

City Council Study Session

AGENDA

April 12, 2016

6:30 pm – 10:00 pm

Call to Order

Public Comment

Note: *This is an opportunity for the public to address the Council. Three-minutes limit per person or five-minutes if representing the official position of a recognized community organization. If you would like to show a video or PowerPoint, it must be submitted or emailed by 5 pm, the end of the business day, to the City Clerk, Melonie Anderson at manderson@sammamish.us*

Topics

- Tamarack Drainage Project Update
- Public Works Standards Discussion
- Pedestrian Safety – Preliminary Discussion

Adjournment

City Council meetings are wheelchair accessible. American Sign Language (ASL) interpretation is available upon request. Please phone (425) 295-0500 at least 48 hours in advance. Assisted Listening Devices are also available upon request.

AGENDA CALENDAR

April 2016			
Tues 4/19	6:00 pm	Special/Joint Meeting City of Issaquah	<p>Presentation: Issaquah Fall City Road Project 10% Design Update Discussion: SE 42nd Barricade Process</p> <p><u>Consent Agenda:</u> Bid Award: Inglewood Hill Trunkline Project Contract: Construction Management Inglewood Hill Rd Project/Perteet Contract Amendment: Inglewood Trunkline Project Design Support/Osborn Interlocal Agreement: Inglewood Trunkline/Sammamish Plateau Water</p>
May 2016			
Tues 5/3	6:30 pm	Regular Meeting	<p>Presentation: METRO 2040 Long Range Plan Note: METRO would like to be able to have a Public Open House on the 2040 Long Range Plan here at city hall on this same date from 5:00 to 6:30 PM Public Hearing/Ordinance: First Reading Critical Area Updates/Shoreline Master Plan Bid Award: 2016 Asphalt Overlay Program Year-End Finance Report & 2015/16 Carryforward Requests (CM)</p> <p><u>Consent Agenda:</u> Contract: 2016 Asphalt Overlay Construction Support During Construction/KBA</p>
Tues 5/10	6:30 pm	Study Session	<p>Discussion: Critical Area Updates/Shoreline Master Program Discussion: Public Works Standards Discussion: Sahalee Way Project Scope</p>
Tues 5/17	6:30 pm	Regular Meeting	<p>Presentation: Electrical Permit/ Inspection Program Feasibility Discussion: Court Services Public Hearing/Ordinance: First Reading Impact Fee Deferrals Public Hearing/Ordinance: First Reading Building Codes Update Ordinance: Second Reading Critical Area Updates/Shoreline Master Plan Resolution: Health & Human Services Task Force Formation</p> <p><u>Consent Agenda:</u> Proclamation: Affordable Housing Week Resolution: Youth Board Appointments Bid Award: Big Rock Park Well Repair/TBD Contract: Fourth on the Plateau Fireworks/TBD Contract: Fourth on the Plateau Event Lighting/TBD Contract: Sound for Events/TBD Contract: Sahalee Way Design/Perteet</p>
Tues 5/24	6:00 pm	Joint Meeting Redmond	
Wed 5/25	5:30 pm	Joint Meeting ISD	
June 2016			

Tues 6/7	6:30 pm	Regular Meeting	<p>Presentation: Parks Commission Hand-off of 2017-22 Parks CIP Presentation: 2017-22 Stormwater CIP Presentation: 2017-22 TIP Presentation: PC Handoff of Stormwater Comprehensive Plan <u>Consent Agenda:</u> Bid Award: 212th Way Repair (Snake Hill)/TBD Contract: 212th Way Repair Construction Support/TBD Ordinance: Second Reading Impact Fee Deferrals Ordinance: Second Reading Building Codes Update</p>
Tues 6/14	6:30 pm	Study Session	<p>Discussion: 2017-2022 Parks CIP Discussion: 2017-2022 Stormwater CIP Discussion: 2017-2022 TIP Discussion: Non-Motorized Projects (part of TIP) Discussion: Intersection Improvement Projects (part of TIP) Discussion: Neighborhood Projects (part of TIP)</p>
Tues 6/21	6:30 pm	Regular Meeting	<p>Discussion: Stormwater Comp Plan Public Hearing/Resolution Adopting 2017-22 TIP Public Hearing/Resolution: Adopting 2017-22 Parks CIP Public Hearing/Resolution: Adopting 2017-22 Stormwater CIP</p> <p><u>Consent Agenda:</u></p>
July 2016			
Tues 7/5	6:30 pm	Regular Meeting	<p>Presentation: PC Handoff Wireless Regulations PC Handoff/Public Hearing: Ordinance First Reading Wireless Regulations Public Hearing/Ordinance: First Reading Adopting Stormwater Comp <u>Consent Agenda:</u> Contract: Major Stormwater Facility Repair/TBD</p>
Tues 7/12	6:30 pm	Study Session	<p>Discussion: Wireless Regulations Discussion: YMCA Property Development Discussion: Trails, Bikeways & Paths Planning Update Discussion: Iss. Fall City Road Project 30% Design Update</p>
Tues 7/19	6:30 pm	Regular Meeting	<p>Proclamation: Women's Equality Day Public Hearing/Ordinance: Second Reading Wireless Regulations Public Hearing/Ordinance: Second Reading Adopting Stormwater Comp Plan <u>Consent Agenda:</u> Bid Award: 228th & Iss. Pine Lake Road Intersection Project/TBD Bid Award: 212th Avenue Non-motorized Project/TBD</p>
Aug 2016			
Sept 2016			
Tues 9/6	6:30 pm	Regular Meeting	<p>Proclamation: Mayor's Month of Concern Food Drive Presentation: PC Handoff of Stormwater Design Manual & LID Code Revisions <u>Consent Agenda</u> Bid Award: SE 4th Street Contract: Trails, Bikeways and Path Plan Consultant/TBD Contract: YMCA Property Development Plan Consultant/TBD Contract: 2016 Non-Motorized Design/TBD Contract: SE 4th Street Construction Support/TBD Contract: Beaver Lake Shop Roof Replacement/TBD</p>
Tues 9/13	6:30 pm	Study Session	<p>Presentations & Discussion: 2017-18 Biennial Budget Discussion: Revised Surface Water Manual & LID Update</p>

Tues 9/20	6:30 pm	Regular Meeting	Discussion: Revised Surface Water Manual & LID Code Revisions <u>Consent Agenda</u> Contract: ADA Transition Plan Completion Consultant/TBD
Oct 2016			
Tues 10/4	6:30 pm	Regular Meeting	Presentations & Discussion: 2017-18 Biennial Budget Public Hearing/Ordinance: First Reading Adopting Revised Surface Water Manual & Revised LID <u>Consent Agenda:</u> Contract: Intersection Improvement Design/TBD Contract: Neighborhood Projects Design/TBD Contract: ADA Transition Plan Completion Consultant/TBD
Tues 10/11	6:30 pm	Study Session	Presentations & Discussion: 2017-18 Biennial Budget Discussion: 2017-2018 Human Service Grants
Tues 10/18	6:30 pm	Regular Meeting	Presentations & Discussion: 2017-18 Biennial Budget Ordinance: Second Reading Adopting Revised Surface Water Manual & Revised LID Code <u>Consent Agenda:</u> Bid Award: 2016 Patching Projects/TBD Bid Award: 2016 Guard Rail Repair/TBD
Nov 2016			
Tues 11/1	6:30 pm	Regular Meeting	Presentations & Discussion: 2017-18 Biennial Budget <u>Consent Agenda:</u> Bid Award: 228 th & Iss. Pine Lk Road Intersection/TBD
Tues 11/8	6:30 pm	Study Session	Presentations & Discussion: 2017-18 Biennial Budget PC Handoff: 2016-2017 Comprehensive Plan Amendment Docket
Tues 11/15	6:30 pm	Regular Meeting	Presentations & Discussion: 2017-18 Biennial Budget Public Hearing/Resoluition: 2016-2017 Comprehensive Plan Amendment Docket <u>Consent Agenda:</u> Resolution: Final Acceptance Major Stormwater Drainage Facility Repair Project Contract: 2017 Water Quality Monitoring/TBD Approval: 2017-2018 Human Service Grants
Dec 2016			
Tues 12/6	6:30 pm	Regular Meeting	<u>Consent Agenda:</u> Resolution: Final Acceptance Inglewood Trunkline Project Resolution: Final Acceptance 2016 Asphalt Overlay Program Resolution: Final Acceptance 212 th Repair Resolution: Final Acceptance 212 th Avenue Non-motorized Project Approval: 2017/2018 Human Service Grants
Tues 12/13	6:30 pm	Special Meeting	Parks, Public Works & Facilities Maintenance Contracts Parks & Public Works Engineering Support Services Contracts
Tues 12/20	6:30 pm	Regular Meeting	
To Be Scheduled		Parked Items	Parked Items

<ul style="list-style-type: none"> • Puget Sound Energy Franchise • Economic Development Plan • NE 42nd Street Barricade Process • Traffic Impact Fee Update • ITS System Project Final Acceptance • Department Reports • Adoption Public Works Standards • Off-Leash Dogs • Discussion: Concurrency Ordinance • Comprehensive Plan Transportation Element (2017) Contract: SE 24th St Sidewalk Design/TBD • Discussion: SE 4th Street Project Scope 	<ul style="list-style-type: none"> • Review of regulations regarding the overlay areas, low impact development and special protection areas for lakes • Permit Notification Process • Discussion: Inner City Bus Service 	<ul style="list-style-type: none"> • Intra-City Transit Services • Mountains to Sound Greenway • Sustainability/Climate Change • Water Quality Update
--	---	---

If you are looking for facility rentals, please click [here](#).

March

April 2016

May

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2 6 p.m. Short Course on Local Planning Bellevue City Hall
3	4	5 8:30 a.m. Volunteer Trail Work 9:30 a.m. Health/Human Services Committee Meeting 5:30 p.m. City Council Joint Meeting	6 8:30 a.m. Volunteer Trail Work 6:30 p.m. Parks and Recreation Commission Meeting	7 8:30 a.m. Volunteer Trail Work 9 a.m. Transportation Committee Meeting 6:30 p.m. Planning Commission Meeting	8	9 1:30 p.m. Master Gardener Workshop: Fruits & Berries
10	11	12 8:30 a.m. Volunteer Trail Work 6:30 p.m. City Council Study Session	13 8:30 a.m. Volunteer Trail Work	14 8:30 a.m. Volunteer Trail Work	15 8:30 a.m. Art Exhibit - Gail Twelves "Eye to Eye"	16 9 a.m. Celebrate Earth Day!
17 5 p.m. Call to Artists - 10th Annual Sammamish Arts Fair	18	19 8:30 a.m. Volunteer Trail Work 9:30 a.m. Public Safety Committee Meeting 6 p.m. Issaquah City Council	20 8:30 a.m. Volunteer Trail Work 10 a.m. Communications Committee Meeting 6 p.m. Sammamish Youth Board Meeting	21	22 6 p.m. Exhibiting Artist Reception	23 11 a.m. Sammamish Walks
24 10 a.m. Sammamish Spring Recycling	25 6:30 p.m. Arts Commission Meeting	26	27	28	29	30 10 a.m. Rig-A-Palooza 10 a.m. Sammamish Community & Aquatic Center Grand Opening Celebration 1 p.m. "Au-Some Artists!"--FREE Inclusive Event

If you are looking for facility rentals, please click [here](#).

April

May 2016

June

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3 6:30 p.m. City Council Meeting	4 6:30 p.m. Parks and Recreation Commission Meeting	5 6:30 p.m. Planning Commission Meeting	6	7
8	9	10 6:30 p.m. City Council Study Session	11 4 p.m. Sammamish Farmer's Market	12	13	14 9 a.m. ARAS Bicycle Drive 10 a.m. Sammamish Walks 1:30 p.m. Master Gardener Workshop: Propagation
15	16	17 6:30 p.m. City Council Meeting	18 4 p.m. Sammamish Farmer's Market 6 p.m. Sammamish Youth Board Meeting	19 6:30 p.m. Planning Commission Meeting	20	21 10 a.m. Sammamish Walks 10 a.m. Big Rock Grand Opening
22	23 6:30 p.m. Arts Commission Meeting	24 6 p.m. Joint Meeting with Redmond City Council	25 4 p.m. Sammamish Farmer's Market 5:30 p.m. Joint Meeting with Issaquah School Board	26	27	28
29	30	31				



MEMORANDUM

Date: April 7, 2016

To: City Council
Lyman Howard, City Manager

From: John A. Cunningham, PE; Public Works Director

Re: Tamarack Neighborhood Drainage Project

At the City Council meeting on April 12, 2016 staff will be providing an overview of the progress with the Tamarack neighborhood drainage project.

The following items will be covered in detail in the presentation:

- Project History
- Proposed Plan, Budget
- Summary of Work Completed to Date
- Project Next Steps

Project History:

The Tamarack neighborhood is one of the oldest plats in the City of Sammamish. This development was platted prior to the incorporation of the City and current development standards. Streets and drainage ditches within Tamarack are privately owned and do not meet current design requirements. The Tamarack neighborhood and surrounding streets are experiencing the pressures of development. Portions within Tamarack are within erosion and landslide hazard areas and are regulated by the City's Emergency Surface Water Ordinance No. O2014-373. This ordinance requires developments within the hazard areas to tight line drainage.

The Tamarack neighborhood has localized drainage problems in the vicinity of 209th Avenue NE and NE 4th Street. Windward Environmental was hired in 2011 to assist staff in completing project development and conceptual design alternatives. In 2012, the City hired Osborn Consulting for the preliminary design.

During development of the 2011/2012 budget, the City Council expressed interest in determining what would be required to upgrade stormwater facilities in the Tamarack neighborhood to resolve existing drainage problems and support future development.

During the April 10, 2012 study session, then Senior Stormwater Program Engineer, Eric LaFrance, shared the three drainage resolution alternatives that were developed for the Tamarack neighborhood. The first (Alternative A) was to divert flows to the George Davis Creek (AKA Inglewood Creek) and was not recommended due to the potential environmental impacts to the

creek. The other two options (Alternative B and C) included connecting the Tamarack neighborhood to existing stormwater systems to the Tlingit neighborhood that ultimately outfalls into Lake Sammamish. Both of these options included installing pipes in private streets and/or on private property that would require easements. At that meeting the Council asked staff to continue to refine options B and C.

Proposed Plan, Budget

In 2015, the City Council approved continuing with the design of Phase 1 of the project, with an amount not exceeding \$271,000.00. The scope of Phase 1 includes the design of a storm drainage collection and conveyance system that will ultimately outfall into Lake Sammamish.

In February 2016, the City Council awarded Osborn Consulting a contract for design of the Tamarack Drainage Improvement Project in the amount of \$183,980.00, funded through the Stormwater Capital Fund. Currently there is no approved funding for project construction.

Summary of Work Completed to Date

The project has proceeded with the initial design by our consultant, Osborn Consulting. The initial design includes the downstream analysis, topographic survey and acquisition of the necessary easements for project construction.

On March 9th, 2016, a meeting was held with the property owners in the vicinity of the project to discuss the scope of the project and address the need for drainage easements.

Currently, staff has acquired the necessary right of entry agreements to perform the topographic survey within the Tamarack area. Staff is currently working with the property owners along Lake Sammamish for a right of entry agreement to survey and study the existing outfall location. Once these agreements are in place the topographic survey can proceed.

Overview of Neighborhood Public Meeting

Date: Wednesday, March, 9 2016

Time: 6 – 7:30 pm

Location: City Hall Council Chambers

Presentation Team

Andrew Zagars, City Engineer

Suzan Cesar, Special Projects Manager

Derya Dilmen, Project Manager

Robert Parish, Osborn Consulting

Overview of Public Comments

Overall the property owners in attendance were in favor of installation of the proposed drainage improvements. Concerns expressed were related to possible impacts to the adjacent properties and fence locations. These concerns have been noted and will be addressed in the project design as it proceeds. Discussions also occurred for a possible public trail connection through the

neighborhood and adjacent developments. Public comment was mixed regarding inclusion of this trail.

As the design and acquisition of necessary easements proceed, staff will be coordinating more one-on-one meetings with the neighbors and the general public.

Project Next Steps:

The project is proceeding with the acquisition of the necessary easements. Once the necessary easements have been acquired the project design will proceed with alignment analysis, conveyance system sizing and stormwater treatment options.

Project Timeline:

Preliminary Design	May 2016 to August 2016
Present Preliminary Design to Council	September 2016
Public Open House	September/ October 2016
Final Design	October 2016-December 2016
Bidding (Contingent on Funding)	May 2017
Construction (Contingent on Funding)	June 2017-August 2017



MEMORANDUM

DATE: April 7, 2017
TO: City Council
FROM: Andrew Zagars, P.E., City Engineer
RE: City Council Review of Public Works Standards (PWS) Update

Summary:

This memo is to provide a brief summary of the upcoming presentation to the Council on the update to the Public Works Standards. The intent of the presentation is to begin discussions on topics of concern as brought up by the Council, staff, and the public.

The current Interim Public Works Standards (PWS) were adopted on April 19, 2000 by Ordinance No. O2000-60. Staff are currently working to update the adopted standards with the following goals in mind:

- Improve document organization and format.
- Improve document clarity and internal consistency with code and other policies and developed plans such as the Trails, Bikeways & Paths Plan.
- Update standards to be consistent with City Council direction.
- Update standards to provide clarification based on Hearing Examiner feedback.
- Maintain compatibility with regional, state and federal regulations.

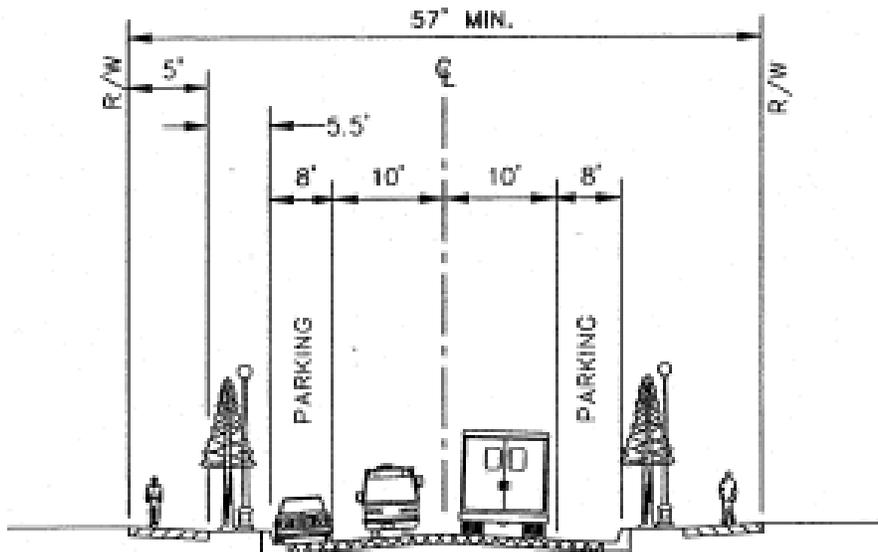
In order to best proceed with Council review and approval of the Public Works Standards, we are proposing to present the major items that have been discussed with the Planning Commission and City Council. The discussion items include the recommendations made by the Planning commission to the City Council on February 16, 2016. Items to be discussed include the following;

- Street Classifications
- Roadway Sections for local roads
- Connectivity
- Connection to Substandard Streets
- Right-of-Way Street Tree List
- Deviations from Public Works Standards and Process

A copy of the memorandum sent on February 2, 2016 is included to provide more a more detailed background for each item. Following the discussion on these topics, staff will work with Council to determine the best approach to review the standards document as a whole and the remaining topics of concern.

The current version of the Public Works Standards has been posted on the City website for review and comment by the public and staff.

Please feel free to contact me if you have any questions prior to our meeting.



**ROADWAY SECTION
LOCAL ROAD
DETAIL**

N.T.S.



EXPIRES: 4/30/01

NOTES:

1. ADD 5' OF PAVEMENT WIDTH EACH SIDE AND 10' OF RIGHT-OF-WAY WIDTH WHEN BIKE LANES ARE REQUIRED.
2. ON-STREET PARKING MAY BE REDUCED WITH CITY ENGINEER'S APPROVAL FOR CUL-DE-SAC STREETS.

CITY OF SAMMAMISH DEPARTMENT OF PUBLIC WORKS			
ROADWAY SECTION LOCAL ROAD			
APPROVED BY CITY ENGINEER		DATE	
OWN JM	DES SPS	DATE MARCH-15-2000	FILE FIG01-05

REV



Memorandum

Date: February 16, 2016

To: City Council

From: Frank Blau, Planning Commission Chair

Re: Public Works Standards – Planning Commission Recommendations

The City's Interim Public Works Standards (Interim Standards) were adopted on April 19, 2000 by Ordinance 02000-60. The Planning Commission began its review of the City's Interim Standards on May 21, 2015. At that time staff presented a summary of policy and development regulations within the Interim Standards the City Council had requested be reviewed. These items included: street classification for local roads, right-of-way and local street widths, connections to substandard streets, street connectivity language and the proposed street tree list. At work sessions on July 23 and September 3, staff presented their recommendations on these items for review by the Planning Commission.

On September 17, 2015, the Planning Commission held a public hearing on the proposed revisions to the Interim Standards. While the Planning Commission continuously took public comment following the work sessions on the revised Public Works Standards, several people provided testimony at the September 17th public hearing. At the conclusion of their deliberations, following the public hearing, the Planning Commission voted 5-0 to recommend the following revisions to the City's Public Works Standards to the City Council:

Chapter 9 - Street Classification (See attachment A)

In order to maintain compatibility with regional, State and Federal regulations related to street classification designations and to promote clarity and internal consistency, staff recommended revisions to the City's current street classification definitions. The roadway classifications were reviewed to define clear classification criteria such as low speeds within neighborhoods, emphasis towards total street design requirements, traffic volumes, roadway function, and Federal roadway classification criteria. The Planning Commission also reviewed the addition of a definition for the "Woonerf" concept for alleyways as currently there is no definition or requirements within the Public Works Standards for this concept.

Exhibit 1

The Planning Commission considered changes to the verbiage and clarification of the definitions for Street Classification. Following is a list of the Planning Commission's recommendations for City Council consideration related to Street Classifications. These recommendations are summarized in more detail in Attachment A – Draft Chapter 9, Public Works Standards, Street Classification:

1. Change the designation of the local road classification from “Local Road Feeder” to “Neighborhood Collector.”
2. Clearly define the function of each roadway classification and the range of daily traffic volumes typically associated with the different roadway classification definitions.
3. Clearly define the required design elements for bicycle and pedestrian facilities to be included in each different roadway classification.
4. Include a definition and design requirements for a “Woonerf” roadway in the Public Works Standards.

Roadway Sections (See Attachment B)

Based on previous City Council direction, since approximately May of 2013, Public Works staff has regularly approved roadway variations to reduce required pavement widths from 36 feet to 28 feet for local roads. To update the Public Works Standards to be consistent with this City Council direction, the Planning Commission reviewed the local road cross sections and corresponding required right-of-way widths.

Following is a list of Planning Commission recommendations related to roadway cross sections and right-of-way widths. These recommendations are also detailed in Attachment A – Draft Chapter 9, Public Works Standards, and Attachment B – Proposed Roadway Section Details:

1. The local road section standard will consist of a 52 foot right-of-way width, 28 feet of paved roadway surface, a 5 foot wide landscape strip on both sides of the street and a 5 foot wide sidewalk on both sides of the street. Parking will be allowed only on one side of the roadway.
2. Include an option to allow Low Impact Development drainage facilities to be located within the roadway right-of-way through an approved deviation process. This option would require a 60 foot wide right-of-way width, 28 feet of paved roadway surface, a minimum 8 foot wide landscape strip for drainage facilities on each side of the street and a 5 foot wide sidewalk on each side of the street.
3. Include an option to allow for parking to be provided on both sides of the roadway. This option will require approval through a deviation process which shall clearly justify the need for the additional parking. This option will require

a 60 foot wide right of way width, a 36 foot paved roadway surface, a 5 foot wide landscape strip on each side of the roadway and a 5 foot wide sidewalk on each side of the roadway. City approved traffic calming measures will also be required with this option.

Chapter 7, Section 7.5 – Connectivity (See Attachment C)

Staff recommended adding a section to the Public Works Standards requiring that new developments look for opportunities to connect the transportation system for both motorized and non-motorized users and to promote future connectivity on a city wide basis when new development is adjacent to undeveloped parcels. This recommendation is consistent with SMC 21A.60.070(2), which states: “The proposed circulation system of a proposed subdivision, short subdivision or binding site plan shall intersect with existing and anticipated streets abutting the site at safe and convenient locations, as determined by the City Engineer.” The recommendation also implements Transportation Policies T-2.6 and T-7.6 from the recently adopted 2015 Comprehensive Plan.

Additionally, within the Interim Standards there is no restriction on the number of residential units that may gain access to a public street from a single access point or roadway. For primarily emergency response purposes, staff recommended restricting the total number of residential dwelling units allowed to gain access to a public roadway via a single access to no more than 100.

The Planning Commission considered this proposed change to the Public Works Standards and recommends the following access standards which are detailed in Attachment C – Draft Chapter 7, Section 7.5, Public Works Standards:

1. In order to provide transportation network connectivity, new development street layouts shall continue streets and pedestrian connections to adjoining existing development(s) or to their anticipated locations where adjoining property is not yet developed.
 - i) Where existing adjoining properties have planned road and trail systems, physical connections are required to be constructed by the new development.
 - i) Where adjoining properties contain existing roadway ends, new development shall be required, as determined by the City, to connect to these existing roadway ends.
 - ii) When a connection road exceeds serving 100 residential units, a secondary access point shall be required.

Chapter 7, Section 7.6 - Connection to Substandard Streets (See Attachment C)

Section 15.100 of the city’s Interim Standards has been the cause for reoccurring appeals and has been cited by the City’s Hearing Examiner as an area of regulation requiring clarification. Currently, project applicants are required to improve substandard streets (public or private) to meet the city’s Interim Standards. The

Exhibit 1

extent of improvements required to comply with this regulation is beyond the City's legally allowable "nexus" authority which has made some connections between new neighborhoods and existing neighborhoods impossible.

For reference, the interim standard reads as follows:

"PWS.15.100 Developments on substandard streets.

All new developments which obtain access from substandard public or private streets shall be required to construct all necessary street improvements to bring any street up to current City standards prior to final approval. Such improvements shall be made from the point of access to the closest intersection of a public street that meets current standards. Street improvements may include but are not limited to curb and gutter, sidewalk, street storm drainage, street lighting, traffic signal modification, relocation or installation, utility relocation, and street widening all per these standards."

The Planning Commission recommends that the City Council adopt language requiring improvements to existing roadways by a new development in those cases where the existing roadway being connected to either does not meet current standards or there is a documented safety issue with the existing roadway that needs to be addressed. The following recommendations are detailed in Attachment D – Draft Chapter 7, Section 7.6, Public Works Standards:

4. In those cases when the existing and new roadways are not the same paved width, required transition lengths (L) for such connections to existing roadways shall be determined by multiplying the posted speed limit (S) times the required change of width through the taper (W), ($Length = W \times S$), or by the continuation of the required width to the nearest intersection, whichever is shorter. In the event the nearest intersection is with a higher volume roadway, such as an arterial, the transition shall extend to the intersection.
5. When the connection is to an existing unimproved right-of-way consisting of a gravel or dirt surface, the new development shall construct a minimum of a half-street improvement within the existing nonstandard right of way section. Said half street improvement shall extend beyond the limits of the new development to the nearest intersection with an improved roadway or to where a transition to an existing asphalt or concrete road surface can be achieved. A minimum 20 foot width of roadway asphalt or concrete surface shall be required within either the half street improvement or the transition to the nearest intersection whichever is applicable in each individual case.
6. If there is a gap in pedestrian in facilities beyond a roadway transition to the nearest intersection or to the nearest existing pedestrian facilities within a 1 block limit, the developer shall be required to install an approved pedestrian facility (i.e. sidewalk, pathway, or paved shoulder) when these locations are shown on an adopted sidewalk and pathway plan, or along a roadway classification of neighborhood collector in conjunction with safe routes to school.

Appendix G – Right of Way Street Tree List (See Attachment D)

Section 15.520 Street Trees of the Interim Standards has a very limited list of approved trees that are allowed to be planted within the right-of-way. In order to promote diversity and a healthy tree canopy within the right-of way, the Planning Commission recommends adopting the proposed street tree list as detailed in Attachment E – Draft Appendix D, Public Works Standard:

The Planning Commission has enjoyed working on these new Public Works Standards with City staff and thanks the City Council for the opportunity to be involved in the drafting of them. The Commission feels the proposed new Standards will promote a more desirable, livable community and that the proposed Standards better align the look and feel of new development in the city with the City's goals and policies as expressed in the newly adopted 2015 Comprehensive Plan. The Planning Commission strongly recommends that these new Public Works Standards be adopted by the Sammamish City Council. Thank you.

Exhibit 1

Chapter 9. Street Classification

Federal and State guidelines require that streets be classified based on function. The City mainly classifies streets as arterial or non-arterial (local). Other classifications include alley and private streets.

9.1. Arterial Streets

Arterials provide a high degree of vehicular mobility through effective street design and by limiting property access to the right-of-way. Most vehicle trips on arterials are through-traffic. Arterials are divided into three classes: Principal, Minor, and Collector Arterials. Higher classification arterials (Principal being the highest), have larger traffic volumes, more through-traffic, longer trips, and fewer access points. Criteria for Arterial Streets are included in Table 9.1 below.

- A. Principal Arterials have higher levels of local land access controls, with limited driveway access, and have regional significance as major vehicular travel routes that connect metropolitan areas. *(Examples: 228th Ave NE/SE, Sahalee Way and Issaquah Pine Lake Rd)*
- B. Minor Arterials generally provide a high degree of intra-community connections and are less significant than Principal Arterials when considering regional mobility. *(Examples: E Lake Sammamish Pkwy, Inglewood Hill Road and 244th Ave SE-NE)*
- C. Collector Arterials assemble traffic from the interior of an area/community and deliver it to the closest Minor or Principal Arterial. Collector Arterials provide mobility, and access to property. *(Examples: 205th PI NE, 248th Ave SE, and SE 24th St.)*

Table 9.1 Street Classification Characteristics (typical)

	ARTERIAL STREETS		
	Principal	Minor	Collector
Function	<ul style="list-style-type: none"> - Connect cities and urban centers with minimum delay - Channel traffic to Interstate system - Accommodate long and through trips 	<ul style="list-style-type: none"> - Connect activity centers within the City - Connect traffic to Principal Arterials and Interstate - Accommodate some long trips 	<ul style="list-style-type: none"> - Access to community services and businesses - Connect non-arterial to Minor and Principal Arterial - Accommodate medium-length trips
Minimum Right of Way (1)(2)	90 feet	66 feet	66 feet
Lane Width	11 feet	11 feet	11 feet
Parking Lane/Width	None	Requires City Engineer Approval/8 Feet	Requires City Engineer Approval/8 Feet
Curb to Curb Width(3)	64 feet	40 feet	40 feet
Sidewalk Width	Both Sides: 6 feet' wide (commercial areas may require up to 10 feet widths at discretion of the City Engineer	Both Sides: 6 feet' wide (commercial areas may require up to 10 feet widths at discretion of the City Engineer	Both Sides: 6 feet wide
Planter Strip Width(4)	Both sides 5 feet wide	Both sides 5 feet wide	Both sides 5 feet wide
Half Street Width(5)	25 feet	28 feet	28 feet
Design Speed (mph)	- 35-45	30-35	25-35
Daily Volumes (vpd)	>15,000	7,000-20,000	1,500- 10,000
Lane	Two or more	Two or more	Two or more
Striping	Travel lanes delineated	Travel lanes delineated	Travel lanes may be delineated

	ARTERIAL STREETS		
	Principal	Minor	Collector
Buses/Transit Stops	Allowed	Allowed	Allowed
Bicycle Facilities	Lanes, shared lanes, or signage	Lanes, shared lanes, or signage	Lanes, shared lanes, or signage
Pedestrian Facilities	- Sidewalks both sides - Amenity strips	- Sidewalks both sides - Amenity strips	- Sidewalks both sides - Amenity strips

(1) Does not include easements for public and private utilities.

(2) ROW may be increased to accommodate Parking or Rain Gardens

(3) Minimum Width - Land use Density or Offsite Parking Provisions may require more on-street Parking

(4) Does not include curb

(5) Minimum width includes Eleven-foot lanes and Four-foot shoulders.

9.2. Non-Arterial Streets

Streets that are not designated as arterials are non-arterial streets. Sammamish divides non-arterial streets into Neighborhood Collector Streets and Local Streets. Criteria for Non-Arterial Streets are included in Table 9.2 below.

Table 9.2 Non-Arterial Streets

	NON-ARTERIAL STREETS	
	Neighborhood Collector	Local
Function	- Connect Local to Arterials - Provide local access - Accommodate short trips to neighborhood destinations - Limited Driveway Access.	- Provide local access
Minimum Right of Way Width ⁽¹⁾⁽²⁾	52 feet	52 feet
Lane Width	10 feet (min)	10 feet (min)
Parking Lane Width	8 feet	8 feet
Curb to Curb Width ⁽³⁾	28 feet	28 feet

	NON-ARTERIAL STREETS	
	Neighborhood Collector	Local
Parking	One Side	One Side
Sidewalk Width	5 feet	5 feet
Planter Strip Width ⁽⁴⁾	5 feet	5 feet
Half Street Width ⁽⁵⁾	20 feet	20 feet
Design Speed (mph)	25	25
Daily Volumes (vpd)	< 1,500-5,000	< 1500
Striping	No centerline striping	No centerline striping
Buses/Transit Stops	Allowed for short segments None (School Only)	Not allowed
Bicycle Facilities	Shared lanes/signs	No specific bicycle facilities; may have signed route
Pedestrian Facilities	- Pedestrian access through use of sidewalks, trails, or other	- Pedestrian access through use of sidewalks, trails, or other

⁽¹⁾Does not include easements for public and private utilities.

⁽²⁾ROW may be increased to accommodate additional Parking or Low Impact Storm Drainage facilities.

⁽³⁾Minimum Width - Land use Density or Offsite Parking Provisions may require more on-street Parking.

⁽⁴⁾Does not include curb.

⁽⁵⁾Minimum width includes Ten-foot lanes and One-foot shoulders.

9.3. Alley

Alleys are considered private roads and are governed by the following criteria.

1. Allowed for primary access only when lots served have full frontage on a public street.
2. Serves a maximum of 30 lots, with a maximum length of 400 feet, no cul-de-sacs, and no dead ends if serving more than four lots.

3. When an alleyway is to be provided with utilities, the alley shall be located within a utility easement.
4. Minimum alley tract (easement if circumstances require) width of 20 feet with a pavement surface of 16 feet (including thickened edge), based on a five-foot structure setback from property line or edge of tract (easement). For differing structure setback requirements, alley configuration shall be designated to provide for safe turning access to properties.
5. Alleyways shall be provided with a paved surface, a thickened edge on one side and cross slope in one direction.
6. Alleys will be allowed only when lots have frontage on a public street.
7. Alley entry shall be provided by a driveway cut.
8. Construction and inspection standards for public roads apply for alleys unless otherwise noted within these guidelines.

9.4. Woonerf

Woonerfs are considered private roads and are governed by the following criteria.

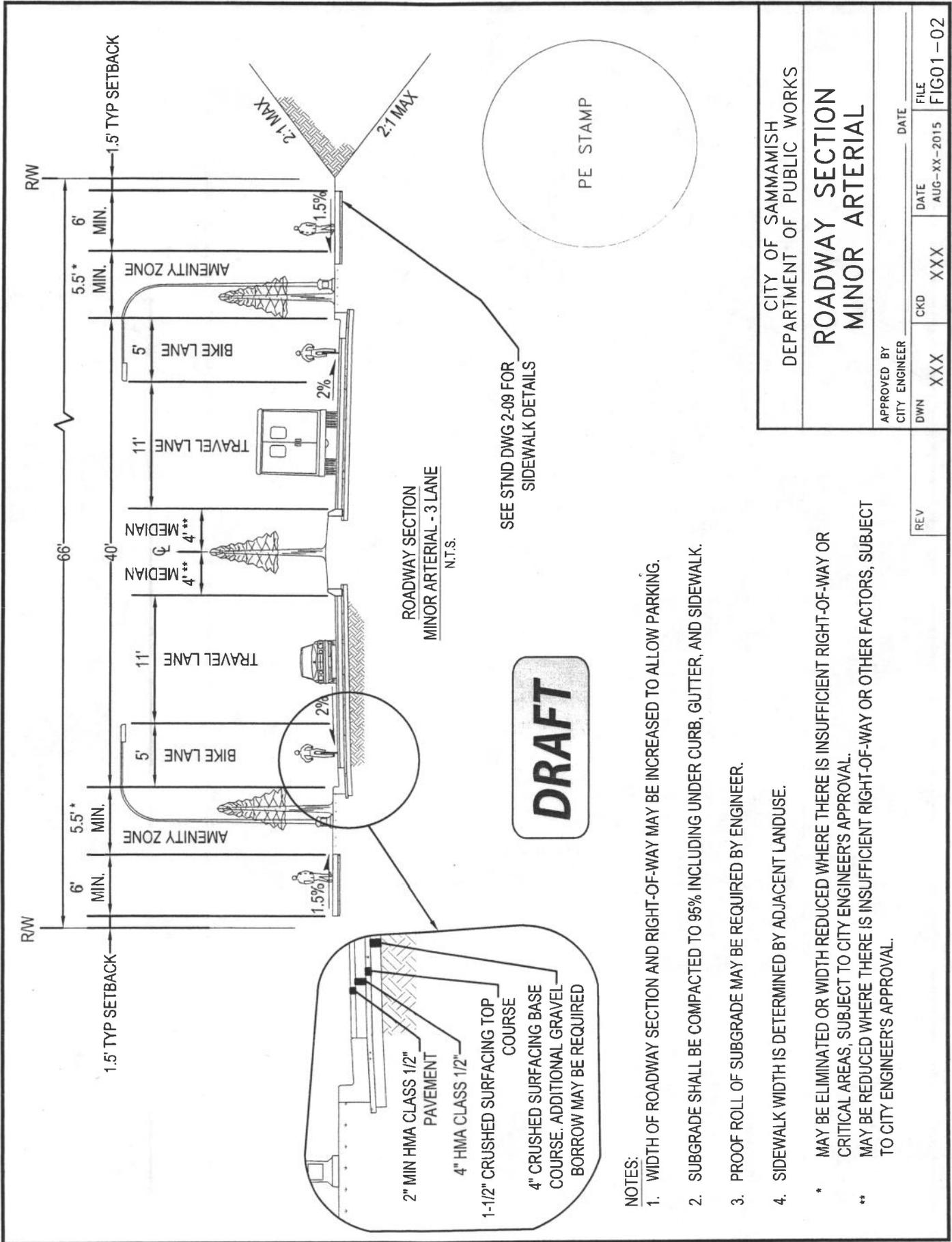
1. Shall include the following core design concepts
 - i. Pedestrian friendly design.
 - ii. Clear distinct entrance.
 - iii. Required on-street parking. Parking can be parallel or perpendicular and grouped together. Parking is located off the access width of the Woonerf.
 - iv. Traffic calming measures are required.
 - v. Must incorporate outdoor furnishings such as benches and landscaping.
2. Must follow standards for alleys as described in section 9.3.

9.5. Private Street

A private street is a privately owned and maintained street providing vehicular access within a property or properties. Refer to Chapter 12.8 Private Streets and Alleys for more information.

Exhibit 2
Attachment A

Attachment B



NOTES:

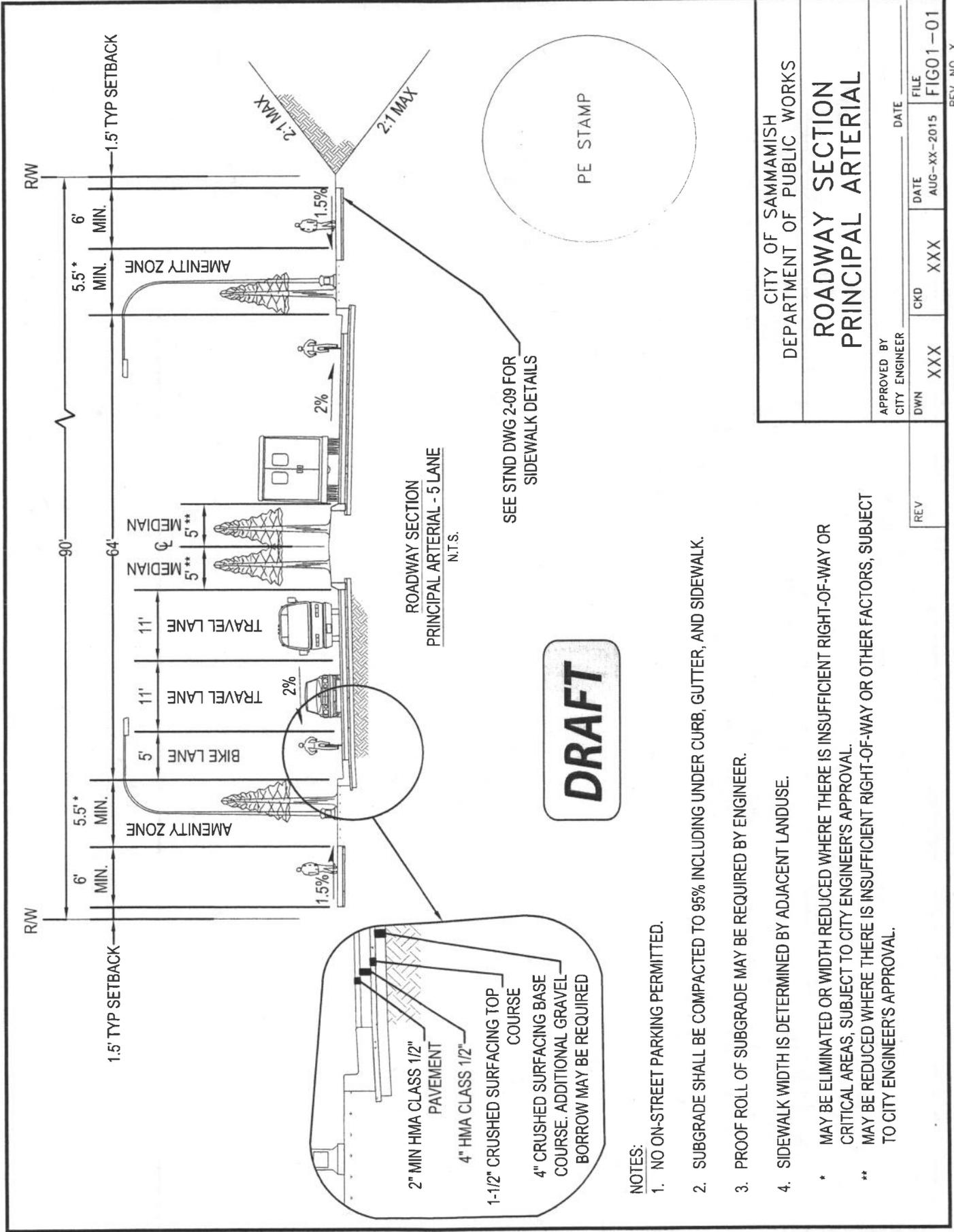
1. WIDTH OF ROADWAY SECTION AND RIGHT-OF-WAY MAY BE INCREASED TO ALLOW PARKING.
2. SUBGRADE SHALL BE COMPACTED TO 95% INCLUDING UNDER CURB, GUTTER, AND SIDEWALK.
3. PROOF ROLL OF SUBGRADE MAY BE REQUIRED BY ENGINEER.
4. SIDEWALK WIDTH IS DETERMINED BY ADJACENT LANDUSE.

* MAY BE ELIMINATED OR WIDTH REDUCED WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY OR CRITICAL AREAS, SUBJECT TO CITY ENGINEER'S APPROVAL.

** MAY BE REDUCED WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY OR OTHER FACTORS, SUBJECT TO CITY ENGINEER'S APPROVAL.

CITY OF SAMMAMISH DEPARTMENT OF PUBLIC WORKS		DATE	
ROADWAY SECTION MINOR ARTERIAL		FILE	FIG01-02
		DATE	AUG-XX-2015
APPROVED BY CITY ENGINEER	CKD	XXX	XXX
DWN	XXX	XXX	XXX

Attachment B



NOTES:

1. NO ON-STREET PARKING PERMITTED.
2. SUBGRADE SHALL BE COMPACTED TO 95% INCLUDING UNDER CURB, GUTTER, AND SIDEWALK.
3. PROOF ROLL OF SUBGRADE MAY BE REQUIRED BY ENGINEER.
4. SIDEWALK WIDTH IS DETERMINED BY ADJACENT LANDUSE.

* MAY BE ELIMINATED OR WIDTH REDUCED WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY OR CRITICAL AREAS, SUBJECT TO CITY ENGINEER'S APPROVAL.

** MAY BE REDUCED WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY OR OTHER FACTORS, SUBJECT TO CITY ENGINEER'S APPROVAL.

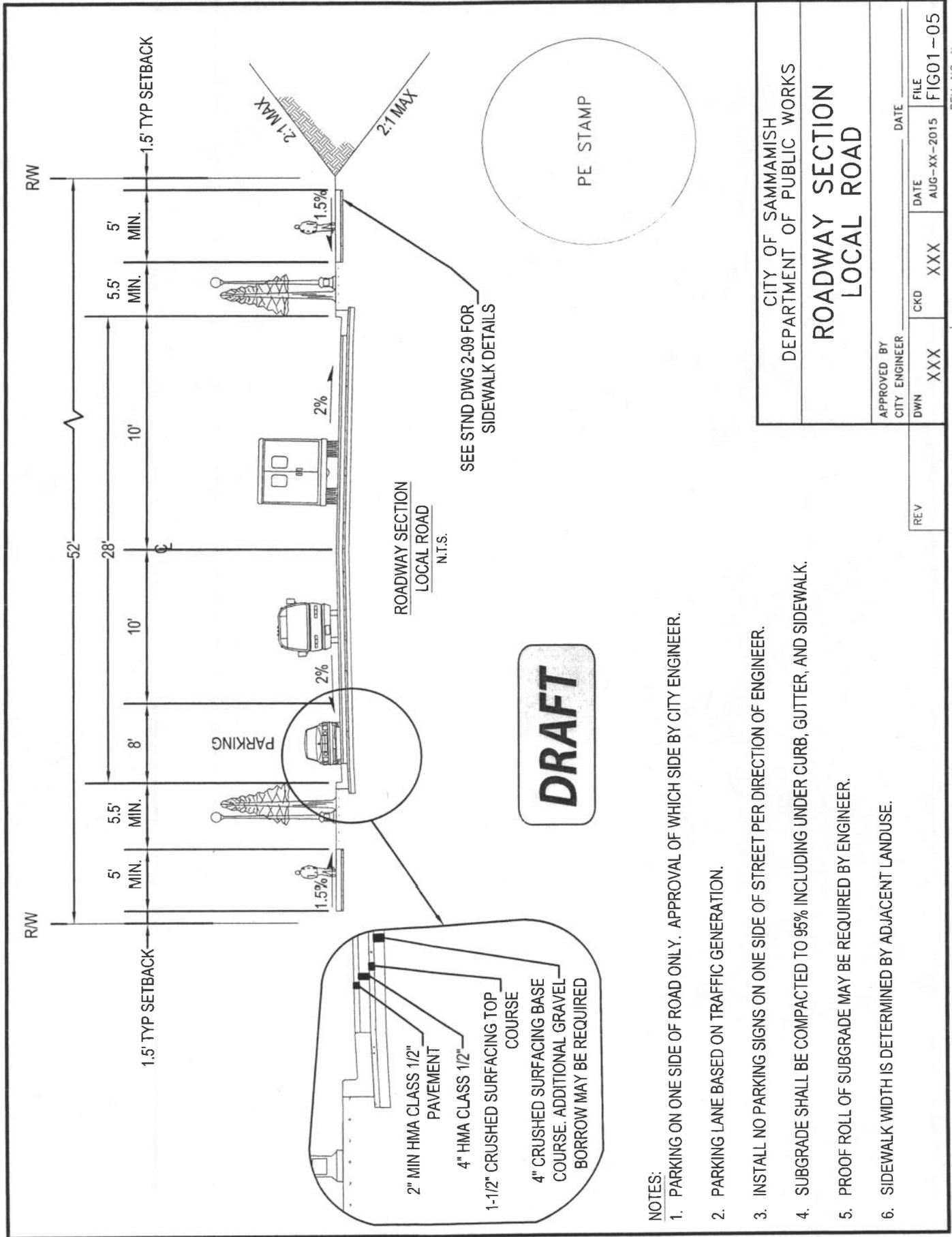
CITY OF SAMMAMISH
DEPARTMENT OF PUBLIC WORKS

**ROADWAY SECTION
PRINCIPAL ARTERIAL**

APPROVED BY
CITY ENGINEER

DWN	XXX	CKD	XXX	DATE	FILE
				AUG--XX--2015	FIG01--01

Attachment B

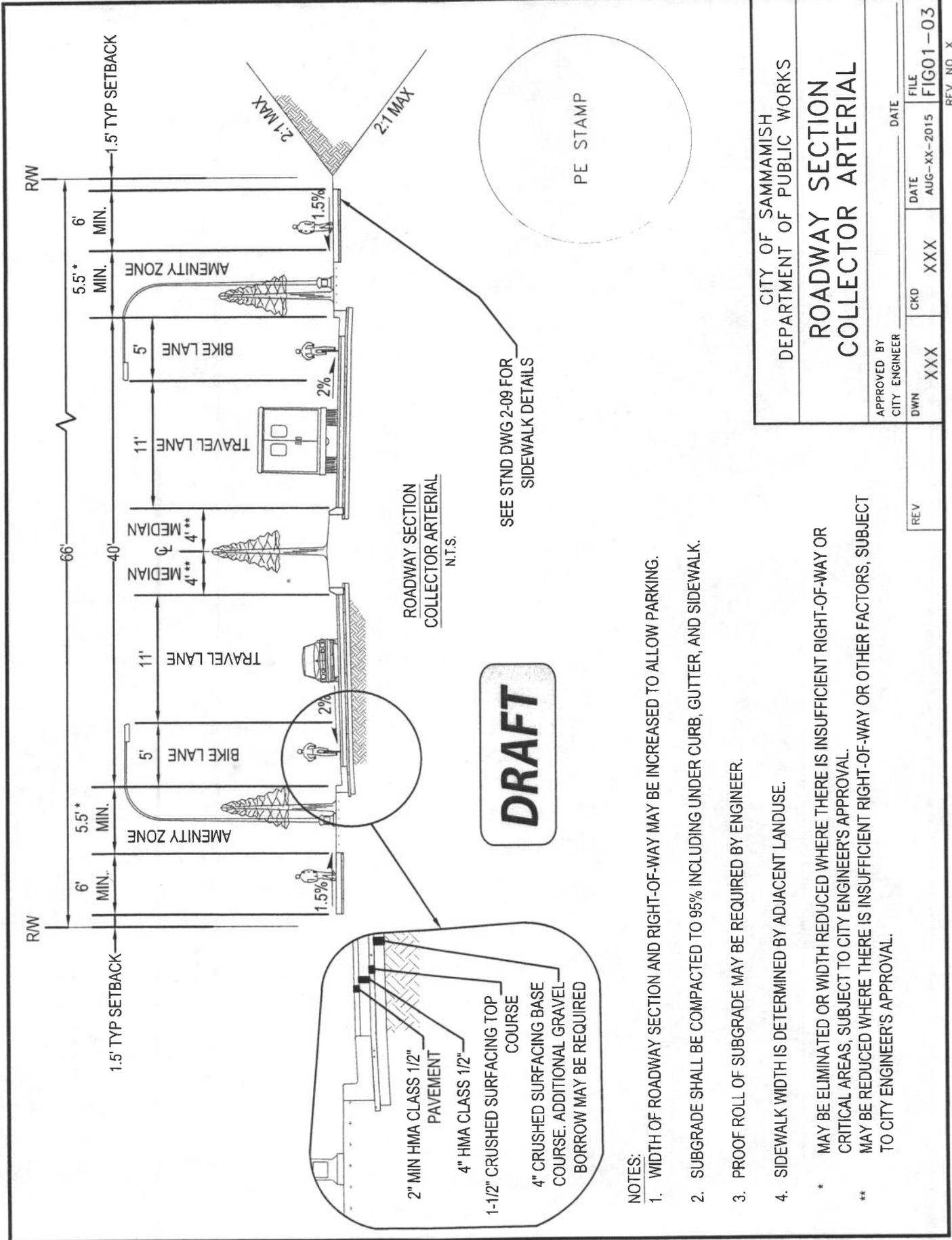


NOTES:

1. PARKING ON ONE SIDE OF ROAD ONLY. APPROVAL OF WHICH SIDE BY CITY ENGINEER.
2. PARKING LANE BASED ON TRAFFIC GENERATION.
3. INSTALL NO PARKING SIGNS ON ONE SIDE OF STREET PER DIRECTION OF ENGINEER.
4. SUBGRADE SHALL BE COMPACTED TO 95% INCLUDING UNDER CURB, GUTTER, AND SIDEWALK.
5. PROOF ROLL OF SUBGRADE MAY BE REQUIRED BY ENGINEER.
6. SIDEWALK WIDTH IS DETERMINED BY ADJACENT LANDUSE.

CITY OF SAMMAMISH DEPARTMENT OF PUBLIC WORKS			
ROADWAY SECTION LOCAL ROAD			
APPROVED BY CITY ENGINEER DWN XXX	CKD XXX	DATE AUG-XX-2015	FILE FIG01-05
REV		DATE	REV. NO. X

Attachment B



DRAFT

ROADWAY SECTION
COLLECTOR ARTERIAL
N.T.S.

SEE STND DWG 2-09 FOR
SIDEWALK DETAILS

PE STAMP

NOTES:

1. WIDTH OF ROADWAY SECTION AND RIGHT-OF-WAY MAY BE INCREASED TO ALLOW PARKING.
2. SUBGRADE SHALL BE COMPACTED TO 95% INCLUDING UNDER CURB, GUTTER, AND SIDEWALK.
3. PROOF ROLL OF SUBGRADE MAY BE REQUIRED BY ENGINEER.
4. SIDEWALK WIDTH IS DETERMINED BY ADJACENT LANDUSE.

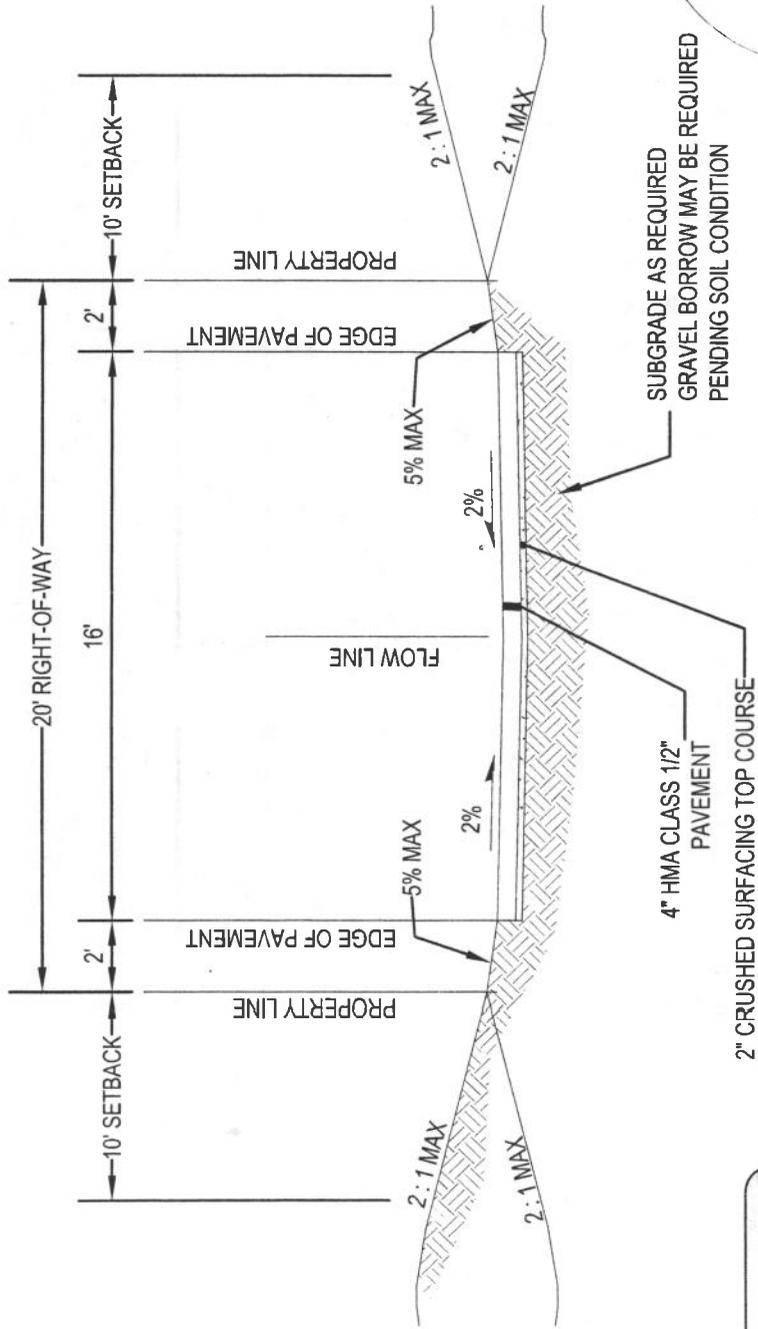
* MAY BE ELIMINATED OR WIDTH REDUCED WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY OR CRITICAL AREAS, SUBJECT TO CITY ENGINEER'S APPROVAL.

** MAY BE REDUCED WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY OR OTHER FACTORS, SUBJECT TO CITY ENGINEER'S APPROVAL.

CITY OF SAMMAMISH
DEPARTMENT OF PUBLIC WORKS
**ROADWAY SECTION
COLLECTOR ARTERIAL**

APPROVED BY	DATE	FILE
CITY ENGINEER		FIG01-03
DWN	CKD	XXX
XXX	XXX	XXX
DATE	AUG-XX-2015	REV. NO. X

Attachment B



DRAFT

**ROADWAY SECTION
TYPICAL ALLEY**

N.T.S.

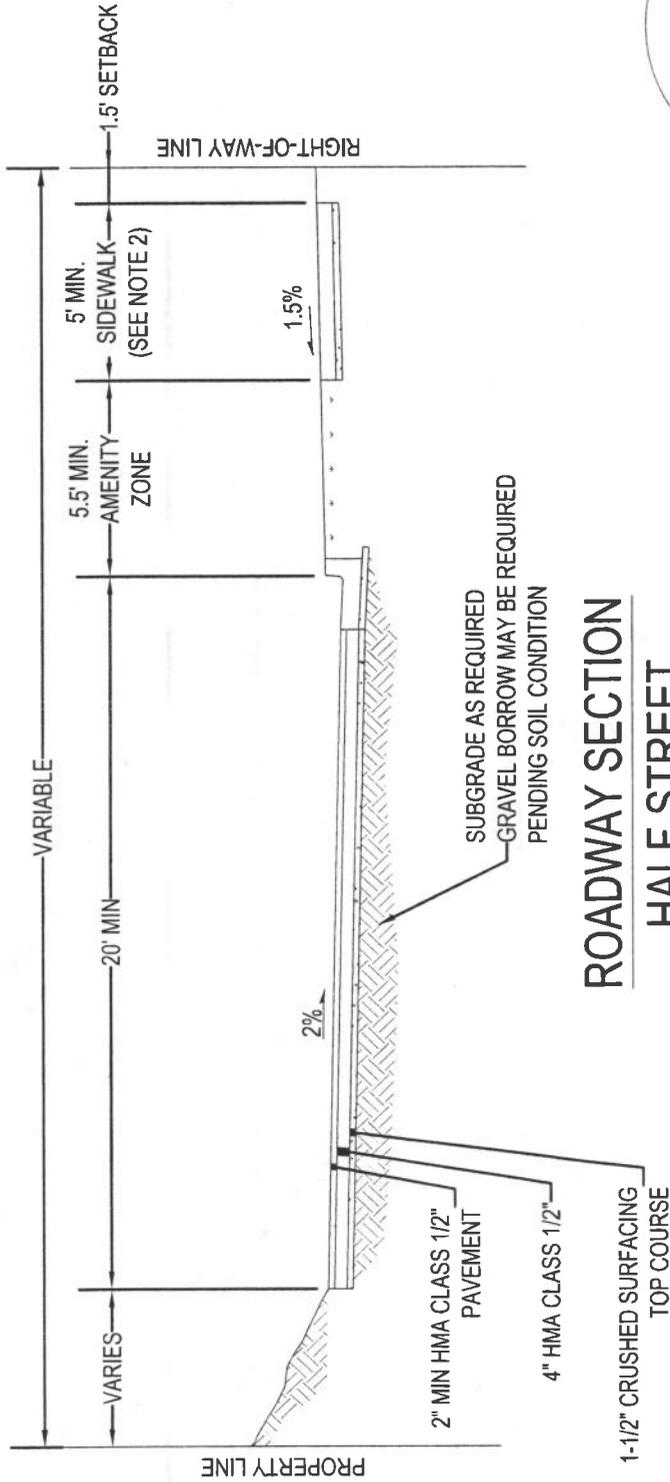
SUBGRADE AS REQUIRED
GRAVEL BORROW MAY BE REQUIRED
PENDING SOIL CONDITION

PE STAMP

- NOTES:
1. REFER TO PROVISIONS FOR REAR AND SIDE YARD SETBACKS IN DEVELOPMENT CODE.
 2. DRAINAGE TO BE COLLECTED AT LOWER END OF ALLEY.
 3. PROOF ROLL OF SUBGRADE MAY BE REQUIRED BY ENGINEER.
 4. ALL UTILITY LIDS TO BE ADJUSTED TO GRADE.
 5. FOR USE IN NEW DEVELOPMENT.
 6. INSTALL NO PARKING SIGNS ON BOTH SIDE OF STREET PER DIRECTION OF ENGINEER.

CITY OF SAMMAMISH		DATE	
DEPARTMENT OF PUBLIC WORKS		CKD	XXX
ROADWAY SECTION		DWN	XXX
TYPICAL ALLEY		FILE	FIG01-08
APPROVED BY	CITY ENGINEER	DATE	AUG-XX-2015
REV		REV. NO.	X

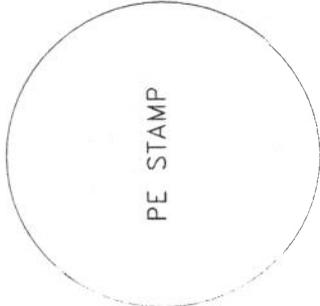
Attachment B



ROADWAY SECTION
HALF STREET

N.T.S.

DRAFT



- NOTES:
1. EDGE OF PAVEMENT TO BE CONSTRUCTED AS SHOWN FOR CUT OR FILL SECTION AS APPROPRIATE.
 2. SEE STND DWG 2-09 FOR SIDEWALK DETAILS.
 3. PROOF ROLL OF SUBGRADE MAY BE REQUIRED BY ENGINEER.
 4. IF PAVING SEAM IS REQUIRED, IT SHALL BE PLACED AT FUTURE CROWN LOCATION.
 5. INSTALL NO PARKING SIGNS ON BOTH SIDE OF STREET PER DIRECTION OF ENGINEER.

CITY OF SAMMAMISH DEPARTMENT OF PUBLIC WORKS			
ROADWAY SECTION HALF STREET			
APPROVED BY CITY ENGINEER	DATE	FILE	FIG01-07
DWN XXX	AUG-XX-2015	CKD XXX	REV. NO. X

REV	
-----	--

7.5. Connectivity

In order to provide connectivity, street layouts shall continue streets, street layouts and pedestrian connections shall continue to adjoining development(s) or their anticipated locations where adjoining property is not yet developed.

- A.** Where existing adjoining properties have planned road and trail systems, connections shall be required.
- B.** Connection to existing roadway ends with new development shall be required where appropriate as determined by the City.
- C.** When a connection road exceeds serving 100 residential units, a secondary access point shall be required.

7.6. Connectivity to Substandard Roadways

The following applies when a proposed improved roadway designed to current standards connects to an existing roadway that does not meet the current standard.

- A.** Transition lengths for connections to roadways shall be determined by the multiplication of the posted speed limit times the required change of width through the taper, ($\text{Length} = W \times S$), or continuation of the required width to the nearest intersection, whichever is shorter. In the event the nearest intersection is with a higher volume roadway, such as an arterial, the transition shall extend to the intersection.
- B.** When the connection is to an unimproved right-of-way consisting of a gravel or dirt surface, the new development shall construct a minimum of a half-street improvement within the nonstandard section to the nearest intersection or where a transition to an existing asphalt or concrete road surface shall be achieved. A minimum of 20' width of roadway asphalt or concrete surface shall be established.
- C.** If there is a gap of pedestrian facilities beyond a roadway transition to the nearest intersection or existing sidewalk, the developer may be required to install an approved pedestrian facility (i.e. sidewalk, pathway, or paved shoulder). These locations must be

APPENDIX G – RIGHT-OF-WAY STREET TREE LIST

Page intentionally left blank.

LARGE COLUMNAR TREES

Scientific & Common Name	Mature Height (ft)	Spread (ft)	Under Wires/View Covenants	Min Strip Width (ft)	Flower Color	Fall Color	Comments
<i>Acer nigrum</i> 'Green Column' Green Column Black Sugar Maple	50	10	No	6	N/A		Good close to buildings
<i>Nyssa sylvatica</i> Tupelo	60	20	No	6	N/A		Handsome chunky bark – <u>Great Plant Pick</u>
<i>Quercus</i> 'Crimschmidt' Crimson Spire Oak	45	15	No	6	N/A		Hard to find in the nursery trade
<i>Quercus frainetto</i> Italian Oak	50	30	No	6	N/A		Drought resistant – beautiful green, glossy leaves in summer. <u>Great Plant Pick</u>
<i>Quercus robur</i> 'fastigiata' Skyrocket Oak	40	15	No	6	N/A		Columnar variety of oak

LARGE TREES

Scientific & Common Name	Mature Height (ft)	Spread (ft)	Under Wires/View Covenants	Min Strip Width (ft)	Flower Color	Fall Color	Comments
<i>Acer saccharum</i> 'Bonfire' Bonfire Sugar Maple	50	40	No	6	N/A		Fastest growing sugar maple
<i>Acer saccharum</i> 'Commemoration' Commemoration Sugar Maple	50	35	No	6	N/A		Resistant to leaf tatter. <u>Great Plant Pick</u>
<i>Acer saccharum</i> 'Green Mountain' Green Mountain Sugar Maple	45	35	No	6	N/A		Reliable fall color. <u>Great Plant Pick</u>
<i>Acer saccharum</i> 'Legacy' Legacy Sugar Maple	50	35	No	5	N/A		Limited use - where sugar maple is desired in limited planting strip area. <u>Great Plant Pick</u>
<i>Aesculus flava</i> Yellow Buckeye	60	40	No	6			Least susceptible to leaf blotch – large fruit – fall color is varied, but quite beautiful

Exhibit 2

Attachment D

Cercidiphyllum japonicum Katsura Tree	40	40	No	6	N/A		Needs lots of water when young – can produce large surface roots. <u>Great Plant Pick</u>
Fagus sylvatica Green Beech	50	40	No	6	N/A		Silvery-grey bark
Fagus sylvatica 'Asplenifolia' Fernleaf Beech	60	50	No	6	N/A		Beautiful cut leaf. <u>Great Plant Pick</u>
Gymnocladus dioicus 'Espresso' Espresso Kentucky Coffee	50	35	No	6	N/A		Very coarse branches - extremely large bi-pinnately compound leaves
Liriodendron tulipifera Tulip Tree	60	30	No	8	N/A		Fast-growing tree – can get very large in open conditions
Quercus bicolor Swamp White Oak	60	45	No	8	N/A		Interesting shaggy peeling bark
Quercus coccinea Scarlet Oak	60	40	No	6	N/A		Best oak for fall color
Quercus imbricaria Shingle Oak	60	50	No	6	N/A		Nice summer foliage - leaves can persist throughout the winter
Quercus muhlenbergii Chestnut Oak	60	50	No	6	N/A		coarsely toothed leaf
Quercus robur English Oak	60	40	No	8	N/A		Large, sturdy tree. Acorns do not need dormant cold period to germinate, so can be invasive.
Quercus rubra Red Oak	60	45	No	8	N/A		Fast growing oak – large tree that needs space

Quercus velutina Black Oak	60	50	No	8	N/A		More drought tolerant than red oak
Taxodium distichum Bald Cypress	55	35	No	8	N/A		A deciduous conifer, broadly spreading when mature – columnar when young. <u>Great Plant Pick</u>
Ulmus 'Homestead' Homestead Elm	60	35	No	6	N/A		Complex hybrid - close in form to American elm - Resistant to Dutch elm disease

LARGE TREES – CONTINUED

Scientific & Common Name	Mature Height (ft)	Spread (ft)	Under Wires/View Covenants	Min Strip Width (ft)	Flower Color	Fall Color	Comments
<i>Ulmus</i> 'Frontier' Frontier Elm	50	35	No	6	N/A		Resistant to Dutch elm disease
<i>Zelkova serrata</i> 'Greenvase' Green Vase Zelkova	45	40	No	6	N/A		Attractive exfoliating bark provides Winter appeal. Dark green leaves turn orange-red and purple in Fall. <u>Great Plant Pick</u>
<i>Zelkova serrata</i> 'Village Green' Village Green Zelkova	40	40	No	6	N/A		Green Vase, Mussichino and Halka are improved forms. <u>Great Plant Pick</u>

MEDIUM / LARGE TREES

Scientific & Common Name	Mature Height (ft)	Spread (ft)	Under Wires/View Covenants	Min Strip Width (ft)	Flower Color	Fall Color	Comments
<i>Acer campestre</i> Hedge Maple	50	30	No	5	N/A		Contrary to its name, this is not a small tree – nice overall shape and structure

<i>Acer campestre</i> 'Evelyn' Queen Elizabeth Hedge Maple	40	30	No	5	N/A		More upright branching than the species.
<i>Acer freemanii</i> 'Autumn Blaze' Autumn Blaze Maple	50	40	No	6	N/A		Cross between red and silver maple – fast growing with good fall color
<i>Acer miyabei</i> 'Morton' State Street Maple	40	30	No	6	N/A		Similar to, but faster growing and larger than Hedge maple
<i>Acer pseudoplatanus</i> 'Atropurpureum' Spaethii Maple	40	30	No	5	N/A		Leaves green on top purple underneath.
<i>Aesculus x carnea</i> 'Briotii' Red Horsechestnut	30	35	No	6			Resists heat and drought better than other horsechestnuts

MEDIUM / LARGE TREES - CONTINUED

Scientific & Common Name	Mature Height (ft)	Spread (ft)	Under Wires/View Covenants	Min Strip Width (ft)	Flower Color	Fall Color	Comments
<i>Nothofagus antarctica</i> Antarctic Beech	50	35	No	5	N/A		Rugged twisted branching and petite foliage – difficult to find in the nursery trade
<i>Tilia americana</i> 'Redmond' Redmond Linden	50	30	No	8	N/A		Pyramidal, needs extra water when young
<i>Tilia cordata</i> 'Greenspire' Greenspire Linden	40	30	No	6	N/A		Symmetrical, pyramidal form – sometimes has structural issues due to tight branch attachments
<i>Ulmus parvifolia</i> 'Emer II' Allee Elm	45	35	No	5	N/A		Exfoliating bark and nice fall color – Resistant to Dutch Elm Disease

MEDIUM COLUMNAR TREES

Scientific & Common Name	Mature Height (ft)	Spread (ft)	Under Wires/View Covenants	Min Strip Width (ft)	Flower Color	Fall Color	Comments
<i>Carpinus betulus</i> 'Fastigiata' Pyramidal European Hornbeam	40	15	No	5	N/A		Broadens when older. <u>Great Plant Pick</u>

Attachment D

<i>Fagus sylvatica</i> 'Dawyck Purple' Dawyck Purple Beech	40	12	No	6	N/A		Purple foliage.
<i>Liriodendron tulipifera</i> 'Fastigiatum' Columnar Tulip Tree	40	10	No	6			Good next to buildings – can have problems with tight branch angles. <u>Great Plant Pick</u>
<i>Malus 'Tschonoskii'</i> Tschonoskii Crabapple	30	15	Yes	5			Sparse green fruit, pyramidal
<i>Oxydendron arboreum</i> Sourwood	35	12	No	5			Consistent and brilliant fall color. <u>Great Plant Pick</u>
<i>Pyrus calleryana</i> 'Cambridge' Cambridge Pear	40	15	No	5			Narrow tree with better branch angles and form than the species – brittle limbs may be a problem with ice or wet snow

MEDIUM TREES

Scientific & Common Name	Mature Height (ft)	Spread (ft)	Under Wires/Vie w Covenant s	Min Strip Width (ft)	Flower Color	Fall Color	Comments
<i>Acer grandidentatum</i> 'Schmidt' Rocky Mt. Glow Maple	25	20	Yes	5	N/A		Intense red fall color - Limited availability in nursery trade
<i>Acer truncatum x A. platanoides</i> 'Keithsform' Norwegian Sunset Maple	35	25	No	5	N/A		Reliable fall color - nice reddish orange
<i>Acer truncatum x A. platanoides</i> 'Warrensred' Pacific Sunset Maple	30	25	Yes	5	N/A		Limited use under higher wires
<i>Betula albosinensis var septentrionalis</i> Chinese Red Birch	40	35	No	5	N/A		White and pink peeling bark. <u>Great Plant Pick</u>
<i>Carpinus caroliniana</i> American Hornbeam	25	20	Yes	5	N/A		Outstanding fall color (variable – yellow, orange, red) – nice little tree. <u>Great Plant Pick</u>
<i>Cladrastis kentukea</i> Yellowwood	40	40	No	5			White flowers in spring, resembling wisteria flower – blooms profusely only every 2 to 4 years – yellow/gold fall color

Attachment D

<i>Cornus controversa</i> 'June Snow' Giant Dogwood	40	30	No	5			Frothy, 6-inch clusters of white flowers in June – <u>Great Plant Pick</u>
<i>Crataegus crus-galli</i> 'Inermis' Thornless Cockspur Hawthorne	25	30	Yes	5			Red persistent fruit
<i>Cornus</i> 'Eddie's White Wonder' Eddie's White Wonder Dogwood	30	20	Yes	5			A hybrid of <i>C. florida</i> and <i>C. nuttallii</i>
<i>Crataegus x lavalii</i> Lavalle Hawthorne	25	20	Yes	5			Thorns on younger trees. <u>Great Plant Pick</u>
<i>Davidia involuocrata</i> Dove Tree	40	30	No	5		N/A	Large, unique flowers in May. <u>Great Plant Pick</u>
<i>Eucommia ulmoides</i> Hardy Rubber Tree	50	40	No	6	N/A	N/A	Dark green, very shiny leaves – insignificant fall color
<i>Fagus sylvatica</i> 'Rohanii' Purple Oak Leaf Beech	50	30	No	6	N/A	N/A	Attractive purple leaves with wavy margins. <u>Great Plant Pick</u>
<i>Halesia monticola</i> Mountain Silverbell	45	25	No	5			Attractive small white flower
<i>Halesia tetraptera</i> Carolina Silverbell	35	30	No	5			Attractive bark for seasonal interest
<i>Koelreuteria paniculata</i> Goldenrain Tree	30	30	Yes	5			Midsummer blooming – slow growing. <u>Great Plant Pick</u>
<i>Magnolia denudata</i> Yulan Magnolia	40	40	No	5		N/A	6" inch fragrant white flowers in spring. <u>Great Plant Pick</u>
<i>Magnolia grandiflora</i> 'Victoria' Victoria Evergreen Magnolia	25	20	Yes	5		N/A	Evergreen magnolia – can be damaged in years with wet, heavy snow. <u>Great Plant Pick</u>
<i>Magnolia kobus</i> 'Wada's Memory' Wada's Memory Magnolia'	30	20	Yes	5			Does not flower well when young. <u>Great Plant Pick</u>
<i>Ostrya virginiana</i> Ironwood	40	25	No	5	N/A		Hop like fruit – slow growing
<i>Phellodendron amurense</i> 'Macho' Macho Cork Tree	40	40	No	5	N/A		This variety is fruitless – fall color can be varied. High drought tolerance
<i>Prunus cerasifera</i> 'Krauter Vesuvius' Vesuvius Flowering Plum	30	20	Yes	5		N/A	Burgundy colored leaves – tree best used as an accent rather than in mass plantings
<i>Quercus ilex</i> Holly Oak	40	30	No	5	N/A	N/A	Evergreen oak - Underside of leaf is silvery-white. Often has a prominent umbrella form
<i>Rhamnus purshiana</i> Cascara	30	20	Yes	5	N/A		<i>Native tree</i> – fall color depends on exposure – purplish fruit feeds many native birds

<i>Sorbus x hybrida</i> Oakleaf Royal Mt. Ash	30	20	Yes	5			It has leaves which are similar to English oak, and interesting bark for seasonal features.
<i>Styrax japonica</i> Japanese Snowbell	25	25	Yes	5			Reliable and easy to grow, it has plentiful, green 1/2" inch seeds. Flowers similar to lily in the valley. <u>Great Plant Pick</u>
<i>Tilia cordata</i> 'De Groot' De Groot Littleleaf Linden	30	20	Yes	5	N/A		One of the smaller stature littleleaf lindens.
<i>Tilia cordata</i> 'Chancole' Chancellor Linden	35	20	No	6	N/A		Pyramidal when young. Fragrant flowers that attract bees.
<i>Ulmus parvifolia</i> 'Emer I' Athena Classic Elm	30	35	No	5	N/A		High resistance to Dutch Elm Disease. Drought resistant. Cinnamon colored exfoliating bark for seasonal interest.

SMALL COLUMNAR TREES

Scientific & Common Name	Mature Height (ft)	Spread (ft)	Under Wires/Vie w Covenant s	Min Strip Width (ft)	Flower Color	Fall Color	Comments
<i>Maackia amurensis</i> Amur Maackia	30	20	Yes	5		N/A	Interesting exfoliating bark – flowering in June or July - varies in intensity from year to year
<i>Malus</i> 'Adirondack' Adirondack Crabapple	20	10	Yes	5			Very resistant to apple scab – one of the narrowest crabapples – persistent reddish 1/4" fruit. <u>Great Plant Pick</u>
<i>Malus</i> 'Red Barron' Red Barron Crabapple	20	10	Yes	5			Deep pink blossom and persistent red berries for seasonal interest
<i>Prunus serrulata</i> 'Amanogawa' Amanogawa Flowering Cherry	20	8	Yes	6			Pinkish flower bud, changing to white flower.
<i>Sorbus americana</i> 'Dwarf-crown' Red Cascade Mountain Ash	20	10	Yes	5			Nice winter form - Red berries persistent in clusters

SMALL TREES

Scientific & Common Name	Mature Height (ft)	Spread (ft)	Under Wires/View Covenants	Min Strip Width (ft)	Flower Color	Fall Color	Comments
<i>Acer buegerianum</i> Trident Maple	30	30	Yes	5	N/A		Somewhat shrub-like – must train to a single stem – interesting bark. <u>Great Plant Pick</u>
<i>Acer ginnala</i> 'Flame' Flame Amur Maple	25	20	Yes	5			Clusters of small cream colored flowers in spring – very fragrant. Nice fall color. Informal branch structure.
<i>Acer griseum</i> Paperbark Maple	30	20	Yes	5	N/A		Peeling cinnamon colored bark for seasonal interest. <u>Great Plant Pick</u>
<i>Acer palmatum</i> Japanese Maple	20	25	Yes	5	N/A		Many varieties available – select larger varieties for street planting
<i>Acer triflorum</i> Three-Flower Maple	25	20	Yes	5	N/A		Multi seasonal interest with tan, exfoliating bark and red, orange/red fall color. <u>Great Plant Pick</u>
<i>Amelanchier grandiflora</i> 'Princess Diana' Princess Diana Serviceberry	20	15	Yes	4			Good for narrower planting strips
<i>Amelanchier x grandiflora</i> 'Autumn Brilliance' Autumn Brilliance Serviceberry	20	15	Yes	4			Good for narrower planting strips – reliable bloom and fall color
<i>Arbutus unedo</i> 'Marina' Strawberry Tree	25	20	Yes	5		N/A	Substitute for Pacific madrone – can suffer severe damage or death due to cold weather - evergreen
<i>Carpinus japonica</i> Japanese Hornbeam	20	25	Yes	5	N/A		Wide spreading, slow growing – fall color is not outstanding. <u>Great Plant Pick</u>
<i>Cercis canadensis</i> Eastern Redbud	25	30	Yes	5			Deep pink flowers on bare twigs in spring
<i>Cercis siliquastrum</i> Judas Tree	25	30	Yes	5			Deep pink flowers on bare twigs in spring – drought resistant
<i>Cornus alternifolia</i> Pagoda Dogwood	25	25	Yes	5			Small white flowers in flat clusters – fall color

Exhibit 2

Attachment D

							is varied. <u>Great Plant Pick</u>
<i>Cornus kousa</i> 'Chinensis' Kousa Dogwood	20	20	Yes	4			Does not do well on harsh, dry sites. <u>Great Plant Pick</u>
<i>Cotinus obovatus</i> American Smoke Tree	25	25	Yes	4			Showy pinkish panicles of flowers in the spring – reddish purple leaves on some varieties. <u>Great Plant Pick</u>
<i>Lagerstroemia 'tuscarora'</i> Tuscarora Hybrid Crape Myrtle	20	20	Yes	4			Light cinnamon brown bark lends year round interest – drought resistant – likes a warm site
<i>Magnolia 'Elizabeth'</i> Elizabeth Magnolia	30	20	Yes	5		N/A	Yellowish to cream colored flower in spring. <u>Great Plant Pick</u>
<i>Magnolia 'Galaxy'</i> Galaxy Magnolia	25	25	Yes	5			Showy pink flowers. <u>Great Plant Pick</u>
<i>Magnolia x loebneri</i> Loebner Magnolia	20	20	Yes	5			Flower is 'star' shaped rather than tulip like – white to pinkish white in March or April. <u>Great Plant Pick</u>
<i>Malus 'Golden Raindrops'</i> Golden Raindrops Crabapple	20	20	Yes	5			Disease resistant – persistent yellow fruit in fall and winter. <u>Great Plant Pick</u>
<i>Malus 'Donald Wyman'</i> Donald Wyman Crabapple	25	25	Yes	5			Large white blossom – nice green foliage in summer
<i>Malus 'Lancelot'</i> (Lanzam) Lancelot Crabapple	15	15	Yes	4			Red flower buds, blooming white – red persistent fruit
<i>Parrotia persica</i> Persian Parrotia	30	20	No	5			Blooms before it leafs out – drought tolerant - Varied fall color - reds, oranges and yellows. <u>Great Plant Pick</u>
<i>Prunus 'Frankthrees'</i> Mt. St. Helens Plum	20	20	Yes	5		N/A	Burgundy colored leaves – tree best used as an accent rather than in mass plantings
<i>Prunus 'Newport'</i> Newport Plum	20	20	Yes	5		N/A	Burgundy colored leaves – tree best used as an accent rather than in mass plantings
<i>Prunus 'Snowgoose'</i> Snow Goose Cherry	20	20	Yes	5			This selection sports abundant white flowers and healthy green, disease-resistant foliage
<i>Prunus x yedoensis</i> 'Akebono' Akebono Flowering Cherry	25	25	Yes	6			Has masses of large, semi-double, pink flowers – most widely planted cherry in Pacific Northwest

Exhibit 2

Attachment D

<i>Sorbus alnifolia</i> Korean Mountain Ash	35	30	No	5			Simple leaves and beautiful pink/red fruit. Great Plant Pick
<i>Stewartia monodelpha</i> Orange Bark Stewartia	30	20	Yes	5			Extraordinary cinnamon colored bark – avoid hot, dry sites. Great Plant Pick
<i>Stewartia psuedocamellia</i> Japanese Stewartia	25	15	Yes	5			Patchwork bark, white flower in spring. Great Plant Pick
<i>Styrax obassia</i> Fragrant Styrax	25	20	Yes	5			Smooth gray bark and fragrant white flowers. Great Plant Pick

Page intentionally left blank.

Exhibit 2

Attachment D

7.5. Connectivity

In order to provide connectivity, street layouts shall continue streets, street layouts and pedestrian connections shall continue to adjoining development(s) or their anticipated locations where adjoining property is not yet developed.

- A.** Where existing adjoining properties have planned road and trail systems, connections shall be required.
- B.** Connection to existing roadway ends with new development shall be required where appropriate as determined by the City.
- C.** When a connection road exceeds serving 100 residential units, a secondary access point shall be required.

7.6. Connectivity to Substandard Roadways

The following applies when a proposed improved roadway designed to current standards connects to an existing roadway that does not meet the current standard.

- A.** Transition lengths for connections to roadways shall be determined by the multiplication of the posted speed limit times the required change of width through the taper, ($\text{Length} = W \times S$), or continuation of the required width to the nearest intersection, whichever is shorter. In the event the nearest intersection is with a higher volume roadway, such as an arterial, the transition shall extend to the intersection.
- B.** When the connection is to an unimproved right-of-way consisting of a gravel or dirt surface, the new development shall construct a minimum of a half-street improvement within the nonstandard section to the nearest intersection or where a transition to an existing asphalt or concrete road surface shall be achieved. A minimum of 20' width of roadway asphalt or concrete surface shall be established.
- C.** If there is a gap of pedestrian facilities beyond a roadway transition to the nearest intersection or existing pedestrian facilities within a 1 block limit, the developer shall be required to install an approved pedestrian facility (i.e. sidewalk, pathway, or paved shoulder).

These locations must be shown on an adopted sidewalk and pathway plan, or along a roadway classification of neighborhood collector in conjunction with safe routes to school.

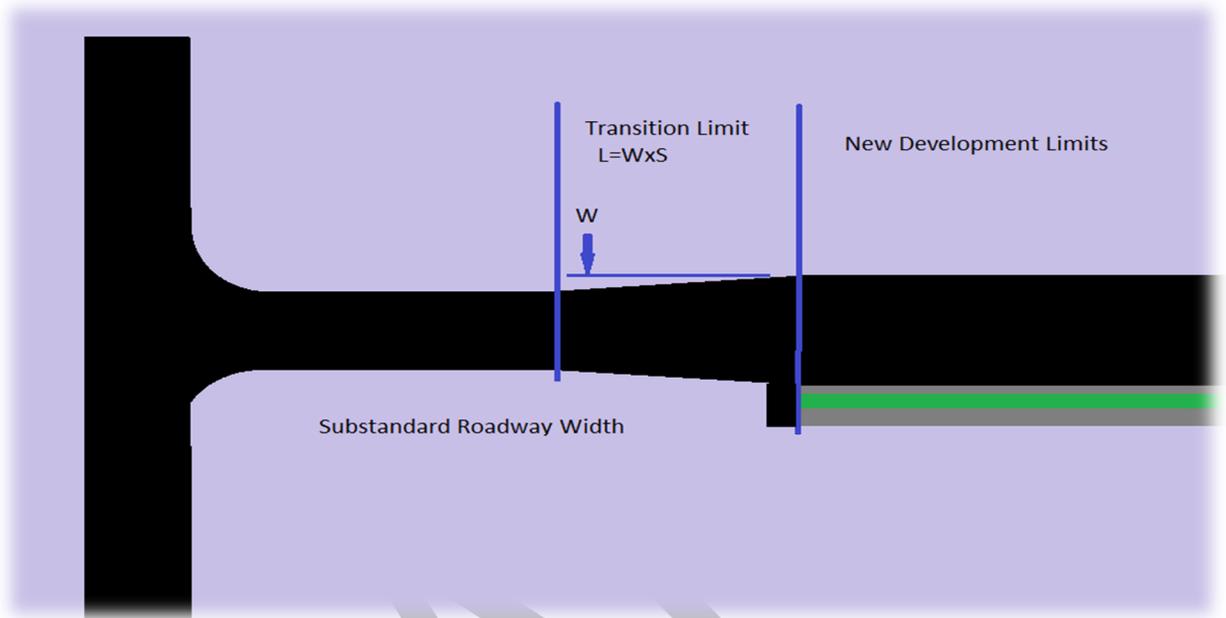


Figure 1. Transition Length to Substandard Roadway

7.7. Underground Utilities

The following applies to the connection from the distribution lines in the right-of-way to the property it serves (service connection);

- D. If the existing service connection(s) in an area is/are underground, new service connections must be underground.
- E. Existing overhead facilities, including utility poles will be allowed to remain above ground until one of the following events;

Pedestrian Safety Preliminary Discussion

Presentation will be given
at Study Session



