City of Sherwood Oregon

Home of the Tualatin River National Wildlife Refuge

Planning Commission Meeting Packet

FOR

September 13, 2016
7 PM Planning Commission Meeting

Sherwood City Hall
22560 SW Pine Street
Sherwood, Oregon

City of Sherwood
PLANNING COMMISSION
Sherwood City Hall
22560 SW Pine Street
Sherwood, OR 97140
September 13, 2016
7:00 PM Regular Meeting

1. **Call to Order**
2. **Consent Agenda**
   - **a.** June 28, 2016 Planning Commission Minutes approval
   - **b.** July 12, 2016 Planning Commission Minutes approval
   - **c.** July 26, 2016 Planning Commission Minutes approval
3. **Council Liaison Announcements**
4. **Staff Announcements** (Brad Kilby)
5. **Community Comments**
6. **New Business**

   a. Public Hearing – PA 16-03 Floodplain Updates (Brad Kilby)

   The City of Sherwood proposes to amend the Definitions Chapter and the Floodplain Overlay Chapter of the Community Development Code. The purpose of the amendment is to update the regulations to remain consistent with the requirements of the National Flood Insurance Program (NFIP).

   b. Public Hearing – PA 16-06 Stormwater Master Plan Update (Brad Kilby)

   The City of Sherwood proposes to update the City's Stormwater Master Plan to address short and long-term community service needs as they pertain to stormwater management. The amendments include an assessment of existing assets and conditions, and identify measures and capital improvement needs to ensure that the City can maintain and expand the existing system to meet community demand.

   c. Public Hearing – PA 16-07 Sanitary Sewer Master Plan Update (Brad Kilby)

   The City of Sherwood proposes to update the City's Sanitary Sewer Master Plan to address short and long-term community service needs as they pertain to sewer service. The amendments include an assessment of existing assets and conditions, and identify measures and capital improvement needs to ensure that the City can maintain and expand the existing system to meet community demand.

7. **Planning Commissioner Announcements**
8. **Adjourn**

ORS 260.432 Quick Reference— Restrictions on Political Campaigning for Public Employees rev 12/13

Generally, ORS 260.432 states that a public employee* may not, while on the job during working hours, promote or oppose election petitions, candidates, political committee or ballot measures. Additionally, no person (including elected officials) may require a public employee (at any time) to do so.

*A "public employee" includes public officials who are not elected, whether they are paid or unpaid (including appointed boards and commissions).

As used in this Quick Reference

We use the phrase "advocate(s) a political position" to mean—

promote or oppose an initiative, referendum or recall petition, candidate, political committee or ballot measure.

The term "impartial" means equitable, fair, unbiased and dispassionate.

See the Secretary of State's detailed manual on ORS 260.432 for specific factors to assist in ensuring impartiality in communications about ballot measures. It is posted on the website under Election Laws, Rules and Publications, Manuals and Tutorials.

For more detailed information about ORS 260.432 and information about other election laws, contact:

Elections Division	phone	503-986-1518
Secretary of State	fax	503-373-7414
255 Capitol St NE, Suite	tty	1-800-735-2900
Salem, OR 97310	web	www. oregonvotes.gov

Prohibited Activities

A public employee, while on the job during work hours may not:

→ prepare or distribute written material, post website information, transmit emails or make a presentation that advocates a political position

→ collect funds, prepare filing forms or correspondence on behalf of candidates or political committees

→ produce or distribute a news release or letter announcing an elected official's candidacy for re-election (except for an elections official doing so as an official duty) or presenting an elected official's political position

→ make outgoing calls to schedule or organize campaign events or other political activity on behalf of an elected official or political committee (however, a scheduler may, as part of official duties, take incoming calls about the official's availability and add an event to the schedule)

→ grant unequal access to public facilities to candidates or political committees

→ direct other public employees to participate in political activities, when in the role of a supervisor

→ draft, type, format or edit a governing body's resolution that advocates a political position (except to conform the resolution to a standard format)

→ prepare or give recommendations to the governing body urging which way to vote on such a resolution

→ sign such a resolution, except if the signature is only ministerial and clearly included to attest the board took the vote

→ announce the governing body's position on such a resolution to the media

→ include the governing body's position or vote on such a resolution in a jurisdiction's newsletter or other publication

A public employee who provides voter registration assistance under the federal National Voter Registration Act (NVRA) must not, when performing voter registration services, influence a client's political choices. This means no display of political preferences, including a restriction that no political buttons may be worn. ORS 247.208(3)

Allowable Activities

A public employee, while on the job during working hours may:

→ prepare and distribute impartial written material or make an impartial presentation that discusses election subjects (using the guidelines provided in the Secretary of State's detailed manual on ORS 260.432.)

The Secretary of State's Elections Division is also available for an advisory review of draft material about ballot measures produced by government agencies.

→ perform standard job duties, such as taking minutes at a public meeting, maintaining public records, opening mail, inserting a proposed resolution into a board agenda packet, etc.

→ impartially advise employees about possible effects of a measure, but not threaten them with financial loss to vote a particular way

→ address election-related issues while on the job, in a factual and impartial manner, if such activity is legitimately within scope of employee's normal duties

→ as staff of an elected official, handle incoming calls about the official's availability for political events

→ prepare neutral, factual information for a governing body to use in determining what position to take on an issue (planning stage of a governing body's proposed issue before certified as a measure to a ballot is not subject to ORS 260.432)

→ in a clerical manner, incorporate amendments into a finalized version of a governing body's resolution on an issue respond to public records request for information, even if the material advocates a political position

→ wear political buttons subject to applicable employer policies unless the public employee is providing voter registration services under NVRA, where additional restrictions apply - see note on previous page about ORS 247.208(3)
A public employee, on their own, off duty time, may send letters to the editor that advocate a political position and may participate in any other lawful political activity.

It is advised that a salaried public employee keep records when appropriate in order to verify any such political activity that occurs while off duty.

Prohibited and Allowable Activities for Elected Officials*

*includes a person appointed to fill a vacancy in an elective public office

Elected officials may:

→ advocate a political position at any time. Elected officials are not considered a"public employee" for purposes of ORS 260.432. ORS 260.432(4)(a).

→ vote with the other elected officials of a governing body (such as a school board, city council or county commission) to support or oppose a measure, and publicly discuss such a vote—but must not use the public employee staff time to assist in this, except for ministerial functions

→ perform campaign activity at any time, however must take caution not to involve any public employee's work time to do so

Elected officials may not:

→ in the role of a supervisor, request a public employee—whether the public employee is on or off duty—to perform any political activity

A request made by a person in a position of supervisor or superior is viewed as a command for purposes of this election law.

→ have an opinion piece or letter advocating a political position published in a jurisdiction's newsletter or other publication produced or distributed by public employees

City of Sherwood, Oregon

Planning Commission Meeting

June 28, 2016

Planning Commissioners Present:
Chair Jean Simson
Commissioner Michael Meyer
Commissioner Alan Pearson
Commissioner Rob Rettig

Staff Present:
Julia Hajduk, Community Development Director
Bob Galati, City Engineer
Brad Kilby, Planning Manager
Michelle Miller, Senior Planner
Kirsten Allen, Planning Dept. Program Coordinator

Planning Commission Members Absent:
Vice Chair Russell Griffin
Commissioner Chris Flores
Commissioner Lisa Walker

Council Members Present:
Jennifer Harris

1. Call to Order/Roll Call

Chair Jean Simson convened the meeting at 7:00 pm.

2. Consent Agenda

a. February 9, 2016 Planning Commission Minutes approval
b. May 24, 2016 Planning Commission Minutes approval
c. June 14, 2016 Planning Commission Minutes approval

Motion: From Commissioner Alan Pearson to approve the minutes, Seconded by Commissioner Michael Meyer. All present commissioners voted in favor.

3. Council Liaison Announcements

None were received

4. Staff Announcements

Brad Kilby, Planning Manager said the 2016-17 Budget had been approved by City Council which included a position for a Senior Planner (for a limited duration) to complete the Comprehensive Plan update. He informed that there would be a public meeting regarding the Tannery Site Assessment Update on Wednesday July 13, 2016 at 6:30 pm and added that staff had presented proposed regulations for marijuana facilities to the Police Advisory Board. The Planning Commission will hold that hearing regarding marijuana facilities in Sherwood on July 26, 2016. No public comments have been received.

5. Community Comments

None were received.

6. New Business

a. Public Hearing – SP 16-04 Sherwood Plaza Apartments

Chair Simson read the public hearing statement and asked for any ex parte, bias or conflict of interest. None were received.

Michelle Miller, Senior Planner gave a presentation of the staff report (see record, Exhibit 1). She showed the location of the proposed action and stated it was zoned Retail Commercial (RC) and located within the Sherwood Town Center area. The proposed apartments would go on the vacant area of approximately 3.43 acres, behind the Sherwood Plaza shopping center. Ms. Miller said the property was surrounded by multifamily apartments and townhomes. Multifamily housing is generally allowed in Retail Commercial provided it is secondary to the primary use of commercial. Multifamily housing has fewer daily trips for traffic than the commercial plaza.

Ms. Miller said there were six different buildings proposed on the site, consisting of 82 apartment units, ranging from studio to three bedroom. She stated that the applicant proposed to gain access using the existing east driveway of the plaza with 139 parking spaces in the center of the site and garages that were not included in the calculation. There would be approximately 39,000 square feet of open space area. Ms. Miller reported that the applicant met the standards of the High Density Residential zone and other site plan requirements and no written comments had been received. She showed the proposed landscaping on the site consisting of street trees, a ten foot visual corridor along Langer Drive, and an active play area in the back corner of the site.

Ms. Miller noted that multifamily design standards required the primary entrance be face the street (Langer Drive) with articulation and interest for people passing by. She said Building 1 faced the parking area and Building 2 had a side elevation facing Langer Drive that fell short of the standard. Ms. Miller acknowledged that the site was constrained by being long and narrow. Staff recommended a condition for revised elevations for the northern sides of Buildings 1 and 2 and to orient the buildings to the street.

Ms. Miller stated one of the recommendations from the traffic study was to improve the crosswalk with a high visibility crossing and markings to help make people aware of the pedestrians crossing. She said the code required interconnected neighborhoods, but the applicant had proposed a 720 foot long fence along Trumpeter Drive. She said it cut off access from the adjacent neighborhood and requested a break in the fence between Buildings 2 and 4. Chair Simson asked if there was access between the play area and Century Drive. There was not one proposed.

Ms. Miller specified other recommended public improvements included widening the sidewalk along Langer Drive in front of the site, dedicating the right-of-way at that location to a 39 foot half street, reconstructing the sidewalk ramp on east side of existing driveway to ADA standards, and to contribute $7423 (a proportionate share) for the SW Langer and SW Sherwood intersection change project. She explained that the current stoplight at Langer Drive and Sherwood Blvd was slated to move to the intersection of Century Drive and Sherwood Blvd. The fund would go toward moving the signal. Staff recommended approval with the conditions in the staff report.

Ms. Miller asked for the Commission to approve the following changes of the staff report. Page numbers are from the packet.

- Re-letter the sections on page 10
- Add condition from page 13 regarding the installation of a high visibility advanced pedestrian crossing warning signage and striping as F.5 to page 46.
- Add conditions from page 34 under Prior to Engineering plan approval as D.7, D.8 to page 45.

- Delete conditions 10 and 11 on page 46 and renumber section F.
- Add condition F.16 "If onsite fire protection is required, install backflow protection meeting Sherwood engineering standards" to page 47.

Motion: From Commissioner Alan Pearson to approve the suggested changes. Seconded by Commissioner Michael Meyer. All present planning commissioners voted in favor.

Chair Simson asked for questions from the Commission for staff.

Commissioner Pearson commented that there was only one access to the site. He was informed by staff that there was an exit at the front and the rear of the site.

Chair Simson commented on a lack of access to the south towards [Langer] Park near the play area. Ms. Miller confirmed that residents would have to go through the conditioned access and south to the park through the private drive at Sunfield Lakes Apartments.

Commissioner Rettig asked about the title report and said he was looking for the ownership and the required easements. He said the survey noted the title report was not used to prepare the map and there might be existing easements, conditions, or restrictions that could affect the title. He said the online title had numerous easements and was concerned that there may be easements running through the development. Ms. Miller responded that the required easements would be noted and verified during the Engineering plan approval. Bob Galati, City Engineer explained that plans submitted to the Engineering Department would contain easement and right-of-way locations and any private utilities easements; private utilities would be relocated as part of the project in cooperation with the private utility companies.

Commissioner Rettig commented that Washington County did not show the property with a lease boundary. He asked if setbacks would be off of the lease line or if it was considered one large parcel. Ms. Miller confirmed that it was one tax lot and that was how staff had reviewed it.

Chair Simson expressed concern for prospective residents if the owner chose not to renew the lease. She suggested a condition that residents be notified of the land lease. Ms. Miller responded that the City did not get involved in that level of detail for leases, but staff had verified the overall lease and that property improvements were being done through an agreement between the landholder and the long term lease holder. Mr. Kilby added that leases were private agreements and local government typically stayed away from getting involved in private agreements.

Chair Simson noted that her concerns were based on manufacture home parks that closed without warning to residents. Mr. Kilby informed the Commission that manufactured home parks were now protected. Julia Hajduk added that the buildings and amenities on the site would remain even if the lease was not renewed and it would be comparable to a new ownership situation.

To explain the crosswalk improvements, Garth Appanaitis, on call traffic engineer for the City from DKS Associates, came forward and explained that staff had requested the applicant provide the safe crossing of Langer Drive. The existing marked crosswalk west of the development had about six pedestrians using the crosswalk during the pm peak hour. Mr. Appanaitis said the applicant suggested about six additional pedestrians during the evening peak hours would be added from the development to total about twelve crossings during the pm peak hour. He said the applicant proposed and staff concurred some improvements for safety which included adding advanced signage and high visibility striping at the crossing. Mr. Appanaitis referred to Exhibit H (see planning record) and said the exhibit showed examples of the crossing with white lines and no signage, the proposed additional advanced crossing signage, and pedestrian crossing sign at the crosswalk location. Mr. Appanaitis explained that

the development was not reaching the threshold that would typically require additional improvements and additional enhancements would not be needed until about seventy crossings during the hour given the speed and traffic volumes on this roadway.

Commissioner Michael Meyer asked when the traffic study was completed and was told late October 2015. He commented that when the grocery store across the street reopened the number of pedestrians crossing the street might increase. Mr. Appanaitis replied that the traffic study included other similar crossings on Langer Drive which did not exceed ten crossing per hour.

Chair Simson commented there were five crossings east of the site and only one west of the site. She said she observed several people cross over a twenty minute period and commented on the bus stop on the other side of the road. She pointed out that this was in the City's Town Center which was intended to be pedestrian friendly; 82 additional units, with 82 people crossing seemed to warrant an additional crosswalk.

Mr. Appanaitis specified that approximately eighty units resulted in the ballpark of fifty trips during the pm peak hour. He said trip types included entering and leaving the site by car, by transit, and by walking, and biking. Only if everyone walked and went north, would it be approaching the threshold. Mr. Galati added that he had received numerous complaints about the existing crosswalk requesting improvements.

Chair Simson acknowledged the logic, but disagreed from a user standpoint. She said if even half of the people from the development used the crosswalk to the grocery store once in a while, they would want to walk straight across.

Mr. Galati stated that he would rather direct traffic in a location that was safe and could be controlled. He said the lamb chop coming off the highway was stop controlled and coming out of Sherwood Plaza was stop controlled. He said that meant there were two directions that could be controlled, and if signed properly the crosswalk would be visual enough. He thought the existing crosswalk was where it needed to be.

Commissioner Pearson said he had driven over the crosswalk many times and it was hard to see. He commented on the proposed improvements and said he hated to suggest more expensive improvements. Commissioner Pearson suggested more lighting to increase visibility. Mr. Galati said staff could ask the applicant to look at if the existing street lighting provided enough illumination to make the crossing safe. Commissioner Pearson commented that the crosswalk should be illuminated and brightly painted to make it clear and obvious that it was a crosswalk; it is human nature to jaywalk, but making an inviting crosswalk may entice more people to use it and would be safer for drivers.

Mr. Galati said the striping plan of parallel and diagonal lines was all that the City could ask for from this development. He said it would highly illuminate the crosswalk zone and the advanced signage warning would help. If people sped along Langer Drive, it was an enforcement issue; staff will always try to educate people to make sure they fallow the traffic laws for safety reasons.

Chair Simson asked for applicant testimony.

Anne Marie Skinner, Planner for Emerio Design representing the applicant came forward and thanked staff for their assistance. She explained the application was for an 82 unit multifamily residential complex and said it was taking the best use of the undeveloped property and making it usable; beautifying the area for the city. She said the entire parcel was one parcel and the residential portion was slightly over three acres. The rest of the property has been developed as commercial. Ms. Skinner said the applicant was grateful the Sherwood Code allowed the secondary residential use and

felt it was a good transition between the townhouses, single family residential, and multifamily to the commercial use to the west. She said more commercial would be hard to see and would increase traffic more than the proposed residential.

Ms. Skinner said code requirements were either met or would be met as part of the development and through the construction, that there were many conditions specifically related to engineering requirements that could not be shown without the conditions of approval and the applicant was waiting for preliminary approval. She said they would be met through engineering plans that would be submitted for final approval.

Ms. Skinner submitted a packet of information and said the landscaping plans had been revised in the first four pages by the applicant to meet the conditions of approval C.3, C.5 - C. 9 (see planning record, Exhibit I). She reported that the street trees were from the approved street tree list and their landscape architect had added the reason for the removal of the trees as well as an arborist who was retained to assess the health of the trees to be submitted for the final approval. The landscape architect gave her opinion that some of the trees slated for removal are not in the best of health and should be removed regardless of development to preserve the health of the surrounding viable trees, but most of the trees slated for removal were for buildings or required improvements.

Ms. Skinner submitted six drawings in the packet of the active recreational open space in the southwest corner of the project at approximately 7000 square feet in area. She said the renderings visualized the types of activities in the park for the residents of the development. The remaining open space areas were interspersed throughout the development. Ms. Skinner stated the landscaping plan showed the plantings for both the active and passive open space areas and said the proposed fence along the east boundary would be nicely landscaped and made of Cedar. She remarked that the eight people in attendance at the neighborhood meeting were all opposed to any break in the fence and the applicant understood that technically nobody should be walking on the private drive that is not part of the same development. She stated the pedestrian connection was available along Langer Drive to the north, about 300 feet from where staff was proposing the break in the fence. She suggested that rather than walk through the development the residents adjacent could walk on the sidewalk, provided as part of the development, to access the commercial development.

Ms. Skinner communicated that the applicant felt the condition to orient the building to Langer Drive was met with the inclusion of the pedestrian plaza (see planning record, Exhibit I). The pedestrian plaza would front Langer Drive next to the two closest buildings and provide a front forecourt articulation that would tie them to Langer Drive. With the addition of the pedestrian plaza the applicant thought the condition had met the intent of the code and asked not to be required to re-orient Building 1 and offered to move the side entrance to the north end. The applicant offered to add windows to the north end of Building 2. Ms. Skinner repeated the request to remove the condition requiring the break in the fence.

Brian Shahum, from Mercury Development came forward and said the Zimel family had leased the property since 1973. He said a few people who attended the neighborhood meeting were present and mentioned the Kauffmans who voiced concerns for parking, security, and noise. He said parking was a very big issue as neighbors see a lot of cars not from their development parking there. He suggested a break in the fence would give access to people to park in the neighborhood taking away the limited parking they have. Mr. Shahum commented that it was important to listen to what neighbors were asking and stated the fence would be done in a tasteful manner with something that would keep people out of their property and ensure the children's safety.

Mr. Shahum asked if the applicant could get a copy of the new conditions of approval. He was informed that the conditions of approval are noted throughout the report and relisted at the end. The conditions noted during the staff presentation were listed in the report, but not relisted at the end of the document. Staff would provide a new copy once the Commission made a decision which will include all of the conditions numbered correctly.

Mr. Shahum stated the SDC charges for the project would come in at $1.5 million and said the $7,423 to move the lighted intersection from SW Langer would adversely affect the shopping center with its right in/right out access. He said the Zimel family was not aware of the change and there had been opportunities for the information to be provided when the Dutch Bros. and the Taco Bell were developed. He said they would have voiced their opinion against it and did not feel it was something they should have to contribute to given how the intersection would negatively impact the center.

Dave Zimel, Portland Fixture, came forward with Eric Evans. Mr. Zimel said there was a challenge with the condition to dedicate right of way as the applicant was leasing the land and did not own the land. He did not have the authority to dedicate the ground, only the right to develop the property. He did not know if the landowner would agree to dedicate the land. Mr. Zimel stated that all of the options had been exercised for the ground lease which would end March 31, 2054.

Eric Evans, Emerio Design offered to amend the recommended condition at the bottom of page 32 of the packet to include "or adequate fee in lieu payment for the value of the land and improvements rather than a dedication or physical improvements acceptable to the city engineer, or a combination thereof".

The applicant had 11 minutes remaining and chose to save it for rebuttal.

Chair Simson called for public testimony.

Valery Koyfman, resident of Sherwood in the adjacent Arbor Terrace neighborhood, came forward and expressed concern for parking. He said for 82 units only 139 parking spaces were proposed. Mr. Koyfman noted that this was less than two parking spaces for each apartment and said parking overflow would end up in his neighborhood which is already overloaded. He said residents were worried about parking and increased traffic which meant increased noise and air pollution.

Tony Bevel, Sherwood resident reminded the commission of a fatality involving an individual crossing between the Walmart and Target sites. He said the new shopping center was well planned where it was determined there were enough crosswalks. Mr. Bevel agreed with Chair Simson in the need to push for an additional crosswalk between the shopping center to the north and the new apartments for pedestrian safety. He noted that it will cost the City a lot more money for the new crosswalk between Walmart and Target and had already cost a number of people a lot of heartache. He suggested doing it right and demanding something better than what was proposed.

No other testimony was received.

The applicant returned for rebuttal. Mr. Shahum commented that the concerns for parking enhanced the argument not to have a break in the fence on the eastern border, because the neighbors were asking that there not be one. He responded that the parking space requirement for the complex was 129 spaces which had been increased to 139 spaces and the parking numbers did not take into consideration the 17 garage spaces that would be available.

Ms. Skinner added that the applicant did not have any objections for the two requirements for the crosswalk. She said a commercial development would add more noise and air pollution than the

proposed residential. Mr. Shahum noted that there were bicycle racks above the required at the site as well.

Chair Simson asked for questions for the applicant from the Commission.

Commissioner Meyer commented that from a citizen's point of view it did not feel great having the fence up. One of the nice things about Sherwood was being able to walk between neighborhoods. He said the proposal was effectively a neighborhood within the community and he saw the fence as a barrier. He was not unfeeling toward the residents of the adjacent neighborhood, but noted they were not fenced in either.

Mr. Shahum responded the applicant wanted to put a quality product out there and he had met with a number of property management companies who indicated that security was a major issue. He said last year there were people illegally dumping their Christmas trees on the site because they had access and they wanted to put in something that was secure for the people who would live there and for the neighbors. Mr. Shahum added that he heard comments at the neighborhood meeting about people selling drugs out of nearby apartments and the subsequent police presence. He said they wanted a high end apartment complex without that element that Sherwood could be proud of. He stated that direct access into the complex would have people parking on nearby streets and loitering.

Chair Simson noted there were open spaces created for the new community, but that there was no connection to the rest of the community. Mr. Shahum replied that the requirement for open space was 29,800 square feet, but 33,317 square feet was included; over 10% more than required. He signified that it was a great way to beautify the empty field and give something to the neighborhood and town.

Mr. Zimel commented that he did not see the benefit of connecting the apartment complex because the back of the shopping center was not a place where someone would want to cross over to. He preferred seeing the residents go to Langer Drive to access the shopping center, because there is no way to pass through the buildings and the only thing an opening in the fence would affect was the small kids. Mr. Zimel pointed out that the private drive was dark at night and an open access was an easy place for someone to come in and do something they should not, putting kids at risk. He did not think it was actually connecting to something.

Chair Simson noted that a southern opening that she asked about near the play area would connect to the Langer Park. Ms. Miller added that Sunfield Lakes Apartments were quasi-public because it was multifamily housing and it would be difficult to challenge pedestrians walking through. Ms. Miller said Chair Simson's sentiment was supported in the code in a number of places; onsite circulation, perimeter buffering, block length requirements.

Chair Simson pointed to the pedestrian plaza design provided by the applicant. She said the plaza was intended to tie the development to the community, but the code says the buildings needed to be oriented to the community. She commented that there was a similar style building on 185th Avenue north of Baseline Road. The applicant offered to add windows to that side of the building and said what was created with the pedestrian plaza was similar to other new development in Sherwood; near Walmart there are not main entrances to Chipotle or Mod Pizza, but plaza areas on the side. Chair Simson noted that even though the main entrance was not at the street, it looked like you could walk in one of the doors and there was articulation and interest that did not make you feel like you are looking at the back of the building. She said Building 2 looked like the side of a blank wall.

Jim Toporek, Studio 3 Architecture came forward and noted that there was undulation on the back of the Building 1, but appeared blank on the 2D drawing. Building 2 had balconies jutting out and could be amended to add color or movement in the wall. Mr. Toporek stated he did not understand the

requirement; he saw this stipulation in big cities like Portland, but SW Langer was not an active pedestrian thoroughfare with retail to the west and a large parking buffer between the sidewalk and the retail. There was a retail building to the north, and a fifteen foot landscape buffer with a fence at the townhomes. Mr. Toporek said with the parking to the interior of the site, residents of Building 1 would have to park and walk around to the front with their groceries. In other situations where the developer was force into that situation the units received less rent.

Mr. Toporek pointed out that a main entry faced toward the street was to have eyes on the street, but in this case they wanted eyes on the parking and the children playing in the open watching over the community. He stipulated that the proposed pedestrian opened to the sidewalk for bicycle and transit facilities; it allowed people in and acted as a place for pause along the sidewalk. He concluded that it was difficult to flip the building around for the reasons stated.

Chair Simson asked about the articulation on Building 1. Mr. Toporek explained that the articulation happened with the change of materials and in two foot movements.

Commissioner Pearson asked staff why there was a requirement for the break in the fence. Ms. Miller responded that it was recommended in the code and the purpose was to encourage circulation throughout neighborhood; provided an opportunity to walk the neighborhood, get more eyes on the street, and was safer than an isolated community.

Commissioner Pearson replied that he understood and agreed with it, but that the Commission had also heard from the neighbors that the break was not wanted with valid concerns. He said he understood security and when he heard from the neighbors and the applicant concerns for security, he agreed. A fence with a great hole voided the security. He understood the desire for communal interaction, but was more security conscious.

Motion: From Commissioner Alan Pearson to rescind that portion of the requirement, Seconded by Commissioner Rob Rettig. Commissioners Pearson and Rettig voted in favor. Chair Simson and Commissioner Meyer voted against. Motion failed.

Chair Simson returned to the concern about the articulation for Buildings 1 and 2. She said with the articulation as described on Building 1, in combination with the plaza, the applicant was coming closer, but that Building 2 did not have any articulation in 75% of the elevation.

The applicant asked if they could suggest changes to the design. Chair Simson agreed, implying it was difficult to gain staff agreement on the fly and suggested the hearing could be continued. Mr. Shahum asked if Building 1 was acceptable to the Commission and they could concentrate on Building 2. Chair Simson received a consensus from the Commission. Commissioner Meyer commented that the Commission was looking for an interesting architectural look and was not sure the entrance needed to be moved to face the street.

Mr. Kilby proposed a recess before the closing the public hearing. He suggested a motion to change condition C.2 to memorialize the Commission's consent.

Motion: From Commissioner Alan Pearson to change condition C.2 to Building 2 only, Seconded by Commissioner Michael Meyer. All present commissioners voted in favor.

Julia Hajduk clarified that if the hearing was continued there may be different planning commissioners present at the next hearing who may have additional concerns.

Chair Simson addressed a concern from the neighborhood meeting regarding the trash enclosure by verifying that Pride Disposal needed the enclosure in the proposed location to allow garbage truck

access. She commented that noise from play areas was inherent to development and reasonable noise from people living in the community was acceptable.

Chair Simson called for a recess at 8:50 pm and reconvened at 8:57 pm. The applicant asked for a two week continuance.

Motion: From Commissioner Michael Meyer to accept the continuance request, Seconded by Commissioner Rob Rettig. All present commissioners voted in favor.

The hearing was continued to July 12, 2016. Chair Simson said the items of concern may change given the makeup of the Planning Commission on that date.

Mr. Shahum commented on the crosswalk and pointed out that DKS Associates and Kittelson & Associates studied the trips and everything was below any requirements for further pedestrian sidewalks. The applicant wanted to follow their expert opinions. He said there was a lot of discussion between Engineering Department staff and information was provided to meet the requirements.

Chair Simson asked if other commissioners felt strongly about an additional crosswalk.

Commissioner Pearson commented that he did not see how adding another crosswalk would appreciatively improve the situation, but would cost more instead. He would rather see the money spent lighting the area. Mr. Shahum offered to review the existing lighting and follow the guidelines of the Engineering Department.

Commissioner Pearson commented on a lighted stop sign and warning sign on Sunset Blvd. He said he had concerns with small signs high and to the right of the roadway. He said the lighted stop sign added an element of safety.

Chair Simson commented that when staff mentioned a high visibility pedestrian crossing she envisioned flashing yellow LEDs that enabled people to cross. She said that would give people a place to safely cross.

Commissioner Meyer said there was flashing yellow lights at the corner of Pine Street and Railroad Street. He said he agreed with the City's traffic engineer to enhance an area that was more easily controlled instead of add another crossing. From a human perspective people would cross the road wherever they wanted to. He was in favor of directing them to something more visible.

Chair Simson said the Commission would like more information for the crosswalk, Building 2, and easement information, if available. She commented that conditions regarding engineering specifications about sewer, water and sanitary were in every application the Commission reviewed and did not detract the Commission from being able to approve the application.

7. Planning Commissioner Announcements

Commissioner Pearson asked about information he had received from the Smart Growth Conference. Mr. Kilby informed the commission that staff had scanned the information given to him by Commissioner Pearson and he would forward the information via email.

Mr. Kilby asked Mr. Galati to give details on the Capital Improvement Plan. Each commissioner had received a copy. Mr. Galati explained that a Capital Improvement Plan was required by the state and stated the plan contained all the projects identified in each of the city's master plans; water, sewer, parks, and transportation.

8. Adjourn

Chair Simson adjourned the meeting at 9:17 pm.

Submitted by:

_____

Kirsten Allen, Planning Department Program Coordinator

Approval Date: _____

City of Sherwood, Oregon
Planning Commission Meeting
July 12, 2016

Planning Commissioners Present:
Chair Jean Simson
Vice Chair Russell Griffin
Commissioner Michael Meyer
Commissioner Alan Pearson
Commissioner Rob Rettig

Staff Present:
Julia Hajduk, Community Development Director
Josh Soper, City Attorney
Bob Galati, City Engineer
Brad Kilby, Planning Manager
Michelle Miller, Senior Planner
Kirsten Allen, Planning Dept. Program Coordinator

Planning Commission Members Absent:
Commissioner Chris Flores
Commissioner Lisa Walker

Council Members Present:
None

Work Session

1. Federal Emergency Management Association (FEMA) Floodplain Updates

Chair Simson began the meeting at 6:35 pm.

Brad Kilby, Planning Manager described a letter of map amendment received by Mayor Clark on May 4, 2016 from the Federal Emergency Management Association (FEMA) regarding the floodplain in Sherwood. He explained that the City had until November 4, 2016 to amend the maps and the Sherwood Zoning and Community Development Code accordingly to be able to qualify for federal grants and to protect Sherwood homeowners. He noted that changes to the maps could not be negotiated and said an opinion from the National Marine Fishery Service stated the new maps may adversely affect certain species of wildlife. The public was afforded time to review the maps and a handout with a link to the opinion (see record, Exhibit 1).

The Planning Commission called recess at 6:48 pm to convene to the regular meeting.

Regular Meeting

1. Call to Order/Roll Call

Chair Jean Simson convened the meeting at 7:30 pm.

With no Consent Agenda or Council Liaison Announcements, she asked for Staff Announcements.

2. Consent Agenda

None

3. Council Liaison Announcements

None.

4. Staff Announcements

Brad Kilby, Planning Manager, announced an open house on July 13, 2016 regarding the Tannery Site Assessment and said staff would be at Music on the Green with information about Marijuana Facilities in Sherwood and the Cedar Creek Trail project. He announced that staff was reviewing applications for the Senior Planner position to update the Comprehensive Plan and that David Bantz, Associate Planner hired until the end of the budget year would be leaving on Friday.

5. Community Comments

None

6. Old Business

a. Public Hearing – SP 16-04 Sherwood Plaza Apartments (continued from June 28, 2016)

Chair Simson read the public hearing statement and asked for any ex parte contact, bias or conflict of interest. None were received.

Michelle Miller, Senior Planner gave a presentation of the staff report (see record, Exhibit 2) and explained that it was a continued hearing from June 28, 2016. She noted some unresolved issues:

- Elevation of Building 2 facing SW Langer
- Pedestrian pathway connection on the eastern side of the development
- Proportionate share toward signal change on SW 12th
- Right of Way Dedication

Ms. Miller showed the Sherwood Plaza commercial site containing an undeveloped portion and said it was about 13 acres, zoned Retail Commercial (RC). She said the undeveloped portion east of the Plaza had an application to develop the land with apartments. In the Retail Commercial zone, apartments were a permitted use as long as they are secondary to the main use. She said the application was compliant with the purpose and intent of the Retail Commercial zone.

Ms. Miller noted that Langer Drive bordered the site on the north and west side and the site was surrounded by Sunfield Apartments and Arbor Terrace subdivision all zoned High Density Residential (HDR), fitting in with the existing neighborhood. Ms. Miller said the applicant proposed to gain access to the site on the existing driveway on the northeast side of the property and established that there would be eighty-two apartments in six buildings with 139 parking spaces (ten spaces over the required). The applicant proposed to add garages that are not counted towards parking.

Ms. Miller showed modified elevations submitted by the applicant of Building 1 and 2 (see planning record, Exhibit J). She reminded that the Planning Commission found Building 1 met the criteria, but wanted to see more elevations of Building 2 to ensure that it was pedestrian friendly and met the design criteria for multi-family development. She pointed out that the issues were inadequate fenestration and modulation of the side elevation of Building 2 and the revised side elevation had decks wrapping the front of the building, added windows and wall modulation. Ms. Miller showed the proposed pedestrian plaza on SW Langer Drive with trees, benches and a different sidewalk material to denote the area in front. She pointed out that the pedestrian plaza was in addition to the required eight foot sidewalk and street trees along the entire frontage and was place in front of the buildings near the parking areas of Building 1 and 2.

Ms. Miller stated the criterion and the conditions of approval asked for a pedestrian connection through on the east side of the property between the garages of the Sunfield Lakes Apartments. She said there were several locations in the development code where connections between neighborhoods were

important: 16.92 says any required screening should have breaks where appropriate to connect the different neighborhoods, 16.96, included onsite circulation and the importance of having different connections between the developments. Ms. Miller showed locations of four bicycle and pedestrian connections required for the Sunfield Lakes development in 1996 and stated connectivity had been an important component of development in Sherwood for over twenty years. She said the connections were shown on the plat and one of the condition in the Notice of the Decision was to "provide direct and continuous connection" and "appropriate links to the property line of vacant parcels or easements to allow for future connections, to ensure that pedestrian linkages provide the most direct route possible to minimize travel distances."

Ms. Miller said other public improvements recommended by staff included widening the sidewalks to eight feet, to demonstrate or dedicate a right of way width to thirty six feet half street width along the frontage of SW Langer Drive, and to reconstruct the sidewalk ramp to the east side of the existing driveway to ADA standards where the pedestrian crossing will be improved. Staff requested the removal of Condition D.5 to contribute $7423 for the intersection signal change and said it would be assessed as part of the System Development Charges (SDC) because SDC charges take the impact of development into consideration.

Bob Galati, City Engineer discussed the pedestrian crossing improvements. He said the requirement was for enhanced high visibility signage. He noted that the Commission was indicating preference for a signalized crossing such as a rectangular rapid flashing beacon (RRFB) like the one on Pine Street in front of City Hall or a lighted stop sign similar to the one on Sunset Blvd. He explained that the signal in front of City Hall was a standardized crossing for railroads. Mr. Galati said staff reviewed what was required and spent a lot of time with DKS Associates, the City's traffic consultant, and Kittleson, the applicant's traffic consultant, going through the analysis. He recounted that the Planning Commission had questioned why a pedestrian crossing was not provided closer to the development and the location was most appropriate for the pedestrian crossing. He explained the location was determined by where pedestrian traffic was coming from and going to; a bus stop located at the corner, the crossing from one shopping center to the other shopping center and control of where pedestrians cross. Mr. Galati said the enhanced signage was expected to increase the area identified as a pedestrian crossing and instead of the normal two parallel lines there would be a striping pattern. More signage would be placed prior to the crossing to notify drivers of the crossing ahead. He pointed out that a signalized crossing was not technically required, nor warranted, because it did not meet the limits, but the Planning Commission could choose to require the signalized crossing. If so, the applicant could accept it and become eligible for transportation SDC credits, because they were providing a public infrastructure above what was required, or if challenged by the developer, would go to City Council who may find that it was not warranted, but decide to require it for safety reasons. He said it would be a policy decision by Council. He wanted the Commission to understand that the cost of the signal would be offset by transportation SDCs.

Mr. Galati communicated that the removal of the $7423 fee in Condition D.5 was because the Transportation Master Plan identified that signal change as a project so it was part of the baseline calculation for SDC fees. When a development comes through the SDC fees the impact of the development would be taken into account and paid into the fund. He noted that it would not have been the same if it had been an impact to Highway 99W, because SDC calculations do not take into account the impacts to the highway. That was part of the Capacity Allocation Program (CAP) program and generally if there is an impact to the highway they either pay a fee in lieu to the county or state or do the improvements.

Staff recommended approval with the conditions as discussed in the staff report and as amended.

Commissioner Rob Retting commented that outside of Commission he was a land surveyor and he did a lot of All American Land Title Association surveys that were apartment complexes or shopping malls. One of the big concerns were access points where people could access the site. He felt strongly against putting in a pedestrian opening, because it created a cloud on the property and even though the City had the connectivity requirement an opening could create title issues. He added that being a surveyor, he was aware that many do not like strangers on their property and sometimes fences were a good thing. He agreed with the applicants' request not to have the opening.

Commissioner Pearson commented that there would be a vegetative barrier and asked for the purpose of the fence with a hole in it. Ms. Miller responded that the fence was not necessary as the applicant was putting in landscaping for the required perimeter screening. She said there was an existing fence, because of the required buffering between commercial and residential zones and added that the Sunfield Lakes Apartment complex provided a sidewalk that connected to the development where she had indicated.

Chair Simson called for applicant testimony.

Annemarie Skinner, Jim Toporek and Brian Shahum came forward. Ms. Skinner, the applicants' representative, said the applicant agreed with the staff report and the conditions presented as modified, including the right of way dedication that was changed from 39 feet to 36 feet. The applicant supported the assessment and requirements for the crosswalk as written and if the Commission chose to require the upgrade for the crosswalk they would take the SDC credits in exchange. The applicant appreciated staff's research on the easements and connections to adjacent properties and would meet the condition for the pedestrian connection. She said the applicant would also be in support of deleting the condition requiring the break in the fence. If the commission chose to require the opening they asked to change the word "central" to "northerly" as spot marked by staff was located where the proposed garages would go and moving it north was a better location and in line with the thirty foot public easement already in place.

Brian Shahum, from Mercury Development acknowledged that they would abide by the Commission's decision regarding the fence and stated he agreed with Commissioner Rettig's comment. He said the open fence would not create improved connectivity for the nearby townhomes and apartments and stressed safety concerns. He said he did not think the connection would have the desired effect and would not bring the two neighborhoods together. He emphasized the decision to put the fence was based on neighborhood meeting comments for more security and sound barriers and noted the requirement in 16.92.030 to have a minimum six foot high site obscuring wooden fence or evergreen screening; they chose a combination of the fence and screening. He thanked staff for the assistance.

Jim Toporek, *Studio 3 Architecture* began his testimony by describing the purpose of Building 1 and said it was the face of the project on Langer Drive so windows and color were added based on the comments of the Commissioners at the prior hearing. He noted the undulation, wrapped balconies, and two additional sets of windows added to the north side of Building 2 and stated that with the pedestrian plaza it created a more inviting threshold into the project for pedestrians and vehicle traffic along Langer Drive.

Chair Simson thanked the applicant and stated that having pedestrian scale along Langer Drive was in the code. She asked for questions from the Commission for the applicant. None were received. The applicant had twenty two minutes remaining for rebuttal. She asked for public testimony.

Robert James Claus, Sherwood resident came forward and stated it was ultra-vires; beyond the scope of authority of the City Engineer to be able to tell the Commission the amount of the SDCs for this project. He said he did not want to hear evidence that SDCs had to (or not) be paid from someone who was a percipient witness. Mr. Claus asked staff to display the site and commented that the site was two parcels with Avamere adjacent to the site. He said it was an illegal site because of the way Avamere happened. Since the Langers owned both parcels he understood there was a friendly easement. Mr. Claus

asked if the Commission had an application signed by the Langer family, because Dave Zimel was a lessee unless he had bought the site. He commented on the Sherwood Plaza public hearings and said the Langer group indicated it was their property; if it was their property and a separate parcel, Avamere had to be cleaned up with an easement across Sherwood Plaza, because if the land had changed hands it was an illegal use; Avamere was required to have two exits.

Mr. Claus suggested the Commission continue the hearing and said the site had a thirty year history that included granting easements to Avamere. He commented that there should be a condition not to sell the apartments, because the zoning was contingent on the use.

Mr. Clause advised going back to square one and finding out what the Commission was issuing. It was not a conditional use, staff was saying in effect those were the same parcel and the use comes over from the shopping center that may be illegal. He suggested counselling with the city attorney and asked what happened if the applicant said they were selling the parcel; making it illegal. He said it would be transferring a use to another use with separation of ownership and suggested the Commission find out what was happening, because there would not be another chance.

Nancy Taylor, Sherwood resident said that she read the information for both hearings and asked the Commission to question the traffic impacts of the application. She commented on moving the light down to Century Blvd. from the McDonalds intersection and asked when it would happen and where the $900,000 would come from. She said the approval was contingent on the traffic light being moved, but that the money would not be there to move the signal. Ms. Taylor commented on the difficulty crossing Hwy 99W at the Y during traffic and said this would be the same. She said the report indicated that eighty-two units would generate fifty one cars in the high peak time and asked for additional review. She said eighty-two units each with two people with jobs and cars was a potential for 164 cars and commented that it was the same traffic engineers that did a study that resulted in a fatality involving an individual crossing between the Walmart and Target sites. She asked the Commission to look at the traffic numbers and question them. She said she did not think fifty one cars during peak traffic time was a rational number; maybe a book number, but books don't save lives, rational thinking and safety did.

Susan Claus, Sherwood resident, commented that Avamere was supposed to have two exits and after the development was completed there was a curbing put in so that the second exit flowing into the Plaza could no longer be used. She said Avamere had over forty-nine units and required two exits, but the second exit had never been resolved. Ms. Claus commented about allowing the secondary residential use to the larger part zoned Retail Commercial and suggested if it could be divided that was giving away zoning. She said it had to remain part of the center and not parceled or sold.

Ms. Claus commented about the enhanced pedestrian access and thought that putting it at the corner between the two shopping centers was a false analysis. She said the pedestrians living in those units would go out the shared access [Trumpeter] and cross the street in the middle of the shopping center to the theater and the other uses in that center. She suggested the wrong crossing would be enhanced.

Ms. Claus commented that the intersection that at Langer Drive and the exit off of Hwy 99W was a troubled intersection at peak times and needed stop signs. She advocated that the impact of eighty-two units should fix the intersection that already had traffic problems. She commented on the accident on Langer Farms Parkway and said the traffic consultant had noted that it was unknowable that everybody would flow from the Walmart to the Target center. Ms. Claus commented that it was human nature and the kids living in the apartments were not going to go to the end of the property, but take the shortest route.

Ms. Claus commented that parking was always a problem and asked if there was additional parking in the back part of the Plaza. She said even though the applicant was above the minimum, the minimums are too low. She reiterated legal issues associated with residential zoning on the Retail Commercial zone.

Tony Bevel, Sherwood resident, said he did not like hearing that the minimum required was being done. He thought Sherwood was better than that and expressed concerns that eighty-two apartments would mean a lot of kids who would not pay attention and cross the street where they should not. He suggested a couple of highly visible enhanced signage in the area to slow down traffic and prevent further incidents. He acknowledged the Walmart/Target accident and said it happened where the person should not have crossed. He said it could happen near this development and suggested the Planning Commission really look at pedestrian safety. He said he would hate to have another incident just to save the developer money and the Planning Commission had a chance to minimize that by putting in a lot of pedestrian safety.

Chair Simson asked for applicant rebuttal.

Ms. Skinner responded that the parcel was one tax parcel and was not part of the Avamere tax parcel. The proposed apartments were on the same parcel with the Retail Commercial, as one lot. She read from the code: "the Retail Commercial zoning district provides areas for general retail and service uses that neither require larger parcels of land nor produce excessive environmental impact." The code said, "multi-family housing subject to the dimensional requirements of the High Density Residential zone when located on the upper floors, in the rear, or otherwise clearly secondary to commercial buildings are allowed." Ms. Skinner said the zoning for the parcel allowed it, whether the parcel was split in two or not the zoning remained the same and the apartments would remain "clearly secondary" to the existing commercial building that sits in front.

Ms. Skinner stated the professional traffic engineers and the City Engineer had more knowledge and expertise and had come up with the conditions. She said they used a nationally accepted traffic manual and that the traffic study showed 545 net trips; inferring that the 51 trips was correct. Ms. Skinner noted that staff and professional engineers studied traffic on a daily basis and the applicant was not opposed to conditions set. She said the applicant was doing more than required in providing more parking spaces and more screening.

Brian Shahum stated they were not aware of the loss by the Walmart and did not want that to happen again. He said the apartment complex would be high end apartments with good finishes and more parking, bicycle racks, open space, and trees than required. He said they were trying to do something that would be nice for Sherwood; that his family had been in Sherwood for a long time as they built the center in the 1970's. He hoped the community would understand all the hard work put into the project.

Chair Simson asked for questions for the applicant.

Vice Chair Griffin asked regarding overflow parking. Mr. Shahum replied that there would be addition spots behind the commercial building that were not counted and there was over four hundred spaces in the shopping center that were open to use in addition to the seventeen garages.

Vice Chair Griffin asked what kind of large delivery truck traffic delivered to the center. Mr. Shahum responded that two trucks came twice a week for the Dollar Tree and smaller delivery trucks either early in the morning or late in the evening so they would not be parked there continuously. He said they had looked at the back and the development would have more space.

Chair Simson clarified that the applicant was in agreement with all the existing conditions. She asked if the applicant was in agreement if the Commission moved toward safety enhancement for the crosswalk. Mr. Shahum confirmed.

Chair Simson allowed for staff rebuttal.

Michelle Miller referred to Exhibit K in the packet and pointed out the twenty four foot wide emergency access easement to Avamere and said it was the access Mr. Claus expressed concern about. Vice Chair Griffin noted that a Goodwill Truck was parked over the access easement. Mr. Shahum contended that the Goodwill truck was east of the exit and accessible.

Chair Simson received confirmation that staff had located the break in the fence on the back side of the cover parking and that was why the applicant requested to move the opening from a centrally location to the north.

Michelle explained that the signal removal on Sherwood Blvd to 12th Street was proposed as part of the TSP along with all of the improvements included in a feasibility study. Whether or not the signal move happened it was separate process from this development. She reiterated that if the properties were ever to be separated through a minor land partition staff would review if it was still conforming to the code and there would still be oversite by the Planning Department. Ms. Miller said the lease was long term and included the ability to develop the property; they would manage the apartment complex until their lease expires.

Mr. Shahum did not disclose the rent rates, but noted that they would be slightly below the Cannery Row Apartments. Commissioner Pearson commented that his concern was affordable housing, but he did not consider Cannery Row as affordable. He was concerned in particular for seniors who were being priced out of the market.

Chair Simson closed the public hearing and began deliberation.

Commissioner Pearson proposed to move the pedestrian access through the fence to the corner of the property near Langer Drive. Ms. Miller informed that any point along Trumpeter would support connection to public access, but if the opening was closer to Langer Drive the connection to the Sunfield development became less relevant.

Chair Simson stated she had looked at a lot of apartment complexes in Sherwood as a result of the application and many did not have fences, but the more she looked at the proposed, the more challenges she saw for an opening. She acknowledged Commissioner Rettig's comment of a burden on the title and said she was torn.

Vice Chair Griffin agreed and stated there should not be an opening. He said the distance was not great enough and it was unsafe to have an opening between two garages or near a dumpster where people could hide and wait.

Motion: From Commissioner Alan Pearson not to have a break in the fence, Seconded by Commissioner Rob Rettig. Chair Simson, Vice Chair Griffin, Commissioners Pearson and Rettig voted in favor. Commissioner Meyer voted against. Motion passed.

Condition C.4 was removed from the conditions of approval.

Chair Simson commented about the pedestrian crossing upgrades. She noted that advanced signage worked coming from the east, but not as well from the other direction, because of the sweeping corner where the TriMet buses parked. The sign and pedestrians would not be seen because of the congested intersection. She said she did not understand what SDC credits would be available, but from experience she thought the crossing should be at least as safe as the pedestrian activated crossing in front of the Sherwood Library. She voiced that people exiting Hwy 99W were already trying to deal with the traffic from the shopping center and she did not think that pedestrians were visible. She stated now was to time to take the opportunity to improve the crossing with more than striping.

Commissioner Meyer stated he liked the idea of the high visibility crossing similar to outside the library as discussed and said it sounded like some of the costs could be offset by credits that could be earned. He agreed with Chair Simson's concerns and thought it was the correct location to encourage pedestrian traffic. He commented that education was a big part of safety.

Commissioner Pearson agreed and commented on a new pedestrian activated crosswalk on Murdock Road (near Willamette Street) and he did not care what the cost was if it saved a life. He said the first duty of government was to protect the citizens. He acknowledged that there would be jaywalkers and advocated trying to entice safe behavior with a well-lit, well-marked crosswalk.

Josh Soper, City Attorney recognized comments from the Commission and cautioned that in general it was not advisable to try to impose a requirement on the applicant beyond what the data and current regulations supported. That was how the City ensured that all applicants that come before the Commission were treated equally. He repeated that, in this case, the City had looked at the data and required what the data suggested.

Chair Simson said she would not want to be an applicant where the "goal posts were moved," but she appreciated the applicant acknowledging that in exchange for SDC credits, they would improve an intersection and make it safer for their residents.

Vice Chair Griffin commented that it was foolish to pretend that residents would use any of the crosswalks, and he thought it was unfair to force the applicant to pay for the intersection improvements. He said it did not matter how many flashing lights were placed there; the intersection could not be seen in time around the corner by the Taco Bell. He said signage needed to be further down and asked if the Sunfield Lakes or Arbor Terrace developments, with many more residents, had been required to put in a safety crossing. He asked why the applicant would be required to when no other development had to.

Commissioner Meyer stated people cannot be regulated and it did not matter how many crosswalks or signs were put in, people would do what they wanted, but the Commission could try to make the crossing as safe as possible. It was then up to the people to choose to use it. He agreed that some would cut across, but felt it was the best place to control the traffic.

Vice Chair Griffin noted the difficulty of the intersection and thought it was risky to add more pedestrian traffic to the location.

Chair Simson explained that the crosswalk was chosen by staff as the best location, because traffic was already controlled by the shopping center and the 99W exit. She said she understood the applicant could get SDC credits and it would be a net cost to them of zero. Ms. Hajduk clarified that the SDCs that they would not be paying, because they received credits, would be SDCs that would be unavailable for other transportation projects throughout the City. In essence, the pedestrian crossing improvements would supersede a planned project in the City's Capital Improvement Plan.

Commissioner Pearson said the Commission would be imposing a condition that was not mandated by law, but the applicant had agreed to do it and fortunately it was cost neutral. He said jaywalkers had a responsibility to walk the extra feet to a safe crossing.

Chair Simson asked staff to craft language for the condition to improve the pedestrian crossing as discussed. Mr. Kilby clarified that there was a difference between enhanced and signalized signage and what the Commission was asking the applicant to do was to signalize the intersection. He said if the applicant made the proposal to add the improvements, because they could receive SDC credits, it would need to be memorialized in the decision so when it was built the City would be allowed to give SDC credits. If they built it on their own, the City may not give those credits.

Chair Simson noted that the required condition was a crossing with a warning sign and striping and no lights. She said by adding verbiage to the requirement to be signalized would allow for SDC credits.

Mr. Galati, asked what level of signalization the Commission wanted. He said the stop sign on Sunset Blvd was not as expensive as the RRFB on Pine Street and what was being proposed for Langer Farms Parkway was almost $90,000 just for the construction, exclusive of engineering services.

Chair Simson called for a recess at 9:13 pm and reconvened at 9:26 pm. She asked for a straw vote from the Commission. Commissioners Pearson and Meyer were in favor of a signalized crossing. Vice Chair Griffin said if the applicant was able to recuperate the expenditure he thought it might be good. Chair Simson indicated that the Commission was in favor of a signalized crossing for the safety of the intersection if the applicant was in agreement.

Ms. Miller responded that the applicant was willing to do the signalized intersection if it was required. The applicant could recoup a majority of the cost excluding the engineering and design cost.

Mr. Soper indicated that the Commission would have to require the signal because it was not what staff determined was required based on the current regulations and standards and data. (Chair Simson commented that the data was based on a closed grocery store location). Mr. Soper said the Planning Commission would be imposing the signal as a requirement and the applicant was not offering.

Commissioner Pearson commented that the Commission was requiring the signal because they were mandated by law to require it based on the applicant's willingness to do it. The only reason the Commission was requiring it was because of the legal requirement. The applicant could not recuperate the expense unless the Commission required it.

Mr. Soper explained that there was no legal requirement for a signalized intersection. If the applicant improved the crosswalk as an act of charity, they would not be able to recoup the expense.

Commission members took note that it was outside the Commission's purview.

Mr. Kilby interjected that the applicant was in support of what the traffic consultant had indicated was warranted. If the Commission required a signal, it would be over and above what was required and staff was prepared with a finding and a condition if the Commission chose to require it. He explained that by using that process the improvements would become required and SDC credits could be earned, but only a portion of the cost would be refunded; a small drop in the bucket compared to the cost of the actual improvement.

Based on that, Vice Chair Griffin advocated the Commission require what the code required and not beyond. He advocated that it was not fair and questioned what happened with the next developer.

Mr. Kilby asked if the Commission was comfortable with the condition as written.

Chair Simson said the city had a duty to do something to that intersection, but to put it on the applicant was not the right place.

The following motion was received.

Motion: From Vice Chair Russell Griffin to approve the application for SP 16-04, Sherwood Plaza Apartments, which was continued from June 28, 2016, based on the applicant's testimony, public testimony received, and the analysis, findings and conditions in the current staff report with the modifications as so stated previously by Chair Simson. Seconded by Commissioner Alan Pearson. All present Planning Commissioners voted in favor.

7. Planning Commissioner Announcements

Vice Chair Griffin recapped the success of the Voices for Performing Arts (VPA) play of *My Fair Lady* with over 1500 tickets sold over four nights.

8. Adjourn

Chair Simson adjourned the meeting at 9:35 pm.

Submitted by:

_____

Kirsten Allen, Planning Department Program Coordinator

Approval Date: _____

City of Sherwood, Oregon
Planning Commission Meeting
July 26, 2016

Planning Commissioners Present:
Chair Jean Simson
Vice Chair Russell Griffin
Commissioner Chris Flores
Commissioner Alan Pearson
Commissioner Lisa Walker (regular mtg)

Staff Present:
Julia Hajduk, Community Development Director
Bob Galati, City Engineer
Brad Kilby, Planning Manager
Michelle Miller, Senior Planner
Michelle Babcock, Admin. Assistant II

Planning Commission Members Absent:
Commissioner Michael Meyer
Commissioner Rob Rettig

Council Members Present:
None

Public Work Session and Public Open House

1. Presentation of the Sanitary Sewer Master Plan and Stormwater Master Plan

Chair Simson began the meeting at 6:00 pm.

Mike Carr with his team of consultants from MSA led the joint work session and open house. He gave a presentation on the existing conditions of the sanitary sewer and stormwater assets and the proposed updates to the City's master plans including areas of concern, recommended capital improvement projects with estimated costs (see record, Exhibit 1). The master plan updates will be reviewed by the Planning Commission in a public hearing with recommendations to City Council.

The Planning Commission held a recess at 6:48 pm to convene to the regular meeting.

Regular Meeting

1. Call to Order/Roll Call

Chair Jean Simson convened the meeting at 7:01 pm.

With no Consent Agenda or Council Liaison Announcements, she asked for Staff Announcements.

2. Consent Agenda

None

3. Council Liaison Announcements

Julia Hajduk, Community Development Director on behalf of the Council announced that the Council forwarded several charter amendments to the November 2016 ballot including the Mayoral term, Council stipend, City Recorder supervision, change the ordinance reading process to clarify how it works and general charter clean up.

4. Staff Announcements

Brad Kilby, Planning Manager, reported that Connie Randall would return as a city staff member on August 15, 2016 to work on the Comprehensive Plan update. He noted that Commissioner Rettig had filled a vacated Planning Commission seat for the last six months and the mayor had chosen to reappoint

him on August 16th to a full term. He invited Planning Commission members to attend training offered by the Oregon City Planning Director's Association on September 29, 2016.

Mr. Kilby suggested a motion to amend the agenda to include item 6 as New Business and to change item 6.a. from medical to recreational marijuana.

Motion: Commission Pearson to amend the agenda to read item number 6 as New Business and Public Hearing, PA 16-05 as Recreational Marijuana Facilities (Michelle Miller), Seconded by Commissioner Chris Flores. All present Planning Commissioners voted in favor.

5. Community Comments

None

6. New Business

a. Public Hearing – PA 16-05 Recreational Marijuana Facilities (Michelle Miller)

Chair Simson read the public hearing statement and stated the Planning Commission would make a recommendation to City Council who would be the final hearing authority; appeals would be made to the Land Use Board of Appeals (LUBA). She stated as a legislative hearing there was no ex parte contact, bias or conflict of interest. Chair Simson asked for the staff report.

Michelle Miller, Senior Planner gave a presentation of the staff report (see record, Exhibit 2). She said the hearing was to discuss changes to the Sherwood Zoning and Development Code by adding definitions for the license types for recreational marijuana facilities, adding general criteria in Special Uses, Chapter 16.38, providing specific criteria for the different facilities, and zoning restrictions for the five license types.

She gave a history of the public outreach for the draft rules:

- Online Survey from March 1-31, 2016 with 289 responses
- Public Work Sessions with interested citizens, Planning Commission and Police Advisory Board members on March 10 and April 26
- Community Service Fair, May 21
- Music on the Green, July 13
- Sherwood Main Streets, July 21
- Monuments, Archer and Posters
- Public Notice Posted July 5

Ms. Miller explained that staff has been directed to evaluate the issue, because council had placed the issue of whether to ban recreational marijuana facilities in Sherwood before the voters to decide. She said the legislation before the Commission was in the event that the temporary ban in place was lifted. Sherwood should have rules and regulations that are specific to our community.

Ms. Miller said the Oregon Liquor Control Commission had been developing rules since Measure 91 in 2014 and had come up with five different license types to provide a kind of "seed to sale" distribution network along with laboratory and research facilities. The Oregon Liquor Control Commission (OLCC) will be issuing the five license types as follows:

1. **Producer:** growing and cultivating
2. **Processor**: converting marijuana to product extract, or edibles
3. **Wholesaler**: transferring and distributing quantities of product
4. **Retailer:** can sell and deliver directly to consumers
5. **Laboratory or Research:** testing facility licensed by the OLCC

Ms. Miller explained that the OLCC had established broad rules statewide; facilities were not allowed on federal property, at the same physical location or address as a liquor license holder, nor at the same physical location/ address as a medical marijuana dispensary, growing or processing site registered with the Oregon Health Authority (OHA). Facilities are not allowed in the residential zones (with the exception of producers) and retailers cannot be within 1000 feet of public or private schools. Ms. Miller stated that the proposed rules for Sherwood go beyond the state regulations.

Ms. Miller showed a table which designated which commercial or industrial zones the five types of facilities could be located along with maps. The second showed locations in the commercial and industrial zones where facilities could be added based on buffers to parks, schools and the existing medical marijuana dispensary on Tualatin Sherwood Road. She explained the specific rules about each of the five license types.

Producer
Producers would be allowed in General or Light Industrial Zones for indoor production only. Special rules for odor mitigation measures would also be put in place. Producers would have to maintain a 100 foot buffer from residential locations and could be adjacent to an existing medical marijuana dispensary, but not at the same location. Ms. Miller described feedback from a public work session where people were not interested in having the facilities close to residential neighborhoods, so a 100 foot buffer was proposed adjacent to residential neighborhoods.

Retailer
Ms. Miller explained that retail was direct sales to customers over the age of 21. The proposal called for the zoning to be allowed in the General Commercial, Light Industrial and General Industrial zones. Retail would not include walk-up, drive-thru or mobile delivery and would not be within 1000 feet of a public or private school, another retail or medical marijuana facility, nor a public park or plaza as defined. Ms. Miller said this language was very similar to the language developed for medical marijuana dispensaries with the exception of permitting recreational facilities in the general commercial zone. She showed a map with the allowed locations in general commercial, general industrial, light industrial, and employment industrial zones.

Chair Simson noted that retail uses were not listed in the Industrial Zones table (pg. 39 of the packet). Ms. Miller pointed out that it was under the commercial section of the table on page 37. In discussing the buffers, it was explained that the buffers began at the property line and not from the edge of the building.

Processor, Wholesaler, and Laboratory or Research
Ms. Miller explained that these types of facilities did not raise a lot of concerns, because most of the activity would be inside a building and not open to the public. These types of facilities could not be located in Old Town, must be 100 ft. away from any residential zone and outdoor storage of marijuana would not be allowed. Security rules would apply. She said the city could not regulate signage based on the use nor the content of the sign; sign rules would apply based on the zoning.

Processors would be permitted in the General, Light, and Employment Industrial. They would not be located within 100 feet of a residential zone or at the same location as a medical marijuana dispensary.

Wholesalers would be permitted in the General, Light, and Employment Industrial and in the General Commercial zone. They would also have a 100 foot residential buffer and effectively be allowed in the areas north of Tualatin Sherwood Road.

Labs and testing facilities would be allowed in General, Light, and Employment Industrial, Office, General, Retail Commercial. With the 100 foot residential buffer, there were no Retail Commercial properties that would allow a lab or testing because of the proximity to the residential zone.

Chair Simson noted that the 100 foot residential buffer was for production, processors, testing and wholesale, but not retail. Ms. Miller confirmed and said the theory was that with the park and school buffer near the residential zones, it satisfied the idea of having the separation. If retail had the 100 foot residential buffer it would be similar to the permitted locations for Wholesalers.

Ms. Miller noted that the proposed code language was available as Exhibit A with proposed changes in color, Exhibit B was a clean copy of the code changes, Exhibit C was a memo regarding the online survey, and Exhibit D was the zoning map with buffers (see packet or planning record). She asked the Commission to forward a recommendation to City Council for the tentative hearing date of August 16, 2016.

Chair Simson called for public testimony.

Sheri Ralston, Sherwood resident and medical marijuana facility owner, advised that the state and OLCC measured the buffers from the edge of the building. She recommended a buffer around the YMCA because of the number of kids that frequented in the area and asked if she changed her medical marijuana facility to a recreational facility if the back of the property could be co-located for testing or processing. She noted that at her Newberg facility she had been allowed to co-locate a processor. Ms. Ralston asked if the ban should be lifted by the people's vote in November, would the co-location be allowed. She said the state, OLCC and many jurisdictions allowed a testing, wholesale or a processor, but not a producer to co-locate with a retail facility.

Chair Simson commented that for security and trips it seemed like an "economy of use" to have a couple of facilities co-located. Ms. Ralston chose not to comment personally, but responded that this was how the City of Newberg felt. She pointed out that she had not had any problems with security at her recreational facility in Newberg.

Ms. Miller explained that the buffers and rules established by the City could be different than the state and the city could choose to measure the buffers differently provided it was specifically defined in the code. She verified that it was proposed to specifically be defined from property line to property line.

Vice Chair Griffin asked where the definition came from and how it compared to other jurisdictions. Ms. Miller asserted there was a need to be clear about where the buffer boundary was and that the City of Hillsboro had formulated a similar rule when they codified medical marijuana rules. She added that building to building was less clear of where to measure and it was easier to define a property line. The buffers were measured at the property line and impacted a few properties that were close to the edge.

Mr. Kilby reminded the Commission that measuring from building edge left several hundred feet behind the schools before getting to the property line and when the City imposed buffers on other uses like sensitive areas, they are measured from the edge.

The Commission felt that the property line made the most sense and was consistent with other references in the code. Ms. Miller noted that the way to measure proximity restrictions was on page 45-46 of the packet in Exhibit A.

Ms. Miller said the co-location question should be discussed by the Commission and community standards were up to the Commission's discretion.

Chair Simson said the state rule would be applied if the Commission was silent and asked what the state rule on co-location was. Ms. Miller responded that recreational facilities could not be at the same location as a medical marijuana dispensary, growing or processing and they could not be at the same physical address. Ms. Miller referred to Ms. Ralston's example of a retail facility at the front address that could potentially be co-located with another suite or building that had a different address.

Ms. Miller clarified for Commissioner Pearson that two retail uses had a 1000 buffer and could not be adjacent. He wanted the public to be aware that building size and hours of operation were included in the proposed rules on page 46 of the packet. No retail facility type could be over 3000 sq. ft. in area, but other facility types did not have size limitations, but would be based on their business plan. Commissioner Pearson said that size based on zoning rules would apply.

Mr. Kilby said there were not rules for sizes of warehouses, therefore a marijuana warehouse would not be limited in size. Retail sales are limited to 10% in the Industrial Zone, but the 3000 sq. ft. limit would still apply regardless of the size of the warehouse.

Ms. Miller noted that Sherwood's recreational facility was fairly close to property zoned Office Commercial (on Hwy 99W), but because of the mixed use, no facilities would be allowed. She added that it was unknown what the zoning would be across Hwy 99W in the Urban Reserve area. Commissioner Walker commented that Sherwood's recreational facility should be considered like a park or a school as it was a community location. Chair Simson noted that a publically owned recreational facility was already defined as a buffered location. Staff agreed to add the buffer to the map.

Chair Simson repeated that if the Commission remained silent then co-location was regulated by the state which allowed recreational to be co-located with recreational if the address was different, but not with medical if the City did not adopt specific rules.

Vice chair Griffin noted that on page 8 the definitions of the marijuana facility types referred to "recreational marijuana" in some definitions and "marijuana" in others. Ms. Miller responded that the definitions were for facilities governed by the OLCC so it was implied that it was recreational only. Discussion followed. Chair Simson pointed out that medical marijuana was governed by the Oregon Health Authority and asked how that was handled in the Sherwood Code. Ms. Miller replied that the code was silent, as if it was any other type processing or producing business. They are regulated by the OHA and the City had no discretion as to where they were located. Ms. Miller proposed that the word "recreational" be removed, the commission was in consensus.

Vice Chair offered some formatting suggestions to help the table read better. He asked about the section regarding odors. Ms. Miller responded that it was in response to the public's concerns about excessive odors for nearby properties. She said the language came from the City of Hillsboro for marijuana odor mitigation. Ms. Miller pointed out that if the odor was really excessive the state DEQ could get involved. Vice Chair Griffin received confirmation that the odor rules were in addition to the state rules and asked if they could be onerous.

Commissioner Pearson commented that we discussed odors when updating the industrial standards. He was told marijuana could be malodorous. Vice Chair Griffin argued that with industrial standards the Environmental Protection Agency (EPA) standards would apply, but here the City was defining what should be done with very specific language.

Mr. Kilby suggested the Commission consider how the EPA or the state DEQ might regulate odors and gave an example of farming smells from harvesting sweet potatoes or onions that have a potent odor in Washington State. He commented that when talking about agricultural products and plants the state was going to be hands off, especially in a right to farm state like Oregon. Mr. Kilby noted that staff heard from other jurisdictions that odors always come up. The state did not have anything specific to those odors, so through the process the City decided to address odors for marijuana differently. He said it was a good question as to whether it was onerous, but it had been vetted through another jurisdiction and staff would investigate if it was a concern.

Chair Simson pointed to standards for recreational retail sales on page 45 of the packet where E.2 described access to retail facilities as prohibited to the public and limited to employees, personnel, and

customers over the age of 21. She commented the public was not generally prohibited from retail. The language was revised to read "Access to retail sales facility shall be limited to employees, personnel, and customers over the age of 21".

Vice Chair Griffin turned to item 8 on page 46 and asked for clarification of the 3000 square feet in area used for the display of retail marijuana products. Ms. Miller clarified that the display or retail area was limited to 3000 feet. This was Sherwood specific language similar to rules for medical marijuana dispensary size limits.

Chair Simson asked again about co-location and said the state did not allow recreational facilities to be at the same physical location or address as a medical facility. She asked if a medical growing facility could be at the same location as a medical dispensary. Ms. Miller was unsure because only the OHA and the police could know where medical production was located.

Vice Chair Griffin commented that is was confusing because it seemed that the OHA had made it very restrictive to get medical marijuana products, but the OLCC had made it much easier to get recreational marijuana. Commission Pearson said the commission should compare medical and recreational marijuana similar to apples and oranges and that jurisdictions were expected to view them different and not co-mingle them.

Ms. Miller explained that there were some temporary rules in other jurisdictions that did allow both recreational and medical to be at the same location now as a temporary rule, because the recreational licenses for retail had not been issued yet, so they were allowing the retail sales at medical dispensaries. The Sherwood City Council did a ban on that option. The permanent rule would not allow retail facilities at the same location, but it could change. Ms. Miller said one of the rules proposed for Sherwood was that a retail facility could not be within a 1000, feet nor be co-located of a medical dispensary. Commissioner Walker asked if a processing facility [or other type] could be co-located with a retail facility. Chair Simson commented that it was the retail spaces that would be "seen" by the public and being silent would allow the others to co-locate.

Commissioner Pearson noted that the land available for these operations was severely restricted. He said the City had taken the view that this was a business, ignoring the product, and talking about rules for wholesaling, warehousing and processing; the same as for meat, bread or cookies. Commissioner Pearson was okay with co-locations.

Commissioner Walker asked if the Commission was going to stay silent on co-location and let the state rules apply. The Commission agreed. Chair Simson stated that what was heard from the people was that concerns were about the public retail look of Sherwood and maintaining the family value. She said if the City was to allow it, then it can moderate how much retail the City had. She was hopeful a wholesale or production facility would not have big green signs.

Commissioner Walker said it surprised her that there was no residential buffer on the retail facilities and said they should be added. Ms. Miller said the allowed locations would be similar to the wholesale map locations as a retail buffer eliminated a number of locations on Hwy 99W. Discussion followed. Commissioners commented on how far 100 ft. was, where the buffer edge was, and that every residence would then have a buffer from marijuana facilities.

Motion: Commissioner Lisa Walker to change the recreational retail limitation to include a 100 foot [buffer] from residential properties for retail recreational facilities, Seconded by Chair Jean Simson.

Ms. Miller commented that if a retail facility was opened in the commercial property, then a 1000 buffer would be added and eliminate a number the other commercial properties along Hwy 99W.

Commissioner Walker noted the simplicity of making all the residential buffers the same. She thought most of the public concern was over the retailers and to it seemed funny to make them the least restrictive. She added that the urban reserve properties around Sherwood may figure into marijuana regulations in the future.

Commissioner Pearson commented that the Commission was squeezing the areas down smaller and smaller. He said as long as the Commission was aware of that, he was okay with it.

All present Planning Commissioners voted in favor.

Commissioner Walker asked about the distance to state liquor stores and asked if a facility could be next door with a different address. Ms. Miller responded that the state rule did not allow marijuana facilities at the same location as liquor license, which included bars, and a retail facility could be next door.

Commissioner Walker asked about producers in the residential zones. Ms. Miller replied that the proposed rules did not allow producers for commercial uses in the residential zones and the state allowed growing for personal use in residential zones.

Motion: Vice Chair Russell Griffin to recommend approval to the City Council for PA 16-05 Recreational Marijuana Facilities based on the applicant testimony, public testimony received, and the analysis findings and conditions in the staff report with the modifications as duly stated in this meeting, Seconded by Commissioner Alan Pearson. All present Planning Commissioners voted in favor.

Mr. Kilby noted that the City Council public hearing was tentatively scheduled for August 16, 2016 and would be posted on the project website.

Chair Simson complemented the Police Advisory Board for their input and effort put into the rules.

7. Planning Commissioner Announcements

Vice Chair Griffin commented that sometimes Planning Commission members made comments about projects and he wanted to ensure that they were not taken personally. He and Commissioner Walker recognized the hard work involved and said the critiques were not a reflection on staff. It was about working together to create a great product for the community. The rest of the commission concurred.

8. Adjourn

Chair Simson adjourned the meeting at 9:35 pm.

Submitted by:

_____

Kirsten Allen, Planning Department Program Coordinator

Approval Date: _____

New Business Agenda Item a

City of Sherwood **September 6, 2016**
STAFF REPORT:
File No: PA 16-03 Floodplain Code Update

Signed: Connie Randall
Connie Randall, Senior Planner

Proposal: The City of Sherwood proposes to amend the Definitions Chapter and the Floodplain Overlay Chapter of the Community Development Code. The purpose of the amendment is to update the regulations to remain consistent with the requirements of the National Flood Insurance Program (NFIP). Specifically, the update will involve modifying the definitions associated with the program, and adopting the revised Flood Insurance Rate Maps associated with the community. The proposal seeks to amend Chapters 16.10 (Definitions) and 16.134 (Floodplain (FP) Overlay) of the Sherwood Zoning and Community Development Code (Exhibits A and B).

I. BACKGROUND

A. Applicant: This is a City initiated text amendment.

B. Location: The proposed amendment is to the text of the development code and applies citywide, particularly to properties in the Floodplain Overlay (FP) zone (Exhibit C).

C. Review Type: The proposed text amendment requires a Type V review, which involves public hearings before the Planning Commission and City Council. The Planning Commission is scheduled to consider the matter on September 14, 2016. At the close of their hearing, they will forward a recommendation to the City Council who will consider the proposal and make the final decision whether to approve, modify, or deny the proposed language on October 4, 2016 (tentative). Any appeal of the City Council's decision relating to this matter will be considered by the Oregon Land Use Board of Appeals.

D. Public Notice and Hearing: Notice of the September 27, 2016 Planning Commission and October 4, 2016 City Council hearings on the proposed amendment was published in *The Times* on September 8, 2016; in the September edition of the *Gazette*; and in the August/September edition of the *Sherwood Archer*. Notice was also posted in five public locations around town and on the web site on August 23, 2016.

Public notice was mailed to affected property owners on August 23, 2016. Affected property owners include those property owners whose land has been identified as having any portion thereof located in a floodplain or floodplain management area.

Oregon Department of Land Conservation and Development (DLCD) notice was submitted on August 2, 2016.

E. Review Criteria:
The required findings for the Plan Amendment are identified in Section 16.80.030 of the Sherwood Zoning and Community Development Code (SZCDC).

F. Background:
The National Flood Insurance Program (NFIP) is a federal program created in 1968 through the passage of the National Flood Insurance Act and administered by the Federal Emergency Management Agency (FEMA). The program allows affected property owners in jurisdictions

that have adopted land use regulations for development in the floodplain to obtain federally-backed flood insurance.

The Flood Insurance Rate Map (FIRM) is the official map prepared by FEMA which delineates the Special Flood Hazard Area (SFHA) and shows a community's Base Flood Elevations (BFEs), flood zones, and floodplain boundaries. The SFHA is the area where floodplain management regulations of the NFIP must be enforced and where mandatory purchase of flood insurance applies. BFEs inform local insurance rates and set the benchmark for regulating development in the floodplain.

Section 16.134, Floodplain (FP) Overlay, of the SZCDC regulates development within special resource zones, including the flood hazard areas defined by FEMA based on the FIRMs. The FIRMs for the Tualatin Basin were last adopted by FEMA in 1982. Over the past several years, FEMA has been working on a "Flood Map Modernization" project to improve and update the nation's flood maps and create digital FIRMs.

On May 4, 2016, FEMA notified the City of the final flood elevation determination and that the FIRM for Sherwood would become effective on November 4, 2016 (Exhibit D). The City was informed that additional requirements must be met under Section 1361 of the National Flood Insurance Act of 1968, as amended, within 6 months of the letter. Specifically, prior to November 4, 2016, the City is required, as a condition of continued eligibility in the NFIP, to adopt or show evidence of adoption of floodplain management regulations that meet the standards of Paragraph 60.3(d) of the NFIP regulations (44 CFR 59, etc.).

Communities that fail to enact the necessary floodplain management regulations will be suspended from participation in the NFIP and the following sanctions could apply (Exhibit E):

- Property owners will not be able to purchase NFIP flood insurance policies and existing policies will not be renewed.
- Federal grants or loans for development will not be available in identified flood hazard areas under programs administered by Federal agencies such as HUD, EPA and SBA.
- Federal disaster assistance will not be provided to repair insurable buildings located in identified flood hazard areas from damage caused by a flood.
- Federal mortgage insurance or loan guarantees will not be provided in identified flood hazard areas such as those written by FHA and DVA.
- Federally insured or regulated lending institutions, such as banks and credit unions, area allowed to make conventional loans for insurable buildings in flood-hazard areas of non-participating communities. However, the lender must notify applicants that the property is in a flood hazard area and that the property is not eligible for Federal disaster assistance. Some lenders may not voluntarily choose to make these loans.

II. AFFECTED AGENCY, PUBLIC NOTICE, AND PUBLIC COMMENTS

Agencies:
DLCD notice was submitted on August 2, 2016. Notice was provided to affected agencies on August 10, 2016. The Sherwood City Engineer responded stating that the proposed amendments would have no impact on existing or planned transportation systems (Exhibit F). The City has not received any comments to date on the proposed amendments.

Public:
The Planning Commission held a work session on July 12, 2016 to discuss potential floodplain management code updates. Approximately 12 residents attended the meeting. Staff provided a summary of the May 4, 2016 FEMA notification and the need to adopt the revised FIRM and associated minor code modifications to ensure compliance with the NFIP. The Planning Commission and public asked clarifying questions but no concerns were raised.

Public notice was published in *The* Times on September 8, 2016; in the September issue of the *Gazette*; and in the August/September issue of the *Sherwood Archer*. Notice was posted in five locations around town and mailed to affected property owners in August 23, 2016. To date, staff has fielded inquiries from two property owners about the proposal. Neither property owner raised any objections about the proposed amendments.

III. REQUIRED FINDINGS FOR A PLAN TEXT AMENDMENT

The applicable Plan Text Amendment review criteria are 16.80.030.A and C

16.80.030.A - Text Amendment Review

An amendment to the text of the Comprehensive Plan shall be based upon the need for such an amendment as identified by the Council or the Commission. Such an amendment shall be consistent with the intent of the Comprehensive Plan, and with all other provisions of the Plan and Code, and with any applicable State or City statutes and regulations.

The proposal seeks to amend chapters of the Zoning and Community Development Code, Volume III of the Comprehensive Plan (Exhibits A and B). While this specific proposal does not include changes to the goals and policies of the Comprehensive Plan, it would amend language of the Zoning and Community Development Code. There are no specific standards other than ensuring that the language is consistent with the existing Comprehensive Plan and any applicable State or City Statutes and regulations.

The proposed code amendments are necessary to be in compliance with FEMA floodplain management requirements and ensure continued participation in the National Flood Insurance Program (NFIP) and include adoption of "The Flood Insurance Study for Washington County, Oregon and Incorporated Areas," dated November 4, 2016, with accompanying Flood Insurance Maps and minor amendments to Section 16.134 (Floodplain (FP) Overlay) to clarify the purpose of the section and codify existing practices consistent with FEMA regulations and to add necessary floodplain management definitions to Section 16.10.

There do not appear to be any Comprehensive Plan requirements that would conflict with the proposed code language. Adoption of the proposed amendments is consistent with the following Comprehensive Plan policy goals:

<u>Environmental Resources, Natural Resources and Hazards Goal 4</u>: Limit land development in areas with known natural hazards, specific topographic soil, or drainage characteristics according to the kind and degree of hazard or characteristic present.

<u>Environmental Resources, Recreational Resources Goal 11</u>: Open Space and recreational facility planning will be coordinated with adjacent communities for maximum benefit. Examples of coordinated planning may include the preservation and acquisition of the Rock Creek floodplain (also known as the Onion Flats) which separates Sherwood from Tualatin, and the preservation of floodplains and natural areas north to the Tualatin River. Also the preservation of the Tonquin Natural Area will be coordinated with the City of Tualatin and Washington County.

<u>Natural Resources and Hazards Policy 1</u>: Floodplains shall be prohibited from development in order to reduce the risk of flooding, prevent or reduce risk of human life and property, and maintain function and values of floodplains such as allowing for the storage and conveyance of stream flows through existing and natural flood conveyance systems.

Environmental Quality Policy 1, Strategy: Floodplain and wetlands will be protected and preserved by greenway, floodplain and wetlands ordinances.

Recreational Resources Policy 1, Strategy: Floodplain and wetlands ordinances and dedication and acquisition programs will focus on protection of Rock and Cedar Creek greenways.

Applicable Regional (Metro) Standards
There are no known Metro standards that would conflict with the proposed amendments. Adoption of "The Flood Insurance Study for Washington County, Oregon and Incorporated Areas," dated November 4, 2016, with accompanying Flood Insurance Maps, is consistent with Title 3, "Water Quality and Flood Management" of the Urban Growth Management Functional Plan which seeks to "protect the beneficial water uses and functions and values of resources within the Water Quality and Flood Management Areas by limiting or mitigating the impact on these areas from development activities and protecting life and property from dangers associated with flooding."

Consistency with Statewide Planning Goals
Statewide Planning Goal 7 Areas Subject to Natural Hazards is "To protect people and property from natural hazards." Local governments are deemed to have complied with Goal 7 for riverine flood hazards by adopting and implementing local floodplain management regulations that meet the minimum NFIP requirements. With the adoption of the proposed ordinance, Sherwood would be in compliance with NFIP requirements and thus Statewide Planning Goal 7. Because the comprehensive plan policies and strategies are not changing and the comprehensive plan has been acknowledged by the State, there are no known conflicts with the proposed amendments.

FINDING: As discussed above in the analysis, there is a need for the proposed amendments. The proposed amendments are consistent with the Comprehensive Plan and applicable City, regional, State and Federal regulations and policies.

16.80.030.3 – Transportation Planning Rule Consistency

A. Review of plan and text amendment applications for effect on transportation facilities. Proposals shall be reviewed to determine whether it significantly affects a transportation facility, in accordance with OAR 660-12-0060 (the TPR). Review is required when a development application includes a proposed amendment to the Comprehensive Plan or changes to land use regulations.

FINDING: The proposed amendments are not tied to any one development application and do not affect the functional classification of any street. The proposed amendments will have no measurable impacts on the amount of traffic on the existing transportation system; therefore this policy is not applicable to the proposed amendment.

IV. RECOMMENDATION

Based on the above findings of fact, and the conclusion of law based on the applicable criteria, staff recommends Planning Commission forward a recommendation of approval of PA 16-03 to the City Council.

V. EXHIBITS

A. Proposed Code Amendments; PA 16-03 (Track Changes Copy)
B. Proposed Code Amendments; PA 16-03 (Clean Copy)
C. Map of Approximate Change to Special Flood Hazard Areas in Sherwood
D. FEMA Letter to Mayor Clark, dated May 4, 2016
E. *Adoption of Flood Insurance Rate Maps by Participating Communities*, FEMA, September 2012
F. Memo from Bob Galati, Sherwood City Engineer, dated September 6, 2016

Chapter 16.10 - DEFINITIONS*

Sections:

16.10.010 - Generally

All words used in this Code, except where specifically defined herein, shall carry their customary meanings. Words used in the present tense include the future tense; words used in the future tense include the present tense; the plural includes the singular, and the masculine includes the feminine and neuter. The word "building" includes the word "structure"; the word "shall" is mandatory; the word "will" or "may" are permissive; the words "occupied" and "uses" shall be considered as though followed by the words "or intended, arranged, or designed to be used or occupied."

Where terms are not defined, they shall have their ordinary accepted meanings within the context with which they are used. Webster's Third New International Dictionary of the English Language, Unabridged, copyright 1986, shall be considered as providing ordinarily accepted meanings.

16.10.020 - Specifically

The following terms shall have specific meaning when used in this Code:

Abut: Contiguous to, in contact with, or adjoining with a common property line; two properties separated by another parcel, lot, tract or right-of-way measuring twenty (20) feet in width or less, shall be considered abutting for the purposes of interpreting the infill-related development standards. See also, Adjacent.

Access: The way or means by which pedestrians and vehicles enter and leave property.

Access Way: A pathway providing a connection for pedestrians and bicyclists between two (2) streets, between two (2) lots, or between a development and a public right-of-way. An access way is intended to provide access between a development and adjacent residential uses, commercial uses, public use such as schools, parks, and adjacent collector and arterial streets where transit stops or bike lanes are provided or designated. An access way may be a pathway for pedestrians and bicyclists (with no vehicle access), a pathway on public or private property (i.e., with a public access easement), and/or a facility designed to accommodate emergency vehicles.

Accessory Building: A structure that is incidental and subordinate to the main use of property, is located on the same lot as the main use, and is freestanding or is joined to the primary structure solely by non-habitable space as defined by the State Building Code.

Accessory Use: A use or activity that is subordinate and incidental to the primary use of the property. A property may have more than one accessory use.

Adjacent: A relative term meaning nearby; may or may not be in actual contact with each other, but are not separated by things of the same kind. For example, a lot is adjacent to a lot across the street because the lots are separated by a street, not an intervening lot.

Alteration: An addition, removal, or reconfiguration which significantly changes the character of a historic resource, including new construction in historic districts.

Apartment: Each dwelling unit contained in a multi-family dwelling or a dwelling unit that is secondary to the primary use of a non-residential building.

Assisted Living Facilities: A program approach, within a physical structure, which provides or coordinates a range of services, available on a 24-hour basis, for support of resident independence in a residential setting.

Automobile Sales Area: An open area, other than a street, used for the display, sale, or rental of new or used automobiles, and where no repair work is done, except minor incidental repair of automobiles to be displayed, sold, or rented on the premises.

Base Flood: The flood having a one percent (1%) chance of being equaled or exceeded in any given year. Also referred to as the "100-year flood" or "100-year flood plain".

Basement: ~~Any floor level below the first story in a building, except as otherwise defined in the Uniform Building Code and this Code.~~ Any area of the building having its floor subgrade (below ground level) on all sides.

Below-Grade Crawl Space: means an enclosed area below the base flood elevation in which the interior grade is not more than two feet below the lowest adjacent exterior grade and the height, measured from the interior grade of the crawlspace to the top of the crawlspace foundation, does not exceed 4 feet at any point.

Board-and-batten: Wall covering composed of solid wood wide boards, and solid wood narrow strips. Wide boards are attached vertically with small spaces remaining. Narrow strips, or batten, are attached over spaces between boards.

Boarding or Rooming House: Any building or portion thereof containing not more than five (5) guest rooms where rent is paid in money, goods, labor or otherwise.

Building: Any structure used, intended for, supporting or sheltering any use or occupancy. Each portion of a structure separated by a division wall without any openings shall be deemed a separate building.

Building Area: That portion of a property that can be occupied by the principal use, thus excluding the front, side and rear yards.

Building, Existing: Any building erected prior to the adoption of this Code or one for which a legal building permit has been issued.

Building Height: The vertical distance above a reference datum measured to the highest point of the coping of a flat roof or to the deck line of a mansard roof or to the average height of the highest gable of a pitched or hipped roof. The height of a stepped or terraced building is the maximum height of any segment of the building. The reference datum shall be selected by the following criteria, whichever yields the greater height:

A. The elevation of the highest adjoining sidewalk or ground surface within a five (5) foot horizontal distance of the exterior wall of the building, when such sidewalk or ground surface is not more than ten (10) feet above lowest grade.

B. An elevation ten (10) feet higher than the lowest grade, when the sidewalk or ground surface described in this Section is more than ten (10) feet above lowest grade.

Building Official: The City employee or agent charged with the administration and enforcement of the Uniform Building Code and other applicable regulations.

Building Permit: A permit issued under the terms of the Uniform Building Code.

Buffer: A landscaped area, wall, berm or other structure or use established to separate and protect land uses.

Change in Use: A change to a parcel of land, a premise or a building which creates a change in vehicular trip generation activities, which changes the minimum parking requirements of this Code, or which changes the use classification as defined by this Code or the Uniform Building Code.

Church: Any bona-fide place of worship, including Sunday School buildings, parsonages, church halls, and other buildings customarily accessory to places of worship.

City: The City of Sherwood, Oregon and its duly authorized officials, employees, consultants and agents.

Clean Water Services: An agency of Washington County providing for sanitary sewer collection and treatment, and for storm water management.

Code: The City of Sherwood, Oregon Zoning and Community Development Code, Part 3 of the City of Sherwood Comprehensive Plan.

Co-Location: The placement of two or more antenna systems or platforms by separate FCC license holders on a structure such as a support structure, building, water tank or utility pole.

Commercial Trade School: Any private school or institution operated for profit that is not included in the definitions of an educational institution or school.

Commission: The City of Sherwood Planning Commission.

Common-Wall Dwelling: Dwelling units with shared walls such as two-family, and multi-family dwellings.

Community Development Plan: Part 2 of the City of Sherwood Comprehensive Plan.

Compatible: Any structures or uses capable of existing together in a harmonious, orderly, efficient, and integrated manner, considering building orientation, privacy, lot size, buffering, access and circulation.

Comprehensive Plan: The City of Sherwood Comprehensive Plan.

"Conditional Letter of Map Revision (CLOMR)": Means a letter from FEMA commenting on whether a proposed project, if built as proposed, would meet the minimum NFIP standards or proposed hydrology changes.

Conditional Use: A use permitted subject to special conditions or requirements as defined in any given zoning district and Chapter 16.82 of the Code.

Condominium: An individually-owned dwelling unit in a multi-family housing development with common areas and facilities.

Convalescent Homes: See Nursing Home in this Code.

Council: The City of Sherwood City Council.

Critical Facility: Means a facility for which even a slight chance of flooding might be too great. Critical facilities include, but are not limited to schools, nursing homes, hospitals, police, fire and emergency response installations, installations which produce, use, or store hazardous materials or hazardous waste.

Day-Care Facility: Any facility that provides day care to six (6) or more children, including a child day care center or group day care home, including those known under a descriptive name, such as nursery school, preschool, kindergarten, child playschool, child development center, except for those facilities excluded by law, and family day care providers as defined by this Code. This term applies to the total day care operation and it includes the physical setting, equipment, staff, provider, program, and care of children.

Deed Restriction: A covenant or contract constituting a burden on the use of private property for the benefit of property owners in the same subdivision, adjacent property owners, the public or the City of Sherwood, and designed to mitigate or protect against adverse impacts of a development or use to ensure compliance with a Comprehensive Plan.

Demolish: To raze, destroy, dismantle, deface or in any other manner cause partial or total ruin of a structure or resource.

Density: The intensity of residential land uses per acre, stated as the number of dwelling units per net buildable acre. Net buildable acre means an area measuring 43,560 square feet after excluding present and future rights-of-way and environmentally constrained areas.

Designated Landmark: A property officially recognized by the City of Sherwood as important in its history, culture, or architectural significance.

Designated Landmarks Register: The list of, and record of information about, properties officially recognized by the City of Sherwood as important in its history.

Development: Any man-made change to improved or unimproved real property or structures, including but not limited to construction, installation, or alteration of a building or other structure; change in use of a building or structure; land division; establishment or termination of rights of access; storage on the land; tree cutting; drilling; and any site alteration such as land surface mining, dredging, grading, construction of earthen berms, paving, parking improvements, excavation or clearing.

Development Plan: Any plan adopted by the City for the guidance of growth and improvement in the City.

Diameter at Breast Height (DBH): Is a standard arboricultural method for measuring the diameter of a tree. For the purposes of this code, DBH shall be measured four and a half feet above ground level as defined by the International Society of Arboriculture.

Drive-In Restaurant: Any establishment dispensing food and/or drink, that caters primarily to customers who remain, or leave and return, to their automobile for consumption of the food and/or drink, including business designed for serving customers at a drive-up window or in automobiles.

Dwelling Unit: Any room, suite of rooms, enclosure, building or structure designed or used as a residence for one (1) family as defined by this Code, and containing sleeping, kitchen and bathroom facilities.

Dwelling, Single-Family: A structure containing one (1) dwelling unit.

Dwelling, Single-Family Attached: A single structure on two (2) lots, containing two (2) individual dwelling units, but with a common wall and a common property line. Otherwise identical to a two-family dwelling.

Dwelling, Two-Family or Duplex: A single structure on one (1) lot containing two (2) individual dwelling units, sharing a common wall, but with separate entrances.

Dwelling, Townhome or Row House: A single-family dwelling unit which is attached on one or both sides to a similar adjacent unit(s) on similar lot(s). The attachment is made along one or more common walls which are jointly owned. The units may either be on individual platted lots or may be located on a single lot as individual condominium units. The units are distinct from each other by scale, color, massing, or materials.

Dwelling, Multi-Family: A single structure containing three (3) or more dwelling units that share common walls or floor/ceilings with one or more units. The land underneath the structure is not divided into separate lots. Multi-family dwellings include structures commonly called garden apartments, apartments and condominiums. Multi-family dwellings that are attached on one or both sides to similar adjacent but distinct units are considered townhomes (see definition above).

Easement: The grant of the legal right to use of land for specified purposes.

Educational Institution: Any bona-fide place of education or instruction, including customary accessory buildings, uses, and activities, that is administered by a legally-organized school district; church or religious organization; the State of Oregon; or any agency, college, and university operated as an educational institution under charter or license from the State of Oregon. An educational institution is not a commercial trade school as defined by Section 16.10.020.

Established Neighborhood: An existing residential area that is taken into consideration when infill development is proposed. See Chapter 16.68, Infill Development Standards, intended to promote compatibility between existing residential areas and new development through controls on the type, height, size, scale, or character of new buildings.

Environmentally Constrained Land: Any portion of land located within the floodway, 100 year floodplain, wetlands and/or vegetated corridor as defined by Clean Water Services.

Environmentally Sensitive Land: Land that does not meet the definition of environmentally constrained, but which is identified on the inventory of Regionally Significant Riparian and Wildlife Habitat Map adopted as Map V-2 of the Sherwood Comprehensive Plan, Part 2.

Expedited Land Division: A residential land division process which must be expedited within 63 days of receiving a complete application in accordance with ORS 197.360. The decision is rendered without a public hearing and must meet applicable land use regulation requirements. All appeals of expedited land divisions must be decided by a hearings officer.

Extraordinary Historic Importance: The quality of historic significance achieved outside the usual norms of age, association, or rarity.

Evergreen: A plant which maintains year-round foliage.

Ex-parte Contact: Contact or information passed between a party with an interest in a quasi-judicial land use decision and a member of the Council or Commission, when such information is not generally available to other members of the Council or Commission, or other interested persons. The member shall disclose any pre-hearing or ex-parte contacts with applicants, officers, agents, employees, or other parties to an application before the Council or Commission. Ex-parte contacts with a member of the Commission or Council shall not invalidate a final decision or action of the Commission or Council, provided that the member receiving the contact indicates the substance of the content of the ex-parte communication and of the right of parties to rebut said content at the first hearing where action will be considered or taken.

Extra Capacity Improvements: Improvements that are defined as necessary in the interest of public health, safety and welfare by Divisions V, VI, and VIII of this Code, and the Community Development Plan, to increase the capacities of collector or arterial streets; water, sewer, storm drainage or other utility facilities; and parks and open space.

Family: One (1) person living alone or two (2) or more persons related by blood, marriage, or adoption; or a group not exceeding five (5) persons living together as a single housekeeping unit, excluding occupants of a boardinghouse, fraternity, hotel, or similar use.

Family Day Care Provider: A day care provider which accommodates fewer than thirteen (13) children in the provider's home.

Fence: A freestanding structure that provides a barrier between properties or different uses on the same property and is generally used to provide privacy and security. A fence may be open or solid and is usually constructed of wood, metal, wire, brick, cement block, stone, vinyl, or composite materials.

Fiber Board (also pressboard or stucco board): A building material composed of wood chips or plant fibers bonded together with or without stucco and compressed into rigid sheets.

Fiber Cement Board (i.e. HardiPlank): A fire resistant building material composed of wood fiber and cement compressed into clapboard.

Fire District: Tualatin Valley Fire and Rescue.

Flag Lot: A building lot which is provided access to a public street by means of a narrow strip of land with minimal frontage.

Flood Fringe: The area of the flood plain lying outside of the floodway.

Flood Insurance Rate Map (FIRM): Means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood Insurance Study: Means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood-Boundary-Floodway Map, and the water surface elevation of the base flood.

Floodplain: The flood-hazard area adjoining a river, stream or other water course, that is subject to inundation by a base flood. The floodplain includes the floodway and floodway fringe, and the City greenway, as defined by this Code.

Floodway: The channel of a river, stream or other watercourse, and the adjoining areas of the flood plain, required to discharge the base flood without cumulatively increasing the water surface elevation of said watercourse by more than one (1) foot.

~~**Flood Fringe:** The area of the flood plain lying outside of the floodway.~~

Footcandle: A unit of illumination. One footcandle is the intensity of illumination when a source of one (1) candlepower illuminates a screen one (1) foot away.

Frontage: That side of a parcel abutting on a street or right-of-way ordinarily regarded as the front of the parcel, except that the shortest side of a corner lot facing a street, shall not be deemed the lot frontage.

Garage: A building or a portion thereof which is designed to house, store, repair or keep motor vehicles.

Government Structure: Any structure used by a federal, state, local government, or special district agency.

Ground Floor Area: The total area of a building measured by taking the largest outside dimensions of the building, exclusive of open porches, breezeways, terraces, garages, exterior stairways, and secondary stairways.

Hard Surface: Any man-made surface that prevents or retards the saturation of water into land, or that causes water to run-off in greater quantities or increased rates, than existed under natural conditions prior to development. Common hard surfaces include but are not limited to: roofs, streets, driveways, sidewalks and walkways, patios, parking and loading areas, and other graveled, oiled, macadam or concrete surfaces. Also referred to as impermeable surface.

Hazardous Waste: Has the meaning given that term in ORS 466.005.

Hearing Authority: The City of Sherwood Planning Commission, City Council, Landmarks Advisory Board or Hearings Officer.

Hearings Officer: An individual appointed by the City Council to perform the duties as specified in this Code.

Hedges: A line of closely spaced vegetation specifically planted and trained in such a way as to form a barrier to mark the boundary of an area or visually screen an area.

Highest Adjacent Grade: Means the highest natural elevation of the ground surface prior to construction, adjacent to the proposed walls of a structure.

Historic Integrity: The quality of wholeness of historic location, design, setting, materials, workmanship, feeling, and/or association of a resource, as opposed to its physical condition.

Historic Resource: A building, structure, object, site, or district which meets the significance and integrity criteria for designation as a landmark. Resource types are further described as:

A. **Object:** A construction which is primarily artistic or commemorative in nature and not normally movable or part of a building or structure, e.g., statue, fountain, milepost, monument, sign, etc.

B. **Site:** The location of a significant event, use, or occupation which may include associated standing, ruined, or underground features, e.g., battlefield, shipwreck, campsite, cemetery, natural feature, garden, food-gathering area, etc.

C. **District:** A geographically defined area possessing a significant concentration of buildings, structures, objects, and/or sites which are unified historically by plan or physical development, e.g., downtown, residential, neighborhood, military reservation, ranch complex, etc.

D. **Primary, Secondary, & Contributing:** Historic ranking in descending order based on four scoring criteria for surveyed properties—historical, architectural, use considerations, and physical and site characteristics.

Historic Resources of Statewide Significance: Buildings, structures, objects, sites, and districts which are listed on the Federal National Register of Historic Places.

Hogged Fuel: Fuel generated from wood or other waste that has been fed through a machine that reduces it to a practically uniform size of chips, shreds, or pellets.

Home Occupation: An occupation or a profession customarily carried on in a residential dwelling unit by a member or members of a family residing in the dwelling unit and clearly incidental and secondary to the use of the dwelling unit for residential purposes.

Hotel: A building or buildings in which there are more than five (5) sleeping rooms occupied as temporary dwelling places, which rooms customarily do not contain full kitchen facilities, but may include kitchenettes.

Homeowners Association: A formally organized group of homeowners within a single housing development having shared responsibility for portions of the development such as building, landscaping, or parking maintenance, or other activities provided for by covenant or legal agreement.

Household: All persons occupying a group of rooms or a single room which constitutes a dwelling unit.

Inert Material: Solid waste material that remains materially unchanged by variations in chemical, environmental, storage, and use conditions reasonably anticipated at the facility.

Inventory of Historic Resources: The record of information about resources potentially significant in the history of the City of Sherwood as listed in the Cultural Resource Inventory (1989), and hereafter amended.

Junk: Materials stored or deposited in yards and open areas for extended periods, including inoperable or abandoned motor vehicles, inoperable or abandoned machinery, motor vehicle and machinery parts, broken or discarded furniture and household equipment, yard debris and household waste, scrap metal, used lumber, and other similar materials.

Junk-Yard: Any lot or site exceeding two hundred (200) square feet in area used for the storage, keeping, or abandonment of junk as defined by this Code.

Kennel: Any lot or premise on which four (4) or more dogs or cats more than four (4) months of age are kept.

Laboratory, Medical or Dental: A laboratory which provides bacteriological, biological, medical, x-ray, pathological and similar analytical or diagnostic services to doctors or dentists, and where no fabrication is conducted on the premises except the custom fabrication of dentures.

Landmarks Board: The City of Sherwood Landmarks Advisory Board.

Landscape Feature: A trellis, arbor or other decorative feature that is attached to or incorporated within the fence.

Leachate: Liquid that has come into direct contact with solid waste and contains dissolved and/or suspended contaminants as a result of such contact.

Letter of Map Change (LOMC): Means an official FEMA determination, by letter, to amend or revise effective Flood Insurance Rate Maps and/or Flood Insurance Studies. LOMCs are issued in the following categories:

1. Letter of Map Amendment (LOMA): An amendment to the Flood Insurance Rate Maps based on technical data showing that an existing structure or parcel of land that has not been elevated by fill (natural grade) was inadvertently included in the special flood hazard area because of an area of naturally high ground above the base flood.
2. Letter of Map Revision (LOMR)
    a. LOMR-F (Letter of Map Revision based on Fill) is a letter from FEMA stating that an existing structure or parcel of land that has been elevated by fill would not be inundated by the base flood.

    A LOMR revises the current Flood Insurance Rate Map and/or Flood Insurance Study to show changes to the floodplains, Floodways, or flood elevations. LOMRs are generally based on manmade alterations that affected the hydrologic or hydraulic characteristics of a flooding source and thus result in modification to the existing

regulatory Floodway, the effective Base Flood Elevation, or the Special Flood Hazard Area.

Level of Service (LOS): A measure of the overall comfort afforded to motorists as they pass through a roadway segment or intersection, based on such things as impediments caused by other vehicles, number and duration of stops, travel time, and the reserve capacity of a road or an intersection (i.e., that portion of the available time that is not used). LOS generally is referred to by the letters "A" though "F", with LOS "E" or "F" being generally unacceptable. LOS generally is calculated using the methodology in the Highway Capacity Manual, Special Report 209, by the Transportation Research Board (1985).

Limited Land Use Decision: A final decision or determination in accordance with ORS 197.195 made by a local government pertaining to a site within an urban growth boundary which concerns: 1) the approval or denial of a subdivision or partition, or 2) the approval or denial of an application based on discretionary standards designed to regulate the physical characteristics of a use permitted outright but not limited to site review and design review.

Loading or Unloading Space: An off-street space or berth for the temporary parking of vehicles while loading or unloading merchandise or materials.

~~**Lower Explosive Limit:** The minimum concentration of gas or vapor in air that will propagate a flame at twenty-five degrees (25ºC) Celsius in the presence of an ignition source.~~

Lot: A parcel of land of at least sufficient size to meet the minimum zoning requirements of this Code, and with frontage on a public street, or easement approved by the City. A lot may be:

A. A single lot of record; or a combination of complete lots of record, or complete lots of record and portions of other lots of record.

B. A parcel of land described by metes and bounds; provided that for a subdivision or partition, the parcel shall be approved in accordance with this Code.

Lot Area: The total horizontal area within the lot lines of a lot, exclusive of streets and access easements to other property.

Lot, Corner: A lot situated at the intersection of two (2) or more streets, other than an alley.

Lot Coverage: The proportional amount of land on a lot covered by buildings.

Lot Depth: The average horizontal distance between the front and rear lot lines measured in the direction of the side lot lines.

Lot Frontage: The distance parallel to the front lot line, measured between side lot lines at the street line.

Lot, Interior: A lot other than a corner lot.

Lot of Record: Any unit of land created as follows:

A. A parcel in an existing, duly recorded subdivision or partition.

B. An existing parcel for which a survey has been duly filed which conformed to all applicable regulations at the time of filing.

C. A parcel created by deed description or metes and bounds provided, however, contiguous parcels created by deed description or metes and bounds under the same ownership and not conforming to the minimum requirements of this Code shall be considered one (1) lot of record.

Lot, Through: A lot having frontage on two (2) parallel or approximately parallel streets.

Lot Lines: The property lines bounding a lot.

Lot Line, Front: The line separating a lot from any street, provided that for corner lots, there shall be as many front lines as there are street frontages.

Lot Line, Rear: A lot line which is opposite and most distant from the front lot line, provided that for irregular and triangular lots, the rear lot line shall be deemed a line ten (10) feet in length within the lot, parallel to and at a maximum distance from the front lot line. On a corner lot, the shortest lot line abutting adjacent property that is not a street is considered a rear lot line.

Lot Line, Side: Any lot line not a front or rear lot line.

Lot Width: The horizontal distance between the side lot lines, ordinarily measured parallel to the front lot line, at the center of the lot, or, in the case of a corner lot, the horizontal distance between the front lot line and a side lot line.

Lower Explosive Limit: The minimum concentration of gas or vapor in air that will propagate a flame at twenty-five degrees (25ºC) Celsius in the presence of an ignition source.

Lowest Floor: Means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for the parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of 16.134.090.

Manufactured ~~Home~~ Dwelling: A structure transportable in one or more sections, intended for permanent occupancy as a dwelling. All manufactured homes located in the City after the effective date of this Code shall meet or exceed the standards of the U.S. Department of Housing and Urban Development and shall have been constructed after June 15, 1976.

Manufactured Home Park: A lot, tract, or parcel with four (4) or more spaces within five-hundred (500) feet of one another available for rent or lease for the siting of manufactured homes.

Manufactured Home Space: A plot of land within a manufactured home park designed to accommodate one (1) manufactured home, on a rental or lease basis.

Medical Marijuana Dispensary: A retail facility registered by the Oregon Health Authority that is allowed to receive marijuana, immature marijuana plants or usable marijuana products (such as edible products, ointments, concentrates or tinctures) and to transfer that marijuana, immature plants, or usable project to a person with a valid Oregon Medical Marijuana Program card (a patient or the patient's caregiver). A dispensary includes all premises, buildings, curtilage or other structures used to accomplish the storage, distribution and dissemination of marijuana.

Mixed Solid Waste: Solid waste that contains recoverable or recyclable materials, and materials that are not capable of being recycled or recovered for future use.

Mobile Vendor: A service establishment operated from a licensed and moveable vehicle that vends or sells food and/or drink or other retail items.

Motel: See Hotel.

Municipal Solid Waste: Solid waste primarily from residential, business, and institutional uses.

Net Buildable Acre: Means an area measuring 43,560 square feet after excluding present and future rights-of-way, environmentally constrained areas, public parks and other public uses. When environmentally sensitive areas also exist on a property and said property is within the Metro urban growth boundary on or before January 1, 2002, these areas may also be removed from the net buildable area provided the sensitive areas are clearly delineated in accordance with this Code and the environmentally sensitive areas are protected via tract or restricted easement.

Net Developable Site: Remaining area of a parent parcel after excluding present and future rights-of-way, environmentally constrained areas, public parks and other public uses but not including preserved areas for tree stands which are not associated with wetlands, streams or vegetated corridors.

Non-Attainment Area: A geographical area of the State which exceeds any state or federal primary or secondary ambient air quality standard as designated by the Oregon Environmental Quality Commission and approved by the U.S. Environmental Protection Agency.

Non-Conforming Structure or Use: A lawful structure or use, existing as of the effective date of this Code, or any applicable amendments, which does not conform to the minimum requirements of the zoning district in which it is located.

Nursing Home: An institution for the care of children or the aged or infirm, or a place of rest for those suffering bodily disorders; but not including facilities for surgical care, or institutions for the care and treatment of mental illness, alcoholism, or narcotics addiction.

Occupancy Permit: The permit provided in the Uniform Building Code which must be issued prior to occupying a building or structure or portion thereof. For the purposes of this Code, "occupancy permit" includes the final inspection approval for those buildings or structures not required to obtain an occupancy permit by the Uniform Building Code.

Occupy: To take or enter upon possession of.

Office: A room or building for the transaction of business, a profession or similar activities, including but not limited to administration, bookkeeping, record keeping, business meetings, and correspondence. Products may not be stored or manufactured in an office, except to accommodate incidental sales, display and demonstration.

Off-Street Parking: Parking spaces provided for motor vehicles on individual lots and not located on public street right-of-way.

Open Space: Open ground area which is not obstructed from the ground surface to the sky by any structure, except those associated with landscaping, or recreational facilities. Parking lots and storage areas for vehicles and materials shall not be considered open space.

Parks Board: The City of Sherwood Parks Advisory Board.

Partition: The dividing of an area or tract of land into two (2) or three (3) parcels within a calendar year when such area exists as a unit or contiguous units of land under single ownership at the beginning of each year. Partitions do not include: divisions of land resulting from lien foreclosures; divisions of land resulting from the creation of cemetery lots; divisions of land made pursuant to a court order, lot line adjustments where an additional parcel is not created and where the existing parcels are not reduced below the minimum requirements of this Code.

Partition Land: A sale or grant by a person to a public agency or public body for state highway, county road, city street or other right of way purposes provided that such road or right of way complies with the Comprehensive Plan and ORS 215.213 (2)(q) to (s) and 215.283 (2)(p) to (r).

Partition Plat: Partition plat includes a final map and other writing containing all the descriptions, locations, specifications, provisions and information concerning a land partition.

Pedestrian Facilities: Improvements and provisions made to accommodate or encourage walking, including but not limited to sidewalks, accessways, signalization, crosswalks, ramps, refuges, paths, and trails.

Pedestrian Way: A right-of-way for pedestrian traffic.

Person: A natural person, firm, partnership, association, social or fraternal organization, corporation, trust, estate, receiver, syndicate, branch of government, or any group or combination acting as a unit.

Plat: The final map, diagram, drawing, replat, or other writing containing all the descriptions, locations, specifications, dedications, provisions and information concerning a subdivision or partition.

Plat, Preliminary: A map and plan of a proposed subdivision, as specified by this Code.

Principal Building/Use: The main or primary purpose for which a structure, land, or use is designed, arranged, or intended, or for which the building or use may lawfully be occupied or maintained under the terms of this Code.

Professional Engineer: A professional engineer currently licensed to practice in the State of Oregon. The type of professional engineer may be specified in the ordinance (i.e., civil, structural, acoustic, traffic, etc.).

Professions: Members of professions, such as doctors, dentists, accountants, architects, artists, attorneys, authors, engineers, and others who are generally recognized professionals by virtue of experience or education.

Public Hearing: Hearings held by the Commission or the Council for which a form of prescribed public notice is given.

Public Park: A park, playground, swimming pool, reservoir, athletic field, or other recreational facility which is under the control, operation or management of the City or other government agency.

Public Place: Any premise whether, privately or publicly owned, which by physical nature, function, custom, or usage, is open to the public at times without permission being required to enter or remain.

Public Plaza: A square in a city or town; an open area usually located near urban buildings and often featuring walkways, trees and shrubs, places to sit, and sometimes shops which is under the control, operation or management of the City or other government agency.

Public Use Building: Any building or structure owned and operated by a government agency for the convenience and use of the general public.

Public Utility Facilities: Structures or uses necessary to provide the public with water, sewer, gas, telephone or other similar services.

Recreational Vehicle: Means a vehicle which is:

1. Built on a single chassis;
2. 400 square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by another vehicle;
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Recycled Materials: Solid waste that is transformed into new products in such a manner that the original products may lose their identity.

Recycling: The use of secondary materials in the production of new items. As used here, recycling includes materials reuse.

Relocation: The removal of a resource from its historic context.

Regionally Significant Fish and Wildlife Habitat: Those areas identified on the Metro Regionally Significant Fish and Wildlife Habitat Inventory Map, adopted as Map V-2 of the Sherwood Comprehensive Plan, Part 2, as significant natural resource sites.

Residential Care Facility: A facility licensed by or under the authority of the Department of Human Resources under ORS 443.400 to 443.460 which provides residential care alone or in conjunction with treatment or training or a combination thereof for six (6) to fifteen (15) individuals who need not be related. Staff persons required to meet Department of Human Resources licensing requirements shall not be counted in the number of facility residents, and need not be related to each other or to any resident of the residential facility.

Residential Care Home: A residence for five (5) or fewer unrelated physically or mentally handicapped persons and for the staff persons who need not be related to each other or any other home resident.

Residential Structure: Any building or part of a building, used or constructed as a sleeping or other housekeeping accommodation, for a person or group of persons.

Restrictive Covenant: A legally binding limitation on the manner in which a tract of land or lot can be used, usually a condition placed on the deed.

Retail Trade: The sale of goods and products to the consumer generally for direct consumption and not for resale.

Retaining Wall: A solid barrier constructed of stone, concrete, steel or other material designed to retain or restrain earth, rock, or water and is used to alter the grade.

Right-of-Way: An interest in real property typically acquired by reservation, dedication, prescription, or condemnation and intended for the placement of transportation and utility facilities and infrastructure or similar public use.

Road: The portion or portions of street rights-of-way developed for vehicular traffic.

Rural Zone: A land use zone adopted by a unit of local government that applies to land outside a regional urban growth boundary.

Sanitariums: An institution for the treatment of chronic diseases or for medically supervised recuperation.

School: See Educational Institution.

Sealed Container: A receptacle appropriate for preventing release of its contents, protecting its contents from the entry of water and vectors, and that will prevent the release of noxious odors if the contents are capable of emitting such odors.

Setback: The minimum horizontal distance between a public street right-of-way line, or side and rear property lines, to the front, side and rear lines of a building or structure located on a lot.

Shared-use path: A facility for non-motorized access conforming to City standards and separated from the roadway, either in the roadway right-of-way, independent public right-of-way, or a public access easement. It is designed and constructed to allow for safe walking, biking, and other human-powered travel modes.

Sidewalk: A pedestrian walkway with hard surfacing.

Sight Distance: The distance along which a person can see approaching objects, such as automobiles or pedestrians, from a street intersection or a driveway along a street.

Sign: An identification, description, illustration, or device which is affixed to, or represented directly or indirectly upon a building, structure, or land, which directs attention to a product, place, activity, person, institution, or business.

Significant Vegetation: A tree exceeding six (6) inches in diameter measured four (4) feet above grade at the base of the tree or other vegetation more than four (4) feet above grade, but not including blackberry or other vines or weeds.

Skirting: A covering that totally obscures the undercarriage of a manufactured home, and extending from the top of the undercarriage to the ground.

Soil Amendment: A material, such as yard waste compost, added to the soil to improve soil chemistry or structure.

Solid Waste: Has the meaning given that term in ORS 159.005.

Solid Waste Facility:

A. **Conditionally Exempt Small Quantity Collection Facility:** A facility that receives, sorts, temporarily stores, controls, and processes for safe transport hazardous waste from conditionally exempt generators, as that term is defined in ORS 465.003.

B. **Demolition Landfill:** A land disposal site for receiving, sorting and disposing only land clearing debris, including vegetation and dirt, building construction and demolition debris and inert materials, and similar substances.

C. **Household Hazardous Waste Depot:** A facility for receiving, sorting, processing and temporarily storing household hazardous waste and for preparing that waste for safe transport to facilities authorized to receive, process, or dispose of such materials pursuant to federal or state law.

D. **Limited Purpose Landfill:** A land disposal site for the receiving, sorting and disposing of solid waste material, including but not limited to asbestos, treated petroleum, contaminated soil, construction, land clearing and demolition debris, wood, treated sludge from industrial processes, or other special waste material other than unseparated municipal solid waste.

E. **Resource Recovery Facility:** A facility for receiving, temporarily storing and processing solid waste to obtain useful material or energy.

F. **Mixed Construction and Demolition Debris Recycling Facility:** A facility that receives, temporarily stores, processes, and recovers recyclable material from mixed construction and demolition debris for reuse, sale, or further processing.

G. **Solid Waste Composting Facility:** A facility that receives, temporarily stores and processes solid waste by decomposing the organic portions of the waste by biological means to produce useful products, including, but not limited to, compost, mulch and soil amendments.

H. **Monofill:** A land disposal site for receiving, sorting and disposing only one type of solid waste material or class of solid waste materials for burial, such as a facility which accepts only asbestos.

I. **Municipal Solid Waste Depot:** A facility where sealed containers are received, stored up to seventy-two (72) hours, staged, and/or transferred from one mode of transportation to another.

J. **Small Scale Specialized Incinerator:** A facility that receives, processes, temporarily stores, and burns a solid waste product as an accessory use to a permitted use, including incinerators for disposal of infections wastes as part of a medical facility, but not including mass burn solid waste incinerators, refuse-derived fuel technologies, human or animal remains crematorium, or any energy recovery process that burns unseparated municipal solid waste.

K. **Solid Waste Facilities:** Any facility or use defined in this section of this Code.

L. **Solid Waste Transfer Station:** A facility that receives, processes, temporarily stores and prepares solid waste for transport to a final disposal site, with or without material recovery prior to transfer.

M. **Treatment and Storage Facility:** A facility subject to regulation under the Resource Conservation and Recovery Act. 42 USC Sections 6901-6987, for receiving, sorting, treating, and/or temporarily storing hazardous waste, and for processing such waste for safe transport to facilities authorized to receive, treat, or dispose of such materials pursuant to federal or state law. Treatment and storage facilities do not include facilities for on-site disposal of hazardous waste.

N. **Wood Waste Recycling Facility:** A facility that receives, temporarily stores and processes untreated wood, which does not contain pressure treated or wood preservative treated wood, in the form of scrap lumber, timbers, or natural wood debris, including logs, limbs, and tree trunks, for reuse, fuel, fuel pellets, or fireplace logs.

O. **Yard Debris Depot:** A facility that receives yard debris for temporary storage, awaiting transport to a processing facility.

P. **Yard Debris Processing Facility:** A facility that receives, temporarily stores and processes yard debris into a soil amendment, mulch or other useful product through grinding and/or controlled biological decomposition.

Solid Waste Processing: An activity or technology intended to change the physical form or chemical content of solid waste or recycled material including, but not limited to, sorting, baling, composting, classifying, hydropulping, incinerating or shredding.

Sound Wall: An exterior wall designed to protect sensitive land uses including parks, residential zones and institutional public zones from noise generated by roadways, railways, commercial and industrial noise sources.

Special Care Facility: A facility licensed by the State of Oregon, defined in OAR and not otherwise defined in this Code. Uses wholly contained within the facility and not independently accessible to the non-resident public which are either essential or incidental to the primary use shall be permitted. Where such

facility contains uses which are otherwise listed as conditional uses in the base zone then those uses must be subjected to the conditional use process if they are independently accessible to the non-resident public from the outside of the facility building(s).

Specialized Living Facility: Identifiable services designed to meet the needs of persons in specific target groups which exist as the result of a problem, condition or dysfunction resulting from a physical disability or a behavioral disorder and require more than basic services of other established programs.

Story: That portion of a building included between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above. If the finished floor level directly above a usable or unused under-floor space is more than six (6) feet above grade for more than fifty percent (50%) of the total perimeter or is more than twelve (12) feet above grade at any point, such usable or unused under-floor space shall be considered as a story.

Story, First: The lowest story in a building, provided such floor level is not more than four (4) feet below grade, for more than 50 percent (50%) of the total perimeter, or not more than eight (8) feet below grade, at any point.

Story, Half: A story under a gable, hip, or gambrel roof, the wall plates of which, on at least two (2) exterior walls, are not more than three (3) feet above the floor of such story.

Street: A public or private road, easement or right-of-way that is created to provide access to one or more lots, parcels, areas or tracts of land. Categories of streets include:

A. **Alley:** A narrow street, typically abutting to the rear lot or property line. [Figure 8-3a of the Transportation System Plan illustrates the alley cross-section]

B. **Arterial:** Arterial streets provide connectivity at a regional level, but are not State routes. [Figure 8-2 of the Transportation System Plan illustrates arterial cross-sections.]

C. **Bikeway:** Any road, path or way that is in some manner specifically open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are shared with other transportation modes. Bikeways may include:

   (1) Multi-use Path. A paved way (typically 8 to 12-feet wide) separate from vehicular traffic; typically shared with pedestrians, skaters, and other non-motorized users.

   (2) Bike Lane. A portion of the street (typically 4 to 6-feet wide) that has been designated by permanent striping and pavement markings for the exclusive use of bicycles.

   (3) Shoulder Bikeway. The paved shoulder of a street that does not have curbs or sidewalks that is 4 feet or wider and is typically shared with pedestrians.

   (4) Shared Roadway. A travel lane that is shared by bicyclists and motor vehicles. Also called Bike Route.

   (5) Multi-use Trail. An unpaved path that accommodates all-terrain bicycles; typically shared with pedestrians (NOTE: Figure 8-6 of the Transportation System Plan illustrates the multi-use path and trail cross-sections).

D. **Collector:** Collectors are streets that provide citywide or district-wide connectivity. Collectors are primarily used or planned to move traffic between the local street system, and onto major streets, but may also accommodate through traffic. [Figure 8-4 of the Transportation System Plan illustrates collector cross-sections.]

E. **Cul-de-Sac:** A short street that terminates in a vehicular turnaround. See Section 16.108.060.

F. **Half Street:** A portion of the width of a street, usually along the edge of a development, where the remaining portion of the street has been or could be provided by another development.

G. **Local Street:** Local streets provide the highest level of access to adjoining land uses. Local streets do not provide through connection at any significant regional, citywide or district level. [Figures 8-5a & 8-5b of the Transportation System Plan illustrate local street cross-sections.]

H. **Marginal Access Street (frontage or backage road):** A minor street parallel and adjacent to a principal arterial or arterial street providing access to abutting properties, but protected from through traffic. [Figure 8-5a of the Transportation System Plan illustrates the cross-sections of a frontage or backage road.]

I. **Neighborhood Route:** Neighborhood routes are streets that provide connections within or between neighborhoods, but not citywide. Neighborhood routes are primarily used or planned to move traffic between the local street system, and onto collectors and arterials. [Figure 8-5a of the Transportation System Plan illustrates the neighborhood route cross-section.]

J. **Principal Arterial:** Principal arterials are streets that provide connectivity at a regional level, and are typically State routes. [Figures 8-2 and 8-3b in the Transportation System Plan illustrates the principal arterial cross-section].

Street Line: A dividing line between a lot and a street right-of-way.

Street Plug: A narrow strip of land located between a subdivision and other property that is conveyed to the City for the purpose of giving the City control over development on the adjacent property.

Structure: A structure must be more than one foot from grade to be considered a structure.

Structural Alterations: Any change in the supporting members of a building, such as bearing walls, columns, beams, or girders.

Stucco board: A fiber cement board core product that mimics the appearance of stucco.

Subdivision: The division of an area or tract of land into four (4) or more lots within a calendar year, when such area or tract of land exists as a unit or contiguous units of land under a single ownership at the beginning of such year.

Subdivision Improvements: Construction of facilities such as streets; water, sewer, gas and telephone lines; storm drainage; and landscaping.

Surrounding: To be encircled on all or nearly all sides; as interpreted for property lines and land uses, a use is surrounded by another use when the other use is abutting on greater than 75% of its perimeter.

Temporary Use: A use of land, buildings or structures not intended to exceed twelve (12) months, unless otherwise permitted by this Code.

Townhomes: (See "Dwelling- Townhome or Row House")

Transportation Facilities: The physical improvements used to move people and goods from one place to another; i.e., streets, sidewalks, pathways, bike lanes, airports, transit stations and bus stops, etc.

Transportation Improvements: Transportation improvements include the following:

A. Normal operation, maintenance repair, and preservation activities of existing transportation facilities.

B. Design and installation of culverts, pathways, multi-use paths or trails, sidewalks, bike lanes, medians, fencing, guardrails, lighting, curbs, gutters, shoulders, parking areas, and similar types of improvements within the existing right-of-way.

C. Projects identified in the adopted Transportation System Plan not requiring future land use review and approval.

D. Landscaping as part of a transportation facility.

E. Emergency measures necessary for the safety and protection of property.

F. Street or road construction as part of an approved land use application.

Unified Sewerage Agency: The former name of Clean Water Services; an agency of Washington County providing for sanitary sewer collection and treatment, and for storm water management.

Urban Growth Boundary: The Metropolitan Portland Urban Growth Boundary (UGB) as acknowledged by the State Land Conservation and Development Commission.

Urban Zone: A land use zone adopted by a unit of local government that applies to land inside a regional urban growth boundary.

Use: Any purpose for which a building or other structure or a tract of land may be designed, arranged, intended, maintained, or occupied, or any activity, occupation, business, or operation carried on, or intended to be carried on, in a building or other structure or on a tract of land.

Use by Right: A use which is a "use permitted outright" in any given zoning district established by this Code.

Wall: A solid structural barrier that is not intended to alter the grade and is not considered a retaining wall or sound wall.

Warehouse: A structure or part of a structure used for storing and securing goods, wares or merchandise.

Water Dependent: Means a structure for commerce or industry which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.

Wetlands: Those land areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands are generally identified in the City's 1992 Local Wetland inventory, and the Metro 2004 Natural Resources Inventory, or in the absence of such identification, are based on the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989).

Wholesale Trade: The sale of goods and products to an intermediary generally for resale.

Wireless Communication Facility: An unmanned facility for the transmission or reception of radio frequency (RF) signals usually consisting of an equipment shelter, cabinet or other enclosed structure containing electronic equipment, a support structure, antennas or other transmission and reception devices.

Yard: The existing or required space on a parcel which shall remain open, unoccupied, and unobstructed from the ground surface to the sky, except as otherwise provided by this Code. Categories of yards include:

A. **Front Yard:** A yard extending across the full width of the lot between the front lot line and the nearest line or point of the building.

B. **Rear Yard:** A yard, unoccupied except by a building or structure of an accessory type as provided by this Code, extending the full width of the lot between the rear lot line and the extreme rear line of a building.

C. **Side Yard:** The yard along the side line of a lot and extending from the setback line to the rear yard.

Zero-Lot-Line: Attached or detached dwelling units which are constructed with only one side yard or no rear yard setbacks.

(Ord. No. 2015-005, § 2, 5-5-2015; Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2014-012, § 3, 7-17-2014; Ord. No. 2012-003, § 2, 5-1-2012; Ord. No. 2011-009, § 2, 7-19-2011; Ord. 2006-009 §§ 1, 2)

Chapter 16.134 - FLOODPLAIN (FP) OVERLAY*

Sections:

16.134.010 - Generally

Special resource zones are established to provide for preservation, protection, and management of unique natural and environmental resources in the City that are deemed to require additional standards beyond those contained elsewhere in this Code. Special resource zones may be implemented as underlying or overlay zones depending on patterns of property ownership and the nature of the resource. A property or properties may be within more than one (1) resource zone. In addition, the City may identify special resource areas and apply a PUD overlay zone in advance of any development in order to further protect said resources.

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled, "The Flood Insurance Study for Washington County, Oregon and Incorporated Areas," dated November 4, 2016, with accompanying Flood Insurance Maps are hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study is on file with the Sherwood City Engineer at Sherwood City Hall.

(Ord. 91-922, § 3)

16.134.020 ~~-~~ Purpose

The purpose of this ordinance is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by complying with the provisions of this Chapter.

A. The FP zoning district is an overlay district that controls and regulates flood hazard areas in order to protect the public health, safety and general welfare; to reduce potential flood damage losses; and to protect floodways and natural drainageways from encroachment by uses which may adversely affect water quality and water flow and subsequent upstream or downstream flood levels. The FP zone shall be applied to all areas within the base flood, and shall supplement the regulations of the underlying zoning district.

B. FP zoning districts are ~~defined as~~ areas within the base flood as identified by the Federal Emergency Management Agency (FEMA) in a Flood Insurance Study (FIS) and in Flood Insurance Rate Maps (FIRM) published for the City and surrounding areas, or as otherwise identified in accordance with Section 16.134.020C. These FEMA documents are adopted by reference as part of this Code, and are on file at the City.

C. When base flood elevation data is not available from the FIS or FIRM, the City shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, and standards developed by the FEMA, in order to administer the provisions of this Code.

(Ord. No. 2010-015, § 2, 10-5-2010; Ord. 2000-1092, § 3; 88-870)

16.134.030 - Greenways

The FP zoning districts overlaying the Rock Creek and Cedar Creek floodplains are designated greenways in accordance with Chapter 5 of the Community Development Plan. All development in these

two floodplains shall be governed by the policies in Division V, Chapter 16.142 of this Code, in addition to the requirements of this Section and the Clean Water Services Design and Construction Standards R&O ~~00-7~~07-20, or its replacement.

(Ord. No. 2010-015, § 2, 10-5-2010; Ord. 2000-1092, § 3; 88-879)

16.134.040 - Development ~~Application~~ Review

A. The City Engineer is the designated local Floodplain Administrator and is responsible for maintaining local floodplain management records for the City.

B Provided land is not required to be dedicated as per Section 16.134.030, a Conditional Use Permit (CUP) is required before any use, construction, fill, or alteration of a floodplain, floodway, or watercourse, or any other development begins within any FP zone, except as provided in Section 16.134.050.

~~B~~C. Application for a CUP for development in a floodplain shall conform to the requirements of Chapter 16.82 and may include, but is not limited to, plans and scale drawings showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, fill, storage of materials, and drainage facilities.

~~C~~D. The following specific information is required in a floodplain CUP application and shall be certified and verified by a Registered Civil Engineer or Architect. The City shall maintain such certifications as part of the public record. All certifications shall be based on the as-built elevations of lowest building floors.

1. Elevations in relation to mean sea level of the lowest floor (including basement) of all structures;
2. Elevations in relation to mean sea level to which any structure has been flood proofed.
3. That the flood proofing methods for any structure meet the requirements of this Section, Floodplain Structures.
4. Description of the extent to which any watercourse will be altered or relocated as a result of the proposed development.
5. A base flood survey and impact study made by a Registered Civil Engineer.
6. Proof all necessary notifications have been sent to, and permits have been obtained from, those Federal, State, or other local government agencies for which prior approval of the proposed development is required.
7. Any other information required by this Section, by any applicable Federal regulations, or as otherwise determined by the City to be necessary for the full and proper review of the application.

~~D~~E. Where elevation data is not available as per subsection B of this Section, or from other sources as per Section 16.134.020.C, a floodplain CUP shall be reviewed using other relevant data, as determined by the City, such as historical information, high water marks, and other evidence of past flooding. The City may require utility structures and habitable building floor elevations, and building flood proofing, to be at least two (2) feet above the probable base flood elevation, in such circumstances where more definitive flood data is not available.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 91-922, § 3; 88-879)

16.134.050 - Permitted Uses

In the FP zone the following uses are permitted outright, and do not require a CUP, provided that floodway flow, or floodplain capacity, will not be impeded, as determined by the City, and when greenway dedication is not required as per Section 16.134.030.

A. Agricultural uses, provided that associated structures are not allowed, except for temporary building and boundary fences that do not impede the movement of floodwaters and flood-carried materials.

B. Open space, park and recreational uses, and minor associated structures, if otherwise allowed in the underlying zoning district, that do not impede the movement of floodwaters and flood-carried materials.

C. Public streets and appurtenant structures, and above and underground utilities, subject to the provisions of Sections 16.134.080 and 16.134.090.

D. Other accessory uses allowed in the underlying zoning district that do not involve structures, and will not, in the City's determination, materially alter the stability or storm drainage absorption capability of the floodplain.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 2000-1092, § 3; 91-922)

16.134.060 - Conditional Uses

In the FP zone the following uses are permitted as conditional uses, subject to the provisions of this Section and Chapter 16.82, when greenway dedication is not required as per this Section.

Greenways:

A. Any permitted or conditional use allowed in the underlying zoning district, when located in the flood fringe only, as specifically defined by this Code.

(Ord. No. 2010-015, § 2, 10-5-2010; Ord. 91-922, § 3; 88-879)

16.134.070 - Prohibited Uses

In the FP zone the following uses are expressly prohibited:

A. The storage or processing of materials that are buoyant, flammable, contaminants, explosive, or otherwise potentially injurious to human, animal or plant life.

B. Public and private sewerage treatment systems, including drainfields, septic tanks and individual package treatment plants.

C. Any use or activity not permitted in the underlying zoning district.

D. Any use or activity that, in the City's determination, will materially alter the stability or storm drainage absorption capability of the floodplain.

E. Any use or activity that, in the City's determination, could create an immediate or potential hazard to the public health, safety and welfare, if located in the floodplain.

F. Any use, activity, or encroachment located in the floodway, including fill, new construction, improvements to existing developments, or other development, except as otherwise allowed by Section 16.134.050 and unless certification by a Registered Engineer or Architect is provided demonstrating that the use, activity, or encroachment will not result in any increase to flood levels during the occurrence of the base flood discharge.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 88-879, § 3)

16.134.080 - Floodplain Development

A. Floodplain Alterations

1. Floodplain Survey

The floodplain, including the floodway and flood fringe areas, shall be surveyed by a Registered Civil Engineer, and approved by the City, based on the findings of the Flood Insurance Study and other available data. Such delineation shall be based on mean sea level data and be field-located from recognized valid benchmarks.

2. Grading Plan

Alteration of the existing topography of floodplain areas may be made upon approval of a grading plan by the City. The plan shall include both existing and proposed topography and a plan for alternate drainage. Contour intervals for existing and proposed topography shall be included and shall be not more than one (1) foot for ground slopes up to five percent (5%) and for areas immediately adjacent to a stream or drainage way, two (2) feet for ground slopes between five and ten percent (5% to 10%), and five (5) feet for greater slopes.

3. Fill and Diked Lands

a. Proposed floodplain fill or diked lands may be developed if a site plan for the area to be altered within the floodplain is prepared and certified by a Registered Civil Engineer and approved by the Commission pursuant to the applicable provisions of this Code.

b. Vehicular access shall be provided from a street above the elevation of the base flood to any proposed fill or dike area if the area supports structures for human occupancy. Unoccupied fill or dike areas shall be provided with emergency vehicle access.

4. Alteration Site Plan

a. The certified site plan prepared by a Registered Civil Engineer or Architect for an altered floodplain area shall show that:

(1)~~a.~~ Proposed improvements will not alter the flow of surface water during flooding such as to cause a compounding of flood hazards or changes in the direction or velocity of floodwater flow.

(2)~~b.~~ No structure, fill, storage, impervious surface or other uses alone, or in combination with existing or future uses, will materially reduce the capacity of the floodplain or increase in flood heights.

(3)~~c.~~ Proposed floodplain fill or diked areas will benefit the public health, safety and welfare and incorporate adequate erosion and storm drainage controls, such as pumps, dams and gates.

(4)~~d.~~ No serious environmental degradation shall occur to the natural features and existing ecological balance of upstream and downstream areas.

(5)~~e.~~ On-going maintenance of altered areas is provided so that flood-carrying capacity will not be diminished by future erosion, settling, or other factors.

b. Applicants must obtain a Conditional Letter of Map Revision (CLOMR) from FEMA before any encroachment, including fill, new construction, substantial improvement, or other development, in the regulatory floodway is permitted. Applicants are responsible for preparing technical data to support the CLOMR application and paying any processing or application fees to FEMA.

5. Subdivisions and Partitions

All proposed subdivisions or partitions including land within an FP zone must establish the boundaries of the base flood by survey and dedicate said land as per Section 16.134.050. The balance of the land and development must:

a. Be designed to include adequate drainage to reduce exposure to flood damage, and have public sewer, gas, electrical and other utility systems so located and constructed to minimize potential flood damage, as determined by the City.

b. Provide for each parcel or lot intended for structures, a building site which is at or above the base flood elevation, and meets all setback standards of the underlying zoning district.

c. Where base flood elevation data is not provided, or is not available from an authoritative source, it shall be generated by the applicant for subdivision proposals and other proposed developments which contain at least fifty (50) lots or five (5) acres, whichever is less.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 88-879, § 3)

16.134.090 - Floodplain Structures

Structures in the FP zone permitted in accordance with this section, shall be subject to the following conditions, in addition to the standards of the underlying zoning district:

A. Generally

1. All structures, including utility equipment, and manufactured housing, shall be anchored to prevent lateral movement, floatation, or collapse during flood conditions, and shall be constructed of flood-resistant materials, to standards approved by the City, State Structural and Plumbing Specialty Codes and applicable building codes.

2. The lowest floor elevation of a structure designed for human occupancy must be at least one and one-half (1½) feet above the base flood elevation and the building site must comply with the provisions of Section 16.134.080.A.

3. The lower portions of all structures shall be flood proofed according to the provisions of the State Structural and Plumbing Specialty Code to an elevation of at least one and one-half (1½) feet above the base flood elevation.

4. The finished ground elevation of any under floor crawl space shall be above the grade elevation of an adjacent street, or natural or approved drainage way unless specifically approved by the City. A positive means of drainage from the low point of such crawl space shall be provided.

B. Utilities

1. Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities located within structures shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

2. Electrical service equipment, or other utility structures, shall be constructed at or above the base flood elevation. All openings in utility structures shall be sealed and locked.

3. Water supply and sanitary sewer systems shall be approved by the Washington County Health Department, and shall be designed to minimize or eliminate the infiltration of floodwaters into the systems, or any discharge from systems into floodwaters.

C. Residential Structures

1. All residential structures shall have the lowest floor, including basement, elevated to at least one and one-half (1½) feet above the base flood elevation.

2. Fully enclosed areas below the lowest floor that are subject to flooding are not permitted unless they are designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must

either be certified by a Registered Engineer or Architect, or must meet or exceed the following minimum criteria:

a. A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided.

b. The bottom of all openings shall be no higher than one (1) foot above grade.

c. Openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic entry and exit of floodwaters.

D. Non-Residential Construction

1. All commercial, industrial or other non-residential structures shall have either the lowest floor, including basement, elevated to the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

a. Be flood proofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water.

b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

c. Be certified by a Registered Professional Engineer or Architect that the design and methods of construction are in accordance with accepted standards of practice for meeting all provisions of this Section. A record of such certificates shall be maintained by the Floodplain Administrator in accordance with Section 16.134.040.A.

d. Nonresidential structures that are elevated and not flood proofed must meet the same standards for space below the lowest floor as per Section 16.134.090.C.2.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 88-879, § 3)

16.134.100 - Additional Requirements

A. Dimensional standards or developments in the FP zone are the same as in the underlying zoning district, except as provided in Section 16.134.100.

B. Approval of a site plan pursuant to Chapter 16.90, that includes portions of the FP overlay may be conditioned by the City to protect the best interests of the surrounding area or the community as a whole, and to carry out the terms of the Comprehensive Plan. These conditions may include, but are not limited to:

1. Increasing the required lot sizes, yard dimensions, modifying street widths, or off-street parking spaces.

2. Limiting the height, size, or location of buildings.

3. Controlling the location and number of vehicle access points.

4. Limiting the number, size, location, or lighting of signs.

5. Requiring diking, fencing, screening, landscaping, or other facilities to protect the proposed development, or any adjacent or nearby property.

6. Designating sites for open space or water retention purposes.

7. Construction, implementation, and maintenance of special drainage facilities and activities.

C. FEMA Notification

1. Notify FEMA within six months of project completion when a Conditional Letter of Map Revision (CLOMR) has been obtained from FEMA or when development altered a watercourse, modified

floodplain boundaries, or modified Base Flood Elevations. This notification shall be provided as a Letter of Map Revision (LOMR).

2. The applicant is responsible for preparing technical data to support the LOMR application and paying any processing or application fees to FEMA.

3. The Floodplain Administrator is under no obligation to sign the Community Acknowledgement Form, which is part of the CLOMR/LOMR application, until the applicant demonstrates that the project will or has met the requirements of this code an all applicable State and Federal laws.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 88-879, § 3)

Chapter 16.10 - DEFINITIONS*

Sections:

16.10.010 - Generally

All words used in this Code, except where specifically defined herein, shall carry their customary meanings. Words used in the present tense include the future tense; words used in the future tense include the present tense; the plural includes the singular, and the masculine includes the feminine and neuter. The word "building" includes the word "structure"; the word "shall" is mandatory; the word "will" or "may" are permissive; the words "occupied" and "uses" shall be considered as though followed by the words "or intended, arranged, or designed to be used or occupied."

Where terms are not defined, they shall have their ordinary accepted meanings within the context with which they are used. Webster's Third New International Dictionary of the English Language, Unabridged, copyright 1986, shall be considered as providing ordinarily accepted meanings.

16.10.020 - Specifically

The following terms shall have specific meaning when used in this Code:

Abut: Contiguous to, in contact with, or adjoining with a common property line; two properties separated by another parcel, lot, tract or right-of-way measuring twenty (20) feet in width or less, shall be considered abutting for the purposes of interpreting the infill-related development standards. See also, Adjacent.

Access: The way or means by which pedestrians and vehicles enter and leave property.

Access Way: A pathway providing a connection for pedestrians and bicyclists between two (2) streets, between two (2) lots, or between a development and a public right-of-way. An access way is intended to provide access between a development and adjacent residential uses, commercial uses, public use such as schools, parks, and adjacent collector and arterial streets where transit stops or bike lanes are provided or designated. An access way may be a pathway for pedestrians and bicyclists (with no vehicle access), a pathway on public or private property (i.e., with a public access easement), and/or a facility designed to accommodate emergency vehicles.

Accessory Building: A structure that is incidental and subordinate to the main use of property, is located on the same lot as the main use, and is freestanding or is joined to the primary structure solely by non-habitable space as defined by the State Building Code.

Accessory Use: A use or activity that is subordinate and incidental to the primary use of the property. A property may have more than one accessory use.

Adjacent: A relative term meaning nearby; may or may not be in actual contact with each other, but are not separated by things of the same kind. For example, a lot is adjacent to a lot across the street because the lots are separated by a street, not an intervening lot.

Alteration: An addition, removal, or reconfiguration which significantly changes the character of a historic resource, including new construction in historic districts.

Apartment: Each dwelling unit contained in a multi-family dwelling or a dwelling unit that is secondary to the primary use of a non-residential building.

Assisted Living Facilities: A program approach, within a physical structure, which provides or coordinates a range of services, available on a 24-hour basis, for support of resident independence in a residential setting.

Automobile Sales Area: An open area, other than a street, used for the display, sale, or rental of new or used automobiles, and where no repair work is done, except minor incidental repair of automobiles to be displayed, sold, or rented on the premises.

Base Flood: The flood having a one percent (1%) chance of being equaled or exceeded in any given year. Also referred to as the "100-year flood" or "100-year flood plain".

Basement: Any area of the building having its floor subgrade (below ground level) on all sides.

Below-Grade Crawl Space: means an enclosed area below the base flood elevation in which the interior grade is not more than two feet below the lowest adjacent exterior grade and the height, measured from the interior grade of the crawlspace to the top of the crawlspace foundation, does not exceed 4 feet at any point.

Board-and-batten: Wall covering composed of solid wood wide boards, and solid wood narrow strips. Wide boards are attached vertically with small spaces remaining. Narrow strips, or batten, are attached over spaces between boards.

Boarding or Rooming House: Any building or portion thereof containing not more than five (5) guest rooms where rent is paid in money, goods, labor or otherwise.

Building: Any structure used, intended for, supporting or sheltering any use or occupancy. Each portion of a structure separated by a division wall without any openings shall be deemed a separate building.

Building Area: That portion of a property that can be occupied by the principal use, thus excluding the front, side and rear yards.

Building, Existing: Any building erected prior to the adoption of this Code or one for which a legal building permit has been issued.

Building Height: The vertical distance above a reference datum measured to the highest point of the coping of a flat roof or to the deck line of a mansard roof or to the average height of the highest gable of a pitched or hipped roof. The height of a stepped or terraced building is the maximum height of any segment of the building. The reference datum shall be selected by the following criteria, whichever yields the greater height:

A. The elevation of the highest adjoining sidewalk or ground surface within a five (5) foot horizontal distance of the exterior wall of the building, when such sidewalk or ground surface is not more than ten (10) feet above lowest grade.

B. An elevation ten (10) feet higher than the lowest grade, when the sidewalk or ground surface described in this Section is more than ten (10) feet above lowest grade.

Building Official: The City employee or agent charged with the administration and enforcement of the Uniform Building Code and other applicable regulations.

Building Permit: A permit issued under the terms of the Uniform Building Code.

Buffer: A landscaped area, wall, berm or other structure or use established to separate and protect land uses.

Change in Use: A change to a parcel of land, a premise or a building which creates a change in vehicular trip generation activities, which changes the minimum parking requirements of this Code, or which changes the use classification as defined by this Code or the Uniform Building Code.

Church: Any bona-fide place of worship, including Sunday School buildings, parsonages, church halls, and other buildings customarily accessory to places of worship.

City: The City of Sherwood, Oregon and its duly authorized officials, employees, consultants and agents.

Clean Water Services: An agency of Washington County providing for sanitary sewer collection and treatment, and for storm water management.

Code: The City of Sherwood, Oregon Zoning and Community Development Code, Part 3 of the City of Sherwood Comprehensive Plan.

Co-Location: The placement of two or more antenna systems or platforms by separate FCC license holders on a structure such as a support structure, building, water tank or utility pole.

Commercial Trade School: Any private school or institution operated for profit that is not included in the definitions of an educational institution or school.

Commission: The City of Sherwood Planning Commission.

Common-Wall Dwelling: Dwelling units with shared walls such as two-family, and multi-family dwellings.

Community Development Plan: Part 2 of the City of Sherwood Comprehensive Plan.

Compatible: Any structures or uses capable of existing together in a harmonious, orderly, efficient, and integrated manner, considering building orientation, privacy, lot size, buffering, access and circulation.

Comprehensive Plan: The City of Sherwood Comprehensive Plan.

"Conditional Letter of Map Revision (CLOMR)": Means a letter from FEMA commenting on whether a proposed project, if built as proposed, would meet the minimum NFIP standards or proposed hydrology changes.

Conditional Use: A use permitted subject to special conditions or requirements as defined in any given zoning district and Chapter 16.82 of the Code.

Condominium: An individually-owned dwelling unit in a multi-family housing development with common areas and facilities.

Convalescent Homes: See Nursing Home in this Code.

Council: The City of Sherwood City Council.

Critical Facility: Means a facility for which even a slight chance of flooding might be too great. Critical facilities include, but are not limited to schools, nursing homes, hospitals, police, fire and emergency response installations, installations which produce, use, or store hazardous materials or hazardous waste.

Day-Care Facility: Any facility that provides day care to six (6) or more children, including a child day care center or group day care home, including those known under a descriptive name, such as nursery school, preschool, kindergarten, child playschool, child development center, except for those facilities excluded by law, and family day care providers as defined by this Code. This term applies to the total day care operation and it includes the physical setting, equipment, staff, provider, program, and care of children.

Deed Restriction: A covenant or contract constituting a burden on the use of private property for the benefit of property owners in the same subdivision, adjacent property owners, the public or the City of Sherwood, and designed to mitigate or protect against adverse impacts of a development or use to ensure compliance with a Comprehensive Plan.

Demolish: To raze, destroy, dismantle, deface or in any other manner cause partial or total ruin of a structure or resource.

Density: The intensity of residential land uses per acre, stated as the number of dwelling units per net buildable acre. Net buildable acre means an area measuring 43,560 square feet after excluding present and future rights-of-way and environmentally constrained areas.

Designated Landmark: A property officially recognized by the City of Sherwood as important in its history, culture, or architectural significance.

Designated Landmarks Register: The list of, and record of information about, properties officially recognized by the City of Sherwood as important in its history.

Development: Any man-made change to improved or unimproved real property or structures, including but not limited to construction, installation, or alteration of a building or other structure; change in

use of a building or structure; land division; establishment or termination of rights of access; storage on the land; tree cutting; drilling; and any site alteration such as land surface mining, dredging, grading, construction of earthen berms, paving, parking improvements, excavation or clearing.

Development Plan: Any plan adopted by the City for the guidance of growth and improvement in the City.

Diameter at Breast Height (DBH): Is a standard arboricultural method for measuring the diameter of a tree. For the purposes of this code, DBH shall be measured four and a half feet above ground level as defined by the International Society of Arboriculture.

Drive-In Restaurant: Any establishment dispensing food and/or drink, that caters primarily to customers who remain, or leave and return, to their automobile for consumption of the food and/or drink, including business designed for serving customers at a drive-up window or in automobiles.

Dwelling Unit: Any room, suite of rooms, enclosure, building or structure designed or used as a residence for one (1) family as defined by this Code, and containing sleeping, kitchen and bathroom facilities.

Dwelling, Single-Family: A structure containing one (1) dwelling unit.

Dwelling, Single-Family Attached: A single structure on two (2) lots, containing two (2) individual dwelling units, but with a common wall and a common property line. Otherwise identical to a two-family dwelling.

Dwelling, Two-Family or Duplex: A single structure on one (1) lot containing two (2) individual dwelling units, sharing a common wall, but with separate entrances.

Dwelling, Townhome or Row House: A single-family dwelling unit which is attached on one or both sides to a similar adjacent unit(s) on similar lot(s). The attachment is made along one or more common walls which are jointly owned. The units may either be on individual platted lots or may be located on a single lot as individual condominium units. The units are distinct from each other by scale, color, massing, or materials.

Dwelling, Multi-Family: A single structure containing three (3) or more dwelling units that share common walls or floor/ceilings with one or more units. The land underneath the structure is not divided into separate lots. Multi-family dwellings include structures commonly called garden apartments, apartments and condominiums. Multi-family dwellings that are attached on one or both sides to similar adjacent but distinct units are considered townhomes (see definition above).

Easement: The grant of the legal right to use of land for specified purposes.

Educational Institution: Any bona-fide place of education or instruction, including customary accessory buildings, uses, and activities, that is administered by a legally-organized school district; church or religious organization; the State of Oregon; or any agency, college, and university operated as an educational institution under charter or license from the State of Oregon. An educational institution is not a commercial trade school as defined by Section 16.10.020.

Established Neighborhood: An existing residential area that is taken into consideration when infill development is proposed. See Chapter 16.68, Infill Development Standards, intended to promote compatibility between existing residential areas and new development through controls on the type, height, size, scale, or character of new buildings.

Environmentally Constrained Land: Any portion of land located within the floodway, 100 year floodplain, wetlands and/or vegetated corridor as defined by Clean Water Services.

Environmentally Sensitive Land: Land that does not meet the definition of environmentally constrained, but which is identified on the inventory of Regionally Significant Riparian and Wildlife Habitat Map adopted as Map V-2 of the Sherwood Comprehensive Plan, Part 2.

Expedited Land Division: A residential land division process which must be expedited within 63 days of receiving a complete application in accordance with ORS 197.360. The decision is rendered without a

public hearing and must meet applicable land use regulation requirements. All appeals of expedited land divisions must be decided by a hearings officer.

Extraordinary Historic Importance: The quality of historic significance achieved outside the usual norms of age, association, or rarity.

Evergreen: A plant which maintains year-round foliage.

Ex-parte Contact: Contact or information passed between a party with an interest in a quasi-judicial land use decision and a member of the Council or Commission, when such information is not generally available to other members of the Council or Commission, or other interested persons. The member shall disclose any pre-hearing or ex-parte contacts with applicants, officers, agents, employees, or other parties to an application before the Council or Commission. Ex-parte contacts with a member of the Commission or Council shall not invalidate a final decision or action of the Commission or Council, provided that the member receiving the contact indicates the substance of the content of the ex-parte communication and of the right of parties to rebut said content at the first hearing where action will be considered or taken.

Extra Capacity Improvements: Improvements that are defined as necessary in the interest of public health, safety and welfare by Divisions V, VI, and VIII of this Code, and the Community Development Plan, to increase the capacities of collector or arterial streets; water, sewer, storm drainage or other utility facilities; and parks and open space.

Family: One (1) person living alone or two (2) or more persons related by blood, marriage, or adoption; or a group not exceeding five (5) persons living together as a single housekeeping unit, excluding occupants of a boardinghouse, fraternity, hotel, or similar use.

Family Day Care Provider: A day care provider which accommodates fewer than thirteen (13) children in the provider's home.

Fence: A freestanding structure that provides a barrier between properties or different uses on the same property and is generally used to provide privacy and security. A fence may be open or solid and is usually constructed of wood, metal, wire, brick, cement block, stone, vinyl, or composite materials.

Fiber Board (also pressboard or stucco board): A building material composed of wood chips or plant fibers bonded together with or without stucco and compressed into rigid sheets.

Fiber Cement Board (i.e. HardiPlank): A fire resistant building material composed of wood fiber and cement compressed into clapboard.

Fire District: Tualatin Valley Fire and Rescue.

Flag Lot: A building lot which is provided access to a public street by means of a narrow strip of land with minimal frontage.

Flood Fringe: The area of the flood plain lying outside of the floodway.

Flood Insurance Rate Map (FIRM): Means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood Insurance Study: Means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood-Boundary-Floodway Map, and the water surface elevation of the base flood.

Flood Plain: The flood-hazard area adjoining a river, stream or other water course, that is subject to inundation by a base flood. The flood plain includes the floodway and floodway fringe, and the City greenway, as defined by this Code.

Floodway: The channel of a river, stream or other watercourse, and the adjoining areas of the flood plain, required to discharge the base flood without cumulatively increasing the water surface elevation of said watercourse by more than one (1) foot.

Footcandle: A unit of illumination. One footcandle is the intensity of illumination when a source of one (1) candlepower illuminates a screen one (1) foot away.

Frontage: That side of a parcel abutting on a street or right-of-way ordinarily regarded as the front of the parcel, except that the shortest side of a corner lot facing a street, shall not be deemed the lot frontage.

Garage: A building or a portion thereof which is designed to house, store, repair or keep motor vehicles.

Government Structure: Any structure used by a federal, state, local government, or special district agency.

Ground Floor Area: The total area of a building measured by taking the largest outside dimensions of the building, exclusive of open porches, breezeways, terraces, garages, exterior stairways, and secondary stairways.

Hard Surface: Any man-made surface that prevents or retards the saturation of water into land, or that causes water to run-off in greater quantities or increased rates, than existed under natural conditions prior to development. Common hard surfaces include but are not limited to: roofs, streets, driveways, sidewalks and walkways, patios, parking and loading areas, and other graveled, oiled, macadam or concrete surfaces. Also referred to as impermeable surface.

Hazardous Waste: Has the meaning given that term in ORS 466.005.

Hearing Authority: The City of Sherwood Planning Commission, City Council, Landmarks Advisory Board or Hearings Officer.

Hearings Officer: An individual appointed by the City Council to perform the duties as specified in this Code.

Hedges: A line of closely spaced vegetation specifically planted and trained in such a way as to form a barrier to mark the boundary of an area or visually screen an area.

Highest Adjacent Grade: Means the highest natural elevation of the ground surface prior to construction, adjacent to the proposed walls of a structure.

Historic Integrity: The quality of wholeness of historic location, design, setting, materials, workmanship, feeling, and/or association of a resource, as opposed to its physical condition.

Historic Resource: A building, structure, object, site, or district which meets the significance and integrity criteria for designation as a landmark. Resource types are further described as:

A. **Object:** A construction which is primarily artistic or commemorative in nature and not normally movable or part of a building or structure, e.g., statue, fountain, milepost, monument, sign, etc.

B. **Site:** The location of a significant event, use, or occupation which may include associated standing, ruined, or underground features, e.g., battlefield, shipwreck, campsite, cemetery, natural feature, garden, food-gathering area, etc.

C. **District:** A geographically defined area possessing a significant concentration of buildings, structures, objects, and/or sites which are unified historically by plan or physical development, e.g., downtown, residential, neighborhood, military reservation, ranch complex, etc.

D. **Primary, Secondary, & Contributing:** Historic ranking in descending order based on four scoring criteria for surveyed properties—historical, architectural, use considerations, and physical and site characteristics.

Historic Resources of Statewide Significance: Buildings, structures, objects, sites, and districts which are listed on the Federal National Register of Historic Places.

Hogged Fuel: Fuel generated from wood or other waste that has been fed through a machine that reduces it to a practically uniform size of chips, shreds, or pellets.

Home Occupation: An occupation or a profession customarily carried on in a residential dwelling unit by a member or members of a family residing in the dwelling unit and clearly incidental and secondary to the use of the dwelling unit for residential purposes.

Hotel: A building or buildings in which there are more than five (5) sleeping rooms occupied as temporary dwelling places, which rooms customarily do not contain full kitchen facilities, but may include kitchenettes.

Homeowners Association: A formally organized group of homeowners within a single housing development having shared responsibility for portions of the development such as building, landscaping, or parking maintenance, or other activities provided for by covenant or legal agreement.

Household: All persons occupying a group of rooms or a single room which constitutes a dwelling unit.

Inert Material: Solid waste material that remains materially unchanged by variations in chemical, environmental, storage, and use conditions reasonably anticipated at the facility.

Inventory of Historic Resources: The record of information about resources potentially significant in the history of the City of Sherwood as listed in the Cultural Resource Inventory (1989), and hereafter amended.

Junk: Materials stored or deposited in yards and open areas for extended periods, including inoperable or abandoned motor vehicles, inoperable or abandoned machinery, motor vehicle and machinery parts, broken or discarded furniture and household equipment, yard debris and household waste, scrap metal, used lumber, and other similar materials.

Junk-Yard: Any lot or site exceeding two hundred (200) square feet in area used for the storage, keeping, or abandonment of junk as defined by this Code.

Kennel: Any lot or premise on which four (4) or more dogs or cats more than four (4) months of age are kept.

Laboratory, Medical or Dental: A laboratory which provides bacteriological, biological, medical, x-ray, pathological and similar analytical or diagnostic services to doctors or dentists, and where no fabrication is conducted on the premises except the custom fabrication of dentures.

Landmarks Board: The City of Sherwood Landmarks Advisory Board.

Landscape Feature: A trellis, arbor or other decorative feature that is attached to or incorporated within the fence.

Leachate: Liquid that has come into direct contact with solid waste and contains dissolved and/or suspended contaminants as a result of such contact.

Letter of Map Change (LOMC): Means an official FEMA determination, by letter, to amend or revise effective Flood Insurance Rate Maps and/or Flood Insurance Studies. LOMCs are issued in the following categories:

1. Letter of Map Amendment (LOMA): An amendment to the Flood Insurance Rate Maps based on technical data showing that an existing structure or parcel of land that has not been elevated by fill (natural grade) was inadvertently included in the special flood hazard area because of an area of naturally high ground above the base flood.
2. Letter of Map Revision (LOMR)
    a. LOMR-F (Letter of Map Revision based on Fill) is a letter from FEMA stating that an existing structure or parcel of land that has been elevated by fill would not be inundated by the base flood.

A LOMR revises the current Flood Insurance Rate Map and/or Flood Insurance Study to show changes to the floodplains, Floodways, or flood elevations. LOMRs are generally based on manmade alterations that affected the hydrologic or hydraulic characteristics of a flooding source and thus result in modification to the existing regulatory Floodway, the effective Base Flood Elevation, or the Special Flood Hazard Area.
Level of Service (LOS): A measure of the overall comfort afforded to motorists as they pass through a roadway segment or intersection, based on such things as impediments caused by other vehicles, number and duration of stops, travel time, and the reserve capacity of a road or an intersection (i.e., that portion of

the available time that is not used). LOS generally is referred to by the letters "A" though "F", with LOS "E" or "F" being generally unacceptable. LOS generally is calculated using the methodology in the Highway Capacity Manual, Special Report 209, by the Transportation Research Board (1985).

Limited Land Use Decision: A final decision or determination in accordance with ORS 197.195 made by a local government pertaining to a site within an urban growth boundary which concerns: 1) the approval or denial of a subdivision or partition, or 2) the approval or denial of an application based on discretionary standards designed to regulate the physical characteristics of a use permitted outright but not limited to site review and design review.

Loading or Unloading Space: An off-street space or berth for the temporary parking of vehicles while loading or unloading merchandise or materials.

Lot: A parcel of land of at least sufficient size to meet the minimum zoning requirements of this Code, and with frontage on a public street, or easement approved by the City. A lot may be:

A. A single lot of record; or a combination of complete lots of record, or complete lots of record and portions of other lots of record.

B. A parcel of land described by metes and bounds; provided that for a subdivision or partition, the parcel shall be approved in accordance with this Code.

Lot Area: The total horizontal area within the lot lines of a lot, exclusive of streets and access easements to other property.

Lot, Corner: A lot situated at the intersection of two (2) or more streets, other than an alley.

Lot Coverage: The proportional amount of land on a lot covered by buildings.

Lot Depth: The average horizontal distance between the front and rear lot lines measured in the direction of the side lot lines.

Lot Frontage: The distance parallel to the front lot line, measured between side lot lines at the street line.

Lot, Interior: A lot other than a corner lot.

Lot of Record: Any unit of land created as follows:

A. A parcel in an existing, duly recorded subdivision or partition.

B. An existing parcel for which a survey has been duly filed which conformed to all applicable regulations at the time of filing.

C. A parcel created by deed description or metes and bounds provided, however, contiguous parcels created by deed description or metes and bounds under the same ownership and not conforming to the minimum requirements of this Code shall be considered one (1) lot of record.

Lot, Through: A lot having frontage on two (2) parallel or approximately parallel streets.

Lot Lines: The property lines bounding a lot.

Lot Line, Front: The line separating a lot from any street, provided that for corner lots, there shall be as many front lines as there are street frontages.

Lot Line, Rear: A lot line which is opposite and most distant from the front lot line, provided that for irregular and triangular lots, the rear lot line shall be deemed a line ten (10) feet in length within the lot, parallel to and at a maximum distance from the front lot line. On a corner lot, the shortest lot line abutting adjacent property that is not a street is considered a rear lot line.

Lot Line, Side: Any lot line not a front or rear lot line.

Lot Width: The horizontal distance between the side lot lines, ordinarily measured parallel to the front lot line, at the center of the lot, or, in the case of a corner lot, the horizontal distance between the front lot line and a side lot line.

Lower Explosive Limit: The minimum concentration of gas or vapor in air that will propagate a flame at twenty-five degrees (25ºC) Celsius in the presence of an ignition source.

Lowest Floor: Means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for the parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of 16.134.090.

Manufactured Dwelling: A structure transportable in one or more sections, intended for permanent occupancy as a dwelling. All manufactured homes located in the City after the effective date of this Code shall meet or exceed the standards of the U.S. Department of Housing and Urban Development and shall have been constructed after June 15, 1976. **Manufactured Home Park:** A lot, tract, or parcel with four (4) or more spaces within five-hundred (500) feet of one another available for rent or lease for the siting of manufactured homes.

Manufactured Home Space: A plot of land within a manufactured home park designed to accommodate one (1) manufactured home, on a rental or lease basis.

Medical Marijuana Dispensary: A retail facility registered by the Oregon Health Authority that is allowed to receive marijuana, immature marijuana plants or usable marijuana products (such as edible products, ointments, concentrates or tinctures) and to transfer that marijuana, immature plants, or usable project to a person with a valid Oregon Medical Marijuana Program card (a patient or the patient's caregiver). A dispensary includes all premises, buildings, curtilage or other structures used to accomplish the storage, distribution and dissemination of marijuana.

Mixed Solid Waste: Solid waste that contains recoverable or recyclable materials, and materials that are not capable of being recycled or recovered for future use.

Mobile Vendor: A service establishment operated from a licensed and moveable vehicle that vends or sells food and/or drink or other retail items.

Motel: See Hotel.

Municipal Solid Waste: Solid waste primarily from residential, business, and institutional uses.

Net Buildable Acre: Means an area measuring 43,560 square feet after excluding present and future rights-of-way, environmentally constrained areas, public parks and other public uses. When environmentally sensitive areas also exist on a property and said property is within the Metro urban growth boundary on or before January 1, 2002, these areas may also be removed from the net buildable area provided the sensitive areas are clearly delineated in accordance with this Code and the environmentally sensitive areas are protected via tract or restricted easement.

Net Developable Site: Remaining area of a parent parcel after excluding present and future rights-of-way, environmentally constrained areas, public parks and other public uses but not including preserved areas for tree stands which are not associated with wetlands, streams or vegetated corridors.

Non-Attainment Area: A geographical area of the State which exceeds any state or federal primary or secondary ambient air quality standard as designated by the Oregon Environmental Quality Commission and approved by the U.S. Environmental Protection Agency.

Non-Conforming Structure or Use: A lawful structure or use, existing as of the effective date of this Code, or any applicable amendments, which does not conform to the minimum requirements of the zoning district in which it is located.

Nursing Home: An institution for the care of children or the aged or infirm, or a place of rest for those suffering bodily disorders; but not including facilities for surgical care, or institutions for the care and treatment of mental illness, alcoholism, or narcotics addiction.

Occupancy Permit: The permit provided in the Uniform Building Code which must be issued prior to occupying a building or structure or portion thereof. For the purposes of this Code, "occupancy permit" includes the final inspection approval for those buildings or structures not required to obtain an occupancy permit by the Uniform Building Code.

Occupy: To take or enter upon possession of.

Office: A room or building for the transaction of business, a profession or similar activities, including but not limited to administration, bookkeeping, record keeping, business meetings, and correspondence. Products may not be stored or manufactured in an office, except to accommodate incidental sales, display and demonstration.

Off-Street Parking: Parking spaces provided for motor vehicles on individual lots and not located on public street right-of-way.

Open Space: Open ground area which is not obstructed from the ground surface to the sky by any structure, except those associated with landscaping, or recreational facilities. Parking lots and storage areas for vehicles and materials shall not be considered open space.

Parks Board: The City of Sherwood Parks Advisory Board.

Partition: The dividing of an area or tract of land into two (2) or three (3) parcels within a calendar year when such area exists as a unit or contiguous units of land under single ownership at the beginning of each year. Partitions do not include: divisions of land resulting from lien foreclosures; divisions of land resulting from the creation of cemetery lots; divisions of land made pursuant to a court order, lot line adjustments where an additional parcel is not created and where the existing parcels are not reduced below the minimum requirements of this Code.

Partition Land: A sale or grant by a person to a public agency or public body for state highway, county road, city street or other right of way purposes provided that such road or right of way complies with the Comprehensive Plan and ORS 215.213 (2)(q) to (s) and 215.283 (2)(p) to (r).

Partition Plat: Partition plat includes a final map and other writing containing all the descriptions, locations, specifications, provisions and information concerning a land partition.

Pedestrian Facilities: Improvements and provisions made to accommodate or encourage walking, including but not limited to sidewalks, accessways, signalization, crosswalks, ramps, refuges, paths, and trails.

Pedestrian Way: A right-of-way for pedestrian traffic.

Person: A natural person, firm, partnership, association, social or fraternal organization, corporation, trust, estate, receiver, syndicate, branch of government, or any group or combination acting as a unit.

Plat: The final map, diagram, drawing, replat, or other writing containing all the descriptions, locations, specifications, dedications, provisions and information concerning a subdivision or partition.

Plat, Preliminary: A map and plan of a proposed subdivision, as specified by this Code.

Principal Building/Use: The main or primary purpose for which a structure, land, or use is designed, arranged, or intended, or for which the building or use may lawfully be occupied or maintained under the terms of this Code.

Professional Engineer: A professional engineer currently licensed to practice in the State of Oregon. The type of professional engineer may be specified in the ordinance (i.e., civil, structural, acoustic, traffic, etc.).

Professions: Members of professions, such as doctors, dentists, accountants, architects, artists, attorneys, authors, engineers, and others who are generally recognized professionals by virtue of experience or education.

Public Hearing: Hearings held by the Commission or the Council for which a form of prescribed public notice is given.

Public Park: A park, playground, swimming pool, reservoir, athletic field, or other recreational facility which is under the control, operation or management of the City or other government agency.

Public Place: Any premise whether, privately or publicly owned, which by physical nature, function, custom, or usage, is open to the public at times without permission being required to enter or remain.

Public Plaza: A square in a city or town; an open area usually located near urban buildings and often featuring walkways, trees and shrubs, places to sit, and sometimes shops which is under the control, operation or management of the City or other government agency.

Public Use Building: Any building or structure owned and operated by a government agency for the convenience and use of the general public.

Public Utility Facilities: Structures or uses necessary to provide the public with water, sewer, gas, telephone or other similar services.

Recreational Vehicle: Means a vehicle which is:

1. Built on a single chassis;
2. 400 square feet or less when measured at the largest horizontal projection;
3. Designed to be self propelled or permanently towable by another vehicle;
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Recycled Materials: Solid waste that is transformed into new products in such a manner that the original products may lose their identity.

Recycling: The use of secondary materials in the production of new items. As used here, recycling includes materials reuse.

Relocation: The removal of a resource from its historic context.

Regionally Significant Fish and Wildlife Habitat: Those areas identified on the Metro Regionally Significant Fish and Wildlife Habitat Inventory Map, adopted as Map V-2 of the Sherwood Comprehensive Plan, Part 2, as significant natural resource sites.

Residential Care Facility: A facility licensed by or under the authority of the Department of Human Resources under ORS 443.400 to 443.460 which provides residential care alone or in conjunction with treatment or training or a combination thereof for six (6) to fifteen (15) individuals who need not be related. Staff persons required to meet Department of Human Resources licensing requirements shall not be counted in the number of facility residents, and need not be related to each other or to any resident of the residential facility.

Residential Care Home: A residence for five (5) or fewer unrelated physically or mentally handicapped persons and for the staff persons who need not be related to each other or any other home resident.

Residential Structure: Any building or part of a building, used or constructed as a sleeping or other housekeeping accommodation, for a person or group of persons.

Restrictive Covenant: A legally binding limitation on the manner in which a tract of land or lot can be used, usually a condition placed on the deed.

Retail Trade: The sale of goods and products to the consumer generally for direct consumption and not for resale.

Retaining Wall: A solid barrier constructed of stone, concrete, steel or other material designed to retain or restrain earth, rock, or water and is used to alter the grade.

Right-of-Way: An interest in real property typically acquired by reservation, dedication, prescription, or condemnation and intended for the placement of transportation and utility facilities and infrastructure or similar public use.

Road: The portion or portions of street rights-of-way developed for vehicular traffic.

Rural Zone: A land use zone adopted by a unit of local government that applies to land outside a regional urban growth boundary.

Sanitariums: An institution for the treatment of chronic diseases or for medically supervised recuperation.

School: See Educational Institution.

Sealed Container: A receptacle appropriate for preventing release of its contents, protecting its contents from the entry of water and vectors, and that will prevent the release of noxious odors if the contents are capable of emitting such odors.

Setback: The minimum horizontal distance between a public street right-of-way line, or side and rear property lines, to the front, side and rear lines of a building or structure located on a lot.

Shared-use path: A facility for non-motorized access conforming to City standards and separated from the roadway, either in the roadway right-of-way, independent public right-of-way, or a public access easement. It is designed and constructed to allow for safe walking, biking, and other human-powered travel modes.

Sidewalk: A pedestrian walkway with hard surfacing.

Sight Distance: The distance along which a person can see approaching objects, such as automobiles or pedestrians, from a street intersection or a driveway along a street.

Sign: An identification, description, illustration, or device which is affixed to, or represented directly or indirectly upon a building, structure, or land, which directs attention to a product, place, activity, person, institution, or business.

Significant Vegetation: A tree exceeding six (6) inches in diameter measured four (4) feet above grade at the base of the tree or other vegetation more than four (4) feet above grade, but not including blackberry or other vines or weeds.

Skirting: A covering that totally obscures the undercarriage of a manufactured home, and extending from the top of the undercarriage to the ground.

Soil Amendment: A material, such as yard waste compost, added to the soil to improve soil chemistry or structure.

Solid Waste: Has the meaning given that term in ORS 159.005.

Solid Waste Facility:

A. **Conditionally Exempt Small Quantity Collection Facility:** A facility that receives, sorts, temporarily stores, controls, and processes for safe transport hazardous waste from conditionally exempt generators, as that term is defined in ORS 465.003.

B. **Demolition Landfill:** A land disposal site for receiving, sorting and disposing only land clearing debris, including vegetation and dirt, building construction and demolition debris and inert materials, and similar substances.

C. **Household Hazardous Waste Depot:** A facility for receiving, sorting, processing and temporarily storing household hazardous waste and for preparing that waste for safe transport to facilities authorized to receive, process, or dispose of such materials pursuant to federal or state law.

D. **Limited Purpose Landfill:** A land disposal site for the receiving, sorting and disposing of solid waste material, including but not limited to asbestos, treated petroleum, contaminated soil, construction, land clearing and demolition debris, wood, treated sludge from industrial processes, or other special waste material other than unseparated municipal solid waste.

E. **Resource Recovery Facility:** A facility for receiving, temporarily storing and processing solid waste to obtain useful material or energy.

F. **Mixed Construction and Demolition Debris Recycling Facility:** A facility that receives, temporarily stores, processes, and recovers recyclable material from mixed construction and demolition debris for reuse, sale, or further processing.

G. **Solid Waste Composting Facility:** A facility that receives, temporarily stores and processes solid waste by decomposing the organic portions of the waste by biological means to produce useful products, including, but not limited to, compost, mulch and soil amendments.

H. **Monofill:** A land disposal site for receiving, sorting and disposing only one type of solid waste material or class of solid waste materials for burial, such as a facility which accepts only asbestos.

I. **Municipal Solid Waste Depot:** A facility where sealed containers are received, stored up to seventy-two (72) hours, staged, and/or transferred from one mode of transportation to another.

J. **Small Scale Specialized Incinerator:** A facility that receives, processes, temporarily stores, and burns a solid waste product as an accessory use to a permitted use, including incinerators for disposal of infections wastes as part of a medical facility, but not including mass burn solid waste incinerators, refuse-derived fuel technologies, human or animal remains crematorium, or any energy recovery process that burns unseparated municipal solid waste.

K. **Solid Waste Facilities:** Any facility or use defined in this section of this Code.

L. **Solid Waste Transfer Station:** A facility that receives, processes, temporarily stores and prepares solid waste for transport to a final disposal site, with or without material recovery prior to transfer.

M. **Treatment and Storage Facility:** A facility subject to regulation under the Resource Conservation and Recovery Act. 42 USC Sections 6901-6987, for receiving, sorting, treating, and/or temporarily storing hazardous waste, and for processing such waste for safe transport to facilities authorized to receive, treat, or dispose of such materials pursuant to federal or state law. Treatment and storage facilities do not include facilities for on-site disposal of hazardous waste.

N. **Wood Waste Recycling Facility:** A facility that receives, temporarily stores and processes untreated wood, which does not contain pressure treated or wood preservative treated wood, in the form of scrap lumber, timbers, or natural wood debris, including logs, limbs, and tree trunks, for reuse, fuel, fuel pellets, or fireplace logs.

O. **Yard Debris Depot:** A facility that receives yard debris for temporary storage, awaiting transport to a processing facility.

P. **Yard Debris Processing Facility:** A facility that receives, temporarily stores and processes yard debris into a soil amendment, mulch or other useful product through grinding and/or controlled biological decomposition.

Solid Waste Processing: An activity or technology intended to change the physical form or chemical content of solid waste or recycled material including, but not limited to, sorting, baling, composting, classifying, hydropulping, incinerating or shredding.

Sound Wall: An exterior wall designed to protect sensitive land uses including parks, residential zones and institutional public zones from noise generated by roadways, railways, commercial and industrial noise sources.

Special Care Facility: A facility licensed by the State of Oregon, defined in OAR and not otherwise defined in this Code. Uses wholly contained within the facility and not independently accessible to the non-resident public which are either essential or incidental to the primary use shall be permitted. Where such facility contains uses which are otherwise listed as conditional uses in the base zone then those uses must be subjected to the conditional use process if they are independently accessible to the non-resident public from the outside of the facility building(s).

Specialized Living Facility: Identifiable services designed to meet the needs of persons in specific target groups which exist as the result of a problem, condition or dysfunction resulting from a physical disability or a behavioral disorder and require more than basic services of other established programs.

Story: That portion of a building included between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above. If the finished floor level directly above a usable or unused under-floor space is more than six (6) feet above grade for more than fifty percent (50%) of the total perimeter or is more than twelve (12) feet above grade at any point, such usable or unused under-floor space shall be considered as a story.

Story, First: The lowest story in a building, provided such floor level is not more than four (4) feet below grade, for more than 50 percent (50%) of the total perimeter, or not more than eight (8) feet below grade, at any point.

Story, Half: A story under a gable, hip, or gambrel roof, the wall plates of which, on at least two (2) exterior walls, are not more than three (3) feet above the floor of such story.

Street: A public or private road, easement or right-of-way that is created to provide access to one or more lots, parcels, areas or tracts of land. Categories of streets include:

A. **Alley:** A narrow street, typically abutting to the rear lot or property line. [Figure 8-3a of the Transportation System Plan illustrates the alley cross-section]

B. **Arterial:** Arterial streets provide connectivity at a regional level, but are not State routes. [Figure 8-2 of the Transportation System Plan illustrates arterial cross-sections.]

C. **Bikeway:** Any road, path or way that is in some manner specifically open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are shared with other transportation modes. Bikeways may include:

   (1) Multi-use Path. A paved way (typically 8 to 12-feet wide) separate from vehicular traffic; typically shared with pedestrians, skaters, and other non-motorized users.

   (2) Bike Lane. A portion of the street (typically 4 to 6-feet wide) that has been designated by permanent striping and pavement markings for the exclusive use of bicycles.

   (3) Shoulder Bikeway. The paved shoulder of a street that does not have curbs or sidewalks that is 4 feet or wider and is typically shared with pedestrians.

   (4) Shared Roadway. A travel lane that is shared by bicyclists and motor vehicles. Also called Bike Route.

   (5) Multi-use Trail. An unpaved path that accommodates all-terrain bicycles; typically shared with pedestrians (NOTE: Figure 8-6 of the Transportation System Plan illustrates the multi-use path and trail cross-sections).

D. **Collector:** Collectors are streets that provide citywide or district-wide connectivity. Collectors are primarily used or planned to move traffic between the local street system, and onto major streets, but may also accommodate through traffic. [Figure 8-4 of the Transportation System Plan illustrates collector cross-sections.]

E. **Cul-de-Sac:** A short street that terminates in a vehicular turnaround. See Section 16.108.060.

F. **Half Street:** A portion of the width of a street, usually along the edge of a development, where the remaining portion of the street has been or could be provided by another development.

G. **Local Street:** Local streets provide the highest level of access to adjoining land uses. Local streets do not provide through connection at any significant regional, citywide or district level. [Figures 8-5a & 8-5b of the Transportation System Plan illustrate local street cross-sections.]

H. **Marginal Access Street (frontage or backage road):** A minor street parallel and adjacent to a principal arterial or arterial street providing access to abutting properties, but protected from through traffic. [Figure 8-5a of the Transportation System Plan illustrates the cross-sections of a frontage or backage road.]

I. **Neighborhood Route:** Neighborhood routes are streets that provide connections within or between neighborhoods, but not citywide. Neighborhood routes are primarily used or planned to

move traffic between the local street system, and onto collectors and arterials. [Figure 8-5a of the Transportation System Plan illustrates the neighborhood route cross-section.]

J. **Principal Arterial:** Principal arterials are streets that provide connectivity at a regional level, and are typically State routes. [Figures 8-2 and 8-3b in the Transportation System Plan illustrates the principal arterial cross-section].

Street Line: A dividing line between a lot and a street right-of-way.

Street Plug: A narrow strip of land located between a subdivision and other property, that is conveyed to the City for the purpose of giving the City control over development on the adjacent property.

Structure: A structure must be more than one foot from grade to be considered a structure.

Structural Alterations: Any change in the supporting members of a building, such as bearing walls, columns, beams, or girders.

Stucco board: A fiber cement board core product that mimics the appearance of stucco.

Subdivision: The division of an area or tract of land into four (4) or more lots within a calendar year, when such area or tract of land exists as a unit or contiguous units of land under a single ownership at the beginning of such year.

Subdivision Improvements: Construction of facilities such as streets; water, sewer, gas and telephone lines; storm drainage; and landscaping.

Surrounding: To be encircled on all or nearly all sides; as interpreted for property lines and land uses, a use is surrounded by another use when the other use is abutting on greater than 75% of its perimeter.

Temporary Use: A use of land, buildings or structures not intended to exceed twelve (12) months, unless otherwise permitted by this Code.

Townhomes: (See "Dwelling- Townhome or Row House")

Transportation Facilities: The physical improvements used to move people and goods from one place to another; i.e., streets, sidewalks, pathways, bike lanes, airports, transit stations and bus stops, etc.

Transportation Improvements: Transportation improvements include the following:

A. Normal operation, maintenance repair, and preservation activities of existing transportation facilities.

B. Design and installation of culverts, pathways, multi-use paths or trails, sidewalks, bike lanes, medians, fencing, guardrails, lighting, curbs, gutters, shoulders, parking areas, and similar types of improvements within the existing right-of-way.

C. Projects identified in the adopted Transportation System Plan not requiring future land use review and approval.

D. Landscaping as part of a transportation facility.

E. Emergency measures necessary for the safety and protection of property.

F. Street or road construction as part of an approved land use application.

Unified Sewerage Agency: The former name of Clean Water Services; an agency of Washington County providing for sanitary sewer collection and treatment, and for storm water management.

Urban Growth Boundary: The Metropolitan Portland Urban Growth Boundary (UGB) as acknowledged by the State Land Conservation and Development Commission.

Urban Zone: A land use zone adopted by a unit of local government that applies to land inside a regional urban growth boundary.

Use: Any purpose for which a building or other structure or a tract of land may be designed, arranged, intended, maintained, or occupied, or any activity, occupation, business, or operation carried on, or intended to be carried on, in a building or other structure or on a tract of land.

Use by Right: A use which is a "use permitted outright" in any given zoning district established by this Code.

Wall: A solid structural barrier that is not intended to alter the grade and is not considered a retaining wall or sound wall.

Warehouse: A structure or part of a structure used for storing and securing goods, wares or merchandise.

Water Dependent: Means a structure for commerce or industry which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.

Wetlands: Those land areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands are generally identified in the City's 1992 Local Wetland inventory, and the Metro 2004 Natural Resources Inventory, or in the absence of such identification, are based on the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989).

Wholesale Trade: The sale of goods and products to an intermediary generally for resale.

Wireless Communication Facility: An unmanned facility for the transmission or reception of radio frequency (RF) signals usually consisting of an equipment shelter, cabinet or other enclosed structure containing electronic equipment, a support structure, antennas or other transmission and reception devices.

Yard: The existing or required space on a parcel which shall remain open, unoccupied, and unobstructed from the ground surface to the sky, except as otherwise provided by this Code. Categories of yards include:

A. **Front Yard:** A yard extending across the full width of the lot between the front lot line and the nearest line or point of the building.

B. **Rear Yard:** A yard, unoccupied except by a building or structure of an accessory type as provided by this Code, extending the full width of the lot between the rear lot line and the extreme rear line of a building.

C. **Side Yard:** The yard along the side line of a lot and extending from the setback line to the rear yard.

Zero-Lot-Line: Attached or detached dwelling units which are constructed with only one side yard or no rear yard setbacks.

(Ord. No. 2015-005, § 2, 5-5-2015; Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2014-012, § 3, 7-17-2014; Ord. No. 2012-003, § 2, 5-1-2012; Ord. No. 2011-009, § 2, 7-19-2011; Ord. 2006-009 §§ 1, 2)

Chapter 16.134 - FLOODPLAIN (FP) OVERLAY*

Sections:

16.134.010 - Generally

Special resource zones are established to provide for preservation, protection, and management of unique natural and environmental resources in the City that are deemed to require additional standards beyond those contained elsewhere in this Code. Special resource zones may be implemented as underlying or overlay zones depending on patterns of property ownership and the nature of the resource. A property or properties may be within more than one (1) resource zone. In addition, the City may identify special resource areas and apply a PUD overlay zone in advance of any development in order to further protect said resources.

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled, "The Flood Insurance Study for Washington County, Oregon and Incorporated Areas," dated November 4, 2016, with accompanying Flood Insurance Maps are hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study is on file with the Sherwood City Engineer at Sherwood City Hall.

(Ord. 91-922, § 3)

16.134.020 – Purpose

The purpose of this ordinance is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by complying with the provisions of this Chapter.

A. The FP zoning district is an overlay district that controls and regulates flood hazard areas in order to protect the public health, safety and general welfare; to reduce potential flood damage losses; and to protect floodways and natural drainageways from encroachment by uses which may adversely affect water quality and water flow and subsequent upstream or downstream flood levels. The FP zone shall be applied to all areas within the base flood, and shall supplement the regulations of the underlying zoning district.

B. FP zoning districts are areas within the base flood as identified by the Federal Emergency Management Agency (FEMA) in a Flood Insurance Study (FIS) and in Flood Insurance Rate Maps (FIRM) published for the City and surrounding areas, or as otherwise identified in accordance with Section 16.134.020C. These FEMA documents are adopted by reference as part of this Code, and are on file at the City.

C. When base flood elevation data is not available from the FIS or FIRM, the City shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, and standards developed by the FEMA, in order to administer the provisions of this Code.

(Ord. No. 2010-015, § 2, 10-5-2010; Ord. 2000-1092, § 3; 88-870)

16.134.030 - Greenways

The FP zoning districts overlaying the Rock Creek and Cedar Creek floodplains are designated greenways in accordance with Chapter 5 of the Community Development Plan. All development in these

two floodplains shall be governed by the policies in Division V, Chapter 16.142 of this Code, in addition to the requirements of this Section and the Clean Water Services Design and Construction Standards R&O 07-20, or its replacement.

(Ord. No. 2010-015, § 2, 10-5-2010; Ord. 2000-1092, § 3; 88-879)

16.134.040 - Development Review

A. The City Engineer is the designated local Floodplain Administrator and is responsible for maintaining local floodplain management records for the City.

B Provided land is not required to be dedicated as per Section 16.134.030, a Conditional Use Permit (CUP) is required before any use, construction, fill, or alteration of a floodplain, floodway, or watercourse, or any other development begins within any FP zone, except as provided in Section 16.134.050.

C. Application for a CUP for development in a floodplain shall conform to the requirements of Chapter 16.82 and may include, but is not limited to, plans and scale drawings showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, fill, storage of materials, and drainage facilities.

D. The following specific information is required in a floodplain CUP application and shall be certified and verified by a Registered Civil Engineer or Architect. The City shall maintain such certifications as part of the public record. All certifications shall be based on the as-built elevations of lowest building floors.

1. Elevations in relation to mean sea level of the lowest floor (including basement) of all structures;
2. Elevations in relation to mean sea level to which any structure has been flood proofed.
3. That the flood proofing methods for any structure meet the requirements of this Section, Floodplain Structures.
4. Description of the extent to which any watercourse will be altered or relocated as a result of the proposed development.
5. A base flood survey and impact study made by a Registered Civil Engineer.
6. Proof all necessary notifications have been sent to, and permits have been obtained from, those Federal, State, or other local government agencies for which prior approval of the proposed development is required.
7. Any other information required by this Section, by any applicable Federal regulations, or as otherwise determined by the City to be necessary for the full and proper review of the application.

E. Where elevation data is not available as per subsection B of this Section, or from other sources as per Section 16.134.020.C, a floodplain CUP shall be reviewed using other relevant data, as determined by the City, such as historical information, high water marks, and other evidence of past flooding. The City may require utility structures and habitable building floor elevations, and building flood proofing, to be at least two (2) feet above the probable base flood elevation, in such circumstances where more definitive flood data is not available.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 91-922, § 3; 88-879)

16.134.050 - Permitted Uses

In the FP zone the following uses are permitted outright, and do not require a CUP, provided that floodway flow, or floodplain capacity, will not be impeded, as determined by the City, and when greenway dedication is not required as per Section 16.134.030.

A. Agricultural uses, provided that associated structures are not allowed, except for temporary building and boundary fences that do not impede the movement of floodwaters and flood-carried materials.

B. Open space, park and recreational uses, and minor associated structures, if otherwise allowed in the underlying zoning district,that do not impede the movement of floodwaters and flood-carried materials.

C. Public streets and appurtenant structures, and above and underground utilities, subject to the provisions of Sections 16.134.080 and 16.134.090.

D. Other accessory uses allowed in the underlying zoning district that do not involve structures, and will not, in the City's determination, materially alter the stability or storm drainage absorption capability of the floodplain.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 2000-1092, § 3; 91-922)

16.134.060 - Conditional Uses

In the FP zone the following uses are permitted as conditional uses, subject to the provisions of this Section and Chapter 16.82, when greenway dedication is not required as per this Section.

Greenways:

A. Any permitted or conditional use allowed in the underlying zoning district, when located in the flood fringe only, as specifically defined by this Code.

(Ord. No. 2010-015, § 2, 10-5-2010; Ord. 91-922, § 3; 88-879)

16.134.070 - Prohibited Uses

In the FP zone the following uses are expressly prohibited:

A. The storage or processing of materials that are buoyant, flammable, contaminants, explosive, or otherwise potentially injurious to human, animal or plant life.

B. Public and private sewerage treatment systems, including drainfields, septic tanks and individual package treatment plants.

C. Any use or activity not permitted in the underlying zoning district.

D. Any use or activity that, in the City's determination, will materially alter the stability or storm drainage absorption capability of the floodplain.

E. Any use or activity that, in the City's determination, could create an immediate or potential hazard to the public health, safety and welfare, if located in the floodplain.

F. Any use, activity, or encroachment located in the floodway, including fill, new construction, improvements to existing developments, or other development, except as otherwise allowed by Section 16.134.050 and unless certification by a Registered Engineer or Architect is provided demonstrating that the use, activity, or encroachment will not result in any increase to flood levels during the occurrence of the base flood discharge.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 88-879, § 3)

16.134.080 - Floodplain Development

A. Floodplain Alterations

1. Floodplain Survey

   The floodplain, including the floodway and flood fringe areas, shall be surveyed by a Registered Civil Engineer, and approved by the City, based on the findings of the Flood Insurance Study and other available data. Such delineation shall be based on mean sea level data and be field-located from recognized valid benchmarks.

2. Grading Plan

   Alteration of the existing topography of floodplain areas may be made upon approval of a grading plan by the City. The plan shall include both existing and proposed topography and a plan for alternate drainage. Contour intervals for existing and proposed topography shall be included and shall be not more than one (1) foot for ground slopes up to five percent (5%) and for areas immediately adjacent to a stream or drainage way, two (2) feet for ground slopes between five and ten percent (5% to 10%), and five (5) feet for greater slopes.

3. Fill and Diked Lands

   a. Proposed floodplain fill or diked lands may be developed if a site plan for the area to be altered within the floodplain is prepared and certified by a Registered Civil Engineer and approved by the Commission pursuant to the applicable provisions of this Code.

   b. Vehicular access shall be provided from a street above the elevation of the base flood to any proposed fill or dike area if the area supports structures for human occupancy. Unoccupied fill or dike areas shall be provided with emergency vehicle access.

4. Alteration Site Plan

   a. The certified site plan prepared by a Registered Civil Engineer or Architect for an altered floodplain area shall show that:

      (1) Proposed improvements will not alter the flow of surface water during flooding such as to cause a compounding of flood hazards or changes in the direction or velocity of floodwater flow.

      (2) No structure, fill, storage, impervious surface or other uses alone, or in combination with existing or future uses, will materially reduce the capacity of the floodplain or increase in flood heights.

      (3) Proposed floodplain fill or diked areas will benefit the public health, safety and welfare and incorporate adequate erosion and storm drainage controls, such as pumps, dams and gates.

      (4) No serious environmental degradation shall occur to the natural features and existing ecological balance of upstream and downstream areas.

      (5) On-going maintenance of altered areas is provided so that flood-carrying capacity will not be diminished by future erosion, settling, or other factors.

   b. Applicants must obtain a Conditional Letter of Map Revision (CLOMR) from FEMA before any encroachment, including fill, new construction, substantial improvement, or other development, in the regulatory floodway is permitted. Applicants are responsible for preparing technical data to support the CLOMR application and paying any processing or application fees to FEMA.

5. Subdivisions and Partitions

   All proposed subdivisions or partitions including land within an FP zone must establish the boundaries of the base flood by survey and dedicate said land as per Section 16.134.050. The balance of the land and development must:

a. Be designed to include adequate drainage to reduce exposure to flood damage, and have public sewer, gas, electrical and other utility systems so located and constructed to minimize potential flood damage, as determined by the City.

b. Provide for each parcel or lot intended for structures, a building site which is at or above the base flood elevation, and meets all setback standards of the underlying zoning district.

c. Where base flood elevation data is not provided, or is not available from an authoritative source, it shall be generated by the applicant for subdivision proposals and other proposed developments which contain at least fifty (50) lots or five (5) acres, whichever is less.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 88-879, § 3)

16.134.090 - Floodplain Structures

Structures in the FP zone permitted in accordance with this section, shall be subject to the following conditions, in addition to the standards of the underlying zoning district:

A. Generally

1. All structures, including utility equipment, and manufactured housing, shall be anchored to prevent lateral movement, floatation, or collapse during flood conditions, and shall be constructed of flood-resistant materials, to standards approved by the City, State Structural and Plumbing Specialty Codes and applicable building codes.

2. The lowest floor elevation of a structure designed for human occupancy must be at least one and one-half (1½) feet above the base flood elevation and the building site must comply with the provisions of Section 16.134.080.A.

3. The lower portions of all structures shall be flood proofed according to the provisions of the State Structural and Plumbing Specialty Code to an elevation of at least one and one-half (1½) feet above the base flood elevation.

4. The finished ground elevation of any under floor crawl space shall be above the grade elevation of an adjacent street, or natural or approved drainage way unless specifically approved by the City. A positive means of drainage from the low point of such crawl space shall be provided.

B. Utilities

1. Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities located within structures shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

2. Electrical service equipment, or other utility structures, shall be constructed at or above the base flood elevation. All openings in utility structures shall be sealed and locked.

3. Water supply and sanitary sewer systems shall be approved by the Washington County Health Department, and shall be designed to minimize or eliminate the infiltration of floodwaters into the systems, or any discharge from systems into floodwaters.

C. Residential Structures

1. All residential structures shall have the lowest floor, including basement, elevated to at least one and one-half (1½) feet above the base flood elevation.

2. Fully enclosed areas below the lowest floor that are subject to flooding are not permitted unless they are designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must

either be certified by a Registered Engineer or Architect, or must meet or exceed the following minimum criteria:

a. A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided.

b. The bottom of all openings shall be no higher than one (1) foot above grade.

c. Openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic entry and exit of floodwaters.

D. Non-Residential Construction

1. All commercial, industrial or other non-residential structures shall have either the lowest floor, including basement, elevated to the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

a. Be flood proofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water.

b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

c. Be certified by a Registered Professional Engineer or Architect that the design and methods of construction are in accordance with accepted standards of practice for meeting all provisions of this Section. A record of such certificates shall be maintained by the Floodplain Administrator in accordance with Section 16.134.040.A.

d. Nonresidential structures that are elevated and not flood proofed must meet the same standards for space below the lowest floor as per Section 16.134.090.C.2.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 88-879, § 3)

16.134.100 - Additional Requirements

A. Dimensional standards or developments in the FP zone are the same as in the underlying zoning district, except as provided in Section 16.134.100.

B. Approval of a site plan pursuant to Chapter 16.90, that includes portions of the FP overlay may be conditioned by the City to protect the best interests of the surrounding area or the community as a whole, and to carry out the terms of the Comprehensive Plan. These conditions may include, but are not limited to:

1. Increasing the required lot sizes, yard dimensions, modifying street widths, or off-street parking spaces.

2. Limiting the height, size, or location of buildings.

3. Controlling the location and number of vehicle access points.

4. Limiting the number, size, location, or lighting of signs.

5. Requiring diking, fencing, screening, landscaping, or other facilities to protect the proposed development, or any adjacent or nearby property.

6. Designating sites for open space or water retention purposes.

7. Construction, implementation, and maintenance of special drainage facilities and activities.

C. FEMA Notification

1. Notify FEMA within six months of project completion when a Conditional Letter of Map Revision (CLOMR) has been obtained from FEMA or when development altered a watercourse, modified

floodplain boundaries, or modified Base Flood Elevations. This notification shall be provided as a Letter of Map Revision (LOMR).

2. The applicant is responsible for preparing technical data to support the LOMR application and paying any processing or application fees to FEMA.
3. The Floodplain Administrator is under no obligation to sign the Community Acknowledgement Form, which is part of the CLOMR/LOMR application, until the applicant demonstrates that the project will or has met the requirements of this code an all applicable State and Federal laws.

(Ord. No. 2015-003, § 2, 3-17-2015; Ord. No. 2010-015, § 2, 10-5-2010; Ord. 88-879, § 3)

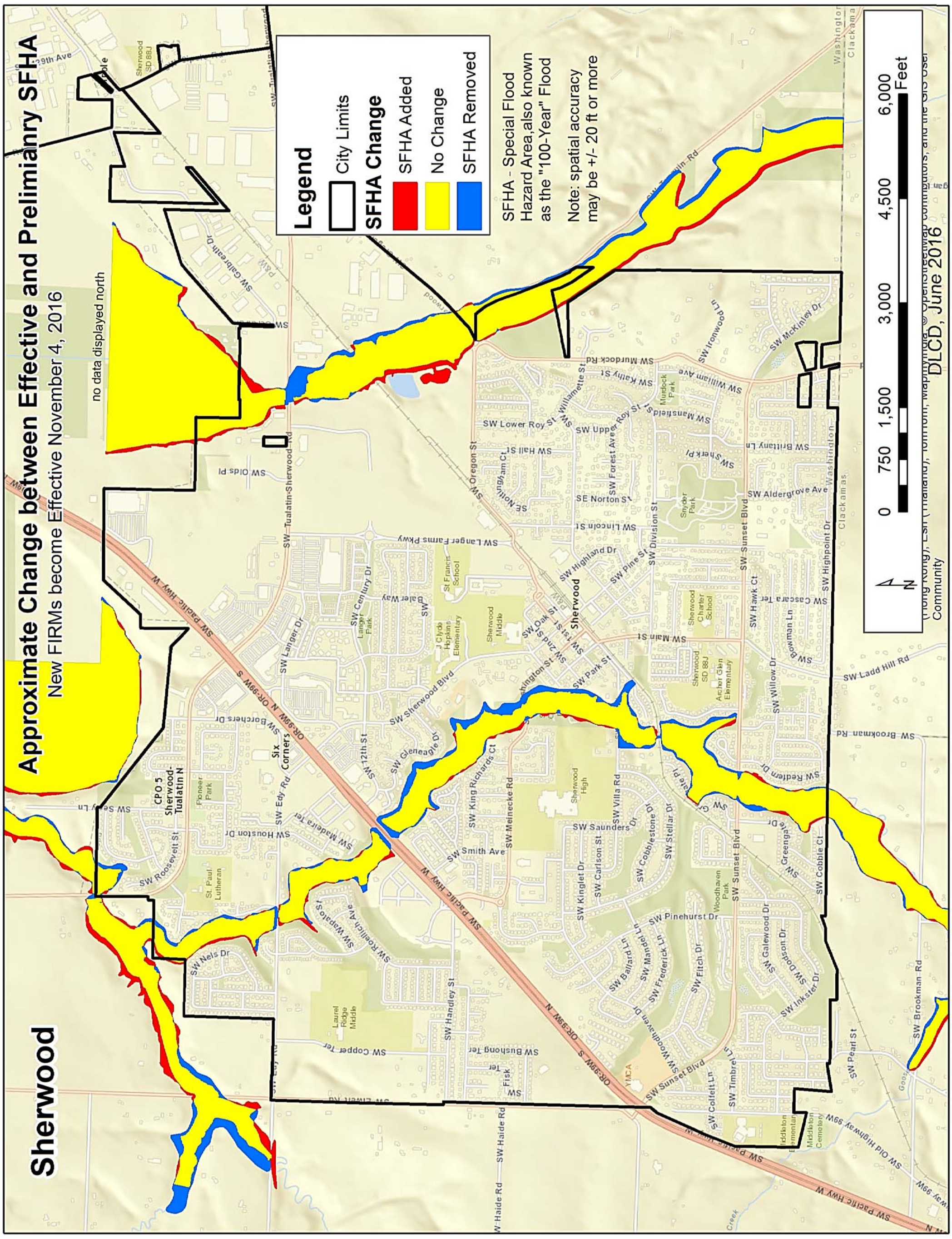

Approximate Change between Effective and Preliminary SFHA
New FIRMs become Effective November 4, 2016
no data displayed north
Legend
City Limits
SFHA Change
SFHA Added
No Change
SFHA Removed
SFHA - Special Flood Hazard Area,also known as the "100-Year" Flood
Note: spatial accuracy may be +/- 20 ft or more
0 750 1,500 3,000 4,500 6,000
Feet
DLCD, June 2016
Sherwood

Exhibit C

Federal Emergency Management Agency

Washington, D.C. 20472

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

IN REPLY REFER TO:
19P

May 4, 2016

The Honorable Krissana Clark
Mayor, City of Sherwood
22560 Southwest Pine Street
Sherwood, Oregon 97140

Community: City of Sherwood,
Washington County, Oregon
Community No.: 410273
Map Panels Affected: See FIRM Index

Dear Mayor Clark:

This is to formally notify you of the final flood elevation determination for the City of Sherwood, Washington County, Oregon, in compliance with Title 44, Chapter I, Part 67, Section 67.11, Code of Federal Regulations (CFR). This section requires that notice of final flood elevations shall be sent to the Chief Executive Officer of the community, all individual appellants, and the State Coordinating Agency, and shall be published in the *Federal Register*.

On January 6, 1982, the Department of Homeland Security's Federal Emergency Management Agency (FEMA) issued a Flood Insurance Rate Map (FIRM) that identified the Special Flood Hazard Areas (SFHAs), the areas subject to inundation by the base (1-percent-annual-chance) flood, in your community. Recently, FEMA completed a re-evaluation of flood hazards in your community. On September 28, 2007, FEMA provided you with Preliminary copies (and with Revised Preliminary copies on December 4, 2009) of the FIRM and Flood Insurance Study (FIS) report that identify existing flood hazards in your community, including Base Flood Elevations (BFEs). The proposed BFEs for your community were published in the *The Times* on October 25, 2012 and November 1, 2012, and in the *Federal Register*, at Part 67, Volume 77, Pages 21516 through 21521, on April 10, 2012.

The statutory 90-day appeal period, which was initiated on the second newspaper publication date cited above, has ended. FEMA did not receive any appeals of the proposed BFEs during that time. Accordingly, the BFEs for your community are considered final. The final rule for BFEs will be published in the *Federal Register* as soon as possible. The FIRM for your community will become effective on November 4, 2016. Before the effective date, FEMA will send you final printed copies of the FIRM and FIS report.

Because the FIS report establishing the BFEs for your community has been completed, certain additional requirements must be met under Section 1361 of the National Flood Insurance Act of 1968, as amended, within 6 months from the date of this letter. Prior to November 4, 2016, your community is required, as a condition of continued eligibility in the National Flood Insurance Program (NFIP), to adopt or show evidence of adoption of floodplain management regulations that meet the standards of Paragraph 60.3(d) of the enclosed NFIP regulations (44 CFR 59, etc.) by the effective date of the FIRM. These standards are the minimum requirements and do not supersede any State or local requirements of a more stringent nature.

Exhibit D

It must be emphasized that all the standards specified in Paragraph 60.3(d) of the NFIP regulations must be enacted in a legally enforceable document. This includes adoption of the current effective FIRM and FIS report to which the regulations apply and other modifications made by this map revision. Some of the standards should already have been enacted by your community in order to establish initial eligibility in the NFIP. Your community can meet any additional requirements by taking one of the following actions:

1. Amending existing regulations to incorporate any additional requirements of Paragraph 60.3(d);
2. Adopting all the standards of Paragraph 60.3(d) into one new, comprehensive set of regulations; or
3. Showing evidence that regulations have previously been adopted that meet or exceed the minimum requirements of Paragraph 60.3(d).

Communities that fail to enact the necessary floodplain management regulations will be suspended from participation in the NFIP and subject to the prohibitions contained in Section 202(a) of the Flood Disaster Protection Act of 1973 (Public Law 93-234) as amended.

In addition to your community using the FIRM and FIS report to manage development in the floodplain, FEMA will use the FIRM and FIS report to establish appropriate flood insurance rates. On the effective date of the revised FIRM, actuarial rates for flood insurance will be charged for all new structures and substantial improvements to existing structures located in the identified SFHAs. These rates may be higher if structures are not built in compliance with the floodplain management standards of the NFIP. The actuarial flood insurance rates increase as the lowest elevations (including basement) of new structures decrease in relation to the BFEs established for your community. This is an important consideration for new construction because building at a higher elevation can greatly reduce the cost of flood insurance.

To assist your community in maintaining the FIRM, we have enclosed a Summary of Map Actions to document previous Letter of Map Change (LOMC) actions (i.e., Letters of Map Amendment (LOMAs), Letters of Map Revision (LOMRs)) that will be superseded when the revised FIRM panels referenced above become effective. Information on LOMCs is presented in the following four categories: (1) LOMCs for which results have been included on the revised FIRM panels; (2) LOMCs for which results could not be shown on the revised FIRM panels because of scale limitations or because the LOMC issued had determined that the lots or structures involved were outside the SFHA as shown on the FIRM; (3) LOMCs for which results have not been included on the revised FIRM panels because the flood hazard information on which the original determinations were based are being superseded by new flood hazard information; and (4) LOMCs issued for multiple lots or structures where the determination for one or more of the lots or structures cannot be revalidated through an administrative process like the LOMCs in Category 2 above. LOMCs in Category 2 will be revalidated through a single letter that reaffirms the validity of a previously issued LOMC; the letter will be sent to your community shortly before the effective date of the revised FIRM and will become effective 1 day after the revised FIRM becomes effective. For the LOMCs listed in Category 4, we will review the data previously submitted for the LOMA or LOMR request and issue a new determination for the affected properties after the revised FIRM becomes effective.

The FIRM and FIS report for your community have been prepared in our countywide format, which means that flood hazard information for all jurisdictions within Washington County has been combined into one FIRM and FIS report. When the FIRM and FIS report are printed and distributed, your community will receive only those panels that present flood hazard information for your community. We will provide complete sets of the FIRM panels to county officials, where they will be available for review by your community.

The FIRM panels have been computer-generated. Once the FIRM and FIS report are printed and distributed, the digital files containing the flood hazard data for the entire county can be provided to your community for use in a computer mapping system. These files can be used in conjunction with other thematic data for floodplain management purposes, insurance purchase and rating requirements, and many other planning applications. Copies of the digital files or paper copies of the FIRM panels may be obtained by calling our FEMA Map Information eXchange (FMIX), toll free, at 1-877-FEMA MAP (1-877-336-2627). In addition, your community may be eligible for additional credits under our Community Rating System if you implement your activities using digital mapping files.

If your community is encountering difficulties in enacting the necessary floodplain management measures required to continue participation in the NFIP, we urge you to call the Director, Mitigation Division of FEMA in Bothell, Washington, at (425) 487-4600 for assistance. If you have any questions concerning mapping issues in general or the enclosed Summary of Map Actions, please call FMIX at the telephone number shown above. Additional information and resources your community may find helpful regarding the NFIP and floodplain management, such as *The National Flood Insurance Program Code of Federal Regulations*, *Answers to Questions About the NFIP*, *Frequently Asked Questions Regarding the Effect that Revised Flood Hazards have on Existing Structures, Use of Flood Insurance Study (FIS) Data as Available Data,* and *National Flood Insurance Program Elevation Certificate and Instructions,* can be found on our website at http://www.floodmaps.fema.gov/lfd. Paper copies of these documents may also be obtained by calling FMIX.

Sincerely,

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

Enclosure:
Final Summary of Map Actions

cc: Community Map Repository
Joseph Gall, Engineer Permit Specialist, City of Sherwood

FINAL SUMMARY OF MAP ACTIONS

Community: SHERWOOD, CITY OF Community No: 410273

To assist your community in maintaining the Flood Insurance Rate Map (FIRM), we have summarized below the previously issued Letter of Map Change (LOMC) actions (i.e., Letters of Map Revision (LOMRs) and Letters of Map Amendment (LOMAs)) that will be affected when the revised FIRM becomes effective on November 4, 2016.

1. LOMCs Incorporated

The modifications effected by the LOMCs listed below will be reflected on the revised FIRM. In addition, these LOMCs will remain in effect until the revised FIRM becomes effective.

LOMC	Case No.	Date Issued	Project Identifier	Old Panel	New Panel
			NO CASES RECORDED		

2. LOMCs Not Incorporated

The modifications effected by the LOMCs listed below will not be reflected on the revised FIRM panels because of scale limitations or because the LOMC issued had determined that the lot(s) or structure(s) involved were outside the Special Flood Hazard Area, as shown on the FIRM. These LOMCs will remain in effect until the revised FIRM becomes effective. These LOMCs will be revalidated free of charge 1 day after the revised FIRM becomes effective through a single revalidation letter that reaffirms the validity of the previous LOMCs.

LOMC	Case No.	Date Issued	Project Identifier	Old Panel	New Panel
LOMA	08-10-0100A	01/22/2008	16850, 16840, 16830, 16820, 16810, 16748, 16738, 16718, 16700 SW GLENEAGLE DRIVE	4102730001A	41067C0601E

3. LOMCs Superseded

The modifications effected by the LOMCs listed below have not been reflected on the Final revised FIRM panels because they are being superseded by new detailed flood hazard information or the information available was not sufficient to make a determination. The reason each is being superseded is noted below. These LOMCs will no longer be in effect when the revised FIRM becomes effective.

LOMC	Case No.	Date Issued	Project Identifier	Reason Determination Will be Superseded
			NO CASES RECORDED	

1. Insufficient information available to make a determination.
2. Lowest Adjacent Grade and Lowest Finished Floor are below the proposed Base Flood Elevation.
3. Lowest Ground Elevation is below the proposed Base Flood Elevation.
4. Revised hydrologic and hydraulic analyses.
5. Revised topographic information.

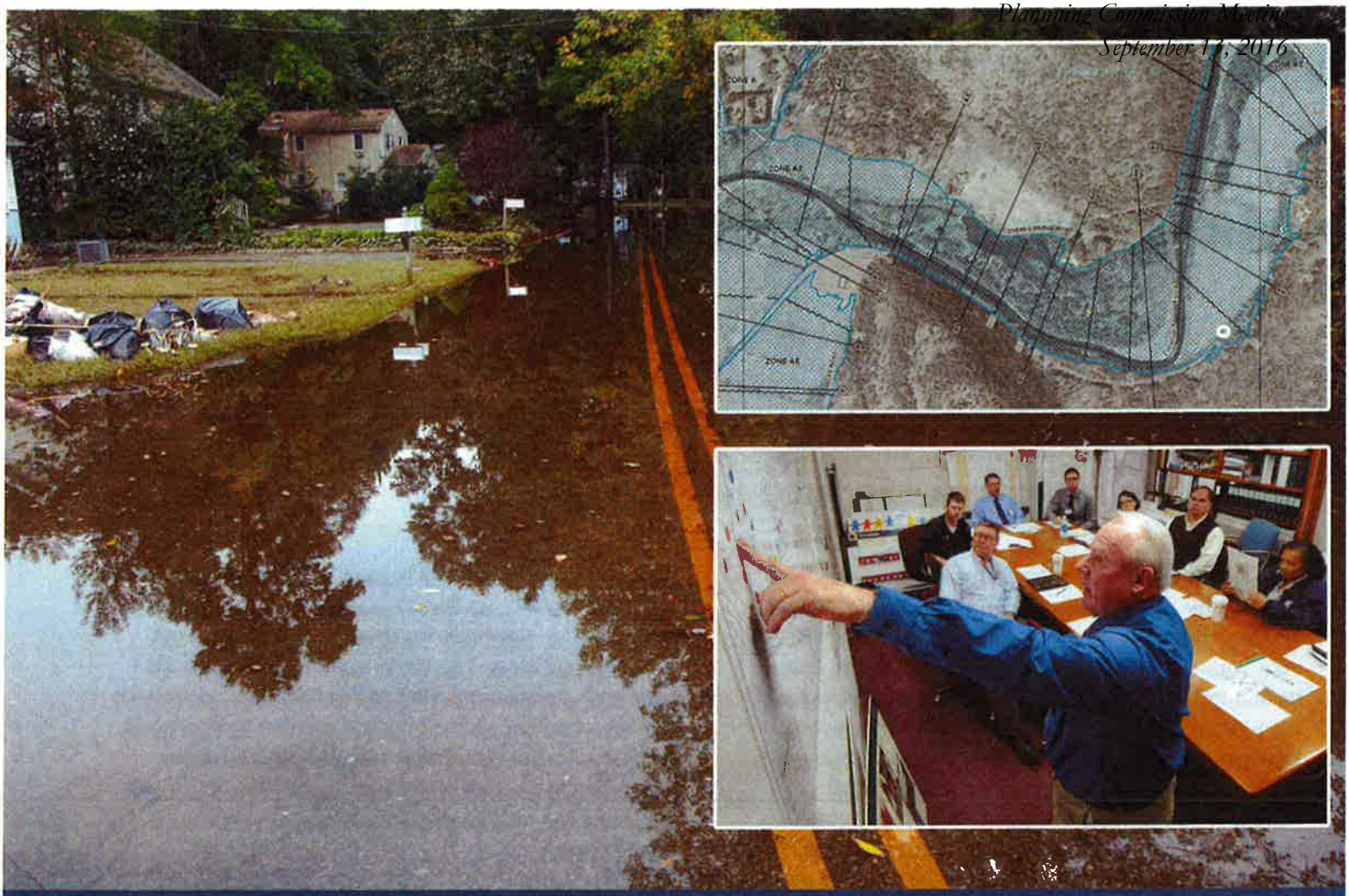
FINAL SUMMARY OF MAP ACTIONS

Community: SHERWOOD, CITY OF Community No: 410273

4. LOMCs To Be Redetermined

The LOMCs in Category 2 above will be revalidated through a single revalidation letter that reaffirms the validity of the determination in the previously issued LOMC. For LOMCs issued for multiple lots or structures where the determination for one or more of the lots or structures has changed, the LOMC cannot be revalidated through this administrative process. Therefore, we will review the data previously submitted for the LOMC requests listed below and issue a new determination for the affected properties after the effective date of the revised FIRM.

LOMC	Case No.	Date Issued	Project Identifier	Old Panel	New Panel
			NO CASES RECORDED		



Adoption of Flood Insurance Rate Maps by Participating Communities

FEMA 495 / September 2012

FEMA

Exhibit E

Adoption of Flood Insurance Rate Maps by Participating Communities

The National Flood Insurance Program (NFIP) was established with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Over 21,000 communities participate in the Program.

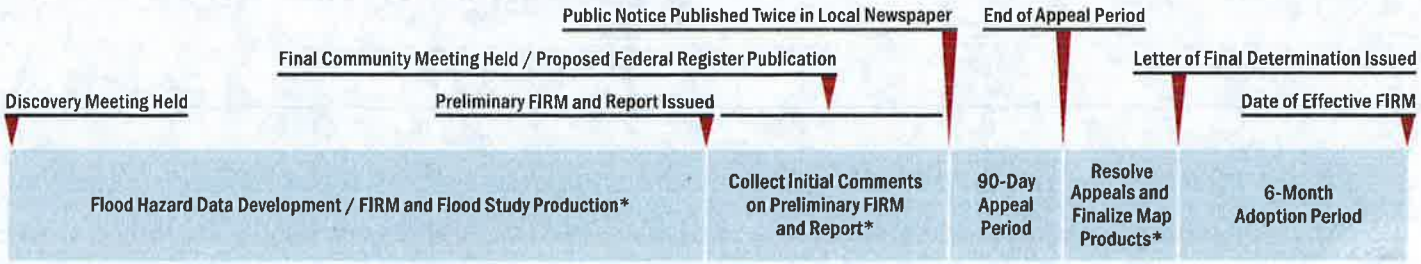
This brochure addresses several questions about community adoption of the Flood Insurance Rate Map (FIRM). As a participating community in the NFIP, your community is responsible for making sure that its floodplain management regulations meet or exceed the minimum requirements of the NFIP. By law, the Department of Homeland Security's Federal Emergency Management Agency (FEMA) cannot offer flood insurance in communities that do not have regulations that meet or exceed these minimum requirements. These regulations can be found in **Title 44** of the **Code of Federal Regulations (44 CFR) Section 60.3**. You can also find them in model ordinances developed by most States and by FEMA Regional Offices.

The basis of your community's floodplain management regulations is the flood hazard data provided to the community by FEMA. FEMA identifies flood hazards nationwide and publishes and periodically updates flood hazard data in support of the NFIP. Flood hazard data is provided to communities in the form of a FIRM and Flood Insurance Study (FIS) report, typically prepared in a countywide format. Please be aware that while an FIS report accompanies most FIRMs, it is not created for all flood studies.

The identification of flood hazards serves many important purposes. Identifying flood hazards creates an awareness of the hazard, especially for those who live and work in floodprone areas. The FIRM and FIS report provide States and communities with the information needed for land use planning and to reduce flood risk to floodplain development and implement other health and safety requirements through codes and regulations. States and communities can also use the information for emergency management.

Each time FEMA provides your community with additional flood hazard data, your community must adopt new floodplain management regulations or amend existing regulations to incorporate the new data and meet any additional requirements that result from any changes in the data, such as the designation of a regulatory floodway for the first time. Your floodplain management regulations must also meet any additional State requirements and be adopted through a process that complies with any procedural requirements established in your State for the adoption of ordinances or regulations.

Flood Study and Adoption Timeline



**The timeframe for completing these activites may vary.*

What is the process for developing new flood hazard data or revising existing data?

FEMA coordinates closely with communities to develop new flood risk data or revise existing data during the flood study process. This coordination may lead to new or updated flood hazard mapping (i.e., the update of a community's FIRM and FIS report), flood risk assessment projects, and/or mitigation planning assistance. In general, the process includes the following activities:

- Under FEMA's Risk MAP program, FEMA engages in a Discovery process with communities and other local stakeholders to obtain a comprehensive picture of flooding issues, flood risk, and the potential for the performance of additional flood mitigation activities, including the adoption of more restrictive floodplain management criteria by communities. Stakeholders may include, but are not limited to, local officials, citizen associations, representatives of levee boards, conservation districts, Tribal Nations, and economic development organizations. Information obtained during the Discovery meeting helps determine whether a flood risk assessment project, including new or updated flood hazard data and a corresponding FIRM and FIS report, is needed.
- Once it is determined that the creation or revision of flood hazard data, including an update to the FIRM and FIS report, is needed, FEMA works with communities and other Discovery stakeholders to determine the parameters of the project, including flooding sources and the type and extent (number of stream or coastline miles) of the study.
- The mapping process typically includes development of Base Flood Elevations (BFEs) and floodways for the project area. In addition, the mapping process includes activities such as obtaining the digital base map, developing the FIRM flood hazard database and, when appropriate, incorporating or revalidating previously issued Letters of Map Change, or LOMCs. LOMCs, which include Letters of Map Revision (LOMRs), Letters of Map Revision Based on Fill and Letters of Map Amendment, serve to officially revise the effective FIRM and FIS report without requiring the physical revision and republication of these materials.
- When the study is completed, FEMA provides the community with a preliminary FIRM and FIS report for review. In addition, FEMA may hold public meetings—often referred to as the Final Meeting and Open House—to explain and obtain comments on the preliminary FIRM and FIS report.
- FEMA provides a 90-day appeal period for all new or modified flood hazard information shown on a FIRM, including additions or modifications of any BFEs, base flood depths, Special Flood Hazard Area (SFHA) boundaries or zone designations, or regulatory floodways. SFHAs are areas subject to inundation by the base (1-percent-annual-chance) flood and include the following flood zones: A, AO, AH, A1-A30, AE, A99, AR, AR/A1-A30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-V30, VE, and V. The regulatory floodway is the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Before the appeal period is initiated, FEMA will publish a notice of proposed flood hazard determinations in the Federal Register and notify the community's Chief Executive Officer of the determination. FEMA will then publish information about the flood hazard determinations at least twice in a local newspaper. The appeal period provides the community and owners or lessees of property in the community an opportunity to submit scientific or technical information if they believe the flood hazard determinations are scientifically or technically incorrect.
- Following the 90-day appeal period, FEMA resolves all appeals and finalizes all changes to the FIRM and FIS report.
- FEMA then issues a Letter of Final Determination (LFD), which establishes the final flood hazard data and the effective date of the new FIRM and FIS report for the community. The LFD also initiates the six-month adoption period during which the community must adopt or amend its floodplain management regulations to reference the new FIRM and FIS report.
- The FIRM and FIS report become effective at the end of the six-month period. The effective date is also the date when flood insurance rates will be based on the new flood data for new construction built after this date. The effective FIRM will be used by Federally insured or regulated lenders to determine if flood insurance is required as a condition of a loan.

FEMA has entered into agreements with nearly 250 communities, States, and regional agencies to be active partners in FEMA's flood hazard mapping program under the Cooperating Technical Partners (CTP) Program. These agencies are participating with FEMA in developing and updating FIRMs. (See the box on the inside of the back cover page for a brief description of the CTP program.)

FIRM

What must an NFIP participating community do when FEMA provides new or revised flood hazard data?

Each time FEMA provides a community with new or revised flood hazard data, the community must either adopt new floodplain management regulations, or amend its existing regulations to reference the new FIRM and FIS report. In some cases, communities may have to adopt additional floodplain management requirements if a new type of flood hazard data is provided, such as a new flood zone (e.g., going from a Zone A without BFEs to a Zone AE with BFEs or going from a Zone AE to a Zone VE – the coastal high hazard area), or with the addition of a regulatory floodway designation.

The following guide is to help you determine whether changes need to be made in your community's floodplain management regulations when a new or revised FIRM and FIS report are provided:

- If the community's floodplain management regulations are compliant with the NFIP requirements when the LFD is issued, the community needs to amend only the map reference section of their floodplain management regulations to identify the new FIRM and FIS report.
- If the community has a legally valid automatic adoption clause established in the map reference section of the regulations and the community's regulations are otherwise compliant with the NFIP requirements, then the floodplain management regulations do not need to be amended. Automatic adoption clauses adopt all future revisions to the FIRM without further action by the community. However, keep in mind that the FIRM and FIS report update process outlined above still applies for communities with automatic adoption clauses. Automatic adoption clauses are not permitted in many States.
- If the community is provided a new type of flood hazard data, the community will need to either adopt new regulations or amend existing regulations to include the appropriate NFIP requirements, in addition to referencing the new FIRM and FIS report.

The LFD indicates the sections of the NFIP floodplain management requirements at 44 CFR Section 60.3 that a community must adopt based on the type of flood hazard data provided to the community.

You can contact the FEMA Regional Office or your State NFIP Coordinating Agency for assistance on the specific requirements your community will need to adopt. (See "For Assistance" on the back cover page for contact information.)

If your community has adopted higher standards than the minimum requirements of the NFIP, your community may qualify for a reduction in flood insurance premiums for your citizens under the Community Rating System (CRS). (See the box on the inside of the back cover for a brief description of the CRS.)

Janesville, Wisconsin, 2008

When must a community adopt the new or revised flood hazard data?

Your community must amend its existing floodplain management regulations or adopt new regulations before the effective date of the FIRM and FIS report, which is identified in the LFD. The LFD initiates the six-month adoption period.

Communities are encouraged to adopt the appropriate floodplain management regulations as soon as possible after the LFD is issued. The adopted regulations must be submitted to FEMA or the State and be approved by FEMA before the effective date of the FIRM and FIS report.

FEMA will send two letters notifying the community that it must have approved floodplain management regulations in place before the effective date of the FIRM. The first letter is a reminder letter and is sent to the community 90 days before the effective date. The second letter is sent to the community 30 days before the effective date of the FIRM. This letter is FEMA's final notification that the community will be suspended from the NFIP if it does not adopt the FIRM before the effective date. Notice of the suspension is also published in the *Federal Register*.

If the community adopts or amends its floodplain management regulations prior to the effective date of the FIRM and FIS report and the FEMA Regional Office approves the community's regulations, the suspension will not go into effect and the community will remain eligible for participation in the NFIP.

What happens if a community does not adopt the appropriate floodplain management regulations during the six-month adoption period?

If a community does not adopt new floodplain management regulations or amend its existing regulations before the effective date of the FIRM and FIS report, the community will be suspended from the NFIP.

The following sanctions apply if a community is suspended from the NFIP:

- Property owners will not be able to purchase NFIP flood insurance policies and existing policies will not be renewed.
- Federal grants or loans for development will not be available in identified flood hazard areas under programs administered by Federal agencies such as the Department of Housing and Urban Development, the Environmental Protection Agency, and the Small Business Administration.
- Federal disaster assistance will not be provided to repair insurable buildings located in identified flood hazard areas for damage caused by a flood.
- Federal mortgage insurance or loan guarantees will not be provided in identified flood hazard areas such as those written by the Federal Housing Administration and the Department of Veteran Affairs.
- Federally insured or regulated lending institutions, such as banks and credit unions, are allowed to

Elevated home on pile foundation

Elevated home on crawl space foundation

make conventional loans for insurable buildings in flood hazard areas of non-participating communities. However, the lender must notify applicants that the property is in a flood hazard area and that the property is not eligible for Federal disaster assistance. Some lenders may voluntarily choose not to make these loans.

If a community is suspended, it may regain its eligibility in the NFIP by enacting the floodplain management measures established in 44 CFR Section 60.3 of the NFIP regulations. If development takes place in your community during suspension that does not meet the minimum NFIP requirements, your community will be asked to take actions to reduce the increased flood hazard prior to reinstatement.

Digital Flood Hazard Information Resources

In accordance with the Flood Insurance Reform Act of 2004, FEMA has implemented a policy that allows the use of digital data for official NFIP purposes. All FEMA's flood mapping products are now prepared digitally, and a number of different digital options are available to view the flood hazard information shown on community FIRMs. All digital flood hazard resources referenced below can be accessed through FEMA's Map Service Center (MSC) at http://msc.fema.gov.

- Once effective, copies of the FIRM panels in digital format will be provided to your community and will also be available through the MSC. Note that Letters of Map Change (LOMCs) are also available through the MSC in .pdf format.
- FIRMettes show a desired section of a FIRM panel specified by a user, plus map scale, and other legend information from the FIRM. FIRMettes can be created online through the MSC, and printed or saved in .pdf format at no cost.
- The FIRM database is designed for use with specialized Geographic Information System (GIS) software. Users are able to integrate local data sets with the FEMA flood hazard data in the FIRM database to assist with floodplain management or mitigation planning measures. The FIRM database is provided to your community once the FIRM becomes effective and is also available for download through the MSC.
- The National Flood Hazard Layer (NFHL) contains all effective digital flood hazard information from FIRM databases and LOMRs produced by FEMA in one integrated nationwide dataset. It also contains point locations of other LOMCs, such as Letters of Map Revision Based on Fill and Letters of Map Amendment. The NFHL is available for viewing through FEMA's online map viewer which can be accessed through the MSC. The NFHL can also be viewed as a layer in Google Earth or accessed via Web Map Service (WMS), a web-based method of viewing map information using commercial GIS software, such as ESRI's ArcGIS. Additional information on these services is available through the MSC.

Note for communities that do not yet have digitally produced FIRMs: scanned digital versions of the paper FIRM panels are available through the MSC. However, since the FIRMs were not produced digitally, a FIRM database will not be available and the flood hazard information shown on the FIRMs will not be included in the NFHL.

Becoming a Cooperating Technical Partner

FEMA established the Cooperating Technical Partner (CTP) program to increase local involvement in, and ownership of, the flood study process and the flood hazard data developed as part of that process. This program enables communities, and regional and State agencies that have the interest, capabilities, and resources to be active partners in FEMA's flood hazard mapping program.

One of the major objectives of the CTP program is to recognize States, regional agencies, and communities with proactive floodplain management programs that include identifying the flood risk and getting the information incorporated into official FEMA flood hazard data. The CTP Program maintains national standards consistent with the NFIP Regulations. The following are some of the benefits of being a CTP.

- CTPs are given an opportunity to develop more detailed maps by making local geospatial data a part of the FIRM
- CTPs receive support such as access to existing data, access to custom-made FEMA tools, technical assistance, and national recognition
- CTPs receive mentoring support, online examples of "best practices," and free training
- Communities that participate in the Community Rating System (CRS) that also become CTPs or are in an area covered by a regional or State CTP may be eligible to receive CRS credit for CTP activities

Another major objective and benefit of the CTP Program is the ability to leverage available funding and local data to make the most of limited resources. Communities, States, and regional agencies can take advantage of these benefits by entering into an agreement with FEMA that formalizes the types of mapping activities and support the CTP will provide. Nearly 250 communities, States, and regional agencies are currently participating in the CTP Program.

To learn more about becoming a CTP, visit www.fema.gov/plan/prevent/fhm/ctp_main.shtm or contact your FEMA regional office (see back page for contact information)

Becoming an NFIP Community Rating System Community

The NFIP Community Rating System (CRS) recognizes community floodplain management practices that exceed the minimum requirements of the NFIP. CRS recognizes these efforts by reducing the cost of flood insurance premiums from 5 percent to 45 percent for flood insurance policies in communities that participate in the CRS.

Many communities may already be doing activities that would earn credit under the CRS which would reduce flood insurance premiums for their citizens. Here are a few examples:

- Adopting and enforcing more protective building standards that result in safer new construction
- Informing the public about flood hazards and flood insurance and how to reduce flood damage
- Preserving open space in the floodplain

To receive CRS credit, a community must submit a CRS application to FEMA which identifies floodplain management practices being implemented by the community. FEMA can help with the application. After FEMA reviews and verifies the application, the flood insurance premium discounts will go into effect. The amount of flood insurance policy premium discount depends on the number of CRS-credited activities a community performs.

Community participation in the CRS has many benefits:

- Discounts for flood insurance premiums from 5 percent to 45 percent
- Enhanced public safety
- Reduced flood damage
- Increased environmental protection
- Informed community residents supporting improved flood protection measures that will make communities safer from flood risks.

To learn more about CRS, visit www.fema.gov/business/nfip/crs.shtm or call 317-848-2898

For Assistance

If your community needs assistance in adopting the FIRM, you may contact the FEMA Regional Offices listed below. You may also contact your State Coordinating Agency for the NFIP. Additional information is available at www.fema.gov/rm-main/regional-contact-information.

REGION I
CT, ME, MA, NH, RI, VT
99 High Street, 6th Floor
Boston, MA 02110
617-956-7506

REGION II
NJ, NY, PR, VI
26 Federal Plaza, Suite 1337
New York, NY 10278-0002
212-680-3600

REGION III
DE, DC, MD, PA, VA, WV
615 Chestnut Street
1 Independence Mall, 6th Floor
Philadelphia, PA 19106-4404
215-931-5500

REGION IV
AL, FL, GA, KY, MS, NC, SC, TN
3003 Chamblee-Tucker Road
Atlanta, GA 30341
770-220-5200

REGION V
IL, IN, MI, MN, OH, WI
536 South Clark Street, 6th Floor
Chicago, IL 60605
312-408-5500

REGION VI
AR, LA, NM, OK, TX
Federal Regional Center
800 North Loop 288
Denton, TX 76209-3698
940-898-5399

REGION VII
IA, KS, MO, NE
9221 Ward Parkway, Suite 300
Kansas City, MO 64114-3372
816-283-7061

REGION VIII
CO, MT, ND, SD, UT, WY
Denver Federal Center, Building 710, Box 25267
Denver, CO 80225-0267
303-235-4800

REGION IX
AZ, CA, HI, NV, American Samoa, Guam,
Marshall Islands and Northern Mariana Islands
1111 Broadway, Suite 1200
Oakland, CA 94607
510-627-7100

REGION X
AK, ID, OR, WA
Federal Regional Center
130 228th Street SW
Bothell, WA 98021-8627
425-487-4600

City of Sherwood Oregon

Home of the Tualatin River National Wildlife Refuge

MEMORANDUM

DATE: September 6, 2016

TO: Connie Randall, Senior Planner

FROM: Bob Galati PE, City Engineer

SUBJECT: Code Amendments Relative to FEMA Flood Plain Maps Adoption

The adoption of the FEMA Flood Plain Maps and related Municipal Code amendments have no impact to the City's implementation and compliance with the State of Oregon's Transportation Planning Rule (TPR) requirements as defined in Oregon Administrative Rules (OAR) 660-012-0000 through 660-012-0070.

Exhibit F

New Business Agenda

Item b

CITY OF SHERWOOD
Staff Report
Stormwater Master Plan Amendments

Date: September 6, 2016
File No: PA 16-06

TO: Planning Commission

Hearing Date: September 13, 2016

From:

Brad Kilby, AICP
Planning Manager

Proposal: The City is proposing to amend the Table of Contents and Chapter 7 *Community Facilities and Services*, of the Sherwood Comprehensive Plan, Part 2, and to adopt the 2016 City of Sherwood Stormwater Master Plan as a technical appendix to the Comprehensive Plan. The proposed amendments coincide with an update of the City's Sanitary Master Plan. Although the Stormwater System Plan was last updated in 2007, the language within the Comprehensive Plan was never updated to reflect the changes to the system. The proposed amendments to the text would delete and replace the existing language within the Comprehensive Plan to be aligned with the 2016 Stormwater Master Plan Update. Adoption of the plan as a technical appendix is consistent with the single goal and eight policies that related to community facilities and services.

I. BACKGROUND

A. Applicant: This is a City initiated text amendment.

B. Location: The proposed amendment is to the text of the Comprehensive Plan and applies citywide.

C. Review Type: The proposed text amendments are legislative and require a Type V review, which involves public hearings before the Planning Commission and City Council. Any appeal of the City Council's decision relating to this matter will be considered by the Oregon Land Use Board of Appeals.

D. Public Notice and Hearing: Notice of the September 13, 2016 Planning Commission hearing on the proposed amendment was published in the Sherwood Gazette on September 1, 2016 and *The Times* on September 8, 2016. Notice was also posted in five public locations around town on August 23, 2016 and on the City of Sherwood web site.

Oregon Department of Land Conservation and Development (DLCD) notice was submitted on August 10, 2016.

E. Review Criteria:
The required findings for the Plan Amendment are identified in Section 16.80.030 of the SZCDC.

F. Background:
The City Engineering Department along with the consultant, Murray Smith and Associates, have been working on the plan for the past year, and were charged with ensuring that the plan

complies with the Oregon Administrative Rules (OAR) for Public Stormwater Systems, Chapter 333, Division 61.

II. AFFECTED AGENCY, PUBLIC NOTICE, AND PUBLIC COMMENTS

Agencies:
DLCD notice was submitted on August 10, 2016. The City received an e-mail from Anne Debbaut, the DLCD Metro Regional Representative that is attached as Exhibit C to this report. Mrs. Debbaut indicates that the Oregon Administrative Rules associated with Goal 11, Public Facilities requires that the City's Comprehensive Plan must include:

a. List of public facility project titles (but descriptions are not necessary, and minor amendments to the projects do not require comp plan amendment)
b. Map or written description of project locations or service areas (but changes over time to these locations or descriptions do not require comp plan amendment)
c. Policies or Urban Growth Management Agreement designating the provider of each public facility system.

The master plan includes all of the components required of Goal 11 in their entirety. In a conversation with Mrs. Debbaut, she indicated that having the plan attached as an appendix is fine with DLCD.

ODOT, Trimet, NW Natural, ODSL, BPA, Metro, TVF&R, Pride Disposal, PGE, Portland Western Railroad, Washington County, Kinder Morgan, CWS, The Sherwood School District, Sherwood Public Works, and the Tualatin River National Wildlife Refuge were all provided notice. As of the date of this report, staff has not received any agency comments other than those from DLCD discussed above.

Public:
The Planning Commission held a Public Work Session to discuss the Stormwater System Plan Update on July 26, 2016. The session was hosted by Engineering and the Project team from Murray Smith and Associates. Notice of the work session and the hearing was sent out to the Planning interested parties list, published in the Sherwood Gazette on September 1, 2016 and The Times on September 8, 2016. Notice was also posted in five public locations around town on August 23, 2016 and on the City of Sherwood web site. There have been no public comments received as of the date of this report, but the City is required to accept comments up to the close of the public hearing.

III. REQUIRED FINDINGS FOR A PLAN TEXT AMENDMENT

The applicable Plan Text Amendment review criteria are 16.80.030.A and C

16.80.030.A - Text Amendment Review

An amendment to the text of the Comprehensive Plan shall be based upon the need for such an amendment as identified by the Council or the Commission. Such an amendment shall be consistent with the intent of the Comprehensive Plan, and with all other provisions of the Plan and Code, and with any applicable State or City statutes and regulations.

With respect to the proposed changes, the Comprehensive Plan would be updated with current language that reflects language within the new Master Plan. Specific changes include:

- Updating the table of contents page
- Replacing the entire section under "Drainage plan", including the introduction, existing Stormwater system conditions, analysis of the existing stormwater system and

recommended improvements to the existing stormwater system, with up to date information from the 2016 Master Plan; and
- Adoption of the 2016 Stormwater Master Plan by reference into the Comprehensive Plan.

It should be noted that the Comprehensive Plan was not updated with the 2007 update to the Stormwater System Plan, and that the Comprehensive Plan is in dire need of a complete update. Staff has identified recommended changes to reflect the updated Stormwater Master Plan.

The proposal seeks to amend Chapter 7 of Volume II of the Comprehensive Plan to reflect the updated Stormwater Master Plan. The Council authorized the Stormwater System Master Plan by both approving a budget that included the update and by authorizing contracts for the update, therefore it can be assumed that the Council identified a need to update the Master Plan.

There is only one stated goal in Chapter 7 which is "To insure the provision of quality community services and facilities of a type, level and location which is adequate to support existing development and which encourages efficient and orderly growth at the least public cost."

There are 8 objectives under this policy statement:

1. Develop and implement policies and plans to provide the following public facilities and services; public safety fire protection, sanitary facilities, water supply, governmental services, health services, energy and communication services, and recreation facilities.

2. Establish service areas and service area policies so as to provide the appropriate kinds and levels of services and facilities to existing and future urban areas.

3. Coordinate public facility and service plans with established growth management policy as a means to achieve orderly growth.

4. Coordinate public facility and service provision with future land use policy as a means to provide an appropriate mix of residential, industrial and commercial uses.

5. Develop and implement a five-year capital improvements and service plan for City services which prioritizes and schedules major new improvements and services and identifies funding sources.

6. The City will comply with the MSD Regional Solid Waste Plan, and has entered into an intergovernmental agreement with Washington County to comply with the County's Solid Waste and Yard Debris Reduction Plan, 1990.

7. Based on the Sanitary Sewer, Water, Stormwater, and Transportation Plan updates, the City shall prepare a prioritized list of capital improvement projects to those systems and determine funding sources to realize the improvements envisioned in those plans.

8. It shall be the policy of the City to seek the provision of a wide range of public facilities and services concurrent with urban growth. The City will make an effort to seek funding mechanisms to achieve concurrency.

The updated Master Plan is necessary to achieving the objectives with the exception of objective 7. The language within this policy has been updated to reflect the timely updates to

those plans with the 2015 update to the Sherwood Water Masterplan that was adopted by Ordinance 2015-004, and now the Sanitary and Stormwater System Plans.

The need to update the policy language, and in turn the background language of Chapter 7 as it relates to the City's Stormwater System Master Plan is evident in the fact that the current language speaks to plans that were to be adopted in 1989 and 1990. That is over 25 years ago, adding additional evidence that a clear need for the update has been established.

Applicable Regional (Metro) Standards
There are no specific Metro standards that would conflict with the proposed amendments. The Urban Growth Management Functional Plan does not speak specifically to subarea Stormwater System Master planning.

Consistency with Statewide Planning Goals
Because the comprehensive plan policies and strategies are not changing and the comprehensive plan has been acknowledged by the State, there are no known conflicts with these proposed changes. Below is an analysis of how the proposed Stormwater Master Plan update and Comprehensive Plan amendments are consistent with the applicable statewide planning goals 1, 2 and 11.

Goal 1

The Planning Commission held a public work session. Formal notice was also published in the Sherwood Gazette, and again in *The Times* two weeks prior to the hearing and again five days prior to the hearing. The hearing has been posted around town in five conspicuous places and on the City's website. The Engineering Department has also maintained a project website for the course of the project.

Goal 2

Goal 2 speaks to comprehensive planning and acknowledges that plans for public facilities are more specific than those included in the comprehensive plan. They are intended to show the size, location, and capacity serving the City, but are not as detailed as construction drawings. The Stormwater System Master Plan is a tool that helps communities to implement their plan.

In Sherwood's case, the plan is being updated to ensure compliance with the requirements outlined by the state as they relate to Stormwater system master plans. The requirement to prepare a Stormwater System Master Plan can be found in Oregon Administrative Rules (OAR) Chapter 333, Division 61. The Stormwater System Master Plan itself, is a much more technical document that Engineering staff is charged with preparing and ensuring compliance with these rules. Section 4 of the document speaks specifically to the federal, state, and local regulations and policies that are considered when implementing a community wide stormwater system. The subject of this review is to ensure that the proposed plan is consistent with the current Comprehensive Plan.

While the Comprehensive Plan is out of date, as currently drafted there are no conflicts with the proposed language and the current language as it applies to the single goal and policies that are affected by this change. When the City undergoes a major comprehensive plan update, further evaluation of the existing goals and policies will occur.

Goal 11

Goal 11 of state land use planning system relates to Public Facilities and Services. Within this goal, communities are charged with preparing facilities plans that coordinate the type, locations and delivery of public facilities and services in a manner that best supports the existing and proposed land uses. In this case, the plan considers the existing needs of the area within the current Urban Growth Boundary (UGB) including the Tonquin Employment Area and the Brookman concept plan area. Because there is no specific zoning or urban uses associated with the urban reserves around Sherwood, these areas were not considered as part of the plan.

It should be noted that information is constantly being updated and refined with new information and it is possible that current projects underway or updated plans result in more or less growth than the Stormwater System Master Plan assumes. For these reasons, the Stormwater System Master Plan is a living document. If all improvements envisioned in the Stormwater System Master plan are not needed, they will not be constructed and if improvements are needed sooner than envisioned, they will be planned for.

FINDING: As discussed above in the analysis, there is a need for the proposed amendments in order to update the language within the Comprehensive Plan. The proposed amendments are not applicable to Metro's Urban Growth Management Functional Plan. The proposed amendments are consistent with the applicable Comprehensive Plan and applicable City, regional and State regulations and policies.

16.80.030.3 – Transportation Planning Rule Consistency

A. Review of plan and text amendment applications for effect on transportation facilities. Proposals shall be reviewed to determine whether it significantly affects a transportation facility, in accordance with OAR 660-12-0060 (the TPR). Review is required when a development application includes a proposed amendment to the Comprehensive Plan or changes to land use regulations.

FINDING: The proposed amendments do not affect the functional classification of any street and is not triggered by any single development application. The improvements proposed in the plan do not generate additional traffic that would negatively affect the functional classification of any street, road, or highway in Sherwood.

IV. RECOMMENDATION

Based on the above findings of fact, and the conclusion of law based on the applicable criteria, the staff recommends approval of PA 16-06.

V. EXHIBITS

A. PA 16-06 Proposed Code Amendments –track change version
B. PA 16-06 Proposed Code Amendments – clean version
C. E-mail dated August 22, 2016 from Anne Debbaut, DLCD Representative.
D. Draft Stormwater System Master Plan - 2016

COMMUNITY FACILITIES AND SERVICES

A. GENERAL INTRODUCTION

Community facilities and services in the Sherwood Planning Area are provided by Washington County, the City of Sherwood, special service districts, semi-public agencies and the State and Federal government, (see Table VII-1). Public facilities and services include sewer, water, fire and police protection, libraries, drainage, schools, parks and recreation, solid waste and general governmental administrative services. Semi-public facilities and services are those which are privately owned and operated but which have general public benefit. They include health facilities, energy and communication utilities, and day care.

Although a small community, Sherwood has learned well the importance of adequate community facilities and services to orderly urban growth. ~~Lack of sewer treatment capacity curtailed growth in the City in the 1970's.~~ Planning for public facilities and services in response to growth rather than in advance of growth results in gaps in facilities and services. As population growth and density increase in the Sherwood Planning Area, greater facility and service support will be required. In recognition of this basic fact, the Plan stresses the need for provision of necessary facilities and services in advance of, or in conjunction with, urban development.

The Community Facilities and Services element identifies general policy goals and objectives; service areas and providers, problems, and service plans, and potential funding for key public and semi-public facilities and services. Park and recreation facilities are treated in Chapter 5, Environmental Resources. Transportation facilities are treated in Chapter 6, Transportation. This element was updated in 1989 to comply with OAR 197.712(2)(e).

B. POLICY GOAL AND OBJECTIVES

To insure the provision of quality community services and facilities of a type, level and location which is adequate to support existing development and which encourages efficient and orderly growth at the least public cost.

OBJECTIVES

1. Develop and implement policies and plans to provide the following~~-~~ public facilities and services; public safety fire protection, sanitary facilities, water supply, governmental services, health services, energy and communication services, and recreation facilities.

2. Establish service areas and service area policies so as to provide the appropriate kinds and levels of services and facilities to existing and future urban areas.

3. Coordinate public facility and service plans with established growth management policy as a means to achieve orderly growth.

4. Coordinate public facility and service provision with future land use policy as a means to provide an appropriate mix of residential, industrial and commercial uses.

5. Develop and implement a five-year capital improvements and service plan for City services which prioritizes and schedules major new improvements and services and identifies funding sources.

6. The City will comply with the MSD Regional Solid Waste Plan, and has entered into an intergovernmental agreement with Washington County to comply with the County's Solid Waste and Yard Debris Reduction Plan, 1990.

7. Based on the currently adopted Sanitary Sewer, Water, Stormwater, and Transportation Plan updates, the City shall prepare a prioritized list of capital improvement projects to those systems and determine funding sources to realize the improvements envisioned in those plans.

8. It shall be the policy of the City to seek the provision of a wide range of public facilities and services concurrent with urban growth. The City will make an effort to seek funding mechanisms to achieve concurrency.

C. PUBLIC AND SEMI-PUBLIC UTILITIES

Public utilities including water, sanitary sewer, drainage, and solid waste, as well as semi-public utilities including power, gas and telephone services are of most immediate importance in the support of new urban development. Water, sewer collection, and drainage facilities are the major services for which the City of Sherwood has responsibility. Service plans for these key services are contained in this section. The other utilities referred to above are the principal responsibilities of those agencies listed in Table VII-1. These agencies have been contacted for the purpose of coordinating their service planning and provision with the level and timing of service provision required to properly accommodate growth anticipated by the Plan.

TABLE VII-1
FACILITY AND SERVICE PROVIDERS
IN THE SHERWOOD PLANNING AREA

1. Public Utilities

   a. Public Water Supply
      City of Sherwood

   b. Sanitary Sewer System
      (1) Clean Water Services
      (2) City of Sherwood

   c. Storm Drainage System
      (1) City of Sherwood
      (2) Clean Water Services
      (3) Washington County
      (4) State of Oregon

2. Private/Semi-Public Utilities

   a. Natural Gas
      Northwest Natural Gas Co.

   b. Electric Power
      Portland General Electric

   ~~e~~ c. Solid Waste: Pride Disposal Co.

3. Transportation

   a. Paved Streets, Traffic Control, Sidewalks, Curbs, Gutters, Street Lights
      (1) City of Sherwood
      (2) Washington County
      (3) State of Oregon

   b. Bikeways
      (1) City of Sherwood
      (2) Washington County

(3) State of Oregon

c. Public Transit
Tri-Met

4. Public Health and Safety

a. Police Protection
(1) City of Sherwood
(2) Washington County
(3) State of Oregon

b. Fire Protection
Tualatin Valley Fire and Rescue

c. Animal Control
Washington County

5. Recreation

a. Parks and Recreation
City of Sherwood

b. Library
City of Sherwood

6. Schools
Sherwood School District 88J

D. SEWER SERVICE PLAN

INTRODUCTION

The Sewer Service Plan of the Comprehensive Plan was updated in ~~1990~~ 2016 and is included as an appendix to the Plan, and is incorporated into this chapter. ~~The following describes the existing sewer system, recommended improvements to the existing system, recommended expansion of the sewer system and estimated costs.~~

EXISTING SEWER SYSTEM

The City of Sherwood's existing sanitary sewer system is as shown on Figure VII-1. The system is located in ~~USA's~~ Clean Water Services Durham South Basin which consists of two sub-basins are centered around Cedar Creek and Rock Creek, respectively, and will be referred to as the Cedar Creek basin and the Rock Creek basin throughout the remainder of this section.

~~The Rock Creek Basin system currently serves a residential area bounded by Lincoln Street to the west, West Sunset Boulevard to the south, Oregon Street to the north and the UGB to the east. Rock Creek Basin also contains approximately 71.2 acres of land, north of Oregon Street, which is currently zoned and developed for industrial use. The remaining northern portion of the Basin is essentially undeveloped and zoned primarily for industrial use. Flow is by gravity from south to north, eventually connecting to USA's Rock Creek trunk. This trunk then follows Rock Creek until it connects with the Upper Tualatin Interceptor which transports sewage to the Durham treatment plant.~~

~~The Cedar Creek Basin system serves the majority of Sherwood. Drainage is again from south to north and the main trunk of the system follows Cedar Creek from Sunset Boulevard under Pacific Highway continuing north until it connects with the Upper Tualatin Interceptor. From this point sewage is transported to the Durham Treatment plant.~~

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The City's Sanitary Sewer System Master Plan's three-fold purpose is to ~~present criteria required for;~~ 1) evaluate~~ing~~ the existing system, 2) identify current and future system deficiencies and needs, ~~and describes~~along with recommended improvements to correct them, and 3) to provide planning level cost information for general budgeting and the development of a prioritized Capital Improvement P~~roject~~lan (CIP) ~~listing~~. The master plan~~s~~ is adopted after each update which occur on a 5 to 7-year time interval. The CIP is updated and adopted each ~~fiscal~~ year as part of the City's fiscal year budget adoption process.

Sanitary Sewer System Description

The City's sanitary sewer system is divided into 2 main basins; 1) the Cedar Creek Basin;

and 2) the Rock Creek Basin. The sanitary sewer master plan provides specific information based on the 3 criteria listed above. In general, the overall sanitary sewer system is operationally sound and has capacity to provide service over the next 20-year planning cycle (2035). General information on the two sanitary sewer basins is provided below.

The Cedar Creek Basin is the City's largest sanitary collection basin, bounded on the north, west, and south sides by the current City limits. The basin's east side boundary is defined by a line running from north to south and generally east of Langer Farms Parkway to the southern boundary of the City. The Brookman Concept Area borders the southern edge of the basin. The Cedar Creek Basin encompasses 2,080 potential acres of tributary area within the UGB, of which 1,054 acres i~~f~~s considered existing developed and sanitary sewer serviced. Sanitary sewerage from the Cedar Creek Basin gravity flows through the 24-inch Sherwood Trunk line to the Sherwood pump station located north of the City.

Residential zoned areas comprise the majority of the sanitary wastewater flow from this basin, with commercial and non-residential area of the basin near the center contributing non-residential flows.

The Rock Creek Basin is the City's second sanitary collection basin, bounded on the north, east, and south sides by the current City limits. The basin's west boundary is defined by a line running from north to south and generally west of Langer Farms Parkway to the southern boundary of the City. The Tonquin Employment Area borders the east side of the basin. The Rock Creek Basin encompasses 1,310 potential acres of tributary area within the UGB, of which 455 acres is considered existing developed and sanitary sewer serviced. Sanitary sewerage from the Rock Creek Basin gravity flows through the 21-inch Rock Creek Trunk line north to the Sherwood pump station.

Residential zoned areas comprise most of the sanitary wastewater from this basin, with light industrial and commercial areas located in the northern half of the basin providing the remainder of the basin's sanitary wastewater flows.

The Rock Creek Trunk Line, the Cedar Creek Trunk Line, and the Sherwood Pump Station are under the jurisdictional control of Clean Water Services (CWS). Sanitary wastewater flows from the Sherwood Pump Station discharge to the Upper Tualatin Interceptor which ultimately flows to the Durham AWWFT for treatment and discharge to the Tualatin River.

The City's Sanitary Sewer Master Plan has identified 22 major projects which fall under the jurisdictional control of the City. There are 4 other projects identified which fall under the jurisdictional control of CWS. The 22 major projects are included in the City's CIP program. The 4 remaining projects which impact the operation of the City's sanitary

system are coordinated with CWS for implementation.

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~~**ANALYSIS OF EXISTING SEWER SYSTEM**~~

~~The population for the City of Sherwood in the year 2008 is estimated to be 7,000 people. The 1979 Sewer Service Plan estimated a population of 10,600 people in the year 2008, and a full-development population within the Sherwood Urban Growth Boundary (UGB) of 18,900 people.~~

~~In order to accentuate any deficiencies in the existing sanitary sewer system, peak flowrates were generated based on full development or saturation of the Sherwood UGB. This analysis was used for the following reasons. Maximum design flows for sanitary sewers are far less than peak storm sewer flows. Very often sanitary sewer pipes are sized at a minimum 8-inch diameter for maintenance purposes; consequently the majority of these pipes are flowing at a minimum of their capacity. A full-development demand analysis was the most conservative and efficient way of analyzing the system for all deficiencies.~~

~~Wastewater flow criteria for the analysis was taken from USA's 1985 Master Sewer Plan Update and is based on land use designation as listed below:~~

~~**TABLE VII-2**~~
~~**WASTEWATER FLOW DESIGN CRITERIA**~~
~~**DESIGN UNIT FLOW RATE**~~

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~~LAND USE DESIGNATION~~	~~EXISTING~~	~~FUTURE~~
~~RESIDENTIAL~~	~~75 gpcd~~	~~75 gpcd~~
~~COMMERCIAL~~	~~1000 gpad~~	~~1000 gpad~~
~~INDUSTRIAL~~	~~3000 gpad~~	~~3000 gpad~~
~~INSTITUTIONAL~~	~~500 gpad~~	~~500 gpad~~
~~PEAK ANNUAL~~	~~4000 gpad~~	~~4000 gpad~~

The City of Sherwood Zoning Map was used to determine the amount of acreage of each land use designation. This acreage was then applied to tributary basins contributing to their respective sewers and multiplied by the appropriate land use design unit flowrate in order to generate the total design flowrate. An average of residential densities per tributary basin was used to account for the five different residential zoning densities shown on the current City Zoning Map.

WATER SERVICE PLAN

INTRODUCTION

The City draws the majority of its water supply from the Willamette River Water Treatment Plant (WRWTP) in the City of Wilsonville, approximately 6 miles southeast of Sherwood. The City owns 5 million gallons per day (MGD) of production capacity in the existing WRWTP facilities. Sherwood also maintains four groundwater wells within the city limits for back-up supply. Prior to 2011, the City

also purchased water from the Portland Water Bureau (PWB) through the City of Tualatin's water system and maintains an emergency connection and transmission piping associated with this supply source.

The City's future water service area is comprised of five different planning areas:
1. Sherwood city limits
2. Tonquin Employment Area (TEA)
3. Brookman Annexation Area
4. West Urban Reserve
5. Tonquin Urban Reserve

Each of these areas has their own land use characteristics, approximate development timelines and existing planning information. Estimates of future growth and related water demand are developed using the best available information for each area including Sherwood buildable lands geographic information system (GIS) data, population growth projections, development area concept plans and current water demand data.

Water demand growth is projected at 10 years, 20 years and at saturation development. Estimated water demands at saturation development are used to size recommended transmission and distribution improvements.

EXISTING WATER SYSTEM CONDITIONS

Pressure Zones

The City's existing distribution system is divided into three major pressure zones. Pressure zone boundaries are defined by ground topography in order to maintain service pressures within an acceptable range for all customers in the zone. The hydraulic grade line (HGL) of a zone is designated by overflow elevations of water storage facilities or outlet settings of pressure reducing valves (PRVs) serving the zone.

The majority of Sherwood customers are served from the 380 Pressure Zone which is supplied by gravity from the City's Sunset Reservoirs. The 535 Pressure Zone, serving the area around the Sunset Reservoirs, is supplied constant pressure by the Sunset Pump Station, and the 455 Pressure Zone serves higher elevation customers on the western edge of the City by gravity from the Kruger Reservoir.

Storage Reservoirs

Sherwood's water system has three reservoirs with a total combined storage capacity of approximately 9.0 million gallons (MG). Two reservoirs, Sunset Nos. 1 and 2, provide 6.0 million gallons (MG) of gravity supply to the 380 Pressure Zone. The other reservoir, Kruger Road, provides 3.0 mg of gravity supply to the 455 Pressure Zone.

Pump Stations

Sherwood's water system includes two booster pump stations, the Sunset Pump Station and the Wyndham Ridge Pump Station.

The Sunset Pump Station is located in Snyder Park adjacent to the Sunset Reservoir complex and has an approximate total capacity of 3,770 gallons per minute (gpm). This station provides constant pressure service and fire flow to the 535 Pressure Zone.

The Wyndham Ridge Pump Station is located on SW Handley Street west of Highway 99W. Two 40-hp pumps supply a total capacity of approximately 1,200 gpm from 380 Zone distribution piping to the Kruger Road Reservoir.

Distribution System

The City's distribution system is composed of various pipe materials in sizes up to 24 inches in diameter. The total length of piping in the service area is approximately 77.4 miles. Pipe materials include cast iron, ductile iron, PVC and copper. The majority of the piping in the system is ductile iron.

ANALYSIS OF EXISTING WATER SYSTEM

Water Supply
Sherwood's supply from the WRWTP is sufficient to meet MDD through the 10-year planning horizon with an additional 1 mgd of capacity required at 20 years and an additional 4 mgd needed at build-out. Existing City groundwater wells provide an effective emergency supply to complement emergency storage in the City's reservoirs.

Pumping and Storage

The City's distribution system has adequate storage and pumping capacity to meet existing service area demands through 2034. Due to significant uncertainty related to long-term growth and system expansion, minor storage and pumping deficiencies at build-out should be re-evaluated with the next Water Master Plan Update or as development warrants. Additional pump stations are recommended to serve proposed high-elevation closed pressure zones in the water service expansion areas: Brookman Annexation and West Urban Reserve.

Distribution Piping

Sherwood's distribution piping is sufficiently looped to provide adequate fire flow capacity to commercial, industrial and residential customers. Few piping improvement projects are needed to meet fire flow criteria. Extensive large diameter mains will be needed to expand the City's water service area to supply the Brookman Annexation, TEA and West Urban Reserve as development occurs.

RECOMMENDED IMPROVEMENTS TO EXISTING WATER SYSTEM

Recommended improvements for the City's water system include proposed supply, pump station and water line projects.

Cost Estimating Data

An estimated project cost has been developed for each improvement project recommended. Cost estimates represent opinions of cost only, acknowledging that final costs of individual projects will vary depending on actual labor and material costs, market conditions for construction, regulatory factors, final project scope, project schedule and other factors. The cost estimates presented have an expected accuracy range of -30 percent to +50 percent. As the project is better defined, the accuracy level of the estimates can be narrowed. Estimated project costs include approximate construction costs and an aggregate 45 percent allowance for administrative, engineering and other project related costs.

Capital Improvement Program

A summary of all recommended improvement projects and estimated project costs is presented in Table ES-3 of the 2015 City of Sherwood Water System Master Plan Update. The table provides for project sequencing by showing fiscal year-by-year project priorities for the first five fiscal years, then prioritized projects in 5-year blocks for the 10-year, 20-year and Beyond 20 year timeframes. The total estimated cost of these projects is approximately $24.6 million through FY 2034. Approximately $19.9 million of the total estimated cost is for projects needed within the 10-year timeframe and $5.4 million of these improvements are required in the next 5 years.

F. DRAINAGE PLAN

INTRODUCTION

~~The Sherwood Planning Area is located within the Willamette River-Tualatin River Basin as identified in the Portland-Vancouver Metropolitan Area Water Resources Study (PMAWRS). The Cedar Creek and Rock Creek sub-basins channel surface runoff to the Tualatin River just north of the Planning Area. Within these sub-basins there exists considerable variation in slope. A highland area known as Washington Hill has some erosion and sedimentation potential. High groundwater and poorly drained soils in portions of the northern half of the Planning Area will require measures to regulate excavation and site drainage.~~

~~In March 1989, DEQ issued draft rules for storm water quality control to all jurisdictions in the Tualatin River sub-basin. The City of Sherwood is required to comply with the rules and participate in the development of a Surface Water Drainage Management Plan for the region. When the Plan is completed and adopted this section will be amended accordingly.~~

~~**Objectives**~~

1. ~~Comply with DEQ Storm water quality control rules until completion of a Drainage Management Plan.~~

2. ~~Cooperate with United Sewerage Agency, Washington County, and DEQ in the preparation of a Drainage Management Plan.~~

~~**Findings**~~

~~1. A storm drainage plan for the City's urban growth area has been developed and is illustrated on Figure VII-7. Major storm sewers are recommended for construction in accordance with the Plan; minor storm sewers are not shown on the proposed storm drainage plan. This Plan will be updated upon completion of the regional Drainage Plan.~~

~~2. Cedar Creek, Rock Creek, and Chicken Creek shall continue to be the City's primary conveyance systems for storm runoff.~~

~~3. Existing flood areas have been identified and are analyzed and described in Section VII Background Data and Analysis. It is anticipated, all but one of the problem areas will be eliminated by implementation of the Plan. An area of flooding at N.W. 12th Street and Highway 99W remains to be resolved by construction of a minor storm sewer, which is not shown on the Plan.~~

~~4. The rational method formula was used to estimate runoff to proposed storm sewers. This~~

~~method has a tendency to overestimate design flows when applied to large basins. Runoff coefficients used in the rational method are predicted on the City's Comprehensive Plan. During final design of storm sewers, actual development within the basin should be reviewed to verify previous assumptions in selection of a runoff coefficient.~~

~~5. Cost estimates for proposed storm sewer improvements have been prepared, based on 1980 construction costs and increased in 1990 by 1.25%, and on Engineering News Record (ENR) index of 3264. These estimates are presented in Table 2 of the Appendix.~~

~~6. Design of relief culverts in Cedar Creek and Rock Creek may significantly alter hydraulic control sections used by the U.S. Army Corps of Engineers to establish water surface elevations and limits of the flood plain as set forth in Flood Insurance Study, City of Sherwood, Oregon, and provided to the City in preliminary draft, dated December 17, 1980. Design of relief culverts should be coordinated with the U.S. Army Corps of Engineers to insure integrity of their flood insurance study.~~

~~**Implementation**~~

~~1. The City will endeavor to establish a source of revenue to finance the cost of storm sewer construction, acquisition of lands along creeks, maintenance of storm sewers and waterways, and administration of the storm plan in accordance with the regional Surface Water Drainage Management Plan.~~

~~2. Until user fees are in effect, the City should obtain waivers of remonstrance to future storm drainage improvements projects from all property owners wishing to develop their land, and the City should also require all developers to provide adequate storm sewers to serve their property as well as those properties that would naturally drain to the proposed storm sewer.~~

The City's Stormwater System Master Plan is incorporated into this plan by reference and is an appendix to the City Comprehensive Plan. The Stormwater System Master Plan's three-fold purpose is to present criteria required for; 1) evaluating the system, 2) identifying current and future system deficiencies and needs, ~~and describes~~including a description of recommended improvements to correct them, and 3) ~~to provide~~providing planning level cost information for general budgeting and the development of a prioritized Capital Improvement P~~roject~~lan (CIP)~~ listing~~. The master plan is adopted after each update which occur on a 5 to 7-year time interval. The CIP is updated and adopted each fiscal year as part of the City's fiscal year budget adoption process.

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Stormwater System Description

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The City lies within five streamsheds, drained by Cedar Creek, Chicken Creek, Hedges Creek, Rock Creek, and the Upper Coffee Lake Creek, all of which are tributary to the Tualatin River and Willamette River. The master plan covers the area within the current

UGB, which includes the Tonquin Employment Area and the Brookman Concept Area. The area covered by the City's stormwater drainage basins covers roughly 3,391 acres and is estimated to be approximately 62 percent developed.

Stormwater management responsibilities for publicly owned collection and conveyance facilities are shared through an Intergovernmental Agreement (IGA) between the City and Clean Water Services (CWS). CWS is responsible for the "District Wide Program" and the City is responsible for the "Local Program".

In general, the master plan indicates that the existing stormwater collection and conveyance systems are i~~f~~n good operational condition. There are deficiencies within the existing system related to stormwater quality treatment where older developed areas within the City do not have any treatment facilities, or the treatment facilities are inadequate to meet current regulatory standards. In the IGA with CWS, the City must comply with the Clean Water Act (CWA), the Endangered Species Act (ESA), and the National Flood Insurance Act (NFIA) for all new developed or redeveloped properties within the UGB.

The 2016 stormwater master plan update has identified 7 major stormwater collection and conveyance system condition projects, and 14 regional stormwater treatment conditions projects. All 22 projects have been included in the City's CIP program.

SOLID WASTE

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Day Care

A growing need exists for day care. State standards for the establishment of day care centers are supplemented by City standards. Currently day care has been carried on by churches and small home operations. The City recognizes and supports the proper siting and housing of day care services.

Senior Citizens Services

With an increasing proportion of the Planning Areas population reaching the age of 60, Sherwood will require additional specialized services and facilities for senior citizens. The City was awarded a grant from HUD for a Senior Citizen Community Center was completed in 1982. Community Center functions will be carried out under the authority of the City. It is the intent of the City that the Center be the focus for the Community activities requiring meeting and multi-purpose areas with particular emphasis on Senior Citizens programs and activities.

COMMUNITY FACILITIES AND SERVICES

A. GENERAL INTRODUCTION

Community facilities and services in the Sherwood Planning Area are provided by Washington County, the City of Sherwood, special service districts, semi-public agencies and the State and Federal government, (see Table VII-1). Public facilities and services include sewer, water, fire and police protection, libraries, drainage, schools, parks and recreation, solid waste and general governmental administrative services. Semi-public facilities and services are those which are privately owned and operated but which have general public benefit. They include health facilities, energy and communication utilities, and day care.

Although a small community, Sherwood has learned well the importance of adequate community facilities and services to orderly urban growth. Planning for public facilities and services in response to growth rather than in advance of growth results in gaps in facilities and services. As population growth and density increase in the Sherwood Planning Area, greater facility and service support will be required. In recognition of this basic fact, the Plan stresses the need for provision of necessary facilities and services in advance of, or in conjunction with, urban development.

The Community Facilities and Services element identifies general policy goals and objectives; service areas and providers, problems, and service plans, and potential funding for key public and semi-public facilities and services. Park and recreation facilities are treated in Chapter 5, Environmental Resources. Transportation facilities are treated in Chapter 6, Transportation. This element was updated in 1989 to comply with OAR 197.712(2)(e).

B. POLICY GOAL AND OBJECTIVES

To insure the provision of quality community services and facilities of a type, level and location which is adequate to support existing development and which encourages efficient and orderly growth at the least public cost.

OBJECTIVES

1. Develop and implement policies and plans to provide the following public facilities and services; public safety fire protection, sanitary facilities, water supply, governmental services, health services, energy and communication services, and recreation facilities.

2. Establish service areas and service area policies so as to provide the appropriate kinds and levels of services and facilities to existing and future urban areas.

3. Coordinate public facility and service plans with established growth management policy as a means to achieve orderly growth.

4. Coordinate public facility and service provision with future land use policy as a means to provide an appropriate mix of residential, industrial and commercial uses.

5. Develop and implement a five-year capital improvements and service plan for City services which prioritizes and schedules major new improvements and services and identifies funding sources.

6. The City will comply with the MSD Regional Solid Waste Plan, and has entered into an intergovernmental agreement with Washington County to comply with the County's Solid Waste and Yard Debris Reduction Plan, 1990.

7. Based on the currently adopted Sanitary Sewer, Water, Stormwater, and Transportation Plan updates, the City shall prepare a prioritized list of capital improvement projects to those systems and determine funding sources to realize the improvements envisioned in those plans.

8. It shall be the policy of the City to seek the provision of a wide range of public facilities and services concurrent with urban growth. The City will make an effort to seek funding mechanisms to achieve concurrency.

C. PUBLIC AND SEMI-PUBLIC UTILITIES

Public utilities including water, sanitary sewer, drainage, and solid waste, as well as semi-public utilities including power, gas and telephone services are of most immediate importance in the support of new urban development. Water, sewer collection, and drainage facilities are the major services for which the City of Sherwood has responsibility. Service plans for these key services are contained in this section. The other utilities referred to above are the principal responsibilities of those agencies listed in Table VII-1. These agencies have been contacted for the purpose of coordinating their service planning and provision with the level and timing of service provision required to properly accommodate growth anticipated by the Plan.

TABLE VII-1
FACILITY AND SERVICE PROVIDERS
IN THE SHERWOOD PLANNING AREA

1. Public Utilities

   a. Public Water Supply
      City of Sherwood

   b. Sanitary Sewer System
      (1) Clean Water Services
      (2) City of Sherwood

   c. Storm Drainage System
      (1) City of Sherwood
      (2) Clean Water Services
      (3) Washington County
      (4) State of Oregon

2. Private/Semi-Public Utilities

   a. Natural Gas
      Northwest Natural Gas Co.

   b. Electric Power
      Portland General Electric

   c. Solid Waste: Pride Disposal Co.

3. Transportation

   a. Paved Streets, Traffic Control, Sidewalks, Curbs, Gutters, Street Lights
      (1) City of Sherwood
      (2) Washington County
      (3) State of Oregon

   b. Bikeways
      (1) City of Sherwood
      (2) Washington County
      (3) State of Oregon

c. Public Transit
Tri-Met

4. Public Health and Safety

a. Police Protection
(1) City of Sherwood
(2) Washington County
(3) State of Oregon

b. Fire Protection
Tualatin Valley Fire and Rescue

c. Animal Control
Washington County

5. Recreation

a. Parks and Recreation
City of Sherwood

b. Library
City of Sherwood

6. Schools
Sherwood School District 88J

D. SEWER SERVICE PLAN

INTRODUCTION

The Sewer Service Plan of the Comprehensive Plan was updated in 2016 and is included as an appendix to the Plan, and is incorporated into this chapter.

EXISTING SEWER SYSTEM

The City of Sherwood's existing sanitary sewer system is as shown on Figure VII-1. The system is located in Clean Water Services Durham South Basin which consists of two sub-basins are centered around Cedar Creek and Rock Creek, respectively, and will be referred to as the Cedar Creek basin and the Rock Creek basin throughout the remainder of this section.

The City's Sanitary Sewer System Master Plan's three-fold purpose is to 1) evaluate the existing system, 2) identify current and future system deficiencies and needs, along with recommended improvements to correct them, and 3) to provide planning level cost information for general budgeting and the development of a prioritized Capital Improvement Plan (CIP) . The master plan is adopted after each update which occur on a 5 to 7-year time interval. The CIP is updated and adopted each year as part of the City's fiscal year budget adoption process.

Sanitary Sewer System Description

The City's sanitary sewer system is divided into 2 main basins; 1) the Cedar Creek Basin; and 2) the Rock Creek Basin. The sanitary sewer master plan provides specific information based on the 3 criteria listed above. In general, the overall sanitary sewer system is operationally sound and has capacity to provide service over the next 20-year planning cycle (2035). General information on the two sanitary sewer basins is provided below.

The Cedar Creek Basin is the City's largest sanitary collection basin, bounded on the north, west, and south sides by the current City limits. The basin's east side boundary is defined by a line running from north to south and generally east of Langer Farms Parkway to the southern boundary of the City. The Brookman Concept Area borders the southern edge of the basin. The Cedar Creek Basin encompasses 2,080 potential acres of tributary area within the UGB, of which 1,054 acres is considered existing developed and sanitary sewer serviced. Sanitary sewerage from the Cedar Creek Basin gravity flows through the 24-inch Sherwood Trunk line to the Sherwood pump station located north of the City.

Residential zoned areas comprise the majority of the sanitary wastewater flow from this basin, with commercial and non-residential area of the basin near the center contributing

non-residential flows.

The Rock Creek Basin is the City's second sanitary collection basin, bounded on the north, east, and south sides by the current City limits. The basin's west boundary is defined by a line running from north to south and generally west of Langer Farms Parkway to the southern boundary of the City. The Tonquin Employment Area borders the east side of the basin. The Rock Creek Basin encompasses 1,310 potential acres of tributary area within the UGB, of which 455 acres is considered existing developed and sanitary sewer serviced. Sanitary sewerage from the Rock Creek Basin gravity flows through the 21-inch Rock Creek Trunk line north to the Sherwood pump station.

Residential zoned areas comprise most of the sanitary wastewater from this basin, with light industrial and commercial areas located in the northern half of the basin providing the remainder of the basin's sanitary wastewater flows.

The Rock Creek Trunk Line, the Cedar Creek Trunk Line, and the Sherwood Pump Station are under the jurisdictional control of Clean Water Services (CWS). Sanitary wastewater flows from the Sherwood Pump Station discharge to the Upper Tualatin Interceptor which ultimately flows to the Durham AWWFT for treatment and discharge to the Tualatin River.

The City's Sanitary Sewer Master Plan has identified 22 major projects which fall under the jurisdictional control of the City. There are 4 other projects identified which fall under the jurisdictional control of CWS. The 22 major projects are included in the City's CIP program. The 4 remaining projects which impact the operation of the City's sanitary system are coordinated with CWS for implementation.

insert map

The City of Sherwood Zoning Map was used to determine the amount of acreage of each land use designation. This acreage was then applied to tributary basins contributing to their respective sewers and multiplied by the appropriate land use design unit flowrate in order to generate the total design flowrate. An average of residential densities per tributary basin was used to account for the five different residential zoning densities shown on the current City Zoning Map.

WATER SERVICE PLAN

INTRODUCTION

The City draws the majority of its water supply from the Willamette River Water Treatment Plant (WRWTP) in the City of Wilsonville, approximately 6 miles southeast of Sherwood. The City owns 5 million gallons per day (MGD) of production capacity in the existing WRWTP facilities. Sherwood also maintains four groundwater wells within the city limits for back-up supply. Prior to 2011, the City also purchased water from the Portland Water Bureau (PWB) through the City of Tualatin's water system and maintains an emergency connection and transmission piping associated with this supply source.

The City's future water service area is comprised of five different planning areas:
1. Sherwood city limits
2. Tonquin Employment Area (TEA)
3. Brookman Annexation Area
4. West Urban Reserve
5. Tonquin Urban Reserve

Each of these areas has their own land use characteristics, approximate development timelines and existing planning information. Estimates of future growth and related water demand are developed using the best available information for each area including Sherwood buildable lands geographic information system (GIS) data, population growth projections, development area concept plans and current water demand data.

Water demand growth is projected at 10 years, 20 years and at saturation development. Estimated water demands at saturation development are used to size recommended transmission and distribution improvements.

EXISTING WATER SYSTEM CONDITIONS

Pressure Zones

The City's existing distribution system is divided into three major pressure zones. Pressure zone boundaries are defined by ground topography in order to maintain service pressures within an acceptable range for all customers in the zone. The hydraulic grade line (HGL) of a zone is designated by overflow

elevations of water storage facilities or outlet settings of pressure reducing valves (PRVs) serving the zone.

The majority of Sherwood customers are served from the 380 Pressure Zone which is supplied by gravity from the City's Sunset Reservoirs. The 535 Pressure Zone, serving the area around the Sunset Reservoirs, is supplied constant pressure by the Sunset Pump Station, and the 455 Pressure Zone serves higher elevation customers on the western edge of the City by gravity from the Kruger Reservoir.

Storage Reservoirs

Sherwood's water system has three reservoirs with a total combined storage capacity of approximately 9.0 million gallons (MG). Two reservoirs, Sunset Nos. 1 and 2, provide 6.0 million gallons (MG) of gravity supply to the 380 Pressure Zone. The other reservoir, Kruger Road, provides 3.0 mg of gravity supply to the 455 Pressure Zone.

Pump Stations

Sherwood's water system includes two booster pump stations, the Sunset Pump Station and the Wyndham Ridge Pump Station.

The Sunset Pump Station is located in Snyder Park adjacent to the Sunset Reservoir complex and has an approximate total capacity of 3,770 gallons per minute (gpm). This station provides constant pressure service and fire flow to the 535 Pressure Zone.

The Wyndham Ridge Pump Station is located on SW Handley Street west of Highway 99W. Two 40-hp pumps supply a total capacity of approximately 1,200 gpm from 380 Zone distribution piping to the Kruger Road Reservoir.

Distribution System

The City's distribution system is composed of various pipe materials in sizes up to 24 inches in diameter. The total length of piping in the service area is approximately 77.4 miles. Pipe materials include cast iron, ductile iron, PVC and copper. The majority of the piping in the system is ductile iron.

ANALYSIS OF EXISTING WATER SYSTEM

Water Supply

Sherwood's supply from the WRWTP is sufficient to meet MDD through the 10-year planning horizon with an additional 1 mgd of capacity required at 20 years and an additional 4 mgd needed at build-out. Existing City groundwater wells provide an effective emergency supply to complement emergency storage in the City's reservoirs.

Pumping and Storage

The City's distribution system has adequate storage and pumping capacity to meet existing service area demands through 2034. Due to significant uncertainty related to long-term growth and system expansion, minor storage and pumping deficiencies at build-out should be re-evaluated with the next Water Master Plan Update or as development warrants. Additional pump stations are recommended to serve proposed high-elevation closed pressure zones in the water service expansion areas: Brookman Annexation and West Urban Reserve.

Distribution Piping

Sherwood's distribution piping is sufficiently looped to provide adequate fire flow capacity to commercial, industrial and residential customers. Few piping improvement projects are needed to meet fire flow criteria. Extensive large diameter mains will be needed to expand the City's water service area to supply the Brookman Annexation, TEA and West Urban Reserve as development occurs.

RECOMMENDED IMPROVEMENTS TO EXISTING WATER SYSTEM

Recommended improvements for the City's water system include proposed supply, pump station and water line projects.

Cost Estimating Data

An estimated project cost has been developed for each improvement project recommended. Cost estimates represent opinions of cost only, acknowledging that final costs of individual projects will vary depending on actual labor and material costs, market conditions for construction, regulatory factors, final project scope, project schedule and other factors. The cost estimates presented have an expected accuracy range of -30 percent to +50 percent. As the project is better defined, the accuracy level of the estimates can be narrowed. Estimated project costs include approximate construction costs and an aggregate 45 percent allowance for administrative, engineering and other project related costs.

Capital Improvement Program

A summary of all recommended improvement projects and estimated project costs is presented in Table ES-3 of the 2015 City of Sherwood Water System Master Plan Update. The table provides for project sequencing by showing fiscal year-by-year project priorities for the first five fiscal years, then prioritized projects in 5-year blocks for the 10-year, 20-year and Beyond 20 year timeframes. The total estimated cost of these projects is approximately $24.6 million through FY 2034. Approximately $19.9 million of the total estimated cost is for projects needed within the 10-year timeframe and $5.4 million of these improvements are required in the next 5 years.

F. DRAINAGE PLAN

INTRODUCTION

The City's Stormwater System Master Plan is incorporated into this plan by reference and is an appendix to the City Comprehensive Plan. The Stormwater System Master Plan's three-fold purpose is to present criteria required for; 1) evaluating the system, 2) identifying current and future system deficiencies and needs, including a description of recommended improvements to correct them, and 3) providing planning level cost information for general budgeting and the development of a prioritized Capital Improvement Plan (CIP). The master plan is adopted after each update which occur on a 5 to 7-year time interval. The CIP is updated and adopted each fiscal year as part of the City's fiscal year budget adoption process.

Stormwater System Description

The City lies within five streamsheds, drained by Cedar Creek, Chicken Creek, Hedges Creek, Rock Creek, and the Upper Coffee Lake Creek, all of which are tributary to the Tualatin River and Willamette River. The master plan covers the area within the current UGB, which includes the Tonquin Employment Area and the Brookman Concept Area. The area covered by the City's stormwater drainage basins covers roughly 3,391 acres and is estimated to be approximately 62 percent developed.

Stormwater management responsibilities for publicly owned collection and conveyance facilities are shared through an Intergovernmental Agreement (IGA) between the City and Clean Water Services (CWS). CWS is responsible for the "District Wide Program" and the City is responsible for the "Local Program".

In general, the master plan indicates that the existing stormwater collection and conveyance systems are in good operational condition. There are deficiencies within the existing system related to stormwater quality treatment where older developed areas within the City do not have any treatment facilities, or the treatment facilities are inadequate to meet current regulatory standards. In the IGA with CWS, the City must comply with the Clean Water Act (CWA), the Endangered Species Act (ESA), and the National Flood Insurance Act (NFIA) for all new developed or redeveloped properties within the UGB.

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A growing need exists for day care. State standards for the establishment of day care centers are supplemented by City standards. Currently day care has been carried on by churches and small home operations. The City recognizes and supports the proper siting and housing of day care services.

Senior Citizens Services

With an increasing proportion of the Planning Areas population reaching the age of 60, Sherwood will require additional specialized services and facilities for senior citizens. The City was awarded a grant from HUD for a Senior Citizen Community Center was completed in 1982. Community Center functions will be carried out under the authority of the City. It is the intent of the City that the Center be the focus for the Community activities requiring meeting and multi-purpose areas with particular emphasis on Senior Citizens programs and activities.

Bradley Kilby

From: Debbaut, Anne <anne.debbaut@state.or.us>
Sent: Monday, August 22, 2016 2:44 PM
To: Bob Galati
Cc: Bradley Kilby
Subject: City of Sherwood: Storm water Plan Amendment (DLCD PAPA 007-16)

Hi Bob,

Thank you for your Storm Water Master Plan Notice of Adoption. It looks like a lot of good work has been done! As an fyi, per OAR Division 11, these are the specific items that must be adopted as part of the city's comprehensive plan:

a. List of public facility project titles (but descriptions are not necessary, and minor amendments to the projects do not require comp plan amendment)
b. Map or written description of project locations or service areas (but changes over time to these locations or descriptions do not require comp plan amendment)
c. Policies or Urban Growth Management Agreement designating the provider of each public facility system.

The Goal 11 Administrative rules are here: http://arcweb.sos.state.or.us/pages/rules/oars_600/oar_660/660_011.html .

Let me know if you have questions.

Regards,
Anne

Anne Debbaut | Metro Regional Representative
Community Services Division
Oregon Department of Land Conservation and Development
1600 SW Fourth Ave., Suite 109 | Portland, OR 97201
Office: 503.725.2182 | Cell: 503.804.0902
anne.debbaut@state.or.us | www.oregon.gov/LCD/

Exhibit C

New Business Agenda

Item c

CITY OF SHERWOOD
Staff Report
Sanitary Sewer Master Plan Amendments

Date: September 6, 2016
File No: PA 16-07

TO: Planning Commission

Hearing Date: September 13, 2016

From:

Brad Kilby, AICP
Planning Manager

Proposal: The City is proposing to amend the Table of Contents and Chapter 7 *Community Facilities and Services*, of the Sherwood Comprehensive Plan, Part 2, and to adopt the 2016 City of Sherwood Sanitary Sewer Master Plan as a technical appendix to the Comprehensive Plan. The proposed amendments coincide with an update of the City's Stormwater Master Plan. Although the Sanitary Sewer Master Plan was last updated in 2007, the language within the Comprehensive Plan was never updated to reflect the changes to the system. The proposed amendments to the text would delete and replace the existing language within the Comprehensive Plan to be aligned with the 2016 Sanitary Sewer Master Plan Update. Adoption of the plan as a technical appendix is consistent with the single goal and eight policies that related to community facilities and services.

I. BACKGROUND

A. Applicant: This is a City initiated text amendment.

B. Location: The proposed amendment is to the text of the Comprehensive Plan and applies citywide.

C. Review Type: The proposed text amendments are legislative and require a Type V review, which involves public hearings before the Planning Commission and City Council. Any appeal of the City Council's decision relating to this matter will be considered by the Oregon Land Use Board of Appeals.

D. Public Notice and Hearing: Notice of the September 13, 2016 Planning Commission hearing on the proposed amendment was published in the Sherwood Gazette on September 1, 2016 and *The Times* on September 8, 2016. Notice was also posted in five public locations around town on August 23, 2016 and on the City of Sherwood web site.

Oregon Department of Land Conservation and Development (DLCD) notice was submitted on August 10, 2016.

E. Review Criteria:
The required findings for the Plan Amendment are identified in Section 16.80.030 of the SZCDC.

F. Background:
The City Engineering Department along with the consultant, Murray Smith and Associates, have been working on the plan for the past year, and were charged with ensuring that the plan

complies with the Oregon Administrative Rules (OAR) for Public Sanitary Systems, Chapter 333, Division 61.

II. AFFECTED AGENCY, PUBLIC NOTICE, AND PUBLIC COMMENTS

Agencies:
DLCD notice was submitted on August 10, 2016. The City received an e-mail from Anne Debbaut, the DLCD Metro Regional Representative that is attached as Exhibit C to this report. Mrs. Debbaut indicates that the Oregon Administrative Rules associated with Goal 11, Public Facilities requires that the City's Comprehensive Plan must include:

a. List of public facility project titles (but descriptions are not necessary, and minor amendments to the projects do not require comp plan amendment)
b. Map or written description of project locations or service areas (but changes over time to these locations or descriptions do not require comp plan amendment)
c. Policies or Urban Growth Management Agreement designating the provider of each public facility system.

The master plan includes all of the components required of Goal 11 in their entirety. In a conversation with Mrs. Debbaut, she indicated that having the plan attached as an appendix is fine with DLCD.

ODOT, Trimet, NW Natural, ODSL, BPA, Metro, TVF&R, Pride Disposal, PGE, Portland Western Railroad, Washington County, Kinder Morgan, CWS, The Sherwood School District, Sherwood Public Works, and the Tualatin River National Wildlife Refuge were all provided notice. As of the date of this report, staff has not received any agency comments other than those from DLCD discussed above.

Public:
The Planning Commission held a Public Work Session to discuss the Sanitary Sewer Master Plan Update on July 26, 2016. The session was hosted by Engineering and the Project team from Murray Smith and Associates. Notice of the work session and the hearing was sent out to the Planning interested parties list, published in the Sherwood Gazette on September 1, 2016 and The Times on September 8, 2016. Notice was also posted in five public locations around town on August 23, 2016 and on the City of Sherwood web site. There have been no public comments received as of the date of this report, but the City is required to accept comments up to the close of the public hearing.

III. REQUIRED FINDINGS FOR A PLAN TEXT AMENDMENT

The applicable Plan Text Amendment review criteria are 16.80.030.A and C

16.80.030.A - Text Amendment Review

An amendment to the text of the Comprehensive Plan shall be based upon the need for such an amendment as identified by the Council or the Commission. Such an amendment shall be consistent with the intent of the Comprehensive Plan, and with all other provisions of the Plan and Code, and with any applicable State or City statutes and regulations.

With respect to the proposed changes, the Comprehensive Plan would be updated with current language that reflects language within the new Master Plan. Specific changes include:

- Replacing the entire section under "Sewer Service Plan", including the introduction, "Existing Sewer System", and "Analysis of the Existing System" with a general discussion of up to date information from the 2016 Master Plan; and

- Adoption of the 2016 Sanitary Sewer Master Plan by reference into the Comprehensive Plan.

It should be noted that the Comprehensive Plan was not updated with the 2007 update to the Sanitary Sewer Master Plan, and that the Comprehensive Plan is in dire need of a complete update.

The two proposals also seek to amend Chapter 7 of Volume II of the Comprehensive Plan to reflect the updated Sanitary Sewer and Stormwater Sytstem Master Plans. The Council authorized the Sanitary Sewer Master Plan by both approving a budget that included the update and by authorizing contracts for the update, therefore it can be assumed that the Council identified a need to update the Master Plan.

There is only one stated goal in Chapter 7 which is "To insure the provision of quality community services and facilities of a type, level and location which is adequate to support existing development and which encourages efficient and orderly growth at the least public cost."

There are 8 objectives under this policy statement:

1. Develop and implement policies and plans to provide the following public facilities and services; public safety fire protection, sanitary facilities, water supply, governmental services, health services, energy and communication services, and recreation facilities.

2. Establish service areas and service area policies so as to provide the appropriate kinds and levels of services and facilities to existing and future urban areas.

3. Coordinate public facility and service plans with established growth management policy as a means to achieve orderly growth.

4. Coordinate public facility and service provision with future land use policy as a means to provide an appropriate mix of residential, industrial and commercial uses.

5. Develop and implement a five-year capital improvements and service plan for City services which prioritizes and schedules major new improvements and services and identifies funding sources.

6. The City will comply with the MSD Regional Solid Waste Plan, and has entered into an intergovernmental agreement with Washington County to comply with the County's Solid Waste and Yard Debris Reduction Plan, 1990.

7. Based on the Sanitary Sewer, Water, Stormwater, and Transportation Plan updates, the City shall prepare a prioritized list of capital improvement projects to those systems and determine funding sources to realize the improvements envisioned in those plans.

8. It shall be the policy of the City to seek the provision of a wide range of public facilities and services concurrent with urban growth. The City will make an effort to seek funding mechanisms to achieve concurrency.

The updated Master Plan is necessary to achieving the objectives with the exception of objective 7. The language within this policy has been updated to reflect the timely updates to those plans with the 2015 update to the Sherwood Water Masterplan that was adopted by Ordinance 2015-004, and now the Sanitary and Stormwater System Plans.

Applicable Regional (Metro) Standards
There are no specific Metro standards that would conflict with the proposed amendments. The Urban Growth Management Functional Plan does not speak specifically to subarea Stormwater System Master planning.

Consistency with Statewide Planning Goals
Because the comprehensive plan policies and strategies are not changing and the comprehensive plan has been acknowledged by the State, there are no known conflicts with these proposed changes. Below is an analysis of how the proposed Stormwater Master Plan update and Comprehensive Plan amendments are consistent with the applicable statewide planning goals 1, 2 and 11.

Goal 1

The Planning Commission held a public work session. Formal notice was also published in the Sherwood Gazette, and again in *The Times* two weeks prior to the hearing and again five days prior to the hearing. The hearing has been posted around town in five conspicuous places and on the City's website. The Engineering Department has also maintained a project website for the course of the project.

Goal 2

Goal 2 speaks to comprehensive planning and acknowledges that plans for public facilities are more specific than those included in the comprehensive plan. They are intended to show the size, location, and capacity serving the City, but are not as detailed as construction drawings. The Sanitary Sewer Master Plan is a tool that helps communities to implement their plan.

In Sherwood's case, the plan is being updated to ensure compliance with the requirements outlined by the state as they relate to Sanitary Sewer master plans. The requirement to prepare a Sanitary Sewer Master Plan can be found in Oregon Administrative Rules (OAR) Chapter 333, Division 61. The Sanitary Sewer Master Plan itself, is a much more technical document that Engineering staff is charged with preparing and ensuring compliance with these rules. Section 4 of the document speaks specifically to the federal, state, and local regulations and policies that are considered when implementing a community wide Sanitary Sewer system. The subject of this review is to ensure that the proposed plan is consistent with the current Comprehensive Plan.

While the Comprehensive Plan is out of date, as currently drafted there are no conflicts with the proposed language and the current language as it applies to the single goal and policies that are affected by this change. When the City undergoes a major comprehensive plan update, further evaluation of the existing goals and policies will occur.

Goal 11

Goal 11 of state land use planning system relates to Public Facilities and Services. Within this goal, communities are charged with preparing facilities plans that coordinate the type, locations and delivery of public facilities and services in a manner that best supports the existing and proposed land uses. In this case, the plan considers the existing needs of the area within the current Urban Growth Boundary (UGB) including the Tonquin Employment Area and the Brookman concept plan area. Because there is no specific zoning or urban uses associated with the urban reserves around Sherwood, these areas were not considered as part of the plan.

It should be noted that information is constantly being updated and refined with new information and it is possible that current projects underway or updated plans result in more or less growth

than the Sanitary Sewer Master Plan assumes. For these reasons, the Sanitary Sewer Master Plan is a living document. If all improvements envisioned in the Sanitary Sewer Master plan are not needed, they will not be constructed and if improvements are needed sooner than envisioned, they will be planned for.

FINDING: As discussed above in the analysis, there is a need for the proposed amendments in order to update the language within the Comprehensive Plan. The proposed amendments are not applicable to Metro's Urban Growth Management Functional Plan. The proposed amendments are consistent with the applicable Comprehensive Plan and applicable City, regional and State regulations and policies.

16.80.030.3 – Transportation Planning Rule Consistency

A. Review of plan and text amendment applications for effect on transportation facilities. Proposals shall be reviewed to determine whether it significantly affects a transportation facility, in accordance with OAR 660-12-0060 (the TPR). Review is required when a development application includes a proposed amendment to the Comprehensive Plan or changes to land use regulations.

FINDING: The proposed amendments do not affect the functional classification of any street and is not triggered by any single development application. The improvements proposed in the plan do not generate additional traffic that would negatively affect the functional classification of any street, road, or highway in Sherwood.

IV. RECOMMENDATION

Based on the above findings of fact, and the conclusion of law based on the applicable criteria, the staff recommends approval of PA 16-07.

V. EXHIBITS

A. PA 16-07 Proposed Code Amendments –track change version
B. PA 16-07 Proposed Code Amendments – clean version
C. E-mail dated August 22, 2016 from Anne Debbaut, DLCD Representative.
D. Draft Sanitary Sewer Master Plan - 2016

COMMUNITY FACILITIES AND SERVICES

A. GENERAL INTRODUCTION

Community facilities and services in the Sherwood Planning Area are provided by Washington County, the City of Sherwood, special service districts, semi-public agencies and the State and Federal government, (see Table VII-1). Public facilities and services include sewer, water, fire and police protection, libraries, drainage, schools, parks and recreation, solid waste and general governmental administrative services. Semi-public facilities and services are those which are privately owned and operated but which have general public benefit. They include health facilities, energy and communication utilities, and day care.

Although a small community, Sherwood has learned well the importance of adequate community facilities and services to orderly urban growth. ~~Lack of sewer treatment capacity curtailed growth in the City in the 1970's.~~ Planning for public facilities and services in response to growth rather than in advance of growth results in gaps in facilities and services. As population growth and density increase in the Sherwood Planning Area, greater facility and service support will be required. In recognition of this basic fact, the Plan stresses the need for provision of necessary facilities and services in advance of, or in conjunction with, urban development.

The Community Facilities and Services element identifies general policy goals and objectives; service areas and providers, problems, and service plans, and potential funding for key public and semi-public facilities and services. Park and recreation facilities are treated in Chapter 5, Environmental Resources. Transportation facilities are treated in Chapter 6, Transportation. This element was updated in 1989 to comply with OAR 197.712(2)(e).

B. POLICY GOAL AND OBJECTIVES

To insure the provision of quality community services and facilities of a type, level and location which is adequate to support existing development and which encourages efficient and orderly growth at the least public cost.

OBJECTIVES

1. Develop and implement policies and plans to provide the following~~-~~ public facilities and services; public safety fire protection, sanitary facilities, water supply, governmental services, health services, energy and communication services, and recreation facilities.

2. Establish service areas and service area policies so as to provide the appropriate kinds and levels of services and facilities to existing and future urban areas.

3. Coordinate public facility and service plans with established growth management policy as a means to achieve orderly growth.

4. Coordinate public facility and service provision with future land use policy as a means to provide an appropriate mix of residential, industrial and commercial uses.

5. Develop and implement a five-year capital improvements and service plan for City services which prioritizes and schedules major new improvements and services and identifies funding sources.

6. The City will comply with the MSD Regional Solid Waste Plan, and has entered into an intergovernmental agreement with Washington County to comply with the County's Solid Waste and Yard Debris Reduction Plan, 1990.

7. Based on the currently adopted Sanitary Sewer, Water, Stormwater, and Transportation Plan updates, the City shall prepare a prioritized list of capital improvement projects to those systems and determine funding sources to realize the improvements envisioned in those plans.

8. It shall be the policy of the City to seek the provision of a wide range of public facilities and services concurrent with urban growth. The City will make an effort to seek funding mechanisms to achieve concurrency.

C. PUBLIC AND SEMI-PUBLIC UTILITIES

Public utilities including water, sanitary sewer, drainage, and solid waste, as well as semi-public utilities including power, gas and telephone services are of most immediate importance in the support of new urban development. Water, sewer collection, and drainage facilities are the major services for which the City of Sherwood has responsibility. Service plans for these key services are contained in this section. The other utilities referred to above are the principal responsibilities of those agencies listed in Table VII-1. These agencies have been contacted for the purpose of coordinating their service planning and provision with the level and timing of service provision required to properly accommodate growth anticipated by the Plan.

TABLE VII-1
FACILITY AND SERVICE PROVIDERS
IN THE SHERWOOD PLANNING AREA

1. Public Utilities

   a. Public Water Supply
      City of Sherwood

   b. Sanitary Sewer System
      (1) Clean Water Services
      (2) City of Sherwood

   c. Storm Drainage System
      (1) City of Sherwood
      (2) Clean Water Services
      (3) Washington County
      (4) State of Oregon

2. Private/Semi-Public Utilities

   a. Natural Gas
      Northwest Natural Gas Co.

   b. Electric Power
      Portland General Electric

   ~~e~~ c. Solid Waste: Pride Disposal Co.

3. Transportation

   a. Paved Streets, Traffic Control, Sidewalks, Curbs, Gutters, Street Lights
      (1) City of Sherwood
      (2) Washington County
      (3) State of Oregon

   b. Bikeways
      (1) City of Sherwood
      (2) Washington County

(3) State of Oregon

c. Public Transit
Tri-Met

4. Public Health and Safety

a. Police Protection
(1) City of Sherwood
(2) Washington County
(3) State of Oregon

b. Fire Protection
Tualatin Valley Fire and Rescue

c. Animal Control
Washington County

5. Recreation

a. Parks and Recreation
City of Sherwood

b. Library
City of Sherwood

6. Schools
Sherwood School District 88J

D. SEWER SERVICE PLAN

INTRODUCTION

The Sewer Service Plan of the Comprehensive Plan was updated in ~~1990~~ 2016 and is included as an appendix to the Plan, and is incorporated into this chapter. ~~The following describes the existing sewer system, recommended improvements to the existing system, recommended expansion of the sewer system and estimated costs.~~

EXISTING SEWER SYSTEM

The City of Sherwood's existing sanitary sewer system is as shown on Figure VII-1. The system is located in ~~USA's~~ Clean Water Services Durham South Basin which consists of two sub-basins are centered around Cedar Creek and Rock Creek, respectively, and will be referred to as the Cedar Creek basin and the Rock Creek basin throughout the remainder of this section.

~~The Rock Creek Basin system currently serves a residential area bounded by Lincoln Street to the west, West Sunset Boulevard to the south, Oregon Street to the north and the UGB to the east. Rock Creek Basin also contains approximately 71.2 acres of land, north of Oregon Street, which is currently zoned and developed for industrial use. The remaining northern portion of the Basin is essentially undeveloped and zoned primarily for industrial use. Flow is by gravity from south to north, eventually connecting to USA's Rock Creek trunk. This trunk then follows Rock Creek until it connects with the Upper Tualatin Interceptor which transports sewage to the Durham treatment plant.~~

~~The Cedar Creek Basin system serves the majority of Sherwood. Drainage is again from south to north and the main trunk of the system follows Cedar Creek from Sunset Boulevard under Pacific Highway continuing north until it connects with the Upper Tualatin Interceptor. From this point sewage is transported to the Durham Treatment plant.~~

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The City's Sanitary Sewer System Master Plan's three-fold purpose is to ~~present criteria required for;~~ 1) evaluate~~ing~~ the existing system, 2) identify current and future system deficiencies and needs, ~~and describes~~along with recommended improvements to correct them, and 3) to provide planning level cost information for general budgeting and the development of a prioritized Capital Improvement P~~roject~~lan (CIP) ~~listing~~. The master plan~~s~~ is adopted after each update which occur on a 5 to 7-year time interval. The CIP is updated and adopted each ~~fiscal~~ year as part of the City's fiscal year budget adoption process.

Sanitary Sewer System Description

The City's sanitary sewer system is divided into 2 main basins; 1) the Cedar Creek Basin;

and 2) the Rock Creek Basin. The sanitary sewer master plan provides specific information based on the 3 criteria listed above. In general, the overall sanitary sewer system is operationally sound and has capacity to provide service over the next 20-year planning cycle (2035). General information on the two sanitary sewer basins is provided below.

The Cedar Creek Basin is the City's largest sanitary collection basin, bounded on the north, west, and south sides by the current City limits. The basin's east side boundary is defined by a line running from north to south and generally east of Langer Farms Parkway to the southern boundary of the City. The Brookman Concept Area borders the southern edge of the basin. The Cedar Creek Basin encompasses 2,080 potential acres of tributary area within the UGB, of which 1,054 acres i~~f~~s considered existing developed and sanitary sewer serviced. Sanitary sewerage from the Cedar Creek Basin gravity flows through the 24-inch Sherwood Trunk line to the Sherwood pump station located north of the City.

Residential zoned areas comprise the majority of the sanitary wastewater flow from this basin, with commercial and non-residential area of the basin near the center contributing non-residential flows.

The Rock Creek Basin is the City's second sanitary collection basin, bounded on the north, east, and south sides by the current City limits. The basin's west boundary is defined by a line running from north to south and generally west of Langer Farms Parkway to the southern boundary of the City. The Tonquin Employment Area borders the east side of the basin. The Rock Creek Basin encompasses 1,310 potential acres of tributary area within the UGB, of which 455 acres is considered existing developed and sanitary sewer serviced. Sanitary sewerage from the Rock Creek Basin gravity flows through the 21-inch Rock Creek Trunk line north to the Sherwood pump station.

Residential zoned areas comprise most of the sanitary wastewater from this basin, with light industrial and commercial areas located in the northern half of the basin providing the remainder of the basin's sanitary wastewater flows.

The Rock Creek Trunk Line, the Cedar Creek Trunk Line, and the Sherwood Pump Station are under the jurisdictional control of Clean Water Services (CWS). Sanitary wastewater flows from the Sherwood Pump Station discharge to the Upper Tualatin Interceptor which ultimately flows to the Durham AWWFT for treatment and discharge to the Tualatin River.

The City's Sanitary Sewer Master Plan has identified 22 major projects which fall under the jurisdictional control of the City. There are 4 other projects identified which fall under the jurisdictional control of CWS. The 22 major projects are included in the City's CIP program. The 4 remaining projects which impact the operation of the City's sanitary

system are coordinated with CWS for implementation.

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~~**ANALYSIS OF EXISTING SEWER SYSTEM**~~

~~The population for the City of Sherwood in the year 2008 is estimated to be 7,000 people. The 1979 Sewer Service Plan estimated a population of 10,600 people in the year 2008, and a full-development population within the Sherwood Urban Growth Boundary (UGB) of 18,900 people.~~

~~In order to accentuate any deficiencies in the existing sanitary sewer system, peak flowrates were generated based on full development or saturation of the Sherwood UGB. This analysis was used for the following reasons. Maximum design flows for sanitary sewers are far less than peak storm sewer flows. Very often sanitary sewer pipes are sized at a minimum 8-inch diameter for maintenance purposes; consequently the majority of these pipes are flowing at a minimum of their capacity. A full-development demand analysis was the most conservative and efficient way of analyzing the system for all deficiencies.~~

~~Wastewater flow criteria for the analysis was taken from USA's 1985 Master Sewer Plan Update and is based on land use designation as listed below:~~

~~**TABLE VII-2**~~
~~**WASTEWATER FLOW DESIGN CRITERIA**~~
~~**DESIGN UNIT FLOW RATE**~~

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~~LAND USE DESIGNATION~~	~~EXISTING~~	~~FUTURE~~
~~RESIDENTIAL~~	~~75 gpcd~~	~~75 gpcd~~
~~COMMERCIAL~~	~~1000 gpad~~	~~1000 gpad~~
~~INDUSTRIAL~~	~~3000 gpad~~	~~3000 gpad~~
~~INSTITUTIONAL~~	~~500 gpad~~	~~500 gpad~~
~~PEAK ANNUAL~~	~~4000 gpad~~	~~4000 gpad~~

The City of Sherwood Zoning Map was used to determine the amount of acreage of each land use designation. This acreage was then applied to tributary basins contributing to their respective sewers and multiplied by the appropriate land use design unit flowrate in order to generate the total design flowrate. An average of residential densities per tributary basin was used to account for the five different residential zoning densities shown on the current City Zoning Map.

WATER SERVICE PLAN

INTRODUCTION

The City draws the majority of its water supply from the Willamette River Water Treatment Plant (WRWTP) in the City of Wilsonville, approximately 6 miles southeast of Sherwood. The City owns 5 million gallons per day (MGD) of production capacity in the existing WRWTP facilities. Sherwood also maintains four groundwater wells within the city limits for back-up supply. Prior to 2011, the City

also purchased water from the Portland Water Bureau (PWB) through the City of Tualatin's water system and maintains an emergency connection and transmission piping associated with this supply source.

The City's future water service area is comprised of five different planning areas:
1. Sherwood city limits
2. Tonquin Employment Area (TEA)
3. Brookman Annexation Area
4. West Urban Reserve
5. Tonquin Urban Reserve

Each of these areas has their own land use characteristics, approximate development timelines and existing planning information. Estimates of future growth and related water demand are developed using the best available information for each area including Sherwood buildable lands geographic information system (GIS) data, population growth projections, development area concept plans and current water demand data.

Water demand growth is projected at 10 years, 20 years and at saturation development. Estimated water demands at saturation development are used to size recommended transmission and distribution improvements.

EXISTING WATER SYSTEM CONDITIONS

Pressure Zones

The City's existing distribution system is divided into three major pressure zones. Pressure zone boundaries are defined by ground topography in order to maintain service pressures within an acceptable range for all customers in the zone. The hydraulic grade line (HGL) of a zone is designated by overflow elevations of water storage facilities or outlet settings of pressure reducing valves (PRVs) serving the zone.

The majority of Sherwood customers are served from the 380 Pressure Zone which is supplied by gravity from the City's Sunset Reservoirs. The 535 Pressure Zone, serving the area around the Sunset Reservoirs, is supplied constant pressure by the Sunset Pump Station, and the 455 Pressure Zone serves higher elevation customers on the western edge of the City by gravity from the Kruger Reservoir.

Storage Reservoirs

Sherwood's water system has three reservoirs with a total combined storage capacity of approximately 9.0 million gallons (MG). Two reservoirs, Sunset Nos. 1 and 2, provide 6.0 million gallons (MG) of gravity supply to the 380 Pressure Zone. The other reservoir, Kruger Road, provides 3.0 mg of gravity supply to the 455 Pressure Zone.

Pump Stations

Sherwood's water system includes two booster pump stations, the Sunset Pump Station and the Wyndham Ridge Pump Station.

The Sunset Pump Station is located in Snyder Park adjacent to the Sunset Reservoir complex and has an approximate total capacity of 3,770 gallons per minute (gpm). This station provides constant pressure service and fire flow to the 535 Pressure Zone.

The Wyndham Ridge Pump Station is located on SW Handley Street west of Highway 99W. Two 40-hp pumps supply a total capacity of approximately 1,200 gpm from 380 Zone distribution piping to the Kruger Road Reservoir.

Distribution System

The City's distribution system is composed of various pipe materials in sizes up to 24 inches in diameter. The total length of piping in the service area is approximately 77.4 miles. Pipe materials include cast iron, ductile iron, PVC and copper. The majority of the piping in the system is ductile iron.

ANALYSIS OF EXISTING WATER SYSTEM

Water Supply
Sherwood's supply from the WRWTP is sufficient to meet MDD through the 10-year planning horizon with an additional 1 mgd of capacity required at 20 years and an additional 4 mgd needed at build-out. Existing City groundwater wells provide an effective emergency supply to complement emergency storage in the City's reservoirs.

Pumping and Storage

The City's distribution system has adequate storage and pumping capacity to meet existing service area demands through 2034. Due to significant uncertainty related to long-term growth and system expansion, minor storage and pumping deficiencies at build-out should be re-evaluated with the next Water Master Plan Update or as development warrants. Additional pump stations are recommended to serve proposed high-elevation closed pressure zones in the water service expansion areas: Brookman Annexation and West Urban Reserve.

Distribution Piping

Sherwood's distribution piping is sufficiently looped to provide adequate fire flow capacity to commercial, industrial and residential customers. Few piping improvement projects are needed to meet fire flow criteria. Extensive large diameter mains will be needed to expand the City's water service area to supply the Brookman Annexation, TEA and West Urban Reserve as development occurs.

RECOMMENDED IMPROVEMENTS TO EXISTING WATER SYSTEM

Recommended improvements for the City's water system include proposed supply, pump station and water line projects.

Cost Estimating Data

An estimated project cost has been developed for each improvement project recommended. Cost estimates represent opinions of cost only, acknowledging that final costs of individual projects will vary depending on actual labor and material costs, market conditions for construction, regulatory factors, final project scope, project schedule and other factors. The cost estimates presented have an expected accuracy range of -30 percent to +50 percent. As the project is better defined, the accuracy level of the estimates can be narrowed. Estimated project costs include approximate construction costs and an aggregate 45 percent allowance for administrative, engineering and other project related costs.

Capital Improvement Program

A summary of all recommended improvement projects and estimated project costs is presented in Table ES-3 of the 2015 City of Sherwood Water System Master Plan Update. The table provides for project sequencing by showing fiscal year-by-year project priorities for the first five fiscal years, then prioritized projects in 5-year blocks for the 10-year, 20-year and Beyond 20 year timeframes. The total estimated cost of these projects is approximately $24.6 million through FY 2034. Approximately $19.9 million of the total estimated cost is for projects needed within the 10-year timeframe and $5.4 million of these improvements are required in the next 5 years.

F. DRAINAGE PLAN

INTRODUCTION

~~The Sherwood Planning Area is located within the Willamette River-Tualatin River Basin as identified in the Portland-Vancouver Metropolitan Area Water Resources Study (PMAWRS). The Cedar Creek and Rock Creek sub-basins channel surface runoff to the Tualatin River just north of the Planning Area. Within these sub-basins there exists considerable variation in slope. A highland area known as Washington Hill has some erosion and sedimentation potential. High groundwater and poorly drained soils in portions of the northern half of the Planning Area will require measures to regulate excavation and site drainage.~~

~~In March 1989, DEQ issued draft rules for storm water quality control to all jurisdictions in the Tualatin River sub-basin. The City of Sherwood is required to comply with the rules and participate in the development of a Surface Water Drainage Management Plan for the region. When the Plan is completed and adopted this section will be amended accordingly.~~

~~**Objectives**~~

1. ~~Comply with DEQ Storm water quality control rules until completion of a Drainage Management Plan.~~

2. ~~Cooperate with United Sewerage Agency, Washington County, and DEQ in the preparation of a Drainage Management Plan.~~

~~**Findings**~~

~~1. A storm drainage plan for the City's urban growth area has been developed and is illustrated on Figure VII-7. Major storm sewers are recommended for construction in accordance with the Plan; minor storm sewers are not shown on the proposed storm drainage plan. This Plan will be updated upon completion of the regional Drainage Plan.~~

~~2. Cedar Creek, Rock Creek, and Chicken Creek shall continue to be the City's primary conveyance systems for storm runoff.~~

~~3. Existing flood areas have been identified and are analyzed and described in Section VII Background Data and Analysis. It is anticipated, all but one of the problem areas will be eliminated by implementation of the Plan. An area of flooding at N.W. 12th Street and Highway 99W remains to be resolved by construction of a minor storm sewer, which is not shown on the Plan.~~

~~4. The rational method formula was used to estimate runoff to proposed storm sewers. This~~

~~method has a tendency to overestimate design flows when applied to large basins. Runoff coefficients used in the rational method are predicted on the City's Comprehensive Plan. During final design of storm sewers, actual development within the basin should be reviewed to verify previous assumptions in selection of a runoff coefficient.~~

~~5. Cost estimates for proposed storm sewer improvements have been prepared, based on 1980 construction costs and increased in 1990 by 1.25%, and on Engineering News Record (ENR) index of 3264. These estimates are presented in Table 2 of the Appendix.~~

~~6. Design of relief culverts in Cedar Creek and Rock Creek may significantly alter hydraulic control sections used by the U.S. Army Corps of Engineers to establish water surface elevations and limits of the flood plain as set forth in Flood Insurance Study, City of Sherwood, Oregon, and provided to the City in preliminary draft, dated December 17, 1980. Design of relief culverts should be coordinated with the U.S. Army Corps of Engineers to insure integrity of their flood insurance study.~~

~~**Implementation**~~

~~1. The City will endeavor to establish a source of revenue to finance the cost of storm sewer construction, acquisition of lands along creeks, maintenance of storm sewers and waterways, and administration of the storm plan in accordance with the regional Surface Water Drainage Management Plan.~~

~~2. Until user fees are in effect, the City should obtain waivers of remonstrance to future storm drainage improvements projects from all property owners wishing to develop their land, and the City should also require all developers to provide adequate storm sewers to serve their property as well as those properties that would naturally drain to the proposed storm sewer.~~

The City's Stormwater System Master Plan is incorporated into this plan by reference and is an appendix to the City Comprehensive Plan. The Stormwater System Master Plan's three-fold purpose is to present criteria required for; 1) evaluating the system, 2) identifying current and future system deficiencies and needs, ~~and describes~~including a description of recommended improvements to correct them, and 3) ~~to provide~~providing planning level cost information for general budgeting and the development of a prioritized Capital Improvement P~~roject~~lan (CIP)~~ listing~~. The master plan is adopted after each update which occur on a 5 to 7-year time interval. The CIP is updated and adopted each fiscal year as part of the City's fiscal year budget adoption process.

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Stormwater System Description

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UGB, which includes the Tonquin Employment Area and the Brookman Concept Area. The area covered by the City's stormwater drainage basins covers roughly 3,391 acres and is estimated to be approximately 62 percent developed.

Stormwater management responsibilities for publicly owned collection and conveyance facilities are shared through an Intergovernmental Agreement (IGA) between the City and Clean Water Services (CWS). CWS is responsible for the "District Wide Program" and the City is responsible for the "Local Program".

In general, the master plan indicates that the existing stormwater collection and conveyance systems are i~~f~~n good operational condition. There are deficiencies within the existing system related to stormwater quality treatment where older developed areas within the City do not have any treatment facilities, or the treatment facilities are inadequate to meet current regulatory standards. In the IGA with CWS, the City must comply with the Clean Water Act (CWA), the Endangered Species Act (ESA), and the National Flood Insurance Act (NFIA) for all new developed or redeveloped properties within the UGB.

The 2016 stormwater master plan update has identified 7 major stormwater collection and conveyance system condition projects, and 14 regional stormwater treatment conditions projects. All 22 projects have been included in the City's CIP program.

SOLID WASTE

Solid waste disposal is a regional concern requiring regional solutions. The City of Sherwood recognizes MSD's responsibility and authority to prepare and implement a solid waste management plan and supports the MSD Solid Waste Facilities Model Siting Ordinance and will participate in these procedures as appropriate. There are no landfills in Sherwood.

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H. SCHOOLS

INTRODUCTION

The Sherwood Planning Area is wholly contained within Sherwood School District 88J. Although the City of Sherwood is the only currently urbanized area within the district, district boundaries include approximately 44 square miles and parts of Washington, Clackamas, and Yamhill Counties. The District is currently predominately rural but, by the year 2000, the Sherwood Planning Area will contribute most of the total student enrollment.

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The School District completed a School Enrollment Study (Metro Service District Analysis) in the Fall of 1990. Revisions were made in the Spring of 1991. The study data suggests that school enrollments will be increasing sharply in the coming years. The growth assumption is supported by record-setting residential building permit issuance during 1990. Major arterial road improvements between I-5 and 99W will also cause further growth and development.

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The intent of the District is to seek voter approval of a bond measure to address short and long-term housing needs. The measure is planned to be submitted in the Fall of 1991 or the Spring of 1992 in order to construct an additional elementary school.

I. PUBLIC SAFETY

POLICE PROTECTION

The City of Sherwood, Washington County and the State Police co-ordinate police protection within the Planning Area. In 1989 the Sherwood Police Force consisted of five officers. In order to meet future demand it is anticipated that the department will need additional patrolmen proportional to the projected increase in population. The State formula for City police protection is one officer per 500 people. The police force should expand accordingly.

FIRE PROTECTION

The Planning Area is wholly contained within the Tualatin Valley Consolidated Fire and Rescue District. One engine house is located within the City. The District feels that present physical facilities will be adequate to serve the projected year 2000 growth in the area with some increase in manpower and equipment. The District currently employs a 5-year capital improvement planning process which is updated annually. The City will co-ordinate its planning with the district to assure the adequacy of fire protection capability in the Planning Area.

J. GENERAL GOVERNMENTAL SERVICES

As a general purpose governmental unit, the City of Sherwood intends to fulfill its responsibilities in the principal areas of general administration, planning, public works, and library services. With

expected growth in Sherwood, additional manpower and facilities will be required.

1. Manpower Needs

   In 1989 there are currently seventeen (17) City staff in general governmental services. A review of cities which have reached Sherwood's projected five and twenty year growth levels indicate that new staffing will be needed proportional to population increases in most departments. Using this assumption a full-time staff of 15-20 persons will be required by 1985 and a staff of 20-40 will be needed by the year 2000. Most critical immediate needs are in the area of clerical staff to support existing departmental work loads.

2. Space Needs

   The City offices, water department, police department, planning department and public works, are currently housed in a remodeled turn-of-the-century house. Although the structure is significant historically and should be saved, it may not meet the long term functional or space needs of a City Hall.

   In 1982 the Senior and Community Center was built and provides meeting space for the City Council and Planning Commissions.

K. HEALTH FACILITIES

The local health system is linked to a number of organizations and institutions that can and do affect how it will develop. The latest planning legislation P.L. 93-641 and its recent amendments has placed Health care delivery systems planning are under the auspices of the State Certificate of Need laws and the Federal Health System Agency (HSA) planning regulations. Sherwood is located in the six county Northwest Oregon Health Systems Agency (NOHS) which is charged with reviewing new service proposals, expenditures involving public funds and the development of a health system plan for the area. The first HSA plan was adopted in 1978. State agencies administer HSA regulations. NOHS established subdistricts within the six county service area. Sherwood is located in the south-rural sub-district (see Figure VII-8). The only hospital located in the sub-district is Meridian Park Hospital in Tualatin.

Sherwood is served by various Metropolitan area hospitals depending on local physician affiliations. The City currently has only one doctor with offices in the Planning Area. St. Vincent's Hospital in Beaverton has expressed interest in establishing a satellite clinic in Sherwood.

The City will encourage the decentralization of Metropolitan health care delivery to assure that a broad range of inpatient, outpatient and emergency medical services are available to Sherwood residents. To that end the City will support the location of a St. Vincent's Satellite Center in Sherwood and encourage the appropriate expansion of Meridian Park facilities to meet the growing needs of the Planning Area.

L. SOCIAL FACILITIES AND SERVICES

A broad range of social services will be needed in the Planning Area to serve a growing urban population. Sherwood will continue to depend on metropolitan area services for which the demand does not justify a decentralized center. Multi-purpose social and health services and referral are offered by the Washington County Satellite Center in Tigard. The City will encourage the continued availability of such services.

Sherwood is located in Region 8 of the State Department of Human Resources Service Area and benefits from that agency's services. State services are administered through the County's Washington County office located in Hillsboro. In addition to public social service programs, many private organizations serve the Sherwood area.

The City is particularly interested in locating a multi-purpose social and health service referral agency in Sherwood so that residents of Sherwood would be able to get timely information on the available services. The City also supports the development of a Comprehensive Social and health services delivery plan for the Planning Area to identify gaps in needed services and develop an ongoing strategy for their provision. Of particular concern are day care and senior citizens services.

Day Care

A growing need exists for day care. State standards for the establishment of day care centers are supplemented by City standards. Currently day care has been carried on by churches and small home operations. The City recognizes and supports the proper siting and housing of day care services.

Senior Citizens Services

With an increasing proportion of the Planning Areas population reaching the age of 60, Sherwood will require additional specialized services and facilities for senior citizens. The City was awarded a grant from HUD for a Senior Citizen Community Center was completed in 1982. Community Center functions will be carried out under the authority of the City. It is the intent of the City that the Center be the focus for the Community activities requiring meeting and multi-purpose areas with particular emphasis on Senior Citizens programs and activities.

COMMUNITY FACILITIES AND SERVICES

A. GENERAL INTRODUCTION

Community facilities and services in the Sherwood Planning Area are provided by Washington County, the City of Sherwood, special service districts, semi-public agencies and the State and Federal government, (see Table VII-1). Public facilities and services include sewer, water, fire and police protection, libraries, drainage, schools, parks and recreation, solid waste and general governmental administrative services. Semi-public facilities and services are those which are privately owned and operated but which have general public benefit. They include health facilities, energy and communication utilities, and day care.

Although a small community, Sherwood has learned well the importance of adequate community facilities and services to orderly urban growth. Planning for public facilities and services in response to growth rather than in advance of growth results in gaps in facilities and services. As population growth and density increase in the Sherwood Planning Area, greater facility and service support will be required. In recognition of this basic fact, the Plan stresses the need for provision of necessary facilities and services in advance of, or in conjunction with, urban development.

The Community Facilities and Services element identifies general policy goals and objectives; service areas and providers, problems, and service plans, and potential funding for key public and semi-public facilities and services. Park and recreation facilities are treated in Chapter 5, Environmental Resources. Transportation facilities are treated in Chapter 6, Transportation. This element was updated in 1989 to comply with OAR 197.712(2)(e).

B. POLICY GOAL AND OBJECTIVES

To insure the provision of quality community services and facilities of a type, level and location which is adequate to support existing development and which encourages efficient and orderly growth at the least public cost.

OBJECTIVES

1. Develop and implement policies and plans to provide the following public facilities and services; public safety fire protection, sanitary facilities, water supply, governmental services, health services, energy and communication services, and recreation facilities.

2. Establish service areas and service area policies so as to provide the appropriate kinds and levels of services and facilities to existing and future urban areas.

3. Coordinate public facility and service plans with established growth management policy as a means to achieve orderly growth.

4. Coordinate public facility and service provision with future land use policy as a means to provide an appropriate mix of residential, industrial and commercial uses.

5. Develop and implement a five-year capital improvements and service plan for City services which prioritizes and schedules major new improvements and services and identifies funding sources.

6. The City will comply with the MSD Regional Solid Waste Plan, and has entered into an intergovernmental agreement with Washington County to comply with the County's Solid Waste and Yard Debris Reduction Plan, 1990.

7. Based on the currently adopted Sanitary Sewer, Water, Stormwater, and Transportation Plan updates, the City shall prepare a prioritized list of capital improvement projects to those systems and determine funding sources to realize the improvements envisioned in those plans.

8. It shall be the policy of the City to seek the provision of a wide range of public facilities and services concurrent with urban growth. The City will make an effort to seek funding mechanisms to achieve concurrency.

C. PUBLIC AND SEMI-PUBLIC UTILITIES

Public utilities including water, sanitary sewer, drainage, and solid waste, as well as semi-public utilities including power, gas and telephone services are of most immediate importance in the support of new urban development. Water, sewer collection, and drainage facilities are the major services for which the City of Sherwood has responsibility. Service plans for these key services are contained in this section. The other utilities referred to above are the principal responsibilities of those agencies listed in Table VII-1. These agencies have been contacted for the purpose of coordinating their service planning and provision with the level and timing of service provision required to properly accommodate growth anticipated by the Plan.

TABLE VII-1
FACILITY AND SERVICE PROVIDERS
IN THE SHERWOOD PLANNING AREA

1. Public Utilities

   a. Public Water Supply
      City of Sherwood

   b. Sanitary Sewer System
      (1) Clean Water Services
      (2) City of Sherwood

   c. Storm Drainage System
      (1) City of Sherwood
      (2) Clean Water Services
      (3) Washington County
      (4) State of Oregon

2. Private/Semi-Public Utilities

   a. Natural Gas
      Northwest Natural Gas Co.

   b. Electric Power
      Portland General Electric

   c. Solid Waste: Pride Disposal Co.

3. Transportation

   a. Paved Streets, Traffic Control, Sidewalks, Curbs, Gutters, Street Lights
      (1) City of Sherwood
      (2) Washington County
      (3) State of Oregon

   b. Bikeways
      (1) City of Sherwood
      (2) Washington County
      (3) State of Oregon

c. Public Transit
Tri-Met

4. Public Health and Safety

a. Police Protection
(1) City of Sherwood
(2) Washington County
(3) State of Oregon

b. Fire Protection
Tualatin Valley Fire and Rescue

c. Animal Control
Washington County

5. Recreation

a. Parks and Recreation
City of Sherwood

b. Library
City of Sherwood

6. Schools
Sherwood School District 88J

D. SEWER SERVICE PLAN

INTRODUCTION

The Sewer Service Plan of the Comprehensive Plan was updated in 2016 and is included as an appendix to the Plan, and is incorporated into this chapter.

EXISTING SEWER SYSTEM

The City of Sherwood's existing sanitary sewer system is as shown on Figure VII-1. The system is located in Clean Water Services Durham South Basin which consists of two sub-basins are centered around Cedar Creek and Rock Creek, respectively, and will be referred to as the Cedar Creek basin and the Rock Creek basin throughout the remainder of this section.

The City's Sanitary Sewer System Master Plan's three-fold purpose is to 1) evaluate the existing system, 2) identify current and future system deficiencies and needs, along with recommended improvements to correct them, and 3) to provide planning level cost information for general budgeting and the development of a prioritized Capital Improvement Plan (CIP) . The master plan is adopted after each update which occur on a 5 to 7-year time interval. The CIP is updated and adopted each year as part of the City's fiscal year budget adoption process.

Sanitary Sewer System Description

The City's sanitary sewer system is divided into 2 main basins; 1) the Cedar Creek Basin; and 2) the Rock Creek Basin. The sanitary sewer master plan provides specific information based on the 3 criteria listed above. In general, the overall sanitary sewer system is operationally sound and has capacity to provide service over the next 20-year planning cycle (2035). General information on the two sanitary sewer basins is provided below.

The Cedar Creek Basin is the City's largest sanitary collection basin, bounded on the north, west, and south sides by the current City limits. The basin's east side boundary is defined by a line running from north to south and generally east of Langer Farms Parkway to the southern boundary of the City. The Brookman Concept Area borders the southern edge of the basin. The Cedar Creek Basin encompasses 2,080 potential acres of tributary area within the UGB, of which 1,054 acres is considered existing developed and sanitary sewer serviced. Sanitary sewerage from the Cedar Creek Basin gravity flows through the 24-inch Sherwood Trunk line to the Sherwood pump station located north of the City.

Residential zoned areas comprise the majority of the sanitary wastewater flow from this basin, with commercial and non-residential area of the basin near the center contributing

non-residential flows.

The Rock Creek Basin is the City's second sanitary collection basin, bounded on the north, east, and south sides by the current City limits. The basin's west boundary is defined by a line running from north to south and generally west of Langer Farms Parkway to the southern boundary of the City. The Tonquin Employment Area borders the east side of the basin. The Rock Creek Basin encompasses 1,310 potential acres of tributary area within the UGB, of which 455 acres is considered existing developed and sanitary sewer serviced. Sanitary sewerage from the Rock Creek Basin gravity flows through the 21-inch Rock Creek Trunk line north to the Sherwood pump station.

Residential zoned areas comprise most of the sanitary wastewater from this basin, with light industrial and commercial areas located in the northern half of the basin providing the remainder of the basin's sanitary wastewater flows.

The Rock Creek Trunk Line, the Cedar Creek Trunk Line, and the Sherwood Pump Station are under the jurisdictional control of Clean Water Services (CWS). Sanitary wastewater flows from the Sherwood Pump Station discharge to the Upper Tualatin Interceptor which ultimately flows to the Durham AWWFT for treatment and discharge to the Tualatin River.

The City's Sanitary Sewer Master Plan has identified 22 major projects which fall under the jurisdictional control of the City. There are 4 other projects identified which fall under the jurisdictional control of CWS. The 22 major projects are included in the City's CIP program. The 4 remaining projects which impact the operation of the City's sanitary system are coordinated with CWS for implementation.

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The City of Sherwood Zoning Map was used to determine the amount of acreage of each land use designation. This acreage was then applied to tributary basins contributing to their respective sewers and multiplied by the appropriate land use design unit flowrate in order to generate the total design flowrate. An average of residential densities per tributary basin was used to account for the five different residential zoning densities shown on the current City Zoning Map.

WATER SERVICE PLAN

INTRODUCTION

The City draws the majority of its water supply from the Willamette River Water Treatment Plant (WRWTP) in the City of Wilsonville, approximately 6 miles southeast of Sherwood. The City owns 5 million gallons per day (MGD) of production capacity in the existing WRWTP facilities. Sherwood also maintains four groundwater wells within the city limits for back-up supply. Prior to 2011, the City also purchased water from the Portland Water Bureau (PWB) through the City of Tualatin's water system and maintains an emergency connection and transmission piping associated with this supply source.

The City's future water service area is comprised of five different planning areas:
1. Sherwood city limits
2. Tonquin Employment Area (TEA)
3. Brookman Annexation Area
4. West Urban Reserve
5. Tonquin Urban Reserve

Each of these areas has their own land use characteristics, approximate development timelines and existing planning information. Estimates of future growth and related water demand are developed using the best available information for each area including Sherwood buildable lands geographic information system (GIS) data, population growth projections, development area concept plans and current water demand data.

Water demand growth is projected at 10 years, 20 years and at saturation development. Estimated water demands at saturation development are used to size recommended transmission and distribution improvements.

EXISTING WATER SYSTEM CONDITIONS

Pressure Zones

The City's existing distribution system is divided into three major pressure zones. Pressure zone boundaries are defined by ground topography in order to maintain service pressures within an acceptable range for all customers in the zone. The hydraulic grade line (HGL) of a zone is designated by overflow

elevations of water storage facilities or outlet settings of pressure reducing valves (PRVs) serving the zone.

The majority of Sherwood customers are served from the 380 Pressure Zone which is supplied by gravity from the City's Sunset Reservoirs. The 535 Pressure Zone, serving the area around the Sunset Reservoirs, is supplied constant pressure by the Sunset Pump Station, and the 455 Pressure Zone serves higher elevation customers on the western edge of the City by gravity from the Kruger Reservoir.

Storage Reservoirs

Sherwood's water system has three reservoirs with a total combined storage capacity of approximately 9.0 million gallons (MG). Two reservoirs, Sunset Nos. 1 and 2, provide 6.0 million gallons (MG) of gravity supply to the 380 Pressure Zone. The other reservoir, Kruger Road, provides 3.0 mg of gravity supply to the 455 Pressure Zone.

Pump Stations

Sherwood's water system includes two booster pump stations, the Sunset Pump Station and the Wyndham Ridge Pump Station.

The Sunset Pump Station is located in Snyder Park adjacent to the Sunset Reservoir complex and has an approximate total capacity of 3,770 gallons per minute (gpm). This station provides constant pressure service and fire flow to the 535 Pressure Zone.

The Wyndham Ridge Pump Station is located on SW Handley Street west of Highway 99W. Two 40-hp pumps supply a total capacity of approximately 1,200 gpm from 380 Zone distribution piping to the Kruger Road Reservoir.

Distribution System

The City's distribution system is composed of various pipe materials in sizes up to 24 inches in diameter. The total length of piping in the service area is approximately 77.4 miles. Pipe materials include cast iron, ductile iron, PVC and copper. The majority of the piping in the system is ductile iron.

ANALYSIS OF EXISTING WATER SYSTEM

Water Supply

Sherwood's supply from the WRWTP is sufficient to meet MDD through the 10-year planning horizon with an additional 1 mgd of capacity required at 20 years and an additional 4 mgd needed at build-out. Existing City groundwater wells provide an effective emergency supply to complement emergency storage in the City's reservoirs.

Pumping and Storage

The City's distribution system has adequate storage and pumping capacity to meet existing service area demands through 2034. Due to significant uncertainty related to long-term growth and system expansion, minor storage and pumping deficiencies at build-out should be re-evaluated with the next Water Master Plan Update or as development warrants. Additional pump stations are recommended to serve proposed high-elevation closed pressure zones in the water service expansion areas: Brookman Annexation and West Urban Reserve.

Distribution Piping

Sherwood's distribution piping is sufficiently looped to provide adequate fire flow capacity to commercial, industrial and residential customers. Few piping improvement projects are needed to meet fire flow criteria. Extensive large diameter mains will be needed to expand the City's water service area to supply the Brookman Annexation, TEA and West Urban Reserve as development occurs.

RECOMMENDED IMPROVEMENTS TO EXISTING WATER SYSTEM

Recommended improvements for the City's water system include proposed supply, pump station and water line projects.

Cost Estimating Data

An estimated project cost has been developed for each improvement project recommended. Cost estimates represent opinions of cost only, acknowledging that final costs of individual projects will vary depending on actual labor and material costs, market conditions for construction, regulatory factors, final project scope, project schedule and other factors. The cost estimates presented have an expected accuracy range of -30 percent to +50 percent. As the project is better defined, the accuracy level of the estimates can be narrowed. Estimated project costs include approximate construction costs and an aggregate 45 percent allowance for administrative, engineering and other project related costs.

Capital Improvement Program

A summary of all recommended improvement projects and estimated project costs is presented in Table ES-3 of the 2015 City of Sherwood Water System Master Plan Update. The table provides for project sequencing by showing fiscal year-by-year project priorities for the first five fiscal years, then prioritized projects in 5-year blocks for the 10-year, 20-year and Beyond 20 year timeframes. The total estimated cost of these projects is approximately $24.6 million through FY 2034. Approximately $19.9 million of the total estimated cost is for projects needed within the 10-year timeframe and $5.4 million of these improvements are required in the next 5 years.

F. DRAINAGE PLAN

INTRODUCTION

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The City of Sherwood, Washington County and the State Police co-ordinate police protection within the Planning Area. In 1989 the Sherwood Police Force consisted of five officers. In order to meet future demand it is anticipated that the department will need additional patrolmen proportional to the projected increase in population. The State formula for City police protection is one officer per 500 people. The police force should expand accordingly.

FIRE PROTECTION

The Planning Area is wholly contained within the Tualatin Valley Consolidated Fire and Rescue District. One engine house is located within the City. The District feels that present physical facilities will be adequate to serve the projected year 2000 growth in the area with some increase in manpower and equipment. The District currently employs a 5-year capital improvement planning process which is updated annually. The City will co-ordinate its planning with the district to assure the adequacy of fire protection capability in the Planning Area.

J. GENERAL GOVERNMENTAL SERVICES

As a general purpose governmental unit, the City of Sherwood intends to fulfill its responsibilities in the principal areas of general administration, planning, public works, and library services. With expected growth in Sherwood, additional manpower and facilities will be required.

1. Manpower Needs

   In 1989 there are currently seventeen (17) City staff in general governmental services. A review of cities which have reached Sherwood's projected five and twenty year growth levels indicate that new staffing will be needed proportional to population increases in most departments. Using this assumption a full-time staff of 15-20 persons will be required by 1985 and a staff of 20-40 will be needed by the year 2000. Most critical immediate needs are in the area of clerical staff to support existing departmental work loads.

2. Space Needs

   The City offices, water department, police department, planning department and public works, are currently housed in a remodeled turn-of-the-century house. Although the structure is significant historically and should be saved, it may not meet the long term functional or space needs of a City Hall.

   In 1982 the Senior and Community Center was built and provides meeting space for the City Council and Planning Commissions.

K. HEALTH FACILITIES

The local health system is linked to a number of organizations and institutions that can and do affect how it will develop. The latest planning legislation P.L. 93-641 and its recent amendments has placed Health care delivery systems planning are under the auspices of the State Certificate of Need laws and the Federal Health System Agency (HSA) planning regulations. Sherwood is located in the six county Northwest Oregon Health Systems Agency (NOHS) which is charged with reviewing new service proposals, expenditures involving public funds and the development of a health system plan for the area. The first HSA plan was adopted in 1978. State agencies administer HSA regulations. NOHS established subdistricts within the six county service area. Sherwood is located in the south-rural sub-district (see Figure VII-8). The only hospital located in the sub-district is Meridian Park Hospital in Tualatin.

Sherwood is served by various Metropolitan area hospitals depending on local physician affiliations. The City currently has only one doctor with offices in the Planning Area. St. Vincent's Hospital in Beaverton has expressed interest in establishing a satellite clinic in Sherwood.

The City will encourage the decentralization of Metropolitan health care delivery to assure that a broad range of inpatient, outpatient and emergency medical services are available to Sherwood residents. To that end the City will support the location of a St. Vincent's Satellite Center in Sherwood and encourage the appropriate expansion of Meridian Park facilities to meet the growing needs of the Planning Area.

L. SOCIAL FACILITIES AND SERVICES

A broad range of social services will be needed in the Planning Area to serve a growing urban population. Sherwood will continue to depend on metropolitan area services for which the demand does not justify a decentralized center. Multi-purpose social and health services and referral are offered by the Washington County Satellite Center in Tigard. The City will encourage the continued availability of such services.

Sherwood is located in Region 8 of the State Department of Human Resources Service Area and benefits from that agency's services. State services are administered through the County's Washington County office located in Hillsboro. In addition to public social service programs, many private organizations serve the Sherwood area.

The City is particularly interested in locating a multi-purpose social and health service referral agency in Sherwood so that residents of Sherwood would be able to get timely information on the available services. The City also supports the development of a Comprehensive Social and health services delivery plan for the Planning Area to identify gaps in needed services and develop an ongoing strategy for their provision. Of particular concern are day care and senior citizens services.

Day Care

A growing need exists for day care. State standards for the establishment of day care centers are supplemented by City standards. Currently day care has been carried on by churches and small home operations. The City recognizes and supports the proper siting and housing of day care services.

Senior Citizens Services

With an increasing proportion of the Planning Areas population reaching the age of 60, Sherwood will require additional specialized services and facilities for senior citizens. The City was awarded a grant from HUD for a Senior Citizen Community Center was completed in 1982. Community Center functions will be carried out under the authority of the City. It is the intent of the City that the Center be the focus for the Community activities requiring meeting and multi-purpose areas with particular emphasis on Senior Citizens programs and activities.