## Section III) Preliminary Development Plan

## IIIA) Supporting Compliance Report

# Supporting Compliance Report Preliminary Development Plan 5 - North 

## Section III

## Table of Contents

I. Wilsonville Planning \& Land Development Ordinance ..... 2
Section 4.125 Village (V) Zone ..... 2
(.02) Permitted Uses ..... 2
(.05) Development Standards Applying to All Developments in the Village Zone2
(.07) General Regulations - Off-Street Parking, Loading \& Bicycle Parking ..... 4
(.08) Open Space ..... 5
(.09) Street \& Access Improvement Standards ..... 6
(.10) Sidewalk and Pathway Improvement Standards ..... 9
(.11) Landscaping, Screening and Buffering ..... 9
(.12) Master Signage and Wayfinding ..... 9
(.14) Design Standards Applying to the Village Zone ..... 9
(.18) Village Zone Development Permit Process ..... 11
Community Elements Book ..... 20
Master Signage and Wayfinding Plan ..... 21
Rainwater Program ..... 21
Section 4. 139 Significant Resource Overlay Zone (SROZ) Ordinance ..... 22
Section 4.140 Planned Development Regulations ..... 23
Section 4. 154 On-site Pedestrian Access and Circulation ..... 25
Section 4. 171 General Regulations - Protection of Natural Features \& other Resources ..... 27
Section 4. 172 Flood Plain Regulations ..... 30
Section 4.176 Landscaping, Screening \& Buffering ..... 30
Section 4. 177 Street Improvement Standards ..... 30
Section 4.610.40 Type C Permit ..... 30
II. Proposal Summary \& Conclusion ..... 30

## I. Wilsonville Planning \& Land Development Ordinance

## Section 4.125 Village (V) Zone

(.02) Permitted Uses

Examples of principle uses that are typically permitted:
A. Single Family Dwellings
H. Non-commercial parks, plazas, playgrounds, recreational facilities, community buildings and grounds, tennis courts, and other similar recreational and community uses owned and operated either publicly or by an owners association.
Response: This Preliminary Development Plan (PDP) application proposes to create 89 lots for development of detached single-family dwellings, as well as tracts for linear greens and Regional Parks. All proposed uses within the subject PDP are permitted pursuant to this section.
(.05) Development Standards Applying to All Developments in the Village Zone

All development in this zone shall be subject to the V Zone and the applicable provisions of the Wilsonville Planning and Land Development Ordinance. If there is a conflict, then the standards of this section shall apply. The following standards shall apply to all development in the V zone:
A. Block, Alley, Pedestrian and Bicycle Standards:

1. Maximum Block Perimeter: 1,800 feet, unless the Development Review Board makes a finding that barriers such as existing buildings, topographic variations, or designated Significant Resource Overlay Zone areas will prevent a block perimeter from meeting this standard.
2. Maximum spacing between streets for local access: 530 feet, unless the Development Review Board makes a finding that barriers such as existing buildings, topographic variations, or designated Significant Resource Overlay Zone areas will prevent street extensions from meeting this standard.
3. If the maximum spacing for streets for local access exceeds 530 feet, intervening pedestrian and bicycle access shall be provided, with a maximum spacing of 330 feet from those local streets, unless the Development Review Board makes a finding that barriers such as existing buildings, topographic variations, or designated Significant Resource Overlay Zone areas will prevent pedestrian and bicycle facility extensions from meeting this standard.
Response: Compliance with these standards has been demonstrated by the concurrent SAP North Amendment. PDP 5N is consistent with the information submitted for the concurrent SAP North Amendment.
B. Access: All lots with access to a public street, and an alley, shall take vehicular access from the alley to a garage or parking area, except as determined by the City Engineer.

Response: All of the lots within the proposed PDP that have frontage on a public street and an alley will take vehicular access from an alley to a garage or parking area.
C. Trailers, travel trailers, mobile coaches, or any altered variation thereof shall not be used for the purpose of conducting a trade or calling, or for storage of material, unless approved for such purpose as a temporary use.

Response: No trailers, travel trailers, mobile coaches, or such vehicles will be used for the purpose of conducting a trade or calling or for the storage of material unless approved as a temporary use.
D. Fences:

1. General Provisions:
a. Fencing within the Village Zone shall be in compliance with the Master Fencing Program in the adopted Architectural Pattern Book for the appropriate SAP.
b. When two or more properties with different setbacks abut, the property with the largest front yard setback requirement shall be used to determine the length and height of the shard side yard fence, as required by section 4.125 above.
c. The development Review Board may, in their discretion, require such fencing as deemed necessary to promote and provide traffic safety, noise mitigation, and nuisance abatement, and the compatibility of different uses permitted on adjacent lots of the same zone and on adjacent lots of different zones.
2. Residential:
a. The maximum height of any fence located in the required front yard of a residential development shall not exceed three (3) feet.
b. Fences on residential lots shall not include chain link, barbed wire, razor wire, electrically charged wire, or be constructed of sheathing material such as plywood or flake board. Fences in residential areas that protect wetlands, or other sensitive areas, may be chain link.

Response: The SAP North Amended Master Fencing Plan shows Enhanced Full View or Partial View Fence with Landscaping along Tooze Road. Residential Iot fencing will occur in compliance with the fencing specified for the specific lot type and style in accordance with the SAP North Master Fencing Plan. Residential lot fencing occurs when each home is constructed, details of which are provided with Building Permit review.
E. Recreational Area in Multi-Family Residential and Mixed Use Developments

Response: The proposed PDP includes lots for the development of single family residential homes; therefore this standard does not apply.
F. Fire Protection:

1. All structures shall include a rated fire suppression system (i.e., sprinklers), as approved by the Fire Marshal

Response: All of the homes within the proposed PDP area will include appropriate fire suppression systems. This will be verified with review of future building permit applications.

Table V-1 Development Standards
Response: The Tentative Plat (see Section IVB in this Notebook) depicts proposed lot sizes and dimensions. All of the lots will be developed with single family detached dwelling units. All of the lots meet applicable requirements, as addressed below. No buildings are proposed with this application. Final compliance with these standards will be reviewed at building permit submittal.

Single-Family Dwellings
Minimum lot size: 2,250 square feet
Minimum lot width: 35 feet
Minimum lot depth: 50 feet
Response: All lots within the proposed tentative plat meet the minimum lot size requirement and meet the minimum lot width and depth specified for Small, Medium, Standard, and Large lots in the SAP North Architectural Pattern Book, with allowed variations for site features, such as road alignment or site topography.
(.07) General Regulations - Off-Street Parking, Loading \& Bicycle Parking

Except as required by Subsections (A) through (D), below, the requirements of Section 4.155 shall apply within the village zone.

## A. General Provisions:

1. The provision and maintenance of off-street parking spaces is a continuing obligation of the property owner. The standards set forth herein shall be considered by the Development Review Board as minimum criteria.
2. The Board shall have the authority to grant variances or refinements to these standards in keeping with the purposes and objectives set forth in this zone.

Response: The applicant acknowledges that the provision and maintenance of offstreet parking is the continuing obligation of the property owner. There are no variances or refinements to the standards of this section proposed with this application.
B. Minimum and Maximum Off-Street Parking Requirements:

1. Table V-2, Off-Street Parking Requirements, below, shall be used to determine the minimum and maximum parking standards for noted land uses. The number of required parking spaces shown in Table V-2 shall be determined by rounding to the nearest whole parking space...
Table V-2: Off-Street Parking Requirements

| Category | Min. Vehicle <br> Spaces | Max. <br> Vehicle <br> Spaces | Bicycle <br> Short Term | Bicycle <br> Long <br> Term |
| :---: | :---: | :---: | :---: | :---: |
| Single Family Detached Dwelling <br> Units | $1.0 / D \mathrm{DU}$ | NR | NR | NR |

Response: Each of the homes will provide a minimum of a two-car garage in compliance with this standard.
C. Minimum Off-Street Loading Requirements:

Response: The proposed PDP includes lots for development of single family homes; therefore no loading areas are required.
D. Bicycle Parking Requirements:

Response: The proposed PDP includes single family detached residential units. There is no bicycle parking requirement for these unit types, as noted in Table V-2 above, therefore these standards do not apply.
(.08) Open Space

Open space shall be provided as follows:
A. In all residential developments and in mixed-use developments where the majority of the developed square footage is to be in residential use, at least twenty-five percent ( $25 \%$ ) of the area shall be open space, excluding street pavement and surface parking. In multi-phased developments, individual phases are not required to meet the $\mathbf{2 5 \%}$ standard as long as an approved Specific Area Plan demonstrates that the overall development shall provide a minimum of $\mathbf{2 5 \%}$ open space. Required front yard areas shall not be counted towards the required open space area. Required rear yard areas and other landscaped areas that are not within required front or side yards may be counted as part of the required open space.
B. Open space area required by this Section may, at the discretion of the Development Review Board, be protected by a conservation easement or dedicated to the City, either rights in fee or easement, without altering the density or other development standards of the proposed development. Provided that, if the dedication is for public park purposes, the size and amount of the proposed dedication shall meet the criteria of the City of Wilsonville standards. The square
footage of any land, whether dedicated or not, which is used for open space shall be deemed a part of the development site for the purpose of computing density or allowable lot coverage. See SROZ provisions, Section 4.139.10.
C. The Development Review Board may specify the method of assuring the long-term protection and maintenance of open space and/or recreational areas. Where such protection or maintenance are the responsibility of a private party or homeowners' association, the City Attorney shall review and approve any pertinent bylaws, covenants, or agreements prior to recordation.

Response: The Parks Master Plan for Villebois states that there are 58.42 acres of parks and 101.31 acres of open space for a total of 159.73 acres within Villebois, approximately $33 \%$ An amendment to SAP North to add information for Phase 5 has been submitted concurrently, which adds linear greens and provides the Regional Parks shown in the Master Plan. Phase 5 of SAP - North is proposing larger parks and more open space than what is in the Parks \& Open Space Plan of the Villebois Village Master Plan. Therefore, there is a sufficient amount of parks and open space.
(.09) Street \& Access Improvement Standards
A. Except as noted below, the provisions of Section 4.177 apply within the Village zone:

1. Generally:
a) All street alignment and access improvements shall conform to the Villebois Village Master Plan, or as refined in the Specific Area Plan, Preliminary Development Plan, or Final Development Plan and the following standards:
Response: The street alignments and access improvements within this PDP are consistent with those shown in the concurrent SAP North Amendment.
i. All street improvements shall conform to the Public Works Standards and shall provide for the continuation of streets through proposed developments to adjoining properties or subdivisions, according to the Master Plan.
Response: All street improvements within this PDP will comply with the applicable Public Works Standards. The street system within this PDP is designed to provide for the continuation of streets within Villebois and to adjoining properties or subdivisions according to the Master Plan. The street system is illustrated on the Circulation Plan (see Section IIIB of this Notebook).
ii. All streets shall be developed with curbs, landscape strips, bikeways or pedestrian pathways, according to the Master Plan.

Response: All streets within this PDP will be developed with curbs, landscape strips, sidewalks, and bikeways or pedestrian pathways as depicted on the Circulation Plan (Section IIIB of this Notebook) and in accordance with the Master Plan.
2. Intersections of streets
a) Angles: Streets shall intersect one another at angles not less than 90 degrees, unless existing development or topography makes it impractical.
b) Intersections: If the intersection cannot be designed to form a right angle, then the right-of-way and paving within the acute angle shall have a minimum of thirty (30) foot centerline radius and said angle shall not be less than sixty (60) degrees. Any angle less than ninety (90) degrees shall require approval by the City Engineer after consultation with the Fire District.

Response: The plan sheets located in Section IIIB of this Notebook demonstrate that all proposed streets will intersect at angles consistent with the above standards.
c) Offsets: Opposing intersections shall be designed so that no offset dangerous to the traveling public is created. Intersections shall be separated by at least:
i. $\quad \mathbf{1 0 0 0} \mathbf{f t}$. for major arterials
ii. $\quad 600$ ft. for minor arterials
iii. $\quad 100 \mathrm{ft}$. for maj or collector
iv. $\quad 50 \mathrm{ft}$. for minor collector

Response: The plan sheets located in Section IIIB of this Notebook demonstrate that opposing intersections on public streets are offset, as appropriate, so that no danger to the traveling public is created.
d) Curb Extensions:
i. Curb extensions at intersections shall be shown on the Specific Area Plans required in subsection 4.125(.18)(C) through (F) below, and shall:

- Not obstruct bicycle lanes on collector streets.
- Provide a minimum 20 foot wide clear distance between curb extensions all local residential street intersections shall have, shall meet minimum turning radius requirements of the Public Works Standards, and shall facilitate fire truck turning movements as required by the Fire District.

Response: Curb extensions are shown on the Circulation Plan (see Section IIIB). The attached drawings illustrate that all street intersections will have a minimum 20
foot wide clear distance between curb extensions on all local residential street intersections. No collector streets are located within PDP 5N.
3. Street grades shall be a maximum of $6 \%$ on arterials and $8 \%$ for collector and local streets. Where topographic conditions dictate, grades in excess of $8 \%$, but not more than $12 \%$, may be permitted for short distances, as approved by the City Engineer, where topographic conditions or existing improvements warrant modification of these standards.
Response: The Grading \& Erosion Control Plan located in Section IIIB, demonstrates that proposed streets can comply with this standard.
4. Centerline Radius Street Curves:

The minimum centerline radius street curves shall be as follows:
a) Arterial streets: $\mathbf{6 0 0}$ feet, but may be reduced to $\mathbf{4 0 0}$ feet in commercial areas, as approved by City Engineer.
b) Collector streets: $\mathbf{6 0 0}$ feet, but may be reduced to conform with the Public Works Standards, as approved by the City Engineer.
c) Local streets: $\mathbf{7 5}$ feet

Response: The plan sheets in Notebook Section IIIB demonstrate that all streets will comply with the above standards.
5. Rights-of-way:
a) See (.09) (A), above.

Response: Proposed rights-of-way are shown on the plan sheets located in Section IIIB of this Notebook. Rights-of-way will be dedicated and a waiver of remonstrance against the formation of a local improvement district will be recorded with recordation of a final plat in accordance with Section 4.177.

## 6. Access drives.

a) $\quad \operatorname{See}(.09)(A)$, above.
b) $\mathbf{1 6}$ feet for two-way traffic.

Response: Access drives (alleys) will be paved at least 16 -feet in width within a 20 -foot tract, as shown on the Circulation Plan. In accordance with Section 4.177, all access drives will be constructed with a hard surface capable of carrying a 23-ton load. Easements for fire access will be dedicated as required by the fire department. All access drives will be designed to provide a clear travel lane free from any obstructions

## 7. Clear Vision Areas

a) See (.09) (A), above.

Response: Clear vision areas will be provided and maintained in compliance with the Section 4. 177.

## 8. Vertical clearance:

a) See (.09) (A), above.

Response: Vertical clearance will be provided and maintained in compliance with the Section 4. 177.
9. Interim Improvement Standard:
a) $\operatorname{See}(.09)(A)$, above.

Response: There are no interim improvements being proposed on the subject site. Therefore, this standard is not applicable.
(.10) Sidewalk and Pathway Improvement Standards
A. The provisions of Section 4.178 shall apply within the Village zone.

Response: All sidewalks and pathways within SAP North will be constructed in accordance with the standards of Section 4.154 (which replaced 4.178 ) and the Villebois Village Master Plan. Sidewalks and pathways are shown in the street crosssections on the Circulation Plan (see Section IIIB of this notebook).
(.11) Landscaping, Screening and Buffering
A. Except as noted below, the provisions of Section 4.176 shall apply in the Village zone:

1. Streets in the Village zone shall be developed with street trees as described in the Community Elements Book.

Response: The Street Tree/ Lighting Plan shows the street trees proposed within this PDP. The trees are in conformance with the Community Elements Book.

## (.12) Master Signage and Wayfinding

Response: The site does not include any special signage or wayfinding elements. Therefore this standard is not applicable.
(.14) Design Standards Applying to the Village Zone
A. The following design standards implement the Design Principles found in (.13), above, and enumerate the architectural details and design requirements applicable to buildings and other features within the Village (V) zone. The Design Standards are based primarily on the features, types, and details of the residential traditions in the Northwest, but are not intended to mandate a particular style or fashion. All development within the Village zone shall incorporate the following:

## 1. Generally:

a. Flag lots are not permitted.

Response: $\quad$ No flag lots are proposed (see the Tentative Plat in Notebook Section IIIB).
b. Dwellings on lots without alley access shall be at least 36 feet wide.

Response: As demonstrated by the Tentative Plat (see Notebook Section IIIB), all lots without alley access will have a lot width exceeding 36 feet.
c. The minimum lot depth for a single-family dwelling with an accessory dwelling unit shall be 70 feet.

Response: None of the lots include accessory dwellings; therefore this standard does not apply.
d. For Village Center lots facing two or more streets, two of the facades shall be subject to the minimum frontage width requirement. Where multiple buildings are located on one lot, the facades of all buildings shall be used to calculate the Minimum Building Frontage Width.

Response: The proposed PDP is not located in the Village Center; therefore this standard does not apply.
2. Building and site design shall include:
a. Proportions and massing of architectural elements consistent with those established in an approved Pattern Book or Village Center Design.
b. Materials, colors and architectural details executed in a manner consistent with the methods included in an approved Pattern Book, Community Elements Book or approved Village Center Architectural Standards.
c. Protective overhangs or recesses at windows and doors.
d. Raised stoops, terraces or porches at single-family dwellings.
e. Exposed gutters, scuppers, and downspouts.
f. The protection of existing significant trees as identified in an approved Community Elements Book.
g. A landscape plan in compliance with Section (.11), above.
h. Building elevations of block complexes shall not repeat an elevation found on an adjacent block.
i. Building elevations of detached buildings shall not repeat an elevation found on buildings on adjacent lots.
j. A porch shall have no more than three walls.
k. A garage shall provide enclosure for the storage of no more than three vehicles.

Response: This application requests PDP approval for single family detached dwellings. No buildings are proposed at this time. Conformance with the Pattern Book and Community Elements Book will assure consistency with the Design Standards of subsection (.14). Subsequent Building Permit applications will review building and site design for consistency with the Pattern Book.
The Street Tree/ Lighting Plan (see Notebook Section IIIB) shows the street trees proposed within this PDP in compliance with Section (.11), above. The trees have been selected in conformance with the Community Elements Book.

Protection of existing trees is shown on the Tree Preservation Plan, in accordance with the Community Elements Book. The Street Tree/ Lighting Plan (see Section IIIB) depicts street trees along rights-of-way within the subject Preliminary Development Plan area. The Street Tree/ Lighting Plan has been developed in conformance with the Community Elements Book and the applicable standards of Section 4.176.
3. Lighting and site furnishings shall be in compliance with the approved Community Elements Book.

Response: The Street Tree/ Lighting Plan (see Section IIIB) shows proposed street trees and lighting for this Preliminary Development Plan. These plans illustrate that lighting and site furnishings will be provided in compliance with the Community Elements Book, which has been submitted for refinements concurrently.
4. Building systems, as noted in Tables V-3 and V-4 (Permitted Materials and Configurations), below, shall comply with the materials, applications and configurations required therein.
Response: The PDP does not propose any buildings. Subsequent Building Permit applications will review proposed buildings for consistency with the criteria of Table V-3 and the Architectural Pattern Book.
(.18) Village Zone Development Permit Process
B. Unique Features and Processes of the Village (V) Zone. To be developed, there are three (3) phases of project approval. Some of these phases may be combined, but generally the approvals move from the conceptual stage through to detailed architectural, landscape and site plan review in stages. All development within the Village zone shall be subject to the following processes:
2. Preliminary Development Plan (PDP) approval by the Development Review Board, as set forth in Section 4.125(.18)(G) through (K) (Stage II equivalent), below. Following SAP approval, an applicant may file applications for Preliminary Development Plan approval (Stage II equivalent) for an approved phase in accordance with the approved SAP, and any conditions attached thereto. Land divisions may also be preliminarily approved at this stage. Except for land within the Central SAP or multi-family dwellings outside the Central SAP, application for a zone change and Final

Development Plan (FDP) shall be made concurrently with an application for PDP approval. The SAP and PDP/FDP may be reviewed simultaneously when a common ownership exists.

Final Development (FDP) approval by the Development Review Board or the Planning Director, as set forth in Sections 4.125(.18)(L) through (P) (Site Design Review equivalent), below, may occur as a separate phase for lands in the Central SAP or multi-family dwellings outside the Central SAP.
Response: The Applicant is requesting approval of a Preliminary Development Plan (PDP). Compliance with Sections $4.125(.18)(G)$ through (K) is demonstrated in the following sections of this report. This PDP addresses Phase 5 of SAP North, as depicted in the concurrent SAP North Amendment.

A request for preliminary approval of a tentative subdivision plat is submitted concurrent with this PDP application (see Notebook Section IV). A request for a zone change to Village (V) zone is submitted concurrent with this PDP application (see Section V of this Notebook).
G. Preliminary Development Plan Approval Process:

1. An application for approval of a Preliminary Development Plan for a development in an approved SAP shall:
a) Be filed with the City Planning Division for the entire SAP, or when submission of the SAP in phases has been authorized by the Development Review Board, for a phase in the approved sequence.
Response: This PDP addresses Phase 5 of SAP North, as depicted by the concurrent SAP North Amendment.
b) Be made by the owner of all affected property or the owner's authorized agent; and.
Response: This application is made by Polygon WLH, LLC. The application form, which has been signed by the property owners, can be found in Exhibit IB along with a copy of the vesting deeds.
c) Be filed on a form prescribed by the City Planning Division and filed with said division and accompanied by such fee as the City Council may prescribe by resolution; and.

Response: The appropriate application form and fee have been filed with this submittal. A copy of the form and fee are included in Sections IB and IC, respectively.
d) Set forth the professional coordinator and professional design team for the project; and.

Response: The professional coordinator and professional design team are set forth in the Introductory Narrative, located in Section IA of this Notebook.
e) State whether the development will include mixed land uses, and if so, what uses and in what proportions and locations.

Response: This PDP does not include mixed land uses. The proposed land uses are shown on the Site/ Land Use Plan, in Section IIIB of this Notebook.
f) Include a preliminary land division (concurrently) per Section 4.400, as applicable.

Response: This application includes a request for preliminary land division approval. This request for approval of a Tentative Plat can be seen in Section IV of this Notebook. This section includes a Supporting Compliance Report, the proposed Tentative Plat, draft CC\&R's, a copy of the certification of liens \& assessments form, and the subdivision name approval from the County Surveyor's Office.
g) Include a concurrent application for a Zone Map Amendment (i.e., Zone Change) for the subject phase.

Response: This application includes a request for a zone map amendment to zone all the tax lots in the Preliminary Development Plan area to Village (V). This zone change request can be seen in Section V of this Notebook. This section includes a Supporting Compliance Report, a Zone Change Map, and a legal description \& sketch of the proposed zone change area.
2. The application for Preliminary Development Plan approval shall include conceptual and quantitatively accurate representations of the entire development sufficient to demonstrate conformance with the approved SAP and to judge the scope, size and impact of the development on the community and shall be accompanied by the following information:
a) A boundary survey or a certified boundary description by a surveyor licensed in the State of Oregon.
b) Topographic information sufficient to determine direction and percentage of slopes, drainage patterns, and in environmentally sensitive areas, (e.g., flood plain, wetlands, forested areas, steep slopes or adjacent to stream banks). Contour lines shall relate to North American Vertical Datum of 1988 and be at minimum intervals as follows:
i) One (1) foot contours for slopes of up to five percent (5\%);
ii) Two (2) foot contours for slopes from six percent ( $6 \%$ ) to twelve ( $12 \%$ );
iii) Five (5) foot contours for slopes from twelve percent ( $12 \%$ ) to twenty percent (20\%). These slopes shall be clearly identified, and
iv) Ten (10) foot contours for slopes exceeding twenty percent (20\%).
c) The location of areas designated Significant Resource Overlay Zone (SROZ), and associated 25-foot Impact Areas, within the PDP and within 50 feet of the PDP boundary, as required by Section 4.139.

Response: A certified boundary description by a surveyor licensed in the State of Oregon is provided as the legal description and sketch for the zone map amendment (see Section VC of this Notebook). Topographic information in accordance with Sections 4.125(.18)G.2.b. \& c. is shown on the Existing Conditions, located in Section IIB of this Notebook.
d) A tabulation of the land area to be devoted to various uses, and a calculation of the average residential density per net acre.

Response: Following is a tabulation of land area devoted to the various uses and a calculation of net residential density:

| Gross Acreage | 26.65 Acres |
| :---: | :---: |
| Linear Green Space | 1.72 Acres |
| RP-6 | 6.43 Acres |
| Portion of RP-5 | 0.50 Acres |
| Public Streets | 7.71 Acres |
| Lots and Alleys | 10.29 Acres |

Net Residential Density: 89 lots / 10.29 Acres $=8.65$ units per net acre
e) The location, dimensions and names, as appropriate, of existing and platted streets and alleys on and within 50 feet of the perimeter of the PDP, together with the location of existing and planned easements, sidewalks, bike routes and bikeways, trails, and the location of other important features such as section lines, section corners, and City boundary lines. The plan shall also identify all trees 6 inches and greater d.b.h. on the project site only.
Response: The above information is shown on the Existing Conditions, the Tentative Plat, and the Circulation Plan. The Tree Preservation Plan identifies all trees 6 inches and greater diameter at breast height (d.b.h.) within or adjacent to developed areas on the project site. Tree numbers are identified on the Tree Preservation Plan Sheets which correspond with the Tree Inventory in the Tree Report (see Section VB). The plan sheets mentioned above can be found in Section IIB of this Notebook.
f) Conceptual drawings, illustrations and building elevations for each of the listed housing products and typical non-residential and mixed-use buildings to be constructed within the Preliminary Development Plan boundary, as identified in the approved SAP, and where required, the approved Village Center Design.

Response: The proposed PDP includes Small, Medium, Standard, and Large lot types, which are all detached single-family homes. Conceptual elevations for the homes are included in Section IIIF of this Notebook.
g) A composite utility plan illustrating existing and proposed water, sanitary sewer, and storm drainage facilities necessary to serve the SAP.

Response: Proposed storm drainage facilities, and water and sanitary lines are shown on the Composite Utility Plan (see Section IIIB in this Notebook).
h) If it is proposed that the Preliminary Development Plan will be executed in Phases, the sequence thereof shall be provided.
Response: The PDP is proposed to be executed in one phase.
i) A commitment by the applicant to provide a performance bond or other acceptable security for the capital improvements required by the project.
Response: The applicant will provide a performance bond or other acceptable security for the capital improvements required by the project.
j) At the applicant's expense, the City shall have a Traffic Impact Analysis prepared, as required by Section 4.030(.02)(B), to review the anticipated traffic impacts of the proposed development. This traffic report shall include an analysis of the impact of the SAP on the local street and road network, and shall specify the maximum projected average daily trips and maximum parking demand associated with buildout of the entire SAP, and it shall meet Subsection 4.140(.09)(J)(2).

Response: A copy of the Traffic Impact Analysis is provided in Section IIID of this Notebook.
H. PDP Application Submittal Requirements:

1. The Preliminary Development Plan shall conform with the approved Specific Area Plan, and shall include all information required by (.18)(D)(1) and (2), plus the following:
a) The location of water, sewerage and drainage facilities;
b) Conceptual building and landscape plans and elevations, sufficient to indicate the general character of the development;
c) The general type and location of signs;
d) Topographic information as set forth in Section 4.035;
e) A map indicating the types and locations of all proposed uses; and
f) A grading and erosion control plan illustrating existing and proposed contours as prescribed previously in this section.

Response: A concurrent SAP North Amendment has been submitted to add information for Phase 5. The proposed PDP 5N conforms to the concurrent SAP North Amendment. As demonstrated above, the PDP application includes all information required by $4.125(.18)(D)(1)$ and (2), as applicable to a PDP.

The Existing Conditions shows the existing site features, including topographic features. Proposed lots to be created for development are shown on the Tentative Plat. The Grading and Erosion Control Plan shows the location of drainage facilities, topographic information, and a grading and erosion control facilities. The Composite Utility Plan indicates the proposed location of water and sanitary sewer lines and drainage facilities. The Site/ Land Use Plan indicates the types and locations of all proposed uses in the Preliminary Development Plan (See Section IIIB of this Notebook).
Landscape plans for the linear greens and regional parks are located with the FDP application materials in Section VII of the Notebook. The SAP North Signage \& Wayfinding Plan shows that there are no special signs or wayfinding elements in this proposal.
The proposed PDP includes Small, Medium, Standard, and Large lot types, which are all detached single-family homes. Conceptual elevations for the homes within the PDP will be provided for review by the City's Architectural consultant prior to building permit submittal and are in included in Section IIIF. Future proposed homes will be designed to be consistent with the conceptual elevations in the Architectural Pattern Book.
2. In addition to this information, and unless waived by the City's Community Development Director as enabled by Section 4.008(.02))B), at the applicant's expense, the City shall have a Traffic Impact Analysis prepared, as required by Section 4.030(.02)(B), to review the anticipated traffic impacts of the proposed development. This traffic report shall include an analysis of the impact of the PDP on the local street and road network, and shall specify the maximum projected average daily trips and maximum parking demand associated with buildout of the entire PDP, and it shall meet Subsection 4.140(.09)(J)(2) for the full development of all five SAPs.

Response: A copy of the Traffic Impact Analysis is provided in Section IIID.
3. The Preliminary Development Plan shall be sufficiently detailed to indicate fully the ultimate operation and appearance of the phase of development. However, approval of a Final Development Plan is a separate and more detailed review of proposed design features, subject to the standards of Section 4.125(.18)(L) through (P), and Section 4.400 through Section 4.450.

Response: The plan sheets for the proposed Preliminary Development Plan provide sufficient detail to show the ultimate operation and appearance of the subject phase of development. The FDP application for design of the included linear greens and regional parks within the PDP area is submitted concurrent with this application (see Notebook Section VII).
4. Copies of legal documents required by the Development Review Board for dedication or reservation of public facilities, or for the creation of a non-profit homeowner's association, shall also be submitted.

Response: Copies of legal documents will be provided as appropriate and required by the Development Review Board.

## I. PDP Approval Procedures

1. An application for PDP approval shall be reviewed using the following procedures:
a) Notice of a public hearing before the Development Review Board regarding a proposed PDP shall be made in accordance with the procedures contained in Section 4.012.
b) A public hearing shall be held on each such application as provided in Section 4.013.
c) After such hearing, the Development Review Board shall determine whether the proposal conforms to the permit criteria set forth in this Code, and shall approve, conditionally approve, or disapprove the application.

Response: In accordance with the procedures contained in Section 4.012, the City shall provide notice of a public hearing before the Development Review Board on the proposed Preliminary Development Plan. This report, in conjunction with all submitted information, demonstrates that the proposal conforms to the applicable permit criteria set forth in the City's Code.

## J. PDP Refinements to Approved Specific Area Plan

1. In the process of reviewing a PDP for consistency with the approved Specific Area Plan, the Development Review Board may approve refinements, but not amendments, to the SAP. Refinements to the SAP may be approved by the Development Review Board as set forth in Section (.18)(J)(2), below.
a) Refinements to the SAP are defined as:
i. Changes to the street network or functional classification of streets that do not significantly reduce circulation system function or connectivity for vehicles, bicycles or pedestrians.

Response: An amendment to SAP North to add information for Phase 5 has been submitted concurrently. PDP 5N shows street networks consistent with the concurrent SAP North Amendment.
ii. Changes to the nature or location of parks types, trails or open space that to not significantly reduce function, usability, connectivity, or overall distribution or availability of these uses in the Preliminary Development Plan.

Response: An amendment to SAP North to add information for Phase 5 has been submitted concurrently. PDP 5N shows parks consistent with the concurrent SAP North Amendment.
iii. Changes to the nature or location of utilities or storm water facilities that do not significantly reduce the service or function of the utility or facility.

Response: An amendment to SAP North to add information for Phase 5 has been submitted concurrently. PDP 5N shows utilities and stormwater facilities consistent with the concurrent SAP North Amendment.
iv. $\quad$ Changes to the location or mix of land uses that do not significantly alter the overall distribution or availability of uses in the Preliminary Development Plan. For the purposes of this subsection, "land uses" or "uses" are defined in the aggregate, with specialty condos, mixed use condos, urban apartments, condos, village apartments, neighborhood apartments, row houses and small detached uses comprising a land use group and medium detached, standard detached, large and estate uses comprising another.
v. A change in density that does not exceed ten percent, provided such density change has not already been approved as a refinement to the underlying SAP or PDP, and does not result in fewer than 2,300 dwelling units in the Village.

Response: An amendment to SAP North to add information for Phase 5 has been submitted concurrently. PDP 5N proposes land uses and density consistent with the concurrent SAP North Amendment.
vi. Changes that are significant under the above definitions, but necessary to protect an important community resource or improve the function of collector or minor arterial roadways.
a. As used herein, "significant" means:
i. More than ten percent of any quantifiable matter, requirement, or performance measure, as specified in (.18)(J)(1)(a), above, or,
ii. That which negatively affects an important, qualitative feature of the subject, as specified in (.18)(J)(1)(a), above.

Response: This PDP does not include refinements as it is consistent with the concurrent SAP North Amendment application.
2. Refinements meeting the above definition may be approved by the DRB upon the demonstration and finding that:
a) The refinements will equally or better meet the conditions of the approved SAP, and the Goals, Policies and Implementation Measures of the Villebois Village Master Plan.
b) The refinement will not result in significant detrimental impacts to the environment or natural or scenic resources of the PDP and Village area, and
c) The refinement will not preclude an adjoining or subsequent PDP or SAP from development consistent with the approved SAP or Master Plan.

Response: As previously described in this report, a SAP Amendment has been submitted to add information for Phase 5. PDP 5N is consistent with the concurrent amendments to SAP North for Phase 5. No refinements are requested with the PDP.
3. Amendments to the SAP, not including SAP amendments for phasing, must follow the same procedures applicable to adoption of the SAP itself. Amendments are defined as changes to elements of the SAP not constituting a refinement.
4. Amendments to the SAP for phasing will be processed as a Class Il administrative review proposal.

Response: As previously described in this report, a SAP Amendment has been submitted to add information for Phase 5. PDP 5N is consistent with the concurrent amendments to SAP North for Phase 5. No refinements are requested with the PDP.

## K. PDP Approval Criteria

The Development Review Board may approve an application for a PDP only upon finding that the following approval criteria are met:

1. That the proposed PDP:
a. Is consistent with the standards identified in this section.

Response: This Supporting Compliance Report provides an explanation of how the proposed development is consistent with the standards of the Village zone.
b. Complies with the applicable standards of the Planning and Land Development Ordinance, including Section 4.140(.09)(J)(1)-(3).

Response: This Supporting Compliance Report provides an explanation of how the proposed development is consistent with the applicable standards of the Planning and Land Development Ordinance. A description of how the proposed development complies with Section 4.140(.09)J.1-3 is included in the subsequent pages of this report.
c. Is consistent with the approved Specific Area Plan in which it is located.

Response: A SAP North Amendment has been submitted concurrent with PDP 5N. The proposed Preliminary Development Plan is consistent with Specific Area Plan North Amendment, as demonstrated by the plan sheets located in Section IIIB and as described in this report.
d. Is consistent with the approved Pattern Book and, where required, the approved Village Center Architectural Standards

Response: No buildings are proposed with this Preliminary Development Plan. Subsequent Building Permit applications for residential buildings in this Preliminary Development Plan will document compliance with the Architectural Pattern Book. However, proposed lots are sized to accommodate proposed uses in a manner consistent with Table V-1 and the Architectural Pattern Book.

## Community Elements Book

## Lighting Master Plan

Response: This PDP application includes plans for street lighting within PDP 5 North as illustrated on the Street Tree/ Lighting Plan (see Notebook Section III). The proposed lighting is consistent with the amended Community Elements Book.

## Curb Extensions

Response: As shown on the Tentative Plat (see Notebook Section IV), curb extensions are proposed at a number of intersections in the PDP area. The location of these curb extensions is consistent with the Curb Extension Concept Plan Diagram in the amended Community Elements Book.

## Street Tree Master Plan

Response: As shown on the Street Tree/ Lighting Plan (see Notebook Section IIIB), street trees proposed along the streets in the PDP area are consistent with the respective designated street tree lists.

## Site Furnishings

Response: Regional Park 6 will contain benches, picnic tables, trash receptacles, play equipment, etc., as shown in the Details page of the PDP Plans in Section VIIB of this Notebook.

## Play Structures

Response: A Play area is being proposed in RP-6 close to Cherbourg Lane. There are also multiple creative play areas throughout the development, including in the linear greens and the pocket park along the eastern property boundary.

## Tree Protection

Response: The Tree Protection component of the Community Elements Book for SAP - North (page 18) describes the goal, policies, and implementation measures that were used to promote the protection of existing trees in the design of the PDP area. A Tree Preservation Plan has been prepared for this PDP, consistent with Implementation Measures 1 and 2 of the Tree Protection component of the Community Elements Book. The Tree Preservation Plan shows the trees that are proposed for preservation. The Tree Preservation Plan was based on a Tree Report prepared by Morgan E. Holen, a certified arborist (see Section VIC of this notebook).

## Plant List

Response: The Community Elements Book, approved with the concurrent SAP North Amendment, contains a Plant List (pages 19-21) of non-native and native trees, shrubs, and groundcovers, ferns, herbs, vines, perennials, grasses, and bulbs for species to plant throughout Villebois. Within the rights-of-way in this PDP, only street trees and rainwater components are proposed. Additional landscaping details are provided with the FDP application which is submitted concurrent with this PDP (see Section VII of this Notebook).

## Master Signage and Wayfinding Plan

Response: $\quad$ No special signage or wayfinding is being proposed in Phase 5 as shown in the Master Plan.

## Rainwater Program

Response: A Rainwater Management Plan is included with the supporting utility reports located in Section IIIC of this Notebook. Rainwater will be treated as shown on the Composite Utility Plan (see Notebook Section IIIB). The rainwater components will be detailed within subsequent construction drawings. Proposed rainwater management is consistent with the rainwater program for SAP North, as described in the supporting compliance report for the amendment to Specific Area Plan North
(Section IIA) and as demonstrated in the attached Rainwater Management Plan (see Notebook Section IIIC).
3. If the PDP is to be phased, that the phasing schedule is reasonable and does not exceed two years between commencement of development of the first, and completion of the last phase, unless otherwise authorized by the Development Review Board.

Response: The PDP is proposed to be executed in one phase.
4. Parks within each PDP or PDP phase shall be constructed prior to occupancy of $50 \%$ of the dwelling units in the PDP or PDP phase, unless weather or special circumstances prohibit completion, in which case bonding for the improvements shall be permitted.

Response: The parks within PDP 5N will be completed prior to occupancy of $50 \%$ of the housing units, as required. Bonding will be provided if special circumstances prohibit completion.
5. In the Central SAP, parks shall be constructed within each PDP as provided above, and that pro-rata portion of the estimated cost of Central SAP parks not within the PDP, calculated on a dwelling unit basis, shall be bonded or otherwise secured to the satisfaction of the city.

Response: $\quad$ The proposed PDP is within SAP North and is not within the Central SAP Area, therefore this standard does not apply.
6. The Development Review Board may require modifications to the PDP, or otherwise impose such conditions as it may deem necessary to ensure conformance with the approved SAP, the Villebois Village Master Plan, and compliance with applicable requirements and standards of the Planning and Land Development Ordinance, and the standards of this section.

Response: This report demonstrates that the proposed Preliminary Development Plan is in conformance with the Specific Area Plan - North Amendment, and thus, the Villebois Village Master Plan as well as the applicable requirements and standards of the Planning and Land Development Ordinance.

Section 4.139 Significant Resource Overlay Zone (SROZ) Ordinance
Response: The proposed development will not have a significant adverse effect upon an SROZ area as none exist on the site. A portion of the northeast part of the property was previously mapped as including an SROZ wetland. Mirth Walker, with SWCA, has evaluated the existing wetlands and found them to be isolated and not locally significant. SWCA has determined these wetlands should not be classified as locally significant. The SAP Amendment supporting compliance report includes a request to remove the SROZ designation from the site (See Notebook Section VII).

Section 4.140 Planned Development Regulations
(.09) Final Approval (Stage Two)
J. A planned development permit may be granted by the Development Review Board only if it is found that the development conforms to all the following criteria, as well as to the Planned Development Regulations in Section 4.140:

1. The location, design, size and uses, both separately and as a whole, are consistent with the Comprehensive Plan, and with any other applicable plan, development map or Ordinance adopted by the City Council.
Response: This Supporting Compliance Report demonstrates that the location, design, size, and uses proposed with the PDP are both separately and as a whole consistent with SAP North, and thus the Villebois Village Master Plan, the City's Comprehensive Plan designation of Residential - Village for the area, and the City's Planning and Land Development Ordinance.
2. That the location, design, size and uses are such that traffic generated by the development at the most probable used intersection(s) can be accommodated safely and without congestion in excess of Level of Service D, as defined in the Highway Capacity manual published by the National Highway Research Board, on existing or immediately planned arterial or collector streets and will, in the case of commercial or industrial developments, avoid traversing local streets. Immediately planned arterial and collector streets are those listed in the City's adopted Capital Improvement Program, for which funding has been approved or committed, and that are scheduled for completion within two years of occupancy of the development or four year if they are an associated crossing, interchange, or approach street improvement to Interstate 5.

Response: A copy of the Traffic Impact Analysis is attached in Section IIID of this Notebook.
a. In determining levels of Service $D$, the City shall hire a traffic engineer at the applicant's expense who shall prepare a written report containing the following minimum information for consideration by the Development Review Board:
i. An estimate of the amount of traffic generated by the proposed development, the likely routes of travel of the estimated generated traffic, and the source(s) of information of the estimate of the traffic generated and the likely routes of travel; (Amended by Ord 561, adopted 12/15/03.)
ii. What impact the estimate generated traffic will have on existing level of service including traffic generated by (1) the development itself, (2) all existing developments, (3) Stage II developments approved but not yet built, and (4) all developments that have vested traffic generation rights under section 4.140(.10), through the most probable used intersection(s), including state and county intersections, at the time of peak level of traffic. This analysis shall be conducted for each direction of travel if backup from other intersections will interfere with intersection operations. (Amended by Ord 561, adopted 12/15/03.).

Response: A copy of the Traffic Impact Analysis is attached in Section IIID of this Notebook.
b. The following are exempt from meeting the Level of Service D criteria standard:
i. A planned development or expansion thereof which generates three (3) new p.m. peak hour traffic trips or less;
ii. A planned development or expansion thereof which provides an essential governmental service.
Response: This PDP does not request an exemption from meeting the Level of Service D; therefore this criterion does not apply to this project.
c. Traffic generated by development exempted under this subsection on or after Ordinance No. 463 was enacted shall not be counted in determining levels of service for any future applicant. (Added by Ord 561, adopted 12/15/03.)

Response: A copy of the Traffic Impact Analysis is attached in Section IIID of this Notebook.
d. Exemptions under ' $b$ ' of this subsection shall not exempt the development or expansion from payment of system development charges or other applicable regulations. (Added by Ord 561, adopted 12/15/03.)
Response: The subject PDP is not exempt from subsection 'b' and the system development charges will be provided as required.
e. In no case will development be permitted that creates an aggregate level of traffic at LOS " $F$ ". (Added by Ord 561, adopted 12/15/03.)
Response: A copy of the Traffic Impact Analysis is attached in Section IIID of this Notebook.
3. That the location, design, size and uses are such that the residents or establishments to be accommodated will be adequately served by existing or immediately planned facilities and services.

Response: This Supporting Compliance Report, the Utility and Drainage Reports (see Section IIIC of this notebook) and the plan sheets (see Composite Utility Plan in Section IIIB) show that the future residents of PDP 5N will be adequately served by the planned facilities and services.

## Section 4.154 On-site Pedestrian Access and Circulation

## (.02) On-site Pedestrian Access and Circulation

i. The purpose of this section is to implement the pedestrian access and connectivity policies of the Transportation System Plan. It is intended to provide for safe, reasonably direct, and convenient pedestrian access and circulation.
Response: PDP 5 N will be in compliance with Section 4.154 and provide for safe, reasonably direct, and convenient pedestrian access and circulation, as described below.
ii. Standards. Development shall conform to all the following standards:

1. Continuous Pathway System. A pedestrian pathway system shall extend throughout the development site and connect to adjacent sidewalks, and to all future phases of the development, as applicable.

Response: Pedestrian pathway systems (sidewalks) in PDP 5N extend throughout the development site and connect to adjacent sidewalks. Pathways exist to facilitate traffic through the park in the northwestern portion of the site (RP-6) and to the edges of the subject site to facilitate connectivity to adjacent properties. The Tonquin Trail, a regional trail system, meanders through RP-6 from the northeast corner to the southwest corner into RP-5. It is facilitated by a wide pathway, which connects to other smaller pathways that provide connections to the nearby street and sidewalk system.
2. Safe, Direct, and Convenient. Pathways within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent parking areas, recreational areas/playgrounds, and public rights-of-way and crosswalks based on all of the following criteria:
Response: Pathways provide safe, reasonably direct, and convenient connections between adjacent RP-6 in the center of the site. All nearby lots in Phase 5 will be connected to the sidewalk system, which sufficiently facilitates pedestrian and cyclist traffic to nearby amenities, including RP-5, RP-6, linear greens and pocket parks. All proposed playgrounds, dog parks, sport courts, etc., will have access to pedestrian facilities capable of facilitating a sufficient level of traffic generated by these uses.
a. Pedestrian pathways area designed primarily for pedestrian safety and convenience, meaning they
are free from hazards and provide a reasonably smooth and consistent surface.

Response: Pedestrian pathways will be free from hazards and will provide a reasonably smooth and consistent surface.
b. The pathway is reasonably direct. A pathway is reasonably direct when it follows a route between destinations that does not involve a significant amount of unnecessary out-of-direction travel.

Response: The pathways will be reasonably direct and will not involve a significant amount of unnecessary out-of-direction travel.
c. The pathway connects to all primary building entrances and is consistent with the Americans with Disabilities Act (ADA) requirements.

Response: The pathways connect to the front of each home and are consistent with the Americans with Disabilities Act (ADA) requirements.
d. All parking lots larger than three acres in size shall provide an internal bicycle and pedestrian pathway pursuant to Section 4.155(.03)(B.)(3.)(d.).
Response: There are no parking lots greater than three acres within PDP 5N; therefore this criteria is not applicable.
3. Vehicle/Pathway Separation. Except as required for crosswalks, per subsection 4, below, where a pathway abuts a driveway or street it shall be vertically or horizontally separated from the vehicular lane. For example, a pathway may be vertically raised six inches above the abutting travel lane, or horizontally separated by a row of bollards.

Response: Pedestrian pathways will be separated from the vehicle lane by a mountable curb.
4. Crosswalks. Where a pathway crosses a parking area or driveway, it shall be clearly marking with a contrasting paint or paving materials (e.g., pavers, light-color concrete inlay between asphalt, or similar contrast).

Response: No crosswalks, cross alleys or parking areas in PDP 5N; therefore, this criteria is not applicable.
5. Pathway Width and Surface. Primary pathways shall be constructed concrete, asphalt, brick/masonry pavers, or other durable surface, and not less than five (5) feet wide. Secondary pathways and pedestrian trails may have an alternative surface except as otherwise required by the ADA.
Response: Primary pathways will be constructed of concrete that are at least five (5) feet in width.
6. All pathways shall be clearly marked with appropriate standard signs.

Response: Pathways will be clearly marked with appropriate standard signs.

## Section 4.171 General Regulations - Protection of Natural Features \& other Resources

(.02) General Terrain Preparation
A. All developments shall be planned designed, constructed and maintained with maximum regard to natural terrain features and topography, especially hillside areas, floodplains, and other significant land forms.
B. All grading, filling and excavating done in connection with any development shall be in accordance with the Uniform Building Code, all development shall be planned, designed, constructed and maintained so as to:

1. Limit the extent of disturbance of soils and site by grading, excavation and other land alterations.
2. Avoid substantial probabilities of: (1) accelerated erosion; (2) pollution, contamination or siltation of lakes, rivers, streams and wetlands; (3) damage to vegetation; (4) injury to wildlife and fish habitats.
3. Minimize the removal of trees and other native vegetation that stabilize hillsides, retain moisture, reduce erosion, siltation and nutrient runoff, and preserve the natural scenic character.

Response: The plan sheets located in Section IIIB demonstrate that the subject Preliminary Development Plan is designed with maximum regard to natural terrain features and topography. The subject PDP does not contain hillside or flood plain areas. The Grading and Erosion Control Plan shows proposed grading within the subject area and the Tree Preservation Plan shows proposed tree preservation.
All subsequent grading, filling, and excavating will be done in accordance with the Uniform Building Code. Disturbance of soils and removal of trees and other native vegetation will be limited to the extent necessary to construct the proposed development. Construction will occur in a manner that avoids substantial probabilities of accelerated erosion; pollution, contamination or siltation of lakes, rivers, streams and wetlands; damage to vegetation; and injury to wildlife and fish habitats.
(.03) Hillsides: All developments proposed on slopes greater than $\mathbf{2 5 \%}$ shall be limited to the extent that:

Response: The subject Preliminary Development Plan does not include any areas of slopes in excess of $25 \%$ Therefore, this standard does not apply to this application.
A. All developments shall be planned, designed, constructed and maintained so that:

1. Existing vegetation is not disturbed, injured, or removed prior to site development and prior to an approved plan for circulation, parking and structure location.
2. Existing wooded areas, significant clumps/groves of trees and vegetation, and all trees with a diameter at breast height of six inches or greater shall be incorporated into the development plan and protected wherever feasible.
3. Existing trees are preserved within any right-of-way when such trees are suitably located, healthy, and when approved grading allows.
B. Trees and woodland areas to be retained shall be protected during site preparation and construction according to City Public Works design specifications, by:
4. Avoiding disturbance of the roots by grading and/or compacting activity.
5. Providing for drainage and water and air filtration to the roots of trees which will be covered with impermeable surfaces.
6. Requiring, if necessary, the advisory expertise of a registered arborist/horticulturist both during and after site preparation.
7. Requiring, if necessary, a special maintenance, management program to insure survival of specific woodland areas of specimen trees or individual heritage status trees.
Response: The Tree Preservation Plan, located in Section IIIB, depicts existing trees within the subject area and identifies trees to be retained and to be removed. This application includes a request for approval of a Type "C" Tree Removal Plan, which can be found in Section VI of this Notebook.
Section IIIE and Section VIB include the Tree Report prepared by Morgan Holen, which addresses existing trees and development impacts within the subject area, a tree inventory and tree mitigation details. The information contained in Section IIIB demonstrates that the subject Preliminary Development Plan is designed to incorporate trees with a diameter at breast height of six inches or greater into the plan where feasible.
(.05) High Voltage Power line Easements and Rights of Way and Petroleum Pipeline Easements:
A. Due to the restrictions placed on these lands, no residential structures shall be allowed within high voltage powerline easements and rights of way and petroleum pipeline easements, and any development, particularly residential, adjacent to high voltage powerline easements and rights of way and petroleum pipeline easement shall be carefully reviewed.
B. Any proposed non-residential development within high voltage powerline easements and rights of way and petroleum pipeline easements shall be coordinated with and approved by the Bonneville Power Administration, Portland General Electric Company or other appropriate utility, depending on the easement or right of way ownership.

Response: This Preliminary Development Plan does not contain any high voltage powerline or petroleum pipeline easements or rights of way.
(.06) Hazards to Safety: Purpose:
A. To protect lives and property from natural or human-induced geologic or hydrologic hazards and disasters.
B. To protect lives and property from damage due to soil hazards.
C. To protect lives and property from forest and brush fires.
D. To avoid financial loss resulting from development in hazard areas.

Response: Development of the subject area will occur in a manner that minimizes potential hazards to safety.
(.07) Standards for Earth Movement Hazard Areas:
A. No development or grading shall be allowed in areas of land movement, slump or earth flow, and mud or debris flow, except under one of the following conditions.

Response: Development of the subject area will occur in a manner that minimizes potential hazards to safety. No earth movement hazard areas have been identified within the subject PDP area.
(.08) Standards for Soil Hazard Areas:
A. Appropriate siting and design safeguards shall insure structural stability and proper drainage of foundation and crawl space areas for development on land with any of the following soil conditions: wet or high water table; high shrink-swell capability; compressible or organic; and shallow depth-to-bedrock.
B. The principal source of information for determining soil hazards is the State DOGAMI Bulletin 99 and any subsequent bulleting and accompanying maps. Approved site-specific soil studies shall be used to identify the extent and severity of the hazardous conditions on the site, and to update the soil hazards database accordingly.

Response: Development of the subject area will occur in a manner that minimizes potential hazards to safety. No soil hazard areas have been identified within the subject area.
(.09) Historic Protection: Purpose:
A. To preserve structures, sites, objects, and areas within the City of Wilsonville having historic, cultural, or archaeological significance.

Response: No Historic / Cultural Resources were identified on the site (Section IID).

## Section 4.172 Flood Plain Regulations

Response: The subject PDP does not include any flood plain areas.

## Section 4.176 Landscaping, Screening \& Buffering

Response: Landscaping will be provided in accordance with the standards in Section 4.176. The Street Tree/ Lighting Plan depicts street trees along rights-of-way within the subject Preliminary Development Plan area. The plan has been developed in conformance with the Community Elements Book and the applicable standards of Section 4.176. Landscaping in the linear greens will be reviewed with the concurrent FDP application in Section VI of this Notebook.

## Section 4.177 Street Improvement Standards

Response: The rights-of-way proposed within the subject PDP are shown on the plan sheets in Section IIB. Rights-of-way will be dedicated and a waiver of remonstrance against the formation of a local improvement district will be recorded with the final plat.
The plan sheets located in Section IIIB demonstrate that all proposed access drives (alleys) within the PDP area will have a minimum improvement width of 16 feet and will provide two-way travel. All access drives will be constructed with a hard surface capable of carrying a 23 -ton load. Easements for fire access will be dedicated as required by the fire department. All access drives will be designed to provide a clear travel lane free from any obstructions.
Clear vision areas will be maintained in accordance with the standards of Subsection 4.177(.01)(I). Vertical clearance will be maintained over all streets and access drives in accordance with Subsection 4.177(.01)(J).

## Section 4.610.40 Type C Permit

A request for approval of the Tree Removal Plan for PDP 5 North can be found in Section VI of this Notebook.

## II. Proposal Summary \& Conclusion

This Supporting Compliance Report demonstrates compliance with the applicable requirements of the Village Zone and other applicable requirements of the City of Wilsonville Planning \& Land Development Ordinance for the requested Preliminary Development Plan. Therefore, the applicant requests approval of this application. Concurrent applications for Specific Area Plan North Amendment and Significant Resource Overlay Zone Map Refinement, Tentative Plat, Zone Change, Tree Removal Plan, Final Development Plan and SROZ Map Refinement are included in this notebook as Sections II, III, IV, V, VI, and VII, respectively, pursuant to City requirements.

## IIIB) Reduced Drawings

## PHASE 5 NORTH <br> CLERMONT <br> PRELIMINARY DEVELOPMENT PLAN

TL 7200, 7290, 7300, 7400, 7500 \& 7600, TOWNSHIP 3 SOUTH, RANGE 1 WEST, SECTION 15 W.M. CITY OF WILSONVILLE, OREGON

APPLICANT:
POLYGON WLH,
109E. 13THST. [P] 503-271-1920

PLANNER:

PACIIIC COMMUNITY DESIGN, INC | 12564 SW MAIN STRE |
| :--- |
| TIGARD OR | 1 I 503-941-9484

CONTACT: STACY CONNERY, AICP CIVIL ENGINEER:
PACIFIC COMMUNITY DESIGN, INC 12564 SW MAIN STREET
TIGARD, OR 97223
[P] 503-941-9484
SURVEYOR:
PACIFIC COMMUNITY DESIGN, INC 12564 SW MAIN STREET
12564 SW MAIN ST
TIGARD, OR 97223
[P] 5 SO3-941-9484
CONACT: TRAVIS JANSEN, PLS, PE
LANDSCAPE ARCHITECT:
PACIFIC COMMUNITY DESIGN, INC 12564 SW MAIN STR
TIGARD. OR 97223
[P] 503-941-9484
CONTACT: KERRY LANKFORD, RLA
GEOTECHNICAL ENGINEER: GEODESIGN, INC
15575 SW SEQUOIA PARKWAY, SUITE 100 PORTLAND, OR 97224
PP $503-96888787$
CONTACT: SHAWN DIMKE, PE


VICINITY MAP

## UTILITIES \& SERVICES:

## POWER GAS: <br> PARKS: PHONE: WASTE DISPOSAL

WATER: CITY OF WILSONVILLE
STORM:
SEWER: SEWER: CITY OF WILSONVILLE

$$
\begin{aligned}
& \text { CITY OF WILSONVILLE } \\
& \text { PORTLAND GENERAL EI } \\
& \text { NORTHWEST NATURAL }
\end{aligned}
$$

$$
\begin{aligned}
& \text { TUALATIN VALLEY FIRE \& RESCUE } \\
& \text { CLACKAMAS COUNTY SHERIFF }
\end{aligned}
$$

$$
\begin{aligned}
& \text { CLACKAMAS COUNTY SHERIF } \\
& \text { WEST LINN / WILSONVILLE SCHOOL DISTRICT } 3 .
\end{aligned}
$$

$$
\begin{aligned}
& \text { WEST LINN / WILSONVII } \\
& \text { CITY OF WILSONVILLE }
\end{aligned}
$$

FRONTIER

WASTE

$$
\begin{aligned}
& \text { UNITED DIS } \\
& \text { COMCAST }
\end{aligned}
$$

BENCHMARK
OREGON STATE PLANE COORDINATE 5818 LOCATED IN MONUMENT BOX IN CENTERLINE OF TOOZE ROAD 2 MLLES WEST OF 110TH.
ELEVATION DATUM: NAVD 88, ELEVATION $=202.991$ SHEET INDEX:

polrgon nw Companr
Pacific Community Design
seooescr, inc


Preliminary
Development
Plan

## PDP 5N

 CLERMONT$\qquad$

COVER
SHEET
$\qquad$


N
ELEVATION DATUM: NAVD 88

| TREE LEGEND: |  |
| :---: | :---: |
|  | important |
| © | ¢ood |
| ${ }_{p}^{\text {m }}$ | Moderate Poor |
| NE | not examined |
| (3) | EXISTING TREES TO REMAIN |
|  | Existing trees likely to be removed |
| X | EXISTING TREES TO BE REMOVED |

Villebois



## PDP 5N

 CLERMONTEXISTING
$\qquad$
$\qquad$

CONDITIONS

2no sumutral arte $\quad 9 / 28$ 2018
2



# PDP 5N 

 CLERMONTPRELIMINARY



vileboos

polrgon nw companr
Pacific
Community
Design
-
Geoosesn, me
$\underset{\text { DATE }}{\substack{\text { REVSONS } \\ \text { DESCRPTIION }}}$

Preliminary
Development
Plan
$\qquad$

PDP 5N CLERMONT

CIRCULATION
PLAN \& street SECTIONS



9.1






## IIIC) Utility and Drainage Report

# CLERMONT VILLEBOIS PDP 5N WATER QUALITY ANALYSIS COFFEE LAKE CREEK BASIN J OB \#395-079 

Prepared By:
Pacific Community Design, Inc.
12564 SW Main Street
Tigard, OR 97223
Tele: 503.941.9484

Prepared For:
Polygon Northwest Company
DATE: 9/ 28/ 2018
BY: BLAKE ARELLANO, P.E REVIEWED BY: JESSIE KING, P.E.

## TABLE OF CONTENTS:

INTRODUCTION ..... 3
PROJ ECT DESCRIPTION ..... 3
Project Location ..... 3
Project Zoning and Land Use ..... 3
EXISTING CONDITIONS ..... 3
Existing Topography, Land Use, and Onsite Drainage ..... 3
Soil Conditions ..... 4
SCS Curve Numbers ..... 4
DEVELOPED CONDITIONS ..... 5
Developed Drainage Conditions ..... 5
Hydrology ..... 5
Water Quantity ..... 5
Water Quality ..... 6
CONCLUSION ..... 6
APPENDIX A - FIGURESFigure A1 - Soil Survey Map
Figure A2 - Pre-Developed Drainage Basin Map
Figure A3 - Developed Drainage Basin Map
APPENDIX B - SHED BASIN CALCULATIONS
Figure B1 - Clackamas County Soil Survey Information
Figure B2- SCS Curve Numbers
Figure B3 - Manning's "N" Values
Figure B4 - Predeveloped Impervious Area Calculations
Figure B5 - Developed Impervious Area Calculations
Figure B6-B7 - Predeveloped Time Of Concentration Calculations
Figure B8 - Developed Time of Concentration Calculations
APPENDIX C - RAING GARDENY FACILITY SIZING CALCULATIONS
Figure C - Rain Garden Calculations

## INTRODUCTION

This report represents the analysis done for PDP 5N, hereby referred to as Clermont, of the Villebois development. The intent of this report is to demonstrate that the proposed water quality facilities comply with City of Wilsonville "Public Works Standards" and are consistent with the original Coffee Lake Basin water quality analysis. All calculations and supporting figures are included with this document.

## PROJ ECT DESCRIPTION

PROJ ECT LOCATION
Clermont is located on tax lots 7200, 7290, 7300, 7400, 7500, and 7600 of Clackamas County Tax Map 3S1W15AB. This portion of Villebois will consist of 89 residential homes on property located to the south of Tooze Road and east of SW 110 ${ }^{\text {th }}$ Avenue. The total area of the development site is 26.11 acres.

## PROJ ECT ZONING/ LAND USE

SAP North in Villebois Village development has been assigned the land use designation of Village zone by the City of Wilsonville. The Villebois Village Master Plan designates this area further as a Residential Village. This area will be developed as an urban village including single-family units of various sizes, a regional park, and parking spaces.

## EXISTING CONDITIONS

## EXISTING TOPOGRAPHY, LAND USE, AND ONSITE DRAINAGE

This portion of the Villebois development drains northeast to the Coffee Lake Basin. The development site is primarily open space in good condition and wood or forest land with a scattering of houses and barns and pavement that make up approximately $7.8 \%$ impervious area within the site. The site falls within hydrologic groups B and C per the Soil Survey Map for Clackamas County (Figure A1). The pre-developed topography for the project site is shown in Figure A2.

## SOIL CONDITIONS

Below is a summary of the existing soil conditions for Clermont.

TABLE 1
PROJ ECT SITE SOILS

| SOIL NAME | SCS SYMBOL | HYDROLOGIC GROUP |
| :---: | :---: | :---: |
| ALOHA | 1 B | C |
| LATOURELL | $53 \mathrm{~A}, 53 \mathrm{~B}$ | B |
| QUATAMA | $71 \mathrm{~B}, 71 \mathrm{C}$ | C |
| WILLAMETTE | 87 A | B |
| WOOKBURN | 91 C | C |

## SCS CURVE NUMBERS

Below is a summary of the SCS curve numbers in accordance with the Conditions of Approval for SAP North of the Villebois Village.

TABLE 2
SCS CURVE NUMBERS

| LAND USE | CURVE NUMBER |
| :---: | :---: |
| OPEN SPACE AND LANDSCAPING | 80 |
| COMMERCIAL AREAS | 94 |
| RIGHT-OF-WAYS | 94.4 |
| (based on $80 \%$ impervious - CN of 98 <br> And 20\% pervious - CN of 80) <br> RESIDENTIAL DEVELOPMENT <br> (1/8 acre of less) <br> RESIDENTIAL DEVELOPMENT <br> $(1 / 4$ acre) | 90 |

## DEVELOPED CONDITIONS

## DEVELOPED DRAINAGE CONDITIONS

Stormwater runoff from the developed site will be collected by a series of catch basins leading to an underground piping system. This system will transport the runoff to a rain garden located on the northeast corner of the site. The treated water will then be discharged into an existing wetland, where it will then go into an existing offsite main line found within Tooze Road, eventually discharging into the Coffee Lake Creek outlet.

HYDROLOGY
The site can be represented as one drainage shed (Shed $\mathrm{R}-2 \mathrm{C}$ ) as shown on the Developed Shed Map (Figure A3). The following Table summarizes the impervious area information from Figure B5:

TABLE 3
DEVELOPED CONDITIONS HYDROFLOW INPUT PARAMETERS


## WATER QUANTITY

The City of Wilsonville Master Stormwater Plan currently does not require detention within this portion of the Coffee Lake Basin.

## WATER QUALITY

The City of Wilsonville requires that $65 \%$ removal of phosphorous be provided for stormwater runoff if any new impervious surfaces are created during site development. A permanent water quality facility must be constructed or funded to reduce contaminants that enter the storm and surface water system. Impervious surfaces shall include pavement, gravel roads, buildings, public and private roadways, and other surfaces that contribute runoff to the surface water system. Water quality requirements for Clermont will be addressed with pollution control manholes and constructing a rain garden swale adjacent to an existing wetland.

A flow splitter manhole will direct low flows to the pollution control manhole, while higher flows will bypass the rain garden.

The rain garden was sized using the BMP Sizing Tool software provided by the City of Wilsonville. This facility will be sized to provide treatment for runoff from impervious areas within this site. The rain garden will be sized to provide a minimum treatment time of 9 -minutes as required in the City of Wilsonville Public Works Standards. An energy dissipation device will be constructed at the outfall to prevent erosive velocities entering the facilities. Once treated the site runoff will continue to the east via an underground pipe system to drain to the existing wetlands to the east. See Appendix C for rain garden sizing calculations.

## CONCLUSION

Water quality facilities for Clermont are consistent with the design requirements of the City of Wilsonville. The rain garden has been designed to reduce postdevelopment phosphorous levels by 65 percent for the portion of SAP North construction within the Coffee Lake Basin, which will maintain an acceptable level of water quality as the site discharges to the Coffee Lake Creek outlet.

## APPENDIX A





## APPENDIX B

Figure B1 - Clackamas County Soil Survey Information

| Soil name and map symbol | $\begin{aligned} & \text { Hydro- } \\ & \text { logic } \\ & \text { group } \end{aligned}$ | Flooding |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Duration | Months |
| $\begin{gathered} \text { 1A, 1B } \\ \text { Aloha } \end{gathered}$ | C | NONE | NONE | NONE |
| $\begin{aligned} & \text { 2B, 2C, 2D, 2E } \\ & \text { Alspaugh } \\ & 3 \end{aligned}$ | C | NONE | NONE | NONE |
| Amity <br> 4E, 4F <br> Andic Cryaquepts <br> 5D, 5E | D | NONE | NONE | NONE |
| Aschoff 6F | B | NONE | NONE | NONE |
| Aschoff | B | NONE | NONE | NONE |
| $\left.\right\|_{7 B} ^{\text {Brightwood }}$ | B | NONE | NONE | NONE |
| Borges | D | NONE | NONE | NONE |
| 8B, 8C, 8D <br> Bornstedt <br> 9B, 9D, 9E | C | NONE | NONE | NONE |
| $\begin{aligned} & \text { Bull Run } \\ & 10 \mathrm{C} \end{aligned}$ | B | NONE | NONE | NONE |
| Bull Run Variant 11 | D | NONE | NONE | NONE |
| $\begin{gathered} \text { Camas } \\ 12 \mathrm{~A}, 12 \mathrm{~B} \end{gathered}$ | A | FREQUENT | BRIEF | NOV-MAY |
| $\begin{aligned} & \text { Canderfly } \\ & 13 B, 13 C, 13 D, 13 E, 14 C \text {, } \\ & 14 D, 14 E \end{aligned}$ | B | NONE | NONE | NONE |
| $\begin{array}{\|l\|} \hline \text { Cascade } \\ 15 \mathrm{~B}, 15 \mathrm{C}, 15 \mathrm{D} \end{array}$ | C | NONE | NONE | NONE |
| Cazadero <br> 16 | C | NONE | NONE | NONE |
| $\begin{array}{\|l} \text { Chehalis } \\ 17,18 \end{array}$ | B | OCCASIONAL | BRIEF | NOV-MAR |
| Clackamas \|19 | D | NONE | NONE | NONE |
| Cloquato <br> 20 | B | OCCASIONAL | VERY BRIEF | NOV-MAR |
| Coburg | C | NONE | NONE | NONE |
| 21 Concord | D | NONE | NONE | NONE |


| Soil name and map symbol | $\begin{gathered} \hline \text { Hydro- } \\ \text { logic } \end{gathered}$ | Flooding |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Duration | Months |
| 22 |  |  |  |  |
| Conser | D | RARE | RARE | RaRE |
| 23B, 23C, 23D |  |  |  |  |
| Cornelius | C | NONE | NONE | NONE |
| 24B, 24C, 24D |  |  |  |  |
| Cottrell | C | NONE | NONE | NONE |
| 25 |  |  |  |  |
| Cove | D | OCCASSIONAL | BRIEF | DEC-APR |
| 26B |  |  |  |  |
| Crutch | C | NONE | NONE | NONE |
| 27 |  |  |  |  |
| Crutch Variant | D | NONE | NONE | NONE |
| 28 |  |  |  |  |
| Dabney | A | NONE | NONE | NONE |
| 29 |  |  |  |  |
| Dayton | D | NONE | NONE | NONE |
| 30 C |  |  |  |  |
| Delena | D | NONE | NONE | NONE |
| 31F |  |  |  |  |
| Dystrochrepts |  |  |  |  |
| 32D, 32E |  |  |  |  |
| Fernwood | B | NONE | NONE | NONE |
| 33F |  |  |  |  |
| Fernwood | B | NONE | NONE | NONE |
| Rock Outcrop. |  |  |  |  |
| 34D |  |  |  |  |
| Fernwood | B | NONE | NONE | NONE |
| Wilhoit | B | NONE | NONE | NONE |
| 35D, 35E |  |  |  |  |
| Gapcot | D | NONE | NONE | NONE |
| 36B, 36C |  |  |  |  |
| Hardscrabble | D | NONE | NONE | NONE |
| 37B, 37C, 37D |  |  |  |  |
| Helvetia | C | NONE | NONE | NONE |
| 38 E |  |  |  |  |
| Highcamp | B | NONE | NONE | NONE |
| Rock Outcrop. |  |  |  |  |


| Soil name and map symbol | Hydrologic | Flooding |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Duration | Months |
| 40D |  |  |  |  |
| Highcamp | B | NONE | NONE | NONE |
| Soosap | C | NONE | NONE | NONE |
| 41 |  |  |  |  |
| Huberly | D | NONE | NONE | NONE |
| 42, 43D |  |  |  |  |
| Humaquepts |  |  |  |  |
| 44B |  |  |  |  |
| Jimbo | B | NONE | NONE | NONE |
| 45B, 45C, 45D, 45E |  |  |  |  |
| Jory | C | NONE | NONE | NONE |
| 46B, 46C, 46D |  |  |  |  |
| Jory | C | NONE | NONE | NONE |
| 47C, 47E |  |  |  |  |
| Kinney | B | NONE | NONE | NONE |
| 48B, 48C, 48D |  |  |  |  |
| Kinton | C | NONE | NONE | NONE |
| 49D, 49E, 49F |  |  |  |  |
| Kinzel | B | NONE | NONE | NONE |
| Divers | B | NONE | NONE | NONE |
| 51E |  |  |  |  |
| Klickitat | B | NONE | NONE | NONE |
| 52D |  |  |  |  |
| Klickitat | B | NONE | NONE | NONE |
| Kinney | B | NONE | NONE | NONE |
| 53A, 53B, 53C, 53D |  |  |  |  |
| Latourell | B | NONE | NONE | NONE |
| 54B, 54C, 54D, 54E |  |  |  |  |
| Laurelwood | B | NONE | NONE | NONE |
| 55 |  |  |  |  |
| Malabon | C | NONE | NONE | NONE |
| 56 |  |  |  |  |
| McBee | C | OCCASIONAL | BRIEF | NOV-MAY |
| 57 |  |  |  |  |
| McBee Variant | D | OCCASIONAL | BRIEF | DEC-MAR |
| 58C, 58D, 58E |  |  |  |  |
| McCully | C | NONE | NONE | NONE |
| 59D |  |  |  |  |
| Memaloose | C | NONE | NONE | NONE |


| Soil name and map symbol | $\begin{gathered} \hline \text { Hydro- } \\ \text { logic } \\ \hline \end{gathered}$ | Flooding |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Duration | Months |
| 60B, 60C, 60D |  |  |  |  |
| Molalla | B | NONE | NONE | NONE |
| 61A, 62B |  |  |  |  |
| Multnomah | B | NONE | NONE | NONE |
| 63B |  |  |  |  |
| Multorpor | A | OCCASIONAL | BRIEF | NOV-APR |
| 64B, 64C, 64D |  |  |  |  |
| Nekia | C | NONE | NONE | NONE |
| 65F |  |  |  |  |
| Newanna | C | NONE | NONE | NONE |
| Rock outcrop. |  |  |  |  |
| 66D, 66E |  |  |  |  |
| Newanna | C | NONE | NONE | NONE |
| Thader | C | NONE | NONE | NONE |
| 67, 68 |  |  |  |  |
| Newberg | B | OCCASIONAL | BRIEF | DEC-MAR |
| 69 |  |  |  |  |
| Pits |  |  |  |  |
| 70B, 70C, 70D |  |  |  |  |
| Powell | C | NONE | NONE | NONE |
| 71A, 71B, 71C |  |  |  |  |
| Quatama | C | NONE | NONE | NONE |
| 72D, 72E |  |  |  |  |
| Ritner | C | NONE | NONE | NONE |
| 73 |  |  |  |  |
| Riverwash |  |  |  |  |
| 74F |  |  |  |  |
| Rock outcrop. |  |  |  |  |
| Cryochrepts |  |  |  |  |
| 75 |  |  |  |  |
| Rubble land |  |  |  |  |
| 76B, 76C, 77B |  |  |  |  |
| Salem | B | NONE | NONE | NONE |
| 78B, 78C, 78D, 78E |  |  |  |  |
| Saum | C | NONE | NONE | NONE |
| 798, 79C |  |  |  |  |
| Sawtell | C | NONE | NONE | NONE |
| 80B, 80C, 80D, 80E |  |  |  |  |
| Springwater | C | NONE | NONE | NONE |


| Soil name and map symbol | Hydrologic | Flooding |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Frequency | Duration | Months |
| 81D, 81E |  |  |  |  |
| Talapus | B | NONE | NONE | NONE |
| Lastance | B | NONE | NONE | NONE |
| 82 |  |  |  |  |
| Urban land |  |  |  |  |
| 83, 84 |  |  |  |  |
| Wapato | D | FREQUENT | BRIEF | DEC-FEB |
| 85D |  |  |  |  |
| Wilhoit | B | NONE | NONE | NONE |
| Zygore | B | NONE | NONE | NONE |
| 86A, 86B, 86C, 87A Willamette | B | NONE | NONE | NONE |
| 88A, 88B |  |  |  |  |
| Willamette | C | NONE | NONE | NONE |
| 89D |  |  |  |  |
| Witzel | D | NONE | NONE | NONE |
| 90F |  |  |  |  |
| Witzel | D | NONE | NONE | NONE |
| Rock outcrop. | C | NONE | NONE | NONE |
| 91A, 91B, 91C Wookburn | C | NONE | NONE | NONE |
| 92F |  |  |  |  |
| Xerochrepts. |  |  |  |  |
| Haploxerolls. |  |  |  |  |
| 93E |  |  |  |  |
| Xerochrepts. |  |  |  |  |
| Rock outcrop. |  |  |  |  |
| 94D, 94E, 94F |  |  |  |  |
| Zygore | B | NONE | NONE | NONE |
| 95E |  |  |  |  |
| Zygore | B | NONE | NONE | NONE |
| Wilhoit | B | NONE | NONE | NONE |

## FIGURE B2 - SCS CURVE NUMBERS

| LAND USE DESCRIPTION |  | CURVE NUMBERS BY HYDROLOGICSOIL GROUP |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A | B | C | D |
| Cultivated land (1): | winter condition | 86 | 91 | 94 | 95 |
| Mountain open areas: | low growing brush \& grasslands | 74 | 82 | 89 | 92 |
| Meadow or pasture: |  | 65 | 78 | 85 | 89 |
| Wood or forest land: | undisturbed | 42 | 64 | 76 | 81 |
| Wood or forest land: | young second growth or brush | 55 | 72 | 81 | 86 |
| Orchard: | with crop cover | 81 | 88 | 92 | 94 |
| Open spaces, lawns, parks, golf courses, cemeteries, landscaping |  |  |  |  |  |
| Good condition: | grass cover on $\geq 75 \%$ of the area | 68 | 80 | 86 | 90 |
| Fair condition: | grass cover on $50-75 \%$ of the area | 77 | 85 | 90 | 92 |
| Gravel roads and parking lots: |  | 76 | 85 | 89 | 91 |
| Dirt roads and parking lots: |  | 72 | 82 | 87 | 89 |
| Impervious surfaces, pavement, roofs etc. |  | 98 | 98 | 98 | 98 |
| Open water bodies: | lakes, wetlands, ponds, etc. | 100 | 100 | 100 | 100 |
| Single family residential (2): |  |  |  |  |  |
| Dwelling units/Gross Acre | \%Impervious (3) | Separat | e nu | shal |  |
| $1.0 \mathrm{DU} / \mathrm{GA}$ | 15 | selected | pervi | \& imp |  |
| 1.5 DU/GA | 20 | portion | the sit |  |  |
| 2.0 DU/GA | 25 |  |  |  |  |
| 2.5 DU/GA | 30 |  |  |  |  |
| 3.0 DU/GA | 34 |  |  |  |  |
| 3.5 DU/GA | 38 |  |  |  |  |
| 4.0 DU/GA | 42 |  |  |  |  |
| 4.5 DU/GA | 46 |  |  |  |  |
| 5.0 DU/GA | 48 |  |  |  |  |
| 5.5 DU/GA | 50 |  |  |  |  |
| 6.0 DU/GA | 52 |  |  |  |  |
| 6.5 DU/GA | 54 |  |  |  |  |
| 7.0 DU/GA | 56 |  |  |  |  |
| PUD's, condos, apartments, commercial businesses \& industrial areas | \%impervious must be computed |  |  |  |  |

(1)For a more detailed description of agricultural land use curve numbers refer to National Engineering Handbook, Sec. 4, Hydrology, Chapter 9, August 1972.
(2)Assumes roof and driveway runoff is directed into street/storm system.
(3)The remaining pervious areas (lawn) are considered to be in good condition curve numbers.

FIGURE B3 - MANNING'S "n" VALUES

| SHEET FLOW EQUATION MANNING'S VALUES | $\mathrm{n}_{\text {s }}$ |
| :---: | :---: |
| Smooth surtaces (concrete, asphault, gravel, or bare hand packed solt) | 0.011 |
| Fallow Fields or loose soil surface (no residue) | 0.05 |
| Cultivated soil with residue cover $\leq 20 \%$ | 0.06 |
| Cultivated soil with residue cover > 20\% | 0.17 |
| Short prairie grass and lawns | 0.15 |
| Dense grasses | 0.24 |
| Bermuda grasses | 0.41 |
| Range (natural) | 0.13 |
| Woods or forrest with light underbrush | 0.40 |
| Woods or forrest with dense underbrush | 0.80 |
| SHALLOW CONCENTRATED FLOW (after initial 300 ft of sheet flow, $\mathrm{R}=0.1$ ) | $\mathrm{k}_{\text {s }}$ |
| Forrest with heavy ground litter and meadows ( $\mathrm{n}=0.10$ ) | 3 |
| Brushy ground with some trees ( $\mathrm{n}=0.060$ ) | 5 |
| Fallow or minimum tillage cultivation ( $\mathrm{n}=0.040$ ) | 8 |
| High grass ( $\mathrm{n}=0.035$ ) | 9 |
| Short grass, pasture and lawns ( $\mathrm{n}=0.030$ ) | 11 |
| Nearly bare ground ( $\mathrm{n}=0.25$ ) | 13 |
| Paved and gravel areas ( $\mathrm{n}=0.012$ ) | 27 |
| CHANNEL FLOW (Intermittent) (At the beginning of all visible channels, $\mathrm{R}=$ 0.2) | $\mathrm{k}_{\text {c }}$ |
| Forested swale with heavy ground cover ( $\mathrm{n}=0.10$ ) | 5 |
| rorested draınage course/ravıne with detıned channel bed ( $\mathrm{n}=\mathrm{U} . \mathrm{Ub}$ ) | 10 |
| Rock-lined waterway ( $\mathrm{n}=0.035$ ) | 15 |
| Grassed waterway ( $\mathrm{n}=0.030$ ) | 17 |
| Earth-lined waterway ( $\mathrm{n}=0.025$ ) | 20 |
| CMP pipe ( $\mathrm{n}=0.024$ ) | 21 |
| Concrete pipe ( $\mathrm{n}=0.012$ ) | 42 |
| Other waterways and pipe 0.508/n |  |
| CHANNEL FLOW (continuous stream, $\mathrm{R}=0.4$ ) | $\mathrm{k}_{\mathrm{c}}$ |
| Meandering stream ( $\mathrm{n}=0.040$ ) | 20 |
| Rock-lined stream ( $\mathrm{n}=0.035$ ) | 23 |
| Grass-lined stream ( $\mathrm{n}=0.030$ ) | 27 |
| Other streams, man-made channels and pipe ( $\mathrm{n}=0.807 / \mathrm{n}$ ) |  |

## PREDEVELOPED IMPERVIOUS AREA CALCULATIONS SHED AREA R-2C

```
J OB NUMBER: 395-079
PROJ ECT: Chang Property - PDP 5N
FILE: 395079.Hydrology Calcs.2018-09-28.xlsx
```


## EXISTING IMPERVIOUS AREA

| BUILDINGS | $26432 \mathrm{ft}^{2}$ |  |
| :--- | ---: | ---: |
| SIDEWALKS | $9271 \mathrm{ft}^{2}$ |  |
| GRAVEL AT 60\%IMPERVIOUS | $2601 \mathrm{ft}^{2}$ |  |
| STREET PAVEMENT | $50762 \mathrm{ft}^{2}$ |  |
|  | $\mathbf{8 9 0 6 6} \mathrm{ft}^{\mathbf{2}}$ | $\mathbf{2 . 0 4} \mathbf{~ a c}$ |
|  |  |  |
| Total Shed Area | $\mathbf{1 , 1 3 7 , 5 5 1} \mathbf{f t}^{\mathbf{2}}$ | $\mathbf{2 6 . 1 1 ~ a c}$ |
| \% Impervious |  | $\mathbf{7 . 8} \%$ |


| ON-SITE | (AC) | CN | \%of total |
| :--- | :---: | ---: | :---: |
|  |  |  |  |
| Impervious surfaces, pavement, roofs etc. | 2.04 | 98 | $7.8 \%$ |
| Open Space Good Condition Soil Group C | 14.34 | 86 | $54.9 \%$ |
| Wood or Forest Land Undisturbed Soil Group C | 9.73 | 76 | $37.3 \%$ |
| Open Water Bodies | 0.00 | 100 | $0.0 \%$ |
|  | 0.00 | 0 | $0.0 \%$ |
|  | 0.00 | 0 | $0.0 \%$ |
|  | 0.00 | 0 | $0.0 \%$ |
| TOTAL | 0.00 | $0.0 \%$ |  |

Composite Curve Number = ..... 83.2

Figure B4

## DEVELOPED IMPERVIOUS AREA CALCULATIONS <br> SHED AREA R-2C

J OB NUMBER: 395-079
PROJ ECT: Chang Property - PDP 5N
FILE:
395079. Hydrology Calcs. 2018-09-28.xlsx

## NEW IMPERVIOUS AREA

Single Family Lot Impervious Area (60\%)
Open Space Area ( $20 \%$ )
ROW/ Alley Impervious Area ( $80 \%$


## EXISTING IMPERVIOUS AREA TO REMAIN

BUILDINGS
SIDEWALKS
GRAVEL AT 60\%IMPERVIOUS
STREET PAVEMENT

| $0 \mathrm{ft}^{2}$ |  |
| ---: | :--- |
| $\mathrm{ft}^{2}$ |  |
| $0 \mathrm{ft}^{2}$ |  |
| $\mathrm{ft}^{2}$ | $\mathbf{0 . 0 0} \mathbf{a c}$ |


| Total Shed Area | $1,137,551 \mathrm{ft}^{2}$ | 26.11 ac |
| :--- | ---: | ---: |
| \% Impervious |  | $53.7 \mathrm{\%}$ |

ON-SITE
(AC)
CN \% of total

Impervious surfaces, pavement, roofs etc.
Open Space Good Condition Soil Group C

| 14.03 | 98 | $53.7 \%$ |
| :---: | ---: | :---: |
| 12.08 | 86 | $46.3 \%$ |
| 0.00 | 100 | $0.0 \%$ |
| 0.00 | 0 | $0.0 \%$ |
| 0.00 | 0 | $0.0 \%$ |
| 0.00 | 0 | $0.0 \%$ |
| 0.00 | 0 | $0.0 \%$ |
| 26.11 |  |  |

TOTAL
\% Impervious

## Composite Curve Number = 92.4

# PREDEVELOPED TIME OF CONCENTRATION SHED AREA R-2C 

J OB NUMBER: 395-079
PROJ ECT: Chang Property - PDP 5N
FILE:
395079. Hydrology Calcs. 2018-09-28. xlsx

LAG ONE: SHEET FLOW (FIRST 300 FEET)
Tt = Travel time
Manning's "n " = 0.40
Flow Length, $L=300 \mathrm{ft}$
( 300 ft. max.)
$\mathrm{P}=2$-year, 24 hr storm $=$
Slope, $\mathrm{S}_{0}=$
2.5 in
$0.054 \mathrm{ft} / \mathrm{ft}$
$T_{T}=\frac{(0.42)(n * L)^{0.8}}{(P)^{0.5}\left(S_{0}\right)^{0.4}}$
39.32 min .

Accum.
Tc
39.32 min .

LAG TWO: SHALLOW CONCENTRATED FLOW (NEXT 290 FEET)
Tc Velocity factor, k=
5
Slope, $\mathrm{S}_{0}=$
$0.108 \mathrm{ft} / \mathrm{ft}$
$V=k \sqrt{S_{\mathrm{o}}}$
$1.64 \mathrm{ft} / \mathrm{s}$
Flow Length, $\mathrm{L}=$
290 ft
$T=\frac{L}{(60)(V)}$
2.94 min .
42.27 min .

## LAG THREE: SHALLOW CONCENTRATED FLOW (NEXT 410 FEET)

Tc Velocity factor, k=
5
Slope, $\mathrm{S}_{0}=$ $0.057 \mathrm{ft} / \mathrm{ft}$
$V=k \sqrt{S_{\mathrm{o}}}$
$1.19 \mathrm{ft} / \mathrm{s}$
410 ft
Flow Length, $\mathrm{L}=$
5.72 min .
47.99 min.

LAG FOUR: SHALLOW CONCENTRATED FLOW (NEXT 245 FEET)
Tc Velocity factor, k=
Slope, $\mathrm{S}_{0}=$
$0.047 \mathrm{ft} / \mathrm{ft}$
$V=k \sqrt{S_{\mathrm{o}}}$
$2.38 \mathrm{ft} / \mathrm{s}$
Flow Length, $\mathrm{L}=$
$T=\frac{L}{(60)(V)}$

245 ft
1.71 min .
49.70 min .

Figure B6

LAG FOUR: CHANNEL FLOW (INTERMITTEN) (NEXT 105 FEET)

Tc Velocity factor, k=

## Slope, $\mathrm{S}_{0}=$

$V=k \sqrt{S_{\mathrm{o}}}$
Flow Length, $\mathrm{L}=$
$T=\frac{L}{(60)(V)}$

17
$0.036 \mathrm{ft} / \mathrm{ft}$
$3.23 \mathrm{ft} / \mathrm{s}$
105 ft
$0.54 \mathrm{~min} . \quad 50.25 \mathrm{~min}$.

## Figure B7

Pacific Community Design

## DEVELOPED TIME OF CONCENTRATION

\author{

J OB NUMBER: 395-079 <br> PROJ ECT: Chang Property - PDP 5N <br> FILE: <br> 395079. Hydrology Calcs. 2018-09-28.xlsx <br> \section*{SHED AREA R-2C} <br> | Catchment Time | min. |
| :--- | :---: |
| Longest Run of Pipe | 1808 ft |
| Velocity of Flow | $3 \mathrm{ft} / \mathrm{s}$ |
| Time in Pipe $=(1808 \mathrm{ft}) /(3.00 \mathrm{ft} / \mathrm{s})=$ | 603 s |
|  |  |
| TOTAL DEVELOPED Tc $=$ | $\mathbf{1 5 ~ m i n .}$ |

}

Figure B8

## APPENDIX C

WES BMP Sizing Report

## Project Information

| Project Name | Chang Property |
| :--- | :--- |
| Project Type | Planning |
| Location | $\mathrm{N} / \mathrm{A}$ |
| Stormwater <br> Management Area | 1137551 |
| Project Applicant | Polygon |
| Jurisdiction | OutofDistrict |

Drainage Management Area

| Name | Area (sq-ft) | Pre-Project <br> Cover | Post-Project <br> Cover | DMA Soil Type | BMP |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Single Family <br> Lot Impervious <br> Area (60\%) | 269,462 | Grass | Roofs | C | Regional WQ <br> Swale and LIDA |
| Open Space <br> Area (20\%) | 75,185 | Grass | ConventionalCo <br> ncrete | C | Regional WQ <br> Swale and LIDA |
| ROW/Alley <br> Impervious Area <br> $(80 \%)$ | 266,531 | Grass | ConventionalCo <br> ncrete | C | Regional WQ <br> Swale and LIDA |

LID Facility Sizing Details

| LID ID | Design <br> Criteria | BMP Type | Facility Soil <br> Type | Minimum <br> Area (sq-ft) | Planned <br> Areas (sq-ft) | Orifice <br> Diameter (in) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Regional WQ <br> Swale and <br> LIDA | WaterQuality | Rain Garden <br> - Filtration | C1 | $9,167.7$ | $9,650.0$ | 3.9 |

## Pond Sizing Details

1. $\operatorname{FCWQT}=$ Flow control and water quality treatment, WQT = Water quality treatment only
2. Depth is measured from the bottom of the facility and includes the three feet of media (drain rock, separation layer and growing media).
3. Maximum volume of the facility. Includes the volume occupied by the media at the bottom of the facility.
4. Maximum water storage volume of the facility. Includes water storage in the three feet of soil media assuming a 40 percent porosity.

Community
Design

# CLERMONT <br> VILLEBOIS PDP 5N RAINWATER MANAGEMENT PLAN COFFEE LAKE CREEK BASIN J OB \# 395-079 

Prepared By: Pacific Community Design, Inc. 12564 SW Main Street

Tigard, OR 97223
Tele: 503-941-9484

Prepared For:
Polygon Northwest Company

## TABLE OF CONTENTS:

Introduction ..... 3
Proposed System ..... 3
Procedure ..... 3
Conclusion ..... 4
Appendix A: FiguresFigure A: Rainwater Management Plan - SAP North
Appendix B: Shed Basin Summaries
Appendix C: Rainwater Component Summary

## INTRODUCTION

The purpose of this Rainwater Management Plan is to demonstrate how development of Clermont (PDP 5N) is consistent with the Rainwater Management Program (RMP) for the Specific Area Plan - North (SAP North). This plan will provide the background and data for the public and private components of the RMP.

## PROPOSED SYSTEM

The rainwater management system described in this report is a compilation of several of the components from the Rainwater Management Program proposed for SAP North. In an effort to provide diversity, there are three types of components utilized (street trees, bio-retention cells and a rain garden) and additional uses are encouraged.

This report reflects those components that are envisioned for the development within PDP 5N. These components are intended to be implemented in concert with parks planning and infrastructure to provide a benefit to the watershed, and to be complimentary to park and open space uses.

## PROCEDURE

PDP 5N is 26.65 acres. Included in PDP $5 N$ are 89 single family residential lots over 10.31 acres, 8.63 acres of open space and landscape tracts, and 7.71 acres of streets. The total impervious area within PDP 5 N was determined based on each lot designated land use. See impervious area calculations in Appendix B.

Once the total impervious area was determined, locations for rainwater management components were selected and square footages of treatment areas were calculated with the overall goal of achieving the equivalent amount of mitigation shown in the SAP North plan. The square footage for each component was divided by the sizing factor to determine the equivalent area treated. The summation of these equivalent areas was then compared to the total impervious area to determine the percentage of rainwater mitigation achieved. Appendix B contains the summary of each developed shed area within SAP North, including the total acreage and percentage of impervious area. Figure A shows the developed shed map for PDP 5N. Exhibit C provides a summary of the rainwater management in PDP 5N, as well as the SAP North rainwater management compliance once full build out has been completed.

## CONCLUSION

SAP North in Villebois Village development has been assigned the land use designation of Village zone by the City of Wilsonville. The Villebois Village Master Plan designates this area further as a Residential Village. This area will be developed as an urban village including single-family units of various sizes, a regional park, and parking spaces.

The Rainwater Management Plan for Clermont (PDP 5N), as presented with this report, will achieve a combined $47.2 \%$ mitigation of created impervious area. With the future rainwater facilities outlined in the most recent SAP and PDP applications, SAP North will reach an overall compliance of $52.8 \%$ As such, the Clermont (PDP 5N) development is consistent with the practices outlined in the Rainwater Management Program for the Specific Area Plan - North.

## APPENDIX A: FIGURES



| Pacific Community Design |
| :---: |
|  |  |




Preliminary
Development
Plan

PDP 5N CLERMONT

Hydrology

RAINWATER
MANAGEMEN

## 

## APPENDIX B: SHED AREA SUMMARIES

## DEVELOPED IMPERVIOUS AREA CALCULATIONS <br> SHED AREA R-2C

J OB NUMBER: 395-079
PROJ ECT: Chang Property - PDP 5N
FILE:
395079. Hydrology Calcs. 2018-09-27.xlsx

NEW IMPERVIOUS AREA

Single Family Lot Impervious Area ( $60 \%$ )
Open Space Area ( $20 \%$ )
ROW/ Alley Impervious Area (80\%)

| $\mathbf{2 6 9 , 4 6 2} \mathrm{ft}^{2}$ |  |
| ---: | :--- |
| $75,185 \mathrm{ft}^{2}$ |  |
| $268,678 \mathrm{ft}^{2}$ |  |
| $\mathbf{6 1 3 , 3 2 5} \mathrm{ft}^{2}$ | $\mathbf{1 4 . 0 8} \mathbf{a c}$ |

## EXISTING IMPERVIOUS AREA TO REMAIN

BUILDINGS
SIDEWALKS
GRAVEL AT 60\%IMPERVIOUS
STREET PAVEMENT

| $0 \mathrm{ft}^{2}$ |  |
| :---: | :---: |
| $\mathrm{ft}^{2}$ |  |
| $0 \mathrm{ft}^{2}$ |  |
| $\mathrm{ft}^{2}$ | $\mathbf{0 . 0 0} \mathbf{a c}$ |


| Total Shed Area | $1,160,874 \mathrm{ft}^{2}$ | 26.65 ac |
| :--- | ---: | ---: |
| \%Impervious |  | $52.8 \%$ |


| ON-SITE | (AC) | CN | \% of total |
| :--- | ---: | ---: | ---: |
|  |  |  |  |
| Impervious surfaces, pavement, roofs etc. | 14.08 | 98 | $52.8 \%$ |
| Open Space Good Condition Soil Group C | 12.57 | 86 | $47.2 \%$ |
| Open Water Bodies | 0.00 | 100 | $0.0 \%$ |
|  | 0.00 | 0 | $0.0 \%$ |
|  | 0.00 | 0 | $0.0 \%$ |
|  | 0.00 | 0 | $0.0 \%$ |
| TOTAL | 0.00 | 0 | $0.0 \%$ |

## Composite Curve Number $=\quad 92.3$

Figure B1

## APPENDIX C: RAINWATER COMPONENT SUMMARY

JOB NUMBER:
PROI ECT: $\quad \begin{aligned} & \text { 395-0 } \\ & \text { CHANC }\end{aligned}$
PROI EC:
FILE:


EXHIBT C:
RAIMWATER COMPLIANCE SUMMARY - SAP NORTH

| PHASE | drainage basin | BaInid | AREA (SF) | \%IMPERYOUS | IMPERVOUS AREA (SF) | RAINWATER COMPONENT NO. | $\underset{\substack{\text { RAINWATER COMPONENT } \\ \text { TYPE }}}{\text { nen }}$ TPPE | RAINWATER COMPONENT AREA NO. OF TREES | SIING <br> FACTOR | IMPERVIIUS AREA TREATED |  |  | \% Impervious AREA TREATED |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { ARROWHEAD } \\ & \text { CREEK } \end{aligned}$ | MILL CREEK | COFFEE LAKE CREEK |  |
| PDP 3N | COFFEEE LAKE CREEK | U-1 | 678,970 | 49\% | 329,923 | . | . |  |  | . |  | 92,033 | 28\% |
|  |  |  |  |  |  |  | $\xrightarrow[\text { TREES }]{\text { Tine }}$ | ${ }^{131}$ | ${ }^{0.01}$ |  |  | 13,100 |  |
|  |  |  |  |  |  | 1 | BIORETENTION CELL | 230 | 0.03 |  |  | 7,667 |  |
|  |  |  |  |  |  | 2 | BIORETENTION CELL | ${ }^{306}$ | 0.03 |  |  | 10,200 |  |
|  |  |  |  |  |  | 3 | BIIRETENTION CELL | 173 | 0.03 |  |  | 5,767 5 |  |
|  |  |  |  |  |  | $\begin{aligned} & 4 \\ & 5 \end{aligned}$ | BIORETENTION CELL | $\begin{aligned} & 178 \\ & 2,962 \end{aligned}$ | $\begin{aligned} & \begin{array}{c} 0.03 \\ 0.06 \end{array} \end{aligned}$ |  |  | $\begin{gathered} 5,933 \\ 49,367 \end{gathered}$ |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PDP 2N | MLL CREEK | 3ND | 163,350 | 0\% | 0 | . |  | . | . | . | . | . |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PDP 3N | MLL CREEK | 4ND. ${ }^{\text {a }}$ | 90,936 | 20\% | 13,023 | . |  |  |  |  | 12.717 | . | 98\% |
|  |  |  |  |  |  | 6 | TREES VEGETATED SWALE | $\begin{aligned} & \hline \hline 7 \\ & 721 \end{aligned}$ | $\begin{aligned} & 0.01 \\ & 0.06 \end{aligned}$ |  | $\begin{aligned} & \hline \hline 700 \\ & 12,017 \end{aligned}$ |  |  |
| PDP 3N | MLL CREEK | 4ND.N | 111,213 | 64\% | 70,665 | . |  |  |  | . | 72,067 | . | 102\% |
|  |  |  |  |  |  |  | TREES | 43 | 0.01 |  | 4,300 |  |  |
|  |  |  |  |  |  | 7 | rainwater garden | 4,066 | 0.06 |  | 67,767 |  |  |
| PDP 2N | MLL CREEK | 2 ND | 74,313 | 66\% | 49,170 | . | - | - |  | . | 17,000 | . | 35\% |
|  |  |  |  |  |  |  | ${ }_{\text {TREES }}$ | 28 852 | ${ }^{0.01}$ |  | 2,800 114200 |  |  |
|  |  |  |  |  |  | ${ }^{2 B}$ | VEGETATED SWale | 852 | 0.06 |  | 14,200 |  |  |
| PDP 2N | COFFEEE LAKE CREEK | Q-2C.1NB | 472,648 | 64\% | 302,271 | . |  |  |  |  | . | 246,667 | 82\% |
|  |  |  |  |  |  |  | TREES | 95 | 0.01 |  |  | 9,500 |  |
|  |  |  |  |  |  | 3 A | Bioretention Cell | 3,240 | 0.03 |  |  | 54,000 |  |
|  |  |  |  |  |  | ${ }^{38}$ | VEGETATED SWALE | 1,632 | ${ }^{0.06}$ |  |  | 27,200 |  |
|  |  |  |  |  |  | ${ }^{3 C}$ | BIORETENTION CELL | 1,816 | 0.03 |  |  | ${ }^{60,533}$ |  |
|  |  |  |  |  |  | ${ }_{36}^{3 F}$ | BIORETENTION CELL BIORETENTION CEIL | 210 300 | ${ }_{0}^{0.03}$ |  |  | 7,000 |  |
|  |  |  |  |  |  | $\begin{aligned} & 3 \mathrm{GG} \\ & 3 \mathrm{H} \end{aligned}$ | BIORETENTION CELL BIORETENTION CELL | $\begin{aligned} & 300 \\ & 199 \end{aligned}$ | $\begin{aligned} & \begin{array}{c} 0.03 \\ 0.03 \end{array} \end{aligned}$ |  |  | 10,000 |  |
|  |  |  |  |  |  | 31 | bioretention Cell | 151 | 0.03 |  |  | 5,033 |  |
|  |  |  |  |  |  | ${ }^{3 /}$ | BIoRETENTION CELL | 149 | 0.03 |  |  | 4,967 |  |
|  |  |  |  |  |  | ${ }^{3 K}$ | BIoRETENTION CELL | 1,331 | 0.03 |  |  | 44,367 |  |
|  |  |  |  |  |  | $\begin{aligned} & 3 \mathrm{~L} \\ & 3 \mathrm{l} \end{aligned}$ | bioretention cell BIORETENTION CELL | $\begin{array}{r}266 \\ \\ \hline\end{array}$ | $\begin{aligned} & 0.03 \\ & 0.03 \end{aligned}$ |  |  | 8.867 8.833 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PDP 4N | COFFEEELAKE CREEK | T-1 | 472,648 | 64\% | 302,271 |  |  |  |  |  |  | 86,667 | 29\% |
|  |  |  |  |  |  |  |  | 109 | 0.01 |  |  | 10,900 |  |
|  |  |  |  |  |  | 1 | bioretention cell | 74 | 0.03 |  |  | 2,467 |  |
|  |  |  |  |  |  | 2 | BIORETENTION CELL | 77 | 0.03 |  |  | ${ }^{2.567}$ |  |
|  |  |  |  |  |  | 3 | BIORETENTION CELL | 169 | ${ }^{0.03}$ |  |  | 5,633 2.533 |  |
|  |  |  |  |  |  | $\begin{aligned} & 4 \\ & 5 \end{aligned}$ | BIORETENTION CELL BIORETENTION CELL | $\begin{aligned} & 76 \\ & 292 \end{aligned}$ | $\begin{aligned} & \begin{array}{c} 0.03 \\ 0.03 \end{array} \\ & 0.03 \end{aligned}$ |  |  | $\begin{aligned} & 2,533 \\ & 9,739 \end{aligned}$ |  |
|  |  |  |  |  |  | 6 | Bioretention Cell | 200 | 0.03 |  |  | 6,667 |  |
|  |  |  |  |  |  | 7 | bioretention cell | 198 | 0.03 |  |  | 6,600 |  |
|  |  |  |  |  |  | 8 | BIIRETENTION CELL | 732 | ${ }^{0.03}$ |  |  | 24,400 |  |
|  |  |  |  |  |  | 9 | BIORETENTION CELL | 143 | 0.03 |  |  | 4,767 |  |
|  |  |  |  |  |  | 10 | BIORETENTION CELL | 117 75 | 0.03 0.03 |  |  | 3,900 2.500 |  |
|  |  |  |  |  |  | $\begin{aligned} & 11 \\ & 12 \end{aligned}$ | BIORETENTION CELL BIoretention cell | $\begin{aligned} & 75 \\ & 120 \end{aligned}$ | $\begin{aligned} & 0.03 \\ & 0.03 \end{aligned}$ |  |  | $\begin{aligned} & 2,500 \\ & 4,000 \end{aligned}$ |  |
| PDP 5N | COFFEEE LAKE CREEK | R-2C | 1,160,874 | 52.8\% | 613,325 | . | . | . |  | . | . | 197,250 | 32\% |
|  |  |  |  |  |  |  | TREES | 189 | 0.01 |  |  | 18,900 |  |
|  |  |  |  |  |  | 1 | rain Garden | 7,247 | 0.06 |  |  | 120,783 |  |
|  |  |  |  |  |  | 2 | BIORETENTION CELL | 322 | 0.03 |  |  | 10,733 10,733 |  |
|  |  |  |  |  |  | $3$ | BIORETENTION CELL BIORETENTION CELL | $\begin{aligned} & 322 \\ & 318 \end{aligned}$ | $\begin{aligned} & \begin{array}{c} 0.03 \\ 0.03 \end{array} \\ & 0.03 \end{aligned}$ |  |  | $\begin{aligned} & \begin{array}{l} 10,733 \\ 10,600 \end{array} \end{aligned}$ |  |
|  |  |  |  |  |  | 5 | BIoretention Cell | 347 | 0.03 |  |  | 11,567 |  |
|  |  |  |  |  |  | 6 | BIoRETENTION CELL | 42 | 0.03 |  |  | 1,400 |  |
|  |  |  |  |  |  | 7 | BIORETENTION CEL | 96 | ${ }^{0.03}$ |  |  | 3,200 |  |
|  |  |  |  |  |  | 8 | BIORETENTION CELL BIORETENTION CELL | $\begin{aligned} & 151 \\ & 75 \end{aligned}$ | 0.03 0.03 |  |  | 5,033 2,500 |  |
|  |  |  |  |  |  | 10 | BIoretention Cel | 54 | 0.03 |  |  | 1,800 |  |
|  | AL PDP 4N |  | 472,648 |  | 302,271 |  |  |  |  |  |  | 86,667 | 29\% |
|  | AL PDP 2N |  | 518,800 |  | 271,033 |  |  |  |  |  | 17,000 | 246,667 | 97\% |
|  | AL PDP 3N |  | 881,119 |  | 413,611 |  |  |  |  |  | 84,783 | 92,033 | 43\% |
|  | AL PDP IN |  | 872,942 |  | 522,394 |  |  |  |  | 257,924 | 47,238 |  | 58\% |
|  | AL PDP 5 N |  | 1,160,874 |  | 613,325 |  |  |  |  |  |  | 197,250 | 32\% |
|  | P NORTH PHASES |  | 657,289 |  | 0 |  |  |  |  |  |  |  | 0\% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ORTH TOTAL |  | 4,563,672 |  | 1,983,036 |  |  |  |  | 257,924 | 149,021 | 622,617 | 52\% |



## IIID) Traffic Analysis

## MEMORANDUM

DATE:
October 12, 2018

TO:

FROM: $\quad$ scott Mansur, P.E., PTOE Sm Jenna Hills, El


117 Commercial Street NE
Suite 310
Salem, OR 97301
503.391.8773
www.dksassociates.com

SUBJECT: Villebois SAP North PDP 5 (Clermont) Transportation Study
P18005-005

This memorandum evaluates trip generation for the updated Villebois Specific Area Plan (SAP) North with emphasis on Clermont Planned Development Phase (PDP) 5. The review is based on a revised site plan provided by the project sponsor. ${ }^{1}$

The project sponsor has indicated that the proposed PDP 5 development will consist of 89 detached single family residential units. The purpose of this memorandum is to compare the proposed land use development of Villebois Urban Village SAP North to previously analyzed SAP North land use numbers and evaluate the site plan impacts for PDP 5.

## SAP North Residential Land Use/Trip Generation

The most recent traffic impact analysis performed for Villebois assumed that SAP North would include 440 single family units and 10 apartment units for a total of 450 residential units ${ }^{2}$. The current SAP North proposal includes 468 single-family units ${ }^{3}$. Table 1 shows the p.m. peak hour trip generation estimates for the land use along with the net change. As shown, the currently planned land uses are estimated to generate 473 ( $298 \mathrm{in}, 175$ out) p.m. peak hour trips for SAP North, which is 23 total trips more than the original SAP North approval.

[^0]October 15, 2018
Page 2 of 3
Table 1: SAP North Trip Generation Comparison

| Land Use (ITE Code) | Size | Average Trip Generation Rate | Number of New Trips (pm. peak) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | In | Out | Total |
| Basis of Traffic Impact Analysis (January 2016) |  |  |  |  |  |
| Single Family Units (210) | 440 units | 1.01 trips/unit | 280 | 164 | 444 |
| Apartments (220) | 10 units | 0.62 trips/unit | 4 | 2 | 6 |
| Total Trips |  |  | 284 | 166 | 450 |
| Current Plans (September 2018) |  |  |  |  |  |
| Single Family Units (210) | 468 units | 1.01 trips/unit | 298 | 175 | 473 |
|  |  | Total Trips | 298 | 175 | 473 |
|  |  | Net New Trips | +14 | +9 | +23 |

## SAP North PDP 5 Trip Generation

SAP North is broken into multiple Planned Development Phases (PDPs) with the current phase being PDP 5. Table 2 shows the estimated trip generation for PDP 5 based on the currently proposed 89 detached single family residential units. The $10^{\text {th }}$ Edition of the ITE Trip Generation Manual was used for this analysis. As shown, the 89 detached single-family residential units would generate approximately 90 ( $57 \mathrm{in}, 33$ out) p.m. peak hour trips.

## Table 2: SAP North PDP 5 Trip Generation

| Land Use (ITE Code) | Stie | Average Trip Generation Rate | Number of New Trips (mim. peal) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\ln$ | Out | Total |
| Single Family Units (210) | 89 units | 1.01 trips/unit | 57 | 33 | 90 |
| Total |  |  | 57 | 33 | 90 |

## Site Plan Review

The applicant's preliminary site plan was provided by the project sponsor and is attached to the appendix. ${ }^{4}$ It was reviewed to evaluate site access and safety for vehicles and pedestrians. Access to the single-family units is provided via Barcelona Street and Palermo Street from the west, Verdun Loop and Stockholm Avenue from the east, and Orleans Avenue from the south. The site plan shows sidewalks fronting the houses on all residential streets, providing connections for pedestrians to existing streets in the area. Additionally, the site plan shows multiple east-west and north-south multimodal pathways traversing the development. The next segment of the Ice Age Tonquin Trail is planned with construction of RP 6 and will extend the existing Ice Age Tonquin Trail from Trocadero Park (RP 5) to Tooze Road. Sight distance for vehicles turning left off Palermo Street onto Barcelona

[^1]Street may by limited if vegetation is planted in the northeast corner of the park. Sight distance should be considered at this location.

## Summary

Key findings for the proposed Villebois Urban Village SAP North PDP 5 development of 89 detached single family residential units in Wilsonville, Oregon are as follows:

- The current development levels estimated for SAP North will result in 23 more total p.m. peak hour project trips when compared with the original approved trip generation estimates.
- The proposed development of 89 detached single family residential units are estimated to generate 90 ( $57 \mathrm{in}, 33$ out) net new p.m. peak hour trips and will not exceed the original peak hour trip approvals.
- Sight distance for vehicles turning left off Palermo Street onto Barcelona Street may by limited if vegetation is planted in the northeast corner of the park. Sight distance should be considered at this location.

Please let us know if you have any questions.

## IIIE) Tree Report

# Villebois PDP 5N Clermont - Wilsonville, Oregon Tree Maintenance and Protection Plan July 29, 2018 <br> Revised: October 7, 2018 

MHA18034

## Purpose

This Tree Maintenance and Protection Plan for the Villebois Preliminary Development Plan (PDP) 5 N Clermont project located in Wilsonville, Oregon, is provided pursuant to City of Wilsonville Development Code, Section 4.610.40. This arborist report describes the existing trees located on the project site, as well as recommendations for tree removal, retention, mitigation, and protection. This report is based on observations made by International Society of Arboriculture (ISA) Board Certified Master Arborist Morgan Holen (PN-6145B) during site visits conducted on June 12, 2018 and June 26-28, 2018, an onsite project team meeting on September 12, 2018 to review site plan modifications for increased tree retention, and subsequent coordination with the design team. A complete description of individual trees is provided in the enclosed tree inventory data.

## Scope of Work and Limitations

Morgan Holen \& Associates, LLC, was contracted by Polygon Northwest Company to visually assess existing trees measuring six inches and larger in diameter and coordinate with Pacific Community Design (PCD) to develop a tree maintenance and protection plan for the project. The site is planned for residential development. A site plan was provided by Pacific Community Design illustrating the location of trees and tree survey point numbers and potential construction impacts.

Visual Tree Assessment (VTA) was performed on individual trees located across the project site. VTA is a standard process whereby the inspector visually assesses the tree from a distance and up close looking for defect symptoms and evaluating overall condition and vitality of individual trees. Trees were evaluated in terms of general condition and potential construction impacts. Following the inventory fieldwork, we coordinated with PCD to discuss and finalize treatment recommendations in terms of the proposed site plan which underwent several iterations and refinements in an effort to preserve a greater number of existing viable trees, which was challenging based on grading requirements, street connections, and lot layouts. Treatment recommendations include remove, retain, and likely to retain; likely to retain trees require reassessment during construction as described in detail later in this report.
The client may choose to accept or disregard the recommendations contained herein or seek additional advice. Neither this author nor Morgan Holen \& Associates, LLC, have assumed any responsibility for liability associated with the trees on or adjacent to this site.

## General Description

The Villebois PDP 5 N Clermont project site is located south of SW Tooze Road west of $110^{\text {th }}$ Avenue. The site includes tax lots 31W15AB07300, 31W15AB07400, 31W15AB07500, 31W15AB07600, with an existing house at 11490 SW Tooze Road and the former Hand to Heart Stables with horse pastures, a barn, and residence. The project proposes a residential subdivision with new streets, homes, and a Metro regional park.

There are no Significant Resource Overlay Zone areas on the site or Oregon white oaks (Quercus garryana), native yews (Taxus brevifolia), or any species listed by either the state or federal government as rare or endangered.

The site is heavily treed, primarily with an even-aged stand of Douglas-firs (Pseudotsuga menziesii) which account for $64 \%$ of the inventoried trees. Individual Douglas-firs range in size from 7 - to 60 -inches in diameter and are variable in condition due to natural stand dynamics with open grown trees, edge trees, and trees at wider spacings being most dominant with good height to diameter ratios and relatively long live crowns. Trees in the interior of the stand or at denser spacings have more competition for growing space; as a result, some are codominant in crown class while others are becoming suppressed.

Overall, the stand as a whole is in excellent condition as an intact undisturbed group. No widespread disease or insect problems were observed. However, Douglas-firs located within the horse pastures are generally in poor condition including dead and dying trees which is likely a result of soil compaction. In addition, several windthrown trees and trees with symptoms of decline were observed near the northern boundary in the central-western quadrant of the site which is likely due to seasonal saturation. Trees located within and adjacent to the SW Tooze Road right of way showed signs of recent impacts from street improvement work including root damage and excess fill at tree trunks. Invasive English ivy was most prevalent in the northwestern quadrant of the stand and thickets of blackberry throughout the stand had recently been mowed down for site access; the understory was not remarkable. During the fieldwork I observed two red-tailed hawks frequenting the site, one fawn, two pileated woodpeckers, and heard owls in the evening time.
Bigleaf maple (Acer macrophyllum) was the second-most common species accounting for $11 \%$ of the inventoried trees. They range in size from 6 - to 36 -inches in diameter and were scattered amongst the firs primarily in and around the horse pastures and in the central portion of the site. Most of the maples had moderate defects including poor structure, crown dieback and decay.

Two invasive tree species, English hawthorn (Crataegus monogyna) and sweet cherry (Prunus avium), account for $13 \%$ of the inventoried trees and were most common in the northern quadrant of the site between the horse pastures and SW Tooze Road.

The most unique trees on the site are located within the yard on the west side of the house at 11490 SW Tooze Road including a 37 -inch diameter red oak (Quercus rubra) and a multi-stemmed saucer magnolia (Magnolia $\times$ soulangeana) which are both in excellent condition and with good structure, and planned for retention.

In all, 543 trees measuring 6 -inches and larger in diameter were inventoried including 16 different tree species. Table 1 provides a summary of the count of trees by species. A complete description of individual trees is provided in the enclosed tree data. Individual trees were assigned a general condition rating in the tree data as defined by the Villebois Specific Area Plan Community Elements Book. Ratings include:

P: Poor Condition;
M: Moderate Condition;
G: Good Condition; and,
I: Important Condition.
Figure 1 illustrates the count of inventoried trees by species and condition rating.

Table 1. Count of Trees by Species - Villebois PDP 5N Clermont.

| Common Name | Species Name | Total | $\%$ |
| :--- | :--- | ---: | ---: |
| apple | Malus spp. | 1 | $0.2 \%$ |
| Atlas cedar | Cedrus atlantica | 1 | $0.2 \%$ |
| bigleaf maple | Acer macrophyllum | 62 | $11.4 \%$ |
| black hawthorn | Crataegus douglasii | 42 | $7.7 \%$ |
| cascara | Rhamnus purshiana | 1 | $0.2 \%$ |
| cherry | Prunus spp. | 5 | $0.9 \%$ |
| Douglas-fir | Pseudotsuga menziesii | 349 | $64.3 \%$ |
| English hawthorn | Crataegus monogyna | 12 | $2.2 \%$ |
| madrone | Arbutus menziesii | 1 | $0.2 \%$ |
| pear | Pyrus spp. | 1 | $0.2 \%$ |
| plum | Prunus spp. | 1 | $0.2 \%$ |
| red oak | Quercus rubra | 1 | $0.2 \%$ |
| saucer magnolia | Magnolia $\times$ soulangeana | 1 | $0.2 \%$ |
| Scouler's willow | Salix scouleriana | 3 | $0.6 \%$ |
| sweet cherry | Prunus avium | 60 | $11.0 \%$ |
| sweetgum | Liquidambar styraciflua | 2 | $0.4 \%$ |
| Total |  | 543 | $100 \%$ |

Figure 1. Count of Trees by Species and Condition Rating - Villebois PDP 5N Clermont.


## Tree Plan Recommendations

Following the tree inventory fieldwork, PCD used the tree data to plot dripline circles and condition ratings onto each individual tree on the site plan. I reviewed iterations of the plan to evaluate potential impacts within tree driplines and coordinated with PCD in regard to treatment recommendations.

The location of the regional park was modified to increase retention of viable trees and paths and other park features were adjusted to maximize tree protection. These site plan revisions resulted in nearly twice as many viable trees being planned for retention. Protection fencing is shown at tree driplines on the tree preservation plan, but adjustments will be needed for paths and other park amenities. To avoid root zone excavation, paths will be built up from native grade which will require fill over a relatively small percentage of the total critical root zone. Excavation that may be required to install play structures and other park amenities should be performed under arborist supervision.

Due to the extent of site improvements proposed in proximity to protected trees, trees in the park area are primarily classified as likely to retain. Trees classified as likely to retain are planned for protection during construction but should be re-evaluated at the time of site clearing to assess suitability for preservation with adjacent tree removal and monitored closely during construction to minimize root zone impacts. If the project arborist determines that a tree is no longer sustainable either because of a decline in condition or because of unavoidable construction impacts that would be detrimental to the health or stability of the tree, the arborist shall submit a brief memorandum to the City documenting reasons that the tree is no longer suitable for preservation in order to seek written authorization to proceed with removal and mitigation.

Trees in rear yard setbacks were closely examined as candidates for preservation. However, most are in poor condition or in moderate condition with structural defects except for trees 70078, 70080, 70233 and 70234, which are each classified as important. Trees 70078, 70223 and 70234 are likely to be retained but will require special consideration in regard to future home construction. The actual building footprints should minimize encroachment beneath the dripline area and the developer should coordinate with the project arborist to provide final tree protection measures based on plot plans and on-the-ground staking of foundation corners. Tree 70080 cannot be adequately protected considering demolition of the adjacent barn building and removal of codominant tree 70079 which is located within the existing bard structure.

Of the 543 inventoried trees, 415 ( $\sim 76 \%$ ) trees are planned for removal because of poor condition or for the purposes of construction, $67\left({ }^{\sim} 13 \%\right)$ trees are planned for retention and require special protection during construction, and the remaining $61(\sim 11 \%)$ trees are likely to be retained but require reassessment at the time of site clearing and construction. Table 2 provides a summary of the count of trees by treatment and general condition rating, which is illustrated as a percentage in figure 2.

Table 2. Count of Trees by Treatment and Condition Rating.

| Treatment | General Condition Rating |  |  |  | ( |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Recommendation | P | M | G | I | Total | $\%$ |
| Remove | 167 | 196 | 45 | 7 | 415 | $76 \%$ |
| Retain | - | 12 | 44 | 11 | $\mathbf{6 7}$ | $13 \%$ |
| Likely to Retain | - | 47 | $\mathbf{1 1}$ | 3 | $\mathbf{6 1}$ | $11 \%$ |
| Total | $\mathbf{1 6 7}$ | $\mathbf{2 5 5}$ | $\mathbf{1 0 0}$ | $\mathbf{2 1}$ | $\mathbf{5 4 3}$ | $100 \%$ |
| Percent | $\mathbf{3 1 \%}$ | $\mathbf{4 7 \%}$ | $18 \%$ | $\mathbf{4 \%}$ |  |  |

Figure 2. Percentage of Trees by Treatment and Condition Rating.


The 61 likely to retain trees should be treated no differently than trees planned for retention and they are in fact likely to be preserved. However, having flexibility to reassess them during site clearing and construction and seek authorization for removal if they are deemed unsuitable for retention without costly delay is critical. This approach worked well at Grande Pointe and in other areas of Villebois and has resulted in very little additional tree removal. Morgan Holen \& Associates is on contract with Polygon to provide tree protection monitoring services on many projects throughout Wilsonville, Tigard, and other jurisdictions. We work closely with their contractors to ensure that the tree plan is followed and presume that this project will proceed in the same way.
The tree protection standards provided in this report should be copied onto construction documents.

## Mitigation Requirements

All 543 inventoried trees are greater than 6 -inches in diameter including 415 trees planned for removal. Removal of these 415 trees requires mitigation per Section 4.620 .00 ; removed trees shall be replaced on a basis of one tree planted for each tree removed. Therefore, 415 trees measuring at least 2 -inch in diameter shall be planted as mitigation for tree removal. Additional tree-for-tree mitigation will be required if any of the 61 likely to retain trees are authorized for removal during construction.

In accordance with Section 4.620.00(.03), replacement trees shall have shade potential or other characteristics comparable to the removed trees, shall be appropriately chosen for the site from an approved tree species list supplied by the City, and shall be state Department of Agriculture Nursery Grade No. 1 or better. Replacement trees must be staked, fertilized and mulched, and shall be guaranteed by the permit grantee or the grantee's successors-in-interest for two years after the planting date. A "guaranteed" tree that dies or becomes diseased during that time shall be replaced. Diversity of tree species shall be encouraged where trees will be replaced, and diversity of species shall also be maintained where essential to preserving a wooded area or habitat. All trees to be planted shall consist of nursery stock that meets requirements of the American Association of Nurserymen (AAN) American Standards for Nursery Stock (ANSI Z60.1) for top grade. A mitigation or replacement tree plan is required prior to planting.

Where it is not feasible to replace trees on site or at another approved location in the City, the Tree Removal Permit grantee shall pay into the City Tree Fund an amount of money approximately equal to the value of the replacement trees that would otherwise be required.

## Tree Protection Standards

Trees designated for retention will need special consideration to assure their protection during construction. Tree protection measures include:

1. Preconstruction Conference. The contractor shall coordinate with the project arborist in a timely manner to review tree protection measures and address questions on-site prior to the start of construction activity.
2. Protection Fencing. Trees to remain on site shall be protected by installation of tree protection fencing as depicted on the Tree Preservation Plan in order to prevent injury to tree trunks or roots, or soil compaction within the root protection area. Fences shall be a minimum 6 -foot high 2 -inch chain link mesh secured to a minimum 1.5 -inch steel or aluminum posts steel on concrete blocks or driven into the ground. The contractor is responsible for coordinating with the project arborist prior to opening, adjusting, or removing tree protection fencing.
3. Tree Protection Zone. Without authorization from the Project Arborist, none of the following shall occur beneath the dripline of any protected tree:
a. Grade change or cut and fill;
b. New impervious surfaces;
c. Utility or drainage field placement;
d. Staging or storage of materials and equipment; or
e. Vehicle maneuvering.

Root protection zones may be entered for tasks like surveying, measuring, and, sampling. Fences must be closed upon completion of these tasks.
4. Erosion Control. Silt fencing required to be installed within the RPZ shall not be trenched in per manufacturer specifications to avoid root damage. Instead, roll the base of the silt fence around a straw wattle and stake the wattle securely into the ground.
5. Tree and Stump Removal. Trees to be removed shall be clearly identified with tree-marking paint or other methods approved in advanced by the project arborist. Stumps from removed trees located within tree protection zones shall remain in the ground where feasible. Otherwise, stumps may be removed by stump grinding or extracted from the ground under arborist supervision.
6. Pruning. Pruning may be needed to provide for overhead clearance and to remove dead and defective branches for safety. The project arborist can help identify where pruning is necessary once trees recommended for removal have been removed and the site is staked and prepared for construction. Tree removal and pruning shall be performed by a Qualified Tree Service.
7. Excavation. The project arborist shall provide on-site consultation during all excavation activities beneath the dripline of protected trees. Excavation immediately adjacent to roots larger than 2 -inches in diameter within the root protection zone of retained trees shall be by hand or other non-invasive techniques to ensure that roots are not damaged. Where feasible, major roots shall be protected by tunneling or other means to avoid destruction or damage. Exceptions can be made if, in the opinion of the project arborist, unacceptable damage will not occur to the tree.
8. Surfacing. Where surfacing is proposed beneath the dripline of protected trees, coordinate with the project arborist to provide recommendations for adjustments to protection fencing and to monitor construction in the tree protection zone. Avoid excavation and use a modified profile to build up from existing grade (Figure 1). The profile includes a layer of permeable geotextile fabric on the ground surface and crushed rock to raise the grade as needed. Surfacing may include asphalt, concrete, or other materials. If excavation is necessary, work shall be performed under arborist supervision.


Figure 1. Sample profile for areas within Critical Root Zones. Depth of rock is dependent on grading. Technique based on best management practices.
9. Landscaping. Following construction and where landscaping is desired, apply approximately 3inches of mulch beneath the dripline of protected trees, but not directly against tree trunks. Shrubs and ground covers may be planted within tree protection areas. If irrigation is used, use drip irrigation or low flow emitters installed at native grade (no trenching) only beneath the driplines of protected trees. Landscaping shall be performed by hand and with hand tools only beneath protected tree driplines; adjust the location of plants to avoid tree root impacts.
10. Quality Assurance. The project arborist should supervise proper execution of this plan during construction activities that could encroach on retained trees. Tree protection site inspection monitoring reports should be provided to the Client and City on a regular basis throughout construction.

## Summary

In summary, 128 trees are planned for retention or are likely to be retained with construction and 415 trees are planned for removal either because of poor condition or for the purposes of site development. The trees to be retained will require special consideration in accordance with arborist recommendations for tree protection and regular monitoring during construction. The 415 trees planned for removal will require mitigation on a one-for-one basis; any other trees determined to no longer be suitable for preservation during the course of construction will also require mitigation if removal is authorized by the City.
Thank you for choosing Morgan Holed \& Associates, LLC, to provide consulting arborist services for the Villebois PDP 5 N Clermont project in Wilsonville. Please contact us if you have questions or need any additional information.
Thank you,
Morgan Holen \& Associates, LLC

Morgan E. Holen, Member
ISA Board Certified Master Arborist, PN-6145B
ISA Tree Risk Assessment Qualified
Forest Biologist
Enclosures: $\quad$ MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18
MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xlsx
Lて 10 亿 ${ }^{28 \mathrm{e}} \mathrm{d}$

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{*}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70020 | Douglas-fir | Pseudotsuga menziesii | 38 | 25 | G |  | Likely to retain- reassess during construction |
| 70021 | Douglas-fir | Pseudotsuga menziesii | 35 | 25 | G |  | Likely to retain- reassess during construction |
| 70022 | Douglas-fir | Pseudotsuga menziesii | 39 | 20 | G | Epicormics | Remove |
| 70023 | Douglas-fir | Pseudotsuga menziesii | 26 | 22 | M | Spur leader, major asymmetry | Remove |
| 70024 | Douglas-fir | Pseudotsuga menziesii | 26 | 18 | G |  | Remove |
| 70025 | Douglas-fir | Pseudotsuga menziesii | 36 | 18 | G |  | Remove |
| 70026 | Douglas-fir | Pseudotsuga menziesii | 38 | 32 | M | Crook in lower trunk | Remove |
| 70027 | Douglas-fir | Pseudotsuga menziesii | 21 | 24 | M |  | Remove |
| 70028 | Douglas-fir | Pseudotsuga menziesii | 29 | 30 | G |  | Remove |
| 70029 | Douglas-fir | Pseudotsuga menziesii | 30 | 28 | G |  | Remove |
| 70030 | Douglas-fir | Pseudotsuga menziesii | 37 | 26 | M | Codominant stems at ~25' | Remove |
| 70031 | Douglas-fir | Pseudotsuga menziesii | 34 | 25 | G |  | Remove |
| 70032 | Atlas cedar | Cedrus atlantica | 28 | 20 | G | Base surrounded by blackberry, multiple leaders | Remove |
| 70033 | Scouler's willow | Salix scouleriana | 12 | 10 | P | Poor structure, decay, dieback | Remove |
| 70034 | Douglas-fir | Pseudotsuga menziesii | 32 | 25 | M |  | Remove |
| 70035 | Douglas-fir | Pseudotsuga menziesii | 26 | 14 | P | Poor structure | Remove |
| 70036 | Douglas-fir | Pseudotsuga menziesii | 26 | 26 | M | lvy | Remove |
| 70037 | Douglas-fir | Pseudotsuga menziesii | 42 | 30 | M | Ivy | Remove |
| 70038 | Douglas-fir | Pseudotsuga menziesij | 22 | 24 | P | Poor structure, Phellinus pini conks | Remove |
| 70039 | Douglas-fir | Pseudotsuga menziesii | 10,18 | 12 | $p$ | Very poor structure | Remove |
| 70040 | Douglas-fir | Pseudotsuga menziesii | 16 | 1.3 | P | Very poor structure | Remove |
| 70041 | Douglas-fir | Pseudotsuga menziesii | 16 | 15 | M | Very one-sided | Remove |
| 70042 | Douglas-fir | Pseudotsuga menziesii | 12 | 8 | $p$ | Suppressed | Remove |

## Morgan Holen \& Associates, LLC

Consulting Arborists and Urban Forest Management
 morgan.holen@comc net | 971-409-9354
MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xlsx
Page 2 of 27

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {+ }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70043 | Douglas-fir | Pseudotsuga menziesii | 24 | 14 | M |  | Remove |
| 70044 | Douglas-fir | Pseudotsuga menziesii | 32 | 18 | M | Extensive poison oak | Remove |
| 70045 | Douglas-fir | Pseudotsuga menziesii | 28 | 18 | M | Extensive poison oak | Remove |
| 70046 | Douglas-fir | Pseudotsuga menziesii | 32 | 22 | M | Spur leader | Remove |
| 70047 | Douglas-fir | Pseudotsuga menziesii | 24,30 | 30 | M |  | Remove |
| 70049 | Douglas-fir | Pseudotsuga menziesii | 26 | 26 | M |  | Remove |
| 70050 | Douglas-fir | Pseudotsuga menziesii | 36 | 24 | G | Somewhat sheltered by 70079 \& 70080 | Remove |
| 70051 | Douglas-fir | Pseudotsuga menziesii | 24 | 12 | P | Small live crown, extensive poison oak | Remove |
| 70052 | Douglas-fir | Pseudotsuga menziesii | 31 | 14 | M |  | Remove |
| 70053 | Douglas-fir | Pseudotsuga menziesii | $2 \times 25$ | 25 | P | Very extensive ivy high up trunks | Remove |
| 70054 | English hawthorn | Crataegus monogyna | 8 | 18 | P | Invasive species, trunk decay | Remove |
| 70055 | black hawthorn | Crataegus douglasii | 8 | 0 | P | Overtopped by ivy | Remove |
| 70057 | Douglas-fir | Pseudotsuga menziesii | 38 | 15 | M | Extensive ivy | Remove |
| 70058 | Douglas-fir | Pseudotsuga menziesii | 48 | 25 | M | Ivy, crown asymmetry, over-extended laterals | Remove |
| 70060 | Douglas-fir | Pseudotsuga menziesii | 36 | 16 | M | Extensive ivy | Remove |
| 70061 | Douglas-fir | Pseudotsuga menziesii | 36 | 16 | P | Top blown out, numerous dead and broken branches, extensive ivy | Remove |
| 70062 | Douglas-fir | Pseudotsuga menziesii | 20 | 14 | P | Poor structure, very one-sided small live crown | Remove |
| 70063 | sweet cherry | Prunus avium | 10 | 20 | P | Invasive species, poor structure | Remove |
| 70064 | sweet cherry | Prunus avium | 18 | 20 | P | Invasive species, extensive ivy | Remove |
| 70065 | sweet cherry | Prunus avium | 8 | 20 | P | Invasive species, extensive ivy | Remove |
| 70066 | sweet cherry | Prunus avium | 16 | 20 | P | Invasive species, poor structure | Remove |

MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xisx
Page 4 of 27

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70067 | sweet cherry | Prunus avium | 20 | 20 | P | Invasive species, extensive ivy | Remove |
| 70068 | Douglas-fir | Pseudotsuga menziesii | 30 | 18 | M | High live crown, surrounded by blackberry, ivy | Remove |
| 70069 | Douglas-fir | Pseudotsuga menziesii | 26 | 18 | M | High live crown, surrounded by blackberry | Remove |
| 70070 | Douglas-fir | Pseudotsuga menziesii | 28 | 16 | M | High live crown, surrounded by blackberry | Remove |
| 70071 | Douglas-fir | Pseudotsuga menziesii | 34 | 18 | M | High live crown, surrounded by blackbe | Likely to retain- reassess during construction |
| 70072 | Douglas-fir | Pseudotsuga menziesii | 34 | 28 | G | Surrounded by blackberry | Likely to retain- reassess during construction |
| 70073 | Douglas-fir | Pseudotsuga menziesii | 26 | 26 | G | Surrounded by blackberry | Likely to retain- reassess during construction |
| 70074 | Douglas-fir | Pseudotsuga menziesii | 14 | 12 | M | Surrounded by blackberry | Likely to retain- reassess during construction |
| 70075 | Douglas-fir | Pseudotsuga menziesii | 20,22 | 24 | M | Surrounded by blackberry | Likely to retain- reassess during construction |
| 70076 | Douglas-fir | Pseudotsuga menziesii | 16 | 13 | M | Poor structure, surrounded by blackberry | Likely to retain- reassess during construction |
| 70077 | Douglas-fir | Pseudotsuga menziesii | 40 | 30 | G |  | Retain |
| 70078 | Douglas-fir | Pseudotsuga menziesii | 38 | 26 | 1 | Old forked leader failure, surrounded by blackberry | Likely to retain- reassess during construction |
| 70079 | Douglas-fir | Pseudotsuga menziesii | 38 | 26 | M | Old broken top, forked leaders, sweep in mid-trunk | Remove |
| 70080 | Douglas-fir | Pseudotsuga menziesii | 38 | 34 | 1 | Limited access limited assessment | Remove |
| 70081 | Douglas-fir | Pseudotsuga menziesii | 38 | 26 | G | Surrounded by blackberry | Retain |

Morgan Folen \& Associates, LLC
 3 Monroe Parkway, Suite P22 ake Oswego, Oregon 97035 morgan.holen@comc.net | 971-409-9354
MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xlsx $\angle 210 \mathrm{~S} 28 \mathrm{ex}$

| Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pseudotsuga menziesii | 2×26 | 28 | M |  | Likely to retain- reassess during construction |
| Pseudotsuga menziesii | 20 | 13 | M | Dead and broken branches, very onesided crown | Likely to retain- reassess during construction |
| Pseudotsuga menziesii | 28 | 30 | M | Old broken top, dead and broken branches | Likely to retain- reassess during construction |
| Pseudotsuga menziesii | 20 | 14 | M | High live crown | Remove |
| Pseudotsuga menziesii | 20 | 14 | M | High live crown crook in upper trunk | Remove |
| Acer macrophyllum | 6 | 16 | M | Poor structure below dominant canopy | Remove |
| Prunus avium | 6 | 10 | P | Invasive species, poor structure, low vigor | Remove |
| Pseudotsuga menziesii | 25 | 18 | M | Natural lean, small live crown | Remove |
| Pseudotsuga menziesii | 28 | 30 | M | One-sided crown, Phellinus pini conks | Remove |
| Pseudotsuga menziesii | 25 | 14 | P | Extensive ivy, very one-sided crown | Remove |
| Pseudotsuga menziesii | 20 | 13 | P | Extensive ivy, very one-sided crown | Remove |
| Pseudotsuga menziesii | 24 | 14 | P | Extensive ivy, very one-sided crown | Remove |
| Acer macrophyllum | 10 | 18 | M | Below dominant fir canopy, ivy | Remove |
| Pseudotsuga menziesii | 30 | 15 | P | Very extensive ivy high up trunk | Remove |
| Pseudotsuga menziesii | 28 | 15 | P | Very extensive ivy high up trunk | Remove |
| Pseudotsuga menziesii | 28 | 14 | P | Very extensive ivy high up trunk | Remove |

Morgan Holen \& Associates, LLC
Consulting Arborists and Urban Forest Management
3 Monroe Parkway, Suite P220, Lake Oswego, Oregon 97035
morgan.holen@comcast.net | 971-409-9354
MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xIsx

Page 6 of 27 Treatment..... Remove Remove \begin{tabular}{l}
Remove <br>
Remove <br>
\hline

 Remove Remove Remove 

Remove <br>
Remove <br>
\hline
\end{tabular} $\left\lvert\, \begin{array}{ll} \\ \\ \\ 0 \\ 0 & \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0\end{array}\right.$ Retain Remove during construction Likely to retain- reassess during construction

Remove Remove
Likely to retain- reassess during construction

Retain | Retain |
| :--- |
| Retain | Retain

Retain
MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xIsx

| Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pseudotsuga menziesii | $16,2 \times 24$ | 22 | M |  | Retain |
| Pseudotsuga menziesii | 42 | 25 | G |  | Retain |
| Pseudotsuga menziesii | 26 | 22 | G |  | Retain |
| Pseudotsuga menziesii | 28 | 22 | G |  | Retain |
| Pseudotsuga menziesii | 38 | 20 | G |  | Retain |
| Pseudotsuga menziesii | 48 | 28 | G |  | Retain |
| Acer macrophyllum | 32 | 28 | M | Old trunk wound north face, crown decay | Remove |
| Pseudotsuga menziesii | 36 | 26 | M | Old broken top | Remove |
| Pseudotsuga menziesii | 30 | 26 | G |  | Remove |
| Pseudotsuga menziesii | 32 | 22 | M | Reduced vigor | Remove |
| Pseudotsuga menziesii | 30 | 22 | M | Reduced vigor | Remove |
| Pseudotsuga menziesii | 32 | 16 | G | Lateral branch failures, pitch seams | Remove |
| Pseudotsuga menziesii | 42 | 33 | 1 |  | Remove |
| Pseudotsuga menziesii | 18 | 14 | M |  | Remove |
| Pseudotsuga menziesii | 22,24 | 20 | M |  | Remove |
| Acer macrophyllum | 26 | 26 | M | Trunk and crown decay | Remove |
| Pseudotsuga menziesii | 34 | 15 | G |  | Remove |
| Pseudotsuga menziesii | 31 | 15 | G |  | Remove |
| Acer macrophyllum | 22 | 20 | G | Metal wire compartmentalized in trunk | Remove |
| Pseudotsuga menziesii | 24 | 12 | M |  | Remove |
| Pseudotsuga menziesii | 16 | 14 | M |  | Remove |
| Pseudotsuga menziesii | 30 | 14 | G | Broken terminal leader, forked new tops | Retain |
| Acer macrophyllum | 18 | 16 | P | Declining, trunk and crown decay | Remove |
| Pseudotsuga menziesii | 28 | 15 | M | Low vigor | Remove | Morgan flolen \& Associates, LLC

Consulting Arborists and Urban Forest Management 3 Monroe Parkway, Suite P220, Lake Oswego, Oregon 97035 morgan.holen@comcast.net | 971-409-9354

| No. | Common Name | - Species Name | $\mathrm{DBH}^{*}$ | C-Rad^ | Cond ${ }^{\text {+ }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70144 | Douglas-fir | Pseudotsuga menziesii | 24 | 0 | P | Dead | Remove |
| 70145 | Douglas-fir | Pseudotsuga menziesii | 26 | 16 | P | Severe decline | Remove |
| 70146 | Douglas-fir | Pseudotsuga menziesii | 18 | 0 | P | Dead | Remove |
| 70147 | Douglas-fir | Pseudotsuga menziesii | 30 | 15 | P | Declining | Remove |
| 70148 | Douglas-fir | Pseudotsuga menziesii | 16 | 12 | P | Severe decline | Remove |
| 70149 | Douglas-fir | Pseudotsuga menziesii | 28 | 0 | $P$ | Dead | Remove |
| 70150 | Douglas-fir | Pseudotsuga menziesii | 2×16 | 12 | P | Severe decline | Remove |
| 70151 | Douglas-fir | Pseudotsuga menziesii | 12 | 0 | P | Dead | Remove |
| 70152 | Douglas-fir | Pseudotsuga menziesii | 12 | 0 | P | Dead | Remove |
| 70153 | Douglas-fir | Pseudotsuga menziesii | 14 | 0 | P | Dead | Remove |
| 70154 | Douglas-fir | Pseudotsuga menziesii | 22 | 16 | $P$ | Declining | Remove |
| 70155 | Douglas-fir | Pseudotsuga menziesii | 18 | 0 | P | Dead | Remove |
| 70156 | Douglas-fir | Pseudotsuga menziesii | $2 \times 14$ | 0 | P | Dead | Remove |
| 70157 | Douglas-fir | Pseudotsuga menziesii | $2 \times 24$ | 0 | $p$ | Dead, decay | Remove |
| 70158 | Douglas-fir | Pseudotsuga menziesii | $2 \times 24$ | 0 | $P$ | Dead | Remove |
| 70159 | Douglas-fir | Pseudotsuga menziesii | 26 | 0 | P | Dead | Remove |
| 70160 | Douglas-fir | Pseudotsuga menziesii | 28 | 14 | $P$ | Declining | Remove |
| 70161 | sweetgum | Liquidambar styraciflua | 18 | 15 | M |  | Remove |
| 70162 | sweetgum | Liquidambar styraciflua | 20 | 20 | M |  | Remove |
| 70163 | Douglas-fir | Pseudotsuga menziesii | 26 | 12 | P | Severe decline | Remove |
| 70164 | Douglas-fir | Pseudotsuga menziesii | 2×24,30 | 20 | G |  | Remove |
| 70165 | Douglas-fir | Pseudotsuga menziesii | 25 | 14 | G |  | Remove |
| 70166 | Douglas-fir | Pseudotsuga menziesii | 38 | 20 | G |  | Remove |
| 70167 | Douglas-fir | Pseudotsuga menziesii | 26 | 16 | G |  | Remove |
| 70168 | Douglas-fir | Pseudotsuga menziesii | 22 | 14 | $P$ | Mostly dead | Remove |
| 70169 | Douglas-fir | Pseudotsuga menziesii | 20 | 10 | P | Mostly dead | Remove |
| 70170 | Douglas-fir | Pseudotsuga menziesii | 18 | 0 | P | Dead | Remove |

## Morgan Holen \& Associates, LLC

Consulting Arborists and Urban Forest Management

> MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xlsx LZ 106 ว8ed

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {P }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70171 | Douglas-fir | Pseudotsuga menziesii | 18 | 14 | P | Declining | Remove |
| 70172 | Douglas-fir | Pseudotsuga menziesii | 18 | 0 | P | Dead | Remove |
| 70173 | Douglas-fir | Pseudotsuga menziesii | 22 | 16 | M | Reduced vigor | Remove |
| 70174 | Douglas-fir | Pseudotsuga menziesii | 28 | 16 | P | Declining | Remove |
| 70175 | Douglas-fir | Pseudotsuga menziesii | 22 | 14 | P | Declining | Remove |
| 70176 | Douglas-fir | Pseudotsuga menziesii | 22 | 14 | P | Declining | Remove |
| 70177 | Douglas-fir | Pseudotsuga menziesii | 28 | 20 | 1 |  | Remove |
| 70178 | bigleaf maple | Acer macrophyllum | 24 | 18 | M | Codominant crown class with 70179 \& 70180 | Remove |
| 70179 | bigleaf maple | Acer macrophyllum | 36 | 30 | M | Reduced vigor in upper crown | Remove |
| 70180 | bigleaf maple | Acer macrophyllum | 22 | 18 | M | Codominant crown class with 70178 \& 70179 | Remove |
| 70181 | bigleaf maple | Acer macrophyllum | $6 \times 12$ | 26 | M | Moderate structure | Remove |
| 70182 | Douglas-fir | Pseudotsuga menziesii | 24 | 14 | P | Declining | Remove |
| 70183 | bigleaf maple | Acer macrophyllum | 16 | 18 | M | Reduced vigor | Remove |
| 70184 | bigleaf maple | Acer macrophyllum | 20 | 18 | M | Reduced vigor | Remove |
| 70185 | Douglas-fir | Pseudotsuga menziesii | 32 | 15 | P | Broken top, declining | Remove |
| 70186 | bigleaf maple | Acer macrophyllum | 22 | 18 | M | Codominant stems, reduced vigor | Remove |
| 70187 | bigleaf maple | Acer macrophyllum | 20 | 22 | P | Basal and crown decay, crown dieback | Remove |
| 70188 | bigleaf maple | Acer macrophyllum | $2 \times 14$ | 18 | M | Trunk and crown decay | Remove |
| 70189 | Douglas-fir | Pseudotsuga menziesii | 30 | 22 | G |  | Remove |
| 70190 | Douglas-fir | Pseudotsuga menziesii | 22 | 16 | G | Codominant crown class with 70191 | Remove |
| 70191 | Douglas-fir | Pseudotsuga menziesii | 24 | 20 | G | Codominant crown class with 70190 | Remove |
| 70192 | Douglas-fir | Pseudotsuga menziesii | 26 | 14 | G | Dense codominant group | Retain |


| No. | Common Name | Species Name | DBH* | C-RadA | Cond" | - Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70193 | Douglas-fir | Pseudotsuga menziesii | 18 | 14 | G | Dense codominant group | Retain |
| 70194 | Douglas-fir | Pseudotsuga menziesii | 26 | 14 | G | Dense codominant group | Retain |
| 70195 | Douglas-fir | Pseudotsuga menziesii | 24 | 14 | G | Dense codominant group | Retain |
| 70196 | Douglas-fir | Pseudotsuga menziesii | 30 | 18 | 1 |  | Retain |
| 70197 | Douglas-fir | Pseudotsuga menziesii | 28 | 16 | P | Broken leader, trunk decay | Remove |
| 70198 | bigleaf maple | Acer macrophyllum | 26 | 28 | M |  | Remove |
| 70199 | Douglas-fir | Pseudotsuga menziesii | 2×18 | 18 | M |  | Remove |
| 70200 | Douglas-fir | Pseudotsuga menziesii | 14,24 | 22 | M |  | Remove |
| 70201 | Douglas-fir | Pseudotsuga menziesii | 16 | 10 | M |  | Remove |
| 70202 | bigleaf maple | Acer macrophyllum | 2×6,8 | 20 | P | Poor structure, stump sprout, trunk decay | Remove |
| 70203 | Douglas-fir | Pseudotsuga menziesii | 12 | 9 | M | Intermediate crown class, lean | Remove |
| 70204 | Douglas-fir | Pseudotsuga menziesii | 22 | 16 | G |  | Remove |
| 70205 | Douglas-fir | Pseudotsuga menziesii | 26 | 14 | G |  | Remove |
| 70206 | Douglas-fir | Pseudotsuga menziesii | 26 | 14 | M |  | Remove |
| 70207 | Douglas-fir | Pseudotsuga menziesii | 38 | 26 | G |  | Remove |
| 70208 | Douglas-fir | Pseudotsuga menziesii | 26 | 14 | P | Declining | Remove |
| 70209 | Douglas-fir | Pseudotsuga menziesii | 30 | 16 | G |  | Remove |
| 70210 | Douglas-fir | Pseudotsuga menziesii | 34 | 24 | 1 |  | Remove |
| 70211 | Douglas-fir | Pseudotsuga menziesii | 24 | 24 | G |  | Remove |
| 70212 | Douglas-fir | Pseudotsuga menziesii | 32 | 20 | G |  | Remove |
| 70213 | Douglas-fir | Pseudotsuga menziesii | 32 | 0 | P | Dead | Remove |
| 70214 | bigleaf maple | Acer macrophyllum | 20 | 22 | M | Very poor structure | Remove |
| 70215 | bigleaf maple | Acer macrophyllum | 18,22 | 25 | M | Previous codominant leader failure, lower trunk decay, cable/brace if retained | Remove |

Morgan Holen \& Associates, LLC
Consulting Arborists and Urban Forest Management MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xlsx

| Species Name | DBH ${ }^{*}$ | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Acer macrophyllum | 17,21 | 38 | M | Codominant crown class with 70215 | Remove |
| Pseudotsuga menziesii | 15,29 | 14 | M | Poor structure | Remove |
| Acer macrophyllum | 20 | 18 | M | Old trunk wound, poor structure | Remove |
| Acer macrophyllum | 26 | 32 | M |  | Remove |
| Acer macrophyllum | 22 | 30 | M |  | Remove |
| Pseudotsuga menziesii | 26 | 20 | M |  | Remove |
| Pseudotsuga menziesii | 34 | 28 | 1 |  | Retain |
| Pseudotsuga menziesii | 41 | 33 | 1 |  | Retain |
| Pseudotsuga menziesii | 30 | 25 | 1 |  | Retain |
| Prunus avium | $3 \times 26$ | 40 | M | Invasive species, poor structure | Remove |
| Pseudotsuga menziesii | 32 | 20 | P | Declining | Remove |
| Pseudotsuga menziesii | 34 | 18 | M | Dead and broken branches, epicormics | Remove |
| Pseudotsuga menziesii | 26 | 16 | P | Severe decline | Remove |
| Pseudotsuga menziesii | 24 | 14 | G | Codominant crown class | Remove |
| Pseudotsuga menziesii | 34 | 16 | G |  | Remove |
| Pseudotsuga menziesii | 23 | 14 | M |  | Remove |
| Pseudotsuga menziesii | 30 | 14 | G | Few small Phellinus pini conks at old branch stubs | Remove |
| Pseudotsuga menziesii | 43 | 26 | 1 |  | Likely to retain- reassess during construction |
| Pseudotsuga menziesii | 40 | 25 | 1 |  | Likely to retain- reassess during construction |
| Pseudotsuga menziesii | 44 | 22 | G | Surrounded by blackberry | Retain |
| Pseudotsuga menziesii | 40 | 25 | G |  | Retain |
| Pseudotsuga menziesii | 34 | 2 | G |  | Retain |


| No. | Common Name | Species Name | DBH* | C-Rads | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70238 | cherry | Prunus spp. | 22 | 20 | P | Ornamental, poor structure, damaged by failed tree | Remove |
| 70239 | cherry | Prunus spp. | 22 | 24 | M | Ornamental, poor structure | Likely to retain- reassess during construction |
| 70240 | cherry | Prunus spp. | 18 | 24 | M | Ornamental, poor structure | Likely to retain- reassess during construction |
| 70241 | Douglas-fir | Pseudotsuga menziesii | 40 | 30 | 1 |  | Retain |
| 70242 | Douglas-fir | Pseudotsuga menziesii | 48 | 25 | G | Codominant stems | Retain |
| 70243 | Douglas-fir | Pseudotsuga menziesii | 50 | 30 | G | Forked leaders | Retain |
| 70244 | Douglas-fir | Pseudotsuga menziesii | 26 | 22 | G | Old broken top, surrounded by blackberry | Retain |
| 70245 | Douglas-fir | Pseudotsuga menziesii | 2x36 | 26 | G |  | Likely to retain- reassess during construction |
| 70246 | Douglas-fir | Pseudotsuga menziesii | 24 | 18 | G |  | Retain |
| 70247 | Douglas-fir | Pseudotsuga menziesii | 32 | 20 | G |  | Retain |
| 70248 | Douglas-fir | Pseudotsuga menziesii | 40 | 20 | G |  | Retain |
| 70249 | Douglas-fir | Pseudotsuga menziesii | 10,16 | 10 | P | Decline, small live crown | Remove |
| 70250 | Douglas-fir | Pseudotsuga menziesii | 36 | 18 | M |  | Remove |
| 70251 | bigleaf maple | Acer macrophyllum | 12 | 16 | M |  | Remove |
| 70252 | Douglas-fir | Pseudotsuga menziesii | 2x12 | 14 | M |  | Likely to retain- reassess during construction |
| 70254 | Douglas-fir | Pseudotsuga menziesii | 16 | 12 | M |  | Likely to retain- reassess during construction |
| 70255 | Douglas-fir | Pseudotsuga menziesii | 16 | 12 | M |  | Likely to retain- reassess during construction |
| 70256 | Douglas-fir | Pseudotsuga menziesii | 20. | 12 | M |  | Likely to retain- reassess during construction |

> Morgan Holen \& Associates, LLC
Consulting Arborists and Urban Forest Management

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70257 | Douglas-fir | Pseudotsuga menziesii | 13 | 12 | M |  | Likely to retain- reassess during construction |
| 70258 | Douglas-fir | Pseudotsuga menziesii | 42 | 16 | M |  | Likely to retain- reassess during construction |
| 70259 | Douglas-fir | Pseudotsuga menziesii | 38 | 16 | M |  | Likely to retain- reassess during construction |
| 70260 | Douglas-fir | Pseudotsuga menziesii | 30 | 15 | M |  | Likely to retain- reassess during construction |
| 70261 | Douglas-fir | Pseudotsuga menziesii | 20 | 15 | M |  | Likely to retain- reassess during construction |
| 70261B | madrone | Arbutus menziesii | 7,14 | 14 | M | Healthy crown, moderate structure, assessment limited by dense debris at base, species is very sensitive to disturbance | Remove |
| 70261 C | sweet cherry | Prunus avium | 16 | 12 | M | Invasive species | Remove |
| 70262 | Douglas-fir | Pseudotsuga menziesii | 28 | 16 | G | Surrounded by blackberry | Retain |
| 70262B | sweet cherry | Prunus avium | 16 | 16 | M | Invasive species, poor structure ivy | Remove |
| 70263 | sweet cherry | Prunus avium | 10 | 8 | P | Invasive species, poor structure, trunk buried in fill | Remove |
| 70266 | English hawthorn | Crataegus monogyna | 6,10 | 10 | P | Very poor structure advanced trunk decay previous stem failure | Remove |
| 70266B | sweet cherry | Prunus avium | 11 | 14 | P | Invasive species, moderate structure, old trunk wound $N$ face, basal damage from recent ROW work | Remove |
| 70267 | plum | Prunus spp. | 9 | 14 | P | Very poor structure | Remove |
| 70268 | black hawthorn | Crataegus douglasii | 10 | 18 | P | Poor structure, dieback | Remove |

Morgan folen \& Associates, LLC
Consulting Arborists and Urban Forest Management 3 Monroe Parkway, Suite P220, Lake Oswego, Oregon 97035 morgan.holen@comcast.net | 971-409-9354 MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xisx
Page 14 of 27

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70269 | Douglas-fir | Pseudotsuga menziesii | 32 | 16 | M | Pistolbutt at base, old wound lower trunk N face | Remove |
| 70270 | Douglas-fir | Pseudotsuga menziesii | 12 | 14 | M | Intermediate crown class | Remove |
| 70271 | Douglas-fir | Pseudotsuga menziesii | 2×32 | 28 | M | Codominant stems | Remove |
| 70272 | Douglas-fir | Pseudotsuga menziesii | 36 | 20 | M | Dead and broken branches, some excess fill at base from recent ROW construction, some bark separation and pitch on lower trunk, looks to have girdling wound at ${ }^{\sim} 15$ ' | Remove |
| 70273 | Douglas-fir | Pseudotsuga menziesii | 26 | 16 | M | Relatively reduced vigor, likely impacted by recent ROW construction | Remove |
| 70274 | bigleaf maple | Acer macrophyllum | 11 | 14 | M | Very poor structure, portion of bark stripped from lower trunk | Remove |
| 70275 | Douglas-fir | Pseudotsuga menziesii | 30 | 0 | P | Dead, decay, snag | Remove |
| 70276 | Douglas-fir | Pseudotsuga menziesii | 32 | 20 | M | Old trunk wound 0-25' S face, relatively reduced vigor | Remove |
| 70279 | bigleaf maple | Acer macrophyllum | 13 | 24 | M |  | Remove |
| 70280 | bigleaf maple | Acer macrophyllum | 14 | 24 | M |  | Remove |
| 70283 | English hawthorn | Crataegus monogyna | 14 | 16 | M | Invasive species, poor structure, previous leader failure | Remove |
| 70284 | English hawthorn | Crataegus monogyna | 7 | 12 | P | Invasive species, very poor structure | Remove |
| 70285 | black hawthorn | Crataegus douglasii | 6 | 6 | P | Mostly dead | Remove |
| 70286 | black hawthorn | Crataegus douglasii | 8 | 8 | P | Very poor structure | Remove |
| 70287 | black hawthorn | Crataegus douglasii | 7 | 8 | $P$ | Very poor structure | Remove |

## Morgan Folen \& Associates, LLC

Consulting Arborists and Urban Forest Management 3 Monroe Parkway, Suite P22 Tke Oswego, Oregon 97035 morgan.holen@comc...et | 971-409-9354 MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.x|sx

## 10-7-18.x|sx Page 16 of 27

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70312 | Douglas-fir | Pseudotsuga menziesii | 36 | 22 | G |  | Likely to retain- reassess during construction |
| 70313 | Douglas-fir | Pseudotsuga menziesii | 40 | 34 | G |  | Likely to retain- reassess during construction |
| 70315 | sweet cherry | Prunus avium | 16 | 12 | M | Invasive species, poor structure | Remove |
| 70317 | sweet cherry | Prunus avium | 12 | 12 | M | Invasive species, poor structure | Remove |
| 70319 | sweet cherry | Prunus avium | 10 | 12 | M | Invasive species, poor structure | Remove |
| 70320 | sweet cherry | Prunus avium | 10 | 12 | M | Invasive species, poor structure | Remove |
| 70321 | sweet cherry | Prunus avium | 12 | 12 | M | Invasive species, poor structure | Remove |
| 70324 | sweet cherry | Prunus avium | 10 | 12 | M | Invasive species, poor structure | Remove |
| 70325 | sweet cherry | Prunus avium | 10 | 12 | M | Invasive species, poor structure | Remove |
| 70326 | sweet cherry | Prunus avium | 12 | 12 | M | Invasive species, poor structure | Remove |
| 70327 | sweet cherry | Prunus avium | 14 | 12 | M | Invasive species, poor structure | Remove |
| 70328 | sweet cherry | Prunus avium | 14 | 12 | M | Invasive species, poor structure | Remove |
| 70329 | black hawthorn | Crataegus douglasii | 10 | 10 | P | Mostly dead, decay | Remove |
| 70330 | bigleaf maple | Acer macrophyllum | 14,26 | 28 | M | Moderate structure | Likely to retain- reassess during construction |
| 70333 | black hawthorn | Crataegus douglasii | 2x8 | 8 | P | Mostly dead | Remove |
| 70334 | black hawthorn | Crataegus douglasii | 8 | 12 | P | Mostly dead | Remove |
| 70335 | English hawthorn | Crataegus monogyna | 10 | 12 | M | Invasive species | Remove |
| 70336 | bigleaf maple | Acer macrophyllum | 8 | 12 | M | Poor structure | Likely to retain- reassess during construction |
| 70337 | English hawthorn | Crataegus monogyna | 6,2×10 | 16 | M | Invasive species | Remove |
| 70338 | black hawthorn | Crataegus douglasii | 6 | 6 | P | Mostly dead | Remove |
| 70339 | black hawthorn | Crataegus douglasii | 6 | 4 | P | Mostly dead | Remove |
| 70340 | English hawthorn | Crataegus monogyna | 12 | 20 | M | Invasive species, poor structure | Remove |

Morgan Holen \& Associates, LLC
Consulting Arborists and Urban Forest Management 3 Monroe Parkway, Suite P22 ake Oswego, Oregon 97035 morgan.holen@comc_net | 971-409-9354 MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xlsx Page 17 of 27

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70342 | Douglas-fir | Pseudotsuga menziesii | 24 | 12 | M |  | Likely to retain- reassess during construction |
| 70346 | black hawthorn | Crataegus douglasii | 6,8 | 6 | P | Mostly dead | Remove |
| 70347 | Douglas-fir | Pseudotsuga menziesii | 40 | 34 | 1 |  | Retain |
| 70348 | Douglas-fir | Pseudotsuga menziesii | 30 | 30 | 1 |  | Retain |
| 70349 | Douglas-fir | Pseudotsuga menziesii | 42 | 30 | G | Spur leader, some ivy | Remove |
| 70350 | black hawthorn | Crataegus douglasii | 6 | 0 | P | Dead | Remove |
| 70351 | black hawthorn | Crataegus douglasii | 2x8 | 0 | P | Dead | Remove |
| 70352 | black hawthorn | Crataegus douglasii | 9 | 0 | P | Dead | Remove |
| 70353 | Douglas-fir | Pseudotsuga menziesii | 7 | 5 | P | Suppressed | Remove |
| 70354 | Douglas-fir | Pseudotsuga menziesii | 24 | 25 | M | Codominant stems | Likely to retain- reassess during construction |
| 70355 | Douglas-fir | Pseudotsuga menziesii | 9 | 8 | P | Suppressed | Remove |
| 70356 | Douglas-fir | Pseudotsuga menziesii | 32 | 18 | G | Crown asymmetry, dead and broken branches | Likely to retain- reassess during construction |
| 70357 | black hawthorn | Crataegus douglasii | 7 | 0 | P | Dead | Remove |
| 70358 | black hawthorn | Crataegus douglasii | 7 | 6 | P | Very poor structure | Remove |
| 70360 | black hawthorn | Crataegus douglasii | 7 | 0 | P | Dead | Remove |
| 70361 | black hawthorn | Crataegus douglasii | 7 | 0 | P | Dead | Remove |
| 70362 | black hawthorn | Crataegus douglasii | 7 | 12 | P | Severe decline, very poor structure, one-sided to west | Remove |
| 70363 | black hawthorn | Crataegus douglasii | 2x9 | 14 | P | Mostly dead, poor structure | Remove |
| 70364 | black hawthorn | Crataegus douglasii | 8 | 0 | P | Dead | Remove |
| 70365 | black hawthorn | Crataegus douglasii | 7 | 0 | P | Dead | Remove |
| 70366 | black hawthorn | Crataegus douglasii | 7 | 0 | P | Dead | Remove |
| 70367 | black hawthorn | Crataegus douglasii | 2x4,6,8 | 15 | P | Poor structure, dead and broken branches | Remove |

## Morgan Folen \& Associates, LLC

Consulting Arborists and Urban Forest Management
3 Monroe Parkway, Suite P220, Lake Oswego, Oregon 97035
morgan.holen@comcast.net | 971-409-9354 MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xlsx Page 18 of 27

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70368 | cascara | Rhamnus purshiana | 9 | 13 | P | Poor structure, crown decay | Remove |
| 70370 | English hawthorn | Crataegus monogyna | 2×10 | 15 | P | Invasive species, previous leader failures | Remove |
| 70371 | black hawthorn | Crataegus douglasii | 6 | 5 | P | Very poor structure | Remove |
| 70372 | black hawthorn | Crataegus douglasii | 8 | 12 | P | Very poor structure | Remove |
| 70373 | black hawthorn | Crataegus douglasii | 7,12 | 16 | P | Poor structure, declining | Remove |
| 70374 | black hawthorn | Crataegus douglasii | 6,9,11 | 16 | P | Very poor structure, previous codominant stem failure | Remove |
| 70375 | Scouler's willow | Salix scouleriana | 13 | 6 | P | Failed leader | Remove |
| 70376 | bigleaf maple | Acer macrophyllum | 7 | 16 | M | Pistolbutt | Remove |
| 70378 | Douglas-fir | Pseudotsuga menziesii | 32 | 18 | M | Terminal leader is dead | Remove |
| 70379 | Douglas-fir | Pseudotsuga menziesii | 44 | 18 | M | Old broken top, crooked leader | Remove |
| 70380 | sweet cherry | Prunus avium | 8 | 10 | M | Invasive species, moderate structure | Remove |
| 70382 | sweet cherry | Prunus avium | 8 | 0 | P | Dead | Remove |
| 70383 | sweet cherry | Prunus avium | 8 | 6 | P | Invasive species, very poor structure | Remove |
| 70385 | sweet cherry | Prunus avium | 10 | 8 | P | Invasive species, trunk decay, dead and broken branches | Remove |
| 70386 | black hawthorn | Crataegus douglasii | 10 | 0 | P | Mostly dead, very poor structure | Remove |
| 70387 | black hawthorn | Crataegus douglasii | 7 | 8 | P | Poor structure, dieback | Remove |
| 70388 | black hawthorn | Crataegus douglasii | 7 | 10 | P | Poor structure, declining | Remove |
| 70389 | bigleaf maple | Acer macrophyllum | 10 | 18 | M | Old broken top, multiple leaders | Remove |
| 70391 | English hawthorn | Crataegus monogyna | 8 | 16 | M | Invasive species, poor structure | Remove |
| 70392 | English hawthorn | Crataegus monogyna | 2×10 | 18 | M | Invasive species, poor structure | Remove |
| 70394 | English hawthorn | Crataegus monogyna | 6,9 | 12 | M | Invasive species, poor structure | Remove |

MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xlsx Page 19 of 27

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70395 | Douglas-fir | Pseudotsuga menziesii | 2x28 | 30 | M | Codominant stems, old broken leader with new top, ivy | Remove |
| 70396 | bigleaf maple | Acer macrophyllum | 22 | 16 | P | Hollows with advanced trunk decay, poor structure | Remove |
| 70397 | Douglas-fir | Pseudotsuga menziesii | 41 | 26 | P | Basal decay with hollow S face, no buttress root NE face | Remove |
| 70398 | sweet cherry | Prunus avium | 18 | 20 | M | Invasive species | Remove |
| 70399 | sweet cherry | Prunus avium | 8 | 15 | P | Invasive species, poor structure, trunk damage | Remove |
| 70400 | apple | Malus spp. | 10 | 16 | P | Very poor structure | Remove |
| 70403 | bigleaf maple | Acer macrophyllum | 11 | 16 | M | Below dominant canopy | Remove |
| 70404 | sweet cherry | Prunus avium | 9 | 9 | M | Invasive species | Remove |
| 70406 | sweet cherry | Prunus avium | 8 | 12 | M | Invasive species, growing from stump of failed cherry | Remove |
| 70410 | Douglas-fir | Pseudotsuga menziesii | 32 | 18 | M | Extensive ivy crown asymmetry | Remove |
| 70411 | Douglas-fir | Pseudotsuga menziesii | 18,25 | 20 | M | Codominant stems, extensive ivy, reduced vigor | Remove |
| 70412 | sweet cherry | Prunus avium | 7 | 12 | P | Invasive species, poor structure | Remove |
| 70413 | Douglas-fir | Pseudotsuga menziesii | 8 | 7 | P | Suppressed | Remove |
| 70414 | Douglas-fir | Pseudotsuga menziesii | 22 | 12 | M |  | Remove |
| 70415 | Douglas-fir | Pseudotsuga menziesii | 28 | 12 | M |  | Remove |
| 70416 | bigleaf maple | Acer macrophyllum | 10 | 12 | P | Very poor structure, below dominant canopy | Remove |
| 70417 | sweet cherry | Prunus avium | 18 | 18 | M | Invasive species | Remove |
| 70418 | sweet cherry | Prunus avium | 12 | 12 | P | Invasive species, very poor structure | Remove |
| 70419 | bigleaf maple | Acer macrophyllum | 10 | 16 | M | Below dominant canopy | Remove |


| No. | Common Name | - Species Name | DBH** | $C-R a d \wedge$ | Cond ${ }^{+1}$ | - Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70429 | bigleaf maple | Acer macrophyllum | 6 | 12 | $P$ | Very poor structure, below dominant canopy | Remove |
| 70430 | Douglas-fir | Pseudotsuga menziesii | 16 | 12 | P | Mostly dead | Remove |
| 70431 | sweet cherry | Prunus avium | 6 | 10 | M | Invasive species | Remove |
| 70432 | Douglas-fir | Pseudotsuga menziesii | 30 | 0 | P | Dead, top blown out, trunk overtopped by ivy | Remove |
| 70433 | Douglas-fir | Pseudotsuga menziesii | 26 | 24 | M | Reduced vigor, dead and broken branches | Remove |
| 70434 | bigleaf maple | Acer macrophyllum | 7 | 16 | M | Below dominant canopy, failed snag leaning against trunk | Remove |
| 70435 | sweet cherry | Prunus avium | 10 | 12 | P | Invasive species, poor structure | Remove |
| 70436 | bigleaf maple | Acer macrophyllum | 22 | 26 | G |  | Remove |
| 70437 | Douglas-fir | Pseudotsuga menziesii | 13 | 8 | P | Dead, decay, failing | Remove |
| 70438 | Douglas-fir | Pseudotsuga menziesii | 26 | 12 | M |  | Remove |
| 70439 | Douglas-fir | Pseudotsuga menziesii | 22 | 11 | M |  | Remove |
| 70440 | sweet cherry | Prunus avium | 7 | 10 | M | Invasive species, poor structure | Remove |
| 70441 | sweet cherry | Prunus avium | 6 | 10 | M | Invasive species, poor structure | Remove |
| 70442 | sweet cherry | Prunus avium | 7 | 10 | M | Invasive species, poor structure | Remove |
| 70443 | Douglas-fir | Pseudotsuga menziesii | 24 | 16 | M |  | Remove |
| 70444 | Douglas-fir | Pseudotsuga menziesii | 24 | 14 | M | Lower trunk sweep, reduced vigor | Remove |
| 70445 | sweet cherry | Prunus avium | 7 | 12 | M | Invasive species, poor structure | Remove |
| 70446 | sweet cherry | Prunus avium | 16 | 20 | M | Invasive species, poor structure | Remove |
| 70448 | sweet cherry | Prunus avium | 16 | 18 | M | Invasive species, poor structure | Remove |
| 70449 | Douglas-fir | Pseudotsuga menziesii | 24 | 16 | M | Very one-sided, reduced vigor | Remove |
| 70450 | Douglas-fir | Pseudotsuga menziesii | 14 | 0 | P | Mostly dead | Remove |
| 70451 | Douglas-fir | Pseudotsuga menziesii | 22 | 14 | M |  | Remove |
| 70452 | bigleaf maple | Acer macrophyllum | 11 | 18 | M |  | Remove |

## MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xlsx

Page 21 of 27

Morgan Holen \& Associates, LLC
Consulting Arborists and Urban Forest Management
3 Monroe Parkway, Suite P220, Lake Oswego, Oregon 97035 morgan.holen@comcast.net | 971-409-9354

| No. | Common Name | Species Name |
| :---: | :---: | :---: |
| 70453 | Douglas-fir | Pseudotsuga menziesii |
| 70454 | Douglas-fir | Pseudotsuga menziesii |
| 70455 | Douglas-fir | Pseudotsuga menziesii |
| 70456 | Douglas-fir | Pseudotsuga menziesii |
| 70457 | Douglas-fir | Pseudotsuga menziesii |
| 70459 | Douglas-fir | Pseudotsuga menziesii |
| 70460 | Douglas-fir | Pseudotsuga menziesii |
| 70461 | Douglas-fir | Pseudotsuga menziesii |
| 70462 | Douglas-fir | Pseudotsuga menziesii |
| 70463 | Douglas-fir | Pseudotsuga menziesii |
| 70465 | bigleaf maple | Acer macrophyllum |
| 70466 | Douglas-fir | Pseudotsuga menziesii |
| 70467 | Douglas-fir | Pseudotsuga menziesii |
| 70468 | bigleaf maple | Acer macrophyllum |
| 70469 | Douglas-fir | Pseudotsuga menziesii |
| 70470 | sweet cherry | Prunus avium |
| 70471 | Douglas-fir | Pseudotsuga menziesii |
| 70472 | Douglas-fir | Pseudotsuga menziesii |
| 70473 | Douglas-fir | Pseudotsuga menziesii |
| 70474 | Douglas-fir | Pseudotsuga menziesii |
| 70475 | Douglas-fir | Pseudotsuga menziesii |
| 70478 | Douglas-fir | Pseudotsuga menziesii |
| 70479 | Douglas-fir | Pseudotsuga menziesii |
| 70481 | sweet cherry | Prunus avium |

MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xisx
Page 22 of 27

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond" | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70482 | sweet cherry | Prunus avium | 8 | 12 | M | Invasive species | Remove |
| 70483 | sweet cherry | Prunus avium | 12 | 12 | M | Invasive species | Remove |
| 70484 | sweet cherry | Prunus avium | 12 | 12 | M | Invasive species | Remove |
| 70485 | Douglas-fir | Pseudotsuga menziesii | 40 | 15 | M | Old broken top, forked leaders | Retain |
| 70489 | Douglas-fir | Pseudotsuga menziesii | 36 | 14 | M | Spur leader, extensive poison oak | Remove |
| 70490 | Douglas-fir | Pseudotsuga menziesii | 26,30 | 14 | M | Poor structure, ivy | Remove |
| 70491 | Douglas-fir | Pseudotsuga menziesii | 26 | 13 | M | Lower trunk sweep, epicormics, ivy | Remove |
| 70492 | Douglas-fir | Pseudotsuga menziesii | 28 | 14 | M |  | Likely to retain- reassess during construction |
| 70493 | Douglas-fir | Pseudotsuga menziesii | 25 | 11 | M | Trunk sweep near base | Likely to retain- reassess during construction |
| 70494 | Douglas-fir | Pseudotsuga menziesii | 34 | 16 | M |  | Remove |
| 70496 | black hawthorn | Crataegus douglasii | 7 | 4 | P | Very poor structure, trunk decay, excessive lean, mostly dead | Remove |
| 70499 | bigleaf maple | Acer macrophyllum | 15 | 32 | M | Poor structure, ivy | Likely to retain- reassess during construction |
| 70500 | bigleaf maple | Acer macrophyllum | 14 | 26 | M | Extensive ivy | Likely to retain- reassess during construction |
| 70501 | bigleaf maple | Acer macrophyllum | 26 | 30 | M | Extensive ivy infestation | Likely to retain- reassess during construction |
| 70502 | Douglas-fir | Pseudotsuga menziesii | 11,18 | 12 | P | Codominant stems, one is a snag, other with severe ivy infestation and poor structure | Remove |
| 70503 | Douglas-fir | Pseudotsuga menziesii | 36 | 24 | P | Very poor structure | Remove |
| 70504 | black hawthorn | Crataegus douglasii | 7 | 14 | P | Very poor structure | Remove |
| 70505 | bigleaf maple | Acer macrophyllum | 7 | 16 | M | Poor structure | Remove |

Morgan Holen \& Associates, LLC
Consulting Arborists and Urban Forest Management 3 Monroe Parkway, Suite P27~7ke Oswego, Oregon 97035 morgan.holen@come let | 971-409-9354

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{+}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70506 | sweet cherry | Prunus avium | 12,14 | 20 | P | Invasive species, poor structure, extensive ivy | Remove |
| 70507 | Douglas-fir | Pseudotsuga menziesii | 22 | 18 | M | Dead and broken branches, ivy, adjacent tree failed in past | Remove |
| 70508 | Douglas-fir | Pseudotsuga menziesii | 10 | 8 | P | Suppressed, very poor structure | Remove |
| 70509 | sweet cherry | Prunus avium | 12 | 8 | P | Invasive species, poor structure, declining | Remove |
| 70511 | sweet cherry | Prunus avium | 12,16 | 18 | P | Codominant stems, poor structure, extensive ivy | Remove |
| 70512 | sweet cherry | Prunus avium | 2×16 | 10 | M | Invasive species, ivy | Remove |
| 70513 | sweet cherry | Prunus avium | 12 | 8 | M | Invasive species, poor structure, ivy | Remove |
| 70514 | sweet cherry | Prunus avium | 16 | 12 | M | Invasive species | Remove |
| 70515 | sweet cherry | Prunus avium | 9 | 8 | M | Invasive species, poor structure | Remove |
| 70516 | sweet cherry | Prunus avium | 12 | 12 | M | Invasive species, trunk damage | Remove |
| 70517 | sweet cherry | Prunus avium | 14 | 12 | M | Invasive species | Remove |
| 70518 | sweet cherry | Prunus avium | 6,16 | 14 | M | Invasive species | Remove |
| 70519 | sweet cherry | Prunus avium | 10 | 8 | P | Invasive species, poor structure | Remove |
| 70520 | sweet cherry | Prunus avium | 14 | 28 | M | Invasive species | Remove |
| 70521 | sweet cherry | Prunus avium | 18 | 28 | M | Invasive species | Remove |
| 70523 | sweet cherry | Prunus avium | 6 | 14 | M | Invasive species | Remove |
| 70526 | bigleaf maple | Acer macrophyllum | 13 | 22 | M | Self-correcting lean, dead and broken branches | Remove |
| 70527 | black hawthorn | Crataegus douglasii | 11,12 | 14 | M | Dead and broken branches | Remove |
| 70528 | black hawthorn | Crataegus douglasii | 7 | 6 | P | Declining, poor structure | Remove |
| 70531 | Douglas-fir | Pseudotsuga menziesii | 40 | 26 | M | Extensive ivy | Remove |
| 70532 | English hawthorn | Crataegus monogyna | 6 | 12 | P | Invasive species, poor structure | Remove | Morgan Flolen \& Associates, LLC

MHA18034 Clermont - Tree Data 6-28-18 Rev. 10-7-18.xIsx


| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70533 | Douglas-fir | Pseudotsuga menziesii | 14 | 10 | M | Intermediate crown class | Remove |
| 70534 | bigleaf maple | Acer macrophyllum | $2 \times 16$ | 35 | M |  | Remove |
| 70535 | Douglas-fir | Pseudotsuga menziesii | 20 | 16 | M |  | Remove |
| 70536 | Douglas-fir | Pseudotsuga menziesii | 30 | 22 | M |  | Remove |
| 70537 | Douglas-fir | Pseudotsuga menziesii | 18 | 16 | M |  | Remove |
| 70538 | Douglas-fir | Pseudotsuga menziesii | 14 | 8 | P | Suppressed | Remove |
| 70539 | Douglas-fir | Pseudotsuga menziesii | 32 | 25 | M |  | Remove |
| 70540 | black hawthorn | Crataegus douglasii | 2x6 | 4 | P | Mostly dead | Remove |
| 70541 | sweet cherry | Prunus avium | 13 | 14 | M | Invasive species | Remove |
| 70542 | Douglas-fir | Pseudotsuga menziesii | 28 | 18 | M | Extensive ivy | Likely to retain- reassess during construction |
| 70543 | bigleaf maple | Acer macrophyllum | $3 \times 10,15$ | 22 | P | Poor structure crown decay, extensive ivy | Remove |
| 70544 | Douglas-fir | Pseudotsuga menziesii | 36 | 15 | P | Extensive ivy infestation, codominant stems | Remove |
| 70545 | bigleaf maple | Acer macrophyllum | $2 \times 10$ | 6 | P | Mostly dead, extensive ivy | Remove |
| 70547 | Douglas-fir | Pseudotsuga menziesii | 32 | 14 | M | Extensive ivy | Likely to retain- reassess during construction |
| 70548 | bigleaf maple | Acer macrophyllum | 8 | 16 | P | Very poor structure | Remove |
| 70549 | bigleaf maple | Acer macrophyllum | 8 | 10 | M | Poor structure | Likely to retain- reassess during construction |
| 70550 | bigleaf maple | Acer macrophyllum | 8 | 13 | M | Poor structure | Likely to retain- reassess during construction |
| 70551 | bigleaf maple | Acer macrophyllum | 13 | 25 | M | Moderate structure, ivy | Retain |
| 70552 | bigleaf maple | Acer macrophyllum | 26 | 25 | M | Moderate structure | Retain |
| 70553 | bigleaf maple | Acer macrophyllum | 12 | 18 | M | Poor structure | Likely to retain- reassess during construction |

## Morgan Holen \& Associates, LLC

Consulting Arborists and Urban Forest Management 3 Monroe Parkway, Suite P22 -ake Oswego, Oregon 97035 morgan.holen@comc let | 971-409-9354

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70554 | bigleaf maple | Acer macrophyllum | 16 | 24 | M | Moderate structure, top dieback | Likely to retain- reassess during construction |
| 70555 | black hawthorn | Crataegus douglasii | 6 | 0 | P | Mostly dead | Remove |
| 70556 | black hawthorn | Crataegus douglasii | 6 | 0 | P | Mostly dead | Remove |
| 70557 | black hawthorn | Crataegus douglasii | 7 | 0 | P | Mostly dead | Remove |
| 70558 | Douglas-fir | Pseudotsuga menziesii | 26 | 26 | G |  | Remove |
| 70559 | Douglas-fir | Pseudotsuga menziesii | 38 | 25 | G |  | Remove |
| 70560 | Douglas-fir | Pseudotsuga menziesii | 12,16 | 13 | M | Codominant stems, intermediate crown class | Remove |
| 70568 | Douglas-fir | Pseudotsuga menziesii | 29 | 34 | G |  | Likely to retain- reassess during construction |
| 70569 | bigleaf maple | Acer macrophyllum | 13 | 32 | P | Very poor structure | Remove |
| 70570 | bigleaf maple | Acer macrophyllum | 19 | 34 | P | Very poor structure | Remove |
| 70571 | bigleaf maple | Acer macrophyllum | 22 | 32 | M | Codominant stems | Likely to retain- reassess during construction |
| 70572 | Douglas-fir | Pseudotsuga menziesii | 36 | 22 | M | Multiple codominant stems | Retain |
| 70573 | Douglas-fir | Pseudotsuga menziesii | 24 | 20 | G |  | Retain |
| 70574 | Douglas-fir | Pseudotsuga menziesii | 30 | 20 | G |  | Retain |
| 70575 | Douglas-fir | Pseudotsuga menziesii | 26 | 20 | M | Relatively reduced vigor | Likely to retain- reassess during construction |
| 70576 | Douglas-fir | Pseudotsuga menziesii | 22 | 11 | P | Severe decline | Remove |
| 70577 | Douglas-fir | Pseudotsuga menziesii | 26 | 18 | G |  | Remove |
| 70578 | bigleaf maple | Acer macrophyllum | 2x18 | 20 | M | Basal decay, old root damage | Remove |
| 70580 | Douglas-fir | Pseudotsuga menziesii | 2×30 | 22 | G |  | Retain |
| 70582 | bigleaf maple | Acer macrophyllum | 26 | 28 | M | Moderate structure, one trunk decay | Retain |
| 70583 | Douglas-fir | Pseudotsuga menziesii | 40 | 30 | I |  | Remove |


| No. | Common Name | , Species Name | DBH* | C-Rad ${ }^{\text {a }}$ | Cond ${ }^{\text {\# }}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70584 | Douglas-fir | Pseudotsuga menziesii | 26 | 16 | G |  | Retain |
| 70585 | Douglas-fir | Pseudotsuga menziesii | 24 | 16 | G |  | Retain |
| 70586 | Douglas-fir | Pseudotsuga menziesii | $2 \times 26$ | 18 | M | Codominant stems | Likely to retain- reassess during construction |
| 70587 | Douglas-fir | Pseudotsuga menziesii | 40 | 28 | G |  | Retain |
| 70588 | Douglas-fir | Pseudotsuga menziesii | 24,30 | 38 | M | Multiple codominant stems | Likely to retain- reassess during construction |
| 70589 | Douglas-fir | Pseudotsuga menziesii | 34 | 20 | G |  | Retain |
| 70590 | Douglas-fir | Pseudotsuga menziesii | 30 | 20 | G |  | Retain |
| 70591 | Douglas-fir | Pseudotsuga menziesii | 30 | 18 | G | Surrounded by blackberry | Retain |
| 70592 | Douglas-fir | Pseudotsuga menziesii | 40 | 24 | G | Codominant crown class with 70594 | Remove |
| 70593 | Douglas-fir | Pseudotsuga menziesii | 32 | 28 | G | Codominant crown class with 70594 | Remove |
| 70594 | Douglas-fir | Pseudotsuga menziesii | 28 | 24 | G | Codominant crown class with70592 \& 70593 | Remove |
| 70595 | Douglas-fir | Pseudotsuga menziesii | 10 | 0 | P | Dead | Remove |
| 70596 | Douglas-fir | Pseudotsuga menziesii | 12 | 6 | P | Suppressed | Remove |
| 70597 | Douglas-fir | Pseudotsuga menziesii | 20 | 10 | P | Phellinus pini infection | Remove |
| 70598 | Douglas-fir | Pseudotsuga menziesii | 34 | 22 | 1 |  | Remove |
| 70599 | Douglas-fir | Pseudotsuga menziesii | 14 | 6 | P | Suppressed | Remove |
| 70600 | Douglas-fir | Pseudotsuga menziesii | 24 | 14 | M |  | Remove |
| 70601 | Douglas-fir | Pseudotsuga menziesii | 12 | 12 | M | Intermediate crown class | Remove |
| 70602 | Douglas-fir | Pseudotsuga menziesii | 28 | 16 | G |  | Remove |
| 70603 | Douglas-fir | Pseudotsuga menziesii | 60 | 35 | P | history of lateral branch failure, Phaeolus schweinitzii mushrooms observed at base | Remove |


| Pseudotsuga menziesii |
| :--- |
| Pseudotsuga menziesii |
|  |
| Pseudotsuga menziesii |
| Pseudotsuga menziesii |
| Pseudotsuga menziesii |
| Pseudotsuga menziesii |

Pseudotsuga menziesii
Pseudotsuga menziesii
Pseudotsuga menziesii Pseudotsuga menziesii Pseudotsuga menziesii Pseudotsuga menziesii Pseudotsuga menziesii Pseudotsuga menziesii Pseudotsuga menziesii Pseudotsuga menziesii Pseudotsuga menziesii observed at base

## Morgan Holen \& Associates, LLC


3 Monroe Parkway, Suite P22 ake Oswego, Oregon 97035 morgan.holen@comc let | 971-409-9354

$$
\begin{aligned}
& \text { v. } 10-7-18 . x \mid s x \\
& \text { Page } 27 \text { of } 27
\end{aligned}
$$

| No. | Common Name | Species Name | DBH* | C-Rad^ | Cond ${ }^{*}$ | Condition \& Comments | Treatment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70604 | Douglas-fir | Pseudotsuga menziesii | 22 | 20 | M | Poor structure, old broken top, multiple leaders | Remove |
| 70605 | Douglas-fir | Pseudotsuga menziesii | 35 | 20 | G | Old lower trunk wounds | Remove |
| 70606 | Douglas-fir | Pseudotsuga menziesii | 28 | 18 | G |  | Remove |
| 80001 | black hawthorn | Crataegus douglasii | 22 | 0 | P | Dead | Remove |
| 80002 | black hawthorn | Crataegus douglasii | $2 \times 10$ | 10 | M | Overgrown blackberry thicket | Remove |
| 80003 | black hawthorn | Crataegus douglasii | 12 | 10 | M | Overgrown blackberry thicket | Remove |
| 80004 | Douglas-fir | Pseudotsuga menziesii | 36 | 20 | G |  | Remove |

*DBH: Diameter at Breast Height (measured 4.5-feet above ground level in inches); trees with multiple trunks splitting below DBH are measured separately ${ }^{\wedge}$ C-Rad: Crown Radius, the distance in feet from the center of the tree to the edge of the dripline.
"Condition Classifications per the Villebois Community Elements Book: 1-Important; G-Good; M-Moderate; P-Poor.

## Morgan Holen \& Associates, LLC

Consulting Arborists and Urban Forest Management 3 Monroe Parkway, Suite P220, Lake Oswego, Oregon 97035 morgan.holen@comcast.net | 971-409-9354

## IIIF) Conceptual Elevations









4063D




Tigard, Oregon
Polygon Vancouver

| RAMBLER ELEVATION 6062A |  |  |  | Sheet №.A2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Solee $1 / 44^{\prime \prime}=1-0^{\prime \prime}$ |  | ${ }^{\text {Dode }}$ 1012/17 | ${ }^{\text {Dute folted }} 7.26-18$ |  |  |








## Section IV) Tentative Plat

## IVA) Supporting Compliance Report

# Supporting Compliance Report <br> Tentative Plat <br> PDP 5 North 

## Section IV

## Table of Contents

I. Wilsonville Planning \& Land Development Ordinance ..... 2
Section 4.125. Village (V) Zone ..... 2
(.02) Permitted Uses ..... 2
(.05) Development Standards Applying to All Developments in the Village Zone ..... 2
(.07) General Regulations - Off-Street Parking, Loading \& Bicycle Parking ..... 3
(.08) Open Space ..... 4
(.09) Street \& Access Improvement Standards ..... 5
(.18) Village Zone Development Permit Process ..... 8
Section 4.177. Street Improvement Standards ..... 8
Section 4.210. Application Procedure ..... 8
Section 4.236. General Requirements - Streets. ..... 14
Section 4.237. General Requirements - Other ..... 16
Section 4.262. Improvements - Requirements. ..... 20
II. CONCLUSION ..... 21

## I. Wilsonville Planning \& Land Development Ordinance

## Section 4.125. Village (V) Zone

(.02) Permitted Uses

Examples of principle uses that are typically permitted:
A. Single Family Detached Dwellings
H. Non-commercial parks, plazas, playgrounds, recreational facilities, community buildings and grounds, tennis courts, and other similar recreational and community uses owned and operated either publicly or by an owners association.
Response: The Tentative Plat (see Notebook Section IVB) shows that the proposed Tentative Plat will create lots for development of single family dwellings and tracts for linear greens and a regional park. All proposed uses within the subject area are permitted pursuant to this section.
(.05) Development Standards Applying to All Developments in the Village Zone

All development in this zone shall be subject to the V Zone and the applicable provisions of the Wilsonville Planning and Land Development Ordinance. If there is a conflict, then the standards of this section shall apply. The following standards shall apply to all development in the V zone:
A. Block, Alley, Pedestrian and Bicycle Standards:

1. Maximums Block Perimeter: 1,800 feet, unless the Development Review Board makes a finding that barriers such as existing buildings, topographic variations, or designated Significant Resource Overlay Zone areas will prevent a block perimeter from meeting this standard.

Response: These standards are addressed within the PDP Compliance Report (see Notebook Section IIIA).
2. Maximum spacing between streets for local access: 530 feet, unless the Development Review Board makes a finding that barriers such as existing buildings, topographic variations, or designated Significant Resource Overlay Zone areas will prevent street extensions from meeting this standard.
Response: These standards are addressed within the PDP Compliance Report (see Notebook Section IIIA).
3. If the maximum spacing for streets for local access exceeds 530 feet, intervening pedestrian and bicycle access shall be provided, with a maximum spacing of 330 feet from those local streets, unless the Development Review Board makes a finding that barriers such as existing buildings, topographic variations, or designated Significant Resource Overlay Zone areas will prevent pedestrian and bicycle facility extensions from meeting this standard.

Response: These standards are addressed within the PDP Compliance Report (see Notebook Section IIIA).
B. Access: All lots with access to a public street, and an alley, shall take vehicular access from the alley to a garage or parking area, except as determined by the City Engineer.

Response: All of the lots within the proposed PDP that have frontage on a public street and an alley will take vehicular access from an alley to a garage or parking area.

Table V-1 Development Standards
Response: The attached Tentative Plat (see Notebook Section IVB) depicts proposed lot sizes and dimensions. All of the lots will be developed with single family dwelling units. All of the lots meet applicable requirements, as addressed below. No buildings are proposed with this application. Final compliance with these standards will be reviewed at building permit submittal.

## Single-Family Dwellings

Minimum lot size: 2,250 square feet
Minimum lot width: 35 feet
Minimum lot depth: 50 feet
Response: All lots within the proposed tentative plat meet the minimum lot size requirement and meet the minimum lot width and depth specified for Small, Medium, Standard, and Large lots in the approved SAP North Architectural Pattern Book, with allowed variations for site features, such as road alignment or site topography.

## (.07) General Regulations - Off-Street Parking, Loading \& Bicycle Parking

Table V-2: Off-Street Parking Requirements

| Category | Min. <br> Vehicle <br> Spaces | Max. <br> Vehicle <br> Spaces | Bicycle <br> Short Term | Bicycle <br> Long <br> Term |
| :--- | :---: | :---: | :---: | :---: |
| Single Family Detached Dwelling <br> Units | 1.0 / DU | NR | NR | NR |

Response: Each of the homes will provide a minimum of a two-car garage in compliance with this standard.

Open space shall be provided as follows:
A. In all residential developments and in mixed-use developments where the majority of the developed square footage is to be in residential use, at least twenty-five percent ( $25 \%$ ) of the area shall be open space, excluding street pavement and surface parking. In multi-phased developments, individual phases are not required to meet the $\mathbf{2 5 \%}$ standard as long as an approved Specific Area Plan demonstrates that the overall development shall provide a minimum of $\mathbf{2 5 \%}$ open space. Required front yard areas shall not be counted towards the required open space area. Required rear yard areas and other landscaped areas that are not within required front or side yards may be counted as part of the required open space.
B. Open space area required by this Section may, at the discretion of the Development Review Board, be protected by a conservation easement or dedicated to the City, either rights in fee or easement, without altering the density or other development standards of the proposed development. Provided that, if the dedication is for public park purposes, the size and amount of the proposed dedication shall meet the criteria of the City of Wilsonville standards. The square footage of any land, whether dedicated or not, which is used for open space shall be deemed a part of the development site for the purpose of computing density or allowable lot coverage. See SROZ provisions, Section 4.139.10.
C. The Development Review Board may specify the method of assuring the long-term protection and maintenance of open space and/or recreational areas. Where such protection or maintenance are the responsibility of a private party or homeowners' association, the City Attorney shall review and approve any pertinent bylaws, covenants, or agreements prior to recordation.
Response: The Parks Master Plan for Villebois states that there are 58.42 acres of parks and 101.31 acres of open space for a total of 159.73 acres within Villebois, approximately $33 \%$ An amendment to SAP North to add information for Phase 5 has been submitted concurrently, which adds linear greens and provides the Regional Parks shown in the Master Plan. Phase 5 of SAP - North is proposing larger parks and more open space than what is in the Parks \& Open Space Plan of the Villebois Village Master Plan. Therefore, there is a sufficient amount of parks and open space.
(.09) Street \& Access Improvement Standards
A. Except as noted below, the provisions of Section 4.177 apply within the Village zone:

1. General Provisions:
a. All street alignment and access improvements shall conform to the Villebois Village Master Plan, or as refined in the Specific Area Plan, Preliminary Development Plan, or Final Development Plan and the following standards:
Response: The street alignment and access improvements are consistent with the Villebois Village Master Plan and the concurrent SAP North Amendment.
i. All street improvements shall conform to the Public Works Standards and shall provide for the continuation of streets through proposed developments to adjoining properties or subdivisions, according to the Master Plan.
Response: All street improvements within this Preliminary Development Plan will comply with the applicable Public Works Standards. The street system within this Preliminary Development Plan is designed to provide for the continuation of streets within Villebois and to adjoining development according to the Master Plan. The street system is illustrated on the Circulation Plan in Notebook Section IIIB.
ii. All streets shall be developed with curbs, landscape strips, bikeways or pedestrian pathways, according to the Master Plan.
Response: All streets within this Preliminary Development Plan will be developed with curbs, landscape strips, sidewalks, and bikeways or pedestrian pathways as depicted on Circulation Plan in Notebook Section IIIB and in accordance with the Master Plan.
2. Intersections of streets
a. Angles: Streets shall intersect one another at angles not less than 90 degrees, unless existing development or topography makes it impractical.
b. Intersections: If the intersection cannot be designed to form a right angle, then the right-of-way and paving within the acute angle shall have a minimum of thirty (30) foot centerline radius and said angle shall not be less than sixty (60) degrees. Any angle less than ninety (90) degrees shall require approval by the City Engineer after consultation with the Fire District.

Response: The Tentative Plat located in Section IVB of this Notebook demonstrates that all proposed streets will intersect at angles consistent with the above standards. See also Notebook Section IVB - Reduced Drawings.
c. Offsets: Opposing intersections shall be designed so that no offset dangerous to the traveling public is created. Intersections shall be separated by at least:
i. $\quad 1000 \mathrm{ft}$. for major arterials
ii. 600 ft . for minor arterials
iii. 100 ft. for major collector
iv. 50 ft. for minor collector

Response: The Tentative Plat located in Notebook Section IVB demonstrates that opposing intersections on public streets are offset, as appropriate, so that no danger to the traveling public is created.
d. Curb Extensions:
i. Curb extensions at intersections shall be shown on the Specific Area Plans required in subsection 4.125(.18)(C) through (F), below, and shall:
ii. Not obstruct bicycle lanes on collector streets.
iii. Provide a minimum 20 foot wide clear distance between curb extensions all local residential street intersections shall have, shall meet minimum turning radius requirements of the Public Works Standards, and shall facilitate fire truck turning movements as required by the Fire District.

Response: Curb extensions are shown on the Circulation Plan in Notebook Section IVB. PDP 5N does not include any collector streets or bike lanes. The attached drawings illustrate that all street intersections will have a minimum 20 foot wide clear distance between curb extensions on all local residential street intersections.
3. Street grades shall be a maximum of $6 \%$ on arterials and $8 \%$ for collector and local streets. Where topographic conditions dictate, grades in excess of $8 \%$, but not more than $12 \%$, may be permitted for short distances, as approved by the City Engineer, where topographic conditions or existing improvements warrant modification of these standards.

Response: The Grading Plan in Notebook Section IIIB demonstrates that proposed streets can comply with this standard.

## 4. Centerline Radius Street Curves:

The minimum centerline radius street curves shall be as follows:
a. Arterial streets: 600 feet, but may be reduced to 400 feet in commercial areas, as approved by City Engineer.
b. Collector streets: $\mathbf{6 0 0}$ feet, but may be reduced to conform with the Public Works Standards, as approved by the City Engineer.
c. Local streets: $\mathbf{7 5}$ feet

Response: The Tentative Plat (see Notebook Section IVB) demonstrates that all streets will comply with the above standards.

## 5. Rights-of-way:

a. See (.09) (A), above.

Response: Proposed rights-of-way are shown on the Tentative Plat, located in Section IVB of this Notebook. Rights-of-way will be dedicated and a waiver of remonstrance against the formation of a local improvement district will be recorded with recordation of a final plat in accordance with Section 4.177.

## 6. Access drives.

a. See (.09) (A), above.
b. $\mathbf{1 6}$ feet for two-way traffic.

Response: Access drives (alleys) will be paved at least 16 -feet within a 20 -foot tract, as shown on Sheet 7 - Circulation Plan in Notebook Section IIIB. In accordance with Section 4.177, all access drives will be constructed with a hard surface capable of carrying a 23 -ton load. Easements for fire access will be dedicated as required by the fire department. All access drives will be designed to provide a clear travel lane free from any obstructions.

## 7. Clear Vision Areas

a. See (.09) (A), above.

Response: Clear vision areas will be provided and maintained in compliance with the Section 4. 177.

## 8. Vertical clearance:

a. See (.09) (A), above.

Response: Vertical clearance will be provided and maintained in compliance with the Section 4. 177.

## 9. Interim Improvement Standard:

a. See (.09) (A), above.

Response: There are no interim improvements being proposed for this development. Therefore, this standard does not apply.

## (.18) Village Zone Development Permit Process

## G. Preliminary Development Plan Approval Process:

1. An application for approval of a Preliminary Development Plan for a development in an approved SAP shall:
f) Include a preliminary land division (concurrently) per Section 4.400, as applicable.

Response: This request is for a Tentative Subdivision Plat. This section includes a Supporting Compliance Report, the proposed Tentative Plat, draft CC\&R's, a copy of the certification of liens \& assessments form, and the subdivision name approval from the County Surveyor's Office.

## Section 4.177. Street Improvement Standards

Response: Proposed rights-of-way are shown on the Tentative Plat in Notebook Section IVB. Rights-of-way will be dedicated and a waiver of remonstrance against the formation of a local improvement district will be recorded with the final plat.

Reduced drawings located in Notebook Section IIIB demonstrate that all proposed access drives (alleys) within the Preliminary Development Plan area will have a minimum improvement width of 16 feet and will provide two-way travel. All access drives (alleys) will be constructed with a hard surface capable of carrying a 23 -ton load. Easements for fire access will be dedicated as required by the fire department. All access drives will be designed to provide a clear travel lane free from any obstructions.

Clear vision areas will be maintained in accordance with the standards of Subsection 4.177(.01)(I). Vertical clearance will be maintained over all streets and access drives in accordance with Subsection 4.177(.01)(J ).

## LaNd Divisions

## Section 4.210. Application Procedure

A. Preparation of Tentative Plat. The Planning Staff shall provide information regarding procedures and general information having a direct influence on the proposed development, such as elements of the Comprehensive Plan, existing and proposed streets, road and public utilities. The applicant shall cause to be prepared a tentative plat, together with improvement plans and other supplementary material as specified in this Section. The Tentative Plat shall be prepared by an Oregon licensed professional land surveyor or engineer. An affidavit of the services of each surveyor or engineer shall be furnished as part of the submittal.

Response: A Tentative Plat has been prepared by an Oregon licensed professional engineer as required. The Tentative Plat can be seen in Section IVB of this Notebook. Improvement plans can be seen in Notebook Section IIIB. The Introductory Narrative located in Section IA includes a listing of the services provided by each design team member.
B. Tentative Plat Submission. The purpose of the Tentative Plat is to present a study of the proposed subdivision to the Planning Department and Development Review Board and to receive approval recommendations for revisions before preparation of a final Plat. The design and layout of this plan plat shall meet the guidelines and requirements set forth in this Code. The Tentative Plat shall be submitted to the Planning Department with the following information:

1. Site development application form completed and signed by the owner of the land or a letter of authorization signed by the owner. A preliminary title report or other proof of ownership is to be included with the application form.
2. Application fees as established by resolution of the City Council.

Response: Copies of the application form and the application fee are included in Notebook Sections IB and IC, respectively.
3. Ten (10) copies and one (1) sepia or suitable reproducible tracing of the Tentative Plat shall be submitted with the application. Paper size shall be eighteen inch (18") by twenty-four inch (24"), or such other size as may be specified by the City Engineer.
Response: The balance of the 10 copies of the Tentative Plat (see Notebook Section IVB) will be provided when the application is determined complete; three (3) of which have been provided with initial submittal.
4. Name of the subdivision. No subdivision shall duplicate or resemble the name of any other subdivision in Clackamas or Washington County. Names may be checked through the county offices.

Response: The name of the proposed subdivision of PDP 5N is "Clermont" (see Notebook Section IVE for documentation of subdivision name approval from the Clackamas County Surveyor's Office).
5. Names, address, and telephone numbers of the owners and applicants, and engineer or surveyor.

Response: The names, addresses and telephone numbers of the owner, applicant, engineer and surveyor are listed in the Introductory Narrative, which can be seen in Notebook Section IA, and are listed on the Cover Sheet in Notebook Section IIIB.
6. Date, north point and scale drawing.
7. Location of the subject property by Section, Township, and Range.
8. Legal road access to subject property shall be indicated as City, County, or other public roads.
9. Vicinity map showing the relationship to the nearest major highway or street.
10. Lots: Dimensions of all lots, minimum lot size, average lot size, and proposed lot and block numbers.

## 11. Gross acreage in proposed plat.

Response: The above information is provided on the plan sheets located in Notebook Section IIIB. The location of the subject property by Section, Township and Range and the gross acreage of the proposed plat are also listed in the Introductory Narrative, located in Notebook Section IA, and are listed on the Cover Sheet in Notebook Section IIIB.
12. Proposed uses of the property, including sits, if any, for multifamily dwellings, shopping centers, churches, industries, parks, and playgrounds or other public or semi-public uses.
Response: The proposed plat does not include any multi-family dwelling sites, shopping centers, churches, or industries. Park and open space areas are indicated on the plan sheets located in Notebook Section IIIB. Proposed uses within the subject park and open space areas are detailed on the FDP Plans included in Notebook Section VIIB.
13. Improvements: Statement of the improvements to be made or installed including streets, sidewalks, lighting, tree planting, and times such improvements are to be made or completed.
Response: Proposed improvements are shown on the plan sheets in Notebook Section IIIB. Circulation Plan \& Street Sections shows proposed streets and sidewalks. Street Tree/ Lighting Plan shows proposed street trees and proposed street lights.
14. Trees. Locations, types, sizes, and general conditions of all existing trees, as required in Section 4.600.
Response: The requirements of Section 4.600 can be seen in Section VI of this Notebook. Additionally, the Tree Preservation Plan in Notebook Section IIIB shows existing tree locations, types, sizes and general conditions, pursuant to the requirements of Section 4.600.
15. Utilities such as electrical, gas, telephone, on and abutting the tract.

Response: The Composite Utility Plan in Notebook Section IIIB shows existing and proposed utilities.
16. Easements: Approximate width, location, and purpose of all existing and proposed easements on, and known easements abutting the tract.
17. Deed Restrictions: Outline of proposed deed restrictions, if any.
18. Written Statement: Information which is not practical to be shown on the maps may be shown in separate statements accompanying the Tentative Plat.
19. If the subdivision is to be a "Planned Development," a copy of the proposed Home Owners Association By-Laws must be submitted at the time of submission of the application. The Tentative Plat shall be considered as the Stage I Preliminary Plan. The proposed By-Laws must address the maintenance of any parks, common areas, or facilities.

Response: The Existing Conditions (see Notebook Section IIIB) shows the approximate width, location, and purpose of all existing easements. The attached Tentative Plat (see Notebook Section IVB) shows proposed easements as applicable to the subject site. No deed restrictions are proposed at this time. A draft of the CC\&R's are attached as Notebook Section IVC.
20. Any plat bordering a stream or river shall indicate areas subject to flooding and shall comply with the provisions of Section 4.172.
Response: The proposed plat area does not border a stream or river.
21. Proposed use or treatment of any property designated as open space by the City of Wilsonville.
Response: The proposed plat does not include any areas designated as open space by the City of Wilsonville.
22. A list of the names and addresses of the owners of all properties within 250 feet of the subject property, printed on self-adhesive mailing labels. The list shall be taken from the latest available property ownership records of the Assessor's Office of the affected county.
Response: The required mailing list has been submitted with this application. A copy is provided in Notebook Section ID.
23. A completed "liens and assessments" form, provided by the City Finance Department.

Response: A copy of this form is provided in Notebook Section IVD.
24. Locations of all areas designated as a Significant Resource Overlay Zone by the City, as well as any wetlands shall be shown on the tentative plat.
Response: The proposed development will not have a significant adverse effect upon an SROZ area as none exist on the site. A portion of the northeast part of the property was previously mapped as including an SROZ wetland. Mirth Walker, with SWCA, has evaluated the existing wetlands and found them to be isolated and not locally significant. SWCA has determined these wetlands should not be classified as locally significant. The SAP Amendment supporting compliance report includes a request to remove the SROZ designation from the site (See Notebook Section VII).
25. Locations of all existing and proposed utilities, including but not limited to domestic water, sanitary sewer, storm drainage, streets, and any private utilities crossing or intended to serve the site. Any plans to phase the construction or use of utilities shall be indicated.

Response: In Existing Conditions shows all existing utilities. Composite Utility Plan shows all proposed utilities. Grading Plan shows proposed streets and storm drainage facilities. These plan sheets can be seen in Notebook Section IIIB.
26. A traffic study, prepared under contract with the City, shall be submitted as part of the tentative plat application process, unless specifically waived by the Community Development Director.
Response: A copy of the Traffic Impact Analysis is attached in Notebook Section IIID.
C. Action on proposed tentative plat:

1. Consideration of tentative subdivision plat. The Development Review Board shall consider the tentative plat and the reports of City staff and other agencies at a regular Board meeting no more than ninety (90) days after tentative plat application has been accepted as complete by the City. Final action on the proposed tentative plat shall occur within the time limits specified in Section 4.013. The tentative plat shall be approved if the Development Review Board determines that the tentative plat conforms in all respects to the requirements of this Code.

Response: The Tentative Plat (see Notebook Section IVB) is included with this application for review by the Development Review Board.
2. Consideration of tentative partition plat. The Planning Director shall review and consider any proposed land partition plat through the procedures for Administrative Reviews specified in Section 4.030 and 4.035.

Response: This request is for a Tentative Subdivision Plat. This code section does not apply.
3. The Board shall, by resolution, adopt its decision, together with findings and a list of all Conditions of Approval or required changes to be reflected on the Final Plat

Response: Any Conditions of Approval adopted by the Board shall be reflected on the Final Plat.
4. Board may limit content of deed restrictions. In order to promote local, regional and state interests in affordable housing, the Board may limit the content that will be accepted within proposed deed restrictions or covenants. In adopting conditions of approval for a residential subdivision or condominium development, the Board may prohibit such things as mandatory minimum construction costs, minimum unit sizes, prohibitions or manufactures housing, etc.

Response: The applicant recognizes the authority of the Board to limit the content of the deed restrictions or covenants.
5. Effect of Approval. After approval of a tentative plat, the applicant may proceed with final surveying, improvement construction and preparation of the final plat. Approval shall be effective for a period of two (2) years, and if the final plat is not submitted to the Planning Department within such time, the tentative plat shall be submitted again and the entire procedure shall be repeated for consideration of any changes conditions which may exist. Except, however, that the Development Review Board may grant a time extension as provided in Section 4.023.

Response: After approval of the Tentative Plat, a final plat will be prepared and submitted to the Planning Department within two years if an extension is not provided.
D. Land division phases to be shown. Where the applicant intends to develop the land in phases, the schedule for such phasing shall be presented for review at the time of the tentative plat. In acting on an application for tentative plat approval, the Planning Director or Development Review Board may set time limits for the completion of the phasing schedule which, if not met, shall result in an expiration of the tentative plat approval.

Response: The PDP is proposed to be executed in one (1) phase.
E. Remainder tracts to be shown as lots or parcels. Tentative plats shall clearly show all effected property as part of the application for land division. All remainder tracts, regardless of size, shall be shown and counted among the parcels or lots of the division.

Response: The Tentative Plat (see Notebook Section IVB) illustrates the entirety of effected property is included in lots and tracts.

Section 4.236. General Requirements - Streets.
(.01) Conformity to the Master Plan Map: Land divisions shall conform to and be in harmony with the Transportation Master Plan (Transportation Systems Plan), the bicycle and Pedestrian Master Plan, the Parks and Recreation Master Plan, the Official Plan or Map and especially to the Master Street Plan.

Response: The proposed Iand division complies with the concurrent Specific Area Plan - North Amendment and generally complies with the Villebois Village Master Plan, as demonstrated in the PDP Compliance Report (see Notebook Section IIIA), and thereby conforms to the applicable Master Plans.
(.02) Relation to Adjoining Street System.
A. A land division shall provide for the continuation of the principal streets existing in the adjoining area, or of their proper projection when adjoining property is not developed, and shall be of a width not less than the minimum requirements for streets set forth in these regulations. Where, in the opinion of the Planning Director or Development Review Board, topographic conditions make such continuation or conformity impractical, an exception may be made. In cases where the Board or Planning Commission has adopted a plan or plat of a neighborhood or area of which the proposed land division is a part, the subdivision shall conform to such adopted neighborhood or area plan.
B. Where the plat submitted covers only a part of the applicant's tract, a sketch of the prospective future street system of the unsubmitted part shall be furnished and the street system of the part submitted shall be considered in the light of adjustments and connections with the street system of the part not submitted.
C. At any time when an applicant proposes a land division and the Comprehensive Plan would allow for the proposed lots to be further divided, the city may require an arrangement of lots and streets such as to permit a later resubdivision in conformity to the street plans and other requirements specified in these regulations.

Response: Plan sheets in Notebook Section IIB illustrate street design will meet the minimum requirements set forth by this Section. The street system within PDP 5 North will provide connections to principle streets of adjoining areas. The Tentative Plat covers the entirety of PDP 5 North.
(.03) All streets shall conform to the standards set forth in Section 4.177 and the block size requirements of the zone.
Response: Previous sections of this report have demonstrated compliance with the standards of Section 4.177 and the applicable block size requirements.
(.04) Creation of Easements: The Planning Director or Development Review Board may approve an easement to be established without full compliance with these regulations, provided such an easement is the only reasonable method by which a portion of a lot large enough to allow partitioning into two (2) parcels may be provided with vehicular access and adequate utilities. If the proposed lot is large enough to divide into more than two (2) parcels, a street dedication may be required. Also, within a Planned Development, cluster settlements may have easement driveways for any number of dwelling units when approved by the Planning Director or Development Review Board.

Response: Any necessary easements will be identified on the final plat.
(.05) Topography: The layout of streets shall give suitable recognition to surrounding topographical conditions in accordance with the purpose of these regulations.

Response: Grading Plan in Notebook Section IIIB demonstrates that the layout of streets has given recognition to surrounding topographic conditions.
(.06) Reserve Strips: The Planning Director or Development Review Board may require the applicant to create a reserve strip controlling the access to a street. Said strip is to be placed under the jurisdiction of the City Council, when the Director or Board determine that a strip is necessary:
A. To prevent access to abutting land at the end of a street in order to assure the proper extension of the street pattern and the orderly development of land lying beyond the street; or
B. To prevent access to the side of a street on the side where additional width is required to meet the right-of-way standards established by the City; or
C. To prevent access to land abutting a street of the land division but not within the tract or parcel of land being divided; or
D. To prevent access to land unsuitable for building development.

Response: Reserve strips will be provided as appropriate.
(.07) Future Expansion of Street: When necessary to give access to, or permit a satisfactory future division of, adjoining land, streets shall be extended to the boundary of the land division and the resulting dead-end street may be approved without a turn-around. Reserve strips and street plugs shall be required to preserve the objective of street extension.

Response: Streets that will be expanded in the future will occur in compliance with this standard.
(.08) Existing Streets: Whenever existing streets adjacent to or within a tract are of inadequate width, additional right-of-way shall conform to the designated width in this Code or in the Transportation Systems Plan.
Response: Rights-of-way will be dedicated in accordance with the Villebois Village Master Plan and the Transportation System Plan.
(.09) Street Names: No street names will be used which will duplicate or be confused with the names of existing streets, except for extensions of existing streets. Street names and numbers shall conform to the established name system in the City, and shall be subject to the approval of the City Engineer.

Response: No street names will be used that duplicate or could be confused with the names of existing streets. Street names and numbers will conform to the established name system in the City, as approved by the City Engineer.

Section 4.237. General Requirements - Other.
(.01) Blocks:
A. The length, width, and shape of blocks shall be designed with due regard to providing adequate building sites for the use contemplated, consideration of needs for convenient access, circulation, control, and safety of pedestrian, bicycle, and motor vehicle traffic, and recognition of limitations and opportunities of topography.
B. Sizes: Blocks shall not exceed the sizes and length specified for the zone in which they are located unless topographical conditions or other physical constraints necessitate larger blocks. Larger blocks shall only be approved where specific findings are made justifying the size, shape, and configuration.

Response: The PDP Compliance Report (see Notebook Section IIIA) demonstrates compliance with the applicable block requirements. The street system proposed in this land division conforms to the street system in the concurrent SAP North Amendment and PDP 5N.
A. Utility lines. Easements for sewers, drainage, water mains, electrical lines or other public utilities shall be dedicated wherever necessary. Easements shall be provided consistent with the City's Public Works Standards, as specified by the City Engineer or Planning Director. All the utility lines within and adjacent to the site shall be installed with underground services within the street and to any structures. All utilities shall have appropriate easements for construction and maintenance purposes.
B. Water Courses. Where a land division is traversed by a water course, drainage way, channel or stream, there shall be provided a storm water easement or drainage right-of-way conforming substantially with the lines of the water course, and such further width as will be adequate for the purposes of conveying storm water and allowing for maintenance of the facility or channel. Streets or parkways parallel to water courses may be required.
Response: The final plat will include the appropriate easements.
(.03) Pedestrian and bicycle pathways. An improved public pathway shall be required to transverse the block near its middle if that block exceeds the length standards of the zone in which it is located.
A. Pathways shall be required to connect to cul-de-sacs to pass through unusually shaped blocks.
B. Pathways required by this subsection shall have a minimum width of ten (10) feet unless they are found to be unnecessary for bicycle traffic, in which case they are to have a minimum width of six (6) feet.
Response: The applicant is proposing to construct a pathway to connect Barcelona Street to Tooze Road, where the block length exceeds the zone standard. This pathway will be constructed to be 10 feet wide.
(.04) Tree planting. Tree planting plans for a land division must be submitted to the Planning Director and receive the approval of the Director or Development Review Board before the planning is begun. Easements or other documents shall be provided, guaranteeing the City the right to enter the site and plant, remove, or maintain approved street trees that are located on private property.
Response: Street Tree/Lighting Plan in Notebook Section IIIB shows proposed street tree planting.
(.05) Lot Size and shape. The lot size, width, shape and orientation shall be appropriate for the location of the land division and for the type of development and use contemplated. Lots shall meet the requirements of the zone where they are located.
A. In areas that are not served by public sewer, an on-site sewage disposal permit is required from the City. If the soil structure is adverse to on-site sewage disposal, no development shall be permitted until sewer service can be provided.
B. Where property is zoned or deeded for business or industrial use, other lot widths and areas may be permitted at the discretion of the Development Review Board. Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the off-street service and parking facilities required by the type of use and development contemplated.
C. In approving an application for a Planned Development, the Development Review Board may waive the requirements of this section and lot size, shape, and density shall conform to the Planned Development conditions of approval.

Response: Proposed lot sizes, widths, shapes and orientations are appropriate for the proposed development and are in conformance with the Village Zone requirements as demonstrated by this report.
(.06) Access. The division of land shall be such that each lot shall have a minimum frontage on a public street, as specified in the standards of the relative zoning districts. This minimum frontage requirement shall apply with the following exceptions:
A. A lot on the outer radius of a curved street or facing the circular end of a cul-de-sac shall have frontage of not less than twenty-five (25) feet upon a street, measured on the arc.
B. The Development Review Board may waive lot frontage requirements where in its judgment the waiver of frontage requirements will not have the effect of nullifying the intent and purpose of this regulation or if the Board determines that another standard is appropriate because of the characteristics of the overall development.

Response: The proposed lots comply with the applicable access requirements of the Village Zone as demonstrated in previous sections of this report.
(.07) Through lots. Through lots shall be avoided except where essential to provide separation of residential development from major traffic arteries or adjacent non-residential activity or to overcome specific disadvantages of topography and orientation. A planting screen easement of at least ten (10) feet, across which there shall be no access, may be required along the line of lots abutting such a traffic artery or other disadvantageous use. Through lots with planting screens shall have a minimum average depth of one hundred (100) feet. The Development Review Board may require assurance that such screened areas be maintained as specified in Section 4.176.

Response: No through lots are proposed by this application.
(.08) Lot side lines. The side lines of lots, as far as practicable for the purpose of the proposed development, shall run at right angles to the street upon which the lots face.

Response: All side lines of lots will run at right angles to the street upon which the lots face.
(.09) Large lot land divisions. In dividing tracts which at some future time are likely to be re-divided, the location of lot lines and other details of the layout shall be such that re-division may readily take place without violating the requirements of these regulations and without interfering with the orderly development of streets. Restriction of buildings within future street locations shall be made a matter of record if the Development Review Board considers it necessary.
Response: This request does not include any tracts which may be divided at a future time.
(.10) Building line. The Planning Director or Development Review Board may establish special building setbacks to allow for the future redivision or other development of the property or for other reasons specified in the findings supporting the decision. If special building setbacks lines are established for the land division, they shall be shown on the final plat.

Response: No building lines are proposed by this application.
(.11) Build-to line. The Planning Director or Development Review Board may establish special build-to lines for the development, as specified in the findings and conditions of approval for the decision. If special build-to lines are established for the land division, they shall be shown on the final plat.
Response: No build-to lines are proposed by this application.
(.12) Land for public purposes. The Planning Director or Development Review Board may require property to be reserved for public acquisition, or irrevocably offered for dedication, for a specified period of time.
Response: This land division does not include land to be dedicated for public purposes except for the dedication of street right-of-way.
(.13) Corner lots. Lots on street intersections shall have a corner radius of not less than ten (10) feet.

Response: All lots on street intersections will have a corner radius of not less than ten (10) feet. This is demonstrated on the Tentative Plat in Notebook Section IVB.

Section 4.262. Improvements - Requirements.
(.01) Streets. Streets within or partially within the development shall be graded for the entire right-of-way width, constructed and surfaced in accordance with the Transportation Systems Plan and City Public Works Standards. Existing streets which abut the development shall be graded, constructed, reconstructed, surfaced or repaired as determined by the City Engineer.

Response: Grading Plan in Notebook Section IIIB of this Notebook, shows compliance with this standard.
(.02) Curbs. Curbs shall be constructed in accordance with standards adopted by the City.

## Response: Curbs will be constructed in accordance with City standards.

(.03) Sidewalks. Sidewalks shall be constructed in accordance with standards adopted by the City.
Response: Sidewalks will be constructed in accordance with City standards.
(.04) Sanitary sewers. When the development is within two hundred (200) feet of an existing public sewer main, sanitary sewers shall be installed to serve each lot or parcel in accordance with standards adopted by the City. When the development is more than two hundred (200) feet from an existing public sewer main, the City Engineer may approve an alternate sewage disposal system.
Response: Composite Utility Plan in Notebook Section IIIB illustrates proposed sanitary sewer lines.
(.05) Drainage. Storm drainage, including detention or retention systems, shall be provided as determined by the City Engineer.
Response: Grading Plan (see Notebook Section IIIB) illustrates the proposed storm drainage facilities. A supporting utility report is provided (see Notebook Section IIIC) that demonstrates that the proposed storm drainage facilities will meet City standards.
(.06) Underground utility and service facilities. All new utilities shall be subject to the standards of Section 4.300 (Underground Utilities). The developer shall make all necessary arrangements with the serving utility to provide the underground services in conformance with the City's Public Works Standards.

Response: Proposed utilities will be placed underground pursuant to Section 4.300 and City Public Works Standards.
(.07) Streetlight standards. Streetlight standards shall be installed in accordance with regulations adopted by the City.
Response: Proposed streetlights are shown on Street Tree/Lighting Plan in Notebook Section IIIB. Streetlights will be installed in accordance with City standards.
(.08) Street signs. Street name signs shall be installed at all street intersections and dead-end signs at the entrance to all dead-end streets and cul-de-sacs in accordance with standards adopted by the City. Other signs may be required by the City Engineer.

Response: Street name and dead-end signs will be installed in accordance with City standards.
(.09) Monuments. Monuments shall be placed at all lot and block corners, angle points, points of curves in streets, at intermediate points and shall be of such material, size, and length as required by State Law. Any monuments that are disturbed before all improvements are completed by the developer and accepted by the City shall be replaced to conform to the requirements of State Law.

Response: Monuments will be placed at all lot and block corners, angle points, points of curves in streets, at intermediate points and will be of such material, size, and length as required by State Law.
(.10) Water. Water mains and fire hydrants shall be installed to serve each lot in accordance with City standards.
Response: Composite Utility Plan in Notebook Section IIIB illustrates that water mains and fire hydrants will be installed to serve each lot in accordance with City standards.

## II. Conclusion

This Supporting Compliance Report demonstrates compliance with the applicable requirements of the City of Wilsonville Planning \& Land Development Ordinance for the requested Tentative Subdivision Plat. Therefore, the applicant respectfully requests approval of this application.

IVB) Tentative Plat


IVC) Draft CC\&R's

After Recording Return To:
Ball Janik LLP
101 SW Main Street, Suite 1100
Portland, OR 97204-3219
Attn.: Barbara Radler

## DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR

THIS DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR
 is made and executed on this ___ day of $\qquad$ 20 by $\qquad$ , a $\qquad$ .

Declarant is the owner of the real property located in the City of Wilsonville, Clackamas County, Oregon and legally described on the attached Exhibit A. Declarant desires to establish a planned community on the property known as " $\qquad$ ," which shall also be part of the master planned development known as "Villebois," which was established and is governed by the Master Plan approved by the City of Wilsonville.

NOW THEREFORE, Declarant hereby declares that the real property described on the attached Exhibit A shall be held, sold and conveyed subject to the covenants, conditions and restrictions declared below, which shall run with the real property and shall benefit and be binding upon all parties having or acquiring any right, title or interest in the real property or any part thereof.

## 1. DEFINITIONS

The terms specified below shall have the following meanings when used in this Declaration:
1.1 ACC. "ACC" shall mean the Architectural Control Committee of the Association formed pursuant to Section 12.
1.2 Articles. "Articles" shall mean the Articles of Incorporation of the Association filed with the Corporation Division of the Oregon Secretary of State, as amended from time to time.
1.3 Assessment. "Assessment" shall mean any assessment levied against one or more Owners by the Association for payment of expenses relating to the Property and shall include Regular Assessments, Special Assessments, Limited Assessments and Reserve Assessments as those terms are defined herein.

TO BE MODIFIED
1.13 Design Guidelines. "Design Guidelines" shall mean the design guidelines described in Section 13.
1.14 Home. "Home" shall mean a dwelling unit located on a Lot and any associated Improvements.
1.15 Improvement. "Improvement" shall mean every structure or improvement of any kind, including without limitation, buildings, sidewalks, driveways, fences, walls, works of art, trees, hedges, plantings and other landscaping, changes in exterior color or shape, site work (such as, without limitation, excavation, grading and utility improvements), and all other product of construction efforts (such as, without limitation, alterations, renovations and reconstruction) on or with respect to the Property or any portion thereof.
1.16 Limited Assessment. "Limited Assessment" shall mean an assessment levied against an Owner by the Association for costs and expenses incurred by the Association for corrective action performed pursuant to this Declaration that is required as a result of the willful or negligent actions or omissions of the Owner or the Owner's tenants, family members, guests, contractors, or invitees. "Limited Assessment" also includes assessments for a common expense or any part of a common expense that benefits fewer than all of the Lots, as determined in the sole discretion of the Board.
1.17 Lot. "Lot" shall mean each of Lots 1 through 81, inclusive, as depicted on the Plat.
1.18 Master Plan. "Master Plan" shall mean the Master Plan of Villebois approved by the City.
1.19 Member. "Member" shall mean each member of the Association and shall include every Owner of a Lot. There shall be two (2) classes of membership in the Association, Class A and Class B, as described in Section 3.3 below.
1.20 Nonprofit Corporation Act. "Nonprofit Corporation Act" shall mean the Oregon Nonprofit Corporation Act (ORS 65.001 to 65.990 ), as amended from time to time.
1.21 Operation and Maintenance Agreement. "Operation and Maintenance Agreement" shall mean the Villebois Operation and Maintenance Agreement between the City and Declarant executed in connection with the recordation of the Plat.
1.22 Owner. "Owner" shall mean any person or entity, including Declarant, at any time owning a Lot, including any vendee under a recorded land sale contract to whom possession has passed, but does not include a tenant or holder of a leasehold interest, a person holding only a security interest in a Lot or a vendor under a recorded land sale contract who has surrendered possession.

# PRELIMINARY DRAFT <br> TO BE MODIFIED 

2.3 Declaration. The Property shall be subject to all of the conditions, covenants, restrictions, and provisions contained in this Declaration, which shall benefit and burden each Lot and all other portions of the Property. Such conditions, covenants, restrictions, and provisions shall be binding on all parties having any right, title or interest in or to the Property, or any part thereof, and each of their respective heirs, personal representatives, successors and assigns. The Property shall be a Class I planned community as defined in the Planned Community Act and shall be subject to all of the terms and provisions of the Planned Community Act. The Property shall be known as "
2.4 Improvements. Declarant does not agree to build any particular Improvements on the Property, but may elect, at Declarant's option, to build any such Improvements. Declarant elects not to limit Declarant's rights to add Improvements not described in this Declaration.

## 3. THE ASSOCIATION

3.1 Organization. Declarant shall, concurrently with the execution and recording of this Declaration, organize the Association as a nonprofit mutual benefit corporation pursuant to the Nonprofit Corporation Act under the name " Homeowners Association" The Articles shall provide for the Association's perpetual existence, but in the event the Association is at any time dissolved, whether inadvertently or deliberately, it shall automatically be succeeded by an unincorporated association of the same name. All of the property, powers and obligations of the Association existing immediately prior to its dissolution shall thereupon automatically vest in the successor unincorporated association. Such vesting shall thereafter be confirmed as evidenced by appropriate conveyances and assignments by the Association to the successor unincorporated association. To the greatest extent possible, any successor unincorporated association shall be governed by the Articles and Bylaws as if they had been drafted to constitute the governing documents of the unincorporated association.
3.2 Membership. Every Owner of a Lot shall, immediately upon creation of the Association and thereafter during the entire period of such Owner's ownership of a Lot, be a Member of the Association. Such membership shall commence, exist and continue simply by virtue of such ownership, shall expire automatically upon termination of such ownership, and need not be confirmed or evidenced by any certificate or acceptance of membership.
3.3 Voting Rights. The Association shall have the following two (2) classes of voting membership:
3.3.1 Class A Members. Class A Members shall be all Owners other than Declarant (except that beginning on the date on which the Class B membership is converted to Class A membership, and thereafter, Class A Members shall be all Owners, including Declarant). Class A Members shall be entitled to one (1) vote for each Lot owned. When more than one (1) person holds an interest in a Lot, all such persons shall be Members. However, only one (1) vote shall be exercised for the Lot. The vote for the Lot shall be exercised as the Owners of the Lot
3.7 Transitional Advisory Committee. Declarant shall form a transitional advisory committee as provided in the Bylaws to provide for the transition of administrative responsibility for the Association from Declarant to the Class A Members.
3.8 Association Rules and Regulations. The Board from time to time may adopt, modify, or revoke such rules and regulations governing the conduct of persons and the operation and use of the Lots and Common Areas as it may deem necessary or appropriate in order to assure the safe, peaceful and orderly use and enjoyment of the Property, without unduly infringing on the privacy or enjoyment of any Owner or occupant of any part of the Property. A copy of the rules and regulations, upon adoption, and a copy of each amendment, modification or revocation thereof, shall be delivered by the Board promptly to each Owner and shall be binding upon all Owners and occupants of all Lots upon the date of delivery. The method of adoption of such rules shall be as provided in the Bylaws.

## 4. ALLOCATION OF COMMON PROFITS AND EXPENSES

4.1 Method of Allocation. The common profits of the Association shall be distributed among, and the common expenses of the Association shall be charged to, the Lots on an equal basis, except as provided in Section 5.4 below. The common expenses of the Association may be assessed on a monthly, quarterly or annual basis as determined by the Board.
4.2 No Exception. No Owner may claim exemption from liability for contribution toward the common expenses of the Association by waiving his or her use or enjoyment of the Common Areas or by abandoning his or her Lot. No Owner may claim an offset against such liability for failure of the Association or the Board to perform its obligations.

## 5. ASSESSMENTS

5.1 Creation of Lien and Personal Obligation of Assessments. Declarant, for each Lot it owns, does hereby covenant, and each Owner of a Lot by acceptance of a conveyance thereof, whether or not so expressed in the conveyance, shall be deemed to covenant to pay to the Association all Assessments or other charges as may be fixed, established and collected from time to time in the manner provided in this Declaration or the Bylaws. Such Assessments and charges, together with any interest, expenses or attorneys' fees imposed pursuant to Section 7.4, shall be a charge on the land and shall be a continuing lien upon the Lot against which the Assessment or charge is made. Assessments, charges and other costs shall also be the personal obligation of the person who was the Owner of the Lot at the time when the Assessment or charge becomes due. Such liens and personal obligations shall be enforced in the manner set forth in Section 7 below.
5.4 Limited Assessments. The Association shall have the authority levy against any Owner a Limited Assessment equal to the costs and expenses incurred by the Association, including legal fees, for corrective action performed pursuant to this Declaration or the Bylaws that is required as a result of the willful or negligent actions or omissions of the Owner or the Owner's tenants, family members, guests, contractors, or invitees, or for a common expense or any part of a common expense that benefits a particular Lot or Lots rather than all the Lots, as determined in the sole discretion of the Board.
5.5 Reserve Assessments. The Association shall have the authority to levy Reserve Assessments necessary to fund the reserve account created under Section 6. The Reserve Assessments for each Lot shall commence upon the sale of the Lot to an Owner other than a Declarant. Reserve Assessments shall not be levied against Declarant-owned Lots. The Reserve Assessments shall be allocated equally among all Lots subject to assessment pursuant to this Section 5.5.
5.6 Statement of Account. Upon the request of an Owner or an Owner's agent, for the benefit of a prospective purchaser, the Board shall make and deliver a written statement of any unpaid Assessments against the Owner's Lot through the date specified in the statement and the purchaser in that case shall not be liable for any unpaid assessments against the Lot that are not included in the statement provided by the Board. The Association is not required to provide a statement of outstanding Assessments if the Association has commenced litigation by filing a complaint against the Owner and the litigation is pending when the statement would otherwise be due.

## 6. RESERVE ACCOUNT; RESERVE STUDY AND MAINTENANCE PLAN

6.1 Reserve Account. Declarant shall establish a reserve account in the name of the Association for the major maintenance, repair and replacement, in whole or in part, of the Common Maintenance Areas and any Improvements located in, on, or under the Common Maintenance Areas for which the Association has maintenance responsibility pursuant to this Declaration, including exterior painting, if the Common Maintenance Areas include any exterior painted surfaces, that will normally require major maintenance, repair or replacement in more than one (1) year and fewer than thirty (30) years. The reserve account need not include those items that could reasonably be funded from the maintenance fund or for which one or more Owners are responsible for maintenance or replacement under this Declaration or the Bylaws. The reserve account shall be funded by the Reserve Assessments. The reserve funds shall be kept separate from other funds of the Association and may be used only for maintenance, repair, and replacement of the Common Maintenance Areas for which reserves have been established as specified in this Section 6.1. However, after the Turnover Meeting, the Board may borrow funds from the reserve account to meet high seasonal demands on the regular operating funds or to meet other unexpected increases in expenses. Funds borrowed to meet unexpected increases in expenses under this Section shall be repaid from Regular or Special Assessments if the Board has adopted a resolution, which may be an annual continuing resolution, authorizing the

TO BE MODIFIED
Association may exercise any or all of the following remedies as allowed under the Planned Community Act:
7.1.1 Lien. The Association shall have a lien against each Lot for any Assessment levied against the Lot and any fines or other charges imposed under this Declaration or the Bylaws against the Owner of the Lot from the date on which the Assessment, fine or charge is due. The provisions regarding the attachment, notice, recordation and duration of liens established on real property under ORS 94.709 shall apply to the Association's lien. The lien shall be foreclosed in accordance with the provisions regarding the foreclosure of liens under ORS 94.709 through 94.719. The Association, through its duly authorized agents, may bid on the Lot at a foreclosure sale, and may acquire and hold, lease, mortgage and convey the Lot.
7.1.2 Suit or Action. The Association may bring an action to recover a money judgment for unpaid Assessments, fines and charges under this Declaration without foreclosing or waiving the lien described in Section 7.1.1. Recovery on any such action, however, shall operate to satisfy the lien, or the portion thereof, for which recovery is made.
7.1.3 Fines. In addition to any other remedies available to the Association hereunder and subject to the requirements of ORS 94.630(1)(n), the Association shall have the right to impose reasonable fines upon an Owner who violates the Declaration, Bylaws or any rules and regulations of the Association, in the manner and amount the Board deems appropriate in relation to the violation.
7.1.4 Other Remedies. The Association shall have any other remedy available to it by law or in equity.
7.2 Notification of First Mortgagee. Upon the advance written request of the first mortgagee of any Lot, the Board shall notify the first mortgagee of any default in the performance of the terms of this Declaration by the Lot's Owner that is not cured within sixty (60) days.
7.3 Subordination of Lien to First Mortgages. The Association's lien for the Assessments and other charges provided for in this Declaration shall be subordinate to the lien of any first mortgage or deed of trust of record. The sale or transfer of any Lot shall not affect the Association's lien. However, the sale or transfer of a Lot pursuant to the foreclosure of a first mortgage lien or the execution of a deed in lieu of foreclosure of a first mortgage lien shall extinguish the Association's lien with respect to Assessments and other charges that became due prior to such sale or transfer. No sale, foreclosure or transfer of a Lot shall extinguish the personal obligation of the Owner who owned the Lot at the time the Assessment or other charge became due.
7.4 Interest, Expenses and Attorneys' Fees. Any amount not paid to the Association when due in accordance with this Declaration shall bear interest from the due date until paid at a
other Lots and shall be subject to the rules and regulations as may be adopted by the Board from time to time pursuant to Section 3.8.
8.3 Title to Common Areas. Declarant shall convey fee title to the Common Areas to the Association free and clear of liens and encumbrances no later than the Turnover Meeting.
8.4 Extent of Owners' Rights. The rights and use of enjoyment in the Property shall be subject to the following easements and all other provisions of this Declaration:
8.4.1 Association's and Owners' Easements. Declarant reserves for itself and grants to the Association and the Board and their duly authorized agents and representatives for the benefit of the Association and all Owners of Lots within the Property the following easements:
(a) An easement under and upon the Common Areas, for installation and maintenance of power, gas, electric, sewer, water and other utility and communication lines and other utility and communication lines and services installed by Declarant or with the approval of the Board;
(b) An easement under and upon the Common Areas, for construction, maintenance, repair, and use of the Common Areas and any Improvements thereon;
(c) The right to have access to the Common Areas and to all Lots as may be necessary for the installation, maintenance, repair, upkeep or replacement of the Common Maintenance Areas, for determining whether or not the use of and/or the Improvements on a Lot are then in compliance with this Declaration, the Bylaws, the Design Guidelines or the rules and regulations of the Association, or to make emergency repairs thereon necessary for the public safety or to prevent damage to the Common Maintenance Areas or to another Lot or Home. In case of an emergency originating in or threatening any Lot or Home or the Common Maintenance Areas, each Owner hereby grants the right of entry to any person authorized by the Board or the Association, whether or not the Owner is present at the time;
(d) Such easements as are necessary to perform the duties and obligations of the Association set forth in this Declaration, the Bylaws and Articles, as the same may be amended or supplemented;
(e) Each Lot shall have an easement over any adjoining Lot as may be required to perform maintenance, repair or reconstruction of the Home located on the benefited Lot. The Owner of the benefited Lot shall be responsible for restoring any damage to the burdened Lot resulting from such use and shall indemnify and hold harmless the owner of the burdened Lot for, from and against any damage, claim, loss or liability resulting from such use; and

## PRELIMINARY DRAFT <br> TO BE MODIFIED

8.4.6 Authority to Grant Easements and Other Property Interests in Common Areas. The Association may execute, acknowledge and deliver leases, easements, rights of way, licenses, and other similar interests affecting the Common Areas and consent to vacation of roadways within and adjacent to the Common Areas. Except for those matters described in ORS $94.665(4)$ (b), which the Board may approve without Owner consent, the granting of any interest pursuant to this Section 8.4.6 must be approved by at least seventy-five percent ( $75 \%$ ) of the Owners present at a meeting of the Association or with the consent of at least seventy-five percent ( $75 \%$ ) of all Owners solicited by any means the Board determines is reasonable. If a meeting is held to conduct the vote, the meeting notice shall include a statement that the approval of the granting of an interest in the Common Areas will be an item of business on the agenda of the meeting.
8.5 Maintenance and Reconstruction Easements. An easement is hereby reserved in favor of the Association and its successors, assigns, contractors, agents, and employees over and across each Lot, for purposes of accomplishing the repair and restoration of the Common Maintenance Areas pursuant to Section 14.

## 9. GENERAL PROVISIONS FOR AND RESTRICTIONS ON USE OF LOTS

9.1 Each Lot, including the Home and all other Improvements located thereon, shall be maintained in a clean and attractive condition, in good repair, and in such a manner as not to create a fire hazard.
9.2 No Lot shall be used except for residential purposes. No building shall be erected, altered, placed, or permitted to remain on any Lot other than one detached single-family dwelling and a private garage or carport. The Home and any other Improvements on a Lot shall comply with all applicable City height restrictions.
9.3 A greenhouse of noncommercial type, or a garden tool shed or other residential accessory buildings or improvements, may be erected, provided that these types of Improvements are of an acceptable architectural design (as determined by the ACC in accordance with Section 12), shall have the exterior painted and, if such structure is separate from the Home, shall be located within the fenced-in patio or courtyard. Such accessory buildings or improvements shall comply with applicable requirements of the City. All Homes shall provide a garage or carport sufficient to accommodate a minimum of two (2) vehicles.
9.4 All garbage, trash, cuttings, refuse, garbage and refuse containers, oil tanks, clothes lines or other service facilities, stored trailers, and recreational vehicles ("RV's") shall be screened from the view of neighboring Homes and from the Common Areas in a manner approved by the ACC. No RV's shall be visibly parked on a Lot for more than five (5) continuous days in a calendar month. The intent of this provision is to minimize the negative visual impact caused by the visible parking or storage of RV's.

# PRELIMINARY DRAFT <br> TO BE MODIFIED 

## 11. MAINTENANCE OBLIGATIONS

11.1 Association Maintenance Obligations. The Association shall be responsible for the maintenance, repair, upkeep and replacement of the following Common Maintenance Areas:
(a) Tracts A, C, D, E, G, J and L, as shown on the Plat, including all paved street surfaces, mountable curbs, street signs, lighting, landscaping, irrigation systems and other Improvements located thereon, to be maintained as private streets and/or alleys;
(b) Tracts B, F, H, I, K, M and N, as shown on the Plat, including all landscaping, irrigation systems, sidewalks, lighting and other Improvements located thereon, to be maintained as a recreational areas, parks, open space tracts and/or linear/buffer tracts;
(c) The Association Landscaping;
(d) [Include City-owned park tract to be maintained by Association??];
(e) All entry monument signage for the Property, including any landscaping, lighting and irrigation systems related thereto;
(f) All cluster mailboxes serving the Lots; and
(g) Any other area determined by the Board to be in the interest of the Association to maintain.

The Association shall regularly inspect, maintain, repair and keep the Common Maintenance Areas in good condition and provide for all necessary services and cause all acts to be done which may be necessary or proper to assure the maintenance of the Common Maintenance Areas. The Association shall perform all maintenance obligations set forth in this Declaration or the Bylaws, any maintenance manual provided by Declarant or the maintenance plan described Section 6 above and shall employ all other commonly accepted maintenance practices intended to prolong the life of the materials and construction of Improvements within the Common Maintenance Areas. Additionally, the Association shall be responsible for performing all maintenance required of the "Obligor" under the Operation and Maintenance Agreement.
11.2 Owner's Maintenance Obligations. Except to the extent Association Landscaping is maintained by the Association, each Owner shall maintain his or her Lot and the Improvements located thereon in a clean and attractive condition, in good repair and in such a fashion as not to create a hazard of any kind. Such maintenance shall include, without limitation, painting or staining, repair, replacement and care of roofs, gutters, downspouts, surface water drainage, walks, driveways, landscaping and other exterior Improvements. In addition, each Owner shall keep his or her Lot free of trash and other unsightly materials. The provisions of the preceding sentence include the areas between the property line of any Lot and

# PRELIMINARY DRAFT <br> TO BE MODIFIED 

proposed landscaping has been submitted to and approved in writing by the ACC. All such Improvements and alterations shall be in conformance with the Design Guidelines, the Pattern Book adopted by the City for each area within Villebois and all other applicable governmental laws, ordinances, conditions of approval, rules and regulations. To the extent that the requirements contained in the Pattern Book or in any applicable governmental laws, ordinances, rules and regulations may be in conflict with the Design Guidelines, the more restrictive standard shall apply. Complete plans and specifications for approval by the ACC must include all material required by the rules of the ACC as provided in Section 12.4 above. In no case shall any plans and specifications be accepted for approval that are inconsistent with the requirements of Section 9.2. The ACC may approve or disapprove plans and specifications as submitted or may approve such plans and specifications with specific conditions to such approval.
12.6 Damages Inadequate. Damages are hereby declared to be inadequate compensation for any breach of the covenants, conditions, and restrictions imposed by this Declaration. Declarant, the ACC, or any Owner may, by appropriate proceedings, enjoin, abate, and remedy any such breach and the continuance
12.7 Nuisance. The result of every act of omission or commission or the violation thereof, whether such covenants, conditions, and restrictions are violated in whole or in part, shall constitute a nuisance, and every remedy allowed by law or equity against such nuisance, either public or private, shall be applicable against every such result and may be exercised by Declarant, the ACC, or by any Owner, and may be prohibited or enjoined.
12.8 Non-Waiver. The provisions contained in this Declaration shall inure to the benefit of and be enforceable by Declarant, the ACC, or any Owner, and each of their legal representatives, heirs, successors, and assigns. Failure by Declarant, the ACC or any Owner or their legal representatives, heirs, successors, and assigns to enforce any of the provisions contained herein shall in no event be deemed a waiver of the right to do so thereafter.
12.9 Estoppel Certificate. Within fifteen (15) business days after an Owner delivers a written request to the ACC , the ACC shall provide the Owner with an estoppel certificate executed by a member of the ACC. The estoppel certificate shall state whether or not the Improvements located on the Lot owned by the requesting Owner comply with the provisions of this Declaration. If the estoppel certificate indicates that the Improvements are not in compliance, then it shall identify the specific non-conforming Improvements and set forth with particularity the nature of the noncompliance. Any purchaser in due course from the Owner, and any mortgagee, beneficiary, or secured party having any interest in the Lot and any associated Improvements, may rely on the estoppel certificate with respect to the matters set forth therein, and the estoppel certificate shall be conclusive as between the ACC, all Owners, and such purchaser, mortgagee, beneficiary, or secured party.
12.10 Defenses. The issuance of an estoppel certificate as described in Section 12.9 shall constitute an absolute defense to claims brought against an Owner pursuant to this Section
13.3 Home Size. The ground floor area of each Home, exclusive of one story open porches, garages, and carports, shall not be less than that required by the City Building Code.
13.4 Foundations. All structures erected shall have full, concrete masonry or concrete or wooden piers and piling foundations as approved by the City and designed to accommodate the surrounding terrain. Foundations and exterior walls of all buildings shall be finished in a suitable and customary manner for each such type of building.
13.5 Height Restrictions. All Homes and other Improvements constructed on the Lots shall comply with the applicable City height restrictions. Any height adjustment granted by the City shall be approved by the ACC, unless the ACC determines that the building will unreasonably restrict the view of neighboring Lots.
13.6 Environmental Conditions. Owners shall insure that design and construction of structures in the Property shall properly withstand environmental conditions, including the protection of the flora on the Property.
13.7 Factory Built Homes. All Homes shall be constructed on the Lots. Mobile homes, factory built homes, or manufactured homes shall not be permitted. Notwithstanding the foregoing, panels constructed off-site but assembled on the Lot shall be permitted.
13.8 Additional Design Guidelines. The ACC shall have the authority, but not the obligation, to promulgate and issue, and thereafter to amend from time to time, additional design guidelines supplementing and/or interpreting, but not contradicting, the design guidelines set forth in this Section 13 or elsewhere in this Declaration. Such guidelines shall be supplied in writing to all Owners and shall be fully binding upon all parties as if set forth in this Declaration and shall be applied by the ACC in reviewing and approving or denying proposed improvements or modifications. The ACC shall take into account any proposed building site envelope in order to minimize any impact on neighboring Lots and shall have authority to establish and modify guidelines as necessary or convenient to further this purpose.
13.9 Activities of Declarant. This Section 13 shall not apply to the activities of Declarant or its affiliates.

## 14. CASUALTY AND CONDEMNATION

14.1 Casualty. The Owner of each Home shall repair, reconstruct, and rebuild the damaged or destroyed portions of his or her Home to substantially the same condition that existed prior to the damage or destruction. In the event of damage to or destruction of the Common Areas or Association Landscaping, the Association shall repair and restore the damaged portion of the Common Areas, unless the holders of at least $75 \%$ of the Class A Member voting power of the Association and the Class B Member, if any, agree that the damaged or destroyed portions shall not be repaired or restored. All repair, reconstruction,

# PRELIMINARY DRAFT 

TO BE MODIFIED
the Property pursuant to the Bylaws must also be given to Declarant by mail or any other delivery method described in Section 17.4 within the time period prescribed in the Bylaws.
15.1.8 The right to review and make copies of all inspection, maintenance and other records of the Association regardless of whether the Turnover Meeting has occurred or Declarant still owns a Lot.
15.1.9 The rights of Declarant under the Planned Community Act, including but not limited to those under ORS 94.550(21), and all other rights reserved for Declarant elsewhere in this Declaration or in the Bylaws.

## 16. DISPUTE RESOLUTION.

16.1 Required Procedure. To the fullest extent allowed by law, all claims, controversies, or disputes, whether they are statutory, contractual, tort claims, and/or counterclaims between or among Declarant, Declarant's successors and assigns, the Association, and/or Owner(s) (collectively, the "Parties" and individually, a "Party") which arise out of or are related to the Property, the Lots, the Homes, the Planned Community Act, this Declaration, the Bylaws, the Articles, the Design Guidelines or the rules and regulations of the Association, or which relate to the interpretation or breach of the Planned Community Act, this Declaration or the Bylaws, the Articles, the Design Guidelines or the rules and regulations of the Association (collectively referred to as "Claims") shall be resolved in accordance with the procedures specified herein. Except as otherwise required by the Planned Community Act, the following matters are excluded from this dispute resolution clause and do not constitute Claims: (i) judicial or non-judicial foreclosure or any other action or proceeding to enforce assessments, fines, interest or a trust deed, mortgage, Association lien, or land sale contract; (ii) a forcible entry and detainer action; (iii) actions by the Association or any Owner related to removal of a structure or other condition that violates this Declaration, the Bylaws, the Design Guidelines or any rules and regulations of the Association; (iv) actions for the appointment of a receiver; (v) provisional remedies such as injunctions or the filing of a lis pendens; or (vi) the filing or enforcement of a mechanic's lien. The filing of a notice of pending action (lis pendens) or the application to any court having jurisdiction thereof for the issuance of any provisional process remedy described in Rules 79 through 85 of the Oregon Rules of Civil Procedure (or corresponding federal statutory remedies), including a restraining order, attachment, or appointment of receiver, shall not constitute a waiver of the right to mediate or arbitrate under this Section, nor shall it constitute a breach of the duty to mediate or arbitrate. The proceeds resulting from the exercise of any such remedy shall be held by the Party obtaining such proceeds for disposition as may be determined by an agreement of the Parties pursuant to a mediation or by the arbitration award.
16.2 Negotiated Resolution. The Parties will seek a fair and prompt negotiated resolution of Claims and shall meet at least once to discuss and seek to resolve such Claims, but if this is not successful, all Claims shall be resolved by mediation, in small claims court, or by binding arbitration as set forth in Sections 16.3, 16.4 or 16.5, as applicable.

PRELIMINARY DRAFT
TO BE MODIFIED
16.7 Confidentiality. The Parties shall keep all discussions of disputes, all settlements and arbitration awards and decisions confidential and shall not disclose any such information, whether directly or indirectly, to any third parties unless compelled to do so by an order of a court of competent jurisdiction. The Parties agree that if a Party breaches its confidentiality obligation then the other Party or Parties to the dispute shall be entitled to seek and obtain any and all equitable remedies, including injunctive relief and specific performance and each Party hereby waives any claim or defense that the other Party has an adequate remedy at law for any such breach and the Parties agree that the aggrieved Party shall not be required to post any bond or other security in connection with any such equitable relief.

## 17. MISCELLANEOUS

17.1 Term. The covenants, conditions and restrictions of this Declaration shall run for a term of thirty (30) years from the date this Declaration is recorded, after which time they shall be automatically extended for successive periods of ten (10) years each, unless amended, modified or terminated by a vote of the Owners holding at least seventy-five percent ( $75 \%$ ) of the total voting power of the Association.

### 17.2 Amendment and Repeal.

17.2.1 This Declaration, or any provision thereof, as from time to time in effect with respect to all or any part of the Property, may be amended or repealed by the vote or written consent of Owners holding at least seventy-five percent (75\%) of the total voting power of the Association and the written consent of Declarant prior to the Turnover Meeting and for a period of ten (10) years thereafter. To the extent any amendment relates to the preservation or maintenance of the Common Areas, such amendment shall also be approved by the zoning administrator of the City.
17.2.2 Upon approval of an amendment as provided herein, the president and secretary of the Association shall execute an instrument amending this Declaration and certifying that the amendment was adopted in accordance with this Declaration and ORS 94.590, which certification shall be properly acknowledged in the manner of acknowledgment of deeds, and the Board, or other duly appointed and authorized persons, shall record the instrument amending this Declaration.
17.2.3 In no event shall an amendment to this Declaration create, limit or diminish any Special Declarant Rights without Declarant's written consent. Additionally, no amendment to this Declaration shall change the boundaries of a Lot, any uses to which a Lot is restricted, the method for determining liability for common expenses, the method for determining the right to common profits or the method of determining voting rights unless the Owners of the affected Lots unanimously consent to the amendment.
written notice of such disagreement to the Association, and the vote or right of consent involved shall then be disregarded completely in determining the proportion of votes or consents given with respect to such matter.
17.8 Lessees and Other Invitees. Lessees, invitees, contractors, family members and other persons entering the Property under rights derived from an Owner shall comply with all of the provisions of this Declaration restricting or regulating the Owner's use, improvement or enjoyment of such Owner's Lot and other areas within the Property. The Owner shall be responsible for ensuring such compliance and shall be liable for any failure of compliance by such persons in the same manner and to the same extent as if the failure had been committed by the Owner.
17.9 Non-Waiver. The failure to enforce any of the provisions of this Declaration at any time shall not constitute a waiver of the right to subsequently enforce such provision.
17.10 Restrictions Construed Together. All of the provisions of this Declaration shall be liberally construed together to promote and effectuate the general plan and scheme of the Property.
17.11 Restrictions Severable. Each of the provisions of this Declaration shall be deemed independent and severable, and the invalidity or partial invalidity of any provision or portion thereof shall not affect the validity or enforceability of any other provision.
17.12 Singular Includes Plural. Unless the context requires a contrary construction, the singular shall include the plural and the plural the singular; and the masculine, feminine or neuter shall each include the masculine, feminine and neuter.
17.13 Captions. All captions and titles used in this Declaration are intended solely for convenience of reference and shall not affect that which is set forth in any of the provisions hereof.
(Remainder of Page Intentionally Left Blank;
Signature Page Follows)

# PRELIMINARY DRAFT <br> TO BE MODIFIED 

## EXHIBIT A

## Legal Description of Property

Lots 1 through 81, inclusive, and Tracts A through N , inclusive, of Clackamas County, Oregon, the plat of which was recorded in the official records of Clackamas County, Oregon on $\qquad$ 20 as Document No. $\qquad$ -

IVD) Copy of Certification of Assessments \& Liens


29799 SW Town Center Loop E Wisonvile, Oregon 97070
(503) 682-1011
(503)682-1015 Fax

## CERTIFICATION OF ASSESSMENTS AND LIENS

'It is the policy of the City of Wilsonville that no permits of any kind shall either be issued or application processed for any applicant who owes or for any property for which there is any payment which is past due owing to the City of Wilsonville until such time as said sums owed are paid." (Resolution \#796)

Project/Property Address: 11490 SW Tooze Road \& 28201 SW 110th Avenue

Aka Tax Lot (s) $\quad 7200,7300,7400,7500,7600 \quad$ on Map (s) _31W15AB
Applicant: Polygon WLH, LLC.
Address: 703 Broadway Street, Suite 510, Vancouver, WA 98660
$\qquad$
Property Owner: Victor C. Chang and Allen Y. Chang
Address: 28201 SW 110th Avenue, Wilsonville, OR 97070

In reference to the above, the City of Wilsonville records show that the following amount is due to the City:
Principal Amnt Due $\$ 43,170.78 \quad \mid$ Current $\square$ NonCurrent
Comments:Per Resolution 2350


Dated: $\square$
Finance Department: $\qquad$
(This certification shall be null and void 120 days following the Finance Department date of signature)

IVE) Subdivision Name Approval

## REQUEST TO RESERVE SUBDIVISION / CONDOMINIUM NAME

Clackamas County Surveyor's Office
150 Beavercreek Rd.
Oregon City, OR 97045
(503) 742-4475 / FAX (503) 742-4481

E-mail address: www.surveyor@clackamas.us

PLAT NAME REQUESTED:
Clermont

|  | TWP/RANGE: | SECTION\#: | TAX LOT\#(s): |
| :--- | :---: | :--- | :--- |
| Location of Plat: | 31 W | 15 AB | $7200,7300,7400,7500,7600$ |


| I understand that if the above name plat is not pending or recorded within two years, the name will be removed from the reserved list. <br> reserved by: Travis Jansen, Pacific Community Design, Inc. |  |  |
| :---: | :---: | :---: |
| DATE: 05/15/18 | TELEPHONE: $\text { (503) } 941=9484$ | FAX: <br> (503) 941 - 9485 |
| EMAIL ADDRESS: travis@pacific-community.com |  |  |
| PLAT SURVEYOR: \# |  |  |
| Travis Jansen, PLS \#57751 |  |  |
| NAME OF DEVELOPER: Polygon WLH LLC |  |  |
| ADDress: 703 Broadway St Suite 510, Vancouver, WA 98660 |  |  |
| DATE: $06 / 06 / 18$ | TELEPHONE: $\text { (360) } 695 \quad 7700$ | $\begin{gathered} \text { FAX: } \\ \left(\begin{array}{l} \text { r } \end{array}\right. \end{gathered}$ |
| EmAIL ADDRESS: jason.baker@polygonhomes.com |  |  |




[^0]:    ${ }^{1}$ Villebois - SAP North PDP 5 Site Plan, Polygon Northwest Company, September 25, 2018.
    ${ }^{2}$ Villebois - PDP $4 N$ Memo, DKS Associates, January 25, 2016.
    ${ }^{3}$ Single family unit count provided by Brad Dillingham, Pacific Design Community, October 9, 2018

[^1]:    ${ }^{4}$ Site plan provided in email from Steve Adams, City of Wilsonville, September 26, 2018.

