structured parking.
- d. Recommend a package of feasible parking management strategies for each City.
- e. Recommend amendments in concept form to land use and transportation policies, Plans, Development Codes, rules and requirements to eliminate or minimize the identified parking barriers and to implement the recommended parking management strategies, e.g. (A) reductions in on- and off-site parking requirements and parking minimums; (B) establishment of parking maximums; (C) allowing the provision of on-street parking, long-term lease parking, and shared parking to meet minimum off-street parking requirements; (D) exempting structured parking and on-street parking from any parking maximums; (E) requiring that parking lots over a certain size provide street-like features along major driveways, including curbs, sidewalks, and street trees or planting strips (examples are derived from the TPR, section (045(d)));

- f. Recommend separate or joint City or Downtown stakeholder programmatic actions, legal actions, land and property acquisitions, financial actions, recommendations related to advocating to the lending industry to reduce or eliminate parking requirements as conditions of loan approvals; and/or other actions that can potentially eliminate or minimize the identified parking barriers and implement the recommended parking management strategies.
2. Consultant shall distribute draft Memo #3 electronically to PMT for review and comment. Cities shall distribute draft Memo #3 to PAC and SAC for review.
3. Stakeholder Interviews: Consultant shall develop draft interview questions and send to PMT for comment. Consultant shall revise interview questions as necessary in response to comments. Consultant shall conduct six (6) individual interviews with Downtown stakeholders (i.e. business owners, property owners, developers, citizen representatives, etc) as determined through consultation with Cities. These interviews must include at least one (1) representative from each community. Consultant shall record interview comments, prepare a written summary, and distribute interview comments and summary to PMT.
4. SAC Meetings: Consultant shall facilitate two (2) SAC meetings (one in Beaverton and one in Hillsboro) to present draft Memo #3 research information and assessment results for stakeholders review and comment. Cities shall provide meeting notices and perform logistics, including minutes.
5. PAC Meeting #1: Consultant shall attend one (1) PAC meeting to discuss Draft Memos #2 and #3 and report on barriers to implementing downtown parking solutions and information gathered from the two (2) SAC meetings, six (6) interviews, and two (2) focus groups (from task 2). Cities shall provide meeting notices and perform logistics, including minutes.
6. Consultant shall revise draft Memo #3 based on SAC's and PAC's review and comment and provide a recommended parking management strategy for each Project Area that includes an associated work program and timeline for executing and achieving the recommended solution(s).

### **Consultant Deliverables:**

1. Draft Memo #3, tailored for each City's Project Area and distributed to PMT, containing:
  - a. Description and assessment (in matrix format) of potential parking management strategies (other than shared and structured parking) including their effectiveness and applicability and any traffic impacts.
  - b. Summary matrix of constraints and barriers to parking management solutions, shared parking, and structured parking.
  - c. Recommended package of parking management strategies.
  - d. Recommended public policy, Plan, and/or Development Code amendments in concept form to eliminate or minimize the identified parking barriers and to implement the recommended parking management strategies.

- e. Identify public and private programmatic actions, legal actions, land and property acquisitions, financial actions, and/or other actions for the Cities and/or private stakeholders to implement that can help eliminate or minimize the identified parking barriers and implement the recommended parking management strategies.
2. Draft and final Stakeholder Interview questions. Facilitation, meeting materials, and written record and summary of six Stakeholder Interviews.
3. Meeting facilitation and meeting materials for two (2) SAC meetings.
4. Attendance at PAC Meeting #1.
5. Final Memo #3, distributed to PMT,

### **Cities Deliverables**

1. Distribution of Draft Memo #3 to PAC and SAC; written comments on Draft Memo #3.
2. Written comment on draft Stakeholder Interview questions.
3. Notice, meeting agenda, logistics, participation, and minutes for SAC meetings.
4. Notice, meeting agenda, logistics, participation, and minutes for PAC Meeting #1.

## **TASK 4: DOWNTOWN PARKING DISTRICT EVALUATION & RECOMMENDATIONS**

### **Objective:**

The City of Beaverton has an existing downtown Parking District; the City of Hillsboro does not currently have a parking district.

Obtain and document for both communities the downtown property owner, business owner, and SAC input on potential establishment/revision of downtown parking districts and prepare recommendations for consideration by the City Councils.

### **Sub Tasks:**

1. Draft Memo #4: Consultant shall prepare and distribute to PMT draft Memo #4 that evaluates and recommends improvements to Beaverton's Downtown Parking Districts and evaluates the need for and form of a Hillsboro Downtown Parking District. In developing Memo #4, Consultant shall do the following:
  - a. Review current technical literature on downtown parking districts and evaluate and describe their potential utility as a stable, revenue-generating source that can adequately provide financing for the development and construction costs of recommended downtown parking strategies for identified downtown opportunity sites;

- b. Assess and describe the feasibility of existing and/or potential downtown parking districts as adequate revenue sources to pay for the development and construction costs of one or more recommended downtown parking strategies;
  - c. Propose adjustments to existing parking districts and identify geographic location(s) and other programmatic and financial features of potential downtown parking districts that could produce adequate revenue sources to cover portions or all development/construction costs of one or more recommended downtown parking solution(s);
  - d. Describe the potential market impacts of existing and potential downtown parking districts on customer and client volumes and patronage of downtown retailers and services through case studies, surveys, focus group sessions, interviews and/or other technically valid data collection methods **to be determined through the contract negotiation process**, and identify mitigation measures if applicable;
  - e. Prepare maps of recommended parking districts in each downtown.
2. Cities shall distribute draft Memo #4 to PAC for review, and conduct their own review.
  3. PAC Meeting #2: Consultant shall facilitate PAC Meeting #2 to present draft Memo #4 to the PAC for timely technical review and comment. Cities shall provide meeting notice, perform logistics, and record minutes.
  4. PMT Meeting #2: Consultant shall attend PMT Meeting #2 to discuss Draft Memo #4 and report on PAC meeting and evaluation of parking district research. Cities shall provide meeting notice, perform logistics, and record minutes.
  5. Consultant shall revise draft Memo #4 based on PAC and PMT's review and comment, and recommend whether or not to revise and/or establish parking district(s) within each Project Area and, if so, the:
    - a. Geographic locations and descriptions;
    - b. User fees or rates;
    - c. Financial and programmatic features and operation;
    - d. Annual revenue targets and revenue allocation to one or more recommended downtown site parking solution(s); and
    - e. Enabling city ordinance amendments to be proposed for City Council consideration and action.

### **Cities Deliverables**

1. Distribution of Draft Memo #4 to PAC; written comments on Draft Memo #4.
2. Notice, meeting agenda, logistics, participation, and minutes for PAC Meeting #2.
3. Notice, meeting agenda, logistics, participation, and minutes for PMT Meeting #2.

### **Consultant Deliverables**

1. Draft Memo #4, distributed to PMT.

2. PAC Meeting #2 facilitation and meeting materials.
3. Attendance at PMT Meeting #2.
4. Revised Memo #4, distributed to PMT.

## **TASK 5: DOWNTOWN SHARED PARKING EVALUATION & RECOMMENDATIONS**

### **Objectives:**

1. Identify (and possibly create) public and private shared parking opportunities in each Downtown Area;
2. Formulate the necessary City parking code adjustments that will enable businesses and property owners to count shared parking facilities toward compliance of their uses with City minimum parking standards; and
3. Develop the necessary private tools (i.e., licenses, sale or lease agreements, easements, documents creating joint or common use or occupancy rights to parking spaces, agreements creating tenancies rights to parking spaces, etc.) that can enable owners of potential shared parking spaces and lots to establish them by private agreements.

### **Sub Tasks:**

1. Draft Memo #5: Consultant shall prepare and distribute to PMT draft Memo #5 that evaluates and recommends shared parking solutions. In developing Memo #5, Consultant shall do the following:
  - a. Identify, describe, and map existing lots/spaces that present feasible downtown opportunity sites as shared parking lots/spaces based on their location, ownership and operational characteristics. Show prevailing ownership patterns, features, and rights of existing lots/spaces;
  - b. Review and describe the technical and legal components of various kinds of shared parking arrangements in other communities in the State and nation and assess and describe in matrix format their potential feasible application to each identified shared parking lots/spaces opportunity site. For each Project Area, prepare maps that rank the relative feasibility of each identified shared parking opportunity site based on the matrix information.
  - c. Rank all shared parking opportunity sites in terms of their potential for conversion to structured parking.
  - d. Recommend preferred shared parking opportunity sites and associated shared parking arrangement(s) for each recommended shared parking site in each Downtown Area.

- e. Evaluate parking related incentives to provide shared parking and identify maintenance issues and costs.
  - f. Identify and describe – by type, magnitude and downtown locations - the existing barriers to development of suitable downtown opportunity sites for shared parking, within each Project Area.
  - g. Recommend specific barrier-removal/reduction actions to be taken at each suitable downtown opportunity site for parking.
  - h. Prescribe the necessary work programs, including timelines and financing needs, to achieve the recommended shared parking arrangements for each recommended site, including:
    - City code adjustments in concept form for each City needed to enable establishing shared parking at the site;
    - Sample written agreements and other documents needed to execute and complete transactions between/among owners, lessees, mortgagors, and other interested parties that establish the shared parking arrangements for each site.
    - The necessary private tools (i.e., licenses, sale or lease agreements, easements, documents creating joint or common use or occupancy rights to parking spaces, agreements creating tenancies rights to parking spaces, etc.) to execute the recommended shared parking arrangement; and
    - Where needed, possible City site acquisition and/or incentive actions to achieve shared parking at certain recommended sites.
2. Cities' project managers shall distribute draft Memo #5 to PAC for review, and conduct their own review.
  3. PAC Meeting #3: Consultant shall facilitate a PAC meeting to present the draft Memo #5 research information and assessment results of this work task to the PAC for timely technical review and comment. Cities shall provide meeting notice, perform logistics, and prepare minutes.
  4. PMT Meeting #3: Consultant shall attend one (1) PMT meeting to discuss Draft Memo #5 and report on the PAC meeting, focus group discussions, and evaluation of shared parking research.
  5. Revised Memo #5: Consultant shall revise draft Memo #5 based on PAC and PMT's review and comment and distribute to PMT.

**Consultant Deliverables:**

1. Draft Memo #5, with supporting maps, graphics, and data, distributed to PMT.
2. PAC Meeting # 3 facilitation and meeting materials.
3. Attendance at PMT Meeting #3;
4. Final Memo #5, including final recommendations about establishing or improving shared parking options, distributed to PMT.

**Cities Deliverables**

1. Distribution of and written comments on Draft Memo #5.
2. Notice, meeting agenda, logistics, participation, and minutes for PAC Meeting # 3.
3. Notice and logistics for two Focus Groups.

**TASK 6: DOWNTOWN STRUCTURED PARKING EVALUATION & RECOMMENDATIONS****Objectives:**

1. Identify and further evaluate the suitability of the opportunity sites within each Project Area identified by Task 5 for the conversion of shared parking lots to parking structures;
2. Identify surrounding downtown and neighborhood economic, financial, business development and land use critical mass and capacities that need to exist to adequately support the construction and operation of a downtown parking structure on each opportunity site;
3. Identify/describe specific private transactions and incentives as well as public regulatory, policy and/or financial actions that need to occur to build at least one downtown parking structure in each City; and
4. Outline a detailed work program for executing the specific private and public transactions, incentives, and actions once downtown conditions become ripe for construction of a structured parking facility.

**Sub Task:**

1. Draft Memo #6: Consultant shall prepare and distribute to PMT Memo #6 that evaluates and recommends locations, feasibility, and timing of constructing parking structures in the Cities' Project Areas. In developing Memo #6, Consultant shall do the following:
  - a. Identify, map, and prepare detailed descriptions for at least two (2) shared parking opportunity sites in each Project Area that have sufficient land area, suitable accessibility to downtown activity centers and hubs and public transit and pedestrian travel networks, and convenient access to the basic downtown roadway circulation system and evaluate their potential for eventual conversion to structured parking over time. Descriptions will include the following information:
    - Description of forms and types of ownership and other property interests in all parcels and structures on each site, including encumbrances and secured interests;

- Current uses and, if any, planned future uses of the site as may be disclosed by its owner(s) and assessment of the prospects of owner(s) participation and/or cooperation on site development as structured parking, including the potential terms and conditions of such participation/cooperation;
  - Applicable existing State, regional and City land use and transportation policies, regulations and their effects on potential site development and use for public or private structured parking;
- b. For each recommended shared parking lot, prescribe a work program, favorable financing methods, and feasible timeline for future site development of structured parking at the site if structured parking on the site is supported by the SAC.
- Existing and planned public infrastructure and services to each site; and
  - Qualitative assessment of potential capacity, safety, and operational traffic issues associated with structured parking at each site.
- c. Assess whether friendly or adverse site acquisition (fee or leasehold) will require exercise of statutory- or charter-based City eminent domain or other tools.
- d. Identify and describe – by type, magnitude and downtown locations - the existing barriers to development of suitable downtown opportunity sites for structured parking within each Project Area.
- e. Evaluate policy, financial feasibility based on land values, revenue losses (e.g. lease returns and property taxes) from land developed with surface parking rather than buildings, operational and maintenance issues, and timing analyses for building downtown parking structures to accommodate parking needs.
- f. Estimate structured parking financial costs for site acquisition, planning/engineering and construction on each site and possible revenue sources to cover these costs, including cash, bonds, parking district fees, grants, loans, possible forms of state and regional financial grants or participation, etc.
- g. Prepare a conceptual site development work program for each opportunity site, including the following:
- timeline for site acquisition;
  - timeline for development/construction for parking structure uses, including retail, office or other revenue-producing mixed uses within the parking structure; and
  - identification of any needed street improvements and documentation of the assumptions used to determine future traffic volumes, the City or ODOT standards used in the traffic analysis, and a summary of any calculations related to street capacity and access spacing.

2. Consultant shall draft (in coordination with the Cities) template(s) for real property conveyance and financing documents for private transactions and agreements between/among property owners needed to develop downtown shared and structured parking facilities, including City-private owners development agreements for such facilities. Cities shall provide guidance to Consultant for the development of real property conveyances and financing documents for private transactions and agreements between/among property owners, needed to develop downtown shared and structured parking facilities, including City-private owners development agreements for such facilities.
3. Cities shall distribute draft Memo #6 to PAC for review, and conduct their own review.
4. Focus Groups: Cities shall perform logistics for and Consultant shall facilitate two (2) focus groups (one in Beaverton and one in Hillsboro) to gather information and discuss shared and structured parking locations. Consultant shall record comments and prepare written summary and distribute to Cities and Agency Contract Administrator.
5. Open Houses: Consultant shall facilitate two (2) open houses (one in Beaverton and one in Hillsboro) to gather information and discuss parking barrier solutions, shared parking, parking district, and parking structure solutions for each Project Area. Consultant shall prepare appropriate types and quantities of presentation materials, handouts, and comment forms as negotiated prior to contract. Cities shall provide notice, perform logistics, and participate in Open Houses.
6. PAC Meeting #4: Consultant shall facilitate a PAC meeting to present the draft Memo #6 research information and assessment results of this work task to the PAC for timely technical review and comment. Cities shall provide meeting notice, perform logistics, and record minutes.
7. PMT Meeting #3: Consultant shall attend one (1) PMT meeting to discuss Draft Memo #6 and report on PAC meeting, focus groups, and evaluation of parking structure research.
8. Final Memo #6: Consultant shall revise draft Memo #6 based on PAC and PMT's review and comment and distribute to PMT.

### **Consultant Deliverables**

1. Draft Memo #6, with supporting maps, graphics, and data, distributed to PMT.
2. Templates for real property conveyance, financing documents for private transactions, and agreements between/among property owners needed to develop downtown shared and structured parking facilities, including City-private owners development agreements for such facilities.
3. Facilitation and materials for two (2) Open Houses, including record of comment (one for each city).
4. PAC Meeting # 4 facilitation and meeting materials;

5. Facilitation, meeting materials, and record of comments for two Focus Group Meetings (one for each City).
6. Attendance at PMT meeting #3.
7. Final Memo #6, distributed to PMT.

### **Cities Deliverables**

1. Distribution of and written comment on Draft Memo #6.
2. Guidance (written, electronic, phone, or in person) to Consultant for real property conveyances and financing documents for private transactions and agreements between/among property owners needed to develop downtown shared and structured parking facilities, including City-private owners development agreements for such facilities.
3. Notice, meeting agenda, logistics, participation, and minutes for PAC meeting.
4. Notice, logistics, and participation for two Open Houses;
5. Notice and logistics for two Focus Groups.

## **TASK 7: PROJECT IMPLEMENTATION**

**Objective:** Identify and undertake Project implementation actions for each City (which need not be identical in recommended actions for each city) that outline the actions to be taken to implement feasible Project recommendations described in Project Tasks 1-6 with associated schedule/timeline for each action.

### **Sub Tasks:**

1. Consultant shall prepare and present a PowerPoint presentation and related presentation materials and handouts tailored to each City's recommended strategy for presentation on results of the Project and distribute to PMT for review and comment.
2. Consultant shall finalize PowerPoint presentation and related presentation materials based on PMT review and distribute to PMT.
3. Consultant shall present the PowerPoint presentation to both the Planning Commission and City Council for each City and solicit comment. Cities shall notice meetings, arrange logistics, and record minutes.
  - a. Consultant shall act as lead presenter.
  - b. City staff and Consultant shall field questions.
4. Consultant shall finalize Memo #4 into Parking District Plans for each City (including proposed implementing ordinances to establish a Parking District) in the appropriate ordinance forms of each City based on the advice obtained from the Open Houses, the Planning Commission and City Council workshops, and all community interests and organizations.
5. Cities shall draft proposed City land use plan amendments and code revisions in adoptable form that support the final recommendations in Memos #5 and #6, including the following:

- a. Site development for structured parking when circumstances are deemed ripe for their private, City or joint City/private development; and
  - b. Private, City or joint City/private site development for shared parking and structured parking.
6. Each City shall finalize, submit for consideration, and hold public hearings before their respective Planning Commission and City Council on proposed revisions to applicable land use and transportation policies, and code requirements.
  7. Consultant shall compile all deliverables for the entire Project into a Final Parking Solutions Strategy Report and include an executive summary of plan recommendations. Consultant shall provide the Final Parking Solutions Strategy Report electronically on CD-Rom and provide four hard copies of the report to each city and two hard copies to Agency Contract Administrator.

**Consultant Deliverables**

1. Draft and Final PowerPoint presentation and related materials for Planning Commission and City Council.
2. Presentation to Planning Commission and City Councils of each City on the results of the Parking Solutions Strategy and assist City staff with questions;
3. Parking District Plans for each City in the appropriate ordinance forms of each City; and
4. Final Parking Solutions Strategy Report electronically on CD-Rom to Cities and Agency Contract Administrator and with four hard copies to each city and two hard copies to Agency Contract Administrator .

**City Deliverables**

1. Written review comments on draft PowerPoint presentation.
2. Attendance during presentation of Project results to respective City Planning Commissions and City Councils and minutes.
3. Final land use plan amendments and code revisions presented to Planning Commission and City Council.
4. Copies of all public hearing notices; presentation of staff reports minutes of all Planning Commission and Council meetings relating to the project and copies of all Planning Commission and City Council orders, resolutions, or ordinances relating to the project.

***PROJECT SCHEDULE/ESTIMATED BUDGET ALLOCATION***

<b>Task</b>	<b>Action</b>	<b>Completion Date (Months from NTP)</b>	<b>Total</b>
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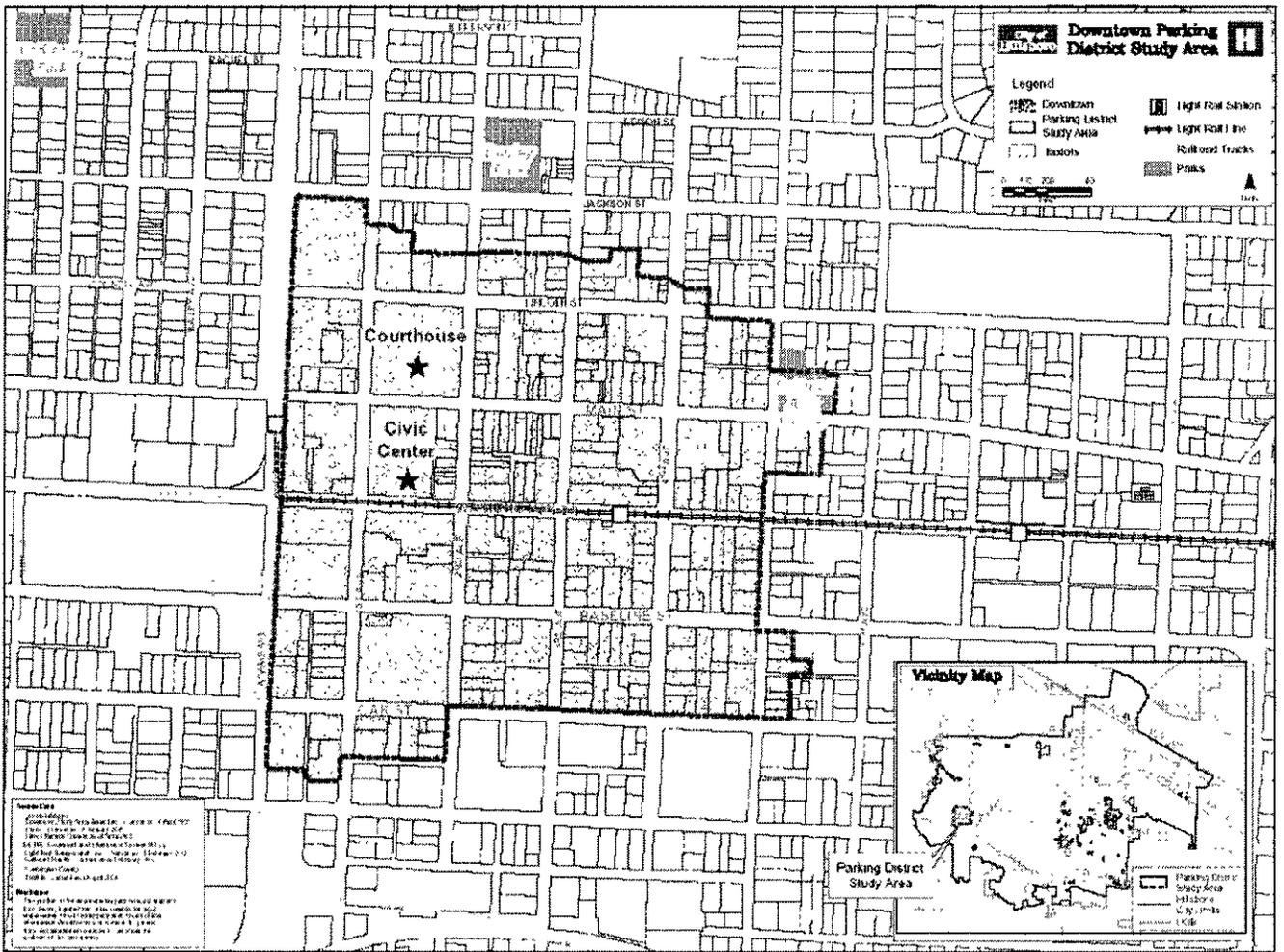
1	Establish SAC/PMT/PAC	Month 1	\$ -
	Refine schedule	Month 1	\$ 500
	Prepare notebooks	Month 1	\$ -
	Sub total		<u>\$ 500</u>
2	Cities gather info on project area existing conditions	Month 1	\$ -
	Memo #1: Recommend methodology for parking inventory	Month 2	\$ 500
	Memo #2: Evaluation of Existing Conditions	Month 3	\$ 3,000
	Focus Groups (one in each City)	Month 3	\$ 2,500
	PMT Meeting #1	Month 2	\$ 1,000
	Sub total		<u>\$ 7,000</u>
3	Memo #3: ID and analyze opportunities and barriers	Month 6	\$ 15,000
	PAC Meeting #1	Month 3	\$ 3,000
	SAC Meetings (one in each City)	Month 3	\$ 3,000
	Interviews with downtown businesses/stakeholders	Month 4	\$ 7,500
	Sub total		<u>\$ 28,500</u>
4	Memo #4: Parking Districts	Month 5	\$ 12,500
	PAC Meeting #2	Month 4	\$ 2,500
	PMT Meeting #2	Month 4	\$ 1,000
	Sub total		<u>\$ 16,000</u>
5	Memo #5: Shared Parking Solutions	Month 8	\$ 12,500
	PAC Meeting #3	Month 6	\$ 2,500
	PMT Meeting #3	Month 6	\$ 1,000
	Sub total		<u>\$ 16,000</u>
6	Memo #6 Parking Structures	Month 8	\$ 10,000
	SAC Open House (one in each City)	Month 7	\$ 2,500
	Focus Group (one in each City)	Month 7	\$ 2,500
	Real Property Conveyances	Month 7	\$ 4,000
	PAC Meeting #4	Month 8	\$ 2,500
	PMT Meeting #4	Month 8	\$ 1,000
	Sub total		<u>\$ 22,500</u>
7	Presentation to Councils/Planning Commissions on results	Month 9	\$ 7,500

Parking District Plans in ordinance form	Month 9	\$ 3,000
City draft and present land use amds/code rev. to Council/P.C.	Month 10	\$ -
Sub total		<u>\$ 10,500</u>
<b>Grand Total</b>		<b>\$101,000</b>

**TERMS AND CONDITIONS**

The Cities of Beaverton and Hillsboro own the copyright to all maps and data furnished to the Consultant in all formats provided. Any use of the maps and data for purposes other than this project requires the prior written approval of ODOT, the City of Beaverton, or the City of Hillsboro, whichever agency furnished the maps or data.





**EXHIBIT B (Local Agency or State Agency)**

**CONTRACTOR CERTIFICATION**

Contractor certifies by signing this contract that Contractor has not:

- (a) Employed or retained for a commission, percentage, brokerage, contingency fee or other consideration, any firm or person (other than a bona fide employee working solely for me or the above consultant) to solicit or secure this contract,
- (b) agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out the contract, or
- (c) paid or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above consultant), any fee, contribution, donation or consideration of any kind for or in connection with, procuring or carrying out the contract, except as here expressly stated (if any):

Contractor further acknowledges that this certificate is to be furnished to the Federal Highway Administration, and is subject to applicable State and Federal laws, both criminal and civil.

**AGENCY OFFICIAL CERTIFICATION (ODOT)**

Department official likewise certifies by signing this contract that Contractor or his/her representative has not been required directly or indirectly as an expression of implied condition in connection with obtaining or carrying out this contract to:

- (a) Employ, retain or agree to employ or retain, any firm or person or
- (b) pay or agree to pay, to any firm, person or organization, any fee, contribution, donation or consideration of any kind except as here expressly stated (if any):

Department official further acknowledges this certificate is to be furnished to the Federal Highway Administration, and is subject to applicable State and Federal laws, both criminal and civil.

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**EXHIBIT C**

Federal Provisions  
Oregon Department of Transportation

**I. CERTIFICATION OF NONINVOLVEMENT IN ANY DEBARMENT AND SUSPENSION**

Contractor certifies by signing this contract that to the best of its knowledge and belief, it and its principals:

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>1. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;</li><li>2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a</li></ul> | <p>criminal offense in connection with obtaining, attempting to obtain or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery falsification or destruction of records, making false statements or receiving stolen property;</p> |
|--|--|

3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
4. Have not within a three-year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

Where the Contractor is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

List exceptions. For each exception noted, indicate to whom the exception applies, initiating agency, and dates of action. If additional space is required, attach another page with the following heading: Certification Exceptions continued, Contract Insert.

**EXCEPTIONS:**

Exceptions will not necessarily result in denial of award, but will be considered in determining Contractor responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

The Contractor is advised that by signing this contract, the Contractor is deemed to have signed this certification.

**II. INSTRUCTIONS FOR CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS--PRIMARY COVERED TRANSACTIONS**

1. By signing this contract, the Contractor is providing the certification set out below.
2. The inability to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The Contractor shall explain why he or she cannot provide the certification set out below. This explanation will be considered in connection with the Oregon Department of Transportation determination to enter into this transaction. Failure to furnish an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the Department determined to enter into this transaction. If it is later determined that the Contractor knowingly rendered an erroneous

certification, in addition to other remedies available to the Federal Government or the Department may terminate this transaction for cause of default.

4. The Contractor shall provide immediate written notice to the Department to whom this proposal is submitted if at any time the Contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", and "voluntarily excluded", as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the Department's Program Section (Tel. (503) 986-3400) to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The Contractor agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transactions with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized by the Department or agency entering into this transaction.
7. The Contractor further agrees by submitting this proposal that it will include the Addendum to Form FHWA-1273 titled, "Appendix B--Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions", provided by the Department entering into this covered transaction without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List published by the U. S. General Services Administration.

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government or the Department, the Department may terminate this transaction for cause or default.

### III ADDENDUM TO FORM FHWA-1273, REQUIRED CONTRACT PROVISIONS

This certification applies to subcontractors, material suppliers, vendors, and other lower tier participants.

- Appendix B of 49 CFR Part 29 -

#### **Appendix B--Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion--Lower Tier Covered Transactions**

##### Instructions for Certification

1. By signing and submitting this contract, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this contract is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this contract that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this contract that it will include this clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transaction", without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement list.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is

suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

**Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion--Lower Tier Covered Transactions**

- a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal department or agency.
- b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**IV. EMPLOYMENT**

1. Contractor warrants that he has not employed or retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this contract and that he has not paid or agreed to pay any company or person, other than a bona fide employee working solely for Contractor, any fee, commission, percentage, brokerage fee, gifts or any other consideration contingent upon or resulting from the award or making of this contract. For breach or violation of this warranting, Department shall have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee
2. Contractor shall not engage, on a full or part-time basis or other basis, during the period of the contract, any professional or technical personnel who are or have been at any time during the period of this contract, in the employ of Department, except regularly retired employees, without written consent of the public employer of such person.
3. Contractor agrees to perform consulting services with that standard of care, skill and diligence normally provided by a professional in the performance of such consulting services on work similar to that hereunder. Department shall be entitled to rely on the accuracy, competence, and completeness of Contractor's services.

**V. NONDISCRIMINATION**

During the performance of this contract, Contractor, for himself, his assignees and successors in interest, hereinafter referred to as Contractor, agrees as follows:

1. Compliance with Regulations. Contractor agrees to comply with Title VI of the Civil Rights Act of 1964, and Section 162(a) of the Federal-Aid Highway Act of 1973 and the Civil Rights Restoration Act of 1987. Contractor shall comply with the regulations of the Department of Transportation relative to nondiscrimination in Federally assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are incorporated by reference and made a part of this contract. Contractor, with regard to the work performed after award and prior to completion of the contract work, shall not discriminate on grounds of race, creed, color, sex or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. Contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices, when the contract covers a program set forth in Appendix B of the Regulations.
2. Solicitation for Subcontractors, including Procurement of Materials and Equipment. In all solicitations, either by competitive bidding or negotiations made by Contractor for work to be performed under a subcontract, including procurement of materials and equipment, each potential subcontractor or supplier shall be notified by Contractor of Contractor's obligations under this contract and regulations relative to nondiscrimination on the grounds of race, creed, color, sex or national origin.
3. Nondiscrimination in Employment (Title VII of the 1964 Civil Rights Act). During the performance of this contract, Contractor agrees as follows:
  - a. Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex or national origin. Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment,

without regard to their race, creed, color, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notice setting forth the provisions of this nondiscrimination clause.

- b. Contractor will, in all solicitations or advertisements for employees placed by or on behalf of Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex or national origin.
4. **Information and Reports** Contractor will provide all information and reports required by the Regulations or orders and instructions issued pursuant thereto, and will permit access to his books, records, accounts, other sources of information, and his facilities as may be determined by Department or FHWA as appropriate, and shall set forth what efforts he has made to obtain the information.
5. **Sanctions for Noncompliance.** In the event of Contractor's noncompliance with the nondiscrimination provisions of the contract, Department shall impose such agreement sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
  - a. Withholding of payments to Contractor under the agreement until Contractor complies; and/or
  - b. Cancellation, termination or suspension of the agreement in whole or in part.
6. **Incorporation of Provisions.** Contractor will include the provisions of paragraphs 1 through 6 of this section in every subcontract, including procurement of materials and leases of equipment, unless exempt from Regulations, orders or instructions issued pursuant thereto. Contractor shall take such action with respect to any subcontractor or procurement as Department or FHWA may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event Contractor becomes involved in or is threatened with litigation with a subcontractor or supplier as a result of such

direction, Department may, at its option, enter into such litigation to protect the interests of Department, and, in addition, Contractor may request Department to enter into such litigation to protect the interests of the State of Oregon.

#### VI. DISADVANTAGED BUSINESS ENTERPRISE (DBE) POLICY

In accordance with Title 49, Code of Federal Regulations, Part 26, Contractor shall agree to abide by and take all necessary and reasonable steps to comply with the following statement:

#### DBE POLICY STATEMENT

**DBE Policy.** It is the policy of the United States Department of Transportation (USDOT) to practice nondiscrimination on the basis of race, color, sex and/or national origin in the award and administration of USDOT assist contracts. Consequently, the DBE requirements of 49 CFR 26 apply to this contract.

**Required Statement For USDOT Financial Assistance Agreement.** If as a condition of assistance the Agency has submitted and the US Department of Transportation has approved a Disadvantaged Business Enterprise Affirmative Action Program which the Agency agrees to carry out, this affirmative action program is incorporated into the financial assistance agreement by reference.

**DBE Obligations.** The Oregon Department of Transportation (ODOT) and its contractor agree to ensure that Disadvantaged Business Enterprises as defined in 49 CFR 26 have the opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. In this regard, Contractor shall take all necessary and reasonable steps in accordance with 49 CFR 26 to ensure that Disadvantaged Business Enterprises have the opportunity to compete for and perform contracts. Neither ODOT nor its contractors shall discriminate on the basis of race, color, national origin or sex in the award and performance of federally-assisted contracts. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of such contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as ODOT deems appropriate.

The DBE Policy Statement and Obligations shall be included in all subcontracts entered into under this contract.

**Records and Reports.** Contractor shall provide monthly documentation to Department that it is

subcontracting with or purchasing materials from the DBEs identified to meet contract goals. Contractor shall notify Department and obtain its written approval before replacing a DBE or making any change in the DBE participation listed. If a DBE is unable to fulfill the original obligation to the contract, Contractor must demonstrate to Department the Affirmative Action steps taken to replace the DBE with another DBE. Failure to do so will result in withholding payment on those items. The monthly documentation will not be required after the DBE goal commitment is satisfactory to Department.

Any DBE participation attained after the DBE goal has been satisfied should be reported to the Departments.

**DBE Definition.** Only firms DBE certified by the State of Oregon, Department of Consumer & Business Services, Office of Minority, Women & Emerging Small Business, may be utilized to satisfy this obligation.

#### CONTRACTOR'S DBE CONTRACT GOAL

DBE GOAL   0   %

By signing this contract, Contractor assures that good faith efforts have been made to meet the goal for the DBE participation specified in the Request for Proposal/Qualification for this project as required by ORS 200.045, and 49 CFR 26.53 and 49 CFR, Part 26, Appendix A.

#### VII. LOBBYING

The Contractor certifies, by signing this agreement to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or

employee of Congress or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan or cooperative agreement

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress in connection with this agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor also agrees by signing this agreement that he or she shall require that the language of this certification be included in all lower tier subagreements, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

FOR INQUIRY CONCERNING ODOT'S  
DBE PROGRAM REQUIREMENT  
CONTACT OFFICE OF CIVIL RIGHTS  
AT (503)986-4354.

## AGENDA BILL

**Beaverton City Council  
Beaverton, Oregon**

**SUBJECT:** Contract Award - Annual Audit Services

**FOR AGENDA OF:** 05/15/06 **BILL NO.:** 06082

**Mayor's Approval:** *Bob Drake*

**DEPARTMENT OF ORIGIN:** Finance *AD Clune*

**DATE SUBMITTED:** 05/08/06

**CLEARANCES:** City Attorney, *MR*  
Purchasing *JL Musalt*

**PROCEEDING:** Consent Agenda  
(Contract Review Board)

**EXHIBITS:**

- A. Memo from Audit Committee to City Council with Three Attached Exhibits
- B. Memo from Finance Director to Audit Committee

### **BUDGET IMPACT**

EXPENDITURE	AMOUNT	APPROPRIATION
REQUIRED \$45,000	BUDGETED \$11,000*	REQUIRED \$0-
	\$44,400*	

Account Number 001-20-0548-511 General Fund, Finance Operations Program, Professional Services Account. The \$11,000 amount budgeted is included in the FY 2005-06 Budget and is the portion of the audit interim work that will be completed before June 30, 2006 and the \$44,400 is included in the FY 2006-07 Proposed Budget.

### **HISTORICAL PERSPECTIVE:**

The City's current contract for annual audit services expired with the completion of the FY 2004-05 Annual Audit. The contract was for a five-year period that began with FY 2000-01 and ended with FY 2004-05 and was with the firm of Talbot, Korvola, and Warwick, LLC of Portland, Oregon.

### **INFORMATION FOR CONSIDERATION:**

A Request for Proposal (RFP) for Annual Audit Services was advertised on January 24, 2006 in the Portland Daily Journal of Commerce with a proposal submission due date of February 23, 2006. In addition, staff mailed the RFP to five audit firms in the metropolitan area and two other audit firms downloaded the RFP from the City's website. The RFP states that the audit engagement is for a one-year period (FY 2005-06) and may be renewed yearly for four (4) additional one-year periods at the City's option (through FY 2009-10). The RFP required that the proposals be submitted in two separate packets comprising of a technical proposal and a fee proposal.

The City received proposals from the following four firms:

Grove, Mueller & Swank of Salem, Oregon  
Merina & Company of West Lynn, Oregon  
Pauly, Rogers and Company of Tigard, Oregon  
Talbot, Korvola & Warwick of Portland, Oregon

The proposals were evaluated based upon the two separate packets with the technical proposal having a maximum score of 90 points and the fee proposal having a maximum score of 10 points. Only the

top three proposal scores from the technical packet evaluation would advance to the fee proposal evaluation.

Four Finance Staff members independently reviewed the technical packet responses and scored them based upon the first three evaluation factors as detailed in the RFP. The four independent evaluations were then averaged to obtain the following composite score for each proposer (See Schedule 1 attached to Exhibit A - Memorandum from the Audit Committee to City Council):

Grove, Mueller & Swank with a composite score of 67.35  
Merina & Company with a composite score of 47.05  
Pauly, Rogers and Company with a composite score of 66.70  
Talbot, Korvola & Warwick with a composite score of 77.65

After the technical evaluation was completed, the proposals with the highest three scores from the technical packet evaluation were then opened and the points from the fee proposal were assigned based upon the scoring as outlined in the RFP. Adding the score from the fee proposal to the technical evaluation scores results in the following ranking (See Schedule 1 attached to Exhibit A - Memorandum from the Audit Committee to the City Council):

1. Talbot, Korvola & Warwick (TKW) with a total score of 85.50
2. Grove, Mueller & Swank (GMS) with a total score of 77.25
3. Pauly, Rogers and Company (PRC) with a total score of 76.70

The evaluations were forwarded to the Audit Committee on April 20, 2006 in advance of an Audit Committee meeting scheduled for Tuesday, April 25, 2006 (See Attachment B – Memorandum from the Finance Director to the Audit Committee).

The Audit Committee convened on April 25 to review and discuss the proposal evaluations and rankings. Based upon the review, the Audit Committee confirmed that the firm of Talbot, Korvola and Warwick was the top technically rated firm. However, the Audit Committee noted the difference in fee proposals between TKW's fee and the fee presented by the second highest ranked firm of Grove Mueller & Swank, which is a difference of \$30,315 over the five-year audit period.

The Audit Committee exercised its option to negotiate the audit fee with TKW based upon one of the evaluation criteria of the RFP's that permits the City to negotiate the audit fee of any of the top three firms that were rated highest during the evaluation process. The committee further stated that if TKW chose not to revise its fee proposal or if their resulting revised fee proposal was not reduced sufficiently, the Committee would select the firm of Grove, Mueller and Swank (GMS).

The Audit Committee received the following revised fee proposal from TKW:

<u>Audit Period</u>	<u>Original Proposed Fee</u>	<u>Revised Proposed Fee</u>
FY 2005-06	\$46,200	\$45,000
FY 2006-07	48,300	45,900
FY 2007-08	50,450	46,800
FY 2008-09	53,600	47,700
FY 2009-10	<u>54,750</u>	<u>48,600</u>
Total	\$253,300	\$234,000

With the revised fee proposal, the total variance between TKW's fee and the fee from GMS is \$11,015 over the five-year period or an average of \$2,203 per year. The Audit Committee deliberated on TKW's revised fee proposal and found it acceptable.

Attached is a Memorandum from the Audit Committee (Exhibit A) that provides additional information regarding the deliberations and resulting recommendation, including Schedule 1 - The Scoring Evaluation Matrix, Schedule 2 Comparison of Fee Proposals, and Schedule 3 – Other Information.

**RECOMMENDED ACTION:**

Council, acting as Contract Review Board, accept the Audit Committee's recommendation to appoint Talbot, Korvola, and Warwick as the City's Auditor for Annual Audit Services and authorize a professional services contract in the amount of \$45,000 for the FY 2005-06 Audit in a form acceptable to the City Attorney and renewable yearly for four (4) additional one-year periods at the City's option through FY 2009-10.

**MEMORANDUM**  
**CITY OF BEAVERTON**  
**AUDIT COMMITTEE**

**TO:** City Council

**FROM:** Keith Parker, Audit Committee Chair  
Dennis Doyle, City Council Representative to Audit Committee  
Don Walton, Budget Committee Representative to Audit Committee

**DATE:** May 8, 2006

**SUBJECT:** Selection of External Auditor for Fiscal Year 2005-06

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On April 25, 2006 the Audit Committee convened to review the proposal rankings from the top three (3) audit firms that responded to a Request for Proposal (RFP) for the City's annual audit services. The top three firms and their point rankings were:

1. Talbot, Korvola & Warwick (TKW) with a with an total score of 85.50
2. Grove, Mueller & Swank (GMS) with an total score of 77.25
3. Pauly, Rogers and Company (PRC) with a with an total score of 76.70

Based upon the final total scoring, the firm of Talbot, Korvola & Warwick had the most total points; however, as shown on Exhibit 1, TKW's fee proposal is \$4,300 more than PRC's (the lowest fee proposer) for the first year and a combined \$31,200 more over the five-year period.

A discussion ensued as to the merits of the top three proposals, the experience of each firm, each firm's depth of staff (total staff, number of CPA's and number of Certified Municipal Auditors), the clients that each firm serves, and the ability of each firm to respond to the City's needs (see Exhibits 2 and 3).

Based upon the deliberations, the Audit Committee's selected TKW as the firm that had the best technical proposal and overall ranking; however, the Committee still had the concern that TKW's fee proposal was \$31,200 more over the five year audit period than the lowest fee proposal.

As part of the RFP's evaluation criteria, the City is permitted to negotiate the audit fee of any of the top three firms that were rated highest during the evaluation process. The Committee deliberated on this issue and decided to exercise this option in relation TKW's fee proposal. The committee further stated that if TKW chose not to revise its fee proposal or if their resulting revised fee proposal was not reduced sufficiently, the Committee would select the firm of Grove, Mueller and Swank.

The Committee called the offices of TKW and spoke with their Senior Manager. The Committee relayed to the Senior Manager that although their firm had the highest overall ranking, their firm's fee proposal was \$31,200 more than the lowest proposal over the five-year

period. The Committee asked the Senior Manager if the firm would offer a revised fee proposal. The Senior Manager responded yes and that the firm would provide a revised fee proposal by 9:00 a.m. the following morning (Wednesday, April 26). The Committee further asked that the revised proposal be given to the Finance Director and the Finance Director will then communicate the revised proposal to the Audit Committee.

TKW's Senior Manager called the Finance Director at 9:00 a.m. and relayed the following information regarding a revised fee proposal.

<u>Audit Period</u>	<u>Original Proposed Fee</u>	<u>Revised Proposed Fee</u>
FY 2005-06	\$46,200	\$45,000
FY 2006-07	48,300	45,900
FY 2007-08	50,450	46,800
FY 2008-09	53,600	47,700
FY 2009-10	<u>54,750</u>	<u>48,600</u>
Total	\$253,300	\$234,000

The information was then provided to the Audit Committee along with a proposed 9:45 am conference call of the Audit Committee to further discuss and deliberate the revised fee proposal. At 9:45 am the Audit Committee deliberated (via conference call) the revised fee proposal. With the revised fee proposal, the total variance between TKW's fee and the fee from GMS is \$11,015 over the five-year period or an average of \$2,203 per year. Based upon the Committee's further deliberations, TKW's revised fee proposal was found acceptable.

Audit Committee recommends to the City Council that:

- The FY 2005-06 audit engagement be awarded to Talbot, Korvola, and Warwick,
- A personal services contract be issued for Fiscal Year 2005-06 in the amount of \$45,000 for the audit services,
- The personal services contract is renewable, at the City's option, for four (4) additional one-year periods, FY 2006-07, FY2007-08, FY2008-09 and FY 2009-10 at the fee amounts of \$45,900, \$46,800, \$47,700, and \$48,600, respectively.

**City of Beaverton  
Scoring Evaluation Matrix  
Responses to Proposal to Provide Audit Services**

	Maximum Points	Grove, Mueller & Swank					Merina & Company					Pauly, Rogers & Company					Talbot, Korvola & Warwick				
		Rater				Avg	Rater				Avg	Rater				Avg	Rater				Avg
		1	2	3	4		1	2	3	4		1	2	3	4		1	2	3	4	
1. Prior Auditing Experience in similar sized Oregon Local Governments																					
a) Local Governments 10 Points	10	5	9	5	8	6.75	0	7	5	5	4.25	10	10	10	10	10.00	10	10	10	9	9.75
b) Auditing Cities 20 Points	20	12	18	12	18	15.00	0	8	10	2	5.00	12	16	12	16	14.00	8	18	10	20	14.00
2. Qualifications of Staff																					
a) Audit Team Assigned 20 Points	20	15	18	12	16	15.30	10	12	12	12	11.50	16	17	13	13	14.80	18	18	16	20	18.00
b) Supervision By Manager and Partner 10 Points	10	8	7	7	8	7.50	7	7	5	10	7.30	8	8	5	6	6.80	9	9	9	10	9.30
3. Understanding of work to be performed in approach to audit and audit work plan. 30 Points	30	24	25	17	25	22.80	21	20	15	20	19.00	22.5	24	20	18	21.10	25.5	26	25	30	26.60
Subtotals	<u>90</u>	<u>64</u>	<u>77</u>	<u>53</u>	<u>75</u>	<u>67.35</u>	<u>38</u>	<u>54</u>	<u>47</u>	<u>49</u>	<u>47.05</u>	<u>68.5</u>	<u>75</u>	<u>60</u>	<u>63</u>	<u>66.7</u>	<u>70.5</u>	<u>81</u>	<u>70</u>	<u>89</u>	<u>77.65</u>
4. Total Fee 10 Points*	10					9.90					0.00					10.00					7.85
Grand Total Points	<u>100</u>					<u>77.25</u>					<u>47.05</u>					<u>76.70</u>					<u>85.50</u>
FY 2005-06 Fee Proposal						\$ 42,000										\$ 41,900					\$ 46,200
FY 2006-07 Fee Proposal						43,260										43,100					48,300
FY 2007-08 Fee Proposal						44,558										44,400					50,450
FY 2008-09 Fee Proposal						45,895										45,700					53,600
FY 2009-10 Fee Proposal						47,272										47,000					54,750
Total Fee For 5 Year Period						<u>\$ 222,985</u>										<u>\$ 222,100</u>					<u>\$ 253,300</u>

The firm submitting the lowest fee proposal, among the ones opened, will receive a score of 10. The other two fee proposals will have their score reduced by one point for each \$2,000 or fraction thereof that their fee is above the lowest fee proposal. Although a significant factor, cost is not a dominant factor.

Schedule 2

**City of Beaverton  
Comparison of Fee Proposal  
For Audit Services  
Top Three (3) Firms**

FY 2005-06 Audit Fee	Grove, Mueller & Swank, P.C.			Pauly, Rogers, and Co., P.C.			TKW			Revised Fee
	No. of Hours	Hourly Rate	Total	No. of Hours	Hourly Rate	Total \$	No. of Hours	Hourly Rate	Total \$	
Partners and Managers	70	\$ 150	\$ 10,500	17	\$ 130	\$ 2,210	16	\$ 235	\$ 3,760	
Senior Manager							34	190	6,460	
Manager			-	11	90	990	61	135	8,235	
"In-Charge"	150	90	13,500	175	80	14,000	86	115	9,890	
Staff	300	60	18,000	296	80	23,680	195	95	18,525	
Administration			-	13	45	585	3	45	135	
Out of Pocket Expenses			-			435				
Sub total	<u>520</u>		<u>\$ 42,000</u>	<u>512</u>		<u>\$ 41,900</u>	<u>395</u>		<u>\$ 47,005</u>	
Single Audit Fee Less Discount			Included above -			Included Above -			Included Above (805)	
Total Audit Fee for FY 05-06			<u>\$ 42,000</u>			<u>\$ 41,900</u>			<u>\$ 46,200</u>	\$ 45,000
Proposed Fees for FY 06-07			\$ 43,260			\$ 43,100			\$ 48,300	\$ 45,900
Proposed Fees for FY 07-08			\$ 44,558			\$ 44,400			\$ 50,450	\$ 46,800
Proposed Fees for FY 08-09			\$ 45,895			\$ 45,700			\$ 53,600	\$ 47,700
Proposed Fees for FY 09-10			\$ 47,272			\$ 47,000			\$ 54,750	\$ 48,600
Total Fees for Five Year Period			<u>\$ 222,985</u>			<u>\$ 222,100</u>			<u>\$ 253,300</u>	<u>\$ 234,000</u>
Average Hourly Rate for FY 05-06			\$ 81			\$ 82			\$ 117	
Annual Fee comparison for FY05-06 Audit to Lowest Fee			\$ 100			Lowest fee			\$ 4,300	\$ 3,100
Cumulative audit fee comparison to Lowest Fee			\$ 885			Lowest fee			\$ 31,200	\$ 11,900

City of Beaverton  
Audit Review Process - Other Information

	503-581-7788 Grove, Mueller & Swank, P.C.	503-620-2632 Pauly, Rogers, and Co., P.C.	503-274-2849 TKW
Total Staff of Firm	35	29	45
Number of CPA's	20	11	20
Number of CMA's	5 and two in training	4 Currently and 2 in two months	8
Audit Clients	<u>Rank</u> <u>City and Population</u>	<u>Rank</u> <u>City and Population</u>	<u>Rank</u> <u>City and Population</u>
Cities	2 *    Salem - 147,250	4 *    Gresham - 95,900	5 *    Beaverton - 83,095
	3 *    Eugene - 146,160	11 *    Tigard - 45,500	6 *    Hillsboro - 82,025
	9 *    Springfield - 55,855	13 *    Lake Oswego - 36,075	8 *    Bend - 70,330
	10 *    Corvallis - 53,165	21 *    Ashland - 20,880	10 *    Corvallis - 53,165 (2001 to 2004)
	14 *    Keizer - 34,735	25 *    Klamath Falls - 20,400	15 *    McMinnville - 30,020
	29 *    Wilsonville - 16,510	27 *    Forest Grove - 19,565	*
School Districts	Salem-Keizer	Portland	Beaverton (2000 - 2004)
	Eugene	Gresham Barlow	Hillsboro (1997 - 2004)
	Beaverton	Greater Albany	Newberg
	Springfield	Hillsboro	Gladstone
		Lake Oswego	David Douglas
		Lebanon	
		North Clackamas	
		Reynolds	
		Tigard-Tualatin	
		West Lynn-Wilsonville	
		Centennial	
		Forest Grove	
Counties	Marion	None Listed in the RFP	Clackamas Washington
Special Districts	None Listed in the RFP	None Listed in the RFP	Tualatin Valley Fire & Rescue Portland Development Comm. Portland Community College

\* Refers to the ranking of the City in relation to all cities in Oregon

**MEMORANDUM**  
**CITY OF BEAVERTON**  
**FINANCE DEPARTMENT**

**TO:** Rob Drake, Mayor  
Keith Parker, Audit Committee Chair  
Don Walton, Audit Committee Member  
Dennis Doyle, City Councilor and Audit Committee Member  
Linda Adlard, Chief of Staff

**FROM:** Patrick O'Claire, Finance Director

**DATE:** April 20, 2006

**SUBJECT:** Updated Transmittal of Audit Proposal Rankings to the Request For Audit Services

---

The Audit Committee Meeting will be held on Tuesday April 25, 2006 at 2:30 in the Mayor's Conference Room. In advance of the meeting, staff has detailed below the background on the evaluation process and the attached supporting documents (Exhibits 1, 2 and 3)

**Background Information**

The City issued an RFP (Request for Proposal) for Audit Services on January 24, 2006, with a response due date of February 23, 2006. The RFP was advertised in the Daily Journal of Commerce and was sent to 5 local Public Accounting Firms. In addition, 2 other firms downloaded the RFP from the City's Website.

The City received four responses to the RFP from the following audit firms:

Grove, Mueller & Swank of Salem, Oregon  
Merina & Company of West Lynn, Oregon  
Pauly, Rogers and Company of Tigard, Oregon  
Talbot, Korvola & Warwick of Portland, Oregon

The RFP is attached for your information (Exhibit 1). Each proposer was required to submit two separate packets, a technical proposal and a fee proposal. The proposals were evaluated based upon the two separate packets with the technical proposal having a maximum score of 90 points and the fee proposal having a maximum score of 10 points. Only the top three proposal scores from the technical packet evaluation would advance to the fee proposal evaluation.

**Proposal Evaluation**

Four Finance Staff members independently reviewed the technical packet responses and scored them based upon the first three evaluation factors on Page 11 of the RFP. The four independent evaluations were then averaged to obtain the following composite score for each proposer (Exhibit 2):

Grove, Mueller & Swank with a composite score of 67.35  
Merina & Company with a composite score of 47.05  
Pauly, Rogers and Company with a composite score of 66.70  
Talbot, Korvola & Warwick with a composite score of 77.65

After the technical evaluation was completed, the proposals with the highest three scores from the technical packet evaluation were then opened and the points assigned based upon the scoring as outlined on Page 11 of the RFP. Adding the score from the fee proposal to the technical evaluation scores results in the following ranking (Exhibit 2)

1. Talbot, Korvola & Warwick (TKW) with a with an total score of 85.50
2. Grove, Mueller & Swank (GMS) with an total score of 77.25
3. Pauly, Rogers and Company (PRC) with a with an total score of 76.70

Based upon the final total scoring, the firm of Talbot, Korvola & Warwick had the most total points; however, as shown on Exhibit 3, TKW's fee proposal is \$4,300 more than PRC's (the lowest fee proposer) for the first year and a combined \$31,200 more for all five years. In addition total hours spent on the audit varies widely as follows:

TKW - 395 hours  
PRC - 512 hours  
GMS - 520 hours

TKW's technical proposal was ranked the highest by each of the four raters; however for Audit Committee's consideration, does the high technical ranking justify the difference in the fee proposal. As a note, the RFP on Page 10 Item 4 permits the City to negotiate the audit fee of any of the top three firms rated highest through the evaluation process. This may be one of the considerations during Audit Committee's discussion.

Staff has other documents available for your use: each rater's RFP evaluation notes and each firm's technical and fee proposals. If you would like copies of these documents, please let me know.

If you have any other questions, please contact me at (503) 526-2241.

**AGENDA BILL**

**Beaverton City Council  
Beaverton, Oregon**

**SUBJECT:** Public Hearing on Biggi Investment  
Partnership Measure 37 Claim.

**FOR AGENDA OF:** 05-15-06 **BILL NO:** 06083

**Mayor's Approval:** 

**DEPARTMENT OF ORIGIN:** City Attorney 

**DATE SUBMITTED:** 05-10-06

**CLEARANCES:** CDD/Develop Srvc 

**PROCEEDING:** Public Hearing

**EXHIBITS:** Map

**BUDGET IMPACT**

EXPENDITURE REQUIRED \$0	AMOUNT BUDGETED \$0	APPROPRIATION REQUIRED \$0
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**HISTORICAL PERSPECTIVE:**

Steve Biggi, the property owner of 3661-3775 SW Hall Boulevard and 3720 SW Cedar Hills Boulevard (also known as TLID#s 1S109DD00105, 00107 and 00109 respectively) has filed a claim for compensation under the provisions of Ballot Measure 37. In the claim, Mr. Biggi states that the City owes Mr. Biggi a total of \$1,767,125.00 for the imposition of land use restrictions on these properties. Specifically, the claim states that imposition of Clean Water Services regulations on the property reduces the value of the property by \$772,125.00 and the imposition of City zoning regulations concerning building orientation, flood plain restrictions, use limitations and sidewalk requirements reduces the value of the property by \$995,000.00. Beaverton Municipal Code Section 2.07.001 et seq. establishes the procedures for processing Ballot Measure 37 claims.

**INFORMATION FOR CONSIDERATION:**

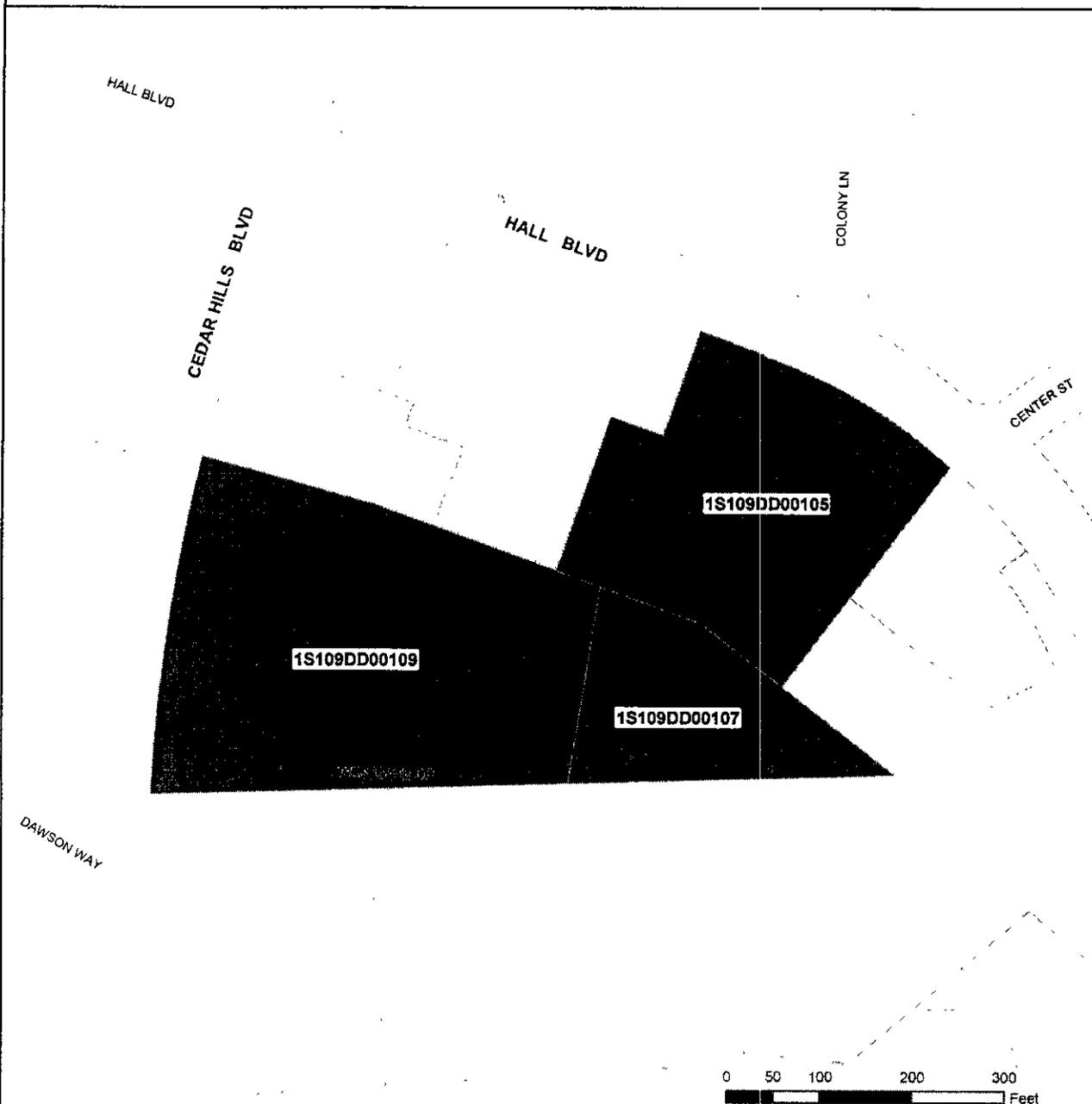
The City and the Biggis continue to discuss a potential resolution of the Measure 37 claim and need additional time to determine if the claim can be resolved. The Biggis have granted the City an additional 30 days to make a decision. The current expiration date is May 22, 2006. The additional 30 days gives the City until June 21, 2006.

**RECOMMENDED ACTION:**

Continue this hearing to a date certain of June 12, 2006.

**Exhibit Name: Detail Map**

**Exhibit Number: 1**



**Project: BIGGI BM 37 Claim**

*Department: Community Development  
Division: Development Services*

Date:  
11/21/2005

Map Number:  
1S109DD00105  
1S109DD00107  
1S109DD00109



Application #: MS37 2005-0001

**AGENDA BILL**

**Beaverton City Council  
Beaverton, Oregon**

**SUBJECT:** TA 2006-0002 (Floodplain Text Amendment)

**FOR AGENDA OF:** 05-15-06 **BILL NO:** 06084

**Mayor's Approval:** *[Signature]*

**DEPARTMENT OF ORIGIN:** CDD *[Signature]*

**DATE SUBMITTED:** 5-02-06

**CLEARANCES:** City Attorney *[Signature]*  
Dev. Serv. *[Signature]*

**PROCEEDING:** First Reading

- EXHIBITS:**
1. Ordinance
  2. Land Use Order No. 1856
  3. Draft PC Minutes
  4. Staff Report dated 03-28-06

**BUDGET IMPACT**

EXPENDITURE REQUIRED \$0	AMOUNT BUDGETED \$0	APPROPRIATION REQUIRED \$0
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**HISTORICAL PERSPECTIVE:**

On April 5, 2006, the Planning Commission held a public hearing to consider TA 2006-0002 (Floodplain Text Amendment) to amend the Beaverton Development Code currently effective through Ordinance 4382 (April 2006) to amend portions of the City's existing Floodplain regulations to be in conformance with Federal Emergency Management Agency recommendations for the Northwest Region. The proposed changes are minor and intended to improve clarity of the Floodplain regulations. The proposed changes do not cause additional regulatory impact to any property owners. Affected chapters of the Development Code include Chapter 60 (Special Regulations) and Chapter 90 (Definitions). Following the close of the public hearing on April 5, 2006, the Planning Commission voted 5-0 (Pogue and Stephens absent) to recommend approval of the proposed Floodplain Text Amendment, as memorialized in Land Use Order No. 1856.

**INFORMATION FOR CONSIDERATION:**

Attached to this Agenda Bill is an Ordinance including the proposed text, Land Use Order No. 1856, the draft Planning Commission meeting minutes, and staff report.

**RECOMMENDED ACTION:**

Staff recommend the City Council approve the recommendation of the Planning Commission for TA 2006-0002 (Floodplain Text Amendment) as set forth in Land Use Order No. 1856. Staff further recommends the Council conduct a First Reading of the attached ordinance.

ORDINANCE NO. 4392

AN ORDINANCE AMENDING ORDINANCE NO. 2050,  
THE DEVELOPMENT CODE,  
CHAPTERS 60 and 90;  
TA 2006-0002 (Floodplain Text Amendment).

**WHEREAS**, the purpose of the Floodplain Text Amendment is to amend selected sections of the Beaverton Development Code currently effective through Ordinance 4382 (April 2006) to clarify terms and definitions related to floodplain maps and the use of recreational vehicles as dwelling units. Affected chapters of the Development Code include Chapter 60 (Special Regulations) and Chapter 90 (Definitions); and

**WHEREAS**, pursuant to Section 50.50.5 of the Development Code, the Beaverton Development Services Division, on March 28, 2006, published a written staff report and recommendation a minimum of seven (7) calendar days in advance of the scheduled public hearing before the Planning Commission on April 5, 2006; and,

**WHEREAS**, the Planning Commission held a public hearing on April 5, 2006 and approved the proposed Floodplain Text Amendment based upon the criteria, facts, and findings set forth in the staff report dated March 28, 2006, and as amended at the hearing; and

**WHEREAS**, on April 5, 2006 the Planning Commission conducted a public hearing for TA 2006-0002 (Floodplain) at the conclusion of which the Planning Commission voted to recommend to the Beaverton City Council to adopt the proposed amendments to the Development Code as summarized in Planning Commission Land Use Order No. 1856; and,

**WHEREAS**, no written appeal pursuant to Section 50.75 of the Development Code was filed by persons of record for TA 2006-0002 (Floodplain) following the issuance of the Planning Commission Land Use Order No. 1856; and,

**WHEREAS**, the City Council adopts as to criteria, facts, and findings, described in Land Use Order No. 1856 dated April 21, 2006 and the Planning Commission record, all of which the Council incorporates by this reference and finds to constitute an adequate factual basis for this ordinance; and now therefore,

**THE CITY OF BEAVERTON ORDAINS AS FOLLOWS:**

**Section 1.** Ordinance No. 2050, effective through Ordinance No. 4382, the Development Code, is amended to read as set out in Exhibit "A" of this Ordinance attached hereto and incorporated herein by this reference.

**Section 2.** All Development Code provisions adopted prior to this Ordinance, which are not expressly amended or replaced herein, shall remain in full force and effect.

**Section 3. Severance Clause.** The invalidity or lack of enforceability of any terms or provisions of this Ordinance or any appendix or part thereof shall not impair or otherwise affect in any manner the validity, enforceability, or effect of the remaining terms of this Ordinance and appendices and said remaining terms and provisions shall be construed and enforced in such a manner as to effect the evident intent and purposes taken as a whole insofar as reasonably possible under all of the relevant circumstances and facts.

First reading this \_\_\_ day of \_\_\_\_\_, 2006.

Passed by the Council this \_\_\_ day of \_\_\_\_\_, 2006.

Approved by the Mayor this \_\_\_ day of \_\_\_\_\_, 2006.

ATTEST:

APPROVED:

\_\_\_\_\_  
SUE NELSON, City Recorder

\_\_\_\_\_  
ROB DRAKE, Mayor

## EXHIBIT A

**Section 1: The Development Code, Ordinance No. 2050, Ordinance 4302, Chapter 60 – Floodplain Regulations, Section 60.10, will be amended to read as follows:**

\*\*\*\*\*

### **60.10.10. Floodplain Designation.**

1. Consistent with Clean Water Services Design and Construction Standards, the floodplain is the flood management area and shall include those areas identified by the Department of Homeland Security's Federal Emergency Management Agency in a scientific and engineering report entitled "The Flood Insurance Study for the City of Beaverton," dated February 18, 2005, with accompanying Flood Insurance Rate Maps (FIRM), is hereby adopted by reference and declared to be a part of this ordinance. In addition, the Letter of Final Determination, dated August 18, 2004, with accompanying Flood Insurance Rate Maps, flood profiles, and related data for Beaverton and Washington County, effective February 18, 2005, revises portions of the 1984 and 1987 studies and maps, and is hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study and revisions are on file with the City Engineer and the City Recorder. (ORD 3563) [ORD 4130; November 2000] When base flood elevation data has not been provided in accordance with this section, the City Engineer shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source in order to administer City of Beaverton Code Section 9.05.060, subsections A and D, relating to site development. For all development applications, the best available information as determined by the City Engineer shall be used in the determination of the floodplain limits. (ORD 3563) [ORD 4337; January 2005]

2. When interpretation is requested by a property owner, or designee concerning the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), or if a development application is received for a site where a floodplain is unclear or lacks an established elevation, the City Engineer shall ~~may request~~ require the concerned person or applicant to provide a detailed hydraulic data report prepared in accordance with standard engineering practice by a registered engineer with background in the area of hydrology and hydraulics. This report shall include, but is not limited to, water profiles and discharge rates for the channel and the hydrology for the tributary areas. The report must document the base flood elevation and specific limits of inundation

within a floodplain designated on a FIRM map in Zone A or in Zone AO or along a stream corridor beyond the FIRM studied limits. After review of the available data and the report, the floodplain base flood elevation shall be established by the City Engineer and shall be used and have the same effect as a FIRM-determined base flood elevation.

All applicable floodplain regulations for preservation of flood conveyance and flood storage of sites and building elevation requirements shall be determined from the base flood elevation as established by the City Engineer. A person dissatisfied with the City Engineer's decision may appeal that decision in the same manner as provided in Beaverton Code Section 9.05.091. (ORD 3563) [ORD 4155; April 2001]

**Section 2: The Development Code, Ordinance No. 2050, Ordinance 4302, Chapter 60 – Floodplain Regulations, Section 60.10.20, will be amended to read as follows:**

\*\*\*\*\*

- 60.10.20. Commercial and Industrial Uses in the Floodway Fringe.** All commercial and industrial uses, if allowed in the primary zone are allowed in the floodway fringe if the proposed development:
1. Meets the requirements of Beaverton Code Section 9.05;
  2. Meets the requirements of the City Engineering Design Manual and Standard Drawings;
  3. Meets the requirements of the ~~Unified Sewerage Agency~~ Clean Water Services District Design and Construction Standards Manual based on affirmative statements in documentation from CWS; and [ORD 4224; August 2002]

\*\*\*\*\*

\*\*\*\*\*

- 60.10.25. Residential Uses in the Floodway Fringe.**
2. All other residential uses, if allowed in the primary zone, are allowed only as conditional uses in the floodway fringe. The request for a Conditional Use shall be processed and reviewed in the manner set forth in this ordinance. In addition to all other findings of fact required to be made in order to grant the Conditional

Use, the following findings shall also be made: [ORD 4155; April 2001]

A. The proposed development meets all the site and building design standards and requirements of the Beaverton Code Section 9.05, and the technical standards of this ordinance; and [ORD 4155; April 2001]

\*\*\*\*\*

6. All manufactured homes otherwise allowed to be placed or substantially improved within the floodplain FIRM zones A1-A30 and AO shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is not less than one foot or above the base flood elevation, be flood proofed to or above that level together with attendant utility services composed of flood resistant materials, and be securely anchored to an adequately anchored foundation system in accordance with the provisions of the Beaverton Code Section 9.05. Site Development Code. (ORD 3563) [ORD 4155; April 2001]
  
7. In the floodplain, the long-term storage, permanent placement, or installation of recreational vehicles on the land is prohibited

\*\*\*\*\*

**Section 3: The Development Code, Ordinance No. 2050, Ordinance 4302, Chapter 90 – Definitions, will be amended to read as follows:**

**Area of Special Flood Hazard.** The land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letters A or V. Synonymous with Flood Management Area and Floodplain. (ORD 3563)

**Base Flood.** The flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the "100-year flood". ~~Designation on maps always includes the letters A or V.~~ (ORD 3563)

**Basement.** A space wholly or partly underground, and having more than one-half (1/2) of its height, measured from the floor to its ceiling, below the average adjoining finished grade. For floodplain regulation purposes in determining building elevation requirements, this shall include any area having its floor subgrade (below ground level) on all sides.

**Flood Management Area.** [ORD 4155; April 2001] Pursuant to CWS Design and Construction Standards, the area of inundation that encompasses the floodplain, or the area of special flood hazard, consisting of the following: Land identified

within the 100 year floodplain and floodway as shown on the Federal Emergency Management Agency Flood Insurance Rate Maps and land identified in updated flood studies or any other authoritative data documenting flood elevations, as approved by the City Engineer. Synonymous with Area of Special Flood Hazard and Floodplain.

**Floodplain.** The zone along a watercourse enclosed by the outer limits of land which is subject to inundation or affected by hydraulic connection in its natural or lower revised contours by the base flood. Synonymous with Area of Special Flood Hazard and Flood Management Area.

**Flood Surface Elevation.** Those elevations to which flood waters will rise at a given location for a specified flood or base flood if not otherwise specified. The elevations are referenced to the National Geodetic Vertical Datum of 1929 or as determined by the City Engineer..

**Manufactured Home.** A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain regulation purposes the term "manufactured home" also includes recreational vehicles, park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days if permitted to be placed on a permanent foundation, permanently connected to utilities, or anchored to the land. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles. (ORD 3563)

**Recreation Vehicle or Recreational Vehicle.** A boat, camper, self-propelled motor vehicle, or portable vehicular structure capable of being towed on the highways by a motor vehicle, designed and intended for casual or short-term human occupancy for travel, recreational, camping, seasonal, and vacation uses. If identified in some manner as a recreation vehicle by the manufacturer or registered as such with the State, it is prima facie a recreation vehicle. For floodplain regulation purposes, such vehicles shall be fully licensed and ready for highway use on wheels or jacking system and attached to the land only by quick disconnect type utilities and security devices and have no permanently attached additions.

**BEFORE THE PLANNING COMMISSION FOR  
THE CITY OF BEAVERTON, OREGON**

IN THE MATTER OF A REQUEST TO ) ORDER NO. 1856  
 AMEND BEAVERTON DEVELOPMENT ) TA2006-0002 RECOMMENDING APPROVAL  
 CODE SECTION 60.10 (FLOODPLAIN ) OF FLOODPLAIN TEXT AMENDMENT  
 REGULATIONS) AND CHAPTER 90 )  
 (DEFINITIONS). CITY OF BEAVERTON, )  
 APPLICANT. )

The matter of TA2006-0002 (Floodplain Text Amendment) was initiated by the City of Beaverton, through the submittal of a text amendment application to the Beaverton Community Development Department.

Pursuant to Ordinance 2050 (Development Code), effective through Ordinance 4382, Section 50.50 (Type 4 Application), the Planning Commission conducted a public hearing on April 5, 2006, and considered oral and written testimony and exhibits for the proposed amendment to the Beaverton Development Code.

TA2006-0002 (Floodplain Text Amendment) proposes to amend Development Code Section 60.10 (Floodplain Regulations) and Chapter 90 (Definitions) to reflect the most recent requirements of the Federal Emergency Management Agency (FEMA).

The Planning Commission adopts by reference the March 28, 2006, Staff Report, as to criteria contained in Section 40.85.15.1.C.1-7 applicable to this request and the supplemental findings contained herein. now, therefore:

**IT IS HEREBY ORDERED** that pursuant to Section 50.50.1 of the Beaverton Development Code, the Planning Commission **RECOMMENDS APPROVAL** of Section 60.10 (Floodplain Regulations) and Chapter 90 (Definitions) contained within TA2006-0002. The Planning Commission finds that evidence has been provided demonstrating that all of the approval criteria specified in Section 40.85.15.1.C.1-7 are satisfied for the modification to Section 60.10 and Chapter 90 of the Development Code.

Motion **CARRIED** by the following vote:

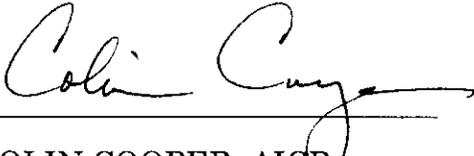
**AYES:** Winter, Kroger, Bobadilla, Maks, and Johansen.  
**NAYS:** None.  
**ABSTAIN:** None.  
**ABSENT:** Pogue and Stephens.

Dated this 21<sup>st</sup> day of April, 2006.

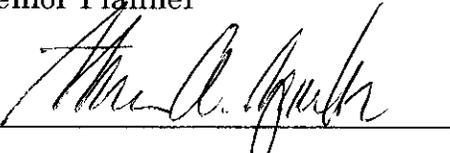
To appeal the decision of the Planning Commission, as articulated in Land Use Order No. 1856, an appeal must be filed on an Appeal form provided by the Director at the City of Beaverton Recorder's Office by no later than 5:00 p.m. on Monday, May 1, 2006.

PLANNING COMMISSION  
FOR BEAVERTON, OREGON

ATTEST:



COLIN COOPER, AICP  
Senior Planner



STEVEN A. SPARKS, AICP  
Development Services Manager

APPROVED:



ERIC H. JOHANSEN  
Chairman



1           disqualifications in any of the hearings on the agenda. There was no  
2           response.

3  
4           **CONTINUANCES:**

5  
6           **A. CPA 2006-0001 UPDATE TO CHAPTERS 1, 2, AND**  
7           **DEFINITIONS COMPREHENSIVE PLAN AMENDMENT**

8           *(Continued from March 15, 2006)*

9           In 1995, the City began Periodic Review of its Comprehensive Plan as  
10          required by State law. As a key component in that review, the City  
11          adopted new Comprehensive Plan Amendment procedures (Chapter 1),  
12          a new Public Involvement chapter (Chapter 2), and numerous new  
13          definitions. Since the adoption of these new or significantly-revised  
14          chapters of the Comprehensive Plan, staff found that the procedures  
15          need clarification and expansion so that the amendment categories,  
16          amendment procedures and noticing requirements, and remand  
17          requirements include all pertinent information and steps. The  
18          proposed Update Amendment would address the deficiencies cited  
19          above in the Procedures chapters, the Public Involvement chapter, and  
20          In 1995, the City began Periodic Review of its Comprehensive Plan as  
21          required by State law. As a key component in that review, the City  
22          adopted new Comprehensive Plan Amendment procedures (Chapter 1),  
23          a new Public Involvement chapter (Chapter 2), and numerous new  
24          definitions. Since the adoption of these new or significantly-revised  
25          chapters of the Comprehensive Plan, staff found that the procedures  
26          need clarification and expansion so that the amendment categories the  
27          definitions. Proposed updates to the flowcharts at the end of  
28          Procedures Chapter reflect the expanded steps.

29  
30          Chairman Johansen briefly described the hearing process.

31  
32          Observing that he is substituting for Senior Planner Barbara Fryer,  
33          who is ill, Planning Services Manager Hal Bergsma emphasized that  
34          while she is more knowledgeable with regard to this proposal, he is  
35          also familiar with this process. He provided a brief history of this  
36          application that has been continued from March 15, 2006, observing  
37          that tonight's proposal has incorporated some revisions that have been  
38          suggested and approved by the Commission. He pointed out that  
39          because all comments have not yet been received, it is up to the  
40          Commission to determine whether they prefer to proceed at this time  
41          or continue until either April 12, 2006 or April 19, 2006.

1 Commissioner Maks **MOVED** and Commissioner Kroger **SECONDED**  
2 a motion to **CONTINUE** CPA 2006-0001 – Update to Chapters 1, 2,  
3 and Definitions to a date certain of April 12, 2006.

4  
5 Motion **CARRIED**, unanimously.

6  
7 **NEW BUSINESS:**

8  
9 **PUBLIC HEARING:**

10  
11 **B. TA 2006-0002 - FLOODPLAIN TEXT AMENDMENT**

12 Amendment to Section 60.10 (Floodplain Regulations) and Chapter 90  
13 (Definitions) to reflect the most recent requirements of the Federal  
14 Emergency Management Agency (FEMA).

15  
16 Senior Planner Colin Cooper introduced himself and Site Development  
17 Engineer Jim Duggan who presented the Text Amendment and  
18 described the periodic process that involves the City of Beaverton's  
19 Floodplain Ordinances, allowing for participation in the National Flood  
20 Insurance Program. He explained that one of the purposes of this  
21 program is to make certain that the local ordinances adequately  
22 protect properties and new development from flood hazards and that  
23 the code is properly administered by the local jurisdiction. He pointed  
24 out that FEMA had raised some issues pertaining to some antiquated  
25 language within the code and requested clarification with regard to  
26 some items. Emphasizing that this clearly involves what he referred  
27 to as a "housekeeping" Text Amendment, he noted that it does not  
28 radically change what is being done in terms of development,  
29 regulation, or review. Observing that Beaverton has numerous  
30 floodplain areas, he mentioned that nearly all of these areas are well-  
31 defined, adding that FEMA wants to make certain that these areas are  
32 defined and that appropriate mitigation measures are clarified. He  
33 noted that there are some clarifications within the definitions, mostly  
34 to clarify issues such as the definition of a basement for floodplain  
35 regulation purposes, or the definition of a recreational vehicle. He  
36 pointed out that FEMA is concerned with local jurisdictions that allow  
37 recreational vehicles to be placed on permanent foundations within  
38 flood zones, adding that had been difficult to convince the FEMA  
39 representative from back east that due to local land use laws, this is  
40 not an issue in Beaverton and there are no large mobile home parks  
41 where recreational vehicles are routinely allowed to remain on  
42 permanent foundations. Concluding, he offered to respond to  
43 questions.

1 Referring to page 1 of the Staff Report, Commissioner Maks noted that  
2 the hearing date is April 5, 2006, rather than April 1, 2006.

3  
4 At the request of Chairman Johansen, Mr. Duggan explained that the  
5 mapping involves a long, complicated process, noting that the map  
6 changes that were generated for this Text Amendment involved the  
7 Fanno Creek Basin and was done by Pacific Water Resources. He  
8 mentioned that they are currently working on a Flood Study that  
9 would remap all of Beaverton Creek, adding that another set of panels  
10 will be submitted when that is complete. He explained that all of this  
11 information is submitted to FEMA, who in sends it to a consultant in  
12 Fairfax, Virginia, where it is reviewed against common engineering  
13 practice and what is considered applicable computer models for the  
14 area, as well as the historical basis. At this point a map panel is  
15 generated by FEMA and distributed to the local agencies that are  
16 responsible for enforcement.

17  
18 Commissioner Kroger questioned how City rules address displacement,  
19 specifically when foundations are built and water displaced.

20  
21 Mr. Duggan responded that in most areas of the City, there is what is  
22 referred to as a cut/fill balance standard, noting that the displacement  
23 of any water must be made up for in some other location within the  
24 same confines of the flood area. He pointed out that there is an  
25 exemption in the downtown corridor along Beaverton Creek from  
26 Canyon to Murray, adding that in order to encourage development,  
27 years ago the City Council decided to exempt the cut/fill balance  
28 standard in this floodplain, although this is offset by requiring that all  
29 new construction be elevated one foot in order to compensate for this  
30 exemption.

31  
32 Referring to item 2 of page 3, specifically requiring an interpretation in  
33 a site where a floodplain is unclear or lacks an established elevation,  
34 Commissioner Kroger questioned why an applicant should be required  
35 to pay to correct a map that is incorrect or incomplete.

36  
37 Mr. Duggan responded that it has historically been the City's  
38 determination that where there is a flood hazard, it is necessary to  
39 evaluate the situation based upon the development that is occurring.

40  
41 Referring to page 8, the environmental quality and safety element,  
42 which states to maintain the functions and values of floodplains and to  
43 allow for storage and conveyance, Commissioner Kroger questioned  
44 how specifically City rules or this Text Amendment meets this goal.

1  
2 Mr. Duggan advised Commissioner Kroger that this further clarifies  
3 how the City administers the floodplain rules as well as describing the  
4 expectations to applicants.

5  
6 **PUBLIC TESTIMONY:**

7  
8 No member of the public testified with regard to this proposal.

9  
10 Commissioners Maks, Winter, Kroger, and Bobadilla and Chairman  
11 Johansen all expressed their support of this application.

12  
13 Commissioner Winter **MOVED** and Commissioner Kroger  
14 **SECONDED** a motion to **APPROVE** TA 2006-0002 – Floodplain Text  
15 Amendment, based upon the facts and findings of the Staff Report  
16 dated March 28, 2006, as amended.

17  
18 Motion **CARRIED** by the following vote:

- 19  
20 **AYES:** Winter, Kroger, Bobadilla, Maks, and Johansen.  
21 **NAYS:** None.  
22 **ABSTAIN:** None.  
23 **ABSENT:** Pogue and Stephens.

24  
25 Motion **CARRIED:** 5:0.

26  
27 **OLD BUSINESS:**

28  
29 **C. TA 2005 – 0006 – RC-OT DESIGN MODIFICATIONS TEXT**  
30 **AMENDMENT**

31 *(Continued from March 15, 2006)*

32 The proposed text amendments to the Design Review thresholds and  
33 approval criteria would allow full or partial exemption from the exist-  
34 ing Design Review standards for remodels, modifications, or expansion  
35 to existing structures and thus encourage greater economic develop-  
36 ment opportunities. Specific code sections proposed for amendment  
37 include: Section 40.20.15 (Design Review Compliance Letter  
38 Thresholds) and Section 40.20.15.2 (Design Review 2 Thresholds).

39  
40 Chairman Johansen briefly described the hearing process.

41  
42 Mr. Cooper provided an overview of this Text Amendment and the  
43 process from the first Public Hearing on January 18, 2006, through the  
44 continued Public Hearings on February 28, 2006, and March 15, 2006,

1 observing that staff has provided and is available to discuss several  
2 alternatives, which he briefly described. Concluding, he offered to  
3 respond to questions and comments.  
4

5 Referring to the first part of the issue, specifically with regard to the  
6 numbers, Commissioner Maks stated that he is comfortable with 35%  
7 and 2,500 square feet. He mentioned that he is not sure about the  
8 third issue, and stated that with regard to the fourth issue, pertaining  
9 to the site development requirements and the need for adjustments  
10 and variances, without any specific examples, he feels that nothing  
11 should be revised. He pointed out that waiving certain standards often  
12 creates more of a problem for adjoining properties.  
13

14 Mr. Cooper advised Commissioner Maks that these are issues that  
15 have been considered by staff, noting that he had personally reviewed  
16 all of the pre-application conferences and all development within the  
17 past two years since the adoption of the new Design Review standards  
18 in an attempt to determine which issues have created a great deal of  
19 concern.  
20

21 Commissioner Maks discussed storage issues, design concepts and  
22 design standards.  
23

24 Commissioner Winter expressed his opinion that more flexibility and  
25 creativity could encourage urban renewal, noting that it is not  
26 necessary to do everything at one time and that this process could  
27 occur over time as an annual process.  
28

29 Mr. Cooper explained that staff is keeping a log of many of the Design  
30 Review cases for the purpose of review.  
31

32 Commissioner Kroger emphasized that while this is a transitional use,  
33 she does not want to see any reduced site development standards or  
34 design review standards.  
35

36 On question, Commissioner Bobadilla advised Mr. Cooper that she is  
37 comfortable with Option 2.  
38

39 **PUBLIC TESTIMONY:**  
40

41 No member of the public testified with regard to this proposal.  
42

1 Commissioner Maks suggested a motion to direct staff to create a Land  
2 Use Order with findings providing for increases to 35%, 2,500 square  
3 feet, and with no reduction in site standards and design standards.  
4

5 Commissioner Maks **MOVED** and Commissioner Kroger **SECONDED**  
6 a motion to **APPROVE** TA 2005-0006 – RC-OT Design Modifications,  
7 including changes recommended unanimously by the Commission, as  
8 follows:  
9

- 10 • The increased percentage in square footage will be 35% and 2,500  
11 square feet, with no reduction in site standards or design  
12 standards;  
13

14 based upon evidence submitted by staff in their Staff Reports from the  
15 previous two hearings and deliberation among members of the  
16 Commission.  
17

18 Commissioner Maks **MOVED** and Commissioner Kroger **SECONDED**  
19 a motion to **AMEND** his motion to include that staff be directed to  
20 create a Land Use Order with findings to support consensus in this  
21 decision.  
22

23 Motion, as amended, **CARRIED** by the following vote:  
24

25 **AYES:** Maks, Kroger, Bobadilla, Winter, and Johansen.  
26 **NAYS:** None.  
27 **ABSTAIN:** None.  
28 **ABSENT:** Pogue and Stephens.  
29

30 Motion **CARRIED**: 5:0.  
31

32 7:36 p.m. through 7:45 p.m. – recess.  
33

#### 34 **APPROVAL OF MINUTES** 35

36 Minutes of the meeting January 25, 2006, submitted. Commissioner  
37 **MOVED** and Commissioner Maks **SECONDED** a motion that the  
38 minutes be approved as written. Commissioner's Winter and Maks  
39 abstained from voting on this issue.  
40

41 Motion **CARRIED**, unanimously.  
42

1 Minutes of the meeting February 8, 2006, submitted. Commissioner  
2 Kroger **MOVED** and Commissioner Maks **SECONDED** a motion that  
3 the minutes be approved as amended.  
4

5 Motion **CARRIED**, unanimously.  
6

7 Minutes of the meeting March 8, 2006, submitted. Commissioner  
8 Maks **MOVED** and Commissioner Kroger **SECONDED** a motion that  
9 the minutes be approved as amended.  
10

11 Motion **CARRIED**, unanimously.  
12

13 Minutes of the meeting March 15, 2006, submitted. Commissioner  
14 Maks **MOVED** and Commissioner Winter **SECONDED** a motion that  
15 the minutes be approved as amended. Commissioner's Bobadilla,  
16 Kroger, and Chairman Johansen abstained from voting on this issue.  
17

18 Motion **CARRIED**, unanimously.  
19

## 20 STAFF COMMUNICATION

### 21 WORKSESSION

22 Planning Commission By-laws Update.  
23

24 Referring to the proposed amendment to the Planning Commission By-  
25 laws on pages 8 and 9 of the By-laws, Mr. Cooper explained that  
26 because hearings are being continued more often than in the past,  
27 rather than requiring the Chair to be present for a continuance, it has  
28 been suggested that some sort of a continuation procedure be adopted.  
29 He described the procedure that had been created by Assistant City  
30 Attorney Ted Naemura.  
31

32 Commissioner Maks emphasized that while it is necessary to have a  
33 quorum (four or more members of the Commission) to open any public  
34 hearing, it is not necessary for all four members to participate in any  
35 action once the quorum has been established.  
36

37 The Commission briefly discussed the clarification of several word  
38 choices within the proposed amendment and Mr. Cooper indicated that  
39 staff could make these revisions and bring the proposed amendment  
40 back for consideration.  
41

42 Commissioner Maks described his concerns with being unable to  
43 suspend the rules or change Conditions of Approval, and suggested  
44

1           that staff also make revisions to address these issues. Staff expressed  
2           that this issue had been addressed in the last Planning Commission  
3           By-laws Update.

4  
5           **MISCELLANEOUS BUSINESS:**

6  
7           The meeting adjourned at 8:06 p.m.



# CITY of BEAVERTON

4755 S W Griffith Drive, P.O. Box 4755, Beaverton, OR 97076 General Information (503) 526-2222 V/TDD

## CITY OF BEAVERTON STAFF REPORT AND RECOMMENDATION

**TO:** Planning Commission

**STAFF REPORT DATE:** Wednesday, March 28, 2006

**STAFF:** Colin Cooper, AICP *CC*  
Senior Planner

**SUBJECT:** TA 2006-0002 (Floodplain Text Amendment)

**REQUEST:** Amendment to Section 60.10 (Floodplain Regulations) and Chapter 90 (Definitions) to reflect the most recent requirements of the Federal Emergency Management Agency (FEMA).

**APPLICANT:** City of Beaverton - Development Services Division

**AUTHORIZATION:** Ordinance 2050 (Development Code), effective through Ordinance 4302)

**APPLICABLE CRITERIA:** Section 40.85.15.1.C.1-7 (Text Amendment Approval Criteria)

**HEARING DATE:** Wednesday, April *1*, 2006

**RECOMMENDATION:** Staff recommend APPROVAL of text amendment application TA 2006-0002 (Floodplain Text Amendment)

## **I. Proposed Legislative Text Amendment**

The proposed text amendment updates Beaverton Development Code regulations that affect property within the City that are within a floodplain. The updates are required under Federal law as explained below.

An agency of the United States Government known as the Federal Emergency Management Agency (hereinafter "FEMA") is responsible for studying floodplains and floodways of all waters in the United States. FEMA regularly reviews and updates Floodplain regulations that are related to the nation's Flood Insurance Program.

FEMA concluded after the Katrina Hurricane and associated flooding in the Gulf states that several minor changes were appropriate regarding floodplain regulations and associated definitions. The Northwest FEMA office has reviewed the City's current floodplain regulations and proposed the changes that are in the attached text amendment. Most of the proposed modifications are simple clarifications based on FEMA Floodplain map terms and use.

Federal law requires Beaverton to update its floodplain regulations to United States standards or risk losing the protection of the National Flood Insurance Program. Accordingly, this proposal keeps Beaverton in compliance with—and protected by—Federal statutes and regulations.

**Section 1: The Development Code, Ordinance No. 2050, Ordinance 4302, Chapter 60 – Floodplain Regulations, Section 60.10, will be amended to read as follows:**

\*\*\*\*\*

### **60.10.10. Floodplain Designation.**

1. Consistent with Clean Water Services Design and Construction Standards, the floodplain is the flood management area and shall include those areas identified by the Department of Homeland Security's Federal Emergency Management Agency in a scientific and engineering report entitled "The Flood Insurance Study for the City of Beaverton," dated February 18, 2005, with accompanying Flood Insurance Rate Maps (FIRM), is hereby adopted by reference and declared to be a part of this ordinance. In addition, the Letter of Final Determination, dated August 18, 2004, with accompanying Flood Insurance Rate Maps, flood profiles, and related data for Beaverton and Washington County, effective February 18, 2005, revises portions of the 1984 and 1987 studies and maps, and is hereby adopted by

reference and declared to be a part of this ordinance. The Flood Insurance Study and revisions are on file with the City Engineer and the City Recorder. (ORD 3563) [ORD 4130; November 2000] When base flood elevation data has not been provided in accordance with this section, the City Engineer shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source in order to administer City of Beaverton Code Section 9.05.060, subsections A and D, relating to site development. For all development applications, the best available information as determined by the City Engineer shall be used in the determination of the floodplain limits. (ORD 3563) [ORD 4337; January 2005]

2. When interpretation is requested by a property owner, or designee concerning the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), or if a development application is received for a site where a floodplain is unclear or lacks an established elevation, the City Engineer shall ~~may request~~ require the concerned person or applicant to provide a detailed hydraulic data report prepared in accordance with standard engineering practice by a registered engineer with background in the area of hydrology and hydraulics. This report shall include, but is not limited to, water profiles and discharge rates for the channel and the hydrology for the tributary areas. The report must document the base flood elevation and specific limits of inundation within a floodplain designated on a FIRM map in Zone A or in Zone AO or along a stream corridor beyond the FIRM studied limits. After review of the available data and the report, the ~~floodplain~~ base flood elevation shall be established by the City Engineer and shall be used and have the same effect as a FIRM-determined base flood elevation.

All applicable floodplain regulations for preservation of flood conveyance and flood storage of sites and building elevation requirements shall be determined from the base flood elevation as established by the City Engineer. A person dissatisfied with the City Engineer's decision may appeal that decision in the same manner as provided in Beaverton Code Section 9.05.091. (ORD 3563) [ORD 4155; April 2001]

**Section 2: The Development Code, Ordinance No. 2050, Ordinance 4302, Chapter 60 – Floodplain Regulations, Section 60.10.20, will be amended to read as follows:**

\*\*\*\*\*

**60.10.20. Commercial and Industrial Uses in the Floodway Fringe.** All commercial and industrial uses, if allowed in the primary zone are allowed in the floodway fringe if the proposed development:

1. Meets the requirements of Beaverton Code Section 9.05;
2. Meets the requirements of the City Engineering Design Manual and Standard Drawings;
3. Meets the requirements of the ~~Unified Sewerage Agency~~ Clean Water Services District Design and Construction Standards Manual based on affirmative statements in documentation from CWS; and [ORD 4224; August 2002]

\*\*\*\*\*

\*\*\*\*\*

**60.10.25. Residential Uses in the Floodway Fringe.**

2. All other residential uses, if allowed in the primary zone, are allowed only as conditional uses in the floodway fringe. The request for a Conditional Use shall be processed and reviewed in the manner set forth in this ordinance. In addition to all other findings of fact required to be made in order to grant the Conditional Use, the following findings shall also be made: [ORD 4155; April 2001]
  - A. The proposed development meets all the site and building design standards and requirements of the Beaverton Code Section 9.05, and the technical standards of this ordinance; and [ORD 4155; April 2001]

\*\*\*\*\*

6. All manufactured homes otherwise allowed to be placed or substantially improved within the floodplain ~~FIRM zones A1-A30 and AO~~ shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is not less than one foot ~~or~~ above the base flood elevation, be flood proofed to or above that level together

with attendant utility services composed of flood resistant materials, and be securely anchored to an adequately anchored foundation system in accordance with the provisions of the Beaverton Code Section 9.05. Site Development Code. (ORD 3563) [ORD 4155; April 2001]

7. In the floodplain, the long-term storage, permanent placement, or installation of recreational vehicles on the land is prohibited

\*\*\*\*\*

**Section 3: The Development Code, Ordinance No. 2050, Ordinance 4302, Chapter 90 – Definitions, will be amended to read as follows:**

**Area of Special Flood Hazard.** The land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letters A or V. Synonymous with Flood Management Area and Floodplain. (ORD 3563)

**Base Flood.** The flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the "100-year flood". ~~Designation on maps always includes the letters A or V.~~ (ORD 3563)

**Basement.** A space wholly or partly underground, and having more than one-half (1/2) of its height, measured from the floor to its ceiling, below the average adjoining finished grade. For floodplain regulation purposes in determining building elevation requirements, this shall include any area having its floor subgrade (below ground level) on all sides.

**Flood Management Area.** [ORD 4155; April 2001] Pursuant to CWS Design and Construction Standards, the area of inundation that encompasses the floodplain, or the area of special flood hazard, consisting of the following: Land identified within the 100 year floodplain and floodway as shown on the Federal Emergency Management Agency Flood Insurance Rate Maps and land identified in updated flood studies or any other authoritative data documenting flood elevations, as approved by the City Engineer. Synonymous with Area of Special Flood Hazard and Floodplain.

**Floodplain.** The zone along a watercourse enclosed by the outer limits of land which is subject to inundation or affected by hydraulic connection in its natural or lower revised contours by the base flood. Synonymous with Area of Special Flood Hazard and Flood Management Area.

**Flood Surface Elevation.** Those elevations to which flood waters will rise at a given location for a specified flood or base flood if not otherwise specified. The

elevations are referenced to the National Geodetic Vertical Datum of 1929 or as determined by the City Engineer..

**Manufactured Home.** A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain regulation purposes the term "manufactured home" also includes recreational vehicles, park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days if permitted to be placed on a permanent foundation, permanently connected to utilities, or anchored to the land. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles. (ORD 3563)

**Recreation Vehicle or Recreational Vehicle.** A boat, camper, self-propelled motor vehicle, or portable vehicular structure capable of being towed on the highways by a motor vehicle, designed and intended for casual or short-term human occupancy for travel, recreational, camping, seasonal, and vacation uses. If identified in some manner as a recreation vehicle by the manufacturer or registered as such with the State, it is prima facie a recreation vehicle. For floodplain regulation purposes, such vehicles shall be fully licensed and ready for highway use on wheels or jacking system and attached to the land only by quick disconnect type utilities and security devices and have no permanently attached additions.

The proposed amendments to the Development Code text as shown above are attached in Exhibit 1.1.

## **II. Facts and Findings**

Section 40.85.15.1.C of the Development Code specifies that in order to approve a Text Amendment application, the decision-making authority shall make findings of fact, based on evidence provided by the applicant, that all of the criteria specified in Section 40.85.15.1.C.1-7 are satisfied. The following are the findings of fact for TA 2006-0002 (Floodplain Text Amendment):

### **1. The proposal satisfies the threshold requirements for a Text Amendment application.**

Section 40.85.15.1.A specifies that an application for a text amendment shall be required when there is proposed any change to the Development Code, excluding changes to the zoning map. TA 2006-0002 (Floodplain Text Amendment) proposes to amend Section 60.10 and Chapter 90 of the Beaverton Development Code

currently effective through Ordinance 4365 (November 2005). Therefore, staff find that approval criterion one has been met.

**2. All City application fees related to the application under consideration by the decision-making authority have been submitted.**

Policy Number 470.001 of the City's Administrative Policies and Procedures manual states that fees for a City initiated application are not required where the application fee would be paid from the City's General Fund. The Development Services Division, which is a General Fund program, initiated the application. Therefore, the payment of an application fee is not required. Staff find that approval criterion two is not applicable.

**3. The proposed text amendment is consistent with the provisions of the Metro Urban Growth Management Functional Plan.**

Metro's Urban Growth Management Functional Plan is comprised of the following titles:

- Title 1: Requirements for Housing and Employment Accommodations
- Title 2: Regional Parking Policy
- Title 3: Water Quality and Flood Management Conservation
- Title 4: Retail in Employment and Industrial Areas
- Title 5: Neighbor Cities and Rural Reserves
- Title 6: Regional Accessibility
- Title 7: Affordable Housing
- Title 8: Compliance Procedures and
- Title 9: Performance Measures

TA 2006-0002 proposes to amend Development Code Section 60.10 and Chapter 90 to adopt recommendations by the Federal Emergency Management Agency (FEMA) regarding the City's existing floodplain regulations and related definitions.

The City is required by Federal Law to update its floodplain regulations to Federal standards or risk losing protection in the National Flood Insurance Program. Metro's Title 3 applies to development in Flood Management Areas, which are identified on the Metro Water Quality and Flood Management map. The City of Beaverton is in compliance with Metro's Title 3 through our adoption of Clean Water Services (CWS) regulations for development within floodplains and management areas. The subject text amendment does not effect actual floodplain maps and therefore has no effect to Metro's Water Quality and Flood Management map by either adding or removing land within the floodplain. Therefore, the

proposed text amendment is to comply with Federal standards which are current and still in compliance with Metro's Title 3.

Therefore, staff finds that approval criterion 4 has been met.

**4. The proposed text amendment is consistent with the City's Comprehensive Plan.**

The proposed text amendment will not change the intent of the existing Development Code regulations, such that goals and policies of the Comprehensive Plan will be impacted. Rather, the adoption of the updated FEMA maps will provide consistency between Comprehensive Plan goals and policies, specifically, the Environmental Quality and Safety Element and Development Code standards.

Chapter 8 – Environmental Quality and Safety Element

*8.7.1 Goal: Maintain the functions and values of floodplains, to allow for the storage and conveyance of stream flows and to minimize the loss of life and property.*

The proposed text amendment is to adopt the recommended FEMA amendments to the City's existing Floodplain regulations. Through the adoption of the proposed updates, the text amendment continues to provide consistency between the Comprehensive Plan and the Development Code.

Therefore, staff finds that approval criterion 4 has been met.

**5. The proposed text amendment is consistent with other provisions within the City's Development Code.**

The proposed amendments do not create impacts or conflicts with other provisions within the Development Code. This text amendment proposes substantially similar language for floodplain regulations and will update the existing language to make it current with Federal standards. Staff find that proposed amendments are consistent with the other provisions of the Development Code. Staff find, therefore, approval criterion five has been met.

**6. The proposed amendment is consistent with all applicable City ordinance requirements and regulations.**

The current Development Code and Ordinance No. 4187, which adopted the current Comprehensive Plan, are applicable to the proposed text amendment and are addressed in the findings of fact for approval criterion four and five. Staff did not identify any other applicable City ordinance requirements and regulations that would be affected by or would conflict with the proposed text amendments.

Therefore, staff find that approval criterion six has been met.

7. **Applications and documents related to the request, which will require further City approval, shall be submitted to the City in the proper sequence.**

Staff have determined that there are no other applications and documents related to the request that will require further City approval.

Therefore, staff find that approval criterion seven has been met.

### **III. Conformance with Statewide Planning Goals**

Because the proposal is for a text amendment to the Development Code, a demonstration of compliance with the Statewide Planning Goals is not required. ORS 197.225 requires that Statewide Planning Goals only be addressed for Comprehensive Plan Amendments. Nevertheless, the Statewide Planning Goals are useful to support the City's position on the proposed amendments. The proposed text amendment's conformance to relevant Statewide Planning Goals is briefly discussed below:

#### GOAL ONE - CITIZEN INVOLVEMENT

*To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.*

The City is in compliance with this Statewide Planning Goal through the establishment of a Committee for Citizen Involvement (CCI). The City has gone even further by establishing Neighborhood Association Committees (NACs) for the purpose of providing widespread citizen involvement, and distribution of information. The proposed text amendments to the Development Code will not change the City of Beaverton's commitment to providing opportunity for citizen involvement, or place the City out of compliance with Statewide Planning Goal One.

#### GOAL TWO - LAND USE PLANNING

*To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.*

The City of Beaverton has adopted a Comprehensive Plan that includes text and maps (Ordinance 1800, and most recently amended by Ordinance 4187) along with implementation measures such as the Development Code (Ordinance 2050, effective through Ordinance No. 4365). These land use planning processes and policy framework form the basis for decisions and actions, such as the subject text amendment proposal. The proposed Development Code amendment has been processed in accordance with Section 40.85 (Text Amendment) and Section 50.50 (Type 4 Application) of the Development Code. Section 40.85 contains specific approval criteria for the decision-making authority to apply during its consideration of the text amendment application. Section 50.50 (Type 4 Application) specifies the minimum required public notice procedures to insure public input into the decision-making process. The City of Beaverton's Comprehensive Plan is consistent with Statewide Planning Goal 2.

#### **IV. Conclusion and Staff Recommendation**

Based on the facts and findings presented, staff conclude that the proposed amendment to the Development Code is consistent with all the text amendment approval criteria of Section 40.85.15.1.C.1-7. Therefore, staff recommend the Planning Commission **APPROVE** TA 2006-0002 (Floodplain Text Amendment) at the April 1, 2006 regular Commission hearing.

#### **V. Exhibits**

Exhibit 1.1 Proposed Text Amendment

**Section 1:** The Development Code, Ordinance No. 2050, Ordinance 4302, Chapter 60 – Floodplain Regulations, Section 60.10, will be amended to read as follows:

\*\*\*\*\*

**60.10.10. Floodplain Designation.**

1. Consistent with Clean Water Services Design and Construction Standards, the floodplain is the flood management area and shall include those areas identified by the Department of Homeland Security's Federal Emergency Management Agency in a scientific and engineering report entitled "The Flood Insurance Study for the City of Beaverton," dated February 18, 2005, with accompanying Flood Insurance Rate Maps (FIRM), is hereby adopted by reference and declared to be a part of this ordinance. In addition, the Letter of Final Determination, dated August 18, 2004, with accompanying Flood Insurance Rate Maps, flood profiles, and related data for Beaverton and Washington County, effective February 18, 2005, revises portions of the 1984 and 1987 studies and maps, and is hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study and revisions are on file with the City Engineer and the City Recorder. (ORD 3563) [ORD 4130; November 2000] When base flood elevation data has not been provided in accordance with this section, the City Engineer shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source in order to administer City of Beaverton Code Section 9.05.060, subsections A and D, relating to site development. For all development applications, the best available information as determined by the City Engineer shall be used in the determination of the floodplain limits. (ORD 3563) [ORD 4337; January 2005]
2. When interpretation is requested by a property owner, or designee concerning the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), or if a development application is received for a site where a floodplain is unclear or lacks an established elevation, the City Engineer shall ~~may request~~ require the concerned person or applicant to provide a detailed hydraulic data report

prepared in accordance with standard engineering practice by a registered engineer with background in the area of hydrology and hydraulics. This report shall include, but is not limited to, water profiles and discharge rates for the channel and the hydrology for the tributary areas. The report must document the base flood elevation and specific limits of inundation within a floodplain designated on a FIRM map in Zone A or in Zone AO or along a stream corridor beyond the FIRM studied limits. After review of the available data and the report, the floodplain base flood elevation shall be established by the City Engineer and shall be used and have the same effect as a FIRM-determined base flood elevation.

All applicable floodplain regulations for preservation of flood conveyance and flood storage of sites and building elevation requirements shall be determined from the base flood elevation as established by the City Engineer. A person dissatisfied with the City Engineer's decision may appeal that decision in the same manner as provided in Beaverton Code Section 9.05.091. (ORD 3563) [ORD 4155; April 2001]

\*\*\*\*\*

**Section 2: The Development Code, Ordinance No. 2050, Ordinance 4302, Chapter 60 – Floodplain Regulations, Section 60.10.20, will be amended to read as follows:**

\*\*\*\*\*

**60.10.20. Commercial and Industrial Uses in the Floodway Fringe.** All commercial and industrial uses, if allowed in the primary zone are allowed in the floodway fringe if the proposed development:

1. Meets the requirements of Beaverton Code Section 9.05;
2. Meets the requirements of the City Engineering Design Manual and Standard Drawings;
3. Meets the requirements of the ~~Unified Sewerage Agency~~ Clean Water Services District Design and Construction Standards Manual based on affirmative statements in documentation from CWS; and [ORD 4224; August 2002]

\*\*\*\*\*

\*\*\*\*\*

**60.10.25. Residential Uses in the Floodway Fringe.**

2. All other residential uses, if allowed in the primary zone, are allowed only as conditional uses in the floodway fringe. The request for a Conditional Use shall be processed and reviewed in the manner set forth in this ordinance. In addition to all other findings of fact required to be made in order to grant the Conditional Use, the following findings shall also be made: [ORD 4155; April 2001]
  - A. The proposed development meets all the site and building design standards and requirements of the Beaverton Code Section 9.05, and the technical standards of this ordinance; and [ORD 4155; April 2001]

\*\*\*\*\*

6. All manufactured homes otherwise allowed to be placed or substantially improved within the floodplain ~~FIRM zones A1-A30 and AO~~ shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is not less than one foot ~~or~~ above the base flood elevation, be flood proofed to or above that level together with attendant utility services composed of flood resistant materials, and be securely anchored to an adequately anchored foundation system in accordance with the provisions of the Beaverton Code Section 9.05. Site Development Code. (ORD 3563) [ORD 4155; April 2001]
7. In the floodplain, the long-term storage, permanent placement, or installation of recreational vehicles on the land is prohibited

\*\*\*\*\*

**Section 3: The Development Code, Ordinance No. 2050, Ordinance 4302, Chapter 90 – Definitions, will be amended to read as follows:**

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**Area of Special Flood Hazard.** The land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letters A or V. Synonymous with Flood Management Area and Floodplain. (ORD 3563)

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**Base Flood.** The flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the "100-year flood". ~~Designation on maps always includes the letters A or V.~~ (ORD 3563)

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**Basement.** A space wholly or partly underground, and having more than one-half (1/2) of its height, measured from the floor to its ceiling, below the average adjoining finished grade. For floodplain regulation purposes in determining building elevation requirements, this shall include any area having its floor subgrade (below ground level) on all sides.

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**Flood Management Area.** [ORD 4155; April 2001] Pursuant to CWS Design and Construction Standards, the area of inundation that encompasses the floodplain, or the area of special flood hazard, consisting of the following: Land identified within the 100 year floodplain and floodway as shown on the Federal Emergency Management Agency Flood Insurance Rate Maps and land identified in updated flood studies or any other authoritative data documenting flood elevations, as approved by the City Engineer. Synonymous with Area of Special Flood Hazard and Floodplain.

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**Floodplain.** The zone along a watercourse enclosed by the outer limits of land which is subject to inundation or affected by hydraulic connection in its natural or lower revised contours by the base flood. Synonymous with Area of Special Flood Hazard and Flood Management Area.

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**Flood Surface Elevation.** Those elevations to which flood waters will rise at a given location for a specified flood or base flood if not otherwise specified. The elevations are referenced to the National Geodetic Vertical Datum of 1929 or as determined by the City Engineer..

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**Manufactured Home.** A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain regulation purposes the term "manufactured home" also includes recreational vehicles, park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days if permitted to be placed on a permanent foundation, permanently connected to utilities, or anchored to the land. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles. (ORD 3563)

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**Recreation Vehicle or Recreational Vehicle.** A boat, camper, self-propelled motor vehicle, or portable vehicular structure capable of being towed on the highways by a motor vehicle, designed and intended for casual or short-term human occupancy for travel, recreational, camping, seasonal, and vacation uses. If identified in some manner as a recreation vehicle by the manufacturer or registered as such with the State, it is prima facie a recreation vehicle. For floodplain regulation purposes, such vehicles shall be fully licensed and ready for highway use on wheels or jacking system and attached to the land only by quick disconnect type utilities and security devices and have no permanently attached additions.

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