City of Lacey, Washington
Lacey Planning Commission Meeting Agenda

Refer to the bottom of the agenda for meeting information.

Wednesday, September 25, 2024	6:00 PM	Council Chambers and Online

1. **Call to Order**
2. **Roll Call**
3. **Land Acknowledgment**
   We, the City of Lacey, are on the ancestral land of the Tribal People of the Treaty of Medicine Creek, including the Nisqually Indian Tribe and Squaxin Island Tribe. We acknowledge, and remember those Tribal People not recognized today who were absorbed or relocated into other tribes for survival. We recognize the ancestors and their descendants who are still here. We recognize and respect the Tribal People of the Treaty of Medicine Creek as the traditional stewards of this land since time immemorial and their role today in taking care of these lands in perpetuity. We recognize and have the responsibility to call attention to the histories of dispossession, forced removal, and abridged treaty rights that allowed our nation, state, and city to develop as they have today. We recommend that community members read the Medicine Creek Treaty of 1854.
4. **Approval of Agenda and Consent Agenda Items**
   A. Approval of Agenda
   B. Approval of September 11, 2024 meeting minutes
      1. September 11, 2024 Minutes
5. **Public Comment**
   Refer to the bottom of the agenda for instructions on how to provide public comment.
6. **Commission Members' Reports**
7. **Department Report**
8. **Public Hearing**
9. **New Business**

A. **Public Works Standards Update: Tom Stiles, Development Review Engineer Manager.** The Planning Commission will receive a briefing from staff and review the draft updates to Chapter 3 (Public Works Considerations) of the Public Works Standards. This is a briefing only and no formal action is necessary. Additional chapters will be brought to the Planning Commission for review at future dates.

   1. Public Works Standards Update Attachments

B. **HB 1220 Housing Need Allocations: Ryan Andrews, Community Planning Manager.** The Planning Commission will be briefed on the results of the regional process to develop a land capacity analysis associated with the housing allocations required under the Growth Management Act by HB 1220. The housing allocations and land capacity analysis will be included in the 2025 update to the Comprehensive Plan.

   1. Housing Need Allocations Attachments

10. Old Business

11. Communications and Announcements

A. Planning Commission Schedule

12. Next Meeting - October 9, 2024

13. Adjournment

Attendance and Public Comment

Attend Remote or In-Person

The public may attend the meeting in-person, or you may view or listen to the meeting using one of the following platforms:

In-Person	Council Chambers at Lacey City Hall 420 College Street SE, Lacey, WA 98503
Zoom:	https://us02web.zoom.us/webinar/register/WN_qLvQzspdSjaiM69XzwONww
Website:	https://cityoflacey.org/government/public-meetings/
Facebook:	https://www.facebook.com/cityoflacey
YouTube:	https://www.youtube.com/watch?v=1EZWFz7GNl4
Cable:	Channel 77 with your local cable provider
Phone:	(888) 788-0099 or (877) 853-5247 (Webinar ID 896 7537 5071)

Verbal Public Comment

Those wishing to provide verbal public comment may do so in-person or by Zoom:

In-Person:	Use the sign-up sheet located at the meeting location.

Zoom: Preregister using the following Zoom link no later than two hours prior to the meeting:
https://us02web.zoom.us/webinar/register/WN_qLvQzspdSjaiM69XzwONww

Instructions and access details will be provided once registration is complete.

MINUTES
Lacey Planning Commission Meeting
Wednesday, September 11, 2024 – 6:00 p.m.
Lacey City Hall Council Chambers, 420 College St SE – and via Zoom

The meeting was called to order at 6:00 p.m. by Jeff Gadman

Planning Commission members present: Jeff Gadman, Eddie Bishop, Judith Doyle, Kyrian MacMichael, Tonya Moore, Spencer Zeman & Elliot Kirk. Staff present: Ryan Andrews, Shannon Kelley-Fong, Elissa Fontaine, Paul White, Brandy Legomina, and Erin Skelley.

Jeff noted a quorum present. Jeff Gadman acknowledged the lives lost on September 11, 2001. Elliot read the Land Acknowledgement.

Eddie Bishop made a motion, seconded by Spencer Zeman to approve the agenda for tonight's meeting. Spencer Zeman made a motion, seconded by Elliot Kirk to approve August 28 minutes. All were in favor, both motions carried.

1) **Public Comments:** None

2) **Commission Members Reports:** Kyrian MacMichael attended the City Council meeting held September 10, 2024. She stated that she is very proud to live in a city where so many amazing things are happening and how it will attract people to Lacey.

3) **Department Report:** None

4) **New Business:**
    a. **Advisory Board Handbook Update: Shannon Kelley-Fong, Assistant City Manager; Elissa Fontaine, City Clerk; Brandy Legomina, Deputy City Clerk; Paul White, Deputy City Clerk.** Staff briefed the Planning Commission on the Public Comment Policy and public meeting best practices as part of the Advisory Board Handbook Update.

5) **Old Business:** None

6) **Communications and Announcements:** Ryan Andrews provided the Planning Commission schedule.

7) **Next Meeting:** September 25, 2024

8) **Adjournment:** 7:22 PM

To hear the full discussion of a specific topic, or the complete meeting, watch the recorded video available on YouTube: https://www.youtube.com/watch?v=wtvdm_Rga9k

LACEY PLANNING COMMISSION
STAFF REPORT

September 25, 2024

SUBJECT: **City of Lacey Development Guidelines and Public Works Standards – Chapter 3 Public Works Considerations, 2025 Update – Public Review Draft**

RECOMMENDATION: Receive a briefing from Public Works staff on the draft of Chapter 3 (Public Works Considerations) and the proposed schedule of the City of Lacey Development Guidelines Manual. The 2025 version of the Public Works Standards Manual will be scheduled for a public hearing in the winter of 2025.

TO: Lacey Planning Commission

STAFF CONTACTS: Ryan Andrews, Planning Manager RA
Tom Stiles, Development Review Manager TS

ATTACHMENT(S): 1. Public Works Standards Chapter 3 – Public Works Consideration with revisions.

PRIOR REVIEW: None

BACKGROUND:

The City of Lacey Development Guidelines and Public Works Standards (DG&PWS) Manual is one of the City of Lacey regulatory documents used for development within the City of Lacey and the City of Lacey Urban Growth Area. This document provides direction for requirements of development.

The DG&PWS manual was written to address all aspects of development. If someone is new to development, they can read the manual and have a general idea of how to develop a project within the City of Lacey. The current version is being revised to remove the "development guidelines" portion of the manual and will focus on providing Public Works development standards.

The current version of the Development Guidelines and Public Works Standards Manual contains the following chapters:

Chapter 1: Planning Issues
Chapter 2: Grading

Chapter 3: Public Works Considerations
Chapter 4: Transportation
Chapter 5: Storm Water
Chapter 6: Water
Chapter 7: Sewer
Chapter 8: Reclaimed Water
Appendix

With the new version of the manual, chapters one (Planning Issues) and two (Grading) will be removed. Also, references found in other chapters on how to develop a project will be removed. After being removed from the DG&PWS, Chapters one and two will reside within the Lacey Municipal Code. The remaining chapters will stay in the Public Works Standards Manual. With the removal of chapters one and two and other project development references, the manual will be renamed to the "Public Works Standards" manual.

The proposed schedule for the Planning Commission is to review one chapter per month beginning in September 2024 and ending in January 2025. The chapters with revisions include chapters 3 through 7. There are not any revisions proposed to chapter 8 (Reclaimed Water)

After review by the Planning Commission and revisions have been made, the revised manual will be scheduled for a public hearing.

After the public hearing, a recommendation to City Council will be made.

Some noteworthy revisions to chapter 3 include:

- Removal of the Memorandum of Understanding for development with the City of Lacey Urban Growth Area.
- Revisions to the plan review checklist
- Plan review deposit requirement
- Removal of language currently located or to be relocated into the Lacey Municipal Code

RECOMMENDATION:

Review the public review draft of Chapter 3 (Public Works Considerations) and be prepared to discuss proposed revisions at the September 25, 2024 Planning Commission meeting.

CHAPTER 3

3.000 GENERAL PUBLIC WORKS CONSIDERATIONS

3.010 Standard Specifications

Design detail, workmanship, and materials shall be in accordance with the current edition of the "Standard Specifications for Road, Bridge and Municipal Construction", the "APWA Amendments to Division One", and the "Standard Plans for Road, Bridge and Municipal Construction", all written and promulgated by the Washington State Chapter of the American Public Works Association and the Washington State Department of Transportation, except where these standards provide otherwise. (LMC 14.20.010)

All applicable rules of Washington State shall be adhered to with respect to safety, construction methods, and other state requirements. (LMC 12.16.040) This includes, but is not limited to the Revised Code of Washington (RCW's) and the Washington Administrative Code (WAC's).

In cases where the Development Guidelines and Public Works Standards are in conflict with Lacey Municipal Code, the provisions of these Guidelines and Standards shall take precedence.

The following specifications shall be applicable when pertinent, when specifically cited in the standards, or when required by a higher funding authority.

A. Conditions and standards as set forth in the City of Lacey Water Comprehensive Plan, most current edition.

B. Conditions and standards as set forth in the City of Lacey Comprehensive Sanitary Sewer Plan, most current edition.

C. Conditions and standards as set forth in the Lacey Development Plan, Land Use and Circulation Elements, most current edition.

D. Conditions and standards as set forth in the Lacey Policy Plan for Comprehensive Development, most current edition.

E. Rules and regulations as adopted in the Lacey Municipal Code*.

F. Conditions and standards as set forth in the Thurston County Coordinated Water System Plan, most current edition.

G. Conditions and standards as set forth in the "Thurston Metropolitan Area Bicycle Plan," Thurston Regional Planning Council, most current edition.

H. Criteria set forth in the Local Agency Guidelines as amended and approved by Washington State Department of Transportation, most current edition.

I. Conditions and standards as set forth in the City of Lacey "Urban Beautification Project" plan co-sponsored by U.S. Department of Agriculture and the Washington State Department of Natural Resources, November 7, 1985.

J. Conditions and standards as set forth in the WSDOT Design Manual as amended and approved by WSDOT.

K. U.S. Department of Transportation Manual on Uniform Traffic Control Devices (MUTCD), as amended and approved by Washington State Department of Transportation.

L. DOT Construction Manual as amended and approved by Washington State Department of Transportation.

M. Rules and regulations of the State Board of Health regarding public water supplies, as published by the State Department of Health.

N. Conditions and standards as set forth in the State of Washington Department of Ecology "Criteria for Sewage Works Design", most current edition.

O. Conditions and standards as set forth by the State of Washington, Department of Labor and Industries.

P. Criteria set forth in the most recent edition of Transportation and Land Development by the Institute of Transportation Engineers.

Q. Design criteria of federal agencies including Department of Housing and Urban Development and the Federal Housing Administration.

R. Concepts as outlined in Traffic Engineering for Neo-Traditional Neighborhood Design prepared by ITE Technical Council Committee, February 1994.

S. Traditional Neighborhood Development Street Design Guidelines prepared by ITE Transportation Planning Council Committee, October 1999.

T. Conditions and standards as set forth in the Building Code, most current adopted edition.

U. Other specifications not listed above as may apply when required by the City of Lacey.

3.015 Shortened Designation

These *City of Lacey Development Guidelines and Public Works Standards* shall be cited routinely in the text as the "Standards". This is not to infer that the Guideline portion of this book constitutes Standards, this is simply a shortened designation for the name of this document.

3.020 Applicability

These standards shall govern all new construction and upgrading of facilities both in the right-of-way and on-site for transportation and transportation related facilities; storm drainage facilities; sewer and water improvements; landscape and irrigation; and park, recreation, and open-space facilities within the City of Lacey and within applicable utility service areas.

These standards shall also apply as agreed to December 7th, 1995 in the “Memorandum of Understanding Urban Growth Area Zoning and Development Standards” to the portions of Thurston County that are within the City of Lacey’s Urban Growth Management Area.

3.025 Definitions and Terms

"Average Daily Traffic" or ADT -- The average number of vehicles passing a specified point during a 24-hour period collected over a number of days greater than one but less than one year.

“Annual Average Daily Traffic” or AADT -- The total number of vehicles passing a specified point in both directions for one year divided by the number of days in the year.

"Bicycle Facilities" -- See 4D.020 for definitions of the various bikeways.

"Building Sewer" or "Side Sewer" -- shall be that portion of the line beginning two feet outside the outer foundation wall of the structure to the sanitary sewer main. (LMC 13.04.160 and 14.06.015).

"City Engineer" -- The City Engineer or the City Engineer’s duly authorized representative.

"City of Lacey Coordinate System" -- A ground scale coordinate system derived from the Washington Coordinate System, NAD 83/91. Units are expressed in feet. Data can be obtained from Lacey Public Works Department.

"City of Lacey Vertical Datum" -- Elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD29). Units are expressed in feet. A benchmark listing can be obtained from Lacey Public Works Department.

"Developer" -- Any person, firm, partnership, association, joint venture, or corporation or any other entity responsible for a given project.

"Director of Public Works" -- The City of Lacey Public Works Director or the director's duly authorized representative.

"Easement" -- The right to use a defined area of property for specific purpose/purposes as set forth in the easement document, on a plat or short plat, or as required for purposes as set forth herein.

"Engineer" -- Any Washington State licensed professional engineer who represents the developer.

"ERU" -- The unit used to calculate sewer consumption. One Equivalent Residential Unit (ERU) equals 900 cubic feet of water consumed per month. For purposes of these standards, the term ERU shall be as follows:

1. Single Family residence, including mobile homes: One ERU per living unit.

2. Duplex (two-family residence): two ERUs.

3. Residential buildings containing more than two living units: 7/10 of an ERU per living unit.

4. Commercial, industrial or other customers not readily identified as a residential customer, including but not limited to, hotels, motels, boarding or rooming houses, nursing homes, and transient (overnight) trailer parks: One ERU for each estimated 900 cubic feet of water to be consumed per month. (LMC 13.16.027)

"Force Main" -- A sewer main that transports wastewater under pressure.

"Half-Street" -- Street constructed along an edge of development utilizing half the regular width of the right-of-way and permitted as

an interim facility pending construction of the other half of the street by the adjacent owner. In some instances, it may be necessary to construct more than half the street depending on the classification of the street.

"Interceptor" -- Shall be a sewer that receives flow from a number of main or trunk sewers, force mains, etc.

“Land Surveyor” -- Professional Surveyor registered in the State of Washington to practice Land Surveying per RCW 18.43.

"Lateral" -- Shall be that section of the sewer line extending from the City's main to the right-of-way or easement line (i.e., the building sewer) that has no other common sewers discharging into it. (LMC 14.06.030)

“Lift Station Pressure Main” – The main associated with the lift station, starting at the pumps and ending at the outlet to the vault.

"LMC" -- Lacey Municipal Code.

"Lot Street Frontage" -- The distance between where the two lot lines intersect the fronting right-of-way.

"Plans" -- The plans, profiles, cross sections, elevations, details, and supplementary specifications, signed by a licensed professional engineer and approved by the Director of Public Works, which show the location, character, dimensions, and details of the work to be performed.

"Private Sewer" -- Shall be that portion of the system located on private property where no easements are granted to the City. Maintenance of a private sewer shall be the responsibility of the property owner(s).

"Private Street" -- Private vehicular access provided for by an access tract, easement, or other legal means to serve property that is privately owned and maintained.

"Project" -- General term encompassing all phases of the work to be performed and is synonymous to the term "improvement' or "work".

"Public Sewer" -- Shall be that portion of the system located within public right-of-way or easements and which is operated and maintained by the City. (LMC 13.04.120)

"Public Street" -- Publicly owned and maintained street.

"Right-of-Way" -- A general term denoting public land, property, or interest therein (e.g., an easement) acquired for or devoted to a public street, public access or public use.

"Road" -- Used interchangeably with street.

"Sewer Main" or "Trunk" -- Shall be a sewer that receives flow from one or more mains.

"S.T.E.P. Main" -- Septic Tank Effluent Pumping main. A low pressure, sewer force main that transports only effluent from S.T.E.P. tanks.

"Street" -- Used interchangeably with road.

"Use of Pronoun" -- As used herein, the singular shall include the plural, and the plural the singular; any masculine pronoun shall include the feminine or neuter gender and vice versa; and the term "person" includes natural person or persons, firm, co-partnership, corporation or association, or combination thereof.

"Utility" -- A company providing public service including, but not limited to, gas, oil, electric power, street lighting, telephone, telegraph, water, sewer, or cable television, whether or not such company is privately owned or owned by a governmental entity.

3.030 Changes to Standards

From time to time, changes may be needed to add, delete, or modify the provisions of these Standards. These Standards may be changed and, upon approval of the Director of Public Works, shall become effective and shall be incorporated into the existing provisions.

The City of Lacey web site currently provides a link to the Development Guidelines and Public Works Standards. There is an addendum section associated with this document. The addendum section is utilized for revisions to the document in between yearly revisions.

3.035 Severability

If any part of these City of Lacey Development Guidelines as established by ordinance shall be found invalid, all other parts shall remain in effect.

3.040 Design Standards

A. Detailed plans, prepared by a licensed engineer, must be submitted to the City for plan review and approval prior to the commencement of any construction. The applicant's engineer shall be a Professional Engineer, registered as such in the State of Washington. All plans must be checked, signed and stamped by the applicant's engineer prior to submittal for plan review. Final plans shall be approved by the Director of Public Works prior to the start of construction.
B. Separate plan and profile drawings are required for all proposed transportation-related improvements; street illumination; traffic signalization; storm drainage facilities (whether public or private); and sewer and water improvements. For specific minimum requirements, see the Plan Checklist on the following pages. On occasion, the scope of a project (i.e., relocating one hydrant) may not require engineered plans and can instead be handled via a Right-of-Way Access Permit. Additionally, some items of the checklist, though called for, may be unnecessary for a given project. This will be decided during Site Plan Review.

C. Three paper copies of the plans and one PDF copy are required to be submitted along with a completed Plan Review Application form. All plans shall be stapled, rolled and banded. All drawings shall be on 24" x 36" sheet size.

D. Drawings in PDF format (flattened) in 24 x 36 inch size (not 11 x 17 inch) shall be provided.

E. The engineer’s signed and stamped plan certification and completed checklist shall be submitted with the plan review application. Plans submitted without this document will not be routed for review.

   Plans submitted at the time of approval shall be submitted in PDF format. These plans shall be signed by the City electronically and returned to the engineer of record. Also unless otherwise waived by the Director of Public Works, an electronic file in AutoCad and PDF (On City of Lacey Coordinate System) formats shall be submitted for all approved final plans.

F. Specifications shall be required and submitted with the plans if General Notes do not adequately cover the project requirements.

G. Signed originals of all necessary easements and/or right-of-way dedication documents meeting all the current recording standards must be reviewed and approved prior to receiving signed approved plans. See Appendix B for examples.

H. The coordinates for all plans shall be based on the City of Lacey Coordinate System. Elevation data on all plans shall be referenced to NGVD 1929 Vertical Datum. Coordinate data and benchmark listings can be obtained from Lacey Public Works Survey Division.

I. One PDF and one paper copy of the Drainage Report per the City of Lacey Stormwater Design Manual are required. The report must be reviewed and approved prior to plan approval.

J. An Engineers Estimate or an itemized contractor's Bid Estimate is required.

K. Prior to Final Public Works Approval, an AutoCAD and PDF copy of the as-built drawings with accurate utility elevations shall be submitted to, reviewed and approved by the City.

L. Prior to scheduling a preconstruction conference, two sets of full-size drawings (24" x 36") and 2 sets of "half-size" drawings (11" x 17") must be submitted to the City.

Public Works Department
City of Lacey
PO Box 3400
Lacey, WA 98509-3400

Trackit #_____
Date Received: _____
Total Fees:_____
Received by:_____

PLAN REVIEW APPLICATION USE **BLACK** INK ONLY

Owner: _____
Contact Person:_____
Address: _____
City & State: _____
Zip: _____ Phone: _____
Email Address:_____
Applicant: _____
Contact Person:_____
Address: _____
City & State: _____
Zip: _____ Phone: _____
Email Address:_____
Engineer: _____
Contact Person: _____
Address: _____
City & State: _____
Zip: _____ Phone: _____
Email Address:_____

PROPERTY LOCATION:
North South East West side of:

(road name): _____

between (road name): _____

and (road name): _____

Property Address: _____
_____

Section _____ Township _____ Range _____

Assessor's Parcel No.: _____

SUMMARY OF REQUEST (List type of uses)

_____
_____
_____
No. of proposed dwelling units: _____

Dimensions of property: _____
_____
Total sq. ft. of site: _____
Total sq. ft. in buildings: _____
_____

Total sq. ft. in paved and covered surfaces (include buildings, driveways, streets, sidewalks, and parking lots):
_____
_____
_____
_____
_____

_____

ENGINEER'S CIVIL DRAWINGS CERTIFICATION

AND

CHECKLIST VERIFICATION

I hereby certify that the submitted civil drawings for

_____

(name of project) have been prepared by me or under my supervision and meet or exceed minimum standards of the City of Lacey and normal standards of engineering practice. I understand that the jurisdiction does not and will not assume liability for the sufficiency, suitability, or performance of civil drawings designed by me or under my supervision stamped by me. I also understand that the City of Lacey will conduct a general review of the plans and that as the engineer of record I am responsible for the accuracy and correctness of the plans and therefore solely responsible for all errors and omissions.

Prior to submitting the drawings to the City of Lacey for review, I have carefully reviewed the checklist and assure that all items provided on it have been included into the civil drawings being submitted.

_____

Signature

_____

Date

_____

Engineer's Seal

STANDARD ITEMS: WATER, SANITARY SEWER, STORM SEWER, STREET, LIGHTING, AND SIGNALS

The City will make a cursory check of the plans against the General Standards on the following plan checklist. If the plans meet the minimum checklist requirements as to content, they will be routed to the appropriate City staff and the plan review process will begin. If the minimum checklist requirements are not met, plans will be returned to the submitting engineer.

GENERAL STANDARDS TO BE INCLUDED ON <u>ALL SHEETS</u>:

( ) Title Block:
- ( ) Title:
- ( ) Design By:
- ( ) Drawn By:
- ( ) Date:
- ( ) Checked By:
- ( ) Signature Approval Block - leave room in the bottom right hand corner for the electronic signature block (5" wide x 2" high) –**All Sheets**.
- ( ) **<u>On the first page only</u>** leave room for two electronic signature blocks (total space of 5" wide x 4" high):
- ( ) Sheet Number of Total Sheets (i.e. 1 of 20, 2 of 20 etc.):

( ) Section, Township and Range

( ) Engineers Stamp (signed and dated)

( ) North Arrow

( ) Datum - Bench Mark Designation, NGVD 1929 Elevation, and Location (on all sheets where elevations are referenced)

( ) Datum - Horizontal, City of Lacey Ground Scale (show ties to control)

( ) Scale Bar

( ) Revision Block

( ) Existing Items and Elevations Including Contour Information have been Surveyed by a Professional Land Surveyor Licensed in the State of Washington and Accurately Reflect the Site Conditions

( ) Call Before You Dig Note (on each applicable sheet). Note includes the 811 number to call along with time requirement (48 hours in advance)

COVER SHEET ITEMS:

( ) Project Title (cover sheet)
( ) Legend (APWA Standard Symbols)
( ) Utility System Map (showing all proposed utilities on one drawing)
( ) Vicinity Map (on cover sheet only)
( ) Adjacent Property Lines, Ownership, Parcel Number, and Street Address
( ) Sheet Index providing Sheet Number of Total Sheets (i.e. water plan and profile views sheet 2 of 20, water details sheet 3 of 20 etc.)
( ) General Public Works Construction Notes included

UTILITY LAY OUT:

( ) Each Utility shown on a Separate Sheet (storm and roadway may be combined)
( ) Profile Views are included on the Same Sheet as the Plan View (unless approved by the City prior to plan submittal to be shown in an alternate location –which requires duplicate information in an additional location)
( ) Each Drawing Must be 20 or 30 Scale (the same scale shall be utilized throughout the plans)
( ) Base lines (with stationing) shall be labeled when the centerline of the roadway is not utilized

PLAN PORTION STANDARD ITEMS (Labeled on All Sheets)

( ) Centerline and Stations
( ) Edge of Pavement labeled with Width Dimension provided
( ) Right-of-Way labeled with width Dimension provided
( ) Proposed Survey Monumentation Locations and Details
( ) Sidewalk labeled with width Dimension provided
( ) Planter Strip labeled with width Dimension provided
( ) Roadway Sections
( ) Existing Utilities (above and below ground)
( ) Existing (active and inactive) and Proposed Wells
( ) Identify Street Names, Existing and Proposed Right-of-Way, Lots
( ) Identify Match Lines with Sheet Numbers and Stations
( ) Easements with Width and Label "City of Lacey Utility Easement" (the City no longer labels easements "water" or "sewer;" they are utility easements)
( )
( ) Stations and Offsets for All Structures and Fittings included for all improvements associated with a public roadway. On-site improvements may utilize either stations and offsets or northings and eastings
( ) Type of Pipe (actual material to be installed from the City approved material list for each utility is included)
( ) Flow Direction Arrows (on sewer and storm mains)
( ) Special Features such as Gas Tanks, Gas Mains, etc.

PROFILE PORTION STANDARD ITEMS

( ) Profile Grades (decimal Ft./Ft)
( ) Existing and Finished Centerline Ground Elevations Labeled (25 foot spacing)
( ) Scale (horizontal and vertical)
( ) Stationing

( ) Vertical Elevation Increments
( ) Existing Utilities (if available)
( ) Utility Crossings

SANITARY SEWER

Plan View:

( ) City of Lacey System Map Showing Tie-In to Existing System, including Line Size and Valves (full sheet)
( ) All Fittings and Structures shall be located on the South and West side of the Roadway/Drive Aisle as shown on the Roadway Details (alternate locations may be permitted upon request prior to civil drawing submittal)
( ) Overall map showing the entire sewer design on first sheet of sewer section
( ) Plan sheets associated with sewer improvements are presented starting at the connection point of the existing main (Sheet 1) and ending at the point furthest away from the connection

( ) Manhole
  ( ) Station and Offset (or Northings and Eastings on-site) Shown at Each Manhole/Cleanout (watch spacing)
  ( ) Manholes Numbered (start numbering at the connection point with manhole #1)
  ( ) Show the Manhole Opening placed Over the Outfall Channel Pipe

( ) Pipe

  ( ) Flow Direction (with arrow on pipe)
  ( ) Distance from Water Lines
  ( ) Type of Pipe (actual material to be installed from the City approved sewer material list is included)

( ) Service to Each Lot - include Lineal Footage of each Service (pressure/gravity) Needed for Sewer Testing
( ) Bearing/Distance (or station, offset, and angle) of Each Pipe Run Outside of the Right of Way
( ) Station and Offset (or Northings and Eastings on-site), Size of Tees, Crosses, Elbows, Adapters, Valves and Clean Outs
( )

Profile View:

( ) Manholes Numbered
( ) Invert Elevation Showing Direction, In and Out
( ) Rim Elevation
( ) Manhole Type Designation
( ) Grades Shown (decimal form Ft./Ft.) (minimum slopes)
( ) Size of Pipe
( ) Length of Pipe (in L.F.)
( ) Existing Utilities and Crossings shown
( ) Proposed Utility Crossings Where Existing Utility Conflicts occur, include Elevations of the Tops and Bottoms of the conflicting Pipes
( ) Show Fixtures (tees, crosses, valves, couplers)
( ) Cover Over Pipe (a minimum of 7 feet of cover is required over all gravity sewer mains, 68-inch for pressure sewer mains – pressure sewer mains at a greater depth may only be installed with the approval of the City)

Miscellaneous:

( ) Sewer Detail Sheet (include City of Lacey details with Lacey title blocks)
( ) Sewer General Notes
( ) Existing Septic Tanks/Drainfields (with note to abandon if necessary)

WATER

( ) Prior to submitting Plans, the Water Modeling Results have been obtained from the City of Lacey. Appropriate Improvements have been included into the Design to satisfy Water Modeling Results

Plan View:

( ) City of Lacey System Map showing Existing and Proposed Mains with Line Sizes. The System Map shall also include Hydrants and the Nearest Valves to the Site (one on each side of the project) to assure the Main may be quickly isolated in the Event of an Emergency

( ) All Fittings and Structures are located on the North and East side of the Roadway/Drive Aisle as shown on the Roadway Details (alternate locations may be permitted upon request prior to civil drawing submittal)( ) Overall map showing the entire water design on first sheet of water section

( ) Plan sheets associated with water improvements are presented starting at the connection point of the existing main (Sheet 1) and ending at the point furthest away from the connection

( ) Fixtures (need horizontal control)

( ) Fire Hydrants (Check with Lacey Fire Marshall for location)

( ) Blow-off (at end of line if no hydrant)

( ) Vacuum and Air Release Valves When Required

( ) A Hydrant is included at Each Intersection

( ) Station and Offset (or Northings and Eastings on-site), Size of Tees, Crosses, Elbows, Adapters and Valves Need Coupling Type

( ) Valves (3 each tee, 4 each cross – if the tee is associated with a fire hydrant, only one valve is required)

( ) Fire Department Connection shown if the Building requires Fire Sprinklers. Valve is provided where the Fire Department Connection line connects to the water main.

( ) “By Separate Permit” written by the Underground Sprinkler Line (Fire Line)

( ) Thrust Blocking if Required at all Fittings Including In-Line Valves

( ) Distance from Sewer is called out on all Water Sheets
( ) Bearing and Distance of Each Pipe Run Outside of the Right of Way
( ) Service to each lot (include open tracts) has been provided
( ) Domestic Meters with Station, Size and Offset Information are provided for Each Building. Duplexes require a Meter for Each Unit.
( ) Valve is provided for water services 3-inches and larger.
( ) Commercial Water Services (this includes multi-family) are equipped with Reduced Pressure Backflow Assemblies
( ) Sample Station provided, (call Public Works for location - see detail)
( )
( ) Contour Lines for Utility Installations occurring in Open Areas are provided

Profile View:

( ) Existing and Proposed Utility Crossings
( ) Show Fixtures (tees, crosses, hydrants)
( ) Type of Pipe (actual material to be installed from the City approved water material list is labeled)
( ) Show Valves and Couplers
( ) Size of Watermain
( ) Length of Watermain in Lineal Feet
( ) Cover Over Pipe
( ) Where Potential Utility Conflicts occur, include Elevations of the Tops and Bottoms of the conflicting Pipes
( ) "Top of Pipe" Elevations Every 50 feet provided (in unimproved areas)
( ) Water main is designed at a consistent depth (not 'snaked' around other utilities)
( ) Water mains at a depth of 3.5 feet are provided (mains located other than 3.5 feet may only be installed with the approval of the City).

Water mains are installed at a constant depth, bending mains to avoid other utilities will not be permitted

Miscellaneous:

( ) Water Detail Sheet provided (include City of Lacey details with Lacey title blocks)

( ) Water General Notes provided

Irrigation

( ) Irrigation Plan provided for irrigation in the Right of Way

( ) Irrigation Meter location and size provided

( ) Irrigation Meters are equipped with a Double Check Valve Assembly

( ) Irrigation Sleeves (where irrigation mains cross to irrigate both sides of the street) are provided

( ) Master Control Valve Location Identified

( ) SealAMatic (SAM) Spray Heads are included for Slopes Greater than 3 Percent

( ) Power Source and Type of Service for Irrigation System

STORM

Drainage and Erosion Control Plan Report:

Please see City of Lacey Stormwater Design Manual for drainage report requirements

All Plan Views:

( ) Existing and Proposed Contours at maximum 2 foot intervals (confirmed with current survey data, general contours provided by sites like Thurston County Geo-Data are not acceptable). Existing Topography at Least 50 Feet Beyond Site Boundaries

Site Map

( ) Finished Grades
( ) Existing Structures within 100 Feet of Project Boundary
( ) Utilities
( ) Easements, Both Existing and Proposed
( ) Environmentally Sensitive Areas (includes wetlands, streams, lakes etc.)
( ) 100 Year Flood Plain Boundary
( ) Major Drainage Features
( ) Flow Path
( ) Project Boundaries
( ) Existing and Proposed Wells within project boundaries
( ) Existing and Proposed Fuel Tanks
( ) Existing and Proposed On-Site Sanitary Systems within 100 feet of Detention/Retention Facilities
( ) Proposed Structures Including Roads and Parking Surfaces (provide square footages of these areas)

( ) Proposed Drainage Facilities and Sufficient Cross-Sections and Details to Build (include stations and offsets where necessary)
( ) Stormwater facilities meet set back requirements as required in the Stormwater Design Manual.

Plan View - Conveyance System

( ) Number at each Manhole/Catch Basin
( ) Flow Direction with Arrow on Pipe/Channel
( ) The required Roof Drain and Dry Well system note is included on the drawings

Profile View (for private and public systems)

( ) Station and Offset (or Northings and Eastings on-site), and Number at each Manhole/Catch Basin
( ) Manhole/Catch Basin Type and Size
( ) Manhole/Catch Basin Rim Elevation
( ) Type and Size of Pipe
( ) Stormwater conveyance pipes shall not be located in the planter strip areas
( ) Invert in and Out (include compass direction)
( ) Length of Pipe in Lineal Feet
( ) Grades (Ft./Ft.)
( ) Show Catch Basin Crossing Profiles (each crossing) on the Sheet Where They Occur

Erosion Control Drawings are not part of the Civil Submittal – submit erosion control drawings as part of the grading permit to the Community Development department in accordance with the checklist found in Chapter 2 of Development Guidelines and Public Works Standards manual

Construction Inspection Report

Miscellaneous:

( ) Storm Detail Sheet provided (include City of Lacey details with Lacey title blocks)
( ) Storm General Notes provided

STREET

Plan View:

( ) Sight Distance and Clear Sight Triangle at Intersections comply with City standards
( ) Flow Direction Arrows at Curb Returns Showing Grade
( ) Spot Elevations on Curb Returns
( ) Spot Elevations at existing and proposed Driveway Cuts – both sides of street
( ) Stationing provided at Point of Curvature PC, Point of Tangent PT, and Intersections
( ) Curve Information Delta, Radius, Length and Tangent provided for all curves
( ) BCR and ECR (Begin Curb Radius, End Curb Radius) Stationed
( ) Edge of Pavement and Right-of-Way (EP & R/W) labeled on the Drawings
( ) Signing - Temporary and Proposed Permanent and a Note Indicating that the City will Install both Public and Private Roadway Signs at the Developers Expense
( ) Channelization, Striping, and Existing Signing in accordance with M.U.T.C.D., State and City Standards

( ) Mailbox Locations (existing and proposed) shown on drawings with Stationing

( ) Location of School Bus and/or IT Bus Shelter/Pad shown on drawings with Stationing – the pad meets A.D.A. standards

( ) Typical Roadway Sections provided for each Roadway

( ) Pavement Marking Details with Station and Offset in accordance with M.U.T.C.D., State and City standards

( ) Sidewalks provided in Accordance with the Appropriate Road Section

( ) 2 Percent Roadway Slope from Centerline to the Gutter is provided (the slope is also provided for stubbed roads, knuckles and Cul-de-Sacs)

( ) Driveway Entrances (information may be shown on tables on each sheet where cuts occur)

( ) Centerline Stationing

( ) Width, Material (AC, PCC, other)

( ) Driveway Type

( ) Curb Ramps - Detail and Type

( ) All Curb Ramps Proposed or Existing satisfy Current A.D.A. Requirements. In accordance with detail 4-11.1, Spot elevations shall be provided for those critical locations as necessary to assure A.D.A slope requirements are satisfied (slopes shall be labeled on the detail)

( ) If the Project has 500 feet of Frontage or the Utility Poles need to be relocated, Direction to underground Overhead Utilities included in the Civil Drawings

( ) Landscaping Plan for Plantings within the Right of Way is provided

( ) Street trees called out within the Right of Way are Approved Varieties as listed in the Development Guidelines

( ) Street trees are not located within 10-feet of S.T.E.P. and Grinder main improvements, water service boxes, driveways and street lighting.

( ) On site landscaping plans shall be separate from Right of Way landscaping. On site landscaping shall be submitted to Community Development for approval

( ) Irrigation Sleeves (where irrigation mains cross to irrigate both sides of the street) are provided

Profile View:

( ) Vertical Information VPI, BVC, EVC, AP, 'K' value, Low Point, High Point (for all curves)

( ) Proposed and existing centerline elevations provided

( ) Show Grades with (+ or -) Slope

( ) Super Elevated Roadways Identified

( ) Detail - Show Transitions In and Out of the Super Elevated Road Section

( ) Special Detail Showing Gutter Flowing Adequately is provided

Miscellaneous:

( ) Street Detail Sheet provided (include City of Lacey details with Lacey title blocks)

( ) Street General Notes provided

( ) Pavement Design AASHTO Method in conformance with details provided Soils Report provided

ILLUMINATION AND SIGNALS

Lighting

( ) Design Calculations (for roads with curves and roads that do not meet current roadway standards)
( ) Appropriate Street Lighting provided (pedestrian scale, roadway, or dual function)
( ) Station and Offset to Lighting Fixtures and Appurtenances provided
( ) Pole Type, Including Manufacturer and Model Number
( ) Mounting Height and Arm Length
( ) Ten foot “clear zone” from the street lighting to private overhead utilities is incorporated into the street lighting design
( ) Power Source
( ) Wire Size, Type, Conduit (maximum conductor per 2 inch conduit is as follows: 7 - #8 conductors or 5 - #4. When conductors exceed the maximum, (7 - #8 or 5 - #4) an additional 2 inch conduit shall be provided). Upsizing of the Conduit Shall Not Be permitted.
( ) Spare 2 inch Conduit (in addition to the previous check list item) included
( ) Luminaire Type, Lamp Wattage
( ) Location of Service Disconnects (5% Max. Voltage Drop from Source to Farthest Luminaire)
( ) J-Box Locations and Stations
( ) Overall Map with Luminaire Locations Shown
( ) On Boulevards, Arterials and Collector Roadways Where Dual Function Pedestrian Poles are utilized, Two Circuits are shown. One Circuit is on the Right Side of the Street and One Circuit is on the Left Side of the Street.

Signals (Follow WSDOT Specs Unless Otherwise Required by the City)

( ) Station and Offset to Signal Base, Cabinets, Ped. Lead, Loops, etc.
( ) Pole Type, Including Manufacturer and Model Number
( ) Wiring Schedule
( ) Signal Heads and mounting Assembly
( ) Detection Loops
( ) Opticom
( ) Control Cabinet, Size and Layout
( ) Power Source
( ) Conduit
( ) Wire Size and Type
( ) Phasing Schedule
( ) Construction Notes
( ) J-Box Schedule with Stationing and Type
( ) Pedestrian Signal type with Push Button (meeting A.D.A requirements) provided
( ) Controller type, Configuration, and Wiring Schematic

Miscellaneous:

( ) Street Lighting Detail Sheet provided (include City of Lacey details with Lacey title blocks)
( ) Lighting General Notes provided

MISCELLANEOUS

( ) Easements provided with the civil drawings
( ) Right of Way Dedication Deed provided with the civil drawings
( ) Power of Attorney for Annexation provided with the civil drawings
( ) Bill of Sale provided with the civil drawings
( ) Detailed Engineers Estimate or Contractor's Bid for Public Works Improvements provided
( ) Line Loss Calculations provided
( ) Stormwater Maintenance Agreement (in recordable format) provided with the civil drawings

Additional Items:

( ) Field Verify Note on drawing.- Expose Connection Points and Verify Fittings 48 Hours Prior to Distributing Shut-Down Notices

APWA STANDARD SYMBOLS

CHANNELIZATION SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION	BLOCK	LAYER
		BIKE PATH	CB/CBP	TF-CHAN-3333-SYM
		HANDICAP SYMBOL	CHS/CHSP	TF-CHAN-3333-SYM
		H.O.V. LANE SYMBOL	CHOV/CHOVP	TF-CHAN-3333-SYM
ONLY	ONLY	ONLY	CO/COP	TF-CHAN-3333-SYM
RR	RR	RAILROAD CROSSING	CRR/CRRP	TF-CHAN-3333-SYM
SCHOOL	SCHOOL	SCHOOL	CSC/CSCP	TF-CHAN-3333-SYM
STOP	STOP	STOP	CS/CSP	TF-CHAN-3333-SYM
		LANE CONTROL ARROWS:		
		STRAIGHT ARROW	CSA/CSAP	TF-CHAN-3333-SYM
		LT.RT.STR.ARROW	CLRS/CLRSP	TF-CHAN-3333-SYM
		LEFT-RIGHT ARROW	CLR/CLRP	TF-CHAN-3333-SYM
		2-WAY LEFT TURN	C2W/C2WP	TF-CHAN-3333-SYM
		LEFT TURN ARROW	CLT/CLTP	TF-CHAN-3333-SYM
		RIGHT TURN ARROW	CRT/CRTP	TF-CHAN-3333-SYM
		LEFT-SRAIGHT ARROW	CLS/CLSP	TF-CHAN-3333-SYM
		RIGHT-STRAIGHT ARROW	CRS/CRSP	TF-CHAN-3333-SYM
		RAISED MARKERS:		
		LANE MARKERS TYPE I	CLM1/CLM1P	TF-CHAN-3333-SYM
		LANE MARKERS TYPE II	CLM2/CLM2P	TF-CHAN-3333-SYM 3333 – USE EXST/PROP

SURFACE FEATURES/LANDSCAPING

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION	BLOCK	LAYER
BUS	BUS	BUS STOP	SFBS/SFBSP	SF-BUSS-3333-SYM
		EMBANKMENT	SFB/SFBP	SF-EMBT-3333-SYM
		MAIL BOX	SFMB/SFMBP	SF-MAIL-3333-SYM
		RIP RAP	SFRR/SFRRP	SF-RIPR-3333-SYM
		ROCKERY	SFR/SFRP	SF-ROCK-3333-SYM
		SHRUB	SFS/SFSP	SF-VEGE-3333-SYM
		SIGN	SFSN/SFSNP	SF-SIGN-3333-SYM
		TREE (Conifer)	SFC/SFCP	SF-VEGE-3333-SYM
		TREE (Deciduous)	SFD/SFDP	SF-VEGE-3333-SYM
		YARD LIGHT	SFL/SFLP	SF-LITE-3333-SYM 3333 – USE EXST/PROP

LINETYPES

LINETYPE	DESCRIPTION	COLOR	LT NAME	LAYER
	SURFACE FEATURES:			
	BUILDING LINE (EXISTING)	GREEN	EXBUILD	SF-BLDG-EXST-LIN
	BUILDING LINE (PROPOSED)	GREEN	CONTINUOUS	SF-BLDG-PROP-LIN
	CREEK/DITCH CENTERLINE (EXIST.)	WHITE	DITCH	SF-DTCH-EXST-LIN
	CREEK/DITCH CENTERLINE (PROP.)	GREEN	DITCH	SF-DTCH-PROP-LIN
	CURB/PAVEMENT/SIDEWALK (EX)	WHITE	CONTINUOUS	SF-222A-EXST-LIN
	CURB/PAVEMENT/SIDEWALK (PROP)	CYAN	CONTINUOUS	SF-222A-PROP-LIN
	FENCE (EXISTING)	YELLOW	FNC1	SF-FENC-EXST-LIN
	FENCE (PROPOSED)	CYAN	FNC1	SF-FENC-PROP-LIN
	GUARDRAIL (EXISTING)	YELLOW	EGR1	SF-GURD-EXST-LIN
	GUARDRAIL (PROPOSED)	CYAN	PGR1	SF-GURD-PROP-LIN
	LAKE/POND	WHITE	LAKE	SF-LAKE-EXST-LIN
	MARSH/SWAMP PERIMETER	WHITE	MARSH	SF-SWMP-EXST-LIN
	RAILROAD	WHITE	R1R1	SF-RLRD-EXST-LIN
	RETAINING WALL (EXISTING)	WHITE	ERW1	SF-WALL-EXST-LIN
	RETAINING WALL (PROPOSED)	CYAN	PRW1	SF-WALL-PROP-LIN
	RIVERBANK/SHORELINE	CYAN	CONTINUOUS	SF-222B-EXST-LIN 222A – USE CURB/PVMT 222B – USE RIVR/SHOR
	SURVEY:			
	CENTERLINE (EXISTING)	YELLOW	EXCNTL	SV-CNTL-EXST-LIN
	CENTERLINE (PROPOSED)	GREEN	PROCNTL	SV-CNTL-PROP-LIN
	CONTOUR (DEPRESSION)	YELLOW	DEC1	SV-CONT-DEPR-LIN
	CONTOUR (EXISTING)	YELLOW	CON	SV-CONT-EXST-LIN
	CONTOUR (INDEX)	CYAN	CON	SV-CONT-INDX-LIN
	CONTOUR (PROPOSED)	CYAN	CONTINUOUS	SV-CONT-PROP-LIN
	DONATION LAND CLAIM (EXIST.)	CYAN	DLC	SV-DLCM-EXST-LIN
	DONATION LAND CLAIM (PROP.)	GREEN	DLC	SV-DLCM-PROP-LIN
	EASEMENT (PERMANENT)	CYAN	CONTINUOUS	SV-ESMT-PERM-LIN
	EASEMENT (TEMPORARY)	CYAN	TEMPESMT	SV-ESMT-TEMP-LIN
	MEANDER LINE	YELLOW	MEANDER	SV-MEAN-EXST-LIN
	PROPERTY LINE (EXISTING)	YELLOW	PROPERT	SV-PROP-EXST-LIN
	PROPERTY LINE (PROPOSED)	CYAN	PROPERT	SV-PROP-PROP-LIN
	RANGE/TOWNSHIP LINE	GREEN	CONTINUOUS	SV-222A-EXST-LIN
	RESERVATION/PARK/FOREST (EX)	CYAN	PARK	SV-PARK-EXST-LIN
	RESERVATION/PARK/FOREST (PRO)	GREEN	PARK	SV-PARK-PROP-LIN
	RIGHT-OF-WAY (EXISTING)	CYAN	EXROW	SV-ROFW-EXST-LIN
	RIGHT-OF-WAY (PROPOSED)	GREEN	CONTINUOUS	SV-ROFW-PROP-LIN
	RIGHT-OF-WAY (LIMITED ACCESS)	CYAN	ROWL1	SV-LROW-EXST-LIN
	RIGHT-OF-WAY (LIMITED ACCESS)	GREEN	ROWL1	SV-LROW-PROP-LIN
	SECTION LINE	GREEN	SECT	SV-SECT-EXST-LIN
	QUARTER SECTION LINE	CYAN	QTRSECT	SV-QSCT-EXST-LIN
	SIXTEENTH SECTION LINE	CYAN	16THSECT	SV-16ST-EXST-LIN
	STATE/COUNTY/CORPORATE LIMIT	GREEN	STATE	SV-222B-EXST-LIN
	STATE/COUNTY/CORPORATE LIMIT	GREEN	STATE (PLINE .03"WIDE)	SV-222B-PROP-LIN 222A – USE RANG/TWNS 222B – USE STAT/CNTY/CITY
	UTILITIES (EXISTING):			
TV	CABLE TELEVISION (AERIAL)	RED	ATV	TV-ALIN-EXST-LIN
TV	CABLE TELEVISION (BURIED)	RED	TV	TV-BLIN-EXST-LIN
FM	FORCE MAIN	MAGENTA	FM	SS-PLIN-EXST-LIN
G	GAS	MAGENTA	G	GS-PLIN-EXST-LIN
O	OIL	MAGENTA	O	OL-PLIN-EXST-LIN
P	POWER (AERIAL)	RED	AP	PO-ALIN-EXST-LIN
P	POWER (BURIED)	RED	P	PO-BLIN-EXST-LIN
S	SANITARY SEWER	WHITE	S	SS-GLIN-EXST-LIN
STE	STEAM	MAGENTA	STE	ST-PLIN-EXST-LIN
D	STORM DRAINAGE	WHITE	D	SD-2222-EXST-LIN
T	TELEPHONE (AERIAL)	RED	AT	TL-ALIN-EXST-LIN
T	TELEPHONE (BURIED)	RED	T	TL-BLIN-EXST-LIN
	UTILITY SERVICE LINE (GENERAL)	YELLOW	SERV	11-SERV-EXST-LIN
W	WATER	MAGENTA	W	WA-2222-EXST-LIN 11 – INDICATE UTILITY TYPE 2222 – USE GLIN/PLIN
	UTILITIES (PROPOSED):			
	MAIN LINE (LIST TYPE, SIZE, ETC.)	*	CONTINUOUS (P-LINE .04" WIDE)	11-2222-PROP-LIN
	SERVICE (LIST TYPE, SIZE, ETC.)	*	CONTINUOUS	11-SERV-PROP-LIN 11 – INDICATE UTILITY TYPE 2222 – USE ALIN/BLIN/GLIN/PLIN

* COLOR DEPENDS ON TYPE OF UTILITY (E.G. POWER, WATER, ETC.)
*** INSERT ELEVATION AT 6" INTERVALS (TEXT 0.1" HIGH)

ALIN – AERIAL LINE
BLIN – BURIED CONDUIT
GLIN – GRAVITY LINE
PLIN – PRESSURE LINE

NOTES

1. PRINT APWADOC2.DOC FOR MORE INFORMATION ON SYMBOL/LINETYPE INSERTION AND USE OF APWA MENUS.
2. INSERT MON OR MON-IN-CASE SYMBOLS INTO CENTER OF MONUMENTED SECTION CORNERS.
3. USE WATER VALVE AND FITTING SYMBOLS FOR SEWER FORCEMAIN VALVES AND FITTINGS.
4. LINETYPES ARE LOADED FROM THE APWALIN2.LIN LINETYPE FILE.
5. DITCH LINETYPE FLOW DIRECTION ARROW MUST BE INSERTED AT ENDS OF DASHED LINES AS SHOWN ABOVE (BLOCK NAME IS "FL").
6. COMPOSITE LINETYPES ARE DRAWN USING LISP ROUTINES IN APWA MENUS. AL-
7. LINEWEIGHTS ARE BASED ON DISPOSABLE LIQUID INK PLOTTER

TERNATE METHOD IS TO INSERT BLOCKS ALONG CONTINUOUS LINES AS FOLLOWS:

LINETYPE	BLOCK	SPACING (INCHES)
EXISTING FENCE	FP	1.0
PROPOSED FENCE	FP	1.0
EXISTING GUARDRAIL	GR	1.0
PROPOSED GUARDRAIL	GRP	1.0
EXISTING RAILROAD	RR	0.5
EXISTING RETAINING WALL	EW	0.25
PROPOSED RETAINING WALL	PW	0.25
DEPRESSION CONTOUR	DEP	0.1
LIMITED ACCESS R.O.W.	LA	0.1

POINT SIZES:	COLOR	PEN SIZE	NUMBER
	YELLOW	0.25	3x0
	MAGENTA RED WHITE	0.35	0
	CYAN	0.5	1
	GREEN	0.7	2 1/2

MORE SIZES AVAILABLE IF USE REFILLABLE PLOTTER POINTS.

3.045 General Public Works Construction Notes

GENERAL CONSTRUCTION NOTES (ALL PUBLIC WORKS IMPROVEMENTS)

1. All workmanship and materials shall be in accordance with City of Lacey standards and the most current edition of the *State of Washington Standard Specifications for Road, Bridge and Municipal Construction* (WSDOT/APWA). In cases of conflict, the most stringent standard shall apply.

2. The contractor shall be in compliance with all safety standards and requirements as set forth by OSHA, WISHA and the State of Washington, Department of Labor and Industries.

3. All approvals and permits required by the City of Lacey shall be obtained by the contractor prior to the start of construction.

4. If construction is to take place in the County right-of-way, the contractor shall notify the County and obtain all the required approvals and permits.

5. A pre-construction meeting shall be held with the City of Lacey Construction Inspector a minimum 72 hours prior to the start of construction.

6. The City of Lacey Construction Inspector shall be notified a minimum of 48 hours in advance of a tap connection to an existing main. The inspector shall be present at the time of the tap.

7. The contractor shall be fully responsible for the location and protection of all existing utilities. The contractor shall verify all utility locations prior to construction by calling the Underground Locate Line at 811 not less than two business days and not more than 10 business days prior to any excavation. The contractor will also be responsible for maintaining all locate marks once the utilities have been located.

8. Temporary street patching shall be allowed for as approved by the City engineer. Temporary street patching shall be provided by placement and compaction of 1 inch maximum asphalt concrete cold mix. Contractor shall be responsible for maintenance as required.

9. The contractor shall be responsible for all traffic control in accordance with the *WSDOT/APWA Standard Plans for Road, Bridge and Municipal Construction* (all applicable "K" plans) and/or the *Manual on Uniform Traffic Control Device*s (MUTCD). Prior to disruption of any traffic, a traffic control plan shall be prepared and submitted to the City for approval. No work shall commence until all approved traffic control is in place.

10. Erosion control/water pollution measures shall be required in accordance with Section 1-07.15 of the *WSDOT/APWA Standard Specifications for Road, Bridge and Municipal Construction* and the *City of Lacey Stormwater Design Manual*. At no time will silts and debris be allowed to drain into an existing or newly installed facility unless special provisions have been designed.

11. All surveying and staking shall be performed per the corresponding chapter of the *City of Lacey Development Guidelines and Public Works Standards*.

12. It shall be the responsibility of the contractor to have a copy of an approved set of plans on the construction site at all times.

13. Any changes to the design shall first be reviewed and approved by the project engineer and the City of Lacey.

14. If construction is to take place in other jurisdiction's right-of-way (i.e., the county, the State, the City of Olympia, or other adjacent municipalities), the contractor shall notify the jurisdiction and obtain all the required approvals and permits.

15. Prior to backfill all mains and appurtenances shall be inspected and approved by the City of Lacey Construction Inspector. Approval shall not relieve the contractor for correction of any deficiencies and/or failures as determined by subsequent testing and inspections. It shall be the contractor's responsibility to notify the City of Lacey for the required inspections.

16. The City will be given 72 hours notice prior to scheduling a shutdown. Where connections require "field verification", connection points shall be exposed by the contractor and fittings verified 72 hours prior to distributing shut-down notices.

3.050 Plan Review

All plans are to be submitted to the City Public Works Department along with required Plan Check fees as required in 3.070. Any necessary easements or other required paperwork shall be signed and notarized and submitted in recordable format along with the plans. An engineer's estimate shall be submitted prior to plan approval. City staff will make a cursory check of the plans against the plans checklist on the preceding pages. Plans that meet the minimum checklist requirements will be routed to the appropriate City staff and the plan review process will begin.

A non-refundable plan review deposit shall be collected with the submittal of the civil drawings. When final plan check fees are calculated, the deposit shall be applied to these fees. If the plan check fees are not collected prior to the civil drawings expiring (two years from the plan approval date) the deposit shall be forfeited and retained by the City for the work performed with the plan review.

The initial turn around time for the first review of plans submitted is normally four weeks. The length of time for the initial review also depends upon the work load of the department, if there is a backlog of projects and the size of the project. Depending on these items, the initial review time may be longer. For subsequent reviews, the engineer will submit one paper set and one PDF copy of drawings for re-review. Additional review time will be required if revisions are necessary. Plan check fees are based on the lineal footage of the improvement being reviewed and on an hourly rate starting with the second review.

Approved plans will be returned to the Engineer only after the plan check and inspection fees have been paid.

Plans that have been approved more than two years before construction begins (i.e., a preconstruction meeting scheduled and inspection fees paid) shall be subject to re-review based on the hourly rate as established for third submittal. The re-review will concentrate on matters concerning compliance with construction materials, ADA requirements, and life/safety issues.

3.055 Construction Control

Work performed for the construction or improvement of City roads and utilities whether by or for a private developer, by City forces, or by a City contractor, shall be done to the satisfaction of the City and in accordance with approved plans. It is emphasized that no work shall be

started until such plans are approved. The City shall approve any revision to such plans before being implemented. Failure to receive the City's approval can result in removal or modification of construction at the contractors or developers expense to bring it into conformance with approved plans.

3.060 Inspection

All work performed within the public right-of-way or easements, or as described in these standards, whether by or for a private developer, by City forces, or by a City contractor, shall be done to the satisfaction of the City and in accordance with the WSDOT/APWA Standard Specifications, any approved plans and these standards. Unless otherwise approved, the City must approve any revision to construction plans before being implemented.

It is the responsibility of the developer, contractor, or their agents to notify the City in advance of the commencement of any authorized work. A preconstruction meeting and/or field review shall be required before the commencement of work. The developer shall submit 2 sets of full-size drawings and 2 sets of half-size drawings, made from the approved plans, to the City prior to scheduling a preconstruction meeting. Inspection fees shall be paid prior to the preconstruction meeting. **Any necessary easements, right-of-way dedications, bill of sale, stormwater maintenance, power of attorney for annexation documents are required before plan approval.**

It is the responsibility of the developer, contractor or their agents to have an approved set of plans and any necessary permits on the job site during construction.

The City shall have the authority to enforce these standards as well as other referenced or pertinent specifications. The City will appoint project engineers, assistants and inspectors as necessary to inspect the work and they will exercise such authority as the City Engineer may delegate.

All specific inspections, test measurements or actions required of all work and materials are set forth in their respective chapters herein. Tests shall be performed at the developer or contractor's expense. Failure to comply with the provisions of these standards may result in a stop work order, removal of work accomplished, or other penalties as established by ordinance.

A project is considered final when the Public Works Director issues a Final Public Works Approval letter to the party responsible for the project.

Certificate of Occupancy shall not be released for any lot or building until final Public Works approval has been granted.

3.065 As-Built Drawings

As-built drawings in electronic format (AutoCAD and PDF) shall be required whenever field changes are made to approved plans unless otherwise specified in this document. The as-built drawing shall be completed by the engineer, the contractor, and/or the developer and the changes shall be approved by the designing engineer as indicated by the designing engineer's signature and stamp on the drawing. The as-built drawing shall be revised electronically. Original drawings with "mark ups" will not be accepted for the final as-built drawings. Final Public Works Approval for the project will not be given until the as-built drawing is submitted.

3.070 Fees

Fees, charges or financial guarantee requirements shall be as established by the City council by the passage of a resolution adopting a fee, charge, and financial guarantee requirement schedule except where specifically set forth in the Lacey Municipal Code (LMC). The City council shall further set the dollar penalty for failure to pay said fee or charge in a timely manner by passage of such resolution. (LMC 1.20.010)

All plan check and inspection fees are due prior to the release of signature drawings.

In addition, there are various service, connection fees and charges. We strongly urge all applicants to request an estimate of these fees and charges from the City's Development Review Services Section as soon as practical.

3.080 Permits

Before any person, firm or corporation shall commence or permit any other person, firm or corporation to commence any work to grade, pave, level, alter, construct, repair, remove, excavate or place any pavement, sidewalk, crosswalk, curb, driveway, gutter, drain, sewer, water, conduit, tank, vault, street banner or any other structure, utility or

improvement located over, under or upon any public right-of-way or easement in the City of Lacey, or place any structure, building, barricade, material, earth, gravel, rock, debris or any other material or thing tending to obstruct, damage, disturb, occupy, or interfere with the free use thereof or any improvement situate therein, or cause a dangerous condition, a Right-of-Way Access Permit shall be obtained. A separate permit shall be obtained for each separate project.

In the case of work contracted for by the Department of Public Works, the signing of the contract shall constitute a Right-of-Way Access Permit and/or a Grading Permit.

Much of the work covered under these standards will require multiple permit authority review and approvals. Several types of permits and approvals require prior approval from the authority before a building or other permit can be issued. Any questions regarding information about permits, approvals and agreements should be directed to the appropriate departments.

A. Construction Permits

3.

4. Right-of-Way Access Permit (Public Works Department). A Right-of-Way Access Permit is required for any work within the right-of-way as outlined at the beginning of this Chapter. Such work may include utilities work, lane closures, driveways, curbs, sidewalks, and haul routes. Permission to temporarily close a street or portion thereof for construction activities or special events is obtained through the Right-of-Way Access Permit.

C. Approvals and other Permits

1. Civil Drawing Approval

   Prior to scheduling a pre-construction meeting, civil drawings signed by the City shall be obtained.

2. Final Public Works Approval

Final Public Works approval is granted for the project upon completion and acceptance of all transportation and utility work as shown on the approved civil drawings. The following items cannot be issued or authorized without Final Public Works approval:

a) Final Plat approval (for residential developments)
b) Installation of S.T.E.P. tanks
c) Issuance of Certificate of Occupancy

The Final Public Works approval date constitutes the beginning of the warranty period associated with Maintenance and Stormwater bonding.

If the improvements shown on the approved civil drawings have not been completed and approved, the owner/applicant may request an exception to allow other portions of the project to continue or begin. The exception process for residential development (Final Plat) is outlined above in section 3.080 C.1. Exemptions for commercial and industrial development: a request and approval for exception from the Director of Public Works and an approved performance guarantee as outlined in 3.090 A.

3.090 Financial Guarantees

Financial guarantees may be required by the City to guarantee the performance of required work. A financial guarantee shall be required for maintenance as outlined in subsection B. below. The type and amount of security shall be per code, or, if not specified, shall be at the discretion of the City. Types of securities include but are not limited to a bond with a surety qualified to do a bonding business in this state, a cash deposit, an assigned savings account, a set aside letter or a letter of credit.

Final Public Works approval shall not be given until all the required work is done and approved and the maintenance financial guarantee(s) is in place.

The following are the most frequent financial guarantees required:

A. Performance Guarantee. A Final Plat shall not be recorded and no building permit shall be issued until all Public Works improvements are completed and final approval is granted. Exceptions to this policy may be granted with the approval of the Director of Public Works, submission and approval of a Final Plat Agreement (see example in Appendix I), and a performance guarantee posted with the City in the amount, equal to 150 percent of the cost of the outstanding public works improvements, including the on-site storm system. No certificate of occupancy shall be issued until all public works improvements are completed and approved unless otherwise allowed by the Director of Public Works. (LMC 14.20.020)

B. Maintenance Guarantee.

General Public Works Maintenance Guarantee. Prior to final Public Works approval, the permittee or the contractor for the permittee shall post with the City a maintenance guarantee for the guarantee of the Public Works improvements in an amount equal to 20 percent of the estimated cost of the improvements for a period of two years after the completed job is accepted by the City. Release of the guarantee will occur one year from the date of City acceptance if all maintenance has been accepted by the City. (LMC 14.20.025)

Maintenance shall include cleaning of the storm system at the end of the one-year period at the developer's expense. The developer shall be responsible for cleaning the storm conveyance system, including treatment facilities, after one year.

The above-mentioned Financial Guarantee may also be required in the event that Public Works improvements are undertaken and there is no building permit in conjunction with the project.

3.100 Utility Locations

Utilities shall be subject to the provisions as provided in the Telecommunications Ordinance (LMC 5.60) and these Guidelines.

A. The installation of a utility as defined in Chapter 3.025, whether new, an enhancement, or a replacement project, within a right-of-way or easement, in a new or existing roadway, shall be located as shown in the typical sections on detail drawings. Deviations of location shall be approved by the Director of Public

Works. Existing utilities shall be shown using the best information available. This verification may require exploration/excavation (potholing) if utilities are in conflict with the proposed design.

Underground utilities shall be installed in conduit. Direct-bury cable/wire shall not be allowed. Excess conduit may be required per LMC 5.60.100 (C).

The contractor/developer shall be responsible for utility locates in conjunction with their project until final Public Works approval is given.

B. All new utilities other than those located on private property shall be installed underground by the utility owning said facility and new and existing facilities shall comply with provisions as set forth in LMC 12.22, Underground Communication Facilities, and 15.10.050, Easements for Public Utilities, and provisions as set forth in franchise agreements between the City and the utility.

Utilities converted from overhead to underground on existing roadways shall be located as shown on the details for new construction. The location must be approved by the City.

C. A right-of-way access permit is required of any utility, except City owned facilities and utilities, for any work, including replacing and upgrading existing utilities, done within the right-of-way and shall comply with all provisions as set forth in LMC 12.16, Obstruction of Streets, Chapter 3.080 of these standards, and the Telecommunications Ordinance as set forth in LMC 5.60.

D. If the cumulative length of overhead utilities is over 500 linear feet along the project frontage or when an overhead utility is reconstructed, relocated, replaced, upgraded, or enhanced, the overhead utility is required to be relocated underground by the developer and/or utility owner. The cumulative frontage includes all sides of the subject property adjacent to a public right-of-way where overhead utilities are located. Exceptions to this standard may be allowed by the Director of Public Works after review of a documented request. (LMC 12.22.020). The following hierarchy shall be used for determining the location of the relocated utility:

1. If the affected utility is adjacent to, or on the project triggering the relocation, sufficient right-of-way or

easements shall be granted to place the underground utility as shown in chapter 4 street design details.

2. If the affected utility is "off-site" and not adjacent to the project triggering the relocation, the following options are available in order of preference.

    a. The utility shall always be relocated underground. The undergrounded utility may be located within the right-of-way as shown on the appropriate roadway detail or on the adjacent lots if a utility easement is existing.

    b. The utility shall be relocated beneath the existing sidewalk. This will require removal and replacement of the sidewalk.

    c. The utility may be relocated under the ditch or at the edge of pavement if no planter or sidewalk is present.

    d. In rare instances the City may allow the utility to be relocated within the roadway prism if the trench is wheel cut or limited to one foot maximum width and if the utility is placed in conduit to alleviate the need for future cuts and if the trench is backfilled with C.D.F. (controlled density fill) per details regardless of whether the trench is perpendicular or horizontal to the roadway centerline.

3. If an existing overhead utility is proposing to relocate, replace, upgrade, or enhance their utility, and the proposed length of the project is over 500 feet, the utility shall be relocated underground per number 1 and 2 above.

3.110 Easements

A. Where public utilities and/or their conveyance systems cross private lands, an easement must be granted to the City. The Public Works Engineering Department will generally process, record and file all easements. If the property is to be platted the easement must be conveyed when the short plat or final plat is

filed. All easements not shown on a plat must be prepared by a licensed land surveyor.

B. Easement widths shall be 15 feet for a single utility and 25 feet for dual utilities. Construction easements shall be 30 feet minimum in total width, including the permanent easement. When trench depths dictate or where pipe diameter or vault widths exceed four feet, a wider easement may be required by the City Engineer.

In certain instances where easement widths cannot be reasonably achieved, the Public Works Director may allow a lesser easement width.

C. Signed, notarized easements are required prior to final plan approval. Any change in design that places an amenity, i.e., water, sewer, sidewalk, etc., outside of the easement may necessitate stopping of construction until plans and easements can be resubmitted and approved. Plan review fee shall be based on the rate as established for re-submittals. Easements will be filed by the City upon plan approval.

A copy of the Easement Preparation Standards can be found in Appendix B.

3.115 Bill of Sale

Prior to civil drawing approval, a signed and notarized Bill of Sale for all water, sewer and street lighting installed shall be collected.

3.120 Latecomers Agreements

Any person who constructs a street, water or sewer main extension at the direction of the City, in excess of that which is required to meet minimum standards or which meets minimum standards and will benefit properties abutting the new main, may, with the approval of the Director of Public Works, enter into a contract with the City that will allow the developer to be reimbursed for that portion of the construction cost that benefits the adjoining properties and/or is in excess of the minimum standard. This contact is commonly termed a "Latecomers Agreement." The format for a Latecomers Agreement **must** be submitted for review and approval prior to plan approval to be considered. An example of a standard format for this document is located in Appendix H. Latecomers Agreements submitted after plan approval **will not** be accepted. There is a plan review fee for reviewing this document. See

Appendix A or call the Public Works Department for the most current cost.

Once Final Public Works approval has been given to a project, the developer has 60 days from that date in which to submit the remaining supporting documentation to the City. This generally includes copies of all invoices and canceled checks that support the latecomer's amount claimed. During this 60-day period, only those connections approved with the project will be allowed. If no supporting documentation is received during the 60-day period, the latecomer's agreement will be deemed inactive and connections will be allowed without the City being obligated to collect a latecomer's fee.

The developer is responsible for initiating, executing and, after City approval, filing the latecomers agreement. The agreement shall include a list of those properties that will benefit from the extension, a map outlining and designating these properties, legal descriptions as required by the City, and backup data supporting the costs submitted.

The City will collect the latecomer's fee for recorded agreements from persons wanting to connect to the water, sewer or street extension and subsequently see that the developer receives the payment. (LMC 13.52.030) Latecomer's fees shall be collected prior to the connection to or use of the facility. For new construction, latecomer's fees shall be collected prior to the Preconstruction Meeting.

3.130 Utility Extension

A. Anyone who wishes to extend any City utility should contact the Department of Public Works Development Engineer for an Extension/Connection Fee Estimate and any special extension requirements.

B. Utility mains shall be extended to and through the extremes of the property being developed for loop closures and/or future development as determined by the City.

3.135 Annexation Requirement

Owners of properties lying outside of, but contiguous to City boundaries must apply for annexation of their property to the City prior to being served by a City owned utility. Owners of properties lying outside of but not contiguous to the City must legally commit their property to eventual annexation prior to being served by the City's utility system. (Resolution 510)

These annexation requirements will be applied to all extensions of the City's utility to areas outside the City limits. Anyone who desires to extend the City's utility system should contact the Department of Public Works for specific annexation requirements.

3.140 Traffic Control

A. The developer/contractor shall be responsible for all traffic control during construction on or along traveled roadways. Traffic control shall be in accordance with the WSDOT/APWA *Standard Plans For Road, Bridge and Municipal Construction* (all applicable "K" plans) and the *Manual on Uniform Traffic Control Devices* (MUTCD). Prior to disruption of any traffic, traffic control plans meeting the above mentioned references shall be prepared and submitted to the City for approval. No work shall commence until all approved traffic control is in place.

   Additionally, City utilities constructed within Thurston County right-of-way shall follow all traffic control requirements as set forth by the Thurston County Department of Public Works.

   Signs must be legible and visible and should be removed at the end of each workday if not applicable after construction hours.

B. When road closures and detours cannot be avoided the contractor/developer shall notify the Department of Public Works Construction Inspectors. The City will require a detour plan to be prepared, submitted and approved prior to closing any portion of a City roadway.

C. A Right-of-Way Access Permit may be required before work in the road can commence. See requirements in Chapter 3.080 and 3.100 and contact the Department of Public Works for specific permit information.

3.150 Call Before You Dig

All developers/contractors are responsible for timely notification of all utilities in advance of any construction in right-of-way or utility easements. The utilities one-call Underground Location Center phone number is 811.

3.160 Staking

All surveying and staking shall be performed by an engineering or surveying firm capable of performing such work. The surveyor directing such work shall be licensed as a Professional Land Surveyor by the State of Washington.

A preconstruction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction. The minimum staking of waterlines shall be as directed by the City Engineer or as follows:

A. Stake centerline alignment every 50 feet with cut or fill to invert of pipe maintaining 42 inches of cover over pipe.

B. Stake alignment of all fire hydrants, tees, water meters, setters and other fixtures and mark cut or fill to hydrant flange finished grade.

3.170 Trench Excavation

A. Clearing and grubbing where required shall be performed within the easement or public right-of-way as permitted by the City and/or governing agencies. Debris resulting from the clearing and grubbing shall be disposed of by the owner or contractor in accordance with the terms of all applicable permits.

B. Trenches shall be excavated to the line and depth designated by the City to provide a minimum of 42 inches of cover over the pipe. Except for unusual circumstances where approved by the City, the trench sides shall be excavated vertically and the trench width shall be excavated only to such widths as are necessary for adequate working space as allowed by the governing agency. The trench shall be kept free from water until joining is complete. Surface water shall be diverted so as not to enter the trench. The owner shall maintain sufficient pumping equipment on the job to insure that these provisions are carried out.

C. The contractor shall perform all excavation. Whatever obstructions are encountered shall be removed or cut out to the width of the trench or roadway section to a depth 6 inches below water main grade. Where materials are removed from below water main grade, the trench shall be backfilled to grade with material satisfactory to the City and thoroughly compacted.

D. Trenching and shoring operations shall be in conformance with Washington Industrial Safety and Health Administration (WISHA), Washington Department of Labor and Industries (L & I) and the Office of Safety and Health Administration (OSHA) Safety Standards.

3.175 Thrust Blocking

Location of thrust blocking shall be shown on plans. Thrust blocks shall comply with the City thrust blocking details. The addition of restrained joint fittings may not eliminate the need for thrust blocking.

3.180 Bedding and Backfilling

Bedding material per the City bedding detail shall be placed and compacted around and 4 inches under the water mains by hand tools and to a height of 6 inches above the top of the water main. The remaining fill shall be compacted to 95 percent of the maximum density. Where governmental agencies other than the City have jurisdiction over roadways, the fill and compaction shall be done to the satisfaction of the agency having jurisdiction. If suitable material, as determined by the City, is not available from trenching operations, the City may order the placing of imported fill conforming to 9-03.12(3) around the water main and gravel base conforming with Section 9-30.15 of the *WSDOT/APWA Standard Specifications for Road, Bridge and Municipal Construction* for backfilling the trench. Bedding and backfilling shall be required per the detail.

3.195 Street Patching and Restoration

See Chapter 4B.170 and 4B.180 and trench restoration details for requirements regarding street patching and trench restoration.

LIST OF DRAWINGS

CHAPTER 3 – GENERAL PUBLIC WORKS CONSIDERATIONS

MEMORANDUM

TO: Thurston Regional Planning Council

FROM: Allison Osterberg, Planning Manager

DATE: September 13, 2024

SUBJECT: Updated Recommendation on Housing Need Allocations to Support Comprehensive Plan Updates

In 2021, the Washington State Legislature passed HB 1220 which requires cities, towns, and counties to "plan for and accommodate" future housing affordable to a range of incomes and to document the projected housing need each jurisdiction is responsible for planning for in its comprehensive plan. As laid out in that legislation, the Washington State Department of Commerce identified the countywide housing need by income range and recommended cities, towns, and counties work collaboratively to allocate the countywide housing need to individual jurisdictions.

To meet these requirements, Thurston County and the cities of Lacey, Olympia, Tenino, Tumwater, and Yelm contracted with Thurston Regional Planning Council (TRPC) to facilitate a process to reach regional agreement on a housing need allocation method and provide the necessary data analysis to meet the state's requirements. The city of Rainier and town of Bucoda were also invited to participate.

The project was completed in two phases. In Phase 1, a workgroup made up of staff from each of the partner jurisdictions reviewed options for allocating the countywide housing need to jurisdictions and developed a provisional housing allocation recommendation that was accepted by TRPC in January 2024. In Phase 2, TRPC completed a land capacity analysis that identified constraints to accommodating those allocations. The analysis is documented in a technical report developed by TRPC: "Planning for and Accommodating Housing Needs in Thurston County."

The workgroup reached consensus on both a revised housing need allocation method and next steps for adopting allocations for use in Comprehensive Plan periodic updates due in 2025 and beyond.

thurston regional planning council

Marc Daily
Executive Director

2411 Chandler Court SW
Olympia, WA 98502
360-956-7575
360-741-2545 Fax
www.trpc.org

The workgroup recommends that:

1. Thurston County jurisdictions use the updated allocation method documented in the report "Planning for and Accommodating Housing Needs in Thurston County" and the 2045 housing allocations by income generated by that method (Table 1) to meet requirements for Comprehensive Plan updates due in 2025, including the number of housing units necessary for moderate, low, very low, and extremely low-income households, and emergency housing, emergency shelters, and permanent supportive housing.
2. TRPC adopt these allocations, as the agency charged in the County Wide Planning Policies to develop countywide and smaller area population projections.
3. The Urban Growth Management Subcommittee review the County Wide Planning Policies and recommend updates to the Board of County Commissioners that incorporate changes to state law that require planning for affordable housing and document the process for approving housing allocations for use in future years. This review should be initiated after the current round of periodic Comprehensive Plan updates is completed in 2025.

Attachments:

- Planning for and Accommodating Housing Needs in Thurston County, Final Report, September 2024

ao:bl

Table 1: Thurston County Housing Allocations by Income, 2020-2045

		Housing Units								Beds
		Total	Income Level (Percent of Area Median Income)							Emergency Housing
			0-30%		30-50%	50-80%	80-100%	100-120%	Remainder	
			PSH	Non-PSH						
Bucoda	Town	134	6	12	0	8	67	20	21	3
Lacey	City	5,154	424	1,086	1,199	515	0	540	1,390	103
	UGA	8,970	684	1,698	1,468	2,841	0	721	1,558	179
	Total	14,124	1,108	2,784	2,667	3,357	0	1,261	2,948	282
Olympia	City	12,644	942	2,339	2,877	590	2,093	1,144	2,660	253
	UGA	1,651	156	278	435	0	235	152	395	33
	Total	14,295	1,098	2,617	3,312	590	2,328	1,296	3,055	286
Rainier	City	571	43	107	0	161	44	103	114	11
	UGA	23	0	0	0	0	0	0	23	0
	Total	594	43	107	0	161	44	103	137	12
Tenino	City	519	33	65	0	0	220	96	105	10
	UGA	9	0	0	0	0	0	0	9	0
	Total	528	33	65	0	0	220	96	114	11
Tumwater	City	6,676	554	1,320	1,002	1,129	806	627	1,238	133
	UGA	2,516	170	415	307	797	333	171	323	50
	Total	9,192	723	1,736	1,309	1,926	1,140	798	1,561	184
Yelm	City	7,504	557	1,373	1,090	2,085	518	757	1,125	150
	UGA	144	10	25	30	0	0	41	38	3
	Total	7,648	567	1,398	1,120	2,085	518	798	1,163	153
Grand Mound	UGA	310	16	40	23	143	57	11	19	6
Rural Unincorporated		7,531	0	0	0	0	0	0	7,531	0
Thurston County		**54,356**	**3,594**	**8,758**	**8,431**	**8,270**	**4,373**	**4,381**	**16,549**	**936**

Notes:

- *Analysis based on jurisdiction boundaries as of September 1, 2023.*
- *Numbers may not add to totals due to rounding.*
- *"PSH" refers to permanent supportive housing.*

Planning for and Accommodating Housing Needs in Thurston County

Implementing the Housing Affordability Requirements of HB 1220
September 2024

For more information contact:

Michael Ambrogi, Senior Planner
Thurston Regional Planning Council
2411 Chandler Court SW, Olympia, WA 98502
ambrogim@trpc.org | info@trpc.org

Title VI Notice

Thurston Regional Planning Council (TRPC) hereby gives public notice that it is the agency's policy to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and related statutes and regulations in all programs and activities. Title VI requires that no person shall, on the grounds of race, color, sex, or national origin, be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any Federal Highway Aid (FHWA) program or other activity for which TRPC receives federal financial assistance. Any person who believes they have been aggrieved by an unlawful discriminatory practice under Title VI has a right to file a formal complaint with TRPC. Any such complaint must be in writing and filed with the TRPC's Title VI Coordinator within one hundred and eighty (180) days following the date of the alleged discriminatory occurrence.

Americans with Disabilities Act (ADA) Information

Materials can be provided in alternate formats by contacting the Thurston Regional Planning Council at 360.956.7575 or email info@trpc.org.

THURSTON REGIONAL PLANNING COUNCIL is a 23-member intergovernmental board made up of local governmental jurisdictions within Thurston County, plus the Confederated Tribes of the Chehalis Reservation and the Nisqually Indian Tribe. The Council was established in 1967 under RCW 36.70.060, which authorized creation of regional planning councils.

TRPC's mission is to "Provide visionary, collaborative leadership on regional plans, policies, and issues for the benefit of all Thurston region residents." To support this mission, we:

- Support **regional transportation** planning consistent with state and federal funding requirements.
- Address **growth management, environmental quality**, and other topics determined by the Council.
- **Assemble** and **analyze data** that support local and regional decision making
- Act as a **"convener"**, build regional **consensus** on issues through information and citizen involvement.
- Build **intergovernmental consensus** on regional plans, policies, and issues, and advocate local implementation.

2024 Membership

Government Jurisdiction	Name of Representative
Town of Bucoda	Miriam Gordon
City of Lacey	Robin Vazquez, Chair
City of Olympia	Dani Madrone
City of Rainier	Dennis McVey
City of Tenino	John O'Callahan, Secretary
City of Tumwater	Eileen Swarthout
City of Yelm	Joe DePinto
Thurston County	Carolina Mejia
Intercity Transit	Debbie Sullivan
LOTT Clean Water Alliance	Carolyn Cox
Port of Olympia	Amy Evans Harding, Vice Chair
PUD No. 1 of Thurston County	Chris Stearns
Olympia School District	Hilary Seidel
North Thurston Public Schools	Esperanza Badillo-Diiorio
Tumwater School District	Mel Murray
Confederated Tribes of the Chehalis Reservation	Amy Loudermilk
Nisqually Indian Tribe	David Iyall

Associate Members

Thurston County Economic Development Council	Michael Cade
Lacey Fire District #3	Liberty Hetzler
Puget Sound Regional Council	Josh Brown
Timberland Regional Library	Cheryl Heywood
The Evergreen State College	William Ward
Thurston Conservation District	David Iyall

Executive Director
Marc Daily

Project Partners

City of Lacey	Vanessa Dolbee, Community and Economic Development Director
	Ryan Andrews, Planning Manager
City of Olympia	Leonard Bauer, Community Planning and Development Director
	Tim Smith, Interim Community Planning and Development Director
	Casey Schaufler, Associate Planner
City of Tenino	Cristina Haworth, SCJ Alliance
	Dan Penrose, SCJ Alliance
City of Tumwater	Brad Medrud, Long Range Planning Manager
	Mike Matlock, Community Development Director
City of Yelm	Gary Cooper, Planning and Building Manager
Thurston County	Ashley Arai, Interim Community Planning and Economic Development Director

Thurston Regional Planning Council Staff

	Allison Osterberg, Planning Manager
	Michael Ambrogi, Senior Planner

This project was funded by an interlocal agreement between TRPC and the project partner jurisdictions.

CONTENTS

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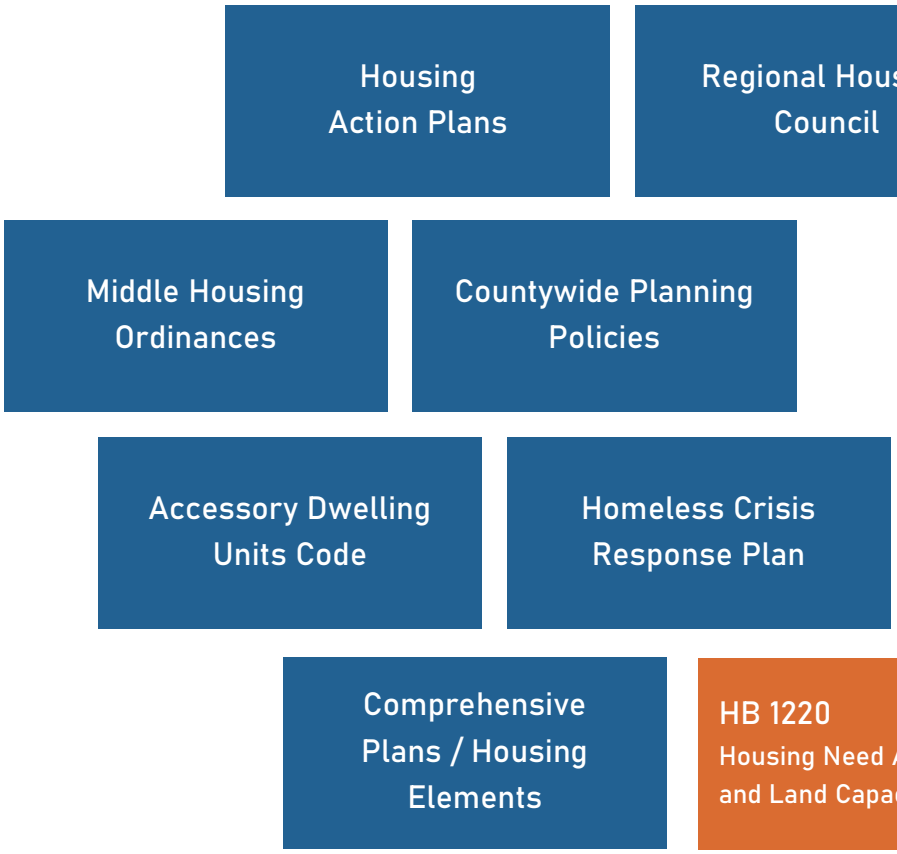
EXECUTIVE SUMMARY

New GMA Requirements

House Bill 1220 — passed by the state legislature in 2021— added new requirements to the Growth Management Act for jurisdictions to **"plan for and accommodate housing affordable to all economic segments of the population of this state."** Thurston County and the cities of Lacey, Olympia, Tenino, Tumwater, and Yelm contracted with Thurston Regional Planning Council (TRPC) to facilitate a process and provide data analysis support to implement this law.

The Thurston region has a long history of planning for affordable housing and much has been done at both the local and regional level. HB 1220 addresses just a small piece of the affordable housing problem — whether land, and how it is zoned, is a barrier to new affordable housing.

HB 1220 requires jurisdictions to ensure zoning is not a barrier to affordable housing. On its own, the law will not lead to more affordable housing.

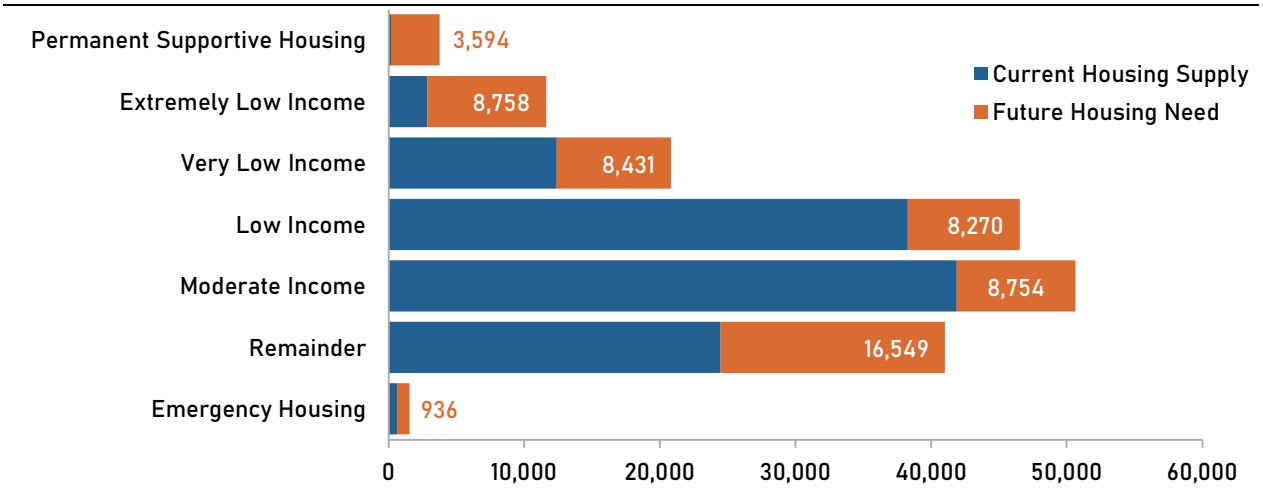


Local and Regional Efforts to Address Housing Affordability

A Growing Need for Affordable Housing

Data from TRPC and the state Dept. of Commerce identify a need for 54,356 new housing units to accommodate our region's growing population. To address the current housing affordability crisis — and to ensure future residents can afford housing — **29,053 additional units will need to be affordable to low-income households**. An additional 936 emergency housing units and beds are needed for the population experiencing homelessness.

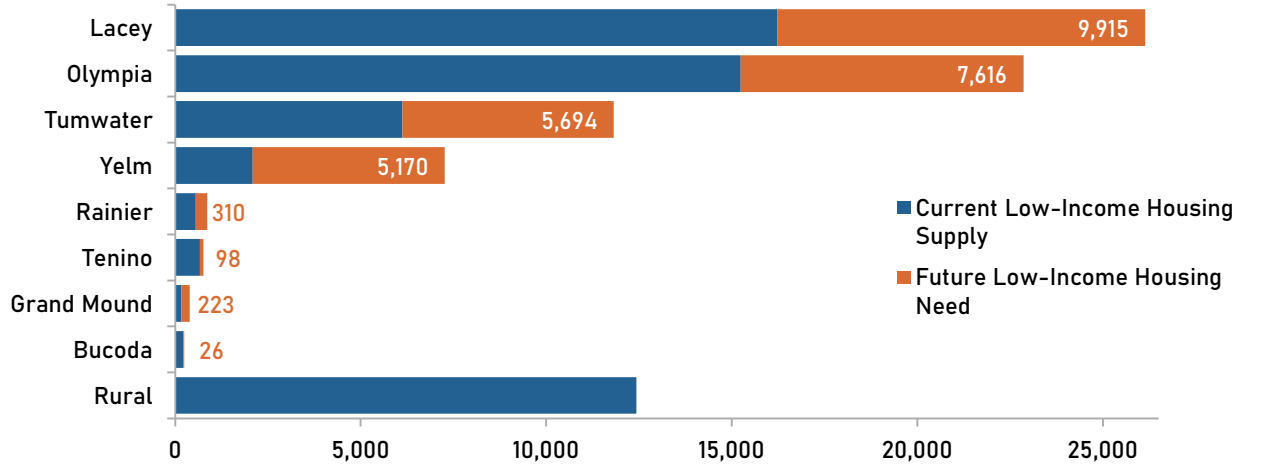
Figure 1
Countywide Housing Need by Income



Where Should Affordable Housing Go?

HB 1220 gives jurisdictions discretion to decide how much low-income housing each jurisdiction should plan for, as long as the countywide need is addressed. The project partners recommended TRPC accept an allocation that met the three values they identified: **fair, clear, and cooperative**.

Figure 2
Low-Income Housing Need (0-80% AMI) Allocated to Each Jurisdiction and its UGA

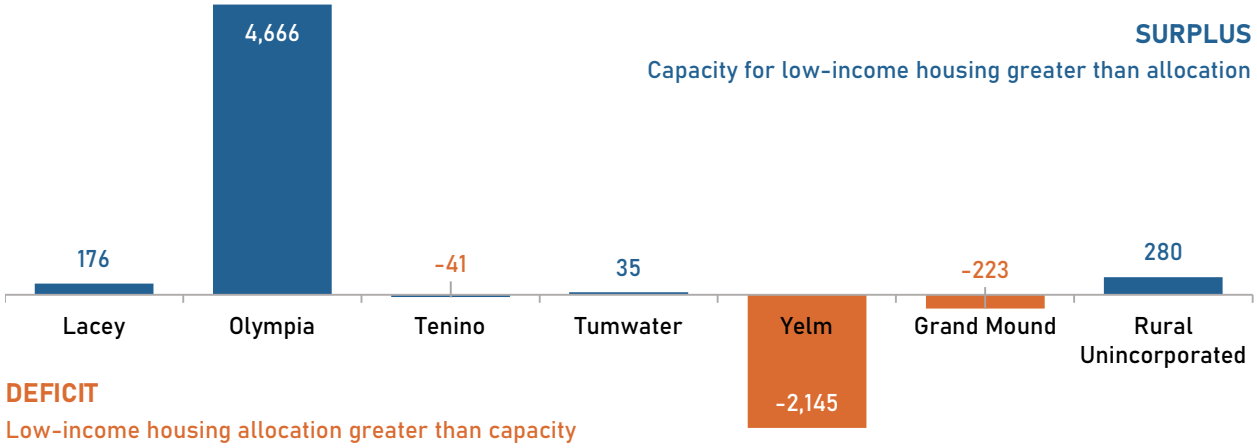


Thurston County's urban areas generally allow a wide range of housing types that can accommodate affordable housing, including accessory dwellings, duplexes, triplexes, manufactured homes, and apartments.

Is Land the Barrier?

The project included a land capacity analysis that compared the low-income housing need allocated to each jurisdiction to the amount of buildable land in zones that can accommodate low-income housing types. **For most jurisdictions, land — and how it is zoned — is not the barrier to accommodating low-income housing.** Deficits were only found in three jurisdictions: Tenino, Yelm, and the Grand Mound UGA.

Figure 3
Low-Income Housing Need Compared to Capacity for Jurisdictions and Their UGAS



Findings and Next Steps

The land capacity analysis found that:

- The Lacey, Olympia, and Tumwater urban areas, and the rural unincorporated County have sufficient capacity to accommodate future low-income housing needs, as allocated regionally.
- The Tenino, Yelm, and Grand Mound urban areas have deficits in capacity to accommodate future low-income housing need, as allocated regionally. These jurisdictions will need to include strategies in their comprehensive plan update that will eliminate these deficits.

While HB 1220 requires jurisdictions to ensure zoning is not a barrier to affordable housing, on its own, the law will not lead to more affordable housing. All jurisdictions will need to identify policies, programs, and funding gaps to achieve the region's affordable housing goals in the housing elements of their comprehensive plans. Jurisdictions will also need to implement the other requirements of HB 1220 not discussed in this report, including addressing policies with racially disparate impacts and establishing anti-displacement policies.

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INTRODUCTION

In 2021, the Washington State Legislature passed HB 1220 which requires cities, towns, and counties to "plan for and accommodate" future housing affordable to a range of incomes and to document the projected housing need each jurisdiction is planning for in the housing element of its comprehensive plan. Specifically, jurisdictions must estimate the number of housing units needed for moderate, low, very low, and extremely low-income households; and emergency housing, emergency shelters, and permanent supportive housing (Table 1). Jurisdictions must also show that there is sufficient land available to accommodate the housing need identified.

The state Dept. of Commerce (Commerce) provided guidance for jurisdictions to implement HB 1220[1]. The guidance recommends that jurisdictions work collaboratively to implement the law. In that spirit, Thurston County and the cities of Lacey, Olympia, Tenino, Tumwater, and Yelm (the "project partners") contracted with Thurston Regional Planning Council (TRPC) to facilitate a process among the project partners and provide the necessary data analysis. The city of Rainier and town of Bucoda were also invited to participate.

The project was completed in two phases. In Phase 1, the project partners reviewed options for allocating the countywide housing need to jurisdictions. In Phase 2, TRPC completed a land capacity analysis identifying any zoning constraints to accommodating those allocations.

HB 1220 also established requirements for jurisdictions to identify local policies and regulations that result in racially disparate impacts, displacement, and exclusion in housing and identify and implement policies and regulations to undo them; and identify areas at higher risk of displacement and establish anti-displacement policies. These requirements are being addressed by the jurisdictions in a separate process and are not included in this report.

Table 1: Housing Types Called out in HB 1220, and Thurston County Income Thresholds

Housing Type	Percent of Thurston Area Median Income*	Equivalent 2023 Household Income*
Extremely Low Income	Less than 30%	Less than $30,750
Very Low Income	30 to 50%	$30,750 to $51,250
Low Income	50 to 80%	$51,250 to $82,000
Moderate Income	80 to 120%	$82,000 to $102,500
Permanent supportive housing	Subsidized, leased housing with no limit on length of stay that prioritizes people who need comprehensive support services to retain tenancy and utilizes admissions practices designed to use lower barriers to entry than would be typical for other subsidized or unsubsidized rental housing, especially related to rental history, criminal history, and personal behaviors.	
Emergency housing	Temporary indoor accommodations for individuals or families who are homeless or at imminent risk of becoming homeless that is intended to address the basic health, food, clothing, and personal hygiene needs of individuals or families. Emergency housing may or may not require occupants to enter into a lease or an occupancy agreement.	
Emergency shelter	Facilities that provide a temporary shelter for individuals or families who are currently homeless Emergency shelter may not require occupants to enter into a lease or an occupancy agreement. Emergency shelter facilities may include day and warming centers that do not provide overnight accommodations.	

*Note: Housing types are defined in RCW 36.70A.030. *Income thresholds are based on HUD estimates for a family of four.*

Income Ranges

HB 1220 uses information from the U.S. Department of Housing and Urban Development (HUD) to define income levels. While the percent of the area median income (e.g. 30-50% AMI) is used as shorthand for the income ranges in this report, these values refer to a four-person reference household. HUD adjusts income thresholds based on household size.

HOUSING NEED ALLOCATIONS

The first step in implementing HB 1220 is to identify the housing need allocation for each jurisdiction — the number of units apportioned to each jurisdiction to meet the countywide need for moderate, low, very low, and extremely low-income households; and emergency housing, emergency shelters, and permanent supportive housing. While HB 1220 requires Commerce to identify the countywide number of units in each income range, it gives jurisdictions discretion in how that need is allocated to cities, unincorporated urban growth areas (UGAs), and the rural unincorporated County.

Between August and October 2023, TRPC convened a project team that included planning directors and staff from Thurston County and the cities of Lacey, Olympia, Tumwater, and Yelm. This group identified the following shared values to assess different housing need allocation methods and select a preferred approach:

Fair

- Distributes new low-income units across all jurisdictions
- Recognizes the differences among jurisdictions and existing housing distribution
- Recognizes needs of community members – especially people who rely on permanent supportive housing and emergency housing

Clear

- Easy to communicate to public and elected officials
- Tailored to jurisdiction boundaries (including UGAs)
- Uses established methods to limit risk of legal challenges

Cooperative

- Builds on existing structures and processes – including the Regional Housing Council, Comprehensive Plan updates, Countywide Planning Policies
- Supported by all workgroup members

The project partners also agreed that the total number of housing units allocated to each jurisdiction should be consistent with the jurisdiction population, employment, and housing projections adopted by TRPC in September 2019.[2]

Countywide Housing Needs

HB 1220 builds on existing requirements for jurisdictions to plan for population growth. TRPC's most recent population and employment forecast estimates that 54,356 new housing units will be needed between 2020 and 2045 to support projected population growth (88,707 new people).[2] Table 2 shows the number of housing units projected for each jurisdiction. These projections were developed consistent with Thurston County's Countywide Planning Policies.

Table 2: TRPC Projected Housing Need by Jurisdiction

		Housing Units		
		2020 Census	**2045 TRPC Projection**	**2020-2045 Projected Need**
Bucoda	Town	241	375	134
Lacey	City	23,042	28,196	5,154
	UGA	13,562	22,532	8,970
Olympia	City	25,642	38,286	12,644
	UGA	5,093	6,744	1,651
Rainier	City	850	1,421	571
	UGA	54	77	23
Tenino	City	780	1,299	519
	UGA	5	14	9
Tumwater	City	11,064	17,740	6,676
	UGA	1,210	3,726	2,516
Yelm	City	3,456	10,960	7,504
	UGA	515	659	144
Grand Mound	UGA	424	734	310
Rural Unincorporated		35,500	43,031	7,531
Total		**121,438**	**175,794**	**54,356**

Note: TRPC forecast adopted September 6, 2019, for jurisdiction boundaries as of September 1, 2023. Numbers may not add to total due to rounding.

HB 1220 adds a requirement that jurisdictions plan for a specific number of housing units affordable for moderate, low, very low, and extremely low-income households; and emergency housing, emergency shelters, and permanent supportive housing. Commerce's Housing for All Planning Tool (HAPT)[2] provided the estimated housing need for each income range and housing type shown in Table 3. Income ranges are expressed as a percent of the area median income; the equivalent household incomes for the Thurston region in 2023 are shown in Table 3. While HB 1220 does not require jurisdictions to plan for housing affordable to households earning more than 120% of the area median income, this need is included so the number of units can be summed up to the total (identified as "Remainder" in tables).

While cities, towns, and counties have discretion over how this need is allocated among the jurisdictions, the countywide housing need identified by Commerce for each income range cannot be changed.

Table 3: Dept. of Commerce Housing Needs by Income Level for Thurston County

	Estimated Supply (2020)	Total Future Supply (2045)	Net Need (2020-2045)	Estimated Supply (2020)	Total Future Supply (2045)	Net Need (2020-2045)
Housing Units						
0-30% AMI (PSH)	180	3,774	3,594	0.1%	2.1%	6.6%
0-30% AMI (Non-PSH)	2,874	11,632	8,758	2.4%	6.6%	16.1%
30-50% AMI	12,405	20,836	8,431	10.2%	11.9%	15.5%
50-80% AMI	38,285	46,555	8,270	31.5%	26.5%	15.2%
80-100% AMI	26,403	30,776	4,373	21.7%	17.5%	8.0%
100-120% AMI	15,489	19,870	4,381	12.8%	11.3%	8.1%
Remainder	24,476	41,025	16,549	20.2%	23.3%	30.4%
Other	1,327	1,327	0	1.1%	0.8%	0.0%
Total	**121,438**	**175,794**	**54,356**	**100.0%**	**100.0%**	**100.0%**
Emergency Housing (Beds)	**626**	**1,562**	**936**	**—**	**—**	**—**

Note: "AMI" refers to the area median family income, which HUD estimates was $102,500 in 2023 for Thurston County. Income ranges are expressed relative to the AMI; income ranges are for a family of four. "PSH" is permanent supportive housing. "Other" includes recreational, seasonal, or migrant labor housing. Numbers may not add up to totals due to rounding. Housing types are defined in RCW 36.70A.030.

Baseline Housing Supply

The project partners agreed that it was important to plan for housing in both the incorporated and unincorporated urban growth areas of each jurisdiction. Since the tools provided by Commerce did not provide estimates for UGAs, TRPC revised the baseline housing supply estimates provided by Commerce using the assumptions listed below. In addition, TRPC revised the baseline supply to reflect current (September 1, 2023) jurisdiction boundaries.

- Use TRPC's parcel-level housing estimates where newly annexed jurisdiction boundaries do not align with 2020 Census blocks.
- The percentage of housing by income range in each UGA is the same as what Commerce estimated in the HAPT tool for its adjacent incorporated area.
- There is no permanent supportive housing or emergency housing in the unincorporated UGA.
- Any permanent supportive housing units where Commerce was unable to determine the jurisdiction (68 units total) were assumed to be in Olympia based on data provided by Olympia staff in the 2023-2027 Thurston-Olympia Consolidated Plan.
- The revised housing supply uses newly released 2020 decennial census data on seasonal and migrant housing instead of American Community Survey (ACS) estimates used in the Commerce HAPT tool. (While HB 1220 does not require jurisdictions to plan for seasonal and migrant housing, these units are removed from the available housing supply.)

HB 1220 only requires housing need allocations for cities, towns, and the unincorporated areas. However, the partners requested housing allocations for the unincorporated UGAs to inform how they plan for housing needs in areas likely to be annexed over the next 20 years. These UGA estimates are for informational purposes only; Thurston County — in consultation with the cities — has discretion over how

the housing need is allocated between urban and rural unincorporated areas as long as the total housing units align with Table 1.

Preferred Allocation Method

The project partners reviewed several methods for allocating the countywide housing need to jurisdictions. Two methods were developed by Commerce in its HAPT tool. TRPC staff also meet with staff from King, Kitsap, Pierce, and Snohomish Counties to discuss their method. Due to their earlier periodic Comprehensive Plan update deadline, all four counties had made progress implementing HB 1220.

The project partners ultimately preferred a variation of the method used by Snohomish County, because it best achieves the shared values identified on Page 7. The preferred method modifies the Snohomish County method so that no low-income housing or emergency housing is allocated to the rural unincorporated County. The partners developed this modification in response to feedback from Commerce that **residential zoning in rural areas — predominantly large, single-family lots — cannot accommodate the housing types and utilities required for low-income housing, permanent supportive housing, and emergency housing**.

The preferred method:

- Begins with an expectation that each jurisdiction should plan for the same share of the new housing need in each income range, but credits jurisdictions that currently have a higher-than-average share of low-income housing.
- Results in allocations that are positive and consistent with the housing need projected for each jurisdiction (Table 2) and for each income range countywide (Table 3).
- Is consistent with the Countywide Planning Policies and is supported by all project partners.
- Limits allocation of low-income housing to rural areas, in line with Commerce guidance.

The preferred housing need allocation is shown in Table 4; the process for calculating it is described in Appendix I. The housing need allocations were accepted by TRPC on December 6, 2024 (anticipated). These allocations replace numbers provisionally accepted by TRPC on March 1, 2024.

Table 4: 2020-2045 Housing Need Allocations

		Housing Units								Beds
		Total	Income Level (Percent of Area Median Income)							Emergency Housing
			0-30%		30-50%	50-80%	80-100%	100-120%	Remainder	
			PSH	Non-PSH						
Bucoda	Town	134	6	12	0	8	67	20	21	3
Lacey	City	5,154	424	1,086	1,199	515	0	540	1,390	103
	UGA	8,970	684	1,698	1,468	2,841	0	721	1,558	179
	Total	14,124	1,108	2,784	2,667	3,357	0	1,261	2,948	282
Olympia	City	12,644	942	2,339	2,877	590	2,093	1,144	2,660	253
	UGA	1,651	156	278	435	0	235	152	395	33
	Total	14,295	1,098	2,617	3,312	590	2,328	1,296	3,055	286
Rainier	City	571	43	107	0	161	44	103	114	11
	UGA	23	0	0	0	0	0	0	23	0
	Total	594	43	107	0	161	44	103	137	12
Tenino	City	519	33	65	0	0	220	96	105	10
	UGA	9	0	0	0	0	0	0	9	0
	Total	528	33	65	0	0	220	96	114	11
Tumwater	City	6,676	554	1,320	1,002	1,129	806	627	1,238	133
	UGA	2,516	170	415	307	797	333	171	323	50
	Total	9,192	723	1,736	1,309	1,926	1,140	798	1,561	184
Yelm	City	7,504	557	1,373	1,090	2,085	518	757	1,125	150
	UGA	144	10	25	30	0	0	41	38	3
	Total	7,648	567	1,398	1,120	2,085	518	798	1,163	153
Grand Mound	UGA	310	16	40	23	143	57	11	19	6
Rural Unincorporated		7,531	0	0	0	0	0	0	7,531	0
Thurston County		**54,356**	**3,594**	**8,758**	**8,431**	**8,270**	**4,373**	**4,381**	**16,549**	**936**

Accepted by TRPC on December 6, 2024 (anticipated).

Note: Numbers may not add to totals due to rounding. "PSH" refers to permanent supportive housing.

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LAND CAPACITY ANALYSIS

The second step in implementing HB 1220 is a land capacity analysis to identify if there is sufficient capacity — based on zoning and development regulations — to accommodate the identified housing need. Commerce's guidance for updating housing elements[1] outlines five steps for completing the land capacity analysis, which are described in this report:

1. Summarize Land Capacity by Zone
2. Categorize Zones by Allowed Housing Types and Density Category
3. Relate Zone Categories to Potential Income Levels and Housing Types
4. Summarize Capacity by Zone Category
5. Compare Allocated Housing Need to Capacity

These steps are described below. The land capacity analysis was completed as part of Phase 2 of the project.

Due to the unique nature of joint planning in Thurston County, the partners requested that the land capacity analysis combine data for cities and their unincorporated urban growth areas. How low-income housing is allocated within unincorporated urban areas will be addressed in the cities' comprehensive plans and the joint plans the cities have with Thurston County.

Summarize Land Capacity by Zone

"Capacity" refers to the potential number of new dwelling units that could be built on a parcel based on zoning, development regulations, development trends, and market factors. Capacity includes greenfield development, infill development, and redevelopment. Under the ILA for Phase 2, the partners agreed to use the land capacity model developed for TRPC's most recently adopted forecast and the 2021 Buildable Lands report. The documentation for that model — including the assumptions that went into it — can be found in TRPC's forecast documentation[4] and the Buildable Lands report[5].

The capacity estimates for each zone are shown in Appendix II.

Changes from Adopted Forecast

While TRPC used the same land capacity model to develop TRPC's adopted forecast and the 2021 Buildable Lands Report, the capacity estimates differ from those published in 2021 Buildable Lands Report for the following reasons:

Extension of Planning Horizon to 2045. The planning horizon for the Buildable Lands Report was 2040 while the planning horizon for Comprehensive Plans is 2045. The capacity for housing need allocations includes additional capacity due to:

- Land expected to be redevelopable after 2040
- Accessory dwelling units expected to be built between 2040 and 2045
- Development of some master planned communities projected to occur after 2040

- Difficult-to-sewer areas and areas without sewer expected to have sewer after 2040

Recent development. TRPC also adjusted the capacity to account for recent housing development. If a project was permitted that exceeded the capacity estimate in TRPC's model, the capacity was revised to the permitted number of units.

TRPC did not revise capacity to account for changes in market trends, zoning, or development regulations that have occurred since the last forecast was updated. Doing so would require substantial updates to the population and housing forecast adopted by TRPC in 2019 that serves as the foundation for the housing need allocations and was not included in the scope of work of the current ILA.

Bush Prairie Habitat Conservation Plan. The City of Tumwater and the Port of Olympia are working on a habitat conservation plan (the "Bush Prairie HCP") to mitigate the impacts of development on four species protected under the Endangered Species Act. TRPC's adopted forecast includes assumptions that mitigation in the Bush Prairie HCP (and other jurisdiction HCPs) would reduce capacity in the rural unincorporated County. However, the latest draft of the Bush Prairie HCP identifies significant mitigation within Tumwater's city limits. Therefore, the land capacity analysis reduced capacity in the zones where mitigation is most likely to occur by the factors show in Table 5. The estimated acres removed for mitigation were provided by Tumwater staff.

Table 5. Capacity Reduction Factors for Bush Prairie HCP

Zone	Acres Removed for Mitigation	Total Area (Vacant Parcels)	Reduction Factor
MFH	5	18.7	26.8%
MFM	30	83.1	36.1%
MU	30	27.0	100.0%
SFL	190	354.6	53.6%
SFM	40	227.2	17.6%

Note: Acres removed for mitigation provided by Tumwater staff. Total area is from TRPC's land capacity model. Reduction only applied to capacity on vacant parcels.

Capacity for Accessory Dwelling Units

TRPC's method for projecting accessory dwelling units (ADUs) mirrors Commerce's guidance. TRPC projects the number of ADUs likely to be built over the next 20 to 25 years based on past trends and recent changes to development regulations. The units are then allocated to "potential ADU lots." The estimated number of ADUs for each jurisdiction is shown in Table 6.

Within urban areas of Thurston County (including cities, towns, and unincorporated urban areas), TRPC projects 565 ADUs across 11,886 potential ADU lots — a participation rate of about five percent. Potential lots have only one single-family unit and no additional dwellings and are located in areas platted prior to 1970 (referred to as "infill areas"). For the rural unincorporated county, TRPC projects 280 ADUs across 24,271 potential ADU lots — a participation rate of about one percent. Potential lots have one single-family unit and no additional dwellings.

For the land capacity analysis, Tumwater and Yelm requested revisions to the ADU assumptions in their urban areas based on observed or expected trends. These are shown in Table 6.

Table 6: Estimates of Accessory Dwelling Units by Jurisdiction.

Jurisdiction		Accessory Dwellings		Potential ADU Lots
		Adopted Forecast	For LCA	
Bucoda	City	9	No Change	195
Lacey	City	97	No Change	2,045
	UGA	43	No Change	906
Olympia	City	309	No Change	6,502
	UGA	1	No Change	16
Rainier	City	5	No Change	104
	UGA	0	No Change	0
Tenino	City	19	No Change	395
	UGA	0	No Change	0
Tumwater	City	73	No Change	1,536
	UGA	0	10	0
Yelm	City	9	100	185
	UGA	0	20	2
Grand Mound	UGA	0	No Change	0
Urban Total		**565**	**686**	**11,886**
Rural Total		**280**	**No Change**	**24,271**
Countywide		**845**	**966**	**36,157**

Capacity for Emergency Housing

Per Commerce's guidance, jurisdictions do not need to do a land capacity analysis for emergency housing if:

- The jurisdiction has one or more zones that allow hotels, all of which allow for emergency housing by right. Alternatively, this condition may be met by demonstrating that emergency housing is allowed by right in a majority of zones within a one-mile proximity to transit.
- The jurisdiction has no regulations that limit the occupancy, spacing, or intensity of emergency housing.

The project partners confirmed at least one of these conditions applied to their jurisdictions, therefore TRPC did not complete a land capacity analysis for emergency housing.

Categorize Zones by Allowed Housing Types and Density Category

Step 2 of Commerce's guidance recommends that jurisdictions assign a density category to each zone based on the density and types of housing allowed. The partners agreed to use the example categories in Commerce's guidance shown in Table 7. In May 2024, TRPC met with jurisdiction staff to review the housing types allowed in each zone and assign a density category; this information is shown in Appendix II.

Table 7: Categories for Classifying Zones by Housing Types Allowed

Zone Category	Typical housing types allowed
Low Density	Detached single-family homes
Moderate Density	Townhomes, duplex, triplex, quadplex
Low-rise Multifamily	Walk-up apartments (up to 3 floors)
Mid-rise Multifamily	Apartments in buildings with ~4-8 floors (~40-85 feet in height)
High-rise/Tower	Apartments in buildings with ~9 or more floors (>85 feet in height) and requiring steel frame construction

Note: Adapted from Commerce's guidance. Manufactured homes are not listed as a housing type because by law they should be allowed in all zones that permit residential uses. High-Rise/Tower zones are likely to be relevant only in major metropolitan cities. Condominiums are omitted since they are a type of ownership, not housing.

Relate Zone Categories to Potential Income Levels and Housing Types

For the land capacity analysis, housing types are tied to an affordability level. Commerce's guidance provides examples of this relationship for moderate- and high-cost communities in Washington State which may be used in the land capacity analysis if a more detailed market analysis is not available. The project partners agreed to use the relationship for moderate-cost communities (Table 8) for this analysis.

Note that the assigned affordability levels are intended to indicate the potential for that zone to accommodate housing affordable to different income levels, not a guarantee that any housing in those zones actually will be affordable at specific household income levels.

Table 8: Relationship of Zone Categories to Housing Income Levels Served in Moderate-Cost Communities

Zone category	Lowest potential income level served		Assumed affordability level for capacity analysis
	Market Rate	With subsidies and/or incentives	
Low Density	Higher income (>120% AMI)	Not typically feasible at scale	Higher income (>120% AMI)
Moderate Density	Moderate income (>80-120% AMI)	Not typically feasible at scale	Moderate income (>80-120% AMI)
Low-rise Multifamily	Low income (>50-80% AMI)	Extremely low and Very low income (0- 50% AMI)	Low income and PSH (0-80% AMI)
Mid-rise Multifamily	Low income (>50-80% AMI)	Extremely low and Very low income (0- 50% AMI)	Low income and PSH (0-80% AMI)
ADUs (all zones)	Low income (>50-80% AMI)	N/A	Group with Low-rise and/or Mid-rise Multifamily

Note: Adapted from Commerce's guidance

Capacity for Low-Income Housing in Moderate Density Zones

The project partners noted that in some situations, low-income housing may be built in low or moderate density zones. This could include:

- Housing built by Habitat for Humanity or similar organizations. Table 9 shows the number of recently constructed Habitat for Humanity projects in Thurston County.
- Under HB 1110, cities between 25,000 and 75,000 are required to allow duplexes in residential zones, and quadplexes if at least one unit is affordable to a low-income household.

The land capacity analysis used HB 1110 as a guide for estimating how much capacity in moderate-density zones could accommodate low-income housing. The land capacity model found 1,104 parcels in Lacey, Olympia, and Tumwater — the three jurisdictions affected by the law — with capacity for four or more units. Total capacity on those parcels is 18,697, or 4,674 low-income units assuming one in four is an income-restricted unit (Table 10).

Table 9: Recent or Upcoming Habitat for Humanity Projects

Jurisdiction	Project	Units	Zone	Density Category
Lacey	Deyoe Vista Subdivision	33	MD	Low-rise Multifamily
Tumwater	Tâlícn Housing Development	28	MFM	Low-rise Multifamily
Yelm	—	22	R-4	Moderate Density
Olympia	3900 Boulevard Rd	112	RM-18	Low-rise Multifamily
Olympia	Fairview	16	R-4-8	Moderate Density
Olympia	Trinity Court	6	R-4-8	Moderate Density
Olympia	Covenant Court	20	RM-24	Mid-rise Multifamily
Total		**237**		

Table 10: Parcels with Capacity for Four or More Units in Moderate Density Zones

Jurisdiction		Parcels	Capacity	
			Total	Low-Income
Lacey	City	92	1,540	385
	UGA	334	8,376	2,094
Olympia	City	333	3,144	786
	UGA	114	1,466	366
Tumwater	City	205	3,737	934
	UGA	26	435	109
Total		**1,104**	**18,697**	**4,674**

Summarize Capacity by Zone Category

In Step 4, the total capacity in each zone category is summarized. This provides the total capacity that could accommodate housing in each income level. These totals are shown in Table 11; detailed capacity by zone is in Appendix II ("Total Capacity" columns).

Table 11: Capacity by Zone Category

	ADUs	Midrise Multifamily	Lowrise Multifamily	Moderate Density		Low Density	Total
	0-80% AMI	0-80% AMI	0-80% AMI	0-80% AMI	80-120% AMI	>120% AMI	
Lacey and UGA	140	2,387	5,085	2,479	8,256	50	18,397
Olympia and UGA	310	3,468	7,352	1,152	5,404	1,255	18,941
Tenino and UGA	19	39	0	0	376	211	644
Tumwater and UGA	83	1,455	3,148	1,043	3,692	2,441	11,861
Yelm and UGA	120	0	2,655	0	5,610	745	9,130
Rainier UGA	0	0	0	0	0	108	108
Grand Mound UGA	0	0	0	0	406	0	406
Rural Unincorporated	280	0	0	0	0	17,744	18,024
All Partner Jurisdictions	**952**	**7,349**	**18,239**	**4,674**	**23,744**	**22,554**	**77,512**

Compare Allocated Housing Need to Capacity

The final step of the land capacity analysis is to compare the allocated housing need allocated to each jurisdiction to the capacity for new housing. A summary of the difference between the allocated housing need and capacity is shown in Table 12; detailed findings are shown in Tables 13-20 ("Surplus or Deficit" columns). A positive number (surplus) indicates that there is sufficient capacity to accommodate the allocated housing need for a given income level while a negative number (deficit) indicates that there is insufficient capacity. HB 1220 does not require jurisdictions to plan for or accommodate housing for high-income households; data for that income range is excluded.

The land capacity analysis found no deficits in the Lacey, Olympia, and Tumwater urban areas. Deficits were found in Tenino, Yelm, and Grand Mound. The project partners agreed that they would identify strategies to eliminate these deficits as part of their periodic Comprehensive Plan updates. All deficits were found in the low-income categories; no deficits were found in the moderate-income range.

No deficits were found in the rural unincorporated County. Per Commerce guidance, the low-density residential zoning in rural areas — predominantly large lots — cannot accommodate the housing types and utilities required for low-income housing, permanent supportive housing, and emergency housing.

Table 12: Summary of Surplus/Deficit by Jurisdiction

	Lacey and UGA	Olympia and UGA	Tenino and UGA	Tumwater and UGA	Yelm and UGA	Rainier UGA	Grand Mound UGA	Rural
Aggregate Housing Need								
0-80% AMI	9,915	7,616	98	5,694	5,170	0	223	0
80-120% AMI	1,261	3,623	316	1,937	1,316	0	68	0
Capacity								
0-80% AMI	10,091	12,282	58	5,729	3,025	0	0	280
80-120% AMI	8,256	5,404	376	3,692	5,860	0	406	0
Surplus / Deficit								
0-80% AMI	176	4,666	-41	35	-2,145	0	-223	280
80-120% AMI	6,995	1,781	60	1,755	4,545	0	338	0

Note: A positive number (surplus) indicates that there is sufficient capacity to accommodate the allocated housing need for a given income level while a negative number (deficit) indicates that there is insufficient capacity

Yelm Master Planned Community

Yelm is the community with the largest deficit in the land capacity analysis. However, 60 percent of Yelm's capacity for future housing — an estimated 5,000 units — is on 1,250 vacant acres zoned Master Planned Community (MPC). The land capacity analysis assumes that 2,000 low-rise multifamily units that could accommodate low-income households, and 3,000 moderate density units that could accommodate moderate-income households. However, exactly how much affordable housing this area could accommodate will depend on the master plan the City approves.

Table 13: Lacey City and UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	1,108	9,915	10,091	176
0-30% Other		2,784			
30-50%		2,667			
50-80%		3,357			
80-100%	Moderate Density	0	1,261	8,256	6,995
100-120%		1,261			

Table 14: Olympia City and UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	1,098	7,616	12,282	4,666
0-30% Other		2,617			
30-50%		3,312			
50-80%		590			
80-100%	Moderate Density	2,328	3,623	5,404	1,781
100-120%		1,296			

Table 15: Tenino City and UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	33	98	58	-41
0-30% Other		65			
30-50%		0			
50-80%		0			
80-100%	Moderate Density	220	316	376	60
100-120%		96			

Table 16: Tumwater City and UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	723	5,694	5,729	35
0-30% Other		1,736			
30-50%		1,309			
50-80%		1,926			
80-100%	Moderate Density	1,140	1,937	3,692	1,755
100-120%		798			

Table 17: Yelm City and UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	567	5,170	3,025	-2,145
0-30% Other		1,398			
30-50%		1,120			
50-80%		2,085			
80-100%	Moderate Density	518	1,316	5,860	4,545
100-120%		798			

Table 18: Rainier UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	0	0	0	0
0-30% Other		0			
30-50%		0			
50-80%		0			
80-100%	Moderate Density	0	0	0	0
100-120%		0			

Note: Rainier did not participate in the project so data for the city are not available

Table 19: Grand Mound UGA

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	16	223	0	-223
0-30% Other		40			
30-50%		23			
50-80%		143			
80-100%	Moderate Density	57	68	406	338
100-120%		11			

Table 20: Rural Unincorporated County

Income Level	Zone Categories Serving These Needs	Housing Need	Aggregate Housing Need	Total Capacity	Surplus or Deficit
0-30% PSH	Low-rise Multifamily Mid-rise Multifamily ADUs	0	0	280	280
0-30% Other		0			
30-50%		0			
50-80%		0			
80-100%	Moderate Density	0	0	0	0
100-120%		0			

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REFERENCES

1. Dept. of Commerce (2023) Guidance for Updating Your Housing Element
   https://deptofcommerce.app.box.com/s/1d9d5l7g509r389f0mjpowh8isjpirlh

2. Dept. of Commerce (2024) Housing for All Planning Tool (HAPT)
   https://deptofcommerce.app.box.com/s/i4ku9gqhckvs73yj66mzlfc3hn036ct5

3. TRPC (September 6, 2019) Consent Calendar
   https://www.trpc.org/Calendar.aspx?EID=344

4. TRPC (2019) Population and Employment Land Supply Assumptions for Thurston County
   https://www.trpc.org/236/Population-Employment-Forecasting

5. TRPC (2021) Buildable Lands Report for Thurston County
   https://www.trpc.org/164/Buildable-Lands

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APPENDIXES

Appendix I: Housing Need Allocation Method

The project partners preferred the method used by Snohomish County to allocate the housing need to jurisdictions best achieved the values the group identified: fair, clear, and cooperative.

The Snohomish County method was modified so that no low-income housing or emergency housing was allocated to the rural unincorporated County. This was in response to feedback from Commerce that residential zoning in rural areas — predominantly large lots — could not accommodate the housing types and utilities required for low-income housing, permanent supportive housing, and emergency housing.

The allocation method follows a four-step process. Examples for the city of Lacey are include.

Step 1: Same-Share Housing Need (HAPT Method A)

Calculate each jurisdiction's 2020-2045 housing need, assuming the same percentage is affordable in every jurisdiction. This is the same as Allocation Method A in Commerce's HAPT tool.

16.1% of the countywide 2020-2045 housing need needs to be affordable to a very low-income household. For the city of Lacey, that would equate to 799 housing units.

Step 2: Theoretical Housing Baseline

Calculate the theoretical 2020 housing supply if every jurisdiction had the same share of housing in each income range.

Currently, 10.3% of housing units in Thurston County are affordable to a very low-income household. If the percentage of housing affordable in each income range was the same in every jurisdiction, Lacey would have 2,371 housing units affordable to a very low-income household.

Step 3: Housing Need Adjustment Factor

Subtract the theoretical 2020 housing supply (Step 2) from the actual 2020 housing supply to get an adjustment factor.

Lacey currently has 1,832 housing units affordable to a very low-income household — less than the theoretical equal-share distribution (Step 2). Lacey's housing need adjustment factor for the very-low-income range is 539 housing units (2,371 minus 1,832).

Step 4: Initial Housing 2020-2045 Need

Add the housing need adjustment (Step 3) to the same-share allocation (Step 1). Set any negative allocations in Step 4 to zero. Set any low- or moderate-income housing (0 to 120% AMI) allocated to the rural unincorporated County to zero.

Lacey's initial housing need is 1,338 housing units (799 plus 539). If this number had been negative, it would be set to zero.

Step 5: Final 2020-2045 Housing Need

Removing the negative allocations results in total housing numbers that are higher than Commerce's estimate of housing need. Step 5 reduces the allocations generated in Step 4 proportionally to match both TRPC's housing unit projections for each jurisdiction and the countywide housing need in each income range identified by Commerce. An iterative process is used — called "Iterative Proportional Fitting" — to ensure that all rows and columns sum to the correct total.

After the negative allocations in Step 4 are set to zero, the total low-income housing allocation for all jurisdictions is 159 units higher than the countywide need. The initial allocations are reduced to match the housing totals (Table 2 and Table 3).

Table 21: Preferred Method Sample Calculation of the Very-Low-Income (30-50% AMI) Housing Need.

Jurisdiction		2020 Housing Supply	Step 1 Equal-Share Housing Need	Step 2 Theoretical 2020 Supply	Step 3 Adjustment Factor	Step 4 Initial Allocation	Step 5 Final Allocation
Bucoda	Town	120	21	25	-96	Less Than 0	0
Lacey	City	1,832	799	2,371	539	1,338	1,199
	UGA	1,075	1,391	1,391	316	1,707	1,468
Olympia	City	1,782	1,961	2,635	853	2,814	2,877
	UGA	356	256	522	167	423	435
Rainier	City	211	89	88	-123	Less than 0	0
	UGA	13	4	5	-8	0	0
Tenino	City	211	80	81	-130	Less than 0	0
	UGA	1	1	1	-1	0	0
Tumwater	City	1,099	1,036	1,138	39	1,075	1,002
	UGA	120	390	124	4	394	307
Yelm	City	247	1,164	356	109	1,273	1,090
	UGA	37	22	53	16	39	30
Grand Mound	UGA	52	48	43	-9	39	23
Rural		5,249	1,168	3,573	-1,677	Less than 0	0
Total		**12,405**	**8,431**	**12,405**	**0**	**9,103***	**8,431**

*Notes: *Sum of positive values.*

Appendix II: Estimated Capacity and Density Category by Zone

Notes: P: housing type is permitted; C: housing type is conditionally allowed. Information is included to support the density category assigned to each zone. Consult jurisdiction code for specifics on which housing types are allowed. The city of Rainier and town of Bucoda are not included in the interlocal agreement so are omitted from the TRPC analysis. Per Dept. of Commerce guidance, manufactured homes are omitted since they should be permitted in all zones. Capacity estimate excludes accessory dwelling unit assumptions. Capacity in this table excludes accessory dwelling units.

Zone		Capacity	Density Category	Select Housing Types				
				Single-Family	Townhome	2 to 4-Plex	Apartment	ADU
Bucoda								
All Zones	City	—	N/A					
Lacey								
AG	UGA	11	Low Density	P				P
AQUATC	City	0	Nonresidential					
AQUATC	UGA	0	Nonresidential					
C	City	0	Nonresidential					
CBD 4	City	44	Mid-rise Multifamily	P	P	P	P	P
CBD 5	City	110	Mid-rise Multifamily		P		P	
CBD 6	City	55	Mid-rise Multifamily				P	
CBD 6	UGA	0	Mid-rise Multifamily				P	
CBD 7	City	12	Mid-rise Multifamily				P	
CCD	City	144	Low-rise Multifamily		P		P	
CO	City	227	Mid-rise Multifamily		P		P	
GC	City	0	Nonresidential					
HD	City	1,598	Mid-rise Multifamily		P	P	P	P
HD	UGA	386	Mid-rise Multifamily		P	P	P	P
HPBD-BC	City	68	Mid-rise Multifamily		P		P	
HPBD-C	City	17	Mid-rise Multifamily		P		P	
LD	City	1,666	Moderate Density	P	P	P		P
LD	UGA	4,933	Moderate Density	P	P	P		P
LHN	City	31	Low Density	P				P
LI	City	0	Nonresidential					
LI	UGA	0	Nonresidential					
LI-C	City	0	Nonresidential					
MD	City	1,338	Low-rise Multifamily	P	P	P	P	P
MD	UGA	906	Low-rise Multifamily	P	P	P	P	P
ME	UGA	0	Nonresidential					
MGSA	UGA	3,166	Moderate Density	P	P			P
MHDC	City	525	Mid-rise Multifamily		P		P	

Zone		Capacity	Density Category	Select Housing Types				
				Single-Family	Townhome	2 to 4-Plex	Apartment	ADU
MHDC	UGA	710	Mid-rise Multifamily		P		P	
MMDC	City	73	Moderate Density	P	P	P	P	P
MMDC	UGA	172	Moderate Density	P	P	P	P	P
NATURL	City	1	Low Density	P				P
NC	City	0	Nonresidential				P	
NC	UGA	0	Nonresidential				P	
OS-I	City	1	Nonresidential					
OS-I	UGA	0	Nonresidential					
OSI-P	City	0	Nonresidential					
OSI-P	UGA	0	Nonresidential					
OSI-S	City	0	Nonresidential					
OSI-S	UGA	0	Nonresidential					
SHORES	City	3	Low Density	P	P	P		P
SMU	City	0	Nonresidential					
URBCON	City	3	Low Density	P				P
V(U)C	City	178	Moderate Density	P	P	P	P	P
V(U)C	UGA	547	Moderate Density	P	P	P	P	P
WD	City	1,332	Mid-rise Multifamily		P		P	
Olympia								
AS	City	0	Nonresidential					
CAP	City	0	Nonresidential					
COSC	UGA	31	Low-rise Multifamily	P	P	P	P	P
CSH	City	0	Nonresidential	P	P	P	P	P
DB	City	1,442	Mid-rise Multifamily	P	P	P	P	P
GC	City	168	Low-rise Multifamily	P	P	P	P	P
HDC-1	City	3	Moderate Density	P	P	P	P	P
HDC-2	City	4	Moderate Density	P	P	P	P	P
HDC-3	City	37	Moderate Density	P	P		P	P
HDC-4	City	3,019	Mid-rise Multifamily	P	P	P	P	P
I	City	0	Nonresidential					
LI-C	City	0	Nonresidential					
LI-C	UGA	0	Nonresidential					
MHP	City	0	Moderate Density	P	P	P		P
MR-10-18	City	117	Low-rise Multifamily	P	P	P	P	P
MR-7-13	UGA	0	Moderate Density	P	P	P	P	P
MS	City	217	Mid-rise Multifamily	P	P	P	P	P
NR	City	2	Moderate Density	P	P	P	P	P

Zone		Capacity	Density Category	Select Housing Types				
				Single-Family	Townhome	2 to 4-Plex	Apartment	ADU
NR	UGA	10	Moderate Density	P	P	P	P	P
NV	City	410	Low-rise Multifamily	P	P	P	P	P
PO/RM	City	688	Low-rise Multifamily	P	P	P	P	P
PUD	City	83	Mid-rise Multifamily	C	C	C	C	C
R-1/5	City	4	Low Density	P	P	P		P
R-1/5	UGA	39	Low Density	P	P	P		P
R-4	City	16	Low Density	P	P	P		P
R-4	UGA	154	Low Density	P	P			P
R-4-8	City	3,758	Moderate Density	P	P	P		P
R-4-8	UGA	1,553	Moderate Density	P	P			P
R-4CB	City	445	Low Density	P		P		P
R-6-12	City	1,141	Moderate Density	P	P	P		P
R-6-12	UGA	51	Moderate Density	P	P	P		P
RLI	City	464	Low Density	P	P	P	P	P
RLI	UGA	133	Low Density	P	P	P	P	P
RM-18	City	945	Low-rise Multifamily	P	P	P	P	P
RM-18	UGA	837	Low-rise Multifamily	P	P	P	P	P
RM-24	City	999	Mid-rise Multifamily	P	P	P	P	P
RM-H	City	0	Mid-rise Multifamily	P	P	P	P	P
RMU	City	23	Mid-rise Multifamily	P	P	P	P	P
UR	City	187	Mid-rise Multifamily	P	P	P	P	P
UV	City	271	Low-rise Multifamily	P	P	P	P	P
UW	City	778	Mid-rise Multifamily				P	
UWH	City	604	Mid-rise Multifamily		P		P	
Rainier								
All Zones	City	—	N/A					
NC	UGA	0	Low Density					
RRR1/5	UGA	108	Low Density	P	P			P
Tenino								
C-1	City	2	Low-rise Multifamily		C		C	
C-2	City	2	Low-rise Multifamily		C		C	
C-3	City	26	Low-rise Multifamily	C	C		C	
I	City	0	Nonresidential					
MF	City	8	Low-rise Multifamily	P	P	P	P	C
P/SP	City	0	Nonresidential					
PO	City	1	Moderate Density	P				C

Zone		Capacity	Density Category	Select Housing Types				
				Single-Family	Townhome	2 to 4-Plex	Apartment	ADU
RRR1/5	UGA	27	Low Density	P	P			P
SF	City	346	Moderate Density	P				C
SF-D	City	28	Moderate Density	P		P		C
SF-ES	City	69	Low Density	P				C
WT	City	115	Low Density	P				C
Tumwater								
ARI	City	0	Nonresidential					
BD	City	666	Mid-rise Multifamily	P	P	P	P	P
CBC	City	742	Mid-rise Multifamily				P	
CS	City	0	Nonresidential					
GB	City	0	Nonresidential	P				
GB	UGA	0	Nonresidential	P				
GC	City	1,344	Mid-rise Multifamily				P	
GC	UGA	0	Mid-rise Multifamily				P	
HC	City	0	Mid-rise Multifamily				P	
HI	City	0	Nonresidential					
HI	UGA	0	Nonresidential					
LI	City	0	Nonresidential					
LI	UGA	-1	Nonresidential					
MFH	City	356	Mid-rise Multifamily		P	P	P	P
MFM	City	822	Low-rise Multifamily		P	P	P	P
MFM	UGA	615	Low-rise Multifamily	P	P	P	P	P
MHP	City	46	Moderate Density	P				
MU	City	17	Low-rise Multifamily		P	P	P	P
MU	UGA	1	Low-rise Multifamily		P	P	P	P
NC	City	0	Low Density		P	P	P	
NC	UGA	0	Low Density					
OS	City	3	Nonresidential	P				
OS	UGA	0	Nonresidential	P				
R/SR	City	465	Low Density	P		P		P
R/SR	UGA	53	Low Density	P				P
SFL	City	2,413	Moderate Density	P		P		P
SFL	UGA	1,923	Low Density	P				P
SFM	City	1,836	Moderate Density	P	P	P		P
SFM	UGA	440	Moderate Density	P	P	P		P
TC-C	City	0	Nonresidential					
TC-MU	City	7	Mid-rise Multifamily				P	

Zone		Capacity	Density Category	Select Housing Types				
				Single-Family	Townhome	2 to 4-Plex	Apartment	ADU
TC-PO	City	0	Nonresidential					
TC-R	City	33	Mid-rise Multifamily				P	
Yelm								
AC	UGA	2	Low Density			P		
C-1	City	91	Mid-rise Multifamily				C	P
C-2	City	58	Mid-rise Multifamily				C	P
C-3	City	15	Mid-rise Multifamily				C	P
CBD	City	99	Mid-rise Multifamily	P		C		P
I	City	0	Nonresidential					P
LI	UGA	0	Nonresidential					
MPC	City	3,776	Low-rise Multifamily	Multiple housing types/densities likely in planned community. Capacity split into two categories for the land capacity analysis.				
		2,000	Moderate Density					
OS/ID	City	0	Nonresidential					
R-16	City	390	Mid-rise Multifamily	P	P	P	P	P
R-4	City	928	Moderate Density	P	P	P	P	P
R-6	City	906	Moderate Density	P	P	P	P	P
RR1/5	UGA	243	Low Density	Single-family, townhome, and ADUs currently permitted. Joint plan allows for higher densities after annexation.				
		250	Moderate Density					
		250	Low-rise Multifamily					
Grand Mound								
AC	UGA	120	Moderate Density	P	P	P	P	P
LI	UGA	0	Nonresidential					
PID	UGA	0	Nonresidential					
R3-6/1	UGA	239	Moderate Density	P	P	P	P	P
R4-16/1	UGA	47	Moderate Density	P	P	P	P	P
County								
HC		0	Nonresidential					
LTA		359	Low Density	P				P
LTF		1	Nonresidential	P				
MEI		0	Nonresidential					
MGSA		724	Low Density	P				P
MR		0	Nonresidential					
NA		0	Nonresidential					
NC		0	Nonresidential					
PP		0	Nonresidential					

Zone		Capacity	Density Category	Select Housing Types				
				Single-Family	Townhome	2 to 4-Plex	Apartment	ADU
R 1/10		209	Low Density	P				P
R 1/20		374	Low Density	P				P
RCC		1	Nonresidential					
RL1/1		836	Low Density	P	P			P
RL1/2		347	Low Density	P	P			P
RL2/1		588	Low Density	P	P			P
RR1/5		257	Low Density	P	P			P
RRI		0	Nonresidential					
RRR1/5		13,817	Low Density	P	P			P
UR 1/5		235	Low Density	P				P

CITY OF LACEY PLANNING COMMISSION
WORK SCHEDULE

Planning Commission Meeting **September 25, 2024** **Packets due: September 20, 2024**	1. **Work Session:** Public Works Standards 2. **Work Session:** HB 1220 Housing Need Allocations
Planning Commission Meeting **October 9, 2024** **Packets due: October 4, 2024**	1. **Work Session:** SB 5290 Permit Processing Intro Briefing
Planning Commission Meeting **October 23, 2024** **Packets due: October 18, 2024**	1. **Work Session:** Public Works Standards
Planning Commission Meeting **November 13, 2024** **Packets due: November 8, 2024**	1. **Public Hearing:** SB 5290 Permit Processing 2. **Work Session:** Public Works Standards

Pending Items: PWS: 12/11; 1/22
Meetings to be canceled: 11/27, 12/25