

# PLANNING COMMISSION AGENDA OCTOBER 27, 2016



## Commission Members

Tim D'Alessandro  
David Culbertson  
Joe Foley  
Bill Mansfield  
David McFadden  
Mark McKechnie  
Patrick Miranda  
Jared Pulver

Regular Planning Commission meetings  
are held on the second and fourth  
Thursdays of every month  
Meetings begin at 5:30 PM

City of Medford  
City Council Chambers  
411 W. Eighth Street, Third Floor  
Medford, OR 97501  
541-774-2380



## Planning Commission

# Agenda

**Public Hearing**

**October 27, 2016**

**5:30 PM**

**Council Chambers, City Hall, Room 300  
411 West Eighth Street, Medford, Oregon**

- 
- 10. Roll Call**
- 20. Consent Calendar/Written Communications (voice vote)**
- 20.1 LDP-16-096** Final Order for a proposed tentative plat to create three lots on a 0.47 acre parcel located on the northwest corner of the intersection of De Barr Avenue and Seneca Avenue, within an SFR-6 (Single-Family Residential – 6 dwelling units per gross acre) zoning district. (Elizabeth Carlton Investments, LLC, Applicant; Hoffbuhr & Associates, Inc., Agent)
- 20.2 LDS-16-100** Final Order for a proposed tentative plat for Wilkshire Terrace, Phases 1-3, a, 35-lot single family residential subdivision on a 9.72 acre parcel, generally located southwest of the Wilkshire Drive terminus, east of the Roberts Road terminus, west of the Voss Drive terminus and east of the Canyon Avenue terminus, within a SFR-4 (Single Family Residential – 4 dwelling units per gross acreage) zoning district. (William Barchet ET AL; Applicant; Scott Sinner Consulting, Inc., Agent)
- 30. Minutes**
- 30.1** Consideration for approval of minutes from the October 13, 2016, hearing.
- 40. Oral and Written Requests and Communications**  
Comments will be limited to 3 minutes per individual or 5 minutes if representing an organization. **PLEASE SIGN IN.**
- 50. Public Hearings - There are no business items to be considered.**  
Comments are limited to a total of 10 minutes for applicants and/or their representatives. You may request a 5-minute rebuttal time. All others will be limited to 3 minutes per individual or 5 minutes if representing a group or organization. **PLEASE SIGN IN.**
- Old Business**
- 50.1 ZC-16-089 / LDS-16-090 / E-16-091** Consideration of a request for a consolidated application, consisting of a Zone Change from SFR-10 (Single Family Residential, 10 dwelling units per gross acre) to SFR-6 (Single Family Residential, 6 dwelling units per gross acre) on 22.34 acres, a tentative plat for a 93 lot residential subdivision, and an associated Exception requests seeking relief to planter strip requirement fronting particular lots within the subdivision and relief to street spacing standard for an intersection within the development. The subject site is located east of the terminus of Owen Drive and north of the terminus of Cheltenham Way, within corporate limits of the City of Medford. (Hayden Homes LLC, Applicant; CSA Planning, Ltd./Jay Harland, Agent)

50.2 **CUP-16-094** Consideration of a Conditional Use Permit application to allow a new wireless communications facility, consisting of a 114-foot support structure and associated equipment cabinets used for communication systems. The subject site is located at the southwest corner of Hillcrest Road and Fairview Drive at the northeast property corner of tax lot 371W28B5900. (Verizon Wireless LLC, Applicant; Paul Slotemaker, Agent)

**60. Reports**

60.1 Site Plan and Architectural Commission

60.2 Joint Transportation Subcommittee

60.3 Planning Department

**70. Messages and Papers from the Chair**

**80. Remarks from the City Attorney**

**90. Propositions and Remarks from the Commission**

**100. Adjournment**

**BEFORE THE MEDFORD PLANNING COMMISSION  
STATE OF OREGON, CITY OF MEDFORD**

IN THE MATTER OF TENTATIVE PLAT APPROVAL OF )  
 )  
ELIZABETH CARLTON INVESTMENTS, LLC [LDP-16-096] ) **ORDER**

ORDER granting approval of a request for tentative plat approval of File No. LDP-16-096.

WHEREAS:

1. The Planning Commission has duly accepted the application filed in accordance with the Medford Land Development Code, Sections 10.265 through 10.267; and
2. The Medford Planning Commission has duly held a public hearing on the request for consideration of tentative plat approval to create three lots on a 0.47 acre parcel located on the northwest corner of the intersection of De Barr Avenue and Seneca Avenue, within an SFR-6 (Single-Family Residential – 6 dwelling units per gross acre) zoning district, with a public hearing a matter of record of the Planning Commission on October 13, 2016; and
3. At the public hearing on said tentative plat, evidence and recommendations were received and presented by the developer and Planning Department Staff; and
4. At the conclusion of said hearing, after consideration and discussion, the Medford Planning Commission, upon a motion duly seconded granted tentative plat approval and directed staff to prepare a final order with all conditions and findings set forth for the granting of the tentative plat approval.

THEREFORE LET IT BE HEREBY ORDERED that the tentative plat for Elizabeth Carlton Investments, LLC, stands approved per the Planning Commission Report dated October 13, 2016, and subject to compliance with all conditions contained therein.

AND LET IT FURTHER BE OF RECORD, that the action of the Planning Commission in approving this request for tentative plat approval is hereafter supported by the findings referenced in the Planning Commission Report dated October 13, 2016.

BASED UPON THE ABOVE, the Planning Commission determined that the tentative plat is in conformity with the provisions of law and Section 10.270 Land Division Criteria of the Land Development Code of the City of Medford.

Accepted and approved this 27th day of October, 2016.

CITY OF MEDFORD PLANNING COMMISSION

\_\_\_\_\_  
Planning Commission Chair

ATTEST:

\_\_\_\_\_  
Planning Department Representative



**COMMISSION REPORT**

for a type-C quasi-judicial decision: Land Division – Partition

PROJECT Elizabeth Carlton Investments Partition  
 Applicant: Elizabeth Carlton Investments, LLC.  
 Agent: Hoffbuhr & Associates, Inc.

FILE NO. LDP-16-096

DATE October 13, 2016

**BACKGROUND**

Proposal

Proposed tentative plat to create three lots on a 0.47 acre parcel located on the northwest corner of the intersection of De Barr Avenue and Seneca Avenue, within an SFR-6 (Single-Family Residential – 6 dwelling units per gross acre) zoning district.

Subject Site Characteristics

Zoning: SFR-6 (Single-Family Residential – 6 dwelling units per gross acre)  
 GLUP: UR (Urban Residential)  
 Use: Single family residence

Surrounding Site Characteristics

North	SFR-6	Single family homes
South	SFR-6	Single family homes
East	SFR-6	Single family homes
West	SFR-6	Single family homes

Applicable Criteria

**Medford Land Development Code §10.270, Land Division Criteria**

The approving authority (Planning Commission) shall not approve any tentative plat unless it first finds that, the proposed land division together with the provisions for its design and improvement:

- (1) Is consistent with the Comprehensive Plan, any other applicable specific plans thereto, including Neighborhood Circulation Plans, and all applicable design standards set forth in Article IV and V;

- (2) Will not prevent development of the remainder of the property under the same ownership, if any, or of adjoining land or of access thereto, in accordance with this chapter;
- (3) Bears a name that has been approved by the approving authority and does not use a word which is the same as, similar to, or pronounced the same as a word in the name of any other subdivision in the City of Medford; except for the words "town", "city", "place", "court", "addition", or similar words; unless the land platted is contiguous to and platted by the same applicant that platted the land division bearing that name; or unless the applicant files and records the consent of the party who platted the land division bearing that name and the block numbers continue those of the plat of the same name last filed;
- (4) If it includes the creation of streets or alleys, that such streets or alleys are laid out to be consistent with existing and planned streets and alleys and with the plats of land divisions already approved for adjoining property unless the approving authority determines it is in the public interest to modify the street pattern;
- (5) If it has streets or alleys that are proposed to be held for private use, that they are distinguished from the public streets or alleys on the tentative plat, and reservations or restrictions relating to the private streets or alleys are set forth;
- (6) Will not cause an unmitigated land use conflict between the land division and adjoining agricultural lands within the EFU (Exclusive Farm Use) zoning district.

### Project Summary

The subject site is partially developed with a single family residence in the southern portion, fronting De Barr Avenue. The applicant seeks to partition the property into three separate parcels.

### Code Compliance

#### *Density*

The standard density calculation for the SFR-6 zone is between four and six dwelling units per gross acre. The permitted density range for the subject subdivision is between three to four dwelling units. The net parcel size is 0.47 acres and the gross parcel size, including fronting half street, is 0.64 acres. The applicant is proposing three lots (and three dwelling units). Based on the gross acreage, a minimum of 3 dwelling units is required, which is also the maximum number of units required. The applicant is proposing three units. Therefore, the partition meets density standards.

### *Street Dedications & Improvement*

De Barr Avenue has an existing right-of-way of 40 feet and Seneca Avenue has an existing right-of-way of 50 feet. Both streets are classified as minor residential streets. The Public Works Department Staff Report (Exhibit F) identifies that a Traffic Facility plan for De Barr Avenue was approved for a curb-tight sidewalk, which was constructed as part of the School Sidewalk West project. Therefore, additional right-of-way is not required. Medford Land Development Standards at the time of development of the Winema Subdivision only required a 50-foot right of way dedication for Seneca Avenue. Therefore, additional right of way is not required. The property frontage for both De Barr Avenue and Seneca Avenue are completely constructed with curb, gutter, sidewalk and paving. Therefore, no street improvements are required for the development. The developer shall provide a 10-foot wide Public Utility Easement (PUE) adjacent to the street frontage of all three lots within this partition.

### *Storm Drainage*

A drainage plan showing the impacted site with information to determine runoff direction to the drainage system shall be submitted with the first building permit. A condition of approval has been included requiring the developer to comply with the Public Works Report (Exhibit F).

### *Sanitary Sewer*

The site lies within the Medford Sewer service area. Each lot is to be provided one service lateral prior to approval of the Final Plat. The developer shall cap any other remaining unused sewer laterals within the project frontage at the main. A condition of approval has been included requiring the developer to comply with the Public Works Staff Report dated April 6, 2016 (Exhibit F).

### *Water Facilities*

The Medford Water Commission (MWC) memorandum identifies that no off-site water line installation or on-site water facility construction is required for this development. All proposed lots are required to have metered water service prior to approval of the final plat. Access to MWC water lines is available to this development via a 6-inch water line in De Barr Avenue and 8-inch line in Seneca Avenue. A condition of approval has been included requiring the applicant to comply with the memorandum from the Medford Water Commission dated September 14, 2016 (Exhibit G).

## **CONCLUSIONS**

Staff finds the partition plat consistent with the Comprehensive Plan and all applicable design standards set forth in Article IV and V. Furthermore, partition will not prevent development of the remainder of the property under the same ownership or of adjoining land. Criteria 3 through 6 are not applicable to the subject development. Staff recommends that the Commission adopt the Applicant's Findings of Fact (Exhibit B) as presented.

## **RECOMMENDED ACTION**

Adopt the findings as recommended by staff and direct staff to prepare a Final Order for approval of LDP-16-096 per the staff report dated October 6, 2016, including Exhibits A through L.

## **ACTION TAKEN**

The Commission adopted the findings as recommended by staff and directed staff to prepare a Final Order for approval of LDP-16-096 per the Commission Report dated October 13, 2016, including Exhibits A-1 through L, and subject to a condition of approval requiring the improvement off-street parking spaces for Parcel 3 prior the approval of a final plat.

## **EXHIBITS**

- A-1 Conditions of Approval, dated October 13, 2016.**
- B Applicant's Findings of Fact received July 28, 2016.**
- C Current City of Medford Zoning Map.**
- D Tentative Plat received July 28, 2016.**
- E Conceptual Grading, Drainage & Utility Plan, received July 28, 2016.**
- F Public Works Staff Report dated September 14, 2016.**
- G Medford Water Commission memo, dated September 14, 2016.**
- H Medford Fire Department Report, prepared September 13, 2016.**
- I Medford Building Department Memorandum, dated September 14, 2016.**
- J E-mail correspondence from Oregon Department of Aviation, received September 8, 2016.**
- K Correspondence from Ms. Corinna Butts, received October 6, 2016.**
- L Rouge Valley Irrigation District Response Form dated October 6, 2016.**  
Vicinity map

**MEDFORD PLANNING COMMISSION**

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**Patrick Miranda, Chair**

**PLANNING COMMISSION AGENDA:**

**OCTOBER 13, 2016**

**OCTOBER 27, 2016**

**EXHIBIT A-1**  
Elizabeth Carlton Investments Partition  
LDP-16-096  
Conditions of Approval  
October 13, 2016

**CODE CONDITIONS**

The applicant shall:

1. Comply with the Public Works Staff Report received dated October 3, 2016 (Exhibit F);
2. Comply with the Medford Water Commission Memorandum dated September 21, 2016 (Exhibit G);

**DISCRETIONARY CONDITIONS**

The applicant shall:

3. On the face of the final plat, provide the document number of the access easement represented along the west five feet of lot 1 and lot 3.
4. Prior to final plat approval, the applicant shall improve two off-street parking spaces on Parcel 3 in accordance with the surfacing standards specified by Section 10.746 (1) of the Medford Land Development Code and Section 9.550 of the City Code.

CITY OF MEDFORD  
EXHIBIT # A-1  
File # LDP-16-096  
LoF1

RECEIVED

10:10 2016

Planning Dept.

555 Freeman Rd #240

Central Point, OR 97502

October 4, 2016

City of Medford Planning Dept.

Lausmann Annex

200 So. Ivy St.

Medford, OR 97501

Attention: Desmond McKeough

File # LDP-16-096

Thank you again for returning my call today. You have pretty much put me at ease regarding my 5 foot easement on the west side of parcel 2 land being developed on the corner of DeBarr & Seneca.

I purchased and ~~they~~<sup>then</sup> recorded this parcel (easement) of 5 feet on June 17, 1994. This 5 feet is necessary for me to access my back lot. The fence was allowed to be put up to include this footage by the Grantor at that time of Charles L. Hewitt & Rosalie A. Bagwell

Hope this helps and again thank you!

Sincerely,

Corinna L. Butts, owner

279 DeBarr

Medford, OR 97501

CITY OF MEDFORD

EXHIBIT # K

File # LDP-16-096

ROGUE RIVER VALLEY IRRIGATION DISTRICT  
LAND USE AGENCY RESPONSE FORM

3139 Merriman Road  
Medford OR 97540  
Email: [rvid@rrvid.org](mailto:rvid@rrvid.org)

Phone: 541-773-6127  
Fax: 541-773-5420

NAME OF ENTITY REQUESTING RESPONSE: City of Medford  
ENTITY REFERENCE NUMBER: LDP-16-096  
MEETING REVIEW DATE: September 14, 2016

PROPERTY  
MAP DESCRIPTION: 372413 BC 300 ADDRESS: De Barr Avenue

NO COMMENT OF LAND USE ISSUE (IF NOT MARKED, CONTINUE BELOW)

NO COMMENT IF CHECKED COMMENTS ARE APPLICABLE

**A. WATER RIGHT ISSUES**

1. Water rights need to be sold to someone or transferred back to RRVID.

Number of Irrigated Acres: .04

2. Must have District approval for water rights to remain in place on Subject's property.

Comments: Water must be quit claimed back to the District, please call for details

**B. EASEMENTS**

**DISTRICT EASEMENTS**

1. Easement needs to remain clear. No permanent structures or deep-rooted plants will be allowed within the easement limits.

Comments: \_\_\_\_\_

2. If facility is to be relocated or modified, specifications must meet the District's Standards and be agreeable to the District. A new written and recorded easements must be conveyed to the District.

Comments: \_\_\_\_\_

3. If a written and recorded easement does not exist for an existing facility, then one must be provided in favor of the District.

Comments: \_\_\_\_\_

**PRIVATE EASEMENTS**

1. Property may have private facilities (ditch or pipeline) that the District does not manage. Arrangements may need to be made to provide continued service through the subject property for down stream water users.

Comments: \_\_\_\_\_

CITY OF MEDFORD

EXHIBIT # "L"

File # LDP-16-096

10/2

**ENTITY REQUESTING RESPONSE:**

C. City of Medford

**ENTITY REFERENCE NUMBER:** LOP-16-096

NO COMMENT IF CHECKED COMMENTS ARE APPLICABLE

- C. FACILITIES** (including but not limited to pipelines, ditches, canals, control checks or boxes)
  - 1. Upgrades to District facilities may be required to support any land use changes or developments, such as pipe installations or encasing existing pipe under roads or concrete.  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- D. DRAINAGE / STORM WATER**
  - The District relies on the Bureau of Reclamation's Storm Water Policy. No urban storm water or point source flows will be allowed into the District's facilities without going through the Bureau of Reclamation process. (Developments in historically agricultural areas need to be aware of agricultural run off water and take appropriate action to protect the development from upslope water.)  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**GENERAL COMMENTS:**

1. No interruptions to irrigation water deliveries will be allowed.
2. R.R.V.I.D. is a Federal Project and some facilities and/or easement issues may need Bureau of Reclamation approval.
3. The developer/sub-divider will take all appropriate actions to ensure the reliability and protection of original function of the District's facilities.

As required by ORS 92.090(6) the entity must receive a certification form the District before approval of the final plat.

Brian Hampson  
Brian Hampson  
Rogue River Valley Irrigation  
3139 Merriman Road  
Medford OR 97501

Date Signed: 9-6-16  
"L"  
2012

**BEFORE THE MEDFORD PLANNING COMMISSION  
STATE OF OREGON, CITY OF MEDFORD**

IN THE MATTER OF A TENTATIVE PLAT APPROVAL OF )  
 ) **ORDER**  
WILKSHIRE TERRACE, PHASES 1-3 (LDS-16-100) )

ORDER granting approval of a request for Wilkshire Terrace, Phases 1-3 described as follows:

The project is a 35-lot single family residential subdivision on a 9.72 acre parcel, generally located southwest of the Wilkshire Drive terminus, east of the Roberts Road terminus, west of the Voss Drive terminus and east of the Canyon Avenue terminus, within a SFR-4 (Single Family Residential – 4 dwelling units per gross acreage) zoning district.

WHEREAS:

1. The Planning Commission has duly accepted the application filed in accordance with the Medford Land Development Code, Sections 10.265 through 10.267; and
2. The Medford Planning Commission has duly held a public hearing on the request for tentative plat for Wilkshire Terrace, Phases 1-3 as described above, with the public hearing a matter of record of the Planning Commission on October 13, 2016.
3. At the public hearing on said tentative plat, evidence and recommendations were received and presented by the developer and Planning Department Staff; and
4. At the conclusion of said hearing, after consideration and discussion, the Medford Planning Commission, upon a motion duly seconded granted tentative plat approval for Wilkshire Terrace, Phases 1-3 as described above and directed staff to prepare a final order with all conditions and findings set forth for the granting of the tentative plat approval.

THEREFORE LET IT BE HEREBY ORDERED that the tentative plat for Wilkshire Terrace, Phases 1-3 stands approved per the Planning Commission Report dated October 13, 2016, and subject to compliance with all conditions contained therein.

AND LET IT FURTHER BE OF RECORD, that the action of the Planning Commission in approving this request for tentative plat approval is hereafter supported by the findings referenced in the Planning Commission Report dated October 13, 2016.

BASED UPON THE ABOVE, the Planning Commission determined that the tentative plat is in conformity with the provisions of law and Section 10.270 Land Division Criteria of the Land Development Code of the City of Medford.

Accepted and approved this 27th day of October, 2016.

CITY OF MEDFORD PLANNING COMMISSION

\_\_\_\_\_  
Planning Commission Chair

ATTEST:

\_\_\_\_\_  
Planning Department Representative



**COMMISSION REPORT**

For a Type-C quasi-judicial decision: Land Division

PROJECT Wilkshire Terrace Phase 1-3 Subdivision  
Wilkshire Terrace, L.L.C., Applicant (Scott Sinner Consulting; Agent)

FILE NO. LDS-16-100

DATE October 13, 2016

**BACKGROUND**

Proposal

Proposed tentative plat for Wilkshire Terrace, Phases 1-3, a 35-lot single family residential subdivision on an 9.72 acre parcel, generally located southwest of the Wilkshire Drive terminus, east of the Roberts Road terminus, west of the Voss Drive terminus and east of the Canyon Avenue terminus, within a SFR-4 (Single Family Residential – 4 dwelling units per gross acre) zoning district.

Subject Site Characteristics

Zoning: SFR-4  
GLUP: Urban Residential  
Existing Use: Vacant

PUD Surrounding Site Characteristics

North SFR-4 Single-Family Residential  
South SFR-4 Single-Family Residential, Vacant  
East SFR-4 Single-Family Residential  
West SFR-4 Single-Family Residential

Related Projects

PUD-07-041 Planned Unit Development, (Denied)  
LDP-07-159 18-lot residential subdivision on 6.14 acres (Expired)  
E-07-160 Reduction in lot width (Withdrawn)

### Applicable Criteria

#### Medford Land Development Code Section 10.270: Land Division Approval Criteria

*The approving authority (Planning Commission) shall not approve any tentative plat unless it first finds that, the proposed land division together with the provisions for its design and improvement:*

- (1) Is consistent with the Comprehensive Plan, any other applicable specific plans thereto, including Neighborhood Circulation Plans, and all applicable design standards set forth in Article IV and V;*
- (2) Will not prevent development of the remainder of the property under the same ownership, if any, or of adjoining land or of access thereto, in accordance with this chapter;*
- (3) Bears a name that has been approved by the approving authority and does not use a word which is the same as, similar to, or pronounced the same as a word in the name of any other subdivision in the City of Medford; except for the words "town", "city", "place", "court", "addition", or similar words; unless the land platted is contiguous to and platted by the same applicant that platted the land division bearing that name; or unless the applicant files and records the consent of the party who platted the land division bearing that name and the block numbers continue those of the plat of the same name last filed;*
- (4) If it includes the creation of streets or alleys, that such streets or alleys are laid out to be consistent with existing and planned streets and alleys and with the plats of land divisions already approved for adjoining property unless the approving authority determines it is in the public interest to modify the street pattern;*
- (5) If it has streets or alleys that are proposed to be held for private use, that they are distinguished from the public streets or alleys on the tentative plat, and reservations or restrictions relating to the private streets or alleys are set forth;*
- (6) Will not cause an unmitigated land use conflict between the land division and adjoining agricultural lands within the EFU (Exclusive Farm Use) zoning district.*

### Corporate Names

Wilkshire Terrace, LLC. is the owner of this property. The Oregon State Business Registry lists William Barchet as its Registered Agent.

## ISSUES AND ANALYSIS

### Background

#### *Prior Approvals*

On October 25, 2007, the Planning Commission adopted a final order of approval for a subdivision located upon the western portion of the subject property. The subdivision consisted of 18 lots on 6.14 acres. The prior owner applied for an extension of the subdivision approval, which subsequently expired on October 25, 2009.

### Project Summary

The Applicant requests approval of a 35-lot single-family residential subdivision, on a 9.72 acre parcel, located southwest of the Wilkshire Drive terminus, east of the Roberts Road terminus, west of the Voss Drive terminus and east of the Canyon Avenue terminus. The subject property is located within a SFR-4 zoning district. Subdivision lots range in size from 17,648 square feet to 6,799 square feet. Due to the exterior property line configuration and the Big Butte Springs waterline, which crosses at 45-degree angle, the resulting subdivision lots vary in size and shape. Some lots are triangular in shape and two flag lots are proposed.

From a subdivision design perspective, staff generally discourages flag lots. However, the particular design of this subdivision is greatly driven by the existing constraints associated with parcel geometry, an existing waterline and four pre-determined street connection points. The maximum number of lots permitted under the zoning designation is 38. Without the inclusion of the two flag lots the density for the overall project would be 3.4 dwelling units per acre, which is approximately at the zone district density range mid-point. Without the inclusion of flag lots, the development would result in some excessively deep lots. Considering the constraints and the resulting density of 3.6 dwelling units per acre, staff believes the employment of flag lots is an appropriate application within the subject context.

As noted above, there are four public streets that currently terminate at the property. There is no adopted circulation plan for the area; however, circulation and connectivity have been determined by prior development surrounding the proposed subdivision. All streets will be minor residential streets, with the exception of the north to south running Hannah Lane. This street will encompass a 33-foot wide cross section, no parking lane on one side and a sidewalk located upon just one side of the street rather than both. **Additionally, due to some unique geometrics needed to transition the existing Voss Drive to the proposed Voss Drive connection, the Public Works Report (Exhibit H) is recommending that the extension of Voss Drive have a Standard Residential cross section with a 63-foot wide cross section. The Applicant posed no objection to the Standard Residential Street cross section application for Voss Drive.**

The northern portion of the proposed subdivision encompasses 2.53 acre wetland (LP-W02), as identified in the 2003 City of Medford Local Wetland Inventory. The applicant has proposed

single-family residential development in the area identified as a wetland and proposes to mitigate the removal of the wetland off-site. The Department of State Lands Wetlands Division has been notified regarding this proposed subdivision request (Exhibit M). A discretionary condition of approval has been included requiring that a Wetland Consultant delineate the area and the Department of State Lands Wetland Division approve the delineation prior to receiving a grading permit for the development.

The applicant is proposing to develop the subdivision in three phases. As permitted by the Medford Land Development Code, phased subdivisions may be approved for up to a total of five years. The applicant is requesting the development be permitted the full five-year time period in which to complete all phases.

#### Density

Based on the 9.72 gross acre project area, the minimum number of units required for the site is 25 and the maximum number permitted is 38. The applicant has proposed a total of 35 units for Wilkshire Terrace Phases 1-3. The resulting density calculates to 3.4 dwelling units per gross acre, which is slightly higher than the SFR-4 zone district density range mid-point.

#### Analysis

An itemized analysis of the proposed tentative plat based on the criteria outlined in Medford Land Development Code Section 10.270 cited above is as follows:

- (1) Is consistent with the Comprehensive Plan, any other applicable specific plans thereto, including Neighborhood Circulation Plans, and all applicable design standards set forth in Article IV and V;*

The subject tentative plat meets all design standards set forth in MLDC Articles IV and V. The proposed street layout of Wilkshire Terrace extends all existing street alignments currently stubbed out at the property line as to extend through the development. The subdivision is consistent with maximum block length and maximum block periphery standards of Article IV. The proposed subdivision has no direct access to Lone Pine Road; however, the development has stubbed Wimbledon Way as to allow for the potential future connection to Lone Pine Road with development of the properties to the south. Additionally, another north-to-south running local street could possibly be extended from the south side of Canyon Avenue to Lone Pine Road. However, it should be noted that there is existing development along Lone Pine Road, and Lone Pine Creek is located south of the development. Both of these constraints may cause challenges in the future to providing more direct access from the development to Lone Pine Road. The Planning Commission can find that the tentative subdivision plat meets Criterion 1.

- (2) Will not prevent development of the remainder of the property under the same ownership, if any, or of adjoining land or of access thereto, in accordance with this chapter;*

This application meets this criterion, and will not prevent future development of the remainder of this property or of adjoining lands. The Commission can find that Criterion 2 is met.

*(3) Bears a name that has been approved by the approving authority and does not use a word which is the same as, similar to, or pronounced the same as a word in the name of any other subdivision in the City of Medford; except for the words "town", "city", "place", "court", "addition", or similar words; unless the land platted is contiguous to and platted by the same applicant that platted the land division bearing that name; or unless the applicant files and records the consent of the party who platted the land division bearing that name and the block numbers continue those of the plat of the same name last filed;*

The applicant's findings of fact and conclusions of law provide that the subject plat will bear the name of "Wilkshire Terrace, Phases 1 -3", which is a unique name within the City of Medford. The Commission can find Criterion 3 is met.

*(4) If it includes the creation of streets or alleys, that such streets or alleys are laid out to be consistent with existing and planned streets and alleys and with the plats of land divisions already approved for adjoining property unless the approving authority determines it is in the public interest to modify the street pattern;*

As noted above, the subject land division lies at the existing termini of Wilkshire Drive, Roberts Road, Voss Drive and Canyon Avenue. The proposed development proposes the continuation of these residential streets. The Commission can find Criterion 4 is met.

*(5) If it has streets or alleys that are proposed to be held for private use, that they are distinguished from the public streets or alleys on the tentative plat, and reservations or restrictions relating to the private streets or alleys are set forth;*

The Applicant's Findings note that there are no private streets or alleys are proposed. Therefore, the Commission may find that Criterion 5 is not applicable to this land division.

*(6) Will not cause an unmitigated land use conflict between the land division and adjoining agricultural lands within the EFU (Exclusive Farm Use) zoning district.*

There are no EFU lands adjoining the subject property. Therefore, the Commission may find that Criteria 6 is not applicable to the subject land division.

## **FINDINGS AND CONCLUSIONS**

Staff has reviewed the applicant's findings and conclusions (Exhibit B) and recommends the Commission adopt the applicant's findings as submitted.

## **STAFF RECOMMENDATION**

Adopt findings as recommended by staff and direct staff to prepare a Final Order for approval of LDS-16-100, per the staff report dated October 6, 2016, including Exhibits A through O.

### **ACTION TAKEN**

The Planning Commission adopted findings as recommended by staff and direct staff to prepare a Final Order for approval of LDS-16-100, per the Commission Report dated October 13, 2016, including Exhibits A through O.

### **EXHIBITS**

- A Conditions of Approval.
- B Applicant's Findings of Fact, received August 3, 2016.
- C Current City of Medford Zoning Map.
- D Jackson County Assessors Map.
- E Tentative Plat for Wilkshire Terrace, Phases 1-3, received August 3, 2016.
- F Conceptual Grading & Drainage Plan, received August 3, 2016.
- G Potential neighborhood circulation plan, received August 3, 2016.
- H Public Works Department Staff Report dated October 3, 2016.
- I Medford Water Commission Staff Memo, dated September 21, 2016.
- J Medford Fire Department report, prepared September 19, 2016.
- K Medford Building Department Staff Memo, dated September 21, 2016.
- L E-mail correspondence from Oregon Department of Aviation, received September 20, 2016.
- M State Lands Department Wetland Land Use Notification Form.
- N State Lands Department Wetland Notification Rezones, received October 10, 2016.
- O Public Correspondence from Melvin & Charlene Beaty, dated October 13, 2016.  
Vicinity map

### **MEDFORD PLANNING COMMISSION**

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Patrick Miranda, Chair

**PLANNING COMMISSION AGENDA:**

**OCTOBER 13, 2016**  
**OCTOBER 27, 2016**

RECEIVED

OCT 10 2016

PLANNING DEPT.



WETLAND LAND USE NOTIFICATION RESPONSE  
OREGON DEPARTMENT OF STATE LANDS  
775 Summer Street NE, Suite 100, Salem, OR 97301-1279  
Phone (503) 986-5200  
[www.oregonstatelands.us](http://www.oregonstatelands.us)

DSL File Number: WN2016-0419

Cities and counties have a responsibility to notify the Department of State Lands (DSL) of certain activities proposed within wetlands mapped on the Statewide Wetlands Inventory. Desmond McGeough from city of Medford submitted a WLUN pertaining to local case file # LDS-16-100.

Activity location:

township: 37S      range: 01W      section: 17      quarter-quarter section: DD

tax lot(s): 1100,700 (partial)

street address:

city: Medford

county: Jackson

latitude: 42.347904

longitude: -122.837775

Mapped wetland/waterway features:

- The national wetlands inventory shows a wetland on the property.
- The local wetlands inventory shows a wetland on the property.

Oregon Removal-Fill requirement (s):

- A state permit is required for 50 cubic yards or more of removal and/or fill in wetlands, below ordinary high water of streams, within other waters of the state, or below highest measured tide where applicable.

Your activity:

- It appears that the proposed project may impact wetland and requires a wetland delineation.

CITY OF MEDFORD  
EXHIBIT # "N"  
File# LDS-16-100  
1 of 2

Contacts:

- For permit information and requirements contact DSL Resource Coordinator (see website for current list) [http://www.oregonstatelands.us/DSL/contact\\_us\\_directory.shtml#Wetlands Waterways](http://www.oregonstatelands.us/DSL/contact_us_directory.shtml#Wetlands_Waterways)
- For wetland delineation report requirements and information contact DSL Wetlands Specialist (see website for current list) [http://www.oregonstatelands.us/DSL/contact\\_us\\_directory.shtml#Wetlands Waterways](http://www.oregonstatelands.us/DSL/contact_us_directory.shtml#Wetlands_Waterways)
- For removal-fill permit and/or wetland delineation report fees go to [http://www.oregon.gov/DSL/PERMITS/docs/rf\\_fees.pdf](http://www.oregon.gov/DSL/PERMITS/docs/rf_fees.pdf)
- A permit may be required by the U.S. Army Corps of Engineers (503-808-4373).

Related permits:

DSL Permit #	Status
APP40895	Withdrawn

Related wetland delineations/determinations:

WD #	Status
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This is a preliminary jurisdictional determination and is advisory only.

Comments: Both the National and Local wetland Inventories mapped wetlands on these parcels. A wetland delineation from 2008 also mapped wetlands, but it has expired. Mapped soil units on site are characterized by hydric inclusions. Aerial photos show wet signatures. A delineation is needed for development of these properties. It should be sent to DSL for review and approval, and wetland impacts will need to be avoided when planning the layout of the subdivision.

Response by: \_\_\_\_\_

*Sydney McAllister*

date: 10/07/2016

"N"  
2012

October 13, 2016

James E. Huber, Planning Director  
Medford Planning Commission  
Lausmann Annex  
200 South Ivy Street  
Medford, OR 97501

RE: Hearing on tentative plat for Wilkshire Terrace

Director Huber and Commissioners:

The current proposed tentative plat for developing Wilkshire Terrace is, for the most part, a reasonable plan. We are pleased to see that the plan meets the SFR-4 zoning that was upheld in 2007 when the Commission approved a plan by the previous owner to build 18 single family residences on 6.14 acres. That plan included a detention area which followed the existing creek on the north side of the property all the way across from west to east boundaries. It provided a buffer of between 30-80 feet wide to protect the creek.

The current proposal, however, includes only a small detention area on the NW corner of the property. It is about the size of a single lot and allows no buffer between the creek and new residences on 7 remaining lots on the northern boundary of the development.

We ask that the current proposal be modified to include a wider buffer for the creek. Our city has gone on record as wanting to protect and conserve riparian zones. The creek is used by birds and other wildlife. They need that water.

As the city has grown we see fewer and fewer creeks available to wildlife. Please require a buffer zone along the entire length of the northern boundary of Wilkshire Terrace to protect both the creek and the wildlife that inhabit it.

Thank you,

Melvin & Charlene Beaty  
2902 Fredrick Drive  
Medford, OR 97504

CITY OF MEDFORD  
=0"  
LDS-100-100  
PUBLIC COMMENT



## Planning Commission

# Minutes

From Public Hearing on **October 13, 2016**

The regular meeting of the Planning Commission was called to order at 5:34 PM in the City Hall Council Chambers on the above date with the following members and staff in attendance:

### Commissioners Present

Patrick Miranda, Chair  
David McFadden, Vice Chair  
Tim D'Alessandro  
Joe Foley  
Bill Mansfield  
Jared Pulver

### Staff Present

Kelly Akin, Interim Planning Director  
Kevin McConnell, Deputy City Attorney  
Alex Georgevitch, City Engineer  
Greg Kleinberg, Fire Marshal  
Terri Rozzana, Recording Secretary  
Desmond McGeough, Planner III

### Commissioner Absent

David Culbertson, Excused Absence  
Mark McKechnie, Excused Absence

#### 10. Roll Call

#### 20. Consent Calendar/Written Communications.

**20.1 E-16-087** Final Order for exception relief to allow a public commercial street to vary from the development code standard for a commercial street. The subject street lies between Farmington Avenue and Yamsay Drive, approximately 575 feet north of Cedar Links Drive, within the Cedar Landing Planned Area Development. (Cedar Investment Group LLC, Applicant; CSA Planning Ltd., Agent)

**20.2 LDS-16-079** Final Order for Summerfield at Southeast Park Phase 9, a proposed 56 lot residential subdivision on 10.7 gross acres located directly south of Sunleaf Avenue and 1,175 feet east of N. Phoenix Road, in the SFR-10 (Single-Family Residential, ten dwelling units per gross acre) zoning district. (Mahar Homes, Inc., Applicant; CSA Planning Ltd./Jay Harland, Agent)

Motion: Adopt the consent calendar as submitted.

Moved by: Vice Chair McFadden

Seconded by: Commissioner Foley

Voice Vote: Motion passed, 6-0.

#### 30. Minutes

**30.1.** The minutes for September 22, 2016, were approved as submitted.

40. Oral and Written Requests and Communications. None.

Kevin McConnell, Deputy City Attorney, read the Quasi-Judicial Statement.

50. Public Hearings – Old Business

**50.1 LDP-16-055** Consideration of a request to create two lots on a 19.83 acre parcel located northeast of the intersection of Biddle Road and East Jackson Street, within a C-R (Regional Commercial) zoning district. (LBG Medford, LLC, Applicant; Neathamer Surveying, Inc., Agent). **The applicant has withdrawn this application.**

**New Business**

**50.2 LDP-16-096** Consideration for a proposed tentative plat to create three lots on a 0.47 acre parcel located on the northwest corner of the intersection of De Barr Avenue and Seneca Avenue, within an SFR-6 (Single-Family Residential – 6 dwelling units per gross acre) zoning district. (Elizabeth Carlton Investments, LLC, Applicant; Hoffbuhr & Associates, Inc., Agent)

Chair Miranda inquired whether any Commissioners have a conflict of interest or ex-parte communication they would like to disclose. None were disclosed.

Chair Miranda inquired whether anyone in attendance wishes to question the Commission as to conflicts of interest or ex-parte contacts. None were disclosed.

Desmond McGeough, Planner III, read the land division criteria and gave a staff report.

Vice Chair McFadden asked if there was a map showing the easements. Mr. McGeough reported that the easement is identified as a five foot easement on the backside of parcel one and along the west edge of parcel three. The easement was established approximately in 1994. That is the reason for requesting it on the final plat.

Chair McFadden asked where the irrigation easement was located. Mr. McGeough stated he does not see an irrigation easement. He sees a five foot private sewer easement located along the west edge of parcel two. It did appear there was a small ditch located along the north property line. He does not see any easement being represented on the plat.

Commissioner Mansfield asked if these were recorded easements. Mr. McGeough replied yes. Commissioner Mansfield stated that if these are recorded instruments they stay in perpetuity whether they are mentioned or not. Mr. McGeough agreed.

Commissioner Pulver stated that parcel three does not appear that it has off-street parking. How does that get addressed? Mr. McGeough reported that the applicant is rehabilitating the existing structure on parcel 3 and the Planning Commission could

require that improvement be done. He does not know if there is a code standard that would require that.

The public hearing was opened.

a., Scott Sinner, Scott Sinner Consulting, Inc., 4401 San Juan Drive, Medford, Oregon, 97504-9343. Mr. Scott Sinner reported that David Minneci of Hoffbuhr and Associates had a conflict this evening and asked Mr. Sinner to stand in. He and the owner, who is in the audience this evening, have reviewed the staff report and the Public Works report. They agree with all the terms and conditions and believe that the application meets all of the approval criteria.

The questions this evening have been regarding the easements. The access easement is noted on the west side of parcels one and three. The Rogue River Valley Irrigation District easement is along the north boundary line and will be maintained. If it cannot be maintained, it will be relocated to their standards prior to final plat. The applicant stipulates to that.

Mr. Sinner reserved time for rebuttal.

The public hearing was closed.

Motion: The Planning Commission adopts the findings as recommended by staff and directs staff to prepare a Final Order for approval of LDP-16-096 per the staff report dated October 6, 2016, including Exhibits A through L.

Moved by: Vice Chair McFadden      Seconded by: Commissioner Foley

Friendly amendment made by Commissioner Pulver: Add a requirement in order to receive final plat approval they address off-street parking issues on parcel three.

Voice Vote: Motion passed, 6-0.

**50.3 LDS-16-100** Consideration of a proposed tentative plat for Wilkshire Terrace, Phases 1-3, a, 35-lot single family residential subdivision on a 9.72 acre parcel, generally located southwest of the Wilkshire Drive terminus, east of the Roberts Road terminus, west of the Voss Drive terminus and east of the Canyon Avenue terminus, within a SFR-4 (Single Family Residential – 4 dwelling units per gross acreage) zoning district. (William Barchet ET AL; Applicant; Scott Sinner Consulting, Inc., Agent)

Chair Miranda inquired whether any Commissioners have a conflict of interest or ex-parte communication they would like to disclose. None were disclosed.

Chair Miranda inquired whether anyone in attendance wishes to question the Commission as to conflicts of interest or ex-parte contacts. None were disclosed.

Desmond McGeough, Planner III, stated that the land division criteria had been read with the previous application and gave a staff report. Mr. McGeough made a minor correction that Voss Street in the Public Works report has been requested to be a standard residential street because of a geometric configuration issue with a 63-foot right-of-way. The Planning staff report indicated that it was a minor residential street which is not correct. Also, staff sent the Commissioners a Department of State Lands form which they replied back indicating that it is a wetland. Late this afternoon staff received information from a nearby resident concerned about the possible removal of the flood control facility that is on the backside of this development. They requested that the current proposal be modified to allow for a wider buffer of the creek. Staff noted that it is just a flood control diversion channel. It is not an identified creek on the map. The wetland area does need to be contended with and mitigated if used.

Vice Chair McFadden asked if this property was one that the City considered increasing the density because of transportation issues? Mr. McGeough replied that this was one of the internal study areas that were examined in terms of up GLUPing to higher density residential. There was a strong turnout from the adjoining neighborhood and it was determined to leave it in the Urban Residential designation.

Commissioner Pulver asked what the process for evaluating flag lots is. Mr. McGeough reported that it has to meet lot width and depth standards, criteria and it is permitted by code.

The public hearing was opened.

a. Scott Sinner, Scott Sinner Consulting, Inc., 4401 San Juan Drive, Medford, Oregon, 97504-9343. Mr. Sinner reported that he is the agent for William Barchet who is in the audience this evening. This project has existing right-of-ways coming in from all different directions. It is encumbered with easements. Flag lots and minimum access easements are essential for infill development. That is the key tool they have for meeting density and lot design standards. There is not a creek on the property. There is a storm drainage facility on the northeast corner of parcel three.

Commissioner Mansfield has concerns that the density is not enough. Mr. Sinner reported that it is an existing SFR-4 zoning district. It is very important to the applicant that this fits in nicely with the vicinity.

Commissioner Mansfield stated there was discussion earlier from staff regarding the neighborhood wanting to keep it low density. Does Mr. Sinner know anything about that? Mr. Sinner replied that he does not know anything about the neighborhood wanting to keep it low density. He was not involved in the eternal review process of this project.

Vice Chair McFadden asked if the storm drainage will drain down Roberts Road or will it drain to the west side easement area and then down to the detention area? Mr. Sinner reported that the storm drainage is from high to low.

Mr. Sinner reserved rebuttal time.

The public hearing was closed.

Motion: The Planning Commission adopts the findings as recommended by staff and directs staff to prepare a Final Order for approval of LDS-16-100 per the staff report dated October 6, 2016, including Exhibits A through O.

Moved by: Vice Chair McFadden

Seconded by: Commissioner D'Alessandro

Commissioner Mansfield commented that he is still concerned about density. He is going to vote for the application because he heard from the agent that everyone wants it that way. He believes as the Planning Commission they need to be sensitive to the needs of the public and neighbors. On the other hand the Planning Commission has a duty to be leaders in the area of density.

Commissioner Pulver reported that he is going to vote no for opposite reasons of Commission Mansfield. It is important to have less dense areas in the City. It adds character and preserves the character of some of the older parts of the area. He has concerns with flag lots. It is his opinion that the two flag lots on this project will be trapped behind fences and will not create desirable living situations. He does not feel they are appropriate. He is not opposed to the project in general.

Chair Miranda asked if staff was still working towards the 6.6 density measurement or is that part of the Urban Growth Boundary amendment that is before the County at this point. Mr. McGeough reported that it is part of the Urban Growth Boundary amendment. Although, the intent of the MD areas that staff is seeking to be brought in is to increase density in those areas. In this circumstance it is meeting the zoning standards for the SFR-4 zoning district.

Voice Vote: Motion passed, 5-1, with Commissioner Pulver voting no.

**50.4 ZC-16-089 / LDS-16-090 / E-16-091** Consideration of a request for a consolidated application, consisting of a Zone Change from SFR-10 (Single Family Residential, 10 dwelling units per gross acre) to SFR-6 (Single Family Residential, 6 dwelling units per gross acre) on 22.34 acres, a tentative plat for a 93 lot residential subdivision, and an associated Exception requests seeking relief to planter strip requirement fronting particular lots within the subdivision and relief to street spacing standard for an intersection within the development. The subject site is located east of the terminus of Owen Drive and north of the terminus of Cheltenham Way, within corporate limits of

the City of Medford. (Hayden Homes LLC, Applicant; CSA Planning, Ltd.,/Jay Harland, Agent)

Chair Miranda inquired whether any Commissioners have a conflict of interest or ex-parte communication they would like to disclose. None were disclosed.

Chair Miranda inquired whether anyone in attendance wishes to question the Commission as to conflicts of interest or ex-parte contacts. None were disclosed.

Desmond McGeough, Planner III, stated that the land division criteria had been read with the first application. Mr. McGeough read the zone change and exception criteria and gave a staff report. Staff received a letter that the Commission has not received, from CSA Planning, asking for consideration to the extension of Owen Drive. Jay Harland of CSA Planning Ltd. will address the documents just submitted.

Commissioner Pulver asked if there was a specific code section that speaks to the requirements to fencing on a higher order street. Mr. McGeough stated that this component of Owen Drive is a major collector. There are standards for arterial roads for fences. It states that where there is reverse frontage on an arterial road that the backyard be separated by an 8-foot vertical separation. It states fence or wall. It does not specify a material.

Mr. McConnell asked if Mr. Harland's letter was in response to the comment made about the fence. Mr. McGeough replied no.

Mr. McConnell requested copies of the letter that Mr. Harland provided. Mr. McConnell distributed the copies to the Commission.

The public hearing was opened.

a. Jay Harland, CSA Planning, Ltd., 4497 Brownridge Terrace, Suite 101, Medford, Oregon, 97504-9173. Mr. Harland reported that this is a standard SFR-6 development with the exception of Owen Drive extension.

Mr. Harland addressed the vertical separation stating that it does not apply to collector roads only arterial roads. The curvature of the road lay out according to the engineering standards.

The main issue between the applicant and staff is the extension of Owen Drive and who pays for the extension. That is a preexisting subdivision. The infrastructure was not extended to the property line as is customarily done. There is right-of-way but no road to connect to. The original traffic study routed traffic out that direction as part of the analysis for the zone change of the entire 65 acres. Public Works can only do the percent credit which is approximately a third (\$2,000) per house. Lancaster Engineering looked at having the west bound distributed trips gone out Ford Drive rather than out

Owen Drive. That is what the memo speaks to. Public Works will need to review that so the applicant will have to come back in two weeks to hopefully deal with just that issue. The applicant is not objectionable to that.

Mr. Harland would like to take this opportunity to work through any other questions or issues the Commission may have on the balance of the project.

Vice Chair McFadden reiterated that the memorandum distributed this evening does not affect the Planning Commission. Mr. Harland agreed. It does not affect the design of the development. It affects whether or not the construction of Owen Drive is required to approve this development.

Vice Chair McFadden stated that at some point the Planning Commission approves the application as presented no matter the financial agreement between the City and the developer it will be developed built as drawn. Mr. Harland stated yes the project will get developed as drawn.

Commissioner Foley stated that he is confused on what the Planning Commission will rule on as it relates to Owen Drive. Mr. Harland reported that tonight will probably result in a continuance. Public Works is going to have to review what the applicant submitted this evening.

Mr. McConnell asked Mr. Harland if he was requesting to continue this application to the next Planning Commission meeting on Thursday, October 27, 2016. Mr. Harland replied yes.

b. Jef Tucker, 3384 Wellington Drive, Medford, Oregon, 97504. Mr. Tucker expressed concerns of the extension of Owen Drive into the new subdivision that is being discussed this evening. Mr. Tucker read a letter that all of the impacted homeowners in that area have signed and will be entered into the record. The letter reads: *"As neighbors impacted by the extension of Owen Drive, we have serious concerns regarding the construction of Owen Drive east of Springbrook Road. We believe the existing block wall west of Springbrook Road needs to be continued east of Springbrook Road when Owen Drive is continued east. Some of our houses are very close to the right-of-way. The block wall will not only provide a much needed sound barrier, but a safety barrier as well from a roadway that will become very busy in the future. Some of our patios and outdoor living spaces are just feet from the right-of-way and we have serious concerns of a car leaving the roadway and coming through a wooden fence."*

Vice Chair McFadden stated that this Commission does not have decisional criteria on the wall. That will be an issue between the developer and the City. He suspects this will go to the City Council depending on how it is funded.

c. Robert Williams, 3340 Sharman Way, Medford, Oregon, 97504. Mr. Williams asked if the development will go two or three houses past Owen Drive. Mr. McGeough

answered his question showing him on the computer but no one was able to hear the discussion.

Mr. Williams asked is Sharman going to be a cul-de-sac or a through street going to Owen Drive. Mr. Harland showed a map on ELMO and Mr. Williams stated that sites 68 and 69 will be feed into Sharman. Mr. Harland confirmed the statement.

Mr. Williams stated that last November on Black Friday around 2:00 a.m. a young lady trying to out race the police entered Owen Drive taking out 80 feet of fence and poles. Thirty feet of that fence was his. He could not find out who owned the fence. Nothing was done for approximately two months so he took it upon himself to clean the area. If there is a road there is the potential for accidents.

Mr. Williams reported that Commissioner Mansfield in a previous remark made the statement that an easement if recorded goes on into perpetuity. Can that ever be removed? Mr. Mansfield replied yes if the owner of the property conveys it back and records it.

Mr. Williams stated that on the backside of his property there was an easement from the Rogue Valley Irrigation District. They have relinquished that easement because the irrigation canal has been moved and installed underground. He is in the process of replacing his fence to his property line. The City should notify those property owners that the easement has been taken out. It took him through April to find out it had been removed.

Mr. Harland stated that he would have to discuss with the applicant regarding the block wall request.

It sounds like one of the issues Mr. Williams is having trouble of where to build the portion of his fence. Mr. Harland will talk with him that if they have a survey crew in that area they will install the flags for him.

The public hearing was closed.

Motion: The Planning Commission continued ZC-16-089, LDS-16-090 and E-16-091 per the applicant's request to the Thursday, October 27, 2016, Planning Commission meeting.

Moved by: Vice Chair McFadden

Seconded by: Commissioner Mansfield

Commissioner Foley asked Public Works could educate them on the status of the section of Owen Drive that is nonexistent? Alex Georgevitch, City Engineer reported that the section east of Springbrook to this subdivision was dedicated in a previous subdivision but not built at the time. His understanding that there was an agreement with the City Council that Owen Drive would not continue east as an arterial. He believes there was

some public involvement at the time of that development that rose to City Council direction. He does not know why it was not constructed at that time. Some of the time it is better not to build a facility if there is not going to be any traffic on it for a long period of time because it will fall apart.

Commissioner Foley asked as this development gets built is it the City's plan to build that section? Mr. Georgevitch replied that currently it is a condition of approval of this development that they build it to the west. The applicant has provided information that Public Works will take some time to review and determine if it is satisfactory to not require it and redirect traffic to another location.

Commissioner D'Alessandro asked what the anticipated maximum speed is if it was developed on Owen Drive. Mr. Georgevitch stated that speed is difficult for him to judge because it is based on the State's Speed Control Board on higher order facilities with the exception if it is deemed residential. Typically, they request a 30 mph speed limit on collectors.

Vice Chair McFadden asked if there was an agreement with the previous developer who was not required at the time to develop Owen Drive stating that now he is obligated. Mr. Georgevitch stated that was difficult for him to answer that question. Unfortunately the institution acknowledge has left and he does not believe there is anything in the record. Chances are because it is a higher order street it is SDC creditable. If Public Works did not require them to build it there was probably no condition for them to do it. That would be today's answer. He cannot speak for twenty years ago on how they would have responded to this or what a developer may have agreed to have done.

Commissioner Pulver asked is it the intent for Coker Butte to be an arterial to the east? Mr. Georgevitch reported that Coker Butte in the Transportation System Plan is a major arterial. This facility had an agreement with the City Council that has required Public Works to make it only a collector. With the Urban Growth Boundary expansion to the east and Foothill corridor becoming a primary route on the east side of Medford there is a desire to see facilities that will tie into it and move traffic east/west to Highway 62. They are not far enough along in the Transportation System Plan to make that determination.

Voice Vote: Motion passed, 6-0.

**50.5 CUP-16-094** Consideration of a Conditional Use Permit application to allow a new wireless communications facility, consisting of a 114-foot support structure and associated equipment cabinets used for communication systems. The subject site is located at the southwest corner of Hillcrest Road and Fairview Drive at the northeast property corner of tax lot 371W28B5900. (Verizon Wireless LLC, Applicant; Paul Slotemaker, Agent)

Chair Miranda inquired whether any Commissioners have a conflict of interest or ex-parte communication they would like to disclose. None were disclosed.

Chair Miranda inquired whether anyone in attendance wishes to question the Commission as to conflicts of interest or ex-parte contacts. None were disclosed.

Kelly Akin, Interim Planning Director, read the conditional use permit criteria and gave a staff report. Ms. Akin reported that staff received an email from a concerned citizen that was emailed to the Commission and will be entered into the record as Exhibit J.

Chair Miranda asked is there going to be some type of apparatus put on the light so that it could only be viewed from a certain height. Ms. Akin replied that it would be a shield below the light.

Vice Chair McFadden asked is staff in agreement that the neighboring cell tower is at its capacity? Ms. Akin reported that the applicant's findings state that the available slot on the existing cell tower is only 50 feet and they needed a height of 100 feet.

Chair Miranda asked is this an additional cell tower or the replacement of the shorter cell tower? Ms. Akin reported that the existing tower is a different service provider. This cell tower will be an additional cell tower not a replacement.

Mr. McConnell requested that Ms. Akin share the email that was received from the concerned citizen. The email is from Barbara Barnes, 207 Florence Avenue, Medford, Oregon, 97504. The email reads: *"Dear Planning Commission, I cannot make the meeting tonight but I want to urge denial of the Verizon Conditional Use Permit application. I do not live near the area but believe this is unfair to homeowners who live nearby. These towers are very unsightly and the City should at the very least require clear demonstration of public good being served rather than profit margins or convenience of the applicant."*

The public hearing was opened.

a. Paul Slotemaker, Technology Associates EC, Inc., 7117 SW Beveland Street, Suite 101, Tigard, Oregon, 97223. Mr. Slotemaker reported that this is a new wireless facility for Verizon Wireless. It is needed to keep up with the increasing demand for wireless communication on Medford. This is specifically designed for the next generation for LTE technology. This is one of several they are working on in Medford. Several of them were collocating or attaching to rooftops or other towers. In this area they explored those opportunities and it is predominately residentially developed. There are not a lot of tall structures. The existing wireless facility is an older "monopine". The "monopine" they are proposing will have a thicker branch structure. There are two wireless providers on the existing tower. It is a 90 foot tower with US Cellular on top then AT&T just below that. The only available height on that wireless facility drops to 50 feet above the ground. Verizon Wireless needs 100 feet to provide coverage to the coverage area.

They designed the "monopine" to go next to the existing tall trees to help the "monopine" blend in.

Commissioner Pulver asked, does the pole Verizon Wireless is proposing, have the ability to accommodate other wireless carriers in the future? Mr. Slotemaker reported yes. It is designed to accommodate at least two additional wireless carriers.

Commissioner Pulver asked, as far as Mr. Slotemaker knows, are there any detrimental health impacts to neighboring property owners or people in close proximity to the wireless facility? Mr. Slotemaker stated that the Commission cannot make decisions based on health effects. It is an FCC issue. The short answer is no. Verizon Wireless has a license regulated by the FCC; rate of frequency signals, broadcast television, radio stations. The FCC regulates Verizon's spectrums. They have a license to operate in their particular spectrum to avoid other wireless carrier. The FCC also has regulations on the power output of wireless communication facilities. The applicant included a report in their application that demonstrates they are at a fraction of the allowable limit. They are well below the FCC standards for wireless communication signal strength. The FCC is continually soliciting reports from outside agencies both domestic and international on the latest rate of frequency research. They have a current understanding of wireless communications and any possible health effects and what the limits should be. So far they have not seen any need to adjust those limits.

Commissioner Mansfield stated that he presumes the FCC standards are based partly on the health considerations to neighbors. Is that correct? Mr. Slotemaker replied yes.

Chair Miranda stated that the other cell tower is 90 feet. The application requests a 114-foot cell tower. Why does it have to be so tall? Mr. Slotemaker stated that they provided radio frequency maps that help show the coverage area of the facility. The antennas need to be at 100 feet in order have a clear line of sight to the coverage area. As it goes lower it loses the clear line of sight to the coverage area. The 14 feet is for the tapered look of a tree; basically for aesthetics.

Mr. Slotemaker reserved rebuttal time.

b. Matt Corrigan 53 Fairway Circle, Medford, Oregon, 97504. Mr. Corrigan does not object to the project. He objects to the sight and its proximity to the residential area. Mr. Corrigan referenced the Association of Realtors and Zillow that has research showing that it does affect property values. Surely there are commercial sites elsewhere for this facility.

Commissioner Mansfield stated that Mr. Corrigan referenced research regarding the diminution in market values caused by these projects. Would Mr. Corrigan provide that material? Mr. Corrigan stated that he would be happy to.

c. Frank Brown, 2901 Fairview Drive, Medford, Oregon, 97504. Mr. Brown is concerned with property values and radiation. He has the survey by realtors indicating the impact of cell phone towers in residential areas.

Commissioner Mansfield stated that Mr. Brown made reference to health considerations. Does he have scientific data to provide to the Planning Commission to help make decisions on this? Mr. Brown reported that the internet is full of information. Could he provide the information for those who do not access the internet?

Chair Miranda stated that they are receiving new information this evening that the Planning Commission has not had an opportunity to review or consider. He is not sure where to take that at this point. Ms. Akin reported there are two ways to go about this. She did not hear anyone ask to keep the record open. That is an option when additional information is submitted. If the applicant wants to continue the item, this can be done if the Planning Commission authorizes the continuance. Commissioner Mansfield asked Mr. Corrigan to submit information which can be done and passed on to the Commission for information but she does not believe it would be part of the record because it was not presented at the meeting this evening.

Commissioner Mansfield stated that he had hoped to continue this matter until the next regular Planning Commission meeting on Thursday, October 27, 2016. Can they get the applicant to graciously agree to give the Planning Commission the additional time to receive the requested information? Or if the rest of the Planning Commissioners do not consider it to be important then perhaps they want to proceed ahead. He considers it to be important and would like to receive the requested information.

Chair Miranda concurred with Commissioner Mansfield.

Vice Chair McFadden stated that he does not believe it is important. The Planning Commission has approved many of these in the City already. North Medford has at least eight on top of their school. It is an interesting topic and open for debate. In his opinion people can review and judge this proposal without feeling there is something more that maybe they have not run into in their normal life. He does not have an issue with making a decision this evening.

Mr. McConnell stated that the Planning Commission cannot make the applicant agree to a continuance. He read an excerpt from the Quasi-Judicial Hearing Statement: "...Before the hearing is closed, anyone who needs more time to present evidence must ask for more time. If you ask, the hearing will be continued or the record will be kept open; and you will have at least seven days to present additional written evidence." This evening the Planning Commission heard from speakers and they did not ask for more time. The public hearing is still open. It would be hard to address the public's concerns without the evidence before the Commission.

Ms. Akin pointed out that at the beginning of this hearing she read the approval criteria. There are two criteria for conditional use permits. The applicant's burden is to satisfy one of the criteria and not both. The first one speaks to adverse impacts on the livability, value, or appropriate development of abutting property. The second one acknowledges that there may be some adverse impacts but those impacts may be mitigated through conditions of approval. There is the lengthy list of eleven different items that she showed at the end of her presentation. It is an either or. In this application type the applicant is not required to satisfy both criteria. It is one or the other.

Commissioner Mansfield responded to these points stating that both objectors have stated that there are real property impairment problems and their possible health problems. Neither one has supported that with data. He is not making any findings personally one way or the other. He would like to see the data before he makes some findings. On the other hand Vice Chair McFadden feels he is satisfied. Is it appropriate for him to make a motion to continue this application? Mr. McConnell stated that it is not appropriate at this time but a speaker may exercise their rights.

Mr. Corrigan asked for a continuance at this time based on the grounds that he requested and have agreed to provide the information to Commissioner Mansfield and Chair Miranda.

Chair Miranda asked Mr. Corrigan is seven days adequate time for him to submit his data? Mr. Corrigan replied yes.

Chair Miranda asked Ms. Akin if the applicant has seven days to respond to the data submitted taking it out to fourteen days. Ms. Akin reported that it depends on how the Planning Commission manages the request. It is the Commission's option to close the public hearing and leave the record open. If that is the case then whoever wants to submit has seven days. The applicant has equal amount of time to respond. By law staff is required to publish an agenda seven days before the public hearing. The other option would be to continue the hearing which the record is open and anyone can participate until the Planning Commission makes their decision. Staff's preference is to keep the hearing open rather than the record. The agenda will be published by the end of the day on Thursday, October 20, 2016, for the Thursday, October 27, 2016, Planning Commission meeting.

Commissioner Pulver stated that Mr. Brown raised the point of the aesthetics of the cell towers over time. Would that be a Code Enforcement issue? Ms. Akin replied yes.

Mr. Slotemaker stated that regarding the condition of approval that the language for the flush mounting was removed.

Mr. Slotemaker thanked the neighbors exercising their right to comment. Their input is valuable.

Addressing the health effects is regulated by the FCC. The decision of the facility cannot be based on health affects because that is the FCC's jurisdiction.

Addressing property values is not an uncommon question. The application submitted demonstrates they meet the code criteria that they have mitigated the impacts of the facility. That is the purpose of the stealth "monopine" design they are proposing. He has his own studies that he will submit into the record. He has talked to county assessors and he has never seen one of them be able to say a wireless facility does impact property value. It is not a measureable impact.

Wireless facilities provide a beneficial impact to the area with reliable wireless service. Forty seven percent of homes have cut off their land lines. They are expecting that to increase beyond fifty percent. The importance of the wireless facility is communicating with 911. Reliable wireless service is expected from people these days. This wireless facility is part of that, to ensure there is reliable wireless service. The wireless facility does need to be located in the area that the service is provided. Increasingly they get closer to residential. They have made an effort to avoid being in the neighborhood. That is why they looked to the golf course. The service area includes the residential area.

Mr. Slotemaker presented a visual of typical radio frequency exposure. The FCC public standard at 700 MHz (100%) graphed out at 467. For a 40 foot "monopole" it is only 1% of the allowed limit.

The maintenance of the wireless facility will be a condition of approval. Overtime it will be maintained to look as it is designed and was approved as a tree.

Mr. McConnell asked if Mr. Slotemaker had the FCC federal regulations that Verizon is relying on that the Planning Commission cannot impose conditions of approval regarding health effects. Mr. Slotemaker stated that is in the 1996 Tele Com Act. He does not have that language with him.

Chair Miranda asked if it has been considered to augment or build up on the existing cell tower. Mr. Slotemaker reported that they did approach US Cellular. In order to increase the height of the tower it would require a complete change out of that tower. The code would look at that as a new tower. Also, US Cellular would reserve the right to the top because they own the tower.

Motion: The Planning Commission continued CUP-16-094 to the Thursday, October 27, 2016, Planning Commission meeting.

Moved by: Commissioner Mansfield

Seconded by: Commissioner Foley

Voice Vote: Motion passed, 5-1, with Vice Chair McFadden voting no.

## 60. Reports

### 60.1 Site Plan and Architectural Commission.

Commissioner D'Alessandro reported that the Site Plan and Architectural Commission met on Friday, October 7, 2016. They considered plans for the construction of a 3,777 square foot two story multiple-family building consisting of five dwelling units on 0.28 gross acres located at 105 Tripp Street within the MFR-20 zoning district. They approved the application.

### 60.2 Report of the Joint Transportation Subcommittee.

Commissioner Pulver reported that the Joint Transportation Subcommittee has not met.

### 60.3 Planning Department

Kelly Akin, Interim Planning Director, reported that there are two ballot measures regarding marijuana retailing. Whether the City will or will not ban marijuana retailers and if the public does not want the City to ban marijuana retailers whether there will be a local 3% tax on the marijuana retailers. The text amendment had the retail line on the use chart. Staff will not bring it back to the Planning Commission for reconsideration. Staff will forward their prior recommendation which was to make that use conditional in the C-C, C-R and C-H zoning districts. Staff will move it forward to the City Council in order to expedite it. It is scheduled for the December 1, 2016, City Council meeting.

The next Planning Commission study session is scheduled for Monday, October 24, 2016. Discussion will be on craft distilleries and the a-frame signs downtown.

There is business for the next Planning Commission meeting on Thursday, October 27, 2016. There are also hearings scheduled for Thursday, November 10, 2016 and Thursday December 8, 2016. Thursday, November 24, 2016, is Thanksgiving. The Thursday December 22, 2016 meeting will more than likely be cancelled.

Last Thursday at the City Council meeting the Mayor read a proclamation proclaiming October National Community Planning month. Today, the Planners were at Hawthorne Park at the Farmer's Market meeting and greeting the public.

The next City Council meeting Planning has an initiation of a right-of-way vacation related to Cedar Landing that will come before the Planning Commission soon.

There have been changes in planning staff. Mr. Huber retired. Mr. Adam resigned and moved to Manhattan, Kansas. Donna Holtz moved to the City Manager's office. Ms. Akin is the Interim Planning Director and Carla Paladino has taken over John Adam's duties managing the long range division. Desmond McGeough is helping Ms. Akin manage the current planning division. Cheryl Adams is helping until an Office Administrator replacement is hired. There were 119 applicants for the Office Administrator position.

A while back there was a request from one of the Planning Commissioners to attend the Columbia Connection Conference, October 26, 27 and 28, 2016, in Portland. If a Commissioner is interested please let staff know as soon as possible.

Commissioner Foley stated that assuming the ballot measures pass and there are marijuana retailers in the City. If he recalls correctly there was a “kerfuffle” where the Commission had discussed a conditional use then decided not but then when it went to City Council it was there. It seemed messy to him. Ms. Akin showed a visual of the table that was adopted and retail is not permitted at this point. The Planning Commission had recommended conditional uses and the City Council adopted the ordinance as they are permitted. There are special operating conditions. Staff will continue to bring forward the Planning Commission’s recommendation. Staff’s recommendation was not the same. They recommended that the uses be permitted outright.

- 70. Messages and Papers from the Chair. None.
- 80. Remarks from the City Attorney. None.
- 90. Propositions and Remarks from the Commission. None.
- 100. Adjournment

The meeting was adjourned at 8:40 p.m. The proceedings of this meeting were digitally recorded and are filed in the City Recorder’s office.

Submitted by:

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Terri L. Rozzana  
Recording Secretary

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Patrick Miranda  
Planning Commission Chair

Approved: October 27, 2016



# Planning Department

*Working with the community to shape a vibrant and exceptional city*

## REVISED STAFF REPORT

For a Type-C quasi-judicial decision: Zone Change

**PROJECT** Delta Estates Subdivision Phase 2-5, Zone Change, Tentative Plat & Exception  
Hayden Homes, LLC, Applicant (CSA Planning Ltd., Jay Harland, and Agent)

**FILE NO.** ZC-16-089, LDS-16-090, E-16-091

**TO** Planning Commission

*for October 27, 2016 hearing*

**FROM** Desmond McGeough, Planner III 

**DATE** October 20, 2016

## BACKGROUND

### Proposal

Consideration of a request for a consolidated application, consisting of a Zone Change from SFR-10 (Single Family Residential, 10 dwelling units per gross acre) to SFR-6 (Single Family Residential, 6 dwelling units per gross acre) on 22.34 acres, a tentative plat for a 93-lot residential subdivision, and an associated exception requests seeking relief to planter strip requirement fronting particular lots within the subdivision and relief to street spacing standard for an intersection within the development. The subject site is located east of the terminus of Owen Drive and north of the terminus of Cheltenham Way, within corporate limits of the City of Medford.

### Subject Site Characteristics

Zoning: SFR-10  
GLUP: Urban Residential  
Existing Use: Vacant

### PUD Surrounding Site Characteristics

North	County EFU	Agriculture
South	SFR-4	Single-Family Residential, Vacant Single Family Residential Lots
East	SFR-10	Wetland pond, Future Single Family Residential
West	SFR-6	Single-Family Residential

Related Projects

ANNX-97-084	Root Annexation (65.27 ac.)
ZC-10-078	SFR-00/EA (Single Family Residential, one dwelling unit per parcel/Exclusive Agricultural Overlay) to SFR-10 on 65.27 acres
LDP-13-086	Delta Waters Properties, three lot partition
ZC-15-017	SFR-10 to SFR-6 on 11.36 acres, Delta Estates Phase 1
LDS-15-015	57-lot single-family residential subdivision plat
E-15-0016	Relief to particular setbacks (Denied)

Applicable Criteria

Medford Land Development Code Section 10.227: Zone Change Approval Criteria

The zone change criteria that are not relevant to this particular application are hereby omitted from the following citation and noted by \*\*\*.

*The approving authority (Planning Commission) shall approve a quasi-judicial zone change if it finds that the zone change complies with subsections (1) and (2) below:*

*(1) The proposed zone is consistent with the Transportation System Plan (TSP) and the General Land Use Plan Map designation. A demonstration of consistency with the acknowledged TSP will assure compliance with the Oregon Transportation Planning Rule.) Where applicable, the proposed zone shall also be consistent with the additional locational standards of the below sections (1)(a), (1)(b), (1)(c), or (1)(d). Where a special area plan requires a specific zone, any conflicting or additional requirements of the plan shall take precedence over the locational criteria below.*

\*\*\*

*(2) It shall be demonstrated that Category A urban services and facilities are available or can and will be provided, as described below, to adequately serve the subject property with the permitted uses allowed under the proposed zoning, except as provided in subsection (c) below. The minimum standards for Category A services and facilities are contained in the MLDC and Goal 3, Policy 1 of the Comprehensive Plan "Public Facilities Element."*

*(a) Storm drainage, sanitary sewer, and water facilities must already be adequate in condition, capacity, and location to serve the property or be extended or otherwise improved to adequately serve the property at the time of issuance of a building permit for vertical construction.*

*(b) Adequate streets and street capacity must be provided in one of the following ways:*

*(i) Streets which serve the subject property, as defined in Section 10.461(2), presently exist and have adequate capacity; or*

*(ii) Existing and new streets that will serve the subject property will be improved and/or constructed, sufficient to meet the required condition*

*and capacity, at the time building permits for vertical construction are issued; or*

- (iii) If it is determined that a street must be constructed or improved in order to provide adequate capacity for more than one proposed or anticipated development, the Planning Commission may find the street to be adequate when the improvements needed to make the street adequate are fully funded. A street project is deemed to be fully funded when one of the following occurs:*
  - (a) the project is in the City's adopted capital improvement plan budget, or is a programmed project in the first two years of the State's current STIP (State Transportation Improvement Plan), or any other public agencies adopted capital improvement plan budget; or*
  - (b) when an applicant funds the improvement through a reimbursement district pursuant to the MLDC. The cost of the improvements will be either the actual cost of construction, if constructed by the applicant, or the estimated cost. The "estimated cost" shall be 125% of a professional engineer's estimated cost that has been approved by the City, including the cost of any right-of-way acquisition. The method described in this paragraph shall not be used if the Public Works Department determines, for reasons of public safety, that the improvement must be constructed prior to issuance of building permits.*
- (iv) When a street must be improved under (b)(ii) or (b)(iii) above, the specific street improvement(s) needed to make the street adequate must be identified, and it must be demonstrated by the applicant that the improvement(s) will make the street adequate in condition and capacity.*
- (c) In determining the adequacy of Category A facilities, the approving authority (Planning Commission) may evaluate potential impacts based upon the imposition of special development conditions attached to the zone change request. Special development conditions shall be established by deed restriction of covenant, which must be recorded with proof of recordation returned to the Planning Department, and may include, but are not limited to the following:*
  - (i) Restriction of uses by type or intensity; however, in cases where such a restriction is proposed, the Planning Commission must find that the resulting development pattern will not preclude future development, or intensification of development, on the subject property or adjacent parcels. In no case shall residential densities be approved which do not meet minimum density standards,*

- (ii) *Mixed-use, pedestrian-friendly design which qualifies for the trip reduction percentage allowed by the Transportation Planning Rule,*
- (iii) *Transportation Demand Management (TDM) measures which can be reasonably quantified, monitored, and enforced, such as mandatory car/van pools.*

**Medford Land Development Code Section 10.270: Land Division Approval Criteria**

*The approving authority (Planning Commission) shall not approve any tentative plat unless it first finds that, the proposed land division together with the provisions for its design and improvement:*

- (1) *Is consistent with the Comprehensive Plan, any other applicable specific plans thereto, including Neighborhood Circulation Plans, and all applicable design standards set forth in Article IV and V;*
- (2) *Will not prevent development of the remainder of the property under the same ownership, if any, or of adjoining land or of access thereto, in accordance with this chapter;*
- (3) *Bears a name that has been approved by the approving authority and does not use a word which is the same as, similar to, or pronounced the same as a word in the name of any other subdivision in the City of Medford; except for the words "town", "city", "place", "court", "addition", or similar words; unless the land platted is contiguous to and platted by the same applicant that platted the land division bearing that name; or unless the applicant files and records the consent of the party who platted the land division bearing that name and the block numbers continue those of the plat of the same name last filed;*
- (4) *If it includes the creation of streets or alleys, that such streets or alleys are laid out to be consistent with existing and planned streets and alleys and with the plats of land divisions already approved for adjoining property unless the approving authority determines it is in the public interest to modify the street pattern;*
- (5) *If it has streets or alleys that are proposed to be held for private use, that they are distinguished from the public streets or alleys on the tentative plat, and reservations or restrictions relating to the private streets or alleys are set forth;*
- (6) *Will not cause an unmitigated land use conflict between the land division and adjoining agricultural lands within the EFU (Exclusive Farm Use) zoning district.*

**Medford Land Development Code Section 10.253: Exception Approval Criteria**

*No exception, in the strict application of the provisions of this chapter, shall be granted by the approving authority (Planning Commission/Site Plan and Architectural Commission) having jurisdiction over the plan authorization unless it finds that all of the following criteria and standards are satisfied. The power to authorize an exception from the terms of this code shall be sparingly exercised. Findings must indicate that:*

- (1) The granting of the exception shall be in harmony with the general purpose and intent of the regulations imposed by this code for the zoning district in which the exception request is located, and shall not be injurious to the general area or otherwise detrimental to the health, safety, and general welfare or adjacent natural resources. The Planning Commission/Site Plan and Architectural Commission shall have the authority to impose conditions to assure that this criterion is met.*
- (2) The granting of an exception will not permit the establishment of a use which is not permitted in the zoning district within which the exception is located.*
- (3) There are unique or unusual circumstances which apply to this site which do not typically apply elsewhere in the City, and that the strict application of the standard(s) for which an exception is being requested would result in peculiar, exceptional, and undue hardship on the owner.*
- (4) The need for the exception is not the result of an illegal act nor can it be established on this basis by one who purchases the land or building with or without knowledge of the standards of this code. It must result from the application of this chapter, and it must be suffered directly by the property in question. It is not sufficient proof in granting an exception to show that greater profit would result.*

#### Corporate Names

Delta Waters Properties, LLC. is the owner of this property. The Oregon State Business Registry lists James M. Root as its Registered Agent. Hayden Homes, LLC. is the applicant for the subject request. The Oregon State Business Registry list Dennis Murphy is the Register Agent for Hayden Homes, LLC.

## **ISSUES AND ANALYSIS**

### Background

#### *Prior Approvals*

The subject property was annexed to the City of Medford in 1998 (Ordinance 1998-126, file ANNX-97-084). The Planning Commission adopted a final order of approval for the Delta Waters Properties LLC zone change on February 10, 2011, which changed the zoning of the property from SFR-00 to SFR-10, subject to conditions (ZC-10-078). The SFR-10 zone district requires a density range of 6 to 10 dwelling units per gross acre.

On November 14, 2013, the Planning Commission adopted a final order dividing the original 65.27 acre parcel into three parcels for the purposes of estate planning. A condition of approval was included specifying that no residential development would occur on any of the three parcels until a subsequent final plat was approved for that particular parcel.

On April 23, 2015, the Planning Commission adopted final orders for a Zone Change from SFR-10) to SFR-6 on one parcel totaling 11.36 acres and a tentative plat for a 57-lot residential subdivision.

*Removal of specific traffic mitigation conditions of approval*

The Planning Commission adopted a final order of approval for the Delta Waters Properties LLC zone change on February 10, 2011, which changed the zoning of the property from SFR-00 to SFR-10, subject to conditions (ZC-10-078). Based on the traffic study that was submitted in 2010, there were a total of seven conditions of approval pertaining to traffic mitigation requirements. In January of 2016, the applicant submitted a revised technical memorandum from the applicant’s traffic engineer. The Public Works Department has determined that two of the previous conditions could be eliminated. One condition had been met by street improvements made by the City. The other condition was released as a result of a change in the Code standards which impacted the analysis of current and future traffic conditions (See Exhibit B - Applicant’s Exhibit 10). The table below identifies the seven required traffic mitigation measures, per the approval of ZC-10-078. The two removed conditions are in strikeout text.

<b>Intersection Improvements Per ZC-10-078</b>	
<b>CATEGORY “A” FACILITIES</b> <i>Proposed Mitigation</i>	<b>CAPACITY LIMITS</b> <i>(SFR units or daily vehicle trips)</i>
<b>Crater Lake Avenue &amp; Owen Drive</b> <i>Install mitigation to the satisfaction of the City</i>	<i>Over 50 SFR units or 479 trips</i>
<del><b>Delta Waters Road &amp; Springbrook Road</b></del> <del><i>Realign Springbrook and install signal</i></del>	<del><i>Over 69 SFR units or 661 trips</i></del>
<del><b>Crater Lake Avenue &amp; Delta Waters Road</b></del> <del><i>East &amp; westbound left turn lanes, eastbound right turn lane</i></del>	<del><i>Over 76 SFR units or 728 trips</i></del>
<b>Delta Waters Rd. &amp; Foothill Rd.</b> <i>All-way stop &amp; advanced flashing beacons</i>	<i>Over 246 SFR units or 2,355 trips</i>
<b>Springbrook Rd. &amp; Cedar Links Dr.</b> <i>All-way stop control</i>	<i>Over 320 SFR units or 3,063 trips</i>
<b>Springbrook Rd. &amp; Lone Pine Rd.</b> <i>Northbound right turn lane</i>	<i>Over 470 SFR units or 4,498 trips</i>
<b>Crater Lake Highway (Hwy 62) &amp; Delta Waters Rd.</b> <i>Additional westbound left turn lane, or demonstrate adequacy.</i>	<i>Over 346 dwelling units or equivalent p.m. peak hour trips</i>

Project Summary

The subject request for a consolidated application, consisting of a Zone Change from SFR-10 (Single Family Residential, 10 dwelling units per gross acre) to SFR-6 (Single Family Residential, 6 dwelling units per gross acre) on 22.34 acres, a tentative plat for a 93-lot residential subdivision, and an associated exception requests seeking relief to planter strip requirement fronting

particular lots within the subdivision and relief to street spacing standard for an intersection within the development. The subject site is located east of the terminus of Owen Drive and north of the terminus of Cheltenham Way.

Under the current SFR-10 zoning, the number of units that would be required for Phases 2 through 5 would range from a minimum of 134 units to a maximum of 223 units. Under the proposed SFR-6 designation, the number of dwelling units that can be built on the subject property will range from 89 to 134 units. If the subject SFR-6 zoning is approved there will be 31.5 acres remaining of SFR-10 zoned property out of the original 65.27 acres. If the 93-lot subdivision is approved, overall 65.27 acre development will contain a minimum of 339 units and a maximum of 465 units.

The proposed subdivision consists of a street pattern where streets are generally aligned north to south and east to west. Approximately 27% of the dwelling units have an east or west orientation and 73% of the lot have a north or south orientation. Development standards contained in Medford Land Development Code (MLDC) Section 10.710 for the SFR-6 zoning district require a 50-foot minimum interior lot width and 60-foot corner lot width. Minimum lot depth is 90 feet. Lot area requirements for the SFR-6 zone range in size from a minimum of 4,500 square feet to a maximum of 12,500 square feet. The proposed tentative plat is consistent with all development standards of the MLDC.

The third component to this application is an exception request, where the applicant seeks relief in intersection spacing and the elimination of the 10 foot wide street planter on the west side of Durst Street. Further discussion regarding the exception will be addressed in the exception criteria compliance section.

### Density

Based on the 22.34 gross acre project area, the minimum number of units that could be built is 89 and the maximum number permitted is 134. The applicant has proposed a total of 93 units for Delta Estates Phases 2-5. The overall density for Phases 2 through 5 calculates to 4.16 dwelling units per gross acre, which is the lower end of the required density range of the SFR-6 zone district.

### Analysis

#### *Zone change*

An itemized analysis of the proposed rezone request based on the criteria outlined in Medford Land Development Code (MLDC) Section 10.227 cited above is as follows:

#### *Section 10.227(1):*

*The proposed zone is consistent with the Transportation System Plan (TSP) and the General Land Use Plan Map designation. A demonstration of consistency with the acknowledged TSP will assure compliance with the Oregon Transportation Planning Rule.) Where applicable, the proposed zone shall also be consistent with the additional locational standards of the below sections (1)(a), (1)(b), (1)(c), or (1)(d). Where a*

*special area plan requires a specific zone, any conflicting or additional requirements of the plan shall take precedence over the locational criteria below.*

*b) For zone changes to SFR-6 or SFR-10 where the permitted density is proposed to increase,\* one (1) or more of the following conditions must exist:*

*(i) At least one (1) parcel that abuts the subject property is zoned the same as the proposed zone, either SFR-6 or respectively; or*

*(ii) The area to be rezoned is five acres or larger; or*

*(iii) The subject property, and abutting parcel(s) that are in the same General Land Use Plan Map designation and vacant, when combined, total at least five acres.*

*Findings of Fact, Staff:*

In regard to locational criteria expressed in Section 10.227(1)(b), the subject application proposes a decrease in density. Therefore no additional locational criteria, other than the General Land Use Plan designation, apply to this application.

In their approval of the 2010 zone change, the Planning Commission found the zone change was consistent with the General Land Use Plan Map and the Transportation System Plan (TSP) and thus with the Transportation Planning Rule. The underlying General Land Use Plan (GLUP) Map designation on the subject property is UR (Urban Residential). The SFR-6 zone district is a permitted zone under this classification.

The applicant's Findings of Fact and Conclusions of Law (Exhibit B) note that the zone change reduces trip generation when compared to the current SFR-10 zoning and therefore the proposed zone change is fully consistent with the City's Transportation System Plan (TSP). Staff concurs with the Applicant's Findings and recommends the Commission adopt the applicant's Findings pertaining to TSP compliance as submitted.

*Section 10.227(2):*

*It shall be demonstrated that Category A urban services and facilities are available or can and will be provided, as described below, to adequately serve the subject property with the permitted uses allowed under the proposed zoning, except as provided in subsection (c) below. The minimum standards for Category A services and facilities are contained in the MLDC and Goal 3, Policy 1 of the Comprehensive Plan "Public Facilities Element."*

*(a) Storm drainage, sanitary sewer, and water facilities must already be adequate in condition, capacity, and location to serve the property or be extended or otherwise improved to adequately serve the property at the time of issuance of a building permit for vertical construction.*

*Findings of Fact, Staff:*

*Storm drainage:* The subject properties have access to existing storm drainage facilities in the area, which have the capacity to serve their property under the proposed zoning. The Owen Drive storm drainage facility, installed for Delta Estates, was designed to provide sufficient storm drainage capacity of the entire 65.27 acre development. Staff has reviewed the applicant's Findings of Fact and Conclusions of Law (Exhibit B) and recommends that the Planning Commission adopt the Findings as submitted by the Applicant.

*Sanitary sewer:* The subject site lies within the City of Medford Sewer Service Area. A condition of approval for the original zone change of this property (ZC-10-078) limits future construction to 380 single family units until the City upgrades the Terminal Spur Trunk Line. At that time, the developer could add an additional 60 single family units before additional upgrades become necessary. The Applicant's findings (Exhibit B) recognize the Phase 1 final plat proposed tentative plat for phase 2 through 5 contains a total of 148 single family units. Thus a total of 212 dwelling units could be constructed on the remaining 31.57-acre SFR-10 zoned property without exceeding the 380 dwelling unit cap. The proposed zone change to SFR-6 will have the result of lowering the density and total number of units on the 22.34-acre property. Therefore, there is a reduced impact to the existing sewer system with the proposed change of zone. Staff has reviewed the applicant's Findings of Fact and Conclusions of Law (Exhibit B) and recommends that the Planning Commission adopt the Findings as submitted by the Applicant.

*Water:* Municipal water services are provided to the subject properties by the Medford Water Commission. The Medford Water Commission has determined that access to existing MWC water lines is available to connect subject property to MWC facilities. No off-site water line installation is required and there is adequate capacity in the MWC system to serve the subject property. Staff has reviewed the applicant's Findings of Fact and Conclusions of Law (Exhibit B) and recommends that the Planning Commission adopt the Findings as submitted by the applicant.

(b) *Adequate streets and street capacity must be provided in one of the following ways:*

(i) *Streets which serve the subject property, as defined in Section 10.461(2), presently exist and have adequate capacity;*

\*\*\*

*Findings of Fact, Staff:*

As determined in the Planning Commission decision on ZC-10-078, adequate street capacity does not exist without specific transportation system mitigation. Nothing in this zone change to SFR-6 changes the prior conclusions of the Planning Commission in regard to the transportation deficiencies or mitigation. The conditions of approval provided for ZC-10-078 are identified above in the background discussion. As noted in the discussion above, two of the seven conditions of approval for ZC-10-078 are no longer applicable due to a change in the

development code standard and street improvement made by the City. Approval of this zone change lowers potential number of units and therefore will reduce traffic generation associated with the overall development project. Staff has reviewed the applicant's Findings of Fact and Conclusions of Law (Exhibit B) and recommends that the Planning Commission adopt the Findings as submitted by the Applicant.

#### *Land Division*

An itemized analysis of the proposed tentative plat based on the criteria outlined in Medford Land Development Code Section 10.270 cited above is as follows:

- (1) Is consistent with the Comprehensive Plan, any other applicable specific plans thereto, including Neighborhood Circulation Plans, and all applicable design standards set forth in Article IV and V;*

The subject application is consistent with the North Medford Circulation Plan. Local streets are not identified on the North Medford Circulation Plan. Owen Drive, located in Phase 2 and the north boundary of Phase 3 and 4, is identified in the circulation plan as a "Major Collector" street. Owen Drive will ultimately intersect with the future McLoughlin Drive alignment at the northeast corner Residual Parcel 1. McLoughlin Drive is also classified as a "Major Collector" street. Both higher order streets were recognized as future streets in an exhibit in the 2013 Planning Commission approval of three-lot partition for Delta Estates (LDP-13-086).

The subject tentative plat meets all design standards set forth in MLDC Articles IV and V, excluding the subject interrelated exception requests regarding intersection distance and the planter strip elimination. The exception request will be discussed further below. Subject lots of tentative plat are consistent with all lot width, depth and size requirements of Article V. The proposed street layout of Phases 2 through 5 is consistent with maximum block length and maximum block periphery provisions of Article IV. Subject to approval of the exception request, the Planning Commission can find that the tentative subdivision plat meets Criterion 1.

- (2) Will not prevent development of the remainder of the property under the same ownership, if any, or of adjoining land or of access thereto, in accordance with this chapter;*

This application meets this criterion, and will not prevent future development of the remainder of this property or of adjoining lands. The Commission can find that Criterion 2 is met.

- (3) Bears a name that has been approved by the approving authority and does not use a word which is the same as, similar to, or pronounced the same as a word in the name of any other subdivision in the City of Medford; except for the words "town", "city", "place", "court", "addition", or similar words; unless the land platted is contiguous to and platted by the same applicant that platted the land division bearing that name; or unless the applicant files and records the consent of the party who platted the land division bearing that name and the block numbers continue those of the plat of the same name last filed;*

The applicant's findings of fact and conclusions of law provide that the subject plat will bear the name of "Delta Estates", which was approved by the County Surveyor for Phase 1 of the development. The Commission can find Criterion 3 is met.

*(4) If it includes the creation of streets or alleys, that such streets or alleys are laid out to be consistent with existing and planned streets and alleys and with the plats of land divisions already approved for adjoining property unless the approving authority determines it is in the public interest to modify the street pattern;*

The subject land division lies at the existing termini of Ford Drive, Cheltenham Way, Torrent Street and Owen Drive. The proposed development proposes the continuation of these residential streets and the Major Collector classification for Owen Drive. The Commission can find Criterion 4 is met.

*(5) If it has streets or alleys that are proposed to be held for private use, that they are distinguished from the public streets or alleys on the tentative plat, and reservations or restrictions relating to the private streets or alleys are set forth;*

The Applicant's Findings note that there are no private streets or alleys are proposed by this application and Criterion 5 is not applicable. However, the tentative plat does identify two minimum access streets, which will provide access to lots 68, 69, 70, 80, 81, and 82. While minimum access streets may be utilized as "street frontage" they are privately held access easements upon private property and not considered a public street. The final plats submitted for the development will need to distinguish the private streets on the plat and plat declarations pertaining to such easements set forth. Staff recommends that the Commission adopt findings within this staff report pertaining to Criterion 5. A condition of approval has been included requiring the final plat to distinguish the minimum access easements and provide declarations to their purpose.

*(6) Will not cause an unmitigated land use conflict between the land division and adjoining agricultural lands within the EFU (Exclusive Farm Use) zoning district.*

Based on the Applicant's Agricultural Assessment analysis of the adjacent EFU zoned lands, the property appears to be used primarily for passive agricultural uses. The north portion of tax lot 800 appears to have orchards. However, the orchard lies over 600 feet to the north of the subject property, separated by Garret Creek and grass pasture lands. The adjoining tax lot 900 has a small area, which also appears to be active orchard lands. However, the orchard is over a quarter-mile from the subject property. The area of tax lot 900, adjacent to the site, appears to be an area of pasture lands. EFU lands that are utilized for pasturing of livestock is considered passive agriculture use. Required mitigation for passive agriculture includes; a 6-foot fence or wall, a deed declaration regarding the adjoining passive agriculture, and measures to mitigate adverse impact of periodic natural run off and agricultural irrigation run off.

It should be noted that lot 70, immediately adjacent to the EFU lands, will have a six-foot high fence. It should be further noted that lots adjacent to tax lot 900 will be separated by Owen Drive, which will have a 63-foot wide interim cross section. Lots 107 through 114 face away

from the agricultural area, will be separated by Owen Drive, and will have a 6-foot fence. Lots 83 and 99 side to Owen Drive and will have a six foot street side yard fence. Based on the Applicant's Agricultural Assessment, the Planning Commission can find Criterion 6 is met.

**Owen Drive Off-Site Extension issue (See Exhibit I, J & K)**

With the submittal of the subject application, the Applicant's Findings stated that they would stipulate to constructing the Owen Drive Extension, from the project site to Springbrook Road, subject to dollar-for-dollar SDC credit. The Public Works report identifies that City Code does not allow for dollar-for-dollar SDC credit reimbursement. The technical memorandum from Lancaster Engineering notes that the only material difference between constructing the project without the Owen Drive Extension is that westbound Owen Drive traffic will use Ford Drive and Springbrook Road, and the intersection of Owen Drive at Springbrook Road would operate at LOS C. (Exhibit 'J')

The correspondence from Peter Mackprang of Public Works, dated October 20, 2016, notes additional data is needed to analyze the development without the Owen Drive extension. The project agent has received this information and will seek to provide the needed information in the Public Works correspondence (Exhibit K) early next week. Should planning staff receive the Public Works analysis of new data prior to the October 27, 2016 Public Hearing, it will be forwarded to the Planning Commission as soon as possible for their review.

*Land Division Recommendation*

Staff recommends that the Commission adopt staff's findings for Criterion 5. Staff recommends that the Planning Commission adopt the land division findings for Criteria 1 through 4 and 6 as submitted by the Applicant. Subject to a positive result of the traffic analysis by Public Works regarding the revised traffic circulation through the development, staff recommends that the Commission approve the Land Division application.

*Exception Request*

The applicant has requested two separate but interrelated exception requests. The first exception request pertains to minimum distance between intersections (MLDC 10.426D). This section notes; "streets intersecting other streets shall be directly opposite each other, or offset by 200 feet". The applicant asserts in the Findings that this can be interpreted as a provision intended to prevent off-set intersections. Owen Drive continues through the development and Durst Street is a T-intersection. Thus, the minimum spacing requirement is not necessarily applicable to this particular design configuration.

As a precaution, the applicant has provided exception findings regarding section 10.240 (D) should the Commission not find the interpretations plausible. When looking at the application of the provision to the context of this particular scenario, staff notes the applicant's interpretation is plausible. As Torrent Street and Durst Street are local residential streets with somewhat relatively limited number of units generating the traffic at intersection of Torrent Street and Durst Street, it does not appear the difference between 190-foot spacing between streets versus a 200 foot separation becomes significant. Staff recommends that the

Commission find the interpretation plausible and the street design consistent with the intent code.

The second exception request addressed by the applicant pertains to the removal of the 10-foot planter strip on a very short segment of Durst Street. This will allow the spacing between Durst Street and Owen Drive to be 190 feet rather than 180 feet.

Findings must indicate that:

*(1) The granting of the exception shall be in harmony with the general purpose and intent of the regulations imposed by this code for the zoning district in which the exception request is located, and shall not be injurious to the general area or otherwise detrimental to the health, safety, and general welfare or adjacent natural resources. The Planning Commission/Site Plan and Architectural Commission shall have the authority to impose conditions to assure that this criterion is met.*

The exception is clearly in harmony with the general purpose and intent of the regulations imposed by this Code for the zoning district in which the exception request is located. Approval of this exception will not be injurious to the general area, or detrimental to the health, safety, general welfare and natural resources in the area. First, the subject request only is applicable to a short segment of Durst Street on one side.

Second, staff finds the request for exception to be a preferred design scenario. When the 2,100-foot maximum block perimeter causes the creation of an additional street, a 20 percent increase in block perimeter is permissible. An absolute maximum block perimeter maximum of 2,520 linear feet would be acceptable under the Code. The applicant could potentially terminate Durst Street into a cul-de-sac with the 450-foot depth permitted by code. If the plat was to be designed to terminate Durst Street into a cul-de-sac, the resulting block perimeter would be 2,500 feet which is less than the absolute maximum perimeter requirement. This would likely result in the loss of one lot as to create the 45 foot cul-de-sac radius.

If the planter strip for Durst Street was required for the short length, and the street extended through, from Cheltenham Street to Torrent Street, it would result in in a very sharp reverse curve on the west side of Durst Street and would result in the loss of lot 63. Alternatively, staff finds removing the planter strip on Durst Street, for a limited extent, the most preferable scenario for the following reasons:

- The extent of the planter strip removal is limited
- Durst Street would extend through from Cheltenham Street to Torrent Street without a sharp reverse curve
- Durst Street would not terminate in a Cul-de-sac, as permitted otherwise by meeting the block length standards without Durst Street being a though connection.
- Removal of the planter strip results in an additional 10-foot separation, between Owen Drive and Durst Street while allowing Durst Street to fully extend between Cheltenham Street and Torrent Street.

Based on the Applicant's findings, the Commission can find Criterion 1 is satisfied.

*(2) The granting of an exception will not permit the establishment of a use which is not permitted in the zoning district within which the exception is located.*

The requested exception pertains to physical improvements of the development. In no way does the granting of exception establish a use that is not permitted in the SFR-6 zone district. Staff recommends that the Commission adopt the Applicant's findings as submitted. The Commission can find that Criterion 2 is met.

*(3) There are unique or unusual circumstances which apply to this site which do not typically apply elsewhere in the City, and that the strict application of the standard(s) for which an exception is being requested would result in peculiar, exceptional, and undue hardship on the owner.*

The Applicant's Findings note there are unusual circumstances in this instance relating to the design and street connections required that are to be extended to Owen Drive (Cheltenham Street and Torrent Street). There are potential design solutions that would allow for street segments to contain the required planter strip and fully comply with code. One possibility would be to terminate Durst Street towards the west end in a cul-de-sac, or the adding another north bound street to connect into Owen Drive, which is a Major Collector Street. However, this would involve another intersection with Owen Drive, a higher order street. Under both of these design scenarios, it appears that the applicant would lose a lot(s). However, from a circulation perspective, much is lost in terms of establishing a better local street network pattern by permitting the limited exception.

With the proposed design, as provided by the tentative plat, Durst Street becomes a through street, block perimeters are smaller, and there is an additional 10-foot separation between Owen Street and Durst Street. In other words, the proposed subdivision design with the exception approval is preferable to an alternative subdivision design that fully complies with all aspects of the code. The need for exception results from the Owen Drive transition to current alignment on the west end, resulting in a truncated block on the west end and the current alignments of the north to south streets. This creates an oddly shaped internal parcel that is a challenge in both street connectivity and lot utility. Staff concurs with the Applicant that outcome of exception approval is a benefit to the overall circulation pattern for the neighborhood.

Staff recommends that the Commission adopt the Applicant's findings as submitted. The Commission can find that Criterion 3 is met.

*(4) The need for the exception is not the result of an illegal act nor can it be established on this basis by one who purchases the land or building with or without knowledge of the standards of this code. It must result from the application of this chapter, and it must be suffered directly by the property in question. It is not sufficient proof in granting an exception to show that greater profit would result.*

The need for the Exception is not the result of an illegal act, nor would it be established on the basis that Applicant purchased land with or without knowledge of the standards, it and is suffered by the particular property in question, given the existing street connections that must be made and the alignment shift of Owen Drive. The subdivision design presented appears to be the most efficient use of the space within the block. Full compliance with code would likely result in the loss of a lot with either a cul-de-sac improvement or removal of Lot 63 to provide a through connection of Durst Street. However, the demonstrated circulation pattern allows for much smaller blocks and increased connectivity and limits access to Owen Drive, which are positive benefits to neighborhood circulation. Staff recommends that the Commission adopt the Applicant's findings as submitted. The Commission can find that Criterion 4 is met.

### **FINDINGS AND CONCLUSIONS**

Staff has reviewed the applicant's findings and conclusions (Exhibit B) and recommends the Commission adopt the applicant's findings as submitted, with exception of Criterion 5 of the Land Division. Staff recommends that the Commission adopt Staff's Findings for Criterion 5 as provided within this report.

### **RECOMMENDED ACTION**

Adopt findings as recommended by staff and direct staff to prepare a Final Orders for approval of ZC-16-089, LDS-16-090 and E-16-091 per the revised staff report dated October 20, 2016, including Exhibits A through K.

### **EXHIBITS**

- A Conditions of Approval, dated October 6, 2016
- B Applicant's Findings of Fact, received July 25, 2016, including exhibits listed below:
  - Demonstration of Compliance with Applicable Standards
  - Jackson County Assessor plat map 37-1W-08, which contains and depicts the subject property
  - City of Medford GLUP Map
  - Current City of Medford Zoning Map on Aerial
  - Proposed Medford Zoning Map
  - Zoning Tech Memo
  - Conditions of Approval from Planning File No. ZC-078
  - Removal of Conditions Letter, Dated January 28, 2016.
  - Civil Plans
  - Planter Strip Exception Plan
  - Partition Plant and legal description of subject parcels
  - Irrigation Canal Piping Easement
  - Storm Drain and Access Easement
  - Agricultural Impact Assessment Report, July 18, 2016

- Application Addendum, received September 27, 2016, including:
  - Updated Tentative Plat, Delta Estates Phases 2 through 5
  - Drainage Easement Partial Plan
  - Owen Drive Cross Section
- C Public Works Department Report pertaining to Zone Change dated, September 14, 2016
- D Public Works Department Staff Report pertaining to Land Division & Exception dated, September 14, 2016
- E Medford Water Commission Staff Memo, dated September 14, 2016
- F Medford Fire Department report, prepared September 13, 2016
- G Medford Building Department Staff Memo, dated September 13, 2016
- H Oregon Department of Aviation E-mail correspondence, received September 8, 2016
- I Owen Drive Extension Memorandum from CSA Planning, received October 13, 2016
- J Lancaster Engineering Technical Memorandum Alternative Scenario, received October 13, 2016.
- K Public Works correspondence to Lancaster Engineering, dated October 20, 2016.  
Vicinity map

**PLANNING COMMISSION AGENDA:**

**OCTOBER 13, 2016  
OCTOBER 27, 2016**

**EXHIBIT A**  
**Conditions of Approval**  
**October 6, 2016**

**ZC-16-089 / LDS-16-090 / E-16-091**  
**Delta Water Estates Phases 2 through 5**  
**Zone Change, Subdivision & Exception Request**

**Code Conditions**

1. The property owner shall comply with the reports from the Public Works Department dated September 14, 2016 (Exhibit C & D).
2. The property owner shall comply with the report from the Medford Water Commission dated September 14, 2016 (Exhibit E).
3. The property owner shall comply with the report from the Medford Fire Department prepared September 13, 2016 (Exhibit F).
4. The applicant shall identify the private minimum access easements on the final plats for Phase 2 through 5 and set forth reservations or restrictions relating to the private streets in the plat declaration statement.

BEFORE THE PLANNING COMMISSION  
FOR THE CITY OF MEDFORD  
JACKSON COUNTY, OREGON

IN THE MATTER OF AN APPLICATION )  
FOR A ZONE CHANGE FROM SFR-10 )  
TO SFR-6, FOR A TENTATIVE )  
SUBDIVISION PLAT APPROVAL, AND )  
SEEKING TWO INTERRELATED )  
EXCEPTIONS REGARDING )  
INTERSECTION SPACING STANDARDS )  
ON AN AREA OF LAND HAVING 54.14 )  
ACRES LOCATED WITHIN THE )  
CORPORATE LIMITS OF THE CITY OF )  
MEDFORD, OREGON )  
)  
Applicant: Hayden Homes, LLC: )  
Owner: Delta Waters Properties, LLC )  
Agent: CSA Planning, Ltd. )

FINDINGS OF FACT AND  
CONCLUSIONS OF LAW

*Applicant's Exhibit 2*

I

SUMMARY AND SCOPE OF APPLICATION

Applicant Hayden Homes, LLC seeks approval for a Zone Change from SFR-10 to SFR-6 for a 22.34 acre area of land and a Land Division to create 91 residential lots plus two detention pond lots and two reserve parcels totaling 54.14 acres on Parcels 2 and 3 of Partition Plat No. P-26-2014. This application is a continuation of the first phase of the Delta Estates Subdivision. The first phase has obtained final plat and homes are under construction in that area. This project proposes five additional phases.

Accompanying this application for land division, Applicant tenders two interrelated Exception requests. The purpose of the Exceptions is to provide a through-street (avoiding a cul-de-sac) where Owen Drive extends through but curves up to the north property line. The existing street stub location for Owen Drive is just under the distance necessary to achieve the full 200-foot intersection spacing standard. The interrelated exceptions seek to balance these competing street design challenges in an optimum manner that maximizes the amount of intersection spacing that can be achieved while maintaining the street design standards as much as possible.

**APPLICANT REQUEST:** The subdivision is proposed in phases and Applicant respectfully requests the Planning Commission approve a time schedule for platting the individual phases for up to five years as allowed by MLDC 10.269(2).



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II

**EVIDENCE SUBMITTED WITH APPLICATION**

Applicant herewith submits the following evidence with its application for Land Division and Exception:

- Exhibit 1.** Signed and Completed Zone Change, Land Division and Exception Application Forms with Authorization from the current property owner, Delta Waters Properties LLC and the Applicant, HHM.
- Exhibit 2.** The proposed Findings of Fact and Conclusions of Law (this document) demonstrating how the Zone Change, Land Division and Exception application complies with the applicable substantive criteria of the MLDC
- Exhibit 3.** Demonstration of Compliance with Applicable Standards
- Exhibit 4.** Jackson County Assessor plat map 37-1W-08, which contains and depicts the subject property
- Exhibit 5.** City of Medford GLUP Map
- Exhibit 6.** Current City of Medford Zoning Map on Aerial
- Exhibit 7.** Proposed Medford Zoning Map
- Exhibit 8.** Zoning Tech Memo
- Exhibit 9.** Conditions of Approval from Planning File No. ZC-10-078.
- Exhibit 10.** Removal of Conditions Letter, Dated January 28, 2016.
- Exhibit 11.** Tentative Plat
  - a. Overall Site
  - b. Phases 2, 3, 4, & 5
- Exhibit 12.** Civil Plans
  - a. Conceptual Grading and Drainage Plan- C.1- (Sheets 1 & 2)
  - b. Conceptual Water and Sewer Plan- C.2- (Sheets 3 & 4)
- Exhibit 13.** Planter Strip Exception Plan
- Exhibit 14.** Partition Plat and Legal Description of subject parcels
- Exhibit 15.** Irrigation Canal Piping Easement
- Exhibit 16.** Storm Drain and Access Easement
- Exhibit 17.** Agricultural Impact Assessment Report, July 18, 2016



III

**RELEVANT SUBSTANTIVE APPROVAL CRITERIA**

The criteria under which the application for Land Division must be approved are in Section 10.270, of the Medford Land Development Code (MLDC). The approval criteria are recited verbatim below and again in Section V, where each are followed by the conclusions of law:

**City of Medford Approval Criteria**

**ZONE CHANGE**

**MLDC 10.227 ZONE CHANGE CRITERIA** *(Inapplicable provisions omitted)*

The approving authority (Planning Commission) shall approve a quasi-judicial zone change if it finds that the zone change complies with subsections (1) and (2) below:

- (1) The proposed zone is consistent with the Transportation System Plan (TSP) and the General Land Use Plan Map designation. A demonstration of consistency with the acknowledged TSP will assure compliance with the Oregon Transportation Planning Rule.) Where applicable, the proposed zone shall also be consistent with the additional locational standards of the below sections (1)(a), (1)(b), (1)(c), or (1)(d). Where a special area plan requires a specific zone, any conflicting or additional requirements of the plan shall take precedence over the locational criteria below.
  - (b) For zone changes to SFR-6 or SFR-10 where the permitted density is proposed to increase, one (1) of the following conditions must exist:
    - (i) At least one (1) parcel that abuts the subject property is zoned the same as the proposed zone, either SFR-6 or SFR-10 respectively; or
    - (ii) The area to be rezoned is five (5) acres or larger; or
    - (iii) The subject property, and any abutting parcel(s) that is(are) in the same General Land Use Plan Map designation and is(are) vacant, when combined, total at least five (5) acres.
- (2) It shall be demonstrated that Category A urban services and facilities are available or can and will be provided, as described below, to adequately serve the subject property with the permitted uses allowed under the proposed zoning, except as provided in subsection (c) below. The minimum standards for Category A services and facilities are contained in Section 10.462 and Goal 2 of the Comprehensive Plan "Public Facilities Element" and Transportation System Plan.
  - (a) Storm drainage, sanitary sewer, and water facilities must already be adequate in condition, capacity, and location to serve the property or be extended or otherwise improved to adequately serve the property at the time of issuance of a building permit for vertical construction.
  - (b) Adequate streets and street capacity must be provided in one (1) of the following ways:
    - (i) Streets which serve the subject property, as defined in Section 10.461(2), presently exist and have adequate capacity; or
    - (ii) Existing and new streets that will serve the subject property will be improved and/or constructed, sufficient to meet the required condition and capacity, at the time building permits for vertical construction are issued; or
    - (iii) If it is determined that a street must be constructed or improved in order to provide adequate capacity for more than one (1) proposed or anticipated development, the

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Planning Commission may find the street to be adequate when the improvements needed to make the street adequate are fully funded. A street project is deemed to be fully funded when one (1) of the following occurs:

- (a) the project is in the City's adopted capital improvement plan budget, or is a programmed project in the first two (2) years of the State's current STIP (State Transportation Improvement Plan), or any other public agencies adopted capital improvement plan budget; or
- (b) when an applicant funds the improvement through a reimbursement district pursuant to the MLDC. The cost of the improvements will be either the actual cost of construction, if constructed by the applicant, or the estimated cost. The "estimated cost" shall be 125% of a professional engineer's estimated cost that has been approved by the City, including the cost of any right-of-way acquisition. The method described in this paragraph shall not be used if the Public Works Department determines, for reasons of public safety, that the improvement must be constructed prior to issuance of building permits.
- (iv) When a street must be improved under (b)(ii) or (b)(iii) above, the specific street improvement(s) needed to make the street adequate must be identified, and it must be demonstrated by the applicant that the improvement(s) will make the street adequate in condition and capacity.
- (c) In determining the adequacy of Category A facilities, the approving authority (Planning Commission) may evaluate potential impacts based upon the imposition of special development conditions attached to the zone change request. Special development conditions shall be established by deed restriction or covenant, which must be recorded with proof of recordation returned to the Planning Department, and may include, but are not limited to the following:
  - (i) Restriction of uses by type or intensity; however, in cases where such a restriction is proposed, the Planning Commission must find that the resulting development pattern will not preclude future development, or intensification of development, on the subject property or adjacent parcels. In no case shall residential densities be approved which do not meet minimum density standards,
  - (ii) Mixed-use, pedestrian-friendly design which qualifies for the trip reduction percentage allowed by the Transportation Planning Rule,
  - (iii) Transportation Demand Management (TDM) measures which can be reasonably quantified, monitored, and enforced, such as mandatory car/van pools.

**OREGON TRANSPORTATION PLANNING RULE**  
*Oregon Administrative Rules Chapter 660, Division 12*

**SECTION 660-012-0060**

- (1) Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:
  - (a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);
  - (b) Change standards implementing a functional classification system; or



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- (c) As measured at the end of the planning period identified in the adopted transportation system plan:
- (A) Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;
  - (B) Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or
  - (C) Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.

### **LAND DIVISION – Tentative Subdivision Plan**

#### **10.270 Land Division Criteria**

The approving authority (Planning Commission) shall not approve any tentative plat unless it first finds that, the proposed land division together with the provisions for its design and improvement:

- (1) Is consistent with the Comprehensive Plan, any other applicable specific plans thereto, including Neighborhood Circulation Plans, and all applicable design standards set forth in Article IV and V;
- (2) Will not prevent development of the remainder of the property under the same ownership, if any, or of adjoining land or of access thereto, in accordance with this chapter;
- (3) Bears a name that has been approved by the approving authority and does not use a word which is the same as, similar to, or pronounced the same as a word in the name of any other subdivision in the City of Medford; except for the words "town", "city", "place", "court", "addition", or similar words; unless the land platted is contiguous to and platted by the same applicant that platted the land division bearing that name; or unless the applicant files and records the consent of the party who platted the land division bearing that name and the block numbers continue those of the plat of the same name last filed;
- (4) If it includes the creation of streets or alleys, that such streets or alleys are laid out to be consistent with existing and planned streets and alleys and with the plats of land divisions already approved for adjoining property unless the approving authority determines it is in the public interest to modify the street pattern;
- (5) If it has streets or alleys that are proposed to be held for private use, that they are distinguished from the public streets or alleys on the tentative plat, and reservations or restrictions relating to the private streets or alleys are set forth;
- (6) Will not cause an unmitigated land use conflict between the land division and adjoining agricultural lands within the EFU (Exclusive Farm Use) zoning district.

### **EXCEPTION**

#### **10.253 Criteria for an Exception**

No exception, in the strict application of the provisions of this chapter, shall be granted by the approving authority having jurisdiction over the plan authorization unless it finds that all of the following criteria and standards are satisfied. The power to authorize an exception from the terms of this code shall be sparingly exercised. Findings must indicate that:

- (1) The granting of the exception shall be in harmony with the general purpose and intent of the regulations imposed by this code for the zoning district in which the exception request is located, and shall not be injurious to the general area or otherwise detrimental to the health, safety, and general welfare or adjacent natural resources. The approving authority shall



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have the authority to impose conditions to assure that this criterion is met. (Effective Dec. 1, 2013).

- (2) The granting of an exception will not permit the establishment of a use which is not permitted in the zoning district within which the exception is located.
- (3) There are unique or unusual circumstances which apply to this site which do not typically apply elsewhere in the City, and that the strict application of the standard(s) for which an exception is being requested would result in peculiar, exceptional, and undue hardship on the owner.
- (4) The need for the exception is not the result of an illegal act nor can it be established on this basis by one who purchases the land or building with or without knowledge of the standards of this code. It must result from the application of this chapter, and it must be suffered directly by the property in question. It is not sufficient proof in granting an exception to show that greater profit would result.

### **AGRICULTURAL BUFFERING**

#### **MLDC10.801 Agricultural Buffering in Non-Urban Reserve Areas**

##### **B. Applicability.**

The provisions of this Section apply to the development permit applications listed below in this subsection where land proposed for urban development is not in an urban reserve (see Regional Plan Element) and abuts and has a common lot line with other land which is zoned Exclusive Farm Use (EFU) or Exclusive Agriculture (EA). However, development which requires City approval for more than one of the below development permit applications for the same development shall be required to demonstrate compliance with the provisions of this Section only in the first such application.

- (1) Land Divisions.
- (2) Planned Unit Developments.

##### **D. Mitigation and Impact Management.**

- (1) **Agricultural Classification (Intensive or Passive).** For the purposes of this Section, agricultural land is hereby classified as either intensive or passive. Intensive agriculture is defined as farming which is under intensive day-to-day management, and includes fruit orchards and the intensive raising and harvesting of crops or, notwithstanding its current use, has soils of which a majority are class I through IV as determined by the NRCS, has irrigation water available and is outside of the Urban Growth Boundary. Passive agriculture is defined as farming that is not under intensive day-to-day management, and includes land used as pasture for the raising of livestock. The approving authority shall determine whether adjacent agricultural uses are intensive or passive based upon the specific circumstances of each case and the nature of agriculture which exists on the adjacent land zoned EFU or EA at the time the urban development application is filed and accepted by the City.
- (3) **Mitigation - Passive Agriculture.** To minimize or mitigate the adverse potential impacts associated with the proximity of urban and agricultural land uses, the following measures shall be undertaken by the developer when urban development is proposed adjacent to land in passive agricultural use:
  - (a) **Fencing.** A wood fence, chain link fence, or masonry wall, not less than six (6) feet in height shall be installed at the property boundary where the development property adjoins and has a common property line with land zoned EFU or EA. In no case shall a fence or wall be required within a front yard area. The fence or wall used to buffer agricultural land shall comply with the regulations regarding fencing, Sections 10.731 through 10.735. Information shall be provided regarding the long-term maintenance responsibility for the fence or wall.



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- (b) Deed Declaration. The deed declaration required in subsection 10.801.D(2)(c) shall be required.
- (c) Irrigation Runoff. Measures appropriate to the circumstances present shall be undertaken by the urban developer to mitigate adverse impacts which occur from periodic naturally occurring runoff and inadvertent agricultural irrigation runoff.
- (4) Discretionary Mitigation Measures/Design Considerations. In addition to the specific mitigation measures required in Subsections 10.801.D(2) and 10.801.D(3), an applicant shall also consider the following design items and the approving authority may, in its sole discretion, impose conditions which do any of the following:
  - (a) Increase the rear or side yard setback to afford greater spatial separation between agriculture and urban development.
  - (b) Regulate the location of garages and parking areas to place them between dwellings and other buildings intended for human occupancy and agricultural land.
  - (c) Require the placement of streets, driveways, open space or common areas between urban development and agricultural land.
  - (d) Require fencing and landscaping, including the use of berms, in excess of that required in Subsection 10.801.D.
  - (e) Regulate or require other mitigation measures or features deemed reasonably necessary and appropriate by the approving authority to protect the public health, safety and general welfare, and to make urban development compatible with agricultural uses which exist on adjacent lands zoned EFU or EA.

**E. Alteration or Removal of Buffering Measures.**

The measures required by the approving authority to buffer agricultural land from urban uses and development may be altered or removed entirely when the zoning of an adjacent and touching agricultural land is changed from EFU or EA to a city zoning district other than EA. No alteration or removal of the agricultural land buffering features shall cause the removal of fencing or landscaping which is required to meet the Bufferyard requirements of Sections 10.790 through 10.796.



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IV

FINDINGS OF FACT

The Planning Commission reaches the following facts and finds them to be true with respect to this land use application:

- ✓ 1. **Property Location:** The property is located at the northern termini of Cheltenham Way and Torrent Street and abuts the parcel where Owen Drive is planned to be extended to the east. The property is within the corporate limits of the City of Medford and its adopted and acknowledged urban growth boundary.
- ✓ 2. **Property Description and Acreage:** The property is identified in the records of the Jackson County Assessor as Tax Lots 1101 and 1102 in Township 37 South Range 1 West in Section 08. In 2013 the parent parcel, Tax Lot 1100, was partitioned into three parcels. The subject properties are identified as Parcels 2 and 3 and have approximately 54.14 total acres.
- ✓ 3. **Subject Property Ownership:** The subject property is under contract for purchase by HHM which has provided a limited power of attorney and consented in writing to this zone change, subdivision and exception application. Delta Waters Properties LLC is the seller and current owner of the property has also provided a limited power of attorney to authorize the application. *See*, Exhibit 1 which includes a power of attorney from the Delta Waters Properties LLC and HHM.
- ✓ 4. **Comprehensive Plan Map Designation:** The property is designated Urban Residential on the Medford Comprehensive Plan Map.<sup>1</sup>
5. **Zoning Map Designation:** The subject property is zoned City SFR-10. Proposed zoning is SFR-6. In preparing maps for this application it was found that the current City Zoning map does not accurately reflect the previous rezoning of the Delta Estates Phase 1 lots 0053 to 057 from SFR-10 to SFR-6. Our maps reflect the current zone of these adjacent lots. Please see Exhibits 6 and 8.
- ✓ 6. **Existing Land Use:** The property contains an old barn and some small agriculturally related outbuildings. The property is currently used for low intensity agricultural uses including bee-keeping and some limited field farming.
- ✓ 7. **Intended Land Use:** Property is to be developed as a single-family residential subdivision.
8. **Topography:** The property slopes gently from the west up to the east at one to two percent grade. There is a small ridge that runs along the eastern edge of the property with a farm pond beyond. Topography does not represent a significant constraint for urban utilization of the property.

<sup>1</sup> Medford often refers to its comprehensive plan map as the Generalized Land Use Plan or GLUP map.



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9. **Wetlands; Floodplain:** According to Medford and Jackson County Geographical Information System (GIS) data bases taken from the U.S. National Wetland Inventory, the subject property contains irrigation ditches, including the Hopkins Canal. There is no identified floodplain and the Applicant has piped the Hopkins Canal so that there is no impact on this project. See, Exhibit 15. Two lots, Lots 71 and 100, will contain storm water detention ponds. The pond on Lot 71 is already constructed and will be deeded to the City at, or immediately after, final plat of Phase 2. It will provide storm detention for Phases 1 and 2. Lot 100 will remain in private ownership until the drainage pond has been constructed, at which time the intension is to deed it to the City. It will provide detention for Phases 3 to 5 and future phases on the residual property. In addition, there is an existing minor drainage ditch along the southern border. This ditch will continue to be accessible to the City of Medford for maintenance through a new access easement.
10. **Surrounding Land Uses:** The GLUP map (Exhibit 5) and Zoning Map which is overlaid on an aerial photo (Exhibit 6) accurately depict the pattern of land partitioning and development in the surrounding area. The land uses that surround the subject property and which are further described as follows:
- A. **Surrounding Area Characteristics:** The property is located within Medford's urban growth boundary with urban uses to the south and west and agricultural uses to the east and north.
- B. **East:** Lands to the east contains some low intensity agricultural properties that are outside the urban growth boundary, but within an Urban Reserve. They are currently planned by Jackson County as Agricultural and zoned Exclusive Farm Use (EFU), but as part of MD-3 are planned as Urban Residential and Neighborhood Commercial. The residual parcels abut these properties. These properties have been included in the Council's recommendation for UGB inclusions being finalized and forwarded on to Jackson County.
- C. **South:** To the south and southwest are Urban Residential lands zoned SFR-4. These lands are developed with single-family dwellings constructed in the early 1980s through the mid-1990s and also to the south and southwest is the first two phases of Delta Estates where home construction is currently occurring.
- D. **West:** To the west are Urban Residential lands, zoned SFR-6. These lands are developed with single-family dwellings constructed in the early 1980s through the mid-1990s. The residential lands to the west constitute a fairly narrow strip between the subject property (~1/4 mile) and commercial and industrial lands along Highway 62.
- E. **North:** Lands to the north contains some low intensity agricultural properties that are outside the urban growth boundary, but within an Urban Reserve. They are planned by Jackson County as Agricultural and zoned Exclusive Farm Use (EFU), but as part of MD-3 are planned as Urban Residential. The properties are owned by Rocky Knoll LLC. The lands contain a large drainage area for Garrett Creek, some low intensity agricultural and rural uses and a small orchard on the north side of the Garrett Creek drainage. One residential lot, two on-site detention ponds and the extension of Owens Drive will abut these parcels. These properties have been



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included in the Council's recommendation for UGB inclusions being finalized and forwarded on to Jackson County.

**11. Essential (Category "A") Public Facilities:** The comprehensive plan defines Category "A" public facilities as: (1) Sanitary sewage collection and treatment; (2) Storm Drainage; (3) Water Service; (4) Transportation Facilities. The Planning Commission finds the following facts with respect to each of the Category "A" public facilities:

**A. Sanitary Sewer Service (Collection):** The property is in the area served by City of Medford. Existing 8-inch sanitary sewer lines are adjacent to the property in several locations. Based the findings adopted for the SFR-10 zone change, there exist some downstream deficiencies for full development of the originally zoned SFR-10 area but the zone change established adequate sewer capacity for up to 380 dwelling units without the need for additional mitigation. Consequently, the proposed 91 residential lots will still provide for up to 232 dwelling units on the remaining Delta Waters Properties LLC lands prior to the need for any sanitary sewer mitigation improvements. The proposed zone change to SFR-6 will reduce the amount of sanitary sewer demand when compared to the existing SFR-10 zoning.

**B. Sanitary Sewer Service (Treatment):** According to representatives of the Medford Engineering Department, sewage wastewater collected and transported by the Bear Creek Interceptor is treated at the Medford Regional Water Reclamation Plant, which is located near Bybee Bridge where Table Rock Road crosses the Rogue River. The plant serves the Rogue Valley Sewer Services (RVSS)<sup>2</sup> and the cities of Central Point, Jacksonville, Medford, Phoenix and Eagle Point. A portion of the service charges levied on customers is allocated to treatment costs. The Regional Rate Committee as established in the September 23, 1985 Regional Sewer Agreement is authorized to set treatment charges and rates for the regional system. The Regional Rate Committee reviews the charges and rate structures annually, and rate adjustments are made as necessary. Systems development charges are allocated to plant expansion. Monthly service charges levied on customers are allocated to treatment costs, equipment repair and replacement, and plant upgrades to meet changing regulations.

- The Vern Thorpe Regional Water Reclamation Facility, more commonly known as the Medford Regional Water Reclamation Facility (RWRF), was built in 1970 by the City of Medford as a regional facility to treat sewage from the cities of Central Point, Jacksonville, Medford, Phoenix, Talent and rural areas of Jackson County served by Rogue Valley Sewer Service (RVSS). The original RWRF capacity was 10 million gallons per day (MGD) average dry weather flow
- RWRF capacity was doubled between 1980 and 1990 through several incremental expansions. In 1992 the RWRF was permitted for a 20 MGD average dry weather flow, and 60 MGD wet weather flow. Subsequent to 1992 several more projects have been constructed to improve plant operating

<sup>2</sup> Formerly Bear Creek Valley Sanitary Authority (BCVSA)



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reliability, energy efficiency, and bio-solids handling capabilities, as well as increase the reliable wet weather flow handling capacity to 80 MGD.

- The average daily influent flow for 2004 was 15.7 mgd, an increase from 13.2 mgd in 1988 and 14.1 mgd in 1994.
- In 2012, West Yost Associates updated the Medford Regional Water Reclamation Facility Master Plan. Table 4-8 states that the Peak Wet Weather Flow (PWWF) at the plant is currently 91 MGD. The plan lays forth the capital improvements to the plant that are planned over the next ten years specifically and subsequent 10 years more generally. The planned improvements are funded by rate payers and systems development charges and will increase the capacity of the plan to handle a PWWF of 118 MGD by 2030 to serve a future 2030 City of Medford population of 115,286.
- The proposed zone change from SFR-10 to SFR-6 will reduce the demand for sewer treatment.

**C. Water Distribution Lines:** Water is available to the property via multiple water lines that are gravity served by the Capital Hill water reservoir. An 8-inch water line is available at the terminus of Cheltenham Way. A 12-inch water line is available at the terminus of Ford Drive. The zone change from SFR-10 to SFR-6 will reduce the demand for water.

**D. Water Supply:** According to the Medford Water Commission Manager, the Medford water system presently serves a population of ±80,000. The present maximum daily use is 45 million gallons per day, (MGD). The present source and distribution system has an existing capacity of 56.5 MGD. There is an additional water source capability of 35 MGD available. The Water Commission expects present facilities will be adequate to accommodate growth until around the Year 2050. The zone change from SFR-10 to SFR-6 will reduce the demand for water.

**E. Storm Drainage:** Storm drainage for Phase 2 will connect to the existing storm detention pond on Lot 71 that drains into the storm system on Owen Drive. The Owen Drive storm drainage system that was installed for Delta Estates was engineered to provide sufficient capacity for all of the Delta Waters Properties LLC lands. The project also includes an additional lot for a second storm drainage pond that the Applicant expects will be constructed as part of the infrastructure to serve the subdivision requested herein.

**F. Streets and Traffic:** The following facts pertain to streets as proposed in this project:

(1) **Project Access and Street Functional Classification:** Local standard residential street Cheltenham Way provides access to this property. Cheltenham Way connects to Delta Waters Road, a major arterial to the south. Owen Drive which is to be extended east from its current terminus will connect the subdivision to the west to Crater Lake Avenue, a major collector and Highway 62 (Crater Lake Highway) is classified as a State of Oregon Highway.

(2) **New streets:** Four new minor residential streets and one new standard residential street will be added as part of the project. Four existing streets will be extended.



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**Summary of Project Streets**

Street Name	Type	Classification	Direction	Runs From:	To:
Torrent Street	Extend existing	Minor Residential	South to North	Ford Drive	Owen Drive
Cheltenham Way	Extend existing	Major Residential	South to North	Cascara Street	Owen Drive
Owen Drive	Extend existing	Minor Collector	West to East	Springbrook Road	McLoughlin Drive (future)
Ford Drive	Extend existing	Minor Residential	West to East	Springbrook Road	McCloud Street
Durst Street	New	Minor Residential	West to East	Torrent Street	Cheltenham Way
Durst Street	New	Major Residential	West to East	Cheltenham Way	McLoughlin Drive (future)
Carnelian Street	New	Minor Residential	West to East	McCloud Street	Past Metolius St
McCloud Street	New	Minor Residential	South to North	Ford Drive	Carnelian Street
Metolius Street	New	Minor Residential	South to North	Durst Street	Owen Drive

- (3) **Subdivision Lot Access:** Each resulting individual lot will have frontage and access from a City street.
- (4) **Future Access:** Three street stubs are created as part of this subdivision that will allow the streets that are part of this project to be extended when the adjacent properties build-out.
- (5) **Construction of Owen Drive Offsite:** A 330-foot section of Owen Drive right-of-way exists to the west of the project that is unimproved. The Applicant is willing to accept a condition of approval requiring this right-of-way be improved as part of the project but acceptance of such a condition of approval is contingent upon the condition being explicit that the Applicant will be entitled to “dollar for dollar” SDC credits for the cost of constructing this section and not be subject to the standard formula for “partial credit” that is often applied to on-site improvements for higher order streets.

**G. Streets and Traffic:** The following facts pertain to traffic as proposed in this project:

**Trip Generation and Restrictions:** The proposed zone change from SFR-10 to SFR-6 will reduce the potential trip generation of the subject property by approximately 89 PM Peak Hour trips. The zone change to SFR-10 for the entire Delta Waters Properties LLC property included trip generation restrictions, see Exhibit 9. Exhibit 10 demonstrates that the City of Medford has removed conditions 2 and 3 related to traffic mitigation. The remaining conditions are the issues at Owen Drive and Crater Lake Avenue and the broader ODOT trip cap. Nothing in this



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application will alter and change the ODOT trip cap restrictions; however the proposed units are still well under that cap. With respect to Owen and Crater Lake Avenue, Delta Waters Properties LLC has provided traffic analysis at the request of Public Works and this analysis is currently under review with Public Works. Public Works' review of this analysis will direct the implementation of mitigation for this intersection. The Applicant is aware of these restrictions and understands that vertical construction cannot take place on platted lots until the mitigation for the intersection of Crater Lake Avenue and Owen Drive has occurred or has been assured to the satisfaction of Public Works.

- H. Police and Fire Protection:** The property is served by the Medford Fire Department from its Fire Station 5. Emergency fire response is estimated to be approximately 3 minutes. Police protection is from the City of Medford Police Department.



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**CONCLUSIONS OF LAW**

Based upon the evidence in enumerated in Section II and summarized in the Section IV Findings of Fact, the Planning Commission reaches the following Conclusions of Law with respect to this matter:

***City of Medford Approval Criteria  
Medford Land Development Code (MLDC)***

**ZONE CHANGE**

**MLDC 10.227 ZONE CHANGE CRITERIA**

The approving authority (Planning Commission) shall approve a quasi-judicial zone change if it finds that the zone change complies with subsections (1) and (2) below:

***Zone Change Criterion 1***

***MLDC 10.227 ZONE CHANGE CRITERIA (Inapplicable provisions omitted)***

The approving authority (Planning Commission) shall approve a quasi-judicial zone change if it finds that the zone change complies with subsections (1) and (2) below:

- (1) The proposed zone is consistent with the Transportation System Plan (TSP) and the General Land Use Plan Map designation. A demonstration of consistency with the acknowledged TSP will assure compliance with the Oregon Transportation Planning Rule. Where applicable, the proposed zone shall also be consistent with the additional locational standards of the below sections (1)(a), (1)(b), (1)(c), or (1)(d). Where a special area plan requires a specific zone, any conflicting or additional requirements of the plan shall take precedence over the locational criteria below.
  - (a) For zone changes to SFR-2, the zoning shall be approved under either of the following circumstances:
    - (i) if at least seventy percent (70%) of the area proposed to be rezoned exceeds a slope of fifteen percent (15%),
    - (ii) if other environmental constraints, such as soils, geology, wetlands, and flooding, restrict the capacity of the land to support higher densities.
  - (b) For zone changes to SFR-6 or SFR-10 where the permitted density is proposed to increase, one (1) of the following conditions must exist:
    - (i) At least one (1) parcel that abuts the subject property is zoned the same as the proposed zone, either SFR-6 or SFR-10 respectively; or
    - (ii) The area to be rezoned is five (5) acres or larger; or
    - (iii) The subject property, and any abutting parcel(s) that is(are) in the same General Land Use Plan Map designation and is(are) vacant, when combined, total at least five (5) acres.

**Conclusions of Law:** Criterion 1 is threefold: consistency with the TSP, consistency with the General Land Use Plan Map and consistency with the locational standards in MLDC 10.227 (1) (a) through (d).



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Regarding the TSP, the Planning Commission concludes the proposed zone change will reduce the trip generation potential of the site when compared to the current SFR-10 zoning and is consistent in all ways with the City's TSP.

Regarding consistency with the General Land Use Plan (GLUP) Map, the Planning Commission concludes from Exhibit 6 that the property is designated Urban Residential on the GLUP Map. The proposed SFR-6 zone is consistent in all respects with the portion of the subject property's Urban Residential GLUP Map designation.

Regarding consistency with the relevant locational standards in MLDC 10.227 (1) (a) through (d), section (b) applies to SFR-6 and SFR-10 zone changes, and therefore applies. The Applicant seeks to change the zone of the subject property from SFR-10 to SFR-6. Zoning to the west of the subject property is SFR-6 and so at least one property adjacent to the proposed zone change area is already zoned SFR-6. Also, the proposed SFR-6 zoning area is much larger than five acres and therefore the locational criteria of SFR-6 are satisfied

Based upon the foregoing findings of fact and conclusions of law, the Planning Commission concludes that the application is consistent with the requirements of Criterion 1.

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**Zone Change Criterion 2**

(2) It shall be demonstrated that Category A urban services and facilities are available or can and will be provided, as described below, to adequately serve the subject property with the permitted uses allowed under the proposed zoning, except as provided in subsection (c) below. The minimum standards for Category A services and facilities are contained in Section 10.462 and Goal 2 of the Comprehensive Plan "Public Facilities Element" and Transportation System Plan.

- (a) Storm drainage, sanitary sewer, and water facilities must already be adequate in condition, capacity, and location to serve the property or be extended or otherwise improved to adequately serve the property at the time of issuance of a building permit for vertical construction.

**Discussion; Conclusions of Law:** The Planning Commission concludes that Goal 1 of the Comprehensive Plan Public Facilities Element is aspirational in language and context and the actual criteria for determining the adequacy of Category A public facilities, consistent with the Public Facilities Element, reside solely in MLDC 10.227(2). The Planning Commission reaches the following conclusions of law with respect to each of the Category "A" infrastructure components:

**Wastewater Collection and Treatment:** Based upon the findings of fact in Section IV, the Planning Commission concludes that wastewater collection and treatment facilities are sufficient to serve up to 380 units. Combining the 57 Phase 1 Delta Estates lots with the 91 proposed residential lots in Phases 2-5 equals 148 units, which is therefore substantially below the maximum allowed number of units. The related projected peak flows from these units within the proposed SFR-6 zoning district can therefore be accommodated for that specific gravity flow service area as determined by the city engineer, and, the Commission finds that facilities are available to adequately serve the property.

**Storm Drainage System:** Based upon the findings of fact in Section IV, the Planning Commission concludes storm drainage facilities are available for connection to the subject



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property. The anticipated development of the subject property under the SFR-6 zoning will cause no more than nominal impacts to projected peak flows for that specific service area as determined by the *Comprehensive Medford Area Drainage Master Plan* (1996). The Planning Commission concludes that Garret Creek will not be negatively impacted by development of the subject property through compliance with the City's adopted storm water management requirements and construction of the plans for storm drainage prepared by CEC Engineering and the proposed drainage can feasibly and will be constructed consistent with the plans prepared by CEC Engineering.

**Water System:** Based upon the findings of fact in Section IV, the Planning Commission concludes that the water system is sufficient to provide the subject property with a permanent water supply having adequate water pressure and volume for projected commercial fire control needs expected from development under the SFR-6 zoning district as determined by the water utility manager, and that these facilities are available to adequately serve the property under the proposed SFR-6 zone.

- (b) Adequate streets and street capacity must be provided in one (1) of the following ways:
- (i) Streets which serve the subject property, as defined in Section 10.461(2), presently exist and have adequate capacity; or
  - (ii) Existing and new streets that will serve the subject property will be improved and/or constructed, sufficient to meet the required condition and capacity, at the time building permits for vertical construction are issued; or
  - (iii) If it is determined that a street must be constructed or improved in order to provide adequate capacity for more than one (1) proposed or anticipated development, the Planning Commission may find the street to be adequate when the improvements needed to make the street adequate are fully funded. A street project is deemed to be fully funded when one (1) of the following occurs:
    - (a) the project is in the City's adopted capital improvement plan budget, or is a programmed project in the first two (2) years of the State's current STIP (State Transportation Improvement Plan), or any other public agencies adopted capital improvement plan budget; or
    - (b) when an applicant funds the improvement through a reimbursement district pursuant to the MLDC. The cost of the improvements will be either the actual cost of construction, if constructed by the applicant, or the estimated cost. The "estimated cost" shall be 125% of a professional engineer's estimated cost that has been approved by the City, including the cost of any right-of-way acquisition. The method described in this paragraph shall not be used if the Public Works Department determines, for reasons of public safety, that the improvement must be constructed prior to issuance of building permits.
  - (iv) When a street must be improved under (b)(ii) or (b)(iii) above, the specific street improvement(s) needed to make the street adequate must be identified, and it must be demonstrated by the applicant that the improvement(s) will make the street adequate in condition and capacity.

**Discussion and Conclusions of Law Continued:** The Planning Commission concludes that adequate facilities do not exist without mitigation as required by the zone change in Planning File ZC-10-078 and that nothing in the zone change to SFR-6 changes the prior conclusions of the Planning Commission in this regard because of deficiencies at Owen Drive and Crater Lake Avenue. However, the Planning Commission understands that the Applicant and Property Owner are collaborating on mitigation of the intersection of Crater Lake Avenue and



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Owen Drive acceptable to Public Works for this intersection and that this intersection is the only remaining transportation restriction that would limit build-out of the proposed tentative plat filed concurrently with this zone change.

- (c) In determining the adequacy of Category A facilities, the approving authority (Planning Commission) may evaluate potential impacts based upon the imposition of special development conditions attached to the zone change request. Special development conditions shall be established by deed restriction or covenant, which must be recorded with proof of recordation returned to the Planning Department, and may include, but are not limited to the following:
  - (i) Restriction of uses by type or intensity; however, in cases where such a restriction is proposed, the Planning Commission must find that the resulting development pattern will not preclude future development, or intensification of development, on the subject property or adjacent parcels. In no case shall residential densities be approved which do not meet minimum density standards,
  - (ii) Mixed-use, pedestrian-friendly design which qualifies for the trip reduction percentage allowed by the Transportation Planning Rule,
  - (iii) Transportation Demand Management (TDM) measures which can be reasonably quantified, monitored, and enforced, such as mandatory car/van pools.

**Discussion and Conclusions of Law Continued:** The Planning Commission concludes the special development conditions that apply to sewer will continue to apply to the property although the SFR-6 area can be developed as proposed in the tentative plat without violating those conditions. The Planning Commission further concludes that the ODOT cap on trip generation will remain in place but the proposed tentative plat can be built out without exceeding this cap. The Planning Commission concludes that the only remaining special development condition concerns the Owen Drive and Crater Lake Avenue intersection and the Applicant and Owner are collaborating on the mitigation of that intersection and the same is in the review process with Public Works; the Planning Commission concludes it is feasible that this intersection can be mitigated (or acceptable mitigation assured) prior to vertical construction of houses on the lots proposed for tentative plat concurrent with this application.

Based upon the foregoing findings of fact and conclusions of law, the Planning Commission concludes that the application is consistent with the requirements of Zone Change Criterion 2.

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**State of Oregon Approval Criteria  
Oregon Transportation Planning Rule  
OAR Chapter 660, Division 012**

The following provisions of the Oregon Transportation Planning Rule (OAR 660-012-0060) operate as approval criteria for zone changes:

**Zone Change Criterion 3**

**SECTION 660-012-0060**

- (1) Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance



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standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:

- (a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);
- (b) Change standards implementing a functional classification system; or
- (c) As measured at the end of the planning period identified in the adopted transportation system plan:
  - (A) Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;
  - (B) Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or
  - (C) Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.

**Discussion; Conclusions of Law:** In reaching the foregoing conclusions of law addressing OAR 660-012-0060(1), the Planning Commission concludes the proposal will change the zoning from SFR-10 to SFR-6. This change will not change any functional classification of any transportation facility nor will it change the standards implementing a functional classification system. The Planning Commission further concludes that the zone change from SFR-10 to SFR-6 will not allow land uses or level of development that would result in types or levels of travel or access that are inconsistent with the functional classification of any transportation facility and that the downzoning will not cause the performance of an existing or planned transportation facility to be reduced below the minimum acceptable standard in the TSP, provided the conditions of approval that continue to apply from ZC-10-078 remain in place or mitigation occurs or is assured consistent with the conditions therein.

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**LAND DIVISION – Tentative Subdivision Plat**

**MLDC 10.270 Land Division Criteria.**

The approving authority (Planning Commission) shall not approve any tentative plat unless it first finds that, the proposed land division together with the provisions for its design and improvement:

**Land Division Criterion 1**

- (1) Is consistent with the Comprehensive Plan, any other applicable specific plans thereto, including Neighborhood Circulation Plans, and all applicable design standards set forth in Article IV and V;

**Conclusions of Law; Consistency with the Comprehensive Plan:** In *Bennett vs. City of Dallas* 17 Or LUBA 450, aff'd 96 Or App 645 (1989), the Oregon Court of Appeals held that quasi-judicial land use criteria that require compliance with a comprehensive plan do not automatically transform all plan Goals, Policies and Implementation Strategies into decisional criteria; only the Goals, Policies and Implementation Strategies that contain language that,



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read in context, were intended to function as decisional criteria are in fact criteria. Based upon its review of the Comprehensive Plan, the Planning Commission holds that the Comprehensive Plan contains no goals nor policies that by their language and context were intended to function as approval standards for the subject land division application.

**Conclusions of Law; Applicable Specific Plans:** The subject property is covered by a Neighborhood Circulation Plan — the adopted and acknowledged *North Medford Circulation Plan* which contemplates the extension of Owen Drive west along the north boundary of the adjacent property (except in the property’s northwest corner where Owen Drive is contemplated to dip to the south before connecting with the existing right-of-way along the subject property’s west boundary.) A copy of the Adopted North Medford Circulation Plan is shown at Exhibit 11. This proposal includes the extension of a portion of Owen Drive.

**Conclusion of Law; Consistency with MLDC Articles IV and V:** MLDC Article IV governs public improvements by establishing standards for their construction. See Exhibit 3 for demonstration of the project’s compliance with these standards.

MLDC Article V establishes standards for site development, including standards for lot size and density. MLDC 10.702 prescribes the Lot Area and Dimension Requirements, as follows:

**10.702 Lot Area and Dimensions**

Each lot shall have an area, width, frontage, and depth consistent with that prescribed in this Article for the housing type, or commercial or industrial district in which the development, or the portion thereof, is situated, except in the following situations:

- (1) Within a planned unit development, a condominium project, as defined by ORS 100.005, or a pad lot development, as defined herein, the approving authority (Planning Commission) may permit tax lots and common areas to be of an area, width, frontage, or depth different from such prescribed minimum or maximum lot area or dimensions.
- (2) For a condominium project, as defined by ORS 100.005, the minimum lot area and dimensions shall apply to the parent parcel only.
- (3) A new residential lot may exceed the maximum lot area only under the following circumstances:
  - (a) When an existing residence and associated yard area, containing improvements and established landscaping, occupy a larger area; or,
  - (b) When a portion of the lot is unbuildable for a reason beyond the control of the developer (i.e., due to creeks, oversized easements, etc.), the additional acreage, or fraction thereof, may not exceed the amount of unbuildable area.

In MLDC 10.710 the minimum and maximum density factor for single family dwellings in an SFR-6 zone is 4 to 6 units per acre. With 93 lots proposed on 22.34 acres the proposed subdivision has a density of 4 units per acre. Based upon Exhibit 3, the proposed lot dimensions shown in Exhibit 11b, and the Findings of Fact in Section IV, the Planning Commission concludes the application contemplates the creation of lots that are sufficiently sized and consistent with the proposed SFR-6 zoning district and thus Land Division Criterion 1.

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**Land Division Criterion 2**

- (2) Will not prevent development of the remainder of the property under the same ownership, if any, or of adjoining land or of access thereto, in accordance with this chapter;



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**Conclusions of Law:** Based upon Exhibit 11a and the Findings of Fact in Section IV, the Planning Commission concludes the Applicant owns no other adjacent or nearby lands. This land division will also not prevent the development of any other adjoining land or of access thereto as this land division includes extending existing streets and the creation of new streets, all of which will be terminated with reserve strips to support future development of the undeveloped properties to the north and east. As such, this application is therefore consistent with the requirements of Land Division Criterion 2.

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**Land Division Criterion 3**

- (3) Bears a name that has been approved by the approving authority and does not use a word which is the same as, similar to, or pronounced the same as a word in the name of any other subdivision in the City of Medford; except for the words "town", "city", "place", "court", "addition", or similar words; unless the land platted is contiguous to and platted by the same applicant that platted the land division bearing that name; or unless the applicant files and records the consent of the party who platted the land division bearing that name and the block numbers continue those of the plat of the same name last filed;

**Conclusions of Law:** The Planning Commission concludes that this tentative plat is proposed to bear the name of Delta Estates which was approved by the Jackson County surveyor for the adjacent Phase 1 of the subdivision. Records show no other land division with this name. Therefore, this application is deemed to be consistent with Land Division Criterion 3.

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**Land Division Criterion 4**

- (4) If it includes the creation of streets or alleys, that such streets or alleys are laid out to be consistent with existing and planned streets and alleys and with the plats of land divisions already approved for adjoining property unless the approving authority determines it is in the public interest to modify the street pattern;

**Conclusions of Law:** The Planning Commission concludes that this land division includes the creation of four public streets. All new streets are laid out to conform to the plats of the existing adjoining subdivisions. No unbuilt plats have been approved adjoining this parcel. Therefore, this application is consistent with Land Division Criterion 4.

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**Land Division Criterion 5**

- (5) If it has streets or alleys that are proposed to be held for private use, that they are distinguished from the public streets or alleys on the tentative plat, and reservations or restrictions relating to the private streets or alleys are set forth;

**Conclusions of Law:** This application does to involve the extension or creation of any private street. Therefore, the Planning Commission concludes that this criterion is met by reason of inapplicability.

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**Land Division Criterion 6**

- (6) Will not cause an unmitigated land use conflict between the land division and adjoining agricultural lands within the EFU (Exclusive Farm Use) zoning district.

**Conclusions of Law:** Based on the evidence in Section II (see Exhibit 17), the Findings in Section IV and the Conclusions of Law for section MLDC 10.081 in Section V, the Planning Commission concludes that this criterion is met.

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**EXCEPTION**

**10.253 Criteria for an Exception**

No exception, in the strict application of the provisions of this chapter, shall be granted by the approving authority (Planning Commission/Site Plan and Architectural Commission) having jurisdiction over the plan authorization unless it finds that all of the following criteria and standards are satisfied. The power to authorize an exception from the terms of this code shall be sparingly exercised. Findings must indicate that:

**Exception Criterion 1**

(1) The granting of the exception shall be in harmony with the general purpose and intent of the regulations imposed by this code for the zoning district in which the exception request is located, and shall not be injurious to the general area or otherwise detrimental to the health, safety, and general welfare or adjacent natural resources. The Planning Commission/Site Plan and Architectural Commission shall have the authority to impose conditions to assure that this criterion is met.

**Discussion:** The Applicant is requesting two very narrow and interrelated Exceptions. One is to the street standard right at the intersection of Torrent and Durst. Applicant is requesting approval to eliminate the planter strip as the street approaches the intersection to maximize the centerline separation from Durst Street and Owen Drive. The related exception is for a reduction in the street spacing standard by approximately 10 feet. The Exception to MLDC 10.426(D) is submitted as a precautionary measure in the event the Planning Commission does not concur with either of the other two ways in which this standard can be interpreted to be satisfied (*see Exhibit 3*).

**Conclusions of Law:** The Planning Commission concludes that the only design alternative available without these two small interrelated exceptions is for a cul-de-sac. The Planning Commission concludes that cul-de-sacs are disfavored in the code but may be permitted when necessary to avoid conflicts with the code in other respects. In this instance, a cul-de-sac could be justified. However, two very narrow exceptions are all that is required to avoid the need for cul-de-sac and allowing Durst Street to be a through street is in harmony with the general purpose and intent of the ordinance.

The Planning Commission further concludes that the language in MLDC 10.426(D) makes clear that the purpose of the 200-foot minimum intersection spacing standard is to avoid the creation intersections that are off-set by too-short a distance. Intersections that are off-set by too-short a distance can create turning movement hazards. In the subject application, there is no potential for an off-set intersection because the street is a "T" intersection so there will be no turning movement conflicts and the only potential source of conflict will be individual



"B"  
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driveways which exist throughout Medford irrespective of the 200-foot intersection spacing standard.

\*\*\*\*\*

**Exception Criterion 2**

(2) The granting of an exception will not permit the establishment of a use which is not permitted in the zoning district within which the exception is located.

**Conclusions of Law:** The Planning Commission concludes that the Applicant is aware this exception does not permit or establish a use that is not permitted within the SFR-6 zoning district. Therefore, the Planning Commission concludes that this exception to the side yard setback is consistent with Exception Criterion 2.

\*\*\*\*\*

**Exception Criterion 3**

(3) There are unique or unusual circumstances which apply to this site which do not typically apply elsewhere in the City, and that the strict application of the standard(s) for which an exception is being requested would result in peculiar, exceptional, and undue hardship on the owner.

**Conclusions of Law:** The Planning Commission concludes that the unusual circumstances in this instance is the distance that Torrent must be extended to Owen Drive combined with the City's desire to minimize access points to Owen Drive. The Planning Commission concludes that in the context of cul-de-sac design alternatives these are disfavored by the code and prohibiting two very narrow exceptions necessary to avoid a cul-de-sac configuration represents a peculiar, exceptional and undue hardship where both the City and the Applicant would prefer the more-favored through-street design. The Planning Commission further concludes that this is a peculiar, exceptional and undue hardship on the owner because the code standard is directed at the prevention of off-set intersections which is not proposed and will not occur in the future under the proposed design.

\*\*\*\*\*

**Exception Criterion 4**

(4) The need for the exception is not the result of an illegal act nor can it be established on this basis by one who purchases the land or building with or without knowledge of the standards of this code. It must result from the application of this chapter, and it must be suffered directly by the property in question. It is not sufficient proof in granting an exception to show that greater profit would result.

**Conclusions of Law:** The Planning Commission concludes that the need for this exception results from the nature of the site configuration that is not the result of any illegal act and the need for the exception is suffered directly by the property in question. The proposed design solution that necessitates the two narrow and interrelated exceptions are irrelevant from the standpoint of profit.

\*\*\*\*\*



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**LAND DIVISION**

**MLDC10.801 Agricultural Buffering in Non-Urban Reserve Areas**

**B. Applicability.**

The provisions of this Section apply to the development permit applications listed below in this subsection where land proposed for urban development is not in an urban reserve (see Regional Plan Element) and abuts and has a common lot line with other land which is zoned Exclusive Farm Use (EFU) or Exclusive Agriculture (EA). However, development which requires City approval for more than one of the below development permit applications for the same development shall be required to demonstrate compliance with the provisions of this Section only in the first such application.

- (1) Land Divisions.
- (2) Planned Unit Developments.

***Agricultural Buffering Criterion 1***

**D. Mitigation and Impact Management.**

- (1) Agricultural Classification (Intensive or Passive). For the purposes of this Section, agricultural land is hereby classified as either intensive or passive. Intensive agriculture is defined as farming which is under intensive day-to-day management, and includes fruit orchards and the intensive raising and harvesting of crops or, notwithstanding its current use, has soils of which a majority are class I through IV as determined by the NRCS, has irrigation water available and is outside of the Urban Growth Boundary. Passive agriculture is defined as farming that is not under intensive day-to-day management, and includes land used as pasture for the raising of livestock. The approving authority shall determine whether adjacent agricultural uses are intensive or passive based upon the specific circumstances of each case and the nature of agriculture which exists on the adjacent land zoned EFU or EA at the time the urban development application is filed and accepted by the City.

**Conclusions of Law:** Based upon the Agricultural Impact Report and supporting evidence adopted and incorporated herein, the Planning Commission concludes adjacent land zoned EFU is planned for urbanization and is not managed in a manner that meets the statutory definition of farm use and that this land use is consistent with the passive agricultural classification.

\*\*\*\*\*

***Agricultural Buffering Criterion 2***

- (3) Mitigation - Passive Agriculture. To minimize or mitigate the adverse potential impacts associated with the proximity of urban and agricultural land uses, the following measures shall be undertaken by the developer when urban development is proposed adjacent to land in passive agricultural use:
  - (a) Fencing. A wood fence, chain link fence, or masonry wall, not less than six (6) feet in height shall be installed at the property boundary where the development property adjoins and has a common property line with land zoned EFU or EA. In no case shall a fence or wall be required within a front yard area. The fence or wall used to buffer agricultural land shall comply with the regulations regarding fencing, Sections 10.731 through 10.735. Information shall be provided regarding the long-term maintenance responsibility for the fence or wall.
  - (b) Deed Declaration. The deed declaration required in subsection 10.801.D(2)(c) shall be required.



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- (c) Irrigation Runoff. Measures appropriate to the circumstances present shall be undertaken by the urban developer to mitigate adverse impacts which occur from periodic naturally occurring runoff and inadvertent agricultural irrigation runoff.

**Conclusions of Law:** With respect to mitigation, the Planning Commission concludes the following:

- (a) The Applicant stipulates to the installation of a 6 foot high wood fence along the northern border of Lot 70 abutting EFU lands at the northwest corner of the property.
- (b) The Applicant stipulates to install a six foot wood fence along the northern boundary line, facing the EFU lands, of all lots that are part of this application that abut the southern border of Owen Drive.
- (c) Existing wire fencing along the northern boundary adjacent to the detention ponds, Owen Drive, and reserve acreage abutting the land to the north, will remain until such time that those lands are annexed and developed. Existing wire fencing along the eastern boundary of the reserve acreage abutting the EFU lands to the east, will remain until such time that those lands are annexed and developed.
- (d) Applicant has stipulated and the same will be required to record the requisite deed declaration for properties within 200 feet that are zoned EFU at the time of final plat.
- (e) The grading and stormwater management concept plan, depicted in Exhibit 12, will be sufficient to assure any potential for adverse impacts between the EFU lands and the project site will be mitigated.

Based upon Exhibit 17, the Agricultural Impact Report in Section II and the Findings of Fact in Section IV, the Planning Commission concludes the Applicant the has met Agricultural Buffering Criterion 2.

\*\*\*\*\*

***Agricultural Buffering Criterion 3***

- (4) Discretionary Mitigation Measures/Design Considerations. In addition to the specific mitigation measures required in Subsections 10.801.D(2) and 10.801.D(3), an applicant shall also consider the following design items and the approving authority may, in its sole discretion, impose conditions which do any of the following:
  - (a) Increase the rear or side yard setback to afford greater spatial separation between agriculture and urban development.
  - (b) Regulate the location of garages and parking areas to place them between dwellings and other buildings intended for human occupancy and agricultural land.
  - (c) Require the placement of streets, driveways, open space or common areas between urban development and agricultural land.
  - (d) Require fencing and landscaping, including the use of berms, in excess of that required in Subsection 10.801.D.
  - (e) Regulate or require other mitigation measures or features deemed reasonably necessary and appropriate by the approving authority to protect the public health, safety and general

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welfare, and to make urban development compatible with agricultural uses which exist on adjacent lands zoned EFU or EA.

**Conclusions of Law:** Based upon the Agricultural Impact Report and supporting evidence adopted and incorporated herein, the Planning Commission concludes the nearby land zoned EFU, for which mitigation is contemplated by the MLDC, is urbanizable land by operation of Statewide Planning Goal definition and therefore no discretionary mitigation measures/design considerations are necessary or appropriate.

\*\*\*\*\*

**VI**

**STIPULATIONS OFFERED BY APPLICANTS**

If made a condition attached to the approval of these land use applications, Applicant herewith agrees to stipulate:

1. At the time of construction, Applicant will install a minimum of a 6 foot high wood fence along the northern boundary of Lot 70 and of each lot that abuts the southern frontage of Owen Drive.
2. Applicant stipulates to recording the requisite deed declaration per 10.801.D(2)(c) for all properties within 200 feet of lands that are zoned EFU at the time of final plat.

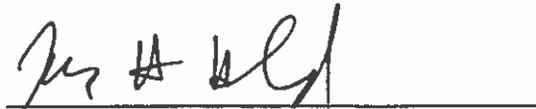
**VII**

**ULTIMATE CONCLUSIONS**

Based upon the evidence in Section II and the Findings of Fact in Section IV, the Planning Commission concludes that the case for Land Division is consistent with all of the relevant criteria in the Medford Land Development Code (MLDC) 10.270 as hereinabove enumerated and addressed.

Respectfully submitted on behalf of Applicant HHM, LLC:

CSA PLANNING, LTD.



Jay Harland  
Consulting Planner

**Dated: July 20, 2016**



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APPLICANT'S EXHIBIT 3

PLANNING DEPARTMENT

DEMONSTRATION OF COMPLIANCE WITH  
APPLICABLE DEVELOPMENT STANDARDS

Medford Land Development Code ("MLDC"). The relevant approval standards are recited verbatim below:

10.310 (-1) SFR-6 and SFR-10, Single-Family Residential - 6 or 10 dwelling units per gross acre

These two urban residential districts provide for standard and higher density single-family detached dwellings, duplexes, and mobile home parks.

In SFR-6, the maximum number of dwelling units (DU) permitted per gross acre, or fraction thereof, shall fall within the following range: Minimum and Maximum Density Factor (df) . . . . . 4.0 to 6.0 DU/gross acre

**Compliance with Standards:** The proposed single-family home subdivision is a permitted use in the SFR-6 zone. With 91 residential lots plus 2 detention pond lots proposed on 22.34 acres, the project has a density of 4.2 dwelling units per acre. When you subtract the area of approximately 4.25 acres that will be dedicated to accommodate a new minor collector and the two large detention ponds, the actual density within the residential portion increases to approximately 5 units per acre. The project complies with the standard.

\*\*\*\*\*

10.426 Street Circulation Design and Connectivity

B. Street Connectivity and Formation of Blocks Required.

1. Block layouts shall substantially conform to adopted neighborhood circulation plans for the project area if applicable. Street arrangement and location may depart from the adopted plan if the project will result in a comparable level of overall connectivity. Projects that depart from the neighborhood circulation plan shall conform to planned higher order streets adopted in the City of Medford Transportation System Plan.
2. Proposed streets, alleys and access ways shall connect to other streets within a development and to existing and planned streets outside the development, when not precluded by factors in Section 10.426 C.2 below. When a development proposes a cul-de-sac, minimum access easement or flag lot to address such factors, the provisions of Section 10.450 apply.
3. Proposed streets or street extensions shall be located to provide direct access to existing or planned transit stops and other neighborhood activity centers such as schools, office parks, shopping areas, and parks.
4. Streets shall be constructed or extended in projections that maintain their function, provide accessibility, and continue an orderly pattern of streets and blocks.

C. Maximum Block Length and Block Perimeter Length.

1. Block lengths and block perimeter lengths shall not exceed the following dimensions as measured from centerline to centerline of through intersecting streets, except as provided in Subsections 10.426 C.2.

MAXIMUM BLOCK LENGTH AND PERIMETER LENGTH Table 10.426-1		
Zone or District	Block Length	Block Perimeter Length
a. Residential Zones	660'	2,100'

2. The approving authority may find that proposed blocks that exceed the maximum block and/or perimeter standards are acceptable when it is demonstrated by the findings that one or more of the constraints, conditions or uses listed below exists on, or adjacent to the site:
  - j. When strict compliance with other provisions of the Medford Land Development Code produce conflict with provisions in this section.

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3. Block lengths are permitted to exceed the maximum by up to 20% where the maximum block or perimeter standards would require one or more additional street connections in order to comply with both the block length or perimeter standards while satisfying the street and block layout requirements of 10.426 A or B or D,
4. When block perimeters exceed the standards in accordance with the 10.426 C.2. above, or due to City or State access management plans, the land division plat or site plan shall provide blocks divided by one or more public accessways, in conformance with Sections 10.464 through 10.466.

**Compliance with Standards:** The North Medford Neighborhood circulation plan includes the extension of Owen Drive. The proposed subdivision layout includes the extension of Owen Drive along the northern border, conforming with this circulation plan.

All new blocks being formed by this project meet the standards of this section and provide clear connections with existing and future streets surrounding the site.

**D. Minimum Distance Between Intersections.**

Streets intersecting other streets shall be directly opposite each other, or offset by at least 200 feet, except when the approving authority finds that utilizing an offset of less than 200 feet is necessary to economically develop the property with the use for which it is zoned, or an existing offset of less than 200 feet is not practical to correct.

**Compliance with Standards:** All proposed intersections where there is a proposed or potential “four-legged” intersection will meet the minimum distance between the intersections.

The intersection of Owens Drive with Torrent Street and Durst Street with Torrent Street is 190 feet (with approval of an exception to move the sidewalk to the street) or 182 feet without the Exception. This is due to the existing location of the connecting point for Owen Drive. This is a “T-intersection” and the City could reasonably interpret its code to conclude that this standard does not apply to the proposed design because, by its language and context, this code section functions to prevent “offset” intersections<sup>1</sup>. The proposed design does not create any “offset” intersections because Owen Drive is a parallel street with its own four-legged intersection and Durst is strictly a “T-intersection” and is likely to always be a “T-intersection”. Thus, the measurement of less than 200-feet from the centerline of Owen Drive to Durst Street can be found to not be a requirement that is applicable to this particular project design<sup>2</sup>.

If the Planning Commission concludes that this code section must be applied to the subject application then the code provision includes an internal exception (that is separate and apart from the Exception application process). The Planning Commission can find the proposed separation between Durst and Owen is necessary to economically develop the property for single family residential development. The proposed street location for Durst Street is the most economically practical location for the intersection, as, if it is moved north, it reduces the distance to Owen further; if it is moved south, it reduces the distance between Durst and the next intersection south to under 200 feet and creates an unbuildable lot that does not meet any other standards.

---

<sup>1</sup> Applicant is not arguing the City is precluded from interpreting its code to apply to this situation, but merely that a plausible interpretation is that the code section does not apply and this would be entitled to deference under *Siporen vs. City of Medford*.

<sup>2</sup> One could observe that this interpretation could be problematic because while the proposed Durst Street is adequately separated from Owen Drive one could imagine a design that is much less than 200' that could cause a problem even for a “T intersection”. For example, if Durst were only 60 feet from Owen Drive then there street spacing could become an issue. However, such an interpretation is not actually a problem because MLDC 426(B)(4) would be violated by such a design and the City would have appropriate basis to deny such design notwithstanding that MLDC 10.426(D) did not apply to the project.



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If the Planning Commission cannot reach either of the above two findings, then an Exception is requested for this condition in the Exhibit 2 Findings document.

\* \* \* \* \*

**10.550 Access Standards**

**(1) Driveway Throat Width Standards.**

Driveways that connect to a public right-of-way shall be constructed according to the standards in Tables 10.550-1 and 10.550-2. See Figure 10.550-1 for driveway throat, flare and radius definitions.

For the purposes of this section, Minimum Access Easements and Alleys shall be considered driveways.

Table 10.550-1 - Driveway Throat Widths	
Street Classification	Land Use on Parcel to be served by Driveway
Local	SFR
Less than 500 ADT***	12 to 18 ft.****

\*\*\* ADT = Average Daily Trips using the proposed driveway, determined from the latest version of the Institute of Transportation Engineering handbook based on the expected ultimate use of the site.

\*\*\*\*May be up to 24' with approval of Public Works Director or Designee.

**Compliance with Standards:** Driveways of all proposed lots can and will comply with the standards.

\* \* \* \* \*

**(3) Driveway Spacing and Locational Standards**

**b. Local Streets**

A minimum distance of three (3) feet shall be maintained between the closest portions of adjacent driveway flares as measured along the curb on local streets, except where existing conditions dictate otherwise. Cul-de-sacs are exempt from these standards.

The closest edge of a driveway shall be a minimum of 35 feet from any intersecting local streets measured along the curb to the nearest right-of-way line of the intersecting street. If the parcel does not have sufficient width to meet this requirement, the driveway shall be located adjacent to the property line farthest from the intersecting street, and no authorization for larger driveway width shall be granted.

**Compliance with Standards:** Driveways of all proposed lots can and will comply with the standards.

\* \* \* \* \*



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**APPLICANT'S EXHIBIT 3**

Demonstration of Compliance with Applicable Development Standards  
 Subdivision – Zone Change - Exception  
 Applicant: Hayden Homes, LLC

**10.710 Detached Single-Family Dwellings**

The following standards apply to the development of detached single-family dwellings within the various residential districts.

DETACHED SINGLE-FAMILY DWELLINGS		
Standard	SFR-6	Compliance
MINIMUM & MAXIMUM AREA FOR ZONING DISTRICT (ACRES)	4.0 to 6.0 dwelling units per gross acre	Proposed density complies- 5 dwelling units per gross acre
MINIMUM LOT AREA (SQ. FEET)	4,500 to 12,500 SF	All lots comply
MAXIMUM COVERAGE FACTOR	45%. Can exceed 45% when the building footprint is not more than 2,000 sq. ft.	All lots can and will comply
MINIMUM INTERIOR LOT WIDTH	50 feet	All lots comply
MINIMUM CORNER LOT WIDTH	60 feet	All lots comply. Some lots are of varying width, but average at least 60 feet in width.
MINIMUM LOT DEPTH	90 feet Can count only half of an adjoin alley toward the lot depth	All lots comply
MINIMUM LOT FRONTAGE	30 feet, EXCEPT Flag Lots which shall be 20 feet	All lots comply
MINIMUM FRONT YARD BUILDING SETBACK	15 feet, EXCEPT the garage shall be a minimum of 20 feet. If the garage door is perpendicular to the street then the minimum setback to the side wall of the garage is 15 feet.	All lots comply
MINIMUM STREET SIDE YARD BUILDING SETBACK	10 feet EXCEPT 20 feet for vehicular entrances to garages or carports	All lots can and will comply
MINIMUM SIDE BUILDING SET BACK	4 feet for 0–18 feet building height 6 feet for 19–22 feet building height 8 feet for 23–26 feet building height 10 feet for 27– 30 feet building height 12 feet for 31 feet or taller building height	All lots can and will comply
MINIMUM REAR YARD BUILDING SET BACK	The rear yard is equal to the greater of the side yard setbacks calculated in §10.705(C), and not less than 4 feet. EXCEPTION: If the rear property line abuts a collector or arterial street, or the parcel is a through lot, then the setback is a minimum of 10 feet.	All lots can and will comply
MAXIMUM BUILDING HEIGHT	35 feet	All lots can and will comply
BUFFERYARD SETBACK	8 feet from bufferyard to any doors on a dwelling unit	All lots can and will comply

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**Compliance with Standards:** Two lots, Lots 071 and 100, exceed the maximum lot size, however they are not residential lots as they will contain storm drain detention ponds and therefore, are not subject to the SFR-6 minimum lot size. All residential lots comply with all standards.

\* \* \* \* \*

**10.732 Fencing of Lots**

- (1) Fencing located within the front yard setback area of all zones, except the MFR zone, shall not exceed three (3) feet in height when measured from the grade of the street centerline. When within a MFR zone, a fence shall not exceed three (3) feet in height when located within ten (10) feet of a street right-of-way unless otherwise approved by the approving authority. (Effective Dec. 1, 2013.)
- (2) Fencing located in the side or rear yards (when not a through-lot) shall not exceed eight (8) feet in height. Height shall be measured as follows:
  - (a) In required yards abutting a street, it shall be the effective height measured from the finished grade on the side nearest the street.
  - (b) In other required yards, it shall be the total effective height above the finished grade measured on the side nearest the abutting property.
- (3) No fencing shall conflict with the site distance requirements of Section 10.735, Clear View of Intersecting Streets.

**Compliance with Standards:** No fencing is proposed at this time. Hayden Homes expects to install perimeter fencing and fencing along Owen Drive, but interior fencing will depend on the desire of the future homebuyers. Standard fencing for Hayden Homes is 6 foot cedar fencing. Fences for this subdivision can and will comply.

\* \* \* \* \*

**10.735 Clear View of Intersecting Streets**

- (1) In order to provide a clear view of intersecting streets, there shall be a triangular area of clear vision formed where a street intersects with another street, driveway, or alley.
- (2) The size of the triangular area is a function of traffic control, volume and speed. See Table 10.735-1 below for posted speeds and site distances.
- (3) On any portion of a lot that lies within the triangular area described and illustrated in Figures 10.735-1 & 2, below, nothing shall be erected, placed, planted or allowed to grow in such a manner as to impede vision between a height of three (3) feet and ten (10) feet above the height of the top of the curb. Where there is no curb, the height shall be measured from the street center lines.
- (4) The triangular area of clear vision shall be determined based upon the type of stop control used at the subject intersection.
  - (a) The clear vision triangular area for an intersection of a street without stop control is shown in Figure 10.735-1. See Table 10.735-2 below for determining all other curb line distances

**Compliance with Standards:** All proposed intersections comply with the standards. See, Exhibit 11b.

\* \* \* \* \*

**10.743 Off-Street Parking Standards**

- (1) Vehicle Parking – Minimum and Maximum Standards by Use. The number of required off-street vehicle parking spaces shall be determined in accordance with the standards in Table 10.743-1.

Where a use is not specifically listed in table 10.743-1, parking requirements shall be determined by the Planning Director or designee finding that the use is similar to one of those listed in terms of parking needs.



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30 OF 80

Parking spaces that count toward the minimum requirement are parking spaces meeting minimum dimensional and access standards in garages, carports, parking lots, bays along driveways, and shared parking areas.

(2) Number of Required Parking Spaces. Off-street vehicle parking spaces shall be provided as follows:

- (a) Parking Space Calculation. Parking space ratios are based on spaces per 1,000 square feet of gross floor area, unless otherwise noted.
- (b) Parking Categories.
  - (i) Table 10.743-1 contains parking ratios for minimum required number of parking spaces and maximum permitted number of parking spaces for each land use.
    - A. Minimum Number of Required Parking Spaces. For each listed land use, the City shall not require more than the minimum number of parking spaces calculated for each use.
    - B. Maximum Number of Permitted Parking Spaces. The number of parking spaces provided shall not exceed the maximum number of parking spaces allowed for each listed land use.

Table 10.743-1 – City of Medford Minimum and Maximum Parking Standards		
Land Use Category	Minimum Number of Required Parking Spaces	Maximum Permitted Parking Spaces
Residential, Single Family	2 spaces per dwelling unit	n/a

**Compliance with Standards:** All dwelling units are planned to have a minimum of a two-car garage, plus the driveway that will provide space for 2 cars to park between the garage and the sidewalk. All lots can and will comply with the standard.

\*\*\*\*\*

**10.790 Bufferyards**

**C. Determination of Bufferyard Requirements.**

- (1) To determine the type of bufferyard required between two adjacent lots, the following procedure shall be followed:
  - (a) Identify the zoning district within which the subject lot with its proposed use is located.
  - (b) Identify the zoning district(s) or, absent city zoning, the GLUP designation(s) within which the abutting lot(s) are located.
  - (c) Determine the bufferyard required along each boundary, or segment thereof, of the subject lot by referring to Subsection D, Tables of Bufferyard Standards, which specify the bufferyard types required between zones or GLUP designations.

**Table 10.790-1. Bufferyard Standards-Zone to Zone**

Table 10.790-1. Bufferyard Standards-Zone to Zone	
Subject Site Zoning	Zoning on Abutting Land
	SFR



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**APPLICANT'S EXHIBIT 3**

**Demonstration of Compliance with Applicable Development Standards**

Subdivision – Zone Change - Exception

Applicant: Hayden Homes, LLC

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**Compliance with Standards:** The project is in the SFR zone and as the surrounding lands to the west and south are also SFR, no bufferyards are required. Therefore, the project complies. Lands to the north and west are outside of the urban growth boundary and as such are addressed under section



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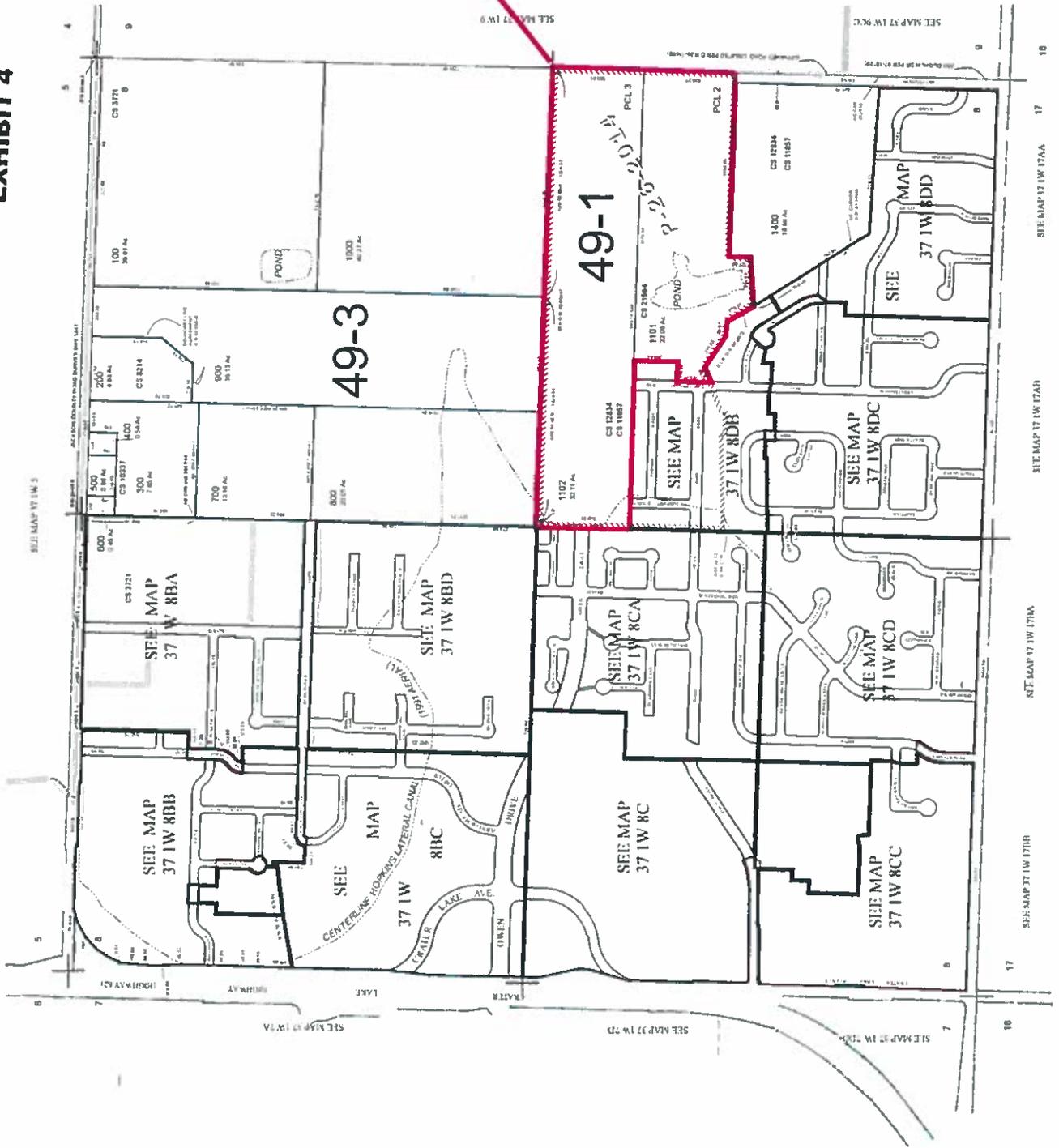
EXHIBIT 4

CANCELLED TAX  
LOT NUMBERS  
ARE REMOVED TO DIVISION  
AND MARKED TO BE  
RE-ASSIGNED

SUBJECT

RECEIVED  
July 22, 2011  
PLANNING DEPARTMENT

371W 08  
MEDFORD  
NEW JUNE 2008  
REV FEBRUARY 05, 2016



FOR ASSESSMENT AND  
TAX PURPOSES ONLY

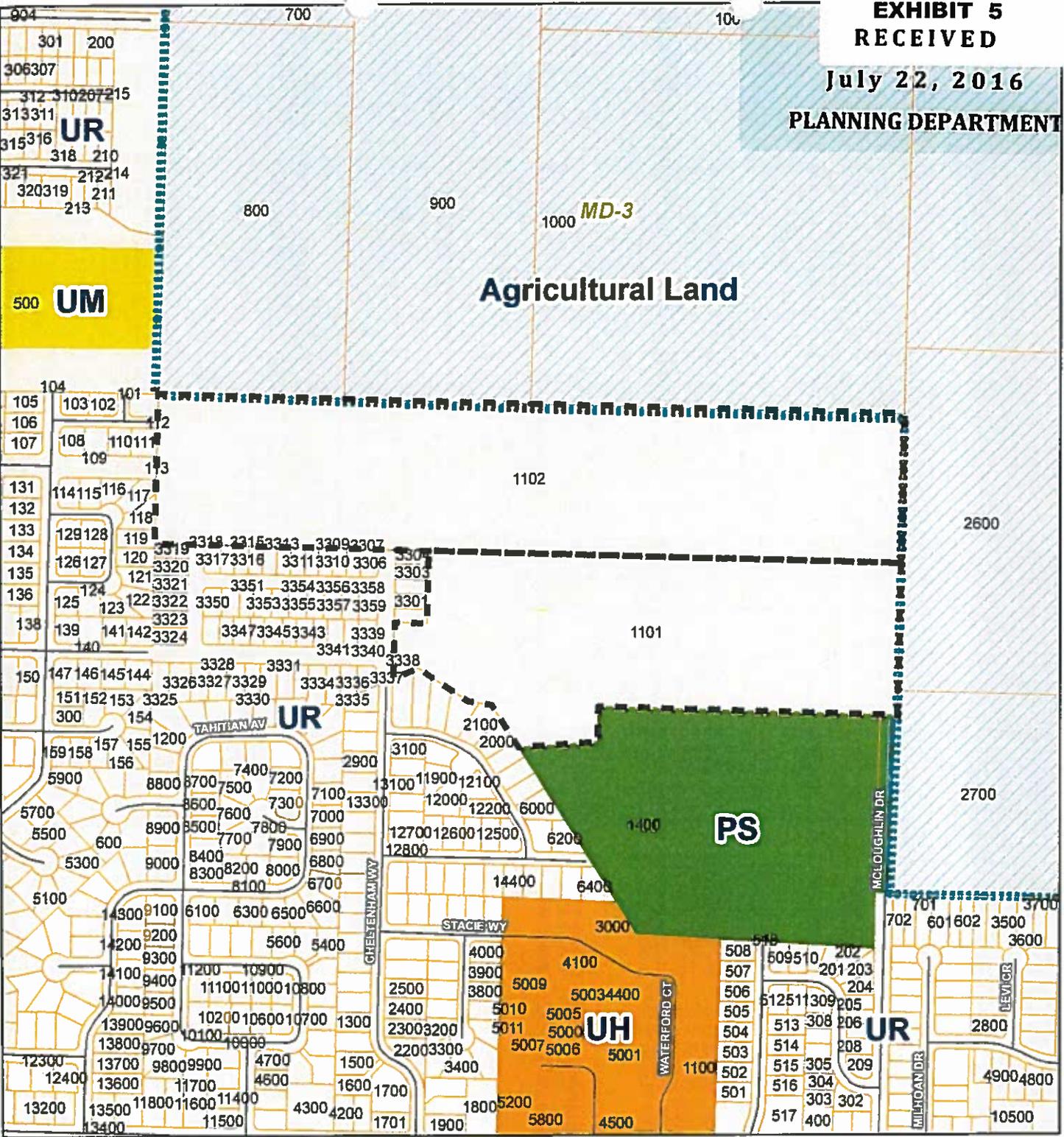
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33' of 80'

EXHIBIT 5  
RECEIVED

July 22, 2016

PLANNING DEPARTMENT

# Agricultural Land



**Legend**

- Subject Lots
- Tax Lots
- Urban Growth Boundary
- Urban Reserves

**GLUP**

- PS
- UM
- UH
- UR

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## General Land Use Plan (GLUP) Map

Applicant: Hayden Homes LLC  
 Delta Estates Subdivision Ph 2-5  
 37-1W-08 Tax Lots 1101 & 1102

CSA Planning LTD

500 250 0 500 Feet

CITY OF MEDFORD

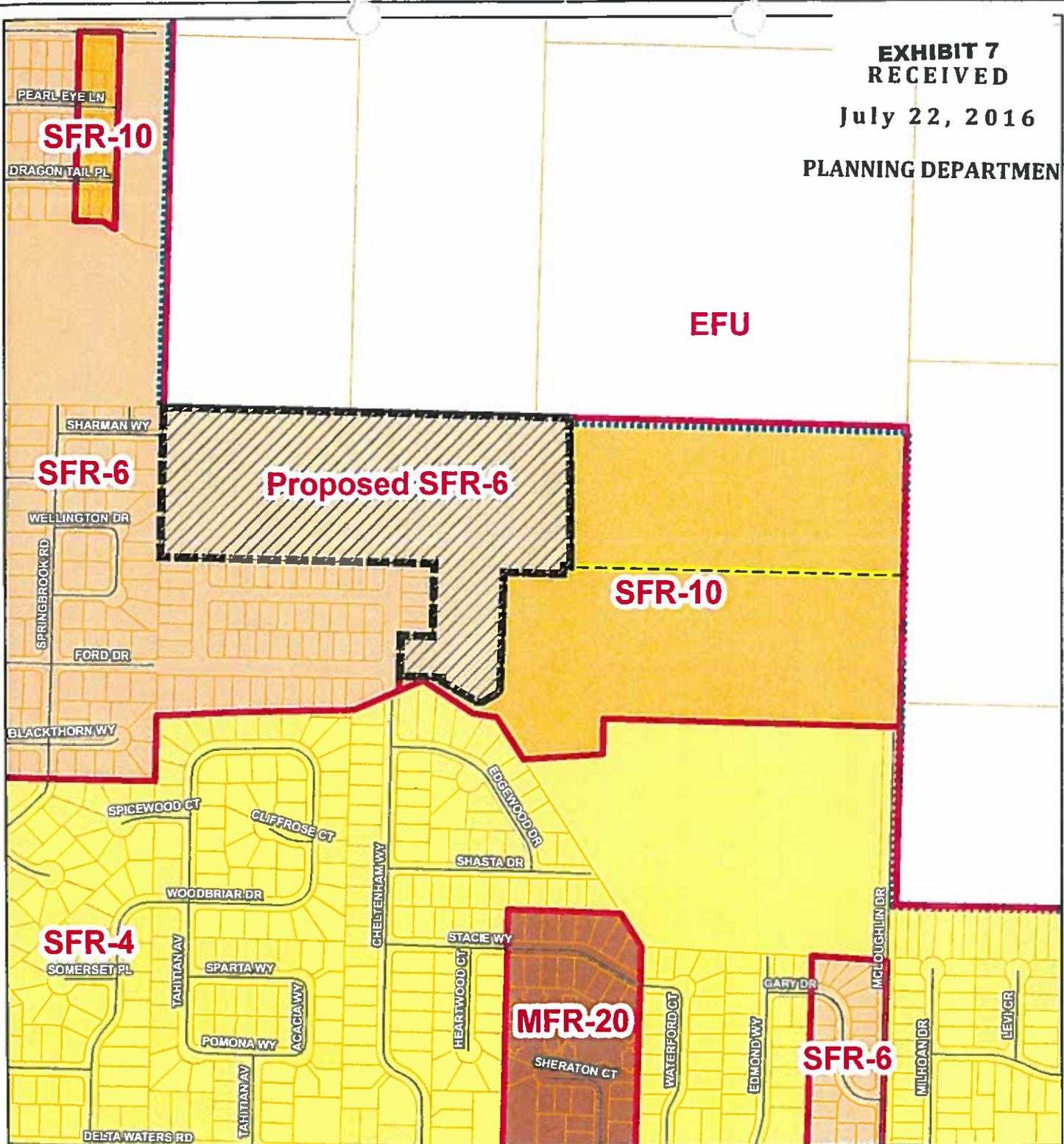
EXHIBIT #

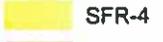
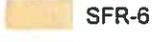


EXHIBIT 7  
RECEIVED

July 22, 2016

PLANNING DEPARTMENT



-  Proposed SFR-6
-  Medford Proposed Zoning
-  Subject Lots
-  Urban Growth Boundary
-  Tax Lots
-  MFR-20
-  SFR-10
-  SFR-4
-  SFR-6

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### Proposed Zoning Map

Applicant: Hayden Homes LLC  
Delta Estates Subdivision Ph 2-5  
37-1W-08 Tax Lots 1101 & 1102



CSA Planning LTD

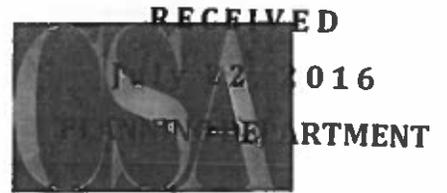
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CITY OF MEDFORD

EXHIBIT #

7-19-2016 Source: City of Medford GIS Jackson County GIS



# Technical Memorandum

To: Medford Planning Commission  
Date: July 19, 2016  
Subject: Administrative Zoning Map Error

**CSA Planning, Ltd**  
4497 Brownridge, Suite 101  
Medford, OR 97504  
Telephone 541.779.0569  
Fax 541.779.0114  
Elysia@CSAplanning.net

In the process of preparing the current and proposed zoning maps for Delta Estates Subdivision, Phases 2 through 5, an administrative mapping error was identified. The City's published zoning map online depicts the zoning line running straight north-south along Cheltenham Way. The published map is in error. We reviewed the legal description for Planning File No. ZC-15-017 and it included all of Parcel 1 from Planning File No. LDS-13-086. This area jogs east of Cheltenham Way and includes the 5 westernmost lots from the first phase of Delta Estates subdivision.

This is an administrative error that we wanted to point out through this application so that no confusion arises. The City's published map could be corrected if the proposed zone change is approved and the zoning map lines are then changed.

CSA Planning, Ltd.

Elysia Harland  
Assistant Planner

cc. File



# CITY OF MEDFORD

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## PLANNING DEPARTMENT

Date of Notice: March 19, 2015

File No.: LDS-15-015/E-15-016/ZC-15-017  
Contact: Desmond McGeough

### NOTICE OF PUBLIC HEARING - PLANNING COMMISSION

Hearing Date: Thursday – April 9, 2015  
Hearing Time: 5:30 pm  
Hearing Location: Medford City Council Chambers  
City Hall, 411 W. 8<sup>th</sup> Street

This notice is to inform you of an upcoming opportunity to participate in a public hearing before the Medford Planning Commission.

**What is being considered?** Consideration of a request for a consolidated application consisting of a Zone Change from SFR-10 (Single Family Residential – 10 dwelling units per gross acre) to SFR- 6 (Single Family Residential- 6 dwelling units per acre) on one parcel totaling 11.36 acres, a tentative plat for a 57 lot residential subdivision and an associated Exception request seeking relief to side yard setbacks on particular lots within the subdivision. The subject site is located east of the terminus of Ford Drive and north of the terminus of Cheltenham Way within corporate limits of the City of Medford.

**How do I obtain additional information?** You may visit the Planning Department on the second floor of the Lausmann Annex, 200 S. Ivy Street between the hours of 8 a.m. and 5 p.m. weekdays, to review the application, all documents and evidence submitted, and the criteria relating to this proposal. The agenda and the staff report for this project will be available seven (7) days prior to the public hearing, and can also be viewed on the City web site ([www.ci.medford.or.us](http://www.ci.medford.or.us)). Copies may be obtained at the Planning Department at minimal cost.

**Who do I contact?** Questions can be directed to the planner listed above at 541-774-2380, or by visiting the Planning Department in person.

**What happens at a Public Hearing?** At the public hearing, the Chair will open the hearing and invite all interested parties to direct their testimony and evidence toward the regulations found in the *Medford Land Development Code*, specifically the criteria that apply to this project. The applicable criteria are included with this notice. You are invited to speak at the hearing stating why you favor or oppose this proposal. You may also write a letter to the Commission prior to the hearing that can be submitted as a part of the public record. You must testify in either manner to have standing; standing gives you the legal ability to appeal a decision that is made by the Commission on this project. Oregon Revised Statutes state that failure to raise an issue in a hearing, either in person or by letter, or failure to provide statements or evidence sufficient to afford the Commission an opportunity to respond to the issue precludes appeal to the Land Use Board of Appeals based on that issue.

Please be aware that communications made through Email and Messaging systems shall in no way be deemed to constitute legal notice to the City of Medford or any of its agencies, officers, employees, agents, or representatives, with respect to any existing or potential claim or cause of action against the City or any of its agencies, officers, employees, agents, or representatives, where notice to the City is required by any federal, state or local laws, rules, or regulations.

James E. Huber, AICP  
Planning Director  
lr/Attachments (maps and criteria)

“B”  
38 of 80

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*“Working with the Community to Shape a Vibrant and Exceptional City”*

Lausmann Annex • 200 South Ivy Street • Medford OR 97501  
Phone (541)774-2380 • fax (541)618-1708  
[www.ci.medford.or.us](http://www.ci.medford.or.us)



BEFORE THE MEDFORD PLANNING COMMISSION

STATE OF OREGON, CITY OF MEDFORD

IN THE MATTER OF TENTATIVE PLAT APPROVAL OF )  
 ) ORDER  
DELTA ESTATES SUBDIVISION [LDS-15-015] )

ORDER granting approval of a request for tentative plat approval of Delta Estates Subdivision.

WHEREAS:

1. The Planning Commission has duly accepted the application filed in accordance with the Medford Land Development Code, Sections 10.265 through 10.267; and
2. The Medford Planning Commission has duly held a public hearing on the request for consideration of tentative plat approval for a 57 lot residential subdivision and an associated Exception request seeking relief to side yard setbacks on particular lots within the subdivision. The subject site is located east of the terminus of Ford Drive and north of the terminus of Cheltenham Way within corporate limits of the City of Medford and a Zone Change from SFR-10 (Single Family Residential – 10 dwelling units per gross acre) to SFR- 6 (Single Family Residential- 6 dwelling units per acre) on one parcel totaling 11.36 acres, with the public hearing a matter of record of the Planning Commission on April 9, 2015.
3. At the public hearing on said tentative plat, evidence and recommendations were received and presented by the developer and Planning Department Staff; and
4. At the conclusion of said hearing, after consideration and discussion, the Medford Planning Commission, upon a motion duly seconded granted tentative plat approval and directed staff to prepare a final order with all conditions and findings set forth for the granting of the tentative plat approval.

THEREFORE LET IT BE HEREBY ORDERED that the tentative plat for Delta Estates Subdivision stands approved per Staff Report dated April 2, 2015, and subject to compliance with all conditions contained therein.

AND LET IT FURTHER BE OF RECORD, that the action of the Planning Commission in approving this request for tentative plat approval is hereafter supported by the findings referenced in the Staff Report dated April 2, 2015.

BASED UPON THE ABOVE, the Planning Commission determined that the tentative plat is in conformity with the provisions of law and Section 10.270 Land Division Criteria of the Land Development Code of the City of Medford.

148''  
40 OF 80

Accepted and approved this 23rd day of April, 2015.

CITY OF MEDFORD PLANNING COMMISSION

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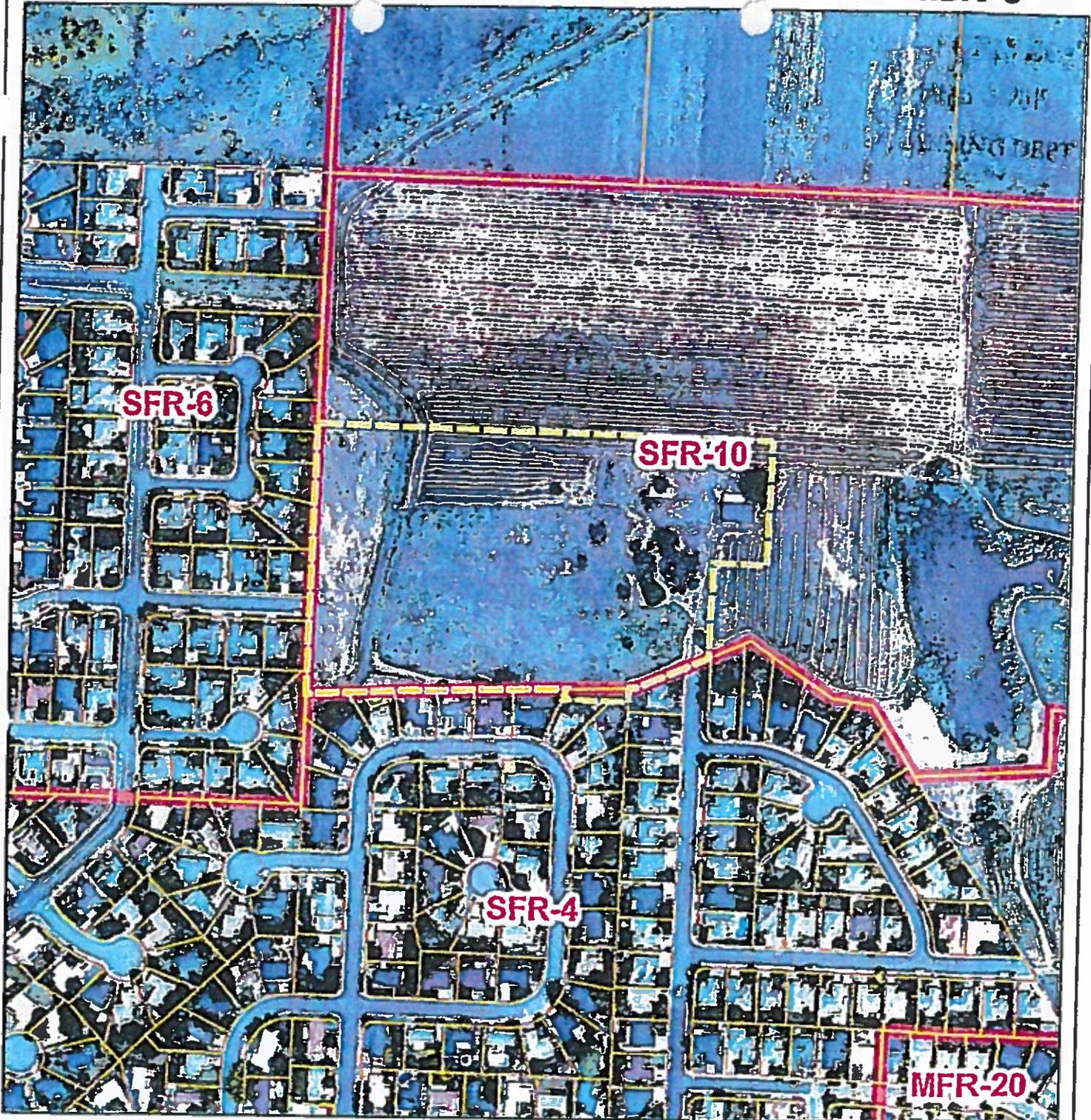
Planning Commission Chair

ATTEST:

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Planning Department Representative

"B"  
41 of



Legend

-  Subject \*
-  Tax Lots
-  Medford Zoning

\* Parcel 1 of P-26-2014 (Survey 21564)  
 Part of 37-1W-08-1100

Zoning Map

Delta Waters Subdivision  
 Hayden Homes, LLC

PLAT # 42 OF 80  
 EXISTING "B"



300 150 0 300 Feet



CSA Planning, Ltd.

1-21-2015 Source: CSA Planning, Ltd. City of Medford GIS

Conditions of Approval  
January 20, 2011

ZC-10-078  
Delta Waters Properties, LLC

**EXHIBIT 9  
RECEIVED**

**July 22, 2016**

**PLANNING DEPARTMENT**

1. The property owner shall comply with the report from the Public Works Department received December 8, 2010 (Exhibit M).
2. The property owner shall comply with the report from the Oregon Department of Transportation (ODOT) received January 19, 2011 (Exhibit P).

11B''  
43 of 98



City of Medford

# Planning Department

*Working with the community to shape a vibrant and exceptional city*

**EXHIBIT 10**

**RECEIVED**

**July 22, 2016**

**PLANNING DEPARTMENT**

January 28, 2016

Mr. Jay Harland, Principal  
CSA Planning, Ltd.  
4497 Brownridge Terrace, Suite 101  
Medford OR 97504

RE: Removal of Conditions of Approval – Public Works Conditions 2 and 3  
File ZC-10-078

Dear Mr. Harland:

This correspondence is sent in response to your correspondence dated October 21, 2015, in which you request the removal of two conditions of approval placed on the above referenced zone change. The subject property is located east of the terminus of Ford Drive and north of the terminus of Cheltenham Way.

On February 10, 2011, the Planning Commission adopted the Final Order conditionally approving the referenced zone change. There were a number of conditions of approval placed by the Planning Commission in order to ensure compliance with the approval criteria, including the two that are the subject of your request. The remaining conditions are not affected by your request or this decision.

Your traffic engineer, Lancaster Engineering, has been working with our Public Works Department on the update to the Traffic Impact Analysis that was prepared for the original Planning Commission decision. On January 8, 2016, the City received a revised Technical Memorandum; on January 22, 2016, Peter Mackprang from the City's Public Works Department prepared the attached Memorandum concluding that the two conditions can be removed. The conditions were identified in Exhibit M to the Planning Commission Report dated January 27, 2011, and read as follows:

2. Prior to the vertical construction of more than 69 SFR units or the generation of 661 daily trips, improvements shall be made to the intersection of Delta Waters & Springbrook to include realignment of the north and southbound approaches and construction of a traffic signal.

3. Prior to the vertical construction of more than 76 SFR units or the generation of 728 daily trips, improvements shall be made to the intersection of Crater Lake Ave & Delta Waters Rd to include east and westbound left turn lanes and an eastbound right turn lane.

Lausmann Annex, 200 South Ivy Street, Medford, Oregon 97501  
Tel. 541.774.2380 • www.ci.medford.or.us • Fax 541.618.1708

118'  
44 ESO

CITY OF MEDFORD  
EXHIBIT #

File # ZC-16-089/LDS-16-090/E-16-091

Mr. Jay Harland, Principal  
Re: Removal of Conditions of Approval – Public Works Conditions 2 and 3  
File no. ZC-10-078  
January 28, 2016

---

Medford Land Development Code Section 10.228(1) states:

*If an improvement is made to any facility that was lacking adequacy, or if a level of service standard is changed so that the facility is now determined to be adequate, the property owner(s) may submit a letter to the Planning Department requesting that development conditions be removed. If the department director agrees that the facility is adequate and the condition(s) is no longer necessary, the special development condition can be removed. The letter, with the approval signature of the department director, shall be appended to the original approval resolution or ordinance. In making the determination of facility adequacy, the department director may ask the property owner(s) for information to demonstrate facility adequacy.*

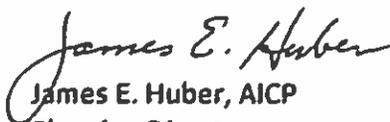
Based on the information in the Public Works Department Memorandum, Condition 2 can be released because the required improvements to Delta Waters Road and Springbrook Road were completed in 2013. Condition 3 can be released as a result of a change in the Code and the analysis of current and future conditions.

I hereby release Conditions 2 and 3 in Exhibit M to the Planning Commission Report dated January 27, 2011. This decision will be appended to the original Planning Commission decision as required in MLDC 10.228(1).

As a side note, the precautionary ZC-15-149 will not be needed. The fees will be refunded as per the department policy.

If you have any questions regarding this matter, please contact Kelly Akin, Principal Planner via e-mail at [Kelly.akin@cityofmedford.org](mailto:Kelly.akin@cityofmedford.org) or at 541-774-2380.

Sincerely,

  
James E. Huber, AICP  
Planning Director

:ka

c: File

Enclosures: Letter requesting release received October 27, 2015  
Public Works Memorandum dated January 22, 2016 with attachment

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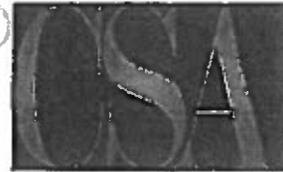
Page 2 of 2

113"  
45 of 80

RECEIVED

OCT 27 2015

Planning Dept.



**CSA Planning, Ltd**

4497 Brownridge, Suite 101  
Medford, OR 97504

Telephone 541.779.0569  
Fax 541.779.0114

Jay@CSAplanning.net

October 21, 2015

James Huber, Planning Director  
City of Medford Planning Department  
Lausman Annex, Room 240  
200 South Ivy Street  
Medford, Oregon 97501

**RE: Conditions of Approval #2 and #3 - Planning File No. ZC-10-078**

Dear Mr. Huber:

Our firm represents the owners of property identified in the records of the Jackson County Assessor as Tax Lots 1100, 1101 and 1102 in Township 37 South Range 1 West in Section 08. The property consists of a three parcels that have approximately 65.27 combined acres. Tax Lot 1100 has an approved tentative subdivision plat (Delta Estates) and is owned by our client HH Medford One LLC (Hayden Homes). Tax Lots 1101 and 1102 are owned by our client Delta Waters Properties LLC (James Root Managing Member).

MLDC 10.228(1) provides that conditions of approval for zone changes can be removed by the Planning Director in one of two circumstances:

1. The identified improvements have been completed.
2. A change to the Level of Service is sufficient to determine the facility now operates consistent with the adopted level of service standards.

In the case of the subject property and Planning File No. ZC-10-078, conditions #2 and #3 have the requisite circumstances, respectively, to be removed under MLDC 10.228(1). Specifically the following circumstances are present:

1. Condition #2 of the zone change required that the northbound and southbound approaches be realigned and a traffic signal installed at the intersection of Springbrook Road and Delta Waters Road. The required improvements are now complete.
2. Condition #3 of ZC-10-078 required improvements to Crater Lake Avenue and Delta Waters Road. Following the zone change, the City has changed its peak hour factor to 1.0 for intersection analysis purposes which is effectively a Level of Service standard change. This LOS standard change, combined with lower traffic volumes than were originally projected, result in a condition wherein the intersection is now projected to operate acceptably. Attached to this letter is a TIA addendum prepared by Lancaster Engineering showing that the intersection is now projected to operate consistent with the LOS D standard.

For the above reasons, the owners of the subject property request that ZC-10-078 conditions of approval #2 and #3 be removed pursuant to MLDC 10.228(1).

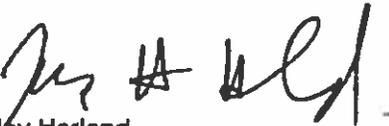
11/3"  
4/6 of 80

MLDC 10.228(2) provides an alternate method for removal of special development conditions imposed through a zone change whereby the Planning Commission reexamines the conditions of approval based upon new information and the zone change criteria relevant to the conditions of approval at issue. This is a time sensitive matter to both owners as they seek to execute additional transactions between the parties. For this reason, we have concurrently filed an application under MLDC 10.228(2) while this letter is pending review by the Planning Director. The filing of the zone change application is intended to avoid unnecessary delay should one or neither of the conditions be removed by the Planning Director pursuant to this letter and MLDC 10.228(1). If both conditions of approval are removed by the Planning Director pursuant to the request in this letter then the owners intend to withdraw the zone change condition amendment application.

Because of the time sensitive nature of this matter, our preference would be to have the Planning Director remove these conditions as soon as practicable.

Very Truly Yours,

CSA Planning, Ltd.



Jay Harland  
Principal

cc. File

1-B''  
47 OF 80



## MEMORANDUM

Date January 22, 2016  
To Doug Burroughs  
From Peter Mackprang  
Subject Delta Waters Orchards Zone Change Modification ZC 10-078

### Background

Public Works has received an addendum to the Traffic Impact Analysis (TIA) for Delta Waters Orchards ZC 10-078. The stated purpose of this addendum is to revise the original TIA and remove the following two out of a total of six conditions of approval:

- Condition # 2. Prior to the vertical construction of more than 69 SFR units or the generation of 661 daily trips, improvements shall be made to the intersection of Delta Waters & Springbrook to include realignment of the north and southbound approaches and construction of a traffic signal, and;
- Condition # 3. Prior to the vertical construction of more than 76 SFR units or the generation of 728 daily trips, improvements shall be made to the intersection of Crater Lake Ave & Delta Waters Rd to include east and westbound left turn lanes and an eastbound right turn lane.

### Analysis

Condition # 2 was satisfied when the City realigned the roadway and constructed a traffic signal at the resulting intersection in 2013.

Condition # 3 is contingent upon the level of service (LOS) of the intersection. Following the zone change approval, the City of Medford changed its code to allow a peak hour factor of 1.0 for intersection analysis. Under this criteria and considering current traffic counts and pipeline trips, the intersection is shown by the TIA addendum to operate at LOS D during the P.M. peak hour under 2015 existing conditions, 2016 background conditions and 2016 background plus project conditions.

### Conclusion

Based on the review of the analysis provided, conditions 2 and 3 can be removed.

The Conditions of approval that remain in force for this project are:

- Condition #1 – Prior to vertical construction of more than 50 SFR units or the generation of 479 daily trips, project impacts at the intersection of Crater Lake Ave & Owen Dr shall be mitigated to the satisfaction of the City of Medford. The mitigation recommended in the traffic impact study is signalization of the intersection. This intersection does not

"B"  
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TECHNICAL MEMORANDUM

**TO:** Jay Harland, CSA Planning, Ltd.  
**FROM:** Daniel Stumpf, EI  
Todd E. Mobley, PE  
**DATE:** January 7, 2016  
**SUBJECT:** Delta Waters Orchards Zone Change  
City of Medford Conditions of Approval Response



**LANCASTER  
ENGINEERING**

321 SW 4<sup>th</sup> Ave., Suite 400  
Portland, OR 97204  
phone 503.248.0313  
fax 503.248.9251  
lancasterengineering.com

*Introduction*

This memorandum is written in response to comments made by staff with the City of Medford, released December 17, 2015, regarding conditions of approval. Specifically, comments #1 and #2 regarding the Traffic Impact Analysis (TIA) Addendum prepared by Lancaster Engineering, dated November 30, 2015, for the proposed Delta Waters Orchards Zone Change in Medford, Oregon.

*Comment #1*

According to the City of Medford, traffic volumes shown in the Synchro output sheets appeared transposed, where eastbound volumes and westbound volumes were switched, and northbound and southbound volumes were switch when compared to the traffic count data sheets. The volumes were in fact transposed and the Synchro traffic volumes were adjusted to reflect appropriate approach volumes as shown in the count data sheets.

*Comment #2*

According to the City of Medford, the summation of the two percent growth for one year, the in-process development trips, and the site trips did not match between the "2016 Background plus Site Conditions" Synchro output sheets and City of Medford calculations. Based on telephone correspondence with City of Medford staff, the summation of the two percent growth, in-process trips, and site trips as shown in the Synchro output sheets are acceptable.

*Intersection Capacity and Level-of-Service Analysis*

To determine the capacity and level-of-service (LOS) at the intersection of Delta Waters at Crater Lake Avenue, a capacity analysis, using revised volumes according to City of Medford comments as shown above, was conducted for year 2016 build-out conditions during the evening peak hour.

The analysis was conducted using the signalized intersection analysis methodology in the *HIGHWAY CAPACITY MANUAL* (HCM) published by the Transportation Research Board. The volume capacity (v/c) ratio is a measure that compares the traffic volume (demand) against the available capacity of an intersection. The LOS of an intersection is a measure of delay that can range from A, which indicates very little or no delay experienced by vehicles, to F, which indicates a high degree of congestion and delay. The City of Medford Code Section 10.462 requires a minimum LOS of D or better. In addition to minimum intersection performance requirements, code section 10.461 states analyses shall use a peak hour factor of 1.0 and an ideal saturation flow rate no greater than of 1800

"B"  
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*JH*

Jay Harland  
January 7, 2016  
Page 2 of 2

vehicles per hour per lane. Intersection signal timing plans provided by the City of Medford were utilized in the analysis and are included in the attached Technical Appendix.

The intersection of Delta Waters at Crater Lake Avenue currently operates at LOS D with a v/c ratio of 0.64 during the evening peak hour. Under 2016 background conditions the intersection is projected to operate at LOS D with a v/c ratio of 0.69 during the evening peak hour. Under year 2016 build-out conditions the intersection is projected to operate at LOS D with a v/c ratio of 0.75.

The v/c, delay, and LOS results of the capacity analysis are shown in the table below. Detailed calculations as well as tables showing the relationship between delay and LOS are included in the Technical Appendix to this report.

Capacity Analysis Summary	Evening Peak Hour		
	LOS	Delay (s)	v/c
Delta Waters Rd at Crater Lake Ave			
2015 Existing Conditions	D	46	0.64
2016 Background Conditions	D	47	0.69
2016 Background plus Site Conditions	D	49	0.75

Based on the results of capacity and LOS analysis, the study intersection is projected to operate acceptably through year 2016 with or without the addition of site trips from the proposed development.

If you have any questions regarding this study, please don't hesitate to contact me directly.

"B"  
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HCM Signalized Intersection Capacity Analysis  
 3: Delta Waters Road & Crater Lake Avenue

Delta Waters/Crater Lake Ave  
 Existing Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NET	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↗	↑	↖	↗	↕↕	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00	1.00	1.00	0.95	
Frb, ped/bikes		1.00			1.00		1.00	1.00	0.99	1.00	1.00	
Fipb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.95			0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected		1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3157			3284		1676	1765	1480	1676	3249	
Flt Permitted		1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		3157			3284		1676	1765	1480	1676	3249	
Volume (vph)	57	363	238	63	287	25	221	313	90	46	340	79
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	57	363	238	63	287	25	221	313	90	46	340	79
RTOR Reduction (vph)	0	74	0	0	5	0	0	0	49	0	14	0
Lane Group Flow (vph)	0	584	0	0	370	0	221	313	41	46	405	0
Confl. Peds. (#/hr)	6					6	2		1	1		2
Turn Type	Split			Split			Prot		Perm	Prot		
Protected Phases	4	4		8	8		5	2		1		6
Permitted Phases									2			
Actuated Green, G (s)		24.0			18.3		18.2	51.9	51.9	5.8		39.5
Effective Green, g (s)		24.0			18.3		17.2	51.9	51.9	4.8		39.5
Actuated g/C Ratio		0.21			0.16		0.15	0.45	0.45	0.04		0.34
Clearance Time (s)		4.0			4.0		3.0	4.0	4.0	3.0		4.0
Vehicle Extension (s)		1.5			4.0		1.5	4.0	4.0	1.5		4.0
Lane Grp Cap (vph)		659			523		251	797	668	70		1116
v/s Ratio Prot		c0.19			c0.11		c0.13	c0.18		0.03		0.12
v/s Ratio Perm									0.03			
v/c Ratio		0.89			0.71		0.88	0.39	0.06	0.66		0.36
Uniform Delay, d1		44.2			45.8		47.9	21.0	17.8	54.3		28.3
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2		13.3			4.7		27.4	1.5	0.2	15.7		0.9
Delay (s)		57.5			50.5		75.3	22.5	18.0	69.9		29.2
Level of Service		E			D		E	C	B	E		C
Approach Delay (s)		57.5			50.5			40.6				33.3
Approach LOS		E			D			D				C

Intersection Summary

HCM Average Control Delay	46.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

"B"  
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HCM Signalized Intersection Capacity Analysis  
 3: Delta Waters Road & Crater Lake Avenue

Delta Waters/Crater Lake Ave  
 2016 Background Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑		↗	↑	↖	↗	↑↑	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00	1.00	1.00	0.95	
Frb, ped/bikes		1.00			1.00		1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.95			0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected		1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3158			3268		1676	1765	1480	1676	3247	
Flt Permitted		1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		3158			3268		1676	1765	1480	1676	3247	
Volume (vph)	66	381	248	64	298	38	230	344	92	66	385	92
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	66	381	248	64	298	38	230	344	92	66	385	92
RTOR Reduction (vph)	0	69	0	0	7	0	0	0	53	0	16	0
Lane Group Flow (vph)	0	626	0	0	393	0	230	344	39	66	461	0
Confl. Peds. (#/hr)	6					6	2		1	1		2
Turn Type	Split			Split			Prot		Perm	Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)		25.4			18.9		18.7	48.5	48.5	7.2	37.0	
Effective Green, g (s)		25.4			18.9		17.7	48.5	48.5	6.2	37.0	
Actuated g/C Ratio		0.22			0.16		0.15	0.42	0.42	0.05	0.32	
Clearance Time (s)		4.0			4.0		3.0	4.0	4.0	3.0	4.0	
Vehicle Extension (s)		1.5			4.0		1.5	4.0	4.0	1.5	4.0	
Lane Grp Cap (vph)		698			537		258	744	624	90	1045	
v/s Ratio Prot		c0.20			c0.12		c0.14	c0.19		0.04	0.14	
v/s Ratio Perm									0.03			
v/c Ratio		0.90			0.73		0.89	0.46	0.06	0.73	0.44	
Uniform Delay, d1		43.5			45.6		47.7	23.9	19.7	53.6	30.8	
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		13.8			5.5		28.9	2.1	0.2	23.1	1.4	
Delay (s)		57.3			51.1		76.6	25.9	19.9	76.7	32.2	
Level of Service		E			D		E	C	B	E	C	
Approach Delay (s)		57.3			51.1			42.6			37.6	
Approach LOS		E			D			D			D	

Intersection Summary		
HCM Average Control Delay	47.3	HCM Level of Service
HCM Volume to Capacity ratio	0.69	D
Actuated Cycle Length (s)	115.0	Sum of lost time (s)
Intersection Capacity Utilization	81.3%	12.0
Analysis Period (min)	15	ICU Level of Service
c Critical Lane Group		D

"B"  
 5/20/80

HCM Signalized Intersection Capacity Analysis  
 3: Delta Waters Road & Crater Lake Avenue

Delta Waters/Crater Lake Ave  
 2016 Background + Site Conditions - PM Peak Hour

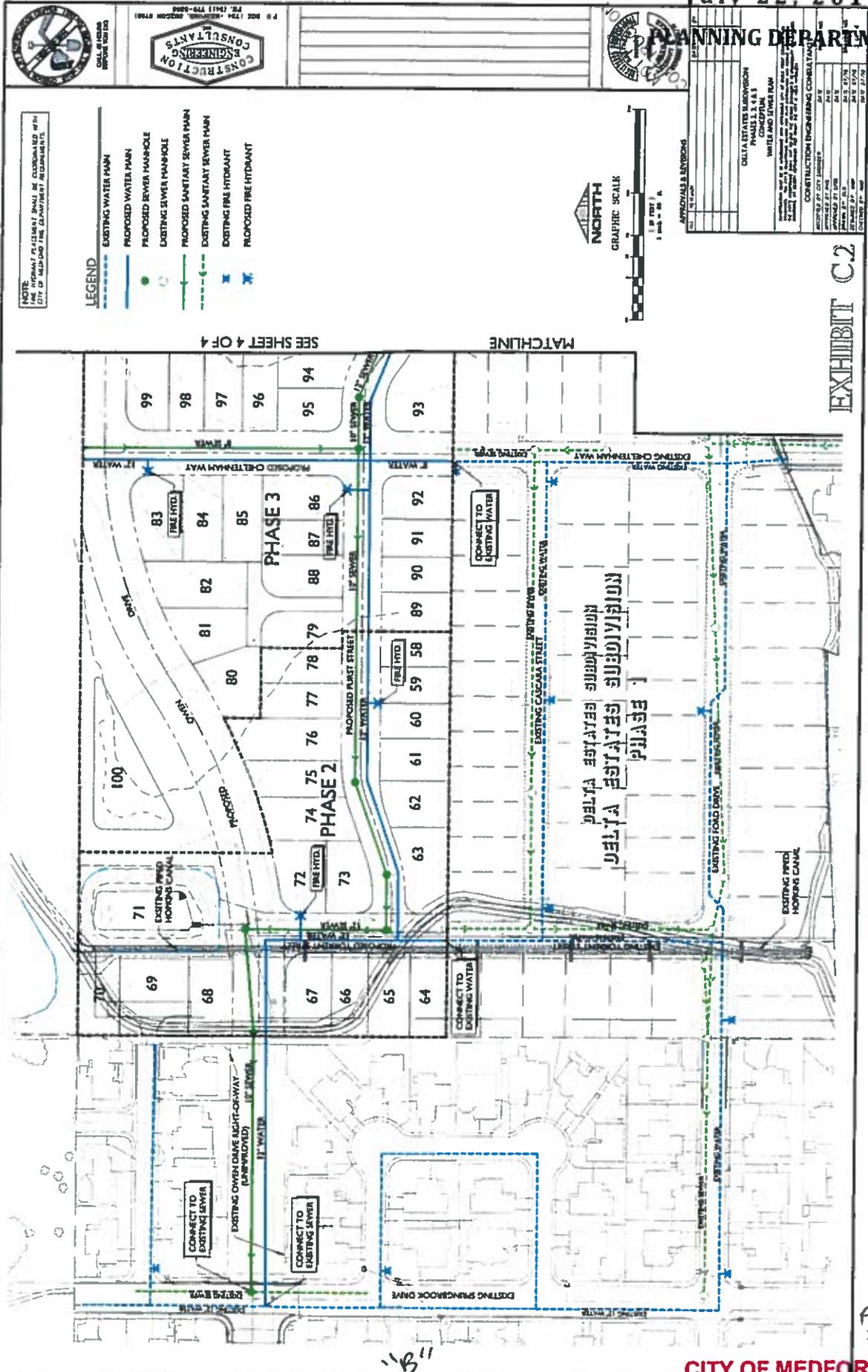
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↘	↑	↗	↘	↕↕	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00	1.00	1.00	0.95	
Frb, ped/bikes		1.00			1.00		1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.95			0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected		1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3177			3272		1676	1765	1480	1676	3249	
Flt Permitted		1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		3177			3272		1676	1765	1480	1676	3249	
Volume (vph)	66	455	248	88	343	38	230	361	131	66	395	92
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	66	455	248	88	343	38	230	361	131	66	395	92
RTOR Reduction (vph)	0	51	0	0	6	0	0	0	81	0	16	0
Lane Group Flow (vph)	0	718	0	0	463	0	230	361	50	66	471	0
Confl. Peds. (#/hr)	6					6	2		1	1		2
Turn Type	Split			Split			Prot		Perm	Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)		28.5			20.3		18.6	44.0	44.0	7.2	32.6	
Effective Green, g (s)		28.5			20.3		17.6	44.0	44.0	6.2	32.6	
Actuated g/C Ratio		0.25			0.18		0.15	0.38	0.38	0.05	0.28	
Clearance Time (s)		4.0			4.0		3.0	4.0	4.0	3.0	4.0	
Vehicle Extension (s)		1.5			4.0		1.5	4.0	4.0	1.5	4.0	
Lane Grp Cap (vph)		787			578		257	675	566	90	921	
v/s Ratio Prot		c0.23			c0.14		c0.14	c0.20		0.04	0.14	
v/s Ratio Perm									0.03			
v/c Ratio		0.91			0.80		0.89	0.53	0.09	0.73	0.51	
Uniform Delay, d1		42.0			45.4		47.8	27.6	22.7	53.6	34.5	
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		14.5			8.3		29.5	3.0	0.3	23.1	2.0	
Delay (s)		56.6			53.7		77.3	30.6	23.0	76.7	36.5	
Level of Service		E			D		E	C	C	E	D	
Approach Delay (s)		56.6			53.7			44.1			41.3	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM Average Control Delay	49.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

"B"  
 53 OF 80

July 22, 2016

PLANNING DEPARTMENT



NOTE:  
 FIRE HYDRANT PLACEMENT SHALL BE DETERMINED BY THE CITY OF MEDFORD FIRE DEPARTMENT REQUIREMENTS.

- LEGEND**
- EXISTING WATER MAIN
  - PROPOSED WATER MAIN
  - PROPOSED SEWER MANHOLE
  - EXISTING SEWER MANHOLE
  - PROPOSED SANITARY SEWER MAIN
  - EXISTING SANITARY SEWER MAIN
  - EXISTING FIRE HYDRANT
  - PROPOSED FIRE HYDRANT



APPROVALS & REVISIONS

NO.	DATE	DESCRIPTION
1	07/22/16	ISSUED FOR PERMIT

DELTA STATES ENGINEERING  
 PHASES 2 & 3  
 PROJECT NO. 16-090  
 1000 W. MAIN ST., SUITE 100  
 MEDFORD, MA 01955  
 TEL: 978-752-1100 FAX: 978-752-1101  
 WWW.DELTASTATES.COM

APPROVED BY: [Signature]  
 DATE: 07/22/16  
 APPROVED BY: [Signature]  
 DATE: 07/22/16  
 APPROVED BY: [Signature]  
 DATE: 07/22/16

DELTA STATES ENGINEERING CONSULTANTS  
 1000 W. MAIN ST., SUITE 100  
 MEDFORD, MA 01955  
 TEL: 978-752-1100 FAX: 978-752-1101  
 WWW.DELTASTATES.COM

EXHIBIT C.2

APPLICANTS EXHIBIT 12

21

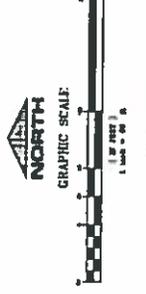







CALL OR WRITE  
 BEFORE VISITING  
 P.O. BOX 1924 • MEDFORD, OREGON 97501  
 503-646-1211 FAX 503-646-1210  
**CONSTRUCTION CONSTANTS**  
**ENGINEERING**

- LEGEND**
- STREET DRAINAGE DIRECTION
  - SURFACE DRAINAGE DIRECTION
  - PROPOSED STORM MAIN
  - EXISTING STORM MAIN
  - PROPOSED STORM INLET
  - EXISTING STORM INLET
  - PROPOSED SD MANHOLE
  - EXISTING SD MANHOLE
  - PROPOSED SD CLEANOUT
  - EXISTING CONTOUR (2' INTERVAL)



DELTA STATES SUBDIVISION  
 PAGES 2, 3, 4, 5  
 GRADING AND DRAINAGE PLAN

CONSTRUCTION ENGINEERING CONSULTANTS

APPROVED BY CITY ENGINEER	DATE
APPROVED BY P.E.	DATE

FILE NAME: 16-089-091-011-016 REVISED 07-20-16 PLOT NUMBER: 1

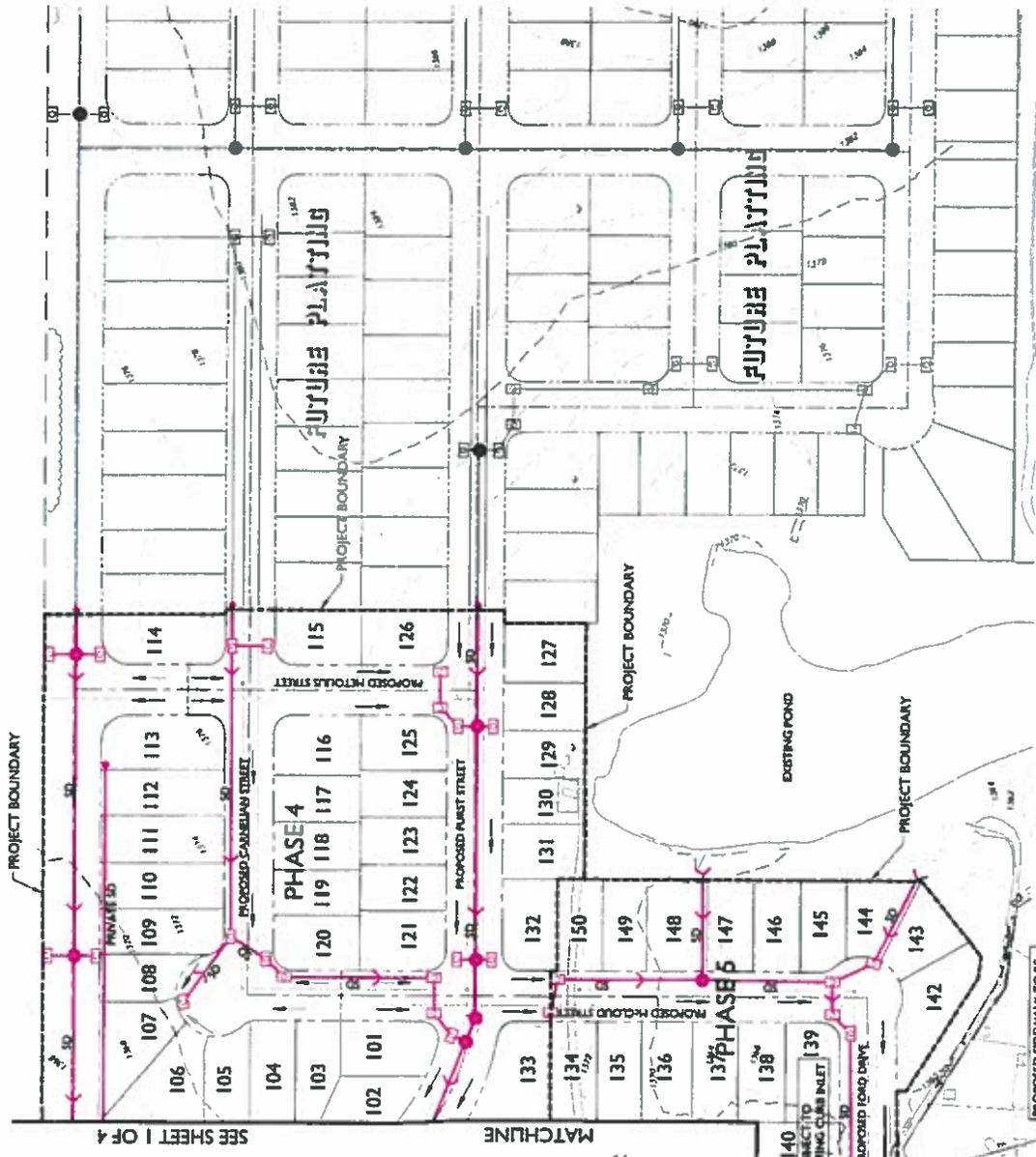


EXHIBIT C1

118"  
 57' 80"

CITY OF MEDFORD  
 EXHIBIT #







**Metes and Bounds legal description of Parcel 2 and Parcel 3, Partition Plat P-26-2014, filed as survey number 21564, Jackson County Surveyors office.**

(July 9, 2016 JRP)

Beginning at the southwest corner of Parcel 2, Partition Plat No. P-26-2014 and recorded as survey number 21564; thence North 00 degrees 3'59" East, along the westerly line of said Parcel 2, 199.44 feet to a point on the northwesterly corner thereof, said point also being at the southwesterly corner of Lot 53 Delta Estates, Phase I and filed as county survey no 21884; thence South 89 degrees 54'01" East, 113.95 feet to the southeast corner of said Lot 53; thence North 00 degrees 01'14" East, along the east line of said Lot 53 and the extension there of to the northeast corner of said Delta Estates Phase I; thence North 89 degrees 54'05" West along the north line of said Delta Estates, 974.56 feet to the northwest corner of said Delta Estates, Phase I, said point also being the southwest corner of Parcel 3 of said Partition Plat; thence North 00 degrees 06'57" West along west line of said Parcel 3, 527.79 feet to the center quarter corner of Section 8, Township 37 South, Range 1 West, Willamette Meridian, and the northwest corner of said Parcel 3; thence South 89 degrees 54'25" East, along the north line of said Parcel 3, 1324.72 feet to the East Sixteenth corner of said Section 8; thence South 89 degrees 54'58" East, along the north line of said Parcel 3, 1324.11 feet to the east quarter corner of said Section 8, said point also being the northeast corner of said Parcel 3; thence South 00 degrees 16'01" East, along the east line of said Parcel 3, 527.92 feet to the southeast corner of said Parcel 3, said point also being the northeast corner of said Parcel 2; thence South 00 degrees 14'03" East, along the east line of said Parcel 2, 539.26 feet to the southeast corner thereof; thence North 89 degrees 50'07" West, along the south line of said Parcel 2, 1064.99 feet; thence South 00 degrees 09'47" West, 127.77 feet; thence South 85 degrees 09'58" West, 280.60 feet; thence North 33 degrees 41'30" West, 122.50 feet; thence North 33 degrees 34'17" West, 52.74 feet; thence North 81 degrees 54'39" West, 87.01 feet; thence North 57 degrees 55'47" West, 210.95 feet; thence South 65 degrees 40'32" West, 93.71 feet to the southwesterly corner of said Parcel 2 and the point of beginning.

"B"  
LEO OF 80

**EXHIBIT 15**

Jackson County Official Records 2015-020336

R-E 06/25/2015 02:28:16 PM

Cnt=1 SHINGLJS \$30.00 \$10.00 \$5.00 \$8.00 \$11.00 Total:\$87.00

\$20.00 \$3.00



01673558201500203360060060

I, Christine Walker, County Clerk for Jackson County, Oregon, certify that the instrument identified herein was recorded in the Clerk records.

Christine Walker - County Clerk

**RECEIVED**

**July 22, 2016**

**PLANNING DEPARTMENT**

AFTER RECORDING RETURN TO:  
Rogue River Valley Irrigation District  
3139 Merriman Road  
Medford, OR 97501

**PIPING EASEMENT**

**PARTIES:** HH Medford One, LLC, an Oregon Limited Liability Company, Grantors

ROGUE RIVER VALLEY IRRIGATION DISTRICT, A Municipal Corporation of the State of Oregon, Grantee.

**GRANT OF EASEMENT:** Grantor, Its successors and assigns, do hereby grant unto Rogue River Valley Irrigation District, its successors and assigns, a water pipeline easement as described in the plans that are on file at the District office and incorporated as though wholly set forth herein.

**STATEMENT OF PURPOSE:** The easement described above shall be used for installing, constructing, utilizing, operating, maintaining, repairing or replacing and irrigation water pipeline for the Rogue River Valley Irrigation District's water system.

**TYPE OF EASEMENT:** The easement described above shall be exclusively for the benefit of the District or its assigns and shall perpetually encumber the affected property.

**COVENANT NOT TO OVERLOAD AND NOT TO BUILD:** Grantor and Grantee understand the danger to the buried pipeline. Grantor shall not overload the buried pipeline and shall not permit any vehicle or equipment to cross the buried pipeline except at engineered crossing locations approved by Grantee. Grantor may provide for driveway access over the pipeline approved by Grantee and provided such access shall be constructed in accordance with engineer's plans and specifications providing adequate protection for the pipe. Further, Grantor shall not build or allow any structure to be built over the buried pipeline. If, during repair or maintenance specified below, Grantee damages property or other structures located on any portion of the easement, Grantor will hold Grantee harmless for any damage or claim for damage or repairs.

Handwritten notes: "B" and "let 0 = 80"

**MAINTENANCE, REPAIR AND REPLACEMENT:** Grantor shall be responsible for all maintenance, repair and replacement of the buried culvert pipe. In the event Grantor shall fail to properly maintain the buried culvert pipe and all the appurtenances, as determined by Grantee, Grantee may take all action necessary to properly maintain such culvert pipe including access to the easement granted herein over and across adjacent property owned by Grantor. In the event of an emergency as determined by Grantee's manager, Grantee may take all action necessary to properly maintain such culvert pipe including access to the easement granted herein over and across adjacent property owned by Grantor. All costs incurred by Grantee for maintenance, repair or replacement will be paid by Grantor and Grantee shall record all charges as a lien against Grantor's property described as: Parcel No 1 of Partition Plat No P-26-2014 as recorded in the Records of Jackson County, Oregon; Index Volume 25, Page 26; County Surveyor's File No 21564.

**INDEMNITY:** Grantor agrees to indemnify and hold Grantee harmless from any claims or damages arising out of the installation of the buried culvert pipe or arising out of the use of the real property located above or adjacent to the buried culvert pipe.

**COVENEANTS RUNNING WITH LAND:** The above non-overloading and no building provisions, maintenance provision and indemnify provision are covenants running with the land and shall be the responsibility of Grantor or any subsequent transferee.

**REMEDIES:** In addition to all other remedies allowed by law, the parties, their successors and assigns, shall have the right to seek injunctive relief or specific performance for the enforcement of the terms and conditions of this agreement.

**BINDING EFFECT:** The terms, conditions and provisions of this Agreement shall extend to and be binding upon and inure to the benefit of the heirs, personal representatives and assigns of the parties.

**ATTORNEY FEE:** In case suit or action be instituted upon or in connection with this Agreement, the prevailing party shall be entitled to recover from the losing party such sums as the court may adjudge reasonable as attorney fees and costs in such suit or action, or upon appeal.

**SPECIFICATIONS:** Pipe shall be installed to meet current minimum general standards as set forth in the current American Public Works Association Standards, and the current City of Medford and City of Central Point Standards and Specifications, Jackson County Public Works Standards and Specifications, the plans that are on file at the District office, and the specifications set forth by the Rogue River Valley Irrigation District described in Exhibit "A" and further delineated in Exhibit "B".

**THIS EASEMENT IS TEMPORARY AND IS EXTINGUISHED AND TERMINATED UPON THE RECORDING OF A LAND DIVISION, AS APPROVED BY THE CITY OF MEDFORD, IN THE RECORDS OF JACKSON COUNTY, OREGON, AT WHICH TIME A DEDICATED EASEMENT WILL BE STATED ON THE PLAT OR LIE WITHIN A PUBLIC RIGHT OF WAY.**

"B"  
62 of 80

Dated this 25 day of June, 2015.

GRANTEE:

ROGUE RIVER VALLEY  
IRRIGATION DISTRICT

By: Brian Hanson  
Its: MANAGER

GRANTOR:

David Woods

By: DAVID WOODS  
Its: CONTROLLER

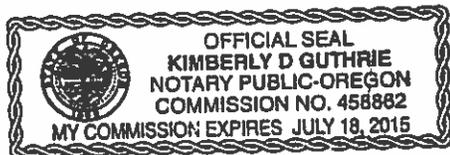
STATE OF OREGON            )  
  ) ss.  
JACKSON COUNTY            )

Personally appeared before me this 25 day of June, 2015,  
the above named Brian Hanson who is the Manager  
of ROGUE RIVER VALLEY IRRIGATION DISTRICT, and acknowledged the  
foregoing instrument to be his/her voluntary act and deed on behalf of ROGUE RIVER  
VALLEY IRRIGATION DISTRICT.

Jane Cordie  
Notary Public of Oregon  
My Commission expires: 5/4/19

STATE OF OREGON            )  
Deschutes                    ) ss.  
JACKSON COUNTY            )

Personally appeared before me this 28<sup>th</sup> day of April, 2015  
the above named David Woods who is the Controller  
of HH medFord one LLC, and acknowledged the foregoing  
instrument to be his/her voluntary act and deed of behalf of HH medFord one LLC.



Kimberly D. Guthrie  
Notary Public of Oregon  
My Commission expires: 7.18.2015

"B"  
123 of 80

STATE OF OREGON        )  
                                  ) ss.  
JACKSON COUNTY        )

Personally appeared before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,  
the above named \_\_\_\_\_ who is the \_\_\_\_\_  
of \_\_\_\_\_, and acknowledged the foregoing  
instrument to be his/her voluntary act and deed of behalf of \_\_\_\_\_.

\_\_\_\_\_  
Notary Public of Oregon  
My Commission expires: \_\_\_\_\_

"B"  
64 of 80

EXHIBIT "A"

Easement Description  
Delta Estates  
Relocated Hopkins Canal

An easement for ingress and egress for the purpose of constructing and maintaining a canal to convey irrigation water and storm water more particularly described as follows:

Commencing at the northwest corner of Parcel 3 of Partition Plat No P-26-2014 as recorded in the Records of Jackson County, Oregon; Index Volume 25, Page 26; County Surveyor's File No 21564; thence South 89°54'42" East, along the north line of said plat, 112.60 feet to the POINT OF BEGINNING; thence South 0°08'09" East 1023.96 feet; thence South 34°48'16" West, 40.45 feet; thence South 67°55'39" West, 91.27 feet to a point on the south line of said plat, being North 87°19'19" East, 5.20 feet from the southwest corner of Parcel 1 of said Plat; thence North 87°19'19" East, along the south line of said Parcel 1 of said Plat, 137.96 feet; thence North 0°08'09" West, 1084.98 feet to the north line of said Parcel 3 of said Plat; thence North 89°54'42" West, along the north line of said Plat, 30.00 feet to the POINT OF BEGINNING.

Prepared by: Herbert A Farber  
Farber & Sons, Inc.  
d.b.a. Farber Surveying  
431 Oak Street  
Central Point, Oregon 97502

Date: March 23, 2015

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR



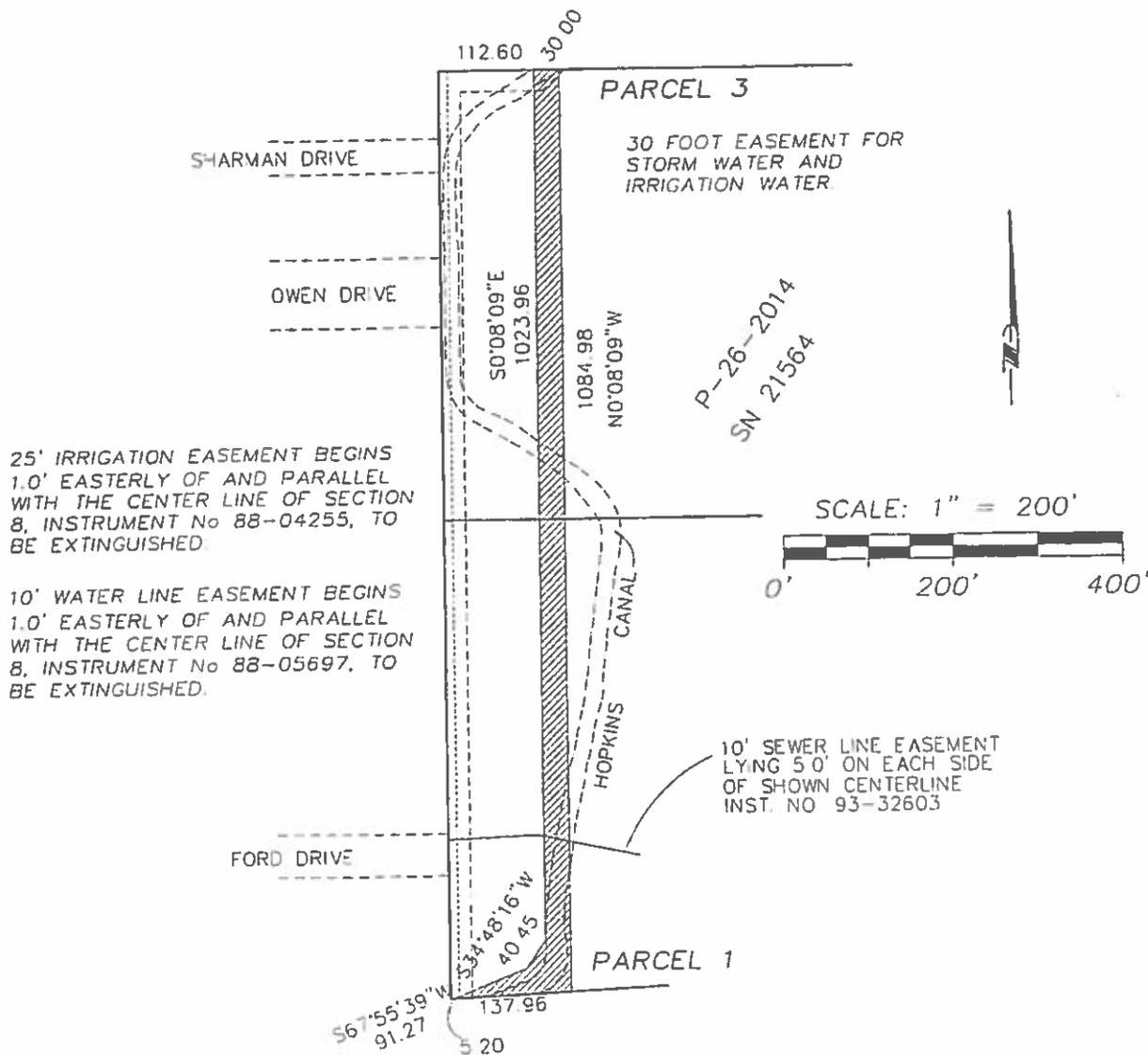
OREGON  
JULY 26, 1985  
HERBERT A. FARBER  
2189

RENEWS: DEC. 31, 2015

"B"  
25 of 80

# EXHIBIT "B"

## Relocated Hopkins Canal



Prepared by:  
**FARBER & SONS, INC.**  
 dba FARBER SURVEYING  
 431 Oak Street  
 Central Point, Oregon 97502  
 (541) 664-5599

REGISTERED  
 PROFESSIONAL  
 LAND SURVEYOR

*Herbert A. Farber*

OREGON  
 JULY 26, 1985  
 HERBERT A. FARBER  
 2189

DATE: March 23, 2015  
 JOB NO. 2014-2051

RENEWAL DATE 12-31-15

"B"  
 late of 80

**EXHIBIT 16**

Jackson County Official Records **2015-014606**  
R-E  
Cnt=1 JOTENL **05/15/2015 10:35:03 AM**  
\$25.00 \$10.00 \$5.00 \$8.00 \$11.00 **Total:\$82.00**  
\$20.00 \$3.00



I, Christine Walker, County Clerk for Jackson County, Oregon, certify that the instrument identified herein was recorded in the Clerk records.

Christine Walker - County Clerk  
**RECEIVED**

**July 22, 2016**

**PLANNING DEPARTMENT**

**STORM DRAIN AND ACCESS EASEMENT**

*EW # 7303*

Delta Waters Properties, LLC., an Oregon Limited Liability Company and HH Medford One, LLC, an Oregon Limited Liability Company, Grantor, for sufficient consideration, does hereby grant unto the City of Medford, Oregon, a municipal corporation, a perpetual easement, for storm drain and access over the following described property:

See Exhibit A, which is incorporated by this reference and further delineated by Exhibit B.

For the purpose of constructing, maintaining and accessing therein, a storm sewer as part of the public storm sewer system of said City, including a right to go upon and through the premises hereinabove described with such workers and equipment as may be necessary to accomplish the purposes hereof, reserving to the Grantor herein the right to possess and make such use of the premises above described as shall not conflict with the said City in the exercise of this easement; and the said City by these presents covenants that it shall promptly fill to grade of adjoining property, and restore the surface over, any excavation it may make pursuant hereto. This easement touches and concerns the above described real property, binds the grantor and its successors, and runs with the land.

THIS EASEMENT IS TEMPORARY AND IS EXTINGUISHED AND TERMINATED UPON THE RECORDING OF A LAND DIVISION, AS APPROVED BY THE CITY OF MEDFORD, IN THE RECORDS OF JACKSON COUNTY, OREGON, AT WHICH TIME A DEDICATED EASEMENT WILL BE STATED ON THE PLAT.



*113 11  
67 of 80*

*25*

SIGNED this 27<sup>th</sup> day of APRIL, 2015.

David Woods (owner's signature)  
DAVID WOODS (owner's name printed)

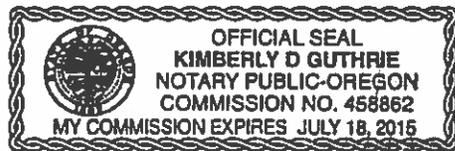
\_\_\_\_ (owner's signature)  
\_\_\_\_ (owner's name printed)

STATE OF OREGON )  
                  Deschutes ) ss:  
COUNTY OF JACKSON )

The foregoing instrument was acknowledged before me this 28<sup>th</sup> day of  
April, 2015,

by David Woods Controller.

Kimberly D. Guthrie  
Notary Public for Oregon



My Commission Expires: 7.18.2015

STATE OF OREGON )  
                  ) ss:  
COUNTY OF JACKSON )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of  
\_\_\_\_\_, 2015

by see attached certificate

OFF  
MONICA L  
NOTARY P  
COMMISS  
COMMISSION E

"B" 6/8 of 80

The City of Medford, a municipal corporation of the State of Oregon, hereby accepts such grant of easement with the express understanding that in so doing, the City of Medford does not agree to improve or maintain said property except as stated herein.

CITY OF MEDFORD:

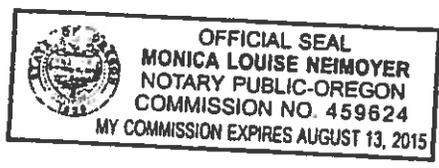
By: [Signature]

Title: City Engineer

Date: 5-8-15

STATE OF OREGON       )  
                                  ) ss:  
COUNTY OF JACKSON   )

The foregoing instrument was acknowledged before me this 8 day of May, 2015, by Alex Georgevitch.



M. Neimoyer  
Notary Public for Oregon

My Commission Expires: 8-13-15

OFFICIAL SEAL  
MONICA LOUISE NEIMOYER  
NOTARY PUBLIC - OREGON  
COMMISSION NO. 459624  
MY COMMISSION EXPIRES AUGUST 13, 2015

"B" 69 of 80

Notary Public for Oregon

My Commission Expires: \_\_\_\_\_

*attached certificate*



EXHIBIT "A"

Easement Description  
Delta Estates  
Relocated Hopkins Canal

An easement for ingress and egress for the purpose of constructing and maintaining a canal to convey irrigation water and storm water more particularly described as follows:

Commencing at the northwest corner of Parcel 3 of Partition Plat No P-26-2014 as recorded in the Records of Jackson County, Oregon; Index Volume 25, Page 26; County Surveyor's File No 21564; thence South 89°54'42" East, along the north line of said plat, 112.60 feet to the POINT OF BEGINNING; thence South 0°08'09" East 1023.96 feet; thence South 34°48'16" West, 40.45 feet; thence South 67°55'39" West, 91.27 feet to a point on the south line of said plat, being North 87°19'19" East, 5.20 feet from the southwest corner of Parcel 1 of said Plat; thence North 87°19'19" East, along the south line of said Parcel 1 of said Plat, 137.96 feet; thence North 0°08'09" West, 1084.98 feet to the north line of said Parcel 3 of said Plat; thence North 89°54'42" West, along the north line of said Plat, 30.00 feet to the POINT OF BEGINNING.

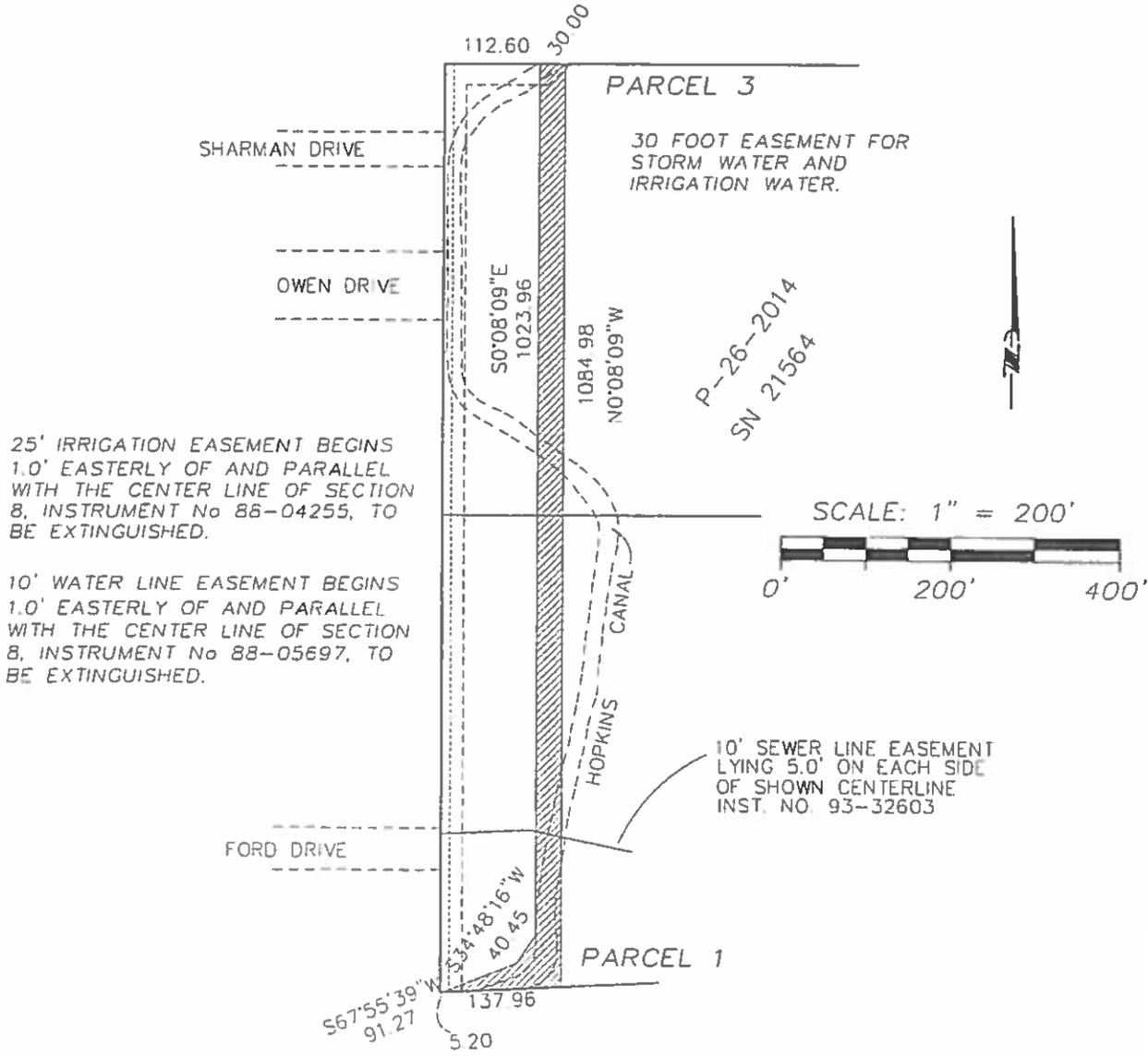
Prepared by: Herbert A Farber  
Farber & Sons, Inc.  
d.b.a. Farber Surveying  
431 Oak Street  
Central Point, Oregon 97502

Date: March 23, 2015

*113" 70 of 80*

# EXHIBIT "B"

## Relocated Hopkins Canal



25' IRRIGATION EASEMENT BEGINS 1.0' EASTERLY OF AND PARALLEL WITH THE CENTER LINE OF SECTION 8, INSTRUMENT No 86-04255, TO BE EXTINGUISHED.

10' WATER LINE EASEMENT BEGINS 1.0' EASTERLY OF AND PARALLEL WITH THE CENTER LINE OF SECTION 8, INSTRUMENT No 88-05697, TO BE EXTINGUISHED.



Prepared by:  
**FARBER & SONS, INC.**  
 dba FARBER SURVEYING  
 431 Oak Street  
 Central Point, Oregon 97502  
 (541) 664-5599

**REGISTERED  
 PROFESSIONAL  
 LAND SURVEYOR**

*Herbert A. Farber*  
 OREGON  
 JULY 26, 1985  
 HERBERT A. FARBER  
 2189

DATE: March 23, 2015  
 JOB NO.: 2014-2051

RENEWAL DATE 12-31-15

\\fina\deltaelta\waters\hwycon\homes\exhibits\hopkins\_relocate\_exhB1.dwg

"B"  
 41 of 80

**AGRICULTURAL IMPACT ASSESSMENT REPORT**

July 18, 2016

RECEIVED

Tax Lots 1101 and 1102 - Cheltenham Way, Medford, OR

July 22, 2016

**C. Information Required: Agricultural Impact Assessment Report.****PLANNING DEPARTMENT**

As part of any land use or development application listed in Subsection 10.801.B where the agricultural buffering provisions in Subsections 10.801.A through E apply, an applicant for such application shall supply the Planning Department with the following information in a report entitled "Agricultural Impact Assessment Report":

- (1) An excerpt of a City of Medford and/or Jackson County zoning map showing the zoning of land adjacent and within two hundred (200) feet of the property proposed for urban development.

Tax Lots 800, 900 and 1000 to the north of the subject property proposed for development are zoned EFU.

- (2) A description of the type and nature of agricultural uses and farming practices, if any, which presently occur on adjacent lands zoned EFU or EA and sources of such information. The information thus required, if applicable, shall include:

(a) Method of irrigation.

An examination of Jackson County GIS groundwater rights data and historic aerial photographs indicate the properties do have irrigation rights. The northern portion of Tax Lot 800 appears to be planted with orchard stock, however the southern half of the Tax Lot 800, between the orchard and the subject property, half is taken up by the Garret Creek drainage and the other half appears not to be in use. The last year aerials showing row crops on lots 900 and 1000 was in 2000. Since that time there is evidence of mowing, but no irrigated crops. See attached map and historic aerials.

(b) Type of agricultural product produced.

The property does not appear to be producing any agricultural products in recent years.

(c) Method of frost protection. None known.

(d) Type of agricultural equipment customarily used on the property.

Based on vegetative patterns evident on recent aerial photographs, it appears that Tax Lot 800 is taken up by the Garret Creek drainage immediately north of the subject property with orchards beyond. Tax Lots 900 and 1000 appear to have occasional mowing. Whether the property is mowed for purposes of grass hay or simply fire danger is unknown. Regardless, the typical method for mowing pasture is to use a tractor with a rotary style pto driven pull-behind mover.

- (3) Detailed information obtained from the Natural Resources Conservation Service (NCRS) concerning soils which occur on adjacent lands zoned EFU or EA, and whether the land has access to water for irrigation.

Soils are primarily 33A Coker Clay, that has a Class IV nonirrigated rating. Irrigation is available, but at most improves the soil to a Class III/IV rating.

- (4) Wind pattern information. Prevailing winds are from the west northwest.

- (5) A description of the measures proposed to comply with the requirements of Subsections 10.801.A through E.

Proposed compliance measures include:

1. Installation of a 6 foot wood fence along the northern boundary of Lot 70 that abuts Tax Lot 900. Fence to be maintained by subject property owner.

"B"  
1/2 of 80

2. Installation of 6 foot wood fences along the northern boundary of lots abutting Owen Drive which will be extended along the boundary between the subject property and the EFU lands. Fence to be maintained by subject property owners.
  3. Existing wire fences will be maintained bordering the EFU lands along the detention ponds, Owen Drive extension and reserve parcels, as there is no direct conflict between these uses with the EFU land. Fences are to be maintained by subject property owner.
  4. Filing of a deed declaration on all lots within 200 feet of the EFU land.
  5. No irrigation is used on the EFU properties currently. As the properties are part of an urban reserve, it is anticipated that they will be urbanized in the future. Potential future storm and irrigation run-off until that time will be separated from the residential properties by the extension of Owen Drive. Irrigation water will continue to drain as it does now into the Garrett Creek drainage.
- (6) The persons who prepared said report and all persons, agencies, and organizations contacted during preparation of the report. Beverly Thruston, CSA Planning.
  - (7) All statements shall be documented, sources given as reference, and any other detailed information needed to substantiate conclusions should be provided in the appendices. None needed.

**D. Mitigation and Impact Management.**

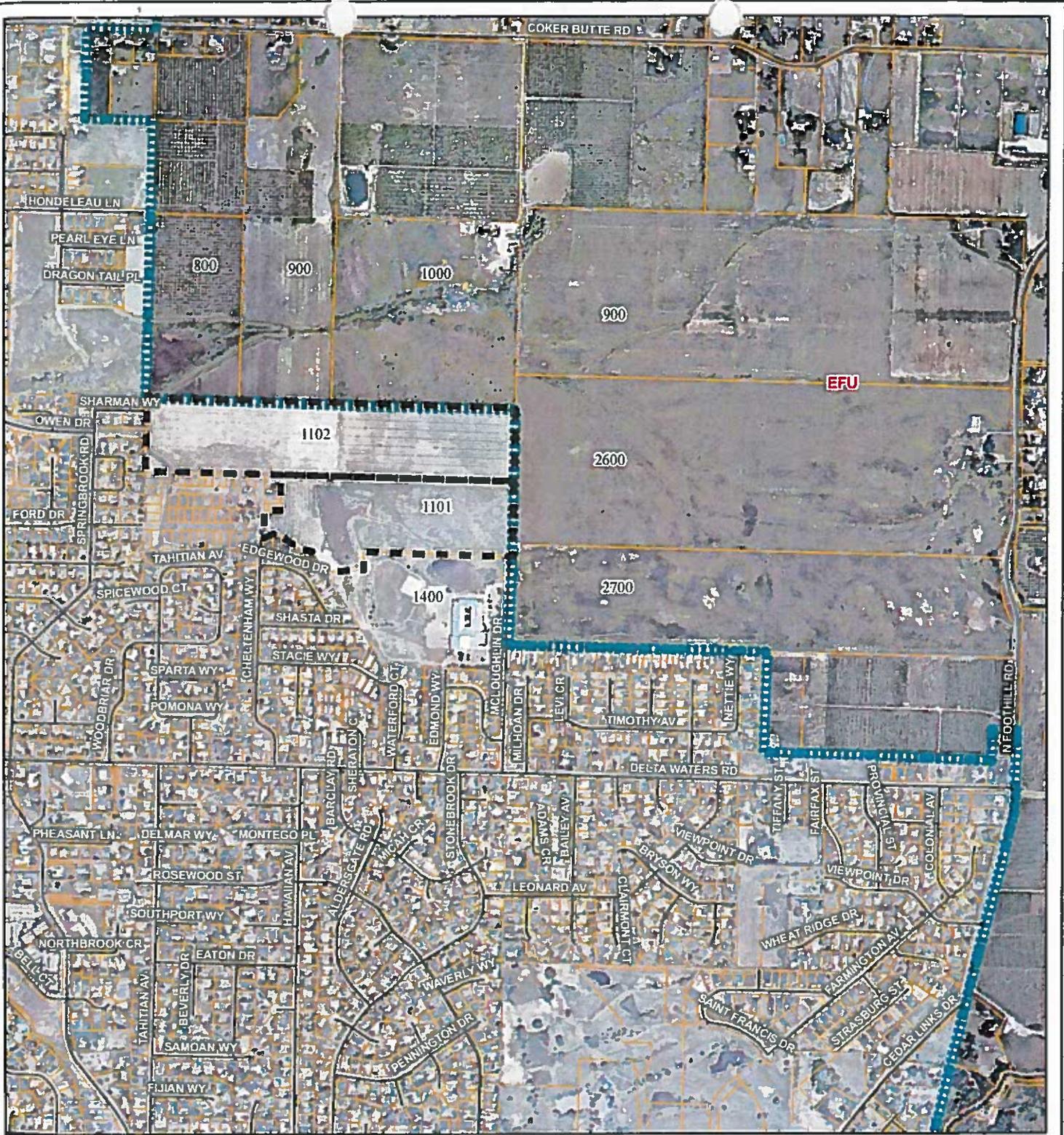
- (1) **Agricultural Classification (Intensive or Passive).** For the purposes of this Section, agricultural land is hereby classified as either intensive or passive. Intensive agriculture is defined as farming which is under intensive day-to-day management, and includes fruit orchards and the intensive raising and harvesting of crops or, notwithstanding its current use, has soils of which a majority are class I through IV as determined by the NRCS, has irrigation water available and is outside of the Urban Growth Boundary. Passive agriculture is defined as farming that is not under intensive day-to-day management, and includes land used as pasture for the raising of livestock. The approving authority shall determine whether adjacent agricultural uses are intensive or passive based upon the specific circumstances of each case and the nature of agriculture which exists on the adjacent land zoned EFU or EA at the time the urban development application is filed and accepted by the City.

Based on our analysis of the adjacent EFU zoned lands, the property appears to be used primarily for passive agriculture. It is possible that the property is used for the pasturing of livestock and/or seasonal non-irrigated grass hay and is therefore considered passive agriculture under this provision.

- (3) **Mitigation - Passive Agriculture.** To minimize or mitigate the adverse potential impacts associated with the proximity of urban and agricultural land uses, the following measures shall be undertaken by the developer when urban development is proposed adjacent to land in passive agricultural use:
  - (a) **Fencing.** A wood fence, chain link fence, or masonry wall, not less than six (6) feet in height shall be installed at the property boundary where the development property adjoins and has a common property line with land zoned EFU or EA. In no case shall a fence or wall be required within a front yard area. The fence or wall used to buffer agricultural land shall comply with the regulations regarding fencing, Sections 10.731 through 10.735. Information shall be provided regarding the long-term maintenance responsibility for the fence or wall.
  - (b) **Deed Declaration.** The deed declaration required in subsection 10.801.D(2)(c) shall be required.
  - (c) **Irrigation Runoff.** Measures appropriate to the circumstances present shall be undertaken by the urban developer to mitigate adverse impacts which occur from periodic naturally occurring runoff and inadvertent agricultural irrigation runoff.

See, Item 5 herein above.

"B"  
73 of 80



-  Subject Lots
-  Tax Lots
-  Urban Growth Boundary

113"  
74 of 80

## AERIAL PHOTO MAP

2012 Aerial

Hayden Homes, LLC  
Delta Estates Subdivision  
37-1W-08 tax lots 1101 & 1102

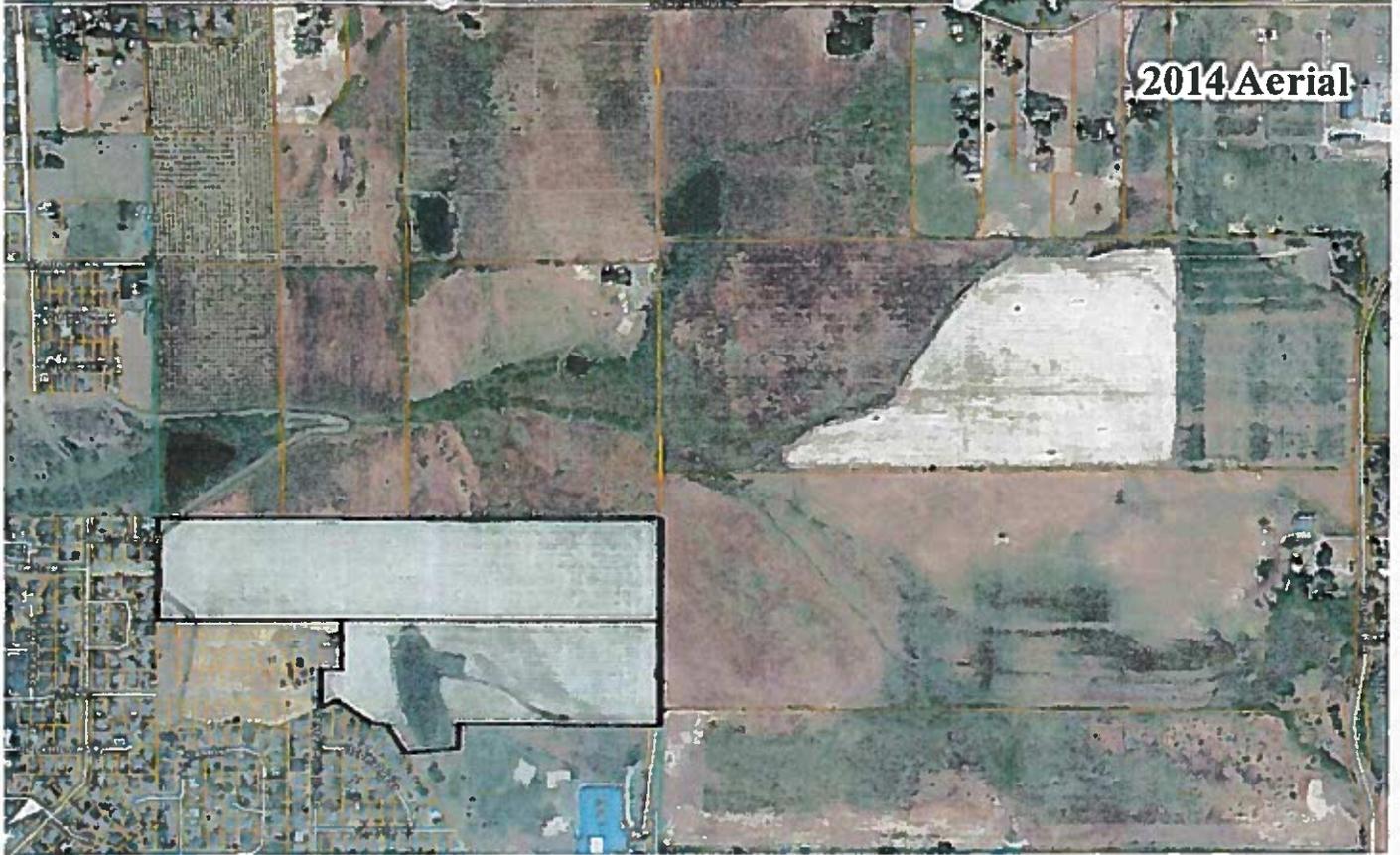


CSA Planning LTD

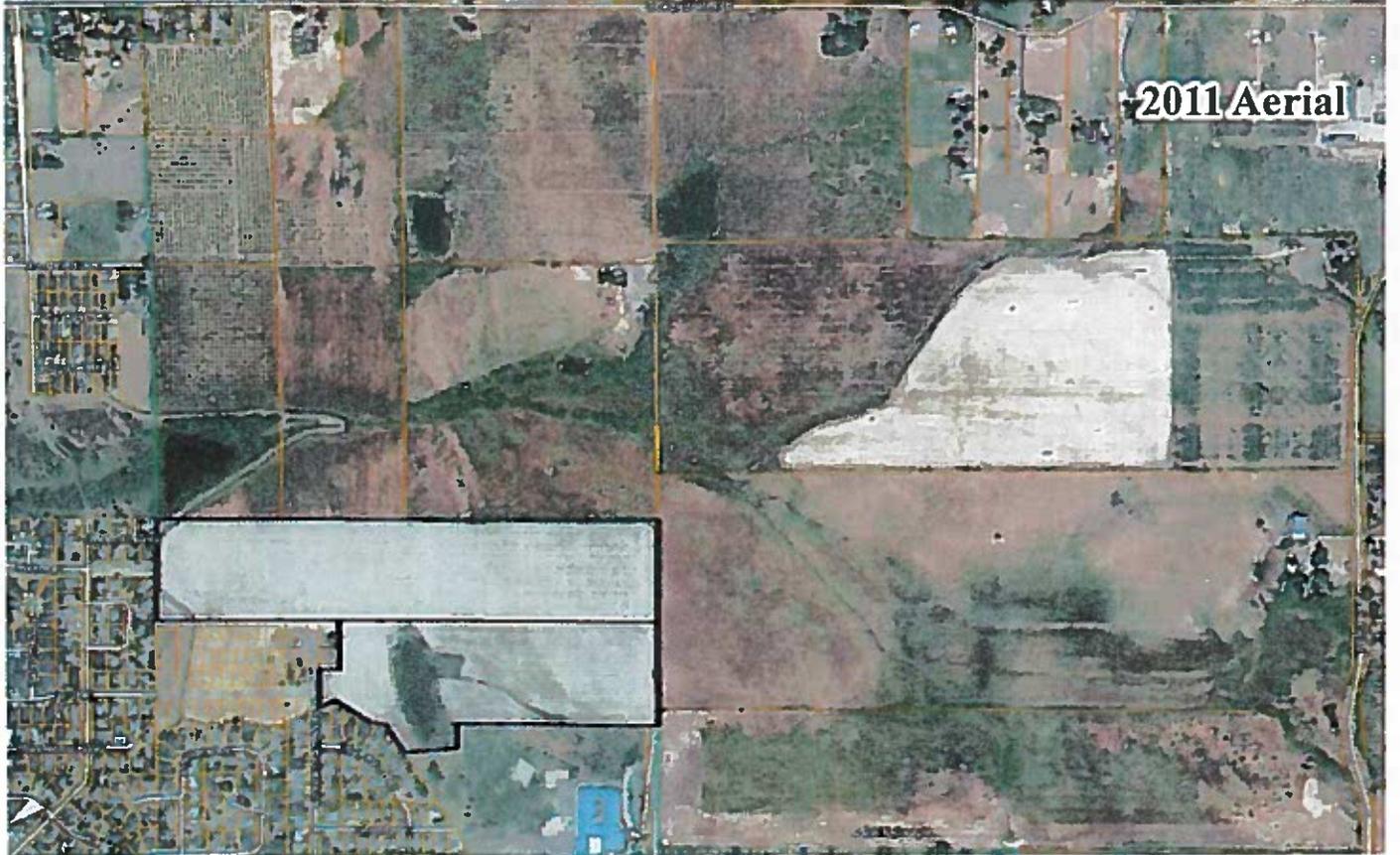
1,000 500 0 1,000 Feet



2014 Aerial



2011 Aerial



2011 & 2014  
AERIAL PHOTO MAP

-  Tax Lots
-  Subject Lots

Modified Scales

*~B' 175 & 80*



CSA Planning LTD

07-21-2016

Source: Google Earth

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SEP 27 2016

PLANNING DEPT.



CSA Planning, Ltd  
4497 Brownridge, Suite 101  
Medford, OR 97504  
Telephone 541.779.0569  
Fax 541.779.0114  
Bev@CSAplanning.net

Transmittal

To: Desmond McGeough, Planning Department  
Doug Burroughs, Public Works  
City of Medford

Date: September 27, 2016

Subject: Revisions related to issues raised at the LD meeting  
Delta Waters Orchard Subdivision- Phases 2 to 5  
ZC-16-089/ LDS-16-090/ E-16-091

In response to requests for clarification, we have made some minor revisions to Applicant's exhibits 11a and b, as well as adding two new exhibits. Please see attached.

Exhibit No.	Description	Revisions
11a & b	Tentative Partition Plat	Revisions to the tentative plat: <ol style="list-style-type: none"> <li>1. Section of Ford Drive east of Cheltenham Way is reduced to a Minor Residential Street w/ ROW of 55 feet to avoid conflict with the drainage easement.</li> <li>2. Width of dedication along section of Owen Drive east of Cheltenham Way revised to 63 feet to allow for 44 foot road width plus planter strip and sidewalk on the southern portion of the roadway.</li> </ol>
18 (new)	Drainage Easement Partial Plan	Enlarged Plan illustrating area along Ford Drive where drainage easement is adjacent.
19 (new)	Owen Drive Cross Section	Cross section illustrating width of dedication and relationship to proposed lanes, planter strip and sidewalk to meet standards for Major Collector Roads.

Please call or email Jay Harland or myself if you have questions regarding any of the above items.

Regards-

CSA Planning, Ltd.

Beverly Thruston, AIA  
Associate

CSA/bt T-Plat Revisions-092716.docx

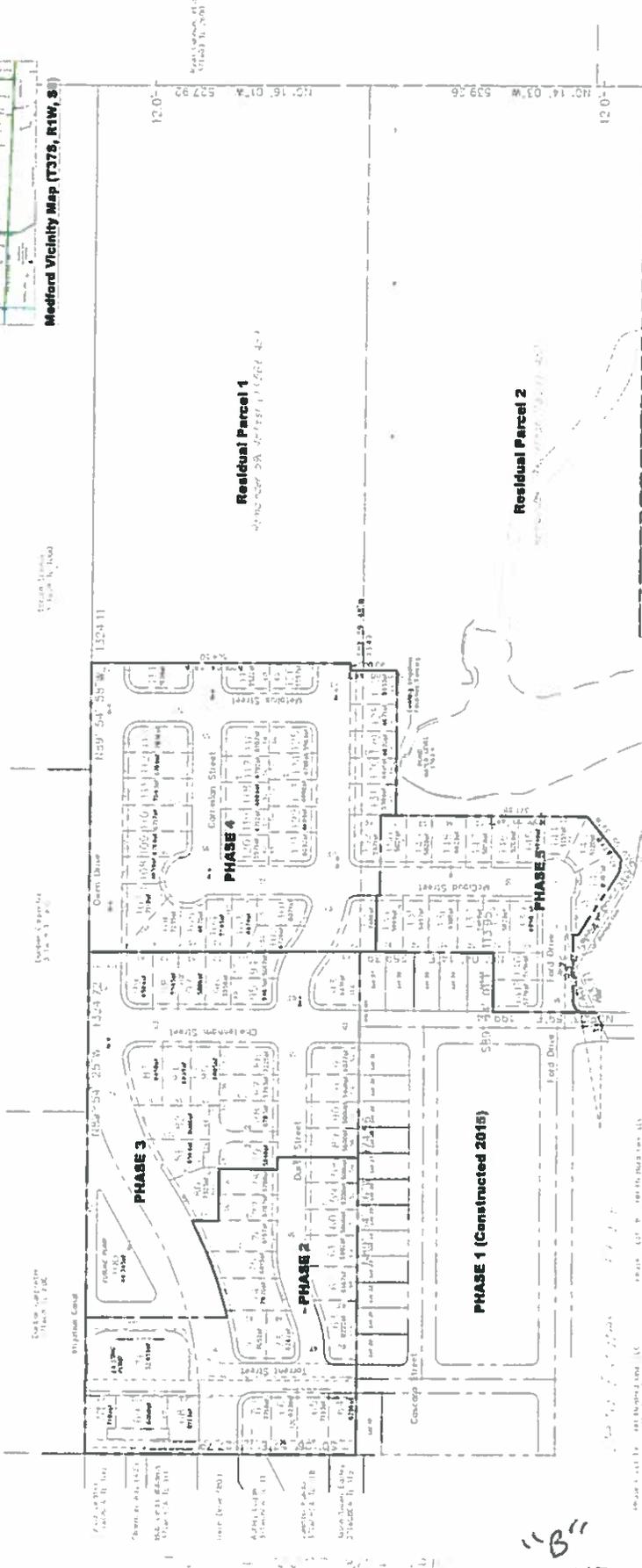
cc. Hayden Homes, File

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**TENTATIVE PLAT - OVERALL SITE**

SE1/4 Section 8, T378, R1W, W.M.  
 City of Medford, Jackson County, OR



Phase	Lot	Area (sq. ft.)	Notes
Phase 1 (Constructed 2015)	1001	10,000	Existing structure
	1002	10,000	Existing structure
Phase 2	2001	10,000	Proposed
	2002	10,000	Proposed
Phase 3	3001	10,000	Proposed
	3002	10,000	Proposed
Phase 4	4001	10,000	Proposed
	4002	10,000	Proposed
Phase 5	5001	10,000	Proposed
	5002	10,000	Proposed

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EXHIBIT 118

Delta Estates - Overall Site Plan  
**Pariani Land Surveying**  
 10558 Crater Lake Hwy, Suite B-1  
 Eagle Point, Oregon  
 541-850-1131

Digital Copy  
 08/17/2016  
 10:00 AM

"B"  
 77 of 80



Cheltenham Way

McCloud Street

Lot 56

Lot 55

Lot 54

Lot 53

109'  
135  
5457sf

55'  
136  
6105sf

50'  
137  
5468sf

52'  
138  
5629sf

141  
5532sf

140  
4838sf

139  
6419sf

55'

Ford Drive

SIDEWALK  
PLANTER STRIP

PLANTER STRIP  
SIDEWALK

DRIVEWAY

142  
7784sf

10' Drainage Easement  
Residual of Parcel 2

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1

# DRAINAGE EASEMENT

SCALE: 1:50

"B"  
79 of SD

**HAYDEN  
HOMES**



CSA Planning, Ltd  
4417 BROWNSHIRE TERRACE  
MEDFORD, OR 97504 (503)778-0588



## DRAINAGE EASEMENT PARTIAL PLAN

**PHASES 2 - 5 - DELTA WATERS ORCHARD**  
OWEN DRIVE, MEDFORD, OR

DATE: 9/15/16

DRAWN BY: BT

CHECKED BY: JH

EXHIBIT:

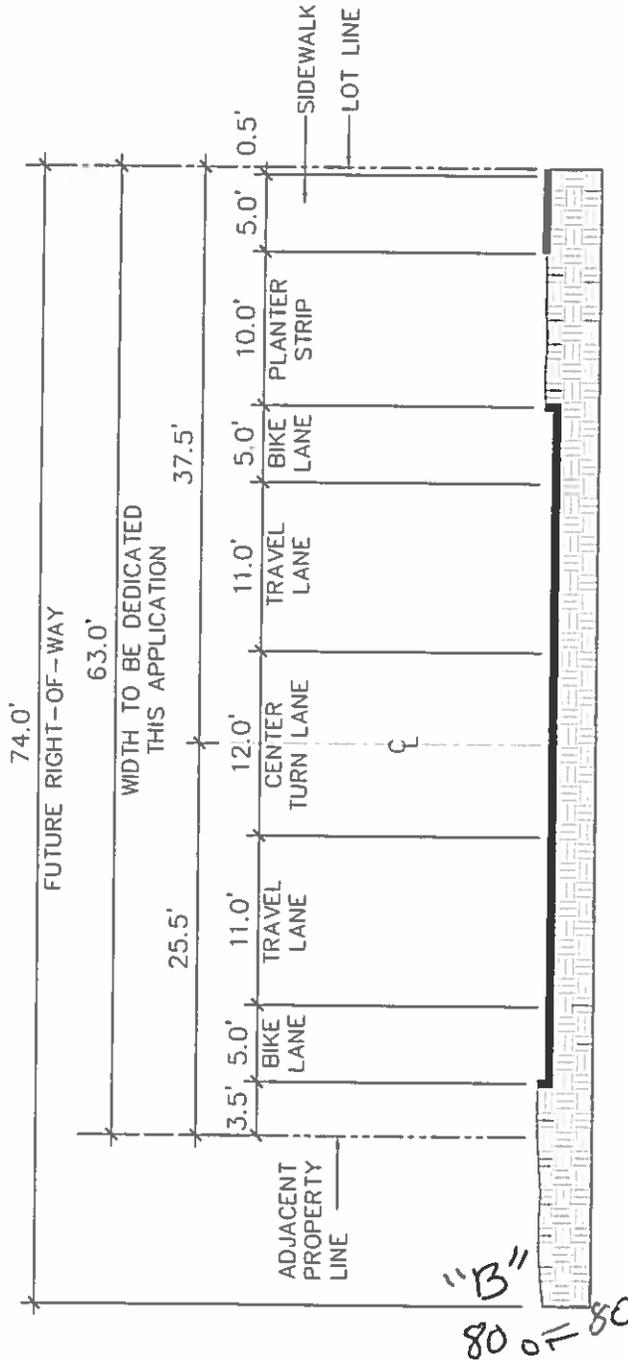
18

CROSS SECTION



KEY PLAN

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**HAYDEN HOMES**



CSA Planning, Ltd  
 447 BROWNSBORO TERRACE  
 MEDFORD, OR 97504 (503) 776-0088



**PROPOSED OWEN DRIVE CROSS SECTION**

**PHASES 2 - 5 - DELTA WATERS ORCHARD**  
 OWEN DRIVE, MEDFORD, OR

DATE:	9/23/16
SCALE:	NTS
DRAWN BY:	BT
CHECKED BY:	JH
EXHIBIT:	

19



Continuous Improvement Customer Service

**CITY OF MEDFORD**

LD Date: 9/14/2016  
File Number: ZC-16-089  
(Reference: ZC-10-078)

**PUBLIC WORKS DEPARTMENT STAFF REPORT  
Delta Estates Subdivision Phase 2 – 5**

**Project:** Consideration of a request for a consolidated application, consisting of a Zone Change from LDS-16-090/SFR-10 (Single Family Residential, 10 dwelling units per gross acre) to SFR-6 (Single Family E-16-091 Residential, 6 dwelling units per gross acre) on 22.34 acres.

**Location:** The subject site is located east of the terminus of Owen Drive and north of the terminus of Cheltenham Way, within corporate limits of the City of Medford.

**Applicant:** Hayden Homes LLC., Applicant (CSA Planning Ltd., Agent). Desmond McGeough, Planner.

**Applicability:** The Medford Public Works Department’s conditions of Approval for Delta Waters Properties, LLC Zone Change were adopted by Order of the Medford Planning Commission (ZC-10-078) on February 10th, 2011. The adopted conditions of this action shall remain in full force as originally adopted except as amended or added to below.

The Medford Land Development Code (MLDC), Section 10.227 (2) requires a zone change application demonstrate Category ‘A’ urban services and facilities are available or can and will be provided to adequately serve the subject property. The Public Works Department reviews zone change applications to assure the services and facilities under its jurisdiction meet those requirements. The services and facilities that Public Works Department manages are sanitary sewers within the City’s service boundary, storm drains, and the transportation system.

**I. Sanitary Sewer Facilities**

**CITY OF MEDFORD  
EXHIBIT #**

**File # ZC-16-089/LDS-16-090/E-16-091**

This site lies within the City of Medford Sewer Service area. There is an existing 8-inch sanitary sewer line in Owen Drive and also in Torrent Street. There are existing down gradient capacity constraints within the City’s sanitary sewer collection system that resulted in conditions being

placed on this property for a previous zone change (ZC-10-078), these conditions are still in effect.

## II. Storm Drainage Facilities

The subject property currently drains to the west; the City of Medford has existing storm drain facilities to the west and south of the property. This site would be able to connect to these facilities at the time of development. This site will be required to provide stormwater quality and detention at time of development.

The City is responsible for operational maintenance of the detention facility, irrigation and maintenance of landscape components shall be the responsibility of the developer or a HOA. The developers engineer shall provide an operations and maintenance manual for the facility that addresses responsibility for landscape maintenance prior to subdivision acceptance. Regarding water quality maintenance, the Rogue Valley Stormwater Quality Design Manual states: "Vegetation shall be irrigated and mulched as needed to maintain health plants with a density that prevents soil erosion."

## III. Transportation System

No Traffic Impact Analysis (TIA) will be required for this Zone Change as long as the Owen Drive connection west of the site is built, since it will not generate more than 250 net daily trips per MMC 10.461(3). Since the TIA for the original Zone Change showed approximately 50% of site traffic using the Owen Drive, a new TIA will be required if that connection is not built.

At the time of future land division or development permit, Public Works may require additional right-of-way and public utility easement (PUE) dedications and will condition the developer to improve their street frontage to the City's current standards. Improvements shall include paving, drainage, and curb, gutter, street lighting, sidewalk, and planter strips.

Prepared by: Doug Burroughs

The above report is based on the information provided with the Zone Change Application submittal and is subject to change based on actual conditions, revised plans and documents or other conditions. A full report with additional details on each item as well as miscellaneous requirements for the project, including requirements for public improvement plans (Construction Plans), design requirements, phasing, draft and final plat processes, permits, system development charges, pavement moratoriums and construction inspection shall be provided with a Development Permit Application.



Continuous Improvement Customer Service

## CITY OF MEDFORD

LD Date: 9/14/2016  
File Numbers: LDS-16-090/E-16-091  
Reference: ZC-16-089

### **PUBLIC WORKS DEPARTMENT STAFF REPORT** **Delta Estates Subdivision Phase 2 – 5**

- Project:** Consideration of a request for a consolidated application, consisting of a tentative plat for a 93 lot residential subdivision, and an associated Exception requests seeking relief to planter strip requirement fronting particular lots within the subdivision and relief to street spacing standard for an intersection within the development.
- Location:** The subject site is located east of the terminus of Owen Drive and north of the terminus of Cheltenham Way, within corporate limits of the City of Medford
- Applicant:** Hayden Homes LLC., Applicant (CSA Planning Ltd., Agent). Desmond McGeough, Planner.

The following items shall be completed and accepted prior to the respective events under which they are listed:

- Approval of Final Plat:  
Right-of-way, construction and/or assurance of the public improvements in accordance with Medford Land Development Code (MLDC), Section 10.666 & 10.667 (Items A, B & C)
- Issuance of first building permit for residential construction:  
Construction of public improvements (Items A through E)
- Issuance of Certificates of Occupancy for individual units:  
Sidewalks (Items A2)

**CITY OF MEDFORD**  
**EXHIBIT # B**  
**File # ZC-16-089/LDS-16-090/E-16-091**

## A. STREETS

### 1. Dedications

**Owen Drive** (from the west edge of Phase 2, to approximately the future intersection with Cheltenham Street) is classified as a Major Collector street within the MLDC, Section 10.428(3). The developer shall dedicate for public right-of-way, sufficient width of land along this portion of Owen Drive to comply with the full width of right-of-way for a Major Collector Street, which is 74-feet.

**Owen Drive** (from Cheltenham Street to eastern edge of Phase 4) is classified as a Major Collector street within the MLDC, Section 10.428(3). The developer shall dedicate for public right-of-way, sufficient width of land along this portion of Owen Drive to comply with the width needed to construct the full improvements except the planter strip and sidewalk to the north side. This area shall include any additional width necessary to accommodate any cut or fill slopes. **The Developer's surveyor shall verify the amount of additional right-of-way required.**

The developer will receive SSDC (Street System Development Charge) credits for the public right-of-way dedication on **Owen Drive**, per the methodology established by the MLDC 3.815. **Should the developer elect to have the value of the land be determined by an appraisal, a letter to that effect must be submitted to the City Engineer within sixty (60) calendar days of the date of the Final Order of the Planning Commission. The City will then select an appraiser, and a cash deposit will be required as stated in Section 3.815.**

**Cheltenham Street and Ford Drive** are proposed as Standard Residential streets within the MLDC 10.430. The Developer shall dedicate for public right-of-way, sufficient width of land along the respective frontages to comply with the full width of right-of-way, which is 63-feet.

**Durst Street** (from Cheltenham Street, to the east edge of Phase 4) is proposed as a Standard Residential street within the MLDC 10.430. The Developer shall dedicate for public right-of-way, sufficient width of land along the frontage to comply with the full width of right-of-way, which is 63-feet.

**Durst Street** (from Cheltenham Street, west to Torrent Street) is proposed as a Minor Residential street within the MLDC 10.430. The Developer shall dedicate for public right-of-way, sufficient width of land along the frontage to comply with the full width of right-of-way, which is 55-feet.

Two interrelated **exception requests** have been submitted for the Planning Commissions consideration. One is for a reduction of a portion of the required right-of-way dedication of the westerly 250-feet of Durst Street from 55-feet to 47-feet. This will provide adequate right-of-way for all the components of a Minor Residential street with the exception of the 8-foot wide planter strip along the south side. Per the applicant, this will maximize the centerline separation from Durst Street and Owen Drive, which is currently less than 200-feet as required by MLDC 10.426(D). The second exception is to allow the reduced intersection spacing between Owen Drive and Durst Street where they respectively intersect Torrent Street. If the exception requests

are denied the Developer shall dedicate 55-feet of right-of-way per MLDC 10.430 and shall adhere to the standards specified in MLDC 10.426(D).

**Carnelian Street, McCloud Street, Metolius Street, and Torrent Street** are proposed as Minor Residential streets with a right-of-way width of 55-feet, consistent with the standard prescribed by MLDC 10.430. The Developer shall dedicate for public right-of-way, sufficient width of land along the respective frontages to comply with the full width of right-of-way, which is 55-feet.

The **Minimum Access Drives** shall be private and constructed in accordance with MLDC Section 10.430A(1) and have a minimum width of 20-feet.

**Corner radii** shall be provided at the right-of-way lines of all intersecting streets per MLDC 10.445.

Streets, as shown on the Tentative Plat, in which any portion terminates to a boundary line of the Development shall be dedicated to within one foot of the boundary line, and the remaining one foot shall be granted in fee, as a non-access reserve strip to the City of Medford. Upon approved dedication of the extension of said streets, the one-foot reserve strip shall automatically be dedicated to the public use as part of said street without any further action by the City of Medford (MLDC 10.439).

**Public Utility Easements**, 10-feet in width, shall be dedicated along the street frontage of all the Lots within this development (MLDC 10.471).

The right-of-way and easement dedications shall be submitted directly to the Engineering Division of the Public Works Department. The submittal shall include: the right-of-way and easement dedication, including an exhibit map; a copy of a current Lot Book Report, Preliminary Title Report, or Title Policy; a mathematical closure report (if applicable), and the Planning Department File Number; for review and City Engineer acceptance signature prior to recordation by the applicant. Releases of interest shall be obtained by holders of trust deeds or mortgages on the right-of-way and PUE area.

## 2. Public Improvements

### a. Public Streets

**Owen Drive** (*from the west edge of Phase 2, to approximately the future intersection with Cheltenham Street*) shall be improved to Major Collector street standards, along the frontage of this development, in accordance with MLDC 10.428.

**Owen Drive** (*from Cheltenham Street to eastern edge of Phase 4*) shall be improved to Major Collector street standards, along the frontage of this development, in accordance with MLDC 10.428. The developer shall improve the south half plus the north 22-feet including the curb. This shall provide the full paved section curb to curb and the south planter and sidewalk.

**Owen Drive** (*offsite, east of Springbrook Road*) shall be improved to Major Collector street standards, from Springbrook Road to the west boundary of this development, in accordance with MLDC 10.428.

The developer shall receive Street System Development Charge credits for the public improvements on Owen Drive per the value established by the Medford Municipal Code, Section 3.815.

**Cheltenham Street and Ford Drive** shall be improved to Standard Residential street standards, along the respective frontages of this development, in accordance with MLDC 10.430.

**Durst Street** (*from Cheltenham Street, heading east to the east edge of Phase 4*) shall be improved to Standard Residential street standards, along the frontage of this development, in accordance with MLDC 10.430.

**Durst Street** (*from Cheltenham Street, heading west to the intersection with Torrent Street*) shall be improved to Minor Residential street standards, along the frontage of this development, in accordance with MLDC 10.430. See exception request comments under Section A.1.

**Carnelian Street, McCloud Street, Metolius Street, and Torrent Street** shall be improved to Minor Residential street standards, along the respective frontages of this development, in accordance with MLDC 10.430.

**Minimum Access Drives (Private)** shall be built consistent with MLDC 10.430A(1) and improved to a minimum width of 20 feet with AC pavement. The minimum TI for the structural section shall be 3.5, the minimum AC section shall be 3" thick, and the base aggregate shall extend one foot beyond the edge of pavement. The minimum access drives shall be designed by a civil engineer licensed in the State of Oregon and plans submitted to the Public Works-Engineering Division for approval. A drainage system shall be incorporated into the paved access design to capture stormwater and direct it to the storm drain system.

#### **b. Street Lights and Signing**

The developer shall provide and install in compliance with Section 10.495 of the Medford Municipal Code (MMC). Based on the preliminary plan submitted, the following number of street lights and signage will be required:

##### Street Lighting & Signage - Developer Provided & Installed

- A. 12 – 250W Collector Streetlights on Owen Drive.
- B. 1 – Base Mounted Cabinet (BMC) for Owen Drive lights. The existing BMC at the intersection of Springbrook Road and Owen Drive may be used if there sufficient capacity.
- C. 21 – 100W Residential Streetlights
- D. 3 – Dead End Type 3 barricades
- E. 6 – Stop Signs

"0"

- F. 2 – Speed Limit Signs
- G. 10 – Street Name Signs

Numbers are subject to change if changes are made to the plans. All street lights shall be installed per City standards and be shown on the public improvement plans. Public Works will provide preliminary street light locations upon request. All street lights shall be operating and turned on at the time of the final “walk through” inspection by the Public Works Department.

The Developer shall pay for City installed signage required by the development. City installed signs include, but are not limited to, street name signs, stop signs, speed signs, school signs, dead end signs, and dead end barricades. Sign design and placement shall be per the Manual on Uniform Traffic Control Devices (MUTCD). All signs shall be shown on the public improvement plans and labeled as City installed.

The Developer shall be responsible for the preservation and re-installation of all signs removed during demolition and site preparation work. The Developer’s contractor shall coordinate with the City of Medford Public Works, Maintenance and Operations Division to remove any existing signs and place new signs provided the Developer.

**c. Pavement Moratoriums**

There is a pavement cutting moratorium currently in effect along Cheltenham Street which terminates at the south boundary of the development, which is set to expire October 29<sup>th</sup>, 2018. There is also a pavement cutting moratorium currently in effect along Torrent Street which terminates at the south boundary of the development, which is set to expire October 28<sup>th</sup>, 2016. No other moratoriums are in effect along the frontage of this development.

The developer shall be responsible for notifying by certified letter all utility companies, as well as all current property owners of parcels which are adjacent to any Public Street being constructed or paved as part of this project. The letter shall inform the utility companies and property owners of the City's street moratorium policy with respect to pavement cutting for future utility services. The utility companies and property owners shall be given the opportunity to install utility services within the right-of-way prior to paving and the subsequent moratorium. Notifications shall be mailed by the Developer at least 6 months before a street is resurfaced or rebuilt per Medford Municipal Code (MMC), Section 3.070. Copies of the certifications shall be submitted to the City Engineer with the submittal of the preliminary construction drawings.

**d. Soils Report**

The Developer’s engineer shall obtain a soils report to determine if there is shrink-swell potential in the underlying soils in this development. If they are present, they shall be accounted for in the roadway and sidewalk design within this Development. The soils report shall be completed by a licensed Geotechnical Engineer in the state of Oregon.

**e. Access to Public Street System**

Driveway access and street circulation to and through the proposed development shall comply with MLDC 10.550 and 10.426.

Owen Drive is classified as a Major Collector Street; therefore all lots along this frontage may not take direct vehicular access from Owen Drive, per MLDC Section 10.383.

In accordance with MLDC 10.450 and 10.430A(1), lots 68, 69 and 70, and lots 80, 81 and 82 shall take access via a 20-foot wide minimum access easement. The Developer shall record a shared access maintenance agreement for the mutual benefit and responsibility of all the respective parcels, including the maintenance of stormwater run-off from the asphalt.

**3. Section 10.668 Analysis**

To support a condition of development that an applicant dedicate land for public use or provide a public improvement, the Medford Code requires a nexus and rough proportionality analysis which is essentially a codification of the constitutional provisions in Nollan and Dolan cases.

**10.668 Limitation of Exactions**

*Notwithstanding any other provisions of this Chapter 10, an applicant for a development permit shall not be required, as a condition of granting the application, to dedicate land for public use or provide public improvements unless:*

*(1) the record shows that there is an essential nexus between the exaction and a legitimate government purpose and that there is a rough proportionality between the burden of the exaction on the developer and the burden of the development on public facilities and services so that the exaction will not result in a taking of private property for public use, or*

*(2) a mechanism exists and funds are available to fairly compensate the applicant for the excess burden of the exaction to the extent that it would be a taking.*

Nexus to a legitimate government purpose

The purposes for these dedications and improvements are found throughout the Medford Code, the Medford Transportation System Plan, and the Statewide Planning Rule, and supported by sound public policy. Those purposes and policies include, but are not limited to: development of a balanced transportation system addressing all modes of travel, including motor vehicles, transit, bicycles, emergency services and pedestrians. Further, these rights-of-way are used to provide essential services such as sanitary sewer, domestic water and storm drains to serve the developed parcels. It can be found that the listed right-of-way dedications and improvements have a nexus to these purposes and policies.

Rough proportionality between the dedications and improvements, and the impacts of development.

~P''

No mathematical formula is required to support the rough proportionality analysis. Furthermore, benefits to the development resulting from the dedication and improvements when determining “rough proportionality” have been considered, including but not limited to: increased property values, intensification of use, as well as connections to municipal services and the transportation network.

As set forth below, the dedications and improvements recommended herein can be found to be roughly proportional to the impacts reasonably anticipated to be imposed by this development.

**Owen Drive** is classified as a Major Collector street per the adopted Circulation Plan. It is the primary connector between Springbrook Road and future McLoughlin Drive. As a Major Collector, Owen Drive will have one travel lane in each direction, a center-turn median, bike lanes in each direction, and sidewalks. It will provide safe travel for vehicles, bicycles, and pedestrians. As a higher order street, it is eligible for street SDC credits for both the right-of-way and roadway improvements, per MMC, Section 3.815 (5). Street SDC’s credits offset costs to the developer and is the mechanism provided by the City of Medford to fairly compensate the applicant for the excess burden of dedicating for and constructing higher order streets.

**Cheltenham Street, Ford Drive, Durst Street, Carnelian Street, McCloud Street, Metolius Street and Torrent Street:** In determining rough proportionality, the City averaged the lineal footage of roadway per dwelling unit for road improvements and averaged square foot of right-of-way per dwelling unit for dedications. The proposed development has 91 dwelling units and will improve approximately 3,825 lineal feet of roadway which equates to 42 lineal feet per dwelling unit. Also the development will dedicate approximately 221,455 square feet of right-of-way which equates to approximately 2,434 square feet per dwelling unit.

To determine proportionality a neighborhood with similar characteristics was used. The development used was Orchard Court Subdivision just west of this development between Diamond St. and Orchard Home Court and consisted of 7 dwelling units. The previous development improved approximately 430 lineal feet of roadway and dedicated approximately 10,800 square feet of right-of-way (GIS data used to calculate, approximations only). This equates to approximately 61 lineal feet of road per dwelling unit and approximately 1,543 square feet of right-of-way per dwelling unit.

- a. Dedication will ensure that new development and density intensification provides the current level of urban services. This development will create an additional 91 Lots within the City of Medford and increase vehicular traffic by approximately 866 average daily trips. The proposed street improvements will provide a safe environment of all modes of travel (vehicular, bicycles, & pedestrians) to and from this development.
- b. Dedication will ensure adequate street circulation is maintained. The street layout and connectivity proposed in this development will provide alternate route choices for the residents that will live in this neighborhood. This will decrease emergency vehicle response times and will decrease overall vehicle miles traveled.
- c. Dedication will provide access and transportation connections at urban level of service “0”

standards for this development. Each Lot in this development will have direct access to a public street with facilities that will allow for safe travel for vehicles, bicycles and pedestrians. There is also sufficient space for on-street parking. The connections proposed in this development will enhance the connectivity for all modes of transportation and reduce trip lengths. As trip lengths are reduced, it increases the potential for other modes of travel including walking and cycling.

- d. Dedication of connecting streets will decrease emergency response times and provide emergency vehicles alternate choices in getting to an incident and reducing miles traveled.
- e. Dedication of PUE will benefit development by providing public utility services, which are out of the roadway and more readily available to each Lot being served.
- f. The additional traffic of all modes of travel generated by this proposed development supports the dedication and improvements for all modes of travel and utilities. As indicated above, the area required to be dedicated and improved for this development is necessary and roughly proportional to that required in previous adjacent developments to provide a transportation system that meets the needs for urban level services.

The additional traffic of all modes of travel generated by this proposed development supports the dedication and improvements for all modes of travel and utilities. As indicated above, the area required to be dedicated and improved for this development is necessary and roughly proportional to that required in previous developments in the vicinity to provide a transportation system that meets the needs for urban level services.

## **B. SANITARY SEWERS**

The proposed development is situated within the Medford sewer service area. The Developer shall provide one service lateral to each platted lot prior to approval of the Final Plat. A 12-foot wide paved access shall be provided to any public sanitary sewer manholes which are not constructed within the street section.

Public sanitary sewer mains shall be extended on their courses to the exterior boundaries of this subdivision, such that future development can extend service without having to excavate back into the improvements provided by this subdivision.

## **C. STORM DRAINAGE**

### **1. Hydrology**

The Design Engineer shall provide an investigative report of the off-site drainage on the subdivision perimeter, a distance not less than 100 feet in all directions. All off-site drainage affecting the subdivision shall be addressed on the subdivision drainage plan. A hydrology map depicting the amount of area the subdivision will be draining shall be submitted with hydrology and hydraulic calculations. The opening of each curb inlet shall be sized in accordance with ODOT design standards. These calculations and maps shall be submitted with the public "D"

improvement plans for approval by the Engineering Division.

## 2. Stormwater Detention and Water Quality Treatment

This development shall provide stormwater detention in accordance with MLDC, Section 10.486, and water quality treatment in accordance with the Rogue Valley Stormwater Quality Manual per MLDC, Section 10.481. For developments over five acres, Section 10.486 requires that the development set a minimum of 2% of the gross area as open space to be developed as open ponds for stormwater detention and treatment.

Upon completion of the project, the developer's design engineer shall provide written certification to the Engineering Division that the construction of the controlled storm water release drainage system was constructed per plan. This letter shall be received by the City of Medford Public Works Engineering Department prior to certificate of occupancy of the new building.

The City is responsible for operational maintenance of the public detention facility, irrigation and maintenance of landscape components shall be the responsibility of the developer or a Home Owners Association (HOA). The developers engineer shall provide an operations and maintenance manual for the facility that addresses responsibility for landscape maintenance prior to subdivision acceptance. Regarding water quality maintenance, the Rogue Valley Stormwater Quality Design Manual states: "Vegetation shall be irrigated and mulched as needed to maintain healthy plants with a density that prevents soil erosion."

## 3. Grading

A comprehensive grading plan showing the relationship between adjacent property and the proposed subdivision will be submitted with the public improvement plans for approval. Grading on this development shall not block drainage from an adjacent property or concentrate drainage onto an adjacent property without an easement. The Developer shall be responsible that the final grading of the development shall be in compliance with the approved grading plan.

## 4. Mains and Laterals

The Developer shall show all existing and proposed Storm Drain mains, channels, culverts, outfalls and easements on the Conceptual Grading and Drainage Plan and the final Construction Plans.

In the event the lot drainage should drain to the back of the lot, the developer shall be responsible for constructing a private drain line, including a tee at the low point of each lot to provide a storm drain connection. All roof drains and foundation drains shall be connected directly to a storm drain system.

A storm drain lateral shall be constructed to each tax lot prior to approval of the Final Plat. Easements shall be shown on the Final Plat for storm drain laterals crossing lots other than the one being served by the lateral.

All public storm drain mains shall be located in paved public streets or within easements. All manholes shall be accessible by paved, all-weather roads. All easements shall be shown on the Final Plat and the public improvement plans.

## 5. Erosion Control

Subdivisions of one acre and greater require a run-off and erosion control permit from DEQ. The approved permit must be submitted to the Engineering Division prior to public improvement plan approval. The erosion prevention and sediment control plan shall be included as part of the plan set. All disturbed areas shall have vegetation cover prior to final inspection/"walk-through" for this subdivision.

## D. SURVEY MONUMENTATION

All survey monumentation shall be in place, field-checked, and approved by the City Surveyor prior to the final "walk-through" inspection of the public improvements by City staff.

## E. GENERAL CONDITIONS

### 1. Design Requirements and Construction Drawings

All public improvements shall be constructed in accordance with the "Engineering Design Standards for Public Improvements", adopted by the Medford City Council. Copies of this document are available in the Public Works Engineering office.

### 2. Construction Plans

Construction drawings for any public improvements for this project shall be prepared by a professional engineer currently licensed in the State of Oregon, and submitted to the Engineering Division of Medford Public Works Department for approval. Construction drawings for public improvements shall be submitted only for the improvements to be constructed with each phase. Approval shall be obtained prior to beginning construction. Only a complete set of construction drawings (3 copies) shall be accepted for review, including plans and profiles for all streets, minimum access drives, sanitary sewers, storm drains, and street lights as required by the governing commission's Final Order, together with all pertinent details and calculations. A checklist for public improvement plan submittal can be found on the City of Medford, Public Works web site (<http://www.ci.medford.or.us/Page.asp?NavID=3103>). The Developer shall pay a deposit for plan review and construction inspection prior to final plan approval. Public Works will keep track of all costs associated with the project and, upon our acceptance of the completed project, will reconcile the accounting and either reimburse the Developer any excess deposit or bill the Developer for any additional amount not covered by the deposit. The Developer shall pay Public Works within 60 days of the billing date or will be automatically turned over for collections.

In order to properly maintain an updated infrastructure data base, the Surveyor of Record shall submit an as-built survey prior to the Final Inspection and, the Engineer of Record shall submit

mylar "as-constructed" drawings to the Engineering Division within sixty (60) calendar days of the Final Inspection (walk through). Also, the engineer shall coordinate with the utility companies, and show all final utility locations on the "as built" drawings.

### 3. Phasing

The Tentative Plat shows that this subdivision will be developed in phases. Any public improvements needed to serve a particular phase shall be improved at the time each corresponding phase is being developed. Public improvements not necessarily included within the geometric boundaries of any given phase, but are needed to serve that phase shall be constructed at the same time. Construction drawings for public improvements shall be submitted only for the improvements to be constructed with each phase.

### 4. Draft of Final Plat

The developer shall submit 2 copies of the preliminary draft of the final plat at the same time the public improvement plans (3 copies) are submitted. Neither lot number nor lot line changes shall be allowed on the plat after that time, unless approved by the City and all utility companies.

### 5. Permits

Building Permit applications for vertical construction shall not be accepted by the Building Department until the Final Plat has been recorded, and a "walk through" inspection has been conducted and approval of all public improvements as required by the Planning Commission has been obtained for this development.

Concrete or block walls built within a PUE, or within sanitary sewer or storm drain easements require review and approval from the Engineering Division of Public Works. Walls shall require a separate permit from the Building Department and may also require certification by a professional engineer.

### 6. System Development Charges (SDC)

Buildings in this development are subject to sewer treatment, collection and street SDCs. These SDC fees shall be paid at the time individual building permits are taken out.

This development is also subject to storm drain system development charges, the Developer is eligible for storm drain system development charge credits for the installation of storm drain pipe which is 24-inches in diameter or larger and is not used for storm drain detention in accordance with Medford Municipal Code (MMC), Section 3.891. The storm drain system development charge shall be collected at the time of the approval of the final plat

### 7. Construction and Inspection

Contractors proposing to do work on public streets, sewers, or storm drains shall 'prequalify' with the Engineering Division prior to starting work. Contractors shall work off a set of public improvement drawings, that have been approved by the City of Medford Engineering Division. Any work within the County right-of-way shall require a separately issued permit to perform "D"

from the County.

For City of Medford facilities, the Public Works Maintenance Division requires that public sanitary sewer and storm drain mains be inspected by video camera prior to acceptance of these systems by the City.

Where applicable, the developer shall bear all expenses resulting from the adjustment of manholes to finish grades as a result of changes in the finish street grade.

Prepared by: Doug Burroughs

# SUMMARY CONDITIONS OF APPROVAL

Delta Estates Subdivision Phase 2 – 5

LDS-16-090/E-16-091

## A. Streets

### 1. Street Dedications to the Public:

- Dedicate right-of-way on **Owen Drive**.
- Dedicate right-of-way on **Cheltenham Street**.
- Dedicate right-of-way on **Ford Drive**.
- Dedicate right-of-way on **Durst Street**.
- Dedicate right-of-way on **Carnelian Street**.
- Dedicate right-of-way on **McCloud Street**.
- Dedicate right-of-way on **Metolius Street**.
- Dedicate right-of-way on **Torrent Street**.
- Dedicate 10-foot public utility easements (PUE).

### 2. Improvements:

#### Public Streets

- Improve **Owen Drive** to Major Collector street standards.
- Improve **Cheltenham Street** to Standard Residential street standards.
- Improve **Ford Drive** to Standard Residential street standards.
- Improve **Durst Street** to Standard Residential Street standards east of Cheltenham Street, and Minor Residential street standards west of Cheltenham Street.
- Improve **Carnelian Street** to Minor Residential street standards.
- Improve **McCloud Street** to Minor Residential street standards.
- Improve **Metolius Street** to Minor Residential street standards.
- Improve **Torrent Avenue** to Minor Residential street standards.

#### Lighting and Signing

- Developer supplies and installs all street lights at own expense.
- City installs traffic signs and devices at Developer's expense.

#### Other

- Provide pavement moratorium letters.
- Provide soils report.
- No direct access to Lots 68, 69 and 70, or Lots 80, 81 and 82 from Owen Drive.

## B. Sanitary Sewer:

- Provide a private lateral to each lot.

## C. Storm Drainage:

- Provide an investigative drainage report.
- Provide water quality and detention facilities.
- Provide a comprehensive grading plan.
- Provide storm drain laterals to each tax lot.
- Provide Erosion Control Permit from DEQ.

**D. Survey Monumentation**

- Provide all survey monumentation.

**E. General Conditions**

- Provide public improvement plans and drafts of the final plat.

The above summary is for convenience only and does not supersede or negate the full report in any way. If there is any discrepancy between the above list and the full report, the full report shall govern. Refer to the full report for details on each item as well as miscellaneous requirements for the project, including requirements for public improvement plans (Construction Plans), design requirements, phasing, draft and final plat processes, permits, system development charges, pavement moratoriums and construction inspection.

"D"



BOARD OF WATER COMMISSIONERS

**Staff Memo**

**TO:** Planning Department, City of Medford

**FROM:** Rodney Grehn P.E., Water Commission Staff Engineer

**SUBJECT:** ZC-16-089 & LDS-06-090, and E-16-091

**PARCEL ID:** 371W30AC TL 2500

**PROJECT:** Consideration of a request for a consolidated application, consisting of a Zone Change from SFR-10 (Single Family Residential, 10 dwelling units per gross acre) to SFR-6 (Single Family Residential, 6 dwelling units per gross acre) on 22.34 acres, a tentative plat for a 93 lot residential subdivision, and an associated Exception requests seeking relief to planter strip requirement fronting particular lots within the subdivision and relief to street spacing standard for an intersection within the development. The subject site is located east of the terminus of Owen Drive and north of the terminus of Cheltenham Way, within corporate limits of the City of Medford; Hayden Homes LLC., Applicant (CSA Planning Ltd., Agent). Desmond McGeough, Planner.

**DATE:** September 14, 2016

I have reviewed the above plan authorization application as requested. Conditions for approval and comments are as follows:

**CONDITIONS**

1. The water facility planning/design/construction process will be done in accordance with the Medford Water Commission (MWC) "Regulations Governing Water Service" and "Standards For Water Facilities/Fire Protection Systems/Backflow Prevention Devices."
2. All parcels/lots of proposed property divisions will be required to have metered water service prior to recordation of final map, unless otherwise arranged with MWC.
3. Phase 2 Water Line Improvements:
  - a. Installation of a 12-inch water line is required in the Owen Drive right-of-way between Springbrook Drive and Torrent Street. The 12-inch water line at Torrent shall be stubbed for future extension to the east.
  - b. Installation of a 12-inch water line is required in Torrent Street between Owen Drive and Purst Street.
  - c. Installation of a 12-inch water line is required in Purst Street between Torrent Street and the east boundary of Phase 1.
  - d. Installation of an 8-inch water line is required in Torrent Street between the existing northerly terminus of an 8-inch water as part of Delta Estates Phase 1 and the proposed 12-inch water line Purst Street.

*Continued to next page*

**CITY OF MEDFORD**  
**EXHIBIT # SE**  
**File # ZC-16-089/LDS-16-090/E-16-091**



*Continued from previous page*

4. Phase 3 Water Line Improvements:

- a. Installation of a 12-inch water line is required in Purst Street between the west and east boundaries.
- b. Installation of an 8-inch water line is required in Cheltenham Street between the northerly terminus of Phase 1 and Purst Street.
- c. Installation of a 12-inch water line is required in Cheltenham Street between Purst Street and the northerly boundary of Phase 3.

5. Phase 4 Water Line Improvements:

- a. Installation of a 12-inch water line is required in Purst Street between the west boundary of Phase 4 to the intersection of Purst Street and McCloud Street.
- b. Installation of an 8-inch water line is required in Purst Street between McCloud Street and the east boundary of Phase 4.
- c. Installation of a 12-inch water line is required in Metolius Street between Purst Street and the northerly boundary of Phase 4.
- d. Installation of an 8-inch water line is required in McCloud Street between Carnelian Street and the south boundary of Phase 4.

6. Phase 5 Water Line Improvements:

- a. Installation of an 8-inch water line is required in Ford Drive with connection to the existing 8-inch water line stubbed to the west boundary of Phase 5
- b. Installation of an 8-inch water line is required in McCloud Street between Ford Drive and Purst Street.

7. Static water pressure is expected range between 90-105 psi for this proposed development. See attached document from the City of Medford Building Department on "Policy on Installation of Pressure Reducing Valves".

8. Applicant civil engineer shall coordinate with Medford Fire Department for approved fire hydrant locations.

**COMMENTS**

1. The MWC system does have adequate capacity to serve this property.
2. Off-site water line installation is not required.

*Continued to next page*

"E"  
2014



## Staff Memo

*Continued from previous page*

3. On-site water facility construction is required. (See Condition 3-6 above)
4. MWC-metered water service does not exist to this property.
5. Access to MWC water lines is available. There is an existing 12-inch water line Springbrook Drive, and existing 8-inch water lines stubbed to the north for extension in Torrent Street, Cheltenham Street.

"E"  
304


  
 Scale: 1"=200'
   
 Water Facility Map
   
 for
   
 ZC-16-088 &
   
 LRS-16-090 &
   
 E-16-091




4054  
 E



# Medford Fire Department

200 S. Ivy Street, Room #180  
Medford, OR 97501  
Phone: 774-2300; Fax: 541-774-2514;  
www.medfordfirerescue.org

## LAND DEVELOPMENT REPORT - PLANNING

To: Desmond McGeough

LD Meeting Date: 09/14/2016

From: Greg Kleinberg

Report Prepared: 09/13/2016

Applicant: Hayden Homes LLC., Applicant (CSA Planning Ltd., Agent

File #: LDS - 16 - 90

Associated File #'s: ZC - 16 - 89  
E - 16 - 91

### Site Name/Description:

Consideration of a request for a consolidated application, consisting of a Zone Change from SFR-10 (Single Family Residential, 10 dwelling units per gross acre) to SFR-6 (Single Family Residential, 6 dwelling units per gross acre) on 22.34 acres, a tentative plat for a 93 lot residential subdivision, and an associated Exception requests seeking relief to planter strip requirement fronting particular lots within the subdivision and relief to street spacing standard for an intersection within the development. The subject site is located east of the terminus of Owen Drive and north of the terminus of Cheltenham Way, within corporate limits of the City of Medford; Hayden Homes LLC., Applicant (CSA Planning Ltd., Agent). Desmond McGeough, Planner.

DESCRIPTION OF CORRECTIONS	REFERENCE
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<b>Requirement MINIMUM ACCESS ADDRESS SIGN</b>	<b>OFC 505</b>
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Required on lots #68-70 and lots #80-82.

The developer must provide a minimum access address sign. A pre-approved address sign can also be utilized. A brochure is available on our website or you can pick up one at our headquarters.

<b>Requirement FIRE HYDRANTS</b>	<b>OFC 508.5</b>
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Fire hydrants with reflectors will be required for this project.

Fire hydrant locations shall be as follows: The fire hydrant locations are accepted as submitted with the following exceptions:

1. Fire hydrants maximum spacing of 500' is exceeded on Owen Drive. Reconfigure fire hydrant locations to meet within maximum spacing requirements.
2. A fire hydrant is required at the end of Sharman Way for lots #68-78.

The approved water supply for fire protection (hydrants) is required to be installed prior to construction when combustible material arrives at the site.

Plans and specifications for fire hydrant system shall be submitted to Medford Fire Department for review and approval prior to construction. Submittal shall include a copy of this review (OFC 501.3).

CITY OF MEDFORD  
EXHIBIT # 11F  
File # ZC-16-089/LDS-16-090/E-16-091



# Medford Fire Department

200 S. Ivy Street, Room #180

Medford, OR 97501

Phone: 774-2300; Fax: 541-774-2514;

www.medfordfirerescue.org

## LAND DEVELOPMENT REPORT - PLANNING

To: Desmond McGeough

LD Meeting Date: 09/14/2016

From: Greg Kleinberg

Report Prepared: 09/13/2016

Applicant: Hayden Homes LLC., Applicant (CSA Planning Ltd., Agent

File #: LDS - 16 - 90

Associated File #'s: ZC - 16 - 89

E - 16 - 91

### Site Name/Description:

Requirement MEDFORD CODE STREET DESIGN OPTIONS

MEDFORD

10.430

Section 10.430 of the Medford Code states the following:

In order to ensure that there is at least twenty (20) feet of unobstructed clearance for fire apparatus, the developer shall choose from one of the following design options:

(a) Clustered, offset (staggered) driveways (see example) (design approved by Fire Department), and fire hydrants located at intersections with the maximum fire hydrant spacing along the street of 250-feet.

(b) All dwellings that front and take access from minor residential streets to be equipped with a residential (NFPA 13D) fire sprinkler system, and fire hydrants located at intersection with the maximum fire hydrant spacing along the street of 500-feet.

(c) Total paved width of 33-feet with five-and-a-half (5 ½) foot planter strips.

The Oregon Fire Code requires; "Fire apparatus access roads shall have an unobstructed width of not less than 20 feet and unobstructed vertical clearance of not less than 13 feet 6 inches" (OFC 503.2.1). "The required width of a fire apparatus access road shall not be obstructed in any manner, including parking of vehicles. Minimum required widths and clearances established in Section 503.2.1, shall be maintained at all times." (OFC 503.4).

When the clustered-offset driveway option is chosen, a note indicating driveway locations shall be included on the final plat. In areas where the clustered-offset option cannot be utilized because of lot layout, parking restrictions may apply in certain areas and No Parking - Fire Lane signs may be required.

Minor residential streets have a 28 foot paved surface. When vehicles are parked on both sides of the street there is 14 feet for fire department access, which is considerably less than the 20 foot requirement. Fire department pumpers are approximately 9 feet wide, this leaves approximately 2.5 feet on each side to remove equipment, drag hose, etc. We normally dispatch 3 fire engines and the ladder truck to all reported structure fires. The 14 feet becomes so congested that fire engines and or ambulances are required to back-up to leave the fire scene. Sometimes the on scene equipment is dispatched to another alarm. This backing up slows response times. The citizens of the City of Medford have certain expectations that when they require our assistance we will arrive in a timely manner. With a 20 foot clear and unobstructed width engines are able to pass on the side when necessary to respond to another incident or clear to return to their assigned area.



# Medford Fire Department

200 S. Ivy Street, Room #180  
Medford, OR 97501  
Phone: 774-2300; Fax: 541-774-2514;  
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## LAND DEVELOPMENT REPORT - PLANNING

To: Desmond McGeough

LD Meeting Date: 09/14/2016

From: Greg Kleinberg

Report Prepared: 09/13/2016

Applicant: Hayden Homes LLC., Applicant (CSA Planning Ltd., Agent

File #: LDS - 16 - 90

Associated File #'s: ZC - 16 - 89  
E - 16 - 91

### Site Name/Description:

#### Requirement "NO PARKING" SIGNS REQUIRED

OFC

503.3

Parking shall be posted as prohibited on both sides of the minimum access driveways.

Where parking is prohibited on public roads for fire department vehicle access purposes, NO PARKING signs shall be spaced at minimum 50' intervals along the fire lane (minimum 75' intervals in 1 & 2 family residential areas) and at fire department designated turn-around areas. The signs shall have red letters on a white background stating "NO PARKING".

Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths (20' wide) and clearances (13' 6" vertical) shall be maintained at all times (OFC 503.4; ORS 98.810-12).

Fire apparatus access roads 20-26' wide shall be posted on both sides as a fire lane. Fire apparatus access roads more than 26' to 32' wide shall be posted on one side as a fire lane (OFC D103.6.1).

This restriction shall be recorded on the property deed as a requirement for future construction.

Contact Public Works Transportation Manager Karl MacNair 541-774-2115 for further information.

**Development shall comply with access and water supply requirements in accordance with the Fire Code in affect at the time of development submittal.**

**Fire apparatus access roads are required to be installed prior to the time of construction. The approved water supply for fire protection (hydrants) is required to be installed prior to construction when combustible material arrives at the site.**

**Specific fire protection systems may be required in accordance with the Oregon Fire Code.**

**This plan review shall not prevent the correction of errors or violations that are found to exist during construction. This plan review is based on the information provided only.**

**Design and installation shall meet the Oregon requirements of the IBC, IFC, IMC and NFPA standards.**



# Memo

**To:** Desmond McGeough, Planning Department  
**From:** Mary Montague, Building Department  
**CC:** Hayden Homes  
**Date:** September 13, 2016  
**Re:** LDS-16-090

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## **Building Department:**

*Please Note: This is not a plan review. These are general notes based on general information provided. Plans need to be submitted and will be reviewed by a residential plans examiner to determine if there are any other requirements for this occupancy type. Please contact the front counter for fees.*

1. Applicable Building Codes are 2014 ORSC with additional Oregon amendments to the 2011 ORSC; 2014 OPSC; and 2014 OMSC. For list of applicable Building Codes, please visit the City of Medford website: [www.ci.medford.or.us](http://www.ci.medford.or.us) Click on "City Departments" at top of screen; click on "Building"; click on "Design Criteria" on left side of screen and select the appropriate design criteria.
2. All plans are to be submitted electronically. Information on the website: [www.ci.medford.or.us](http://www.ci.medford.or.us) Go to "City Departments" at top of screen; click on "Building"; click on "ELECTRONIC PLAN REVIEW (ePlans)" for information.
3. Site Excavation permit required to develop, install utilities.
4. Demo Permit is required for any buildings being demolished.
5. Minimum access signs for lots per addressing and fire department.
6. There is an active code case #16-2609 for a weed complaint.

CITY OF MEDFORD  
EXHIBIT # "G"  
File # ZC-16-089/LDS-16-090/E-16-091

1051

**Desmond M. McGeough**

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**From:** CAINES Jeff <Jeff.CAINES@aviation.state.or.us>  
**Sent:** Thursday, September 08, 2016 3:12 PM  
**To:** Desmond M. McGeough  
**Subject:** ZC-16-089/LDS-16-090/E-16-091 - ODA Comments

Desmond:

Thank you for allowing ODA to comment on the proposed zone change and development of a residential development. ODA has reviewed the application and have the following comments:

The site is approximately 1.15 miles west from the Rouge Valley Int'l airport. Due to the existing development between the site and the airport ODA finds that the development will not pose a hazard to air navigation. Therefore, no FAA form 7460-1 will be required.

Please feel free to contact me if you or the applicant have any questions.

Jeff

*Jeff Caines, AICP*  
**Oregon Department of Aviation**  
Aviation Planner / SCIP Coordinator  
3040 25th St. SE | Salem, OR 97302  
Office: 503.378.2529  
Cell / Text: 503.507.6965  
Email: Jeff.Caines@aviation.state.or.us

\*\*\*\*\*CONFIDENTIALITY NOTICE\*\*\*\*\*

This e-mail may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If you are not the addressee or it appears from the context or otherwise that you have received this e-mail in error, please advise me immediately by reply e-mail, keep the contents confidential, and immediately delete the message and any attachments from your system.

**CITY OF MEDFORD**  
**EXHIBIT # 47**  
**File # ZC-16-089/LDS-16-090/E-16-091**

10/1

RECEIVED

OCT 13 2016



Memorandum

Planning Dept.

CSA Planning, Ltd

4497 Brownridge, Suite 101  
Medford, OR 97504

Telephone 541.779.0569  
Fax 541.779.0114

Jay@CSAplanning.net

To: City of Medford Planning Commission  
Cc: Eric Peterson, Hayden Homes  
Date: October 13, 2016  
Subject: Offsite Owen Drive Extension, LDS-16-090

At the time the application was filed, the Applicant stipulated to extending Owen Drive offsite from the western boundary of the project to Springbrook Road subject to the City providing the Applicant a dollar-for-dollar SDC credit for the construction costs.

The Applicant's rationale for this was that they have alternative access to the west via Ford Drive and the off-site improvements should properly have been extended to the property line already. Thus, the Owen Drive extension is strictly a benefit to the City. All construction design costs, project management, and the upfront expenditure (to later be reimbursed) would be borne by Hayden Homes.

Public Works responded that they have no authority to allow such an arrangement and that because the TIA distributed traffic out to Owen Drive and not Ford Drive the extension needed to be paid for by the developer and subject to standard SDC reimbursements.

Accordingly, the Applicant engaged Lancaster Engineering to reanalyze the zone change TIA as if the westbound project trips had been distributed via Ford Drive to Springbrook to Owen. That analysis is attached and demonstrates that the only higher order intersection impacted by such a re-routing will meet LOS D and will, moreover, reduce delay at the intersection of Owen Drive and Springbrook by reducing the number of conflicting turning movements.

The Applicant is willing to stand by their original offer to the City to construct the off-site Owen Drive extension with dollar-for-dollar SDC credits. Otherwise, the evidence shows that such a street connection is not needed to serve the development and all applicable street standards can be met without the Owen Drive extension. To this end, we request the Planning Commission approve the development without the requirement to extend Owen Drive and the Applicant will commit to making a request that the Council review the SDC reimbursement issue. If the Council determines that a dollar-for-dollar SDC reimbursement is in the best interest of the City then the Applicant will follow-through on their original stipulation.

CSA Planning, Ltd.

Jay Harland  
Principal

cc. File

CITY OF MEDFORD  
EXHIBIT # "I"  
File # ZC-16-089, LDS-16-090, E-16-091  
1 of 1

presented at 10-13-16 PC meeting

# TECHNICAL MEMORANDUM

**To:** Jay Harland, CSA Planning  
**FROM:** Brian Davis  
Todd Mobley, PE  
**DATE:** October 13, 2016  
**SUBJECT:** Delta Waters Orchards Subdivision  
Alternative Scenario without Owen Drive Extension

**RECEIVED**

OCT 13 2016

**Planning Dept.**

**LANCASTER  
ENGINEERING**

321 SW 4<sup>th</sup> Ave. Suite 400  
Portland, OR 97204  
phone 503 248 0313  
fax 503 246 9251  
lancasterengineering.com

This memorandum discusses the implications of not extending Owen Drive east of Springbrook Road in Medford, Oregon following full build-out of Delta Waters Orchards subdivision. This scenario would maintain the existing configuration of the intersection of Owen Drive at Springbrook Road.

## Prior Study

In a transportation impact study prepared by Group Mackenzie and dated September 24, 2016 for the subject development, the intersection of Owen Drive at Springbrook Road was analyzed for future conditions under the assumption that, following full build-out of the planned residential development east of the intersection, a fourth leg of Owen Drive would be constructed providing connectivity between the existing street grid and the planned new streets. This intersection is currently controlled with a stop sign along Owen Drive; the future configuration recommended in the Group Mackenzie analysis would implement all-way stop control. The Group Mackenzie analysis found that the intersection currently operates at level-of-service (LOS) B, and following full build-out of the residential development and other in-process development, the new, four-legged intersection would operate at LOS C.

## Without Owen Drive Extension

In this analysis, the operation of the intersection of Owen Drive at Springbrook Road is examined assuming that it maintains its existing three-legged configuration and the existing stop control on only the Owen Drive approach. Other routes to and from the site such as McLoughlin Drive, Cheltenham Way will still be in place and the overall trip distribution considered in the Group Mackenzie analysis will not change. The only material difference will be that trips to and from the west on Owen Drive will now use Ford Drive and Springbrook Road.

In this scenario without the Owen Drive connection, the intersection of Owen Drive at Springbrook Road would operate at LOS C, with an average control delay of 16 seconds for vehicles along the critical approach along Owen Drive.

CITY OF MEDFORD  
EXHIBIT # "J"  
Figs # 2C-16-089, LBS-16-090,  
LOF3 E-16-091

presented at 10-13-16 PC meeting

le

Jay Harland  
October 13, 2016  
Page 2 of 2

It is noted that this is *lower* than the average delay of 21 seconds reported by Group Mackenzie for the proposed four-legged Owen/Springbrook configuration. This owes to the fact that eastbound right turns and northbound left turns—the two heaviest-volume movements under the existing configuration—do not conflict, and the latter is a free-flowing movement. By contrast, under the four-legged configuration the all-way stop control forces all traffic entering the intersection to stop, increasing average delays to all drivers. The detailed results of the capacity analysis in this scenario are included in the appendix to this memo.

### Summary & Conclusion

Construction of the fourth leg of the intersection of Owen Drive at Springbrook Road is not necessary to accommodate the trips from the Delta Waters Orchards subdivision at build out.



RENEWS: 12/31/2016

CITY OF MEDFORD  
EXHIBIT # "3"  
FIG # 2  
2 of 3

HCM Unsignalized Intersection Capacity Analysis  
 4: Owen Drive & Springbrook Road

2015 Post Development  
 3-legged Owen/Springbrook Intersection

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	7	554	292	5	3	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	602	317	5	3	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	645	5	7			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	645	5	7			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	44	80			
cM capacity (veh/h)	351	1078	1614			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	8	602	317	5	7
Volume Left	8	0	317	0	0
Volume Right	0	602	0	0	3
cSH	351	1078	1614	1700	1700
Volume to Capacity	0.02	0.56	0.20	0.00	0.00
Queue Length 95th (ft)	2	89	18	0	0
Control Delay (s)	15.5	12.5	7.8	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	12.5		7.6		0.0
Approach LOS	B				

Intersection Summary			
Average Delay		10.8	
Intersection Capacity Utilization	44.3%		ICU Level of Service
Analysis Period (min)		15	A

CITY OF MEDFORD  
 EXHIBIT # "5"  
 FIG # \_\_\_\_\_  
 3 of 3



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PLANNING DEPT.

Continuous Improvement Customer Service

PUBLIC WORKS DEPARTMENT  
ENGINEERING & DEVELOPMENT DIVISION

CITY OF MEDFORD  
200 SOUTH IVY STREET  
MEDFORD, OREGON 97501  
[www.ci.medford.or.us](http://www.ci.medford.or.us)

TELEPHONE (541) 774-2100  
FAX (541) 774-2552

October 20, 2016

Lancaster Engineering  
321 SW 4<sup>th</sup> Ave; Suite 400  
Portland, OR. 97204

We have received your letter report titled: "Delta Waters Orchards Subdivision Alternative Scenario without Owen Drive Extension" dated October 13, 2016.

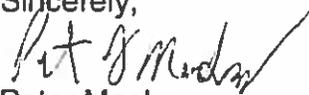
The City has safety concerns regarding the amount of traffic proposed to use Ford Dr. and Springbrook Rd. to access Owen Dr. The intersection of Ford Dr. and Springbrook Rd. is currently a two-way stop controlled intersection with no center turn lane on Springbrook Rd. In order to adequately analyze these concerns, we need the following:

1. Submit figures showing how the trips generated by the development are being redistributed to the remaining access points at the intersections of Ford Dr and Springbrook.
2. Analyze the operation of the intersection of Ford Dr and Springbrook Rd for level of service and safety.

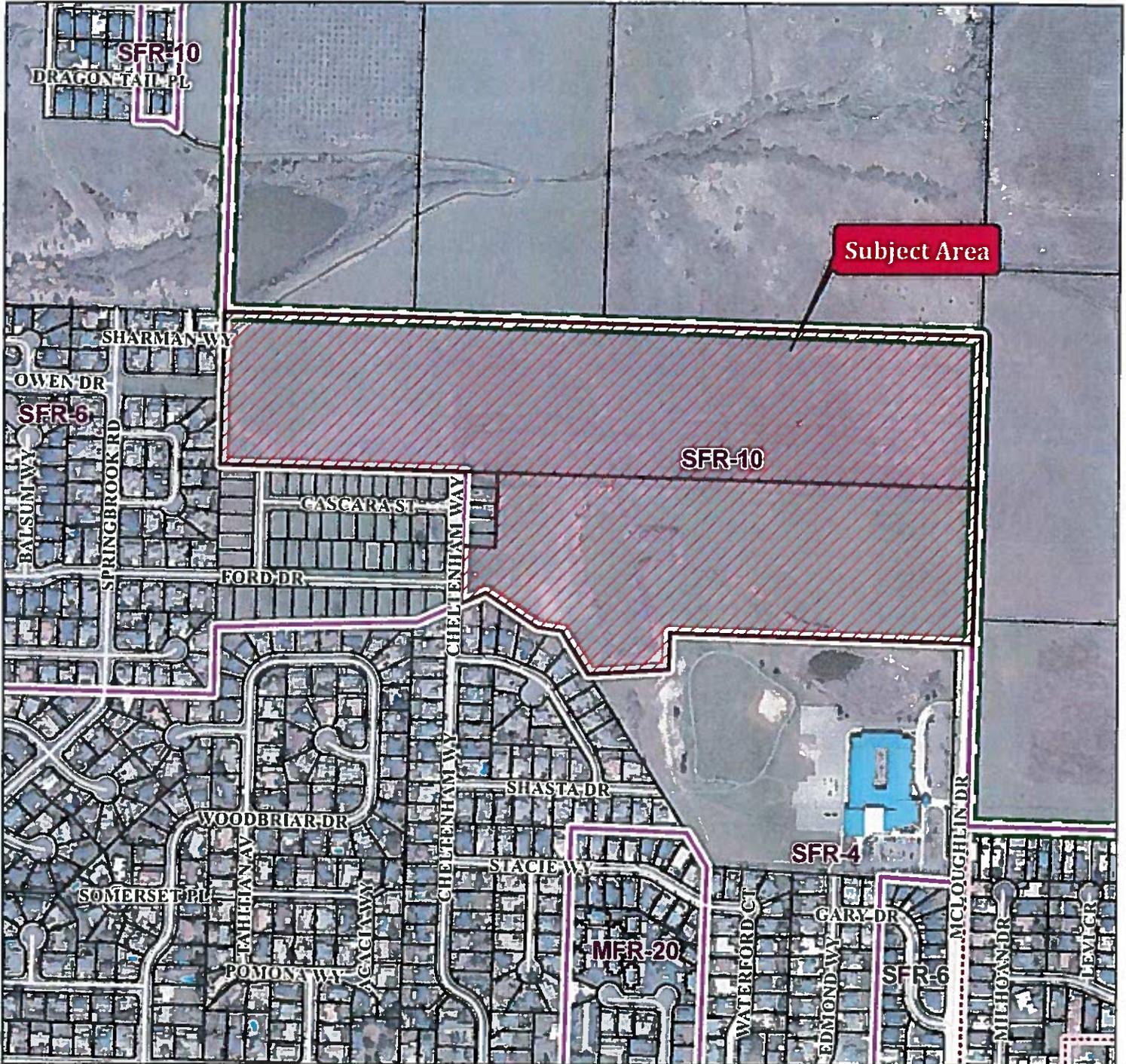
Analysis shall include current year, build-out year and horizon year per the original zone change TIA.

If you have questions, please contact me at (541) 774-2121.

Sincerely,

  
Peter Mackprang  
Associate Traffic Engineer

CITY OF MEDFORD  
EXHIBIT # "K"  
FIG # 20-16-009, LDS-16-090, E-16-091  
1021



Project Name:

**Delta Estates Phase 2-5**

Map/Taxlot:

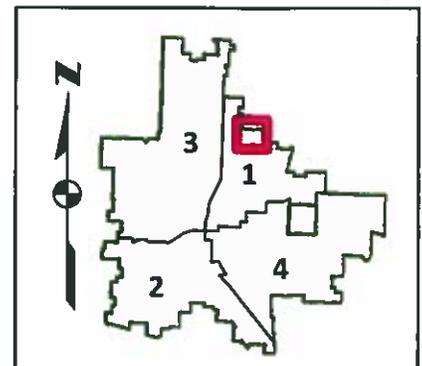
**371W08 TL 1101 & 1102**

**Legend**

-  Subject Area
-  Medford Zoning
-  Tax Lots
-  Streets
-  UGB



07/20/2016





Accepted and approved this 27th day of October, 2016.

CITY OF MEDFORD PLANNING COMMISSION

---

Planning Commission Chair

**ATTEST:**

---

Planning Department Representative



### Applicable Criteria

#### **Medford Municipal Code §10.248 Conditional Use Permit Criteria.**

The approving authority (Planning Commission) must determine that the development proposal complies with either of the following criteria before approval can be granted.

- (1) The development proposal will cause no significant adverse impact on the livability, value, or appropriate development of abutting property, or the surrounding area when compared to the impacts of permitted development that is not classified as conditional.
- (2) The development proposal is in the public interest, and although the development proposal may cause some adverse impacts, conditions have been imposed by the approving authority (Planning Commission) to produce a balance between the conflicting interests.

In authorizing a conditional use permit the approving authority (Planning Commission) may impose any of the following conditions:

- (1) Limit the manner in which the use is conducted, including restricting the time an activity may take place, and restraints to minimize such environmental effects as noise, vibration, air pollution, glare and odor.
- (2) Establish a special yard or other open space or lot area or dimension requirement.
- (3) Limit the height, size, or location of a building or other structure.
- (4) Designate the size, number, location, or nature of vehicle access points.
- (5) Increase the amount of street dedication, roadway width, or improvements within the street right-of-way.
- (6) Designate the size, location, screening, drainage, surfacing, or other improvement of parking or truck loading area.
- (7) Limit or otherwise designate the number, size, location, height, or lighting of signs.
- (8) Limit the location and intensity of outdoor lighting, or require its shielding.
- (9) Require screening, landscaping, or other facilities to protect adjacent or nearby property, and designate standards for installation or maintenance thereof.
- (10) Designate the size, height, location, or materials for a fence.
- (11) Protect existing trees, vegetation, water resources, wildlife habitat, or other significant natural resources.

#### **10.249 Conditional Use Permits, Mitigation of Impacts.**

Development requiring the mitigation of impacts under Section 10.248(2), Conditional Use Permit Criteria, must do one of the following:

- (1) Preserve unique assets of interest to the community.
- (2) Provide a public facility or public nonprofit service to the immediate area or community.
- (3) Otherwise provide a use or improvement that is consistent with the overall needs of the community in a location that is reasonably suitable for its purpose.

#### **Corporate Names**

The Oregon Secretary of State website lists CT Corporation System in Salem as the Registered Agent for Verizon Wireless (VAW) LLC. Managers are identified as Joseph Greco and Nicola Palmer of Basking Ridge NJ.

#### **ISSUES AND ANALYSIS**

##### **Public Hearing of October 13, 2016**

On October 13, 2016, the Commission heard testimony that the addition of the cell tower would adversely affect property values and health considerations. The Commission asked for any scientific data or other supporting documentation, but neither of those testifying had the information at the hearing.

At the conclusion of the public testimony, staff noted that any evidence submitted after the close of the public hearing could not be entered into the record. No party had requested that the record remain open or the hearing continued to allow additional time to submit information. Prior to the close of the public hearing, Mr. Matt Corrigan, a nearby resident, requested that the hearing be continued to allow time to submit additional evidence. Additional information was submitted to staff on October 14, 2016, and is included as Exhibits M and N.

During the public hearing, the applicant requested that the requirement that the antenna be flush-mounted be removed from Condition 2. Staff concurs and has amended the conditions, attached as Exhibit A-1. The applicant also submitted additional evidence at the public hearing which is included as Exhibits K and L.

##### **Background**

The applicant proposes to place a 114-foot high "monopine" wireless communication support structure (109-foot pole, plus 5-foot tall branches at the top) and install the necessary associated ground equipment. The new facility will be located within the confines of the Rogue Valley Country Club near a sand storage area at the southwesterly corner of Hillcrest Road and Fairview Drive. The "monopine" concealment exhibits the

physical attributes of a natural, living pine tree except it is fabricated from man-made materials.

The site contains natural, mature vegetation associated with the Rogue Valley Country Club. There are single-family residential dwellings located east of the proposed location with Dunbar Farms located to the north across Hillcrest Road. There is an existing 90-foot high "monopine" wireless communication facility located about 600 feet southwest of the proposed location, also on the Rogue Valley Country Club property.

Wireless communication facilities are subject to the standards contained in Medford Land Development Code (MLDC) Section 10.824. A conditional use permit is required for new wireless communication support structures (cell towers) such as the one proposed in this application.

#### Design Standards

MLDC 10.824 contains design standards for wireless facilities that are intended to mitigate impacts and preserve the character of the City's zoning districts by protecting them from the visual and aesthetic impacts associated with wireless communication facilities.

The applicant's submittals thoroughly address the Code required design elements (Exhibit B). A brief summary of each required element is included below.

#### *Mitigation of Visual Impacts*

In this case, the applicant is proposing the "monopine" design to conceal the antennae and support structure. The new facility is proposed to be located near an existing stand of tall trees, including a 91-foot tall evergreen. The proposed "monopine" will consist of a pole painted dark brown with faux pine branches, and antennas concealed within the faux branches and painted to match the tree foliage. An existing cedar hedge will help conceal the base.

#### *Lighting*

The applicant included a letter from the Oregon Department of Aviation (ODA) which recommends the installation of a steady burning red obstruction light mounted to the top of the monopine for safety (Exhibit E to Exhibit B). The applicant acknowledges this ODA comment and proposes shield below the light to limit visibility from surrounding ground level views. Staff received a similar comment from ODA in e-mail form (Exhibit E).

The findings state that an FAA determination has been requested and will be provided once it is available (Exhibit B, p. 10). If the FAA issues a Determination of No Hazard to Air Navigation, the applicant will request the ODA to reconsider the recommendation.

As lighting is often offensive to surrounding properties, it is appropriate to eliminate the red light if it is deemed unnecessary by the FAA. Staff has included a condition requiring compliance with the ODA recommendation (Exhibit E) or the FAA Determination of No Hazard to Air Navigation prior to the issuance of the building permit.

The applicant also notes that fence-mounted lighting will be installed. A condition requiring compliance with the City's glare standards has been included.

#### *Collocation Requirement*

The applicant states that Verizon's first attempts to collocate on an existing tower at the desired antenna height. In this case, the available height on the nearby existing facility described above is approximately 50 feet. The proposed antennas must be located 100 feet above ground to achieve the desired coverage. In this instance there are no tall structures in the area to attach the proposed facilities to. The applicant has submitted a concealed "monopine" design, which meets the requirement of 1.824(D)(1)(c).

#### *Building Setbacks*

The Code requires that cell towers be set back from any parcel in a residential zone a distance equal to the overall height of the structure. In this case, the 114-foot proposed structure is located approximately 140 feet from the closest residential property.

#### *Landscaping*

A five-foot landscape buffer surrounding the 12-foot x 40-foot lease area is proposed to meet the standard. Irrigation must be provided pursuant to MLDC 10.780.

#### Agency Comments

Department and agency comments are included as Exhibits C through I. City departments recommended no conditions of approval.

No other issues were identified by staff.

#### **FINDINGS AND CONCLUSIONS**

Staff has reviewed the applicant's findings and conclusions (Exhibit B) and noted that the applicant prepared findings for both approval criteria, even though the Commission need only make findings for either Criterion 1 or Criterion 2.

Staff recommends that the Commission adopt the findings for Criterion 2 (the development is in the public interest and may cause some impacts and conditions have been imposed) as presented.

Under MLDC 10.249, development requiring the mitigation of impacts under Section 10.248(2), Conditional Use Permit Criteria, must do one of the following:

- (1) Preserve unique assets of interest to the community.
- (2) Provide a public facility or public nonprofit service to the immediate area or community.
- (3) Otherwise provide a use or improvement that is consistent with the overall needs of the community in a location that is reasonably suitable for its purpose.

The Commission can find that the applicant has satisfied the third criterion based on the service provided to the community as a whole. The applicant has demonstrated that the location is reasonable for the purpose.

#### **RECOMMENDED ACTION**

Adopt the findings for MLDC 10.248(2) and 10.249(3) as recommended by staff and adopt the Final Order for approval of CUP-16-094 per the revised staff report dated October 20, 2016, including Exhibits A-1 through N.

#### **EXHIBITS**

- A-1 Conditions of Approval dated October 20, 2016
- B Applicants Findings and Attachments received July 26, 2016
  - o Response to Wireless Facilities Approval Criteria (applicant's p.3)
  - o Response to CUP Criteria (applicant's p. 15)
  - o Site Plans & Elevations
  - o Component Photos
  - o Manufacturer Specifications
  - o Photo Simulations
  - o ODA Recommendation
  - o RF Coverage Maps
  - o 1250' and 300' Radius Maps
  - o Existing Verizon Sites within 5-Mile Radius
  - o Lease Agreement Allowing Collocation
  - o FCC License
  - o NIER Report
- C Applicant's 200-foot Noticing Radius Map received July 26, 2016
- D Jackson County Assessor's Map received July 26, 2016

- E Oregon Department of Aviation E-mail received September 8, 2016
- F Medford Building Department Memo received September 14, 2016
- G Public Works Department Staff Report received September 14, 2016
- H Medford Water Commission Staff Memo received September 14, 2016
- I Medford Fire Department Land Development Report received September 14, 2016
- J E-mail from Barbara Barnes received October 13, 2016
- K Articles submitted by Frank Brown at public hearing October 13, 2016
- L Verizon "Importance of Wireless Coverage to Homeowners and Buyers" article submitted by applicant at public hearing October 13, 2016
- M RealtorMag "Cell Towers, Antennas Problematic for Buyers" article submitted by Matt Corrigan October 14, 2016
- N "Is Dirty Electricity Making You Sick?" article submitted by Matt Corrigan October 14, 2016  
Vicinity map

**PLANNING COMMISSION AGENDA:**

**OCTOBER 13, 2016  
OCTOBER 27, 2016**

New Wireless Facility at Rogue Valley Country Club  
CUP-16-094  
Conditions of Approval  
Exhibit A-1

October 20, 2016

**Discretionary Conditions**

1. At the time of the submittal of building permits, the applicant shall either show the lighting recommended by the Oregon Department of Aviation (ODA) and shielding method proposed or provide the FAA Determination of No Hazard to Air Navigation. If the FAA determines that the lighting is unnecessary, this condition is satisfied. If the FAA determines lighting is necessary, the applicant shall comply with the ODA e-mail (Exhibit E) prior to the issuance of the Certificate of Occupancy.
2. The "monopine" concealment method shall be maintained in good condition at all times. All antennae located on the support structure shall be contained entirely within the canopy of the "monopine".

**Code Conditions**

3. Lighting shall meet the glare standards in MLDC 10.764.
4. A landscape and irrigation plan consistent with MLDC 10.780 shall be submitted with the building permit application.

**RECEIVED**  
JUL 26 2016  
PLANNING DEPT.

**Conditional Use Permit Application for  
Verizon Wireless' MDF Winter Golf Wireless  
Communication Facility**

A Proposal Submitted to the City of Medford

**Prepared for**  
Verizon Wireless

**Prepared by**  
Technology Associates EC, INC  
11500 SW Terra Linda St.  
Beaverton, Oregon 97005

**July 25, 2016**

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	H. Existing Verizon Wireless Sites within 5-Mile Radius	
	I. Lease Agreement Allowing Collocation (Redacted)	
	J. FCC License	
	K. NIER Report	

**Verizon Wireless – MDF Winter Golf Wireless Communication Facility  
Conditional Use Permit Application**

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**I. PROPOSAL SUMMARY INFORMATION**

**File No:** MDF Winter Golf

**Applicant:** Verizon Wireless  
c/o Technology Associates EC, Inc. (TAEC)  
11500 SW Terra Linda St  
Beaverton, Oregon 97005  
Phone: 503-421-2258

**Preparer for Applicant:** Paul Slotemaker, AICP  
TAEC  
11500 SW Terra Linda St  
Beaverton, Oregon 97005  
503-421-2258

**Property Owner:** Rogue Valley Country Club  
2660 Hillcrest Rd  
Medford, OR 97504

**Request:** Conditional Use Permit application review for a new wireless concealed communication facility consisting of a 114-foot support structure and associated equipment cabinets used for wireless communications.

**Location:** 2660 Hillcrest Rd  
Medford, OR 97504  
Map Taxlot: 371W28B 5900

**Zoning:** SFR-4 (Single Family Residential)

**Verizon Wireless – MDF Winter Golf Wireless Communication Facility  
Conditional Use Permit Application**

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**II. INTRODUCTION**

Verizon Wireless is in the process of expanding and upgrading its wireless communication network to include LTE (Long Term Evolution) technology in Oregon and many other western states. LTE (also known as 4G) represents the latest generation in wireless telecommunication technology designed for the most advanced technologies of wireless devices, such as: smart phones with high speed data transfer, streaming videos and music, turn-by-turn navigation, GPS, email, web browsing, mobile apps, and video messaging, which are essential capabilities in the information age.

In order to improve these services, Verizon Wireless is expanding and upgrading its wireless network in parts of Oregon and other western states. Verizon Wireless' network works by splitting a region into smaller geographic areas called cells, each cell is served by a transmitter and receiver or base station. As a caller moves across the landscape, the call is passed, or "handed-off", from one base station to another. Each base station is connected to a mobile telephone switching office, which is linked to the land based phone network serving your home or office.

Individual base station site locations, such as the proposed site, are selected based on a number of considerations related to topography, distance from other base stations, proximity to traffic corridors, and other technical features. Verizon Wireless' engineers utilize computer modeling and radio testing to determine potential sites. Because each base station consists of very low powered transmitters, which cover a relatively small geographic area, there is limited flexibility in site selection.

The proposed wireless facility is located at the Rogue Valley Country Club at 2660 Hillcrest Road. The proposed site is needed to increase capacity, meaning that Verizon Wireless' existing sites are reaching their full capacity for data/call usage. If additional wireless facilities, including the proposed wireless facility, aren't built soon to provide more capacity, Verizon Wireless' existing sites will exhaust their capacity and no longer be able to provide service to the customers in the area. With the data use trends increasing rapidly, additional wireless facilities are a necessity for the Medford area. This will be the case for most sites built in metropolitan areas going forward. With the installation of the proposed wireless facility, Verizon Wireless is committed to providing quality wireless services to the City of Medford for years to come.

**III. PROPOSAL DESCRIPTION**

Verizon Wireless proposes to install a new, 114 foot tall wireless communication facility concealed to look like a pine tree (a.k.a. monopine) (109 foot pole, plus 5 foot tall branches at the top). As illustrated in the attached drawings (Exhibit A), the proposed monopine will support panel antennas, concealed within a canopy of faux pine branches. In addition to the antenna array and tower, new ground mounted equipment will be located at the base of the monopine tower, within a 12' x 40' fenced and landscaped enclosure near a stand of existing trees. The new wireless facility will add to Verizon Wireless' existing network and provide improved services to customers and improved calling capacity, thereby improving overall system performance. Verizon Wireless is committed to providing

**Verizon Wireless – MDF Winter Golf Wireless Communication Facility  
Conditional Use Permit Application**

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the latest in quality wireless services to the City of Medford for years to come.

**IV. 4G LTE DISCLOSURE**

Full disclosure Verizon is building a 4G LTE site, which means voice calls will be carried over Verizon Wireless' LTE network. THIS IS A CHANGE AND WILL REQUIRE CUSTOMERS TO HAVE A DEVICE CAPABLE OF ADVANCED CALLING.

- What is a 4G LTE site?  
A Verizon 4G LTE cell site uses the latest technology to carry both voice and data. Voice service is provided over VoLTE or Voice Over Long Term Evolution technology through a service Verizon calls Advanced Calling 1.0.
- Advanced Calling offers high-definition or HD voice and video calling. To complete calls on this new cell site, customers' phones must be capable of Advanced Calling and that feature must be activated in the phone itself. Both customers on a call must be served by 4G LTE and have the Advanced Calling feature activated to experience HD voice and video service.
- Customers with older 1X, 3G or 4G devices without Advanced Calling will not experience a change in voice service.

**V. REQUESTED LAND USE REVIEW**

On behalf of Verizon Wireless, the applicant is requesting Conditional Use Permit approval to construct a 114-foot tall stealth, "monopine" (109-foot pole, plus 5 foot tall branches at the top), and install the necessary ground equipment associated with the support structure in a Single Family Residential (SFR-4) zone. Pursuant to Section 10.314(6)(l) of Medford's Land Development Code, wireless communication facility support structures require a Conditional Use Permit.

**VI. RESPONSE TO THE WIRELESS COMMUNICATION FACILITIES APPROVAL CRITERIA**

The following paragraphs are a response to the wireless communication facilities approval criteria per Section 10.823 of Medford's Land Development Code.

*10.823 WIRELESS COMMUNICATION FACILITIES*

*A. Purpose and Intent*

**Response:** No response necessary.

*B. Permitted Use:*

**Verizon Wireless – MDF Winter Golf Wireless Communication Facility  
Conditional Use Permit Application**

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**Response:** The proposed wireless communication facility is not a Permitted Use in the SFR-4 zone.

*C. Conditional Use: Approval of a Conditional Use Permit is required for new Wireless Communication Support Structures, subject to the Conditional Use Permit procedural requirements of Sections 10.246 – 10.250.*

*(1) Submittals - Applications for conditional use permit approval of Wireless Communication Facility Support Structures shall include any materials necessary to demonstrate compliance with the design standards contained in Section 10.824(D), any submittals required in Section 10.247, and the following:*

*(a) A site plan indicating all structures, land uses and zoning designations within 150 feet of the site boundaries, or 300 feet if the height of the structure is greater than 80 feet.*

**Response:** See attached site plan drawings (Exhibit A).

*(b) Exterior elevations of all sides of the proposed wireless communication facility that include a set of manufacturers specifications of the support structure, Wireless Communication Systems Antennas, and accessory buildings with a listing of materials and colors being proposed.*

**Response:** As illustrated in the attached elevation drawings (Exhibit A), elevations of all sides of the proposed wireless communication facility are shown. The attached photos of the major components help give an idea what the materials and colors will look like (Exhibit B). The manufacturer's specifications are included in Exhibit C. The attached component photos, drawings, and photo simulations all help conceptualize what the facility will look like (Exhibits A, B, & D).

*(c) A landscape plan per Section 10.824(D)(3).*

**Response:** A landscape plan is included in Sheet L-1 of the attached drawings (Exhibit A).

*(d) A photo of each of the major components of a similar installation, including a photomontage of the overall facility at its proposed location.*

## Verizon Wireless – MDF Winter Golf Wireless Communication Facility Conditional Use Permit Application

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**Response:** Photos of the major components of a similar installation are included in Exhibit B. Photos show similar installations of the ground equipment, monopine, and antenna array.

(e) *An explanation of what stealth capabilities are being proposed for the Wireless Communication Facility Support Structures, and methods of concealment from public view, if any, are to be utilized for the remainder of the facility.*

**Response:** As illustrated in the attached drawings (Exhibit A), and shown in the attached photo simulations (Exhibit D), the proposed tower, antennas and any additional tower equipment will be concealed to look like a pine tree to help blend in with surrounding area and reduce the perceived visual impacts on the surrounding views. Verizon Wireless has taken great care to reduce the visual impacts by utilizing stealth monopine technology, and locating next to an existing stand of tall trees, including a 91-foot tall evergreen, to help conceal and blend in with the surroundings. The ability of the proposed monopine to blend in with the surroundings, and the passive nature of the unstaffed use, make for an ideal residential neighbor, with the added benefit of providing state-of-the-art wireless communication services to the surrounding area.

The proposed wireless facility will consist of a narrow, 114-foot tall monopine, designed to blend in with the nearby stand of tall trees. The structure will be similar in size and bulk to the nearby tall trees in the area, including the 91-foot tall evergreen tree immediately east of the site. The monopine will have a slim, stealth design and small footprint. The proposed monopine will consist of a pole painted dark brown, with faux pine branches, and antennas concealed within the faux branches and painted to match the tree foliage. As illustrated in the attached drawings (Exhibit A), the branches will start 20 feet above the ground and extend the entire length of the pole, topping out ten feet above the antennas, to form a natural tapered branch canopy at the top of the tree. The use of an approximately 15 feet tall, existing cedar hedge will help conceal the base of the facility and help the facility blend in with the trees in the area. Per the Oregon Department of Aviation (ODA) recommendation (Exhibit E), a steady burning red obstruction light will be mounted to the top of the monopine for safety purposes. A proposed shield below the light will limit visibility from surrounding ground level views. An FAA determination has been requested, and will be provided once it's available.

Verizon Wireless has taken great care to conceal the facility and reduce the visual impacts as much as possible for the least intrusive design. The ability of the proposed monopine to blend in with the surrounding tall trees, and the passive nature of the unstaffed use, make for an ideal residential neighbor, with the added benefit of providing state-of-the-art wireless communication services to the surrounding area.

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*(f) Details and specifications for exterior lighting, when required or proposed.*

**Response:** Three small lights are proposed to illuminate the ground equipment during evening maintenance visits. The lights will be mounted the fence around the ground equipment, and will only be used during site visits (typically one a month).

*(g) A map that includes the following information:*

*i. the coverage area of the proposed wireless communication facility;*

**Response:** A map showing the coverage area of the proposed wireless communication facility is included as Exhibit F.

*ii. all other wireless communication facilities within 1,250 feet of the proposed site and all residential development within 300 feet of the proposed site;*

**Response:** A map showing all other wireless communication facilities within 1,250 feet of the proposed site and all residential development within 300 feet of the proposed site is included in Exhibit G. As shown in the attached maps, there is one wireless communication facility within 1,250 feet, and no residential development within 300 feet of the proposed site.

*iii. the existing and approved wireless communication system facilities operated by the applicant within a 5-mile radius of the proposed site;*

**Response:** A map showing Verizon's existing communication system within a 5-mile radius of the proposed wireless communication facility is included as Exhibit H.

*(h) A written explanation of collocation issues per Section 10.824(D)(4).*

**Response:** A written explanation of the collocation issues is on Page 13 of this narrative.

*(i) Findings, which address each of the design standards in Section 10.824(D).*

**Response:** Findings which address Section 10.824(D) start on Page 7 of this narrative.

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(j) *A copy of the lease agreement for the proposed site showing that the agreement does not preclude collocation.*

**Response:** A copy of the signed, redacted lease agreement showing the agreement does not preclude collocation is included in Exhibit I of this application.

(k) *Documentation detailing the capacity of the Wireless Communication Facility Support Structures in terms of the number and type of Wireless Communication Systems Antennas it is designed to accommodate.*

**Response:** A copy of the structural report detailing the capacity of the wireless communication support structure, and that it will be designed to accommodate at least two additional carriers, is included in Exhibit C.

D. *Design Standards: All wireless communication facilities shall be located, designed, constructed, treated, and maintained in accordance with the following:*

(1) *Preferred Designs:*

(a) *Where possible, the use of existing facility sites for new installations shall be encouraged. Collocation of new equipment on or at existing Wireless Communication Facilities shall be the preferred option.*

**Response:** When designing an existing or new coverage expansion area(s), Verizon Wireless first attempts to utilize an existing tower or structure for collocation at the desired antenna height. If an existing tower or structure is not available or not attainable because of space constraints or unreliable structural design, Verizon Wireless will propose a new tower. In this instance the applicant did several searches and concluded there are no existing structures nearby suitable for collocation, to meet the proposed site's coverage objective.

The nearest wireless communication facility is a 93-foot tall monopine, owned by US Cellular, which is located approximately 600 feet west of the proposed facility, on the same property as the proposed wireless facility. US Cellular and AT&T are located on the top half of the tower, limiting the available height to 50 feet. The proposed antennas must be located 100 feet above ground to achieve the coverage requirements. Unfortunately, due to the lack of available space and insufficient height, collocating onto the existing monopine would limit the antenna signal's "line-of-sight", inhibiting the site's ability to "see" the antennas of subscribers within the objective coverage area. Without the 100-foot antenna height at this location, the necessary signal strength and capacity requirements would not be met.

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*(b) If (a) above is not feasible, an attempt shall be made to attach to existing structures.*

**Response:** As stated above, Verizon Wireless first attempts to utilize an existing tower or structure for collocation at the desired antenna height. If an existing tower or structure is not available or not attainable because of space constraints or unreliable structural design, Verizon Wireless will propose a new tower. In this instance there are no tall structures in the area to attach the proposed wireless facility to. The surrounding area is characterized by a golf course, single family homes and vacant/agriculturally developed properties. Aside from the previously mentioned US Cellular tower, which doesn't have the height necessary to provide service, there are no other tall structures in the area. Therefore, there are no tall structures nearby suitable for collocation, to meet the coverage objectives of this site.

*(c) If (a) or (b) above are not feasible, alternative structures shall be used with design features that conceal, obscure, or mitigate the visual impacts created by the proposed facility. New Wireless Communication Facility Support Structures shall include stealth capabilities. In most cases, monopole Wireless Communication Support Structures are not considered to incorporate stealth capabilities.*

**Response:** As described earlier in this application, the proposed wireless facility utilized a stealth monopine design, located next to existing tall trees to conceal, obscure, and mitigate the visual impacts created by the proposed facility for the least intrusive design. Please see the monopine description in the response to 10.823(C)(1)(e) on Page 5 of this narrative.

*(d) If (a), (b), or (c) listed above are not feasible, a monopole design shall be used with the attached Wireless Communication Systems Antennas positioned in a flush-mounted, vertical manner to lessen the visual impact when compared to the Wireless Communication Systems Antennas in a platform design. Platform designs may be used, if approved by the Planning Commission as a conditional use, upon a finding that the use of an alternate attached Wireless Communication Systems Antenna design is not feasible.*

*Relief from collocation and attachment of Wireless Communication Systems Antennas to existing Wireless Communication Support Structures under this section may be granted, at the discretion of the approving authority, upon submittal of either a mutually agreeable*

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*third party professional verification of provider's data or mutually agreeable third party engineering evaluations that support one or more of the following:*

- i. Existing Wireless Communications Facilities or existing structures do not fall within location tolerances based upon Radio Frequency mapping.*
- ii. Existing site(s) do not meet minimum height requirements based upon Radio Frequency engineering data.*
- iii. Existing Wireless Communications Facilities do not meet structural integrity requirements for the proposed Wireless Communication Systems Antenna array.*
- iv. Placement of the proposed Wireless Communications Facility and/or Wireless Communication Systems Antenna array would impair, or be impaired by, the emission of Radio Frequencies.*
- v. That the owners of existing Wireless Communication Support Structures or structures within 1,250 feet will not allow the applicant to place its telecommunications facility thereon, or such owners are requiring payment that substantially exceeds commercially reasonable rates.*

**Response:** Not applicable. As described earlier in this application, the proposed wireless facility utilizes a stealth monopine design, located next to existing tall trees to conceal, obscure, and mitigate the visual impacts created by the proposed facility.

- (e) Applicants are encouraged to place the facilities on City owned or other publicly owned property.*

**Response:** No response necessary.

- (f) Should it be deemed necessary in their review of a Conditional Use Permit for a Wireless Communication Support Structure by the Planning Commission for the mitigation of visual impact of the facility, additional design measures may be required. These may include, but are not limited to: additional concealing materials and designs, facades, specific colors and materials, masking, shielding techniques, and landscaping.*

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**Response:** No response necessary.

(2) *General Requirements:*

- (a) *All facilities shall be installed and maintained in compliance with the requirements of the Building Code. Building Permit applications shall include written statements from the Federal Aviation Administration (FAA), Oregon Aeronautics Division, and the Federal Communication Commission (FCC) that the proposed wireless communication facility complies with regulations administered by that agency, or that the facility is exempt from regulation.*

**Response:** The proposed wireless communication facility will be designed, engineered and maintained in compliance with building code requirements. An engineered structural report will be provided with the building permit application.

As stated in the attached Oregon Department of Aviation (ODA) determination (Exhibit E), obstruction lights are recommended for aviation safety, however the City of Medford may make findings to the contrary. For now Verizon Wireless is proposing to install steady burning obstruction lights mounted to the top of the proposed support structure with a shield below the light to limit visibility from surrounding ground level views. An FAA determination has been requested, and will be provided once it's available. If the FAA issues a Determination of No Hazard to Air Navigation, the applicant will request the ODA reconsider their recommendation. The applicant has been successful in requesting the ODA change their recommendation on past wireless facility applications.

A copy of Verizon Wireless's FCC license is attached in Exhibit J, and as stated in the attached NIER report (Exhibit K), prepared by a licensed engineer, the proposed wireless facility will be in compliance with the Federal Communication Commission standards.

- (b) *When facilities are located within a C-N, C-S/P, or any residential zone, all associated transmittal equipment shall be housed in an all-weather equipment cabinet, or in the alternative, an equipment building, above or below ground level, which must be designed to achieve minimal visual impact with the surrounding environment.*

**Response:** The proposed ground equipment will be housed in all-weather equipment cabinets, screened within a fenced and landscaped equipment area.

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- (c) *The perimeter of the facility shall be enclosed with a security fence or wall subject to Sections 10.731 through 10.735. Such barriers shall be landscaped in a manner that provides a natural sight-obscuring screen around the barrier to a minimum height of six feet.*

**Response:** As illustrated in the attached drawings (Exhibit A), the perimeter of the proposed wireless communication facility will be secured within a 6-foot high sight-obscuring fenced enclosure and landscaped hedge to form a natural sight-obscuring screen around the perimeter of the facility. Landscaping will consist of a combination of an existing cedar hedge, standing approximately 15 feet tall, and proposed 6-foot tall arborvitae hedge.

- (d) *Wireless Communication Support Structures shall not exceed a height of 135 feet as measured from the finished grade at the base of the tower.*

**Response:** As illustrated in the attached drawings (Exhibit A), the height of the proposed 114-foot tall monopine will not exceed the 135-foot height limit.

- (e) *New facilities in any zone must be set back from any parcel in a residential zone a distance equal to the overall height of the Wireless Communication Support Structure. The setback requirement may be reduced if, as determined by the Planning Commission, it can be demonstrated through findings of fact that increased mitigation of visual impact can be achieved within the setback area. In no case shall a new Wireless Communication Support Structure be setback less than the minimum requirement of the underlying zone. Underground accessory equipment is not subject to the setback requirement.*

**Response:** The nearest residentially zoned parcel to the proposed wireless communication facility is the SFR-4 zoned property on the north side of Hillcrest Road. As illustrated in the attached site plan drawing (Exhibit A), the proposed 114-foot tall wireless facility will be located 140 feet away from the residentially zoned parcel to the north, and meets the setback requirement. Additionally, the location of the proposed monopine, near a stand of trees is ideal to increase the mitigation of visual impacts by blending in with the existing foliage of the tall trees. Large distances from the nearest properties to the south, west and east, in many cases over 2000 feet, will help to further reduce visual impacts.

- (f) *For wireless communication facilities collocated on an existing support structure, the design of any accessory structures or equipment*

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*shall use materials, colors and textures that will match the existing support structure to which the equipment of the collocating provider is being attached, subject to the concealment standards of Section 10.782*

**Response:** Not applicable. No new collocated wireless facilities are proposed on an existing support structure.

*(g) When Wireless Communication Systems Antennas are attached to the exterior of an existing building, they shall be architecturally integrated into the existing building, and shall have a non-reflective finish and color that blends with the color and design of the structure to which it is attached. Roof-Mounted Wireless Communication Facilities shall be concealed, subject to the standards of Section 10.782.*

**Response:** Not applicable. No new building mounted wireless facilities are proposed as part of this application.

*(h) Any proposal that has elements that deviate from the standards of (f) and/or (g) above may be approved by the Site Plan and Architectural Commission or Landmarks and Historic Preservation Commission through a Class "C" plan authorization, based upon evidence showing that the standards cannot otherwise be met and that the degree of relief approved by said Commission, is the minimum necessary to allow for facility operation. (Effective Dec. 1, 2013.)*

**Response:** Not applicable. The standards of (f) and (g) above do not apply to this application.

*(i) Each addition of a Wireless Communication Systems Antenna to an existing support structure must be in conformance with any approved Conditional Use Permit, with the exception of buildings, only requires administrative approval of a building permit, unless the additional Wireless Communication Systems Antenna increases the height of the support structure more than ten feet, in which case it must be approved by the Planning Commission as a Conditional Use Permit in accordance with Sections 10.248 – 10.250.*

**Response:** Not applicable. No additional antennas are proposed to be added to an existing support structure as part of this application.

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(j) *Signage for wireless communication facilities shall consist of a maximum of two (2) non-illuminated signs, not to exceed two (2) square feet in area each, stating the name of the facility operator and a contact phone number, and any other applicable FCC, OSHA required information.*

**Response:** The applicant is aware of this requirement. Only small, non-illuminated signs required by the FCC, and identification signs will be posted to the fenced equipment area at the base of the facility.

(k) *No lighting shall be permitted except as required by the Oregon Aeronautics Division, Federal Aviation Administration (FAA), or other state or federal agency.*

**Response:** No lighting is proposed on the support structure beyond what is required by the Oregon Department of Aviation (ODA) and FAA.

- (3) *Landscaping: The following standards apply to all facilities with any primary or accessory equipment located on the ground and visible from any public right-of-way or from an abutting residential use.*
- (a) *The outer perimeter of the facility shall have a minimum 5-foot wide landscaped area that will screen the facility from public view.*
  - (b) *Vegetation and materials shall be selected and sited to produce a landscaped area consistent with Section 10.780.*
  - (c) *The landscaped area shall be irrigated and maintained to provide for proper growth and health of the vegetation.*

**Response:** A landscape plan is included in Sheet L-1 of the attached drawings (Exhibit A).

- (4) *Wireless Communication Facility Collocation:*
- (a) *All new Wireless Communication Support Structures shall be constructed so as to allow a second user to collocate on the facility, unless limited by aesthetics as determined by the Planning Commission.*

**Response:** The proposed wireless communication support structure will be designed to allow a second user to collocate.

- (b) *Relief from collocation under this section may be granted, at the discretion of the approving authority, upon submittal of either a mutually agreeable third party professional verification of provider's*

**Verizon Wireless – MDF Winter Golf Wireless Communication Facility  
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*data or mutually agreeable third party engineering evaluations that support one or more of the following:*

- i. Existing Wireless Communications Facilities do not fall within location tolerances based upon Radio Frequency mapping.*
- ii. Proposed site(s) does not meet minimum height requirements based upon Radio Frequency engineering data.*
- iii. Existing Wireless Communications Facilities do not meet structural integrity requirements for the proposed Wireless Communication Systems Antenna array.*
- iv. Placement of the proposed Wireless Communications Facility and/or Wireless Communication Systems Antenna array would impair, or be impaired by, the emission of Radio Frequencies.*
- v. That the owners of existing Wireless Communication Support Structures or structures within 1,250 feet will not allow the applicant to place its telecommunications facility thereon, or such owners are requiring payment that substantially exceeds commercially reasonable rates.*

**Response:** When designing an existing or new coverage expansion area(s), Verizon Wireless first attempts to utilize an existing tower or structure for collocation at the desired antenna height. If an existing tower or structure is not available or not attainable because of space constraints or unreliable structural design, Verizon Wireless will propose a new tower. In this instance the applicant did several searches and concluded there are no existing structures nearby suitable for collocation, to meet the proposed site's coverage objective.

The area within 1,250 feet of the proposed wireless facility is predominately developed with a golf course, single family homes and vacant/agriculturally developed properties. There is only one wireless communication support structure within 1,250 feet of the proposed wireless facility. The existing structure, owned by US Cellular, is a 93-foot tall monopine located approximately 600 feet west of the proposed facility on the same property as the proposed wireless facility. US Cellular and AT&T are located on the top half of the tower, limiting the available height. The proposed antennas must be located 100 feet above ground to achieve the coverage requirements. Unfortunately, due to the lack of available space and insufficient height, lowering the height of the proposed antennas would limit the antenna signal's "line-of-sight", inhibiting the site's ability to "see" the antennas of subscribers. Without the 100-foot antenna height at this location, the necessary signal strength and capacity requirements would not be met.

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*E. Prohibited:*

**Response:** The proposed wireless communication facility is not prohibited. The proposed facility is not within the A-R Overlay District, is not within 300 feet of a Historic Overlay District, is not in a riparian corridor, and does not propose a satellite or microwave dish that are not part of the wireless communication system.

**VII. RESPONSE TO THE CONDITIONAL USE PERMIT CRITERIA**

*10.248 Conditional Use Permit Criteria*

*The approving authority (Planning Commission) must determine that the development proposal complies with either of the following criteria before approval can be granted.*

- (1) *The development proposal will cause no significant adverse impact on the livability, value, or appropriate development of abutting property, or the surrounding area when compared to the impacts of permitted development that is not classified as conditional.*

**Response:** As stated earlier in this application, and as shown in the attached photo simulations (Exhibit D), the proposed tower, antennas and any additional tower equipment will be concealed to look like a pine tree to help blend in with surrounding area and reduce the perceived visual impacts on the surrounding views. Verizon Wireless has taken great care to reduce the visual impacts by utilizing stealth monopine technology, and locating next to an existing stand of tall trees, including a 91-foot tall evergreen, to help conceal and blend in with the surroundings. The ability of the proposed monopine to blend in with the surroundings, and the passive nature of the unstaffed use, make for an ideal residential neighbor, with the added benefit of providing state-of-the-art wireless communication services to the surrounding area.

The proposed facility is a passive, unoccupied use. The facility will only generate an average of one vehicle trip a month for maintenance, much less than the allowed residential uses in the SFR-10 zone. The monthly maintenance visit will not impact local streets or traffic. Its only interaction with other uses in the area is providing reliable wireless telecommunication services to customers in the area. There are no activities associated with the site that will produce odor, vibration, heat, glare, radioactive materials, or noxious and toxic material. All equipment and materials needed to operate the site will be located within the proposed fenced and landscaped area at the base of the support structure. Since the facility does not have water or sanitary facilities it will generate no wastewater.

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The monopine will be engineered to meet or exceed local building code safety requirements, ensuring a safe facility which will not be a hazard to surrounding properties or the public

Additionally, it's important to understand the improved service provided by the proposed facility to Verizon Wireless' network and that it will provide beneficial impacts to the residents in the area with improved wireless services and access to emergency services.

More and more household are cutting the cord (cancelling their land line phone service), and choosing to going 100% wireless. A dozen years ago, a mere 3 percent of U.S. households used only cellphones. Given the trend, officials believe more than half of the U.S. homes will be wireless within the next year (*Centers for Disease Control, December 1, 2015*). Currently, more than 47 percent of American homes use only cellphones (*Centers for Disease Control, December 1, 2015*). Reliable wireless service is a no longer a luxury, and is increasingly an essential service that the public relies on.

The proposed facility is designed to provide improved reliability and access to E911 and emergency services such as police and fire who serve the area. 76% of 911 calls originate from a cell phones (*National Highway Traffic Safety Administration, February, 2016*). For many Americans, the ability to call 911 for help in an emergency is one of the main reasons they own a wireless phone. Access to 911 is particularly important when traditional landline phones are inaccessible or not working which is often the case for stranded motorists, after a severe storm or earthquake, or the result of other types of emergencies. Verizon Wireless is proposing an emergency backup generator so the site can continue to provide service in the event of a power outage. This is a critical element to keeping a site operating during a natural disaster or other emergency. Law enforcement agents, neighborhood watch programs and individuals use wireless phones in emergency situations to improve emergency service with reduced notification times, improved response times, improved knowledge for emergency response teams and an increased number of life-saving outcomes. As a result, this facility will provide a net positive impact on the health, safety and general welfare for the area.

- (2) *The development proposal is in the public interest, and although the development proposal may cause some adverse impacts, conditions have been imposed by the approving authority (Planning Commission) to produce a balance between the conflicting interests.*

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**Response:** As stated above, the proposed development is in the public interest, and the proposed design and location will greatly minimize any adverse impacts to the nearest residences.

The improved service provided by the proposed facility to Verizon Wireless' network and that it will provide beneficial impacts to the residents in the area. The proposed facility is designed to provide improved reliability and access to E911 and emergency services such as police and fire who serve the area. 76% of 911 calls originate from a cell phones (*National Highway Traffic Safety Administration, February, 2016*). For many Americans, the ability to call 911 for help in an emergency is one of the main reasons they own a wireless phone. Access to 911 is particularly important when traditional landline phones are inaccessible or not working which is often the case for stranded motorists, after a severe storm or earthquake, or the result of other types of emergencies. Verizon Wireless is proposing an emergency backup generator so the site can continue to provide service in the event of a power outage. This is a critical element to keeping a site operating during a natural disaster or other emergency. Law enforcement agents, neighborhood watch programs and individuals use wireless phones in emergency situations to improve emergency service with reduced notification times, improved response times, improved knowledge for emergency response teams and an increased number of life-saving outcomes. As a result, this facility will provide a net positive impact on the health, safety and general welfare for the area.

As shown in the attached drawings (Exhibit A), and photo simulations (Exhibit D), the proposed tower, antennas and any additional tower equipment will be concealed to look like a pine tree to help blend in with surrounding area and reduce the perceived visual impacts on the surrounding views. Verizon Wireless has taken great care to reduce the visual impacts by utilizing stealth monopine technology, and locating next to an existing stand of tall trees, including a 91-foot tall evergreen, to help conceal and blend in with the surroundings. The ability of the proposed monopine to blend in with the surroundings, and the passive nature of the unstaffed use, make for an ideal residential neighbor, with the added benefit of providing state-of-the-art wireless communication services to the surrounding area.

The proposed wireless facility will consist of a narrow, 114-foot tall monopine, designed to blend in with the nearby stand of tall trees. The structure will be similar in size and bulk to the nearby tall trees in the area, including the 91-foot tall evergreen tree immediately east of the site. The monopine will have a slim, stealth design and small footprint. The proposed monopine will consist of a pole painted dark brown, with faux pine branches, and antennas concealed within the faux branches and painted to match the tree foliage. As illustrated in the attached drawings (Exhibit A), the branches will start 20 feet above the ground and extend the entire length of the pole,

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topping out ten feet above the antennas, to form a natural tapered branch canopy at the top of the tree. The use of an approximately 15 feet tall, existing cedar hedge will help conceal the base of the facility and help the facility blend in with the trees in the area. Per the Oregon Department of Aviation (ODA) recommendation (Exhibit E), a steady burning red obstruction light will be mounted to the top of the monopine for safety purposes. A proposed shield below the light will limit visibility from surrounding ground level views. An FAA determination has been requested, and will be provided once it's available.

Verizon Wireless has taken great care to conceal the facility and reduce the visual impacts as much as possible for the least intrusive design. The ability of the proposed monopine to blend in with the surrounding tall trees, and the passive nature of the unstaffed use, make for an ideal residential neighbor, with the added benefit of providing state-of-the-art wireless communication services to the surrounding area.

*In authorizing a conditional use permit the approving authority (Planning Commission) may impose any of the following conditions:*

- (1) Limit the manner in which the use is conducted, including restricting the time an activity may take place, and restraints to minimize such environmental effects as noise, vibration, air pollution, glare and odor.*
- (2) Establish a special yard or other open space or lot area or dimension requirement.*
- (3) Limit the height, size, or location of a building or other structure.*
- (4) Designate the size, number, location, or nature of vehicle access points.*
- (5) Increase the amount of street dedication, roadway width, or improvements within the street right-of-way.*
- (6) Designate the size, location, screening, drainage, surfacing, or other improvement of parking or truck loading area.*
- (7) Limit or otherwise designate the number, size, location, height, or lighting of signs.*
- (8) Limit the location and intensity of outdoor lighting, or require its shielding.*
- (9) Require screening, landscaping, or other facilities to protect adjacent or nearby property, and designate standards for installation or maintenance thereof.*
- (10) Designate the size, height, location, or materials for a fence.*
- (11) Protect existing trees, vegetation, water resources, wildlife habitat, or other significant natural resources.*

## **VI. CONCLUSION**

Considering the foregoing analysis and findings, the applicant requests approval of this proposed Conditional Use Permit application. The application meets all applicable criteria for approval.

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Conditional Use Permit Application**

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**VII. EXHIBITS**

- A. Site Plans & Elevations
- B. Component Photos
- C. Manufacturer Specifications
- D. Photo Simulations
- E. ODA Recommendation
- F. RF Coverage Maps
- G. 1250' and 300' Radius Maps
- H. Existing Verizon Wireless Sites within 5-Mile Radius
- I. Lease Agreement Allowing Collocation (Redacted)
- J. FCC License
- K. NIER Report

# **Exhibit A**

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## **Site Plans & Elevations**











**verizon**  
 8439 NE 122ND AVE.  
 PORTLAND, OR 97230

**Technology Associates**  
 SITE DEVELOPMENT SERVICES  
 7117 SW NEVELAND STREET  
 SUITE 101  
 TOLAND, OR 97130

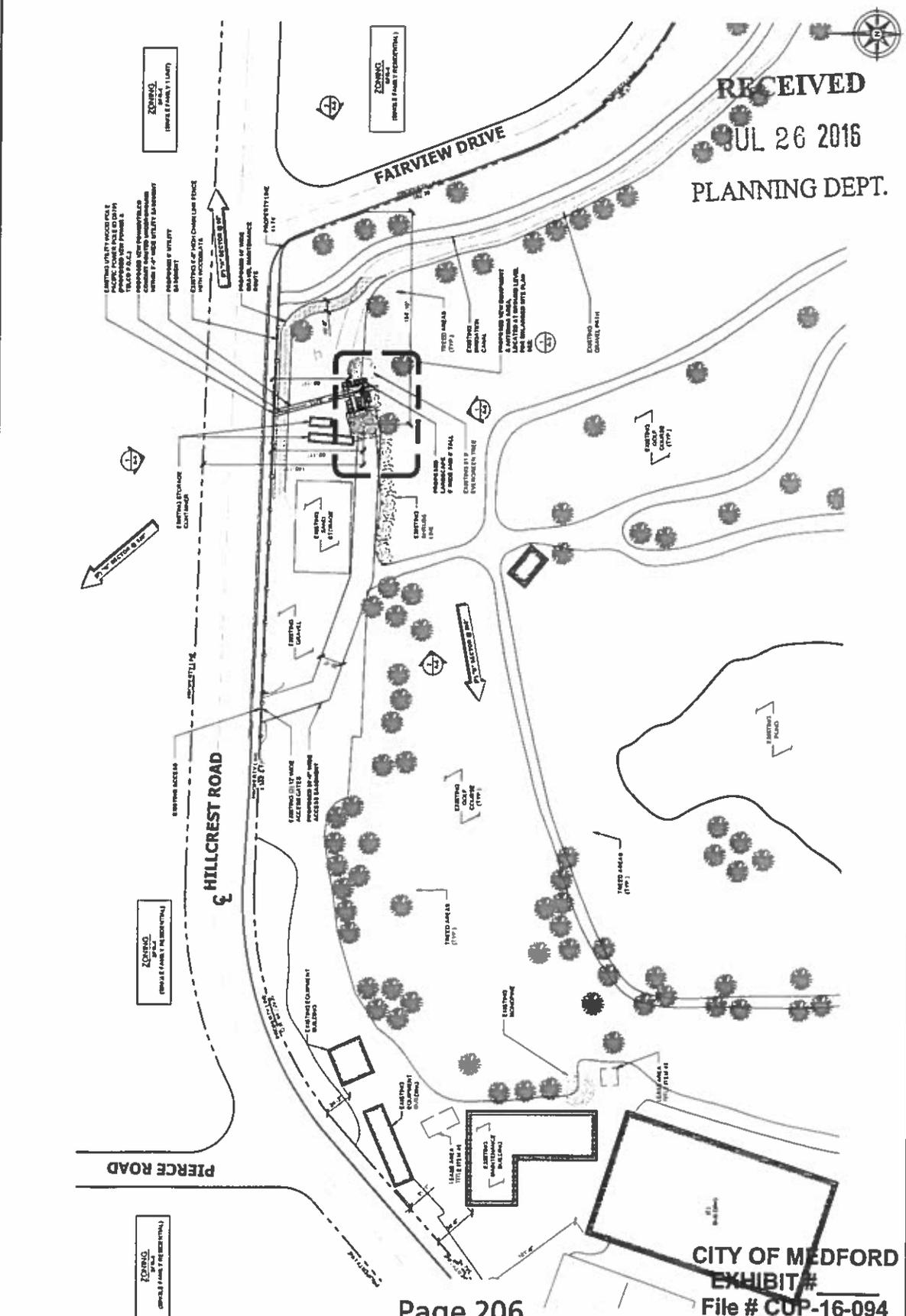
**Technology Associates**  
 ARCHITECTURE & ENGINEERING  
 3333 MASSACHUSETTS BLVD. STE 200  
 SAN DIEGO, CA 92108

NO.	DATE	DESCRIPTION
1	08/11/16	ISSUE FOR PERMITTING
2	08/11/16	REVISED PERMITTING
3	08/11/16	REVISED PERMITTING
4	08/11/16	REVISED PERMITTING
5	08/11/16	REVISED PERMITTING
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**MDF WINTER GOLF**  
 2660 HILLCREST ROAD  
 MEDFORD, OR 97504  
**MONOPINE**

SHEET TITLE  
**SITE PLAN**

SHEET NUMBER  
**A-2**



1  
 SCALE: 1" = 40' (PLAN) 1" = 80' (ELEVATION)  
 OVERALL SITE PLAN





**verizon**  
 4330 NE 127ND AVE.  
 PORTLAND, OR 97238

**Technology Associates**  
 SITE DEVELOPMENT SERVICES  
 7117 NW REVELL AND STREET, 1ST FLOOR  
 SUITE 101  
 TIGARD, OR 97138

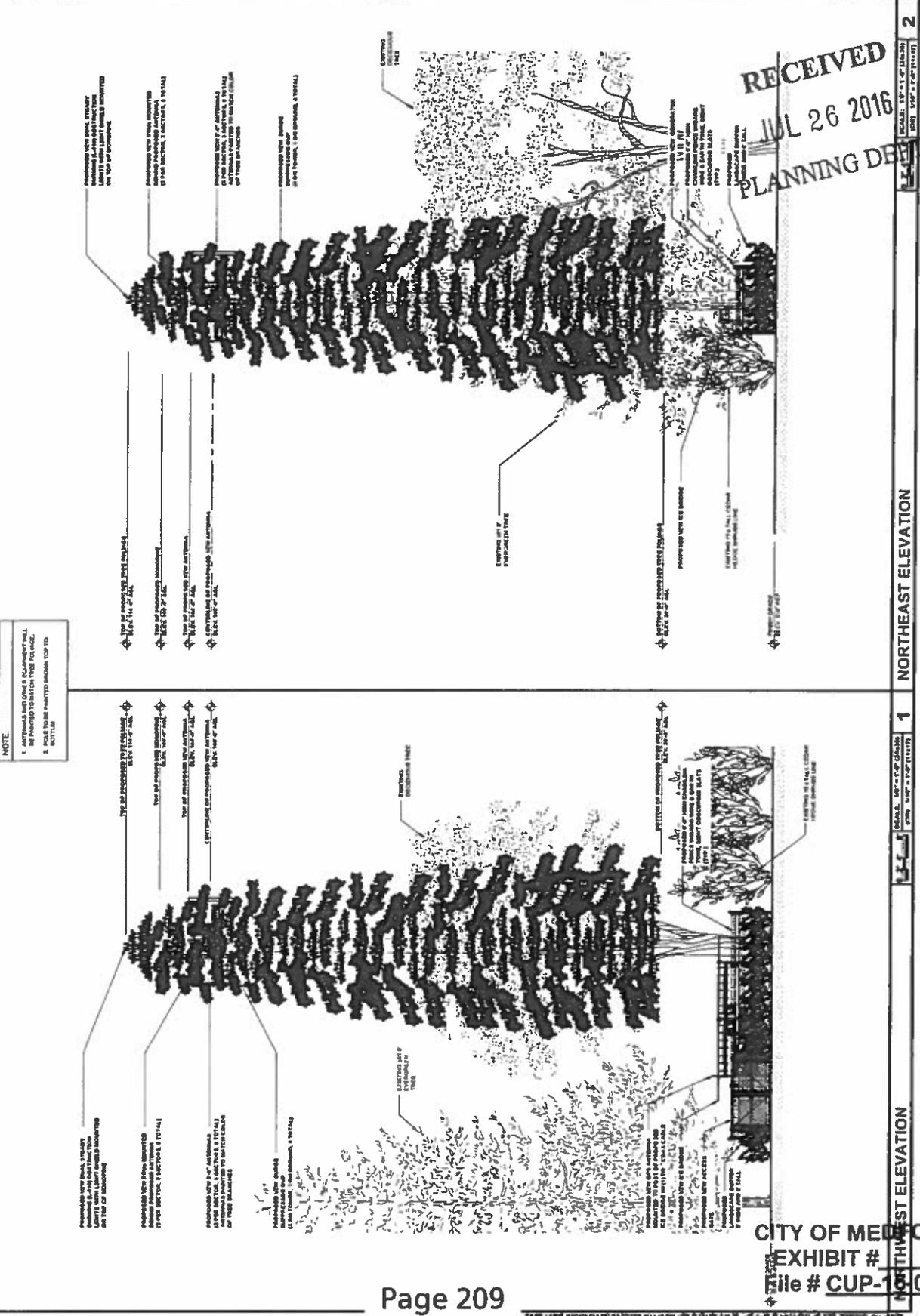
**Technology Associates**  
 ARCHITECTURE & ENGINEERING  
 SAN DIEGO MARKET OFFICE  
 3533 MISSION ROAD, SUITE 220  
 SAN DIEGO, CA 92108

NO.	DATE	DESCRIPTION	BY
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**MDF WINTER GOLF**  
 2660 HILLCREST ROAD  
 MEDFORD, OR 97504  
 MONOPINE

SHEET TITLE  
**ELEVATIONS**

SHEET NUMBER  
**A-5**



**NOTE:**  
 1. ANTENNAS AND DIVERS EQUIPMENT SHALL BE PLACED TO MATCH TREE FOLIAGE.  
 2. POLES TO BE PLACED ABOVE TOP TO BOTTOM

SCALE: 1/4" = 1'-0" (AS SHOWN)  
 1 NORTHWEST ELEVATION  
 2 NORTHEAST ELEVATION

CITY OF MEDFORD  
 EXHIBIT #  
 File # CUP-10094

**verizon**  
 6345 NE 13TH AVE.  
 PORTLAND, OR 97230

**Technology Associates**  
 SITE DEVELOPMENT SERVICES  
 1711 MADISON STREET  
 SUITE 101  
 TOLAND, OR 97140

**Technology Associates**  
 ARCHITECTURE & ENGINEERING  
 SAN CEBRO MARKET OFFICE  
 5331 MADISON CENTER RD. LITE 238  
 SAN JOSE, CA 95128

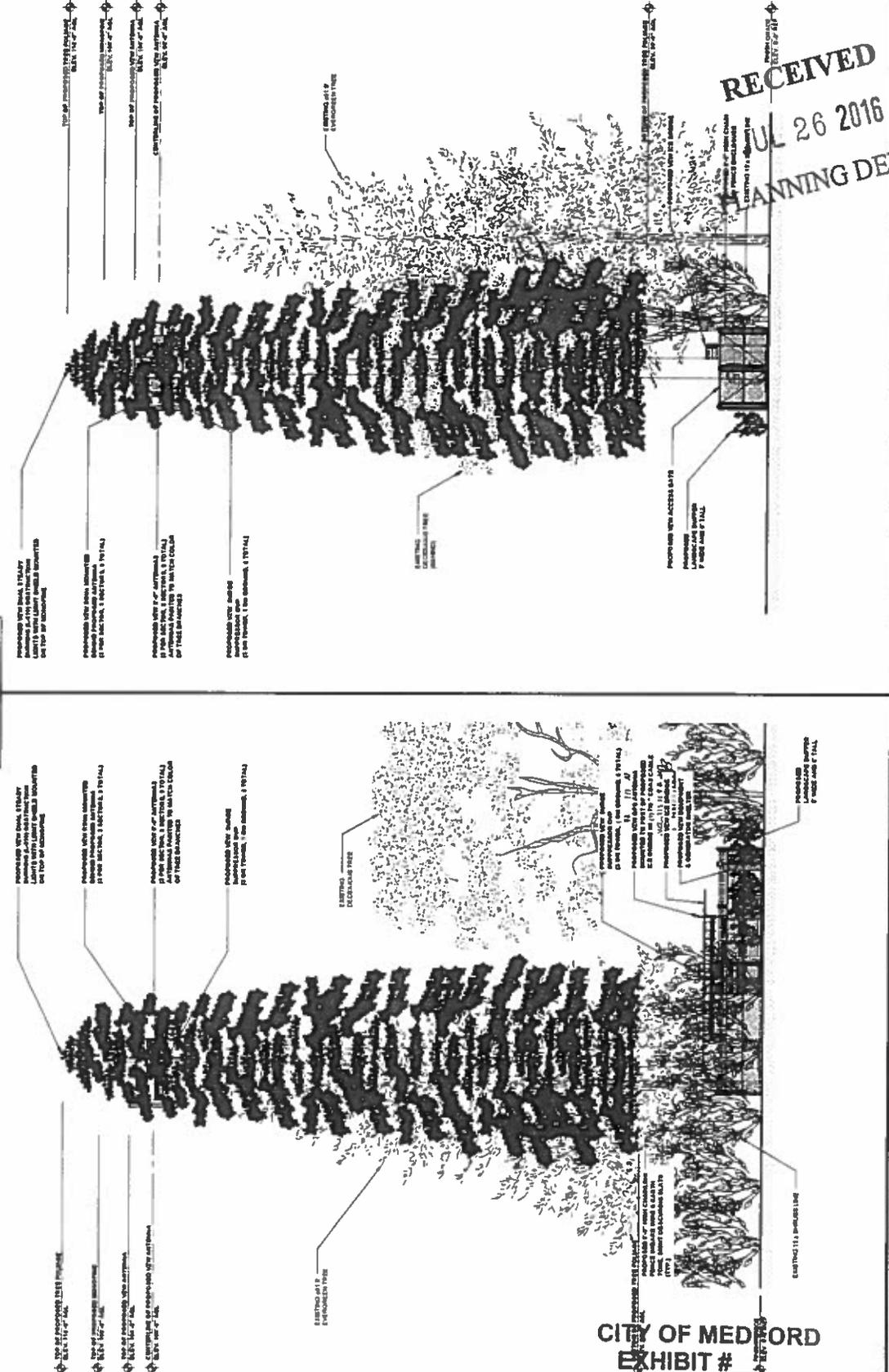
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**MDF WINTER GOLF**  
 2660 HILLCREST ROAD  
 MEDFORD, OR 97504  
 MONOPINE

SHEET TITLE  
**ELEVATIONS**

SHEET NUMBER  
**A-6**

**NOTE**  
 1. ARTWORK AND OTHER EQUIPMENT SHALL BE PRINTED TO MATCH THIS PACKAGE.  
 2. PILE TO BE PRINTED ABOVE TOP TO BOTTOM



SCALE: 1/4" = 1'-0" (PLAN)  
 1/8" = 1'-0" (ELEV)  
**SOUTHWEST ELEVATION** 2  
**SOUTHEAST ELEVATION** 1

**verizon**  
 4300 NE 127ND AVE.  
 PORTLAND, OR 97224

**Technology Associates**  
 SITE DEVELOPMENT SERVICES  
 7111 SW OREGON AVENUE  
 SUITE 101  
 TOLAND, OR 97058

**Technology Associates**  
 ARCHITECTURE & ENGINEERING  
 3333 MARKET OFFICE  
 5211 MARKET OFFICE RD. STE 200  
 SAULTOUCO, OR 97130

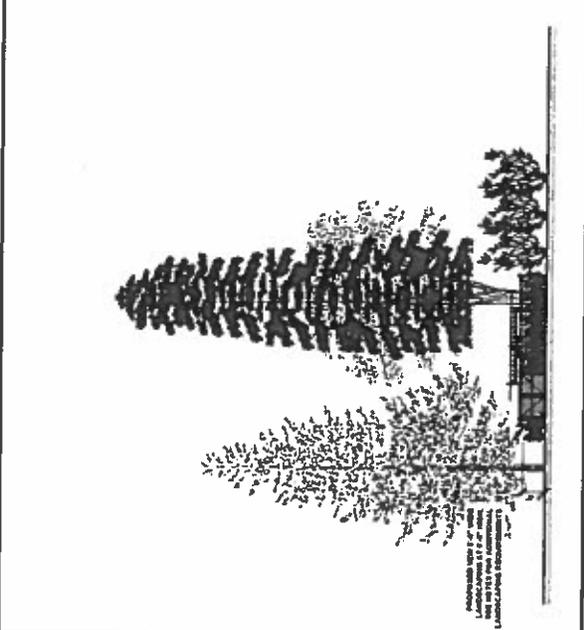
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10	08/11/10	REVISED DRAWING	AS

IF A PROJECT IS NOT COMPLETE BY THE DATE SHOWN ABOVE, THE PROJECT WILL BE CONSIDERED ABANDONED AND THE DESIGNER WILL NOT BE RESPONSIBLE FOR THE PROJECT.

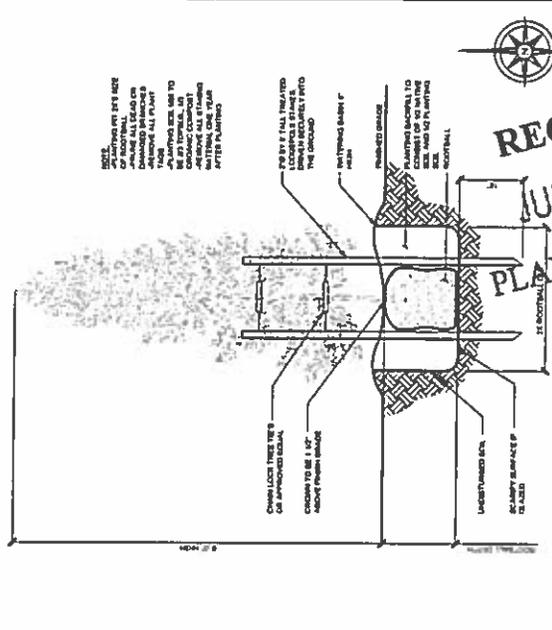
**MDF WINTER GOLF**  
 2660 HILLCREST ROAD  
 MEDFORD, OR 97504  
**MONOPINE**

**LANDSCAPE PLAN,  
 ELEVATION, &  
 DETAIL**

SHEET TITLE  
 SHEET NUMBER  
**L-1**



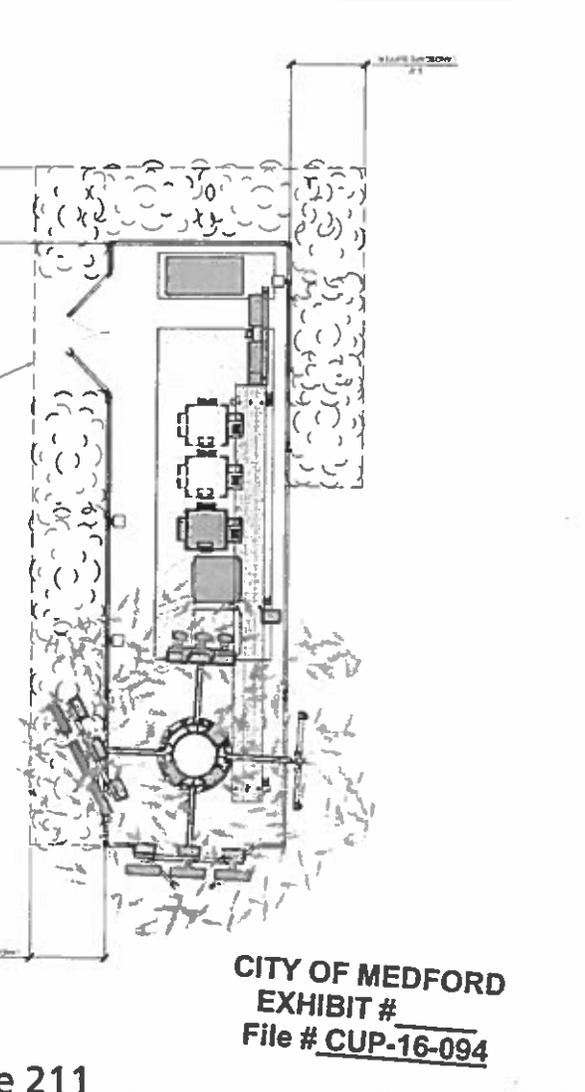
**NORTH ELEVATION**



RECEIVED  
 JUL 26 2016  
 PLANNING DEPT.

**NOTE:**

- ALL LANDSCAPE AREAS MUST INCLUDE APPROPRIATE LIVING BARK MULCH LAYERS AND/OR LIVING GROUND COVERS TO PREVENT EROSION APPROXIMATELY 1/2" OF THE COVER IS TO BE APPLIED TO THE ENTIRE SURFACE OF THE MULCH LAYERS AND/OR LIVING GROUND COVERS.
- LANDSCAPE AREAS MUST BE AT LEAST 4" IN DIAMETER AND 4" IN HEIGHT AND MUST BE PLANTED AT LEAST 12" FROM THE EDGE OF THE MULCH LAYERS AND/OR LIVING GROUND COVERS.
- ALL LANDSCAPE AREAS MUST BE PLANTED WITH APPROPRIATE SPECIES AND MUST BE PLANTED AT LEAST 12" FROM THE EDGE OF THE MULCH LAYERS AND/OR LIVING GROUND COVERS.
- ALL LANDSCAPE AREAS MUST BE PLANTED WITH APPROPRIATE SPECIES AND MUST BE PLANTED AT LEAST 12" FROM THE EDGE OF THE MULCH LAYERS AND/OR LIVING GROUND COVERS.
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- ALL LANDSCAPE AREAS MUST BE PLANTED WITH APPROPRIATE SPECIES AND MUST BE PLANTED AT LEAST 12" FROM THE EDGE OF THE MULCH LAYERS AND/OR LIVING GROUND COVERS.



OVERALL SITE PLAN

CITY OF MEDFORD  
 EXHIBIT #  
 File # CUP-16-094

# **Exhibit B**

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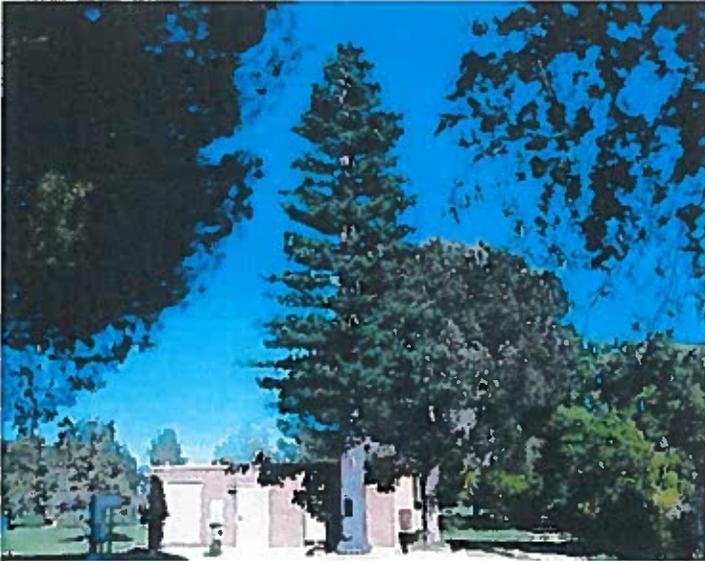
## **Component Photos**

# COMPONENT PHOTOS

**Ground Equipment:**



**Monopine:**



**Antennas Painted To Match Tree Foliage:**



# **Exhibit C**

---

## **Manufacturer Specifications**

**MONOPOLE DESIGN LOADS:**

120 MPH WIND & NO ICE (3 SEC GUST)  
 120 MPH WIND & 1" ICE (3 SEC GUST)  
 60 MPH WIND & NO ICE (SERVICE)  
 STRUCTURE CLASS II C  
 EXPOSURE CATEGORY C  
 TOPOGRAPHIC CATEGORY 1

**SITE INFORMATION:**

COORDINATES: LATITUDE: 42° 19' 50.6" N  
 LONGITUDE: 122° 49' 43.9" W  
 ADDRESS: 2660 HILLCREST RD.  
 MEDFORD, OR 97504  
 COUNTY: JACKSON COUNTY, OREGON

MAXIMUM BASE MOMENT & FORCES		
MOMENT (FT-KIPS)	SHEAR (KIPS)	AXIAL (KIPS)
8.0E3	128	41

**DESIGN LOADING:**

ELEV.	ITEM	RAD.	AZ.	FEEDLINES
100'	5' T-ARMS			(1) 7/8" INSIDE POLE
100'	(9) 9x7' x 12' x 3/4" PANEL ANTENNA			(4) HYBRID CABLE (INSIDE POLE)
100'	(3) 8x8" RADIO 13' x 17' x 7/2"			
100'	(3) COMPASS ROBE-2315-PF-48			
80'	5' T-ARMS			(1) 7/8" INSIDE POLE
80'	(9) 9x7' x 12' x 3/4" PANEL ANTENNA			(4) HYBRID CABLE (INSIDE POLE)
80'	(3) 8x8" RADIO 13' x 17' x 7/2"			
80'	(3) COMPASS ROBE-2315-PF-48			
60'-314'	(3) 8x8" PNE BRACKET 6'-2" IN LENGTH			

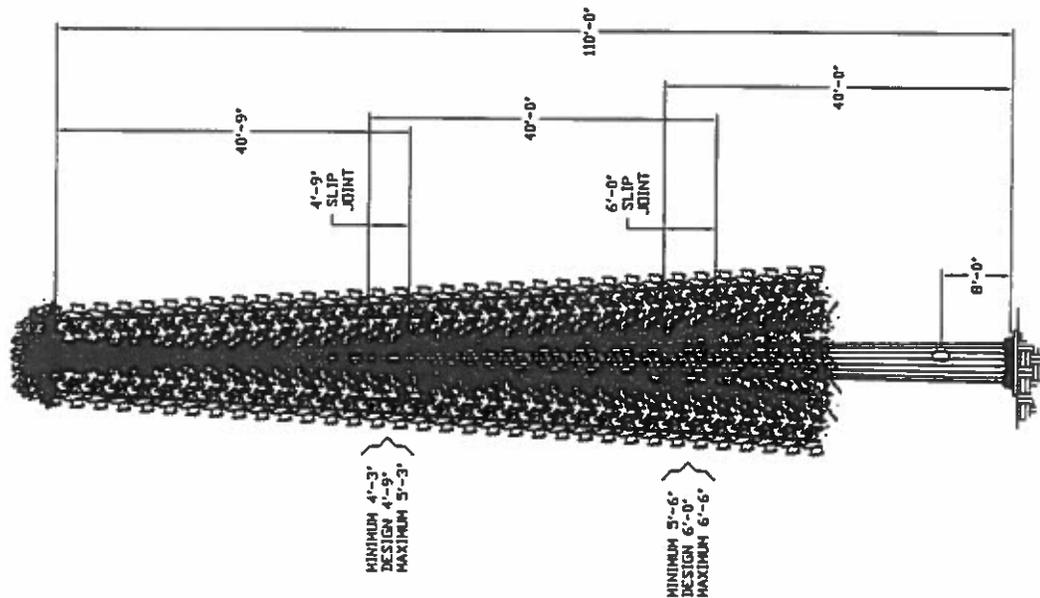
POLE DATA					
ELEV.	WALL THICKNESS	TAPER	TUBE LENGTH	TOP DIA.	BASE DIA.
69'-3"-110'	1/4"	313'/FT.	40'-9"	20"	32 3/4"
34'-74'	7/16"	313'/FT.	40'-0"	30 3/4"	43 5/16"
0'-40'	5/8"	313'/FT.	40'-0"	40 1/2"	53"

**ANCHOR BOLT DATA**

(30x) 2 1/4" # ASTH A615 GRADE 75 KSI  
 X 8'-0" LG ON A 61" # BOLT CIRCLE  
 TEMPLATE D.D. = #66" A36

**BASE PLATE DATA**

68" #, 2" THICK, ROUND  
 ASTH A572 50 KSI  
 (30x) 5/8" THICK X 18" TALL GUSSETS  
 ASTH A572 50 KSI



**NOTES:**

- POLE DESIGN ACCORDING TO TIA-222-G
- ANTENNA LOADS FROM MANUFACTURING SPECIFICATIONS.
- LATEST REVISIONS OF THE AMERICAN WELDING SOCIETY SHALL BE USED.
- ALL BELTS SHALL BE NOT-DIP GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO ASTM A123.
- ALL BELTS SHALL BE GALVANIZED ACCORDING TO THE STANDARD SPECIFICATION FOR ZINC COATING ON IRON AND STEEL HARDWARE, ASTM A153.
- BELTS IN TENSION ASTM A325  
 A. STEP BELTS ASTM A324  
 B. ORIENT V-NOTCH ON TOP OF TEMPLATE AND REFERENCE TAB ON BASE PLATE 8" O.  
 C. STAMP "EEI 97200" ON TOP OF BASE PLATE NEAR FLAT R14 WITH 1/2" STEEL STAMPS.  
 D. MONOPINE WILL BE PAINTED BROWN 0-10P000
- ALL ITEMS MUST BE INVENTORIED AT THE TIME OF DELIVERY TO THE JOB SITE/STORAGE FACILITY. ANY SHORTAGES REPORTED AFTER THIS DELIVERY WILL BE THE RESPONSIBILITY OF THE CONTRACTOR/OWNER.
- ALL STRUCTURAL COMPONENTS SHALL BE FULLY INSPECTED AND APPROVED BY THE CREW PRIOR TO INSTALLATION. REPAIRS AND/OR MISSING MATERIALS BECOME THE FINANCIAL RESPONSIBILITY OF THE CONTRACTOR IF EEI IS NOT NOTIFIED PRIOR TO INSTALLATION.
- ANY PROBLEMS THAT OCCUR WITH SCHEDULING, DELIVERY, OR MATERIALS SHALL BE REPORTED IMMEDIATELY TO ALLIED. EEI WILL BE NOTIFIED TO CORRECTIVE MEASURES. EEI WILL MAKE EVERY EFFORT TO REPAIR/REPLACE NECESSARY ITEMS IN AN EXPEDITED MANNER, AND/OR WILL PURSUE CORRECTIVE MEASURES IN THE MOST CONSIDERABLE WAY POSSIBLE AT OUR DISCRETION. MATERIALS AND/OR PRICES WILL BE PAID FOR BY THE RESPONSIBLE PARTY AT THE TIME OR EXPENSES INCURRED DUE TO DOWN TIME.

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF EHRESHMANN ENGINEERING, INC. AND SHALL NOT BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF MANUFACTURING ON SALE ON THESE WITHOUT WRITTEN PERMISSION.

SITE: MDF WINTER GOLF, OR  
 110" EHRESHMANN MONOPINE

EHRESHMANN ENGINEERING, INC.  
 CONSULTING ENGINEERS  
 4100 VEST ST. STREET  
 YAKHTON, SD 57078  
 (605) 665-7532  
 (605) 665-9780

DATE: 06/30/16  
 BY: BL  
 CHECKED: EA

JUL 97200 DWG # 97200E01 SHEET 01 OF

REGISTERED PROFESSIONAL ENGINEER  
 SEPTEMBER 11, 2008  
 ERIC JOHN HENNING  
 OREGON LICENSE # 71114  
 EXPIRATION DATE: 6/30/17

MATERIAL LIST

ITEM	QTY	GRADE	DESCRIPTION	7'-3"	27" HOOK
A	38	60	#11 BARS	7'-3"	27" HOOK
B	16	40	#4 BARS	6'-6"	4" ODDLY SPACED HOOKS STRAGED
C	30	75	2 1/4"Ø X 8'-0"	8'-0"	
D	76	60	#10 BARS (38) EACH WAY-TOP	29'-0"	
E	76	60	#10 BARS (38) EACH WAY-BOTTOM	29'-0"	

QUANTITIES SHOWN ABOVE ARE FOR ONE (1) MAT TYPE FOUNDATION.

NOTES:

- 1.) CONCRETE SHALL ATTAIN A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- 2.) REBAR SHALL HAVE 3" CONCRETE COVER AND SHALL CONFORM TO THE ASTM GRADES SPECIFIED.
- 3.) TIE AND SECURE ALL REBAR AND ANCHOR BOLTS BEFORE PLACING CONCRETE.
- 4.) BASE OF EXCAVATION SHALL BE CLEAN AND FREE OF ALL DEBRIS, AND COMPACTED PER SOILS REPORT WITH STRUCTURAL FILL.
- 5.) CHAMFER ALL EXPOSED CONCRETE EDGES 1" X 45°.
- 6.) ATTENTION SHALL BE GIVEN TO FINAL SITE DRAINAGE AND COMPACTION OF FILL PLACED AROUND THE FOUNDATION TO MINIMIZE SURFACE WATER INFILTRATION AROUND THE PIER.
- 7.) LATERAL REINFORCEMENT, CONSISTING OF TWO (2) HORIZONTAL TIES SHALL BE DISTRIBUTED WITHIN 5' OF THE TOP OF THE COLUMN PER ACI 318, SEC. 7.10.5.7.
- 8.) HOOK LENGTH AS SPECIFIED FOR VERTICAL BARS IS BACK SIDE OF BEND. MINIMUM STRAIGHT LENGTH OF HOOK AFTER BEND SHALL BE 12 X BAR DIAMETER.
- 9.) FOUNDATION DESIGN BASED ON SOILS REPORT BY ADAPT ENGINEERING, DATED MAY 27, 2016, PROJECT NO. DR16-20553-GEO, CONTRACTOR TO REVIEW SOILS REPORT FOR POSSIBLE SPECIAL INSTRUCTIONS BY GEOTECHNICAL ENGINEERS.
- 10.) 103.62 CUBIC YARDS CONCRETE REQUIRED THIS FOUNDATION.
- 11.) MONOPOLE BASE REACTIONS:  
MOMENT = 8,023 FT-KIPS  
SHEAR = 128 KIPS  
AXIAL = 41 KIPS

SITE: MDF WINTER GOLF, OR

110' EHRESMANN MONOPINE MAT TYPE FOUNDATION DESIGN

EHRESMANN ENGINEERING, INC.  
CONSULTING ENGINEERS  
4100 WEST 31ST STREET  
YANKTON, SD 57078  
(605) 665-7532  
(605) 665-9780

DATE: 06/30/16

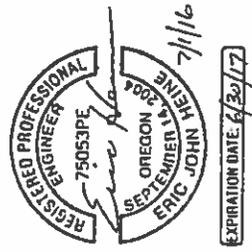
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CHECKED: EA

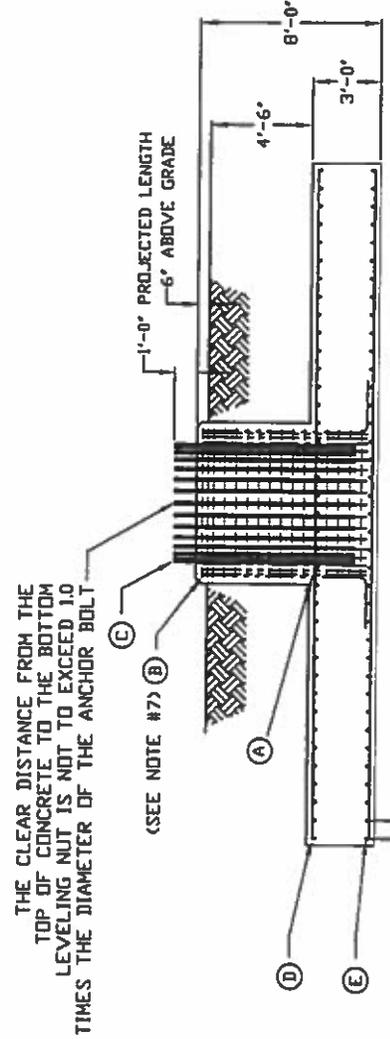
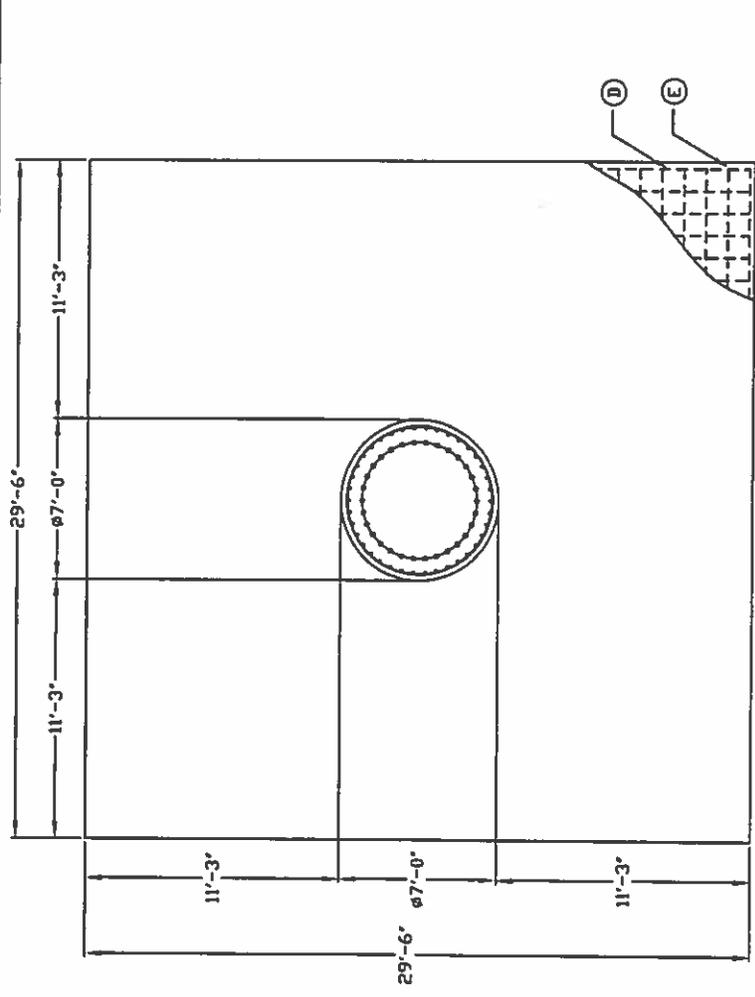
JOB #97200

PLG #97200E02

SHEET E02 OF



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THE CLEAR DISTANCE FROM THE TOP OF CONCRETE TO THE BOTTOM LEVELING NUT IS NOT TO EXCEED 10 TIMES THE DIAMETER OF THE ANCHOR BOLT

(SEE NOTE #7)

ELEVATION VIEW



# SPECIAL INSPECTION PROGRAM IN ACCORDANCE WITH DSSC 2014

VERIFICATION AND TESTING SHALL BE COMPLETED AS FOLLOWS:

- REINFORCED CONCRETE CONSTRUCTION (MONOPOLE FOUNDATION):
- VERIFY PROPER DIMENSION AND DEPTH OF FOUNDATION
  - INSPECTION OF REINFORCING STEEL TO INCLUDE VERIFICATION OF PROPER MATERIAL GRADE, QTY, SIZE AND PLACEMENT
  - VERIFY PROTECTION LENGTH OF ANCHOR BOLTS ABOVE TOP OF CONCRETE PRIOR TO CONCRETE SETTING
  - VERIFY USE OF APPROVED CONCRETE MIX DESIGN
  - VERIFY PROPER CONCRETE SLUMP AND AIR CONTENT BY TESTING AT THE TIME FRESH CONCRETE IS SAMPLED FOR STRENGTH TESTS
  - VERIFY PROPER PLACEMENT OF CONCRETE IN ACCORDANCE WITH APPROVED TECHNIQUES.
  - VERIFY CONCRETE COMPRESSIVE STRENGTH BY MEANS OF STANDARD TEST CYLINDERS TO BE BROKE AT 7 DAYS AND 28 DAYS MINIMUM

STRUCTURAL STEEL CONSTRUCTION (MONOPOLE STRUCTURES):

- INSPECTION OF HIGH-STRENGTH BOLTED CONNECTIONS:
- VERIFY IDENTIFICATION MARKINGS/GRADE, QTY AND SIZE OF BOLTS, NUTS & WASHERS
  - VISUALLY INSPECT SNUG-TIGHT BOLTED JOINTS TO VERIFY ALL PLIES IN CONTACT AND LOCK-WASHERS COMPRESSED
  - VERIFY PROPER TIGHTENING OF PRETENSIONED CONNECTIONS USING TURN-OF-NUT METHOD WITH MATCHMARKING

INSPECTION OF SHOP WELDING:

- VERIFY PROPER WELDING PROCEDURES IN ACCORDANCE WITH AWS D11
- VISUAL INSPECTION OF WELDS TO INSURE PROPER SIZE, LENGTH AND PLACEMENT

STRUCTURAL OBSERVATION:

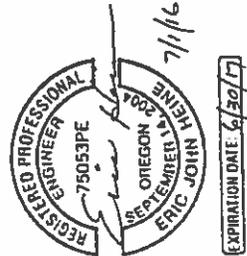
- VERIFY PROPER INSTALLATION/ERECTION OF MONOPOLE PER DESIGN SPECIFICATIONS UPON COMPLETION OF INSTALLATION. VERIFICATION TO INCLUDE THE FOLLOWING:
  - MINIMUM SLIP JOINT OVERLAPS
  - STRUCTURE PLUMB IN ACCORDANCE WITH TIA-222-G
  - MAXIMUM CLEAR DISTANCE BETWEEN TOP OF FOUNDATION AND LEVELING NUT

VERIFICATION OF ALL ITEMS AS OUTLINED ABOVE SHALL BE BASED ON DESIGN SPECIFICATIONS AND INSTALLATION DETAILS AS COMPLETED BY EHRESMANN ENGINEERING, INC. JO 497200.

SPECIAL INSPECTOR SHALL IDENTIFY AND DOCUMENT RESULTS OF ALL INSPECTIONS AND MATERIAL TESTING AS OUTLINED. INSPECTION REPORTS SHALL BE SUBMITTED AS SOON AS POSSIBLE UPON COMPLETION OF INSPECTION BUT NO MORE THAN 5 WORKING DAYS UNLESS OTHERWISE AGREED BY PROJECT OWNER.

DEVIATION OR NON-COMPLIANCE SHALL BE CORRECTED BY CONTRACTOR. ANY DEVIATIONS NOT CORRECTED ARE TO BE CLEARLY IDENTIFIED IN FINAL REPORTS AND EHRESMANN ENGINEERING, INC. SHOULD BE NOTIFIED IMMEDIATELY FOR CONSULTATION. THE PROJECT OWNER OR AN AGENT OF THE OWNER IS RESPONSIBLE FOR SCHEDULING AND FUNDING ALL SPECIAL INSPECTION SERVICES.

SPECIAL INSPECTIONS:		
SPECIAL INSPECTIONS IN ACCORDANCE WITH DSSC 2014 SECTION 1705.		
	CONTINUOUS	PERIODIC
REINFORCED CONCRETE:		
PIER/PAD FOUNDATION	X	X
REINFORCING STEEL		X
CONCRETE PLACEMENT	X	X
SAMPLING & TESTING		X
BOLTS IN CONCRETE		X
STRUCTURAL STEEL:		
HIGH-STRENGTH BOLTS		X
GROOVE WELDS	X	
MULTIPASS FILLET WELDS	X	
SINGLE PASS FILLET WELD > 3/16"	X	
SINGLE PASS FILLET WELD < 3/16"		X
STRUCTURAL OBSERVATION:		
YES		X



SITE: MDF WINTER GOLF, DR

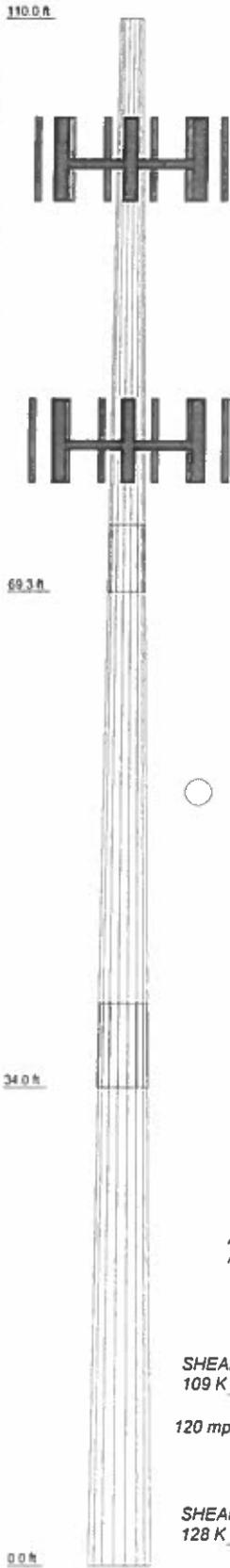
110' EHRESMANN MONOPIRE  
SPECIAL INSPECTION PROGRAM

EHRESMANN ENGINEERING, INC.  
CONSULTING ENGINEERS  
4400 WEST 31st. STREET  
YANKTON, SD 57078  
(605) 665-7532  
(605) 665-9780

DATE: 06/30/16  
BY: DL  
CHECKED: EA

JO 97200 DWG # 97200SI SHFSI 01

Section	1	2	3
Length (ft)	40.75	40.00	40.00
Number of Sides	18	18	18
Thickness (in)	0.2500	0.4375	0.6250
Socket Length (ft)	4.75	6.00	40.5011
Top Dia (in)	20.0000	30.7506	53.0017
Bot Dia (in)	32.7350	43.2512	12.6
Grade	A572-65	A572-65	
Weight (K)	2.9	7.0	22.5



**DESIGNED APPURTENANCE LOADING**

TYPE	ELEVATION	TYPE	ELEVATION
Pine Branches (Branch Tip EL. 114)	110 - 100	(3) 98.7" x 12" x 7.1" Panel Antenna	80
(3) 98.7" x 12" x 7.1" Panel Antenna	100	(3) RRU RADIO 19.7" x 17" x 7.2"	80
(3) 98.7" x 12" x 7.1" Panel Antenna	100	(3) RRU RADIO 19.7" x 17" x 7.2"	80
(3) 98.7" x 12" x 7.1" Panel Antenna	100	(3) RRU RADIO 19.7" x 17" x 7.2"	80
(3) RRU RADIO 19.7" x 17" x 7.2"	100	Commscope RCMDC-3315-PF-48	80
(3) RRU RADIO 19.7" x 17" x 7.2"	100	Commscope RCMDC-3315-PF-48	80
Commscope RCMDC-3315-PF-48	100	Pine Branches	80 - 60
Commscope RCMDC-3315-PF-48	100	(3) 5' T-arms	80
Commscope RCMDC-3315-PF-48	100	(3) 98.7" x 12" x 7.1" Panel Antenna	80
Pine Branches	100 - 80	Pine Branches	60 - 40
(3) 5' T-arms	100	Pine Branches	40 - 20
(3) 98.7" x 12" x 7.1" Panel Antenna	80		

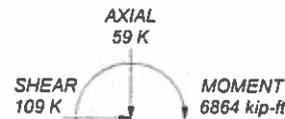
**MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

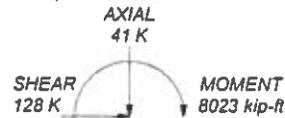
**TOWER DESIGN NOTES**

1. Tower is located in Jackson County, Oregon.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 120 mph basic wind with 0.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. Weld together tower sections have slip joint connections.
9. Connections use galvanized A325 bolts, nuts and locking devices. Installation per TIA/EIA-222 and AISC Specifications.
10. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
11. Welds are fabricated with ER-70S-6 electrodes.
12. TOWER RATING: 98%

ALL REACTIONS ARE FACTORED



120 mph WIND - 0.5000 in ICE



TORQUE 0 kip-ft  
REACTIONS - 120 mph WIND

<b>Ehresmann Engineering, Inc.</b>		Job: <b>MDF WINTER GOLF, OR</b>		97200-16
4400 W. 31st Street		Project: <b>110 FT EHRESMANN MONOPINE</b>		
Yankton, SD		Client: <b>VERIZON WIRELESS</b>	Drawn by: <b>EJH</b>	App'd
-7532		Code: <b>TIA-222-G</b>	Date: <b>06/29/16</b>	Scale: <b>NTS</b>
Page 218	3780	Path:		Dwg No. <b>E-1</b>

<b>tnxTower</b>  <b>Ehresmann Engineering, Inc.</b> 4400 W. 31st Street Yankton, SD Phone: (605) 665-7532 FAX: (605) 665-9780	<b>Job</b> MDF WINTER GOLF, OR 97200-16	<b>Page</b> 1 of 19
	<b>Project</b> 110 FT EHRESMANN MONOPINE	<b>Date</b> 16:55:00 06/29/16
	<b>Client</b> VERIZON WIRELESS	<b>Designed by</b> EJH

## Tower Input Data

There is a pole section.

This tower is designed using the TIA-222-G standard.

The following design criteria apply:

Tower is located in Jackson County, Oregon.

Basic wind speed of 120 mph.

Structure Class II.

Exposure Category C.

Topographic Category I.

Crest Height 0.00 ft.

Nominal ice thickness of 0.5000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 120 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

Weld together tower sections have slip joint connections..

Connections use galvanized A325 bolts, nuts and locking devices. Installation per TIA/EIA-222 and AISC Specifications..

Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards..

Welds are fabricated with ER-70S-6 electrodes..

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

## Options

<ul style="list-style-type: none"> <li>Consider Moments - Legs</li> <li>Consider Moments - Horizontals</li> <li>Consider Moments - Diagonals</li> <li>Use Moment Magnification</li> <li>√ Use Code Stress Ratios</li> <li>√ Use Code Safety Factors - Guys</li> <li>Escalate Ice</li> <li>Always Use Max Kz</li> <li>Use Special Wind Profile</li> <li>Include Bolts In Member Capacity</li> <li>√ Leg Bolts Are At Top Of Section</li> <li>Secondary Horizontal Braces Leg</li> <li>Use Diamond Inner Bracing (4 Sided)</li> <li>SR Members Have Cut Ends</li> <li>SR Members Are Concentric</li> </ul>	<ul style="list-style-type: none"> <li>Distribute Leg Loads As Uniform</li> <li>Assume Legs Pinned</li> <li>Assume Rigid Index Plate</li> <li>Use Clear Spans For Wind Area</li> <li>Use Clear Spans For KL/r</li> <li>Retension Guys To Initial Tension</li> <li>Bypass Mast Stability Checks</li> <li>Use Azimuth Dish Coefficients</li> <li>√ Project Wind Area of Appurt.</li> <li>Autocalc Torque Arm Areas</li> <li>Add IBC 6D+W Combination</li> <li>Sort Capacity Reports By Component</li> <li>Triangulate Diamond Inner Bracing</li> <li>Treat Feed Line Bundles As Cylinder</li> </ul>	<ul style="list-style-type: none"> <li>Use ASCE 10 X-Brace Ly Rules</li> <li>Calculate Redundant Bracing Forces</li> <li>Ignore Redundant Members in FEA</li> <li>SR Leg Bolts Resist Compression</li> <li>√ All Leg Panels Have Same Allowable</li> <li>Offset Girt At Foundation</li> <li>Consider Feed Line Torque</li> <li>√ Include Angle Block Shear Check</li> <li>Use TIA-222-G Bracing Resist Exemption</li> <li>Use TIA-222-G Tension Splice Exemption</li> <li style="text-align: center;"><b>Poles</b></li> <li>Include Shear-Torsion Interaction</li> <li>Always Use Sub-Critical Flow</li> <li>Use Top Mounted Sockets</li> </ul>
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## Tapered Pole Section Geometry

<b>tnxTower</b>  <b>Ehresmann Engineering, Inc.</b> 4400 W. 31st Street Yankton, SD Phone: (605) 665-7532 FAX: (605) 665-9780	<b>Job</b> MDF WINTER GOLF, OR 97200-16	<b>Page</b> 2 of 19
	<b>Project</b> 110 FT EHRESMANN MONOPINE	<b>Date</b> 16:55:00 06/29/16
	<b>Client</b> VERIZON WIRELESS	<b>Designed by</b> EJH

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	110.00-69.25	40.75	4.75	18	20.0000	32.7350	0.2500	1.0000	A572-65 (65 ksi)
L2	69.25-34.00	40.00	6.00	18	30.7506	43.2512	0.4375	1.7500	A572-65 (65 ksi)
L3	34.00-0.00	40.00		18	40.5011	53.0017	0.6250	2.5000	A572-65 (65 ksi)

### Tapered Pole Properties

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	I/Q in <sup>2</sup>	w in	w/t
L1	20.3085	15.6716	772.2994	7.0112	10.1600	76.0137	1545.6150	7.8373	3.0800	12.32
	33.2400	25.7768	3436.6317	11.5322	16.6294	206.6602	6877.7855	12.8909	5.3214	21.285
L2	32.7323	42.0935	4886.6522	10.7611	15.6213	312.8202	9779.7344	21.0507	4.6421	10.611
	43.9184	59.4521	13767.9623	15.1989	21.9716	626.6256	27554.0409	29.7317	6.8422	15.639
L3	43.0299	79.1042	15891.3780	14.1560	20.5745	772.3805	31803.6662	39.5596	6.0282	9.645
	53.8193	103.9023	36011.2723	18.5937	26.9249	1337.4731	72069.9292	51.9610	8.2283	13.165

Tower Elevation ft	Gusset Area (per face) ft <sup>2</sup>	Gusset Thickness in	Gusset Grade	Adjust. Factor A <sub>1</sub>	Adjust. Factor A <sub>2</sub>	Weight Mult	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 110.00-69.25				1	1.03	1.01			
L2 69.25-34.00				1	1.03	1.01			
L3 34.00-0.00				1	1.03	1.01			

### Monopole Base Plate Data

#### Base Plate Data

Base plate is square	
Base plate is grouted	
Anchor bolt grade	A615-75
Anchor bolt size	2.2500 in
Number of bolts	30
Embedment length	72.0000 in
f <sub>c</sub>	4 ksi
Grout space	4.5000 in
Base plate grade	A572-50
Base plate thickness	2.0000 in
Bolt circle diameter	61.0000 in
Outer diameter	68.0000 in
Inner diameter	46.0000 in
Base plate type	Stiffened Plate
Bolts per stiffener	1
Stiffener thickness	0.6250 in
Stiffener height	10.0000 in

<b>tnxTower</b>  <b>Ehresmann Engineering, Inc.</b> 4400 W. 31st Street Yankton, SD Phone: (605) 665-7532 FAX: (605) 665-9780	<b>Job</b> MDF WINTER GOLF, OR 97200-16	<b>Page</b> 3 of 19
	<b>Project</b> 110 FT EHRESMANN MONOPINE	<b>Date</b> 16:55:00 06/29/16
	<b>Client</b> VERIZON WIRELESS	<b>Designed by</b> EJH

**Feed Line/Linear Appurtenances - Entered As Area**

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number	C <sub>v</sub> A <sub>v</sub>		Weight
						ft <sup>2</sup> /ft	plf	
LDF5-50A (7/8 FOAM)	C	No	Inside Pole	100.00 - 0.00	1	No Ice	0.00	0.33
						1/2" Ice	0.00	0.33
Hybrid cable	C	No	Inside Pole	100.00 - 0.00	4	No Ice	0.00	0.82
						1/2" Ice	0.00	0.82
LDF5-50A (7/8 FOAM)	C	No	Inside Pole	80.00 - 0.00	1	No Ice	0.00	0.33
						1/2" Ice	0.00	0.33
Hybrid cable	C	No	Inside Pole	80.00 - 0.00	4	No Ice	0.00	0.82
						1/2" Ice	0.00	0.82

**Feed Line/Linear Appurtenances Section Areas**

Tower Section	Tower Elevation ft	Face	A <sub>R</sub>	A <sub>F</sub>	C <sub>v</sub> A <sub>v</sub> In Face	C <sub>v</sub> A <sub>v</sub> Out Face	Weight
			ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>	K
L1	110.00-69.25	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.15
L2	69.25-34.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.25
L3	34.00-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.25

**Feed Line/Linear Appurtenances Section Areas - With Ice**

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub>	A <sub>F</sub>	C <sub>v</sub> A <sub>v</sub> In Face	C <sub>v</sub> A <sub>v</sub> Out Face	Weight
				ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>	K
L1	110.00-69.25	A	1.103	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.15
L2	69.25-34.00	A	1.045	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.25
L3	34.00-0.00	A	0.935	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.25

**Shielding Factor Ka**

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev	K <sub>v</sub> No Ice	K <sub>v</sub> Ice
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**Discrete Tower Loads**

<b>tnxTower</b>  <b>Ehresmann Engineering, Inc.</b> 4400 W. 31st Street Yankton, SD Phone: (605) 665-7532 FAX: (605) 665-9780	<b>Job</b>		MDF WINTER GOLF, OR		97200-16	<b>Page</b>		4 of 19	
	<b>Project</b>		110 FT EHRESMANN MONOPINE				<b>Date</b>		16:55:00 06/29/16
	<b>Client</b>		VERIZON WIRELESS				<b>Designed by</b>		EJH

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment	Placement  ft	C <sub>4</sub> A <sub>1</sub> Front  ft <sup>2</sup>	C <sub>4</sub> A <sub>1</sub> Side  ft <sup>2</sup>	Weight  K
(3) 5' T-arms	C	None		0.0000	100.00	No Ice 17.00 1/2" Ice 21.00	17.00 21.00	1.50 2.00
(3) 98.7" x 12" x 7.1" Panel Antenna	A	From Face	3.87 0.00 0.00	0.0000	100.00	No Ice 11.85 1/2" Ice 12.48	7.93 8.54	0.06 0.13
(3) 98.7" x 12" x 7.1" Panel Antenna	B	From Face	3.87 0.00 0.00	0.0000	100.00	No Ice 11.85 1/2" Ice 12.48	7.93 8.54	0.06 0.13
(3) 98.7" x 12" x 7.1" Panel Antenna	C	From Face	3.87 0.00 0.00	0.0000	100.00	No Ice 11.85 1/2" Ice 12.48	7.93 8.54	0.06 0.13
(3) RRU RADIO 19.7' x 17' x 7.2"	A	From Face	3.87 0.00 0.00	0.0000	100.00	No Ice 2.79 1/2" Ice 3.00	1.19 1.34	0.03 0.05
(3) RRU RADIO 19.7' x 17' x 7.2"	B	From Face	3.87 0.00 0.00	0.0000	100.00	No Ice 2.79 1/2" Ice 3.00	1.19 1.34	0.03 0.05
(3) RRU RADIO 19.7' x 17' x 7.2"	C	From Face	3.87 0.00 0.00	0.0000	100.00	No Ice 2.79 1/2" Ice 3.00	1.19 1.34	0.03 0.05
Commscope RCMDC-3315-PF-48	A	From Face	0.00 0.00 0.00	0.0000	100.00	No Ice 3.71 1/2" Ice 3.95	2.19 2.39	0.03 0.06
Commscope RCMDC-3315-PF-48	B	From Face	0.00 0.00 0.00	0.0000	100.00	No Ice 3.71 1/2" Ice 3.95	2.19 2.39	0.03 0.06
Commscope RCMDC-3315-PF-48	C	From Face	0.00 0.00 0.00	0.0000	100.00	No Ice 3.71 1/2" Ice 3.95	2.19 2.39	0.03 0.06
(3) 5' T-arms	C	None		0.0000	80.00	No Ice 17.00 1/2" Ice 21.00	17.00 21.00	1.50 2.00
(3) 98.7" x 12" x 7.1" Panel Antenna	A	From Face	3.87 0.00 0.00	0.0000	80.00	No Ice 11.85 1/2" Ice 12.48	7.93 8.54	0.06 0.13
(3) 98.7" x 12" x 7.1" Panel Antenna	B	From Face	3.87 0.00 0.00	0.0000	80.00	No Ice 11.85 1/2" Ice 12.48	7.93 8.54	0.06 0.13
(3) 98.7" x 12" x 7.1" Panel Antenna	C	From Face	3.87 0.00 0.00	0.0000	80.00	No Ice 11.85 1/2" Ice 12.48	7.93 8.54	0.06 0.13
(3) RRU RADIO 19.7' x 17' x 7.2"	A	From Face	3.87 0.00 0.00	0.0000	80.00	No Ice 2.79 1/2" Ice 3.00	1.19 1.34	0.03 0.05
(3) RRU RADIO 19.7' x 17' x 7.2"	B	From Face	3.87 0.00 0.00	0.0000	80.00	No Ice 2.79 1/2" Ice 3.00	1.19 1.34	0.03 0.05
(3) RRU RADIO 19.7' x 17' x 7.2"	C	From Face	3.87 0.00 0.00	0.0000	80.00	No Ice 2.79 1/2" Ice 3.00	1.19 1.34	0.03 0.05
Commscope RCMDC-3315-PF-48	A	From Face	0.00 0.00 0.00	0.0000	80.00	No Ice 3.71 1/2" Ice 3.95	2.19 2.39	0.03 0.06
Commscope RCMDC-3315-PF-48	B	From Face	0.00 0.00 0.00	0.0000	80.00	No Ice 3.71 1/2" Ice 3.95	2.19 2.39	0.03 0.06
Commscope	C	From Face	0.00	0.0000	80.00	No Ice 3.71	2.19	0.03

<b>tnxTower</b>  <b>Ehresmann Engineering, Inc.</b> 4400 W. 31st Street Yankton, SD Phone: (605) 665-7532 FAX: (605) 665-9780	<b>Job</b> MDF WINTER GOLF, OR 97200-16	<b>Page</b> 5 of 19
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	<b>Client</b> VERIZON WIRELESS	<b>Designed by</b> EJH

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment	Placement ft	C <sub>v</sub> A <sub>1</sub> Front ft <sup>2</sup>	C <sub>v</sub> A <sub>1</sub> Side ft <sup>2</sup>	Weight K
RCMDC-3315-PF-48			0.00 0.00		1/2" Ice	3.95	2.39	0.06
Pine Branches	C	None		0.0000	40.00 - 20.00	No Ice 1/2" Ice	392.50 437.50	1.55 2.05
Pine Branches	C	None		0.0000	60.00 - 40.00	No Ice 1/2" Ice	303.62 343.62	1.19 1.69
Pine Branches	C	None		0.0000	80.00 - 60.00	No Ice 1/2" Ice	280.14 315.14	1.16 1.66
Pine Branches	C	None		0.0000	100.00 - 80.00	No Ice 1/2" Ice	170.25 200.25	0.84 1.35
Pine Branches (Branch Tip EL. 114')	C	None		0.0000	110.00 - 100.00	No Ice 1/2" Ice	92.33 112.33	0.45 0.95

### Tower Pressures - No Ice

$$G_H = 1.100$$

Section Elevation ft	z ft	K <sub>z</sub>	q <sub>z</sub> psf	A <sub>G</sub> ft <sup>2</sup>	F a c e A <sub>F</sub> ft <sup>2</sup>	A <sub>R</sub> ft <sup>2</sup>	A <sub>W</sub> ft <sup>2</sup>	Leg %	C <sub>v</sub> A <sub>1</sub> In Face ft <sup>2</sup>	C <sub>v</sub> A <sub>1</sub> Out Face ft <sup>2</sup>
L1 110.00-69.25	88.23	1.233	43	90.921	A 0.000 B 0.000 C 0.000	93.649	93.649	100.00 100.00 100.00	0.000 0.000 0.000	0.000 0.000 0.000
L2 69.25-34.00	51.09	1.099	38	112.581	A 0.000 B 0.000 C 0.000	115.958	115.958	100.00 100.00 100.00	0.000 0.000 0.000	0.000 0.000 0.000
L3 34.00-0.00	16.83	0.87	31	137.203	A 0.000 B 0.000 C 0.000	141.319	141.319	100.00 100.00 100.00	0.000 0.000 0.000	0.000 0.000 0.000

### Tower Pressure - With Ice

$$G_H = 1.100$$

Section Elevation ft	z ft	K <sub>z</sub>	q <sub>z</sub> psf	t <sub>z</sub> in	A <sub>G</sub> ft <sup>2</sup>	F a c e A <sub>F</sub> ft <sup>2</sup>	A <sub>R</sub> ft <sup>2</sup>	A <sub>W</sub> ft <sup>2</sup>	Leg %	C <sub>v</sub> A <sub>1</sub> In Face ft <sup>2</sup>	C <sub>v</sub> A <sub>1</sub> Out Face ft <sup>2</sup>
L1 110.00-69.25	88.23	1.233	43	1.1033	98.414	A 0.000 B 0.000 C 0.000	101.367	101.367	100.00 100.00 100.00	0.000 0.000 0.000	0.000 0.000 0.000
L2 69.25-34.00	51.09	1.099	38	1.0447	119.063	A 0.000 B 0.000 C 0.000	122.635	122.635	100.00 100.00 100.00	0.000 0.000 0.000	0.000 0.000 0.000
L3 34.00-0.00	16.83	0.87	31	0.9349	143.123	A 0.000 B 0.000	147.417	147.417	100.00 100.00	0.000 0.000	0.000 0.000

<b>inxTower</b>  <b>Ehresmann Engineering, Inc.</b> 4400 W. 31st Street Yankton, SD Phone: (605) 665-7532 FAX: (605) 665-9780	<b>Job</b> MDF WINTER GOLF, OR 97200-16	<b>Page</b> 6 of 19
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Section Elevation	z	K <sub>Z</sub>	q <sub>z</sub>	t <sub>z</sub>	A <sub>G</sub>	F a c e	A <sub>F</sub>	A <sub>R</sub>	A <sub>leg</sub>	Leg %	C <sub>d</sub> A <sub>f</sub> In Face	C <sub>d</sub> A <sub>f</sub> Out Face
ft	ft		psf	in	ft <sup>2</sup>	e	ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>
						C	0.000	147.417		100.00	0.000	0.000

**Tower Pressure - Service**

$G_H = 1.100$

Section Elevation	z	K <sub>Z</sub>	q <sub>z</sub>	A <sub>G</sub>	F a c e	A <sub>F</sub>	A <sub>R</sub>	A <sub>leg</sub>	Leg %	C <sub>d</sub> A <sub>f</sub> In Face	C <sub>d</sub> A <sub>f</sub> Out Face
ft	ft		psf	ft <sup>2</sup>	e	ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>
L1 110.00-69.25	88.23	1.233	10	90.921	A	0.000	93.649	93.649	100.00	0.000	0.000
					B	0.000	93.649		100.00	0.000	0.000
					C	0.000	93.649		100.00	0.000	0.000
L2 69.25-34.00	51.09	1.099	9	112.581	A	0.000	115.958	115.958	100.00	0.000	0.000
					B	0.000	115.958		100.00	0.000	0.000
					C	0.000	115.958		100.00	0.000	0.000
L3 34.00-0.00	16.83	0.87	7	137.203	A	0.000	141.319	141.319	100.00	0.000	0.000
					B	0.000	141.319		100.00	0.000	0.000
					C	0.000	141.319		100.00	0.000	0.000

**Tower Forces - No Ice - Wind Normal To Face**

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	K	K	e			psf			ft <sup>2</sup>	K	plf	
L1 110.00-69.25	0.15	2.90	A	1	0.65	43	1	1	93.649	2.89	70.82	C
			B	1	0.65		1	1	93.649			
			C	1	0.65		1	1	93.649			
L2 69.25-34.00	0.25	6.98	A	1	0.65	38	1	1	115.958	3.18	90.16	C
			B	1	0.65		1	1	115.958			
			C	1	0.65		1	1	115.958			
L3 34.00-0.00	0.25	12.58	A	1	0.65	31	1	1	141.319	3.17	93.28	C
			B	1	0.65		1	1	141.319			
			C	1	0.65		1	1	141.319			
Sum Weight	0.65	22.46						OTM	470.34 kip-ft	9.24		

**Tower Forces - No Ice - Wind 60 To Face**

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	K	K	e			psf			ft <sup>2</sup>	K	plf	
L1 110.00-69.25	0.15	2.90	A	1	0.65	43	1	1	93.649	2.89	70.82	C
			B	1	0.65		1	1	93.649			
			C	1	0.65		1	1	93.649			

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Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C <sub>F</sub>	q <sub>z</sub> psf	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub> ft <sup>2</sup>	F K	w plf	Ctrl. Face
L2 69.25-34.00	0.25	6.98	A	1	0.65	38	1	1	115.958	3.18	90.16	C
			B	1	0.65		1	1	115.958			
			C	1	0.65		1	1	115.958			
L3 34.00-0.00	0.25	12.58	A	1	0.65	31	1	1	141.319	3.17	93.28	C
			B	1	0.65		1	1	141.319			
			C	1	0.65		1	1	141.319			
Sum Weight	0.65	22.46						OTM	470.34 kip-ft	9.24		

### Tower Forces - No Ice - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C <sub>F</sub>	q <sub>z</sub> psf	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub> ft <sup>2</sup>	F K	w plf	Ctrl. Face
L1 110.00-69.25	0.15	2.90	A	1	0.65	43	1	1	93.649	2.89	70.82	C
			B	1	0.65		1	1	93.649			
			C	1	0.65		1	1	93.649			
L2 69.25-34.00	0.25	6.98	A	1	0.65	38	1	1	115.958	3.18	90.16	C
			B	1	0.65		1	1	115.958			
			C	1	0.65		1	1	115.958			
L3 34.00-0.00	0.25	12.58	A	1	0.65	31	1	1	141.319	3.17	93.28	C
			B	1	0.65		1	1	141.319			
			C	1	0.65		1	1	141.319			
Sum Weight	0.65	22.46						OTM	470.34 kip-ft	9.24		

### Tower Forces - With Ice - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C <sub>F</sub>	q <sub>z</sub> psf	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub> ft <sup>2</sup>	F K	w plf	Ctrl. Face
L1 110.00-69.25	0.15	4.43	A	1	1.2	43	1	1	101.367	5.77	141.51	C
			B	1	1.2		1	1	101.367			
			C	1	1.2		1	1	101.367			
L2 69.25-34.00	0.25	8.74	A	1	1.2	38	1	1	122.635	6.21	176.03	C
			B	1	1.2		1	1	122.635			
			C	1	1.2		1	1	122.635			
L3 34.00-0.00	0.25	14.49	A	1	1.2	31	1	1	147.417	6.11	179.63	C
			B	1	1.2		1	1	147.417			
			C	1	1.2		1	1	147.417			
Sum Weight	0.65	27.66						OTM	928.57 kip-ft	18.08		

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**Tower Forces - With Ice - Wind 60 To Face**

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C <sub>F</sub>	q <sub>z</sub> psf	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub> ft <sup>2</sup>	F K	w plf	Ctrl. Face
L1 110 00-69 25	0.15	4.43	A		1.2	43			101.367	5.77	141.51	C
			B		1.2			101.367				
			C		1.2			101.367				
L2 69 25-34.00	0.25	8.74	A		1.2	38			122.635	6.21	176.03	C
			B		1.2			122.635				
			C		1.2			122.635				
L3 34 00-0 00	0.25	14.49	A		1.2	31			147.417	6.11	179.63	C
			B		1.2			147.417				
			C		1.2			147.417				
Sum Weight.	0.65	27.66						OTM	928.57 kip-ft	18.08		

**Tower Forces - With Ice - Wind 90 To Face**

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C <sub>F</sub>	q <sub>z</sub> psf	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub> ft <sup>2</sup>	F K	w plf	Ctrl. Face
L1 110 00-69 25	0.15	4.43	A		1.2	43			101.367	5.77	141.51	C
			B		1.2			101.367				
			C		1.2			101.367				
L2 69 25-34.00	0.25	8.74	A		1.2	38			122.635	6.21	176.03	C
			B		1.2			122.635				
			C		1.2			122.635				
L3 34 00-0 00	0.25	14.49	A		1.2	31			147.417	6.11	179.63	C
			B		1.2			147.417				
			C		1.2			147.417				
Sum Weight	0.65	27.66						OTM	928.57 kip-ft	18.08		

**Tower Forces - Service - Wind Normal To Face**

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C <sub>F</sub>	q <sub>z</sub> psf	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub> ft <sup>2</sup>	F K	w plf	Ctrl. Face
L1 110 00-69 25	0.15	2.90	A		0.65	10			93.649	0.65	15.84	C
			B		0.65			93.649				
			C		0.65			93.649				
L2 69 25-34.00	0.25	6.98	A		0.65	9			115.958	0.71	20.17	C
			B		0.65			115.958				
			C		0.65			115.958				
L3 34 00-0 00	0.25	12.58	A		0.65	7			141.319	0.71	20.86	C
			B		0.65			141.319				
			C		0.65			141.319				
Sum Weight	0.65	22.46						OTM	105.21	2.07		

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Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	K	K				psf			ft <sup>2</sup>	K	plf	

**Tower Forces - Service - Wind 60 To Face**

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	K	K				psf			ft <sup>2</sup>	K	plf	
L1 110 00-69.25	0.15	2.90	A	1	0.65	10	1	1	93.649	0.65	15.84	C
			B	1	0.65		1	1	93.649			
			C	1	0.65		1	1	93.649			
L2 69 25-34.00	0.25	6.98	A	1	0.65	9	1	1	115.958	0.71	20.17	C
			B	1	0.65		1	1	115.958			
			C	1	0.65		1	1	115.958			
L3 34 00-0.00	0.25	12.58	A	1	0.65	7	1	1	141.319	0.71	20.86	C
			B	1	0.65		1	1	141.319			
			C	1	0.65		1	1	141.319			
Sum Weight	0.65	22.46						OTM	105.21 kip-ft	2.07		

**Tower Forces - Service - Wind 90 To Face**

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	K	K				psf			ft <sup>2</sup>	K	plf	
L1 110 00-69.25	0.15	2.90	A	1	0.65	10	1	1	93.649	0.65	15.84	C
			B	1	0.65		1	1	93.649			
			C	1	0.65		1	1	93.649			
L2 69 25-34.00	0.25	6.98	A	1	0.65	9	1	1	115.958	0.71	20.17	C
			B	1	0.65		1	1	115.958			
			C	1	0.65		1	1	115.958			
L3 34 00-0.00	0.25	12.58	A	1	0.65	7	1	1	141.319	0.71	20.86	C
			B	1	0.65		1	1	141.319			
			C	1	0.65		1	1	141.319			
Sum Weight	0.65	22.46						OTM	105.21 kip-ft	2.07		

**Force Totals**

Load Case	Vertical Forces	Sum of Forces X	Sum of Forces Z	Sum of Overturning Moments, M <sub>x</sub>	Sum of Overturning Moments, M <sub>z</sub>	Sum of Torques
	K	K	K	kip-ft	kip-ft	kip-ft

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Load Case	Vertical Forces K	Sum of Forces X K	Sum of Forces Z K	Sum of Overturning Moments, M <sub>x</sub> kip-ft	Sum of Overturning Moments, M <sub>y</sub> kip-ft	Sum of Torques kip-ft
Leg Weight	22.46					
Bracing Weight	0.00					
Total Member Self-Weight	22.46			0.00	0.00	
Total Weight	33.10			0.00	0.00	
Wind 0 deg - No Ice		0.00	-80.13	-4937.54	0.00	0.00
Wind 30 deg - No Ice		40.06	-69.39	-4276.03	-2468.77	0.00
Wind 60 deg - No Ice		69.39	-40.06	-2468.77	-4276.03	0.00
Wind 90 deg - No Ice		80.13	0.00	0.00	-4937.54	0.00
Wind 120 deg - No Ice		69.39	40.06	2468.77	-4276.03	0.00
Wind 150 deg - No Ice		40.06	69.39	4276.03	-2468.77	0.00
Wind 180 deg - No Ice		0.00	80.13	4937.54	0.00	0.00
Wind 210 deg - No Ice		-40.06	69.39	4276.03	2468.77	0.00
Wind 240 deg - No Ice		-69.39	40.06	2468.77	4276.03	0.00
Wind 270 deg - No Ice		-80.13	0.00	0.00	4937.54	0.00
Wind 300 deg - No Ice		-69.39	-40.06	-2468.77	4276.03	0.00
Wind 330 deg - No Ice		-40.06	-69.39	-4276.03	2468.77	0.00
Member Ice	5.20					
Total Weight Ice	50.00			0.00	0.00	
Wind 0 deg - Ice		0.00	-108.65	-6712.69	0.00	0.00
Wind 30 deg - Ice		54.33	-94.09	-5813.36	-3356.35	0.00
Wind 60 deg - Ice		94.09	-54.33	-3356.35	-5813.36	0.00
Wind 90 deg - Ice		108.65	0.00	0.00	-6712.69	0.00
Wind 120 deg - Ice		94.09	54.33	3356.35	-5813.36	0.00
Wind 150 deg - Ice		54.33	94.09	5813.36	-3356.35	0.00
Wind 180 deg - Ice		0.00	108.65	6712.69	0.00	0.00
Wind 210 deg - Ice		-54.33	94.09	5813.36	3356.35	0.00
Wind 240 deg - Ice		-94.09	54.33	3356.35	5813.36	0.00
Wind 270 deg - Ice		-108.65	0.00	0.00	6712.69	0.00
Wind 300 deg - Ice		-94.09	-54.33	-3356.35	5813.36	0.00
Wind 330 deg - Ice		-54.33	-94.09	-5813.36	3356.35	0.00
Total Weight	33.10			0.00	0.00	
Wind 0 deg - Service		0.00	-17.92	-1104.45	0.00	0.00
Wind 30 deg - Service		8.96	-15.52	-956.48	-552.22	0.00
Wind 60 deg - Service		15.52	-8.96	-552.22	-956.48	0.00
Wind 90 deg - Service		17.92	0.00	0.00	-1104.45	0.00
Wind 120 deg - Service		15.52	8.96	552.22	-956.48	0.00
Wind 150 deg - Service		8.96	15.52	956.48	-552.22	0.00
Wind 180 deg - Service		0.00	17.92	1104.45	0.00	0.00
Wind 210 deg - Service		-8.96	15.52	956.48	552.22	0.00
Wind 240 deg - Service		-15.52	8.96	552.22	956.48	0.00
Wind 270 deg - Service		-17.92	0.00	0.00	1104.45	0.00
Wind 300 deg - Service		-15.52	-8.96	-552.22	956.48	0.00
Wind 330 deg - Service		-8.96	-15.52	-956.48	552.22	0.00

### Load Combinations

Comb No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice
8	1.2 Dead+1.6 Wind 90 deg - No Ice

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Comb. No.	Description
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice
13	0.9 Dead+1.6 Wind 150 deg - No Ice
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

### Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	110 - 69.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-21.14	0.00	0.00
			Max. Mx	8	-7.13	-802.95	0.00
			Max. My	2	-7.13	0.00	802.95
			Max. Vy	8	47.75	-802.95	0.00
			Max. Vx	2	-47.75	0.00	802.95
			Max. Torque	4			-0.00
			Max Tension	1	0.00	0.00	0.00
L2	69.25 - 34	Pole	Max. Compression	26	-35.50	0.00	0.00
			Max. Mx	8	-17.45	-3250.25	0.00
			Max. My	2	-17.45	0.00	3250.25

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L3	34 - 0	Pole	Max Vy	8	92.12	-3250.25	0.00
			Max Vx	2	-92.12	0.00	3250.25
			Max Torque	4			-0.00
			Max Tension	1	0.00	0.00	0.00
			Max Compression	26	-58.64	0.00	0.00
			Max Mx	8	-40.48	-8023.08	0.00
			Max My	14	-40.48	0.00	-8023.08
			Max Vy	8	128.24	-8023.08	0.00
			Max Vx	14	128.24	0.00	-8023.08
			Max Torque	10			-0.00

### Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal X K	Horizontal Z K
Pole	Max. Vert	30	58.64	-108.65	0.00
	Max H <sub>x</sub>	20	40.61	128.20	0.00
	Max H <sub>y</sub>	2	40.61	0.00	128.20
	Max M <sub>x</sub>	2	8023.08	0.00	128.20
	Max M <sub>y</sub>	8	8023.08	-128.20	0.00
	Max Torsion	18	0.00	111.03	-64.10
	Min Vert	13	30.46	-64.10	-111.03
	Min H <sub>x</sub>	8	40.61	-128.20	0.00
	Min H <sub>y</sub>	14	40.61	0.00	-128.20
	Min M <sub>x</sub>	14	-8023.08	0.00	-128.20
	Min M <sub>y</sub>	20	-8023.08	128.20	0.00
	Min. Torsion	10	-0.00	-111.03	-64.10

### Tower Mast Reaction Summary

Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>y</sub> K	Overturning Moment, M <sub>x</sub> kip-ft	Overturning Moment, M <sub>y</sub> kip-ft	Torque kip-ft
Dead Only	33.84	0.00	0.00	0.00	0.00	0.00
1.2 Dead+1.6 Wind 0 deg - No Ice	40.61	0.00	-128.20	-8023.08	0.00	0.00
0.9 Dead+1.6 Wind 0 deg - No Ice	30.46	0.00	-128.20	-8004.38	0.00	0.00
1.2 Dead+1.6 Wind 30 deg - No Ice	40.61	64.10	-111.03	-6948.19	-4011.54	0.00
0.9 Dead+1.6 Wind 30 deg - No Ice	30.46	64.10	-111.03	-6931.99	-4002.19	0.00
1.2 Dead+1.6 Wind 60 deg - No Ice	40.61	111.03	-64.10	-4011.54	-6948.19	-0.00
0.9 Dead+1.6 Wind 60 deg - No Ice	30.46	111.03	-64.10	-4002.19	-6931.99	-0.00
1.2 Dead+1.6 Wind 90 deg - No Ice	40.61	128.20	0.00	0.00	-8023.08	0.00
0.9 Dead+1.6 Wind 90 deg - No Ice	30.46	128.20	0.00	0.00	-8004.38	0.00
1.2 Dead+1.6 Wind 120 deg - No Ice	40.61	111.03	64.10	4011.54	-6948.19	0.00

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Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>y</sub> K	Overturning Moment, M <sub>x</sub> kip-ft	Overturning Moment, M <sub>y</sub> kip-ft	Torque kip-ft
0.9 Dead+1.6 Wind 120 deg - No Ice	30.46	111.03	64.10	4002.19	-6931.99	0.00
1.2 Dead+1.6 Wind 150 deg - No Ice	40.61	64.10	111.03	6948.19	-4011.54	-0.00
0.9 Dead+1.6 Wind 150 deg - No Ice	30.46	64.10	111.03	6931.99	-4002.19	-0.00
1.2 Dead+1.6 Wind 180 deg - No Ice	40.61	0.00	128.20	8023.08	0.00	0.00
0.9 Dead+1.6 Wind 180 deg - No Ice	30.46	0.00	128.20	8004.38	0.00	0.00
1.2 Dead+1.6 Wind 210 deg - No Ice	40.61	-64.10	111.03	6948.19	4011.54	0.00
0.9 Dead+1.6 Wind 210 deg - No Ice	30.46	-64.10	111.03	6931.99	4002.19	0.00
1.2 Dead+1.6 Wind 240 deg - No Ice	40.61	-111.03	64.10	4011.54	6948.19	-0.00
0.9 Dead+1.6 Wind 240 deg - No Ice	30.46	-111.03	64.10	4002.19	6931.99	-0.00
1.2 Dead+1.6 Wind 270 deg - No Ice	40.61	-128.20	0.00	0.00	8023.08	0.00
0.9 Dead+1.6 Wind 270 deg - No Ice	30.46	-128.20	0.00	0.00	8004.38	0.00
1.2 Dead+1.6 Wind 300 deg - No Ice	40.61	-111.03	-64.10	-4011.54	6948.19	0.00
0.9 Dead+1.6 Wind 300 deg - No Ice	30.46	-111.03	-64.10	-4002.19	6931.99	0.00
1.2 Dead+1.6 Wind 330 deg - No Ice	40.61	-64.10	-111.03	-6948.19	4011.54	-0.00
0.9 Dead+1.6 Wind 330 deg - No Ice	30.46	-64.10	-111.03	-6931.99	4002.19	-0.00
1.2 Dead+1.0 Ice+1.0 Temp	58.64	0.00	0.00	0.00	0.00	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	58.64	0.00	-108.65	-6863.93	0.00	0.00
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	58.64	54.33	-94.09	-5944.34	-3431.96	0.00
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	58.64	94.09	-54.33	-3431.96	-5944.34	-0.00
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	58.64	108.65	0.00	0.00	-6863.93	0.00
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	58.64	94.09	54.33	3431.96	-5944.34	0.00
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	58.64	54.33	94.09	5944.34	-3431.96	-0.00
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	58.64	0.00	108.65	6863.93	0.00	0.00
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	58.64	-54.33	94.09	5944.34	3431.96	0.00
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	58.64	-94.09	54.33	3431.96	5944.34	-0.00
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	58.64	-108.65	0.00	0.00	6863.93	0.00
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	58.64	-94.09	-54.33	-3431.96	5944.34	0.00
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	58.64	-54.33	-94.09	-5944.34	3431.96	-0.00
Dead+Wind 0 deg - Service	33.84	0.00	-17.92	-1121.16	0.00	0.00
Dead+Wind 30 deg - Service	33.84	8.96	-15.52	-970.95	-560.58	0.00
Dead+Wind 60 deg - Service	33.84	15.52	-8.96	-560.58	-970.95	-0.00
Dead+Wind 90 deg - Service	33.84	17.92	0.00	0.00	-1121.16	0.00
Dead+Wind 120 deg - Service	33.84	15.52	8.96	560.58	-970.95	0.00
Dead+Wind 150 deg - Service	33.84	8.96	15.52	970.95	-560.58	-0.00

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Load Combination	Vertical K	Shear <sub>1</sub> K	Shear <sub>2</sub> K	Overturning Moment, M <sub>1</sub> kip-ft	Overturning Moment, M <sub>2</sub> kip-ft	Torque kip-ft
Dead+Wind 180 deg - Service	33.84	0.00	17.92	1121.16	0.00	0.00
Dead+Wind 210 deg - Service	33.84	-8.96	15.52	970.95	560.58	0.00
Dead+Wind 240 deg - Service	33.84	-15.52	8.96	560.58	970.95	-0.00
Dead+Wind 270 deg - Service	33.84	-17.92	0.00	0.00	1121.16	0.00
Dead+Wind 300 deg - Service	33.84	-15.52	-8.96	-560.58	970.95	0.00
Dead+Wind 330 deg - Service	33.84	-8.96	-15.52	-970.95	560.58	-0.00

### Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-33.84	0.00	0.00	33.84	0.00	0.000%
2	0.00	-40.61	-128.20	0.00	40.61	128.20	0.000%
3	0.00	-30.46	-128.20	0.00	30.46	128.20	0.000%
4	64.10	-40.61	-111.03	-64.10	40.61	111.03	0.000%
5	64.10	-30.46	-111.03	-64.10	30.46	111.03	0.000%
6	111.03	-40.61	-64.10	-111.03	40.61	64.10	0.000%
7	111.03	-30.46	-64.10	-111.03	30.46	64.10	0.000%
8	128.20	-40.61	0.00	-128.20	40.61	0.00	0.000%
9	128.20	-30.46	0.00	-128.20	30.46	0.00	0.000%
10	111.03	-40.61	64.10	-111.03	40.61	-64.10	0.000%
11	111.03	-30.46	64.10	-111.03	30.46	-64.10	0.000%
12	64.10	-40.61	111.03	-64.10	40.61	-111.03	0.000%
13	64.10	-30.46	111.03	-64.10	30.46	-111.03	0.000%
14	0.00	-40.61	128.20	0.00	40.61	-128.20	0.000%
15	0.00	-30.46	128.20	0.00	30.46	-128.20	0.000%
16	-64.10	-40.61	111.03	64.10	40.61	-111.03	0.000%
17	-64.10	-30.46	111.03	64.10	30.46	-111.03	0.000%
18	-111.03	-40.61	64.10	111.03	40.61	-64.10	0.000%
19	-111.03	-30.46	64.10	111.03	30.46	-64.10	0.000%
20	-128.20	-40.61	0.00	128.20	40.61	0.00	0.000%
21	-128.20	-30.46	0.00	128.20	30.46	0.00	0.000%
22	-111.03	-40.61	-64.10	111.03	40.61	64.10	0.000%
23	-111.03	-30.46	-64.10	111.03	30.46	64.10	0.000%
24	-64.10	-40.61	-111.03	64.10	40.61	111.03	0.000%
25	-64.10	-30.46	-111.03	64.10	30.46	111.03	0.000%
26	0.00	-58.64	0.00	0.00	58.64	0.00	0.000%
27	0.00	-58.64	-108.65	0.00	58.64	108.65	0.000%
28	54.33	-58.64	-94.09	-54.33	58.64	94.09	0.000%
29	94.09	-58.64	-54.33	-94.09	58.64	54.33	0.000%
30	108.65	-58.64	0.00	-108.65	58.64	0.00	0.000%
31	94.09	-58.64	54.33	-94.09	58.64	-54.33	0.000%
32	54.33	-58.64	94.09	-54.33	58.64	-94.09	0.000%
33	0.00	-58.64	108.65	0.00	58.64	-108.65	0.000%
34	-54.33	-58.64	94.09	54.33	58.64	-94.09	0.000%
35	-94.09	-58.64	54.33	94.09	58.64	-54.33	0.000%
36	-108.65	-58.64	0.00	108.65	58.64	0.00	0.000%
37	-94.09	-58.64	-54.33	94.09	58.64	54.33	0.000%
38	-54.33	-58.64	-94.09	54.33	58.64	94.09	0.000%
39	0.00	-33.84	-17.92	0.00	33.84	17.92	0.000%
40	8.96	-33.84	-15.52	-8.96	33.84	15.52	0.000%
41	15.52	-33.84	-8.96	-15.52	33.84	8.96	0.000%
42	17.92	-33.84	0.00	-17.92	33.84	0.00	0.000%
43	15.52	-33.84	8.96	-15.52	33.84	-8.96	0.000%
44	8.96	-33.84	15.52	-8.96	33.84	-15.52	0.000%
45	0.00	-33.84	17.92	0.00	33.84	-17.92	0.000%
46	-8.96	-33.84	15.52	8.96	33.84	-15.52	0.000%

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Load Comb	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
47	-15.52	-33.84	8.96	15.52	33.84	-8.96	0.000%
48	-17.92	-33.84	0.00	17.92	33.84	0.00	0.000%
49	-15.52	-33.84	-8.96	15.52	33.84	8.96	0.000%
50	-8.96	-33.84	-15.52	8.96	33.84	15.52	0.000%

### Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00000512
3	Yes	4	0.00000001	0.00000227
4	Yes	4	0.00000001	0.00052619
5	Yes	4	0.00000001	0.00022525
6	Yes	4	0.00000001	0.00052619
7	Yes	4	0.00000001	0.00022525
8	Yes	4	0.00000001	0.00000512
9	Yes	4	0.00000001	0.00000227
10	Yes	4	0.00000001	0.00052619
11	Yes	4	0.00000001	0.00022525
12	Yes	4	0.00000001	0.00052619
13	Yes	4	0.00000001	0.00022525
14	Yes	4	0.00000001	0.00000512
15	Yes	4	0.00000001	0.00000227
16	Yes	4	0.00000001	0.00052619
17	Yes	4	0.00000001	0.00022525
18	Yes	4	0.00000001	0.00052619
19	Yes	4	0.00000001	0.00022525
20	Yes	4	0.00000001	0.00000512
21	Yes	4	0.00000001	0.00000227
22	Yes	4	0.00000001	0.00052619
23	Yes	4	0.00000001	0.00022525
24	Yes	4	0.00000001	0.00052619
25	Yes	4	0.00000001	0.00022525
26	Yes	4	0.00000001	0.00000001
27	Yes	4	0.00000001	0.00056665
28	Yes	5	0.00000001	0.00004746
29	Yes	5	0.00000001	0.00004746
30	Yes	4	0.00000001	0.00056665
31	Yes	5	0.00000001	0.00004746
32	Yes	5	0.00000001	0.00004746
33	Yes	4	0.00000001	0.00056665
34	Yes	5	0.00000001	0.00004746
35	Yes	5	0.00000001	0.00004746
36	Yes	4	0.00000001	0.00056665
37	Yes	5	0.00000001	0.00004746
38	Yes	5	0.00000001	0.00004746
39	Yes	4	0.00000001	0.00000001
40	Yes	4	0.00000001	0.00000885
41	Yes	4	0.00000001	0.00000885
42	Yes	4	0.00000001	0.00000001
43	Yes	4	0.00000001	0.00000885
44	Yes	4	0.00000001	0.00000885
45	Yes	4	0.00000001	0.00000001
46	Yes	4	0.00000001	0.00000885
47	Yes	4	0.00000001	0.00000885

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	<b>Project</b> 110 FT EHRESMANN MONOPINE	<b>Date</b> 16:55:00 06/29/16
	<b>Client</b> VERIZON WIRELESS	<b>Designed by</b> EJH

48	Yes	4	0.00000001	0.00000001
49	Yes	4	0.00000001	0.00000885
50	Yes	4	0.00000001	0.00000885

### Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	110 - 69 25	10 600	42	0.7958	0.0000
L2	74 - 34	4.981	42	0.6235	0.0000
L3	40 - 0	1.471	42	0.3278	0.0000

### Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
110.00	Pine Branches	42	10 600	0.7958	0.0000	50637
105.00	Pine Branches	42	9.769	0.7772	0.0000	50637
100.00	(3) 5' T-arms	42	8.945	0.7580	0.0000	25318
95.00	Pine Branches	42	8.132	0.7376	0.0000	16879
90.00	Pine Branches	42	7.337	0.7152	0.0000	12659
85.00	Pine Branches	42	6.565	0.6903	0.0000	10127
80.00	(3) 5' T-arms	42	5.823	0.6622	0.0000	8439
75.00	Pine Branches	42	5.117	0.6304	0.0000	7289
70.00	Pine Branches	42	4.452	0.5942	0.0000	6756
65.00	Pine Branches	42	3.832	0.5541	0.0000	6438
60.00	Pine Branches	42	3.258	0.5112	0.0000	6149
55.00	Pine Branches	42	2.732	0.4661	0.0000	5886
50.00	Pine Branches	42	2.258	0.4200	0.0000	5643
45.00	Pine Branches	42	1.837	0.3736	0.0000	5420
40.00	Pine Branches	42	1.471	0.3278	0.0000	5360
35.00	Pine Branches	42	1.161	0.2834	0.0000	5959
30.00	Pine Branches	42	0.902	0.2404	0.0000	6952
25.00	Pine Branches	42	0.686	0.1985	0.0000	8343
20.00	Pine Branches	43	0.505	0.1577	0.0000	10428

### Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	110 - 69 25	75.756	8	5.6918	0.0000
L2	74 - 34	35.620	8	4.4604	0.0000
L3	40 - 0	10.527	8	2.3457	0.0000

### Critical Deflections and Radius of Curvature - Design Wind

<b>tnxTower</b>  <b>Ehresmann Engineering, Inc.</b> 4400 W. 31st Street Yankton, SD Phone: (605) 665-7532 FAX: (605) 665-9780	<b>Job</b> MDF WINTER GOLF, OR 97200-16	<b>Page</b> 17 of 19
	<b>Project</b> 110 FT EHRESMANN MONOPINE	<b>Date</b> 16:55:00 06/29/16
	<b>Client</b> VERIZON WIRELESS	<b>Designed by</b> EJH

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
110.00	Pine Branches	8	75.756	5.6918	0.0000	7213
105.00	Pine Branches	8	69.824	5.5593	0.0000	7213
100.00	(3) 5' T-arms	8	63.935	5.4222	0.0000	3606
95.00	Pine Branches	8	58.129	5.2760	0.0000	2402
90.00	Pine Branches	8	52.450	5.1162	0.0000	1801
85.00	Pine Branches	8	46.940	4.9382	0.0000	1439
80.00	(3) 5' T-arms	8	41.641	4.7375	0.0000	1198
75.00	Pine Branches	8	36.596	4.5096	0.0000	1034
70.00	Pine Branches	8	31.843	4.2509	0.0000	956
65.00	Pine Branches	8	27.407	3.9646	0.0000	910
60.00	Pine Branches	8	23.303	3.6572	0.0000	867
55.00	Pine Branches	8	19.547	3.3352	0.0000	829
50.00	Pine Branches	8	16.155	3.0050	0.0000	793
45.00	Pine Branches	8	13.143	2.6730	0.0000	761
40.00	Pine Branches	8	10.527	2.3457	0.0000	751
35.00	Pine Branches	8	8.311	2.0282	0.0000	835
30.00	Pine Branches	8	6.455	1.7204	0.0000	973
25.00	Pine Branches	8	4.908	1.4209	0.0000	1167
20.00	Pine Branches	10	3.617	1.1284	0.0000	1459

### Base Plate Design Data

Plate Thickness in	Number of Anchor Bolts	Anchor Bolt Size in	Actual Allowable Ratio Bolt Tension K	Actual Allowable Ratio Bolt Compression K	Actual Allowable Ratio Plate Stress ksi	Actual Allowable Ratio Stiffener Stress ksi	Controlling Condition	Ratio
2.0000	30	2.2500	207.94	210.64	36.540	37.277	Bolt T	0.93
			223.65	371.27	45.000	45.000		✓
			0.93	0.57	0.81	0.83		

### Compression Checks

### Pole Design Data

Section No.	Elevation ft	Size	L ft	L <sub>w</sub> ft	K/r	A in <sup>2</sup>	P <sub>w</sub> K	φP <sub>w</sub> K	Ratio P <sub>w</sub> φP <sub>w</sub>
L1	110 - 69.25 (1)	TP32 735x20x0.25	40.75	110.00	119.9	24.5989	-7.13	386.28	0.018
L2	69.25 - 34 (2)	TP43 2512x30 7506x0.4375	40.00	110.00	90.8	56.8483	-17.45	1556.80	0.011
L3	34 - 0 (3)	TP53 0017x40.5011x0.625	40.00	110.00	71.0	103.902	-40.48	4201.11	0.010

### Pole Bending Design Data

<b>tnxTower</b>  <b>Ehresmann Engineering, Inc.</b> 4400 W. 31st Street Yankton, SD Phone: (605) 665-7532 FAX: (605) 665-9780	<b>Job</b> MDF WINTER GOLF, OR 97200-16	<b>Page</b> 18 of 19
	<b>Project</b> 110 FT EHRESMANN MONOPINE	<b>Date</b> 16:55:00 06/29/16
	<b>Client</b> VERIZON WIRELESS	<b>Designed by</b> EJH

Section No.	Elevation ft	Size	$M_{ux}$ kip-ft	$\phi M_{ux}$ kip-ft	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	$M_{uy}$ kip-ft	$\phi M_{uy}$ kip-ft	Ratio $\frac{M_{uy}}{\phi M_{uy}}$
L1	110 - 69.25 (1)	TP32 735x20x0.25	802.95	1094.87	0.733	0.00	1094.87	0.000
L2	69.25 - 34 (2)	TP43 2512x30 7506x0.4375	3250.25	3545.57	0.917	0.00	3545.57	0.000
L3	34 - 0 (3)	TP53 0017x40 5011x0.625	8023.07	8280.63	0.969	0.00	8280.63	0.000

### Pole Shear Design Data

Section No.	Elevation ft	Size	Actual $V_u$ K	$\phi V_u$ K	Ratio $\frac{V_u}{\phi V_u}$	Actual $T_u$ kip-ft	$\phi T_u$ kip-ft	Ratio $\frac{T_u}{\phi T_u}$
L1	110 - 69.25 (1)	TP32 735x20x0.25	47.75	858.93	0.056	0.00	2192.42	0.000
L2	69.25 - 34 (2)	TP43 2512x30 7506x0.4375	92.12	2111.77	0.044	0.00	7099.81	0.000
L3	34 - 0 (3)	TP53 0017x40 5011x0.625	128.24	3859.71	0.033	0.00	16581.50	0.000

### Pole Interaction Design Data

Section No.	Elevation ft	Ratio $P_u$ $\phi P_u$	Ratio $M_{ux}$ $\phi M_{ux}$	Ratio $M_{uy}$ $\phi M_{uy}$	Ratio $V_u$ $\phi V_u$	Ratio $T_u$ $\phi T_u$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	110 - 69.25 (1)	0.018	0.733	0.000	0.056	0.000	0.755	1.000	4.8.2 ✓
L2	69.25 - 34 (2)	0.011	0.917	0.000	0.044	0.000	0.930	1.000	4.8.2 ✓
L3	34 - 0 (3)	0.010	0.969	0.000	0.033	0.000	0.980	1.000	4.8.2 ✓

### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\phi P_{allow}$ K	% Capacity	Pass Fail
L1	110 - 69.25	Pole	TP32 735x20x0.25	1	-7.13	386.28	75.5	Pass
L2	69.25 - 34	Pole	TP43 2512x30 7506x0.4375	2	-17.45	1556.80	93.0	Pass
L3	34 - 0	Pole	TP53 0017x40 5011x0.625	3	-40.48	4201.11	98.0	Pass
Summary								
Pole (L3)							98.0	Pass
Base Plate							93.0	Pass
RATING =							98.0	Pass

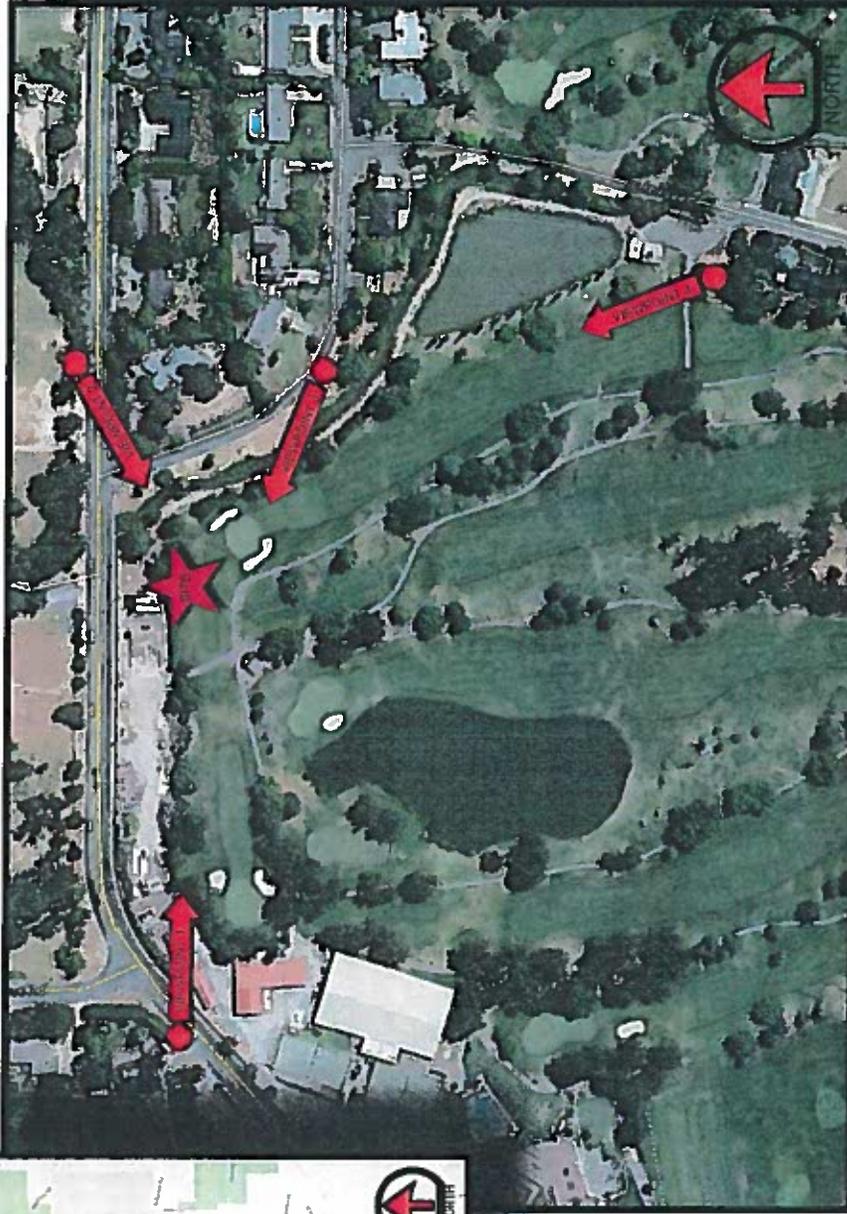
# **Exhibit D**

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## **Photo Simulations**



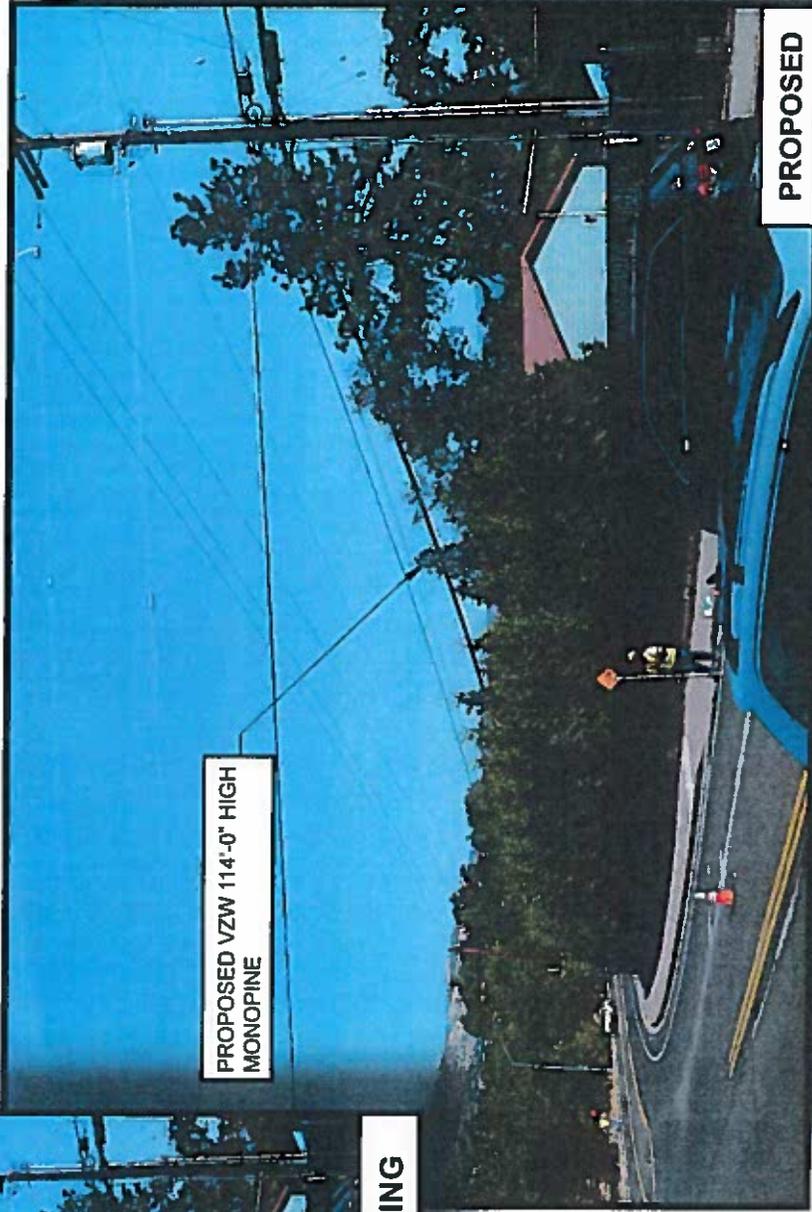
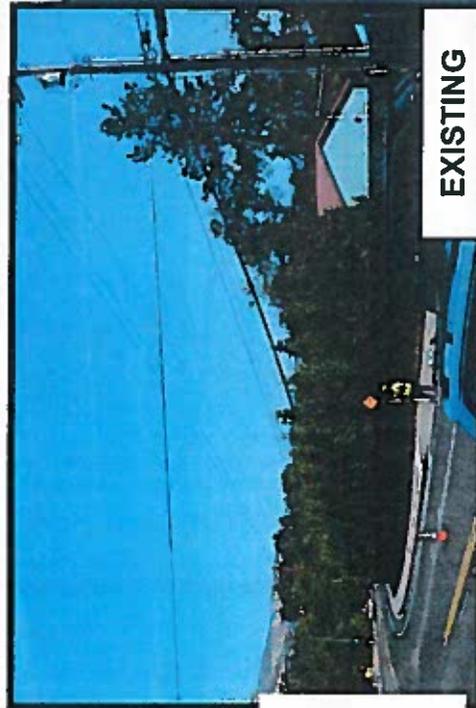
**MDF WINTER GOLF**  
2660 HILLCREST ROAD  
MEDFORD, OR 97504



**AERIAL MAP**



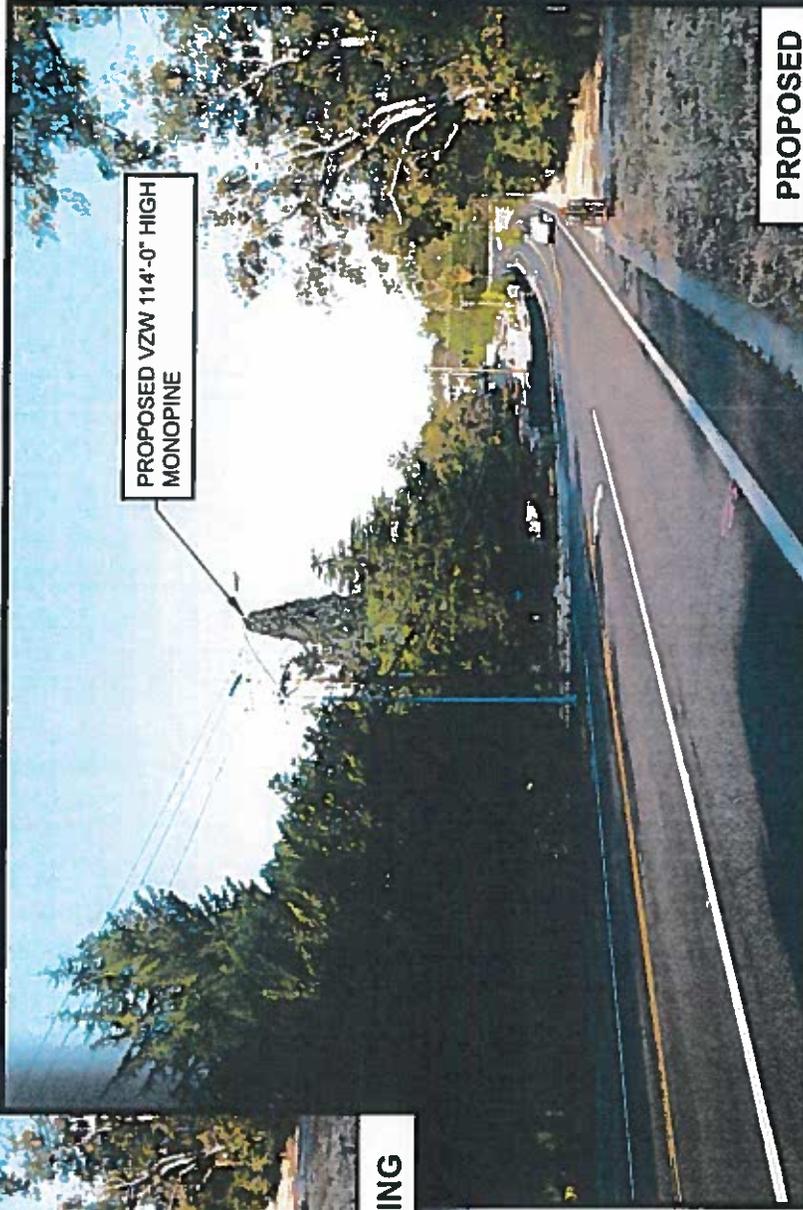
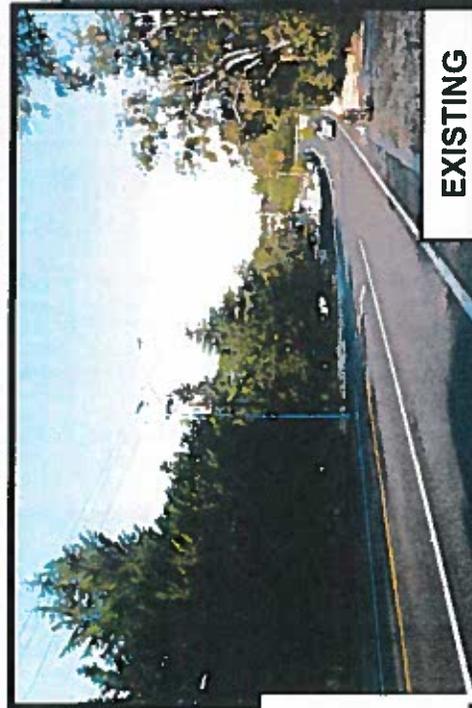
**MDF WINTER GOLF**  
2660 HILLCREST ROAD  
MEDFORD, OR 97504



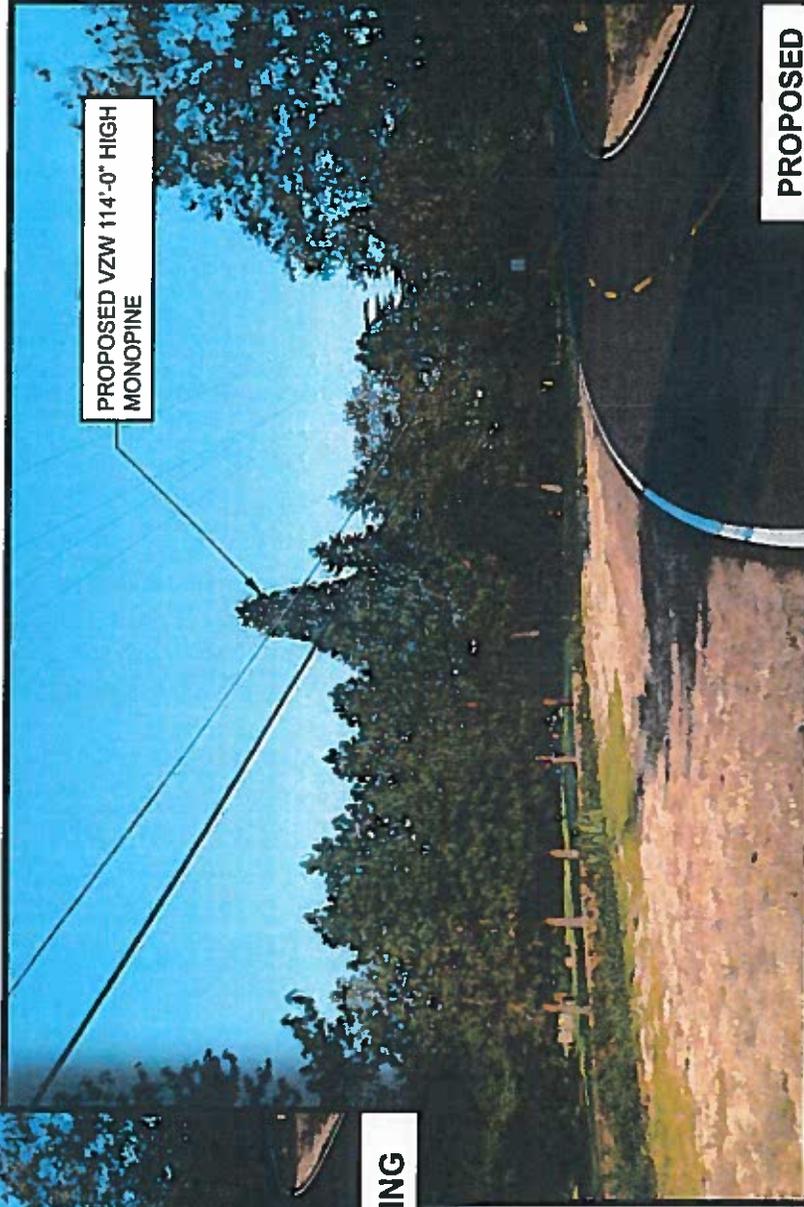
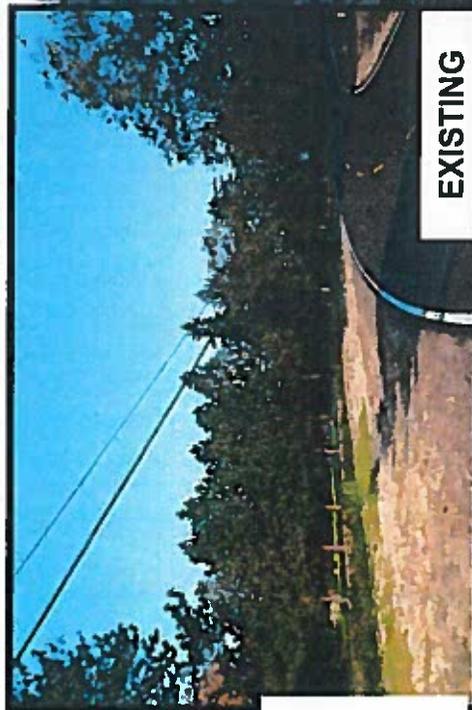
# VIEWPOINT 1



**MDF WINTER GOLF**  
2660 HILLCREST ROAD  
MEDFORD, OR 97504



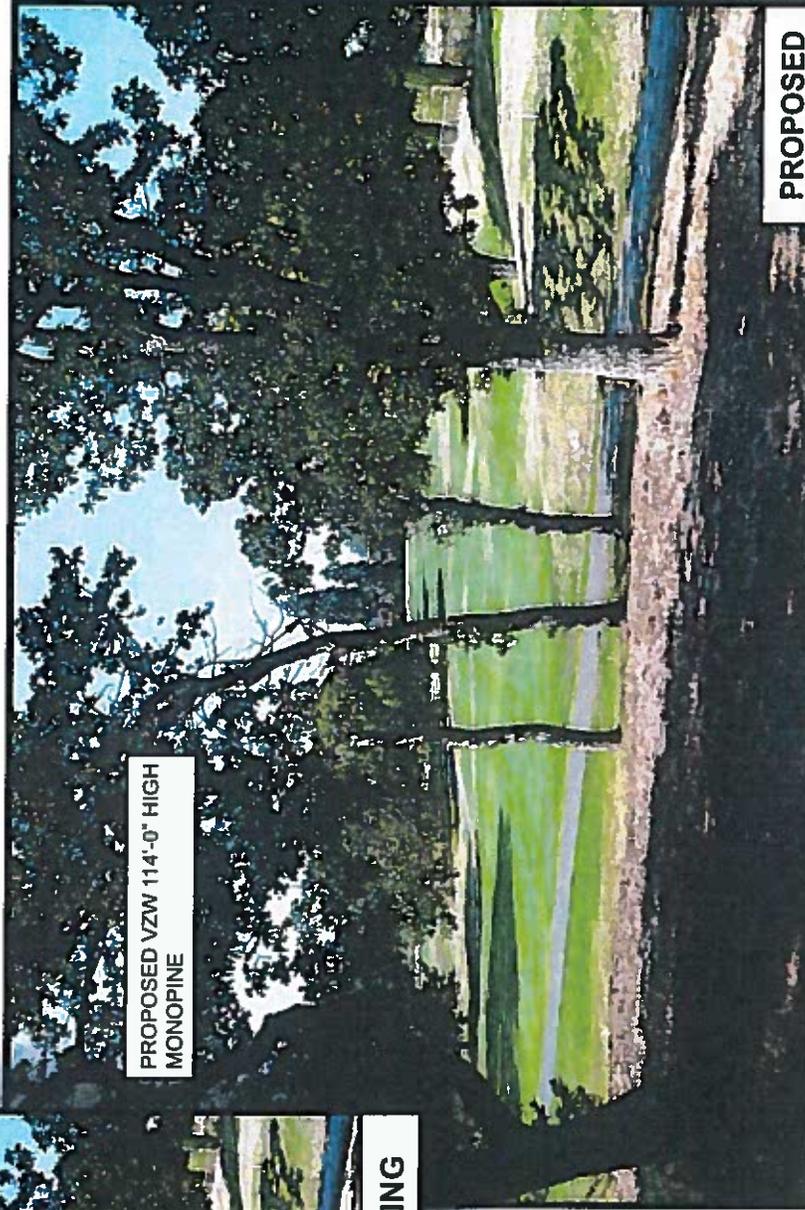
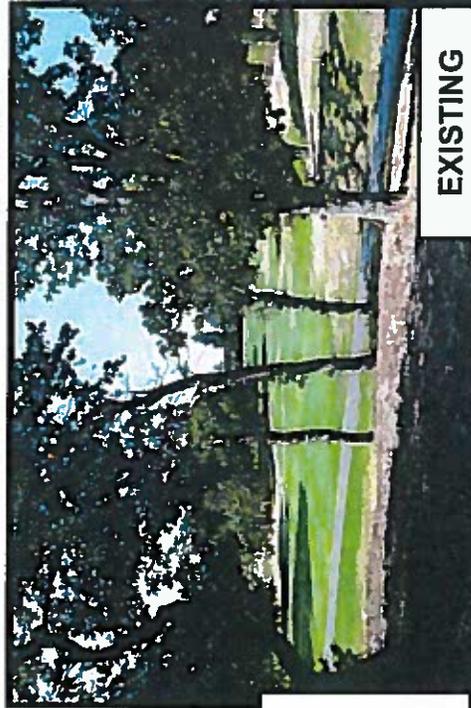
# VIEWPOINT 2



**VIEWPOINT 3**



**MDF WINTER GOLF**  
2660 HILLCREST ROAD  
MEDFORD, OR 97504



**VIEWPOINT 4**

# **Exhibit E**

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## **ODA Recommendation**



Oregon

Kate Brown, Governor



February 2, 2016

Paul Slotmaker, AICP  
Technology Associates  
11500 SW Terra Linda St  
Beaverton, OR 97005

3040 25th Street, SE  
Salem, OR 97302-1125  
Phone: (503) 378-4880  
Toll Free: (800) 874-0102  
FAX: (503) 373-1688

**Subject: Oregon Department of Aviation comments regarding the construction of a telecommunication tower (monopine) constructed to 125-FEET in height located in Medford, Oregon.**

**Aviation Reference: 2016-ODA-019-OE**

The Oregon Department of Aviation (ODA) has conducted an aeronautical study of this proposed alteration and has determined that notice to the FAA is required. The structure does exceed FAR Part 77.9 (b & TERPs) and Obstruction Standards of OAR 738-70-0100.

This determination is based, in part, on the foregoing description which includes specific coordinates and heights. Any changes to the original application will void this determination. Any future construction or alteration to the original application will require a separate notice from ODA.

This determination will expire (12) months from the date of this letter if construction has not been started.

**Mitigation Recommendation:**

- We do not object with conditions to the construction described in this proposal. This determination does not constitute ODA approval or disapproval of the physical development involved in the proposal. It is a determination with respect to the safe and efficient use of navigable airspace by aircraft and with respect to the safety of persons and property on the ground.
- Marking and lighting are recommended for aviation safety. We recommend it be installed and maintained in accordance with FAA Advisory Circular AC70/7460-1L
- The proposed obstruction should to be lower to a height that is no longer a hazard to the airport primary and horizontal surface FAA FAR 77
- The proposed obstruction should be relocate outside the airport primary and horizontal surface FAA FAR 77

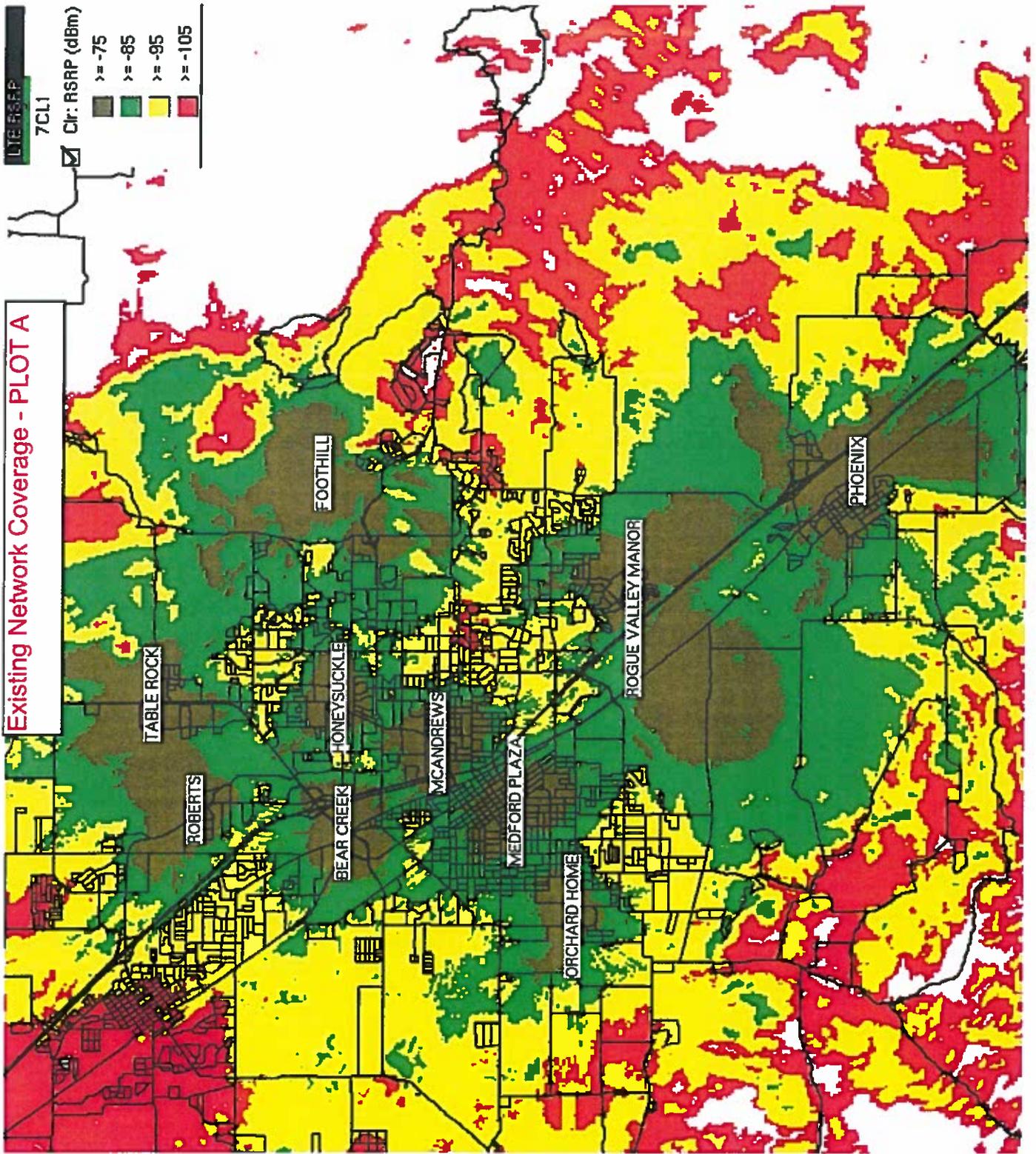
Sincerely,

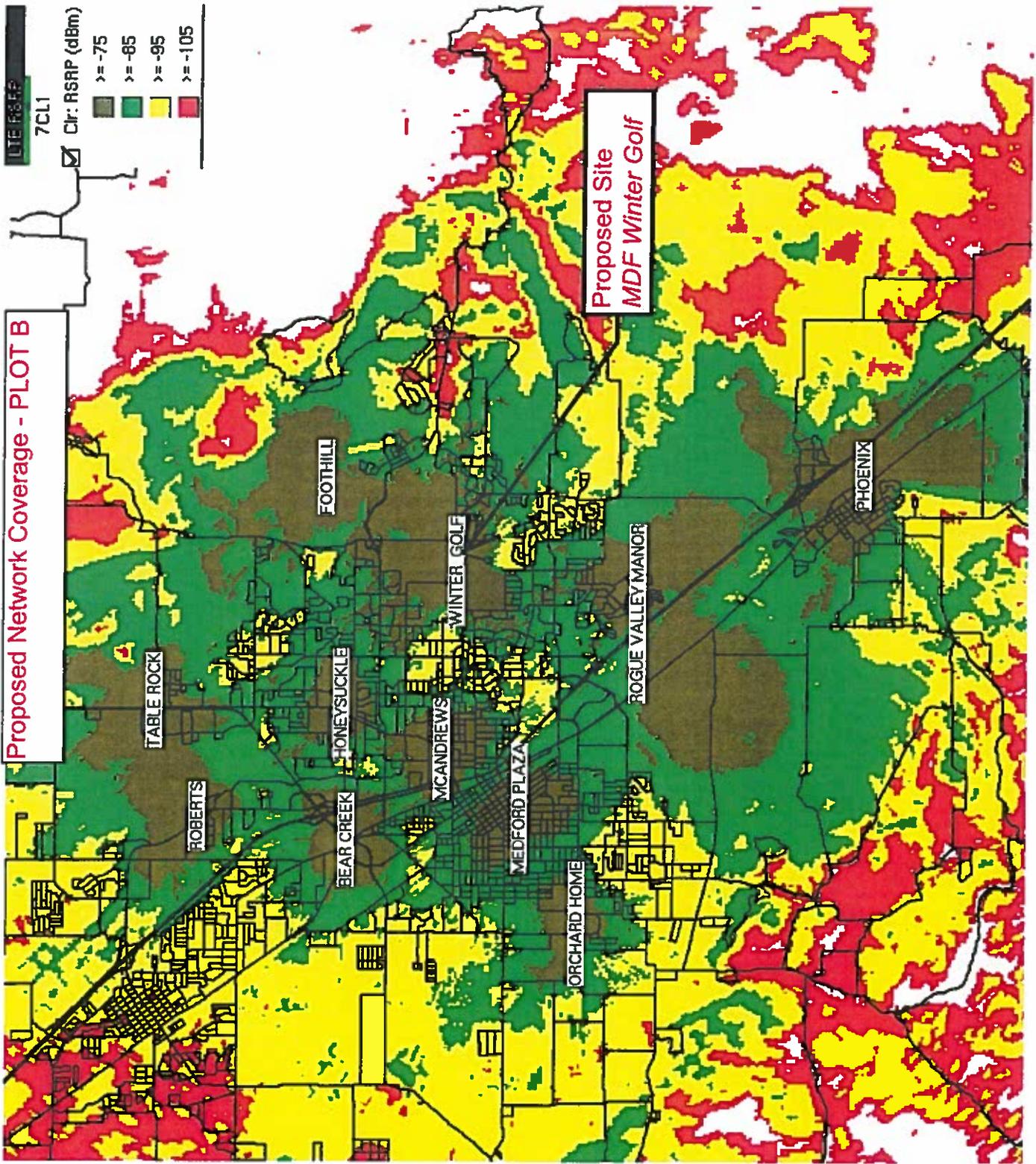
Jeff Caines, AICP – Land Use Planner

# **Exhibit F**

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## FR Coverage Maps

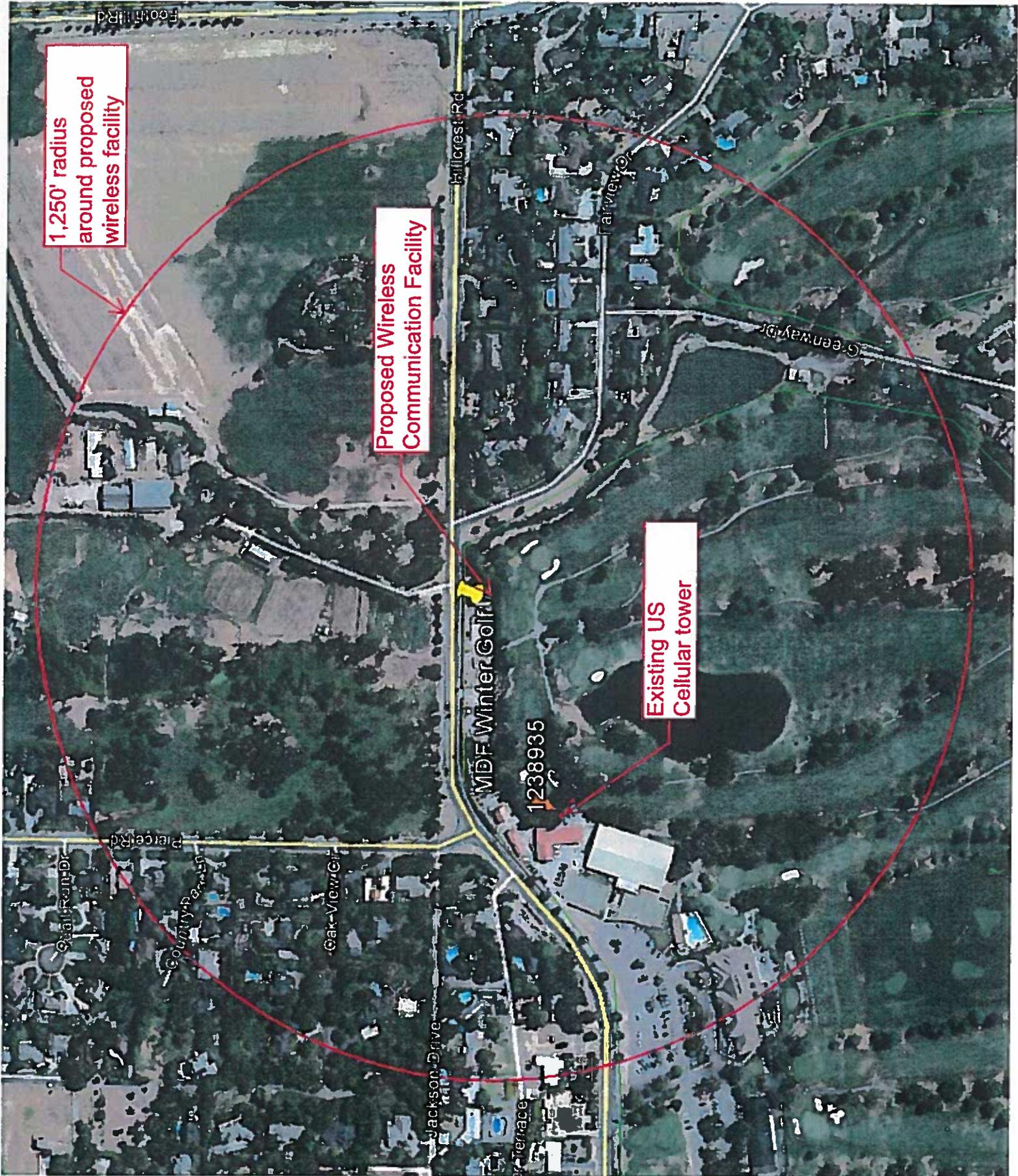


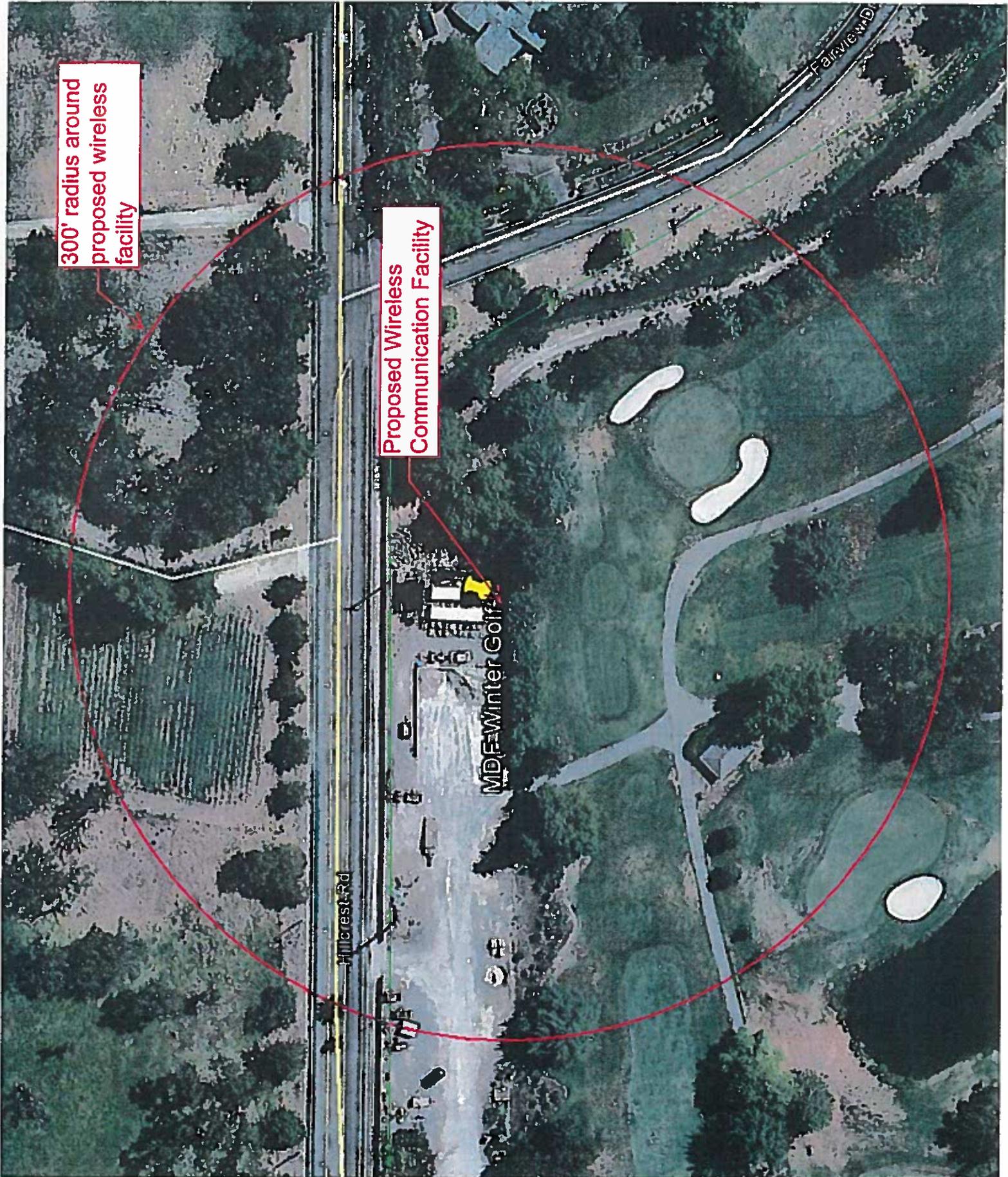


# **Exhibit G**

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## **1250' and 300' Radius Maps**





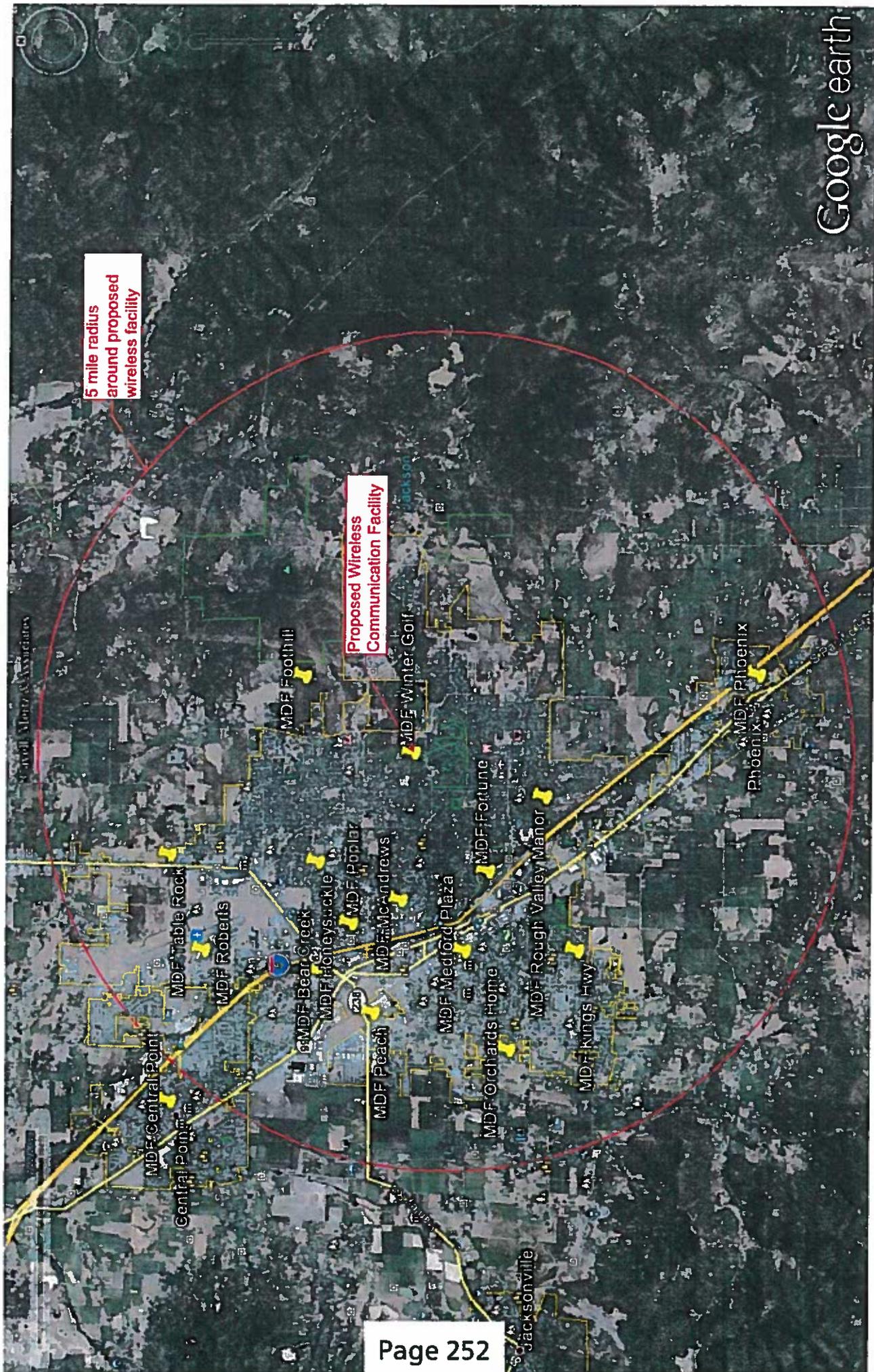
300' radius around proposed wireless facility

Proposed Wireless Communication Facility

# Exhibit H

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## Existing Verizon Wireless Sites within 5-Mile Radius



5 mile radius  
around proposed  
wireless facility

Proposed Wireless  
Communication Facility

Starvill, Merritt & Associates

MDF-Central Point

MDF-Table Rock

MDF-Roberts

MDF-Bear Creek

MDF-Honeysuckle

MDF-Poplar

MDF-McAndrews

MDF-Peach

MDF-Medford Plaza

MDF-Orchards Home

MDF-Fortune

MDF-Rough Valley Manor

MDF-Kings Hwy

MDF-Winter Golf

MDF-Foothill

MDF-Phoenix

Jacksonville

# **Exhibit I**

---

## **Lease Agreement Allowing Collocation (Redacted)**

## OPTION AND LAND LEASE AGREEMENT

This Agreement made this \_\_\_\_ day of \_\_\_\_\_, 201\_\_\_\_, between Rogue Valley Country Club, an Oregon corporation, with its principal offices located at 2660 Hillcrest Road, Medford, Oregon 97504, hereinafter designated LESSOR and Verizon Wireless (VAW) LLC d/b/a Verizon Wireless, with its principal offices located at One Verizon Way, Mail Stop 4AW100, Basking Ridge, New Jersey 07920 (telephone number 866-862-4404), hereinafter designated LESSEE. The LESSOR and LESSEE are at times collectively referred to hereinafter as the "Parties" or individually as the "Party".

LESSOR is the owner of that certain real property located at 2660 Hillcrest Road, Medford, County of Jackson, State of Oregon, as shown on Exhibit "A" attached hereto and made a part hereof (the entirety of LESSOR's property is referred to hereinafter as the "Property"). LESSEE desires to obtain an option to lease a portion of said Property, being described as a parcel containing a total of 480 square feet (the "Land Space"), together with the non-exclusive right (the "Rights of Way") for ingress and egress, seven (7) days a week twenty-four (24) hours a day, on foot or motor vehicle, including trucks over or along a twenty (20') foot wide right-of-way extending from the nearest public right-of-way, Hillcrest Road, to the Land Space, and for the installation and maintenance of utility wires, poles, cables, conduits, and pipes over, under, or along one or more rights of way from the Land Space, said Land Space and Rights of Way (hereinafter collectively referred to as the "Premises") being substantially as described herein in Exhibit "A" attached hereto and made a part hereof.

NOW THEREFORE, in consideration of the sum [REDACTED] to be paid by LESSEE to the LESSOR, the LESSOR hereby grants to LESSEE the right and option to lease said Premises, for the term and in accordance with the covenants and conditions set forth herein. The foregoing payment shall be made by LESSEE within forty five (45) days of execution of this Agreement or of receipt by LESSEE from LESSOR of the Rental Documentation, as defined in and in accordance with Paragraph 3 of the Agreement below, whichever occurs later. The providing by LESSOR of Rental Documentation to LESSEE shall be a prerequisite for the payment of the foregoing amount or any other option or rental payment, if applicable, by LESSEE, and notwithstanding anything to the contrary herein, LESSEE shall have no obligation to make any payment(s) until Rental Documentation has been supplied to LESSEE.

The option may be exercised at any time on or prior to twelve (12) months after the date of this Agreement. If the option has not been so exercised, it shall be automatically extended for one additional period of twelve (12) months, unless LESSEE gives written notice to the LESSOR of the intent not to extend prior to the end of the initial option period. If the option is extended, LESSEE shall make [REDACTED] LESSOR within thirty (30) days of the option being extended, provided LESSOR has supplied to LESSEE the Rental Documentation, as defined in and in accordance with Paragraph 3 of the Agreement below. The time during which the option may be exercised may be further extended by mutual agreement in writing. If during said option period, or during the term of the lease, if the option is exercised, the LESSOR decides to subdivide, sell or change the status of the Property or his property contiguous thereto he shall

immediately notify LESSEE in writing so that LESSEE can take steps necessary to protect LESSEE's interest in the Premises.

This option may be sold, assigned or transferred by the LESSEE without any approval or consent of the LESSOR to the LESSEE's principal, affiliates, subsidiaries of its principal; to any entity which acquires all or substantially all of LESSEE's assets in the market defined by the Federal Communications Commission in which the Property is located by reason of a merger, acquisition or other business reorganization; or to any entity which acquires or receives an interest in the majority of communication towers of the LESSEE in the market defined by the Federal Communications Commission in which the Property is located. As to other parties, this Agreement may not be sold, assigned or transferred without the written consent of the LESSOR, which such consent will not be unreasonably withheld, delayed or conditioned. No change of stock ownership, partnership interest or control of LESSEE or transfer upon partnership or corporate dissolution of LESSEE shall constitute an assignment hereunder.

Should LESSEE fail to exercise this option or any extension thereof within the time herein limited, all rights and privileges granted hereunder shall be deemed completely surrendered, this option terminated, and LESSOR shall retain all money paid for the option, and no additional money shall be payable by either Party to the other.

LESSOR shall cooperate with LESSEE in its effort to obtain all certificates, permits and other approvals that may be required by any Federal, State or Local authorities which will permit LESSEE use of the Premises. LESSOR shall take no action which would adversely affect the status of the Property with respect to the proposed use by LESSEE.

The LESSOR shall permit LESSEE, during the option period, free ingress and egress to the Premises to conduct such surveys, inspections, structural strength analysis, subsurface soil tests, and other activities of a similar nature as LESSEE may deem necessary, at the sole cost of LESSEE.

LESSOR agrees to execute a Memorandum of this Option to Lease Agreement which LESSEE may record with the appropriate Recording Officer. The date set forth in the Memorandum of Option to Lease is for recording purposes only and bears no reference to commencement of either term or rent payments.

Notice of the exercise of the option shall be given by LESSEE to the LESSOR in writing by certified mail, return receipt requested. Notice shall be deemed effective on the date it is posted and thereupon the following agreement shall take effect.

#### LAND LEASE AGREEMENT

This Agreement, made this \_\_\_\_ day of \_\_\_\_\_, 201\_\_\_\_, between Rogue Valley Country Club, an Oregon corporation, with its mailing address located at 2660 Hillcrest Road, Medford, Oregon 97504, hereinafter designated LESSOR and Verizon Wireless (VAW) LLC d/b/a Verizon Wireless, with its principal office located at One Verizon Way, Mail Stop 4AW100,

Basking Ridge, New Jersey 07920 (telephone number 866-862-4404), hereinafter designated LESSEE. The LESSOR and LESSEE are at times collectively referred to hereinafter as the "Parties" or individually as the "Party".

1. PREMISES. LESSOR hereby leases to LESSEE a portion of that certain parcel of property (the entirety of LESSOR's property is referred to hereinafter as the Property), located at 2660 Hillcrest Road, Medford, County of Jackson, State of Oregon, and being described as a parcel containing a total of 480 square feet (the "Land Space"), together with the non-exclusive right (the "Rights of Way") for ingress and egress, seven (7) days a week twenty-four (24) hours a day, on foot or motor vehicle, including trucks over or along a twenty (20') foot wide right-of-way extending from the nearest public right-of-way, Hillcrest Road, to the Land Space, and for the installation and maintenance of utility wires, poles, cables, conduits, and pipes over, under, or along one or more rights of way from the Land Space, said Land Space and Rights of Way (hereinafter collectively referred to as the "Premises") being substantially as described herein in Exhibit "A" attached hereto and made a part hereof.

In the event any public utility is unable to use the Rights of Way, the LESSOR hereby agrees to grant an additional right-of-way either to the LESSEE or to the public utility at no cost to the LESSEE.

2. SURVEY. LESSOR also hereby grants to LESSEE the right to survey the Property and the Premises, and said survey shall then become Exhibit "B" which shall be attached hereto and made a part hereof, and shall control in the event of boundary and access discrepancies between it and Exhibit "A". Cost for such work shall be borne by the LESSEE.

3. TERM; RENTAL. This Agreement shall be effective as of the date of execution by both Parties, provided, however, the initial term shall be for five (5) years and shall commence on the Commencement Date (as hereinafter defined) at which time rental payments for the first (1<sup>st</sup>) year of the initial term shall commence and be due at a total annual rental of [REDACTED] be paid in equal monthly installments on the first day of the month, in advance, to LESSOR or to such other person, firm or place as LESSOR may, from time to time, designate in writing at least thirty (30) days in advance of any rental payment date by notice given in accordance with Paragraph 23 below. Upon agreement of the Parties, LESSEE may pay rent by electronic funds transfer and in such event, LESSOR agrees to provide to LESSEE bank routing information for such purpose upon request of LESSEE. The Commencement Date shall be the first day of the month in which notice of the exercise of the option, as set forth above, is effective. However, LESSOR and LESSEE acknowledge and agree that initial rental payment(s) shall not actually be sent by LESSEE until thirty (30) days after the exercise of the option is effective.

LESSOR hereby agrees to provide to LESSEE certain documentation (the "Rental Documentation") evidencing LESSOR's interest in, and right to receive payments under, this Agreement, including without limitation: (i) documentation, acceptable to LESSEE in LESSEE's reasonable discretion, evidencing LESSOR's good and sufficient title to and/or interest in the Property and right to receive rental payments and other benefits hereunder; (ii) a complete and fully executed Internal Revenue Service Form W-9, or equivalent, in a form

acceptable to LESSEE, for any party to whom rental payments are to be made pursuant to this Agreement; and (iii) other documentation requested by LESSEE in LESSEE's reasonable discretion. From time to time during the Term of this Agreement and within thirty (30) days of a written request from LESSEE, LESSOR agrees to provide updated Rental Documentation in a form reasonably acceptable to LESSEE. The Rental Documentation shall be provided to LESSEE in accordance with the provisions of and at the address given in Paragraph 23. Delivery of Rental Documentation to LESSEE shall be a prerequisite for the payment of any rent by LESSEE and notwithstanding anything to the contrary herein, LESSEE shall have no obligation to make any rental payments until Rental Documentation has been supplied to LESSEE as provided herein.

Within fifteen (15) days of obtaining an interest in the Property or this Agreement, any assignee(s) or transferee(s) of LESSOR shall provide to LESSEE Rental Documentation in the manner set forth in the preceding paragraph. From time to time during the Term of this Agreement and within thirty (30) days of a written request from LESSEE, any assignee(s) or transferee(s) of LESSOR agrees to provide updated Rental Documentation in a form reasonably acceptable to LESSEE. Delivery of Rental Documentation to LESSEE by any assignee(s) or transferee(s) of LESSOR shall be a prerequisite for the payment of any rent by LESSEE to such party and notwithstanding anything to the contrary herein, LESSEE shall have no obligation to make any rental payments to any assignee(s) or transferee(s) of LESSOR until Rental Documentation has been supplied to LESSEE as provided herein.

4. EXTENSIONS. This Agreement shall automatically be extended for four (4) additional five (5) year terms unless LESSEE terminates it at the end of the then current term by giving LESSOR written notice of the intent to terminate at least six (6) months prior to the end of the then current term.

5. RENTAL INCREASES. The annual rental for [REDACTED] the initial term and for each year thereafter including any and all extension terms shall be equal [REDACTED] annual rental payable with respect to the immediately preceding year.

6. ADDITIONAL EXTENSIONS. If at the end of the [REDACTED] extension term this Agreement has not been terminated by either Party by giving to the other written notice of an intention to terminate it at least three (3) months prior to the end of such term, this Agreement shall continue in force upon the same covenants, terms and conditions for a further [REDACTED] thereafter until terminated by either Party by giving to the other written notice of its intention to so terminate at least three (3) months prior to the end of such term. [REDACTED] The initial term and all extensions shall be collectively referred to herein as the "Term".

7. TAXES. LESSEE shall have the responsibility to pay any personal property, real estate taxes, assessments, or charges owed on the Property which LESSOR demonstrates is the result of LESSEE's use of the Premises and/or the installation, maintenance, and operation of the LESSEE's improvements, and any sales tax imposed on the rent (except to the extent that

LESSEE is or may become exempt from the payment of sales tax in the jurisdiction in which the Property is located), including any increase in real estate taxes at the Property which LESSOR demonstrates arises from the LESSEE's improvements and/or LESSEE's use of the Premises. LESSOR and LESSEE shall each be responsible for the payment of any taxes, levies, assessments and other charges imposed including franchise and similar taxes imposed upon the business conducted by LESSOR or LESSEE at the Property. Notwithstanding the foregoing, LESSEE shall not have the obligation to pay any tax, assessment, or charge that LESSEE is disputing in good faith in appropriate proceedings prior to a final determination that such tax is properly assessed provided that no lien attaches to the Property. Nothing in this Paragraph shall be construed as making LESSEE liable for any portion of LESSOR's income taxes in connection with any Property or otherwise. Except as set forth in this Paragraph, LESSOR shall have the responsibility to pay any personal property, real estate taxes, assessments, or charges owed on the Property and shall do so prior to the imposition of any lien on the Property.

LESSEE shall have the right, at its sole option and at its sole cost and expense, to appeal, challenge or seek modification of any tax assessment or billing for which LESSEE is wholly or partly responsible for payment. LESSOR shall reasonably cooperate with LESSEE at LESSEE's expense in filing, prosecuting and perfecting any appeal or challenge to taxes as set forth in the preceding sentence, including but not limited to, executing any consent, appeal or other similar document. In the event that as a result of any appeal or challenge by LESSEE, there is a reduction, credit or repayment received by the LESSOR for any taxes previously paid by LESSEE, LESSOR agrees to promptly reimburse to LESSEE the amount of said reduction, credit or repayment. In the event that LESSEE does not have the standing rights to pursue a good faith and reasonable dispute of any taxes under this paragraph, LESSOR will pursue such dispute at LESSEE's sole cost and expense upon written request of LESSEE.

8. USE: GOVERNMENTAL APPROVALS. LESSEE shall use the Premises for the purpose of constructing, maintaining, repairing and operating a communications facility and uses incidental thereto. A security fence consisting of chain link construction or similar but comparable construction may be placed around the perimeter of the Premises at the discretion of LESSEE (not including the access easement). All improvements, equipment, antennas and conduits shall be at LESSEE's expense and their installation shall be at the discretion and option of LESSEE. LESSEE shall have the right to replace, repair, add or otherwise modify its utilities, equipment, antennas and/or conduits or any portion thereof and the frequencies over which the equipment operates, whether the equipment, antennas, conduits or frequencies are specified or not on any exhibit attached hereto, during the Term. It is understood and agreed that LESSEE's ability to use the Premises is contingent upon its obtaining after the execution date of this Agreement all of the certificates, permits and other approvals (collectively the "Governmental Approvals") that may be required by any Federal, State or Local authorities as well as satisfactory soil boring tests which will permit LESSEE use of the Premises as set forth above. LESSOR shall cooperate with LESSEE in its effort to obtain such approvals and shall take no action which would adversely affect the status of the Property with respect to the proposed use thereof by LESSEE. In the event that (i) any of such applications for such Governmental Approvals should be finally rejected; (ii) any Governmental Approval issued to LESSEE is canceled, expires, lapses, or is otherwise withdrawn or terminated by governmental authority; (iii) LESSEE determines that such

Governmental Approvals may not be obtained in a timely manner; (iv) LESSEE determines that any soil boring tests are unsatisfactory; (v) LESSEE determines that the Premises is no longer technically compatible for its use, or (vi) LESSEE, in its sole discretion, determines that the use of the Premises is obsolete or unnecessary, LESSEE shall have the right to terminate this Agreement. Notice of LESSEE's exercise of its right to terminate shall be given to LESSOR in writing by certified mail, return receipt requested, and shall be effective upon the mailing of such notice by LESSEE, or upon such later date as designated by LESSEE. All rentals paid to said termination date shall be retained by LESSOR. Upon such termination, this Agreement shall be of no further force or effect except to the extent of the representations, warranties and indemnities made by each Party to the other hereunder. Otherwise, the LESSEE shall have no further obligations for the payment of rent to LESSOR.

9. INDEMNIFICATION. Subject to Paragraph 10 below, each Party shall indemnify and hold the other harmless against any claim of liability or loss from personal injury or property damage resulting from or arising out of the negligence or willful misconduct of the indemnifying Party, its employees, contractors or agents, except to the extent such claims or damages may be due to or caused by the negligence or willful misconduct of the other Party, or its employees, contractors or agents.

10. INSURANCE.

a. Notwithstanding the indemnity in section 9, the Parties hereby waive and release any and all rights of action for negligence against the other which may hereafter arise on account of damage to the Premises or to the Property, resulting from any fire, or other casualty of the kind covered by standard fire insurance policies with extended coverage, regardless of whether or not, or in what amounts, such insurance is now or hereafter carried by the Parties, or either of them. These waivers and releases shall apply between the Parties and they shall also apply to any claims under or through either Party as a result of any asserted right of subrogation. All such policies of insurance obtained by either Party concerning the Premises or the Property shall waive the insurer's right of subrogation against the other Party.

b. LESSEE will maintain at its own cost;

- i. Commercial General Liability insurance with limits not less than \$1,000,000 for injury to or death of one or more persons in any one occurrence and \$500,000 for damage or destruction to property in any one occurrence.
- ii. Commercial Auto Liability insurance on all owned, non-owned and hired automobiles with a minimum combined limit of not less than one million (\$1,000,000) per occurrence.
- iii. Workers Compensation insurance providing the statutory benefits and not less than one million (\$1,000,000) of Employers Liability coverage.

LESSEE will include the LESSOR as an additional insured on the Commercial General Liability and Auto Liability policies.

c. LESSOR will maintain at its own cost commercial general liability insurance with limits not less than \$1,000,000 for injury to or death of one or more persons in any one occurrence and \$500,000 for damage or destruction to property in any one occurrence. LESSOR will include the LESSEE as an additional insured.

11. LIMITATION OF LIABILITY. Except for indemnification pursuant to paragraphs 9 and 29, neither Party shall be liable to the other, or any of their respective agents, representatives, employees for any lost revenue, lost profits, loss of technology, rights or services, incidental, punitive, indirect, special or consequential damages, loss of data, or interruption or loss of use of service, even if advised of the possibility of such damages, whether under theory of contract, tort (including negligence), strict liability or otherwise.

12. ANNUAL TERMINATION. Notwithstanding anything to the contrary contained herein, provided LESSEE is not in default hereunder beyond applicable notice and cure periods,

13. INTERFERENCE. LESSEE agrees to install equipment of the type and frequency which will not cause harmful interference which is measurable in accordance with then existing industry standards to any equipment of LESSOR or other lessees of the Property which existed on the Property prior to the date this Agreement is executed by the Parties. In the event any after-installed LESSEE's equipment causes such interference, and after LESSOR has notified LESSEE in writing of such interference, LESSEE will take all commercially reasonable steps necessary to correct and eliminate the interference, including but not limited to, at LESSEE's option, powering down such equipment and later powering up such equipment for intermittent testing. In no event will LESSOR be entitled to terminate this Agreement or relocate the equipment as long as LESSEE is making a good faith effort to remedy the interference issue. LESSOR agrees that LESSOR and/or any other tenants of the Property who currently have or in the future take possession of the Property will be permitted to install only such equipment that is of the type and frequency which will not cause harmful interference which is measurable in accordance with then existing industry standards to the then existing equipment of LESSEE. The Parties acknowledge that there will not be an adequate remedy at law for noncompliance with the provisions of this Paragraph and therefore, either Party shall have the right to equitable remedies, such as, without limitation, injunctive relief and specific performance.

14. REMOVAL AT END OF TERM. LESSEE shall, upon expiration of the Term, or within ninety (90) days after any earlier termination of the Agreement, remove its building(s), antenna structure(s) (except footings), equipment, conduits, fixtures and all personal property and restore the Premises to its original condition, reasonable wear and tear and casualty damage excepted. LESSOR agrees and acknowledges that all of the equipment, conduits, fixtures and personal property of LESSEE shall remain the personal property of LESSEE and LESSEE shall have the right to remove the same at any time during the Term, whether or not said items are

considered fixtures and attachments to real property under applicable Laws (as defined in Paragraph 33 below). If such time for removal causes LESSEE to remain on the Premises after termination of this Agreement, LESSEE shall pay rent at the then existing monthly rate or on the existing monthly pro-rata basis if based upon a longer payment term, until such time as the removal of the building, antenna structure, fixtures and all personal property are completed.

15. HOLDOVER. LESSEE has no right to retain possession of the Premises or any part thereof beyond the expiration of that removal period set forth in Paragraph 14 herein, unless the Parties are negotiating a new lease or lease extension in good faith. In the event that the Parties are not in the process of negotiating a new lease or lease extension in good faith, LESSEE holds over in violation of Paragraph 14 and this Paragraph 15, then the rent then in effect payable from and after the time of the expiration or earlier removal period set forth in Paragraph 14 shall be equal to the rent applicable during the month immediately preceding such expiration or earlier termination.

16. LIMITED RIGHT OF FIRST REFUSAL. If LESSOR elects, during the Term to grant to a third party by easement or other legal instrument an interest in and to the Premises for the purpose of operating and maintaining communications facilities or the management thereof, with or without an assignment of this Agreement to such third party, LESSEE shall have the right of first refusal to meet any bona fide offer of sale or transfer on the same terms and conditions of such offer. If LESSEE fails to meet such bona fide offer within thirty (30) days after written notice thereof from LESSOR, LESSOR may grant the easement or interest in the Premises to such third person in accordance with the terms and conditions of such third party offer.

17. RIGHTS UPON SALE. Should LESSOR, at any time during the Term decide (i) to sell or transfer all or any part of the Property to a purchaser other than LESSEE, or (ii) to grant to a third party by easement or other legal instrument an interest in and to that portion of the Property occupied by LESSEE, or a larger portion thereof, for the purpose of operating and maintaining communications facilities or the management thereof, such sale or grant of an easement or interest therein shall be under and subject to this Agreement and any such purchaser or transferee shall recognize LESSEE's rights hereunder under the terms of this Agreement. To the extent that LESSOR grants to a third party by easement or other legal instrument an interest in and to that portion of the Property occupied by LESSEE for the purpose of operating and maintaining communications facilities or the management thereof and in conjunction therewith, assigns this Agreement to said third party, LESSOR shall not be released from its obligations to LESSEE under this Agreement, and LESSEE shall have the right to look to LESSOR and the third party for the full performance of this Agreement.

18. QUIET ENJOYMENT. LESSOR covenants that LESSEE, on paying the rent and performing the covenants herein, shall peaceably and quietly have, hold and enjoy the Premises.

19. TITLE. LESSOR represents and warrants to LESSEE as of the execution date of this Agreement, and covenants during the Term that LESSOR is seized of good and sufficient title and interest to the Property and has full authority to enter into and execute this Agreement.

LESSOR further covenants during the Term that there are no liens, judgments or impediments of title on the Property, or affecting LESSOR's title to the same and that there are no covenants, easements or restrictions which prevent or adversely affect the use or occupancy of the Premises by LESSEE as set forth above.

20. INTEGRATION. It is agreed and understood that this Agreement contains all agreements, promises and understandings between LESSOR and LESSEE and that no verbal or oral agreements, promises or understandings shall be binding upon either LESSOR or LESSEE in any dispute, controversy or proceeding at law, and any addition, variation or modification to this Agreement shall be void and ineffective unless made in writing signed by the Parties. In the event any provision of the Agreement is found to be invalid or unenforceable, such finding shall not affect the validity and enforceability of the remaining provisions of this Agreement. The failure of either Party to insist upon strict performance of any of the terms or conditions of this Agreement or to exercise any of its rights under the Agreement shall not waive such rights and such Party shall have the right to enforce such rights at any time and take such action as may be lawful and authorized under this Agreement, in law or in equity.

21. GOVERNING LAW. This Agreement and the performance thereof shall be governed, interpreted, construed and regulated by the Laws of the State in which the Property is located.

22. ASSIGNMENT. This Agreement may be sold, assigned or transferred by the LESSEE without any approval or consent of the LESSOR to the LESSEE's principal, affiliates, subsidiaries of its principal or to any entity which acquires all or substantially all of LESSEE's assets in the market defined by the Federal Communications Commission in which the Property is located by reason of a merger, acquisition or other business reorganization. As to other parties, this Agreement may not be sold, assigned or transferred without the written consent of the LESSOR, which such consent will not be unreasonably withheld, delayed or conditioned. No change of stock ownership, partnership interest or control of LESSEE or transfer upon partnership or corporate dissolution of LESSEE shall constitute an assignment hereunder. LESSEE may sublet the Premises within its sole discretion, upon notice to LESSOR; provided, any tenant that may desire to sublet space upon LESSEE's communication facility shall be required to lease separate ground space directly from LESSOR for placement of any ancillary equipment at the Property in order that LESSOR may have the opportunity to achieve a separate agreement with that entity related to any associated use of LESSOR's property. Any sublease that is entered into by LESSEE shall be subject to the provisions of this Agreement and shall be binding upon the successors, assigns, heirs and legal representatives of the respective Parties hereto.

23. NOTICES. All notices hereunder must be in writing and shall be deemed validly given if sent by certified mail, return receipt requested or by commercial courier, provided the courier's regular business is delivery service and provided further that it guarantees delivery to the addressee by the end of the next business day following the courier's receipt from the sender, addressed as follows (or any other address that the Party to be notified may have designated to the sender by like notice):

LESSOR: Rogue Valley Country Club  
2660 Hillcrest Road  
Medford, Oregon 97504  
Telephone: (541) 722-5965

LESSEE: Verizon Wireless (VAW) LLC  
d/b/a Verizon Wireless  
180 Washington Valley Road  
Bedminster, New Jersey 07921  
Attention: Network Real Estate

Notice shall be effective upon actual receipt or refusal as shown on the receipt obtained pursuant to the foregoing.

24. SUCCESSORS. This Agreement shall extend to and bind the heirs, personal representative, successors and assigns of the Parties hereto.

25. SUBORDINATION AND NON-DISTURBANCE. LESSOR shall obtain not later than fifteen (15) days following the execution of this Agreement, a Non-Disturbance Agreement, as defined below, from its existing mortgagee(s), ground lessors and master lessors, if any, of the Property. At LESSOR's option, this Agreement shall be subordinate to any future master lease, ground lease, mortgage, deed of trust or other security interest (a "Mortgage") by LESSOR which from time to time may encumber all or part of the Property or right-of-way; provided, however, as a condition precedent to LESSEE being required to subordinate its interest in this Agreement to any future Mortgage covering the Property, LESSOR shall obtain for LESSEE's benefit a non-disturbance and attornment agreement for LESSEE's benefit in the form reasonably satisfactory to LESSEE, and containing the terms described below (the "Non-Disturbance Agreement"), and shall recognize LESSEE's right to remain in occupancy of and have access to the Premises as long as LESSEE is not in default of this Agreement beyond applicable notice and cure periods. The Non-Disturbance Agreement shall include the encumbering party's ("Lender's") agreement that, if Lender or its successor-in-interest or any purchaser of Lender's or its successor's interest (a "Purchaser") acquires an ownership interest in the Property, Lender or such successor-in-interest or Purchaser will (1) honor all of the terms of the Agreement, (2) fulfill LESSOR's obligations under the Agreement, and (3) promptly cure all of the then-existing LESSOR defaults under the Agreement. Such Non-Disturbance Agreement must be binding on all of Lender's participants in the subject loan (if any) and on all successors and assigns of Lender and/or its participants and on all Purchasers. In return for such Non-Disturbance Agreement, LESSEE will execute an agreement for Lender's benefit in which LESSEE (1) confirms that the Agreement is subordinate to the Mortgage or other real property interest in favor of Lender, (2) agrees to attorn to Lender if Lender becomes the owner of the Property and (3) agrees to accept a cure by Lender of any of LESSOR's defaults, provided such cure is completed within the deadline applicable to LESSOR. In the event LESSOR defaults in the payment and/or other performance of any mortgage or other real property interest encumbering the Property, LESSEE, may, at its sole option and without obligation, cure or

correct LESSOR's default and upon doing so, LESSEE shall be subrogated to any and all rights, titles, liens and equities of the holders of such mortgage or other real property interest and LESSEE shall be entitled to deduct and setoff against all rents that may otherwise become due under this Agreement the sums paid by LESSEE to cure or correct such defaults.

26. RECORDING. LESSOR agrees to execute a Memorandum of this Agreement which LESSEE may record with the appropriate recording officer. The date set forth in the Memorandum of Lease is for recording purposes only and bears no reference to commencement of either the Term or rent payments.

27. DEFAULT.

a. In the event there is a breach by LESSEE with respect to any of the provisions of this Agreement or its obligations under it, including the payment of rent, LESSOR shall give LESSEE written notice of such breach. After receipt of such written notice, LESSEE shall have fifteen (15) days in which to cure any monetary breach and thirty (30) days in which to cure any non-monetary breach, provided LESSEE shall have such extended period as may be required beyond the thirty (30) days if the nature of the cure is such that it reasonably requires more than thirty (30) days and LESSEE commences the cure within the thirty (30) day period and thereafter continuously and diligently pursues the cure to completion. LESSOR may not maintain any action or effect any remedies for default against LESSEE unless and until LESSEE has failed to cure the breach within the time periods provided in this Paragraph.

b. In the event there is a breach by LESSOR with respect to any of the provisions of this Agreement or its obligations under it, LESSEE shall give LESSOR written notice of such breach. After receipt of such written notice, LESSOR shall have thirty (30) days in which to cure any such breach, provided LESSOR shall have such extended period as may be required beyond the thirty (30) days if the nature of the cure is such that it reasonably requires more than thirty (30) days and LESSOR commences the cure within the thirty (30) day period and thereafter continuously and diligently pursues the cure to completion. LESSEE may not maintain any action or effect any remedies for default against LESSOR unless and until LESSOR has failed to cure the breach within the time periods provided in this Paragraph. Notwithstanding the foregoing to the contrary, it shall be a default under this Agreement if LESSOR fails, within five (5) days after receipt of written notice of such breach, to perform an obligation required to be performed by LESSOR if the failure to perform such an obligation interferes with LESSEE's ability to conduct its business on the Property; provided, however, that if the nature of LESSOR's obligation is such that more than five (5) days after such notice is reasonably required for its performance, then it shall not be a default under this Agreement if performance is commenced within such five (5) day period and thereafter diligently pursued to completion.

28. REMEDIES. Upon a default, the non-defaulting Party may at its option (but without obligation to do so), perform the defaulting Party's duty or obligation on the defaulting Party's behalf, including but not limited to the obtaining of reasonably required insurance policies. The costs and expenses of any such performance by the non-defaulting Party shall be

due and payable by the defaulting Party upon invoice therefor. In the event of a default by either Party with respect to a material provision of this Agreement, without limiting the non-defaulting Party in the exercise of any right or remedy which the non-defaulting Party may have by reason of such default, the non-defaulting Party may terminate the Agreement and/or pursue any remedy now or hereafter available to the non-defaulting Party under the Laws or judicial decisions of the state in which the Premises are located; provided, however, LESSOR shall use reasonable efforts to mitigate its damages in connection with a default by LESSEE. If LESSEE so performs any of LESSOR's obligations hereunder, the full amount of the reasonable and actual cost and expense incurred by LESSEE shall immediately be owing by LESSOR to LESSEE, and LESSOR shall pay to LESSEE upon demand the full undisputed amount thereof with interest thereon from the date of payment at the greater of (i) ten percent (10%) per annum, or (ii) the highest rate permitted by applicable Laws. Notwithstanding the foregoing, if LESSOR does not pay LESSEE the full undisputed amount within thirty (30) days of its receipt of an invoice setting forth the amount due from LESSOR, LESSEE may offset the full undisputed amount, including all accrued interest, due against all fees due and owing to LESSOR until the full undisputed amount, including all accrued interest, is fully reimbursed to LESSEE.

#### 29. ENVIRONMENTAL.

a. LESSOR will be responsible for all obligations of compliance with any and all environmental and industrial hygiene laws, including any regulations, guidelines, standards, or policies of any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene conditions or concerns as may now or at any time hereafter be in effect, that are or were in any way related to activity now conducted in, on, or in any way related to the Property, unless such conditions or concerns are caused by the specific activities of LESSEE in the Premises.

b. LESSOR shall hold LESSEE harmless and indemnify LESSEE from and assume all duties, responsibility and liability at LESSOR's sole cost and expense, for all duties, responsibilities, and liability (for payment of penalties, sanctions, forfeitures, losses, costs, or damages) and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding which is in any way related to: a) failure to comply with any environmental or industrial hygiene law, including without limitation any regulations, guidelines, standards, or policies of any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene concerns or conditions as may now or at any time hereafter be in effect, unless such non-compliance results from conditions caused by LESSEE; and b) any environmental or industrial hygiene conditions arising out of or in any way related to the condition of the Property or activities conducted thereon, unless such environmental conditions are caused by LESSEE.

30. CASUALTY. In the event of damage by fire or other casualty to the Premises that cannot reasonably be expected to be repaired within forty-five (45) days following same or, if the Property is damaged by fire or other casualty so that such damage may reasonably be expected to disrupt LESSEE's operations at the Premises for more than forty-five (45) days, then LESSEE may, at any time following such fire or other casualty, provided LESSOR has not completed the

restoration required to permit LESSEE to resume its operation at the Premises, terminate this Agreement upon fifteen (15) days prior written notice to LESSOR. Any such notice of termination shall cause this Agreement to expire with the same force and effect as though the date set forth in such notice were the date originally set as the expiration date of this Agreement and the Parties shall make an appropriate adjustment, as of such termination date, with respect to payments due to the other under this Agreement. Notwithstanding the foregoing, the rent shall abate during the period of repair following such fire or other casualty in proportion to the degree to which LESSEE's use of the Premises is impaired.

31. CONDEMNATION. In the event of any condemnation of all or any portion of the Property, this Agreement shall terminate as to the part so taken as of the date the condemning authority takes title or possession, whichever occurs first. If as a result of a partial condemnation of the Premises or Property, LESSEE, in LESSEE's sole discretion, is unable to use the Premises for the purposes intended hereunder, or if such condemnation may reasonably be expected to disrupt LESSEE's operations at the Premises for more than forty-five (45) days, LESSEE may, at LESSEE's option, to be exercised in writing within fifteen (15) days after LESSOR shall have given LESSEE written notice of such taking (or in the absence of such notice, within fifteen (15) days after the condemning authority shall have taken possession) terminate this Agreement as of the date the condemning authority takes such possession. LESSEE may on its own behalf make a claim in any condemnation proceeding involving the Premises for losses related to the equipment, conduits, fixtures, its relocation costs and its damages and losses (but not for the loss of its leasehold interest). Any such notice of termination shall cause this Agreement to expire with the same force and effect as though the date set forth in such notice were the date originally set as the expiration date of this Agreement and the Parties shall make an appropriate adjustment as of such termination date with respect to payments due to the other under this Agreement. If LESSEE does not terminate this Agreement in accordance with the foregoing, this Agreement shall remain in full force and effect as to the portion of the Premises remaining, except that the rent shall be reduced in the same proportion as the rentable area of the Premises taken bears to the total rentable area of the Premises. In the event that this Agreement is not terminated by reason of such condemnation, LESSOR shall promptly repair any damage to the Premises caused by such condemning authority.

32. SUBMISSION OF AGREEMENT/PARTIAL INVALIDITY/AUTHORITY. The submission of this Agreement for examination does not constitute an offer to lease the Premises and this Agreement becomes effective only upon the full execution of this Agreement by the Parties. If any provision herein is invalid, it shall be considered deleted from this Agreement and shall not invalidate the remaining provisions of this Agreement. Each of the Parties hereto warrants to the other that the person or persons executing this Agreement on behalf of such Party has the full right, power and authority to enter into and execute this Agreement on such Party's behalf and that no consent from any other person or entity is necessary as a condition precedent to the legal effect of this Agreement.

33. APPLICABLE LAWS. During the Term, LESSOR shall maintain the Property in compliance with all applicable laws, rules, regulations, ordinances, directives, covenants, easements, zoning and land use regulations, and restrictions of record, permits, building codes,

and the requirements of any applicable fire insurance underwriter or rating bureau, now in effect or which may hereafter come into effect (including, without limitation, the Americans with Disabilities Act and laws regulating hazardous substances) (collectively "Laws"). LESSEE shall, in respect to the condition of the Premises and at LESSEE's sole cost and expense, comply with (a) all Laws relating solely to LESSEE's specific and unique nature of use of the Premises (other than general office use); and (b) all building codes requiring modifications to the Premises due to the improvements being made by LESSEE in the Premises.

34. SURVIVAL. The provisions of the Agreement relating to indemnification from one Party to the other Party shall survive any termination or expiration of this Agreement. Additionally, any provisions of this Agreement which require performance subsequent to the termination or expiration of this Agreement shall also survive such termination or expiration.

35. CAPTIONS. The captions contained in this Agreement are inserted for convenience only and are not intended to be part of the Agreement. They shall not affect or be utilized in the construction or interpretation of the Agreement.

IN WITNESS WHEREOF, the Parties hereto have set their hands and affixed their respective seals the day and year first above written.

LESSOR: Rogue Valley Country Club,  
an Oregon corporation

By:   
Name: David F. Cuttred  
Title: President  
Date: 6/30/16

LESSEE: Verizon Wireless (VAW) LLC  
d/b/a Verizon Wireless

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

EXHIBIT "A" (Page 1 of 5)  
LEGAL DESCRIPTION

Beginning at the Quarter corner common to Sections 28 and 29, Township 37 South, Range 1 West, Willamette Meridian, Jackson County, Oregon; thence North 0° 02' 00" West, along the West boundary of Section 28, a distance of 2196.3 feet to the Southerly boundary of Hillcrest Road; thence Easterly, along the Southerly boundary of said Road, to the initial point of ROGUE VALLEY ESTATES SUBDIVISION, in Jackson County, Oregon, according to the Official Plat thereof, now of record; thence along the outside boundary of said Subdivision, as follows: along the arc of a curve right (which arc has a radius of 70.0 feet and a long chord of South 39° 04' 58" East, 41.13 feet) 41.74 feet; thence South 22° 00' 00" East, 182.36 feet; thence along the arc of a curve left (which arc has a radius of 286.29 feet and a long chord of South 42° 00' 00" East, 195.84 feet), 199.87 feet; thence along the arc of a curve right (which arc has a radius of 37.78 feet and a long chord of South 31° 00' 00" East 38.92 feet) 40.88 feet; thence South 31.40 feet; thence East 24.12 feet; thence along the arc of a curve right (which arc has a radius of 121.53 feet and a long chord of South 82° 30' 00" East, 31.72 feet) 31.82 feet; thence along the arc of a curve right (which arc has a radius of 150.35 feet and a long chord of South 63° 30' 00" East 58.95 feet) 60.35 feet; thence South 52° 00' 00" East, 58.24 feet; thence South 75 degrees 00' East 119.50 feet; thence East 44.57 feet; thence along the arc of a curve right (which arc has a radius of 524.56 feet and a long chord of South 08° 10' 30" West, 112.84 feet) 113.06 feet; thence South 12° 21' 00" West 117.78 feet; thence along the arc of a curve right (which arc has a radius of 2879.53 feet and a long chord of South 13° 55' 30" West 158.29 feet), 158.31 feet; thence South 15° 30' 00" West 380.58 feet; thence North 74 degrees 30' 00" West 97.27 feet; thence South 43° 00' 00" West 409.47 feet; thence South 295.00 feet; thence along the arc of a curve left (which arc has a radius of 100.00 feet and a long chord of South 45° 00' 00" East 141.42 feet), 157.08 feet; thence East 230.0 feet; thence North 80° 30' 00" East 231.82 feet; thence North 30° 05' 42" East, 110.84 feet; thence along the arc of a curve left (which arc has a radius of 270.00 feet and a long chord of North 10° 59' 37" East, 168.81 feet), 169.59 feet; thence North 07° 00' 00" West, 77.78 feet; thence along the arc of a curve left (which arc has radius of 270.0 feet and a long chord of North 20° 30' 00" West 126.06 feet), 127.23 feet; thence North 34° 00' 00" West, 100.64 feet; thence along the arc of a curve left (which arc has a radius of 187.47 feet and a long chord of North 54° 15' 00" West, 129.77 feet), 132.52 feet; thence North 15° 30' 00" East 380.58 feet; thence along the arc of a curve left (which arc has a radius of 2939.53 feet and a long chord of North 13° 55' 30" East, 161.59 feet), 161.61 feet; thence North 12° 21' 00" East, 117.78 feet; thence along the arc of a curve left (which arc has a radius of 584.56 feet and a long chord of North 06° 13' 39" East, 124.69 feet), 124.83 feet; thence East 199.98 feet, to the initial point of the Resubdivision of Lots 3 to 8, Inclusive, of Block 3, Rogue Valley Estates Subdivision, in Jackson County, Oregon, according to the Official Plat thereof, now of record; thence South 32° 00' 00" East, 70.05 feet; thence South 46° 39' 00" East 147.40 feet; thence South 0° 04' 50 East 900.00 feet, to the Southwest corner of Lot 13, Block 3, said Rogue Valley Estates Subdivision; thence South 88° 14' 10" West, 99.05 feet; thence South 0° 03' 50" East, 98.95 feet; thence South 24° 23' 10" East 56.56 feet; thence South 12° 17' 40" West 159.30 feet; thence South 12° 44' 30" West, 114.58 feet; thence North 88° 06' 40" East 216.48 feet; thence South 86° 16' 10" East, 109.90 feet; thence South 86° 40' 00" East, 52.42 feet; thence North 82° 36' 00" East, 52.42 feet; thence North 75° 44' 00" East 144.00 feet; thence North 47° 20' 00" East, 136.95 feet; thence North 38° 47' 00" East, 227.00 feet; thence North 21° 20' 30" East, 123.73 feet; thence North 08° 43' 00" East 124.28 feet; thence North 05° 39' 10" East, 100.82 feet; thence North 18° 50' 30" West, 104.44 feet, to the Southeast corner of Parcel II described in Volume 518, Page 371, Jackson County, Oregon, Deed Records; thence North 12° 14' 40" West, 215.18 feet; thence North 37° 14' 50" West 347. 10 feet; thence North 0° 42' 10" East 74.79 feet, to the South boundary of Lot 2 CRESTBROOK ORCHARD TRACTS, in Jackson County, Oregon, according to the Official Plat thereof, now of record; thence North 89° 49' 30" West, along said lot boundary 35.42 feet, to a 5/8 inch iron pin (from which the Southwest corner of Donation Land Claim No. 61, said Township and Range, bears North 89° 49' 30" West, 160.67 feet and South 0 degrees 55' 30" West, 30.00 feet); thence North 0° 42' 50" East, 230.49 feet; thence South 89° 42' 50" East 431.65 feet;

EXHIBIT "A" (Page 2 of 5)

thence North 75° 04' 30" East 244.59 feet; thence South 89° 49' 30" East 217.98 feet; thence North 0° 59' 40" East, 46.69 feet; thence North 77° 40' 30" East 467.63 feet; thence South 38° 51' 20" East 117.70 feet; thence South 01° 09' 10" East, 520.17 feet; thence South 85° 27' 20" East, 191.73 feet; thence South 59° 48' 00" East 54.77 feet; thence South 18° 55' 30" East 91.79 feet; thence South 30° 25' 00" West, 161.14 feet; thence South 40° 12' 00" West 140.07 feet, to the North boundary of Lot 6, said Crestbrook Orchard Tracts; thence along the North boundary of said lot, North 89° 50' 00" West 85.00 feet, to the Northwest corner of said lot; thence South 0° 07' 50" East along the West boundary of said lot, 200.00 feet, to the centerline of the Medford Irrigation Districts East canal; thence South 41° 35' 30" West, 89.22 feet, to a point on said canal centerline; thence South 24° 14' 30" West, 416.65 feet; thence South 36° 50' 00" West 598.00 feet, to the South boundary of Lot 7, said Crestbrook Orchard Tracts; thence North 89° 51' 00" West, 160.00 feet to a point from which the Southwest corner of said Lot 7 bears North 89° 51' 00" West 75.00 feet ; thence North 23° 12' 20" East 676.96 feet; thence North 24° 05' 00" East, 535.00 feet; thence North 19° 01' 40" East 287.82 feet; thence North 12° 47' 10" West, 489.37 feet; thence South 88° 50' 10" West, 58.15 feet; thence South 59 degrees 58' 50" West 402.58 feet to a point on the South boundary of Lot 1, said Crestbrook Orchard Tracts; thence along the South boundary of said lot, and the South boundary of Lot 2, said Crestbrook Orchard Tracts North 89° 49' 30" West 610.75 feet, to the East boundary of Caperna Drive; thence South 41° 46' 00" East, 160.94 feet, to the most Southerly corner of said Drive; thence along the Southeasterly extension of the Southerly boundary of said Drive, along the arc of a curve right (which arc has a radius of 390.00 feet and a long chord of South 47° 58' 10" East 30.02 feet); 30.03 feet; thence South 45° 45' 50" East, 313.93 feet; thence South 31° 11' 10" East 219.58 feet, to the Northwest corner of Lot 7, said Crestbrook Orchard Tracts; thence South 0° 11' 40" East, along the West boundary of said lot, 369.56 feet, to the most Northerly corner of tract described in Volume 452, Page 271, Jackson County, Oregon, Deed Records; thence along the Northwesterly boundary of said tract as follows: South 27° 02' 40" West 104.50 feet; thence South 05° 35' 40" West 200.00 feet; thence South 43° 41' 40" West 100.00 feet; thence South 52° 16' 40" West, 123.00 feet; thence South 39° 46' 40" West 155.00 feet; thence South 48° 59' 40" West 74.00 feet; thence South 41° 34' 40" West, 12.13 feet, to a 3/4 inch iron bolt located at the Northeast corner of tract described in Volume 452, Page 274, Jackson County, Oregon, Deed Records; thence North 89° 51' 00" West, along the North boundary of said tract, 427.39 feet, to the West boundary of said Crestbrook Orchard Tracts; thence South 0° 30' 20" West, 140.00 feet, to an inside "L" corner of said Crestbrook Orchard Tracts; thence South 0° 05' 10" West 15.00 feet, to the Northwest corner of Lot 11, said Crestbrook Orchard Tracts; thence South 89° 51' 00" East 1640.19 feet, to the Northeast corner of Lot 12, said Crestbrook Orchard Tracts; thence South 0° 01' 20" East, along the East boundary of said lot, 817.40 feet, to the centerline of the Medford Irrigation District's East canal; thence North 85° 00' 00" West, along said canal centerline, 148.90 feet; thence South 82° 00' 00" West, 6110 feet, to a point in the center of said canal; thence South 38° 00' 00" West, 66.60 feet, to a point in the center of said canal; thence South 63.50 feet, to a point in the center of said canal; thence South 49° 05' 30" East, along the center of said canal, 326.78 feet, to a point on the South boundary of said Lot 12; thence North 89° 57' 00" West 810.71 feet, to the Southwest corner of said lot; thence North 0° 02' 00" East, along the West boundary of said lot, 944.28 feet, to a 5/8 inch iron pin, from which the Northwest corner of said Lot 12 bears North 0° 02' 00" East, 200.00 feet; thence South 78° 12' 40" West, 845.87 feet, to a 5/8 inch iron pin located on the East boundary of Lot 10, said Crestbrook Orchard Tracts, from which the Northeast corner of said lot bears North 0° 05' 10" East, 375.00 feet; thence North 77° 32' 50" West 586.54 feet, to a 5/8 inch iron pin; thence North 44° 51' 40" West, 353.62 feet, to a 5/8 inch iron pin located on the North boundary of Lot 9, said Crestbrook Orchard Tracts, from which the Northeast corner of said lot bears South 89° 51' 00" East, 25.00 feet; thence North 0° 09' 00" East, 15.00 feet, to the North boundary of said Crestbrook Orchard Tracts; thence North 89° 51' 00" West, 713.81 feet, to the most Westerly Northwest corner of said Crestbrook Orchard Tracts; thence North 89° 43' 20" West to and along the North boundary of COUNTRY CLUB MANOR SUBDIVISION, in Jackson County, Oregon, according to the Official Plat thereof, now of record, 1875.09 feet, to the initial point of said Subdivision; thence North 89° 43' 20" West, 45.48 feet, to the point of beginning. TOGETHER WITH the parcel described as follows: Commencing at a 5/8 inch iron pin located at the Southwest corner of Lot 7 of CRESTBROOK ORCHARD TRACTS in Jackson County, Oregon, according to the Official Plat thereof, now of

EXHIBIT "A" (Page 3 of 5)

record; thence North 00° 12' 04" West 10.33 feet, to a point on the North right of way line of Calle Vista Drive; thence South 89° 51' 54" East, along said right of way line, 69.81 feet, to the point of beginning; thence, leaving said right of way line, North 00° 16' 22" East, 69.05 feet; thence North 25° 40' 13" East, 106.69 feet; thence North 23° 48' 19" East, 130.71 feet; thence North 27° 14' 32" East, 136.77 feet; thence North 24° 11' 17" East, 122.63 feet; thence North 23° 33' 39" East, 117.36 feet; thence North 25° 55' 44" East, 529.41 feet, to a point on the North line of said Lot 7 described in Tract "A" of Parcel I in Document No. 92-31513, Official Records of Jackson County, Oregon, said point being North 89° 50' West, 250 feet, from the Northeast corner of said Lot 7; thence, leaving said North line, South 24° 04' 06" West, along the Westerly line of said Tract "A", 536.59 feet; thence, continuing along said Westerly line of Tract "A" and the Easterly line of Tract "C" in Parcel I of said Document No. 92-31513, said Official Records, South 23° 11' 26" West, 666.03 feet, to the North right of way line of Calle Vista Drive; thence North 89° 51' 54" West, along said right of way line, 9.52 feet, to the point of beginning. TOGETHER WITH the two parcels described as follows: Pedestrian Lane between Lots 4 and 5 in Block 4, and Pedestrian Lane between Lots 7 and 8 in Block 4, all in the ROGUE VALLEY ESTATES SUBDIVISION, in the City of Medford, Jackson County, Oregon. ALSO TOGETHER WITH the parcel described as follows: Beginning at the Northwest corner of Lot 5, COUNTRY CLUB VILLAGE ESTATES SOUTH VILLAGE, according to the Official Plat thereof, now of record in Jackson County, Oregon; thence, along the Westerly boundary of said South Village, the following courses: South 10 degrees 59' 27" West 135.69 feet; thence South 30 degrees 05' 00" West 77.31 feet to a point being South 0 degrees 11' 40" East of the Northwest corner of Lot 6 of CRESTBROOK ORCHARD TRACTS; thence North 0° 11' 40" West 200 feet, more or less, to said Northeast corner of Lot 6; thence East along the North line of said Lot 6, 65 feet to the point of beginning. EXCEPTING THEREFROM the following: Beginning at the Northeast corner of Lot 1, Block 4, ROGUE VALLEY ESTATES SUBDIVISION, in Jackson County, Oregon, according to the Official Plat thereof, now of record; thence North 15° 30' 00" East, 225.00 feet; thence North 74° 30' 00" West 97.27 feet; thence South 15° 30' 00" West 225.00 feet, to the Northwest corner of said Lot 1; thence South 74° 30' 00" East, along the Northerly line of said lot 97.27 feet, to the point of beginning. ALSO EXCEPTING THEREFROM the following: That portion lying within the boundaries of Caperna Drive, as dedicated and described on the Official Plat of FAIRWAY ACRES SUBDIVISION, in Jackson County, Oregon. ALSO EXCEPTING THEREFROM the following: Commencing at the Southwest corner of Donation Land Claim No. 61, in Township 37 South, Range 1 West, Willamette Meridian, Jackson County, Oregon; thence North 0° 55' 30" East 60.01 feet; thence to and along the North boundary of Caperna Drive, South 89° 49' 30" East 160.55 feet, to the true point of beginning; thence continue along said Drive boundary, South 89° 49' 30" East 38.42 feet; thence along said Drive boundary along the arc of a curve right (which arc has a radius of 450.0 feet and a long chord of South 79° 18' 20" East, 164.31 feet), 165.24 feet, to the South boundary of Lot 2, Crestbrook Orchard Tracts, in Jackson County, Oregon, according to the Official Plat thereof, now of record; thence along the South boundary of said lot, and the South boundary of Lot 1, said Crestbrook Orchard Tracts, South 89° 49' 30" East, 590.50 feet; thence North 59° 58' 50" East 1085.0 feet; thence North 0° 59' 40" East, 238.80 feet; thence North 89° 49' 30" West, 217.9 feet; thence South 75° 04' 30" West 244.59 feet; thence North 89° 42' 50" West, 431.65 feet; thence South 0° 42' 50" West 200.49 feet to the true point of beginning. ALSO EXCEPTING THEREFROM the following: Commencing at the Southwest corner of Donation Land Claim No. 61 in Township 37 South, Range 1 West, Willamette Meridian, Jackson County, Oregon; thence North 0° 55' 30" East 30.0 feet; thence South 89° 49' 30" East, 360.92 feet to a 3/4 inch iron bolt in concrete for the true point of beginning; thence continue South 89° 49' 30" East, 30.00 feet; thence South 0° 10' 30" West, 12.81 feet to the Northerly right of way line of Caperna Drive; thence along the arc of a 450.00 foot radius curve to the left (the chord of which arc bears North 66° 42' 33" West, 32.62 feet) 32.63 feet to the true point of beginning. ALSO EXCEPTING THEREFROM those portions described in instruments recorded as Document Nos. 89-01817, 91-22715, 91-24379 and 94-22935, Official Records of Jackson County, Oregon. ALSO EXCEPTING THEREFROM Fairways Edge, a planned community, in Medford Oregon, Meadow Park Subdivision Unit No. 2 in Medford, Oregon, Golf View Estates in Medford, Oregon and Calle Vista Drive, a public street. ALSO EXCEPTING THEREFROM the tracts described in deeds recorded on October 15, 1997 as Document Nos. 87-386, 9738652 and 97-38653, Official Records of Jackson County, Oregon. ALSO EXCEPTING THEREFROM all that portion thereof described in deed recorded as Document No. 2007-026182, Official Records, Jackson County, Oregon.

**EXHIBIT "A" (Page 4 of 5)**  
**Description of Premises**

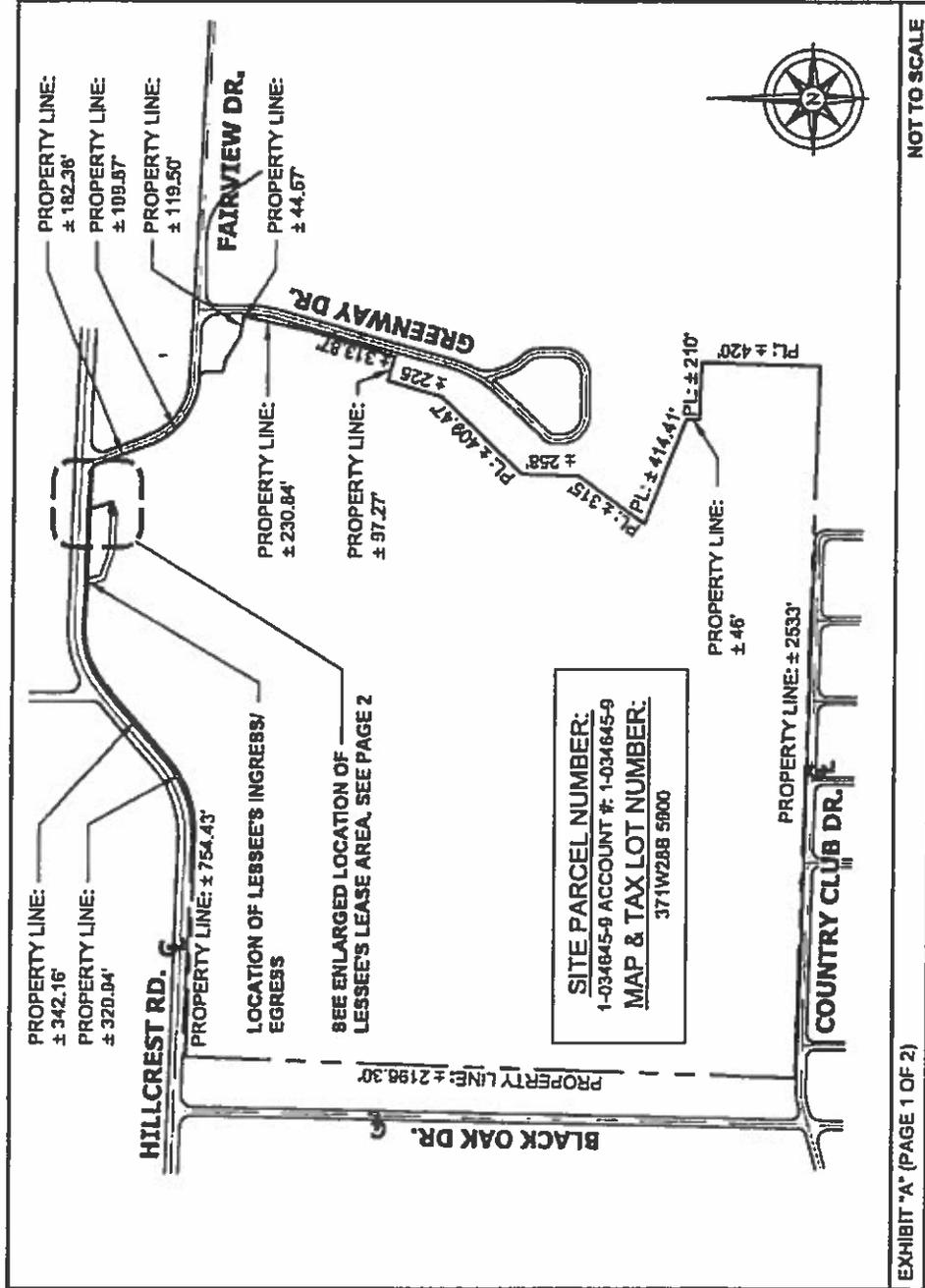
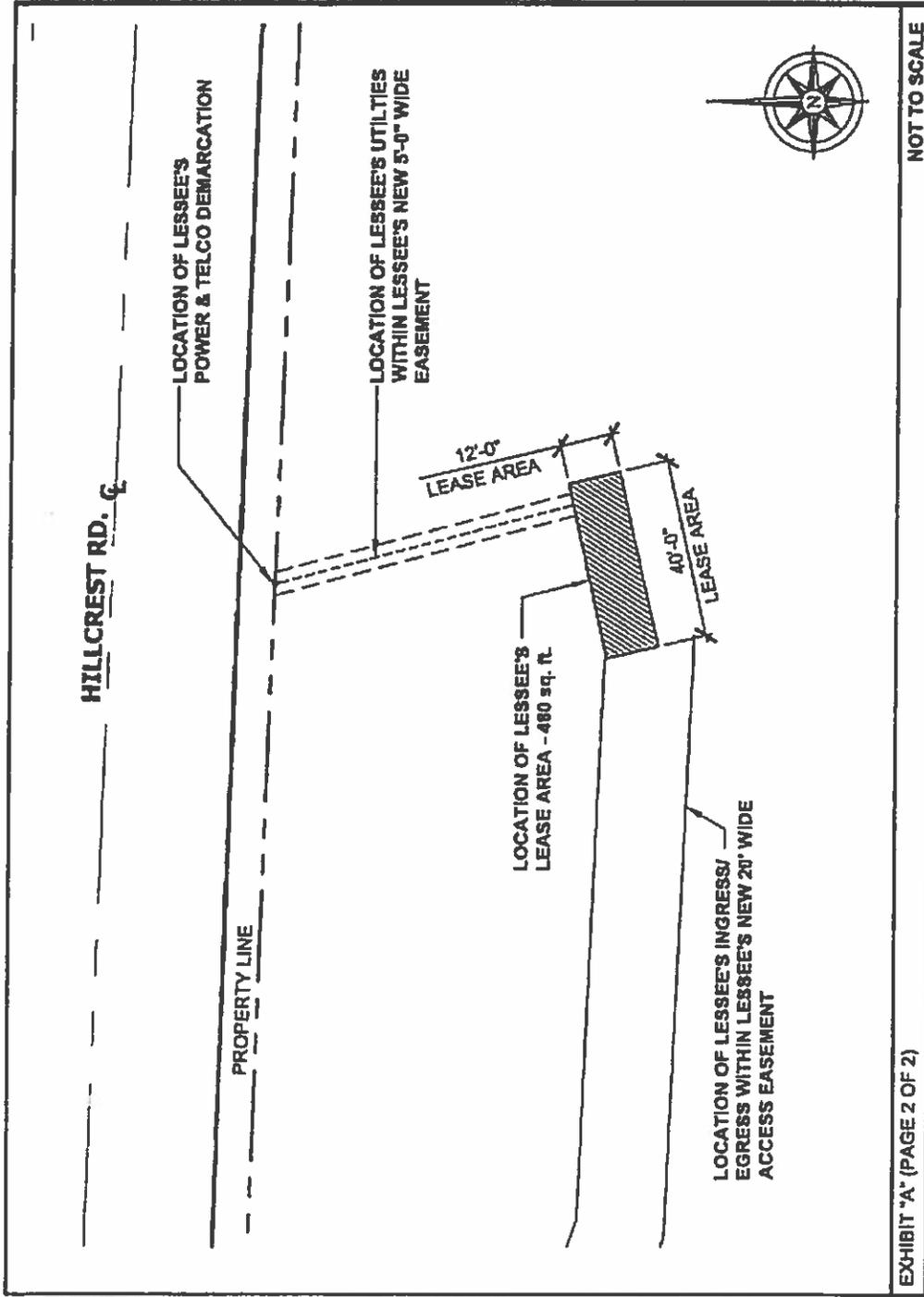


EXHIBIT "A" (Page 5 of 5)



NOT TO SCALE

EXHIBIT "A" (PAGE 2 OF 2)

FILED FOR RECORD AT REQUEST OF  
AND WHEN RECORDED RETURN TO:  
Davis Wright Tremaine LLP  
Attn: C. Eng  
777 108<sup>th</sup> Avenue NE, Suite 2300  
Bellevue, WA 98004-5149

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Space above this line is for Recorder's use.

**Memorandum of Option and Land Lease Agreement**

Grantor: Rogue Valley Country Club, an Oregon corporation

Grantee: Verizon Wireless (VAW) LLC d/b/a Verizon Wireless

Legal Description: County of Jackson, State of Oregon  
Official legal description as Exhibit A

Assessor's Tax Parcel ID#: 1-034645-9

Reference # (if applicable):

MEMORANDUM OF OPTION AND LAND LEASE AGREEMENT

THIS MEMORANDUM OF OPTION AND LAND LEASE AGREEMENT evidences that an Option and Land Lease Agreement (“Agreement”) was entered into as of \_\_\_\_\_, 201\_\_\_\_, by and between Rogue Valley Country Club, an Oregon corporation (“Lessor”), and Verizon Wireless (VAW) LLC d/b/a Verizon Wireless (“Lessee”), for certain real property located at 2660 Hillcrest Road, Medford, County of Jackson, State of Oregon, within the property of Lessor which is described in Exhibit “A” attached hereto (“Legal Description”), together with a right of access and to install and maintain utilities, for an initial term of five (5) years commencing as provided for in the Agreement, which term is subject to Lessee’s rights to extend the term of the Agreement as provided in the Agreement.

[THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, Lessor and Lessee have duly executed this Memorandum of Option and Land Lease Agreement as of the day and year last below written.

LESSOR: Rogue Valley Country Club, an Oregon corporation

By:   
Name: David F. Cuttrel  
Title: President  
Date: 6/30/16

LESSEE: Verizon Wireless (VAW) LLC d/b/a Verizon Wireless

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

Exhibit A – Legal Description

LESSOR ACKNOWLEDGMENT

STATE OF Oregon )  
COUNTY OF Jackson ) ss.

On this 30<sup>th</sup> day of June, 2016, before me, a Notary Public in and for the State of Oregon, personally appeared David F. Astren, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed this instrument, on oath stated that He/She was authorized to execute the instrument, and acknowledged it as the President of Rogue Valley Country Club, an Oregon corporation, to be the free and voluntary act and deed of said party for the uses and purposes mentioned in the instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year first above written.



Layne M. Snyder  
NOTARY PUBLIC in and for the State of Oregon  
residing at 1203 Bordenhall Ave  
My appointment expires 6/2/19  
Print Name Layne M. Snyder



EXHIBIT "A" (Page 1 of 3)  
LEGAL DESCRIPTION

Beginning at the Quarter corner common to Sections 28 and 29, Township 37 South, Range 1 West, Willamette Meridian, Jackson County, Oregon; thence North 0° 02' 00" West, along the West boundary of Section 28, a distance of 2196.3 feet to the Southerly boundary of Hillcrest Road; thence Easterly, along the Southerly boundary of said Road, to the initial point of ROGUE VALLEY ESTATES SUBDIVISION, in Jackson County, Oregon, according to the Official Plat thereof, now of record; thence along the outside boundary of said Subdivision, as follows: along the arc of a curve right (which arc has a radius of 70.0 feet and a long chord of South 39° 04' 58" East, 41.13 feet) 41.74 feet; thence South 22° 00' 00" East, 182.36 feet; thence along the arc of a curve left (which arc has a radius of 286.29 feet and a long chord of South 42° 00' 00" East, 195.84 feet), 199.87 feet; thence along the arc of a curve right (which arc has a radius of 37.78 feet and a long chord of South 31° 00' 00" East 38.92 feet) 40.88 feet; thence South 31.40 feet; thence East 24.12 feet; thence along the arc of a curve right (which arc has a radius of 121.53 feet and a long chord of South 82° 30' 00" East, 31.72 feet) 31.82 feet; thence along the arc of a curve right (which arc has a radius of 150.35 feet and a long chord of South 63° 30' 00" East 59.95 feet) 60.35 feet; thence South 52° 00' 00" East, 58.24 feet; thence South 75 degrees 00' East 119.50 feet; thence East 44.57 feet; thence along the arc of a curve right (which arc has a radius of 524.56 feet and a long chord of South 06° 10' 30" West, 112.84 feet) 113.06 feet; thence South 12° 21' 00" West 117.78 feet; thence along the arc of a curve right (which arc has a radius of 2879.53 feet and a long chord of South 13° 55' 30" West 158.29 feet), 158.31 feet; thence South 15° 30' 00" West 380.56 feet; thence North 74 degrees 30' 00" West 97.27 feet; thence South 43° 00' 00" West 409.47 feet; thence South 295.00 feet; thence along the arc of a curve left (which arc has a radius of 100.00 feet and a long chord of South 45° 00' 00" East 141.42 feet), 157.08 feet; thence East 230.0 feet; thence North 80° 30' 00" East 231.82 feet; thence North 30° 05' 42" East, 110.84 feet; thence along the arc of a curve left (which arc has a radius of 270.00 feet and a long chord of North 10° 59' 37" East, 166.81 feet), 169.59 feet; thence North 07° 00' 00" West, 77.78 feet; thence along the arc of a curve left (which arc has radius of 270.0 feet and a long chord of North 20° 30' 00" West 126.06 feet), 127.23 feet; thence North 34° 00' 00" West, 100.64 feet; thence along the arc of a curve left (which arc has a radius of 187.47 feet and a long chord of North 54° 15' 00" West, 129.77 feet), 132.52 feet; thence North 15° 30' 00" East 380.56 feet; thence along the arc of a curve left (which arc has a radius of 2939.53 feet and a long chord of North 13° 55' 30" East, 161.59 feet), 161.61 feet; thence North 12° 21' 00" East, 117.78 feet; thence along the arc of a curve left (which arc has a radius of 584.56 feet and a long chord of North 06° 13' 39" East, 124.69 feet), 124.93 feet; thence East 199.98 feet, to the initial point of the Resubdivision of Lots 3 to 8, inclusive, of Block 3, Rogue Valley Estates Subdivision, in Jackson County, Oregon, according to the Official Plat thereof, now of record; thence South 32° 00' 00" East, 70.05 feet; thence South 46° 39' 00" East 147.40 feet; thence South 0° 04' 50 East 900.00 feet, to the Southwest corner of Lot 13, Block 3, said Rogue Valley Estates Subdivision; thence South 88° 14' 10" West, 99.05 feet; thence South 0° 03' 50" East, 96.95 feet; thence South 24° 23' 10" East 56.56 feet; thence South 12° 17' 40" West 159.30 feet; thence South 12° 44' 30" West, 114.58 feet; thence North 88° 06' 40" East 216.48 feet; thence South 86° 18' 10" East, 109.90 feet; thence South 86° 40' 00" East, 52.42 feet; thence North 82° 36' 00" East, 52.42 feet; thence North 75° 44' 00" East 144.00 feet; thence North 47° 20' 00" East, 136.95 feet; thence North 38° 47' 00" East, 227.00 feet; thence North 21° 20' 30" East, 123.73 feet; thence North 08° 43' 00" East 124.28 feet; thence North 05° 39' 10" East, 100.82 feet; thence North 18° 50' 30" West, 104.44 feet, to the Southeast corner of Parcel II described in Volume 518, Page 371, Jackson County, Oregon, Deed Records; thence North 12° 14' 40" West, 215.18 feet; thence North 37° 14' 50" West 347. 10 feet; thence North 0° 42' 10" East 74.79 feet, to the South boundary of Lot 2 CRESTBROOK ORCHARD TRACTS, in Jackson County, Oregon, according to the Official Plat thereof, now of record; thence North 89° 49' 30" West, along said lot boundary 35.42 feet, to a 5/8 Inch Iron pin (from which the Southwest corner of Donation Land Claim No. 61, said Township and Range, bears North 89° 49' 30" West, 160.67 feet and South 0 degrees 55' 30" West, 30.00 feet); thence North 0° 42' 50" East, 230.49 feet; thence South 89° 42' 50" East 431.65 feet;

**EXHIBIT "A" (Page 2 of 3)**

thence North 75° 04' 30" East 244.59 feet; thence South 89° 49' 30" East 217.98 feet; thence North 0° 59' 40" East, 46.69 feet; thence North 77° 40' 30" East 467.63 feet; thence South 38° 51' 20" East 117.70 feet; thence South 01° 09' 10" East, 520.17 feet; thence South 85° 27' 20" East, 191.73 feet; thence South 59° 48' 00" East 54.77 feet; thence South 18° 55' 30" East 91.79 feet; thence South 30° 26' 00" West, 161.14 feet; thence South 40° 12' 00" West 140.07 feet, to the North boundary of Lot 6, said Crestbrook Orchard Tracts; thence along the North boundary of said lot, North 89° 50' 00" West 65.00 feet, to the Northwest corner of said lot; thence South 0° 07' 50" East along the West boundary of said lot, 200.00 feet, to the centerline of the Medford Irrigation Districts East canal; thence South 41° 35' 30" West, 69.22 feet, to a point on said canal centerline; thence South 24° 14' 30" West, 416.65 feet; thence South 36° 50' 00" West 598.00 feet, to the South boundary of Lot 7, said Crestbrook Orchard Tracts; thence North 89° 51' 00" West, 160.00 feet to a point from which the Southwest corner of said Lot 7 bears North 89° 51' 00" West 75.00 feet; thence North 23° 12' 20" East 676.96 feet; thence North 24° 05' 00" East, 535.00 feet; thence North 19° 01' 40" East 287.82 feet; thence North 12° 47' 10" West, 489.37 feet; thence South 88° 50' 10" West, 58.15 feet; thence South 59 degrees 58' 50" West 402.58 feet to a point on the South boundary of Lot 1, said Crestbrook Orchard Tracts; thence along the South boundary of said lot, and the South boundary of Lot 2, said Crestbrook Orchard Tracts North 89° 49' 30" East 610.75 feet, to the East boundary of Caperna Drive; thence South 41° 46' 00" East, 160.94 feet, to the most Southerly corner of said Drive; thence along the Southeasterly extension of the Southerly boundary of said Drive, along the arc of a curve right (which arc has a radius of 390.00 feet and a long chord of South 47° 58' 10" East 30.02 feet); 30.03 feet; thence South 45° 45' 50" East, 313.93 feet; thence South 31° 11' 10" East 218.58 feet, to the Northwest corner of Lot 7, said Crestbrook Orchard Tracts; thence South 0° 11' 40" East, along the West boundary of said lot, 369.56 feet, to the most Northerly corner of tract described in Volume 452, Page 271, Jackson County, Oregon, Deed Records; thence along the Northwesterly boundary of said tract as follows: South 27° 02' 40" West 104.50 feet; thence South 05° 35' 40" West 200.00 feet; thence South 43° 41' 40" West 100.00 feet; thence South 52° 18' 40" West, 123.00 feet; thence South 39° 46' 40" West 155.00 feet; thence South 48° 59' 40" West 74.00 feet; thence South 41° 34' 40" West, 12.13 feet, to a 3/4 inch iron bolt located at the Northeast corner of tract described in Volume 452, Page 274, Jackson County, Oregon, Deed Records; thence North 89° 51' 00" West, along the North boundary of said tract, 427.39 feet, to the West boundary of said Crestbrook Orchard Tracts; thence South 0° 30' 20" West, 140.00 feet, to an inside "L" corner of said Crestbrook Orchard Tracts; thence South 0° 05' 10" West 15.00 feet, to the Northwest corner of Lot 11, said Crestbrook Orchard Tracts; thence South 89° 51' 00" East 1640.19 feet, to the Northeast corner of Lot 12, said Crestbrook Orchard Tracts; thence South 0° 01' 20" East, along the East boundary of said lot, 817.40 feet, to the centerline of the Medford Irrigation District's East canal; thence North 85° 00' 00" West, along said canal centerline, 148.90 feet; thence South 82° 00' 00" West, 6110 feet, to a point in the center of said canal; thence South 38° 00' 00" West, 66.60 feet, to a point in the center of said canal; thence South 63.50 feet, to a point in the center of said canal; thence South 49° 05' 30" East, along the center of said canal, 326.78 feet, to a point on the South boundary of said Lot 12; thence North 89° 57' 00" West 810.71 feet, to the Southwest corner of said lot; thence North 0° 02' 00" East, along the West boundary of said lot, 944.28 feet, to a 5/8 inch iron pin, from which the Northwest corner of said Lot 12 bears North 0° 02' 00" East, 200.00 feet; thence South 78° 12' 40" West, 845.87 feet, to a 5/8 inch iron pin located on the East boundary of Lot 10, said Crestbrook Orchard Tracts, from which the Northeast corner of said lot bears North 0° 05' 10" East, 375.00 feet; thence North 77° 32' 50" West 586.54 feet, to a 5/8 inch iron pin; thence North 44° 51' 40" West, 353.62 feet, to a 5/8 inch iron pin located on the North boundary of Lot 9, said Crestbrook Orchard Tracts, from which the Northeast corner of said lot bears South 89° 51' 00" East, 25.00 feet; thence North 0° 09' 00" East, 15.00 feet, to the North boundary of said Crestbrook Orchard Tracts; thence North 89° 51' 00" West, 713.81 feet, to the most Westerly Northwest corner of said Crestbrook Orchard Tracts; thence North 89° 43' 20" West to and along the North boundary of COUNTRY CLUB MANOR SUBDIVISION, in Jackson County, Oregon, according to the Official Plat thereof, now of record, 1875.09 feet, to the initial point of said Subdivision; thence North 89° 43' 20" West, 45.48 feet, to the point of beginning. TOGETHER WITH the parcel described as follows: Commencing at a 5/8 inch iron pin located at the Southwest corner of Lot 7 of CRESTBROOK ORCHARD TRACTS in Jackson County, Oregon, according to the Official Plat thereof, now of

EXHIBIT "A" (Page 3 of 3)

record; thence North 00° 12' 04" West 10.33 feet, to a point on the North right of way line of Calle Vista Drive; thence South 89° 51' 54" East, along said right of way line, 69.81 feet, to the point of beginning; thence, leaving said right of way line, North 00° 16' 22" East, 69.05 feet; thence North 25° 40' 13" East, 106.69 feet; thence North 23° 48' 19" East, 130.71 feet; thence North 27° 14' 32" East, 136.77 feet; thence North 24° 11' 17" East, 122.63 feet; thence North 23° 33' 39" East, 117.38 feet; thence North 25° 55' 44" East, 529.41 feet, to a point on the North line of said Lot 7 described in Tract "A" of Parcel I in Document No. 92-31513, Official Records of Jackson County, Oregon, said point being North 89° 50' West, 250 feet, from the Northeast corner of said Lot 7; thence, leaving said North line, South 24° 04' 06" West, along the Westerly line of said Tract "A", 536.59 feet; thence, continuing along said Westerly line of Tract "A" and the Easterly line of Tract "C" in Parcel I of said Document No. 92-31513, said Official Records, South 23° 11' 26" West, 686.03 feet, to the North right of way line of Calle Vista Drive; thence North 89° 51' 54" West, along said right of way line, 9.52 feet, to the point of beginning. TOGETHER WITH the two parcels described as follows: Pedestrian Lane between Lots 4 and 5 in Block 4, and Pedestrian Lane between Lots 7 and 8 in Block 4, all in the ROGUE VALLEY ESTATES SUBDIVISION, in the City of Medford, Jackson County, Oregon. ALSO TOGETHER WITH the parcel described as follows: Beginning at the Northwest corner of Lot 5, COUNTRY CLUB VILLAGE ESTATES SOUTH VILLAGE, according to the Official Plat thereof, now of record in Jackson County, Oregon; thence, along the Westerly boundary of said South Village, the following courses: South 10 degrees 59' 27" West 135.69 feet; thence South 30 degrees 05' 00" West 77.31 feet to a point being South 0 degrees 11' 40" East of the Northwest corner of Lot 6 of CRESTBROOK ORCHARD TRACTS; thence North 0° 11' 40" West 200 feet, more or less, to said Northeast corner of Lot 6; thence East along the North line of said Lot 6, 65 feet to the point of beginning. EXCEPTING THEREFROM the following: Beginning at the Northeast corner of Lot 1, Block 4, ROGUE VALLEY ESTATES SUBDIVISION, in Jackson County, Oregon, according to the Official Plat thereof, now of record; thence North 15° 30' 00" East, 225.00 feet; thence North 74° 30' 00" West 97.27 feet; thence South 15° 30' 00" West 225.00 feet, to the Northwest corner of said Lot 1; thence South 74° 30' 00" East, along the Northerly line of said lot 1 97.27 feet, to the point of beginning. ALSO EXCEPTING THEREFROM the following: That portion lying within the boundaries of Caperna Drive, as dedicated and described on the Official Plat of FAIRWAY ACRES SUBDIVISION, in Jackson County, Oregon. ALSO EXCEPTING THEREFROM the following: Commencing at the Southwest corner of Donation Land Claim No. 61, in Township 37 South, Range 1 West, Willamette Meridian, Jackson County, Oregon; thence North 0° 55' 30" East 60.01 feet; thence to and along the North boundary of Caperna Drive, South 89° 49' 30" East 160.55 feet, to the true point of beginning; thence continue along said Drive boundary, South 89° 49' 30" East 38.42 feet; thence along said Drive boundary along the arc of a curve right (which arc has a radius of 450.0 feet and a long chord of South 79° 18' 20" East, 164.31 feet), 165.24 feet, to the South boundary of Lot 2, Crestbrook Orchard Tracts, in Jackson County, Oregon, according to the Official Plat thereof, now of record; thence along the South boundary of said lot, and the South boundary of Lot 1, said Crestbrook Orchard Tracts, South 89° 49' 30" East, 590.50 feet; thence North 59° 58' 50" East 10850 feet; thence North 0° 59' 40" East, 238.80 feet; thence North 89° 49' 30" West, 217.9 feet; thence South 75° 04' 30" West 244.59 feet; thence North 89° 42' 50" West, 431.65 feet; thence South 0° 42' 50" West 200.49 feet to the true point of beginning. ALSO EXCEPTING THEREFROM the following: Commencing at the Southwest corner of Donation Land Claim No. 61 in Township 37 South, Range 1 West, Willamette Meridian, Jackson County, Oregon; thence North 0° 55' 30" East 30.0 feet; thence South 89° 49' 30" East, 360.92 feet to a 3/4 inch iron bolt in concrete for the true point of beginning; thence continue South 89° 49' 30" East, 30.00 feet; thence South 0° 10' 30" West, 12.81 feet to the Northerly right of way line of Caperna Drive; thence along the arc of a 450.00 foot radius curve to the left (the chord of which arc bears North 66° 42' 33" West, 32.62 feet) 32.63 feet to the true point of beginning. ALSO EXCEPTING THEREFROM those portions described in instruments recorded as Document Nos. 89-01817, 91-22715, 91-24379 and 94-22935, Official Records of Jackson County, Oregon. ALSO EXCEPTING THEREFROM Fairways Edge, a planned community, in Medford Oregon, Meadow Park Subdivision Unit No. 2 in Medford, Oregon, Golf View Estates in Medford, Oregon and Calle Vista Drive, a public street. ALSO EXCEPTING THEREFROM the tracts described in deeds recorded on October 15, 1997 as Document No.s 97-386, 9738652 and 97-38653, Official Records of Jackson County, Oregon. ALSO EXCEPTING THEREFROM all that portion thereof described in deed recorded as Document No. 2007-026162, Official Records, Jackson County, Oregon.

**Exhibit J**  
FCC License

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ULS License

**PCS Broadband License - KNLG654 - Verizon Wireless (VAW) LLC**

Call Sign	KNLG654	Radio Service	CW - PCS Broadband
Status	Active	Auth Type	Regular
<b>Market</b>			
Market	BTA385 - Roseburg, OR	Channel Block	D
Submarket	0	Associated Frequencies (MHz)	001865.00000000-001870.00000000 001945.00000000-001950.00000000
<b>Dates</b>			
Grant	05/31/2007	Expiration	04/28/2017
Effective	02/18/2011	Cancellation	
<b>Buildout Deadlines</b>			
1st	04/28/2002	2nd	
<b>Notification Dates</b>			
1st	04/12/2002	2nd	
<b>Licensee</b>			
FRN	0003800307	Type	Partnership
<b>Licensee</b>			
Verizon Wireless (VAW) LLC 1120 Sanctuary Pkwy, #150 GASASREG Alpharetta, GA 30009-7630 ATTN Regulatory		P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@VerizonWireless.com	
<b>Contact</b>			
Verizon Wireless Licensing - Manager 1120 Sanctuary Pkwy, #150 GASASREG Alpharetta, GA 30009-7630 ATTN Regulatory		P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@VerizonWireless.com	
<b>Ownership and Qualifications</b>			
Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes
<b>Alien Ownership</b>			
Is the applicant a foreign government or the representative of any foreign government?			No
Is the applicant an alien or the representative of an alien?			No
Is the applicant a corporation organized under the laws of any foreign government?			No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?			No
Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or			Yes

voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	
The Alien Ruling question is not answered.	
<b>Basic Qualifications</b> The Applicant answered "No" to each of the Basic Qualification questions.	
<b>Tribal Land Bidding Credits</b> This license did not have tribal land bidding credits.	
<b>Demographics</b>	
Race	
Ethnicity	Gender

# **Exhibit K**

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NIER Report

BENJAMIN F. DAWSON III, PE  
THOMAS M. ECKELS, PE  
STEPHEN S. LOCKWOOD, PE  
DAVID J. PINION, PE  
ERIK C. SWANSON, PE

---

THOMAS S. GORTON, PE  
MICHAEL H. MEHIGAN, PE

HATFIELD & DAWSON  
CONSULTING ELECTRICAL ENGINEERS  
9500 GREENWOOD AVE. N.  
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E-MAIL [pinion@hatdaw.com](mailto:pinion@hatdaw.com)

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JAMES B. HATFIELD, PE  
CONSULTANT

---

MAURY L. HATFIELD, PE  
(1942 – 2009)  
PAUL W. LEONARD, PE  
(1925 – 2011)

NON-IONIZING ELECTROMAGNETIC EXPOSURE  
ANALYSIS  
AND

ENGINEERING CERTIFICATION

PREPARED FOR

**Verizon Wireless**

“MDF WINTER GOLF”

NEW MONOPINE FACILITY

2660 HILLCREST ROAD

MEDFORD

JACKSON COUNTY, OREGON

FEBRUARY 2016

## INTRODUCTION

Hatfield & Dawson Consulting Engineers has been retained to evaluate the proposed Verizon Wireless personal wireless telecommunications facility "MDF WINTER GOLF" for compliance with current Federal Communications Commission (FCC) and local guidelines regarding public exposure to radio frequency (RF) electromagnetic fields (EMFs).

## BACKGROUND

Construction drawings furnished by Verizon representatives show that the Verizon facility will have antennas installed atop a new monopine tower at 2660 Hillcrest Road, Medford, in Jackson County, Oregon 97504.

The drawings show the Verizon panel antennas mounted and centered approximately 100 feet above ground level. Thus all of the Verizon antennas will be mounted well above head height for persons at the project site, on adjacent properties, or within nearby buildings.

The tower is shown without climbing appurtenances, and the base of the tower will be surrounded by a chain link fence with barbed wire. Therefore it is unlikely that anyone other than authorized and RF cognizant workers could approach near enough to any of the Verizon antennas to cause that person's RF exposure to exceed FCC limits.

All of the Verizon antennas are highly directional in the vertical plane, and they will project the majority of the transmitted RF energy horizontally and well above all nearby habitable areas. It is expected that RF exposure conditions will be well below FCC and local public exposure limits at the project site and on adjacent properties, due to the contributions from all of the Verizon wireless operations.

***The operation of the Verizon facility will NOT create significant RF exposure conditions in any occupancy, publicly accessible area, or within any habitable area.***

Hatfield & Dawson Consulting Engineers

### **EMISSION CHARACTERISTICS**

The Verizon facility may operate within the 700 MHz Upper Block "C" band, the 800 MHz Cellular "B" band, the 1.9 GHz Personal Communications Service (PCS) bands, and the 2.1 GHz Advanced Wireless Service (AWS) "B" band frequency range. *The output power from the proposed antennas will not exceed current federally approved levels for human RF exposure.*

### **CALCULATION OF MAXIMUM EXPOSURE CONDITIONS**

RF power densities and exposure conditions are computed in accordance with methods described in *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, OET Bulletin 65, August 1997.*

OET Bulletin 65 describes the methods established by the FCC for predicting compliance with FCC-specified exposure limits. Personal wireless and microwave facilities are required to comply with the FCC "Rules & Regulations" *47 CFR §1.1310, Radiofrequency radiation exposure limits.*

The following formula has been used to calculate the power densities at specific locations:

$$S(\text{mW}/\text{cm}^2) = 0.36 \times \text{ERP (watts)} / (\text{Distance in feet})^2$$

This formula is derived from Equation 9 on page 21 of OET Bulletin 65. It includes the effect of reflections. The Effective Radiated Power (ERP) in a particular direction depends on the vertical and horizontal antenna patterns. A composite vertical antenna pattern is used to determine the predicted power density. This composite antenna pattern is a worst case envelope that encompasses the maximums of the downward lobes of the vertical patterns of the Verizon antennas. It is expected that RF exposure conditions near ground level at the project site, within any nearby buildings, and on all adjacent properties, due to the contributions from all of the antennas on the tower, will be well below the FCC public exposure limit.

Hatfield & Dawson Consulting Engineers

### **ANALYSIS OF VERIZON WIRELESS OPERATIONS**

The RF exposure analysis is based on information provided by Verizon representatives, and known characteristics of typical wireless facilities. The analysis provides a “worst case” model for calculating the maximum “uncontrolled” (i.e., general public) RF power density and exposure condition for a person standing at the nearest approach to any of the tower mounted antennas.

All of the Verizon antennas will be centered approximately 100 feet above ground level. A six foot tall person standing at ground level near the project tower would be 94 feet or more from the center lines of any of the Verizon antennas.

### **CUMULATIVE RF EXPOSURE CONDITIONS DUE TO VERIZON OPERATIONS**

The predicted maximum worst case cumulative Public RF exposure condition near the project tower resulting from all Verizon wireless operations at the project site is less than 2% of the Public MPE limit. This maximum predicted cumulative Public exposure condition is less than 1/50<sup>th</sup> of the 100% MPE limit.

*Therefore the Verizon wireless operations at the project site will not have a significant environmental impact as defined by the FCC Public MPE limits. Furthermore, the Verizon facility will not cause any existing wireless facilities to exceed non-ionizing electromagnetic radiation (NIER) exposure standards.*

The analysis presented in this report demonstrates compliance with NIER emissions standards as set forth by the Federal Communications Commission (FCC) particularly with respect to any habitable areas on or near the project site.

### **COMPLIANCE WITH FCC REGULATIONS AND GUIDELINES FOR RF EXPOSURE**

*The Verizon wireless operations at the project site will not have a significant environmental impact as defined by the FCC Public MPE limits.*

Hatfield & Dawson Consulting Engineers

The FCC has determined through calculations and technical analysis that personal wireless facilities, such as those operated by Verizon, are highly unlikely to cause human RF exposures in excess of FCC guideline limits. In particular, personal wireless facilities with non-building-mounted antennas greater than 10 meters (about 33 feet) above ground level are considered to have such a low impact on overall exposure conditions that they are "categorically excluded" (i.e., exempt) from the requirement for routine environmental assessment regarding RF exposure hazards.

Thus according to FCC rules, the Verizon wireless facility, with all antennas centered at well above the 33 foot level, is exempt from further RF safety environmental assessment because it is presumed to be in compliance with the FCC RF exposure rules and guidelines. The Verizon facility is expected to be compliant with FCC rules regarding public RF exposure provided that direct access to the Verizon antennas is positively restricted.

#### **COMPLIANCE WITH FCC REGULATIONS FOR RF EMISSIONS AND RF INTERFERENCE**

It is expected that the RF interaction between all of the Verizon wireless operations at the project site will be low enough to preclude the likelihood of localized interference caused by the Verizon wireless facility to the reception of any other communications signals. All of the Verizon antennas are sufficiently high enough, and far enough removed from all occupancies, that they are unlikely to cause interference with nearby consumer receivers or other consumer electronic devices. *Reception of radio, TV, avionics and other EMF signals will not be disturbed or diminished.*

Transmission equipment for the Verizon wireless facility is certified by the FCC under the equipment authorization procedures set forth in the FCC rules. This assures that the wireless facility will transmit within the desired base-station frequency bands at authorized power levels. The Verizon facility will operate in accordance with all FCC rules regarding power, signal bandwidth, interference mitigation, and good RF engineering practices. *The proposed Verizon facility will comply with all FCC standards for radio frequency emissions.*

Hatfield & Dawson Consulting Engineers

### **COMPLIANCE WITH LOCAL REGULATIONS**

Because the Verizon Wireless facility will be in compliance with federal rules, it will also be in compliance with local regulations concerning RF emissions. The following is the complete text of 47 U.S.C. § 332(c)(7)(B)(iv):

"No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions."

### **CONCLUSIONS BASED ON CALCULATIONS AND REGULATIONS**

The proposed Verizon Wireless facility "MDF WINTER GOLF" is exempt from the requirement for routine environmental assessment regarding RF exposure hazards, and it will be in compliance with current FCC and local rules regarding radio frequency interference and public exposure to radio frequency electromagnetic fields. This conclusion is based on information supplied by Verizon representatives, and estimates of future RF exposure conditions due to the Verizon facility in specific areas with the corresponding safe exposure guidelines set forth in the FCC rules.

The FCC exposure limits are based on recommendations by federal and private entities with the appropriate expertise in human safety issues. Under the Commission's rules and guidelines, licensees are required to ensure compliance with the limits for maximum permissible exposure (MPE) established by the FCC. These limits have been developed based on guidelines provided by the Institute of Electrical and Electronics Engineers, Inc. (IEEE) and the National Council on Radiation Protection and Measurements (NCRP). Both the NCRP and IEEE guidelines were developed by scientists and engineers with a great deal of experience and knowledge in the area of RF biological effects and related issues.

Hatfield & Dawson Consulting Engineers

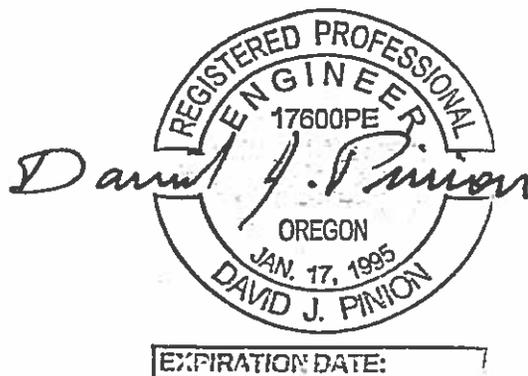
To ensure full compliance with current FCC rules regarding human exposure to radio frequency electromagnetic fields, the Verizon transmitters should be turned off whenever maintenance and repair personnel are required to work in the immediate vicinity of the Verizon antennas. This safety procedure should apply to all existing and future wireless transmission facilities at the project site. All instances of antenna-related work require that the subject antennas be completely deactivated.

#### QUALIFICATIONS

I am a Senior Member of the IEEE. As a partner in the firm of Hatfield & Dawson Consulting Engineers I am registered as a Professional Engineer in the States of Oregon, Washington, California and Hawaii. I am an experienced radio engineer with over 30 years of professional engineering experience whose qualifications are a matter of record with the Federal Communications Commission, and I hold an FCC General Radiotelephone Operator License PG-12-21740.

All representations contained herein are true to the best of my knowledge.

1 February 2016

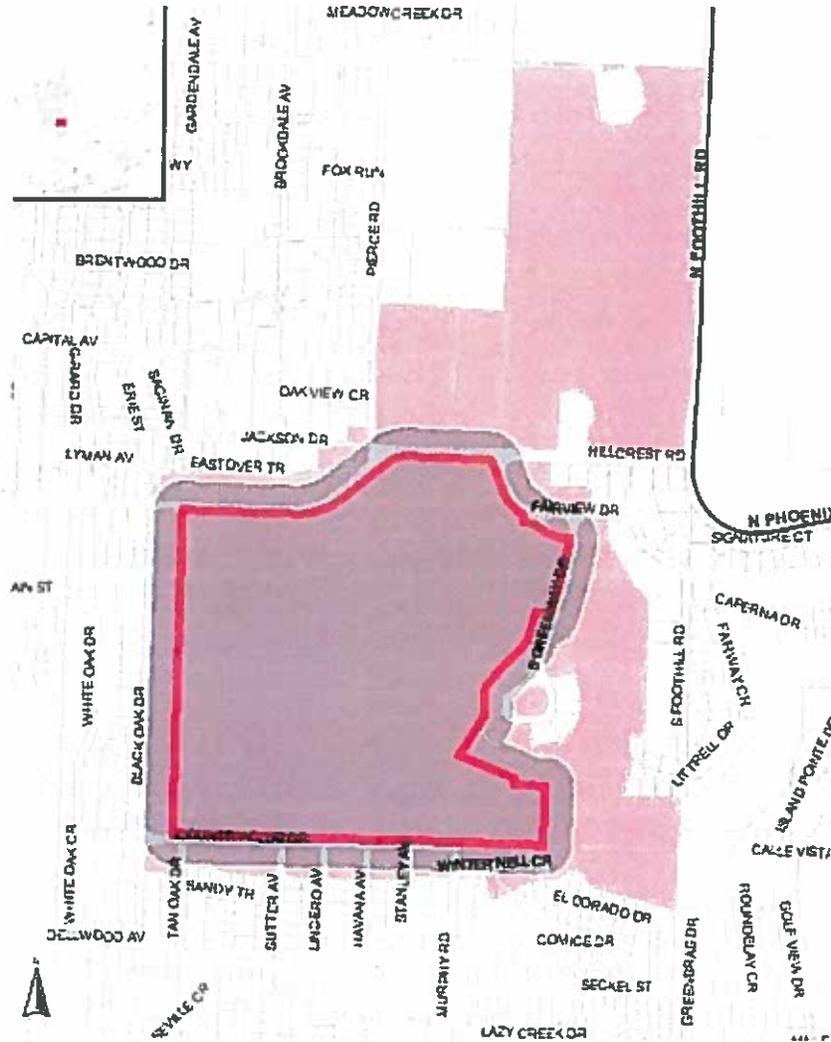


David J. Pinion, P.E.

PE Expiration Date 12/31/2016

Hatfield & Dawson Consulting Engineers

RECEIVED  
JUL 26 2016  
PLANNING DEPT.





**Kelly A. Akin**

---

**From:** CAINES Jeff <Jeff.CAINES@aviation.state.or.us>  
**Sent:** Thursday, September 08, 2016 2:39 PM  
**To:** Kelly A. Akin  
**Subject:** CUP-16-094  
**Attachments:** 2016-ODA-019-OE-Determination Letter.pdf

**RECEIVED**  
SEP 08 2016  
*KA*  
PLANNING DEPT.

Kelly:

The applicant has filed and received a ODA determination for the proposed site at 2660 Hill Crest Rd. Attached is ODA's determination.

ODA is not opposed to the proposed telecommunications tower. However ODA does recommend markings and lights for aviation safety per FAA Advisory Circular AC70/7460-1L.

If you or the applicant have any questions please feel free to contact me.

Jeff

**Jeff Caines, AICP**  
**Oregon Department of Aviation**  
Aviation Planner / SCIP Coordinator  
3040 25th St. SE | Salem, OR 97302  
Office: 503.378.2529  
Cell / Text: 503.507.6965  
Email: Jeff.Caines@aviation.state.or.us

\*\*\*\*\*CONFIDENTIALITY NOTICE\*\*\*\*\*

This e-mail may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If you are not the addressee or it appears from the context or otherwise that you have received this e-mail in error, please advise me immediately by reply e-mail, keep the contents confidential, and immediately delete the message and any attachments from your system.



# Memo

RECEIVED

SEP 14 2016

PLANNING DEPT.

**To:** Kelly Akin, Planning Department  
**From:** Chad Wiltrout, Building Department (541) 774-2363  
**CC:** Verizon Wireless  
**Date:** September 14, 2016  
**Re:** CUP-16-094

---

**Please Note:**

*This is not a plan review. Unless noted specifically as Conditions of Approval, general comments are provided below based on the general information provided; these comments are based on the 2014 Oregon Structural Specialty Code (OSSC) unless noted otherwise. Plans need to be submitted and will be reviewed by a commercial plans examiner, and there may be additional comments.*

*Fees are based on valuation. Please contact Building Department front counter for estimated fees at (541) 774-2350 or [building@cityofmedford.org](mailto:building@cityofmedford.org).*

*For questions related to the Conditions or Comments, please contact me, Chad Wiltrout, directly at (541) 774-2363 or [chad.wiltrout@cityofmedford.org](mailto:chad.wiltrout@cityofmedford.org).*

**General Comments:**

1. For list of applicable Building Codes, please visit the City of Medford website: [www.ci.medford.or.us](http://www.ci.medford.or.us) Click on "City Departments" at top of screen; click on "Building"; click on "Design Criteria" on left side of screen and select the appropriate design criteria.
2. All plans are to be submitted electronically. Information on the website: [www.ci.medford.or.us](http://www.ci.medford.or.us) Click on "City Departments" at top of screen; click on "Building"; click on "Electronic Plan Review (ePlans)" for information.

**Comments:**

3. Needs to be designed per Chapter 16. Particularly Section 1609; 1609.1.1 using TIA-222 for antenna-supporting structures and antennas.

CITY OF MEDFORD  
EXHIBIT # F  
File # CUP-16-094



Continuous Improvement Customer Service

RECEIVED

SEP 14 2016

PLANNING DEPT.

**CITY OF MEDFORD**

LD Date: 9/14/2016  
File Number: CUP-16-094

**PUBLIC WORKS DEPARTMENT STAFF REPORT  
Verizon Wireless MDF Winter Golf**

**Project:** Consideration of a Conditional Use Permit application to allow a new wireless communications facility consisting of a 114-foot support structure and associated equipment cabinets use for communication systems.

**Location:** The subject site is located at the southwest corner of Hillcrest Road and Fairview Drive at the northeast property corner of tax lot 371W28B5900.

**Applicant:** Verizon Wireless, Applicant/Agent. Kelly Akin, Planner.

---

**Public Works has no comments on the proposed Conditional Use Permit application.**

Prepared by: Doug Burroughs

CITY OF MEDFORD  
EXHIBIT # 9  
File # CUP-16-094



BOARD OF WATER COMMISSIONERS

**Staff Memo**

**TO:** Planning Department, City of Medford  
**FROM:** Rodney Grehn P.E., Water Commission Staff Engineer  
**SUBJECT:** CUP-16-094  
**PARCEL ID:** 371W28B TL 5900

RECEIVED  
SEP 14 2016  
PLANNING DEPT.

**PROJECT:** Consideration of a Conditional Use Permit application to allow a new wireless communications facility consisting of a 114-foot support structure and associated equipment cabinets use for communication systems. The subject site is located at the southwest corner of Hillcrest Road and Fairview Drive at the northeast property corner of tax lot 371W28B5900; Verizon Wireless, Applicant/Agent. Kelly Akin, Planner.

**DATE:** September 14, 2016

I have reviewed the above plan authorization application as requested. Conditions for approval and comments are as follows:

**CONDITIONS**

1. No Conditions

**COMMENTS**

1. Off-site water line installation is not required.
2. On-site water facility construction is not required.
3. MWC-metered water service does not exist to this property.
4. Access to MWC water lines is available. There is an existing 16-inch water line located within the Hillcrest Road right-of-way, and a 6-inch water line in the Fairview Drive right-of-way.

CITY OF MEDFORD  
EXHIBIT # H  
File # CUP-16-094

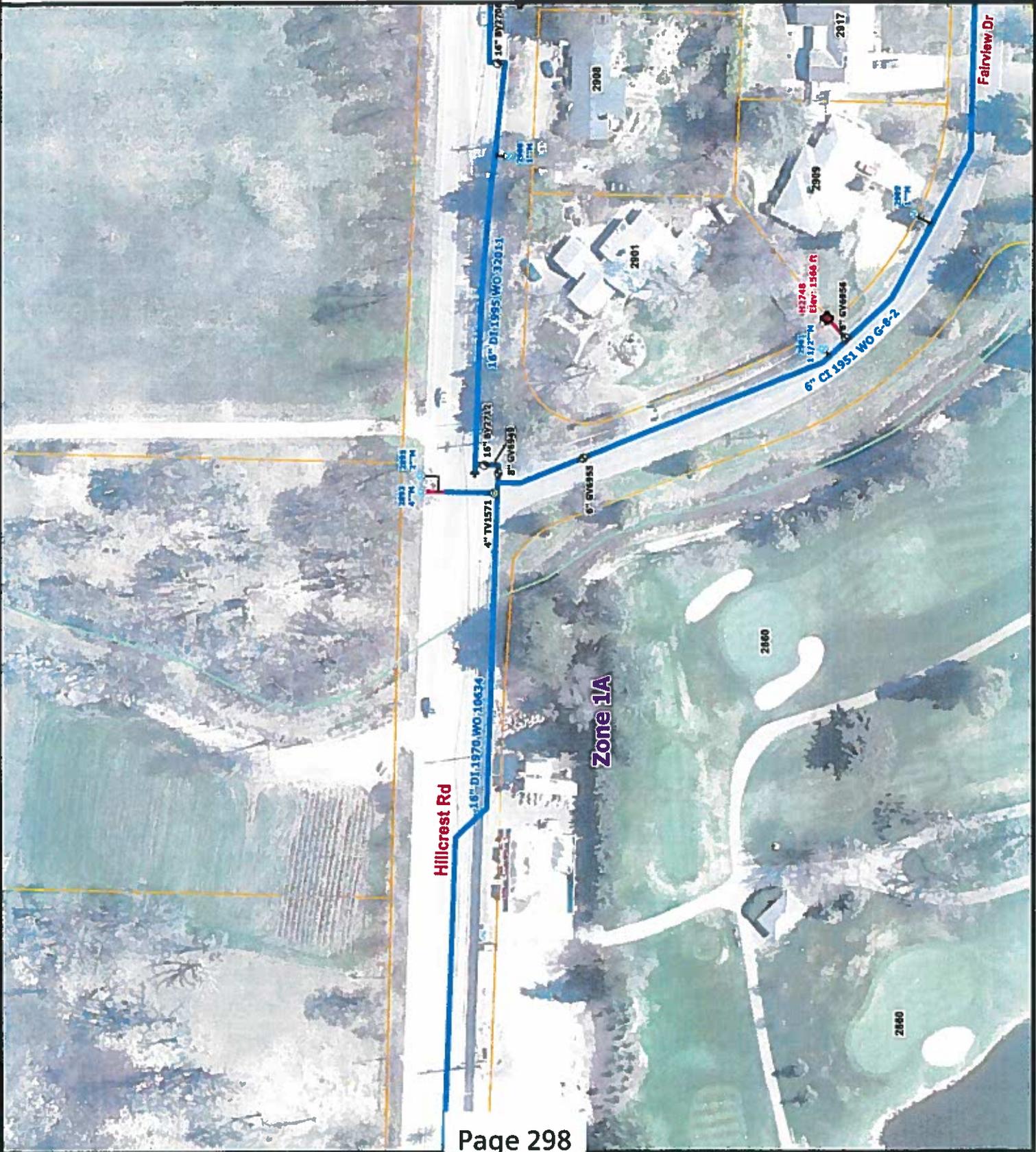


0 25 50 100 Feet  
Scale: 1"=100'

**Water Facility Map  
for  
CUP-16-094**

**Legend**

- Air Valve
- Sample Station
- Fire Service
- ▲ Hydrant
- ▲ Reducer
- Blow Off
- ⊕ Plugs-Caps
- Water Meters:**
- Active Meter
- On Well
- Unknown
- Vacant
- Water Valves:**
- Butterfly Valve
- Gate Valve
- Tapping Valve
- Water Mains:**
- Active Main
- - - Abandoned Main
- Reservoir Drain Pipe
- Pressure Zone Line
- Boundaries:**
- Urban Growth Boundary
- City Limits
- Tax Lots
- MWC Facilities:**
- Control Station
- Pump Station
- Reservoir





# Medford Fire Department

200 S. Ivy Street, Room #180  
Medford, OR 97501  
Phone: 774-2300; Fax: 541-774-2514;  
E-mail [www.fire@ci.medford.or.us](mailto:www.fire@ci.medford.or.us)

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SEP 14 2016

## LAND DEVELOPMENT REPORT - PLANNING PLANNING DEPT.

To: Kelly Akin

LD Meeting Date: 09/14/2016

From: Fire Marshal Kleinberg

Report Prepared: 09/06/2016

File #: CUP - 16 - 94

### Site Name/Description:

Consideration of a Conditional Use Permit application to allow a new wireless communications facility consisting of a 114-foot support structure and associated equipment cabinets use for communication systems. The subject site is located at the southwest corner of Hillcrest Road and Fairview Drive at the northeast property corner of tax lot 371W28B5900; Verizon Wireless, Applicant/Agent. Kelly Akin, Planner.

DESCRIPTION OF CORRECTIONS	REFERENCE
----------------------------	-----------

Approved as Submitted

Meets Requirement: No Additional Requirements

Development shall comply with access and water supply requirements in accordance with the Fire Code in affect at the time of development submittal.  
Fire apparatus access roads are required to be installed prior to the time of construction. The approved water supply for fire protection (hydrants) is required to be installed prior to construction when combustible material arrives at the site.  
Specific fire protection systems may be required in accordance with the Oregon Fire Code.  
This plan review shall not prevent the correction of errors or violations that are found to exist during construction. This plan review is based on the information provided only.  
Design and installation shall meet the Oregon requirements of the IBC, IFC, IMC and NFPA standards.

CITY OF MEDFORD

EXHIBIT # I

File # CUP-16-094

**Kelly A. Akin**

---

**From:** Planning Department  
**Sent:** Thursday, October 13, 2016 10:12 AM  
**To:** Kelly A. Akin  
**Subject:** FW: cell tower

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**OCT 13 2016**  
**PLANNING DEPT.**

**From:** Barbara Barnes [<mailto:barbanddave@jeffnet.org>]  
**Sent:** Thursday, October 13, 2016 9:21 AM  
**To:** Planning Department  
**Subject:** cell tower

Dear Planning Commission,

I cannot make the meeting tonight but I want to urge denial of the Verizon Conditional Use Permit application. I do not live near the area but believe this is unfair to homeowners who live nearby. These towers are very unsightly and the City should at the very least require clear demonstration of public good being served rather than profit margins or convenience of the applicant.

Thank you.

Barbara Barnes  
207 Florence Avenue  
Medford, Oregon 97504

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EXHIBIT # J  
File # CUP-16-094

# REALTOR Mag

## Cell Towers, Antennas Problematic for Buyers

DAILY REAL ESTATE NEWS | FRIDAY JULY 25 2014

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OCT 13 2016  
PLANNING DEPT.

An overwhelming 94 percent of home buyers and renters surveyed by the National Institute for Science, Law & Public Policy (NISLAPP) say they are less interested and would pay less for a property located near a cell tower or antenna.

What's more, of the 1,000 survey respondents, 79 percent said that under no circumstances would they ever purchase or rent a property within a few blocks of a cell tower or antennas, and almost 90 percent said they were concerned about the increasing number of cell towers and antennas in their residential neighborhood.

### Trouble Spots for Buyers:

- Home Owners Object to Cell Tower Installations
- Field Guide to Cell Phone Towers
- 6 Ways a Home May Turn Off Buyers
- 6 Ways to Turn Off Buyers at Open Houses

The survey, "Neighborhood Cell Towers & Antennas—Do They Impact a Property's Desirability?" also found that properties where a cell tower or group of antennas are placed on top of or attached to a building (condominium high-rise, for instance) is problematic for buyers.

"A study of real estate sales prices would be beneficial at this time in the United States to determine what discounts home buyers are currently placing on properties near cell towers and antennas," says Jim Turner, chair of NISLAPP.

The NISLAPP survey echoes the findings of a study by Sandy Bond of the New Zealand Property Institute and past president of the Pacific Rim Real Estate Society (PRRES). "The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods," which was published in The Appraisal Journal in 2006, found that buyers would pay as much as 20 percent less for a property near a cell tower or antenna.

Source: "Neighborhood Cell Towers & Antennas—Do They Impact a Property's Desirability?" National Institute for Science, Law & Public Policy (June 2014)

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ALSO ON REALTOR® MAGAZINE ONLINE

4 Ways to Make a Home Show-Ready

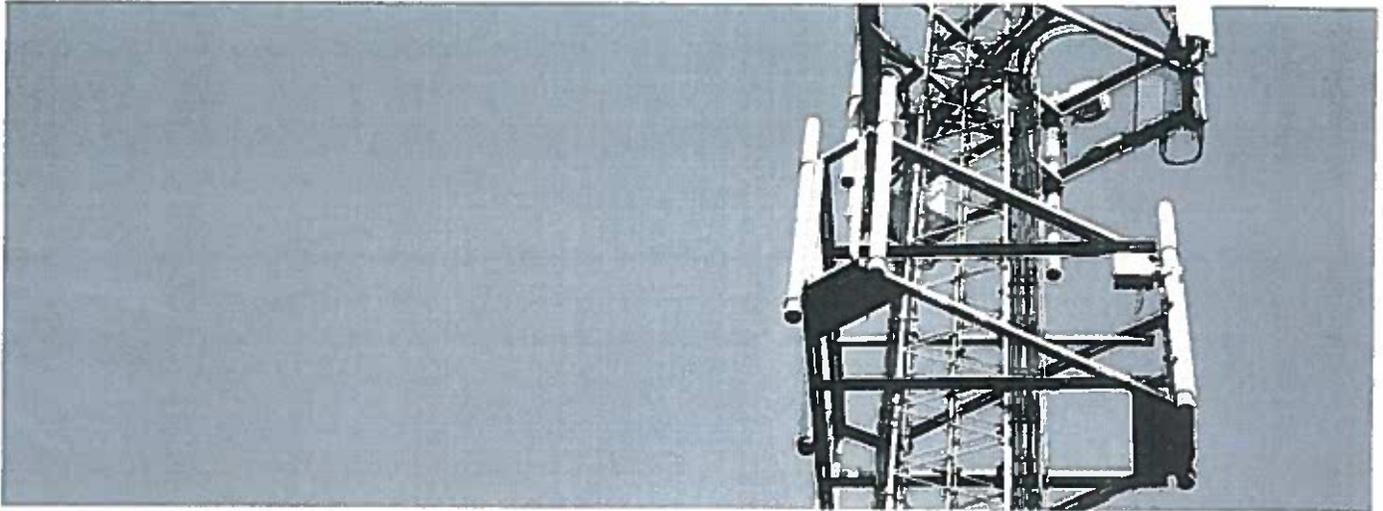
The Reasons Behind 2017's Color Trends



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EXHIBIT # 16  
File # COP-16-094

presented at  
13-16 pc  
meeting



## Do neighborhood cell towers impact property values?

A recent survey by the National Institute for Science, Law & Public Policy (NISLAPP) found that 94 percent of homebuyers are "less interested and would pay less" for a property located near a cell tower or antenna.

Diana Dietz, e-PRO

Jul 29, 2014

***Neighborhood Cell Towers & Antennas—Do They Impact a Property's Desirability?*** also found that properties where a cell tower or group of antennas are placed on top of or attached to a building is problematic for buyers.

Of the 1,000 people who responded to the survey, 79 percent said that under no circumstances would they ever purchase or rent a property within a few blocks of a cell tower or antennas, and almost 90 percent said they were concerned about the increasing number of cell towers in their residential neighborhood.

Jim Turner, Esq., Chairman of the NISLAPP, said in a statement, "The results of the 2014 NISLAPP survey suggest there is now a high awareness about potential risks from cell towers and antennas, including among people who have never experienced cognitive or physical effects from the radiation."

He added, "A study of real estate sales prices would be beneficial at this time in the United States to determine what discounts homebuyers are currently placing on properties near cell towers and antennas."

The NISLAPP survey reinforced the findings of a study by Sandy Bond, Ph.D. of the New Zealand Property Institute, and Past President of the Pacific Rim Real Estate Society (PRRES), published in *The Appraisal Journal* in 2006.

***The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods*** study found that buyers would pay as much as 20 percent less, as determined at that time by an opinion survey in addition to a sales price analysis.

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## Questions & Answers

Below is a list of the most common questions which both individuals and zoning boards often have about Cell Towers. To get answers, simply click on the links. For studies and information regarding the potential adverse health effects caused by Cell Towers, you can also go to the **Links** section of this website.

- [+] [What is the Telecommunications Act of 1996?](#)
- [+] [Do property owners have a right to oppose the approval of Cell Tower applications?](#)
- [+] [Can local Zoning Boards legally deny applications to install Cell Towers?](#)
- [+] [What is the shot clock?](#)
- [+] [Do Cell Towers Ever Collapse?](#)
- [+] [Aren't Cell Towers Just as Safe as Telephone Poles?](#)

---

[+] [Does the installation of a Cell Tower reduce the values of nearby properties?](#)

**Yes.** Just find a real estate broker whom you trust, and they will give you the same answer. Or simply ask yourself if you would prefer to purchase a home which has a Cell Tower looming over it, or one which doesn't.

### Studies

#### *The Bond and Hue - Proximate Impact Study*

The Bond and Hue study conducted in 2004 involved the analysis of 9,514 residential home sales in 10 suburbs. The study reflected that close proximity to a Cell Tower reduced price by 15% on average.

#### *The Bond and Wang - Transaction Based Market Study*

The Bond and Wang study involved the analysis of 4,283 residential home sales in 4 suburbs between 1984 and 2002. The study reflected that close proximity to a Cell Tower reduced the price between 20.7% and 21%.

#### *The Bond and Beamish - Opinion Survey Study*

The Bond and Beamish study involved surveying whether people who lived within 100' of a tower would have to reduce the sales price of th said they would reduce the price by more

than 20%, 38% said they would reduce the price by only 1%-9%, and 24% said they would reduce their sale price by 10%-19%.

### Experts, Courts and News

*"As a licensed real estate broker with over 30 years of experience, it is my professional opinion that the installation of a Cellular Tower can significantly reduce the value of neighboring residential properties."*

Lawrence Oxman, Licensed Real Estate Broker

United States Court of Appeals for the 11th Circuit upheld a denial of a Cell Tower application based upon testimony of residents and a real estate broker, that the Tower would reduce the values of property which were in close proximity to the Tower.

### Phone Masts (Cell Towers) Blight House Sales [Article Link]

---

[+] Isn't the FCC Protecting Us?

[+] Do Cell Towers Cause Cancer or other Illnesses?

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# Dr. Magda Havas, PhD



DR. HAVAS INTERVIEWS VIDEO PRESENTATIONS ELECTROSMOG EXPOSURE EMF LINKS FROM ZORY'S ARCHIVE HAVAS ACADEMY HEALTH ISSUES LIST OF SPEAKING ENGAGEMENTS

## ABOUT

### REAL ESTATE DEVALUED WHEN CELL TOWERS ARE ERECTED.

#### About This Site

August 27, 2010. Cell antennas and towers near homes affect property values says Andrew J. Campanelli.

#### Biography



#### Contact Dr. Havas

#### University Courses

## NEWS

### Dr. Havas Interviews

### Electrosmog Exposure

#### Antennas & Towers

#### Dirty Electricity

#### Ground Current/Stray Voltage

#### Home Environment

#### Legal Issues

#### Lighting

#### Microwave Radiation

#### Mobile Phones

#### Power Lines

#### Schools

#### Smart Meters

#### WiFi & WiMax

#### Wind Turbines

## EMF Links

### Doctors/Health Professionals

### EMF Organizations

### EMF Products

## From Zory's Archive

### Foreign Translations

## Havas Academy

## Health Issues

### Cancer

### Diabetes

### ElectroSensitivity

### Environmental Health

### Infertility

### Multiple Sclerosis

### Nervous System

### PEMF Therapy

## List of Speaking Engagements

## Video Presentations

## RESEARCH

On August 27, 2010, The New York Times published an article about a lawsuit against a cell phone provider.

It has started a chain reaction that might have some some real estate agents "thinking"...buy high, erect a tower = sell low..

TINA CANARIS, an associate broker and a co-owner of RE/MAX Hearthstone in Merrick, has a \$999,000 listing for a high ranch on the water in South Merrick, one of a handful of homes on the block on the market. But her listing has what some consider a disadvantage: a cell antenna poking from the top of a telephone pole at the front of the 65-by-100-foot lot.

"Even houses where there are transformers in front" make "people shy away," Ms. Canaris said. "If they have the opportunity to buy another home, they do." She said cell antennas and towers near homes affected property values, adding, "You can see a buyer's dismay over the sight of a cell tower near a home just by their expression, even if they don't say anything."

By blocking, or seeking to block, cell towers and antennas over the course of the last year, Island homeowners have given voice to concerns that proximity to a monopole or antenna may not be just aesthetically displeasing but also harmful to property values. Many also perceive health risks in proximity to radio frequency radiation emissions, despite industry assertions and other evidence disputing that such emissions pose a hazard.

The Federal Communications Act of 1996 says health concerns are not a valid reason for a municipality to deny zoning for a cell tower or antenna. Property values and aesthetics, however, do qualify, according to the act. Cell tower activists are now targeting their efforts to prove real estate property values depreciate after the installation of a cell tower. It might be surprising to soon learn that instead of doctors and scientists who testify in court as to the negative health effects of microwave radiation - **real estate agents hold the most power in court to hold up the erection of a cell tower.**

Andrew J. Campanelli, a civil rights lawyer in Garden City, said a group of residents had hired him to oppose the cellular company's application. "They were worried about the property values," Mr. Campanelli said. "If your home is near a cell antenna, the value of your property is going down at least 4 percent. Depending on the size of the tower and the proximity, it is going down 10 percent."

Here are some links to websites that show devaluation of real estate from cell towers.

### Industry Canada

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sfo8353.html>

### Burbank ACTION (Against Cell Towers In Our Neighborh

<http://sites.google.com/site/nocelltowerinourneighborhood/home>

Did you like this? Share it:

## ZORY'S ARCHIVES

**The History of the Health Effects from RF and Microwave Radiation from the Archives of Zory Glaser**

Dr. Zory R. Glaser Ph.D., LT, MSC, USNR  
Former U.S. Navy Researcher, NIOSH Manager,  
Executive Secretary Advisor to the U.S. FDA

[Click here to view the Archives](#)

## FEATURED VIDEO



## FEATURED EMAGAZINES

Dr. Havas Papers  
MagdaHavas.org

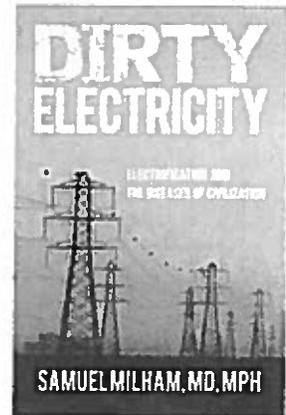
Twitter **G+** 1  
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- June 2016
- April 2016
- November 2015
- October 2015
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- July 2014
- June 2014
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FEATURED BOOK



YOUTUBE CHANNEL



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*Importance of Wireless coverage to Homeowners and Buyers*

A dozen years ago, a mere 3 percent of U.S. households used only cellphones. Given the trend, officials believe more than half of the U.S. homes will be wireless within the next year".  
(Centers for Disease Control, December 1, 2015)

The number of wireless only American households has grown from roughly 16% in 2007.  
(CTIA, Super Mobility Week Conference, 2015)

More than 47 percent of American homes use only cellphones.  
(Centers for Disease Control, December 1, 2015)

A recent survey found that cellular service is of major importance to homebuyers. (76%) was more important than schools (60%) when looking for a home. Cellular coverage trailed only crime rates (96%), local taxes (90%), and amenities like parks and shops (84%).  
(RootMetrics/Money, June 2, 2015)

90% of US households use wireless service. With this increase demand from users at home and those who work from home comes the need for more facilities to meet the customer needs. Citizens need access to 911 and reverse 911 and wireless may be their only connection.  
(CTIA, June 2015)

In a recent survey, 83% of millennials (Those born between 1982 and 2004) said cell service was the most important fact in purchasing a home.  
(Money, June 2, 2015)

Younger people rely more on wireless, too: About 71 percent of people in their late 20s live in households with only cellphones. Only 19 percent of people 65 and older use only cellphones".  
(Centers for Disease Control, December 1, 2015)

"..the fastest type of high speed Internet available, can add \$5,437 to the price of a \$175,000 home—about as much as a fireplace, or half the value of a bathroom."  
(WSJ, "How Fast Internet Affects Home Prices", June 30, 2015")

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EXHIBIT # L  
File # CRP-16-094



## *Health and Safety*

### **FCC**

Measurements made near typical cellular and PCS (personal communication service) cell sites have shown that ground-level power densities are well below the exposure limits recommended by RF/microwave safety standards used by the FCC. (FCC Consumer Facts)

FCC guidelines are based on federal health and safety agencies including the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA) and non-governmental organizations such as the Institute of Electrical and Electronics Engineers (IEEE) and the National Council on Radiation Protection and Measurements (NCRP).

### **WHO**

Recent surveys indicate that RF exposures from base stations and wireless devices in publicly accessible areas (including schools and hospitals) are normally thousands of times below international standards." Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects. (World Health Organization Fact Sheet)

Wireless technology has been in widespread use since the 1940's. The technology is constantly reviewed by organizations world-wide. The technology typically operates at a fraction of the power guidelines set by the Federal Communications Commission for safe operation.



## *Wireless Trends*

**In the United States, mobile data traffic will grow 7-fold from 2014 to 2019, a compound annual growth rate of 47%. (Cisco VNI Mobile Forecast Highlights, 2014 – 2019, October 2015)**

**In the United States, mobile data traffic will reach 3.6 Exabytes per month by 2019 (the equivalent of 904 million DVDs each month), up from 531.7 Petabytes per month in 2014. (Cisco VNI Mobile Forecast Highlights, 2014 – 2019, October 2015)**

**In the United States, mobile data traffic will reach an annual run rate of 43.4 Exabytes by 2019, up from 6.4 Exabytes in 2014. (Cisco VNI Mobile Forecast Highlights, 2014 – 2019, October 2015)**

**U.S. mobile data traffic will grow 3 times faster than U.S. fixed IP traffic from 2014 to 2019. (Cisco VNI Mobile Forecast Highlights, 2014 – 2019, October 2015)**

**In the United States, mobile data traffic by 2019 will be equivalent to 220x the volume of U.S. mobile traffic ten years earlier (in 2009). (Cisco VNI Mobile Forecast Highlights, 2014 – 2019, October 2015)**

**In the US there are 355 million wireless devices for 319 million residents. (CTIA, "Facts and Infographics, June 2015)**

**76% of 911 calls originate from a cell phone (National Highway Traffic Administration, February, 2016)**

**More than 75% of prospective home buyers prefer strong cellular connections (RootMetrics, June 2015)**

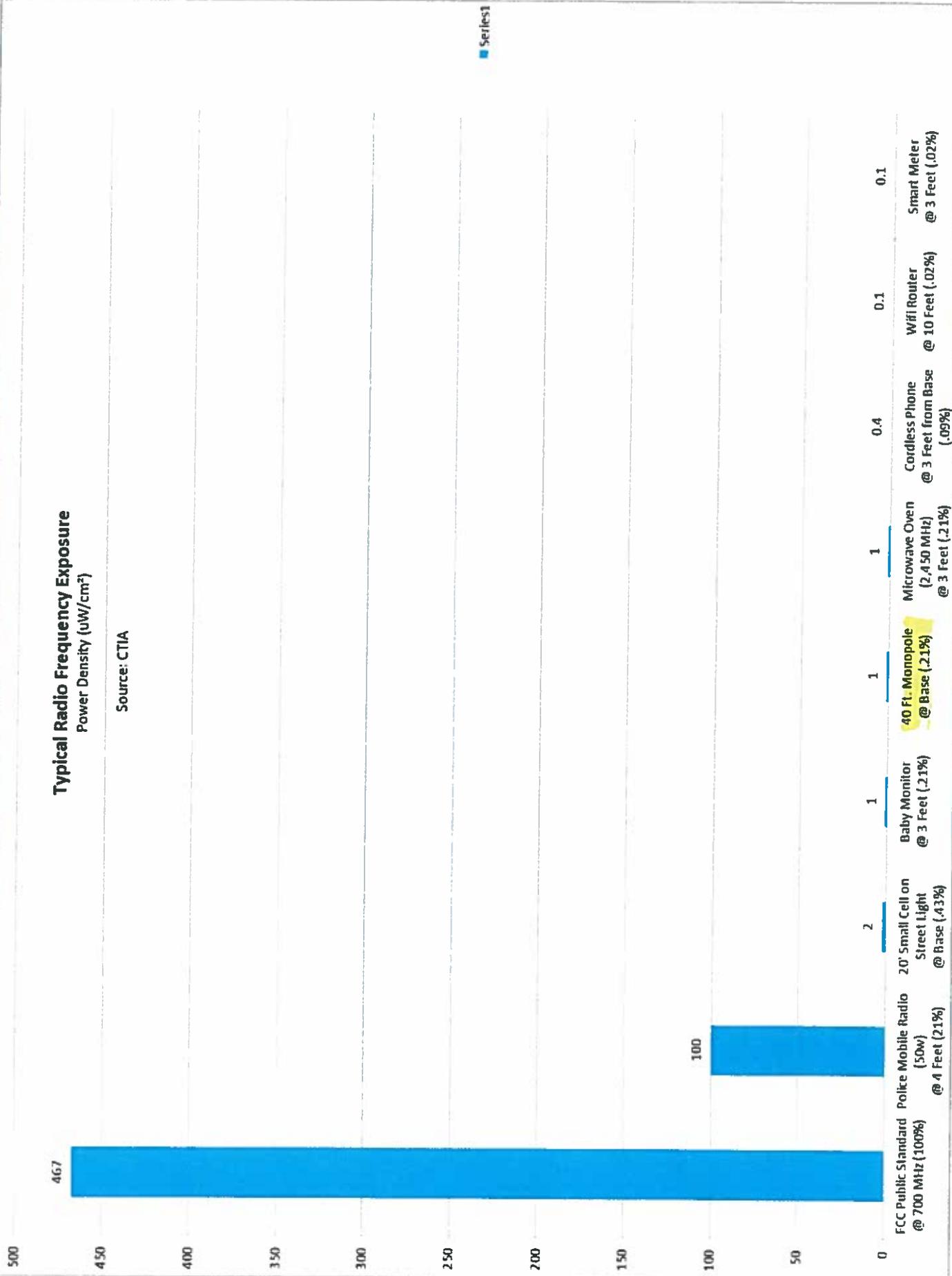
**35% of Americans reach for their smartphone first in the morning (CTIA, July 2015)**

**More than two-thirds of adults aged 25–29 (69.2%) and aged 30–34 (67.4%) lived in households with only wireless telephones. (CDC's Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, July–December 2014)**

**Machine-to-machine connections are projected to rise from 36 million in 2013 to 263 million in 2018. (Cisco, VNI Mobile Forecast Highlights 2013–2018, at "United States – 2018 Forecast Highlights and 2013 Year in Review)**

# Typical Radio Frequency Exposure Power Density (uW/cm<sup>2</sup>)

Source: CTIA



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Pending Home Sales Retreat in August

TODAY

Owners, Appraisers Seeing More Eye to Eye

Mortgage Rates Move Higher This Week

Fed Warns About a 'New Housing Crisis'

Big Reason for Housing Affordability Crunch

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# REALTOR Mag

## Cell Towers, Antennas Problematic for Buyers

DAILY REAL ESTATE NEWS | FRIDAY, JULY 25, 2014

An overwhelming 94 percent of home buyers and renters surveyed by the National Institute for Science, Law & Public Policy (NISLAPP) say they are less interested and would pay less for a property located near a cell tower or antenna.

What's more, of the 1,000 survey respondents, 79 percent said that under no circumstances would they ever purchase or rent a property within a few blocks of a cell tower or antennas, and almost 90 percent said they were concerned about the increasing number of cell towers and antennas in their residential neighborhood.

### Trouble Spots for Buyers:

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- Field Guide to Cell Phone Towers
- 6 Ways a Home May Turn Off Buyers
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*Source: "Neighborhood Cell Towers & Antennas—Do They Impact a Property's Desirability?" National Institute for Science, Law & Public Policy (June 2014)*

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### The Hot List: 20 Markets Soaring in September

1 comment • 1 reply

nimalay — Five of the top 10 are in Nor Cal.

### Where You Can Most Expect an Uptick of Buyers

1 comment • 1 reply

kubyq — Where is the florida keys in this list it is missing

### The Reasons Behind 2017's Color Trends

1 comment • 1 reply

edivco55@gmail.com — This was a dumb article since not one color was mentioned.

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ARTICLE SUBMITTED BY MATT CORRIGAN

FOR LEGIBILITY ARTICLE WAS CUT AND PASTED FROM WEBSITE LISTED IN THE FOOTER BY PLANNING STAFF

Is Dirty Electricity Making You Sick?

Too many electromagnetic fields surrounding us—from cell phones, wifi, and commonplace modern technology—may be seriously harming our health. Here's how to minimize your exposure.

By MICHAEL SEGELL NOVEMBER 3, 2011

In 1990, the city of La Quinta, CA, proudly opened the doors of its sparkling new middle school. Gayle Cohen, then a sixth-grade teacher, recalls the sense of excitement everyone felt: "We had been in temporary facilities for 2 years, and the change was exhilarating." But the glow soon dimmed. One teacher developed vague symptoms—weakness, dizziness—and didn't return after the Christmas break. A couple of years later, another developed cancer and died; the teacher who took over his classroom was later diagnosed with throat cancer. More instructors continued to fall ill, and then, in 2003, on her 50th birthday, Cohen received her own bad news: breast cancer. "That's when I sat down with another teacher, and we remarked on all the cancers we'd seen," she says. "We immediately thought of a dozen colleagues who had either gotten sick or passed away." By 2005, 16 staffers among the 137 who'd worked at the new school had been diagnosed with 18 cancers, a ratio nearly 3 times the expected number. Nor were the children spared: About a dozen cancers have been detected so far among former students. A couple of them have died.

Prior to undergoing her first chemotherapy treatment, Cohen approached the school principal, who eventually went to district officials for an investigation. A local newspaper article about the possible disease cluster caught the attention of Sam Milham, MD, a widely traveled epidemiologist who has investigated hundreds of environmental and occupational illnesses and published dozens of peer-reviewed papers on his findings. For the past 30 years, he has trained much of his focus on the potential hazards of electromagnetic fields (EMFs)—the radiation that surrounds all electrical appliances and devices, power lines, and home wiring and is emitted by communications devices, including cell phones and radio, TV, and WiFi transmitters. His work has led him, along with an increasingly alarmed army of

international scientists, to a controversial conclusion: The "electrosmog" that first began developing with the rollout of the electrical grid a century ago and now envelops every inhabitant of Earth is responsible for many of the diseases that impair—or kill—us.

Milham was especially interested in measuring the ambient levels of a particular kind of EMF, a relatively new suspected carcinogen known as high-frequency voltage transients, or "dirty electricity." Transients are largely by-products of modern energy-efficient electronics and appliances—from computers, refrigerators, and plasma TVs to compact fluorescent lightbulbs and dimmer switches—which tamp down the electricity they use. This manipulation of current creates a wildly fluctuating and potentially dangerous electromagnetic field that not only radiates into the immediate environment but also can back up along home or office wiring all the way to the utility, infecting every energy customer in between. With Cohen's help, Milham entered the school after hours one day to take readings. Astonishingly, in some classrooms he found the surges of transient pollution exceeded his meter's ability to gauge them. His preliminary findings prompted the teachers to file a complaint with the Occupational Safety and Health Administration, which in turn ordered a full investigation by the California Department of Health Care Services.

The final analysis, reported by Milham and his colleague, L. Lloyd Morgan, in 2008 in the *American Journal of Industrial Medicine*: Cumulative exposure to transients in the school increased the likelihood a teacher would develop cancer by 64%. A single year of working in the building raised risk by 21%. The teachers' chances of developing melanoma, thyroid cancer, and uterine cancer were particularly high, as great as 13 times the average. Although not included in the tabulations, the risks for young students were probably even greater.

"In the decades-long debate about whether EMFs are harmful," says Milham, "it looks like transients could be the smoking gun."

### **The Case against EMFs**

**Cancer and Electricity**—could a disease whose cause has long eluded scientists be linked to perhaps the greatest practical discovery of the modern era? For 50 years, researchers who have tried to tie one to the other have been routinely dismissed by a variety of skeptics, from congressional investigators to powerful interest groups—

<http://www.prevention.com/health/healthy-living/electromagnetic-fields-and-your-health> 10/14/2016

most prominently electric utilities, cell phone manufacturers, and WiFi providers, which have repeatedly cited their own data showing the linkage to be "weak and inconsistent." Recently, however, in addition to the stunning new investigations into dirty electricity (which we'll return to), several developments have highlighted the growing hazards of EMF pollution—and the crucial need to address them.

### **The Evidence showing harm is overwhelming.**

In 2007, the Bioinitiative Working Group, an international collaboration of prestigious scientists and public health policy experts from the United States, Sweden, Denmark, Austria, and China, released a 650-page report citing more than 2,000 studies (many very recent) that detail the toxic effects of EMFs from all sources. Chronic exposure to even low-level radiation (like that from cell phones), the scientists concluded, can cause a variety of cancers, impair immunity, and contribute to Alzheimer's disease and dementia, heart disease, and many other ailments. "We now have a critical mass of evidence, and it gets stronger every day," says David Carpenter, MD, director of the Institute for Health and the Environment at the University at Albany and coauthor of the public-health chapters of the Bioinitiative report.

### **Fears about the hazards of cell phones seem justified.**

"Every single study of brain tumors that looks at 10 or more years of use shows an increased risk of brain cancer," says Cindy Sage, MA, coeditor of the report. A recent study from Sweden is particularly frightening, suggesting that if you started using a cell phone as a teen, you have a 5 times greater risk of brain cancer than those who started as an adult. The risk rises even more for people who use the phone on only one side of the head. While defenders of cell phone safety claim no scientist can explain why EMFs may be harmful in humans, a body of reliable and consistent animal research shows that electromagnetic fields, equal to those generated by mobile phones, open the blood-brain barrier, causing blood vessels to leak fluid into the brain and damage neurons. Ironically, that research (by renowned Swedish neuro-oncologist Leif G. Salford, MD, PhD) began with the goal of finding a way to deliver chemotherapy to brain tumors. (See the worst time to use a cell phone.)

### **Other countries are revising exposure standards.**

Members of the European Union, which has led the way on EMF investigations, are moving quickly to protect their citizens, particularly children and pregnant women. In the past 2 years alone, France, Germany, and England have dismantled wireless networks in schools and public libraries, and other countries are pressing to follow suit. Israel has banned the placement of cellular antennae on residences, and Russian officials have advised against cell phone use for children under 18.

### **Electrical hypersensitivity (EHS) is becoming more widespread.**

Symptoms of EHS, a recently identified condition, include fatigue, facial irritation (resembling rosacea), tinnitus, dizziness, and digestive disturbances, which occur after exposure to visual display units, mobile phones, WiFi equipment, and commonplace appliances. Experts say up to 3% of all people are clinically hypersensitive, as many as one-third of us to a lesser degree.

### **Electrical pollution is increasing dramatically.**

"For the first time in our evolutionary history, we have generated an entire secondary, virtual, densely complex environment—an electromagnetic soup—that essentially overlaps the human nervous system," says Michael Persinger, PhD, a neuroscientist at Laurentian University who has studied the effects of EMFs on cancer cells. And it appears that, more than a century after Thomas Edison switched on his first lightbulb, the health consequences of that continual overlap are just now beginning to be documented.

### **A History of Harmful Effects**

**Until Edison's harnessing** of electricity, humans' only sources of EMF exposure were the earth's static magnetic field (which causes a compass needle to point north) and cosmic rays from the sun and outer space; over our long evolution, we've adapted to solar EMFs by developing protective pigment. "But we have no protection against other EMF frequencies," says Andrew Marino, PhD, JD, a pioneer in bioelectromagnetics who has done extensive EMF research and a professor in the department of orthopedic surgery at the Louisiana State Health Sciences Center. "How quickly can we adapt our biology to these new exposures? It's the most important environmental health question—and problem—of the 21st century."

Research into the hazards of EMFs has been extensive, controversial—and, at least at the outset, animated by political intrigue. A sampling:

- The Russians first noticed during World War II that radar operators (radar operates using radio frequency waves) often came down with symptoms we now attribute to electrical hypersensitivity syndrome. In the 1960s, during the height of the Cold War, they secretly bombarded the US embassy in Moscow with microwave radiation (a higher-frequency RF used to transmit wireless signals), sickening American employees. Radio wave sickness—also called microwave sickness—is now a commonly accepted diagnosis.
- When television (also radio wave) was introduced in Australia in 1956, researchers there documented a rapid increase in cancers among people who lived near transmission towers.
- In the 1970s, Nancy Wertheimer, PhD, a Denver epidemiologist (since deceased), detected a spike in childhood leukemia (a rare disease) among kids who lived near electric power lines, prompting a rash of studies that arrived at similar conclusions.
- In the 1980s, investigators concluded that office workers with high exposure to EMFs from electronics had higher incidences of melanoma—a disease most often associated with sun exposure—than outdoor workers.
- In 1998, researchers with the National Cancer Institute reported that childhood leukemia risks were "significantly elevated" in children whose mothers used electric blankets during pregnancy and in children who used hair dryers, video machines in arcades, and video games connected to TVs.
- Over the past few years, investigators have examined cancer clusters on Cape Cod, which has a huge US Air Force radar array called PAVE PAWS, and Nantucket, home to a powerful Loran- Antenna. Counties in both areas have the highest incidences of all cancers in the entire state of Massachusetts.

- More recently, the new findings on transients—particularly those crawling along utility wiring—are causing some scientists to rethink that part of the EMF debate pertaining to the hazards of power lines. Could they have been focusing on the wrong part of the EMF spectrum?

### **Transients: The Post- Modern Carcinogen**

Some earlier, notable—albeit aborted—research suggests this may be the case. In 1988, Hydro-Quebec, a Canadian electric utility, contracted researchers from McGill University to study the health effects of power line EMFs on its employees. Gilles Theriault, MD, DrPH, who led the research and was chair of the department of occupational health at the university, decided to expand his focus to include high-frequency transients and found, even after controlling for smoking, that workers exposed to them had up to a 15-fold risk of developing lung cancer. After the results were published in the *American Journal of Epidemiology*, the utility decided to put an end to the study.

That research commenced at a time when energy-efficient devices—the major generators of transients—were beginning to saturate North American homes and clutter up power lines. A telltale sign of an energy-efficient device is the ballast, or transformer, that you see near the end of a power cord on a laptop computer, printer, or cell phone charger (although not all devices have them). When plugged in, it's warm to the touch, an indication that it's tamping down current and throwing off transient pollution. Two of the worst creators of transient radiation: light dimmer switches and compact fluorescent lightbulbs (CFLs). Transients are created when current is repeatedly interrupted. A CFL, for instance, saves energy by turning itself on and off repeatedly, as many as 100,000 times per second.

So how does the human body respond to this pulsing radiation? "Think of a magnet," explains Dave Stetzer, an electrical engineer and power supply expert in Blair, WI. "Opposite charges attract, and like charges repel. When a transient is going positive, the negatively charged electrons in your body move toward that positive charge. When the transient flips to negative, the body's electrons are pushed back. Remember, these positive-negative shifts are occurring many thousands of times per second, so the electrons in your body are oscillating to that

tune. Your body becomes charged up because you're basically coupled to the transient's electric field."

Keep in mind that all the cells in your body, whether islets in the pancreas awaiting a signal to manufacture insulin or white blood cells speeding to the site of an injury, use electricity—or "electron change"—to communicate with each other. By overlapping the body's signaling mechanisms, could transients interfere with the secretion of insulin, drown out the call-and-response of the immune system, and cause other physical havoc?

Some preliminary research implies the answer is yes. Over the past 3 years, Magda Havas, PhD, a researcher in the department of environmental and resource studies at Trent University in Ontario, has published several studies that suggest exposure to transients may elevate blood sugar levels among people with diabetes and prediabetes and that people with multiple sclerosis improve their balance and have fewer tremors after just a few days in a transient-free environment. Her work also shows that after schools installed filters to clean up transients, two-thirds of teachers reported improvement in symptoms that had been plaguing them, including headache, dry eye, facial flushing, asthma, skin irritation, and depression.

Transients are particularly insidious because they accumulate and strengthen, their frequency reaching into the dangerous RF range. Because they travel along home and utility wiring, your neighbor's energy choices will affect the electrical pollution in your house. In other words, a CFL illuminating a porch down the block can send nasty transients into your bedroom.

Something else is sending transients into your home: the earth. From your high school science texts, you know that electricity must travel along a complete circuit, always returning to its source (the utility) along a neutral wire. In the early 1990s, says Stetzer, as transients began overloading utility wiring, public service commissions in many states told utilities to drive neutral rods into the ground on every existing pole and every new one they erected. "Today, more than 70% of all current going out on the wires returns to substations via the earth," says Stetzer—encountering along the way all sorts of subterranean conductors, such as water,

sewer, and natural-gas pipes, that ferry even more electrical pollution into your home.

### **A Pragmatic Proposal**

Of course, these small studies—from Milham, Hydro-Quebec, and Havas—hardly constitute a blanket indictment of transients. "We're still early in this part of the EMF story," says Carpenter. Does that mean as evidence of their harm accumulates, officials will raise a red flag? Not likely, if past EMF debates are any indication. Power companies have successfully beaten back attempts to modify exposure standards, and the cell phone industry, which has funded at least 87% of the research on the subject, has effectively resisted regulation. One good reason has had to do with latency—how long it takes to develop a particular cancer, often 25 years or more. Cell phones have been around only about that long.

But does that mean we avoid any discussion of their *possible* dangers? Again, if the past is a guide, the answer appears to be "probably." American scientists worried about the hazards of smoking, the DES (diethylstilbestrol) pill (given to pregnant women, it caused birth defects), asbestos, PCBs (polychlorinated biphenyls)—the list is lengthy—but officially warned about exposure only after they could say with absolute certainty that these things were harmful. As for protecting ourselves from toxic radiation, we have a lax—and laughable—history. In the 1920s, just a few years after medical imaging devices were invented, physicians were known to entertain their guests by x-raying them at garden parties. In the 1930s, scientists often kept radium in open trays on their desks. Shoe stores used x-ray machines in the 1940s to properly fit children's feet, and radioactive wristwatches with glowing hour hands were popular in the 1950s.

All of which means that, absent prudent safety standards from both public officials and manufacturers (adding a protective filter would add 5 cents to the cost of making a CFL and \$5 to the cost of a laptop), you'll have to protect yourself from EMFs. Here's a reasonable proposition: Practice what is known in Europe as the precautionary principle, which is pretty much what it sounds like. Don't expose yourself unnecessarily to EMF hazards. Don't buy a home next to a WiFi tower. Get a corded telephone instead of a cordless one. Don't let your teenager sleep with a cell phone under her pillow. Don't use your laptop computer in your lap. Treat your

EMF-emitting devices with the same cautious respect you do other invaluable modern devices, like your car, which is also dangerous—and can kill. You don't drive in an unnecessarily risky fashion—at high speed or while talking on a cell phone (right?).

The sad truth is that until we have more epidemiologic evidence—whether from disease clusters like the ones at La Quinta and on Cape Cod or from long-term analyses of the health of the world's 4-billion-and-growing cell phone users—we won't know definitively whether electrical pollution is harming us. And even then, we are unlikely to know why or how. "In this country, our research dollars are spent on finding ways to treat disease, not on what causes it—which is to say, how we can prevent it," says Marino. "And that's a tragedy."

But that's also another story.

### **The Opposing View: "No need for regulation"**

In 1993, the National Institutes of Health and Department of Energy began an extensive review of all studies on the possible health effects of electromagnetic fields. six years later they completed their project, called the Electric and Magnetic Fields research and public Information Dissemination (EMF RAPID) program, and reported their findings to Congress: scientific evidence of human health risk from EMF exposure is "weak," they concluded.

While acknowledging a link between both childhood and adult leukemias and EMFs, the researchers' laboratory studies with cells and animals failed to identify a mechanism—that is, how EMFs might cause cancer. (read the EMF RAPID report at [prevention.com/links](http://prevention.com/links))

To longtime EMF investigators such as David Carpenter, MD, the NIH dismissal of EMF hazards was patently absurd then and even more so now, given the spate of new findings. "We don't know the mechanism for most carcinogens," he says. "there's this idea that anything that causes cancer must directly damage DNA, which is nonsense because most carcinogens don't directly damage DNA. and physicists are adamant that the energy in everyday EMF exposure is so low, it

couldn't possibly do anything to biological systems. It's like saying the Earth is flat because you can't see over the edge."

In fact, biological impacts of EMFs—therapeutic ones—are well known. Low-level frequencies are commonly used to promote healing of wounds and bone fractures, and experimental studies show positive effects of pulsed EMFs in treating pain and depression. recently, Michael persinger, PhD, a cognitive neuroscientist at Laurentian University, found that pulsed magnetic fields also halted the growth of melanoma cells in mice.

In a neat twist of logic, many scientists believe that the more we document beneficial effects of EMFs, the better we'll understand their hazards. "If EMF at low intensities can heal," says environmental consultant Cindy sage, "then when we are constantly and randomly exposed to it from multiple sources, it may also be harmful, like any medicine used indiscriminately."

### **What was wrong with the La Quinta School?**

According to epidemiologist Sam Milham, MD, the middle school was rife with the usual suspects—fluorescent lighting, electronic devices—whose toxic effects were exacerbated by an electrical supply overloaded with high-voltage transients.

Substandard wiring in the new school also undoubtedly played a role; officials have since added protective shielding to the electrical room. Milham also measured transient pollution along the transmission lines that fed power to the school. "I found it all the way from the substation to the school—more than a mile," Milham says. "There are three other buildings along the route that also serve children. I've reported it to the FCC and the utility, but they ignore the problem."

### **How electrical pollution harms**

Here, a partial spectrum of the electromagnetic fields that surround us, from strong (waves of extremely high frequency and short length) to weak (waves of extremely low frequency and long length). In each category, you'll find sources that generate the EMF, and associated health risks from overexposure.

<p><b>X-Ray</b></p> <p>[medical imaging devices] Used to diagnose illness</p>	<p><b>RISK</b></p> <p>Damages tissue and organs by breaking bonds</p>
<p><b>VISIBLE LIGHT</b></p> <p>[SUN] The only visible EMF</p>	<p><b>RISK</b></p> <p>Ultraviolet light can burn skin and cause cancer</p>
<p><b>MICROWAVE</b> (a higher frequency RF)</p> <p>[CELL AND CORDLESS PHONES AND TOWERS]</p> <p>Can heat tissues and penetrate blood-brain barrier</p>	<p><b>RISK</b></p> <p>Increased risk of brain cancer, dementia, and heart disease</p>
<p><b>RADIO(RF)</b></p> <p>[RADIO AND TELEVISION SIGNALS]</p> <p>Can disrupt body's cellular interactions</p>	<p><b>RISK</b></p> <p>"Radio sickness" and electrical hypersensitivity syndrome</p>
<p><b>EXTREMELY LOW FREQUENCY (ELF)</b></p> <p>[POWER LINES]</p> <p>Can cause weak electric currents to flow through the body</p>	<p><b>RISK</b></p> <p>Exposure is associated with childhood leukemia</p>



# City of Medford Planning Department

Vicinity  
Map

File Number:

**CUP-16-094**



Project Name:

**Verizon Wireless - MDF Winter Golf**

Map/Taxlot:

**371W28B TL 5900**



08/29/2016

### Legend

-  Subject Area
-  Medford Zoning
-  Tax Lots
-  Streets

