Tillamook County

DEPARTMENT OF COMMUNITY DEVELOPMENT
BUILDING, PLANNING & ON-SITE SANITATION SECTIONS

1510 - B Third Street
Tillamook, Oregon 97141
www.tillamook.or.us

Building (503) 842-3407
Planning (503) 842-3408
On-Site Sanitation (503) 842-3409
FAX (503) 842-1819
Toll Free 1 (800) 488-8280

Land of Cheese, Trees and Ocean Breeze

FLOODWAY DEVELOPMENT PERMIT #851-21-000321-PLNG: COULTER

NOTICE TO MORTGAGEE, LIENHOLDER, VENDOR OR SELLER: ORS 215 REQUIRES THAT IF YOU RECEIVE THIS NOTICE, IT MUST BE PROMPTLY FORWARDED TO THE PURCHASER

July19, 2022

Dear Property Owner:

This is to confirm that the Tillamook County Department of Community Development **APPROVED WITH CONDITIONS** the above-cited requests on July 19, 2022. A copy of the application, along with a map of the request area and the applicable criteria for review are available for inspection on the Tillamook County Department of Community Development website: https://www.co.tillamook.or.us/commdev/landuseapps and is also available for inspection at the Department of Community Development office located at 1510-B Third Street, Tillamook, Oregon 97141.

Appeal of this decision. This decision may be appealed to the Tillamook County Planning Commission, who will hold a public hearing. Forms and fees must be filed in the office of this Department before **4:00pm on August 1, 2022.** This decision will become final on August 1, 2022 after 4:00pm unless an appeal is filed in accordance with Tillamook County Land Use Ordinance Article X.

Request:	A review of a Floodway Development Permit for an addition to single-family dwelling near the Nestucca River.
Location:	The subject property is accessed from Rueppell Avenue, a County local access road, and is designated as Tax Lot 4800, of Section 30BD of Township 4 South, Range 10 West of the Willamette Meridian, Tillamook County, Oregon.
Zone:	Pacific City/Woods Airpark (PCW-AP) Zone
Applicant:	Ronald Coulter, PO Box 2323, Chelan, WA 98816
Property Owner:	David Coulter, 217 N. Grant St, Goldendale, WA 98620

CONDITIONS OF APPROVAL

1. The applicant/property owner shall obtain all required Federal, State, and Local permits and/or licenses and will comply with applicable rules and regulations.

2. All applicable permits, including a consolidated Zoning and Building Permit from the Tillamook County Department of Community Development shall be obtained prior to construction the proposed addition and driveway fill/grading.

3. The applicant/property owner shall submit a site plan drawn to scale that confirms all required setbacks are met. The site plan shall be submitted to the Department of Community Development at the time of consolidated Zoning and Building Permit application submittal.

4. The applicant/property owner shall obtain an approved Road Approach permit from the Tillamook County Public Works Department.

5. Development shall comply with the standards of TCLUO Section 3.335, 'Pacific City/Woods Airpark (PCW-AP) Zone'.

6. The applicant/property owner shall comply with all 'Zone AE' flood hazard construction standards per FEMA requirements. All construction shall adhere to the standards for residential structure in the 'AE' flood zone per TCLUO Section '3.510'. This shall be reviewed and verified by this Department during the Building Permit process.

7. The dwelling shall comply with all Building Code requirements for Anchoring, Construction Materials and Methods, and Utilities for residential structure located in the 'AE' and Floodway flood zones.

8. Owner/Applicant shall submit a 'Post-Elevation' certificate completed by a registered surveyor and provided on the current FEMA form prior to receiving Certificate of Occupancy for the dwelling.

9. Applicant/Property owner shall adhere to the conditions of Nonconforming Review Permit #851-22-000151-PLNG.

10. This approval shall be void on July 19, 2024, unless construction of approved plans has begun, or an extension is requested from, and approved by this Department.

Sincerely,

Tillamook County Department of Community Development

Melissa Jenck

Melissa Jenck, CFM, Senior Planner
503-842-3408 x 3301 or mjenck@co.tillamook.or.us

Sarah Absher, CFM, Director

Enc.: Vicinity, Assessor's and Zoning maps

Tillamook County

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FLOODWAY DEVELOPMENT PERMIT #851-21-000321-PLNG: COULTER

ADMINISTRATIVE DECISION & STAFF REPORT

Decision Date: July 19, 2022

Decision: APPROVED WITH CONDITIONS
(This is not Building or Placement Permit Approval)

Report Prepared by: Melissa Jenck, CFM, Senior Planner

I. GENERAL INFORMATION:

Request: A review of a Floodway Development Permit for an addition to single-family dwelling near the Nestucca River.

Location: The subject property is accessed from Rueppell Avenue, a County local access road, and is designated as Tax Lot 4800, of Section 30BD of Township 4 South, Range 10 West of the Willamette Meridian, Tillamook County, Oregon.

Zone: Pacific City/Woods Airpark (PCW-AP) Zone

Applicant: Ronald Coulter, PO Box 2323, Chelan, WA 98816

Property Owner: David Coulter, 217 N. Grant St, Goldendale, WA 98620

Proposal Description: The subject property encompasses 0.34 acres, is developed with an approximately 1,736 sq. ft. dwelling, and is accessed via Rueppell Avenue, a local access road, to the west (Exhibit A). The topography at the location is fairly flat according to County LIDAR data (Exhibits A and B). No wetlands or geologic hazards are mapped on the subject property (Exhibit B).

As indicated on FEMA FIRM 41057C0855F dated September 28, 2018, the subject property is located entirely in an 'AE' Area of Special Flood Hazard and entirely in the Floodway of the Nestucca River

(Exhibit A). Staff finds that the proposed addition to the dwelling is subject to the standards and criteria of TCLUO Section 3.510, Flood Hazard Overlay' which are addressed below.

A Nonconforming Review Permit is concurrently in review by this Department, Permit #851-22-000151-PLNG, to ensure compliance with the Article VII 'Nonconforming Uses and Structures'.

Currently, the application is a Floodplain Development Permit approval for the addition to a dwelling. The criteria and standards for this review is addressed below in this Staff Report.

II. APPLICABLE ORDINANCE AND COMPREHENSIVE PLAN PROVISIONS:

The desired use is governed through the following Sections of the Tillamook County Land Use Ordinance (TCLUO). The suitability of the proposed use, in light of these criteria, is discussed in Section III of this report:

A. TCLUO Section 3.335, 'Pacific City/Woods Airpark (PCW-AP) Zone'
B. TCLUO Section 3.510, 'Flood Hazard Overlay (FH) Zone'
C. Article VII: Nonconforming Uses and Structures

III. ANALYSIS

The subject project is located within the regulatory floodway and is subject to a Type II review per TCLUO Article X: Development Approval Procedures. TCLUO Section 10.070 requires notification of Type II applications to be mailed to landowners within 250 feet of the subject properties, to allow at least 14 days for written comment and requires staff to consider comments received in making the decision.

Findings: Notice of the request was mailed to property owners and agencies on March 15, 2022. Staff finds that notification requirements have been met. Comments were received from the FEMA Region X and are included as "Exhibit C".

A. TCLUO Section 3.335, 'Pacific City/Woods Medium Density Residential (PCW-R2) Zone'

PURPOSE: The purpose of the PCW-AP zone is to support and encourage the continued operation and vitality of the Pacific City airport and to designate areas for uses including residential homes, aircraft hangars and aircraft related businesses, while promoting safety in the airport area. Land that is suitable for the PCW-AP zone is contiguous to the Pacific City Airport. It is acknowledged that the airport has adverse impacts to the surrounding area, i.e. noise and propwash, however, the community desires that the airport be maintained.

TCLUO Section 3.335(2)(a), 'Uses Permitted Outright', lists *One or two-family* dwelling as a use permitted outright in the PCW-AP zone subject to applicable supplementary regulations contained in ordinance.

Findings: Applicant is proposing an addition to an existing single-family dwelling in the Pacific City/Woods Airpark (PCW-AP) zone (Exhibit B). Staff finds that the proposed use is allowed outright in the Pacific City/Woods Airpark (PCW-AP) zone subject to applicable standards. Staff finds the existing dwelling is nonconforming to setback requirements of the PCW-AP zone. The nonconforming requirements are addressed in Subsection C below, in this report. Staff finds that Applicant will be required to demonstrate compliance with other applicable standards, such as parking, height, and yard setback requirements, at the time of applying for consolidated zoning/building permit approval.

B. TCLUO Section 3.510 'Flood Hazard (FH) Overlay'

(5) GENERAL STANDARDS: In all areas of special flood hazards the following standards are required:

...

ANCHORING

(b) All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

(c) All manufactured dwellings must likewise be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (See FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for techniques). A certificate signed by a registered architect or engineer which certifies that the anchoring system is in conformance with FEMA regulations shall be submitted prior to final inspection approval.

CONSTRUCTION MATERIALS AND METHODS

(d) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

(e) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(f) Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be elevated to prevent water from entering or accumulating within the components during conditions of flooding. In Flood Zones A, A1-A30, AE, V, V1-V30 or VE, such facilities shall be elevated three feet above base flood elevation. In Flood Zone AO, such facilities shall be elevated above the highest grade adjacent to the building, a minimum of one foot above the depth number specified on the FIRM (at least two feet above the highest adjacent grade if no depth number is specified).

UTILITIES

(g) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood water into the system.

(h) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.

(i) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding, consistent with Oregon Department of Environmental Quality (DEQ) standards.

Findings: Applicant has provided a site plan and building plans which indicate foundation design improvements to site structure to prevent flotation and lateral movement, along with a floor plan indicating the utilization of space subject to flood waters (Exhibit B). An Elevation Certificate prepared by Dallas Esplin of Bayside Surveying dated October 6, 2021, details the location of the lowest machinery or equipment of the building, including proposed lowest floor heights (Exhibit B). Floor plans and foundation design provided detail improvements, living space, utilities and machinery located on the next higher floor of the proposed dwelling (Exhibit B). The site plan indicates an entry on the bottom floor which maintains access to the building and storage and will be maintained as unfinished space utilization flood resistant materials (Exhibit B). Staff finds that these standards can be met through compliance with Conditions of Approval.

...

(6) SPECIFIC STANDARDS FOR A ZONES (A, AE or A1-A30): In all areas of special flood hazards where base flood data has been provided as set forth in Section 3.510(2) or other base flood data are utilized, the following provisions are required:

RESIDENTIAL CONSTRUCTION

(a) New construction and substantial improvement of any residential structure, including manufactured dwellings, shall have the lowest floor, including basement, at a minimum of three feet above base flood elevation.

(b) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or must meet or exceed the following minimum criteria:

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

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

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

Findings: The proposed area of development is located in an AE Area of Special Flood Hazard as indicated on FEMA FIRM 41057C0855F dated September 28, 2018 (Exhibit A). Applicant is proposing to add onto an existing dwelling (Exhibit B).

Applicant provided a pre-construction elevation certificate prepared by Dallas Esplin of Bayside Surveying, a licensed professional surveyor, for the proposed residential development. The proposed design includes a main floor level at 21.4-feet (Exhibit B). Dallas Esplin stated Base Flood Elevation (BFE) for the subject property is 16.6-feet (Exhibit A). The bottom floor of the proposed dwelling is to be maintained as parking/garage and storage space and is proposed to be located at 12.4-feet NAVD 88 (Exhibit B). The next higher floor, which is indicated to maintain the proposed living space of the dwelling, is located at 21.4-feet NAVD 88, which exceeds 3-feet above BFE (Exhibit B). Applicant has provided foundation plans which indicate the location of multiple vents, with the Elevation Certificate confirming adequate net area of openings provided by the vents for the enclosed bottom floor (Exhibit B). Staff finds that the proposed development complies with the standards of TCLUO 3.510(6).

(9) SPECIFIC STANDARDS FOR FLOODWAYS: Located within areas of special flood hazard established in Section 3.510(2) are areas designated as regulatory floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

(a) Encroachments in the regulatory floodway including fill, new construction, substantial improvements and other development are prohibited unless certification is provided by a professional registered civil engineer demonstrating through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that such encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(b) If Subsection 8(a) is satisfied, all new construction and substantial improvement shall comply with all applicable flood hazard reduction provisions of Section 3.510(5) and (6).

(c) If hydrologic and hydraulic analysis indicates an increase in flood levels, the Applicant shall obtain a Conditional Letter of Map Revision (CLOMR) from FEMA before any encroachment, including fill, new construction, substantial improvement, or other development, in the regulatory floodway is permitted. Upon completion of the project, but no

later than six months after project completion, a Letter of Map Revision (LOMR) shall be submitted to FEMA to reflect the changes on the FIRM and/or Flood Insurance Study. A LOMR is required only when the CLOMR documents an increase in flood levels during the occurrence of the base flood or where post-development conditions do not reflect what was proposed on the CLOMR.

Findings: The Applicant retained Waterways Consulting, Inc. to complete the no-rise analysis required for development within the regulatory floodway (Exhibit B). The analysis was performed for the dwelling, attached garage, retaining wall, and gravel driveway improvement (Exhibit B). The analysis confirms that the proposed encroachments into the regulatory floodway will not result in any increase in flood levels (Exhibit B). Comments were received from Josha Crowley, FEMA Region X Service Center, to conclude that the proposed development as demonstrated in Waterways Consulting, Inc.'s report result in a zero rise in BFE (Exhibit C).

Staff finds that these standards have been met.

(14) DEVELOPMENT PERMIT PROCEDURES: A development permit shall be obtained before construction or development begins within any area of special flood hazard zone. The permit shall be for all structures including manufactured dwellings, and for all development including fill and other development activities, as set forth in the Definitions contained in this Section of the Land Use Ordinance.

(a) Application for a development permit shall be made on forms furnished by the Community Development Director and shall include but not necessarily be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information in 3.510(14)(a)(1)–(4) is required and Development Permits required under this Section are subject to the Review Criteria put forth in Section 3.510(14)(b):

(1) Elevation in relation to a specific datum of the lowest floor, including basement, of all structures as documented on an Elevation Certificate;

(2) Elevation in relation to a specific datum to which any proposed structure will be floodproofed as documented on an Elevation Certificate;

(3) If applicable, certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Subsection (6)(c)(3) of this Section; and

(4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

(b) Development Permit Review Criteria

(1) The fill is not within a Coastal High Hazard Area.

Findings: Staff finds the proposed location is within a FEMA 'AE' Flood zone and is therefore not located within a Coastal High Hazard Area (Exhibit B). Staff find this criterion is met.

(2) Fill placed within the Regulatory Floodway shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(3) The fill is necessary for an approved use on the property.

(4) The fill is the minimum amount necessary to achieve the approved use.

Findings: The Applicant retained Waterways Consulting, Inc. to complete the no-rise analysis required for development within the regulatory floodway (Exhibit B). The analysis confirms that the proposed encroachments into the regulatory floodway will not result in any increase in flood levels (Exhibit B). The proposed activity is for the addition to an existing dwelling, garage, retaining wall and gravel driveway on the subject property (Exhibit B). No additional fill outside the proposed structure and the driveway has been designated on the application submittal (Exhibit B). Staff find these criteria are met.

(5) No feasible alternative upland locations exist on the property.

Findings: The subject property is entirely located within the FEMA 'AE' Flood zone boundary and entirely within the Floodway (Exhibit A). No upland location exists on the subject property which would remove future development from the regulatory floodplain (Exhibit B). Staff find this criterion is met.

(6) The fill does not impede or alter drainage or the flow of floodwaters.

Findings: The Applicant retained Waterways Consulting, Inc. to complete the no-rise analysis required for development within the regulatory floodway (Exhibit B). The analysis confirms that the proposed encroachments into the regulatory floodway will not result in any increase in flood levels or surface elevations anywhere in the model (Exhibit B). Staff find this criterion is met.

(7) If the proposal is for a new critical facility, no feasible alternative site is available.
(8) For creation of new, and modification of, Flood Refuge Platforms, the following apply, in addition to (14)(a)(1-4) and (b)(1-5):

i. The fill is not within a floodway, wetland, riparian area or other sensitive area regulated by the Tillamook County Land Use Ordinance.
ii. The property is actively used for livestock and/or farm purposes,
iii. Maximum platform size = 10 sq ft of platform surface per acre of pasture in use, or 30 sq ft per animal, with a 10-ft wide buffer around the outside of the platform,
iv. Platform surface shall be at least 1 ft above base flood elevation,
v. Slope of fill shall be no steeper than 1.5 horizontal to 1 vertical,
vi. Slope shall be constructed and/or fenced in a manner so as to prevent and avoid erosion.

Findings: The Applicant has proposed an addition to the single-family residential structure on the subject property, along with a retaining wall and gravel driveway (Exhibit B). Staff find the proposed improvement is neither a critical facility as defined in TCLUO Section 3.510(4) or a Flood Refuge Platform. Staff find these criteria are met.

Conditions of approval may require that if the fill is found to not meet criterion (5), the fill shall be removed or, where reasonable and practical, appropriate mitigation measures shall be required of the property owner. Such measures shall be verified by a certified engineer or hydrologist that the mitigation measures will not result in a net rise in floodwaters and be in coordination with applicable state, federal and local agencies, including the Oregon Department of Fish and Wildlife.

Findings: Applicant submitted the required information on forms provided by the Community Development Department and as attachments thereto (Exhibit B). The entire property is located in an AE Area of Special Flood Hazard and in the Floodway of the Nestucca River and no alternative

upland location exists (Exhibits A and B). Waterways Consulting, Inc. provided a no-rise analysis certifying that the proposed improvements will not create a rise in flood levels (Exhibit B). Staff finds that these criteria are met.

C. Article VII: Nonconforming Uses and Structures

The purpose of the NONCONFORMING USES AND STRUCTURES provisions are to establish standards and procedures regulating the continuation, improvement and replacement of structures and uses which pre-date, and which do not comply with, this Ordinance. The intent is to allow changes to nonconforming uses and structures in a manner that does not increase the level of adverse impact to surrounding areas. These provisions are intended to be consistent with ORS 215.130.

Findings: Staff finds that the existing dwelling maintains an approximately 2-foot 3-inch setback from the front property line, which does not conform to the minimum 20-foot setback required by the PCW-AP zone (Exhibit B). The existing dwelling is proposing an alteration and expansion to a nonconforming structure and therefore will require compliance with Article VII 'Nonconforming Uses and Structures'. Staff find that the subject property is concurrently in review of a Nonconforming Review Permit, #851-22-000151-PLNG, to ensure conformance with the standards and criteria of TCLUO Section 7.020. Staff will require as a Condition of Approval conformance to the conditions of the Nonconforming Review Permit #851-22-000151-PLNG.

V. DECISION: APPROVED WITH CONDITIONS

Based on the findings shown above, Staff concludes that the Applicant has satisfied the review criteria, and can meet all applicable ordinance requirements at the time of application. Therefore, the Department approves Floodplain Development Permit 851-21-000321-PLNG subject to the Conditions of Approval in section VI of this report.

Appeal of this decision. This decision may be appealed to the Tillamook County Planning Commission, who will hold a public hearing. The forms and fees must be filed in the office of this Department before **4:00 PM on August 1, 2022.**

VI. CONDITIONS OF APPROVAL:

1. The applicant/property owner shall obtain all required Federal, State, and Local permits and/or licenses and will comply with applicable rules and regulations.
2. All applicable permits, including a consolidated Zoning and Building Permit from the Tillamook County Department of Community Development shall be obtained prior to construction the proposed addition and driveway fill/grading.
3. The applicant/property owner shall submit a site plan drawn to scale that confirms all required setbacks are met. The site plan shall be submitted to the Department of Community Development at the time of consolidated Zoning and Building Permit application submittal.
4. The applicant/property owner shall obtain an approved Road Approach permit from the Tillamook County Public Works Department.
5. Development shall comply with the standards of TCLUO Section 3.335, 'Pacific City/Woods Airpark (PCW-AP) Zone'.
6. The applicant/property owner shall comply with all 'Zone AE' flood hazard construction standards per FEMA requirements. All construction shall adhere to the standards for residential

structure in the 'AE' flood zone per TCLUO Section '3.510'. This shall be reviewed and verified by this Department during the Building Permit process.

7. The dwelling shall comply with all Building Code requirements for Anchoring, Construction Materials and Methods, and Utilities for residential structure located in the 'AE' and Floodway flood zones.
8. Owner/Applicant shall submit a 'Post-Elevation' certificate completed by a registered surveyor and provided on the current FEMA form prior to receiving Certificate of Occupancy for the dwelling.
9. Applicant/Property owner shall adhere to the conditions of Nonconforming Review Permit #851-22-000151-PLNG.
10. This approval shall be void on July 19, 2024, unless construction of approved plans has begun, or an extension is requested from, and approved by this Department.

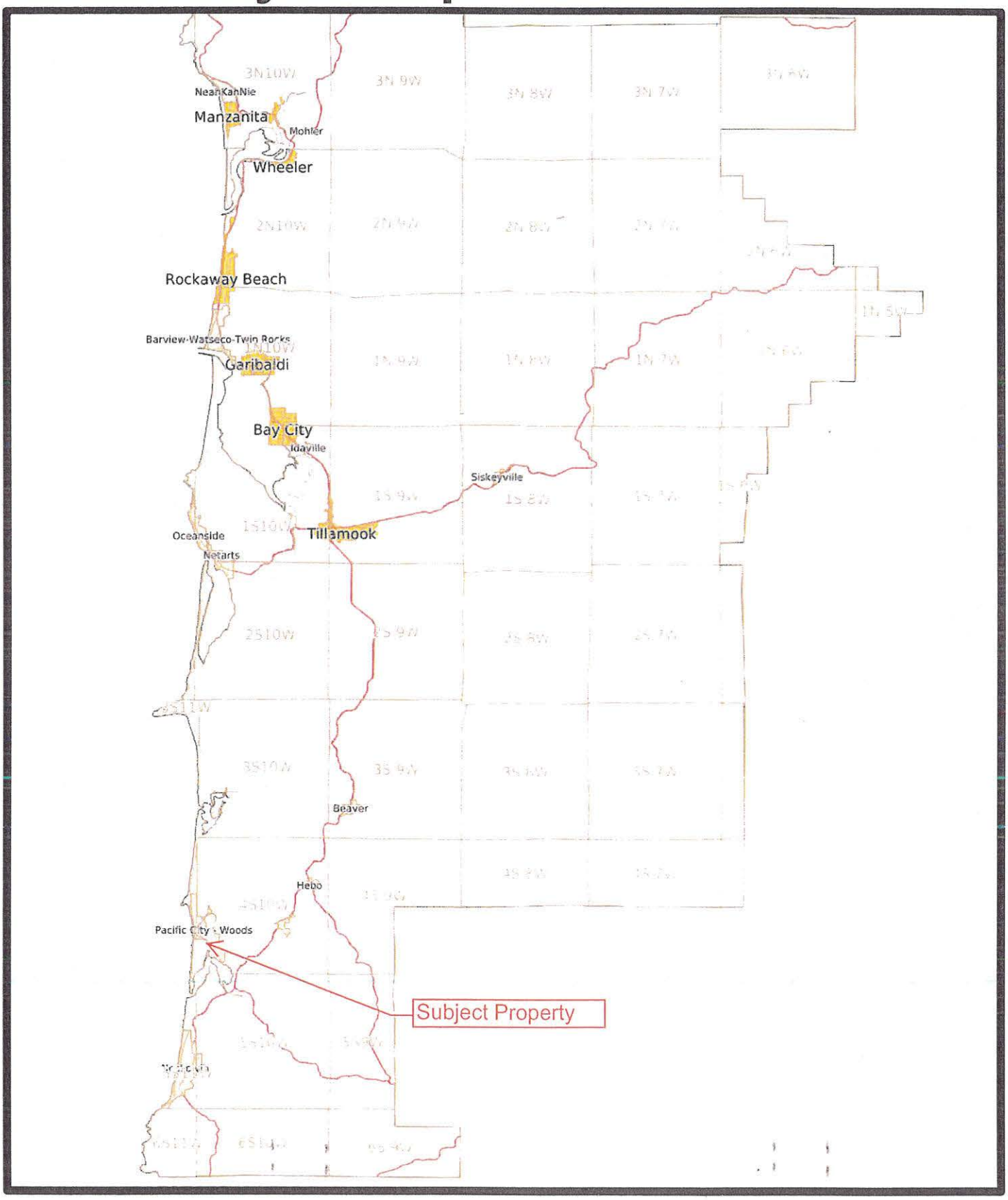
VII. EXHIBITS

All Exhibits referred to herein are, by this reference, made a part hereof:

A. Location map, Assessor map, Zoning map, FEMA FIRM, NWI Wetlands map
B. Applicant's submittal
C. Public Comments

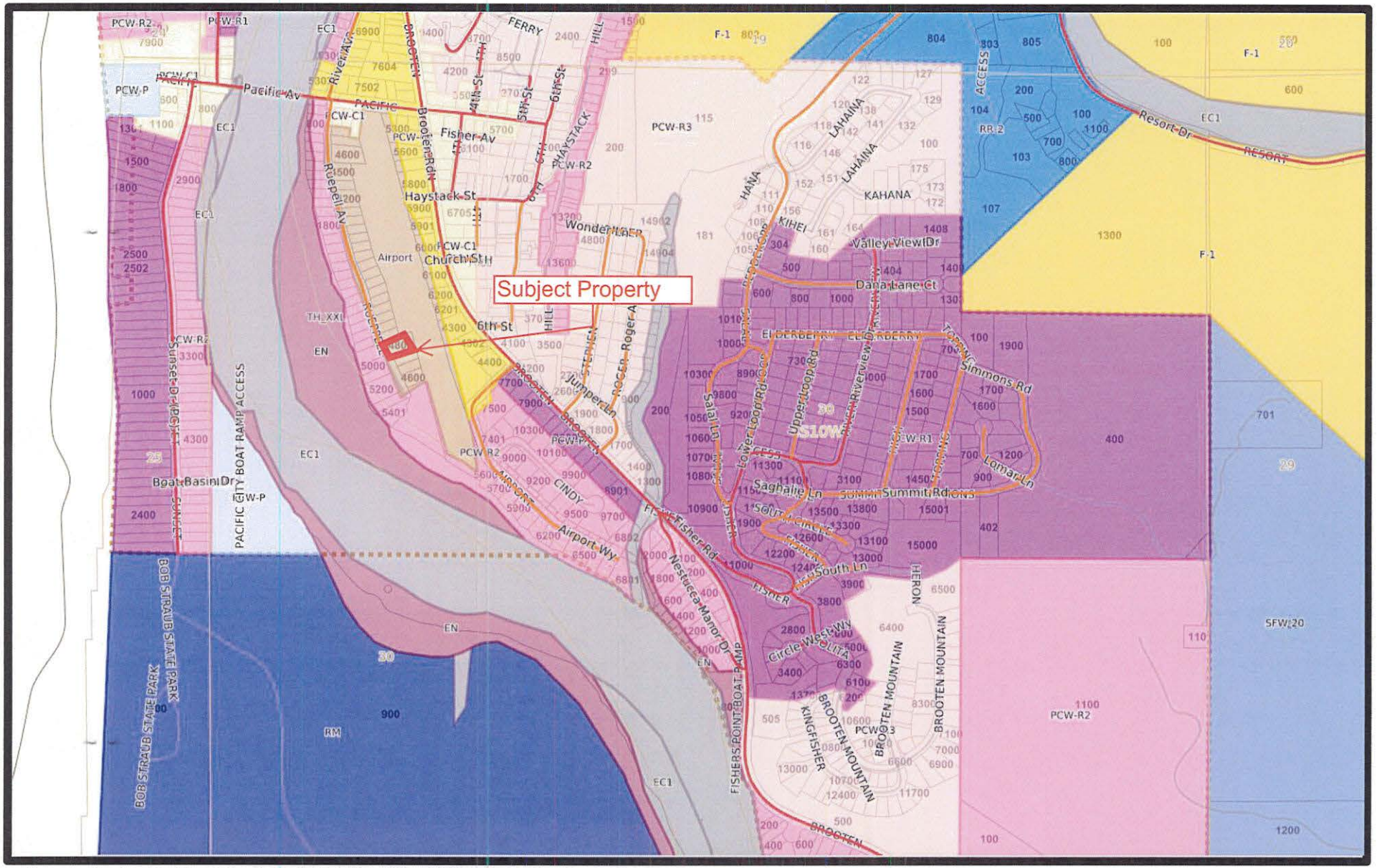
EXHIBIT A

Vicinity Map



Generated with the GeoMOOSE Printing Utilities

Zoning Map



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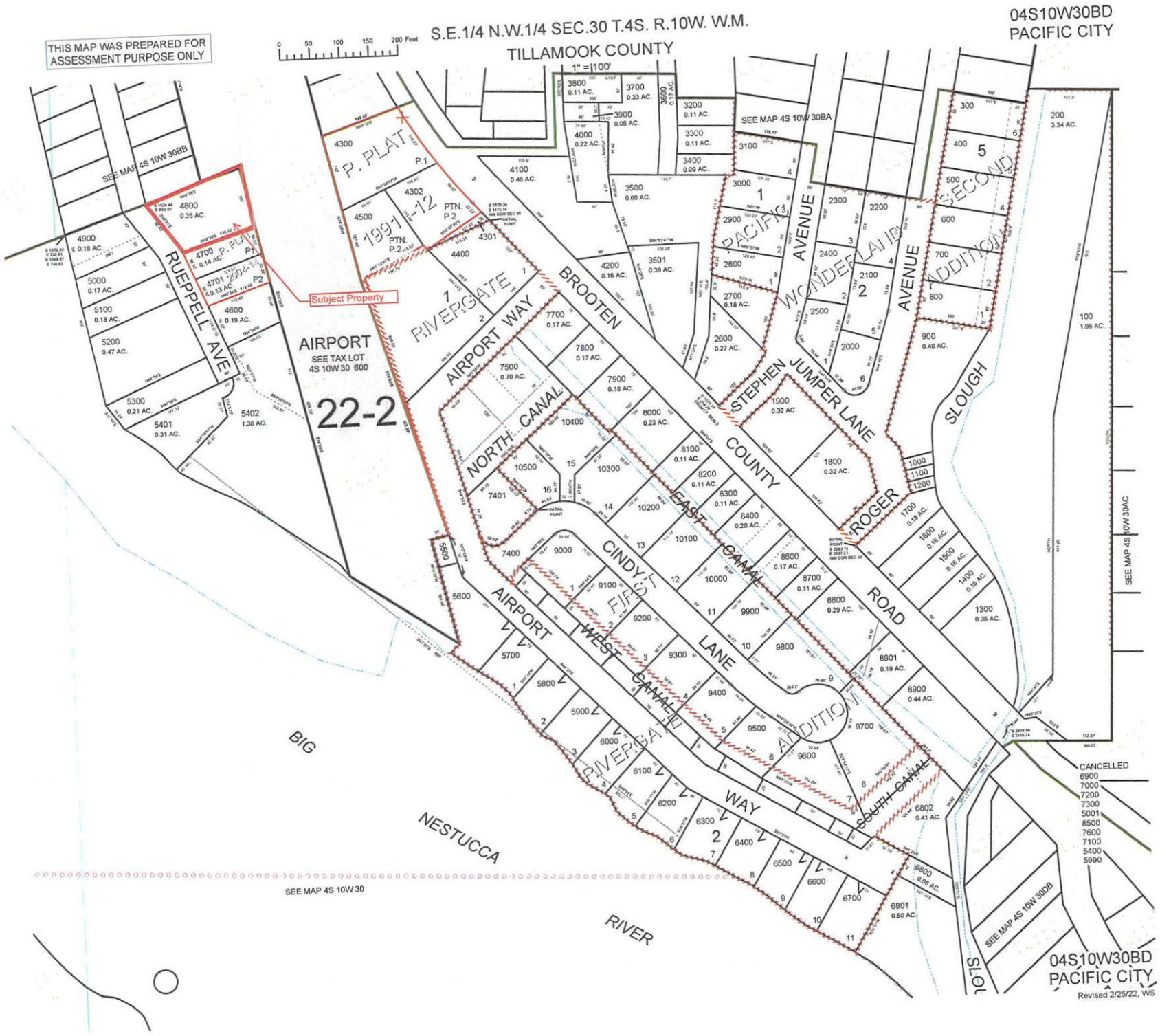

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY
0 50 100 150 200 Feet
1" = 100'
S.E.1/4 N.W.1/4 SEC.30 T.4S. R.10W. W.M.
TILLAMOOK COUNTY
04S10W30BD
PACIFIC CITY
SEE MAP 4S 10W 30BB
SEE MAP 4S 10W 30BA
Subject Property
AIRPORT
SEE TAX LOT 4S 10W30 600
22-2
RUEPPELL AVE
AIRPORT WAY
RIVERGATE
BROOTEN
NORTH CANAL
EAST CANAL
WEST CANAL
SOUTH CANAL
CINDY'S
AIRPORT LANE
ROGER ROAD
STEPHEN JUMPER LANE
COUNTY
PACIFIC WONDERLAND ADDITION
SECOND ADDITION
AVENUE
SLOUGH
RIVERSIDE WAY
BIG NESTUCCA RIVER
SEE MAP 4S 10W 30
SEE MAP 4S 10W 30AC
SEE MAP 4S 10W 30DB
CANCELLED
6900
7000
7200
7300
5001
8500
7600
7100
5400
5990
04S10W30BD
PACIFIC CITY
Revised 2/25/22, WS

TILLAMOOK County Assessor's Summary Report

Real Property Assessment Report

FOR ASSESSMENT YEAR 2021

March 10, 2022 1:44:05 pm

Account #	240698	**Tax Status**	ASSESSABLE
Map #	4S1030BD04800	**Acct Status**	ACTIVE
Code - Tax #	2202-240698	**Subtype**	NORMAL
Legal Descr	See Record		
Mailing Name	COULTER, DAVID	**Deed Reference #**	2018-3245
Agent		**Sales Date/Price**	05-30-2018 / $250,000.00
In Care Of		**Appraiser**	ROBERT BUCKINGHAM
Mailing Address	217 N GRANT AVE GOLDENDALE, WA 98620-9513		

Prop Class	121	**MA**	**SA**	**NH**	**Unit**
RMV Class	101	09	ST	901	19707-1

Situs Address(s)	Situs City
ID# 1 35465 RUEPPELL AVE	COUNTY

Value Summary

Code Area		RMV	MAV	AV	RMV Exception		CPR %
2202	Land	109,220			Land	0	
	Impr.	231,020			Impr.	0	
Code Area Total		340,240	246,880	246,880		0	
Grand Total		340,240	246,880	246,880		0	

Land Breakdown

Code Area	ID#	RFPD	Ex	Plan Zone	Value Source	TD%	LS	Size	Land Class	Trended RMV
2202					LANDSCAPE - FAIR	100				500
2202	1	☑		PCW-AP	Market	104	A	0.35		80,220
2202					OSD - AVERAGE	100				28,500
					Grand Total			0.35		109,220

Improvement Breakdown

Code Area	ID#	Yr Built	Stat Class	Description	TD%	Total Sq. Ft.	Ex%	MS Acct #	Trended RMV
2202	1	1966	139	Basement First Floor	123	1,736			231,020
				Grand Total		1,736			231,020

Exemptions / Special Assessments / Potential Liability

Code Area 2202

SPECIAL ASSESSMENTS:

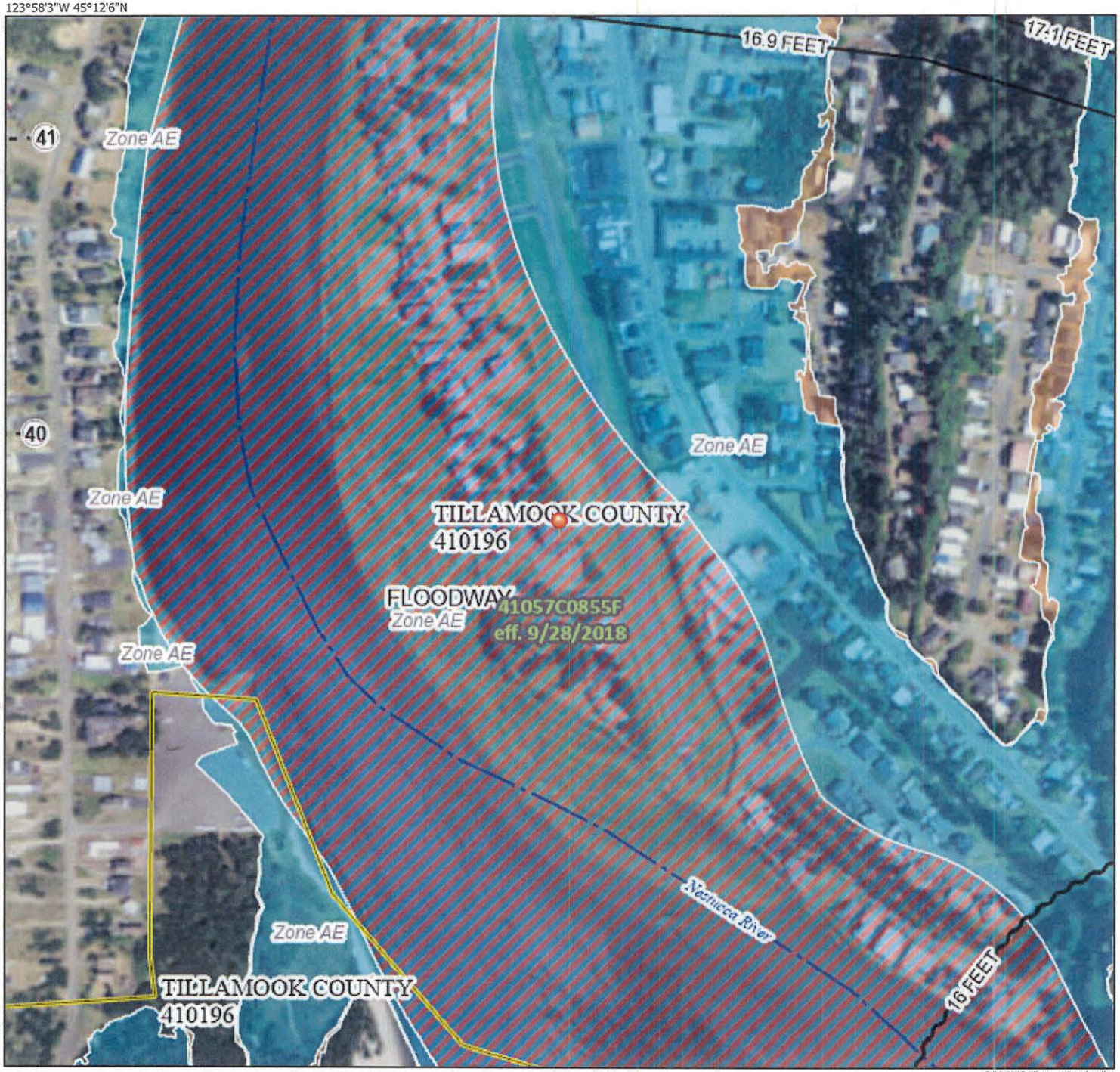
■ SOLID WASTE — Amount 12.00 — Acres 0 — Year 2021

Comments: 04-09-04 Changed land value to reflect residential trends for neighborhood. sm. 10/18/06 input inventory. gb 01/29/14 Reappraised land; tabled values. RBB

National Flood Hazard Layer FIRMette

FEMA

123°58'3"W 45°12'6"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

123°57'25"W 45°11'41"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainag areas of less than one square mile *Zone*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represe an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/10/2022 at 4:42 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

U.S. Fish and Wildlife Service

National Wetlands Inventory

Coulter

March 10, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

EXHIBIT B

Tillamook County Department of Community Development
1510-B Third Street. Tillamook, OR 97141 | Tel: 503-842-3408 Fax: 503-842-1819
www.co.tillamook.or.us

PLANNING APPLICATION

OFFICE USE ONLY
Date Stamp
RECEIVED
AUG 10 2021
BY:

☐Approved ☐Denied
Received by: MJ
Receipt #:
Fees: $983.00
Permit No:
851-21-000321-PLNG

Applicant *(Check Box if Same as Property Owner)*
Name: Ronald E. Coulter Phone: (509) 630-5518
Address: P.O. Box 2323
City: Chelan State: Wa. Zip: 98816
Email: ron.coulterarchitects@gmail.com

Property Owner
Name: David M. Coulter Phone: (360) 508-0960
Address: 217 N. Grant st.
City: Goldendale State: Wa. Zip: 98620
Email:

Request: Addition to Dwelling

Type II	Type III	Type IV
☐ Farm/Forest Review	☐ Appeal of Director's Decision	☐ Appeal of Planning Commission Decision
☐ Conditional Use Review	☐ Extension of Time	☐ Ordinance Amendment
☐ Variance	☐ Detailed Hazard Report	☐ Large-Scale Zoning Map Amendment
☐ Exception to Resource or Riparian Setback	☐ Conditional Use (As deemed by Director)	☐ Plan and/or Code Text Amendment
☐ Nonconforming Review (Major or Minor)	☐ Ordinance Amendment	
☒ Development Permit Review for Estuary Development	☐ Map Amendment	
☐ Non-farm dwelling in Farm Zone	☐ Goal Exception	
☐ Foredune Grading Permit Review		
☐ Neskowin Coastal Hazards Area		

Location:
Site Address: 35465 Rueppell Ave Pacific City, Oregon
Map Number:
Township Range Section Tax Lot(s)

Clerk's Instrument #: _____

Authorization
This permit application does not assure permit approval. The applicant and/or property owner shall be responsible for obtaining any other necessary federal, state, and local permits. The applicant verifies that the information submitted is complete, accurate, and consistent with other information submitted with this application.

Property Owner Signature (Required) Date 8/15/21
Applicant Signature Date 8-10-21

Tillamook County Department of Community Development
1510-B Third Street. Tillamook, OR 97141 | Tel: 503-842-3408 Fax: 503-842-1819
www.co.tillamook.or.us

PLANNING APPLICATION

OFFICE USE ONLY
Date Stamp: RECEIVED AUG 10 2021 BY:
☐Approved ☐Denied
Received by: MT
Receipt #:
Fees: 983
Permit No: 851-21-000321-PLNG

Applicant *(Check Box if Same as Property Owner)*
Name: Ronald E. Coulter Phone: (509) 630-5518
Address: P.O. Box 2323
City: Chelan State: Wa. Zip: 98816
Email: ron.coulterarchitects@gmail.com

Property Owner
Name: David M. Coulter Phone: (360) 508-0960
Address: 217 N. Grant st.
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Type II	Type III	Type IV
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☐ Non-farm dwelling in Farm Zone	☐ Goal Exception	
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Location:
Site Address: 35465 Rueppell Ave Pacific City, Oregon
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Property Owner Signature (Required) Date

Applicant Signature 8-10-21
Date

COULTER ARCHITECTURE

David and Pattie Coulter, Single-family Residence Addition.

35465 Rueppell Ave. Pacific City, Oregon

MEMO

Melissa, My mailed in submittal is in two packages and includes the following:

(2) Sets of Architectural and Structural Drawings. See index

Photos of the existing building, so you would not have to visit the site. We are replacing the decks (in the same configuration) which are falling apart plus redoing the windows, doors and siding, and revising the entrance (eliminating the front stair.

Community Development checklist (I Assume you check the boxes.)

Spec sheet on the special Neopor insulation in case you are not familiar with it.

(2) bound books that include the following:

1-Project preamble:	Project description
2-Energy forms:	Additional Measures Selection form
3-Structural Calculations:	FORTE -Gravity plus Lateral computations.
4-Building Details:	Construction Details
5-Soils Report:	Morgan Civil Engineers

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

COULTER ARCHITECTURE

6-Property Surveyor: Bayside Surveying, LLC

7-Project Specifications and catalogue cut sheets

The Hydraulics Analysis Report, dated March 30, 2021 was submitted to you previously, and forwarded to FEMA by you, per your request.

Color perspective renderings to help explain the project.

Utility statements showing connection and services to the property for Power, water and Sewer.

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

COULTER ARCHITECTURE

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

COULTER ARCHITECTURE

David and Pattie Coulter, Single-family Residence Addition.

35465 Rueppell Ave. Pacific City, Oregon

Project preamble:	Project description
Energy forms:	Additional Measures Selection form
Structural Calculations:	FORTE -Gravity plus Lateral computations.
Building Details:	Construction Details
Soils Report:	Morgan Civil Engineers
Property Surveyor:	Bayside Surveying, LLC

Project Specifications and catalogue cut sheets:

REGISTERED ARCHITECT
RONALD E. COULTER
CHELAN, WASHINGTON
STATE OF OREGON

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

David M. Coulter, Single family residence addition.
35465 Rueppell, Pacific City, Oregon

PROJECT INDEX

PROJECT PREAMBLE:

PROJECT DRAWINGS INDEX:

A-0.1	Site Plan
A-1.1	First Floor Plan
A-1.2	Second Floor Plan
A-1.3	Door and Window Schedules and roof Plan
A-2.1	South and East Elevations
A-2.2	North and West Elevations
A-3.1	Sections
S-1.1	Foundation Planning
S-1.1a	Foundation Details
S-1.2	Second Floor Framing Plan
S-1.3	Roof Framing and SIP Panel Plan
S-1.4	Shear Wall Plans and Details
S-1.5	Structural Notes
E- 1.1	First Floor Electrical Plan
E- 1.2	Second Floor Electrical Plan

RESIDENTIAL ENERGY ADDITIONAL MEASURES SELECTION:

PROJECT SPECIFICATIONS:
Including Catalog Cuts

PROJECT ENCLOSURES:
By reference and previously submitted to Tillamook County Planning, and subsequently submitted to FEMA by Tillamook County:
Waterways Consulting, Inc. Hydraulics Analysis Report, dated March 30, 2021

David M. Coulter, Single family residence addition.
35465 Rueppell, Pacific City, Oregon

PROJECT PREAMBLE

Project Description:

This project includes an existing house, constructed approximately 30 years ago, with deferred maintenance, and the addition of a new Master suite in the rear yard, making this a four bedroom house with additional entertainment deck.

Existing House scope :

The existing house is a two story building with the first story built with Concrete Masonry Unit perimeter walls, containing 5 garage stalls. The second story is a three bedroom area of 1809 S.F. of finished space.
The scope of this phase is to provide new decks, replacing the preexisting in the same configuration and footprint as the existing decks. (see survey site plan.)
The exterior siding will be replaced with new siding, including any deterioration of the sub structure.
All windows and sliding doors will also be replaced with double glazed vinyl windows.
New aluminum garage doors, and a new front entrance replacing the existing exterior stair as the main entrance.

New Master Suite Addition scope:

The addition of a Master suite upper floor of 1606 S.f. of finished area and a large outdoor deck, both for entertaining and accommodating a large family. The first floor of the new addition is constructed of concrete up to the 16.6' MSL elevation, providing a flood resistant first story. The first story consists of a two stall garage and a two stall carport, all configured to comply with the Hydrologists analysis to the flood criteria of FEMA. See the report from Waterways Consulting Inc. dated March 30, 2021

Design Criteria:

Tillamook land use Ordinance 3.510 (FH):

FEMA Flood way Zone AE (per Jake Hofeld, PE of Waterways Consulting, Inc.)

No scour or erosion is anticipated, and wave action should not be a consideration. (see attached email from Jake Hofeld, PE, dated April 14, 2021)

Hydraulics Analysis Report, prepared by Waterways Consultants, Inc, dated March 30, 2021 has been submitted to Tillamook County on April 19, 2021. This report establishes the viability of the finish lower floor set at elevation 13.0' MSL. The elevations are based on the topographic survey by Bayside Survey, Inc., by Dallas W. Esplin, dated October 13, 2020. (enclosed)

Flood level established at 16.6' MSL per Tillamook County Planning Dept. (Specified NAVD 88)

5 - Construction Materials and Methods:

(d) All materials on the ground level are either concrete, or located above the 16.6' MSL level.

(E) The project maximizes the practice of minimizing flood water damage.

(f) All electrical, HVAC, and plumbing are located above (except for piping), and the elevator and its electronics and controllers are located at the top of the shaft of above 16.6 MSL. The elevator is also programmed to return to the upper floor when not is use.

6 - Specific standards for A Zones:

(b) The lower level of the building is not subject to any wave action nor is it anticipated to have any scouring or erosion, per the email from the Hydrologist, listed above. We don't anticipate any flood forces acting on the building.

We comply with (6) (b) (1) and (2), providing the required and appropriate openings as shown on the foundation Plan.

Project designed to the 2018 edition of the IRC and the Oregon designated building codes. Section R322.2 Flood Hazard areas (including A Zones)

R322.2.1 Elevation requirements, exception complying with R322.2.2 Enclosed areas below design flood elevation: This project is designed based on this exception, and the elevation of the first level is a product of the flood modeling done by Waterways Consulting, Inc. (See the referenced report.) Elevaqtion13.0' MSL is established by this report.

2,1- The lower lever is reserved for parking, building access, and storage.

2.2- Flood openings have been provided, see the foundation plan.

R322.2.3 Foundation design and construction: Hydrostatic forces are not a design factor based on the recommendations by Waterways Consulting, Inc. as per email enclosed.

The foundation design is based on the soils report from Morgan Civil Engineering, Inc., and based on that report, at the time of excavation, we will have Jason Morgan, PE look at the site for a final review and recommendations.

Section 3.335 (3) (1) of the PCW-AP Zone with the Airport Overlay Zone.

Section 3.565 call for two height zones, 33' in zone A and 37 feet in zone B. These are MSL numbers, and not building heights from grade.

Melissa Jenk provided an ariel photo of the airport depicting the boundaries of zones A & B.

We aligned the GIS maps with this site and determined where these zone lines appeared on our site. These zone lines are depicted on our site plan drawing----------

We submitted these boundary lines to Tillamook County on January 19, 2021, and received a response on January 20, 2021 approving these boundary lines.

Soils Considerations for founding:

The soil assessment is prepared by Morgan Civil Engineering, Inc, dated April 29, 2021, and specifies the soil bearing capacity of 1500 pounds per square foot. When this is modified on the drawings, this is also recommended by the engineer, or implemented by the Architect based on his judgment.

Jake Hofeld Wed, Apr 14, 1:08 PM (9 days ago)

to me

Hi Ron,

Given how shallow flooding would be at your property, I don't expect scour/erosion to be an issue.

Regarding the flood zone designation, assume this is a Zone A area (the AE is a subcategory of these zones). Therefore, wave action should not be a consideration.

Hope this helps.

Jake D. Hofeld PE/CWRE

Senior Engineer

Waterways Consulting, Inc.

503-528-4816

www.watways.com

Residential Energy Additional Measure Selection

Department of Consumer and Business Services
Building Codes Division
1535 Edgewater NW, Salem, Oregon
Mailing address: P.O. Box 14470, Salem, OR 97309-0404
503-378-4133 • Fax: 503-378-2322
Web: oregon.gov/bcd

RESIDENTIAL INFORMATION

Date: 7-1-21 Building permit number: _____

Owner's name: David M. Coulter

Job address: 35465 Rueppell Ave

City: Pacific City State: Oregon ZIP: 97135

INSTRUCTIONS

Please select type of construction below; sign, date, and complete the entire form. Submit this form with your permit application or your project will be placed on hold until the required information is provided.

☒ **New construction.** All conditioned spaces within residential buildings must comply with Table N1101.1(1) and two additional measures (one numbered and one lettered) from Table N1101.1(2) on Page 2.

Additions. Additions to existing buildings or structures may be made without making the entire building or structure comply if the new additions comply with the requirements of this chapter. (N1101.3)

☒ **Large additions.** Additions that are equal to or more than 40 percent of the existing building heated floor area or 600 square feet (55 m^2) in area, whichever is less, must comply with Table N1101.1(2) on Page 2. (N1101.3.1) *(Note: You must select one numbered and one lettered measure.)*

☐ **Small additions.** Additions that are less than 40 percent of the existing building heated floor area or less than 600 square feet (55 m^2) in area, whichever is less, must select one measure from Table N1101.1(2) on page 2 or comply with Table N1101.3 below. (N1101.3.2)

☐ **Exception:** Additions that are less than 15 percent of existing building heated floor area or 200 square feet (18.58 m^2) in area, whichever is less, are not required to comply with Table N1101.1(2) or Table N1101.3.

Selected item number: _____ **Selected item letter:** _____

Note: Depending on which Additional Measures you have selected, there may be sub-options that you will have to specify. Check the appropriate box if provided.

Applicant's signature: [signature] Print name: Ronald E. Coulter, ~~AIA~~.

TABLE N1101.3 – SMALL ADDITION ADDITIONAL MEASURES (SELECT ONE)

☐	1	Increase the ceiling insulation of the existing portion of the home as specified in Table N1101.2.
☐	2	Replace all existing single-pane wood or aluminum windows to the *U*-factor as specified in Table N1101.2.
☐	3	Insulate the floor system as specified in Table N1101.2 & install 100 percent of permanently installed lighting fixtures as CFL, LED, or linear fluorescent or a minimum efficacy of 40 lumens per watt as specified in Section N1107.2.
☐	4	Test the entire dwelling with a blower door and exhibit no more than 6.0 air changes per hour @ 50 Pascals.
☐	5	Seal and performance test the duct system.
☐	6	Replace existing 78 percent AFUE or less gas furnace with a 92 percent AFUE or greater system.
☐	7	Replace existing electric radiant space heaters with a ductless mini split system with a minimum HSPF of 10.0.
☐	8	Replace existing electric forced air furnace with an air source heat pump with a minimum HSPF of 9.5.
☐	9	Replace existing water heater with a water heater meeting Conservation Measure D [Table N1101.1(2)].

TABLE N1101.1(2) ADDITIONAL MEASURES

Envelope Enhancement Measures (Select One)	☐	1	**High-efficiency walls** Exterior walls – U-0.045 / R-21 cavity insulation+R-5 continuous
	☒	2	**Upgraded features** Exterior walls – U-0.057 / R-23 intermediate or R-21 advanced, Framed floors – U-0.026 / R-38, and Windows – U-0.28 (average UA)
	☐	3	**Upgraded features** Exterior walls – U-0.055 / R-23 intermediate or R-21 advanced, Flat ceiling[e] – U-0.017 / R-60, and Framed floors – U-0.026 / R-38
	☐	4	**Super Insulated Windows and Attic OR Framed Floors** Windows – U-0.22 (Triple Pane Low-e), and ☐ Flat ceiling[e] – U-0.017 / R-60 or ☐ Framed floors – U-0.026 / R-38
	☐	5	**Air sealing home and ducts** Mandatory air sealing of all wall coverings at top plate and air sealing checklist[f], and Mechanical whole-building ventilation system with rates meeting M1507.3 or ASHRAE 62.2, and ☐ All ducts and air handlers contained within building envelope[d] or ☐ All ducts sealed with mastic[b]
	☐	6	**High efficiency thermal envelope UA[g]** Proposed UA is 8% lower than the code UA
Conservation Measures (Select One)	☐	A	**High efficiency HVAC system[a]** ☐ Gas-fired furnace or boiler AFUE 94 percent, or ☐ Air source heat pump HSPF 9.5/15.0 SEER cooling, or ☐ Ground source heat pump COP 3.5 or Energy Star rated
	☐	B	**Ducted HVAC systems within conditioned space** All ducts and air handlers contained within building envelope[d] *Cannot be combined with Measure 5*
	☒	C	**Ductless heat pump** Ductless heat pump HSPF 10.0 in primary zone of dwelling
	☒	D	**High efficiency water heater[c]** ☐ Natural gas/propane water heater with UEF 0.85 or ☒ Electric heat pump water heater Tier 1 Northern Climate Specification Product

For SI: 1 square foot = 0.093 m^2, 1 watt per square foot = 10.8 W/m^2.

a. Appliances located within the building thermal envelope shall have sealed combustion air installed. Combustion air shall be ducted directly from the outdoors.
b. All duct joints and seams sealed with listed mastic; tape is allowed only at appliance or equipment connections (for service and replacement). Meet sealing criteria of Performance Tested Comfort Systems program administered by the Bonneville Power Administration (BPA).
c. Residential water heaters less than 55-gallon storage volume.
d. A total of 5 percent of an HVAC system's ductwork shall be permitted to be located outside of the conditioned space. Ducts located outside the conditioned space shall have insulation installed as required in this code.
e. The maximum vaulted ceiling surface area shall not be greater than 50 percent of the total heated space floor area unless vaulted area has a U-factor no greater than U-0.026.
f. Continuous air barrier. Additional requirement for sealing of all interior vertical wall covering to top plate framing. Sealing with foam gasket, caulk, or other approved sealant listed for sealing wall covering material to structural material (example: gypsum board to wood stud framing).
g. Table N1104.1(1) Standard base case design, Code UA shall be at least 8 percent less than the Proposed UA. Buildings with fenestration less than 15 percent of the total vertical wall area, these buildings may adjust the Code UA to have 15 percent of the wall area as fenestration.

Level			
Member Name	**Results**	**Current Solution**	**Comments**
Carport Beam B1	Passed	1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam	
Floor: Flush Beam B2	Passed	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	
Garage Beam B3	Passed	1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam	
Garage Beam B4	Passed	1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam	
Deck Beam B5	Passed	1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam	
Deck Beam B6	Passed	1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam	
Deck Beam B7	Passed	1 piece(s) 3 1/8" x 13 1/2" 24F-V4 DF Glulam	
Deck Beam B8	Passed	1 piece(s) 3 1/8" x 13 1/2" 24F-V4 DF Glulam	
Garage Beam B9	Passed	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	
Garage Door Header H-6	Passed	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	
Deck Beam B11	Passed	2 piece(s) 1 3/4" x 9 1/2" 2.0E Microllam® LVL	
Deck Beam B17	Passed	1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam	
Deck Beam B18	Passed	1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam	
Roof			
Member Name	**Results**	**Current Solution**	**Comments**
Roof Beam B-10	Passed	1 piece(s) 5 1/8" x 18" 24F-V8 DF Glulam	
H-1	Passed	2 piece(s) 1 3/4" x 11 1/4" 2.0E Microllam® LVL	
H-2	Passed	2 piece(s) 1 3/4" x 11 1/4" 2.0E Microllam® LVL	
H-3	Passed	2 piece(s) 2 x 10 DF No.1	
H-4	Passed	2 piece(s) 2 x 8 DF No.1	
H-5	Passed	2 piece(s) 2 x 8 DF No.1	
H-6	Passed	2 piece(s) 1 3/4" x 9 1/2" 2.0E Microllam® LVL	
Existing House			
Member Name	**Results**	**Current Solution**	**Comments**
Deck Beam B12	Passed	1 piece(s) 3 1/8" x 18" 24F-V8 DF Glulam	
Ridge Beam B13	Passed	1 piece(s) 5 1/8" x 10 1/2" 24F-V8 DF Glulam	
Gable Beam B14	Passed	1 piece(s) 5 1/8" x 16 1/2" 24F-V4 DF Glulam	
Deck Beam B15	Passed	2 piece(s) 1 3/4" x 18" 2.0E Microllam® LVL	
Deck Beam B16	Passed	1 piece(s) 5 1/8" x 18" 24F-V8 DF Glulam	

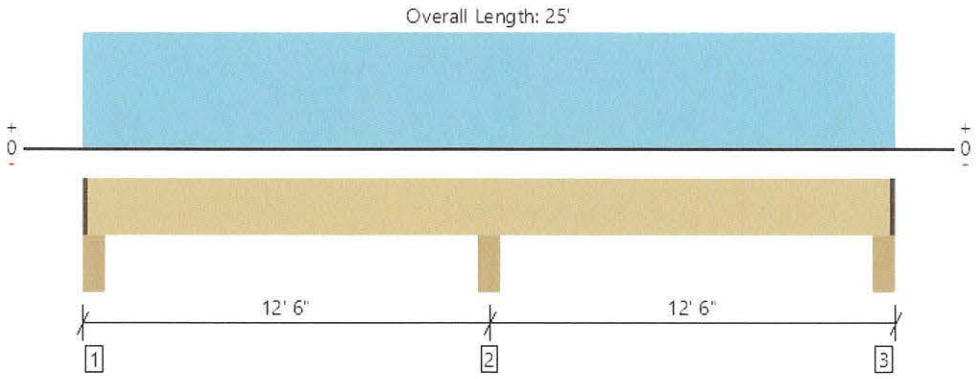
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

6/25/2021 9:57:22 PM UTC
ForteWEB v3.2
File Name: Dave's House

Level, Carport Beam B1

1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	18506 @ 12' 6"	18322 (5.50")	Passed (101%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	7605 @ 13' 10 1/4"	12223	Passed (62%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	15286 @ 19' 7 7/8"	31134	Passed (49%)	1.00	1.0 D + 1.0 L (Alt Spans)
Neg Moment (Ft-lbs)	-22515 @ 12' 6"	23999	Passed (94%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.132 @ 6' 1 3/16"	0.304	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.185 @ 5' 10 3/4"	0.608	Passed (L/788)	--	1.0 D + 1.0 L (Alt Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 10' 5/16".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 6' 1".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Column - DF	5.50"	4.25"	1.91"	2431	4073/-473	6504/-473	1 1/4" Rim Board
2 - Column - DF	5.50"	5.50"	5.56"	7556	10950	18506	None
3 - Column - DF	5.50"	4.25"	1.91"	2431	4073/-473	6504/-473	1 1/4" Rim Board

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	24' 10" o/c	
Bottom Edge (Lu)	24' 10" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/4" to 24' 10 3/4"	N/A	16.8	--	
1 - Uniform (PSF)	0 to 25' (Front)	12'	40.0	60.0	Default Load

Weyerhaeuser Notes

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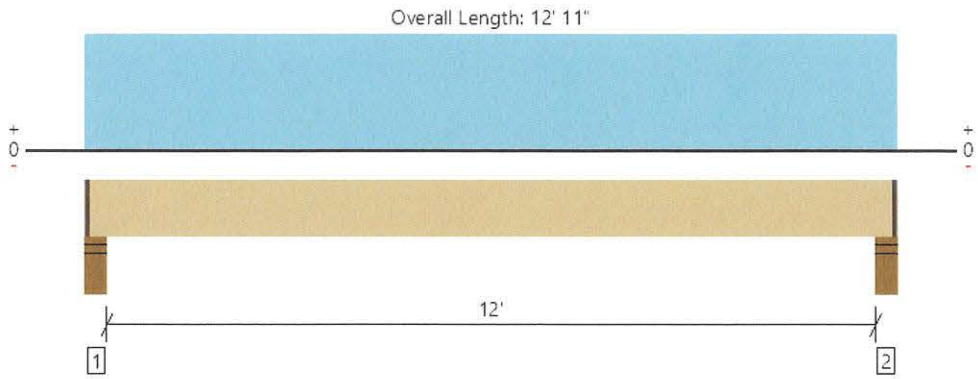
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Floor: Flush Beam B2

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2538 @ 4"	9297 (4.25")	Passed (27%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	2089 @ 1' 2 3/4"	6151	Passed (34%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	7493 @ 6' 5 1/2"	11204	Passed (67%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.303 @ 6' 5 1/2"	0.306	Passed (L/486)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.465 @ 6' 5 1/2"	0.613	Passed (L/316)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - DF	5.50"	4.25"	1.50"	900	1679	2579	1 1/4" Rim Board
2 - Stud wall - DF	5.50"	4.25"	1.50"	900	1679	2579	1 1/4" Rim Board

• Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' 9" o/c	
Bottom Edge (Lu)	12' 9" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/4" to 12' 9 3/4"	N/A	9.4	--	
1 - Uniform (PSF)	0 to 12' 11" (Front)	6' 6"	20.0	40.0	Default Load

Weyerhaeuser Notes

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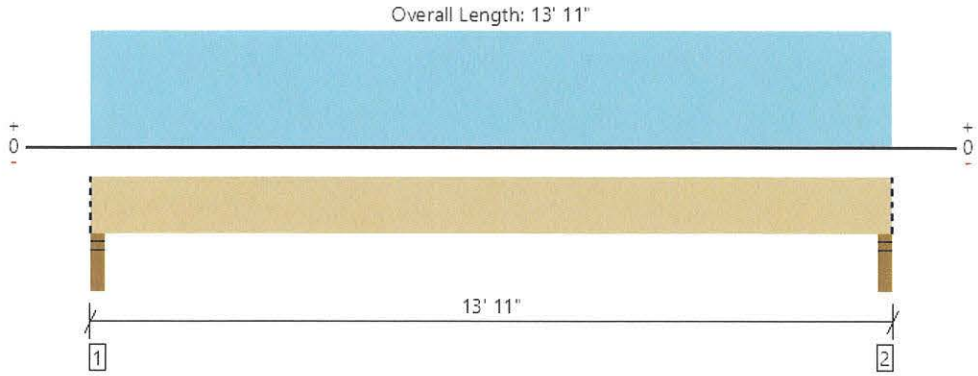
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Garage Beam B3

1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	6268 @ 2"	11211 (3.50")	Passed (56%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	4992 @ 1' 5"	12223	Passed (41%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	20776 @ 6' 11 1/2"	31134	Passed (67%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.275 @ 6' 11 1/2"	0.453	Passed (L/592)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.365 @ 6' 11 1/2"	0.679	Passed (L/447)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 13' 7".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - DF	3.50"	3.50"	1.96"	1537	4732	6269	Blocking
2 - Stud wall - DF	3.50"	3.50"	1.96"	1537	4732	6269	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	13' 11" o/c	
Bottom Edge (Lu)	13' 11" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 13' 11"	N/A	16.8	--	
1 - Uniform (PSF)	0 to 13' 11" (Front)	17'	12.0	40.0	Default Load

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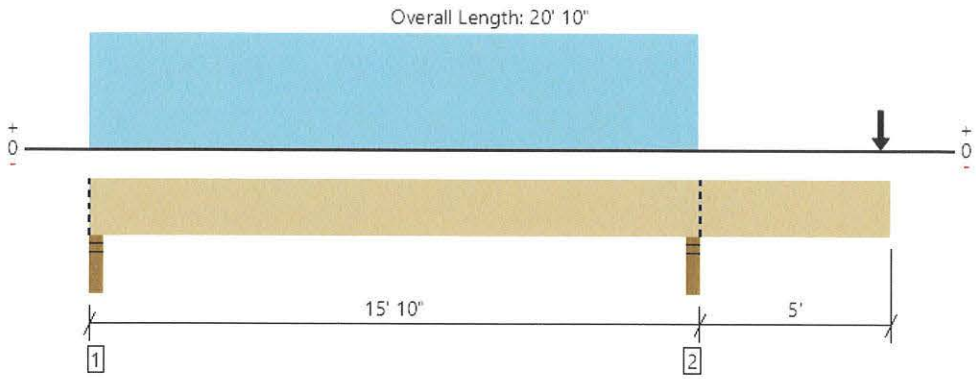
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Garage Beam B4

1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	10589 @ 15' 8 1/4"	11211 (3.50")	Passed (94%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	6668 @ 14' 5"	12223	Passed (55%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	25406 @ 7' 8 1/8"	31134	Passed (82%)	1.00	1.0 D + 1.0 L (Alt Spans)
Neg Moment (Ft-lbs)	-12765 @ 15' 8 1/4"	23999	Passed (53%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.469 @ 7' 11 1/8"	0.517	Passed (L/397)	--	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.574 @ 7' 10 1/16"	0.776	Passed (L/325)	--	1.0 D + 1.0 L (Alt Spans)

System : Floor
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Overhang deflection criteria: LL (2L/360) and TL (2L/240). Upward deflection on right cantilever exceeds overhang deflection criteria.
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 15' 1/4".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 6' 11 11/16".
- Upward deflection on right cantilever exceeds 0.4".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - DF	3.50"	3.50"	2.16"	1525	5390/-597	6915/-597	Blocking
2 - Stud wall - DF	3.50"	3.50"	3.31"	2723	7866	10589	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	20' 10" o/c	
Bottom Edge (Lu)	20' 10" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 20' 10"	N/A	16.8	--	
1 - Uniform (PSF)	0 to 15' 10" (Front)	17'	12.0	40.0	Default Load
2 - Point (lb)	20' 7" (Front)	N/A	334	946	
3 - Point (lb)	20' 7" (Front)	N/A	334	946	

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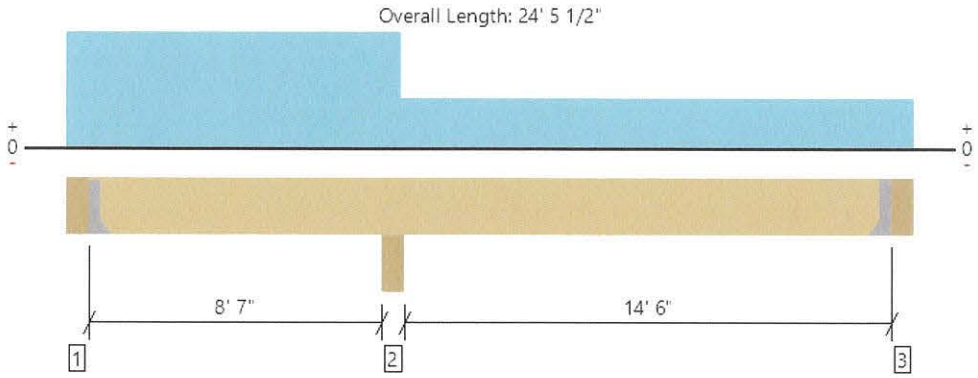
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Deck Beam B5

1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3024 @ 9' 3 1/4"	7305 (5.50")	Passed (41%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1205 @ 7' 6 1/2"	9938	Passed (12%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	2550 @ 17' 11 1/4"	33750	Passed (8%)	1.00	1.0 D + 1.0 L (Alt Spans)
Neg Moment (Ft-lbs)	-3459 @ 9' 3 1/4"	26016	Passed (13%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.024 @ 17' 2 3/16"	0.368	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.031 @ 17' 3 7/16"	0.736	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 12' 1 9/16".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 5' 11 5/8".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 18" DF beam	5.50"	Hanger[1]	1.50"	292	979/-92	1271/-92	See note [1]
2 - Beam - SPF	5.50"	5.50"	2.28"	838	2186	3024	None
3 - Hanger on 18" DF beam	5.50"	Hanger[1]	1.50"	231	667/-8	898/-8	See note [1]

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	23' 7" o/c	
Bottom Edge (Lu)	23' 7" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie						
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	LGU3.25-SDS H=18	4.50"	N/A	16-SDS25212	12-SDS25212	
3 - Face Mount Hanger	LGU3.25-SDS H=18	4.50"	N/A	16-SDS25212	12-SDS25212	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

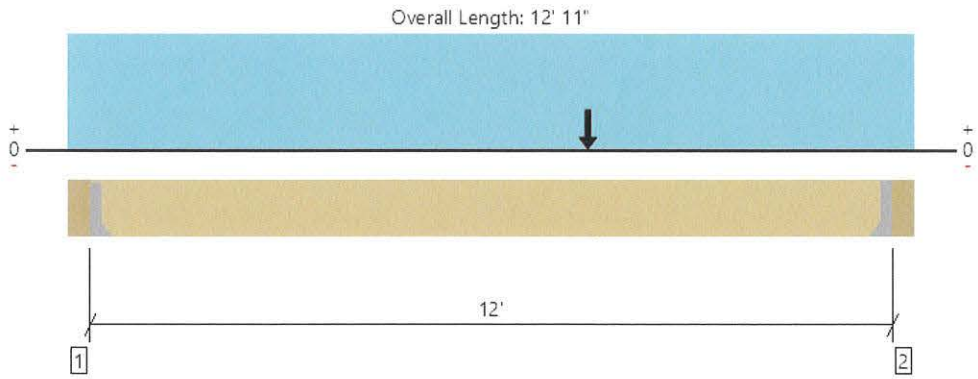
Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 24'	N/A	13.7	--	
1 - Uniform (PSF)	0 to 24' 5 1/2" (Top)	2' 6"	10.0	40.0	Default Load
2 - Uniform (PSF)	0 to 9' 6" (Back)	3'	15.0	40.0	

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Deck Beam B6

1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	5311 @ 12' 5 1/2"	5311 (1.59")	Passed (100%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	4477 @ 11' 4"	12223	Passed (37%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	16680 @ 7' 2"	31134	Passed (54%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.051 @ 6' 8"	0.300	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.225 @ 6' 6 7/16"	0.600	Passed (L/640)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 12'.
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	1.50"	4332	975	5307	See note [1]
2 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	1.59"	4456	1187	5643	See note [1]

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' o/c	
Bottom Edge (Lu)	12' o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie						
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	HUCQ5.25/11-SDS	3.00"	N/A	14-SDS25212	6-SDS25212	
2 - Face Mount Hanger	HGUS5.25/10	4.00"	N/A	46-10d	16-10d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

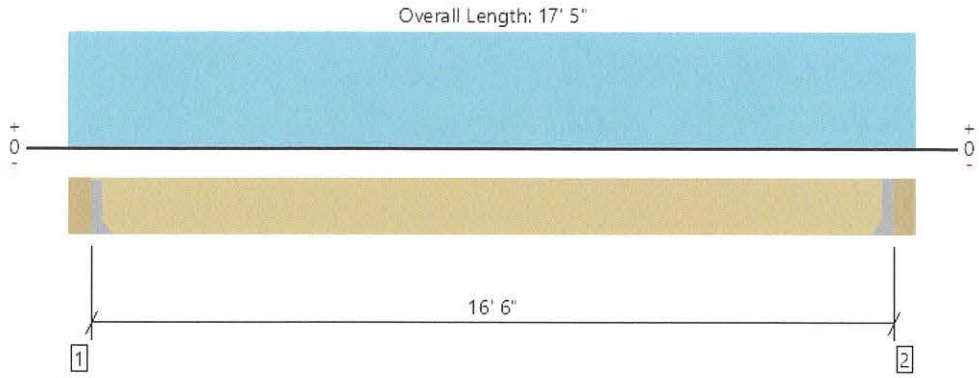
Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 12' 5 1/2"	N/A	16.8	--	
1 - Uniform (PSF)	0 to 12' 11" (Front)	2' 6"	250.0	40.0	Default Load
2 - Point (lb)	7' 11" (Front)	N/A	513	871	
3 - Point (lb)	0 (Front)	N/A	-	-	

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Deck Beam B7

1 piece(s) 3 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1322 @ 5 1/2"	3047 (1.50")	Passed (43%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1142 @ 1' 7"	7453	Passed (15%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	5454 @ 8' 8 1/2"	18984	Passed (29%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.145 @ 8' 8 1/2"	0.412	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.232 @ 8' 8 1/2"	0.825	Passed (L/854)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 16' 6".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	1.50"	520	871	1391	See note [1]
2 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	1.50"	520	871	1391	See note [1]

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	16' 6" o/c	
Bottom Edge (Lu)	16' 6" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	LUS210-2	2.00"	N/A	8-10dx1.5	6-10d	
2 - Face Mount Hanger	LUS210-2	2.00"	N/A	8-10dx1.5	6-10d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 16' 11 1/2"	N/A	10.3	--	
1 - Uniform (PSF)	0 to 17' 5" (Front)	2' 6"	20.0	40.0	Default Load

Weyerhaeuser Notes

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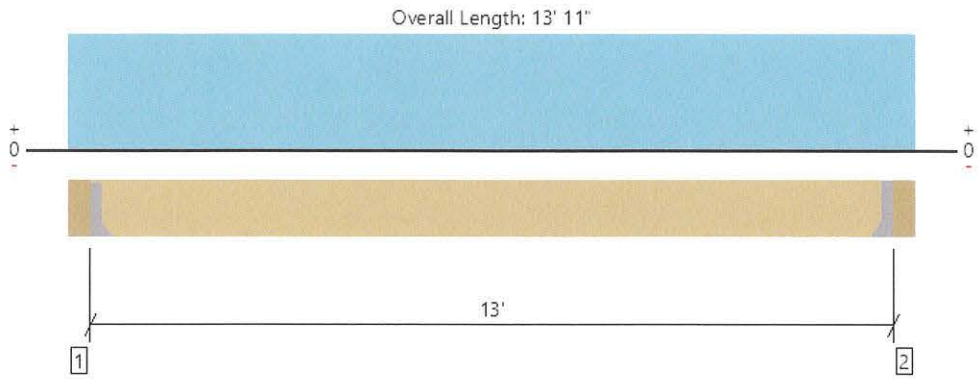
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Deck Beam B8

1 piece(s) 3 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	4779 @ 5 1/2"	4779 (2.35")	Passed (100%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	3952 @ 1' 7"	7453	Passed (53%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	15532 @ 6' 11 1/2"	18984	Passed (82%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.056 @ 6' 11 1/2"	0.325	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.410 @ 6' 11 1/2"	0.650	Passed (L/381)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 13'.
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	2.35"	4416	696	5112	See note [1]
2 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	2.35"	4416	696	5112	See note [1]

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	13' o/c	
Bottom Edge (Lu)	13' o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	HHUS210-2	3.00"	N/A	30-16d	10-16d	
2 - Face Mount Hanger	HHUS210-2	3.00"	N/A	30-16d	10-16d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 13' 5 1/2"	N/A	10.3	--	
1 - Uniform (PSF)	0 to 13' 11" (Front)	2' 6"	250.0	40.0	Default Load

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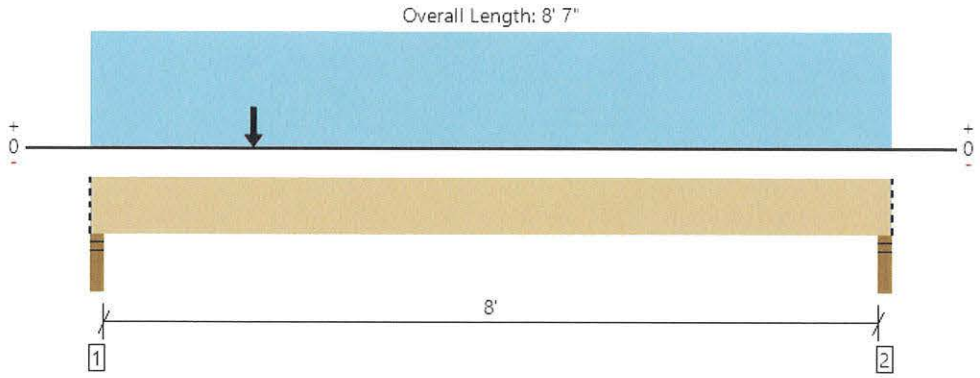
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Garage Beam B9

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	6750 @ 2"	7656 (3.50")	Passed (88%)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Shear (lbs)	6511 @ 1' 3/4"	7689	Passed (85%)	1.25	1.0 D + 1.0 Lr (All Spans)
Moment (Ft-lbs)	10329 @ 1' 9"	14005	Passed (74%)	1.25	1.0 D + 1.0 Lr (All Spans)
Live Load Defl. (in)	0.180 @ 4' 1/16"	0.275	Passed (L/549)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Total Load Defl. (in)	0.272 @ 3' 11 15/16"	0.412	Passed (L/364)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)

System : Floor
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Roof Live	Total	
1 - Stud wall - DF	3.50"	3.50"	3.09"	2321	1588	4318	8227	Blocking
2 - Stud wall - DF	3.50"	3.50"	1.50"	945	1588	1025	3558	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	8' 7" o/c	
Bottom Edge (Lu)	8' 7" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Roof Live (non-snow: 1.25)	Comments
0 - Self Weight (PLF)	0 to 8' 7"	N/A	9.4	--	--	
1 - Uniform (PSF)	0 to 8' 7" (Front)	9' 3"	12.0	40.0	-	Default Load
2 - Point (lb)	1' 9" (Front)	N/A	2233	-	5343	

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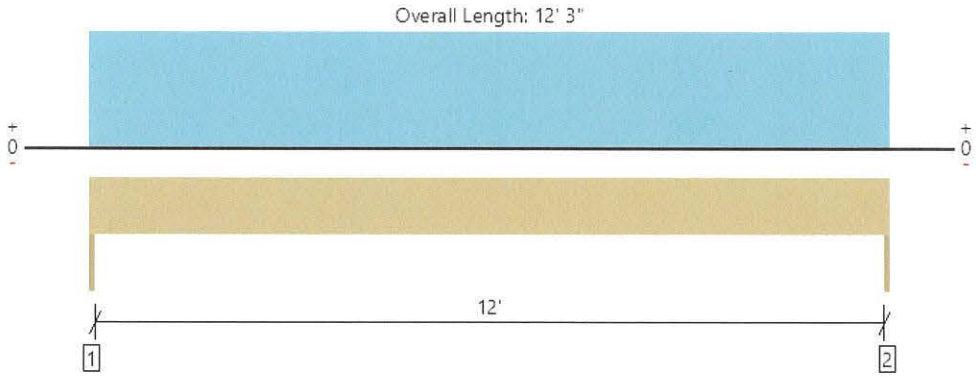
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Garage Door Header H-6

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	977 @ 0	3938 (1.50")	Passed (25%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	834 @ 10 3/4"	6151	Passed (14%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	2991 @ 6' 1 1/2"	11204	Passed (27%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.116 @ 6' 1 1/2"	0.408	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.186 @ 6' 1 1/2"	0.613	Passed (L/792)	--	1.0 D + 1.0 L (All Spans)

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Trimmer - DF	1.50"	1.50"	1.50"	364	613	977	None
2 - Trimmer - DF	1.50"	1.50"	1.50"	364	613	977	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' 3" o/c	
Bottom Edge (Lu)	12' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 12' 3"	N/A	9.4	--	
1 - Uniform (PSF)	0 to 12' 3"	2' 6"	20.0	40.0	Default Load

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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

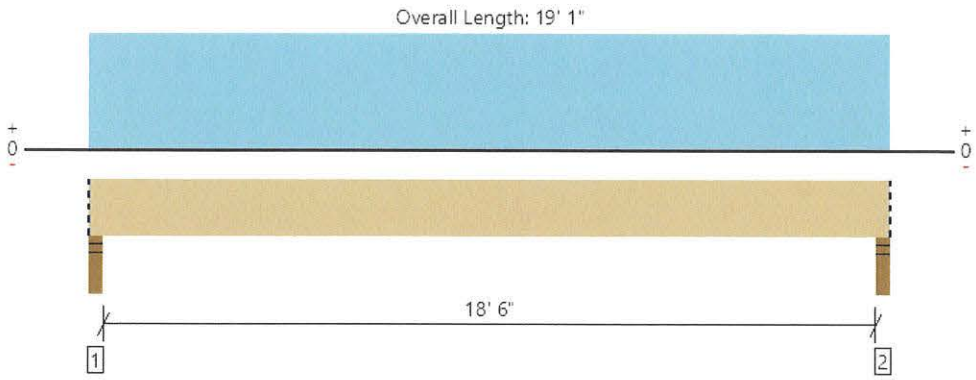
Weyerhaeuser

MEMBER REPORT

PASSED

Roof, Roof Beam B-10

1 piece(s) 5 1/8" x 18" 24F-V8 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	7561 @ 2"	11211 (3.50")	Passed (67%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	6141 @ 1' 9 1/2"	18742	Passed (33%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	34823 @ 9' 6 1/2"	61820	Passed (56%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.347 @ 9' 6 1/2"	0.625	Passed (L/648)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.492 @ 9' 6 1/2"	0.938	Passed (L/458)	--	1.0 D + 1.0 S (All Spans)

System : Floor
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 0.97 that was calculated using length L = 18' 9".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Total	
1 - Stud wall - DF	3.50"	3.50"	2.36"	2218	5343	7561	Blocking
2 - Stud wall - DF	3.50"	3.50"	2.36"	2218	5343	7561	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	19' 1" o/c	
Bottom Edge (Lu)	19' 1" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 19' 1"	N/A	22.4	--	
1 - Uniform (PSF)	0 to 19' 1" (Front)	14'	15.0	40.0	Default Load

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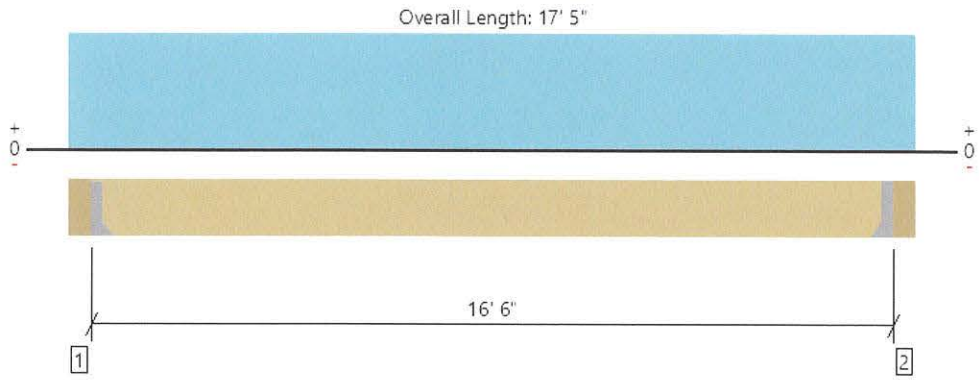
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Deck Beam B11

2 piece(s) 1 3/4" x 9 1/2" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1318 @ 5 1/2"	3938 (1.50")	Passed (33%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1191 @ 1' 3"	6318	Passed (19%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	5435 @ 8' 8 1/2"	11775	Passed (46%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.345 @ 8' 8 1/2"	0.412	Passed (L/574)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.551 @ 8' 8 1/2"	0.825	Passed (L/359)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 9 1/2" DF beam	5.50"	Hanger[1]	1.50"	515	871	1386	See note [1]
2 - Hanger on 9 1/2" DF beam	5.50"	Hanger[1]	1.50"	515	871	1386	See note [1]

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	16' 6" o/c	
Bottom Edge (Lu)	16' 6" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	LUS48	2.00"	N/A	6-16d	4-16d	
2 - Face Mount Hanger	LUS48	2.00"	N/A	6-16d	4-16d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 16' 11 1/2"	N/A	9.7	--	
1 - Uniform (PSF)	0 to 17' 5" (Front)	2' 6"	20.0	40.0	Default Load

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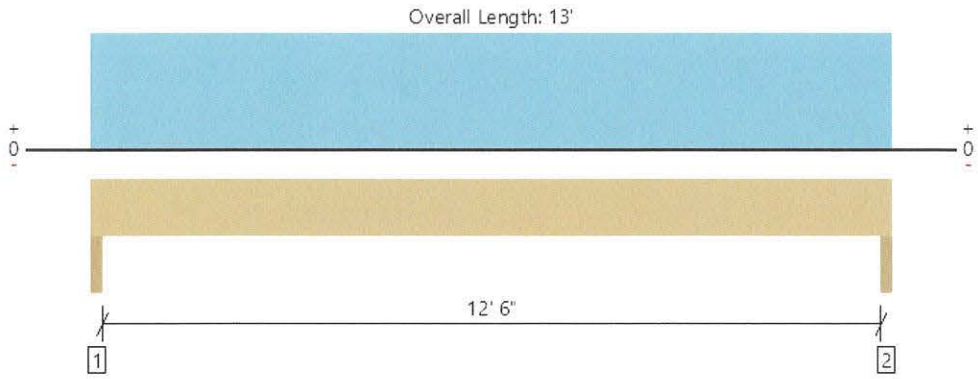
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Roof, H-1

2 piece(s) 1 3/4" x 11 1/4" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	5080 @ 1 1/2"	7875 (3.00")	Passed (65%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	4152 @ 1' 2 1/4"	8603	Passed (48%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	15880 @ 6' 6"	18558	Passed (86%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.434 @ 6' 6"	0.425	Passed (L/352)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.606 @ 6' 6"	0.637	Passed (L/253)	--	1.0 D + 1.0 S (All Spans)

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Total	
1 - Trimmer - DF	3.00"	3.00"	1.94"	1440	3640	3640	8720	None
2 - Trimmer - DF	3.00"	3.00"	1.94"	1440	3640	3640	8720	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	6' 4" o/c	
Bottom Edge (Lu)	13' o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 13'	N/A	11.5	--	--	
1 - Uniform (PSF)	0 to 13'	14'	15.0	40.0	40.0	Default Load

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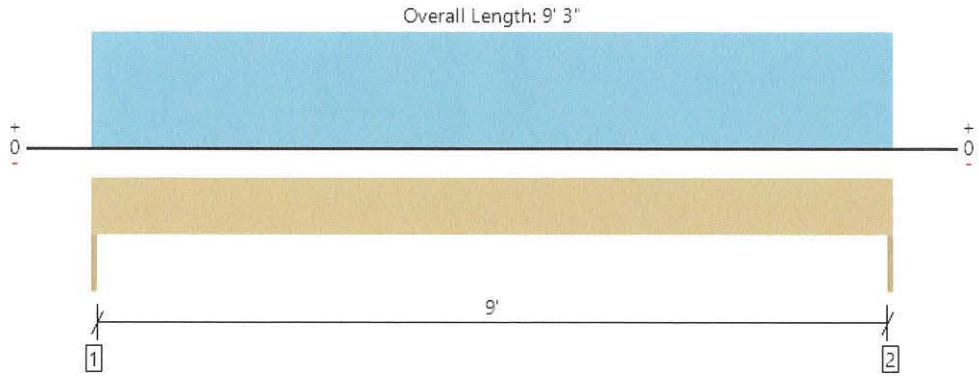
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Roof, H-2

2 piece(s) 1 3/4" x 11 1/4" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3614 @ 0	3938 (1.50")	Passed (92%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	2784 @ 1' 3/4"	8603	Passed (32%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	8358 @ 4' 7 1/2"	18558	Passed (45%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.129 @ 4' 7 1/2"	0.308	Passed (L/863)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.179 @ 4' 7 1/2"	0.463	Passed (L/619)	--	1.0 D + 1.0 S (All Spans)

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Total	
1 - Trimmer - DF	1.50"	1.50"	1.50"	1024	2590	2590	6204	None
2 - Trimmer - DF	1.50"	1.50"	1.50"	1024	2590	2590	6204	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	9' 3" o/c	
Bottom Edge (Lu)	9' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 9' 3"	N/A	11.5	--	--	
1 - Uniform (PSF)	0 to 9' 3"	14'	15.0	40.0	40.0	Default Load

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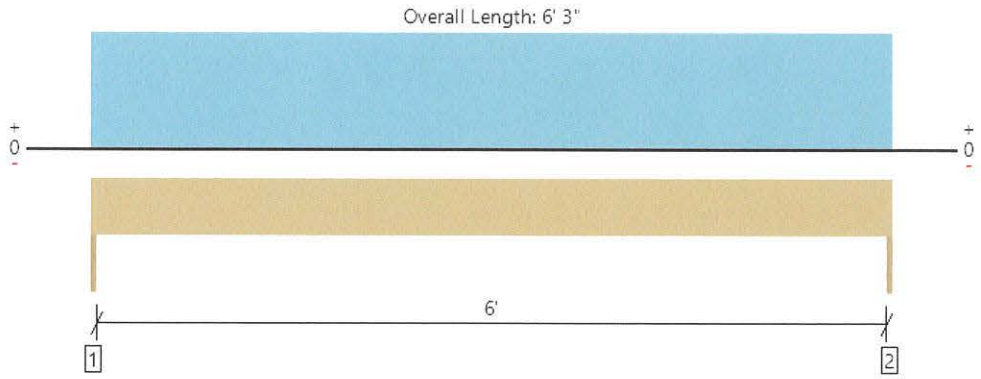
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Roof, H-3

2 piece(s) 2 x 10 DF No.1



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2297 @ 0	2813 (1.50")	Passed (82%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1639 @ 10 3/4"	3830	Passed (43%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	3589 @ 3' 1 1/2"	4510	Passed (80%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.057 @ 3' 1 1/2"	0.208	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.075 @ 3' 1 1/2"	0.313	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Total	
1 - Trimmer - DF	1.50"	1.50"	1.50"	547	1750	1750	4047	None
2 - Trimmer - DF	1.50"	1.50"	1.50"	547	1750	1750	4047	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	6' 3" o/c	
Bottom Edge (Lu)	6' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 6' 3"	N/A	7.0	--	--	
1 - Uniform (PSF)	0 to 6' 3"	14'	12.0	40.0	40.0	Default Load

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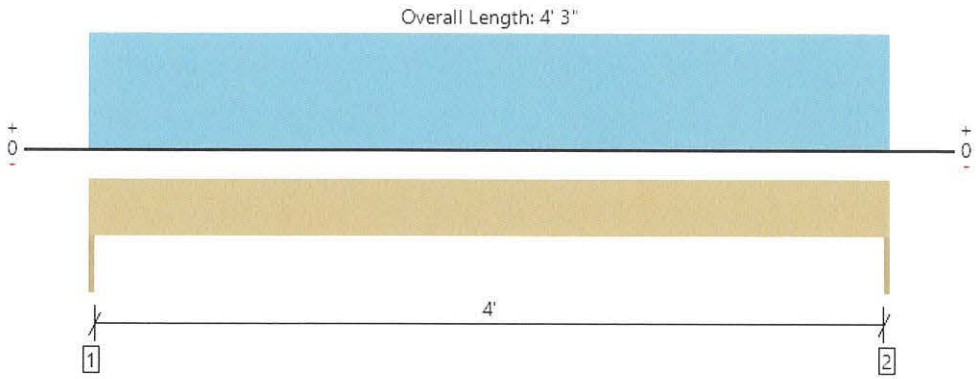
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Roof, H-4

2 piece(s) 2 x 8 DF No.1



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1559 @ 0	2813 (1.50")	Passed (55%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1024 @ 8 3/4"	3002	Passed (34%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	1656 @ 2' 1 1/2"	3022	Passed (55%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.025 @ 2' 1 1/2"	0.142	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.033 @ 2' 1 1/2"	0.213	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Total	
1 - Trimmer - DF	1.50"	1.50"	1.50"	369	1190	1190	2749	None
2 - Trimmer - DF	1.50"	1.50"	1.50"	369	1190	1190	2749	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	4' 3" o/c	
Bottom Edge (Lu)	4' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 4' 3"	N/A	5.5	--	--	
1 - Uniform (PSF)	0 to 4' 3"	14'	12.0	40.0	40.0	Default Load

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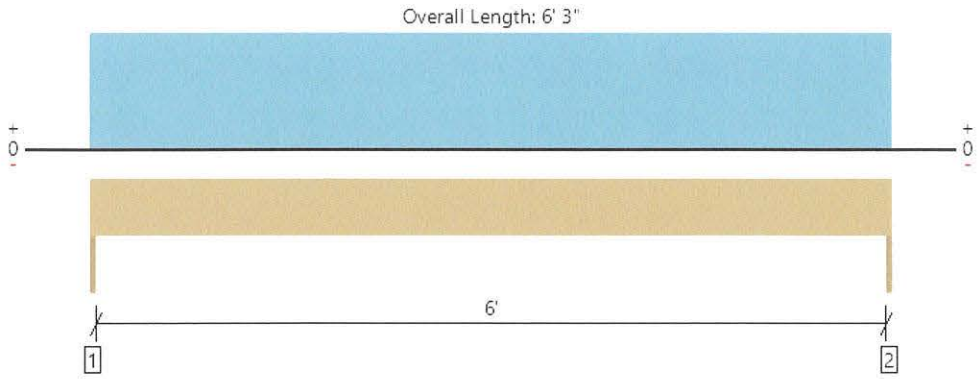
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Roof, H-5

2 piece(s) 2 x 8 DF No.1



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1317 @ 0	2813 (1.50")	Passed (47%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1010 @ 8 3/4"	3002	Passed (34%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	2058 @ 3' 1 1/2"	3022	Passed (68%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.068 @ 3' 1 1/2"	0.208	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.089 @ 3' 1 1/2"	0.313	Passed (L/839)	--	1.0 D + 1.0 S (All Spans)

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Total	
1 - Trimmer - DF	1.50"	1.50"	1.50"	317	1000	1000	2317	None
2 - Trimmer - DF	1.50"	1.50"	1.50"	317	1000	1000	2317	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	6' 3" o/c	
Bottom Edge (Lu)	6' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 6' 3"	N/A	5.5	--	--	
1 - Uniform (PSF)	0 to 6' 3"	8'	12.0	40.0	40.0	Default Load

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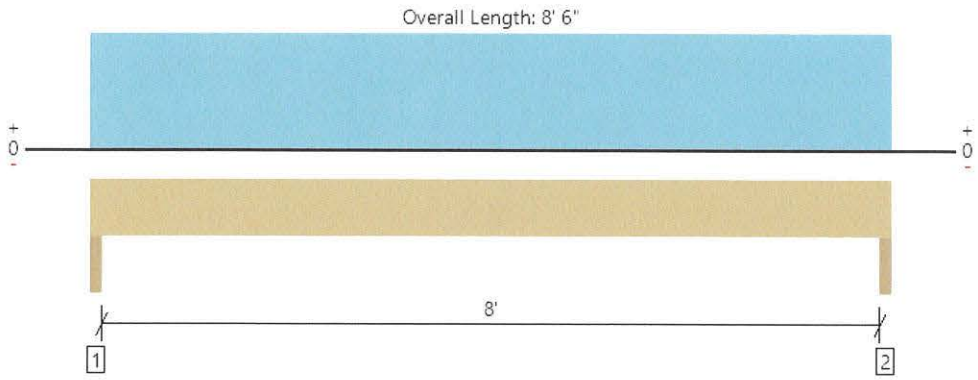
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Roof, H-6

2 piece(s) 1 3/4" x 9 1/2" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3314 @ 1 1/2"	7875 (3.00")	Passed (42%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	2502 @ 1' 1/2"	7265	Passed (34%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	6634 @ 4' 3"	13541	Passed (49%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.133 @ 4' 3"	0.275	Passed (L/743)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.185 @ 4' 3"	0.412	Passed (L/534)	--	1.0 D + 1.0 S (All Spans)

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Total	
1 - Trimmer - DF	3.00"	3.00"	1.50"	934	2380	2380	5694	None
2 - Trimmer - DF	3.00"	3.00"	1.50"	934	2380	2380	5694	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	8' 6" o/c	
Bottom Edge (Lu)	8' 6" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 8' 6"	N/A	9.7	--	--	
1 - Uniform (PSF)	0 to 8' 6"	14'	15.0	40.0	40.0	Default Load

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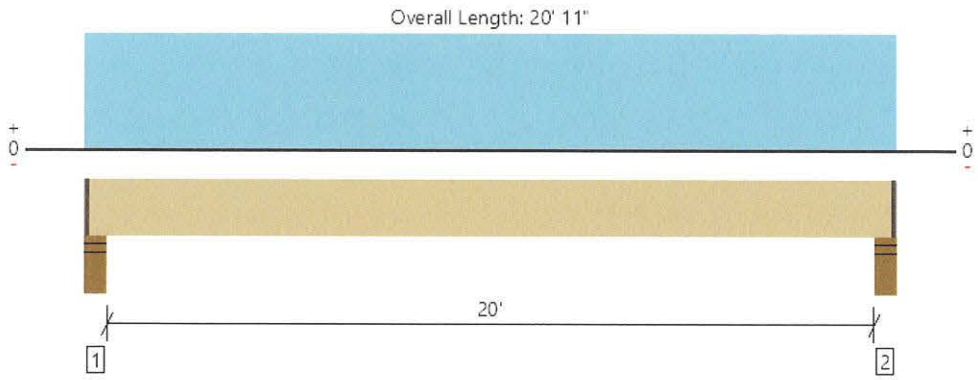
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Existing House, Deck Beam B12

1 piece(s) 3 1/8" x 18" 24F-V8 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1757 @ 4"	8301 (4.25")	Passed (21%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1442 @ 1' 11 1/2"	9938	Passed (15%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	8697 @ 10' 5 1/2"	33750	Passed (26%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.166 @ 10' 5 1/2"	0.506	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.235 @ 10' 5 1/2"	1.013	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 20' 3".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - DF	5.50"	4.25"	1.50"	518	1255	1773	1 1/4" Rim Board
2 - Stud wall - DF	5.50"	4.25"	1.50"	518	1255	1773	1 1/4" Rim Board

• Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	20' 9" o/c	
Bottom Edge (Lu)	20' 9" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/4" to 20' 9 3/4"	N/A	13.7	--	
1 - Uniform (PSF)	0 to 20' 11" (Front)	3'	12.0	40.0	Default Load

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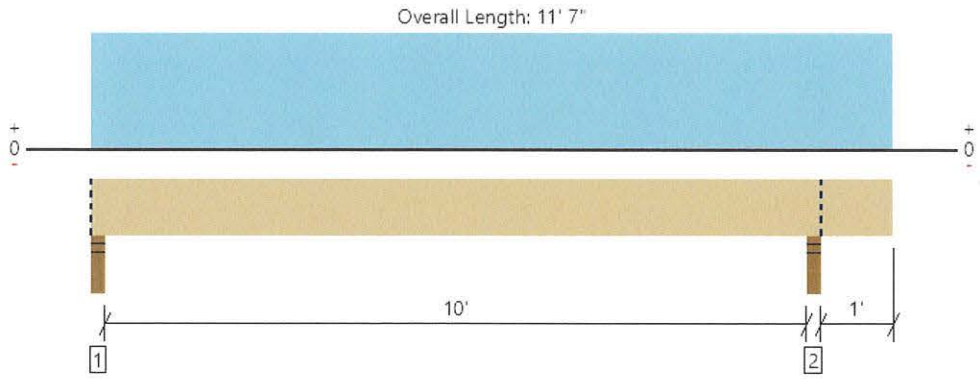
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Existing House, Ridge Beam B13

1 piece(s) 5 1/8" x 10 1/2" 24F-V8 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2875 @ 10' 5 1/4"	7623 (3.50")	Passed (38%)	--	1.0 D + 1.0 Lr (All Spans)
Shear (lbs)	1893 @ 9' 5"	11884	Passed (16%)	1.25	1.0 D + 1.0 Lr (All Spans)
Pos Moment (Ft-lbs)	5871 @ 5' 3 1/16"	23543	Passed (25%)	1.25	1.0 D + 1.0 Lr (Alt Spans)
Neg Moment (Ft-lbs)	-297 @ 10' 5 1/4"	23543	Passed (1%)	1.25	1.0 D + 1.0 Lr (All Spans)
Live Load Defl. (in)	0.076 @ 5' 3 1/2"	0.514	Passed (L/999+)	--	1.0 D + 1.0 Lr (Alt Spans)
Total Load Defl. (in)	0.125 @ 5' 3 7/16"	0.685	Passed (L/987)	--	1.0 D + 1.0 Lr (Alt Spans)

System : Roof
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD
Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 10' 2 3/16".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 1' 3 5/16".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Roof Live	Total	
1 - Stud wall - SPF	3.50"	3.50"	1.50"	933	1449	2382	Blocking
2 - Stud wall - SPF	3.50"	3.50"	1.50"	1130	1745	2875	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	11' 7" o/c	
Bottom Edge (Lu)	11' 7" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Comments
0 - Self Weight (PLF)	0 to 11' 7"	N/A	13.1	--	
1 - Uniform (PSF)	0 to 11' 7" (Front)	11'	15.0	25.0	Default Load

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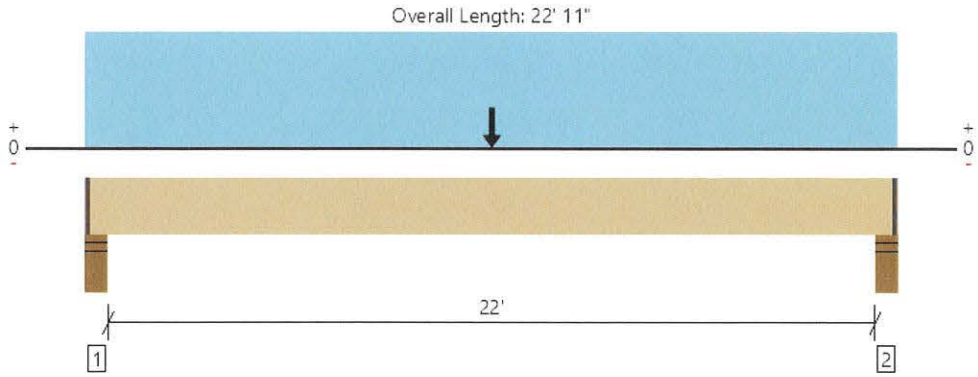
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Existing House, Gable Beam B14

1 piece(s) 5 1/8" x 16 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2867 @ 4"	13613 (4.25")	Passed (21%)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Shear (lbs)	2248 @ 1' 10"	14939	Passed (15%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	22457 @ 11' 5 1/2"	55990	Passed (40%)	1.25	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Live Load Defl. (in)	0.294 @ 11' 5 1/2"	0.556	Passed (L/908)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Total Load Defl. (in)	0.510 @ 11' 5 1/2"	1.112	Passed (L/523)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 0.96 that was calculated using length L = 22' 3".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Roof Live	Total	
1 - Stud wall - DF	5.50"	4.25"	1.50"	1195	1375	873	3443	1 1/4" Rim Board
2 - Stud wall - DF	5.50"	4.25"	1.50"	1195	1375	873	3443	1 1/4" Rim Board

• Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	22' 9" o/c	
Bottom Edge (Lu)	22' 9" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Roof Live (non-snow: 1.25)	Comments
0 - Self Weight (PLF)	1 1/4" to 22' 9 3/4"	N/A	20.5	--	--	
1 - Uniform (PSF)	0 to 22' 11" (Front)	3'	12.0	40.0	-	Default Load
2 - Point (lb)	11' 5 1/2" (Front)	N/A	1098	-	1745	

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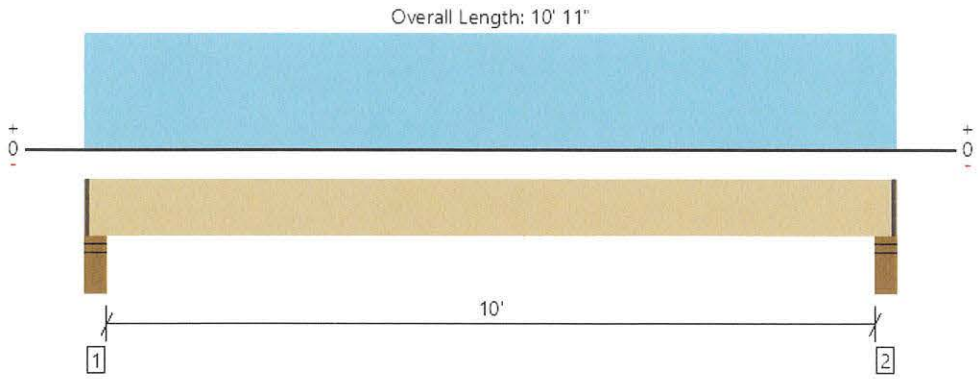
Weyerhaeuser

Existing House, Deck Beam B15

2 piece(s) 1 3/4" x 18" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	934 @ 4"	9297 (4.25")	Passed (10%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	610 @ 1' 11 1/2"	11970	Passed (5%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	2290 @ 5' 5 1/2"	38753	Passed (6%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.012 @ 5' 5 1/2"	0.256	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.017 @ 5' 5 1/2"	0.512	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - DF	5.50"	4.25"	1.50"	295	655	950	1 1/4" Rim Board
2 - Stud wall - DF	5.50"	4.25"	1.50"	295	655	950	1 1/4" Rim Board

• Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	10' 9" o/c	
Bottom Edge (Lu)	10' 9" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/4" to 10' 9 3/4"	N/A	18.4	--	
1 - Uniform (PSF)	0 to 10' 11" (Front)	3'	12.0	40.0	Default Load

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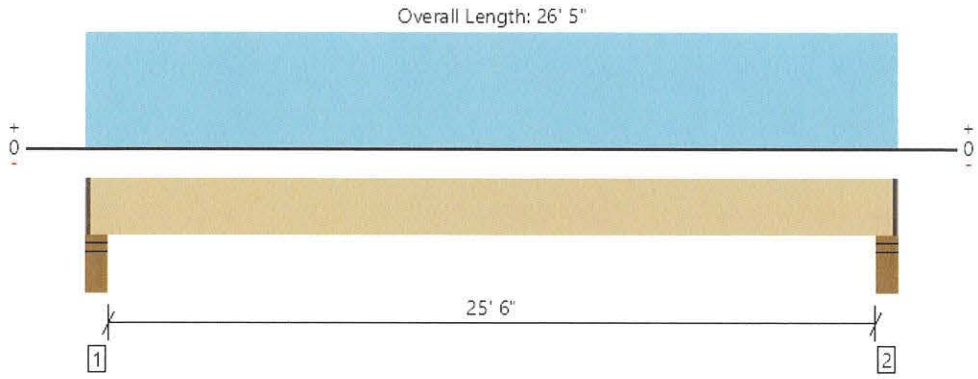
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Existing House, Deck Beam B16

1 piece(s) 5 1/8" x 18" 24F-V8 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2338 @ 4"	13613 (4.25")	Passed (17%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	2007 @ 1' 11 1/2"	16298	Passed (12%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	14788 @ 13' 2 1/2"	52078	Passed (28%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.265 @ 13' 2 1/2"	0.644	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.394 @ 13' 2 1/2"	1.288	Passed (L/785)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 0.94 that was calculated using length L = 25' 9".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - DF	5.50"	4.25"	1.50"	769	1585	2354	1 1/4" Rim Board
2 - Stud wall - DF	5.50"	4.25"	1.50"	769	1585	2354	1 1/4" Rim Board

• Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	26' 3" o/c	
Bottom Edge (Lu)	26' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/4" to 26' 3 3/4"	N/A	22.4	--	
1 - Uniform (PSF)	0 to 26' 5" (Front)	3'	12.0	40.0	Default Load

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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

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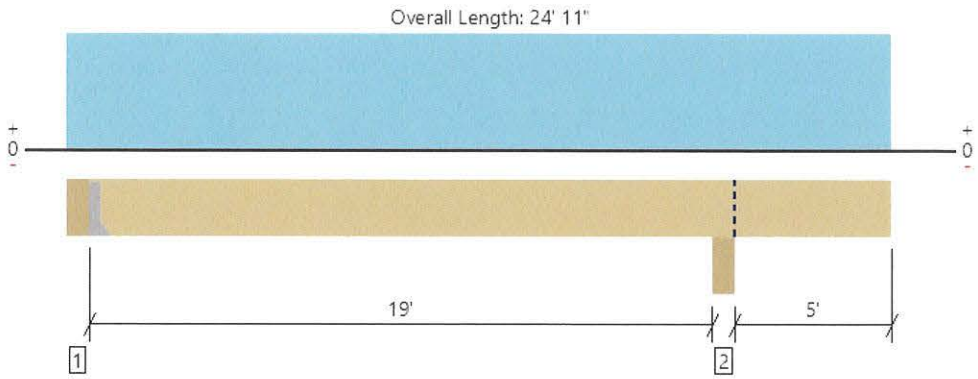
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Deck Beam B17

1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1306 @ 5 1/2"	3047 (1.50")	Passed (43%)	--	1.0 D + 1.0 L (Alt Spans)
Shear (lbs)	1192 @ 17' 11 1/2"	9938	Passed (12%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	6148 @ 9' 10 1/2"	33750	Passed (18%)	1.00	1.0 D + 1.0 L (Alt Spans)
Neg Moment (Ft-lbs)	-1896 @ 19' 8 1/4"	26016	Passed (7%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.113 @ 10' 7/8"	0.481	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.148 @ 10' 1/16"	0.961	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Overhang deflection criteria: LL (2L/480) and TL (2L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 18' 10".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 6' 7 13/16".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 18" DF beam	5.50"	Hanger[1]	1.50"	356	1007/-25	1363/-25	See note [1]
2 - Beam - DF	5.50"	5.50"	1.50"	602	1555	2157	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	24' 6" o/c	
Bottom Edge (Lu)	24' 6" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie						
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	LGU3.25-SDS H=18	4.50"	N/A	16-SDS25212	12-SDS25212	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

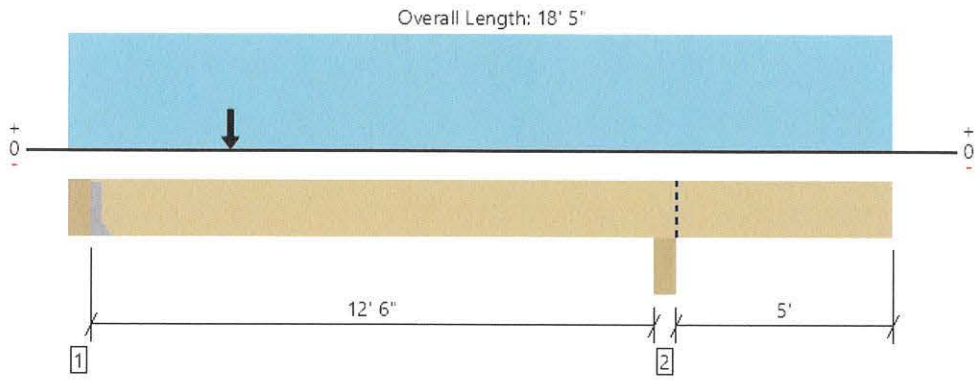
Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 24' 11"	N/A	13.7	--	
1 - Uniform (PSF)	0 to 24' 11" (Front)	2' 6"	10.0	40.0	Default Load

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Deck Beam B18

1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1754 @ 5 1/2"	3047 (1.50")	Passed (58%)	--	1.0 D + 1.0 L (Alt Spans)
Shear (lbs)	1546 @ 1' 11 1/2"	9938	Passed (16%)	1.00	1.0 D + 1.0 L (Alt Spans)
Pos Moment (Ft-lbs)	4758 @ 4' 5 7/16"	33750	Passed (14%)	1.00	1.0 D + 1.0 L (Alt Spans)
Neg Moment (Ft-lbs)	-1896 @ 13' 2 1/4"	26016	Passed (7%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.039 @ 6' 5 7/8"	0.318	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.048 @ 6' 5 3/16"	0.636	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Overhang deflection criteria: LL (2L/480) and TL (2L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 12' 3 3/8".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 6' 9 9/16".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 18" DF beam	5.50"	Hanger[1]	1.50"	399	1413/-62	1812/-62	See note [1]
2 - Beam - DF	5.50"	5.50"	1.50"	547	1496	2043	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	18' o/c	
Bottom Edge (Lu)	18' o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie						
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	LGU3.25-SDS H=18	4.50"	N/A	16-SDS25212	12-SDS25212	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 18' 5"	N/A	13.7	--	
1 - Uniform (PSF)	0 to 18' 5" (Front)	2' 6"	10.0	40.0	Default Load
2 - Point (lb)	3' 6" (Front)	N/A	240	960	

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

COULTER ARCHITECTURE

RE: New Home for Pattie and Dave Coulter
35465 Rueppell Avenue
Pacific City, OR
Tillamook County

Design Criteria used in the design of the this structure is listed below:

GRAVITY

Snow Load:	36 PSF Ground Snow Load 25 PSF Roof Snow)
Live Load:	40 PSF residential & 60 PSF decks
Dead Loads:	15 PSF or "self-weight"

LATERAL

SEISMIC
Equivalent lateral force procedure per 2018 IBC and ASCE 7-16
Site Class E, Seismic Design Category is "D"

UPPER (MAIN) LEVEL:
Systems:
Cantilevered Concrete Columns @ Carport→ R = 2.5
Cs = 0.184
Wood framed shearwalls Balance → R = 6.0 (used 5.0 to be conservative)
Cs = 0.1364
Veq = 14,720 lb Total ←

WIND
WIND SPEED = 115 mph, 3 second gust (ultimate)
WIND EXPOSURE, "C"
WIND Kzt = 1.02
V = 5,862 lb N/S
V = 11,244 lb E/W

SEISMIC FORCES CONTROL LATERAL DESIGN!

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

Project Title: New Home for Pattie and Dave Coulter
Engineer: S/P
Project ID: 28PV21
Project Descr: Two - Story @ 35465 Rueppell Ave

Printed: 14 JUN 2021, 9:44AM

ASCE 7-16 Wind Forces, Chapter 27, Part I

File: DAVE COULTER.ec6

Lic. # : KW-06009465

STRUCTURAL PHIL

DESCRIPTION: WIND BASE SHEAR

MAIN WIND FORCE RESISTING SYSTEM

Basic Values

Risk Category	2 per ASCE 7-16 Table 1.5-1	Horizontal Dim. in North-South Direction (B or L) =	71.0 ft
V : Basic Wind Speed	115.0	Horizontal Dim. in East-West Direction (B or L) =	37.0 ft
Kd : Directionality Factor	0.850 per ASCE 7-16 Table 26.6-1	h : Mean Roof height =	22.50 ft

Exposure Category per ASCE 7-16 Section 26.7

North : Exposure C East : Exposure C
South : Exposure C West : Exposure C

Topographic Factor per ASCE 7-16 Sec 26.8 & Figure 26.8-1

North :	K1 =	0.120	K2 =	0.120	K3 =	0.40	Kzt =	1.012
South :	K1 =	0.120	K2 =	0.120	K3 =	0.40	Kzt =	1.012
East :	K1 =	0.120	K2 =	0.120	K3 =	0.40	Kzt =	1.012
West :	K1 =	0.120	K2 =	0.120	K3 =	0.40	Kzt =	1.012

Building Period & Flexibility Category

User has specified the building frequency is >= 1 Hz, therefore considered RIGID for both North-South and East-West directions.

Building Story Data

Level Description	hi ft	Story Ht ft	E_R : X ft	E_R : X ft
ROOF	22.00	11.00	0.000	0.000
FLOOR	11.00	11.00	0.000	0.000

Gust Factor

For wind coming from direction indicated

North	=	**0.850**	South	=	**0.850**
East	=	**0.850**	West	=	**0.850**

Enclosure

Check if Building Qualifies as "Open"

	North Wall	South Wall	East Wall	West Wall	Roof	Total
Agross	ft^2	ft^2	ft^2	ft^2	ft^2	0.0 ft^2
Aopenings	ft^2	ft^2	ft^2	ft^2	ft^2	0.0 ft^2
Aopenings >= 0.8 * Agross ?	Yes	Yes	Yes	Yes		

All four Agross values must be non-zero — **Building qualifies as "Open"**

North Elevation : Determine Enclosure Classification per ASCE Section 26.12

Reference area = smaller of 4 sq. ft. or 1% of Agross	=	0.0 ft^2	Is Ao > 1.10 * Aoi ?	=	No
Aoi = Ao-total - Ao	=	0.0 ft^2	Is Ao > Reference Area ?	=	No
Agi = Ag-total - Ag	=	0.0 ft^2	Is Aoi / Agi >= 0.20 ?	=	Yes
Aoi / Agi	=	0.0			

Building is "Enclosed" when the North wall receives positive external pressure

South Elevation : Determine Enclosure Classification per ASCE Section 26.12

Reference area = smaller of 4 sq. ft. or 1% of Agross	=	0.0 ft^2	Is Ao > 1.10 * Aoi ?	=	No
Aoi = Ao-total - Ao	=	0.0 ft^2	Is Ao > Reference Area ?	=	No
Agi = Ag-total - Ag	=	0.0 ft^2	Is Aoi / Agi >= 0.20 ?	=	Yes
Aoi / Agi	=	0.0			

Building is "Enclosed" when the South wall receives positive external pressure

East Elevation : Determine Enclosure Classification per ASCE Section 26.12

Reference area = smaller of 4 sq. ft. or 1% of Agross	=	0.0 ft^2	Is Ao > 1.10 * Aoi ?	=	No
Aoi = Ao-total - Ao	=	0.0 ft^2	Is Ao > Reference Area ?	=	No
Agi = Ag-total - Ag	=	0.0 ft^2	Is Aoi / Agi >= 0.20 ?	=	Yes
Aoi / Agi	=	0.0			

Building is "Enclosed" when the East wall receives positive external pressure

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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Engineer: S/P
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ASCE 7-16 Wind Forces, Chapter 27, Part I

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Lic. # : KW-06009465
STRUCTURAL PHIL

DESCRIPTION: WIND BASE SHEAR

West Elevation : Determine Enclosure Classification per ASCE Section 26.12

Reference area = smaller of 4 sq. ft. or 1% of Agross	=	0.0 ft^2	Is Ao > 1.10 * Aoi ?	=	No
Aoi = Ao-total - Ao	=	0.0 ft^2	Is Ao > Reference Area ?	=	No
Agi = Ag-total - Ag	=	0.0 ft^2	Is Aoi / Agi >= 0.20 ?	=	Yes
Aoi / Agi	=	0.0			

Building is "Enclosed" when the West wall receives positive external pressure

Velocity Pressures

When the following walls experience leeward or sidewall pressures, the value of Kh shall be (per Table 26.10-1) :

North Wall = 0.9245 psf South Wall = 0.9245 psf East Wall = 0.9245 psf West Wall = 0.9245 psf

When the following walls experience leeward or sidewall pressures, the value of qh shall be (per Table 26.10-1)

North Wall = 26.913 psf South Wall = 26.913 psf East Wall = 26.913 psf West Wall = 26.913 psf

qz : Windward Wall Velocity Pressures at various heights per Eq. 26.10-1

	North Elevation		South Elevation		East Elevation		West Elevation	
Height Above Base (ft)	Kz	qz	Kz	qz	Kz	qz	Kz	qz
0.00	0.849	24.71	0.849	24.71	0.849	24.71	0.849	24.71
5.00	0.849	24.71	0.849	24.71	0.849	24.71	0.849	24.71
10.00	0.849	24.71	0.849	24.71	0.849	24.71	0.849	24.71
15.00	0.849	24.71	0.849	24.71	0.849	24.71	0.849	24.71
20.00	0.902	26.25	0.902	26.25	0.902	26.25	0.902	26.25

Pressure Coefficients

GCpi Values when elevation receives positive external pressure

GCpi : Internal pressure coefficient, per sec. 26.13 and Table 26.13-1

North		South		East		West	
+/-	0.0	+/-	0.0	+/-	0.0	+/-	0.0

Specify Cp Values from Figure 27.3-1 for Windward, Leeward & Side Walls

Cp Values when elevation receives positive external pressure

	North	South	East	West
Windward Wall	0.80	0.80	0.80	0.80
Leeward Wall				
Side Walls	-0.70	-0.70	-0.70	-0.70

Wind Pressures

Wind Pressures when NORTH Elevation receives positive external wind pressure

	Positive Internal	Negative Internal
Leeward Wall Pressures	0.0 psf	0.0 psf
Side Wall Pressures	-16.013 psf	-16.013 psf

Windward Wall Pressures . . . Height Above Base (ft)	Positive Internal Pressure (psf)	Negative Internal Pressure (psf)
0.00	16.80	16.80
5.00	16.80	16.80
10.00	16.80	16.80
15.00	16.80	16.80
20.00	17.85	17.85

Wind Pressures when SOUTH Elevation receives positive external wind pressure

	Positive Internal	Negative Internal
Leeward Wall Pressures	0.0 psf	0.0 psf
Side Wall Pressures	-16.013 psf	-16.013 psf

Windward Wall Pressures . . . Height Above Base (ft)	Positive Internal Pressure (psf)	Negative Internal Pressure (psf)

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PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
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ASCE 7-16 Wind Forces, Chapter 27, Part I

File: DAVE COULTER.ec6

Lic. # : KW-06009465

STRUCTURAL PHIL

DESCRIPTION: WIND BASE SHEAR

0.00	16.80	16.80
5.00	16.80	16.80
10.00	16.80	16.80
15.00	16.80	16.80
20.00	17.85	17.85

Wind Pressures when EAST Elevation receives positive external wind pressure

	Positive Internal	Negative Internal
Leeward Wall Pressures	0.0 psf	0.0 psf
Side Wall Pressures	-16.013 psf	-16.013 psf

Windward Wall Pressures . . . Height Above Base (ft)	Positive Internal Pressure (psf)	Negative Internal Pressure (psf)
0.00	16.80	16.80
5.00	16.80	16.80
10.00	16.80	16.80
15.00	16.80	16.80
20.00	17.85	17.85

Wind Pressures when WEST Elevation receives positive external wind pressure

	Positive Internal	Negative Internal
Leeward Wall Pressures	0.0 psf	0.0 psf
Side Wall Pressures	-16.013 psf	-16.013 psf

Windward Wall Pressures . . . Height Above Base (ft)	Positive Internal Pressure (psf)	Negative Internal Pressure (psf)
0.00	16.80	16.80
5.00	16.80	16.80
10.00	16.80	16.80
15.00	16.80	16.80
20.00	17.85	17.85

Story Forces for Design Wind Load Cases

Values below are calculated based on a building with dimensions B x L x h as defined on the "Basic Values" tab.

Load Case	Windward Wall	Building level	Ht. Range	Trib. Height	Wind Shear Components (k) In "Y" Direction	In "X" Direction	Eccentricity for (ft) "Y" Shear	"X" Shear	Mt, (ft-k)
CASE 1	North	Level 2	16.50' -> 22.00'	5.50	-3.60	---	---	---	---
CASE 1	North	Level 1	5.50' -> 16.50'	11.00	-6.85	---	---	---	---
CASE 1	South	Level 2	16.50' -> 22.00'	5.50	3.60	---	---	---	---
CASE 1	South	Level 1	5.50' -> 16.50'	11.00	6.85	---	---	---	---
CASE 1	East	Level 2	16.50' -> 22.00'	5.50	---	-6.91	---	---	---
CASE 1	East	Level 1	5.50' -> 16.50'	11.00	---	-13.14	---	---	---
CASE 1	West	Level 2	16.50' -> 22.00'	5.50	---	6.91	---	---	---
CASE 1	West	Level 1	5.50' -> 16.50'	11.00	---	13.14	---	---	---
CASE 2	North	Level 2	16.50' -> 22.00'	5.50	-2.70	---	---	5.55 +/-	15.0
CASE 2	North	Level 1	5.50' -> 16.50'	11.00	-5.14	---	---	5.55 +/-	28.5
CASE 2	South	Level 2	16.50' -> 22.00'	5.50	2.70	---	---	5.55 +/-	15.0
CASE 2	South	Level 1	5.50' -> 16.50'	11.00	5.14	---	---	5.55 +/-	28.5
CASE 2	East	Level 2	16.50' -> 22.00'	5.50	---	-5.18	9.92	--- +/-	51.4
CASE 2	East	Level 1	5.50' -> 16.50'	11.00	---	-9.86	9.92	--- +/-	97.8

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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Engineer: S/P
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ASCE 7-16 Wind Forces, Chapter 27, Part I

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STRUCTURAL PHIL

DESCRIPTION: WIND BASE SHEAR

CASE 2	West	Level 2	16.50' ->	22.00'	5.50	---	5.18	9.92	---	+/-	51.4
CASE 2	West	Level 1	5.50' ->	16.50'	11.00	---	9.86	9.92	---	+/-	97.8
CASE 3	North & East	Level 2	16.50' ->	22.00'	5.50	-2.70	-5.18	---	---		---
CASE 3	North & East	Level 1	5.50' ->	16.50'	11.00	-5.14	-9.86	---	---		---
CASE 3	North & West	Level 2	16.50' ->	22.00'	5.50	-2.70	5.18	---	---		---
CASE 3	North & West	Level 1	5.50' ->	16.50'	11.00	-5.14	9.86	---	---		---
CASE 3	South & West	Level 2	16.50' ->	22.00'	5.50	2.70	5.18	---	---		---
CASE 3	South & West	Level 1	5.50' ->	16.50'	11.00	5.14	9.86	---	---		---
CASE 3	South & East	Level 2	16.50' ->	22.00'	5.50	2.70	-5.18	---	---		---
CASE 3	South & East	Level 1	5.50' ->	16.50'	11.00	5.14	-9.86	---	---		---
CASE 4	North & East	Level 2	16.50' ->	22.00'	5.50	-2.03	-3.89	9.92	5.55	+/-	49.9
CASE 4	North & East	Level 1	5.50' ->	16.50'	11.00	-3.86	-7.40	9.92	5.55	+/-	94.8
CASE 4	North & West	Level 2	16.50' ->	22.00'	5.50	-2.03	3.89	9.92	5.55	+/-	49.9
CASE 4	North & West	Level 1	5.50' ->	16.50'	11.00	-3.86	7.40	9.92	5.55	+/-	94.8
CASE 4	South & West	Level 2	16.50' ->	22.00'	5.50	2.03	3.89	9.92	5.55	+/-	49.9
CASE 4	South & West	Level 1	5.50' ->	16.50'	11.00	3.86	7.40	9.92	5.55	+/-	94.8
CASE 4	South & East	Level 2	16.50' ->	22.00'	5.50	2.03	-3.89	9.92	5.55	+/-	49.9
CASE 4	South & East	Level 1	5.50' ->	16.50'	11.00	3.86	-7.40	9.92	5.55	+/-	94.8
Min per ASCE 27.1.5	North	Level 2	16.50' ->	22.00'	5.50	-3.26	---	---	---		---
Min per ASCE 27.1.5	North	Level 1	5.50' ->	16.50'	11.00	-6.51	---	---	---		---
Min per ASCE 27.1.5	South	Level 2	16.50' ->	22.00'	5.50	3.26	---	---	---		---
Min per ASCE 27.1.5	South	Level 1	5.50' ->	16.50'	11.00	6.51	---	---	---		---
Min per ASCE 27.1.5	East	Level 2	16.50' ->	22.00'	5.50	---	-6.25	---	---		---
Min per ASCE 27.1.5	East	Level 1	5.50' ->	16.50'	11.00	---	-12.50	---	---		---
Min per ASCE 27.1.5	West	Level 2	16.50' ->	22.00'	5.50	---	6.25	---	---		---
Min per ASCE 27.1.5	West	Level 1	5.50' ->	16.50'	11.00	---	12.50	---	---		---

Base Shear for Design Wind Load Cases

Values below are calculated based on a building with dimensions B x L x h as defined on the "General" tab.

Load Case	Windward Wall	Leeward Wall	Wind Base Shear Components (k) In "Y" Direction	In "X" Direction		Mt, (ft-k)
Case 1	North	South	-10.45	---		---
Case 1	South	North	10.45	---		---
Case 1	East	West	---	-20.05		---
Case 1	West	East	---	20.05		---
Case 2	North	South	-7.84	---	+/-	43.5
Case 2	South	North	7.84	---	+/-	43.5
Case 2	East	West	---	-15.04	+/-	149.2
Case 2	West	East	---	15.04	+/-	149.2
Case 3	North & East	South & West	-7.84	-15.04		---
Case 3	North & West	South & East	-7.84	15.04		---
Case 3	South & West	North & East	7.84	15.04		---
Case 3	South & East	North & West	7.84	-15.04		---
Case 4	North & East	South & West	-5.88	-11.29	+/-	144.6

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PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
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STRUCTURAL PHIL

DESCRIPTION: WIND BASE SHEAR

Case 4	North & West	South & East	-5.88	11.29	+/-	144.6
Case 4	South & West	North & East	5.88	11.29	+/-	144.6
Case 4	South & East	North & West	5.88	-11.29	+/-	144.6
Min per ASCE 27.1.5	North	South	-9.77	---		---
Min per ASCE 27.1.5	South	North	9.77	---		---
Min per ASCE 27.1.5	East	West	---	-18.74		---
Min per ASCE 27.1.5	West	East	---	18.74		---

ASD WORKING LEVEL FORCES

NORTH SOUTH = 5,862 LB

EAST WEST = 11,244 LB

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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ASCE Seismic Base Shear

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STRUCTURAL PHIL

DESCRIPTION: COULTER BASE SHEAR

COULTER BASE SHEAR

Risk Category

Calculations per ASCE 7-16

Risk Category of Building or Other Structure : "II" : All Buildings and other structures except those listed as Category I, III, and IV — *ASCE 7-16, Page 4, Table 1.5-1*

Seismic Importance Factor = 1 — *ASCE 7-16, Page 5, Table 1.5-2*

ASCE 7-16 11.4.2

Max. Ground Motions, 5% Damping :

S_S = 1.330 g, 0.2 sec response

S_1 = 0.6783 g, 1.0 sec response

Latitude = 45.198 deg North

Longitude = 123.962 deg West

Site Class, Site Coeff. and Design Category

Site Classification "E" : Shear Wave Velocity must be less than 600 ft/sec = **E** — *ASCE 7-16 Table 20.3-1*

Site Coefficients Fa & Fv — *ASCE 7-16 Table 11.4-1 & 11.4-2*

(using straight-line interpolation from table values)

Fa = 1.00

Fv = 2.00

Maximum Considered Earthquake Acceleration

$S_{MS} = Fa * Ss$ = 1.330 — *ASCE 7-16 Eq. 11.4-1*

$S_{M1} = Fv * S1$ = 1.357 — *ASCE 7-16 Eq. 11.4-2*

Design Spectral Acceleration

$S_{DS} = S^*_{MS} 2/3$ = 0.887 — *ASCE 7-16 Eq. 11.4-3*

$S_{D1} = S^*_{M1} 2/3$ = 0.904 — *ASCE 7-16 Eq. 11.4-4*

Seismic Design Category = **D** — *ASCE 7-16 Table 11.6-1 & -2*

Resisting System

ASCE 7-16 Table 12.2-1

Basic Seismic Force Resisting System . . . **Bearing Wall Systems**
15.Light-frame (wood) walls sheathed w/wood structural panels rated for shear resistance.

Response Modification Coefficient " R " = 6.50

System Overstrength Factor " Wo " = 3.00

Deflection Amplification Factor " Cd " = 4.00

NOTE! See ASCE 7-16 for all applicable footnotes.

Building height Limits :

Category "A & B" Limit:	No Limit
Category "C" Limit:	No Limit
Category "D" Limit:	Limit = 65
Category "E" Limit:	Limit = 65
Category "F" Limit:	Limit = 65

Lateral Force Procedure

ASCE 7-16 Section 12.8.2

Equivalent Lateral Force Procedure

The "Equivalent Lateral Force Procedure" is being used according to the provisions of ASCE 7-16 12.8

Determine Building Period

Use ASCE 12.8-7

Structure Type for Building Period Calculation : All Other Structural Systems

" Ct " value = 0.020

" x " value = 0.75

" hn " : Height from base to highest level = 24.0 ft

" Ta " Approximate fundemental period using Eq. 12.8-7 : Ta = Ct * (hn ^ x) = 0.217 sec

"TL" : Long-period transition period per ASCE 7-16 Maps 22-14 -> 22-17 8.000 sec

Building Period " Ta " Calculated from Approximate Method selected = 0.217 sec

" Cs " Response Coefficient

ASCE 7-16 Section 12.8.1.1

S_{DS}: Short Period Design Spectral Response = 0.887

" R " : Response Modification Factor = 6.50

" I " : Seismic Importance Factor = 1

From Eq. 12.8-2, Preliminary Cs = 0.136

From Eq. 12.8-3 & 12.8-4, Cs need not exceed = 0.642

From Eq. 12.8-5 & 12.8-6, Cs not be less than = 0.052

Cs : Seismic Response Coefficient = 0.1364

Seismic Base Shear

ASCE 7-16 Section 12.8.1

Cs = 0.1364 from 12.8.1.1

W (see Sum Wi below) = 107.92 k

Seismic Base Shear V = Cs * W = 14.72 k

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7675 NAHAHUM CANYON ROAD
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ASCE Seismic Base Shear

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DESCRIPTION: COULTER BASE SHEAR

Vertical Distribution of Seismic Forces

ASCE 7-16 Section 12.8.3

" k " : hx exponent based on Ta = 1.00

Table of building Weights by Floor Level...

Level #	Wi : Weight	Hi : Height	(Wi * Hi^k)	Cvx	Fx=Cvx * V	Sum Story Shear	Sum Story Moment
2	35.50	22.00	781.00	0.4733	6.97	6.97	0.00
1	72.42	12.00	869.04	0.5267	7.75	14.72	69.68

Sum Wi = 107.92 k Sum Wi * Hi = 1,650.04 k-ft Total Base Shear = 14.72 k

Base Moment = 246.3 k-ft

Diaphragm Forces : Seismic Design Category "B" to "F"

ASCE 7-16 12.10.1.1

Level #	Wi	Fi	Sum Fi	Sum Wi	Fpx : Calcd	Fpx : Min	Fpx : Max	Fpx	Dsgn. Force
2	35.50	6.97	6.97	35.50	6.97	6.30	12.59	6.97	6.97
1	72.42	7.75	14.72	107.92	9.88	12.84	25.68	12.84	12.84

Wpx . . . . . Weight at level of diaphragm and other structure elements attached to it.

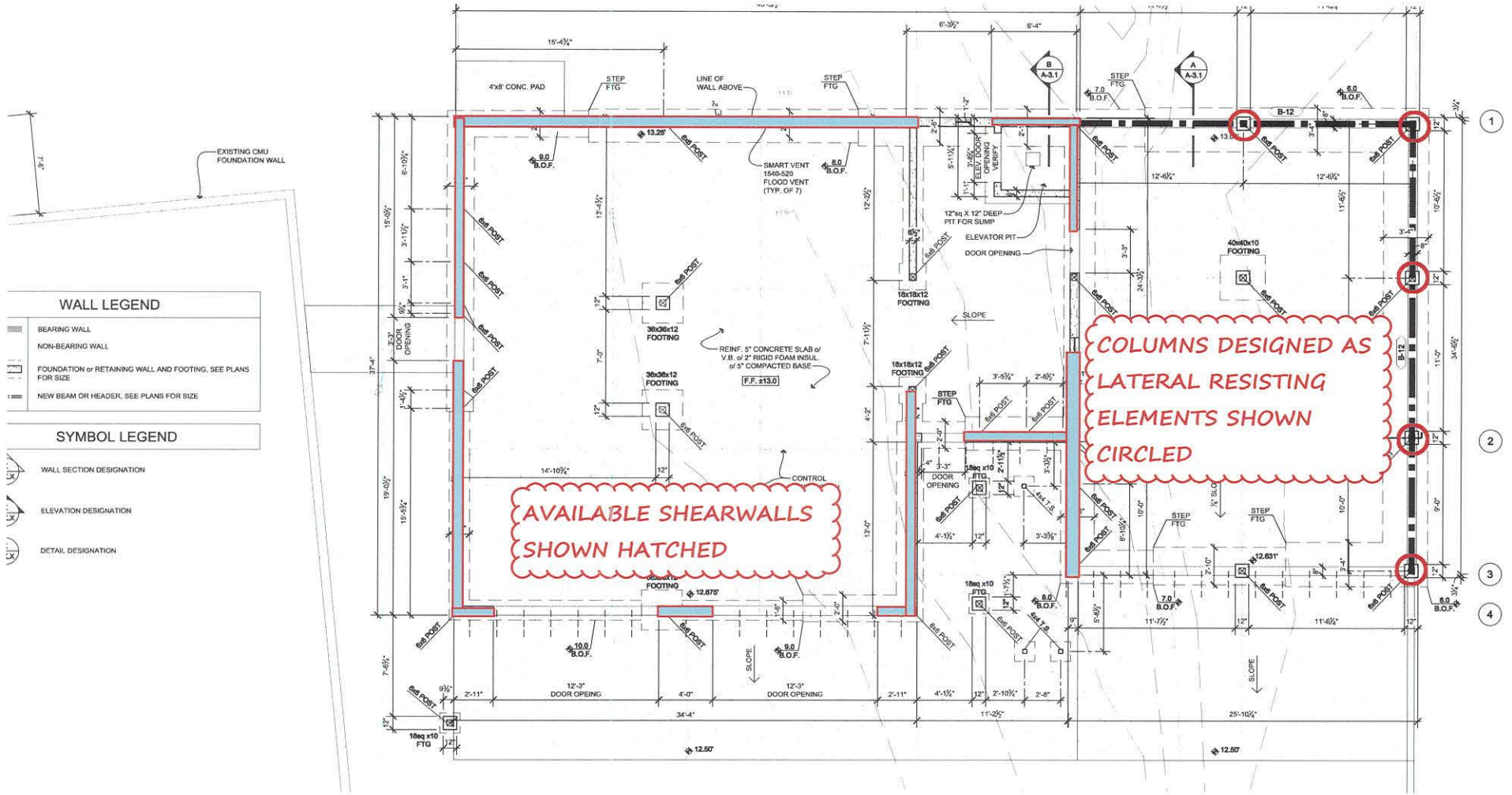
Fi . . . . . Design Lateral Force applied at the level.

Sum Fi . . . . . Sum of "Lat. Force" of current level plus all levels above

MIN Req'd Force @ Level . . . . . $0.20 * S_{DS}^{*} I * Wpx$

MAX Req'd Force @ Level . . . . . $0.40 * S_{DS}^{*} I * Wpx$

Fpx : Design Force @ Level . . . . . Wpx * SUM(x->n) Fi / SUM(x->n) wi, x = Current level, n = Top Level



COULTER ARCHITECTURE

RESIDENTIAL & COMMERCIAL ARCHITECTURE

Member, The American Institute of Architects AIA

CORRESPONDENCE
P. O. Box 2323
Lake Chelan, WA 98816
(509) 630 .5518 off

OFFICE
105 N Emerson St. Suite 201
Lake Chelan, WA 98816

REGISTERED ARCHITECT RONALD L. COULTER CHELAN, WASHINGTON STATE OF OREGON

PATTIE COULTER
5 RUEPPELL AVE
AMOOK COUNTY, OREGON

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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Torsional Analysis of Rigid Diaphragm

File: DAVE COULTER.ec6

Lic. # : KW-06009465

STRUCTURAL PHIL

DESCRIPTION: RELATIVE RIGIDITY FOR LOWER LEVEL

General Information

IBC 2018, CBC 2019, ASCE 7-16

Applied Lateral Force	14.720 k
.....Additional Orthogonal Force	k
Maximum Load Used for Analysis :	14.720 k

Note: This load is the vector resolved from the above two entries and will be applied to the system of elements at angular increments.

Load Orientation Angular Increment	45.0 deg
Load Location Angular Increment	15.0 deg

Center of Rigidity Location (calculated) . . .

"X" dist. from Datum	29.351 ft
"Y" dist. from Datum	34.849 ft

Center of Shear Application :

Distance from "X" datum point	33 ft
Distance from "Y" datum point	20 ft

Accidental Torsion values per ASCE 7-05 12.8.4.2

Ecc. as % of Maximum Dimension	5.00 %

Maximum Dimensions :

Along "X" Axis	71.0 ft
Along "Y" Axis	37.0 ft

Accidental Eccentricity +/- from "X" Coord. of Load Application	3.550 ft
Accidental Eccentricity +/- from "Y" Coord. of Load Application	1.850 ft

Wall Information

Label : LEFT WALL		X Wall C.G. Location	0 ft	Length	37 ft
		Y Wall C.G. Location	18.5 ft	Height	7 ft
Wall Deflections (Stiffness) for 1.0 kip load :		Wall Angle CCW	90 deg	Thickness	0.5 in
Along Wall "y" Dir	4.6760E-004 in	Wall Fixity	Fix-Fix	E - Bending	1 Mpsi
Along Wall "x" Dir	1.0680E+006 in			E - Shear	1 Mpsi
Label : REAR LEFT		X Wall C.G. Location	17 ft	Length	34 ft
		Y Wall C.G. Location	37 ft	Height	7 ft
Wall Deflections (Stiffness) for 1.0 kip load :		Wall Angle CCW	0 deg	Thickness	0.5 in
Along Wall "y" Dir	5.1157E-004 in	Wall Fixity	Fix-Fix	E - Bending	1 Mpsi
Along Wall "x" Dir	1.1622E+006 in			E - Shear	1 Mpsi
Label : INTERIOR FRONT		X Wall C.G. Location	34 ft	Length	17 ft
		Y Wall C.G. Location	8.5 ft	Height	7 ft
Wall Deflections (Stiffness) for 1.0 kip load :		Wall Angle CCW	90 deg	Thickness	0.5 in
Along Wall "y" Dir	1.5468E-003 in	Wall Fixity	Fix-Pin	E - Bending	1 Mpsi
Along Wall "x" Dir	9.2973E+006 in			E - Shear	1 Mpsi
Label : INTERIOR REAR		X Wall C.G. Location	34 ft	Length	12 ft
		Y Wall C.G. Location	31 ft	Height	7 ft
Wall Deflections (Stiffness) for 1.0 kip load :		Wall Angle CCW	90 deg	Thickness	0.5 in
Along Wall "y" Dir	2.9880E-003 in	Wall Fixity	Fix-Pin	E - Bending	1 Mpsi
Along Wall "x" Dir	1.3171E+007 in			E - Shear	1 Mpsi
Label : FRONT STAIRWELL		X Wall C.G. Location	42 ft	Length	7.5 ft
		Y Wall C.G. Location	13 ft	Height	7 ft
Wall Deflections (Stiffness) for 1.0 kip load :		Wall Angle CCW	0 deg	Thickness	0.5 in
Along Wall "y" Dir	8.7443E-003 in	Wall Fixity	Fix-Pin	E - Bending	1 Mpsi
Along Wall "x" Dir	2.1074E+007 in			E - Shear	1 Mpsi
Label : CARPORT VESTIBULE		X Wall C.G. Location	45.5 ft	Length	22 ft
		Y Wall C.G. Location	11 ft	Height	7 ft
Wall Deflections (Stiffness) for 1.0 kip load :		Wall Angle CCW	90 deg	Thickness	0.5 in
Along Wall "y" Dir	1.0213E-003 in	Wall Fixity	Fix-Pin	E - Bending	1 Mpsi
Along Wall "x" Dir	7.1843E+006 in			E - Shear	1 Mpsi
Label : ELEVATOR REAR		X Wall C.G. Location	42 ft	Length	6.5 ft
		Y Wall C.G. Location	37 ft	Height	7 ft
Wall Deflections (Stiffness) for 1.0 kip load :		Wall Angle CCW	0 deg	Thickness	1 in
Along Wall "y" Dir	2.5413E-003 in	Wall Fixity	Fix-Fix	E - Bending	1 Mpsi
Along Wall "x" Dir	7.6000E+005 in			E - Shear	1 Mpsi
Label : BOAT GARAGE L		X Wall C.G. Location	1.5 ft	Length	3 ft
		Y Wall C.G. Location	0 ft	Height	7 ft
Wall Deflections (Stiffness) for 1.0 kip load :		Wall Angle CCW	0 deg	Thickness	0.5 in
Along Wall "y" Dir	3.1007E-002 in	Wall Fixity	Fix-Fix	E - Bending	1 Mpsi
Along Wall "x" Dir	1.3172E+007 in			E - Shear	1 Mpsi

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STRUCTURAL PHIL

DESCRIPTION: RELATIVE RIGIDITY FOR LOWER LEVEL

Wall Information

Label : BOAT GARAGE MIDDLE		X Wall C.G. Location	17.5 ft	Length	4 ft
		Y Wall C.G. Location	0 ft	Height	7 ft
Wall Deflections (Stiffness) for 1.0 kip load :		Wall Angle CCW	0 deg	Thickness	0.5 in
Along Wall "y" Dir	1.4919E-002 in	Wall Fixity	Fix-Fix	E - Bending	1 Mpsi
Along Wall "x" Dir	9.8787E+006 in			E - Shear	1 Mpsi
Label : BOAT GARAGE RIGHT		X Wall C.G. Location	32.5 ft	Length	3 ft
		Y Wall C.G. Location	0 ft	Height	7 ft
Wall Deflections (Stiffness) for 1.0 kip load :		Wall Angle CCW	0 deg	Thickness	0.5 in
Along Wall "y" Dir	3.1007E-002 in	Wall Fixity	Fix-Fix	E - Bending	1 Mpsi
Along Wall "x" Dir	1.3172E+007 in			E - Shear	1 Mpsi

Beam Information

Label : REAR MIDDLE COL		X Beam C.G. Location	58.25 ft	I-xx	144 in^4
		Y Beam C.G. Location	37 ft	I-yy	144 in^4
Beam Deflections (Stiffness) for 1.0 kip load :		Beam Angle CCW	0 deg	E - Bending	58 Mpsi
Along Beam "y" Dir	1.3235E-003 in	Beam Fixity	Fix-Fix		
Along Beam "x" Dir	1.0000E+015 in				
Label : REAR RIGHT COL		X Beam C.G. Location	71 ft	I-xx	144 in^4
		Y Beam C.G. Location	37 ft	I-yy	144 in^4
Beam Deflections (Stiffness) for 1.0 kip load :		Beam Angle CCW	0 deg	E - Bending	58 Mpsi
Along Beam "y" Dir	5.2942E-003 in	Beam Fixity	Fix-Pin		
Along Beam "x" Dir	1.0000E+015 in				
Label : RIGHT FRONT COL		X Beam C.G. Location	71 ft	I-xx	144 in^4
		Y Beam C.G. Location	4 ft	I-yy	144 in^4
Beam Deflections (Stiffness) for 1.0 kip load :		Beam Angle CCW	90 deg	E - Bending	58 Mpsi
Along Beam "y" Dir	3.7241E-003 in	Beam Fixity	Fix-Fix		
Along Beam "x" Dir	1.0000E+015 in				
Label : RIGHT SECOND		X Beam C.G. Location	71 ft	I-xx	144 in^4
		Y Beam C.G. Location	25.5 ft	I-yy	144 in^4
Beam Deflections (Stiffness) for 1.0 kip load :		Beam Angle CCW	90 deg	E - Bending	58 Mpsi
Along Beam "y" Dir	2.4949E-003 in	Beam Fixity	Fix-Fix		
Along Beam "x" Dir	1.0000E+015 in				
Label : RIGHT THIRD		X Beam C.G. Location	71 ft	I-xx	144 in^4
		Y Beam C.G. Location	15.5 ft	I-yy	144 in^4
Beam Deflections (Stiffness) for 1.0 kip load :		Beam Angle CCW	90 deg	E - Bending	58 Mpsi
Along Beam "y" Dir	2.8685E-003 in	Beam Fixity	Fix-Fix		
Along Beam "x" Dir	1.0000E+015 in				

ANALYSIS SUMMARY

Maximum shear forces applied to resisting elements. Eccentricity with respect to Center of Rigidity

	Max Shear along Member Local "y-y" Axis				Max Shear along Member Local "x-x" Axis			
Resisting Element	Load Angle	X-Ecc (ft)	Y-Ecc (ft)	Shear Force (k)	Load Angle	X-Ecc (ft)	Y-Ecc (ft)	Shear Force (k)
BOAT GARAGE L	0	-3.65	-16.70	0.201	90	-0.10	-14.85	0.000
AT GARAGE MIDD	0	-3.65	-16.70	0.418	90	-0.10	-14.85	0.000
OAT GARAGE RIGI	0	-3.65	-16.70	0.201	90	-0.10	-14.85	0.000
RPORT VESTIBUI	90	-3.65	-13.00	3.023	0	-0.10	-14.85	0.000
ELEVATOR REAR	0	-0.10	-14.85	1.637	90	-0.10	-14.85	0.000
RONT STAIRWELI	0	-3.65	-16.70	0.625	90	-0.10	-14.85	0.000
INTERIOR FRONT	90	-3.65	-13.00	1.899	0	-0.10	-14.85	0.000
INTERIOR REAR	90	-3.65	-13.00	0.983	0	-0.10	-14.85	0.000
LEFT WALL	45	-6.72	-15.77	7.923	0	-0.10	-14.85	0.000
REAR LEFT	0	-0.10	-14.85	8.132	90	-0.10	-14.85	0.000
EAR MIDDLE COL	0	-0.10	-14.85	3.143	90	-0.10	-14.85	0.000
REAR RIGHT COL	0	-0.10	-14.85	0.786	90	-0.10	-14.85	0.000
RIGHT FRONT COL	45	-3.65	-16.70	1.122	315	-0.10	-14.85	0.000
RIGHT SECOND	45	-3.65	-16.70	1.675	315	-0.10	-14.85	0.000
RIGHT THIRD	45	-3.65	-16.70	1.457	315	-0.10	-14.85	0.000

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

Project Title: New Home for Pattie and Dave Coulter
Engineer: S/P
Project ID: 28PV21
Project Descr: Two - Story @ 35465 Rueppell Ave

Printed: 14 JUN 2021, 10:53AM

Torsional Analysis of Rigid Diaphragm

File: DAVE COULTER.ec6

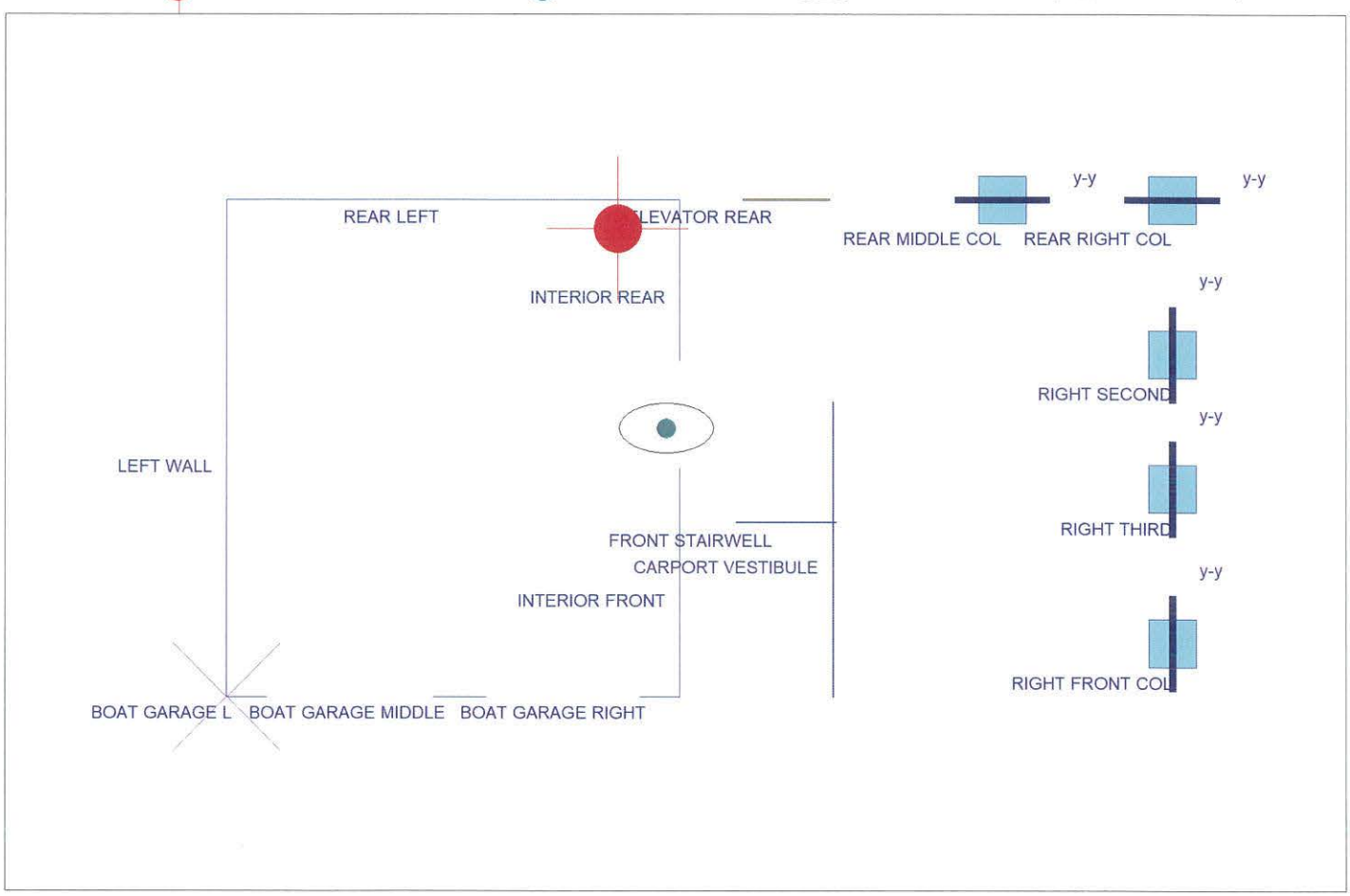
Lic. # : KW-06009465

STRUCTURAL PHIL

DESCRIPTION: RELATIVE RIGIDITY FOR LOWER LEVEL

Layout of Resisting Elements

Legend : Defined Wall | Defined Beam | Datum | Center of Rigidity | Center of Mass | Accidental eccentricity application boundary



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DESCRIPTION: RELATIVE RIGIDITY FOR LOWER LEVEL

Analysis Notes

This program is designed to distribute an applied shear load to a set of resisting elements.

Each resisting element data entry specifies a deflection along a "major" and "minor" axis due to a 1,000 lb load. Each resisting element may be entered as a wall or a column (whereby the deflection is calculated), or as a generic resisting element with specified deflection. The deflections define the stiffness of each resisting element.

Each resisting element is defined at an (X,Y) location from a datum the user has previously defined. A counter-clockwise rotation of the element can be entered with respect to a traditional "+X" axis line.

A main "shear" load and an optional orthogonal shear load are specified for distribution to the system of resisting elements. In addition the maximum orthogonal dimensions of the structure and minimum accidental eccentricity percentage are specified.

From the entered loads the program calculates resultant force vectors for each angular orientation that is requested. The force is applied to the resisting elements in angular increments to generate a series of resulting direct and torsional shear loads on each element. This application of force is then repeated at angular intervals along an elliptical path defined by the minimum accidental eccentricity.

The end result is a table of direct shear and torsional shear values for each element from the iterated angles of load application and accidental eccentricity. These values are then searched to find the maximum major and minor axis shears applied to each resisting element.

	Project	Engineer: Phil	Project #
	COULTER SHEAR WALLS	Date: 5/31/2021	28PV21
	Subject	Checker:	Page
	Shearwall Design	Date:	

Wall Line:	**FRONT WALLS AT BOAT GARAGE**
Floor Level:	**LOWER LEVEL**

Unit Shear Calculations

Seismic Design Category D, E, or F? **yes**

REFERENCE DRAWINGS FOR SHEARWALL TYPE AND SCHEDULE PLUS HOLDOWNS.

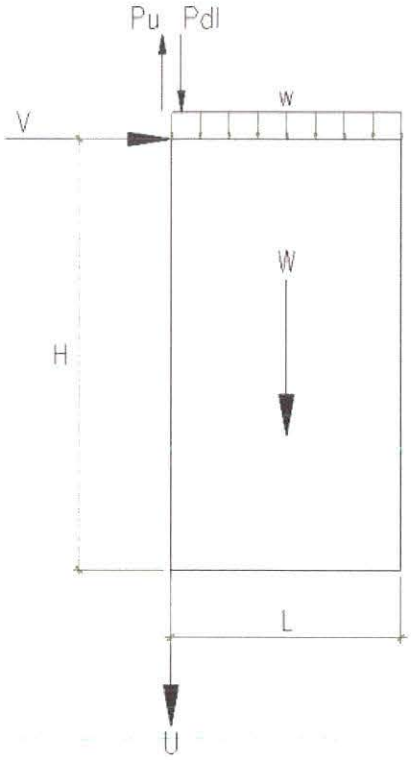
Lateral Load to Wall Line = **820** lbs
Total Length of Shearwalls = **10.0** ft

Unit Shear Load (ν) = **82** plf ←

Use Shearwall Type	
EARTHQUAKE	**WIND**
P1-6	**P1-6**

Reference attached shearwall schedule for more information.

Overturning Calculations



Seismic Controlled Design? **yes** (Affects aspect ratio)

Terminology : V = Panel Shear (lbs)
W = Panel Self Weight (lbs)
w = Trib. Roof/Floor Load (plf)
P_{dl} = DL Reaction from Header/Beam (lbs)
P_u = Uplift from Shearwall Above (lbs)
OTM = Overturning Moment (ft-lbs)
RM = DL Resisting Moment (ft-lbs)

Equations: $V = \nu L$
$OTM = VH$
$RM = 0.9[(W+wL)(L/2)+P_{dl}L]$
$U = (OTM-RM)/L + P_u$

Load Check, ΣV = 820 *(Compare w/ Load Above)*
Max. Aspect Ratio: 2.0
Check Aspect Ratio: ***OK***
(Ref. IBC Table 2305.3.3, footnote (a), when aspect ratios are exceeded)

H (ft)	L (ft)	V	W	w	Pdl	Pu	Uplift (U)	Req'd Holdown	
								FDN HD	FLOOR STRAP
7.0	4.0	328	680	45	135	0	66	NA	NA
7.0	3.0	246	510	45	135	0	162	NA	NA
7.0	3.0	246	510	45	135	0	162	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA

	Project	Engineer: Phil	Project #
	COULTER SHEAR WALLS	Date: 5/31/2021	28PV21
	Subject	Checker:	Page
	Shearwall Design	Date:	

Wall Line: **LEFT WALL**
Floor Level: **LOWER LEVEL**

Unit Shear Calculations

Seismic Design Category D, E, or F? **yes**

REFERENCE DRAWINGS FOR SHEARWALL TYPE AND SCHEDULE PLUS HOLDOWNS.

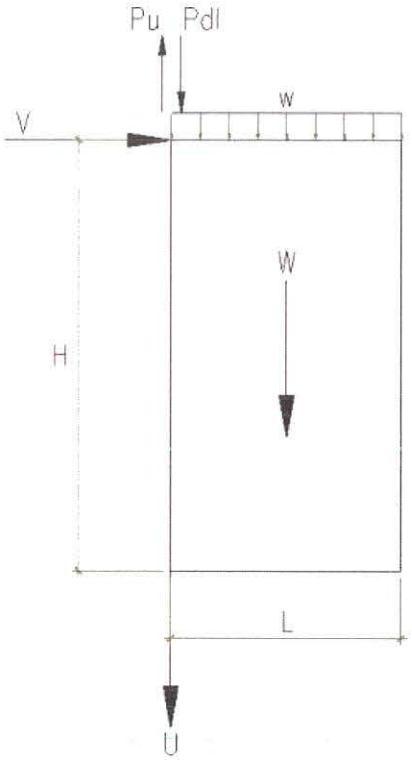
Lateral Load to Wall Line = **8,300** lbs
Total Length of Shearwalls = **34.0** ft

Unit Shear Load (v) = **244** plf ←

Use Shearwall Type	
EARTHQUAKE	**WIND**
P1-4	**P1-6**

Reference attached shearwall schedule for more information.

Overturning Calculations



Seismic Controlled Design? **yes** (Affects aspect ratio)

Terminology : V = Panel Shear (lbs)
W = Panel Self Weight (lbs)
w = Trib. Roof/Floor Load (plf)
P_{dl} = DL Reaction from Header/Beam (lbs)
P_u = Uplift from Shearwall Above (lbs)
OTM = Overturning Moment (ft-lbs)
RM = DL Resisting Moment (ft-lbs)

Equations: $V = vL$
$OTM = VH$
$RM = 0.9[(W+wL)(L/2)+P_{dl}L]$
$U = (OTM-RM)/L + P_u$

Load Check, ΣV = *8,300* *(Compare w/ Load Above)*
Max. Aspect Ratio: *2.0*
Check Aspect Ratio: ***OK***
(Ref. IBC Table 2305.3.3, footnote (a), when aspect ratios are exceeded)

H (ft)	L (ft)	V	W	w	Pdl	Pu	Uplift (U)	Req'd Holdown	
								FDN HD	FLOOR STRAP
10.0	**34.0**	8,300	6,800	**110**	**0**	**0**	-2,302	**NA**	**NA**
0.0	**0.0**	0	0	**0**	**0**	**0**	0	**NA**	**NA**
0.0	**0.0**	0	0	**0**	**0**	**0**	0	**NA**	**NA**
0.0	**0.0**	0	0	**0**	**0**	**0**	0	**NA**	**NA**
0.0	**0.0**	0	0	**0**	**0**	**0**	0	**NA**	**NA**
0.0	**0.0**	0	0	**0**	0	**0**	0	**NA**	**NA**

	Project	Engineer: Phil	Project #
	COULTER SHEAR WALLS	Date: 5/31/2021	28PV21
	Subject	Checker:	Page
	Shearwall Design	Date:	

Wall Line:	**WALL AT ELEVATOR**
Floor Level:	**LOWER LEVEL**

Unit Shear Calculations

Seismic Design Category D, E, or F? **yes**

REFERENCE DRAWINGS FOR SHEARWALL TYPE AND SCHEDULE PLUS HOLDOWNS.

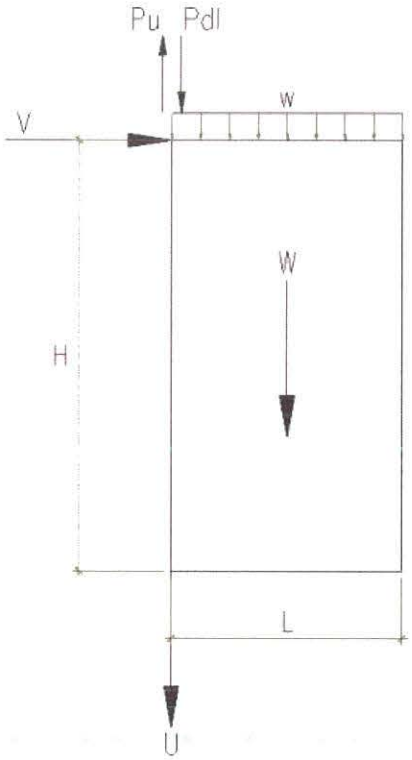
Lateral Load to Wall Line = **1,637** lbs
Total Length of Shearwalls = **7.5** ft

Unit Shear Load (ν) = **218** plf ←

Use Shearwall Type	
EARTHQUAKE	**WIND**
P1-6	**P1-6**

Reference attached shearwall schedule for more information.

Overturning Calculations



Seismic Controlled Design? **yes** (Affects aspect ratio)

Terminology : V = Panel Shear (lbs)
W = Panel Self Weight (lbs)
w = Trib. Roof/Floor Load (plf)
P_{dl} = DL Reaction from Header/Beam (lbs)
P_u = Uplift from Shearwall Above (lbs)
OTM = Overturning Moment (ft-lbs)
RM = DL Resisting Moment (ft-lbs)

Equations: $V = \nu L$
$OTM = VH$
$RM = 0.9[(W+wL)(L/2)+P_{dl}L]$
$U = (OTM-RM)/L + P_u$

Load Check, ΣV = *1,637* *(Compare w/ Load Above)*
Max. Aspect Ratio: *2.0*
Check Aspect Ratio: ***OK***
(Ref. IBC Table 2305.3.3, footnote (a), when aspect ratios are exceeded)

H (ft)	L (ft)	V	W	w	Pdl	Pu	Uplift (U)	Req'd Holdown	
								FDN HD	FLOOR STRAP
7.0	7.5	1,637	1,275	45	135	0	681	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA

	Project	Engineer: Phil	Project #
	COULTER SHEAR WALLS	Date: 5/31/2021	28PV21
	Subject	Checker:	Page
	Shearwall Design	Date:	

Wall Line:	**FRONT OF VESTIBULE AT STAIRWELL**
Floor Level:	**LOWER LEVEL**

Unit Shear Calculations

Seismic Design Category D, E, or F? **yes**

REFERENCE DRAWINGS FOR SHEARWALL TYPE AND SCHEDULE PLUS HOLDOWNS.

Lateral Load to Wall Line = **623** lbs

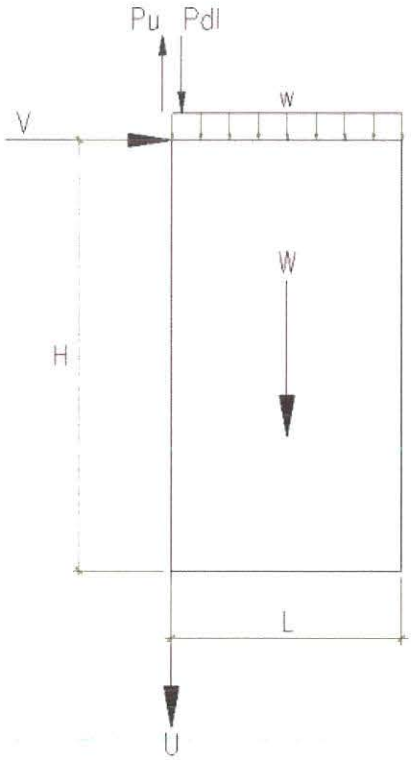
Total Length of Shearwalls = **7.5** ft

Unit Shear Load (ν) = **83** plf ←

Use Shearwall Type	
EARTHQUAKE	**WIND**
P1-6	**P1-6**

Reference attached shearwall schedule for more information.

Overturning Calculations



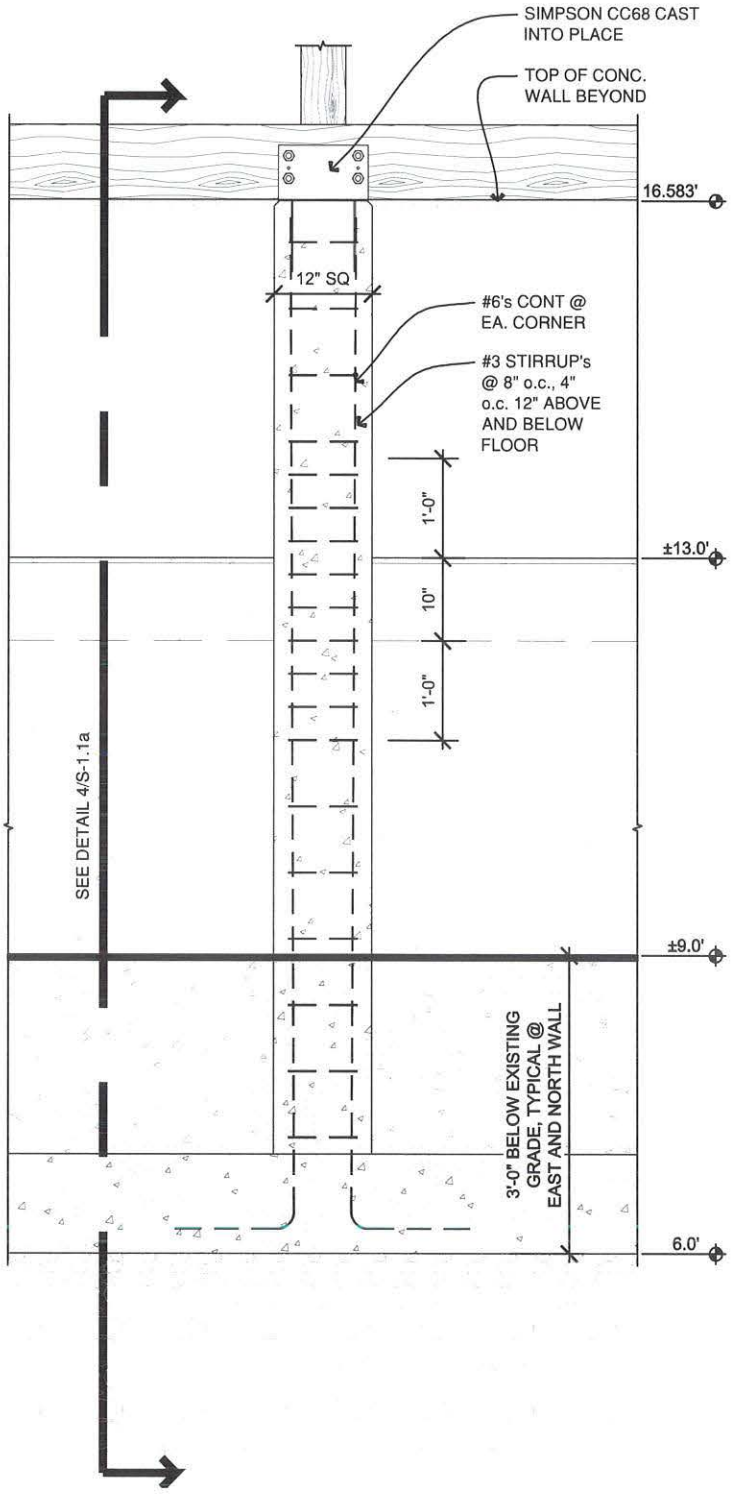
Seismic Controlled Design? **yes** (Affects aspect ratio)

Terminology : V = Panel Shear (lbs)
W = Panel Self Weight (lbs)
w = Trib. Roof/Floor Load (plf)
P_{dl} = DL Reaction from Header/Beam (lbs)
P_u = Uplift from Shearwall Above (lbs)
OTM = Overturning Moment (ft-lbs)
RM = DL Resisting Moment (ft-lbs)

Equations: $V = \nu L$
$OTM = VH$
$RM = 0.9[(W+wL)(L/2)+P_{dl}L]$
$U = (OTM-RM)/L + P_u$

Load Check, ΣV = 623 *(Compare w/ Load Above)*
Max. Aspect Ratio: 2.0
Check Aspect Ratio: ***OK***
(Ref. IBC Table 2305.3.3, footnote (a), when aspect ratios are exceeded)

H (ft)	L (ft)	V	W	w	Pdl	Pu	Uplift (U)	Req'd Holdown	
								FDN HD	FLOOR STRAP
7.0	7.5	623	1,275	45	135	0	-266	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA



L

'-0"

3 PILASTER DETAIL

SCALE 3/4"= 1'-0"

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

Project Title: New Home for Pattie and Dave Coulter
Engineer: S/P
Project ID: 28PV21
Project Descr: Two - Story @ 35465 Rueppell Ave

Printed: 14 JUN 2021, 10:08AM

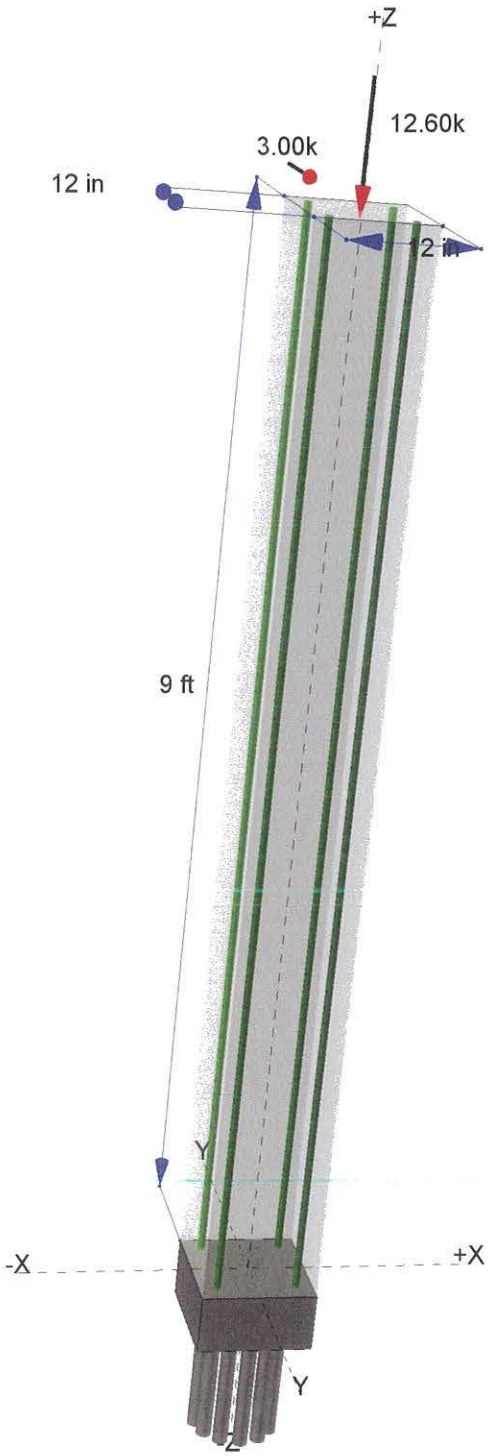
Concrete Column

File: DAVE COULTER.ec6

Lic. # : KW-06009465

STRUCTURAL PHIL

DESCRIPTION: CANTILEVERED COLUMNS - PILASTERS CONTINUE ABOVE FOUNDATION WALL



STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

Project Title: New Home for Pattie and Dave Coulter
Engineer: S/P
Project ID: 28PV21
Project Descr: Two - Story @ 35465 Rueppell Ave

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Concrete Column

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STRUCTURAL PHIL

DESCRIPTION: CANTILEVERED COLUMNS - PILASTERS CONTINUE ABOVE FOUNDATION WALL

Code References

Calculations per ACI 318-14, IBC 2018, CBC 2019, ASCE 7-16
Load Combinations Used : IBC 2018

General Information

f'c : Concrete 28 day strength	=	4.0 ksi
E =	=	3122 ksi
Density	=	150 pcf
β	=	0.850
fy - Main Rebar	=	60 ksi
E - Main Rebar	=	29000 ksi
Allow. Reinforcing Limits		*ASTM A615 Bars Used*
Min. Reinf.	=	1 %
Max. Reinf.	=	8 %

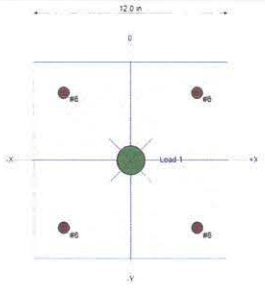
Overall Column Height = 9.0 ft
End Fixity: Top Free, Bottom Fixed

Brace condition for deflection (buckling) along columns
X-X (width) axis :
Unbraced Length for buckling ABOUT Y-Y Axis = 9.0 ft, K = 0.80
Y-Y (depth) axis :
Unbraced Length for buckling ABOUT X-X Axis = 9.0 ft, K = 0.80

Column Cross Section

Column Dimensions : 12.0in Square Column, Column Edge to Rebar Edge Cover = 1.50in

Column Reinforcing : 4 - #6 bars @ corners,



Applied Loads

Entered loads are factored per load combinations specified by user.

Column self weight included : 1,350.0 lbs * Dead Load Factor
AXIAL LOADS . . .
BEAM REACTION FROM UPPER FLOOR: Axial Load at 9.0 ft above base, D = 4.80, L = 4.80, S = 3.0 k
BENDING LOADS . . .
SEISMIC RXN: Lat. Point Load at 9.0 ft creating Mx-x, E = 3.0 k

DESIGN SUMMARY

Load Combination: +0.90D+E
Location of max.above base: 8.940 ft

Maximum Stress Ratio: 0.670 : 1
Ratio = (Pu^2+Mu^2)^.5 / (PhiPn^2+PhiMn^2)^.5

Pu =	5.535 k	φ * Pn =	7.108 k
Mu-x =	-27.0 k-ft	φ * Mn-x =	40.795 k-ft
Mu-y =	0.0 k-ft	φ * Mn-y =	0.0 k-ft
Mu Angle =	180.0 deg		
Mu at Angle =	27.0 k-ft	φMn at Angle =	40.326 k-ft

Pn & Mn values located at Pu-Mu vector intersection with capacity curve

Column Capacities . . .

Pnmax : Nominal Max. Compressive Axial Capacity	589.22 k
Pnmin : Nominal Min. Tension Axial Capacity	k
φ Pn, max : Usable Compressive Axial Capacity	306.392 k
φ Pn, min : Usable Tension Axial Capacity	k

Maximum SERVICE Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	3.0 k

Maximum SERVICE Load Deflections . . .

Along Y-Y 0.2323 in at 9.0 ft above base
for load combination : E Only

Along X-X 0.0 in at 0.0 ft above base
for load combination :

General Section Information . φ = 0.650 β = 0.850 θ = 0.80

ρ : % Reinforcing	1.222 % Rebar % Ok
Reinforcing Area	1.760 in^2
Concrete Area	144.0 in^2

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction k @ Base	@ Top	Y-Y Axis Reaction @ Base	@ Top	Axial Reaction @ Base	My - End Moments k-ft @ Base	@ Top	Mx - End Moments @ Base	@ Top
D Only					6.150				
+D+L					10.950				

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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STRUCTURAL PHIL

DESCRIPTION: CANTILEVERED COLUMNS - PILASTERS CONTINUE ABOVE FOUNDATION WALL

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction k @ Base	@ Top	Y-Y Axis Reaction @ Base	@ Top	Axial Reaction @ Base	My - End Moments k-ft @ Base	@ Top	Mx - End Moments @ Base	@ Top
+D+S					9.150				
+D+0.750L					9.750				
+D+0.750L+0.750S					12.000				
+D+0.70E			2.100		6.150	18.900			
+D+0.750L+0.750S+0.5250E			1.575		12.000	14.175			
+0.60D					3.690				
+0.60D+0.70E			2.100		3.690	18.900			
L Only					4.800				
S Only					3.000				
E Only			3.000			27.000			

Maximum Moment Reactions

Note: Only non-zero reactions are listed.

Load Combination	Moment About X-X Axis @ Base	@ Top		Moment About Y-Y Axis @ Base	@ Top	
D Only			k-ft			k-ft
+D+L			k-ft			k-ft
+D+S			k-ft			k-ft
+D+0.750L			k-ft			k-ft
+D+0.750L+0.750S			k-ft			k-ft
+D+0.70E	18.900		k-ft			k-ft
+D+0.750L+0.750S+0.5250E	14.175		k-ft			k-ft
+0.60D			k-ft			k-ft
+0.60D+0.70E	18.900		k-ft			k-ft
L Only			k-ft			k-ft
S Only			k-ft			k-ft
E Only	27.000		k-ft			k-ft

Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection		Distance		Max. Y-Y Deflection		Distance	
D Only	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+L	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+S	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+0.750L	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+0.750L+0.750S	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+0.70E	0.0000	in	0.000	ft	0.163	in	9.000	ft
+D+0.750L+0.750S+0.5250E	0.0000	in	0.000	ft	0.122	in	9.000	ft
+0.60D	0.0000	in	0.000	ft	0.000	in	0.000	ft
+0.60D+0.70E	0.0000	in	0.000	ft	0.163	in	9.000	ft
L Only	0.0000	in	0.000	ft	0.000	in	0.000	ft
S Only	0.0000	in	0.000	ft	0.000	in	0.000	ft
E Only	0.0000	in	0.000	ft	0.230	in	8.940	ft

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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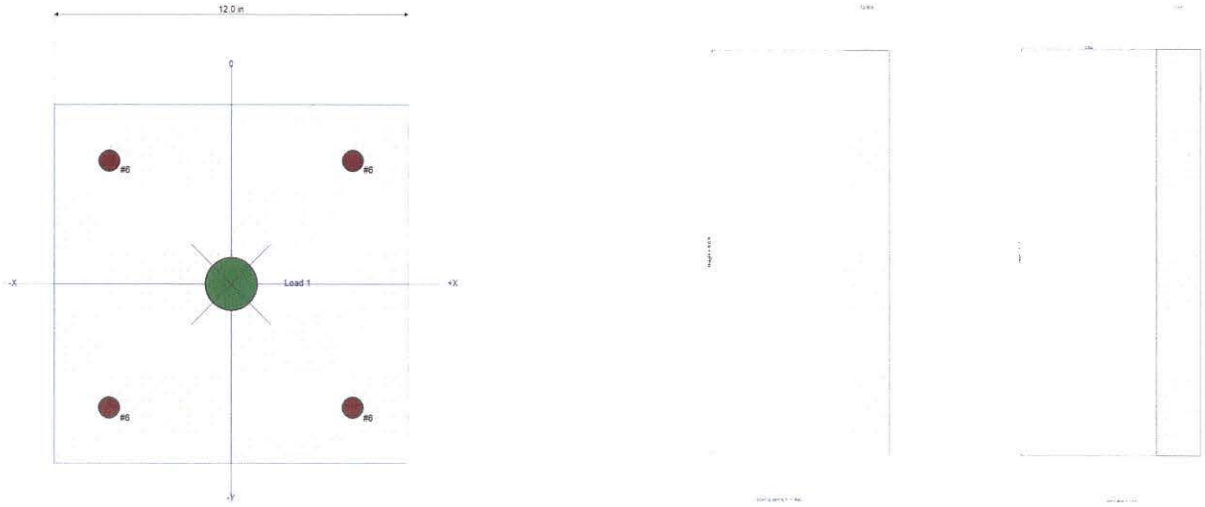
DESCRIPTION: CANTILEVERED COLUMNS - PILASTERS CONTINUE ABOVE FOUNDATION WALL

Sketches



Interaction Diagrams

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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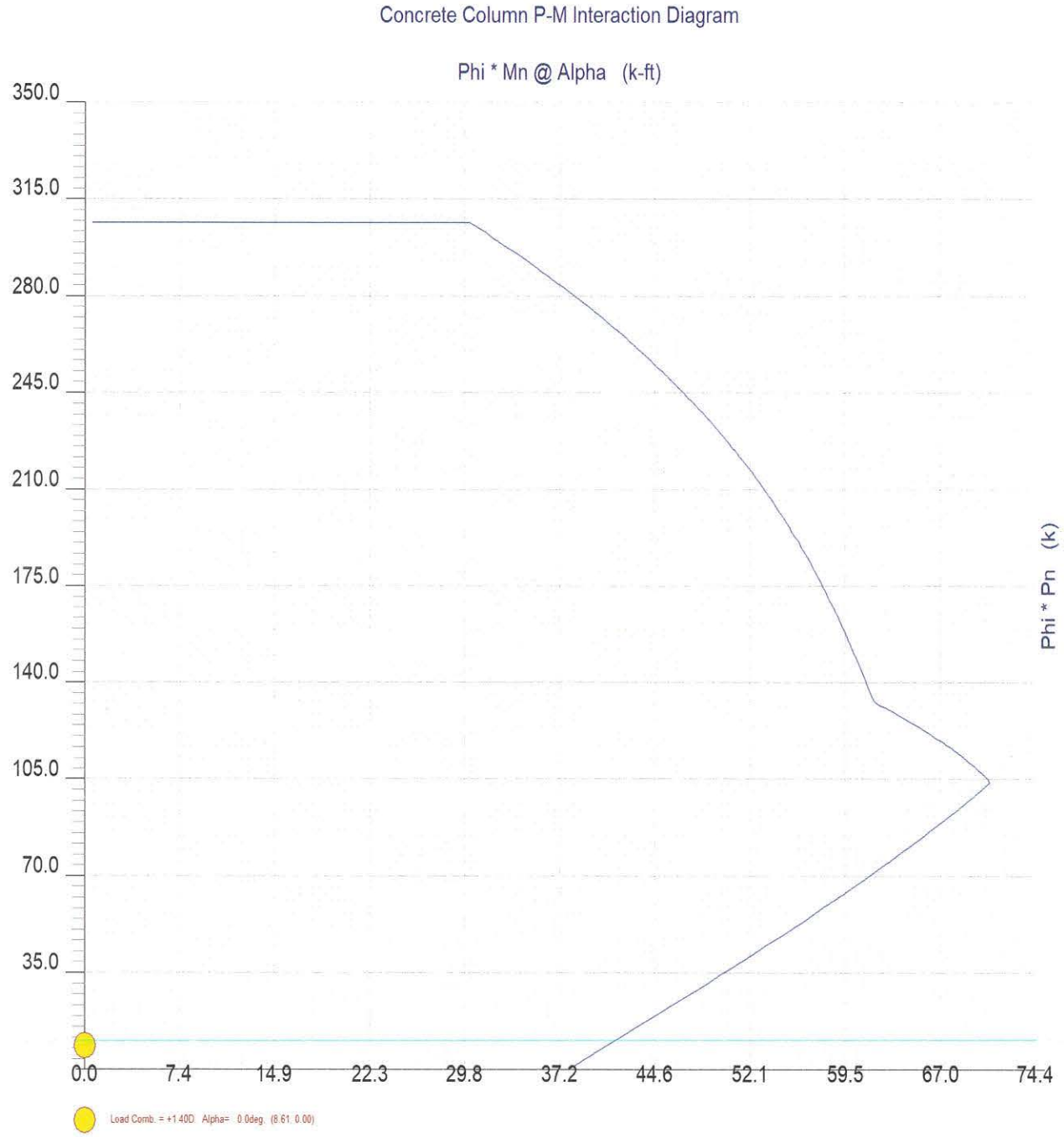

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Engineer: S/P
Project ID: 28PV21
Project Descr: Two - Story @ 35465 Rueppell Ave

Printed: 14 JUN 2021, 10:09AM

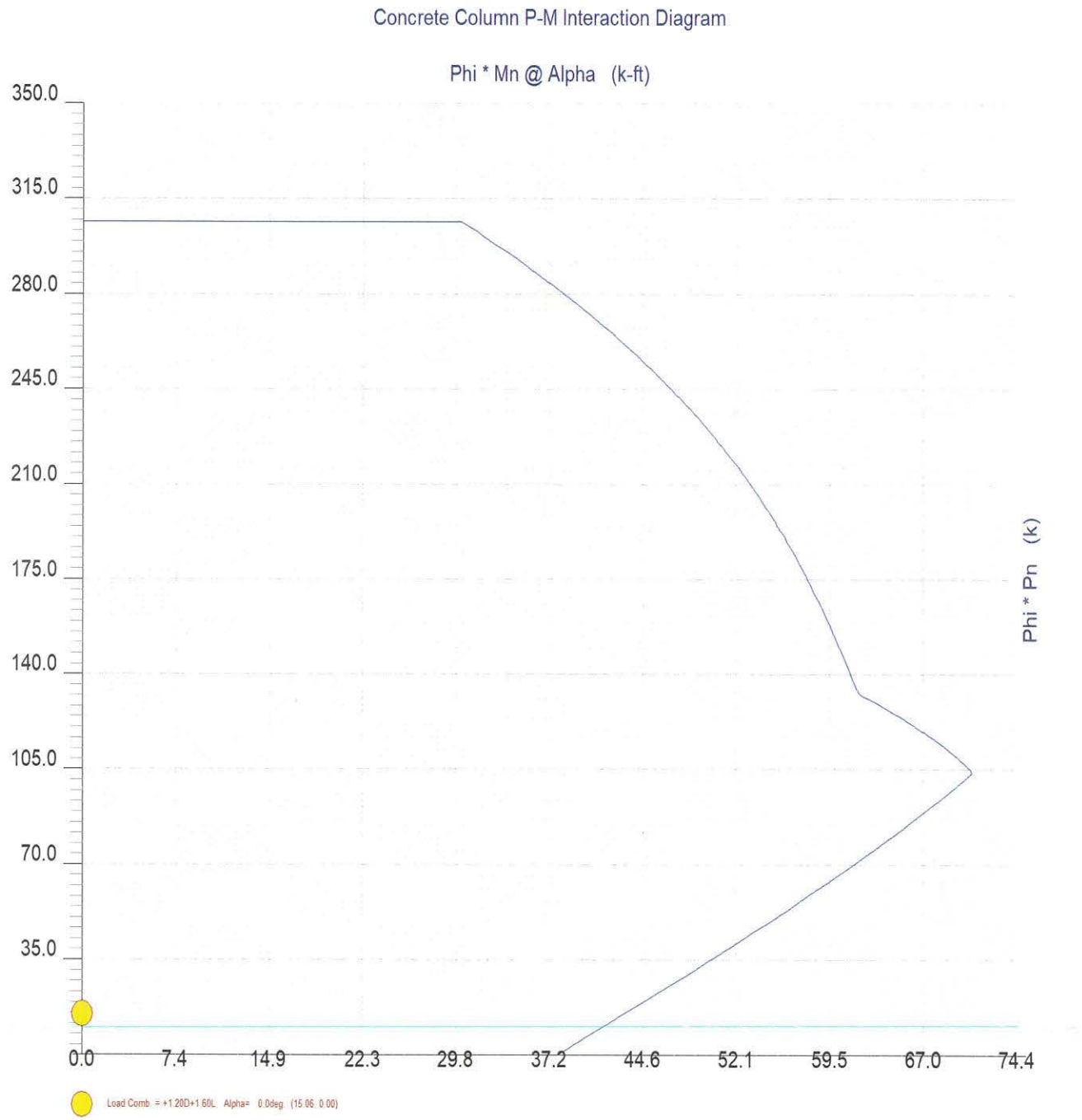
Concrete Column

File: DAVE COULTER.ec6

Lic. # : KW-06009465

STRUCTURAL PHIL

DESCRIPTION: CANTILEVERED COLUMNS - PILASTERS CONTINUE ABOVE FOUNDATION WALL



STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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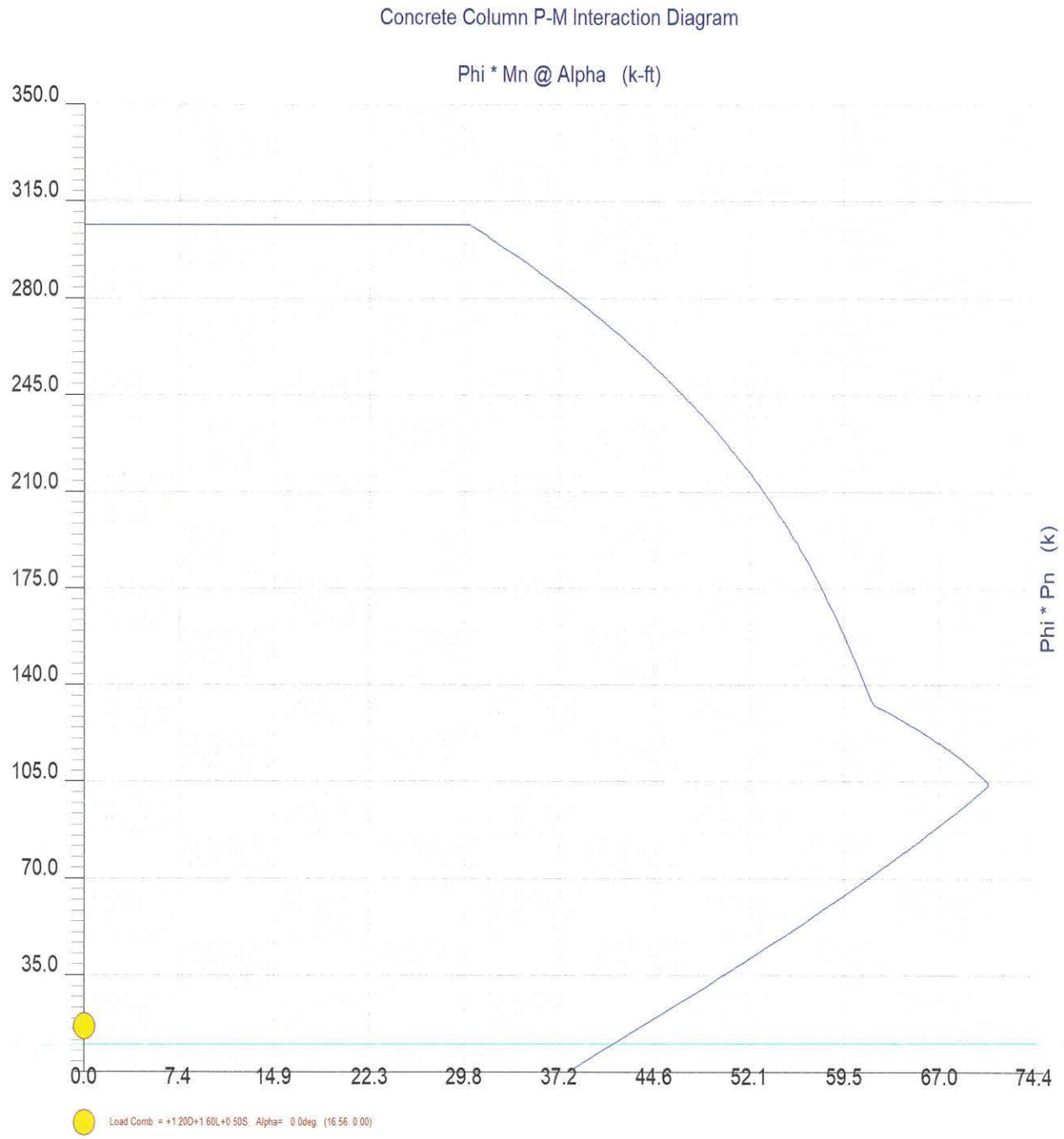

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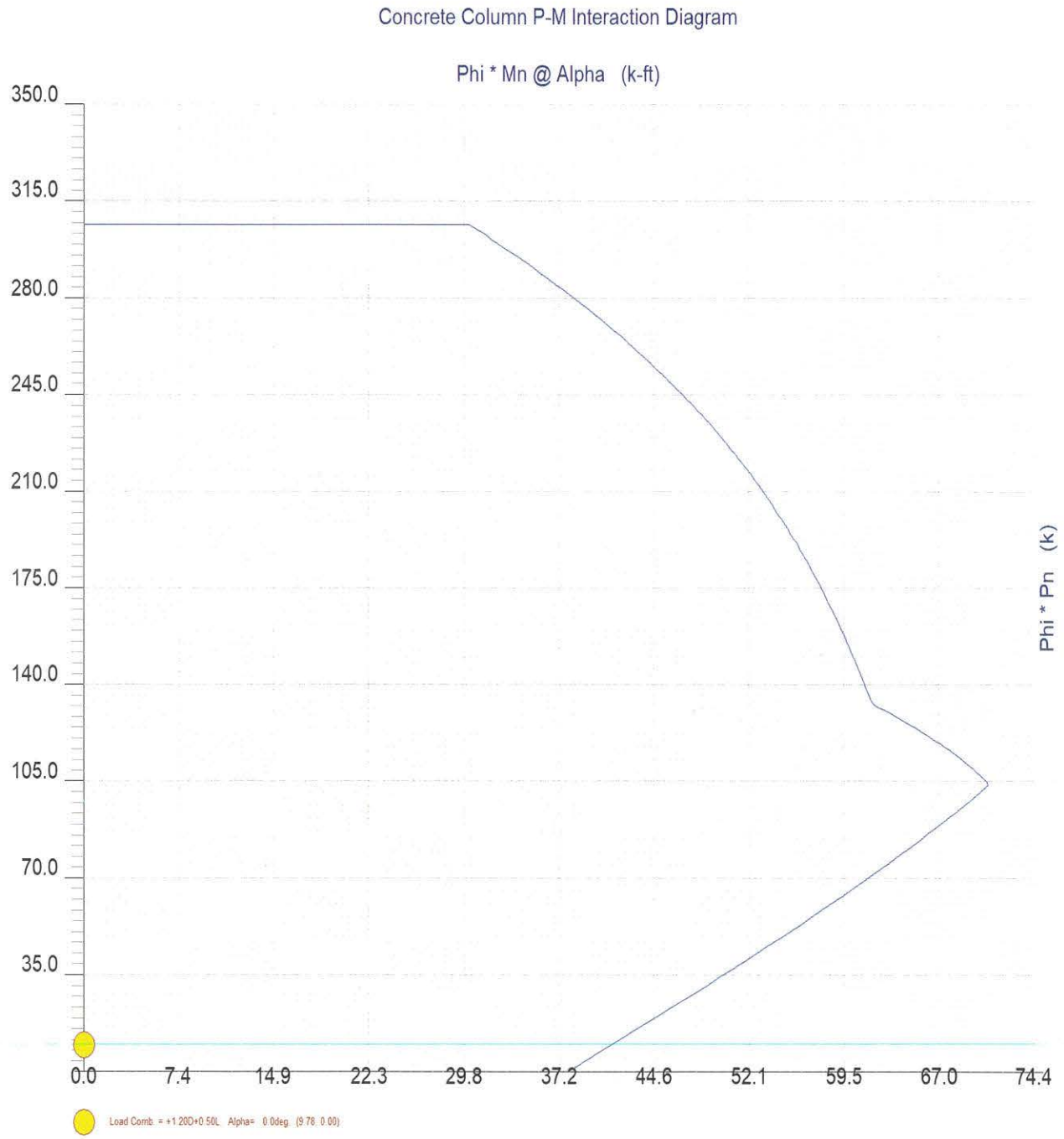

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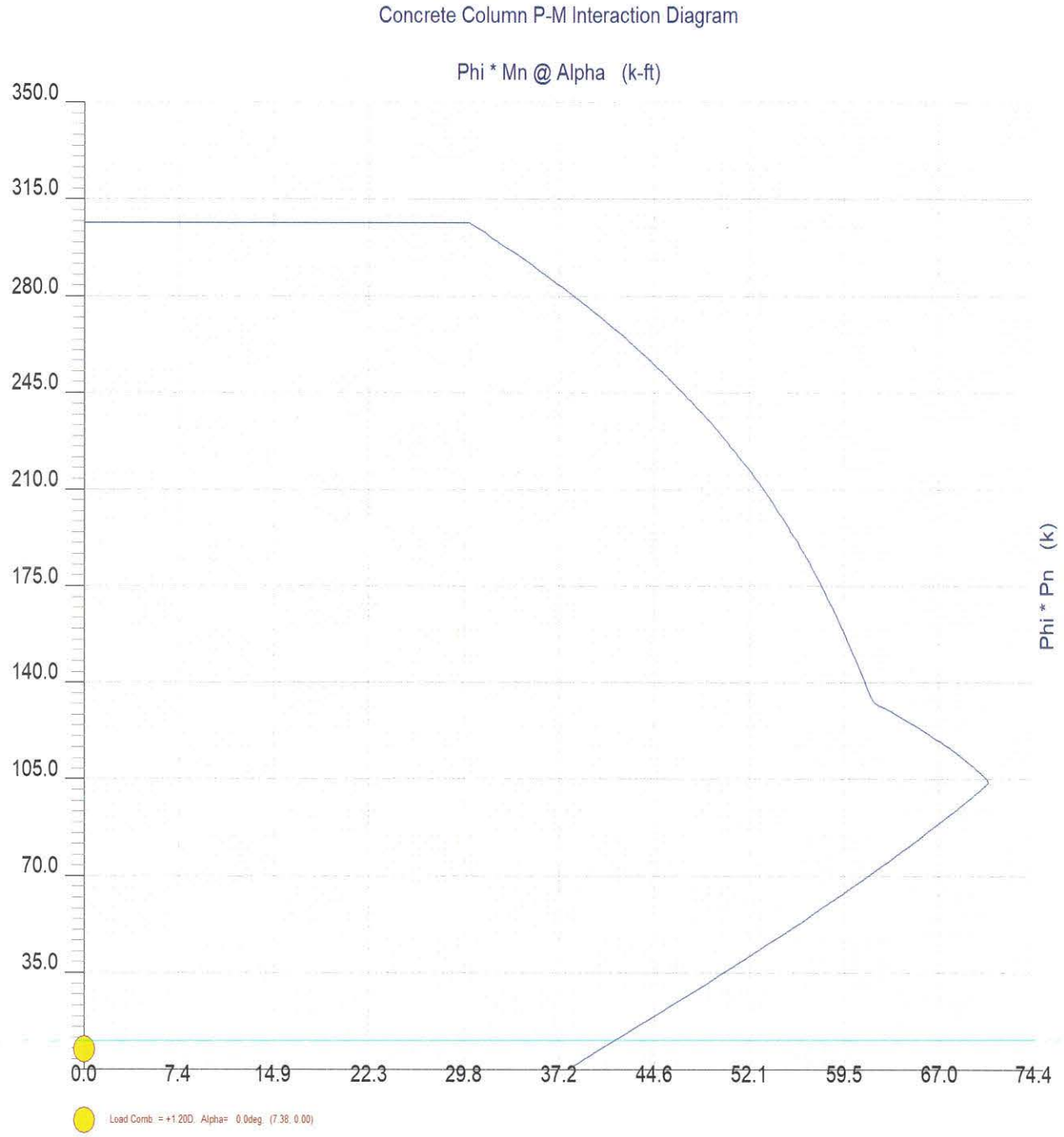

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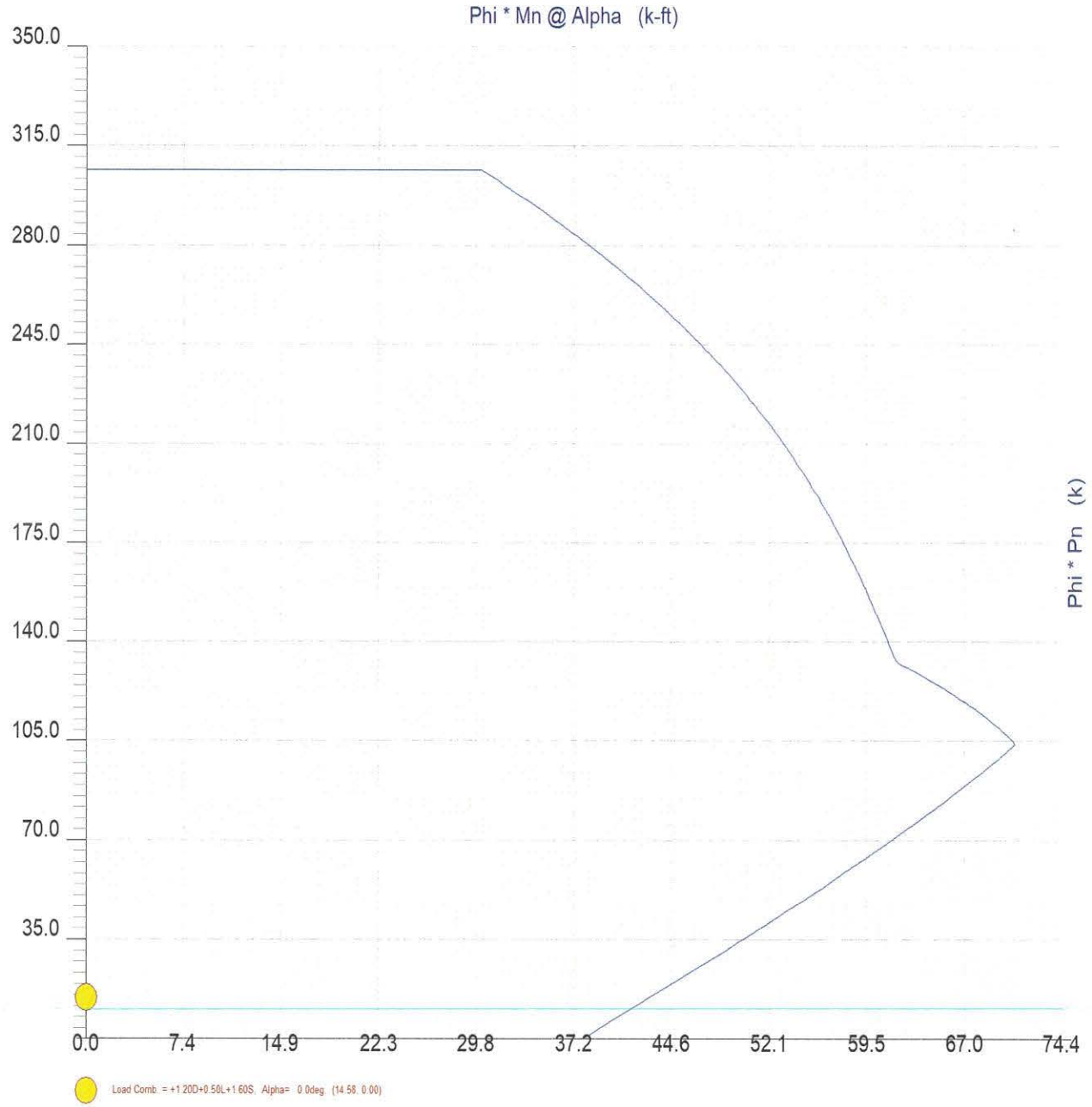
STRUCTURAL PHIL

DESCRIPTION: CANTILEVERED COLUMNS - PILASTERS CONTINUE ABOVE FOUNDATION WALL

Concrete Column P-M Interaction Diagram



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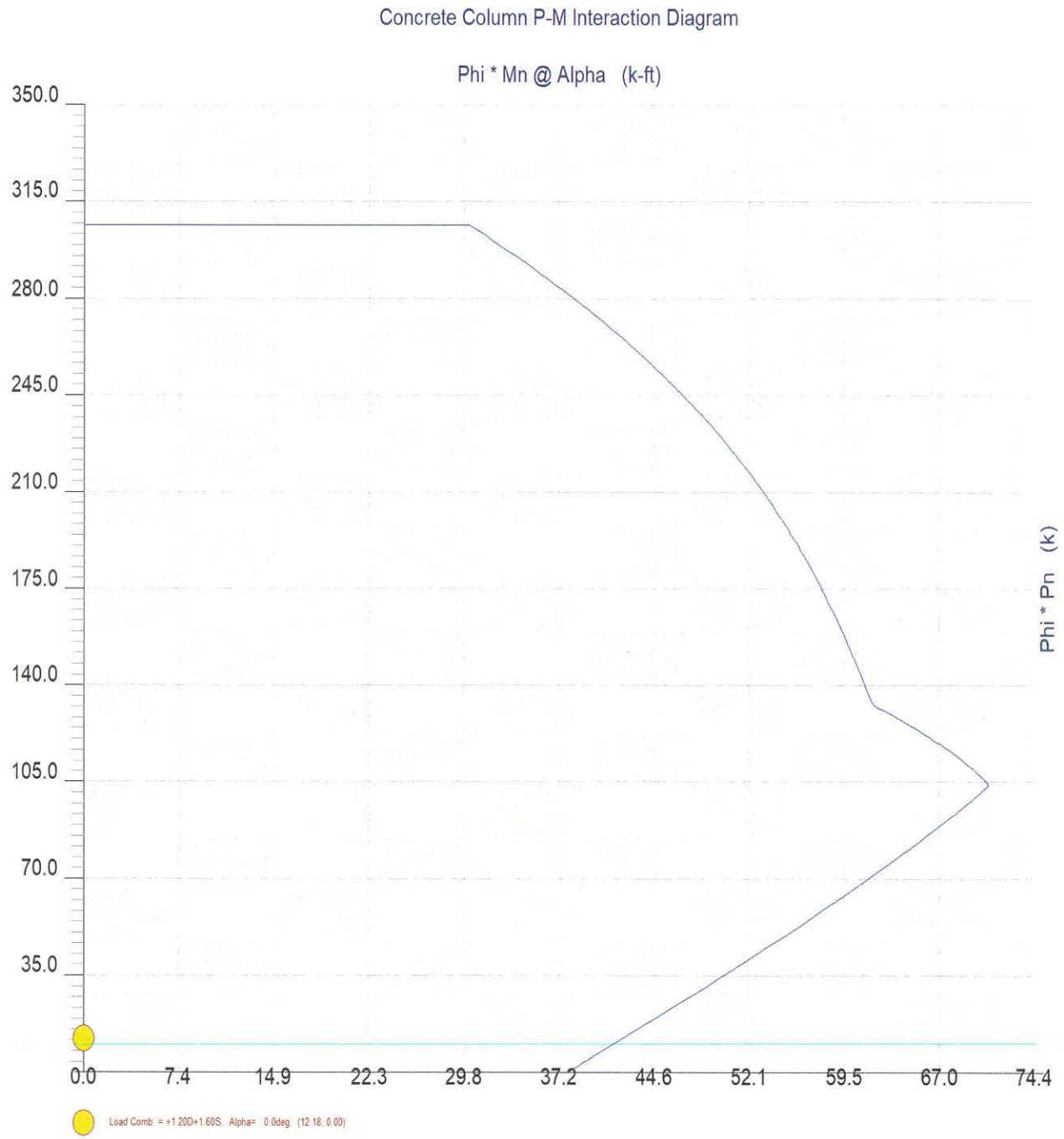

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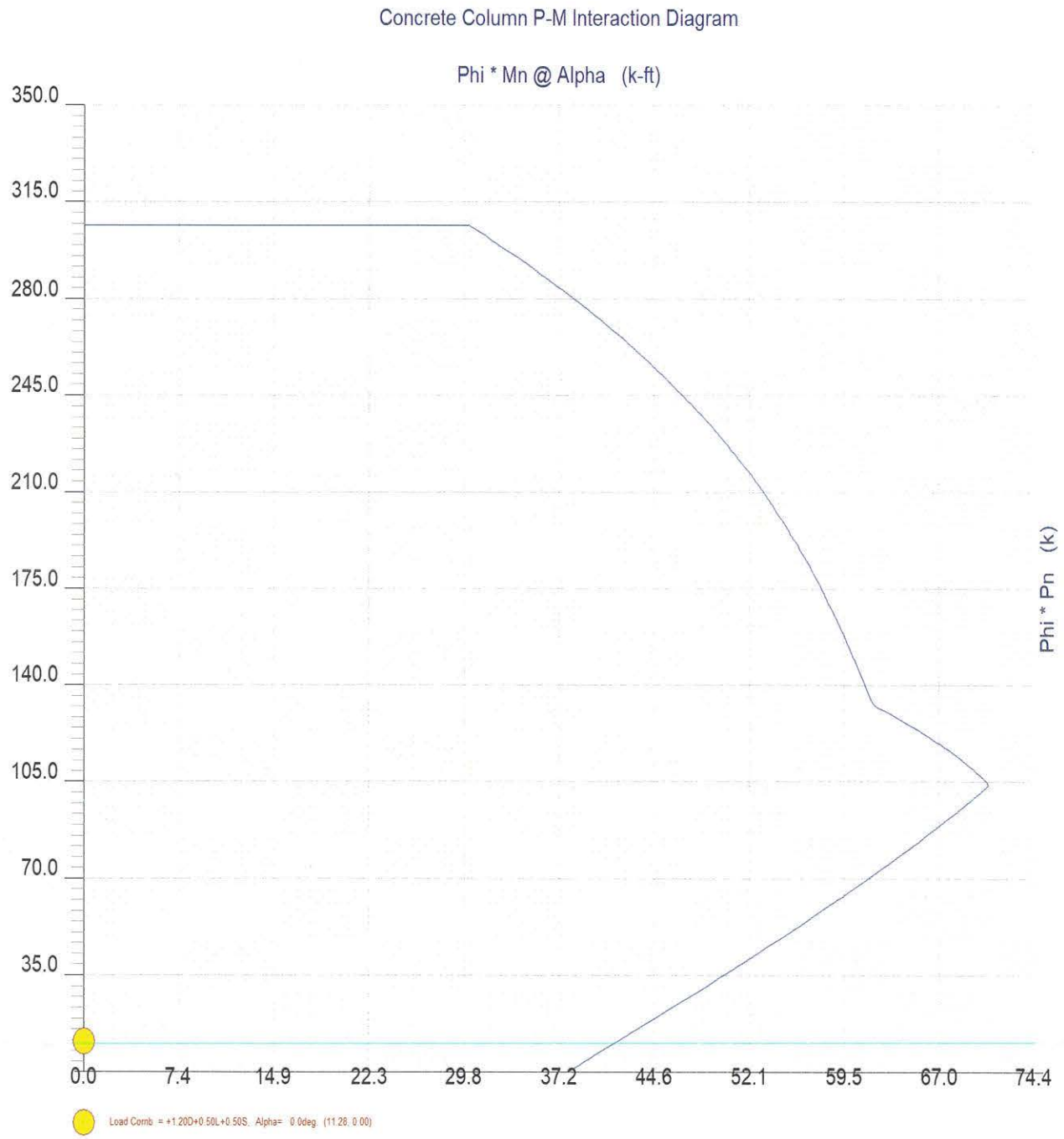

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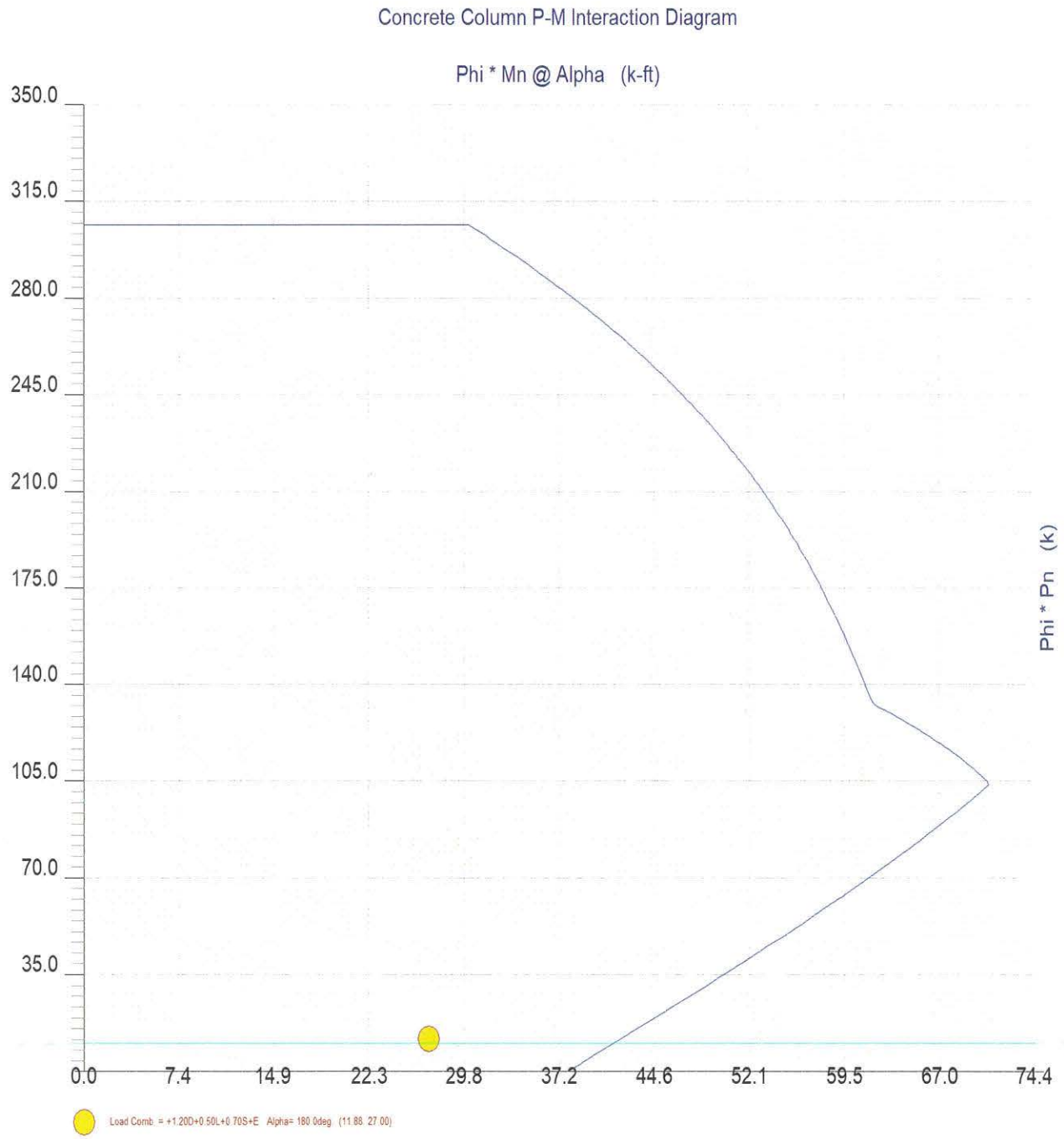

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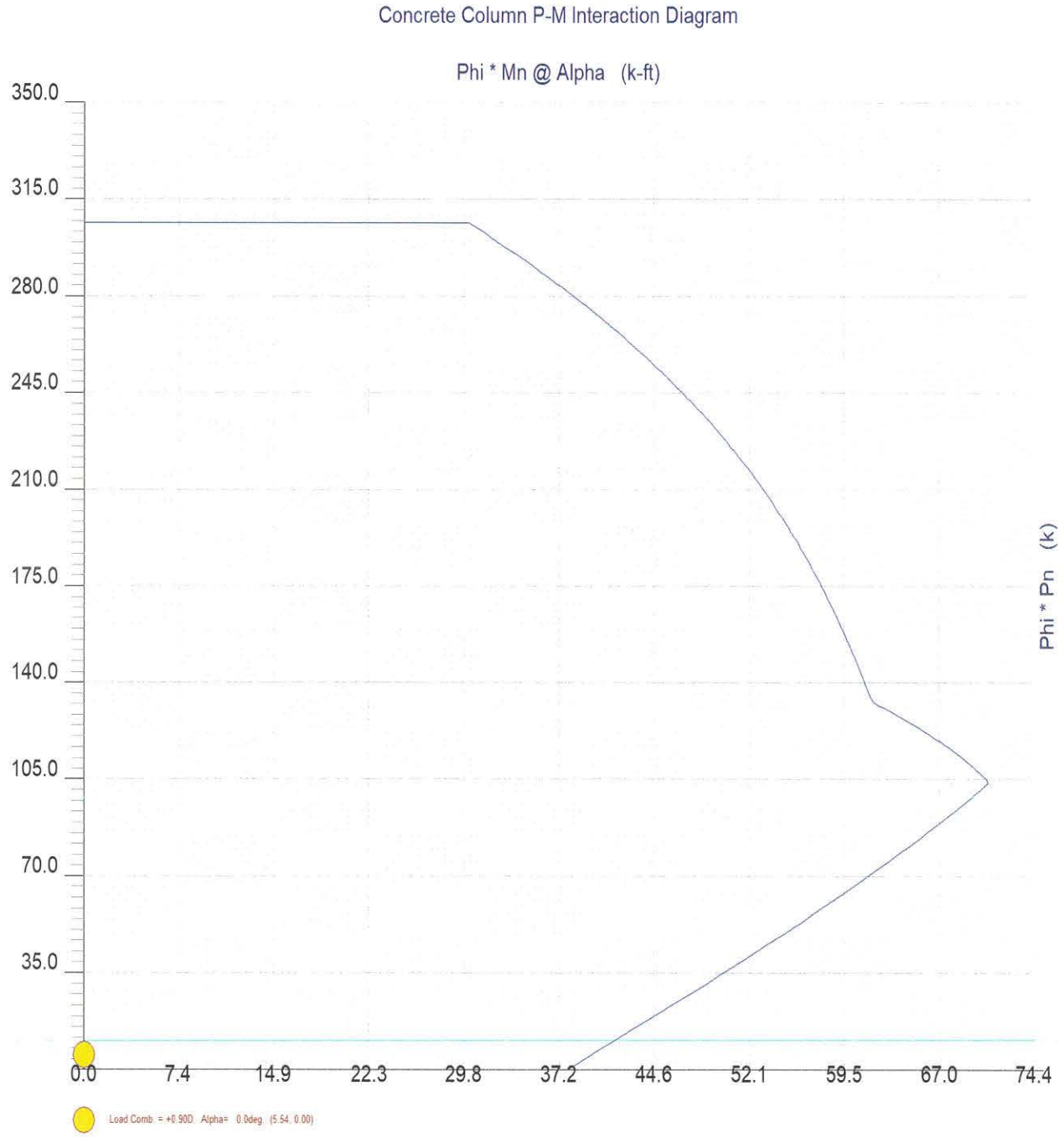

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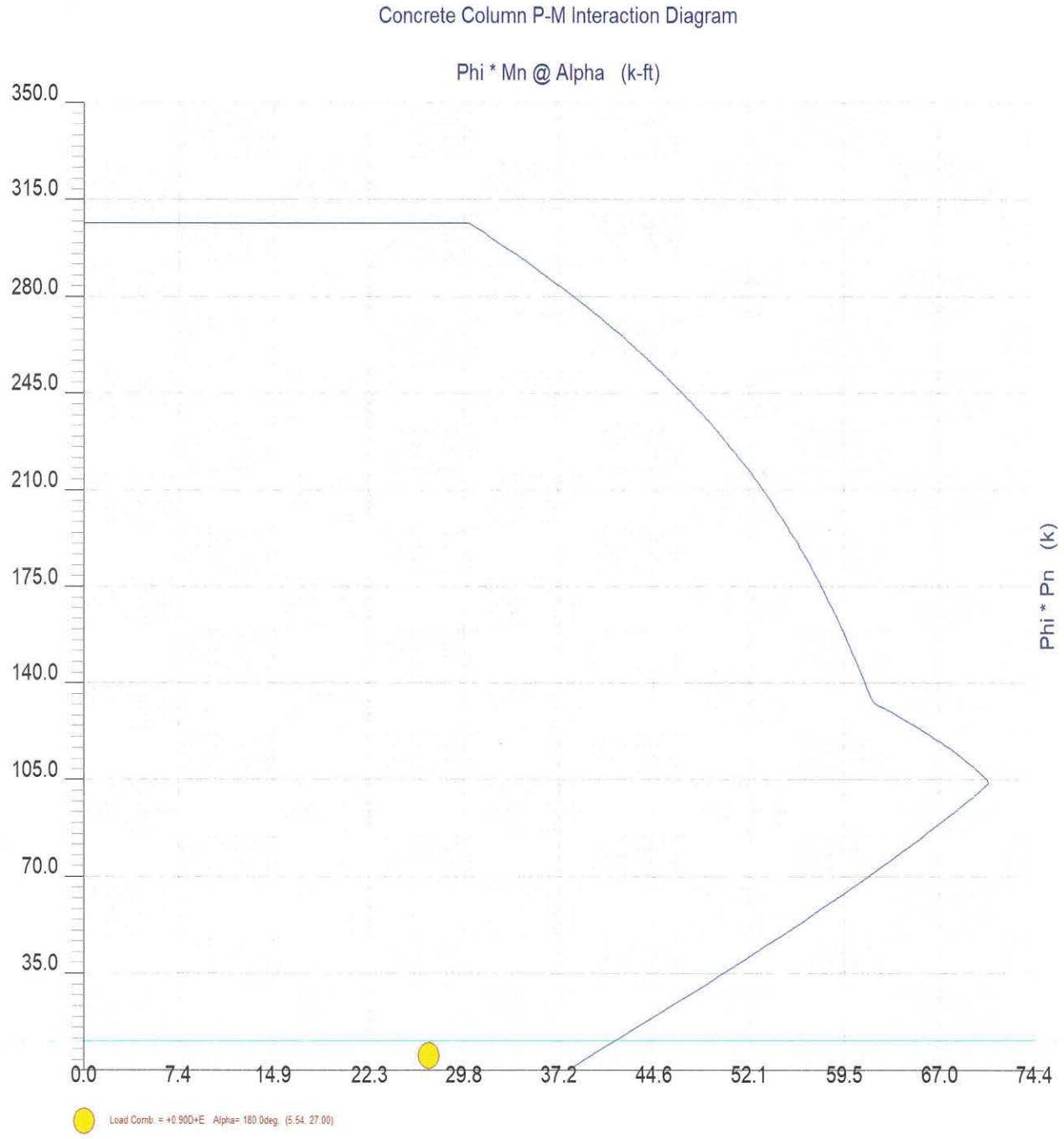
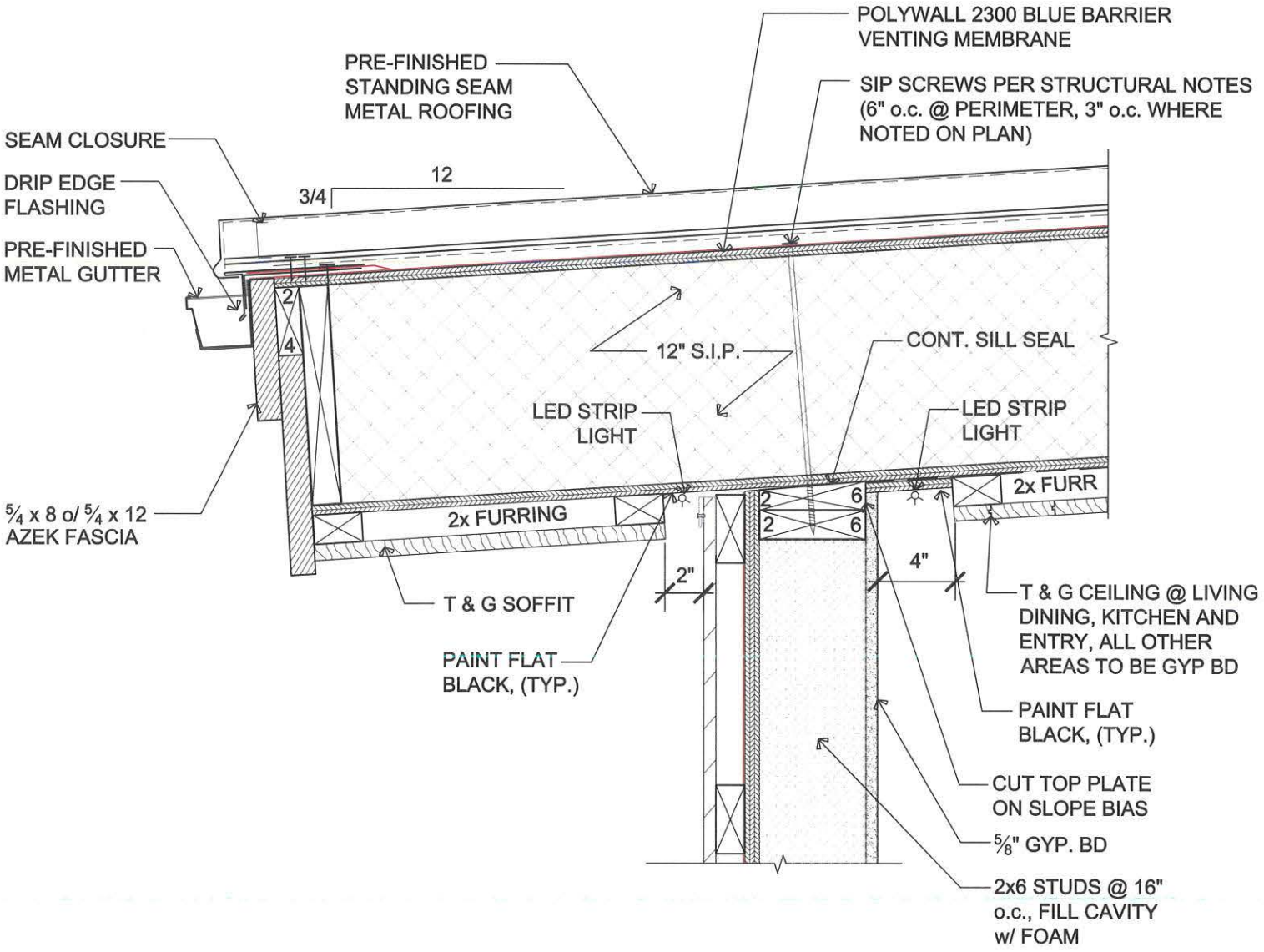


DAVE & PATTIE COULTER RESIDENCE DETAILS

SCHEDULE	
DTL-1	EAVE & GUTTER DETAIL
DTL-2	EAVE @ RAKE DETAIL
DTL-3	OVERHANG DETAIL
DTL-4	DECK EDGE @ SOUTH DETAIL
DTL-5	DECK @ GARAGE DOOR DETAIL
DTL-6	DECK EDGE @ EAST CARPORT WALL DETAIL
DTL-7	DECK EDGE @ SOUTH CARPORT DETAIL
DTL-8	DECK @ OUTDOOR KITCHEN DETAIL
DTL-9	DECK BEAM CONNECTION @ EXISTING HOUSE DETAIL
DTL-10	COLUMN @ TIMBER FRAME PATIO COVER DETAIL
DTL-11	GARAGE WALL @ FOUNDATION DETAIL
DTL-12	CLIPPED EAVE DETAIL
DTL-13	B-4 to B-5 & B-18 STEEL PLATE CONNECTION DETAIL
DTL-14	STEEL STAIR CONNECTION TO WALL DETAIL
DTL-15	DECK STAIR @ EXISTING HOUSE DETAIL
DTL-16	VERT. SIDING AT BOTTOM OF WALL w/ HORIZ. NAILER & DRAINAGE STRIP
DTL-17	VERT. SIDING AT BOTTOM OF WALL DRAINAGE STRIP DETAIL



EAVE AND GUTTER DETAIL

SCALE 1-1/2"= 1'-0"

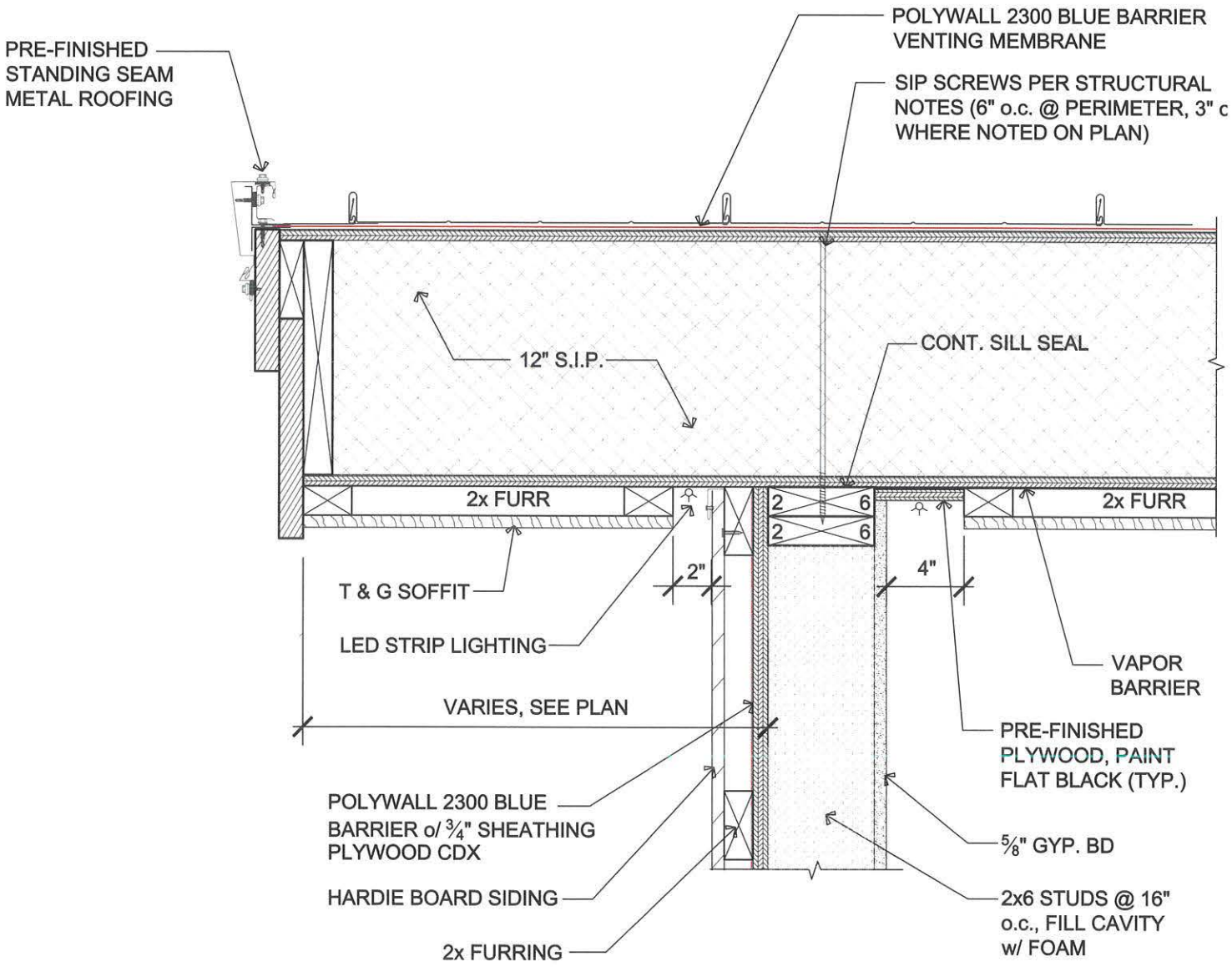
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-1



EAVE @ RAKE DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

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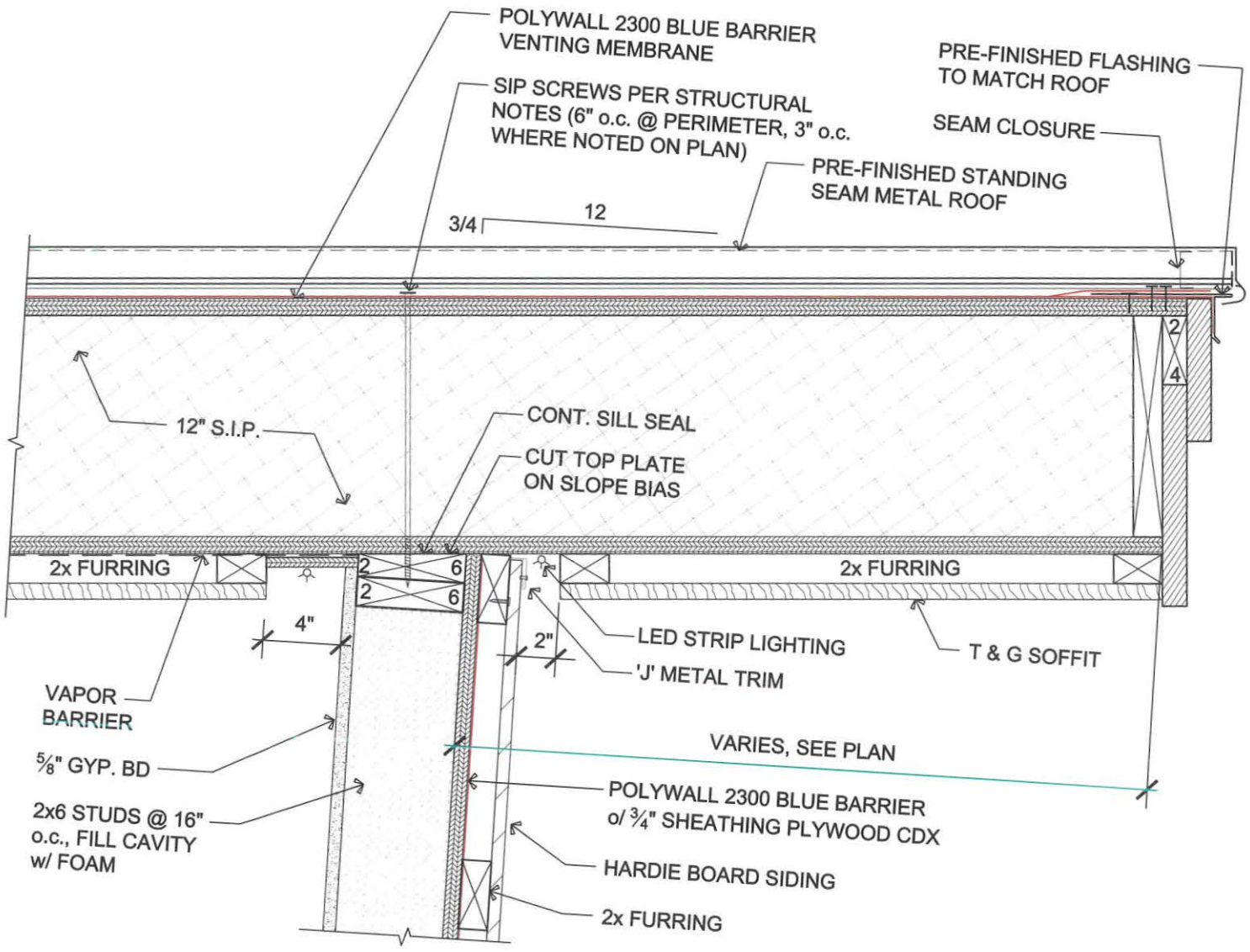
DTL-2



OVERHANG DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
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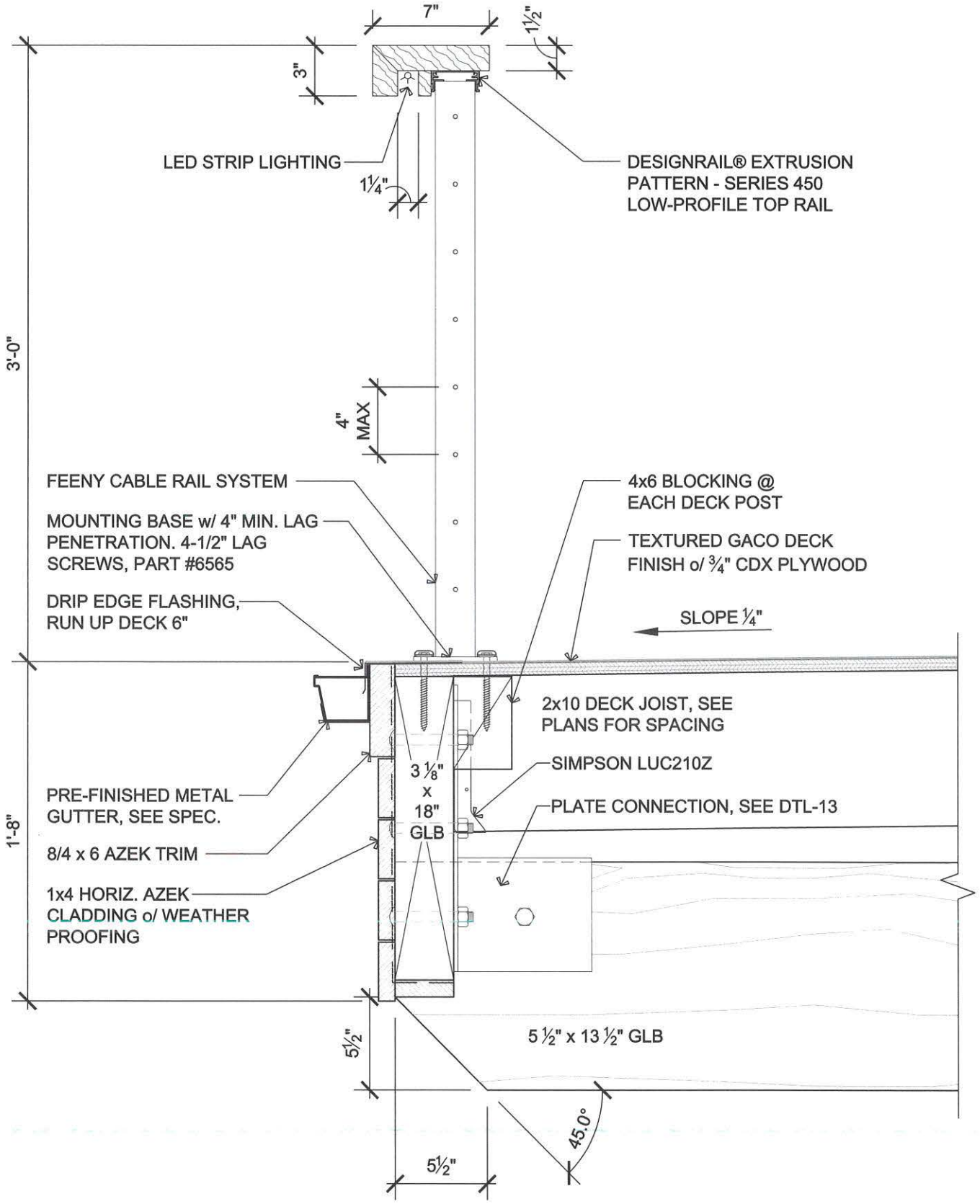
Project #:	2021-1

DTL-3



DECK EDGE @ SOUTH DETAIL

SCALE 1-1/2"= 1'-0"

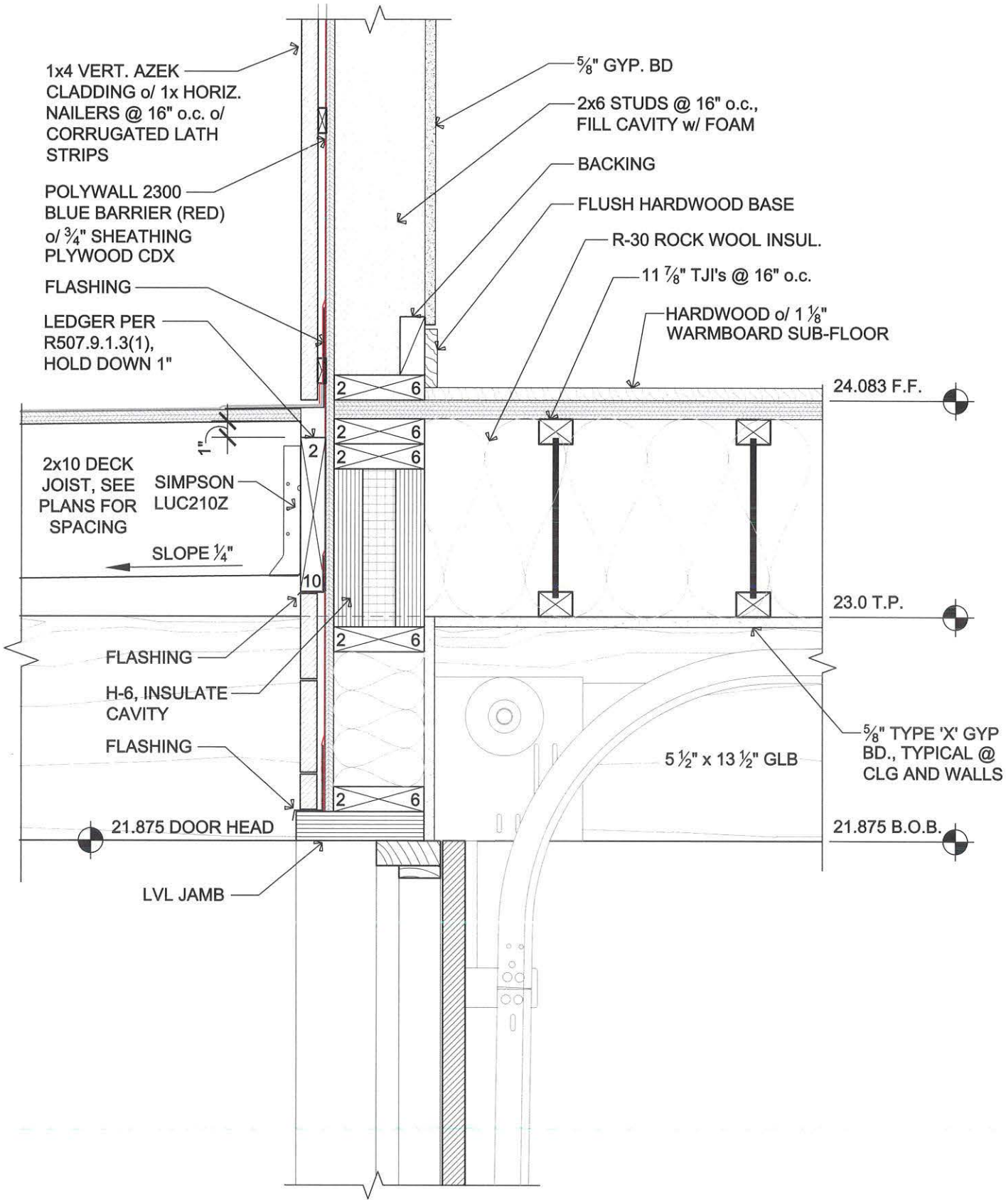
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-4



DECK @ GARAGE DOOR DETAIL

SCALE 1-1/2"= 1'-0"

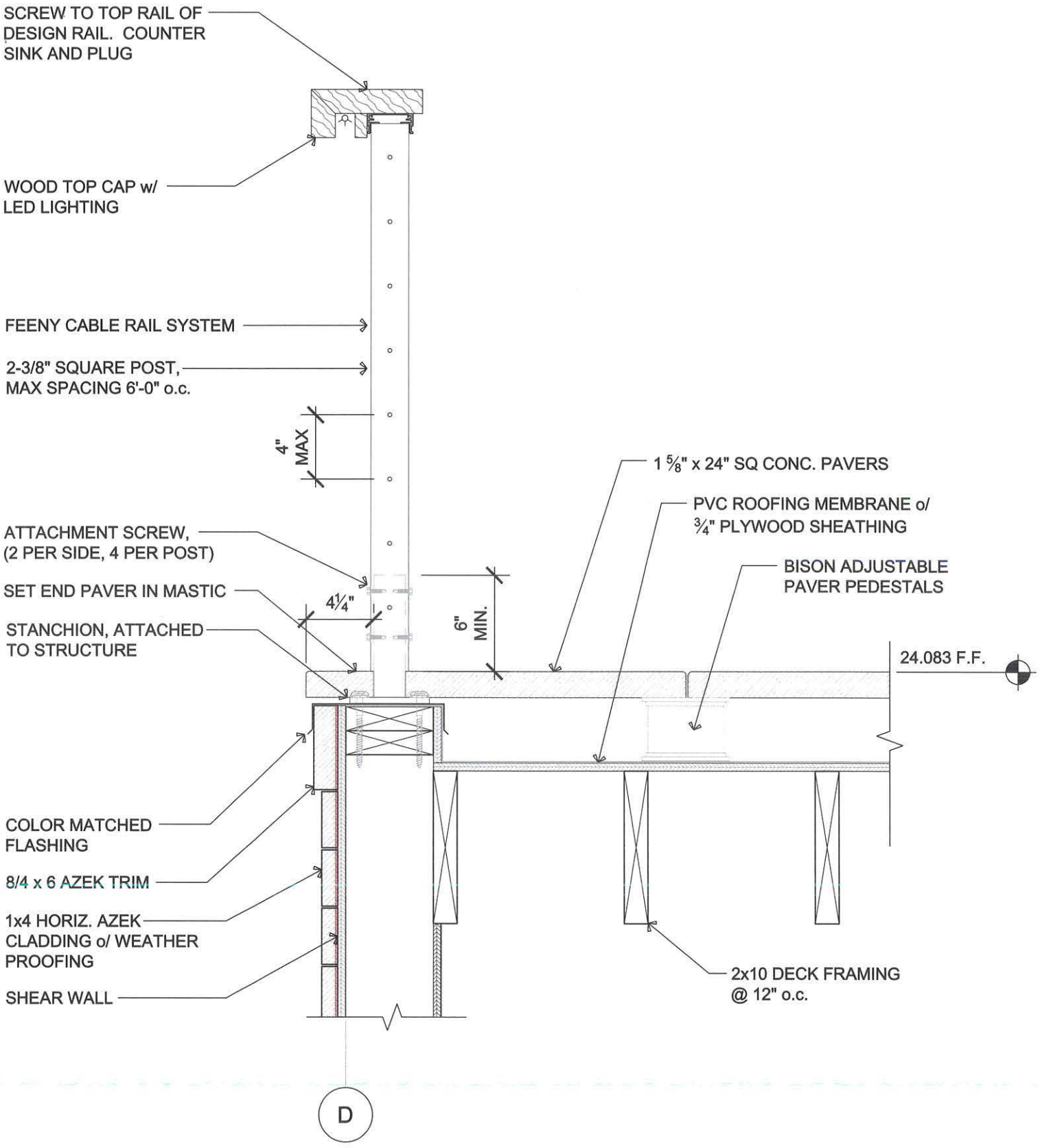
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-5



DECK EDGE @ EAST CARPORT WALL DETAIL

SCALE 1-1/2"= 1'-0"

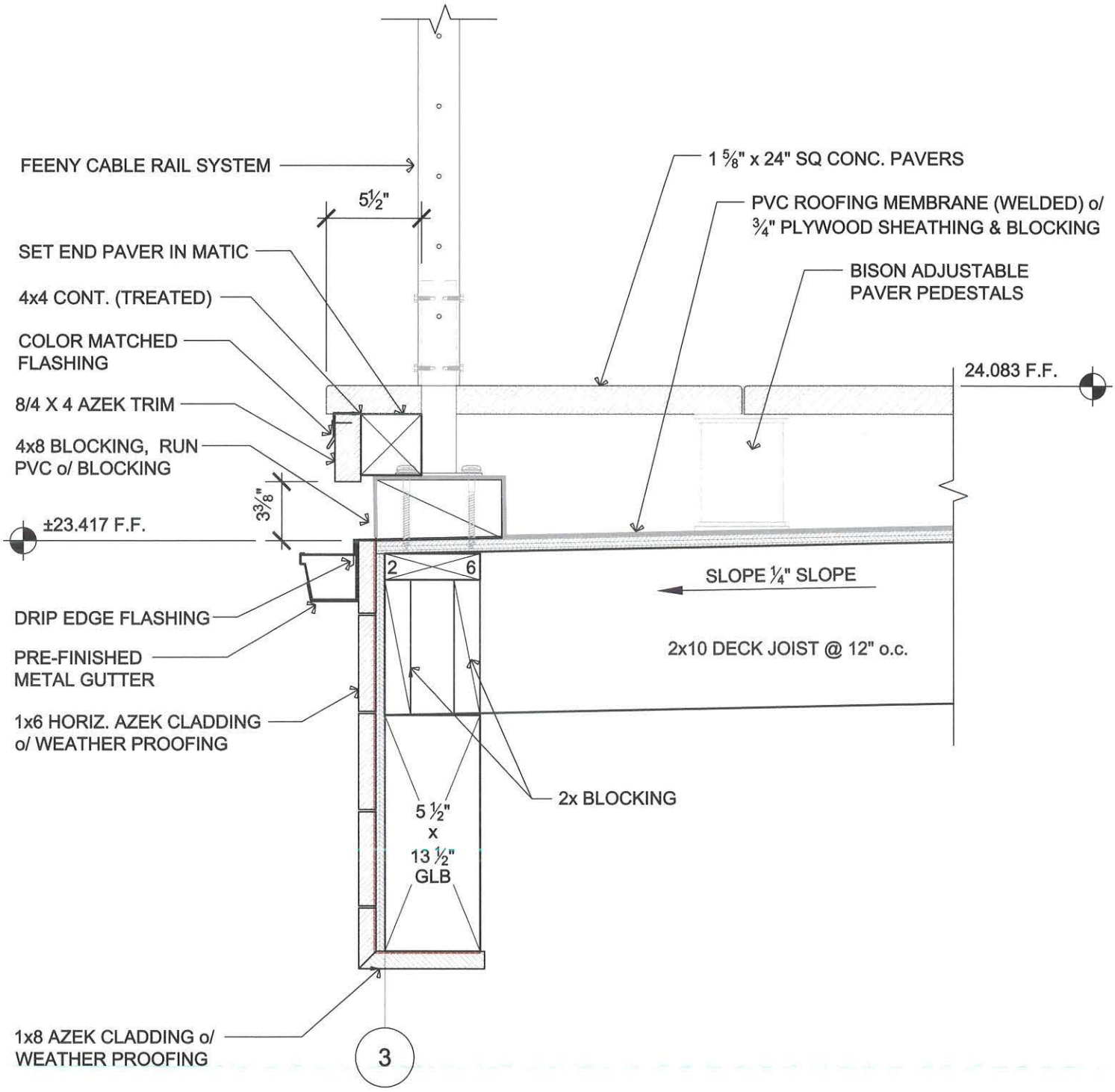
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-6



DECK EDGE @ SOUTH CARPORT DETAIL

SCALE 1-1/2"= 1'-0"

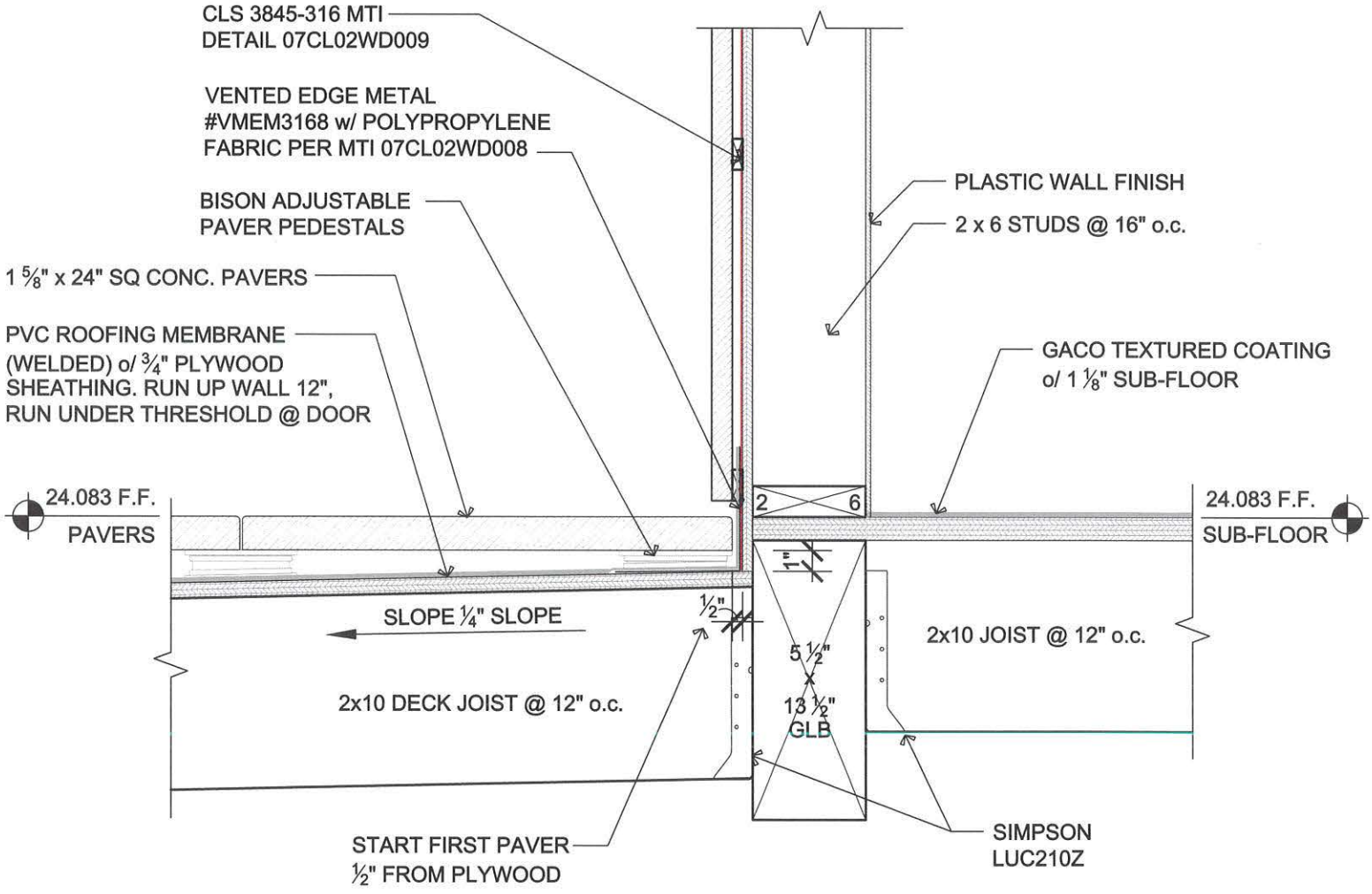
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-7



DECK @ OUT DOOR KITCHEN DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
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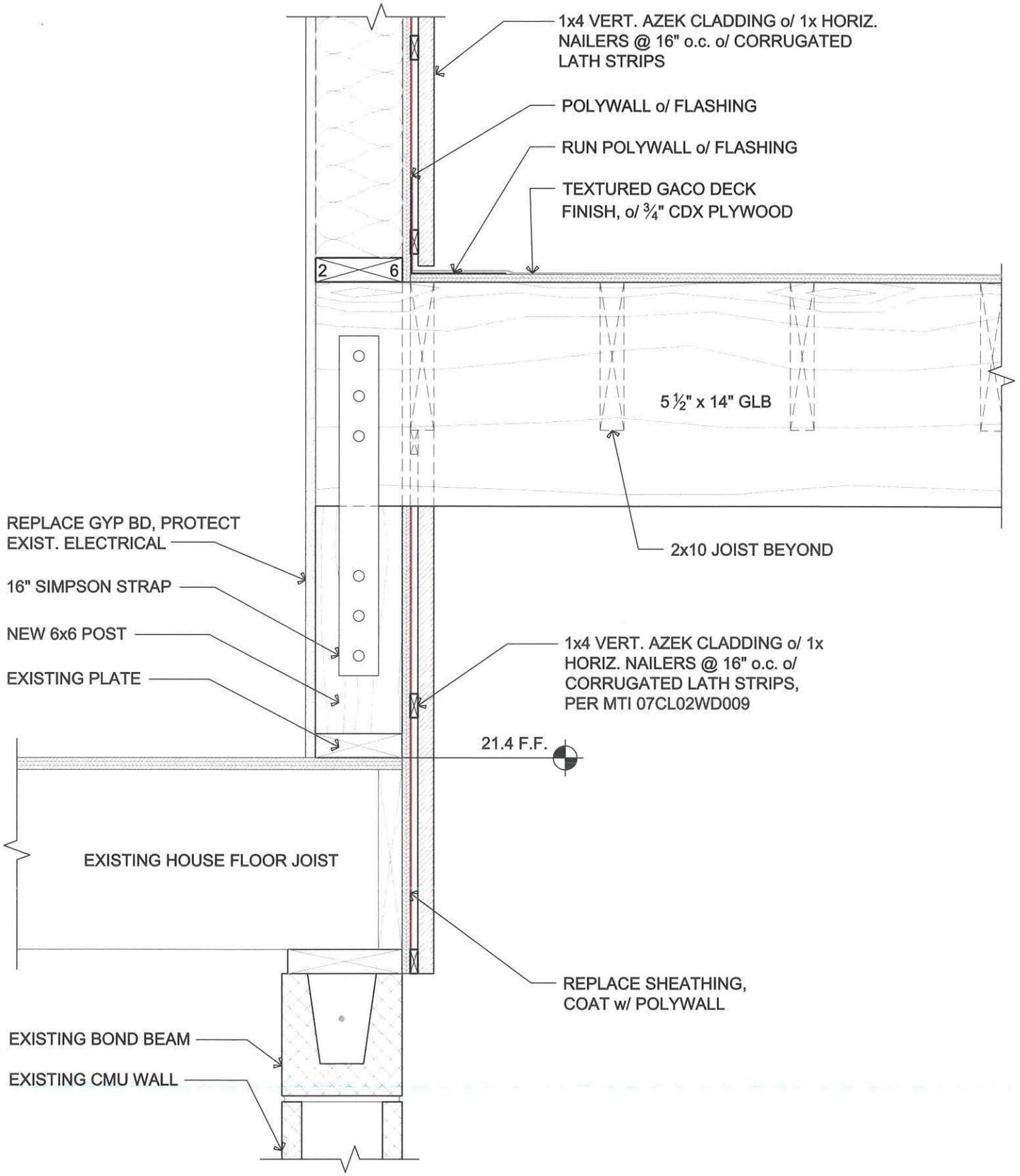
DTL-8



DECK BEAM CONNECTION @ EXIST HOUSE DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

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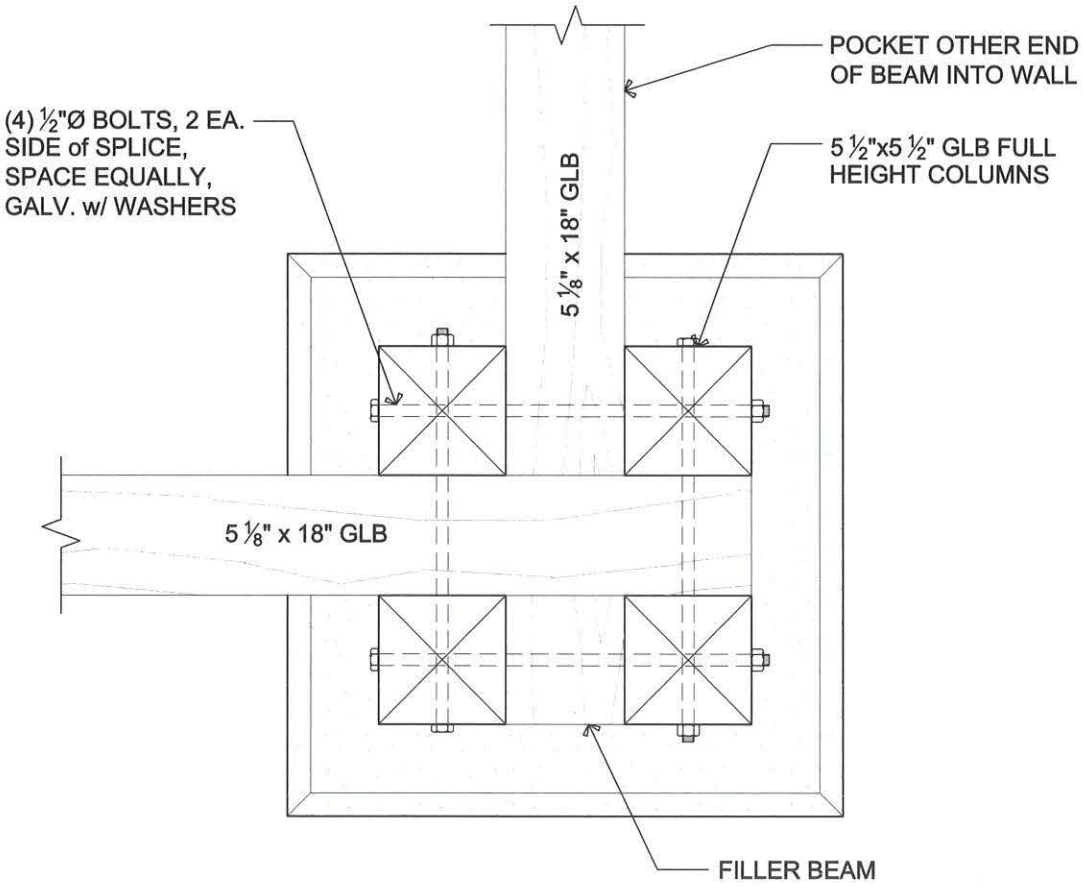
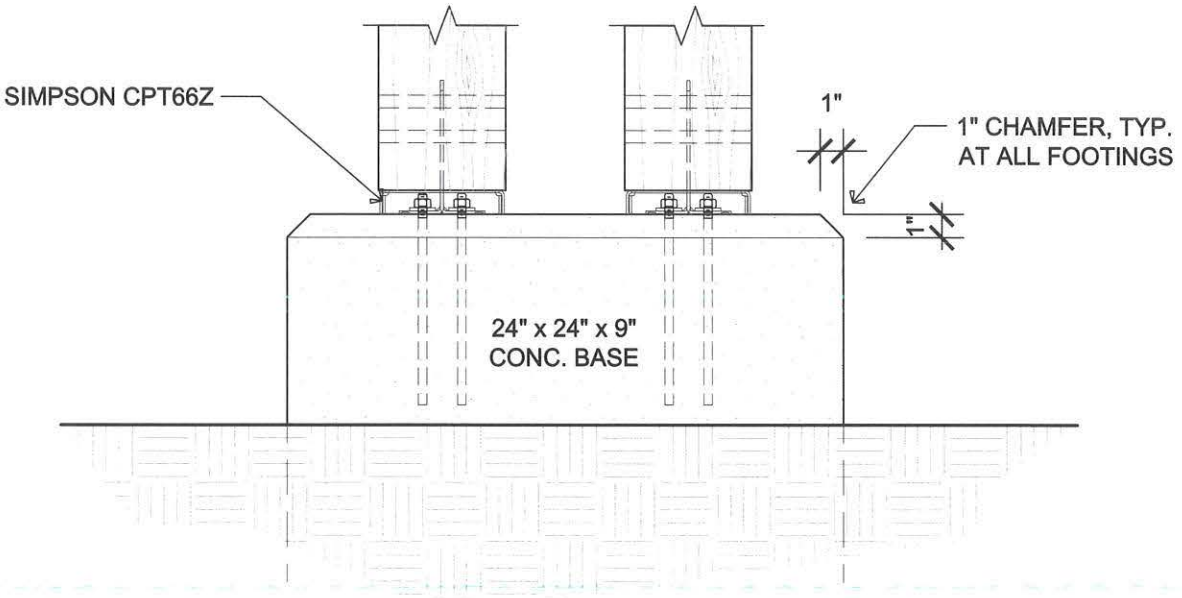
DTL-9





COLUMN @ TIMBER FRAME PATIO COVER DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

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Date:	07.01.21
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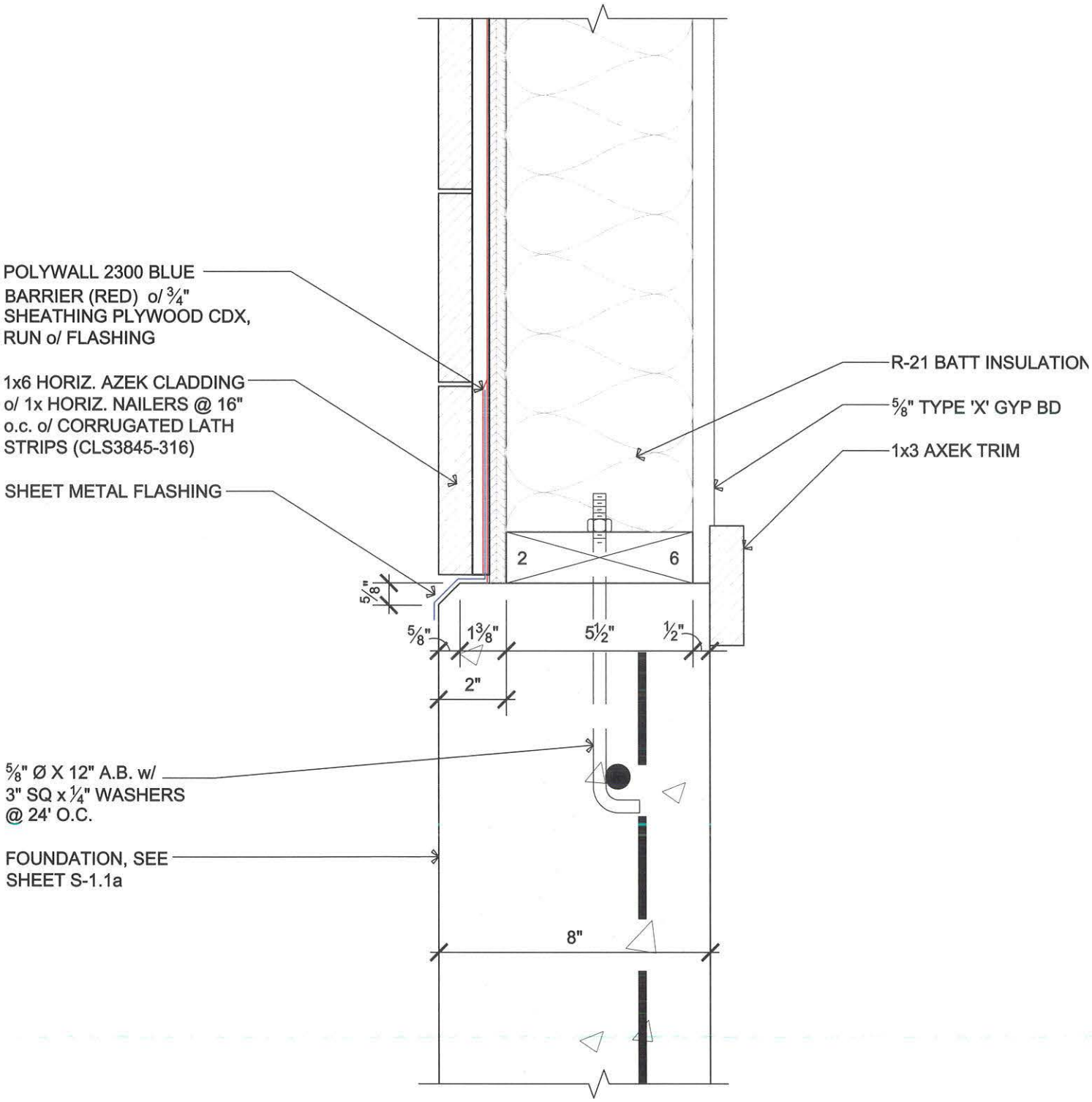
DTL-10



GARAGE WALL @ FOUNDATION DETAIL

SCALE 3"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
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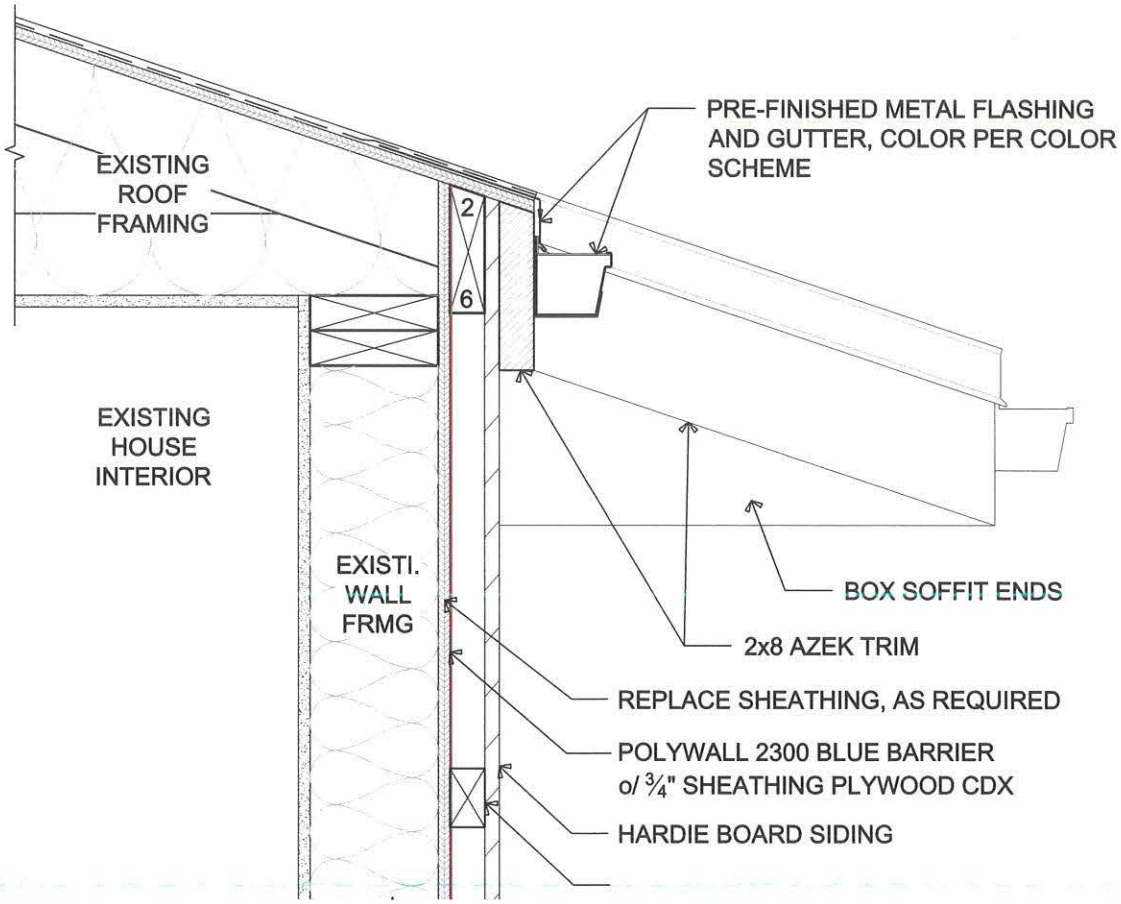
DTL-11



CLIPPED EAVE DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
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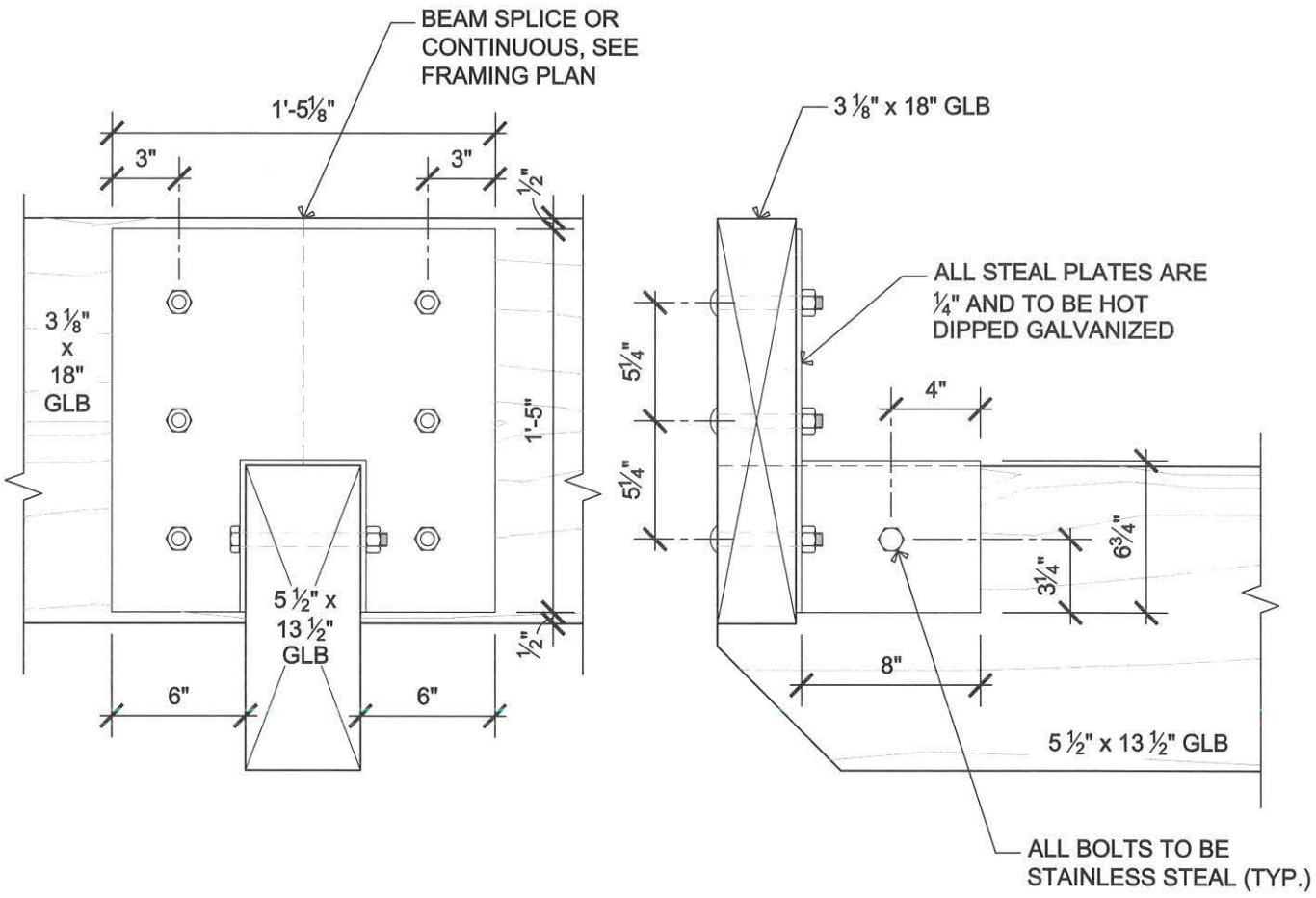
Drawn By:	MEC
Project #:	2021-1

DTL-12

NOT ALL COMPONENTS ARE SHOWN FOR CLARITY



B-4 to B-5 & B-18 STEEL PLATE CONNECTION DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

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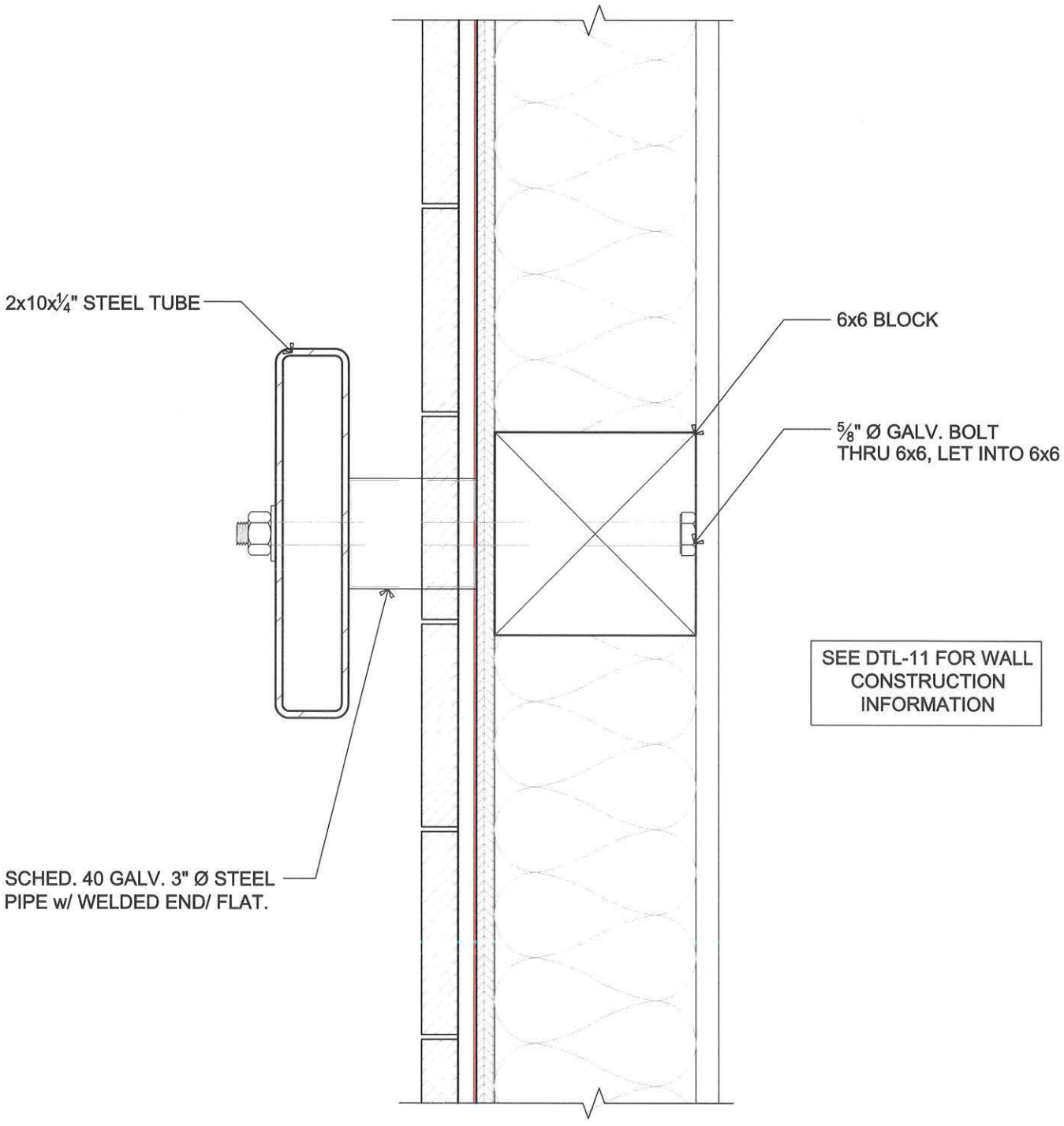
DTL-13



STEEL STAIR TO CONNECTION TO WALL DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

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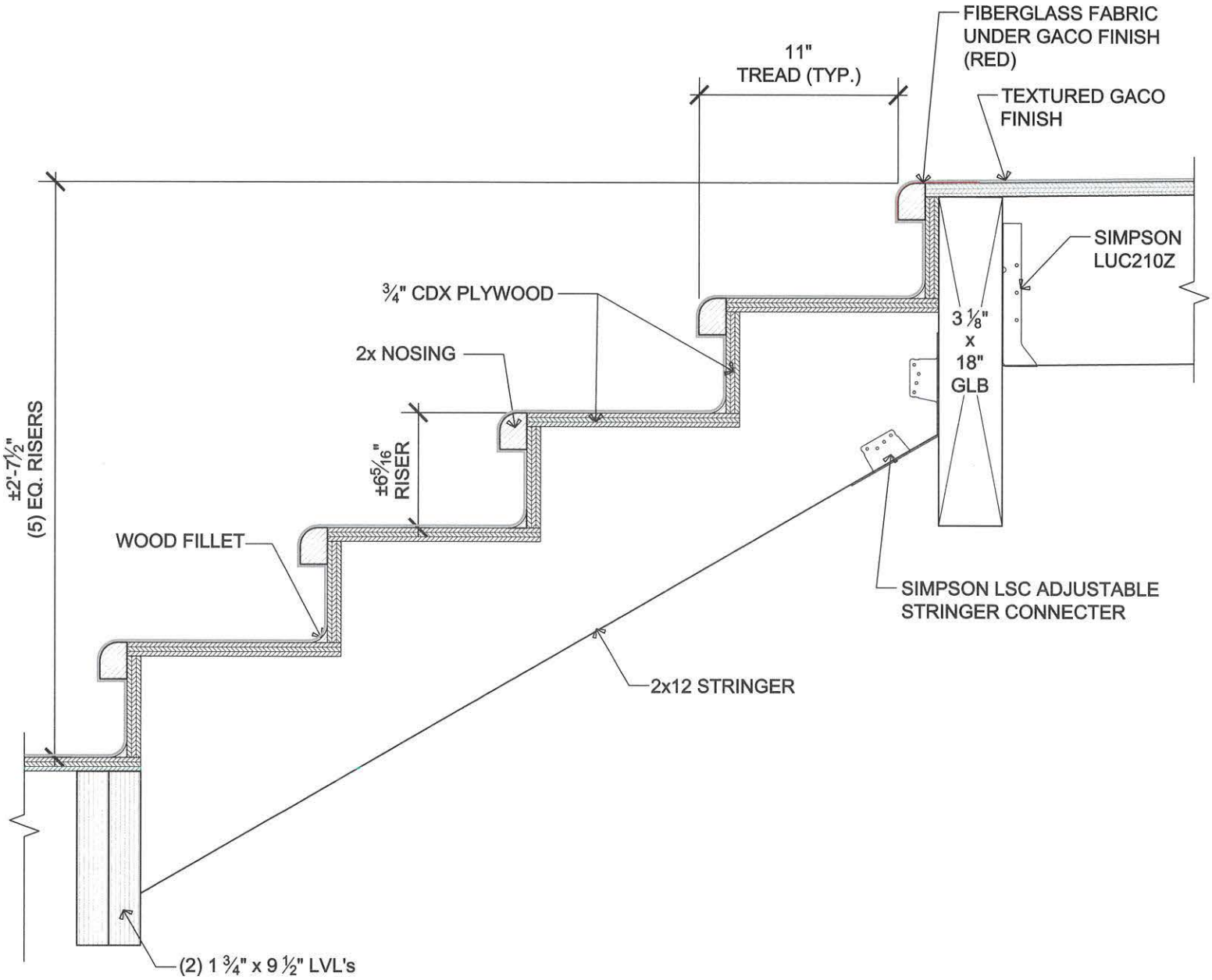
DTL-14



DECK STAIR @ EXISTING HOUSE DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
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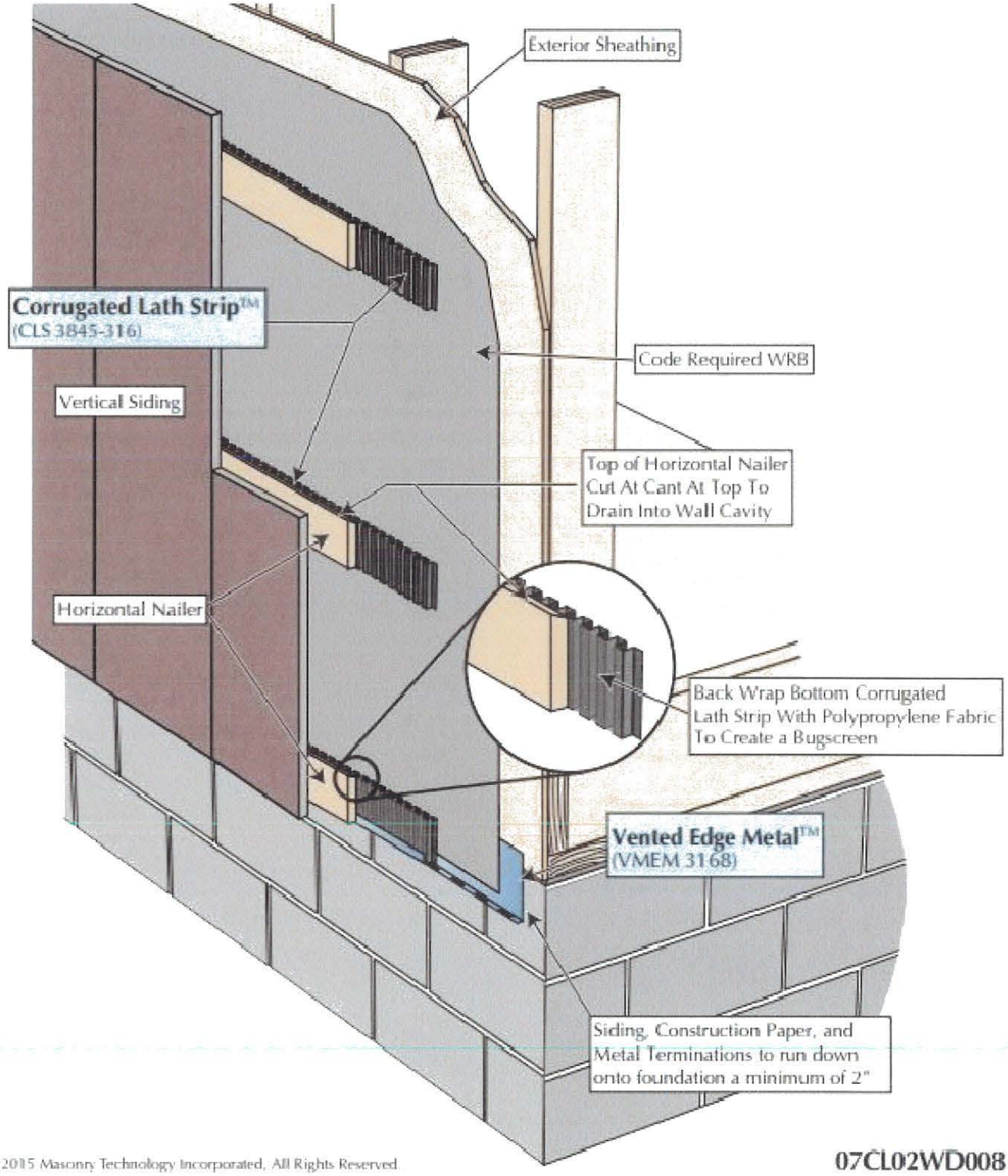
Project #:	2021-1

DTL-15

Vertical Siding At Bottom of Wall With Horizontal Nailer and Drainage Strip Detail

Corrugated Lath Strip™ (CLS 3845 316) and **Vented Edge Metal**™ (VMEM 3168)



07CL02WD008

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

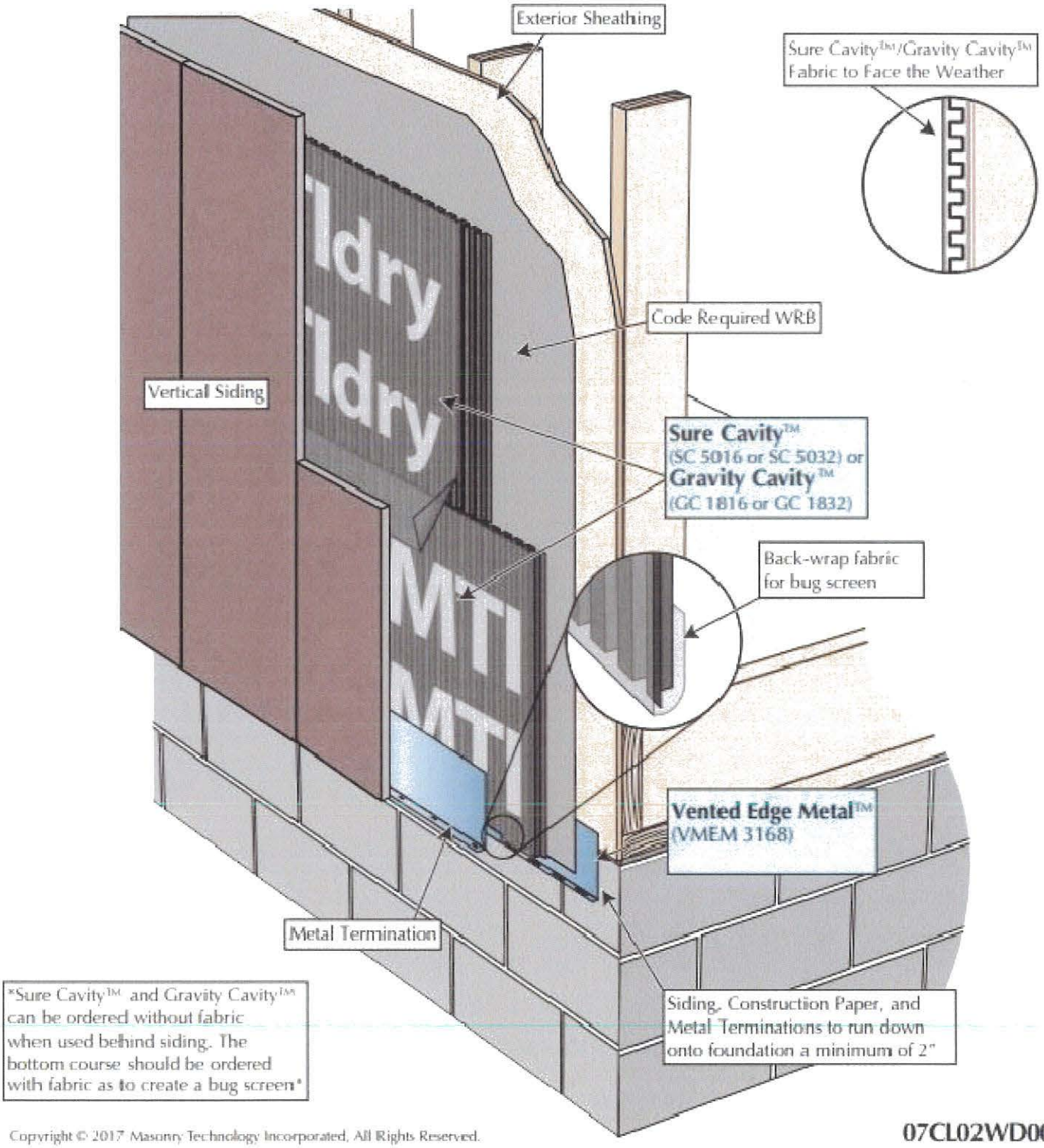
35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-16

Vertical Siding At Bottom of Wall
Drainage Detail

Sure Cavity™ (SC 5016 or SC 5032) or **Gravity Cavity**™ (GC 1816 or GC 1832)
and **Vented Edge Metal**™ (VMEM 3168)



07CL02WD009

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE
35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-17

MORGAN CIVIL ENGINEERING, INC.

PO Box 358, Manzanita, OR 97130
ph: 503-801-6016
www.morgancivil.com

April 29, 2021

Ronald Coulter
105 N. Emerson
P. O. Box 2323
Chelan, WA 98816 ron.coulterarchitects@gmail.com

Re: Soil Assessment at 35465 Rueppell Ave. in the Airport area of Pacific City, Oregon
Project #21-04-Cou

Dear Mr. Coulter:

At your request, I have completed a review of the soil conditions at your property. This investigation included document research and knowledge of the area. Site inspection will be made during the excavation and additional information may be incorporated at that time.

The property is nearly flat and about one-third of an acre in size. The rear half of the property is about 3 feet lower than the front half. The property fronts Rueppell Avenue to the southwest for about 100 feet and extends about 130 feet to the northeast. The property borders the Pacific City Airport to the east for 100 feet.

According to the USDA Natural Resources Conservation Service, the soil on the site is Urban land-Udorthents complex, with a 0 to 7 percent slope. In this soil profile, silty clay loam begins at a depth of about 14 inches and continues down several feet. When firm, silty clay loam is typically acceptable for constructing a foundation, with an allowable soil bearing pressure of 1500 pounds per square foot. In order to protect the silty clay from wet weather and degradation during construction activities, a layer of crushed rock should be placed over the soil and thoroughly compacted. The crushed rock layer should be about 4 inches thick.

Since this area does flood, the soil could be weakened when saturated. In order to further improve the site and secure the foundation, excavate the soil below the footings and replace it with pit-run rock. I recommend that the rock fill be at least 2 feet deep and a minimum width of 5 feet, centered on the footing. The rock should be mechanically compacted. Cover the pit-run rock with crushed rock for constructability.

Inspection at 35465 Rueppell Ave.
Pacific City, OR

Drainage from the new building should be disposed of on the surface at least 10 feet away from the house, preferably to the east. Due to the topography of the area and the flat site, foundation drains are not necessary.

Please contact me if you have any questions, or if the County requires additional information.

Sincerely,

MORGAN CIVIL ENGINEERING, INC.

Jason R. Morgan, PE
Professional Engineer

RENEWAL DATE: DECEMBER 31, 2022

cc: Project File #21-04-Cou

<V:\21-04-Cou\Reports\Coutler site evaluation.docx>

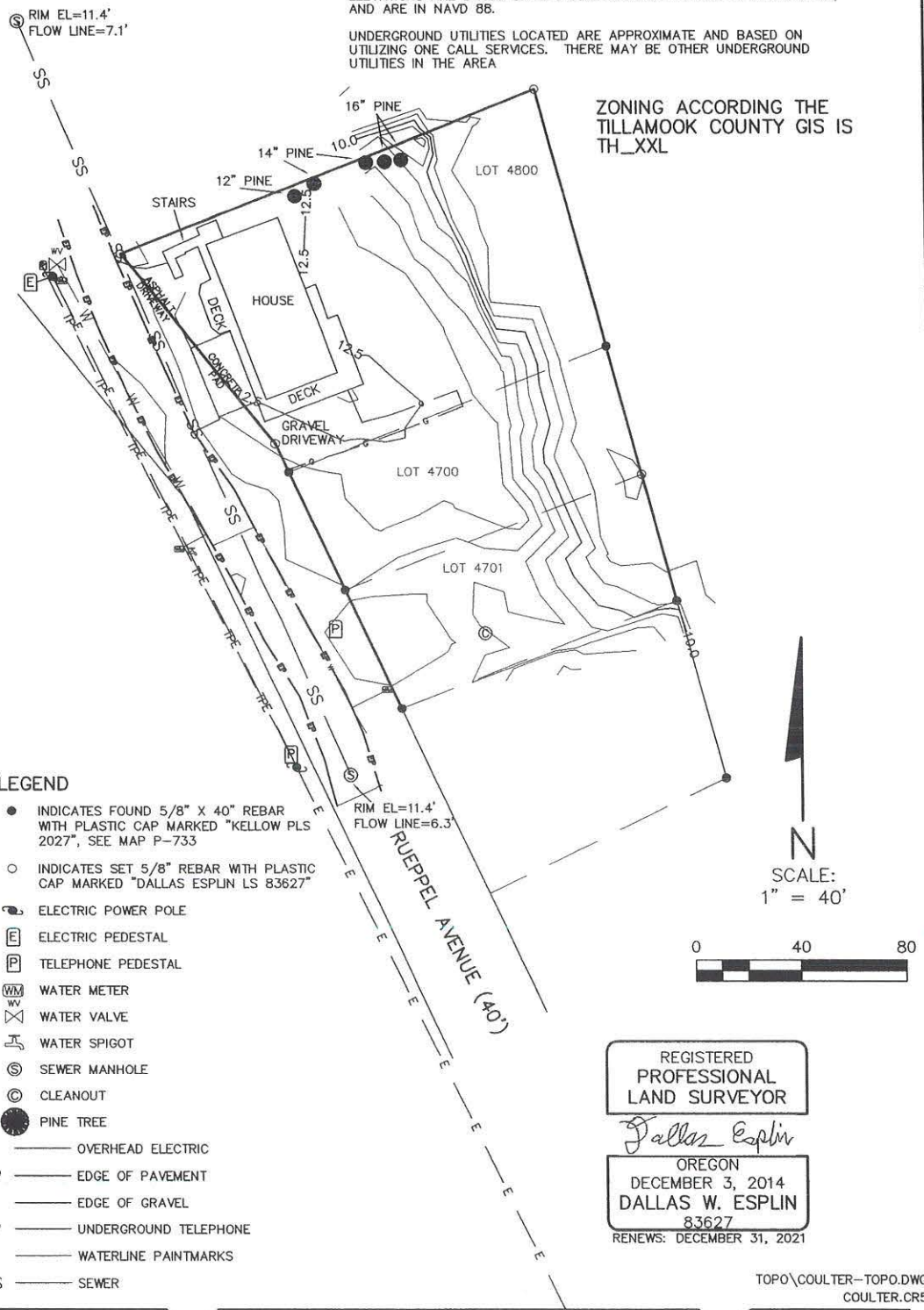
NOTES

THIS IS A TOPOGRAPHIC MAP OF TAX LOT 4800, PARCEL 1 AND PARCEL 2 OF PARTITION PLAT 2014-14. THE PURPOSE OF THIS MAP IS TO SHOW THE TOPOGRAPHY IN RELATION TO THE PROPERTY BOUNDARIES. FOR BOUNDARY INFORMATION SEE MAPS P-733, PARTITION PLAT 20014-14, TILLAMOOK COUNTY SURVEY RECORDS.

ELEVATIONS ARE BASED ON GPS OBSERVATIONS WITH AN OPUS SOLUTION, AND ARE IN NAVD 88.

UNDERGROUND UTILITIES LOCATED ARE APPROXIMATE AND BASED ON UTILIZING ONE CALL SERVICES. THERE MAY BE OTHER UNDERGROUND UTILITIES IN THE AREA

ZONING ACCORDING THE TILLAMOOK COUNTY GIS IS TH_XXL



LEGEND

- INDICATES FOUND 5/8" X 40" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", SEE MAP P-733
- INDICATES SET 5/8" REBAR WITH PLASTIC CAP MARKED "DALLAS ESPLIN LS 83627"
- ELECTRIC POWER POLE
- [E] ELECTRIC PEDESTAL
- [P] TELEPHONE PEDESTAL
- [WM] WATER METER
- [WV] WATER VALVE
- WATER SPIGOT
- (S) SEWER MANHOLE
- (C) CLEANOUT
- PINE TREE
- E — OVERHEAD ELECTRIC
- EP — EDGE OF PAVEMENT
- G — EDGE OF GRAVEL
- TP — UNDERGROUND TELEPHONE
- W — WATERLINE PAINTMARKS
- SS — SEWER

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Dallas Esplin

OREGON
DECEMBER 3, 2014
DALLAS W. ESPLIN
83627
RENEWS: DECEMBER 31, 2021

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COULTER.CR5

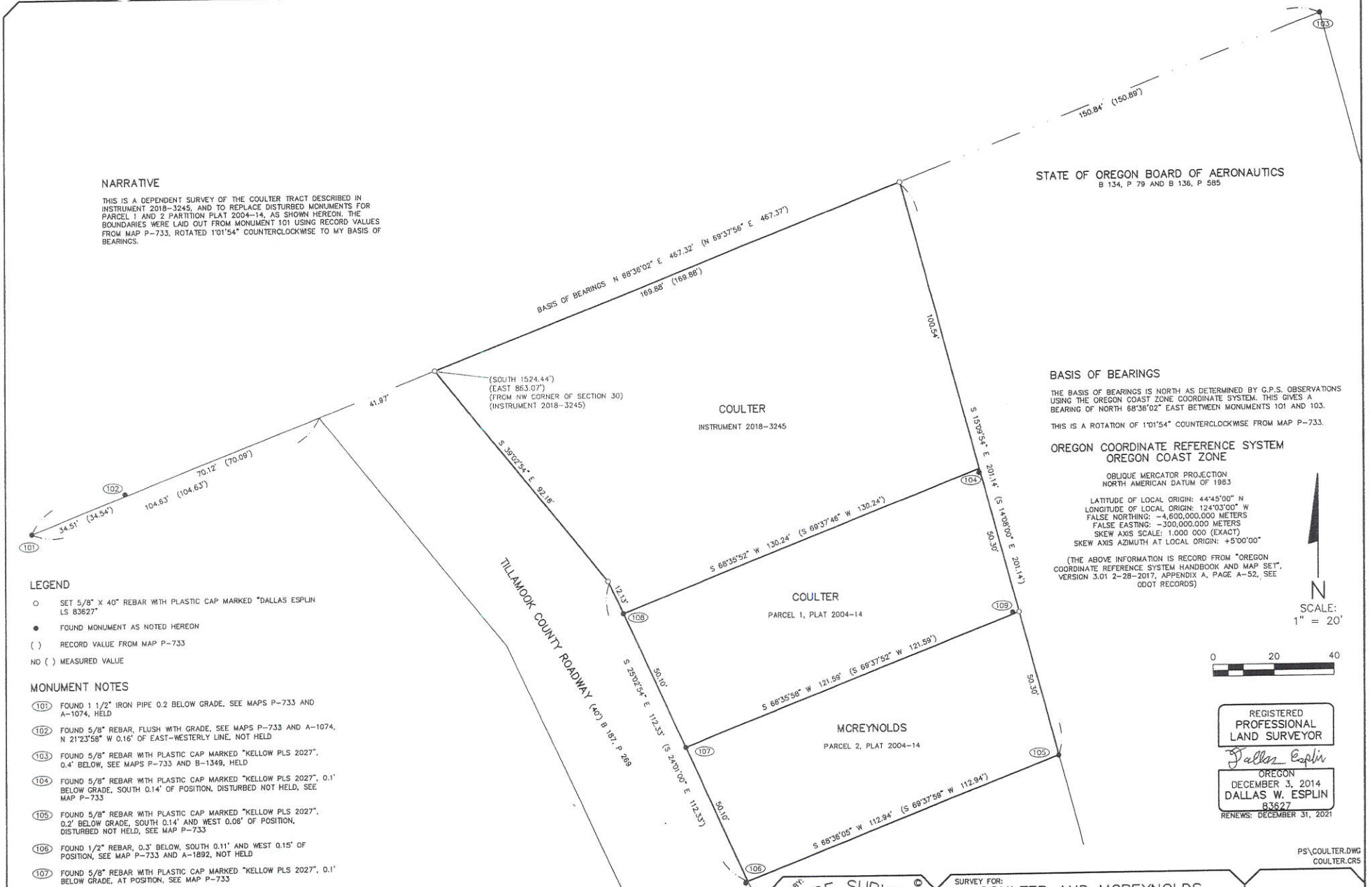
SURVEY BY:
BAYSIDE SURVEYING LLC ©
11765 HWY 101 SOUTH
TILLAMOOK, OR 97141
503-842-5551

TOPOGRAPHIC FOR:
DAVE COULTER
TAX LOT 4700,
4701,
AND 4800
SE 1/4, NW 1/4 T4S R10W SEC 30, W.M.
TILLAMOOK COUNTY, OREGON

DATE	EQUIPMENT	FIELD	DRAWN	CHECKED	JOB NUMBER
OCTOBER 13, 2020	FC5000 TOPCON HIPER V	DCA	DCA	DWE	#395

NARRATIVE

THIS IS A DEPENDENT SURVEY OF THE COULTER TRACT DESCRIBED IN INSTRUMENT 2018-3245, AND TO REPLACE DISTURBED MONUMENTS FOR PARCEL 1 AND 2 PARTITION PLAT 2004-14, AS SHOWN HEREON. THE BOUNDARIES WERE LAID OUT FROM MONUMENT 101 USING RECORD VALUES FROM MAP P-733, ROTATED 1°01'54" COUNTERCLOCKWISE TO MY BASIS OF BEARINGS.



BASIS OF BEARINGS

THE BASIS OF BEARINGS IS NORTH AS DETERMINED BY G.P.S. OBSERVATIONS USING THE OREGON COAST ZONE COORDINATE SYSTEM. THIS GIVES A BEARING OF NORTH 68°36'02" EAST BETWEEN MONUMENTS 101 AND 103.

THIS IS A ROTATION OF 1°01'54" COUNTERCLOCKWISE FROM MAP P-733.

OREGON COORDINATE REFERENCE SYSTEM
OREGON COAST ZONE

OBLIQUE MERCATOR PROJECTION
NORTH AMERICAN DATUM OF 1983

LATITUDE OF LOCAL ORIGIN: 44°45'00" N
LONGITUDE OF LOCAL ORIGIN: 124°03'00" W
FALSE NORTHING: -4,600,000.000 METERS
FALSE EASTING: -300,000.000 METERS
SKEW AXIS SCALE: 1.000 000 (EXACT)
SKEW AXIS AZIMUTH AT LOCAL ORIGIN: +5°00'00"

(THE ABOVE INFORMATION IS RECORD FROM "OREGON COORDINATE REFERENCE SYSTEM HANDBOOK AND MAP SET", VERSION 3.01 2-28-2017, APPENDIX A, PAGE A-52, SEE ODOT RECORDS)

N
SCALE: 1" = 20'

0 20 40

LEGEND

- ○ SET 5/8" X 40" REBAR WITH PLASTIC CAP MARKED "DALLAS ESPLIN LS 83627"
- ● FOUND MONUMENT AS NOTED HEREON
- ( ) RECORD VALUE FROM MAP P-733
- NO ( ) MEASURED VALUE

MONUMENT NOTES

(101) FOUND 1 1/2" IRON PIPE 0.2 BELOW GRADE, SEE MAPS P-733 AND A-1074, HELD

(102) FOUND 5/8" REBAR, FLUSH WITH GRADE, SEE MAPS P-733 AND A-1074, N 21°23'58" W 0.16' OF EAST-WESTERLY LINE, NOT HELD

(103) FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", 0.4' BELOW, SEE MAPS P-733 AND B-1349, HELD

(104) FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", 0.1' BELOW GRADE, SOUTH 0.14' OF POSITION, DISTURBED NOT HELD, SEE MAP P-733

(105) FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", 0.2' BELOW GRADE, SOUTH 0.14' AND WEST 0.08' OF POSITION, DISTURBED NOT HELD, SEE MAP P-733

(106) FOUND 1/2" REBAR, 0.3' BELOW, SOUTH 0.11' AND WEST 0.15' OF POSITION, SEE MAP P-733 AND A-1892, NOT HELD

(107) FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", 0.1' BELOW GRADE, AT POSITION, SEE MAP P-733

(108) FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", AT GRADE, AT POSITION, SEE MAP P-733

(109) FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", 0.1' BELOW GRADE, DISTURBED, SOUTH 0.07' AND WEST 0.29' OF POSITION, SEE MAP P-733, NOT HELD

EASEMENTS ON TITLE REPORT

BOOK 56, PAGE 612
ELECTRIC EASEMENT FOR THE EXISTING ELECTRICAL INFRASTRUCTURE

BOOK 77, PAGE 227
ELECTRIC EASEMENT FOR THE EXISTING ELECTRICAL INFRASTRUCTURE

REGISTERED
PROFESSIONAL
LAND SURVEYOR
Dallas Esplin
OREGON
DECEMBER 3, 2014
DALLAS W. ESPLIN
83627
RENEWS: DECEMBER 31, 2021

PS\COULTER.DWG
COULTER.CR5

SURVEY BY:
BAYSIDE SURVEYING © LLC
11765 HWY 101 SOUTH
TILLAMOOK, OR 97141
503-842-5551

SURVEY FOR:
COULTER AND MCREYNOLDS
INSTRUMENT #2018-3245, TILLAMOOK COUNTY DEED RECORDS
AND PARCELS 1 AND 2, PARTITION PLAT 2004-14
TILLAMOOK COUNTY PLAT RECORDS
SE 1/4 NW 1/4 SECTION 30, T4S, R10W, W.M.
TILLAMOOK COUNTY, OREGON

DATE	EQUIPMENT	FIELD	DRAWN	CHECKED	JOB NUMBER
OCTOBER 13, 2020	FC-5000 HYPER-V	DCA	DWE	DWE	#395

COULTER ARCHITECTURE

David and Pattie Coulter House Addition
Project Performance and Product Specification

Division 1: General Requirements:	Project to be constructed per the 2018 edition of the International Residential code (IRC) and the NFPA 70, and the National electrical code designated with the I-codes and Tillamook County codes. Direct all subcontractor and suppliers to comply with the same. See structural General Notes on drawing S-1.5 All modifications and changes shall proceed through the architect for approval. Shop Drawing and sample submittals required: Steel fabrication Windows and doors and hardware Drywells and holding tanks, propane tanks. SIP Panels roof panels including engineering calculations. Warmboard Sub floor, complete system. Finished siding, and details Other items as noted
Division 2: Site Construction:	Dry Wells, and catch basins, located on site Plan, submit details, source: H2 pre-Cast, Wenatchee. Final locations TBD.

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

	Utilities: final locations per the drawings
Division 3: Concrete:	See Structural General Notes:
	Architectural concrete: All exterior facing walls, and exposed interior walls, as depicted on the drawings, shall have a special finish as follows: Using new form panels with aligned snap ties as shown, shall be a smooth finish without rock pockets nor any voids.
	Snap ties to be plastic cone type. See enclosed.
	Provide a mock-up panel 4' x 8' with anticipated seal breaker and snap tie configuration. Mock-up panel to be subsequently buried on site.
	Grouts: Non Shrink Basalite or equal
	Pavers: Unilock, concrete Abbostsford, concrete
Division 4: Masonry	N/A
Division 5: Metals:	Steel frames and beam connections, welding certification required, shop drawings required, see Structural General Notes, Shop Prime
	Steel tubes are HSS type steel.
	Exposed Fabricated steel to be Powder Coated and non-exposed, shop primed.
	Color to be selected and submitted with shops.
	Steel Stair: submit shop drawing for review and approval, construct so that it can be hot dip

galvanized. Provide attachment as located on the drawings (with stand off through the siding rain screen, and provide footings located per the shop drawings, and sized as shown on the drawings.

Division 6: Wood and Plastics:

Exterior wall sheathing: ½"" CDX (Exposure 1 rated) (most places nailed as shear walls, see shear wall diagrams.)

Dimensional beams and lumber are D.F, #1 or better, Glue lams are framing dimensional 24/V8 unless stated otherwise. Interior Glue Lams are architectural grade.

Sub Floor: 1 1/8" Plywood WarmBoard-S on upper floor, installed per the manufactures instruction, shop drawings and required. Finish floors over WarmBoard-S to be installed per instruction manual, Installation over Joists.

Contact: Shane Banks: 206.276.376 sbanks@warmboard.com

Sill Seal at all concrete plates, and SIP Panels with Owens corning, foam seal R.

Fasteners: Sub-floor screws Simpson, Strong drive, WSV, see cut sheet, 2 ¾" screws.

Wood to steel: Simpson TB screws per table enclosed.

SIP Panels by Insulspan, installation per Factory shop drawings, contractor/ installer to check shop drawing for detail and dimensional fit. See Insulspan construction manual.

Seal all joints on the warm side with factory tape See Structural notes on the drawings for perimeter nailing. Provide continuous V.B on warm side under the furring.

Contact: Dave Stevenson, 604.523.3762, cell 778.846.9512

Siding: Azek or approved equal. Vertical application with "hidden attachments" (screws) using the 2.5 cortex color matched plugs.

Siding mounted on horizontal nailer and drainage strip (corrugated Lath Strip (CLS 3845-316) by MTI and vented edge metal (VMEM 3168 wrapped with Polypropylene fabric bug screen.

Division 7: Thermal and Moisture:

Poly Wall Liquid Wrap 2300, or 2400 roll on

60 mil. Min thickness.

Joint filler 2200 with closed cell backer rod

2100 for windows and doors

STEP ONE, PREPARE AND CLEAN: (View factory video prior to application)

A. Using a stiff brush, followed by damp rag, and wipe away debris, sawdust, dirt

or foreign matter of all surfaces including the rough opening and 6 inches around the outside perimeter of the window opening on the sheathing itself. Please note that if the substrate is wet, no problem ... Poly Wall Blue Barrier Liquid Flashing 2100 loves water.

B. Provide positive slope on the rough opening sill per Window Manufacturer's Installation Specifications. IMPORTANT: If you choose to do this you must account in advance for the space in the rough opening you take up with the positive slope or your window will not fit.

STEP TWO, DETAIL ANY VOID UP TO 3/4" :

A. Apply PW BB 2200 Joint Filler with a plastic trowel or putty knife to holes, cracks, imperfections in rough opening & sheathing surrounding opening.

B. In the corners, feel free to use your index finger with a damp cloth over it to press product completely into corner and smooth.

C. On average after 30 minutes product is ready for the next step depending on Relative Humidity and Temperature. If it doesn't stick to your finger upon touch it's ready.

STEP THREE: APPLY BB 2100 TO ROUGH OPENINGS:

A. Starting on the top inside of the rough opening apply BB 2100 with sausage gun and trowel smooth so wood is not visible. Minimum 35 mils wet continuous film (46 SF / Gal coverage rate)

B. Apply in 6-inch to 12-inch lengths, complete inside of rough opening.

C. Apply to outside of rough opening on sheathing, approx 6-inches wide.

D. Allow approximately 30 minutes for the flashing to set up depending on Relative Humidity and Temperature. It might still be "tacky" but as long as product does not attach to your finger at touch then your ready to install your window.

STEP FOUR, INSTALL WINDOWS AND DOORS:

A. Install your window or door per manufacturer's specifications and instructions.

B. Many manufacturers call for a compatible sealant to be applied prior to the window being installed into the opening. Poly Wall Blue Barrier 2200 Joint Filler can be used for this purpose.

C. After window has been installed as directed by manufacturer specifications apply Poly Wall Blue Barrier Liquid Flashing 2100 over header and jamb flanges of the window itself with gun and trowel tying it into the existing cured fluid membrane that you had applied earlier. Make sure to completely cover the flange with fluid applied product.

D. It is important to leave the sill flange on the window at the bottom un-flashed with fluid flashing to allow moisture relief in the event of a window leakage.

Wet Set Installation of the rain screen hat channels: Recoat everywhere a penetration of the water barrier occurs with Blue Barrier Joint Filler 2200 when installing the hat channels that hold the Corten siding. This applies to any penetration.

Note: This project shall meet the Blower test. Review manufacturers Video before doing the work. Follow the manufactures recommendations on all steps.

Alternate W.B. Henry Blueskin VP 100, self adhered Water resistive Barrier. Install per the manufactures requirements, including moisture content and raining conditions requirements.

Rain Screen components:

Furring: Masonry Technology, Inc. Vent Edge metal (VMEM 3168), Corrugated Lath Strip (CLS 3845-316), Wrap bottom Lath Strip with Polypropylene Fabric.

Alternate: Advanced Building products, Inc. , Watairvent furr strip and Watairvent starter strip.

Roofing: Taylor Metal products, 24 Ga. Cool Kynar 500, color to be determined. Limit penetrations of the metal roof to plumbing vents, and fireplace flue, all other openings, including fans and dryer vent with INOVATE DryerJack, and Inovate Dryer Box through the walls.

Roof: Roof temporary protection during construction: GAF Deck Armor, during

construction, with Ice Guard at the perimeter 4 feet wide.

Final roof deck membrane: Under the metal roof, apply 11 mm VaproShield, Warp Shield RS rain screen.

Vapor Barrier (class 1) required on warm side of all SIP panels, Factory supplied tape to all joints.

Insulation:

Floors: R-30 Rock Wool between the garage and upper floor.

Walls: Closed cell foam, Foamular NGX, in all walls, seal all wall to roof intersection and floor intersections, all corners air tight, 6"=wall R-33, 8"= wall-R-37.5

SIP panels, 12" -R-59.1, Factory applied. High performance GPS Insulation. Factory tape all joints. Apply vapor barrier on entire warm side.

Division 8: Doors & Windows:

Windows and exterior doors: Loewen windows and doors except as shown.

The south facing glass, windows A & B on the schedule, to be design to resist 125 MPH wind loading.

Shop drawings and color samples required

Division 9: Finishes:

Interior details and cabinets to follow.

Floors: ¾" hardwood, acclimated and stained all sides, all rooms except the shower and ½ bath.

Alternate floor: Pre-finished hardwood engineered floor system , submit specs.

Ceilings in the great room, master bedroom, bathroom, and entry are 5/8" T& G # 1 D.F. with recess at the perimeter for LED cont. lighting strips. Exterior soffits to match.

IPE Exterior handrail: finish with Messmwe's U.V. Plus, with LED cont. lighting.

Gacodeck: All exterior deck and stair walking surface to be covered with Gacodeck, an Acrylic Polymer blend not to be installed over more than an 18% moisture content.

Use Gacodeck Polyester Reinforcing tape on the stair nosing and terminations

Gacodeck Priner to be utilized in cold weather applications.

Gacodeck Granules to be used on the waling surfaces.

Color: Standard Oyster, or to match concrete pavers as close as possible. A special color may be needed, and as approved by the Architect.

Division 10: Specialties:

Fireplace: Flare fireplaces, see plan, submit shop R.I. dwgs, Flue to exit SIP Panels, submit detail.

	Toilet and Bath accessories TBD
	Handicap Bars: provide backing, and see interior elevations.
	Shower doors: frameless glass. Submit shop drawings.
	Handrails:
	Cable railings- Keuka Studios, powder coated, 42" mounted off set with powder coated sleeves as shown on the details.
	Screens by US Centor S2 double screen, 102 3/8" x 124", layout to be determined.
Division 11: Equipment:	Security systems TBD
	Appliances: supplied by the owner, installed by the contractor.
Division 12: furnishings:	N/A
Division 13: Special Construction:	Roof structure: SIP Panels are Insulspan, with Graphite Polystyrene cores (GPS) 12" plumb cut (R59.1 @ 25 deg F.) Shop Dwgs. and Engineers stamp required. Limit penetrations to plumbing only and fireplace, all other penetrations to be side wall, utilizing dryer vents and grills by Seiho SB-P, and JSP grilles.
	Warmboard on main floor 11/8" Plywood, with a sealer (glued and screwed.) Installation. Shop installation drawings required.

Division 14: Conveying Systems:	Elevator by: Symmetry Elevator Solutions, (or approved equal) inline gear drive at the top. See specification cut sheet. Car size 40 x 54, accordion door, same side opening. All electronics to be installed above elevation 17' and the car to be set to wait at the upper level.
Division 15: Mechanical:	Water heater: 150 Gal. heat pump configuration. HVAC, Mini-Split, (no duct work) design build by Sub-Contractor and collaboration with Architect. Mitsubishi or approved equal. Room units Located on the fireplace wall in recessed openings on the fireplace wall, see plan.
Division 16: electrical:	Electrical floor plans- Preliminary layout Dwgs. E- 1.1 and E- 1.2 Lutron square Trim: typical, color to be selected. Ceiling Fans: Big Ass Fan, 6' dia. Remote controls Special outlets: Locate in the field, Kitchen counter: Mockett pop up in counter and bar. Walk through with the subcontractor required prior to installation.

David and Pattie Coulter House Addition
Project Performance and Product Specification

Bath Room Heated floors:	Master Bath shower: The heated floor system to be Schluter Ditra-Heat-Duo system, install per the manufacturer, with controls. See plan for area.
Miscellaneous:	Glass: Discuss with the owner, Electrochromic adjustable performance glass, and bird strike technology prior to ordering glass, guardianglass.com, Bird1st
Window shades:	J-Geiger, R series, with 2 ½" dia. Jamb brackets, clear anodized. Black out fabric for the master suites, and Translucent for the living room and dining Room, remote controlled, wired in motors, coordinated with Lutron, see Electrical.
Patio gas fired tables:	Paloform or approved equal

105 N. Emerson Street, Suite 201, Chelan, Washington
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Hot tub deck
floor drain
60"

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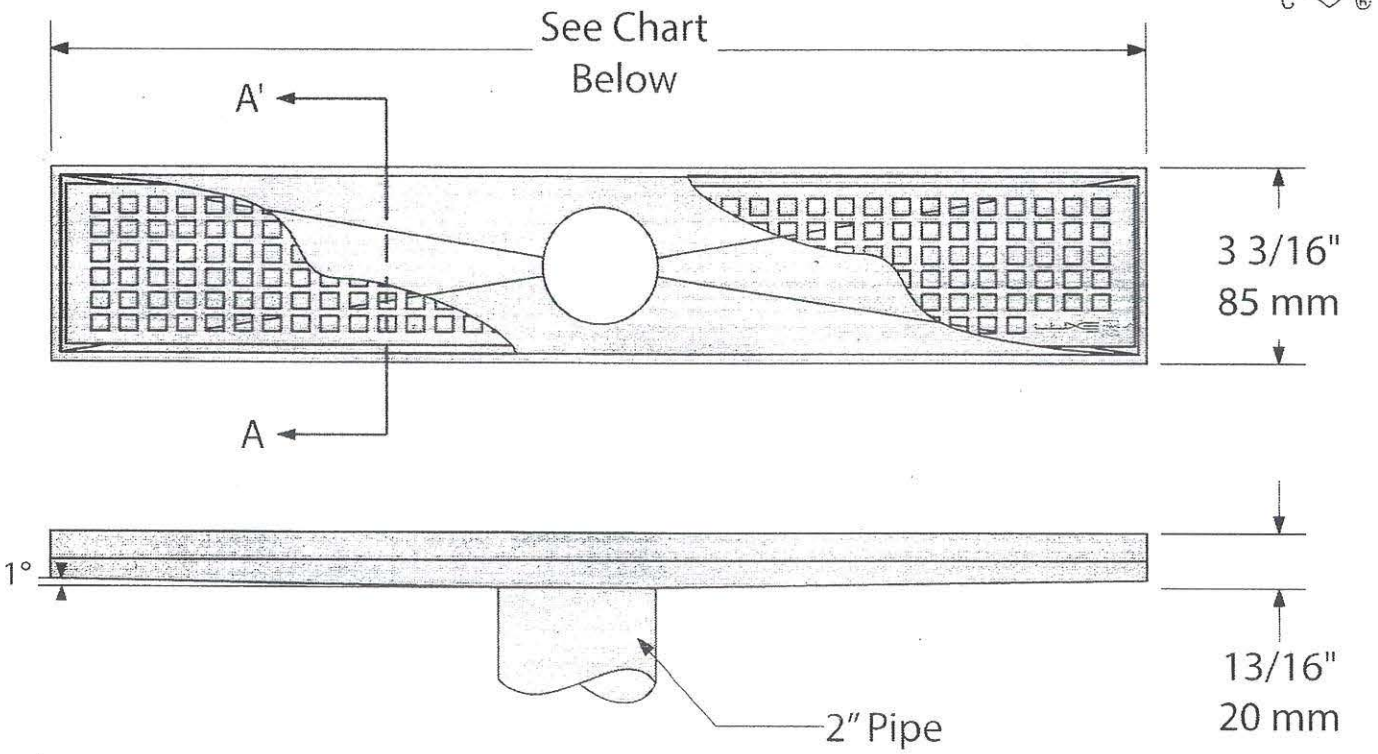
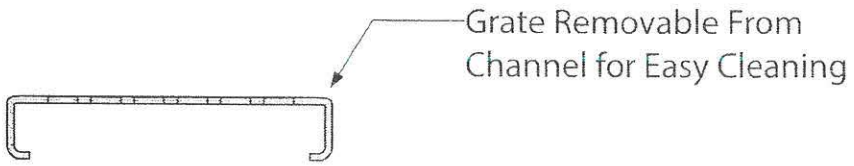
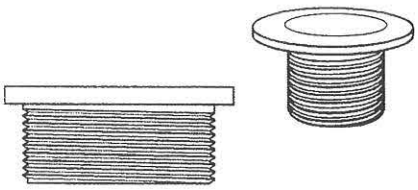
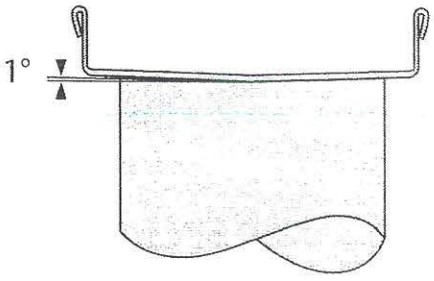
Linear Shower Drain - Pattern Grate







Threaded Male
Adapter Included



Section A-A'

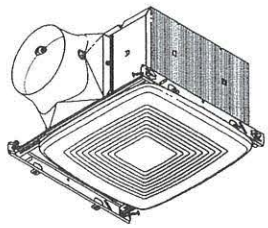
Standard Linear Drain Lengths

Length (Inches)	26"	30"	36"	40"	48"	60"
Finish = Satin Stainless Part No.	SP-26	SP-30	SP-36	SP-40	SP-48	SP-60

BROAN®

SPECIFICATION SHEET

MODEL ZB110 VENTILATION FAN



FEATURES

UltraGreen™ Energy Saving DC Motor

- DC motor for efficiency well beyond ENERGY STAR® requirements.
- Multi-speed capability ideal for meeting ASHRAE 62.2, LEED and ENERGY STAR® for Homes requirements. Can be used to comply with CA Title 24, as well as local/spot ventilation needs.

UltraSilent™ Sound Technology

- HVI certified, best-achievable <0.3 Sone level provides nearly silent operation for a relaxing environment.
- State-of-the-art blower and duct outlet design smooths airflow.
- High tech DC motor designed for nearly silent operation.

UltraSmart™ Control Technology

- Powerful operation maintained over a wide range of real-world installations (CFM ratings maintained through at least 0.25" static pressure).
- Infinitely adjustable low cfm setting allows precise adjustment to prevent over-ventilating and maximize efficiency.
- Adjustable time delay sets how long fan will run on high speed before returning to a continuous lower speed.

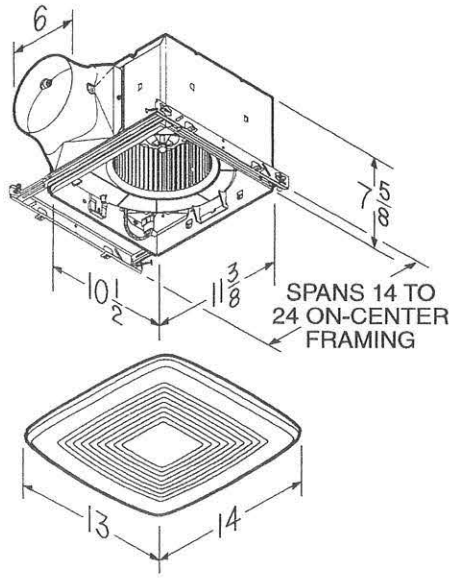
UltraQuick™ Installation Technology

- Unique telescoping mounting frame fits through retrofit drywall opening to allow easy installation from the room side. No attic access needed!
- Captive screws allow for easy new construction installation.
- Mounting frame positioning tabs provide easy vertical positioning for new construction.
- Easy to insert and remove snap-in housing. No screws required!
- Easy to insert and remove snap-in blower.
- Inside or outside duct connector and knockout plate mounting provides flexibility for new construction or retrofit.

U.L. Listed for use over bathtubs and showers when connected to a GFCI protected branch circuit (ceiling mount only).

3-year warranty.

DIMENSIONS (Inches)



Broan-NuTone LLC Hartford, Wisconsin www.broan.com 800-558-1711

REFERENCE	QTY.	REMARKS	Project
			Location
			Architect
			Engineer
			Contractor
			Submitted by Date

BROAN® PERFORMANCE SPECIFICATIONS
MODEL ZB110 VENTILATION FAN

HVI PERFORMANCE

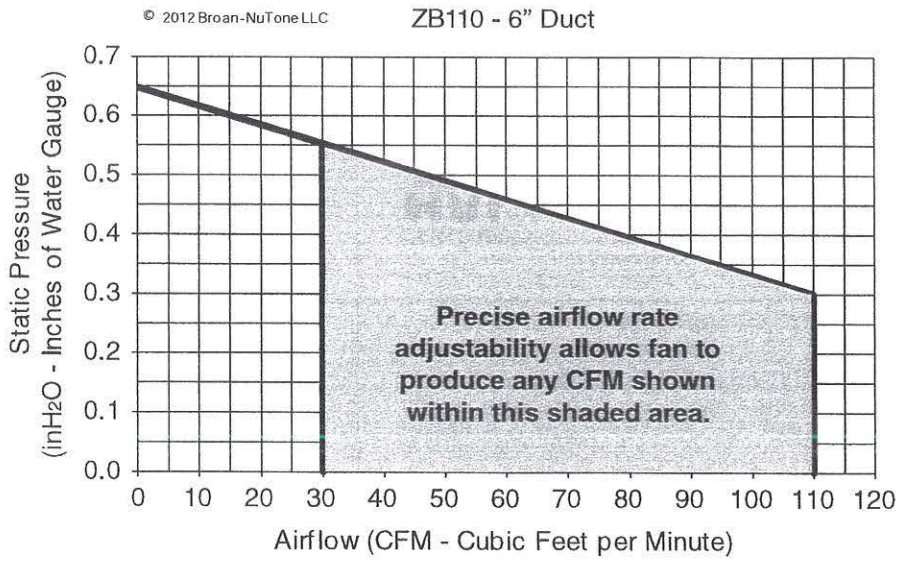
Airflow Rate Setting (CFM)	6" Duct				
	0.1 Ps - Static Pressure (inH2O)				0.25 Ps
	Airflow (CFM)	Sound (Sones)	Power (Watts)	Efficacy (CFM/ Watt)	Airflow (CFM)
110	110	< 0.3	7.7	14.2	110
100	100	< 0.3	7.0	14.2	100
90	90	< 0.3	6.4	14.0	90
80	80	< 0.3	5.8	13.7	80
70	70	< 0.3	5.1	13.7	70
60	60	< 0.3	4.6	13.0	60
50	50	< 0.3	4.1	12.1	50
40	40	< 0.3	3.7	10.8	40
30	30	< 0.3	3.3	9.0	30

HVI-2100 CERTIFIED RATINGS comply with new testing technologies and procedures prescribed by the Home Ventilating Institute, for off-the-shelf products, as they are available to consumers. Product performance is rated at 0.1 in. static pressure, based on tests conducted in a state-of-the-art test laboratory. Sones are a measure of humanly-perceived loudness, based on laboratory measurements.

ELECTRICAL & WEIGHT

Volts	Hz	Amps	Shipping Weight (lbs.)
120	60	0.2	12.3

FAN CAPABILITY



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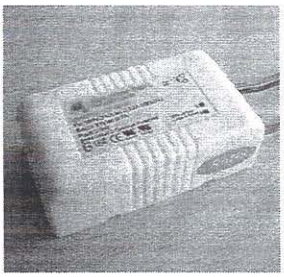
Saving the Planet
One Bulb at a Time

Ultra-thin LED Recessed Light



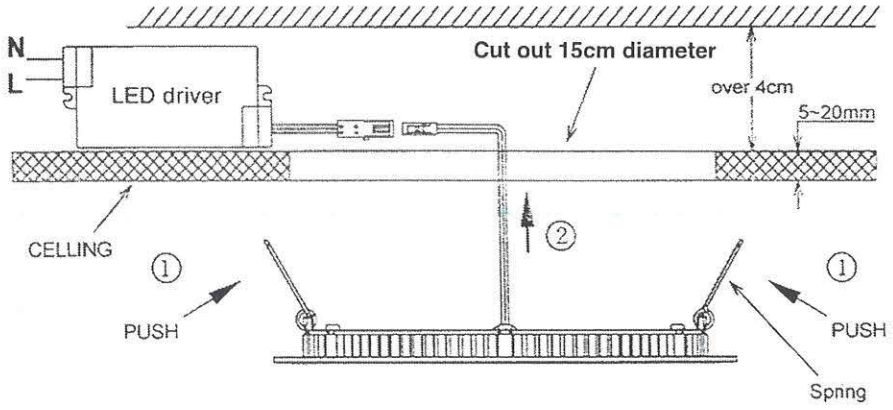
LED driver
(non-dimmable)

- Uses 90% less wattage compared to comparable traditional lights
- Easy to install: LED light fixture and LED driver (included) are all detachable.
- Very small, low profile design; its height is less than 3/4 inch.
- Sturdy aluminum housing.
- High quality diffuser achieves even and soft light output.
- Incredibly bright, this High Power LED Recess Light is the perfect way to modernize your home or business by saving loads of money on your energy and maintenance costs.

Specifications

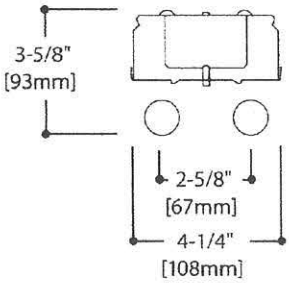
Wattage	12.5 Watt Max. (LED fixture: approx. 9 Watt, LED driver: approx. 3.5 Watt)
LED Chip	High-Power LED (24 LEDs)
LED forward Current	700mA
Beam Angle	Approx. 110°
Light Color	Warm White (approx. 3000K), Neutral White (approx. 4200K), Cool White (approx. 6000K)
Light Output	Warm White: 560 lm, Neutral White: 600lm, Cool White: 620 lm
Color Rendering Index	Cool white: Ra > 70, Warm white: Ra > 75
Life Span	50,000 hours
Voltage	LED driver: 100~240VAC (UL rated)
Dimensions	LED light fixture: height: 1.3cm (0.52"), diameter: 16.2cm (6.38") LED driver (default, non-dimmable): L: 65mm (2.6") x W: 35mm (1.4") x H: 23mm (0.9")
Casing Color	Painted white
Housing	LED light body: Aluminum, Cover: PMML plastic diffuser
Protection Rating	CE, RoHS
Operating Temperature	-10°C ~ +40°C

Installation Diagram



LED Channel Strip

DIMENSIONS



QUICKSHIP

APPLICATION

The LCS family of LED strip lights combine high-performance LEDs, highly-engineered optics to traditional designs to bring you the most advanced line of LED Strip Lights on the market. Multiple lumen packages mean there is an LCS that is just right for your lighting needs.

FEATURES

- Available in 2', 4', or 8' lengths
- Optional integral emergency battery pack
- Surface mount or suspended
- Heavy die-formed steel channel
- All luminaires are built to UL 1598 and 2108 standards, and bear appropriate ETL labels

ORDERING INFORMATION

[*Options in **Bold** denote Quick Ship configurations]

LCS	4	48	MV	850
SERIES	LENGTH	WATTAGE	VOLTAGE	COLOR TEMPERATURE
	2- 24" Length 3- 36" Length 4- 48" Length 8- 96" Length	24" Housing 18- 18W (1800 Lumens) 36" Housing 27 - 27W (2700 Lumens) 48" Housing **34- 34W (3600 Lumens)** 52 -52W (5200 Lumens) 96" Housing **68- 68W (7200 Lumens)** 108- 108W (10800 Lumens)	**MV- 120-277V** MVD- 120-277V; 0-10V Dimming	840 - 80 CRI; 4000 Kelvin **850 - 80 CRI; 5000 Kelvin**

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

FEATURES & SPECIFICATIONS

INTENDED USE — LBL LED wraparound provides a digital lighting platform to deliver general ambient lighting for surface-mount applications. The LED system delivers long life and excellent color to ensure a quality, low-maintenance lighting installation. Ideal for closets, storage rooms, hallways, and offices.

CONSTRUCTION — Metal parts are die formed from code-gauge steel. Prismatic diffuser is 100% acrylic with sonically welded luminous ends. Continuous side flanges on fixture body provide light trap and continuous diffuser support to prevent accidental opening and simplify maintenance.

Finish: Five-stage iron phosphate pretreatment assures superior paint adhesion and rust resistance.

Painted parts finished with high-gloss, high-reflectivity baked white polyester enamel (low VOC).

OPTICS — Curved prismatic diffuser with linear side prisms and highly transmissive overlay minimizes lamp image and provides high-angle brightness control. Luminous end plates soften appearance for improved aesthetics.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide extended service life. 90% LED lumen maintenance at 60,000 hours (L90/60,000).

LED drivers deliver dimming from 0-10V control signal.

LISTINGS — CSA certified to U.S. and Canadian standards. Damp listed.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

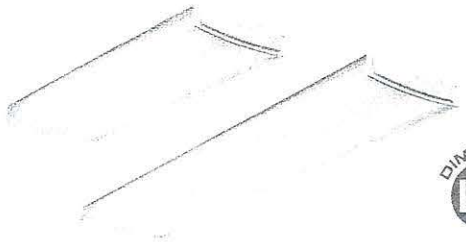
Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

Contractor Select

LBLED
Low-Profile Curved-Basket LED Wraparound



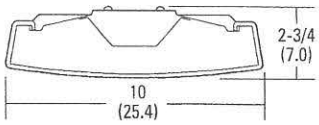
2' and 4' LED

DIMMABLE LED

DLC QPL LISTED

Specifications

Length: 24 (61.0)
48 (122.0)
Width: 10 (25.4)
Depth: 2-3/4 (7.0)

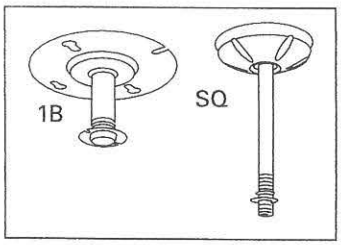


All dimensions are inches (centimeters) unless otherwise indicated.

MOUNTING DATA

Individual Installation —
Two single-stem hangers required.

Row Installation —
One hanger per fixture plus one row required.



ORDERING INFORMATION

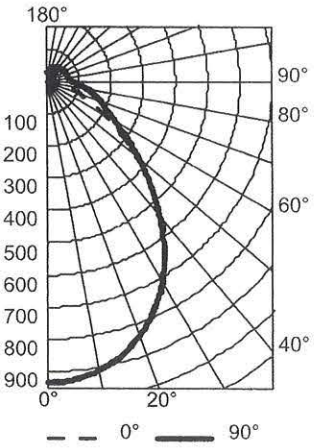
See LBL Configurable specification sheet for additional lumen packages and control options.

Catalog number	UPC	Description	Lumens	Color temperature	Lens type	Voltage	Wattage[2]	Pallet qty	Standard carton qty.
LBL2 LP835[1]	753573917564	2' LED Wraparound	2,248	3500 K	Patterned #12 acrylic	120-277	23	112	1
LBL2 LP840[1]	753573917595	2' LED Wraparound	2,267	4000 K	Patterned #12 acrylic	120-277	23	112	1
LBL4 LP835[1]	753573917601	4' LED Wraparound	4,564	3500 K	Patterned #12 acrylic	120-277	41	56	1
LBL4 LP840[1]	753573917632	4' LED Wraparound	4,600	4000 K	Patterned #12 acrylic	120-277	41	56	1
LBL4 347 LP835	753573917649	4' LED Wraparound	4,564	3500 K	Patterned #12 acrylic	347	41	56	1
LBL4 347 LP840	820476010279	4' LED Wraparound	4,600	4000 K	Patterned #12 acrylic	347	41	56	1

Notes
1. Product in stock.
2. All values are design or typical values, measured under laboratory conditions at 25°C.

PHOTOMETRICS

LBL2 LP840, 2266.8 delivered lumens, test no. LTL27384P5, tested in accordance to IESNA LM-79.



CP Summary

	0°	90
0°	932	932
5°	927	929
15°	883	881
25°	785	780
35°	640	630
45°	454	453
55°	275	300
65°	147	204
75°	83	152
85°	29	101
90	5	80

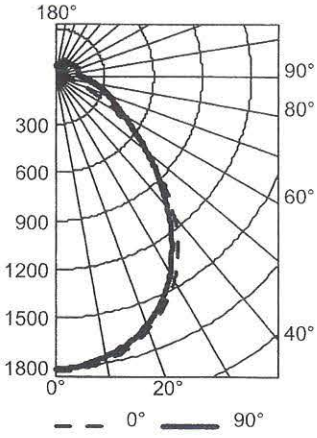
Coefficients of Utilization

	pf			20%					
	pc	80%			70%			50%	
RCR	pw	70%	50%	30%	50%	30%	10%	50%	30%	10%
	0	116	116	116	112	112	112	105	105	105
	1	106	102	98	99	95	92	92	89	87
	2	98	90	84	87	81	76	82	77	73
	3	90	80	72	78	71	65	73	67	63
	4	83	72	64	70	62	56	66	59	54
	5	77	65	56	63	55	49	60	53	48
	6	71	59	50	57	49	44	54	47	42
	7	66	54	45	52	45	39	50	43	38
	8	62	49	41	48	40	35	46	39	34
	9	58	45	38	44	37	32	42	36	31
	10	54	42	34	41	34	29	39	33	29

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	692	30.5	30.5
0° - 40°	1082	47.7	47.7
0° - 60°	1669	73.6	73.6
0° - 90°	2010	88.7	88.7
90° - 120°	124	5.5	5.5
90° - 130°	162	7.1	7.1
90° - 150°	225	9.9	9.9
90° - 180°	257	11.3	11.3
0° - 180°	2267	100.0	100.0

LBL4 LP840, 4600.4 delivered lumens, test no. LTL27386P25, tested in accordance to IESNA LM-79.



CP Summary

	0°	90
0°	1820	1820
5°	1820	1802
15°	1742	1715
25°	1578	1540
35°	1311	1242
45°	934	892
55°	567	596
65°	287	399
75°	152	297
85°	52	194
90	8	159

Coefficients of Utilization

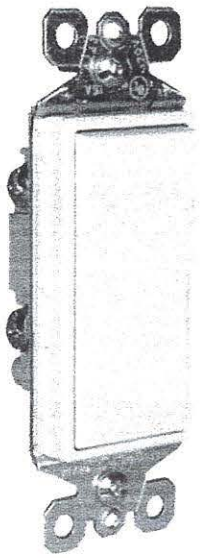
	pf			20%					
	pc	80%			70%			50%	
RCR	pw	70%	50%	30%	50%	30%	10%	50%	30%	10%
	0	116	116	116	112	112	112	105	105	105
	1	106	102	98	98	95	91	92	89	86
	2	98	90	83	87	81	76	82	77	73
	3	90	80	72	77	71	65	73	67	62
	4	83	72	63	69	62	56	66	59	54
	5	76	64	56	63	55	49	59	53	48
	6	71	58	50	57	49	43	54	47	42
	7	66	53	45	52	44	39	49	43	38
	8	62	49	41	48	40	35	45	39	34
	9	58	45	37	44	37	32	42	35	31
	10	54	42	34	41	34	29	39	33	28

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1376	29.9	29.9
0° - 40°	2175	47.3	47.3
0° - 60°	3378	73.4	73.4
0° - 90°	4053	88.1	88.1
90° - 120°	269	5.9	5.9
90° - 130°	351	7.6	7.6
90° - 150°	478	10.4	10.4
90° - 180°	547	11.9	11.9
0° - 180°	4600	100.0	100.0

15A Single-Pole Decorator Switch, Light Almond

TM870LA



Our complete line of P&S Decorator devices combine today's design aesthetics with ease of installation, reliability and performance that never goes out of style.

features & benefits

- Designer-style, satin-finish rocker style.
- High-impact resistance thermoplastic construction.
- Narrow back body leaves more room for wires in the box.
- Extra-long, through-body strap eliminates floating installations and imperfect applications.
- For covering patents, see www.legrand.us/patents.

specifications

General Info

Color: Light Almond
Product Series: TradeMaster
Number Of Poles: 1
Style: Decorator

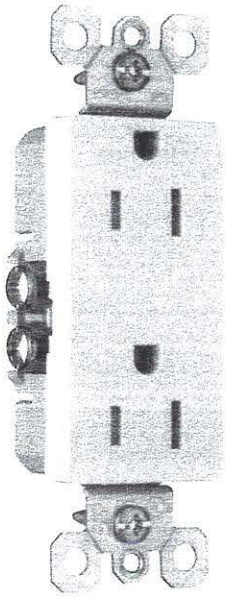
Listing Agencies/Third Party Information

CSA Listing Info: C22.2 111
CSA Standard: Yes
UL Listing No: UL20
UL Standard: Yes
UN SPS C: 39121704

Dimensions

TradeMaster Tamper-Resistant Receptacle

885TRLA



Decorator Tamper-Resistant Receptacle.
15 amp, 125 volt, Light Almond.

features & benefits

- Meets 2008 National Electrical Code Tamper-Resistant requirements.
- Protects children: patented shutter system—now with black "invisi-shutters" that disappear for an invisible effect—helps prevent improper insertion of foreign objects.
- High-impact resistant thermoplastic construction.
- Extra-long strap.
- Quickloop wire looping aid.
- Long-term blade retention.
- Longer tri-drive screws for easier 12 AWG looping.
- Extra-large circuit break-off tabs.
- Side-access push wire release.
- Ultrasonic welding of face to back body.
- Side wire accepts #12 – #14 AWG solid wire.
- Push wire accepts #14 AWG solid only.
- Superior protection than traditional outlet caps or protection plates.
- Low profile face.
- Traditional contoured face (3232 models).
- Self-grounding models provide automatic ground clip.
- For covering patents, see www.legrand.us/patents.

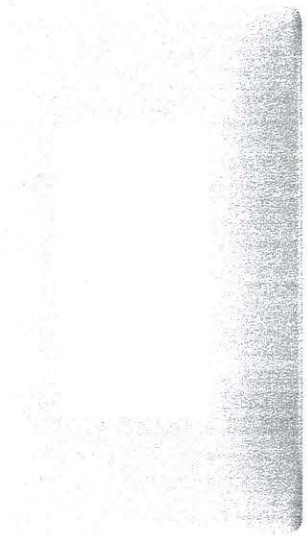
specifications

General Info

Color: Light Almond
Type: Tamper-Resistant

One-Gang Screwless Decorator Wall Plate, Light Almond

SWP26LA



Uniquely constructed P&S Screwless Wall Plates have a no-dirt catching channel around the perimeter, ensuring a clean, uniform look.

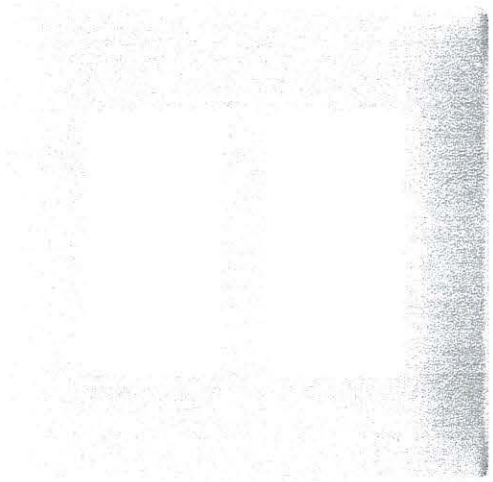
features & benefits

- **Unbreakable, flexible polycarbonate construction** conforms to uneven drywall.
- **Smooth, sleek look** hides the screws and highlights the style.
- **Automatic alignment pins** ensure wall plate fits perfectly.
- **Smooth perimeter** eliminates channel that can catch dirt.
- **Includes two-piece, non-conductive polycarbonate subplate** to help speed installation.

specifications

Two-Gang Screwless Decorator Wall Plate, Light Almond

SWP262LA



Uniquely constructed P&S Screwless Wall Plates have a no-dirt catching channel around the perimeter, ensuring a clean, uniform look.

features & benefits

- **Unbreakable, flexible polycarbonate construction** conforms to uneven drywall.
- **Smooth, sleek look** hides the screws and highlights the style.
- **Automatic alignment pins** ensure wall plate fits perfectly.
- **Smooth perimeter** eliminates channel that can catch dirt.
- **Includes two-piece, non-conductive polycarbonate subplate** to help speed installation.

specifications

General Info

Color: Light Almond
Special Features: Screwless
Style: Decorator

Listing Agencies/Third Party Information

Federal Spec: No
UN SPS C: 39121704

Dimensions

Height U S: 4.87"
Width U S: 4.912"

Technical Information

Three-Gang Screwless Decorator Wall Plate, Light Almond

SWP263LA

Uniquely constructed P&S Screwless Wall Plates have a no-dirt catching channel around the perimeter, ensuring a clean, uniform look.

features & benefits

- **Unbreakable, flexible polycarbonate construction** conforms to uneven drywall.
- **Smooth, sleek look** hides the screws and highlights the style.
- **Automatic alignment pins** ensure wall plate fits perfectly.
- **Smooth perimeter** eliminates channel that can catch dirt.
- **Includes two-piece, non-conductive polycarbonate subplate** to help speed installation.

specifications

General Info

Color: Light Almond
Special Features: Screwless
Style: Decorator

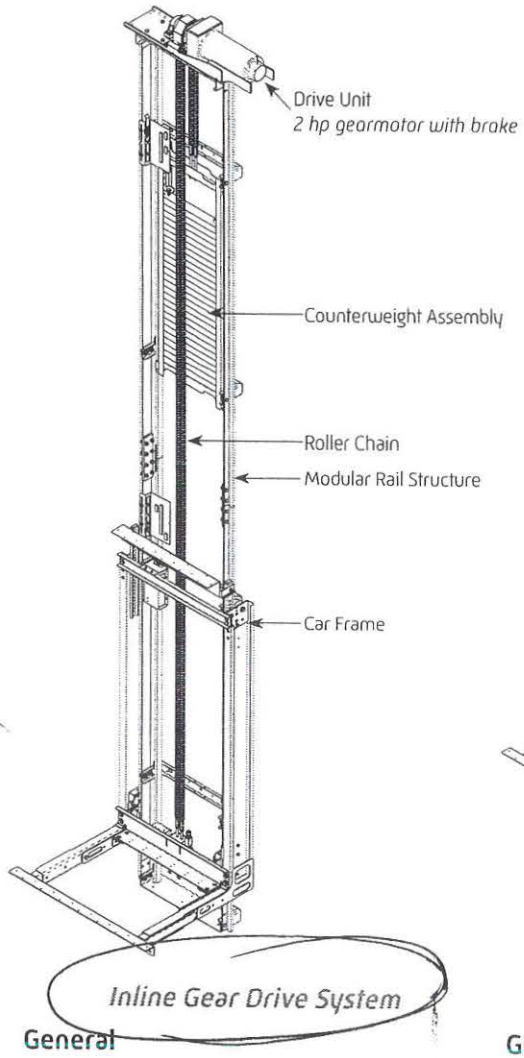
Listing Agencies/Third Party Information

UN SPS C: 39121704

Dimensions

Height U S: 4.87"
Width U S: 6.724"

Technical Information



Inline Gear Drive System

General

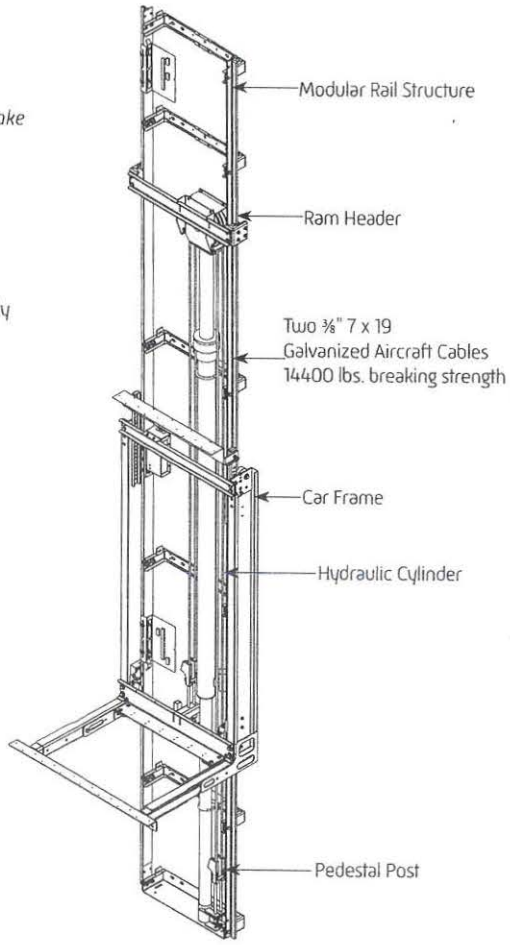
- Overhead minimum of 8'0" (96 inches) with remote controller; mimimum of 9'0" with controller in hoistway with a 7'0" interior car height

Mechanical Equipment

- 208/230 VAC, 60HZ, 20 amp, single-phase power supply for motor controller
- Two #60 roller chains
- Inverter-controlled variable speed Inline Gear Drive unit with counterweight and 2 hp motor
- Manual lowering device

Safety Features

- Slack chain safety device
- Two upper and one lower final limit
- Machine stop switch



Hydraulic Drive System

General

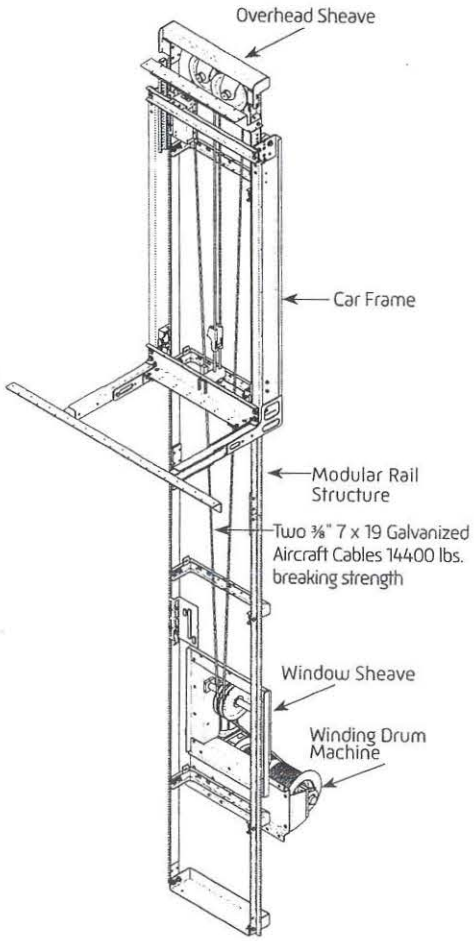
- Overhead minimum of 7'10" (94 inches) with a 7'0" interior car height

Mechanical Equipment

- 208/230 VAC, 60HZ, 30 amp, single-phase power supply for motor controller
- Two ⅜" 7 x 19 galvanized aircraft cable (14400 lbs. breaking strength) with wedge rope shackles
- 80mm diameter piston/102 mm diameter cylinder including ¾" reducer brushing
- 3 hp submersed motor with 2-speed valve assembly
- Manual down valve for emergency lowering

Safety Features

- Slack rope safety device
- Line rupture valve



Winding Drum Drive System

General

- Overhead minimum of 7'10" (94 inches) with a 7'0" interior car height

Mechanical Equipment

- 208/230 VAC, 60HZ, 30 amp, single-phase power supply for motor controller
- Two ⅜" 7 x 19 galvanized aircraft cable (14400 lbs. breaking strength)
- Inverter-controlled variable speed winding drum drive unit and 3 hp motor
- Manual lowering device

Safety Features

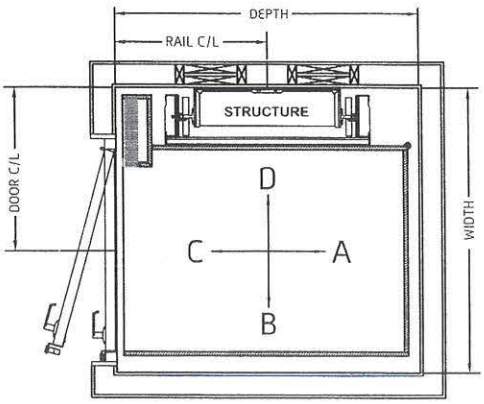
- Slack rope safety device
- Two upper and one lower final limits

symmetry
elevating solutions

Typical Hoistway Options

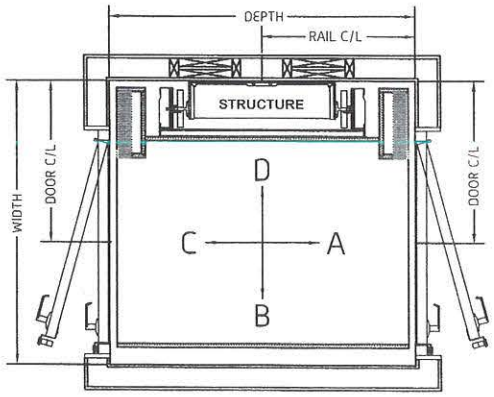
All hoistway dimensions reference interior dimensions—finished wall to finished wall.

Single Opening
Rail Left, Right-Hand Door (shown)
Rail Right, Left-Hand Door (opposite)



Car Gate/ Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Accordion or Collapsible (2)	36X48	50½"	54¼"	27½"	28¾"	33½"
	36X60	50½"	66¼"	33½"	28¾"	33½"
	40X54	54½"	60¼"	32"	32¾"	33½" (3)
Symmetry Safety 3-Panel	36X48	52"	55"	31"	30¼"	33"
	36X60	52"	67"	33½"	30¼"	33"
	40X54	54½"	61"	31"	32¾"	33" (3)

Opposite Opening
Rail Right, Left-Hand Door, Right-Hand Door
Rail Left, Right-Hand Door, Left-Hand Door



Car Gate/ Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Accordion or Collapsible (2)	36X48	50½"	54"	27"	28¾"	33½"
	36X60	50½"	66"	33"	28¾"	33½"
	40X54	54½"	60"	30"	32¾"	33½" (3)
Symmetry Safety 3-Panel	36X54	52"	61¾"	31"	30¼"	33"
	36X60	52"	67¾"	34"	30¼"	33"
	40X54	54½"	61¾"	31"	32¾"	33" (3)

(1) Inline Gear Drive motor extends into the access hatch
(2) Collapsible gates will have a clear opening approximately 1" less than shown
(3) 36" clear opening available–door centerlines may change

Door centerlines apply to 3'0" doors, except where otherwise noted.

SMART VENT

Product Catalog

Go to Product Catalog ▶

Certification

Download our National Certification (ICC-ESR 2074)

Check out our FAQs

Go to our FAQ page ▶

Still Have a Question?

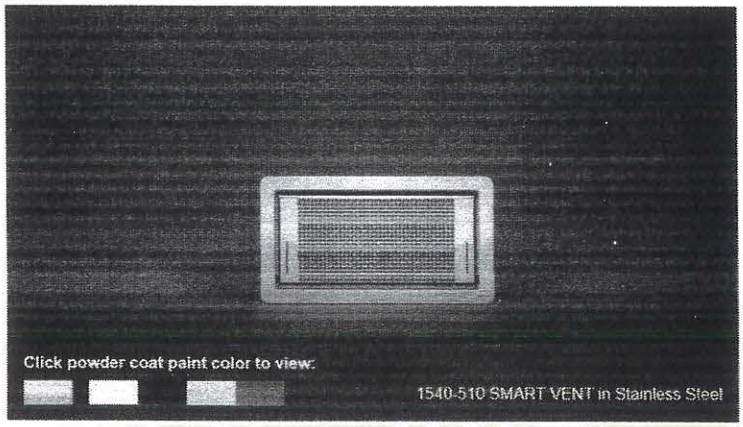
Contact our Sales and Support Office

(877) 441-8368

info@smartvent.com

Where to Buy

Download Spec Sheet | Download CAD File | Download Installation Instructions (PDF of CAD)



Model Number	Description	Flood Coverage	Air Ventilation
1540-510	SMART VENT	200 sq. ft.	51 sq. in.

Vent Size	Rough Opening
16-in. x 8-in.	16 1/4-in. x 8 1/4-in.

Installation and Features-Benefits Videos

About Dual Function Vents

Application

These vents are used for a home with a crawlspace or any enclosed area that desires natural air ventilation and flood protection.

Flood Protection

The vent door is latched closed until it comes in contact with flood water. Entering flood water lifts the patented internal floats which unlatch and allow the door to rotate open. This allows the flood water to automatically enter and exit through the frame opening, relieving the pressure from the foundation walls. Certified flood debris clearance is demonstrated with a 3" diameter opening when the flood door is activated.

Ventilation

A bimetal coil automatically opens and closes the ventilation louvers as temperature changes. No electricity is required. The louvers will be fully closed at 35F and fully open at 75F. In the event of a flood the internal floats lift to release the flood door to rotate open and relieve the hydrostatic pressure regardless of the louvers' position, open or closed.

Flood Resistant Materials

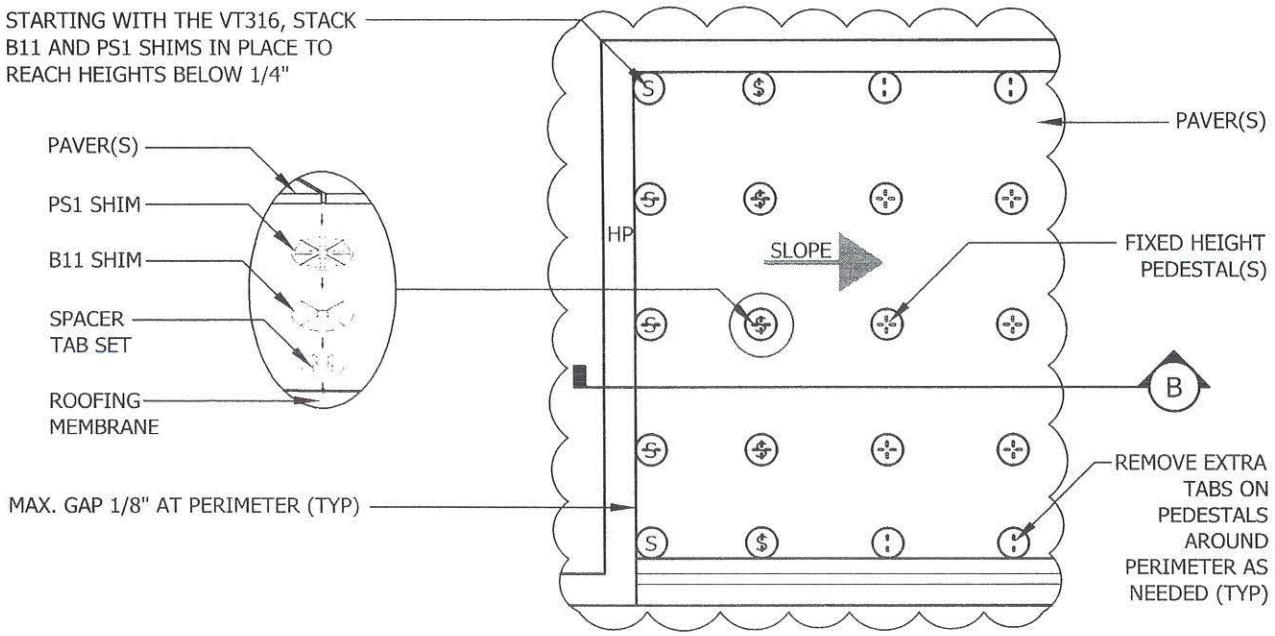
The Smart Vent product line is constructed out of Marine Grade Stainless Steel and is 100% made in the United States. T316L Stainless Steel is renowned for its ability to withstand usage in harsh marine and chemical environments, ensuring that our products will handle everything Mother Nature throws at them. Because T316L Stainless Steel is known for its strength and resistance to cracking, dents, and embrittlement it's utilized in high profile projects meant to last decades. Alloyed with Chrome, Nickel and Molybdenum, T316L Stainless Steel takes the strength of steel and adds protection making it the ultimate flood resistant material.

Get CEU Credits, Details & Specifications online at BisonIP.com

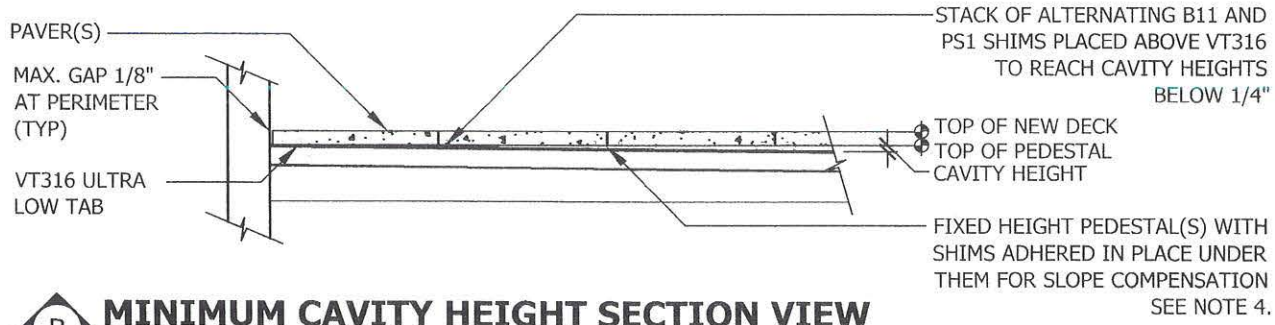
BISON Innovative Products

2395 West 4th Avenue Denver, CO 80223 USA
Phone 303.892.0400 **Toll Free** 800.333.4234 **Fax** 303.825.5988
EMail info@BisonIP.com **Web** www.BisonIP.com

LEVEL.IT Adjustable Deck Supports



MINIMUM CAVITY HEIGHT PLAN VIEW



B MINIMUM CAVITY HEIGHT SECTION VIEW

GENERAL NOTES: APPLY TO ALL OF THE ABOVE PRODUCTS
1. INSTALLATION MUST BE COMPLETED IN ACCORDANCE WITH BISON INNOVATIVE PRODUCTS SPECIFICATIONS.
2. DRAWINGS NOT TO SCALE.
3. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.BisonIP.com
4. ADHERE- INSTALLER MUST ADHERE WITH POLYURETHANE CONSTRUCTION ADHESIVE

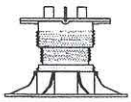
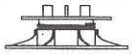
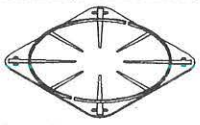
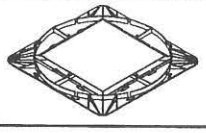
F LOW CAVITY HEIGHT PLACEMENT

CAVITY HEIGHTS BELOW 1/4"

BISON
Innovative Products
2395 West 4th Avenue Denver, CO 80223 USA
Phone 303.892.0400 **Toll Free** 800.333.4234 **Fax** 303.825.5988
EMail info@BisonIP.com **Web** www.BisonIP.com

Get CEU Credits, Details & Specifications online at BisonIP.com

LEVEL.IT
Adjustable Deck Supports

LEVEL.IT / ACCESSORIES	MODEL NUMBER	RANGE OF ADJUSTMENT	ADDS	DESCRIPTION
	LC	2" - 4 3/4"	-	ADJUSTABLE PEDESTAL
	C1	1/4" - 1 1/2"	UP TO 1 1/2"	1" COUPLER
	C4	2 1/2" - 4"	UP TO 4"	4" COUPLER
	VT18 VT316	- -	- -	1/8" TABS 3/16" TABS
	HD25	-	ADDS 1/4"	FIXED HEIGHT
	HD50	-	ADDS 1/2"	FIXED HEIGHT
	HD75	-	ADDS 3/4"	FIXED HEIGHT
	LO	1 1/4" - 2"	-	ADJUSTABLE PEDESTAL
	LD4	1/4" PER FOOT	ADDS 3/8"	BASE LEVELER DISK
	B11	-	ADDS 1/16"	FLEXIBLE SHIM SOUND DAMPENING
	PS1	-	ADDS 1/8"	RIGID SHIM
	FFB	-	ADDS 1/4"	FLOATING FOUNDATION BASE 12" x 12" x 1/4"
	FIB	-	ADDS 11/16"	FLOATING INSULATION BASE 12" x 12" x 11/16"

GENERAL NOTES: APPLY TO ALL OF THE ABOVE PRODUCTS
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2. DRAWINGS NOT TO SCALE.
3. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.BisonIP.com

LEVEL.IT PEDESTALS

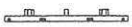
PRODUCT LINE

Get CEU Credits, Details & Specifications online at BisonIP.com

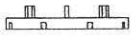
LEVEL.IT
Adjustable Deck Supports

BISON
Innovative Products
2395 West 4th Avenue Denver, CO 80223 USA
Phone 303.892.0400 **Toll Free** 800.333.4234 **Fax** 303.825.5988
EMail info@BisonIP.com **Web** www.BisonIP.com

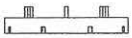
VT316 / VT18
FIXED HEIGHT 1/8"



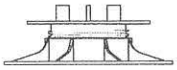
HD25
FIXED HEIGHT 1/4"



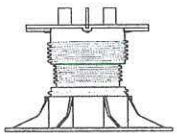
HD50
FIXED HEIGHT 1/2"



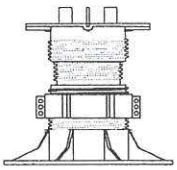
HD75
FIXED HEIGHT 3/4"



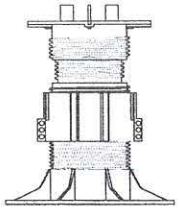
LO
1 1/4" - 2" VERTICAL RANGE



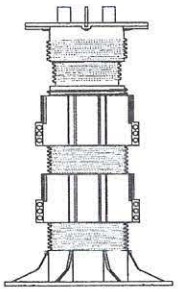
LC
2" - 4 3/4" VERTICAL RANGE



LC + C1
4 3/4" - 6 1/2" VERTICAL RANGE



LC + C4
6 1/2" - 9" VERTICAL RANGE



LC + C4 + C4
9" - 12" VERTICAL RANGE

PRODUCT CHARACTERISTICS
-MAXIMUM DESIGN CAPACITY OF **750** LBS PER PEDESTAL, FACTOR OF SAFETY 3.
-SCREW ADJUSTABILITY WHILE PEDESTALS ARE LOADED FOR FINAL ADJUSTMENT.
-IMPERVIOUS TO FREEZE-THAW, WATER, MOLD AND SOLVENT FREE CHEMICALS.
-SCORED BASE ALLOWS SUPPORTS TO BE TRIMMED FOR TIGHT AREAS.
-WEIGHT BEARING SYSTEM DOES NOT PENETRATE ROOFING MEMBRANE OR SUBSTRATE.
-LARGE FOOTPRINT SPREADS WEIGHT OVER ROOFING MEMBRANE AND SUBSTRATE.
-MAXIMUM CAVITY HEIGHT 12".

GENERAL NOTES: APPLY TO ALL OF THE ABOVE PRODUCTS
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2. DRAWINGS NOT TO SCALE.
3. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.BisonIP.com

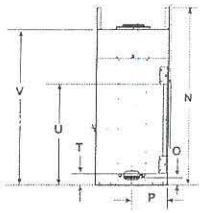
LEVEL.IT PEDESTAL ELEVATIONS

ELEVATIONS FROM 1/8" TO 12"

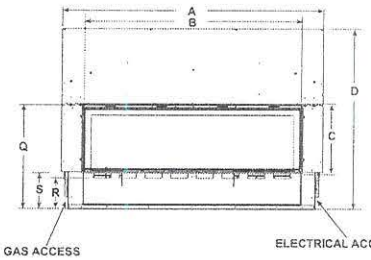
SPECIFICATIONS

MODEL	FRONT WIDTH		BACK WIDTH		HEIGHT		DEPTH		GLASS SIZE	BTU/HOUR INPUT (NG)
	UNIT	FRAMING	UNIT	FRAMING	UNIT	FRAMING	UNIT	FRAMING		
MEZZO36, MEZZO36ST	46-3/16 [1173]	48-1/4 [1226]	46-3/16 [1173]	48-1/4 [1226]	41-3/4 [1060]	42 [1067]	17-1/8 [435]	18-1/4 [464] **ST: 17 [432]**	35-1/2 x 12-1/2 [908 x 318]	17,500 - 30,000
MEZZO48, MEZZO48ST	58 [1473]	60-1/4 [1530]	58 [1473]	60-1/4 [1530]	41-3/4 [1060]	42 [1067]	17-1/8 [435]	18-1/4 [464] **ST: 17 [432]**	47-1/2 x 12-1/2 [1207 x 318]	21,000 - 40,000
MEZZO60, MEZZO60ST	70 [1778]	72-1/4 [1835]	70 [1778]	72-1/4 [1835]	47-3/4 [1213]	48 [1219]	17-1/8 [435]	18-1/4 [464] **ST: 17 [432]**	59-1/2 x 12-1/2 [1511 x 318]	26,000 - 50,000
MEZZO72, MEZZO72ST	82 [2083]	84-1/4 [2140]	82 [2083]	84-1/4 [2140]	47-3/4 [1213]	48 [1219]	17-1/8 [435]	18-1/4 [464] **ST: 17 [432]**	71-1/2 x 12-1/2 [1861 x 318]	30,000 - 58,000

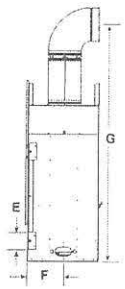
LEFT SIDE VIEW



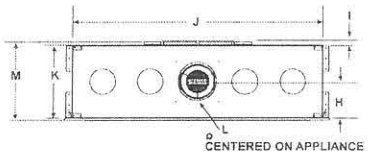
FRONT VIEW



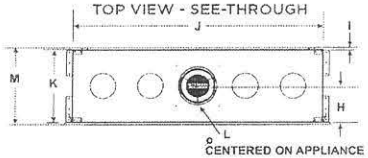
RIGHT SIDE VIEW



TOP VIEW - SINGLE-SIDED



TOP VIEW - SEE-THROUGH



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
MEZZO36, MEZZO36ST	49-1/2 [1257] **ST: 50 [1270]**	39-1/4 [997]	15-5/8 [397]	42-1/2 [1080]	4 [102]	8-9/16 [217]	63 [1600]	8-9/16 [217]	1 [25] **ST: 1/2 [13]**	46-3/16 [1173]	17-1/8 [435]	8 [203]	18-5/8 [473] **ST: 18-1/8 [460]**	41-3/4 [1060]	2-3/8 [60]	8-9/16 [217]	24-1/2 [622]	7-1/4 [184]	8-7/8 [225]	2-3/4 [70]	23-3/4 [603]	36-5/8 [930]
MEZZO48, MEZZO48ST	61-1/2 [1562] **ST: 62 [1575]**	51-1/8 [1299]	15-5/8 [397]	42-1/2 [1080]	4 [102]	8-9/16 [217]	63 [1600]	8-9/16 [217]	1 [25] **ST: 1/2 [13]**	58 [1473]	17-1/8 [435]	8 [203]	18-5/8 [473] **ST: 18-1/8 [460]**	41-3/4 [1060]	2-3/8 [60]	8-9/16 [217]	24-1/2 [622]	7-1/4 [184]	8-7/8 [225]	2-3/4 [70]	23-3/4 [603]	36-5/8 [930]
MEZZO60, MEZZO60ST	74 [1880]	63-1/8 [1603]	15-5/8 [397]	48-1/2 [1252]	4 [102]	8-9/16 [217]	63 [1600]	8-9/16 [217]	1 [25] **ST: 1/2 [13]**	70 [1778]	17-1/8 [435]	8 [203]	18-5/8 [473] **ST: 18-1/4 [464]**	47-3/4 [1215]	2-3/8 [60]	8-9/16 [217]	24-1/2 [622]	7-1/4 [184]	8-7/8 [225]	2-3/4 [70]	23-3/4 [603]	36-1/2 [927]
MEZZO72, MEZZO72ST	86 [2184]	75-1/8 [1908]	15-5/8 [397]	48-1/2 [1252]	4 [102]	8-9/16 [217]	75 [1905]	8-9/16 [217]	1 [25] **ST: 1/2 [13]**	82 [2083]	17-1/8 [435]	8 [203]	18-5/8 [473] **ST: 18-1/4 [464]**	47-3/4 [1215]	2-3/8 [60]	8-9/16 [217]	24-1/2 [622]	7-1/4 [184]	8-7/8 [225]	2-3/4 [70]	23-3/4 [603]	36-1/2 [927]

Dimensions are in inches and millimeters. Product information is not complete and is subject to change without notice. Product installation must adhere strictly to instructions shipped with product. We recommend measuring individual units at installation. Assumes the use of 1/2" sheetrock. NOTE: Combustible material should not cover the face. Make sure you do NOT cover the decorative door opening.

Refer to installation manual for detailed specifications on installing this product. Hearth & Home Technologies® reserves the right to update units periodically. The flame and ember appearance may vary based on the type of fuel burned and the venting configuration used. Actual product appearance, including flame, may differ from product images.

CANADA EFFICIENCIES EnerGuide (CSA P.4.1-15) - EnerGuide is a rating used in Canada to measure annual fireplace efficiency.

MEZZO36	MEZZO36ST	MEZZO48	MEZZO48ST	MEZZO60	MEZZO60ST	MEZZO72	MEZZO72ST
47.8% (NG), 50.8% (LP)	45.9% (NG), 50.1% (LP)	53.2% (NG), 56.3% (LP)	51.3% (NG), 57.0% (LP)	52.6% (NG), 52.2% (LP)	57.4% (NG), 56.1% (LP)	51.3% (NG), 49.9% (LP)	55.9% (NG), 57.7% (LP)

For complete information on this model, please contact us at:

HEAT & GLO

No one builds a better fire

Web: heatnglo.com
Phone: (888) 427-3973
E-mail: info@heatnglo.com

facebook.com/HeatandGlo
twitter.com/HeatandGlo
youtube.com/HeatandGlo

LIMITED LIFETIME WARRANTY[3]

The strongest in the industry, Heat & Glo provides a limited lifetime warranty on the most important aspects: firebox and heat exchanger.

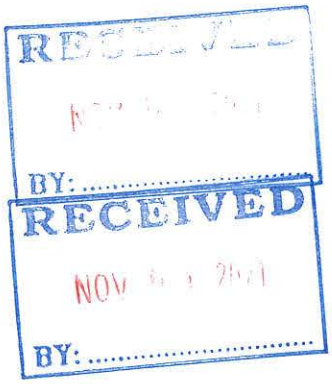
3: For full warranty details see heatnglo.com
Fireplace glass and other surfaces get extremely HOT and can cause severe burns if touched. Do not remove the protective safety screen from the front of the glass. Keep a safe distance away. To learn more visit www.heatnglo.com/fireplace safety

HNG-1134U-0520

c UL us LISTED

Canada ENERGUIDE
Look for the EnerGuide Gas Fireplace Energy Efficiency Rating in this Brochure
Based on CSA P.4.1-15

COULTER ARCHITECTS, PLLC



October 26, 2021

Memo to: Melissa Jenck, CFM,

From: Coulter Architects, PLLC

RE: As a response to your letter of August 10, 2021, I have enclosed Drawing revisions to comply with the FEC Form from Bayside Surveying, and also removing all appliances from the lower level of the existing and new lower levels.

Melissa, Please replace the current drawings with the following revised drawings dated Oct. 11, 2021

Enclosures:
Bayside Elevation Certificate, Signed by Dallas and myself as Dave's representative.

Architectural Drawings to be replaced:

Drawing A- 1.1 Upper left, shows the removal of the water Heater, which is being replaced by an on demand water heater on the upper floor.

Drawing A-1.2 shows the new on Demand water heater located in the store room next to the kitchen of the addition, and an on demand water heater in the closet of bedroom #1 of the existing house.

Drawings A-2.1, A- 2.2, and A-2.3 elevations, show the addition of the 10 smart vents discussed in the FEC form, and clarifies the location on both the existing and the new addition as being no more than 12" above grade.

I am sending these drawings both digitally and hard copy so they can be substituted in the existing drawing sets submitted previously.

Thanks for you help clarifying this.

Ronald E. Coulter, AIA, NCARB

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB No. 1660-0008
Expiration Date: November 30, 2022

RECEIVED
NOV
BY:

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION		FOR INSURANCE COMPANY USE
A1. Building Owner's Name David Coulter		Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 35105 Rueppel Ave		Company NAIC Number:
City Pacific City	State Oregon	ZIP Code 97135

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
Tax Lot 4700, 4701 and 4800 4S 10W Section 30 BD

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Residential

A5. Latitude/Longitude: Lat. 45-11-53.826 Long. -123-57-44.371 Horizontal Datum: ☐ NAD 1927 ☒ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number 7

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s) 0.00 sq ft

b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 0

c) Total net area of flood openings in A8.b 0.00 sq in

d) Engineered flood openings? ☐ Yes ☒ No

A9. For a building with an attached garage:

a) Square footage of attached garage 3204.00 sq ft

b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade 17

c) Total net area of flood openings in A9.b 3400.00 sq in

d) Engineered flood openings? ☒ Yes ☐ No

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State
Tillamook County 410196	TILLAMOOK	Oregon

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)
41057C0855	F	09-28-2018	09-28-2018	AE	16.6

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:
☐ FIS Profile ☒ FIRM ☐ Community Determined ☐ Other/Source:

B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☒ NAVD 1988 ☐ Other/Source:

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date: ☐ CBRS ☐ OPA

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 35105 Rueppel Ave			Policy Number:
City Pacific City	State Oregon	ZIP Code 97135	Company NAIC Number

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☒ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction

*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: GPS Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.

☐ NGVD 1929 ☒ NAVD 1988 ☐ Other/Source:

Datum used for building elevations must be the same as that used for the BFE.

		Check the measurement used.	
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	N/A	☒ feet	☐ meters
b) Top of the next higher floor	21.4	☒ feet	☐ meters
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A	☒ feet	☐ meters
d) Attached garage (top of slab)	12.4	☒ feet	☐ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	21.4	☒ feet	☐ meters
f) Lowest adjacent (finished) grade next to building (LAG)	10.9	☒ feet	☐ meters
g) Highest adjacent (finished) grade next to building (HAG)	12.6	☒ feet	☐ meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	12.2	☒ feet	☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No ☐ Check here if attachments.

Certifier's Name	License Number	
DALLAS ESPLIN	LS 83627	
Title MANAGER		
Company Name BAYSIDE SURVEYING LLC		
Address 11765 HWY 101 SOUTH		
City TILLAMOOK	State Oregon	ZIP Code 97141

REGISTERED
PROFESSIONAL
LAND SURVEYOR
Dallas Esplin
OREGON
DECEMBER 3, 2014
DALLAS W. ESPLIN
83627
RENEWAL DATE: DECEMBER 31, 2021

Signature	Date	Telephone	Ext.
Dallas Esplin	10-06-2021	(503) 842-5551	

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)

Pre fec for residential addition to existing structure. Represents both structures combined as a whole and reflects the changes to the existing structure and the addition. Both structures living quarters are on top of a slab on grade garage.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 35105 Rueppel Ave			Policy Number:
City Pacific City	State Oregon	ZIP Code 97135	Company NAIC Number

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B,and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).

a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name: Ronald E. Coulter

Address: 105 N. Emerson | City: Chelan | State: Wa | ZIP Code: 98816

Signature: R E Coulter | Date: 10/28/21 | Telephone: (509) 630-5518

Comments:

Mail Address
P.O. Box 2323
Chelan, Wa. 98816

☐ Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 35105 Rueppel Ave			Policy Number:
City Pacific City	State Oregon	ZIP Code 97135	Company NAIC Number

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. ☐ The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued

G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____ ☐ feet ☐ meters Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____ ☐ feet ☐ meters Datum _____

G10. Community's design flood elevation: _____ ☐ feet ☐ meters Datum _____

Local Official's Name	Title
Community Name	**Telephone**
Signature	**Date**

Comments (including type of equipment and location, per C2(e), if applicable)

☐ Check here if attachments.

ELEVATION CERTIFICATE

See Instructions for Item A6.

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 35105 Rueppel Ave			Policy Number:
City Pacific City	State Oregon	ZIP Code 97135	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.

Photo One

Photo One Caption Front

Clear Photo One

Photo Two

Photo Two Caption Left

Clear Photo Two

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 35105 Rueppel Ave			Policy Number:
City Pacific City	State Oregon	ZIP Code 97135	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

Photo Three

Photo Three Caption Rear

Clear Photo Three

Photo Four

Photo Four Caption Right

Clear Photo Four

COULTER ARCHITECTS, PLLC

February 7, 2022

Hello Melissa;

RE: Dave Coulter project

In response to your 2-3-22 email questions, I have for you the following:

ELEVATOR:

I have enclosed the product cut sheets, which identifies how it is constructed, and he layout.

To reiterate, we discussed this at length back at the beginning, and I have addressed the issues as follows:

The motor is located at the top of the shaft above the car in the up position. This keeps it out of the way of the flooding, as well as the control panel being located above the flood level. (above the concrete lower portion of the ground floor walls.)

This unit is capable of being programmed to return to the upper level when not is use. (at a set time delay.)

The shaft itself is also concrete to match the same configuration of the rest of the ground level walls.

We will also provide a submersible sump pump in the shaft pit to clear out any water that intrudes.

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

COULTER ARCHITECTS, PLLC

THE EXISTING BUILDING ENTRY:

This has always been the entry to the building, and is an existing stairway with only some minor adjustments. The difference is, instead of opening a garage door for entry, we have a standard person door in a new exterior wall.

The floor is the original concrete garage floor, with new ceramic tile on top.

Any new framing could be treated lumber, which would provide some protection.

VALUE:

We have discussed this previously and we gave you our estimated value number.

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

Melissa Jenck

From: ronald coulter <ron.coulterarchitects@gmail.com>
Sent: Wednesday, September 29, 2021 9:07 AM
To: Melissa Jenck
Subject: EXTERNAL: Project value

Good morning Melissa,

I know you are at a conference, but will send this along so you have it.

We are currently bidding the job with two contractors, one from Tillamook and one from Pacific City. We don't have the bids yet, so we don't even know what it will cost. With the volatility in the supply chain and the commodities, it's even difficult for the contractors to bid a job accurately without some provisions to adjust prices.

Second, based on the banking requirements, we can't get an appraisal until we have a signed contract with the contractor. This will be a while yet, until we have bids and can select a contractor.

We don't plan on getting two appraisals,

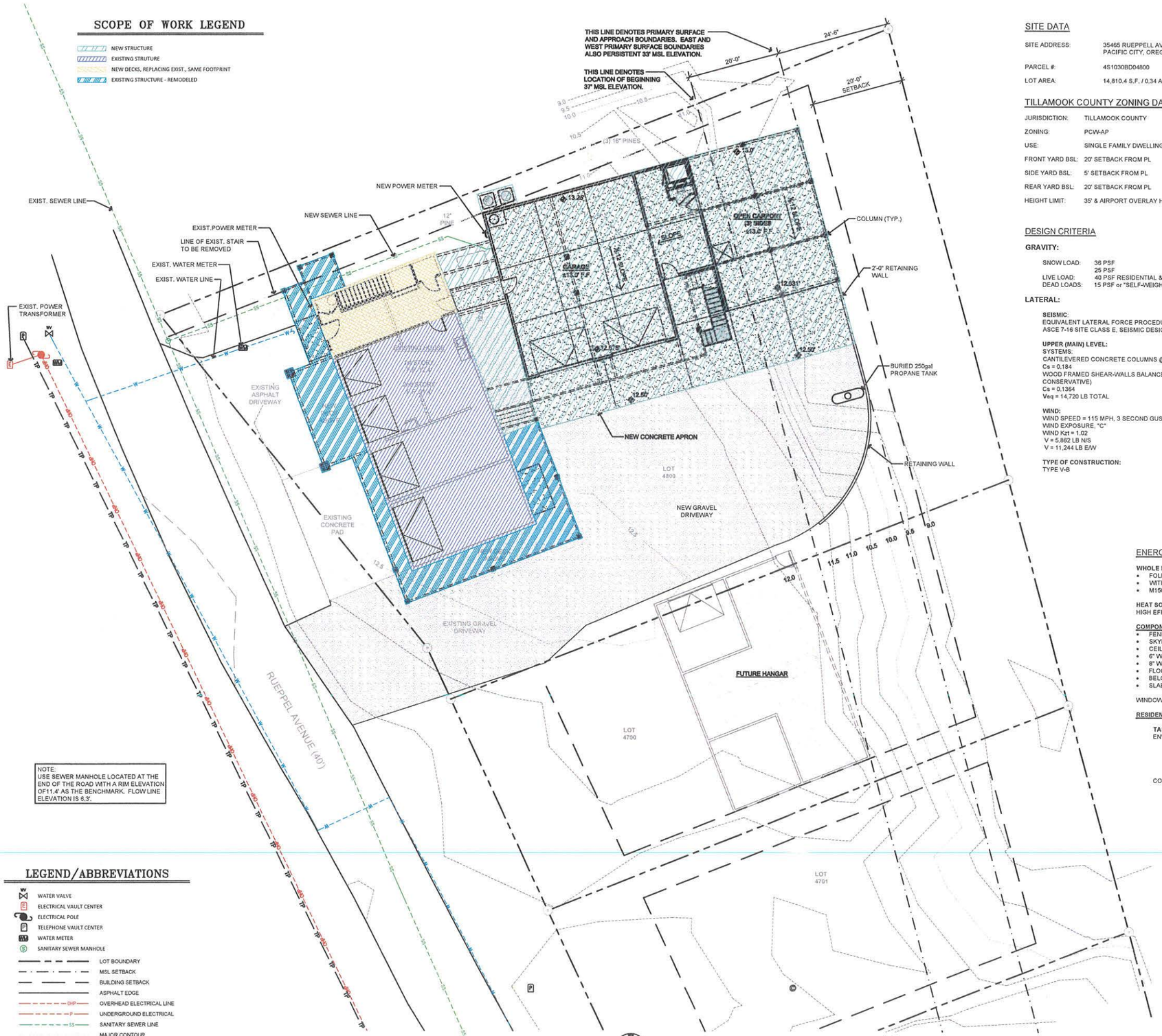
As a professional in this business, I can give you a number based on my experience. In Discussing This With Dave as well.....we would stipulate a price of $ 650,000.

I have not received anything from Dallas yet.

Thanks,
Ron

SCOPE OF WORK LEGEND

- NEW STRUCTURE
- EXISTING STRUTURE
- NEW DECKS, REPLACING EXIST., SAME FOOTPRINT
- EXISTING STRUCTURE - REMODELED



NOTE:
USE SEWER MANHOLE LOCATED AT THE END OF THE ROAD WITH A RIM ELEVATION OF11.4' AS THE BENCHMARK. FLOW LINE ELEVATION IS 6.3'.

LEGEND/ABBREVIATIONS

- WATER VALVE
- ELECTRICAL VAULT CENTER
- ELECTRICAL POLE
- TELEPHONE VAULT CENTER
- WATER METER
- SANITARY SEWER MANHOLE
- LOT BOUNDARY
- MSL SETBACK
- BUILDING SETBACK
- ASPHALT EDGE
- OVERHEAD ELECTRICAL LINE
- UNDERGROUND ELECTRICAL
- SANITARY SEWER LINE
- MAJOR CONTOUR
- MINOR CONTOUR
- UNDERGROUND WATER LINE
- UNDERGROUND TELEPHONE LINE

NORTH

SITE PLAN
SCALE 1" = 10'-0"

SITE DATA

SITE ADDRESS:	35465 RUEPPELL AVE PACIFIC CITY, OREGON 97135
PARCEL #:	4S1030BD04800
LOT AREA:	14,810.4 S.F. / 0.34 ACRES

TILLAMOOK COUNTY ZONING DATA

JURISDICTION:	TILLAMOOK COUNTY
ZONING:	PCW-AP
USE:	SINGLE FAMILY DWELLING
FRONT YARD BSL:	20' SETBACK FROM PL
SIDE YARD BSL:	5' SETBACK FROM PL
REAR YARD BSL:	20' SETBACK FROM PL
HEIGHT LIMIT:	35' & AIRPORT OVERLAY HEIGHT RESTRICTIONS

DESIGN CRITERIA

GRAVITY:

SNOW LOAD:	36 PSF 25 PSF
LIVE LOAD:	40 PSF RESIDENTIAL & 60 PSF DECKS
DEAD LOADS:	15 PSF or "SELF-WEIGHT"

LATERAL:

SEISMIC:
EQUIVALENT LATERAL FORCE PROCEDURE PER 2018 IBC AND ASCE 7-16 SITE CLASS E, SEISMIC DESIGN CATEGORY IS "D"

UPPER (MAIN) LEVEL:
SYSTEMS:
CANTILEVERED CONCRETE COLUMNS @ CARPORT → R=2.5
Cs = 0.184
WOOD FRAMED SHEAR-WALLS BALANCE → R=6.0 (USED 5.0 TO BE CONSERVATIVE)
Cs = 0.1364
Veq = 14,720 LB TOTAL

WIND:
WIND SPEED = 115 MPH, 3 SECOND GUSTS (ULTIMATE)
WIND EXPOSURE, "C"
WIND Kzt = 1.02
V = 5,862 LB N/S
V = 11,244 LB E/W

TYPE OF CONSTRUCTION:
TYPE V-B

SHEET SCHEDULE

DETAIL SHEET SCHEDULE

SUBMITTAL NOTES

DEFERRED SUBMITTALS:
PLUMBING PERMIT
HVAC PERMIT
ELECTRICAL PERMIT
NOTE: POWER, SEWER AND WATER UTILITIES ARE EXISTING.

ENERGY CODE SUMMARY

WHOLE HOUSE VENTILATION, NEW CONSTRUCTION ONLY:
- FOLLOW ASHRAE STANDARD 62.2, WITH FLOOR AREA BETWEEN 1,501 to 3,000 S.F.
- WITH ONE BEDROOM, 45 CFM IS REQUIRED. TABLE 4.1z AND IS THE SAME AS IMC TABLE.
- M1507.3.3(1), CHAPTER 15

HEAT SOURCE:
HIGH EFFICIENCY DUCTLESS SPLIT SYSTEM WITH HEAT PUMPS, ZONAL CONTROL

COMPONENTS WILL MEET THE FOLLOWING:	COMPONENTS PROPOSED:
• FENESTRATION: U-0.28	- FENESTRATION: U-0.28
• SKYLIGHT: U-0.50 N/A	- SKYLIGHT: U-.55
• CEILING: R-49	- CEILING: R-59.1
• 6" WOOD FRAME WALL: R-21	- 6" WOOD WALL: R-33
• 8" WOOD FRAME WALL: R-21	- 8" WOOD WALL: R-45
• FLOOR: R-30	- FLOOR: R-30
• BELOW GRADE WALL R-VALUE: 10/15/21 INT + TB	- B.G. WALL: R-10
• SLAB: R-10	- SLAB: R-10

WINDOW AND DOOR HEADERS SHALL BE INSULATED TO A MINIMUM OF R-10

RESIDENTIAL ENERGY ADDITIONAL MEASURE SELECTION:

TABLE N1101.1(2) ADDITIONAL MEASURES:
ENVELOPE ENHANCEMENT MEASURES:
- UPGRADED FEATURES
  - EXTERIOR WALLS - U-0.057 / R-23 INTERMEDIATE or R-21 ADVANCED
  - FRAMED DOORS - U-0.026 / R-38
  - WINDOWS - U-0.28 (AVERAGE UA)

CONSERVATION MEASURES:
- DUCTLESS HEAT PUMP
  - DUCTLESS HEAT PUMP HSPF 10.0 IN PRIMARY ZONE OF DWELLING
- HIGH EFFICIENCY WATER HEATER
  - ELECTRIC HEAT PUMP WATER HEATER TIER 1 NORTHERN CLIMATE SPECIFICATION PRODUCT

NORTH

VICINITY MAP
SCALE NONE

COULTER ARCHITECTURE

RESIDENTIAL & COMMERCIAL ARCHITECTURE

Member, The American Institute of Architects
AIA

CORRESPONDENCE
P. O. Box 2323
Lake Chelan, WA 98816
(509) 630 . 5518 off

OFFICE
105 N Emerson St. Suite 201
Lake Chelan, WA 98816

REGISTERED ARCHITECT
RONALD E. COULTER
OREGON
STATE OF OREGON

ADDITION FOR:
DAVE AND PATTIE COULTER
35465 RUEPPELL AVE
PACIFIC CITY, TILLAMOOK COUNTY, OREGON

Project No	2021-1
Drawn	MEC
Checked By	REC
Date:	July 01, 2021
REV. 1:	Aug 12, 2021
REV. 2:	XXX

A-0.1
PERMIT SET DRAWINGS

Pacific City Joint Water-Sanitary Authority
PO Box 520
Pacific City, OR 97135
(503) 965-6636
www.pcjwsa.com

Statement

ACCOUNT INFORMATION

ACCOUNT:	**002685-000**
SERVICE ADDRESS:	35465 RUEPPELL AVENUE
SERVICE PERIOD:	04/01/2021 to 04/30/2021
BILLING DATE:	04/30/2021
DUE DATE:	**05/17/2021**

DAVE AND PATTY COULTER
217 N GRANT ST
GOLDENDALE WA 98620-9513

BILLING DETAIL

METER READING

Serial No	Previous Read Date	Previous Read	Current Read Date	Current Read	Cons
2100022744	03/25/2021	417	04/27/2021	826	409

CURRENT CHARGES

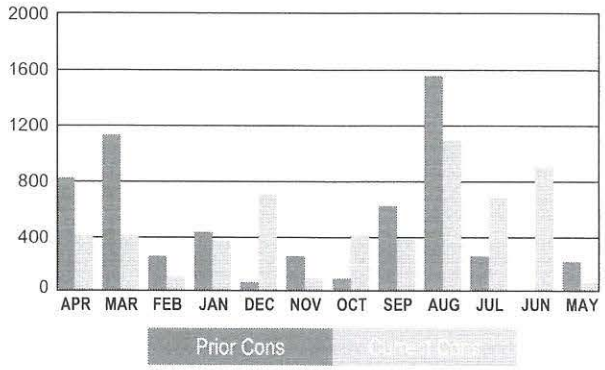
Water	29.8
Sewer	35.06
Streetlights	0.45
Water Capital Improvement Charge	3
Sewer Capital Improvement Charge	5
WWTP Capital Improvement Charge	8.5
TOTAL CURRENT CHARGES	**81.81**

BILL SUMMARY

PREVIOUS BALANCE	81.89
PAYMENTS RECEIVED	81.89
ADJUSTMENTS	0.00
ADDITIONAL BILLING	0.00
CURRENT CHARGES	81.81
TOTAL AMOUNT DUE	**81.81**

SPECIAL MESSAGE

USAGE HISTORY



PLEASE RETURN THIS PORTION ALONG WITH YOUR PAYMENT. PLEASE MAKE CHECK PAYABLE TO: PCJWSA

ACCOUNT NUMBER	DUE DATE	TOTAL DUE
002685-000	05/17/2021	$81.81

Please Indicate Amount Enclosed $

PCJWSA
PO Box 520
Pacific City, OR 97135
(503) 965-6636

2519 1 AB 0.428 8/220 003965 0001:0001

DAVE AND PATTY COULTER
217 N GRANT ST
GOLDENDALE WA 98620-9513

PCJWSA
PO BOX 520
PACIFIC CITY OR 97135-0520

YYYN

Tillamook People's Utility District
PO Box 433
Tillamook, OR 97141-0433

Office Address:
1115 Pacific Ave, Tillamook, OR 97141

Hours: 7:00 AM-5:30 PM Monday-Thursday

Phone: (503) 842-2535 Fax: (503) 842-4161
Toll Free: (800) 422-2535 Web: www.tpud.org

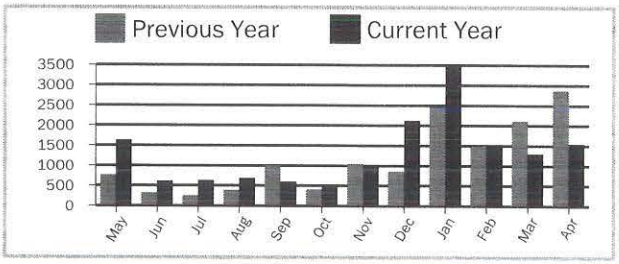
Billing Date	04/08/2021
Account Number	104503
Payment Due	**05/03/2021**

Billing Summary

Previous Balance		$128.95
Payment Received 03/24/2021	*Thank you!*	$128.95CR
Balance Forward		$0.00
Current Charges		$147.66
Total Balance		**$147.66**

2132 1 AB 0.428 5 2132
DAVID M COULTER C-8
PATTIE FRITZ
217 N GRANT ST
GOLDENDALE WA 98620-9513

Meter No.	Services From	Services To	Days	Readings Previous	Readings Present	Meter Multiplier	kWh Usage	Rate Number and Description	Service Address and Description
133386	03/04/21	04/04/21	31	26960	28501	1	1541	12 RESIDENTIAL SEASONAL	35465 RUEPPELL AVE



Current Service Detail

Balance Forward		**$0.00**
Basic Fee		$29.00
Energy Charge	1,541 kWh @ 0.077	$118.66
Total Electric Charges		**$147.66**
Total Amount Due 05/03/2021		**$147.66**

Message from Tillamook PUD

Click on the Nixle logo on our home page at www.tpud.org to sign up to receive important outage alerts from Tillamook PUD via email or text messages.

RETURN BOTTOM PORTION WITH YOUR PAYMENT. PLEASE DO NOT FOLD, STAPLE, TAPE, OR PAPERCLIP.

DAVID M COULTER
PATTIE FRITZ
217 N GRANT
GOLDENDALE WA 98620-0000

Home: (360) 508-1050
Work: None on File
Cell: None on File

Amount Due	**$147.66**
Customer Assistance Donation	
Amount Enclosed	

Current Charges Due 05/03/2021

Please notify us of any changes to your personal information below:

_____

_____

_____

TILLAMOOK PEOPLE'S UTILITY DISTRICT 1
PO BOX 433
TILLAMOOK OR 97141-0433

Account Number 104503

00000104503000147661

Connect With Us

Phone: 503.842.2535 **Toll Free:** 1.800.422.2535 • **Office Hours:** Monday – Thursday 7:00 a.m. – 5:30 p.m.

Address: P.O. Box 433 • 1115 Pacific Avenue, Tillamook, OR 97141

Emergency and after hours phone: 503.842.2122 or 1.800.842.2122

Website: www.tpud.org **Email:** service@tpud.org

SmartHub: An online application to pay your bill, view and monitor energy usage, report outages, and receive account notifications. Visit our website at www.tpud.org to learn more.

Nixle Alerts: Sign up for this alert system that allows us to send you important outage information via text message and/or email. Visit our website at www.tpud.org and click on the Nixle logo to sign up.

Power Outages

If your power goes out: Check your fuses and breakers to ensure the problem is not within your electrical system. Report the outage immediately if you have determined the outage is on the Tillamook PUD system.

How to report a power outage:

By Phone: Call Tillamook PUD's 24-hour operation's center at 503.842.2122 or 1.800.842.2122 to report the location and circumstances of an outage. During large outages, the line may be busy due to the large volume of callers. Please continue to call until you get through or report the outage online.

Online: Use the SmartHub application to report an outage using your mobile device, tablet or personal computer.

For mobile and tablet users, login to your account via the SmartHub app. Once there, select the "Service Status" icon and then select the "Report My Power is Out" option.

When reporting through the Tillamook PUD website, www.tpud.org, click on the red text "Report An Outage" on the left side of the screen and log into your SmartHub account. Follow the prompts to report the outage.

Help Your Neighbors in Need

The Customer Assistance Program (CAP) is Tillamook PUD's emergency assistance program to help spread warmth throughout our community. The long-standing CAP program is designed to assist limited-income families in crisis situations who need help paying their electric bills. Tillamook PUD matches the amount of every donation and it is placed into a fund where it provides twice the assistance. It's easy to make a one-time gift, sign-up for monthly recurring donations, or add extra to your monthly electric bill. Please help your neighbors in need through Tillamook PUD's Customer Assistance Program.

Payment Options

We accept your check, debit card, MasterCard and Visa

Online Payment: Visit our website at www.tpud.org and click on the SmartHub logo. All you'll need is your Tillamook PUD account number, which can be found on your electric bill, and a checking account number or a debit card, MasterCard or Visa.

Budget Billing: If you've lived in the same home for more than 12 months with Tillamook PUD, you may qualify for our Budget Billing plan. With Budget Billing, you make equal payments throughout the year, with a true-up annually.

Paperless Billing: This online resource is easy, convenient and saves resources by eliminating a paper bill each month. Go to SmartHub on our website and enter your email address and password. Click on the "My Profile" button, then click "Update My Printed Bill Settings", "Turn off/on Printed Bill."

Auto Pay: Automatically pay your monthly electric bill directly from your bank account or with a debit card, MasterCard or Visa. Combine Auto Pay with Budget and Paperless Billing to make your monthly payment predictable and simple. Please contact our front office staff to sign up for the Auto Pay option.

Office Counter, Drive-Through, Phone, or Drop Box: Drop by our office, use our drive-up window, or call 503.842.2535 or 1.800.422.2535, Monday through Thursday, 7:00 a.m. – 5:30 p.m. A drop box is available at our drive through lane to make your payment outside these hours.

Neopor® GPS Smart Insulation

Neopor®
Innovation in Insulation

Neopor® GPS (Graphite Polystyrene) rigid insulation is today's energy-efficient and cost-effective insulation solution for architects, builders and contractors. The table shows data of Neopor® GPS F5300 Plus. Dave Coulter

Property	Unit	Neopor® GPS F5300 Plus[3]				
ASTM C578 Classification[1]		Type I	Type VIII	Type II	Type II+	Type IX
Compressive Resistance	at yield of 10% deformation in psi (min)	10.0	14.0	15.0	20.0	25.0
Thermal Resistance (R-value)[2]	°F·ft2·h/BTU (°C·m2/W) at 75°F	5.0	5.0	5.0	5.0	5.0
	°F·ft2·h/BTU (°C·m2/W) at 40°F	5.2	5.2	5.2	5.3	5.3
Water Vapor Permeance	Max perm (ng/Pa·s·m2)	4.0	3.1	3.1	3.1	2.5
Water Absorption by Total Immersion	Max volume % absorbed	1.1	1.1	1.1	1.1	1.1
Flexural Strength	psi (min)	25.0	32.0	39.0	40.0	50.0
Density	lbs./ ft^3 (min)	0.90	1.15	1.35	1.45	1.80
Flame Spread	Index			5		
Smoke Development	Index			25		

1) Neopor® GPS meets and exceeds ASTM C578-13, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation"; published by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959.
2) R means resistance to heat flow. The higher the R-value, the greater the insulating power. Ask your seller for the fact sheet on R-values.
3) The technical and physical metrics provided in this table are reference values for insulation products made of Neopor GPS. The values and properties may vary depending on how they are processed and produced. The R-value properties are based on 1-1/16 in thickness.

BASF
We create chemistry

LEED v4 Compliant
MR Credit
Material Ingredients
Option 1 Manufacturer Inventory
#18 0687 Certification Period 1 Nov. 2018 - 31 Oct. 2019

Product Name: Neopor® F 5300 Plus

October 30, 2018

Material Ingredient Reporting for LEED v4, Option 1
Manufacturer Inventory

BASF Corporation certifies the following information for Neopor® F 5300 Plus - 30570155.

A complete content inventory for this product to 1,000 ppm is provided based on the addenda to Option 1 of the Building product disclosure and optimization – material ingredients credit released by the U.S. Green Building Council on April 5, 2016. The information generated is based on the BASF Product Compliance Management Process which has been third party audited by GreenCircle Certified, LLC (GreenCircle). GreenCircle has verified that BASF's Product Compliance Management System assesses the hazards of all the ingredients that make up a product, including impurities. This assessment has verified all hazard classification, assessment and communication is conducted within the provisions of North American countries' regulatory requirements.

1. Publicly available ingredients are identified by name and Chemical Abstract Service Registration Number (CASRN)
2. Ingredients defined as trade secret or intellectual property have been withheld; however, the role, amount and hazards based on screening for the levels of ingredients presented are reported on this page per the requirements of the Globally Harmonized System of Classification and Labelling of Chemicals rev. 6 (2015).

David Green
Applied Sustainability
BASF Corporation - Construction Chemicals

BASF Corporation
1609 Biddle Avenue
Wyandotte, MI 48192

Neopor®
innovation in insulation
provided by BASF

BASF

We create chemistry

Publicly Available Ingredients	
Substance Name	**Substance CAS Number**
polystyrene	9003-53-6
Pentane	109-66--0
Graphite	7782-42-5
isopentane	78-78-4
Sulfonium compounds, C11-14-alkylbis(hydroxyethyl), 2-hydroxyethyl sulfates (salts)	78169-20-7

Proprietary Ingredients		
Role for proprietary substances	**Ingredient Amount (% by weight)**	**Hazard Category**
Polymer	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Residual Monomer	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold

BASF Corporation
1609 Biddle Avenue
Wyandotte, MI 48192

Neopor® innovation in insulation provided by BASF

Technical Leaflet | May 2020

Neopor® F 5300 Plus

Application

Neopor® F 5300 Plus is an expandable polystyrene with increased graphite content which is used to manufacture silver-gray colored foams with a very low thermal conductivity.

The fire characteristics of these foams are in conformity with:

- DIN 4102-B1 (flame retardant)
- EN ISO 13501-1 class E

For additional information regarding fire fire behaviour, please contact your local BASF representative.

Neopor® F 5300 Plus	For block molding, shape molding (minimum wall thickness 30 mm) and loose fill applications.

Product description

Expandable polystyrene (EPS) with infrared reflecting additive. Contains uniformly distributed polymeric flame retardant.
Blowing agent (pentane) content approx. 5.3 % by weight.

Product	Bead size class	Typical bead size
Neopor® F 5300 Plus	0.9 - 1.4 mm	0.8 - 1.5 mm (≥ 95 % by weight)

Physical form

Neopor® F 5300 Plus is supplied in the form of a lentil-shaped granulate.

Storage

Neopor® is usually supplied in cardboard containers (octabins). It can be stored in these unopened receptacles for three months before processing.

The octabins should not be exposed to weather conditions (rain, water, snow, frost, and sunlight) and must be protected from damage. They should always be stored in a cool place (below 20 °C if possible) to minimize loss of blowing agent.

Once containers have been opened, their contents should be used as soon as possible. In the meantime the octabins should be kept tightly sealed.

It is not recommended to stack octabins more than one layer high. In case of double-stacking octabins under controlled conditions, a strong plywood board must be placed between the stacked containers.

Octabins covered with a plastic hood and/or shrink-wrapped should never be double stacked.

Product	Usual bulk density-range	Recommended intermediate aging period	Achievable bulk density by single step pre-expansion
Neopor® F 5300 Plus	12* - 20 kg/m³	10 - 48 h	17 kg/m³

*by double pass expansion

Neopor® | BASF We create chemistry

Processing

The raw material must not be mixed with other raw materials in order to comply with the requirements of fire test certificates.

Neopor® is processed into foam in 3 steps.

- **Preexpansion**

Neopor® F 5300 Plus can be preexpanded to the above-mentioned densities without any problems using discontinuous, state-of-the-art preexpanders. Lower densities can be achieved by double step preexpansion.

- **Intermediate aging**

The intermediate aging time should be selected depending on the bulk density, the ambient temperature and the intended application. It is usually between 10 and 48 hours.

- **Molding**

Neopor® F 5300 Plus can be molded in commercially available block- and shapemolding machines. Due to the slightly lenticular shape of the particles, adjustments to the filling systems of the shapemolding machines may be necessary.

If recycling material is to be added, it must be ensured that the density of the recycling material is as closely as possible to the preexpansion density in order to avoid separation effects in the molds. Moreover it is recommended to work up the recycling material in a dedusting system before use.

For further information regarding processing, please contact your local BASF contact person.

Further information about the properties and uses of Neopor® is given at www.neopor.de

Packaging

Sheets and molded parts made of Neopor® must not be packed in transparent films. The use of an opaque/white or dyed film is strongly recommended.

Safety precautions

It should be noted, that during the processing and storage of Neopor®, as well as of foams produced from it, explosive blowing agent/air mixtures may be formed by diffusing blowing agent (pentane, LEL 1.3 vol%).

Therefore, adequate ventilation must be provided at all times. All conceivable ignition sources (open flames, welding sparks, electrical sparks etc.) must be kept away and electrostatic charging must be avoided. Smoking must be strictly prohibited!

It is forbidden to transport Neopor® raw material or Neopor® foam in unventilated or closed vehicles. Further information is given in the respective safety data sheet.

Industrial hygiene

Pentane escapes during storage and processing of Neopor®. The workplace should therefore be well ventilated. Especially when hot-wire cutting the foams, it is important to ensure that the vapours produced are extracted, as they contain small amounts of styrene in addition to pentane.

The regionally applicable workplace concentration limits for styrene and pentane must be observed.

Foodstuffs legislation

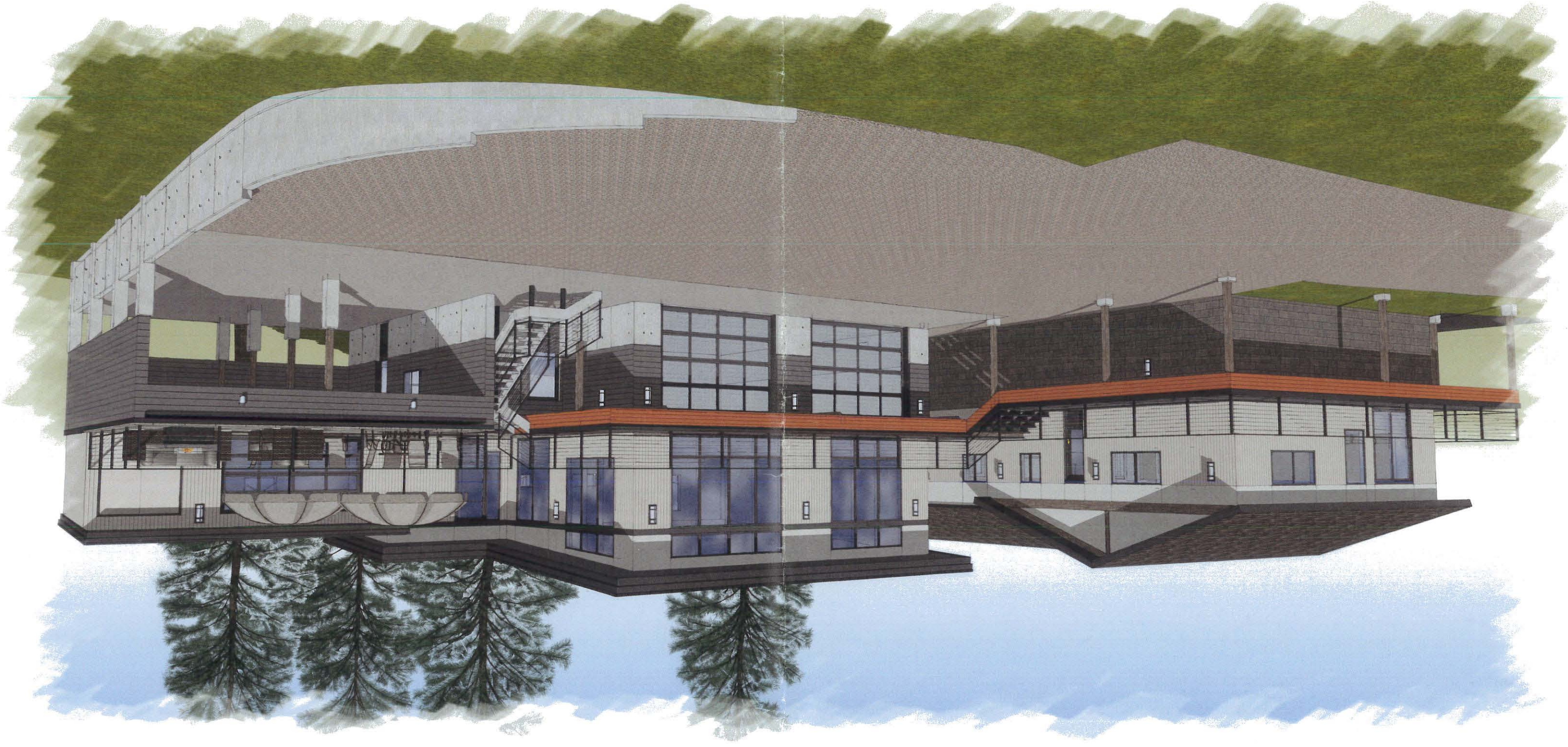
Foams made of Neopor® shall not be used in direct contact with food.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

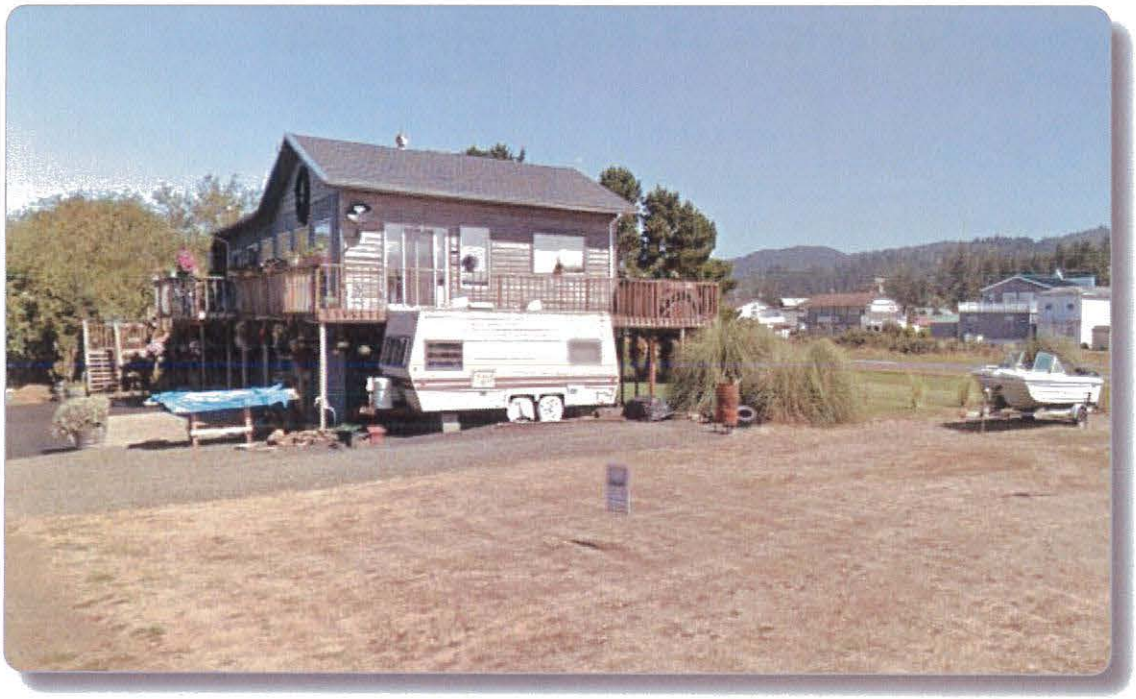

3565


35465



35465 Rueppell Avenue
Pacific City, OR

Hydraulics Analysis Report



prepared for

David Coulter

prepared by

Jake Hofeld, P.E.

WATERWAYS CONSULTING, INC.

March 30, 2021

WATERWAYS CONSULTING

Contents

List of Figures

List of Attachments

INTRODUCTION

Waterways Consulting Inc. (Waterways) has been retained by David Coulter to evaluate the hydraulic effects on the Nestucca River during a 100-year base flood discharge from a proposed residential structure. The proposed residential structure is located on the east (left) bank floodplain of the Nestucca River at 35465 Rueppell Avenue in Pacific City, Oregon. The existing site is currently a residential single-family home with a grassy backyard adjacent to the Pacific City State Airport.

The proposed development on the parcel will add a two-story structure with a second story living space and a ground floor garage with an abutting open carport. A gravel driveway will be graded to provide access to the garage and carport in addition to a retaining wall located at the east edge of the carport. The entire property being developed will occur within the FEMA designated floodway, effective September 28, 2018 (Figure 1).

The following report has been prepared to support floodplain development permitting with Tillamook County for the proposed project and presents our hydraulic analysis of existing and proposed conditions for the 100-year flood event along the Nestucca River within the vicinity of the proposed residential structure. This report is based on the guidance outlined in Section 3.510(9)(a) of the Tillamook County Land Use Ordinance which requires, "...certification is provided by a professional registered civil engineer demonstrating through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that such encroachment shall not result in any increase in flood levels during the occurrence of the based flood discharge."

HYDRAULIC MODELING METHODOLOGY

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) has mapped Nestucca River at the project area as a Special Flood Hazard Area (SFHA) within the regulatory floodway Zone AE (Figure 1). Tillamook County provided Waterways with a hydraulic model of the Nestucca River covering the project area for a Letter of Map Revision (LOMR), effective September 24, 2015 (Case. Number 14-10-1727P). The LOMR and corresponding hydraulic model conducted in the United States Army Corps of Engineers (USACE) Hydraulic Engineering Center River Analysis Software (HEC-RAS) by West Consultants updated the previous modeling and FIRM Panels dated August 1, 1978. All elevations are referenced to a NAVD 88 vertical datum. This model was used as the basis for all hydraulic modeling.

Waterways updated the hydraulic analysis using HEC-RAS, version 5.0.7. A one-dimensional hydraulic model was completed to characterize the existing and proposed conditions at the project site during the 100-year recurrence interval peak flow at the Nestucca River. Additional cross sections were added to the provided model in the vicinity of the project area. The two modeling scenarios include the Existing Conditions Model ("Ex. Cond." is the Plan identifier in the model) and the Proposed Conditions Model ("Prop. Cond." is the Plan identifier in the model). Figure 2 shows the proposed project location, cross section locations used in the hydraulic analysis, and the effective FEMA floodplain and floodway boundaries (FEMA 2018).

Existing Conditions Model

Additional cross sections added to the LOMR model were sampled from a terrain surface derived from LiDAR data from the Department of Geology and Mineral Industries (DOGAMI) North Coast collected by Watershed Sciences Inc. in 2009. LiDAR was updated and overlain with existing topographic survey data for the project parcel. The existing topographic survey was provided by the Domus Design Build, dated January 19, 2021 (Figure 3). Bathymetry for the additional cross sections were interpolated from upstream and downstream cross sections of the LOMR model.

The downstream model boundary extends approximately 1.1 miles downstream of the project area and the upstream model boundary extends approximately 2.7 miles upstream of the project area (Figure 2). The bridge crossing geometry at Ferry Street and at Pacific Avenue downstream of the project area were included in the model from drawings provided by Oregon Department of Transportation (ODOT) and Tillamook County. Hydraulic roughness values for the additional cross sections were based on values published in the provided model. Hydraulic roughness values, known as Manning's Roughness, for the additional cross sections are outlined in Table 1.

Table 1. *Manning's Roughness for Different Land Use Types*

Land Use Type	Manning's 'n'
Channel	0.03
Gravel Driveway	0.03
Open Pervious Areas (grassed)	0.04 - 0.05
Residential Area	0.08
Open Pervious Areas (trees)	0.10

Proposed Conditions Model

The proposed conditions model included the additional cross sections created in the existing conditions model. The existing conditions terrain was updated with the approximate proposed garage structure first floor footprint of 46 feet by 37 feet provided by design drawings supplied from the client (Figure 4). The proposed residential structure was modeled as a blocked obstruction at cross sections located at the upstream and downstream sides of the proposed structure. The location of the proposed structure is approximate due to the surveyed property boundaries being in an arbitrary horizontal datum but is considered accurate enough for the purposes of this analysis. The existing terrain was also updated with the grading of the gravel driveway provided by design drawings supplied from the client (Figures 4 and 5). The proposed open carport finished ground elevation was modeled as a blocked obstruction up to the finished ground elevation of 13.0 feet on the upstream and downstream sides of the proposed structure. The proposed gravel driveway slopes down from the finished floor of the garage and finished ground at the carport to an elevation of 12.67 feet which adds additional gravel fill to cross section located at the downstream side of the proposed structure and existing house. Structural posts supporting the raised roof deck over the carport were not included in the model because these are

assumed to have negligible effect on the river hydraulics (i.e. the river can flow unimpeded through these areas).

Boundary Conditions

The downstream boundary condition used in the two models was set to a known water surface elevation of 14.15 feet (NAVD 88) per the provided model. The downstream boundary condition is located downstream of FEMA Cross Section A near where Nestucca River meets the Nestucca Bay.

Peak Flow Hydrology

According to the FEMA FIS report and the provided model, the 100-year peak flow event for this portion of the Nestucca River is 49,700 cubic feet per second (cfs). Therefore, 49,700 cfs was assumed for the 100-year peak flow (i.e. base flood discharge) in all models.

RESULTS

Results of the hydraulic modeling are presented in Attachment A. These results show that the proposed building will not result in a rise in water surface elevations anywhere in the model. No change between the Existing Conditions Model and Proposed Conditions Model can likely be attributed to the relatively small building footprints and minor grade change as compared to a much larger/wider floodplain area.

CONCLUSIONS

The results of this hydraulic analysis indicated no rise in the 100-year water surface elevations for the Proposed Conditions Model when compared to the Existing Conditions Model. Based on this, the proposed project satisfies the requirement of Section 3.510(9)(a) of the Tillamook County Land Use Ordinance.

2021.03.30
13:26:37 -07'00'

EXPIRES: 6/30/2021

REFERENCES

Federal Emergency Management Agency. 2018. Flood Insurance Rate Maps (FIRMs) for Tillamook County (panel 0855), Oregon and Incorporated Areas. September 28, 2018.

Federal Emergency Management Agency. 2018. Flood Insurance Study (FIS) for Tillamook County, Oregon and Incorporated Areas. September 8, 2018.

Domus Design Build. Site Plan Dave and Pattie Coulter 35465 Rueppell Ave. Pacific City, Oregon. January 19, 2021.

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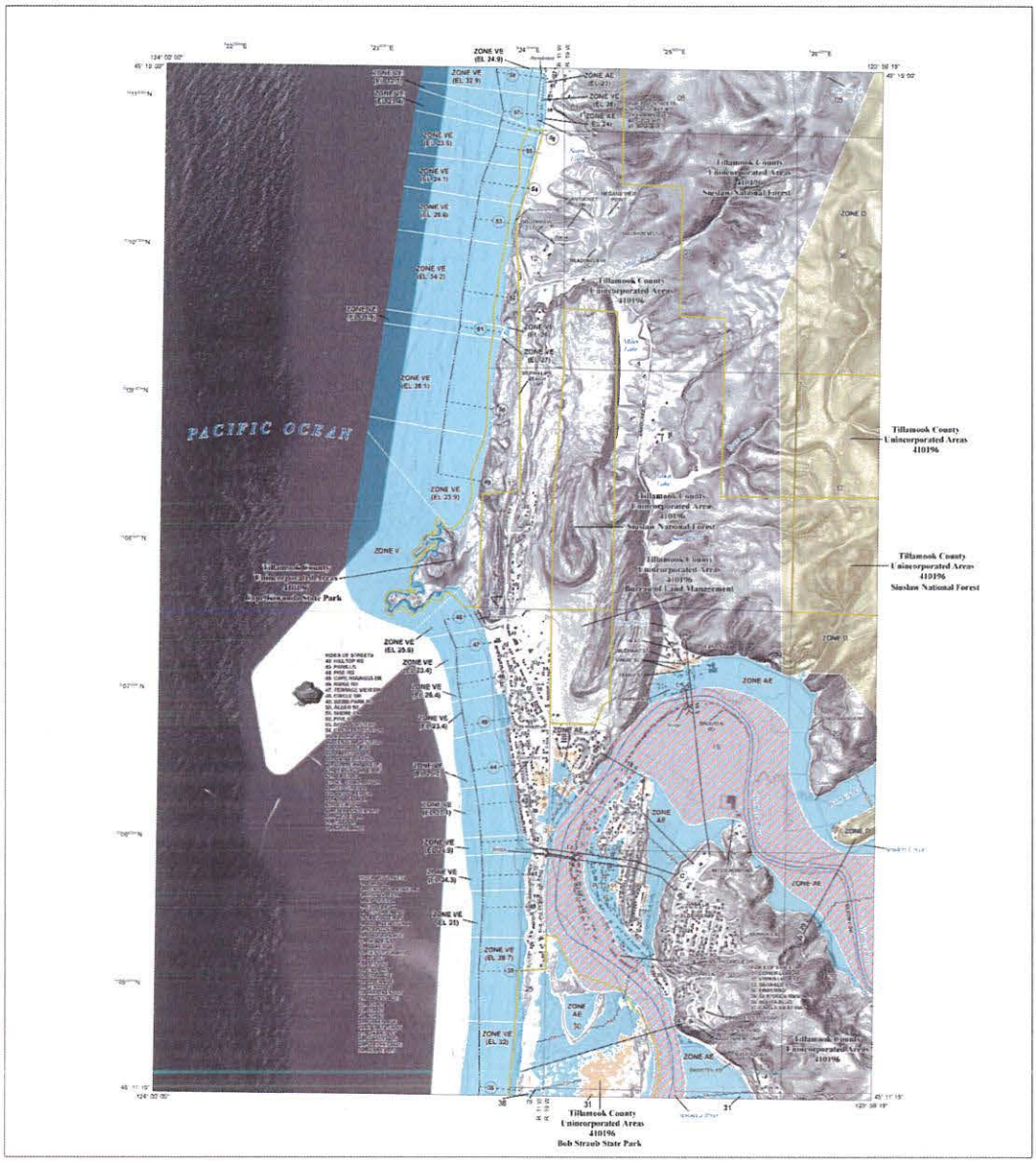
U.S. Army Corps of Engineers. Hydrologic Engineering Center. Hydraulic Reference Manual. Version 5.0 Davis, California. February 2016.

Watershed Sciences. LiDAR Remote Sensing Data Collection Oregon North Coast. Prepared for Department of Geology and Mineral Industries (DOGAMI). December 21, 2009.

West Consultants. Hydraulic Engineering Center River Analysis Software (HEC-RAS) Model of the Nestucca River. 2014.

FIGURES



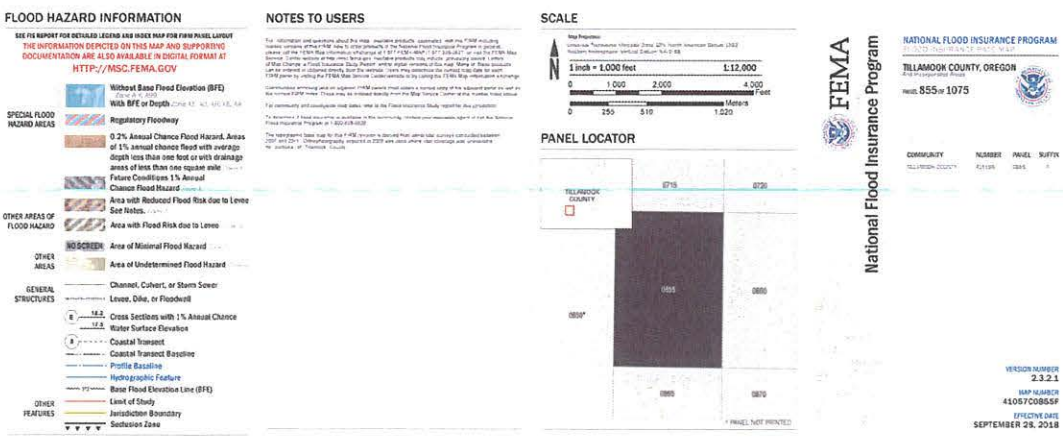


FIGURE 1: FEMA FIRM PANEL

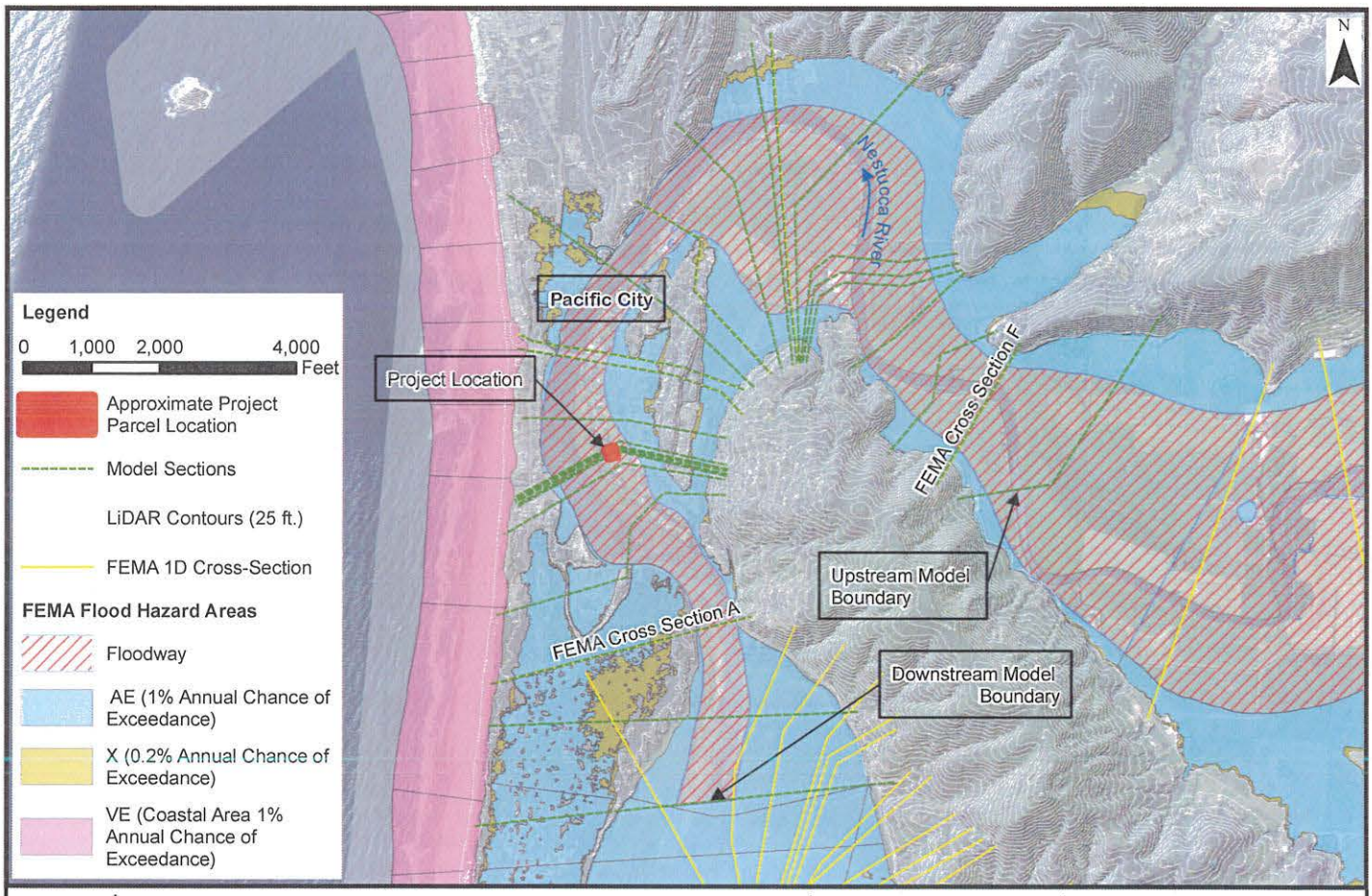


FIGURE 2

Hydraulic Analysis Overview Map of Proposed Project

35465 Rueppell Ave
Hydraulic Analysis

WATERWAYS CONSULTING, INC.
Santa Cruz, CA | watways.com | Portland, OR

FIGURE 3: EXISTING CONDITIONS SITE PLAN

CRAFTING
FINE CREATIVE
HOMES

ADDITION FOR:
DAVE AND PATTIE COULTER
35465 RUEPPELL AVE
PACIFIC CITY, TILLAMOOK COUNTY, OREGON

Project No: 2021-01
Drawn: MEC
Checked By: RBC
Date: Jan. 19, 2021
REV. 1: XXX
REV. 2: XXX

A-0.1

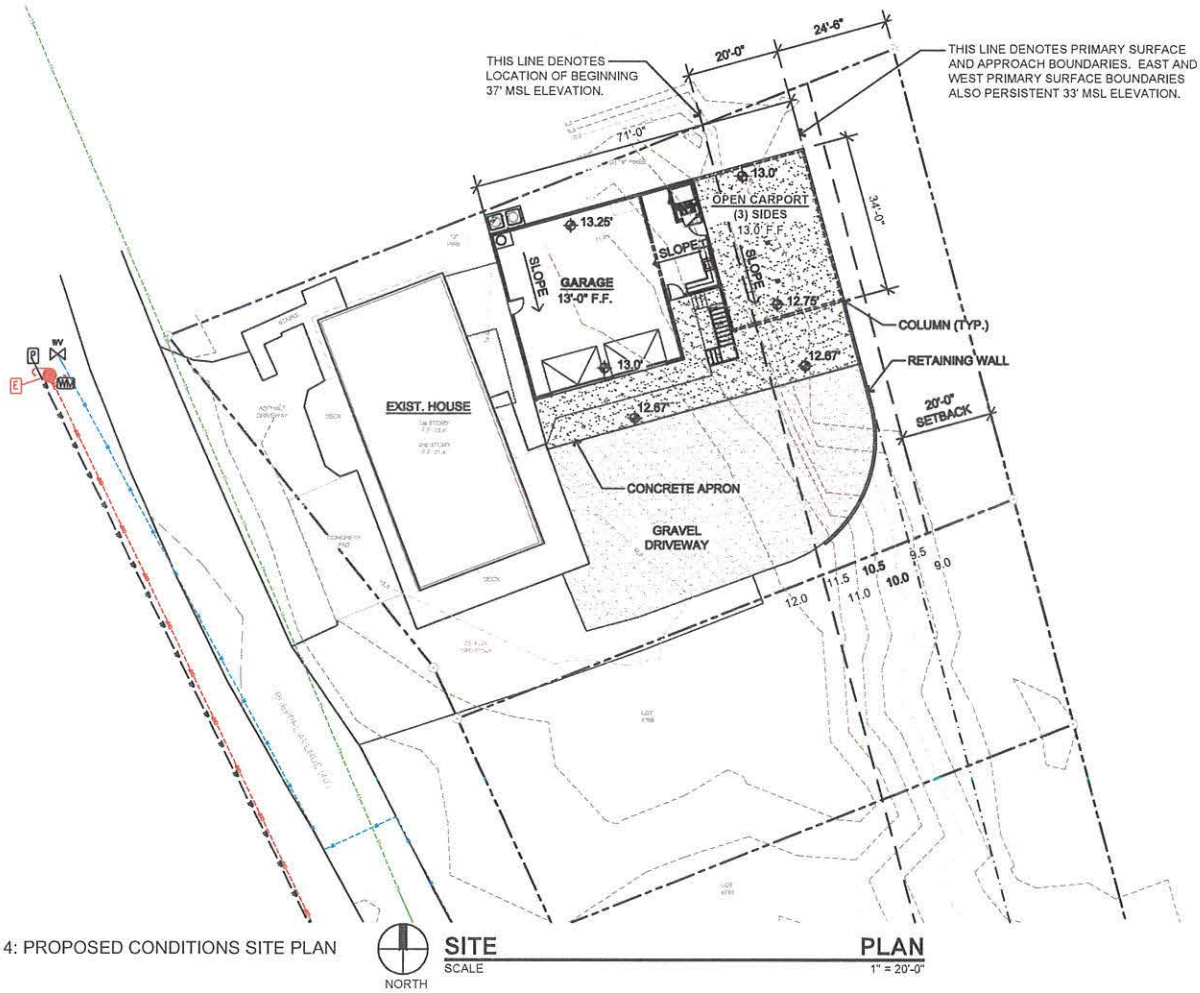


FIGURE 4: PROPOSED CONDITIONS SITE PLAN

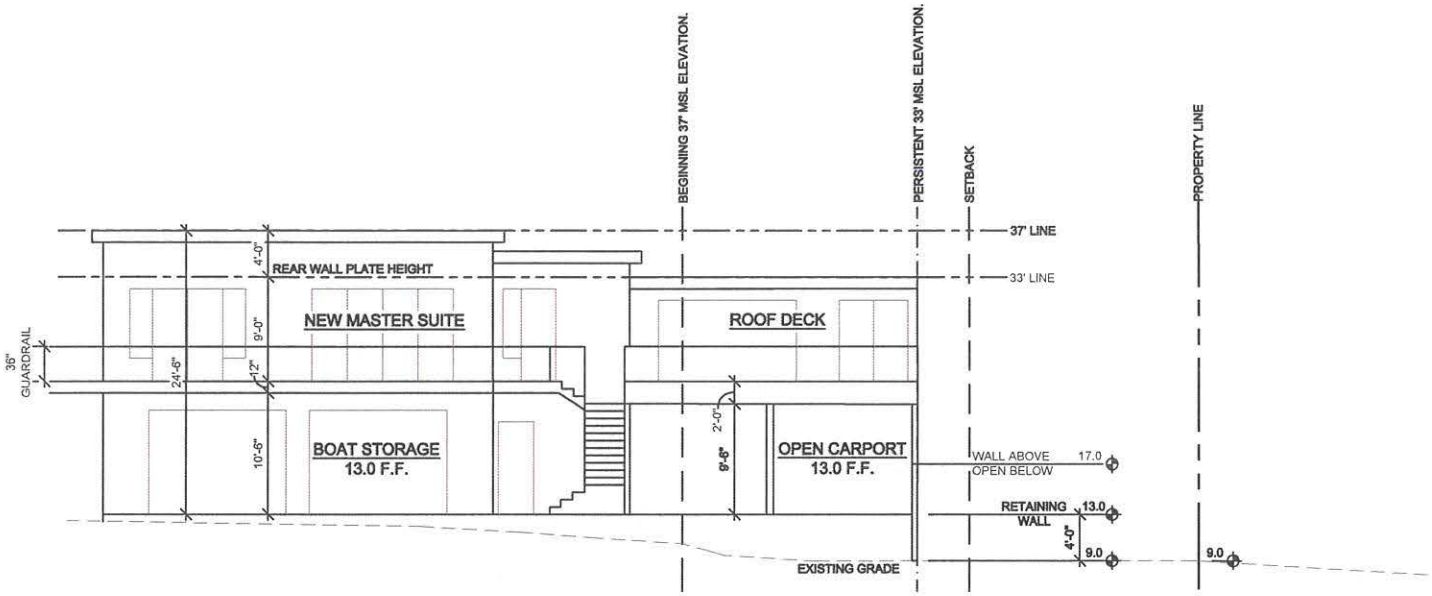


FIGURE 5: PROPOSED CONDITIONS ELEVATION SECTION

Attachment A

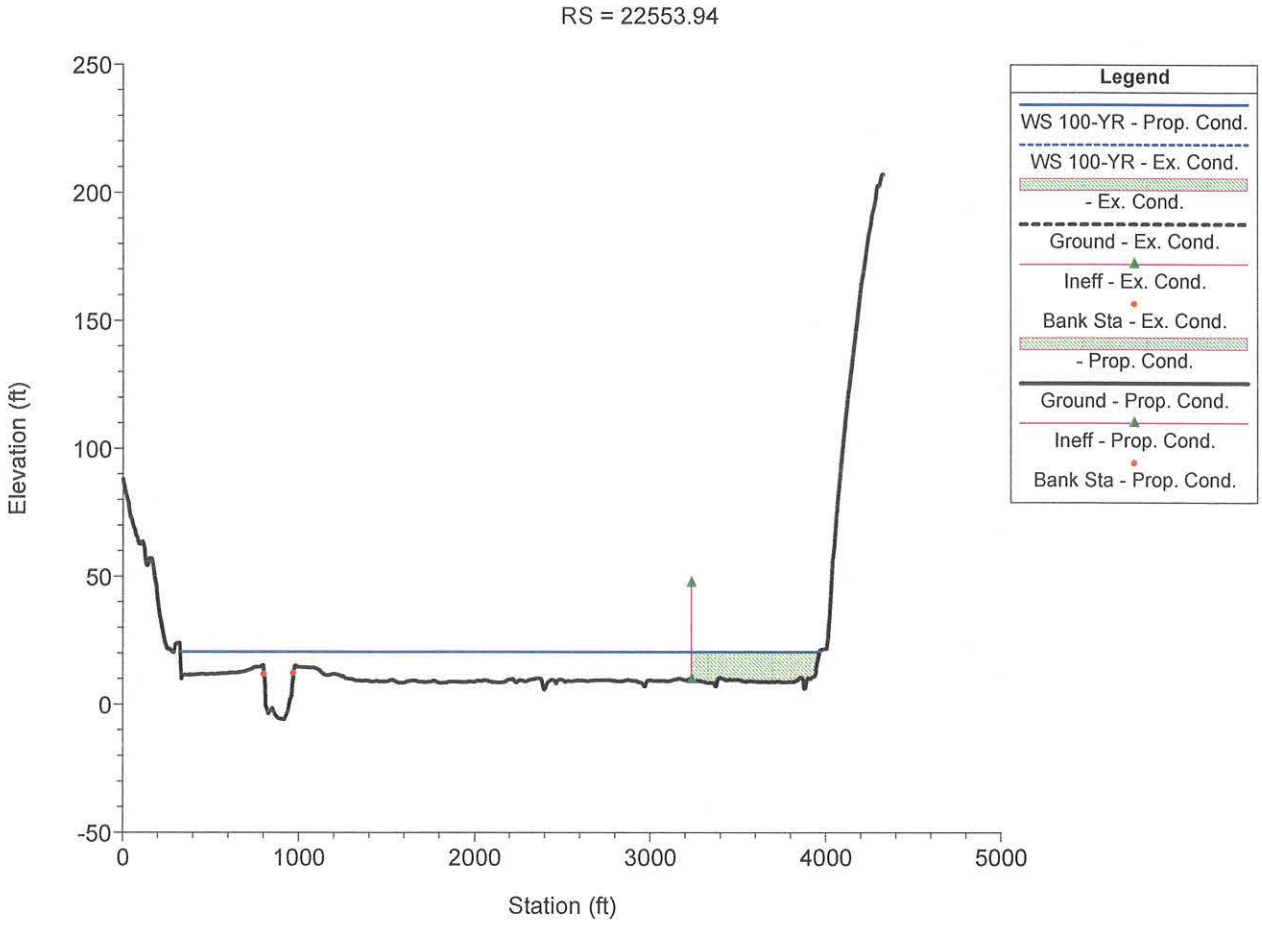
HEC-RAS Output Files

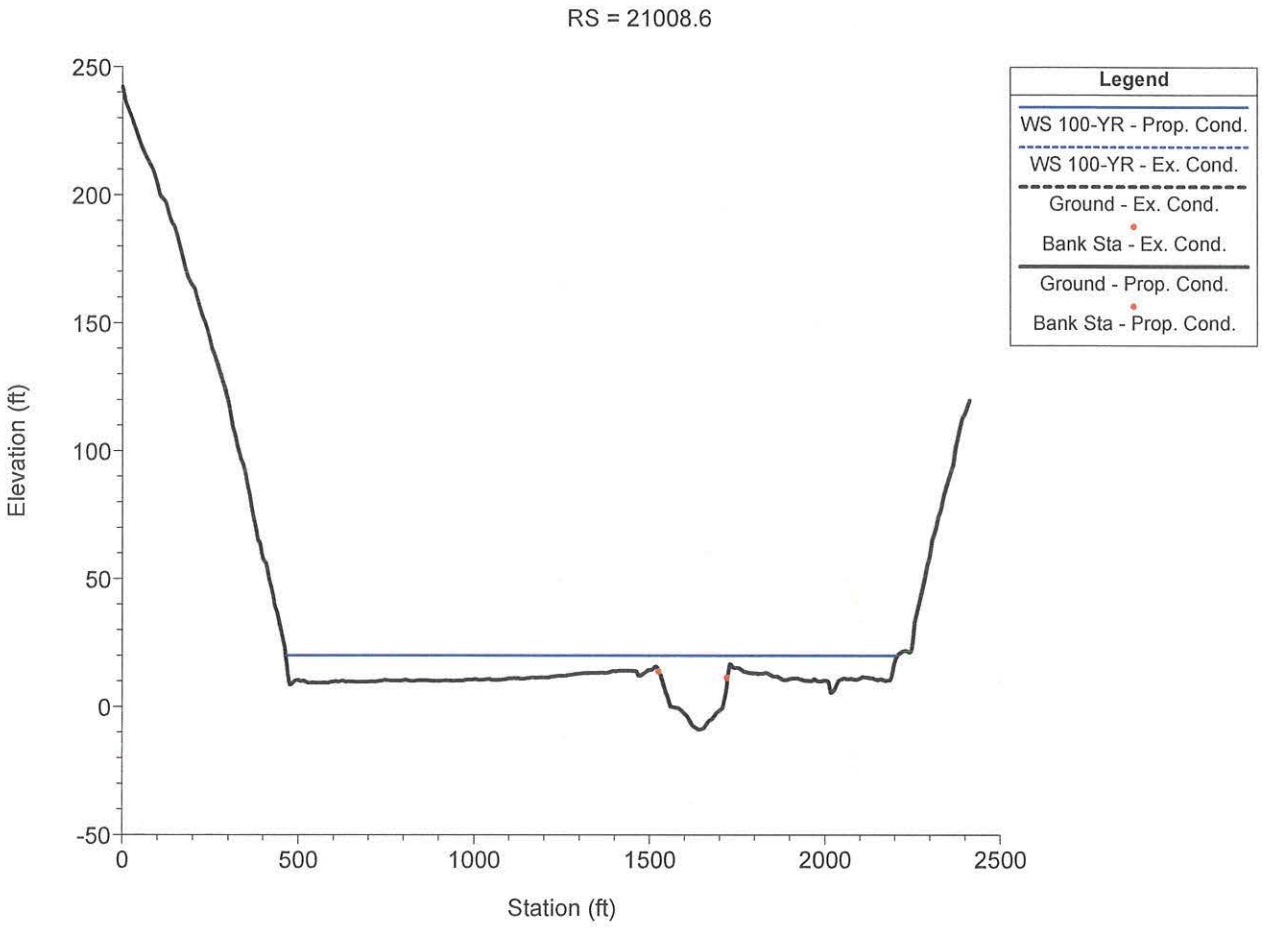
HEC-RAS River: Nestucca River Reach: Lower Profile: 100-YR

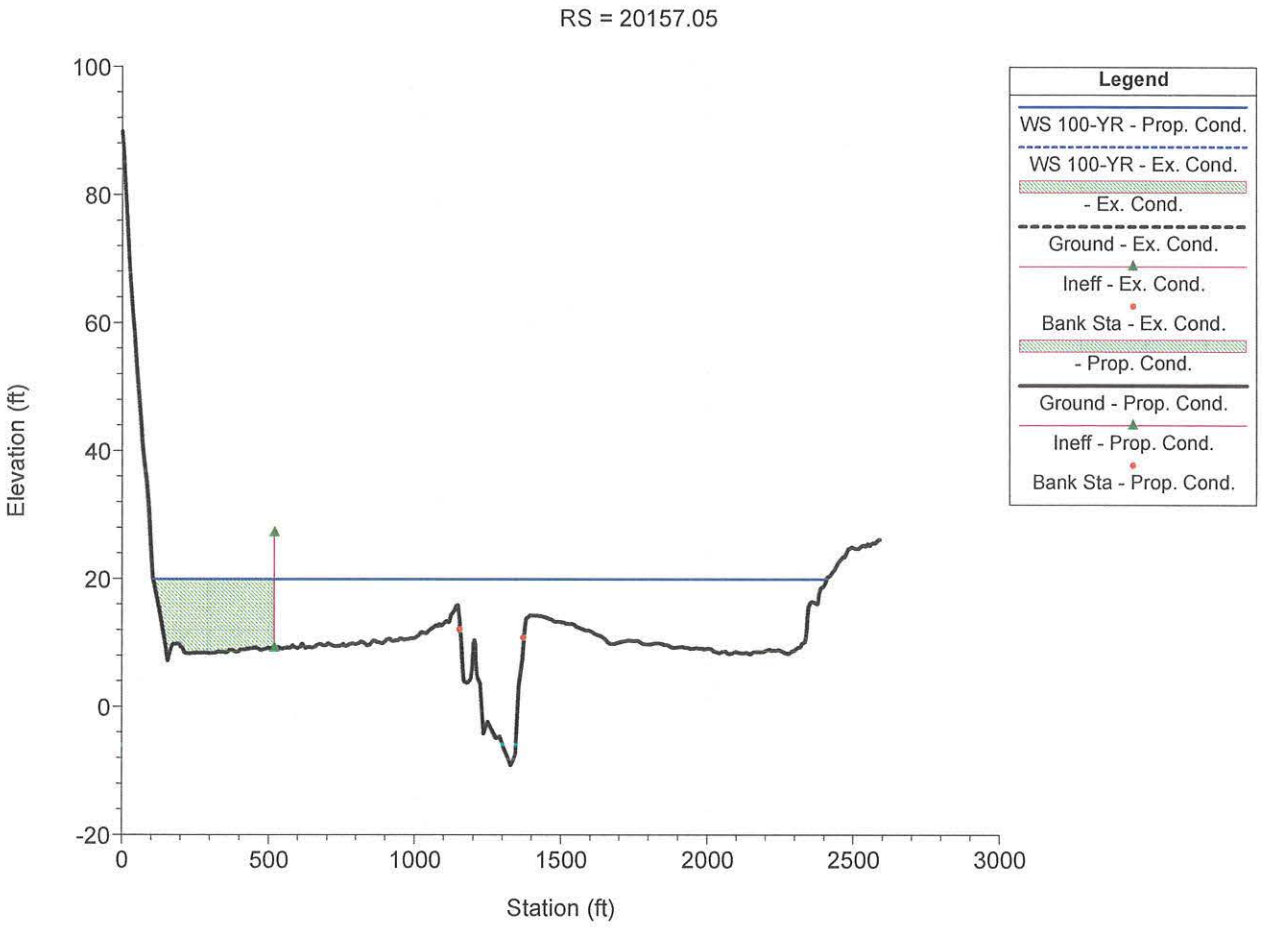
Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Lower	22553.94	100-YR	Ex. Cond.	49700.00	-5.99	20.50	12.22	20.55	0.000090	3.06	32247.60	3644.65	0.11
Lower	22553.94	100-YR	Prop. Cond.	49700.00	-5.99	20.50	12.22	20.55	0.000090	3.06	32247.83	3644.66	0.11
Lower	21008.6	100-YR	Ex. Cond.	49700.00	-8.92	20.09		20.31	0.000259	5.18	17865.91	1743.77	0.20
Lower	21008.6	100-YR	Prop. Cond.	49700.00	-8.92	20.09		20.31	0.000259	5.18	17866.07	1743.77	0.20
Lower	20157.05	100-YR	Ex. Cond.	49700.00	-9.15	19.94	12.36	20.10	0.000212	4.43	20015.00	2302.29	0.17
Lower	20157.05	100-YR	Prop. Cond.	49700.00	-9.15	19.94	12.36	20.10	0.000212	4.43	20015.19	2302.29	0.17
Lower	19079.89	100-YR	Ex. Cond.	49700.00	-11.85	19.70		19.89	0.000228	5.02	20295.96	1888.75	0.18
Lower	19079.89	100-YR	Prop. Cond.	49700.00	-11.85	19.70		19.89	0.000228	5.02	20296.16	1888.75	0.18
Lower	18019.8	100-YR	Ex. Cond.	49700.00	-7.69	19.54	11.35	19.68	0.000186	4.31	22190.83	2668.25	0.16
Lower	18019.8	100-YR	Prop. Cond.	49700.00	-7.69	19.54	11.35	19.68	0.000186	4.31	22191.05	2668.26	0.16
Lower	17875.97	100-YR	Ex. Cond.	49700.00	-7.60	19.52	11.05	19.65	0.000168	4.13	23065.31	2677.05	0.16
Lower	17875.97	100-YR	Prop. Cond.	49700.00	-7.60	19.52	11.05	19.65	0.000168	4.13	23065.55	2677.05	0.16
Lower	17653.2	100-YR	Ex. Cond.	49700.00	-4.67	19.54	11.28	19.61	0.000095	3.21	29282.63	3181.65	0.12
Lower	17653.2	100-YR	Prop. Cond.	49700.00	-4.67	19.54	11.28	19.61	0.000095	3.21	29282.93	3181.65	0.12
Lower	15949.74	100-YR	Ex. Cond.	49700.00	-7.67	19.49	9.86	19.52	0.000032	1.90	46748.95	4377.64	0.07
Lower	15949.74	100-YR	Prop. Cond.	49700.00	-7.67	19.49	9.86	19.52	0.000032	1.90	46749.38	4377.65	0.07
Lower	14728.64	100-YR	Ex. Cond.	49700.00	-9.90	19.44	10.23	19.48	0.000043	2.46	37331.63	3855.78	0.09
Lower	14728.64	100-YR	Prop. Cond.	49700.00	-9.90	19.44	10.23	19.48	0.000043	2.46	37332.01	3855.78	0.09
Lower	14621.23			Bridge									
Lower	14544.91	100-YR	Ex. Cond.	49700.00	-8.62	19.42	10.32	19.46	0.000045	2.54	36915.93	3871.12	0.10
Lower	14544.91	100-YR	Prop. Cond.	49700.00	-8.62	19.42	10.32	19.46	0.000045	2.54	36916.31	3871.12	0.10
Lower	13541.26	100-YR	Ex. Cond.	49700.00	-7.81	19.38	10.21	19.42	0.000052	2.50	32796.95	3280.39	0.10
Lower	13541.26	100-YR	Prop. Cond.	49700.00	-7.81	19.38	10.21	19.42	0.000052	2.50	32797.25	3280.39	0.10
Lower	12396	100-YR	Ex. Cond.	49700.00	-3.59	18.51		19.22	0.000462	7.06	9099.18	2050.30	0.30
Lower	12396	100-YR	Prop. Cond.	49700.00	-3.59	18.51		19.22	0.000462	7.06	9099.27	2050.30	0.30
Lower	11367.2	100-YR	Ex. Cond.	49700.00	-3.05	17.74	9.51	18.66	0.000619	7.83	7539.82	2019.55	0.34
Lower	11367.2	100-YR	Prop. Cond.	49700.00	-3.05	17.74	9.51	18.66	0.000619	7.83	7539.93	2019.58	0.34
Lower	10048.77	100-YR	Ex. Cond.	49700.00	-3.49	16.99	9.18	17.82	0.000617	7.52	8689.80	2063.64	0.34
Lower	10048.77	100-YR	Prop. Cond.	49700.00	-3.49	16.99	9.18	17.82	0.000617	7.52	8690.02	2063.67	0.34

HEC-RAS River: Nestucca River Reach: Lower Profile: 100-YR (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Lower	9942.323			Bridge									
Lower	9904.361	100-YR	Ex. Cond.	49700.00	-8.44	16.84	8.05	17.52	0.000540	6.93	10040.74	2094.21	0.31
Lower	9904.361	100-YR	Prop. Cond.	49700.00	-8.44	16.84	8.05	17.52	0.000540	6.93	10040.98	2094.21	0.31
Lower	8988.11	100-YR	Ex. Cond.	49700.00	-4.80	16.62	8.14	16.98	0.000328	5.35	12974.76	1987.89	0.24
Lower	8988.11	100-YR	Prop. Cond.	49700.00	-4.80	16.62	8.14	16.98	0.000328	5.35	12975.12	1987.91	0.24
Lower	8192.259	100-YR	Ex. Cond.	49700.00	-18.19	16.37	6.30	16.73	0.000306	5.46	12950.26	2042.12	0.23
Lower	8192.259	100-YR	Prop. Cond.	49700.00	-18.19	16.37	6.30	16.73	0.000306	5.46	12950.67	2042.12	0.23
Lower	8165	100-YR	Ex. Cond.	49700.00	-17.33	16.36	6.23	16.72	0.000285	5.38	13042.24	1970.46	0.23
Lower	8165	100-YR	Prop. Cond.	49700.00	-17.33	16.36	6.23	16.73	0.000290	5.42	12717.24	1924.26	0.23
Lower	8131	100-YR	Ex. Cond.	49700.00	-16.25	16.34	6.32	16.71	0.000297	5.49	12737.63	1923.02	0.23
Lower	8131	100-YR	Prop. Cond.	49700.00	-16.25	16.33	6.32	16.72	0.000303	5.54	12447.08	1876.78	0.23
Lower	8092	100-YR	Ex. Cond.	49700.00	-15.01	16.34	6.28	16.70	0.000269	5.27	12608.40	1838.87	0.23
Lower	8092	100-YR	Prop. Cond.	49700.00	-15.01	16.34	6.28	16.69	0.000261	5.19	12569.58	1839.59	0.22
Lower	8061	100-YR	Ex. Cond.	49700.00	-14.02	16.34	6.35	16.68	0.000278	5.15	12768.88	1825.31	0.22
Lower	8061	100-YR	Prop. Cond.	49700.00	-14.02	16.34	6.35	16.68	0.000278	5.15	12768.88	1825.31	0.22
Lower	8031	100-YR	Ex. Cond.	49700.00	-14.02	16.35		16.67	0.000266	5.01	13841.53	1832.03	0.22
Lower	8031	100-YR	Prop. Cond.	49700.00	-14.02	16.35		16.67	0.000266	5.01	13841.53	1832.03	0.22
Lower	7839.108	100-YR	Ex. Cond.	49700.00	-6.96	16.25	6.76	16.61	0.000310	5.16	12464.76	1879.15	0.23
Lower	7839.108	100-YR	Prop. Cond.	49700.00	-6.96	16.25	6.76	16.61	0.000310	5.16	12464.76	1879.15	0.23
Lower	6628.945	100-YR	Ex. Cond.	49700.00	-1.36	16.04	6.84	16.27	0.000208	3.91	14212.35	3171.30	0.19
Lower	6628.945	100-YR	Prop. Cond.	49700.00	-1.36	16.04	6.84	16.27	0.000208	3.91	14212.35	3171.30	0.19
Lower	4746.314	100-YR	Ex. Cond.	49700.00	-11.72	14.76	7.45	15.56	0.000672	7.30	7417.23	2442.34	0.34
Lower	4746.314	100-YR	Prop. Cond.	49700.00	-11.72	14.76	7.45	15.56	0.000672	7.30	7417.23	2442.34	0.34
Lower	3370.732	100-YR	Ex. Cond.	49700.00	-3.40	14.28	6.63	14.73	0.000430	5.53	9803.55	3594.57	0.27
Lower	3370.732	100-YR	Prop. Cond.	49700.00	-3.40	14.28	6.63	14.73	0.000430	5.53	9803.55	3594.57	0.27
Lower	2099.855	100-YR	Ex. Cond.	49700.00	-3.90	14.15	5.85	14.31	0.000175	3.42	17693.71	5262.50	0.17
Lower	2099.855	100-YR	Prop. Cond.	49700.00	-3.90	14.15	5.85	14.31	0.000175	3.42	17693.71	5262.50	0.17


RS = 22553.94
Elevation (ft)
250
200
150
100
50
0
-50
0
1000
2000
3000
4000
5000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 21008.6
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
Ground - Ex. Cond.
Bank Sta - Ex. Cond.
Ground - Prop. Cond.
Bank Sta - Prop. Cond.
Elevation (ft)
250
200
150
100
50
0
-50
0
500
1000
1500
2000
2500
Station (ft)


RS = 20157.05
Elevation (ft)
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80
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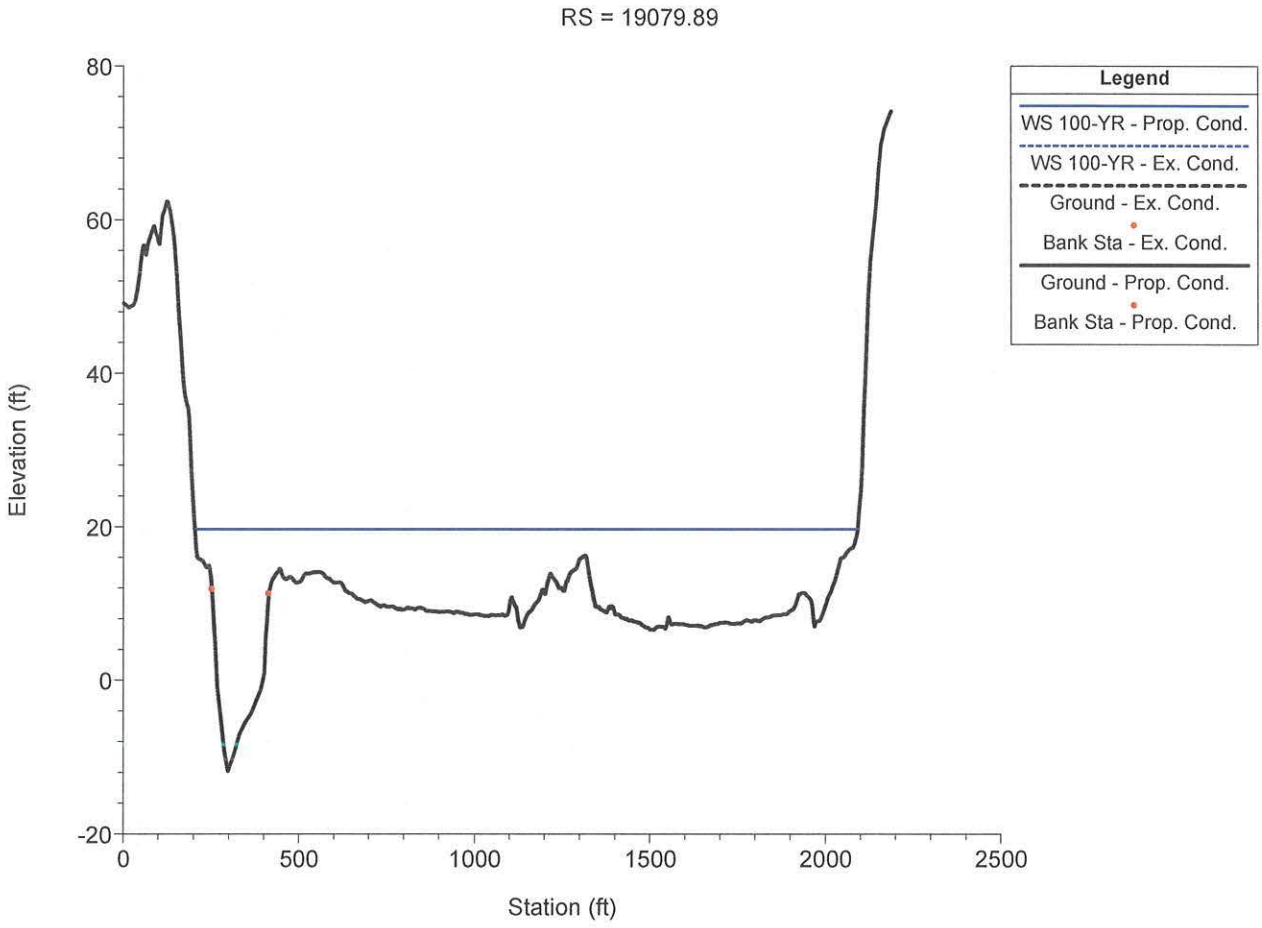
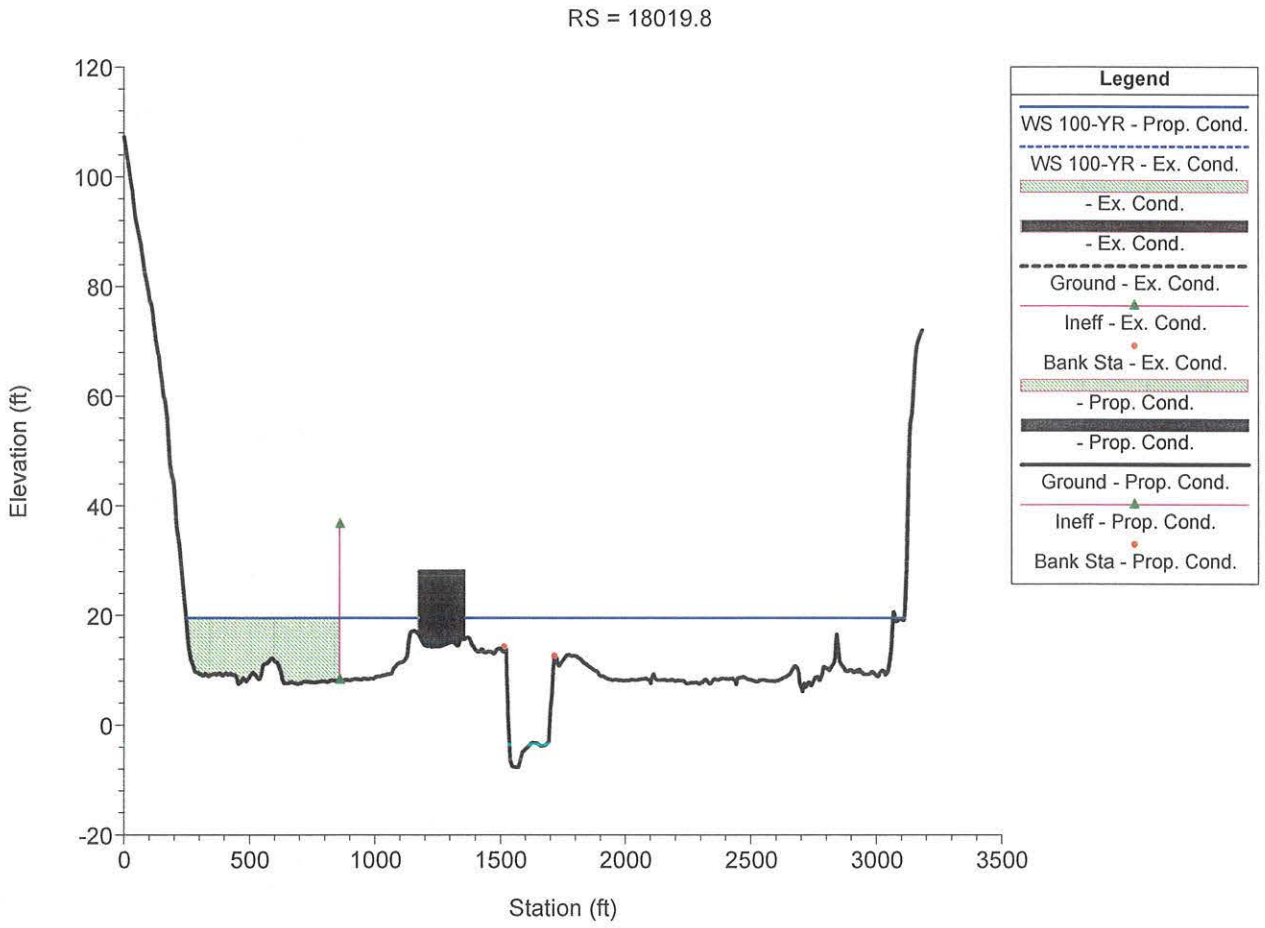
40
20
0
-20
0
500
1000
1500
2000
2500
3000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 19079.89
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
Ground - Ex. Cond.
Bank Sta - Ex. Cond.
Ground - Prop. Cond.
Bank Sta - Prop. Cond.
Elevation (ft)
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
Station (ft)


RS = 18019.8
Elevation (ft)
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60
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-20
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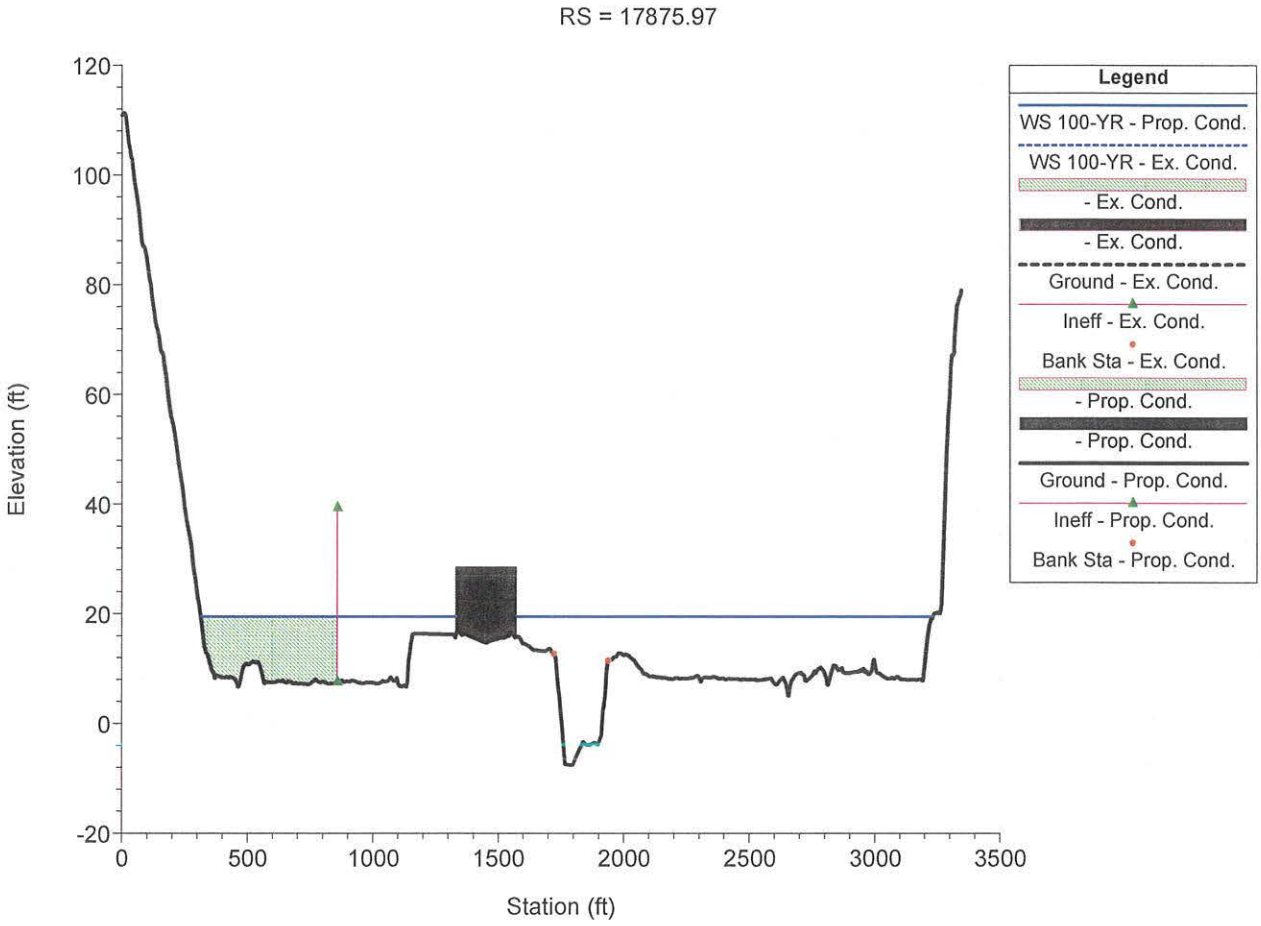
1000
1500
2000
2500
3000
3500
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 17875.97
Elevation (ft)
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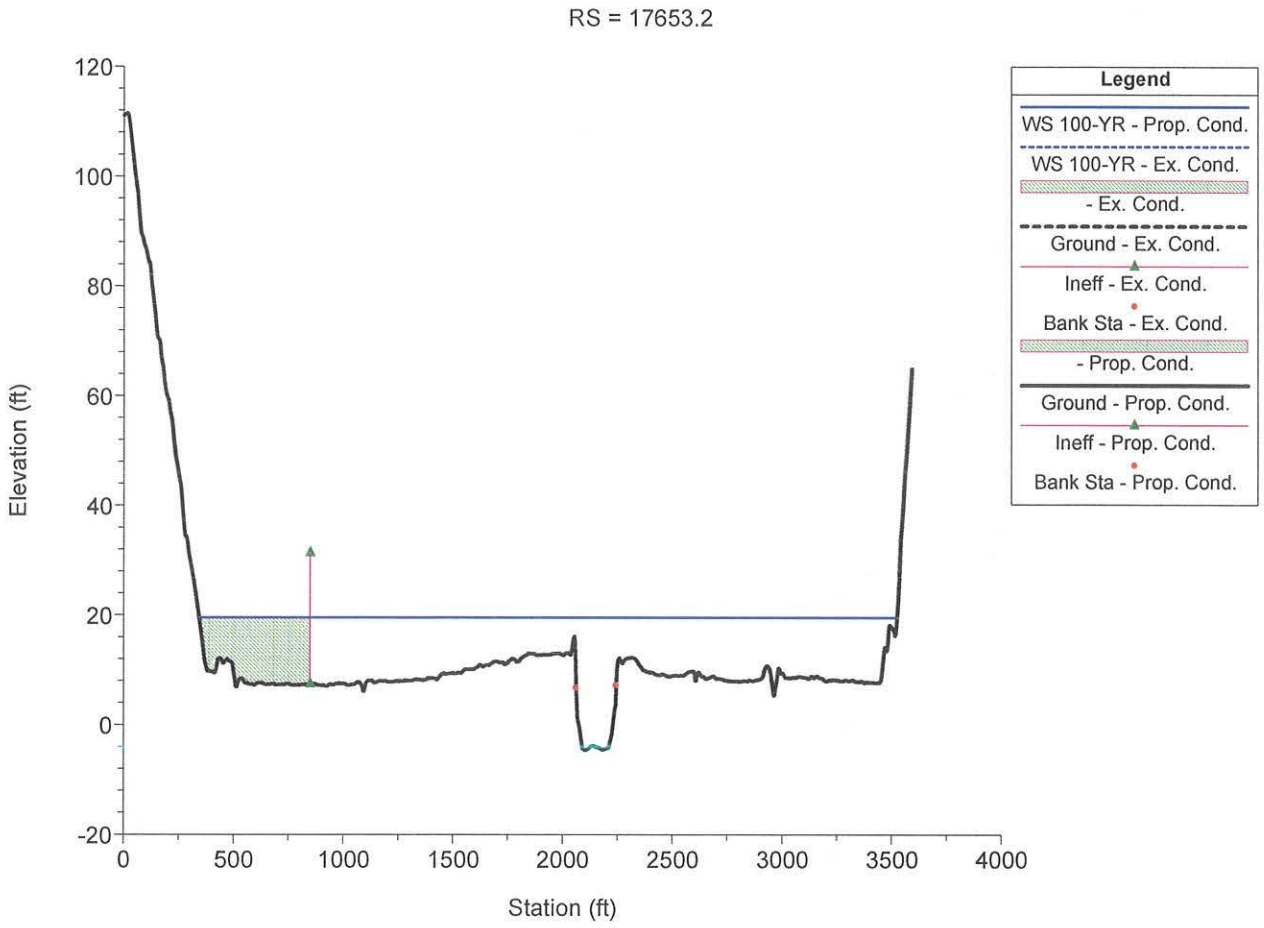
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 17653.2
Elevation (ft)
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100
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60
40
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0
-20
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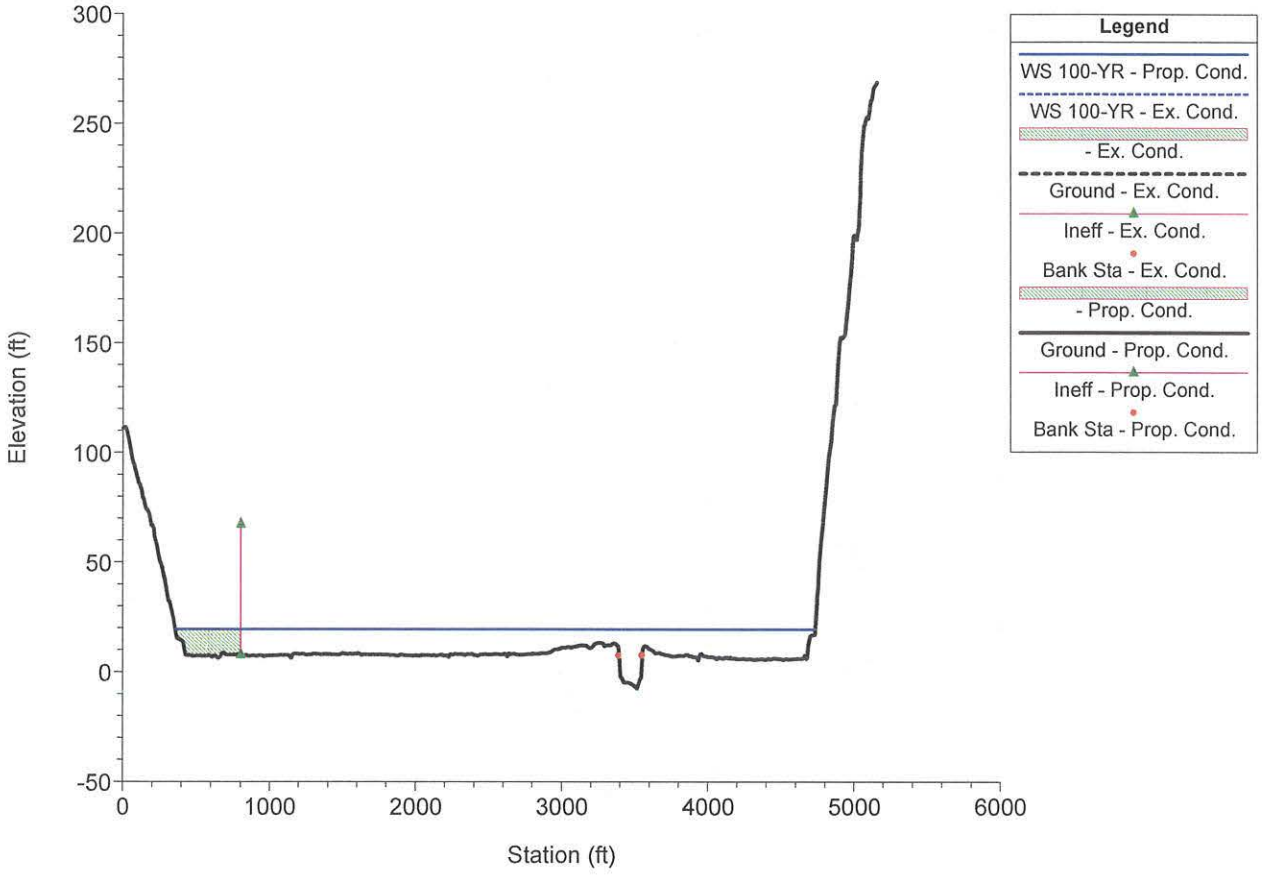
500
1000
1500
2000
2500
3000
3500
4000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

RS = 15949.74


300
250
200
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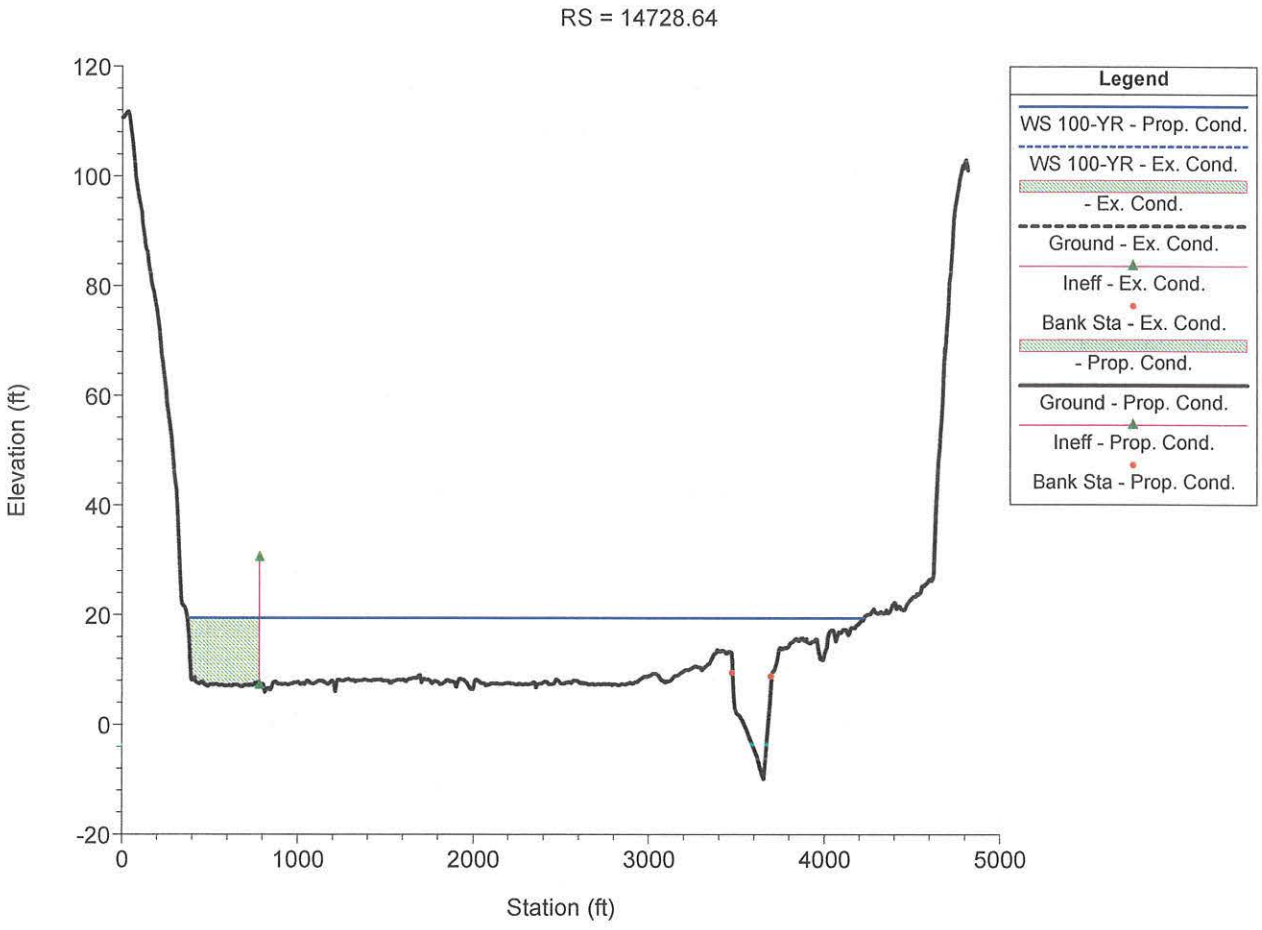
100
50
0
-50
Elevation (ft)
0
1000
2000
3000
4000
5000
6000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 14728.64
Elevation (ft)
120
100
80
60
40
20
0
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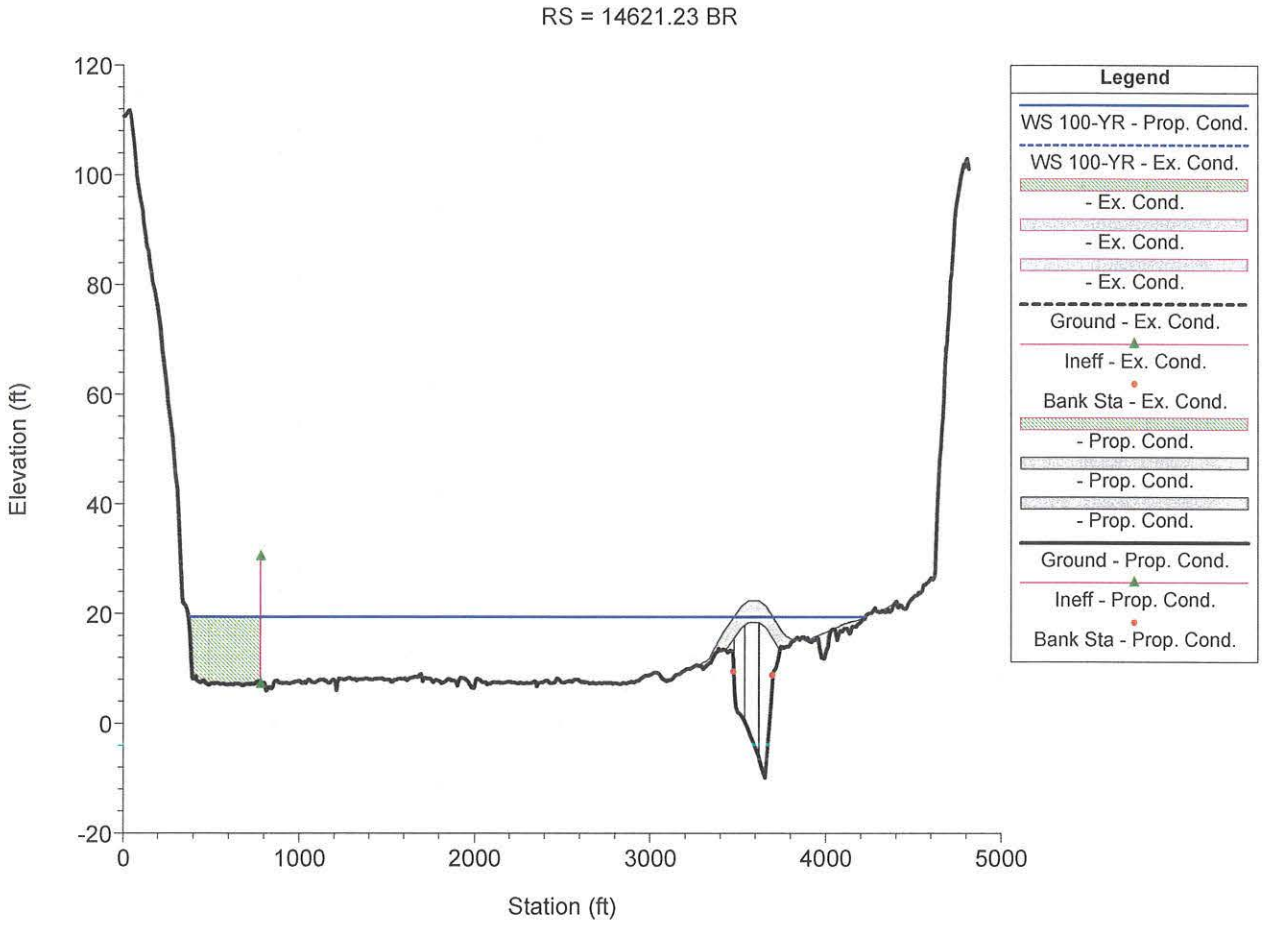
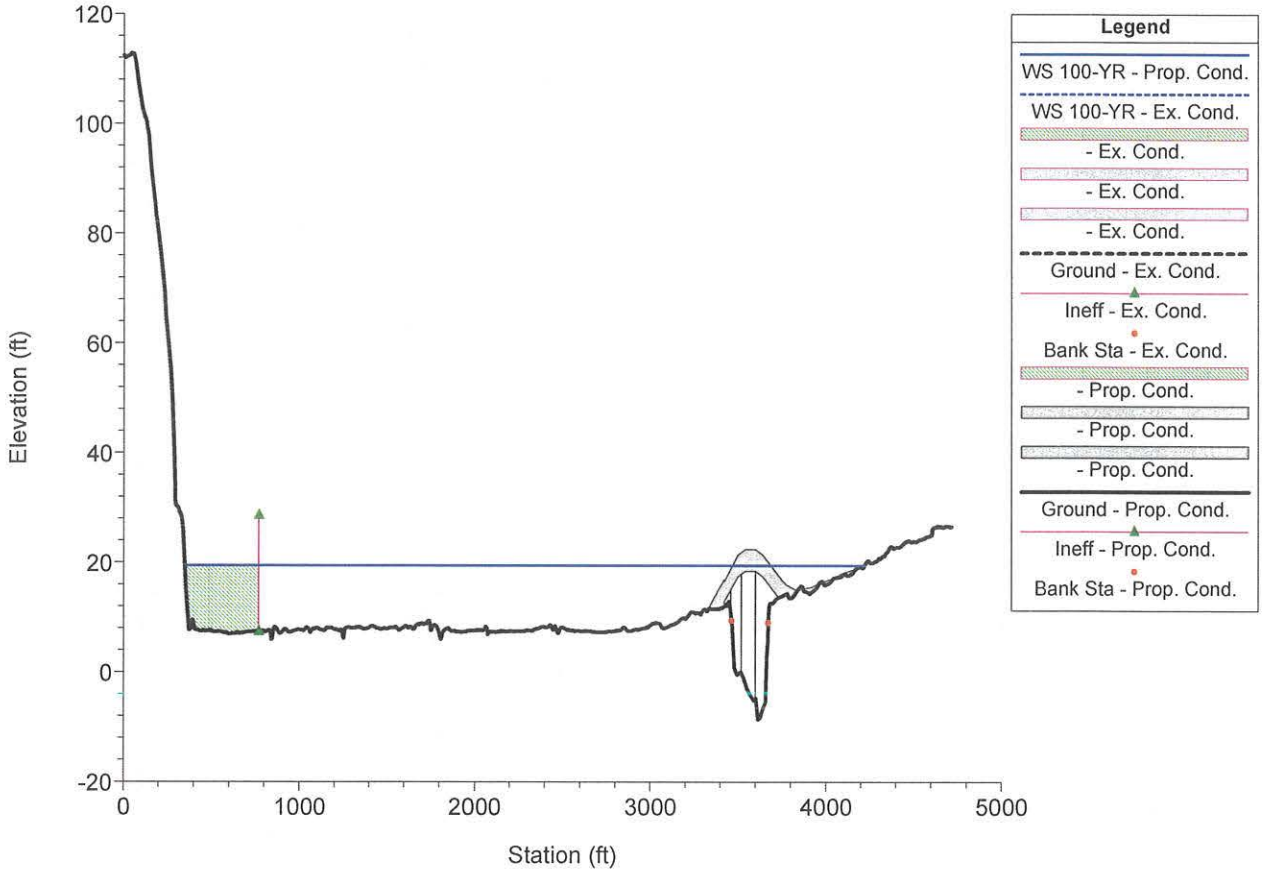
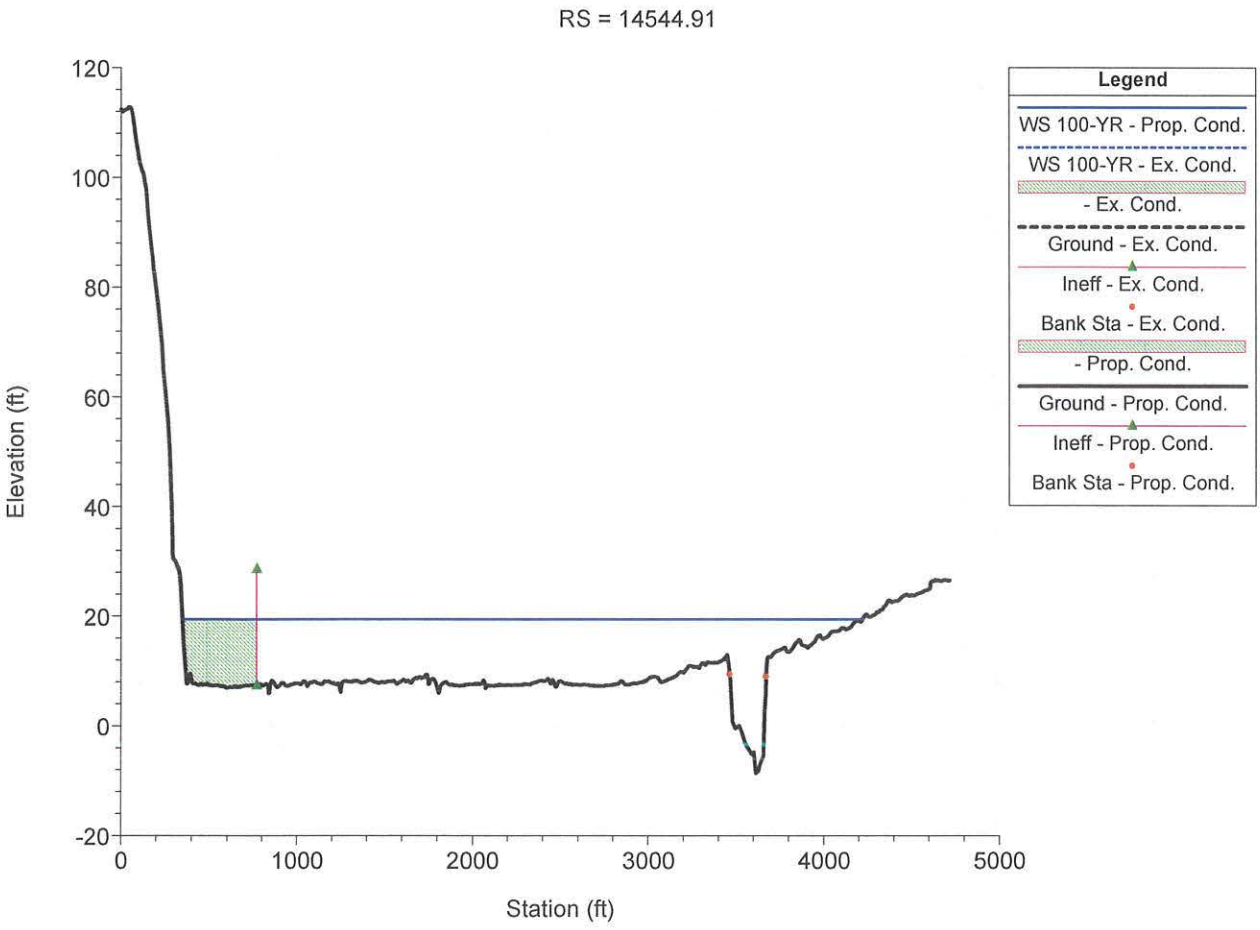
0
1000
2000
3000
4000
5000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 14621.23 BR
Elevation (ft)
120
100
80
60
40
20
0
-20
0
1000
2000
3000
4000
5000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

RS = 14621.23 BR




RS = 14544.91
Elevation (ft)
120
100
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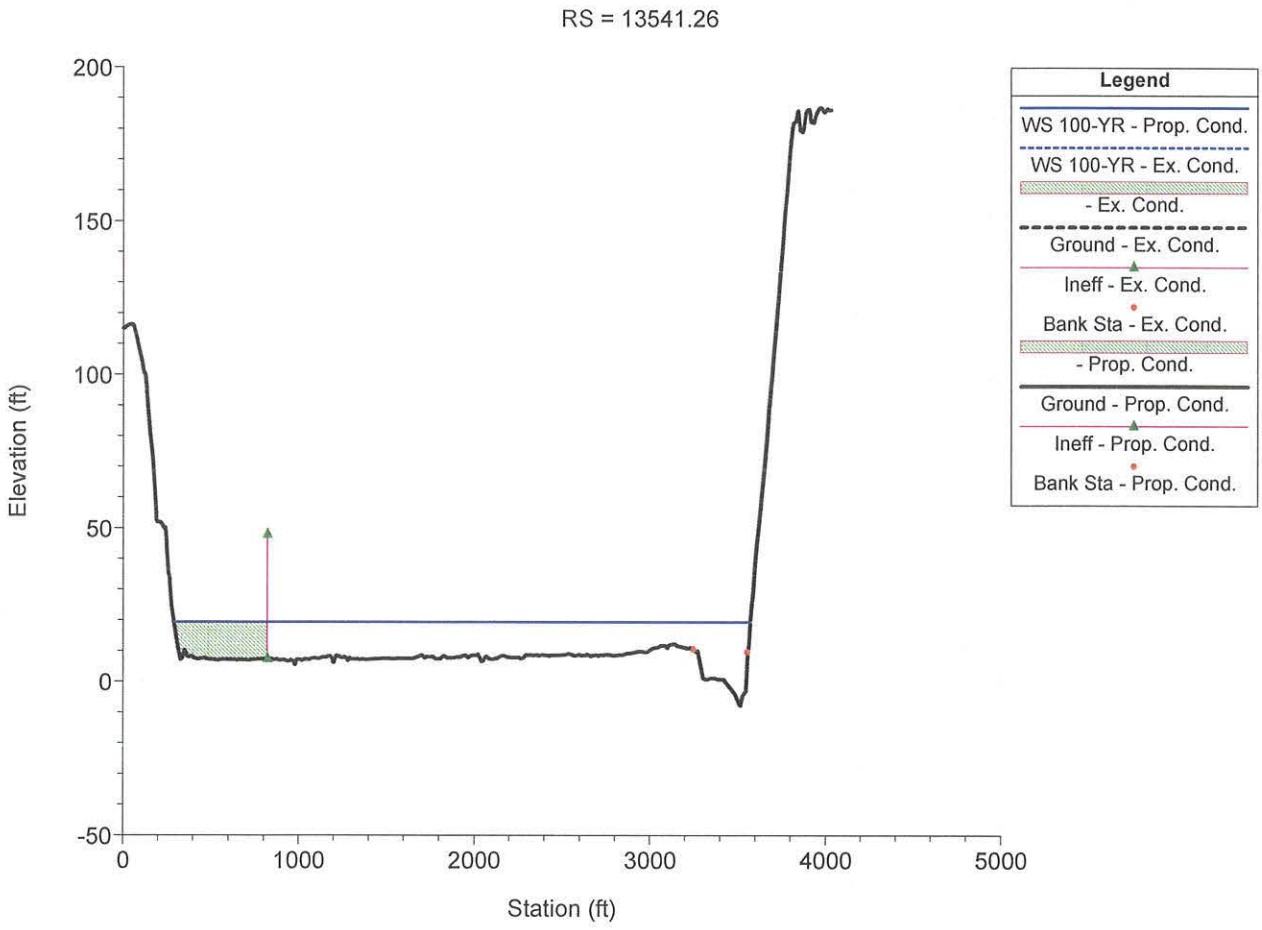
60
40
20
0
-20
0
1000
2000
3000
4000
5000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 13541.26
Elevation (ft)
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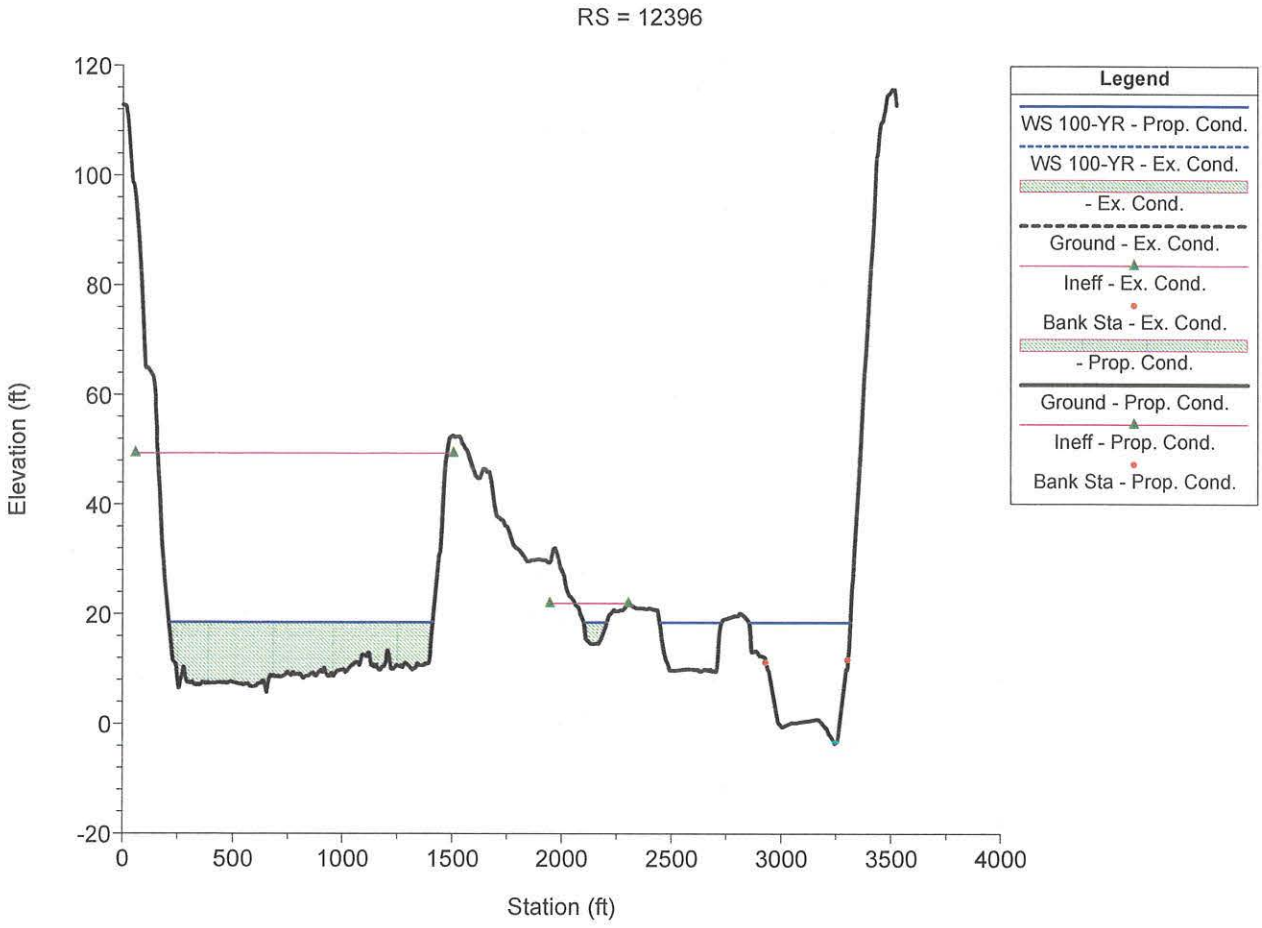
150
100
50
0
-50
0
1000
2000
3000
4000
5000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 12396
Elevation (ft)
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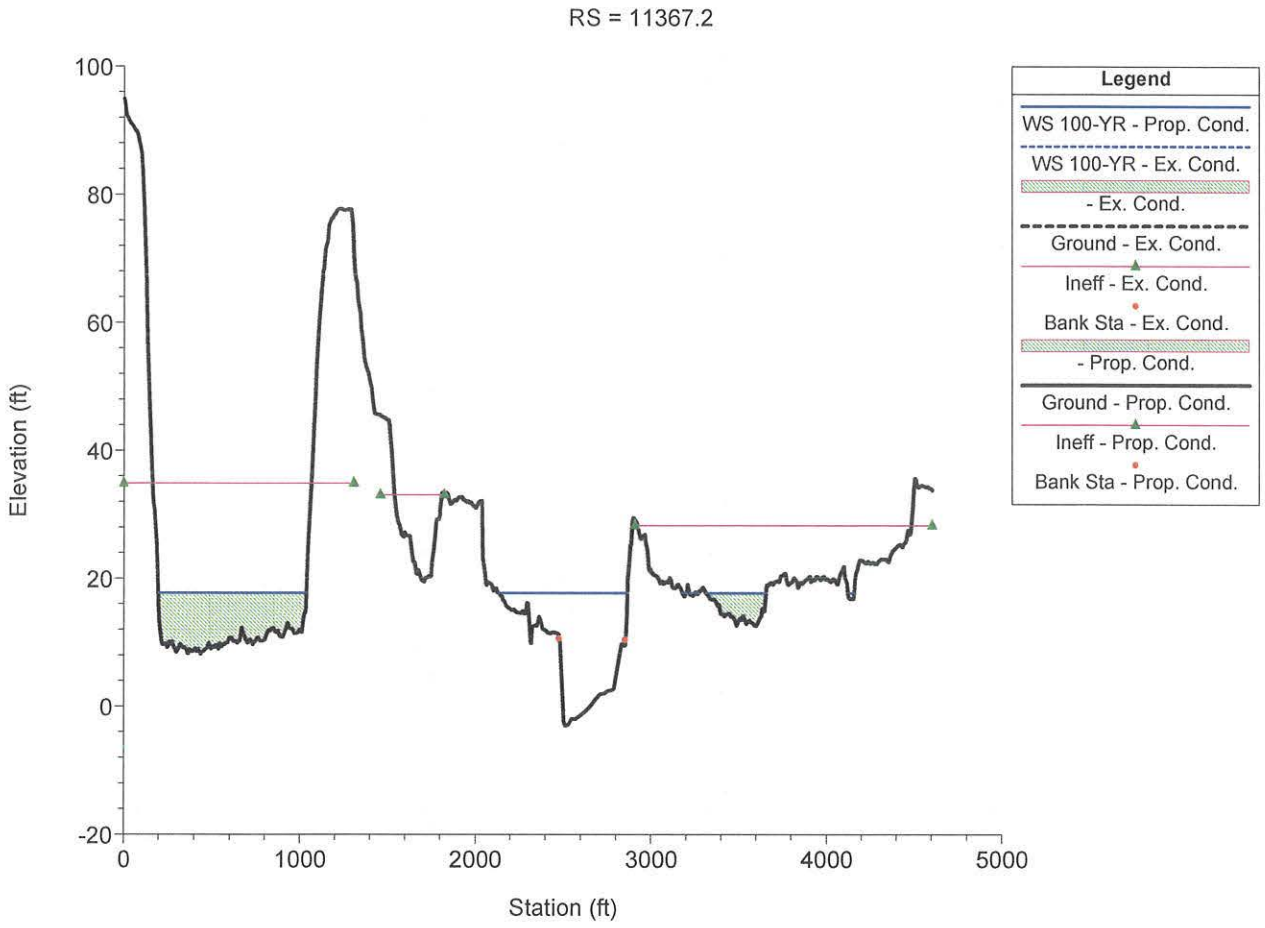
1000
1500
2000
2500
3000
3500
4000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 11367.2
Elevation (ft)
Station (ft)
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80
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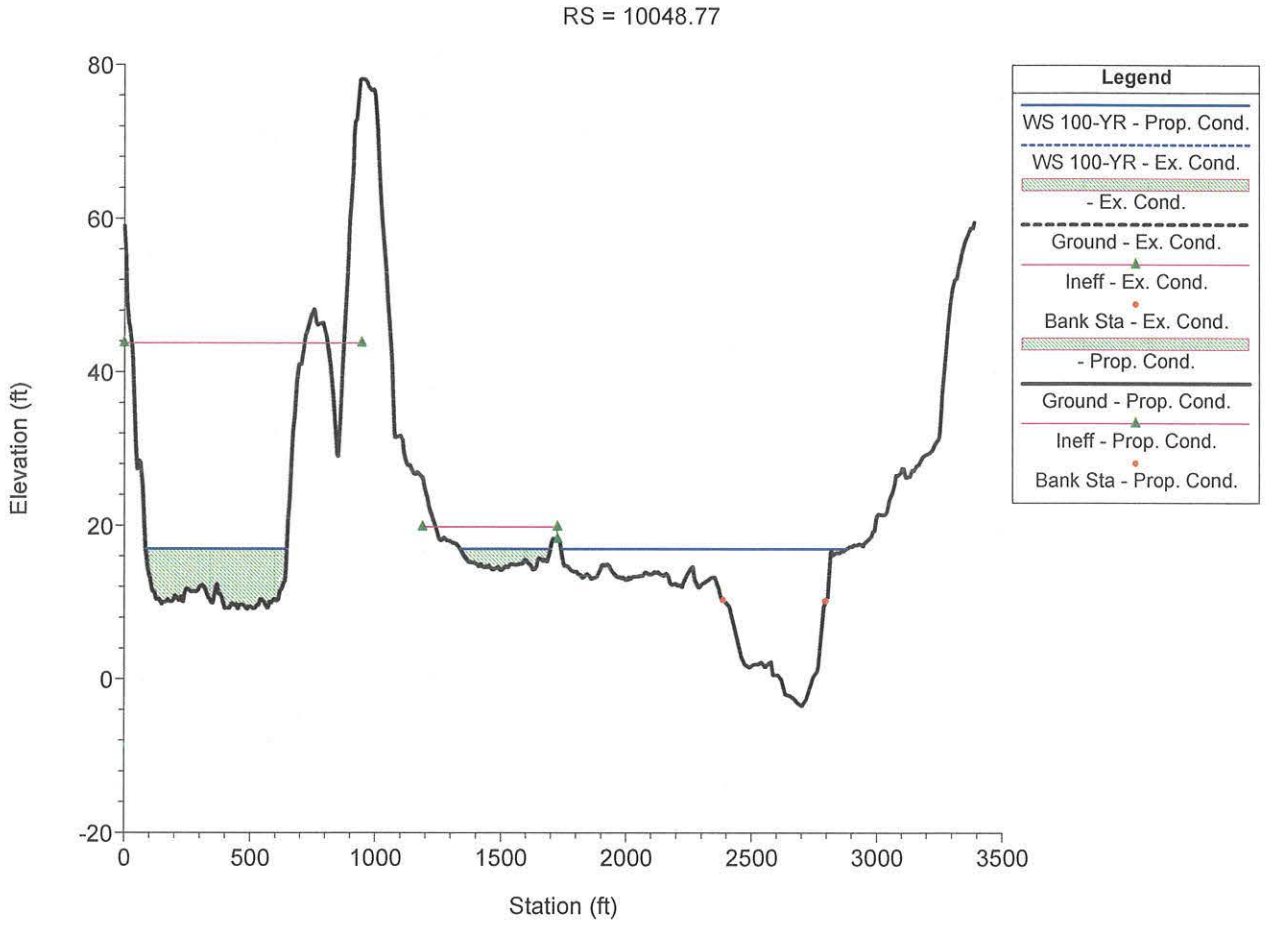
0
1000
2000
3000
4000
5000
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 10048.77
Elevation (ft)
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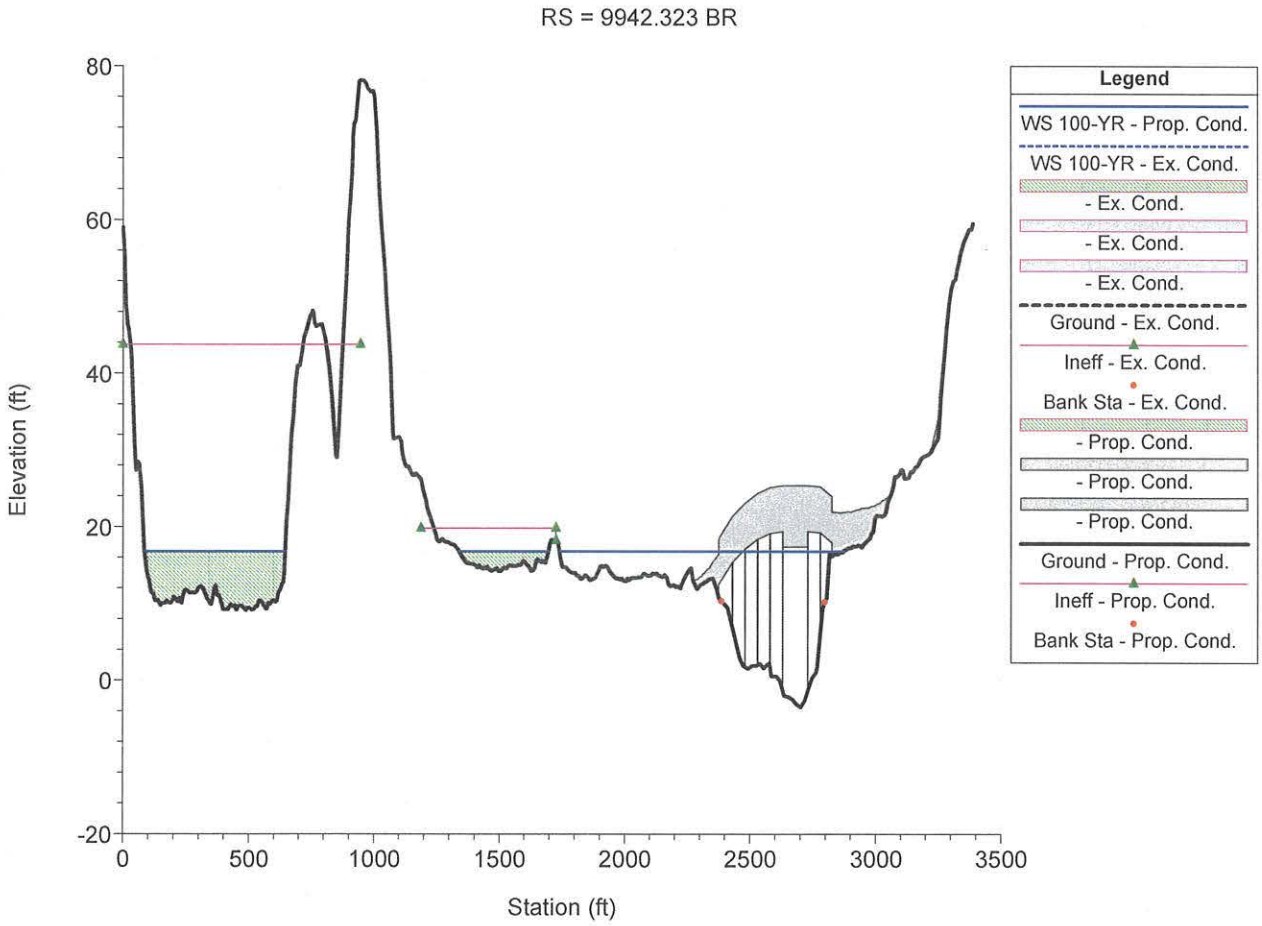
500
1000
1500
2000
2500
3000
3500
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 9942.323 BR
Elevation (ft)
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0
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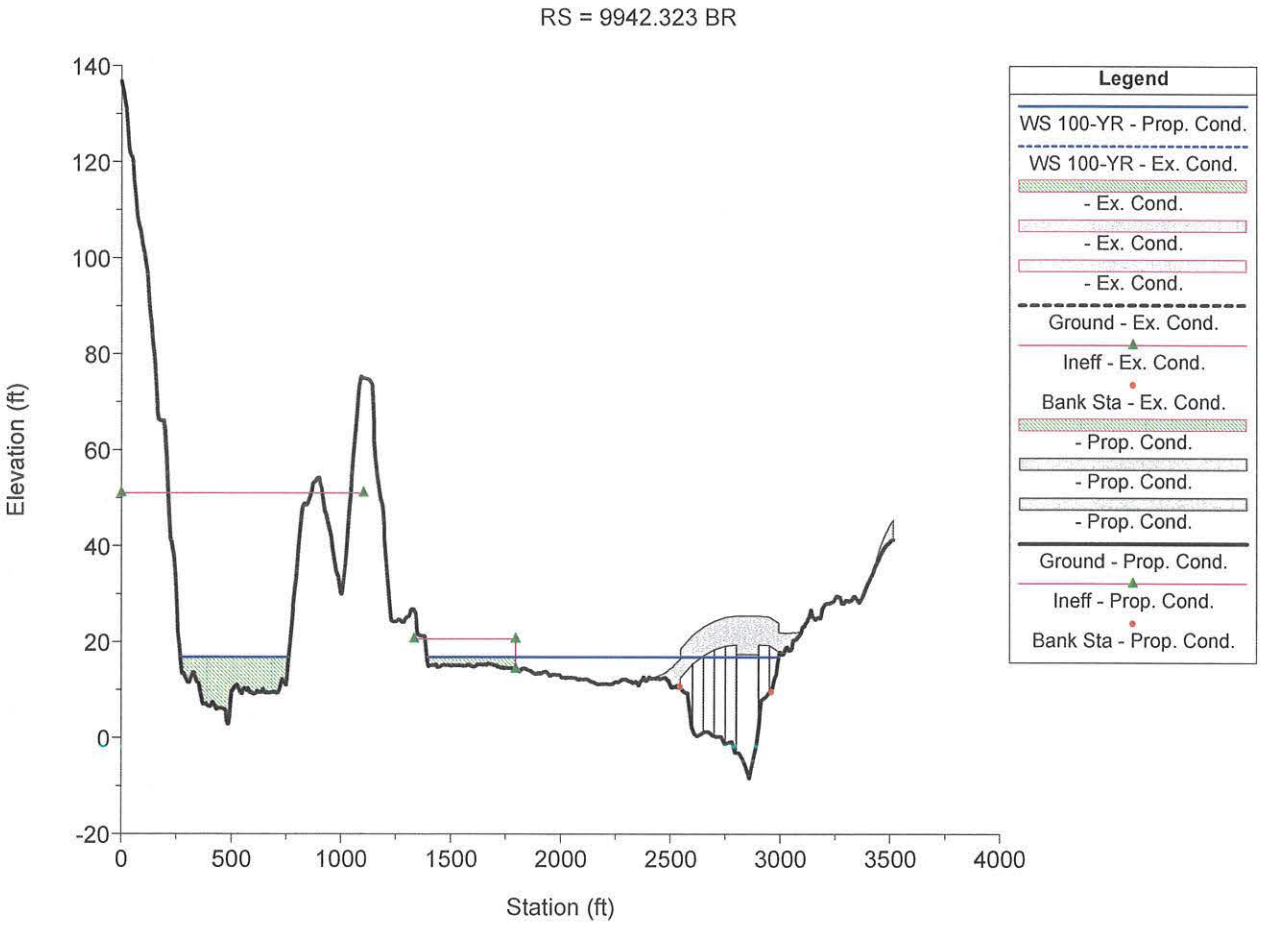
1500
2000
2500
3000
3500
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 9942.323 BR
Elevation (ft)
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80
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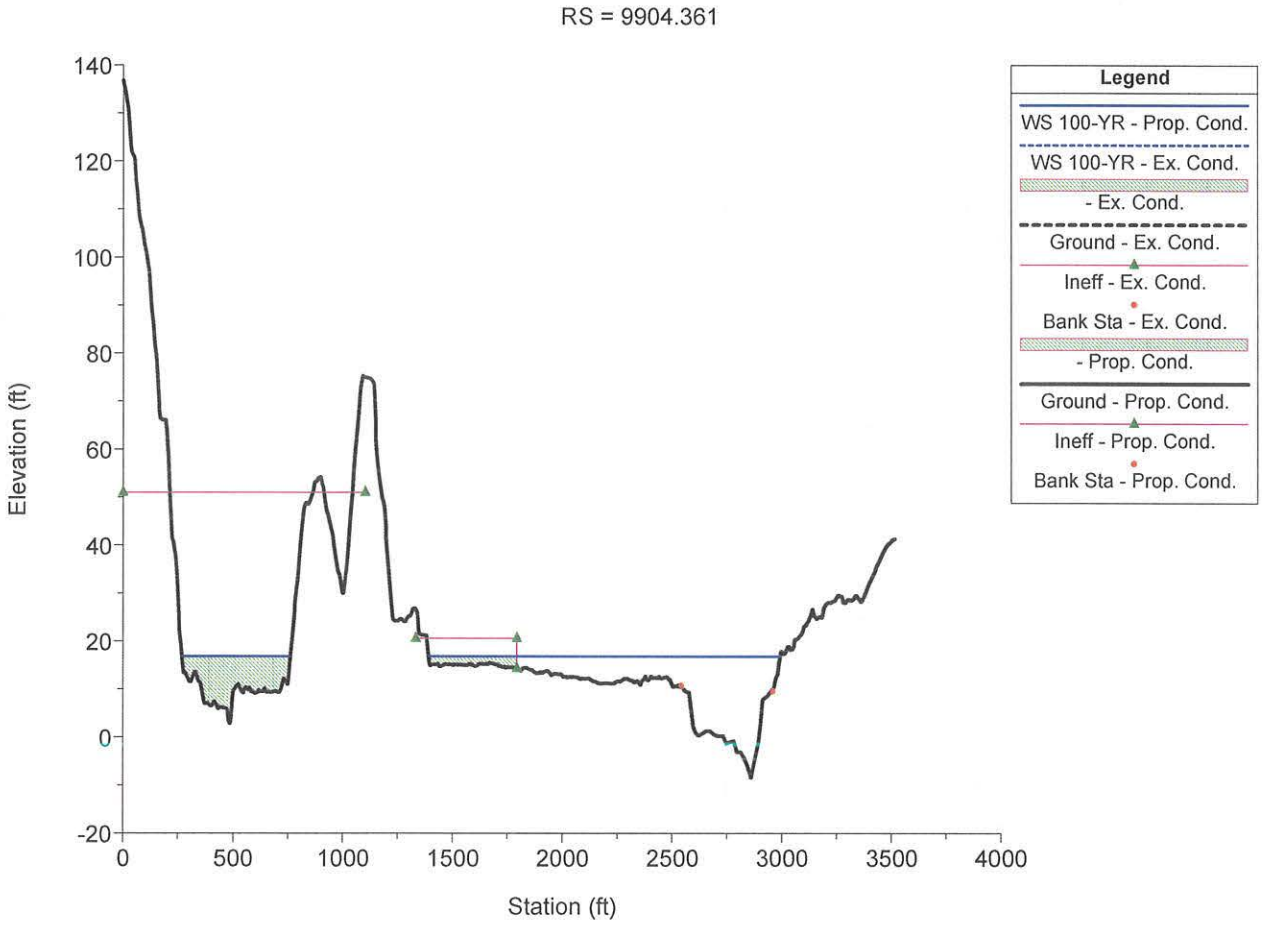
0
-20
0
500
1000
1500
2000
2500
3000
3500
4000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 9904.361
Elevation (ft)
Station (ft)
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-20
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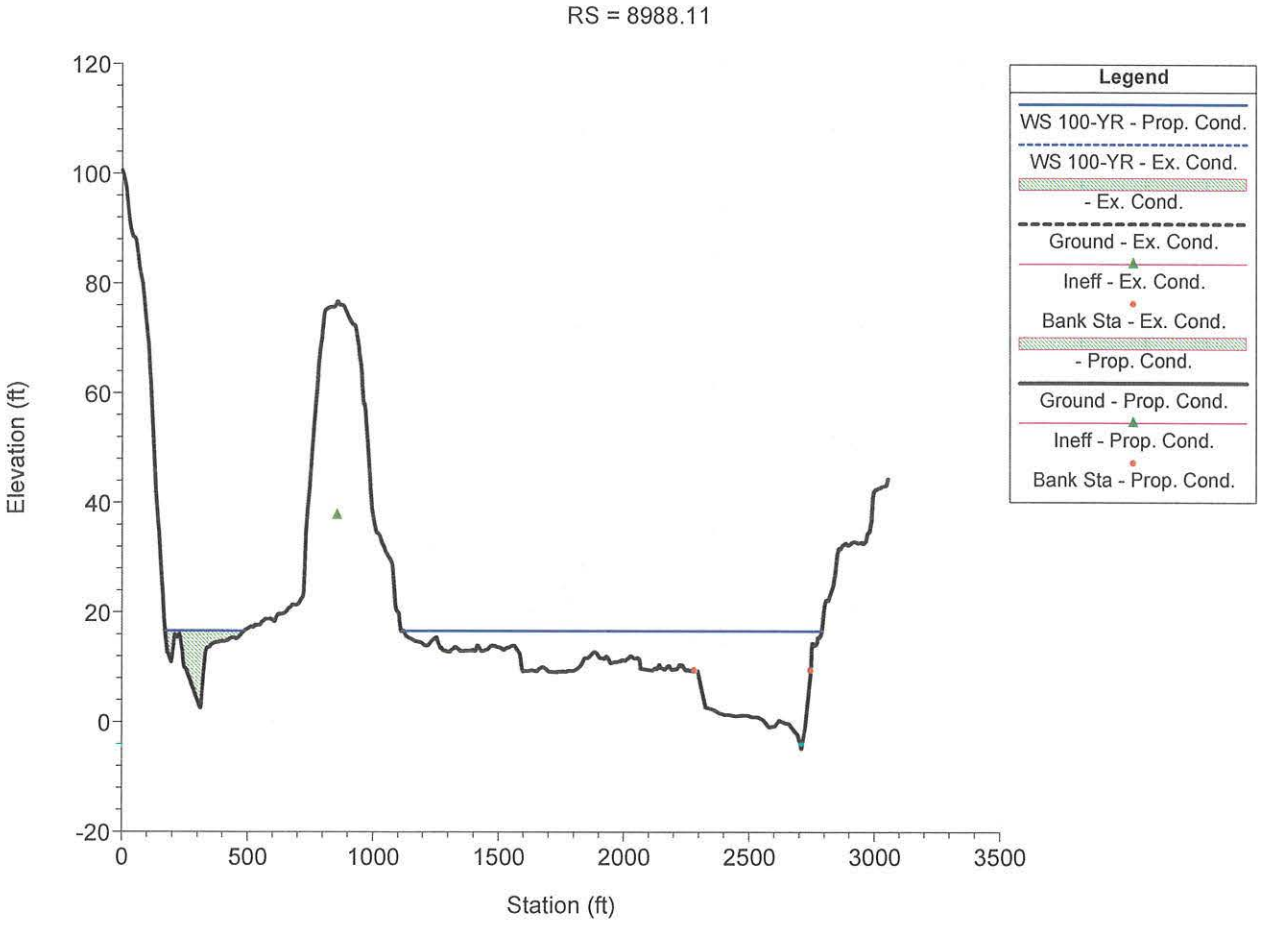
500
1000
1500
2000
2500
3000
3500
4000
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 8988.11
Elevation (ft)
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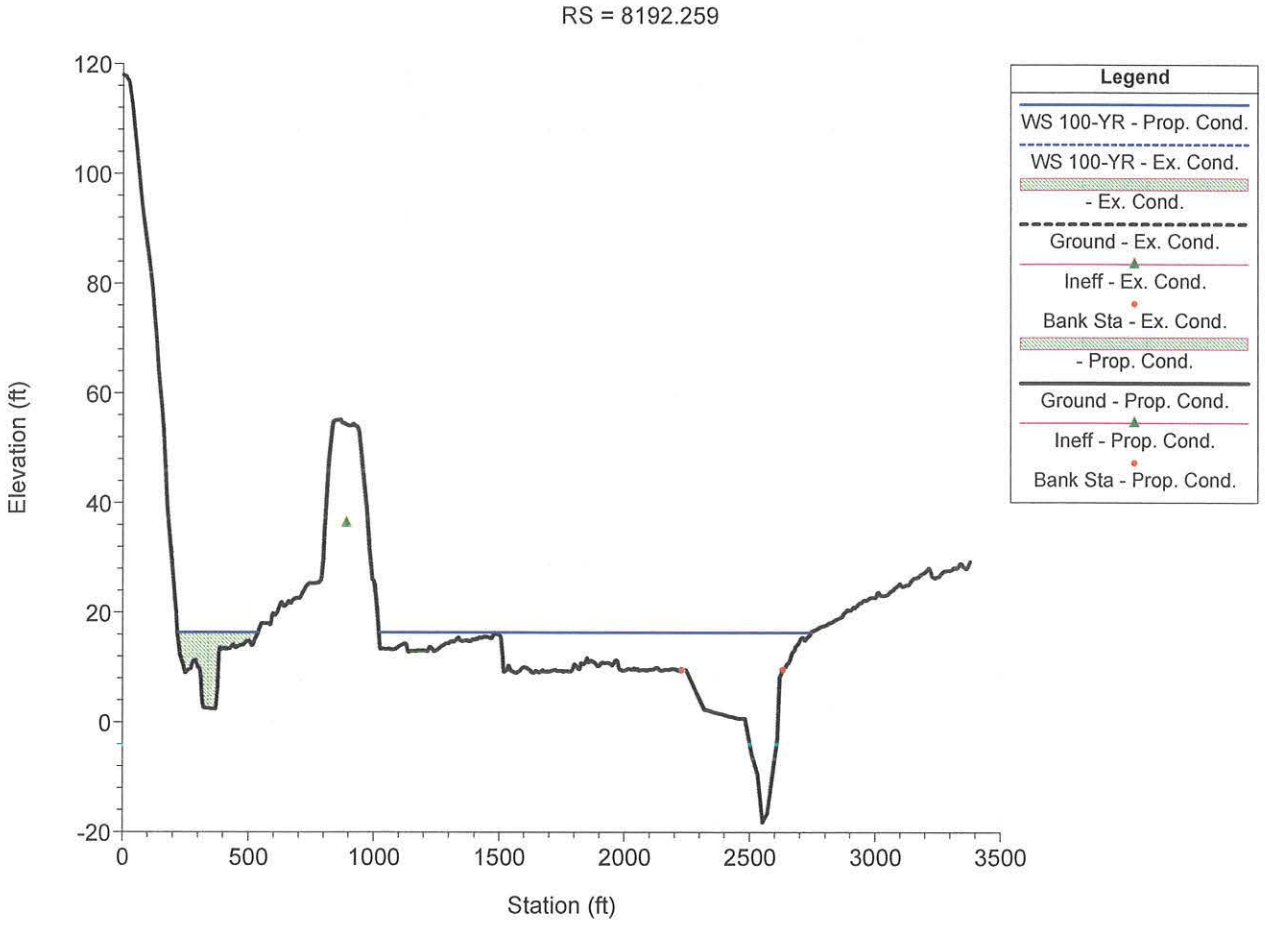
500
1000
1500
2000
2500
3000
3500
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 8192.259
Elevation (ft)
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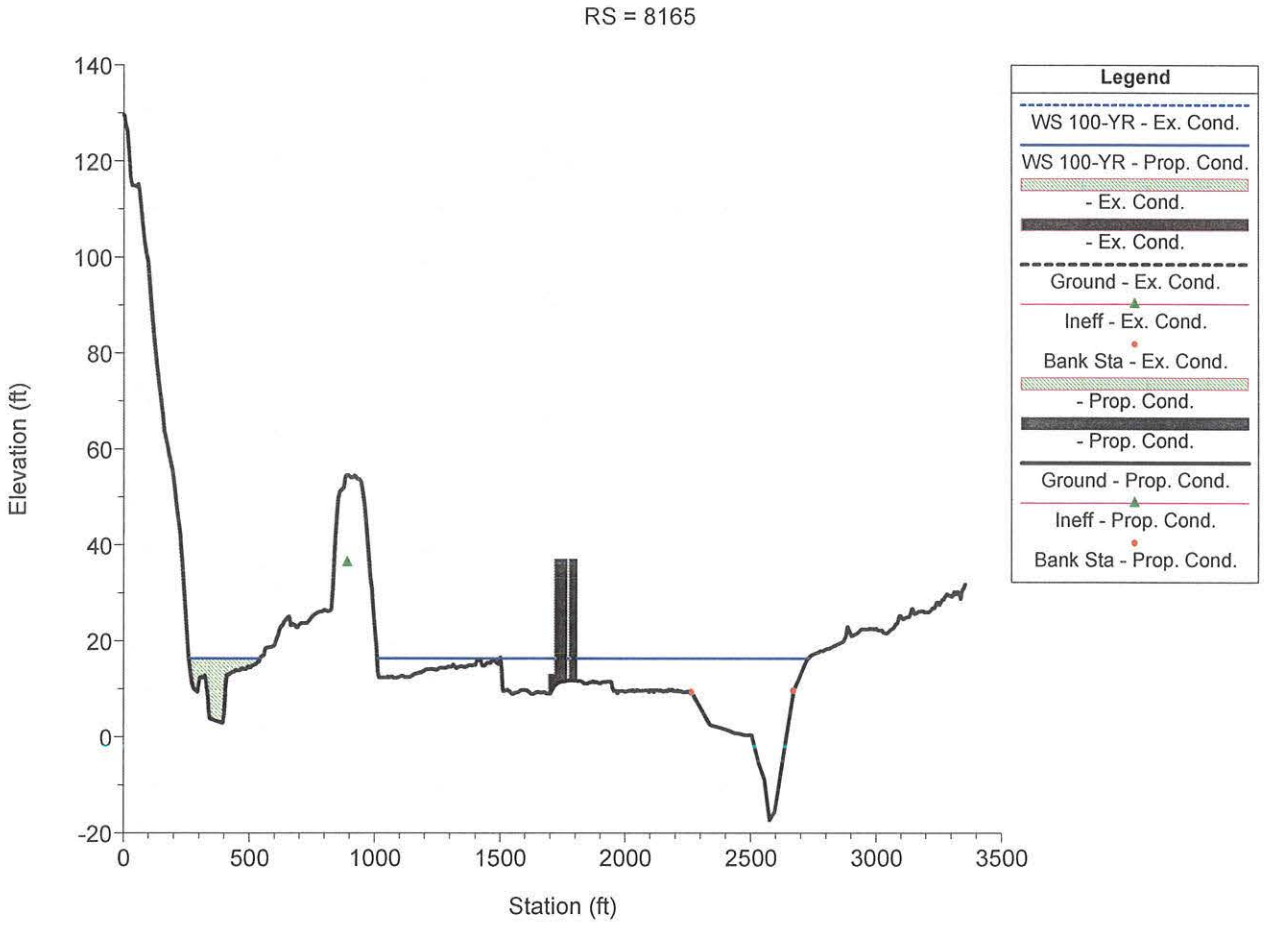
500
1000
1500
2000
2500
3000
3500
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 8165
Elevation (ft)
Station (ft)
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60
40
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-20
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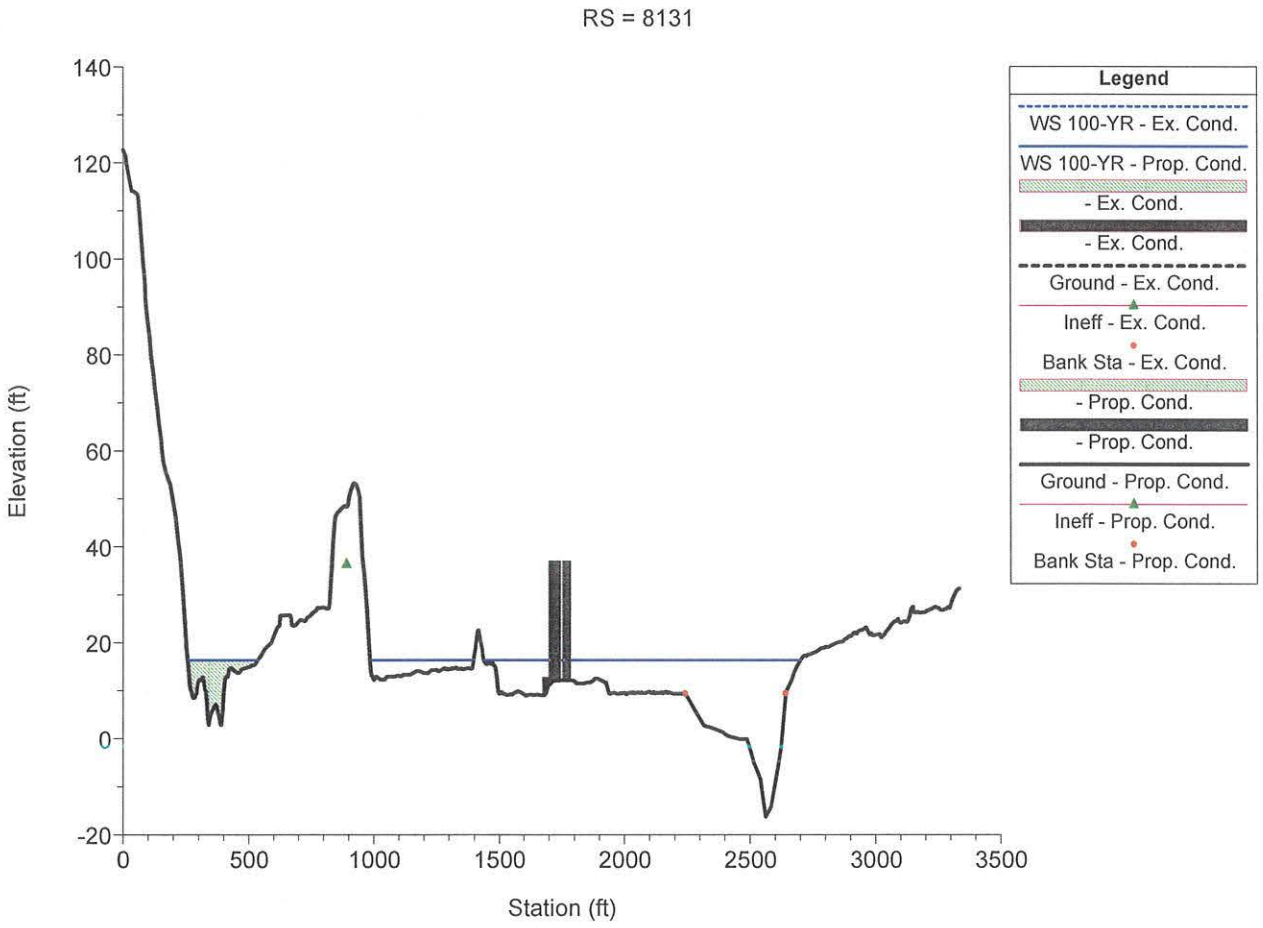
500
1000
1500
2000
2500
3000
3500
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.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Elevation (ft)
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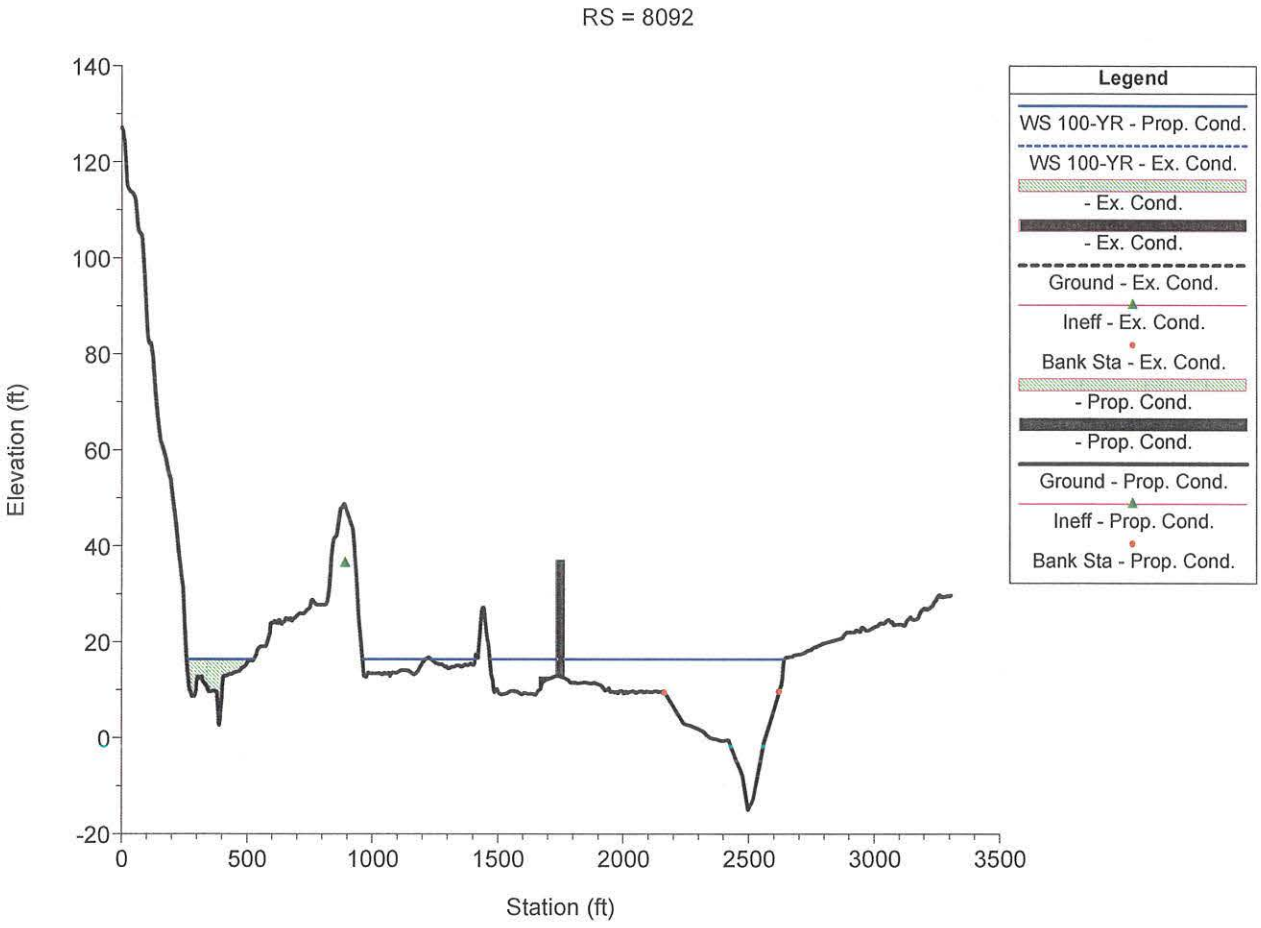
1000
1500
2000
2500
3000
3500
Station (ft)
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.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Elevation (ft)
Station (ft)
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60
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-20
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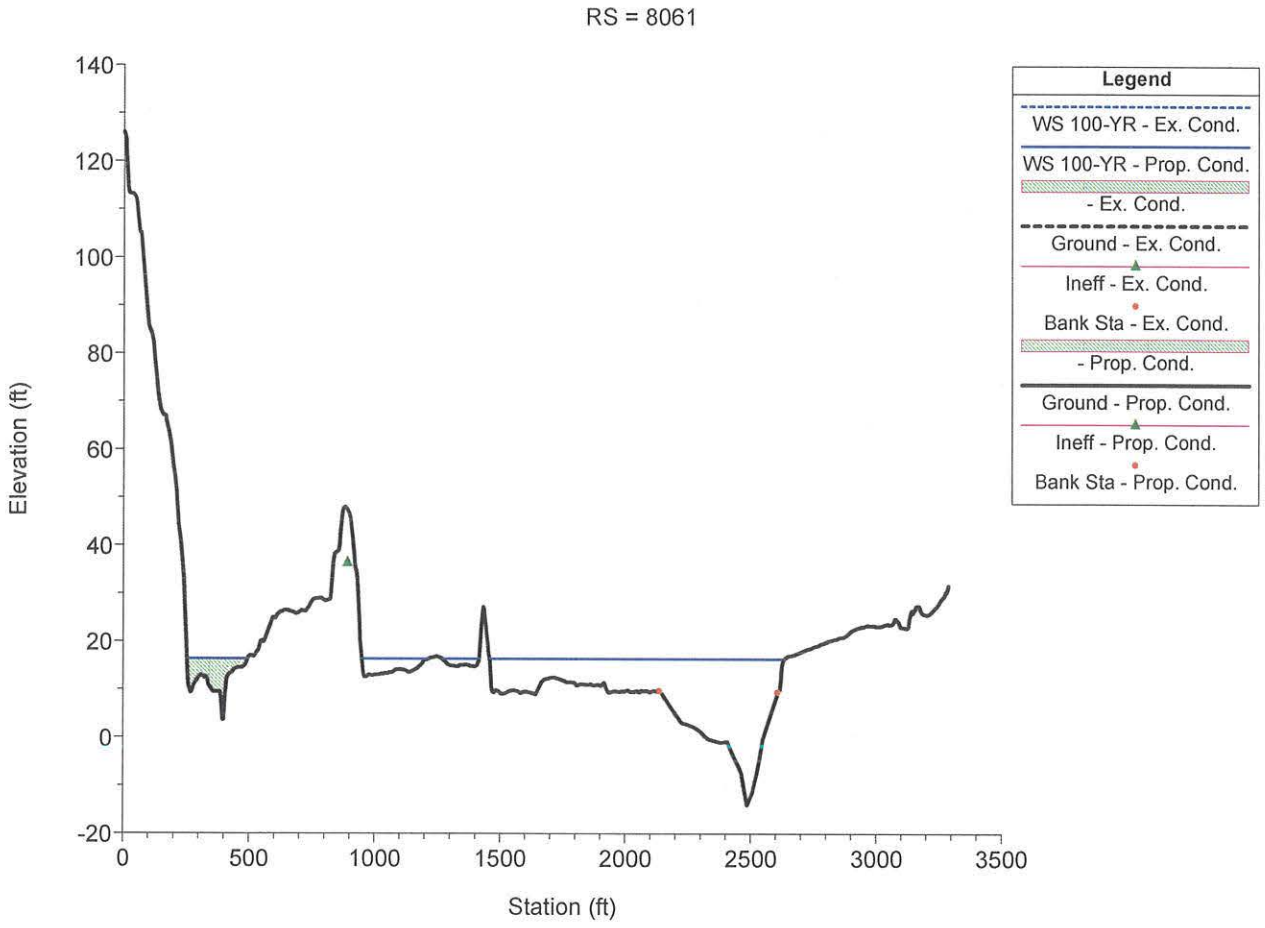
500
1000
1500
2000
2500
3000
3500
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 8061
Elevation (ft)
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-20
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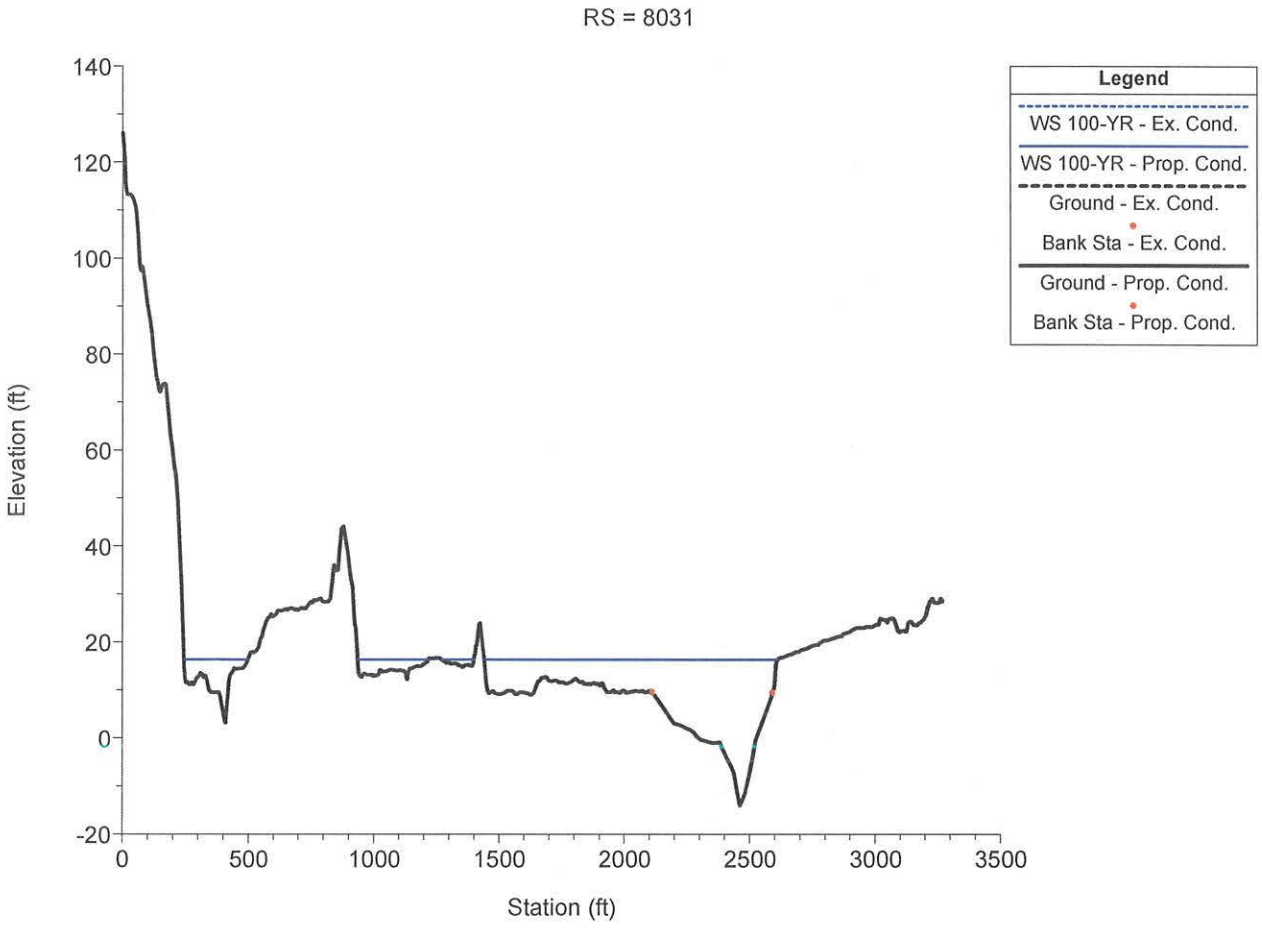
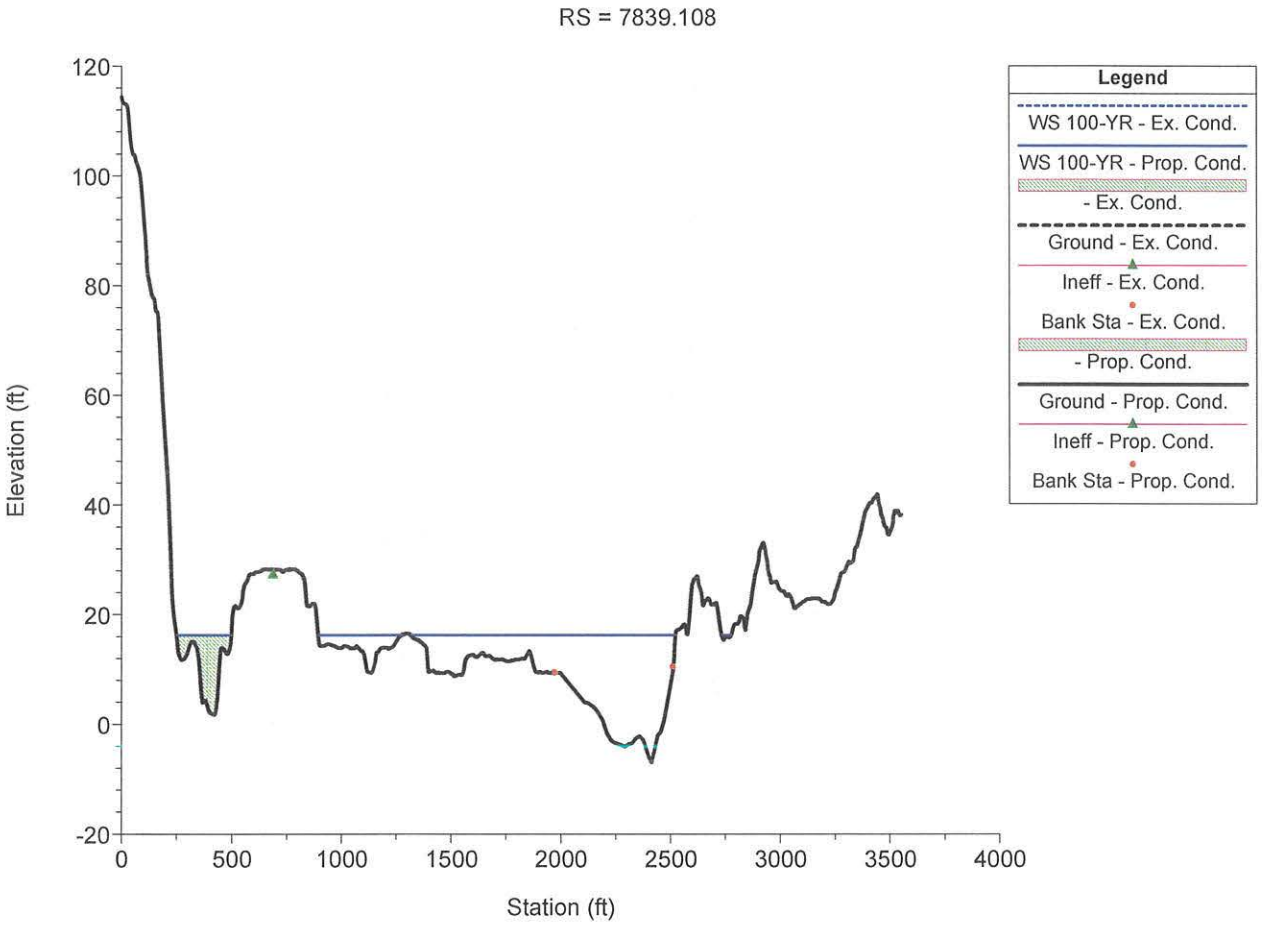
500
1000
1500
2000
2500
3000
3500
Station (ft)
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 8031
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
Ground - Ex. Cond.
Bank Sta - Ex. Cond.
Ground - Prop. Cond.
Bank Sta - Prop. Cond.
Elevation (ft)
140
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
Station (ft)


RS = 7839.108
Elevation (ft)
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40
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-20
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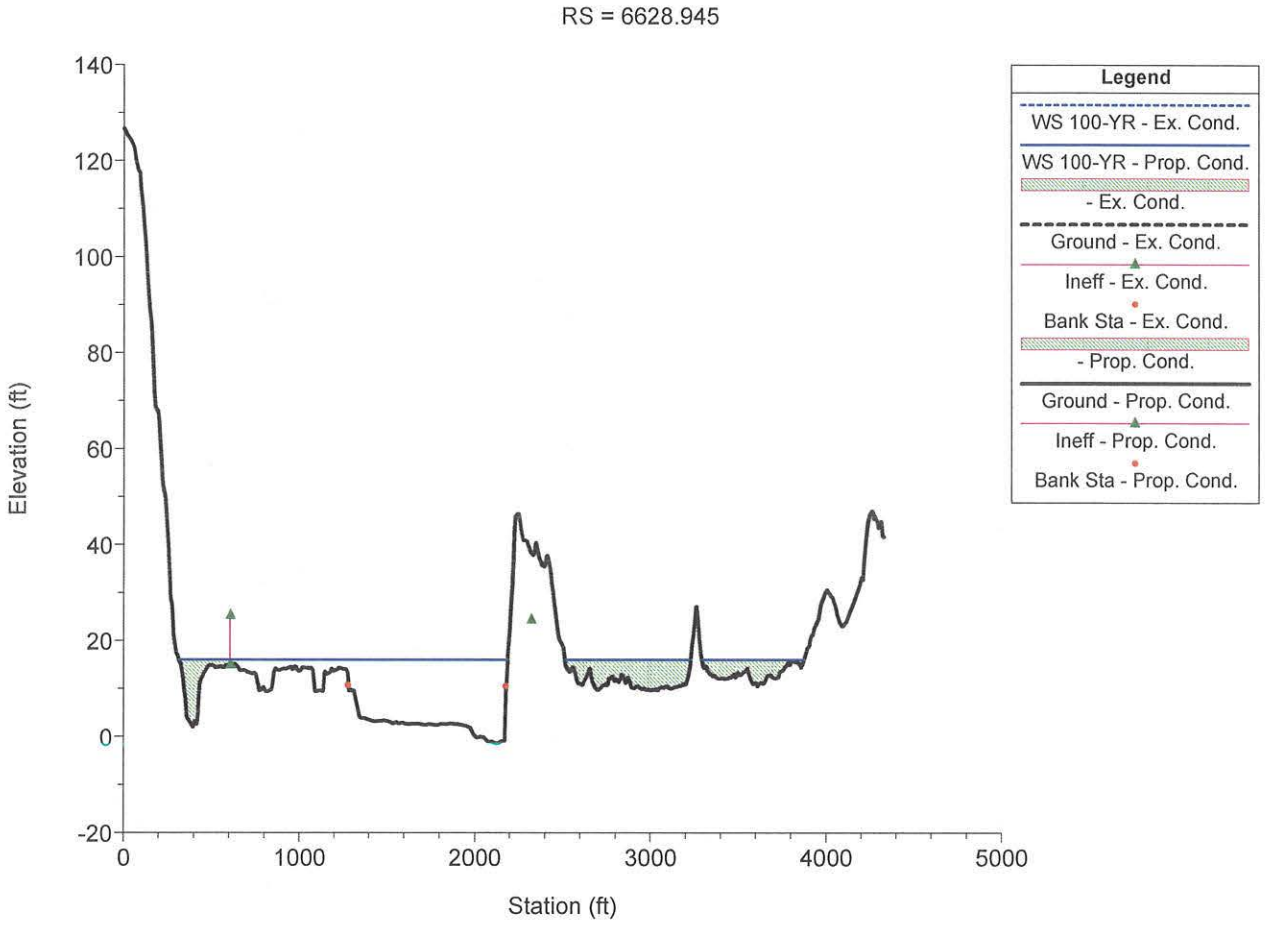
1000
1500
2000
2500
3000
3500
4000
Station (ft)
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 6628.945
Elevation (ft)
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60
40
20
0
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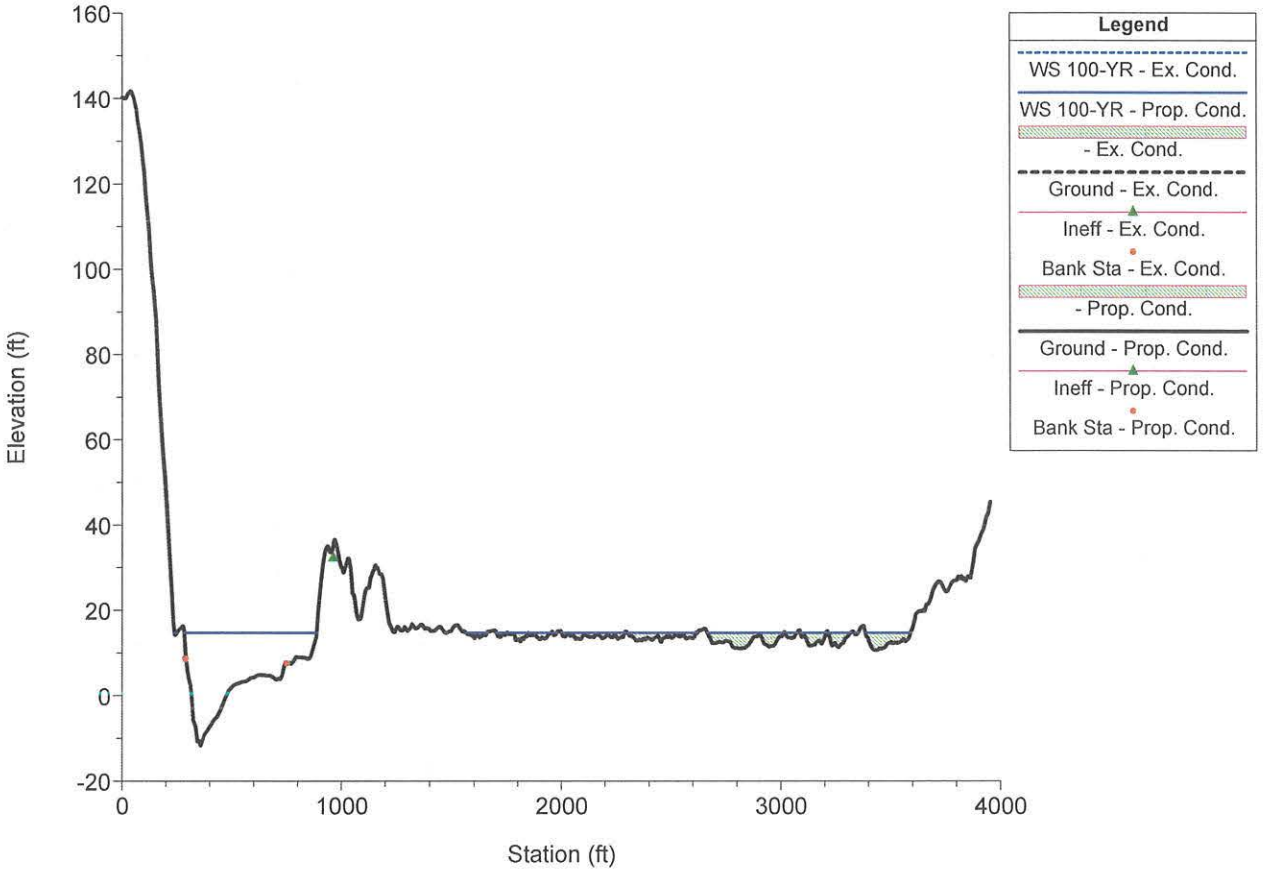
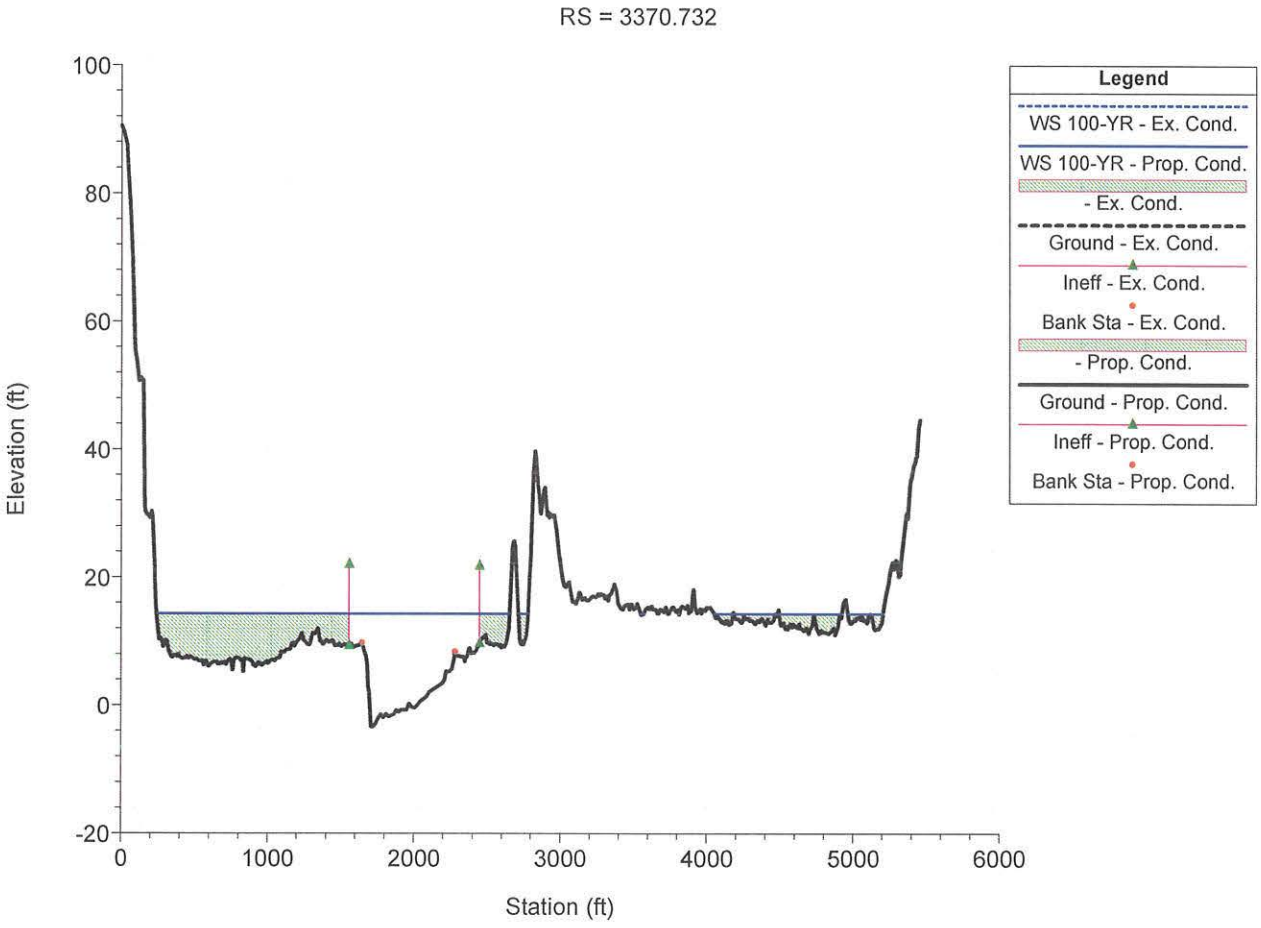
0
1000
2000
3000
4000
5000
Station (ft)
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

RS = 4746.314


Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.
Elevation (ft)
160
140
120
100
80
60
40
20
0
-20
0
1000
2000
3000
4000
Station (ft)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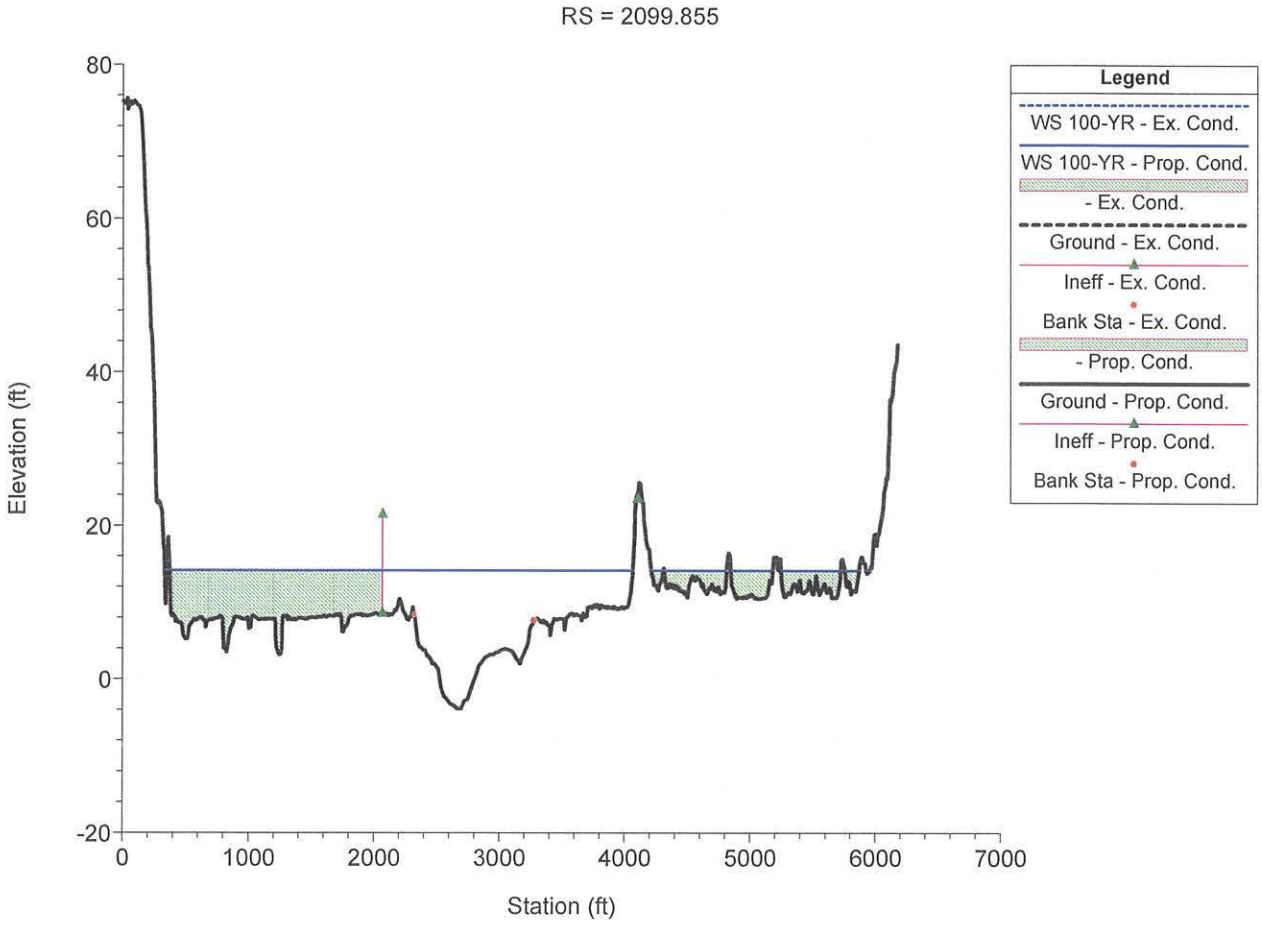
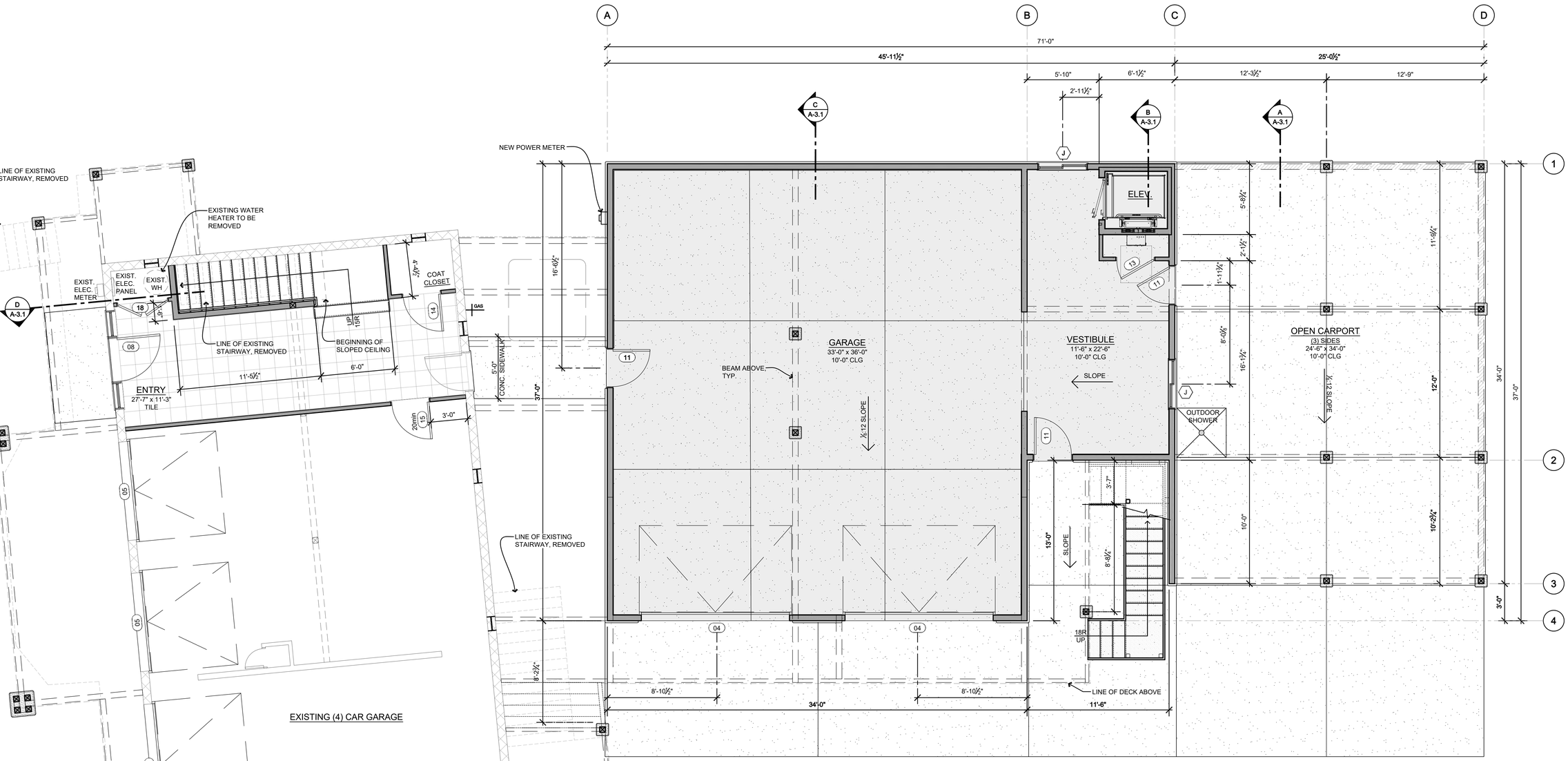
Elevation (ft)
100
80
60
40
20
0
-20
0
1000
2000
3000
4000
5000
6000
Station (ft)
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 2099.855
Elevation (ft)
80
60
40
20
0
-20
0
1000
2000
3000
4000
5000
6000
7000
Station (ft)
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.



NORTH

FIRST FLOOR PLAN

SCALE 1/4" = 1'-0"

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5. DOORS ARE 3.5" FROM ADJACENT WALL OR CENTERED IN HALLWAY UNLESS NOTED OTHERWISE.
6. VERIFY ALL DOOR/WINDOW AND FRAME DIMENSIONS PRIOR TO INSTALLATION, DOOR AND WINDOW DIMENSIONS ARE NOMINAL.
7. PROVIDE SOLID BLOCKING IN WALLS AS REQUIRED FOR WALL MOUNTED ITEMS (I.E. TOILET ACCESSORIES), TYPICAL.

WALL LEGEND

- 2x6 WALL w/ STUDS @ 16" o.c. (2x8 WALL WHERE NOTED) EXT. WALL: ½" PLY ON EXTERIOR FACE, ⅝" GWB. o/ VAPOR RETARDER ON INTERIOR FACE INT. WALL: ⅝" GWB. EA. SIDE (BEARING)
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- 2x4 FURRING WALL @ CONC. STEM WALL w/ STUDS @ 16" o.c., 2x SHIM BETWEEN STUDS and CONC. FOR LEVELING, ⅝" GWB. ON ROOM SIDE
- CONCRETE FOUNDATION OR RETAINING WALL, SEE FOUNDATION PLAN.
- EXISTING FRAMED WALL
- EXISTING CMU WALL

SYMBOL LEGEND

- X / X-X.X — WALL SECTION
- X / X-X.X — DETAIL DESIGNATION
- SD — SMOKE / CO² DETECTOR
- EXHAUST FAN (110 CFM, TYPICAL)
- CENTER LINE
- XX — DOOR DESIGNATION
- X — WINDOW DESIGNATION

COULTER ARCHITECTURE

RESIDENTIAL & COMMERCIAL ARCHITECTURE

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CORRESPONDENCE
P. O. Box 2323
Lake Chelan, WA 98816
(509) 630 . 5518 off

OFFICE
105 N Emerson St. Suite 201
Lake Chelan, WA 98816

REGISTERED ARCHITECT RONALD E. COULTER CHELAN, WASHINGTON STATE OF OREGON

ADDITION FOR:
DAVE AND PATTIE COULTER
35465 RUEPPELL AVE
PACIFIC CITY, TILLAMOOK COUNTY, OREGON

Project No:	2021-1
Drawn:	MEC
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REV. 1:	Oct 11, 2021
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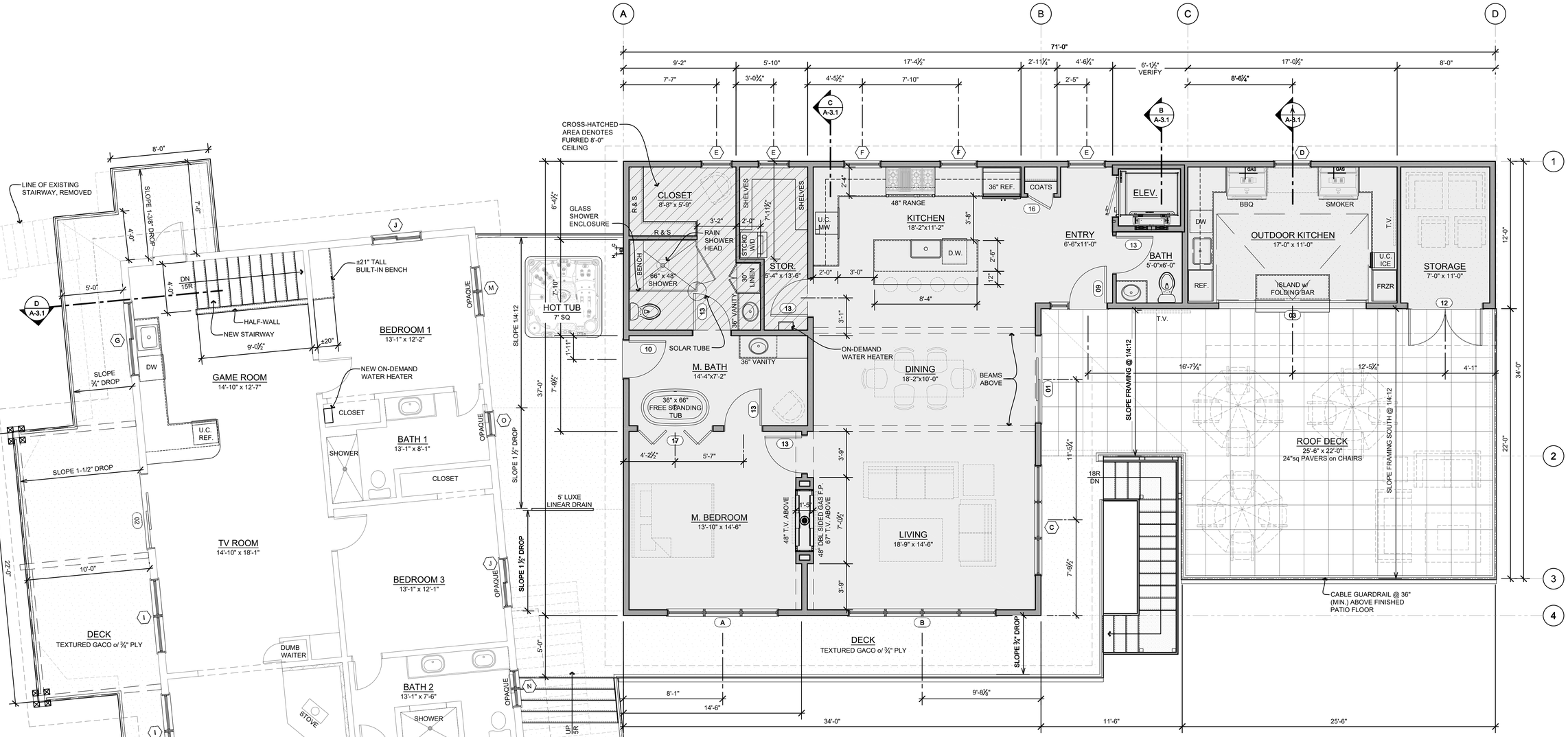
A-1.1
PERMIT SET DRAWINGS



NORTH

SECOND FLOOR PLAN

SCALE 1/4" = 1'-0"

WALL LEGEND

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- DOOR DESIGNATION
- WINDOW DESIGNATION

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A-1.2
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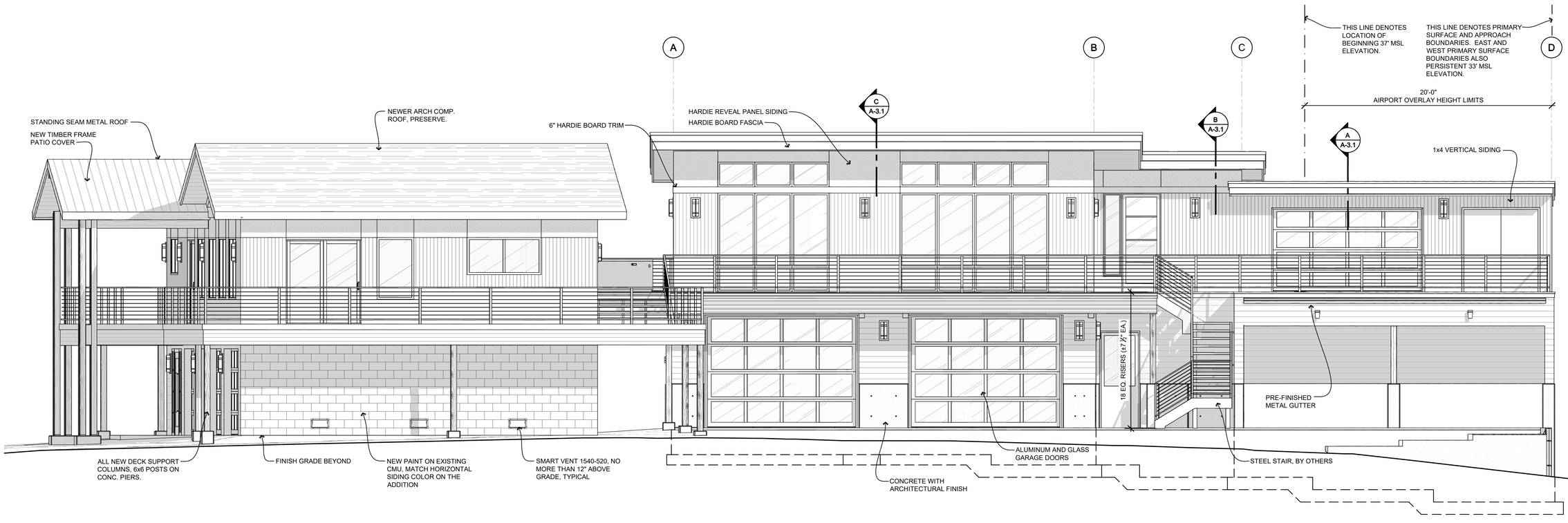
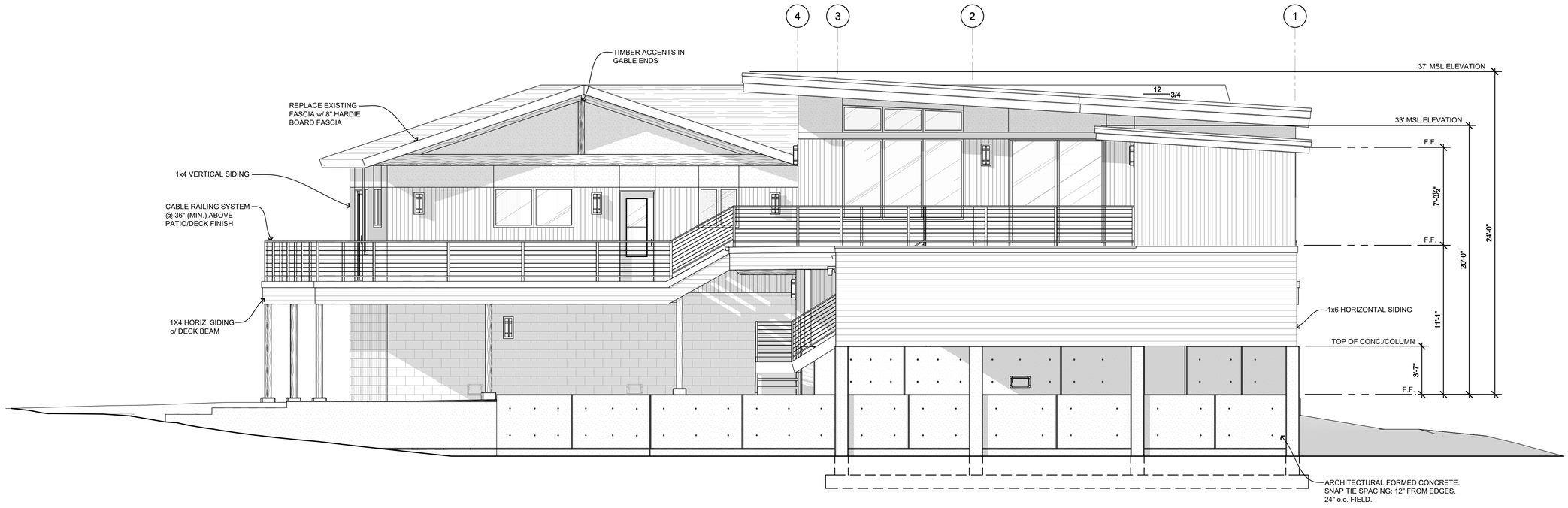


SOUTH ELEVATION

SCALE 1/4" = 1'-0"



EAST ELEVATION

SCALE 1/4" = 1'-0"

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Lake Chelan, WA 98816
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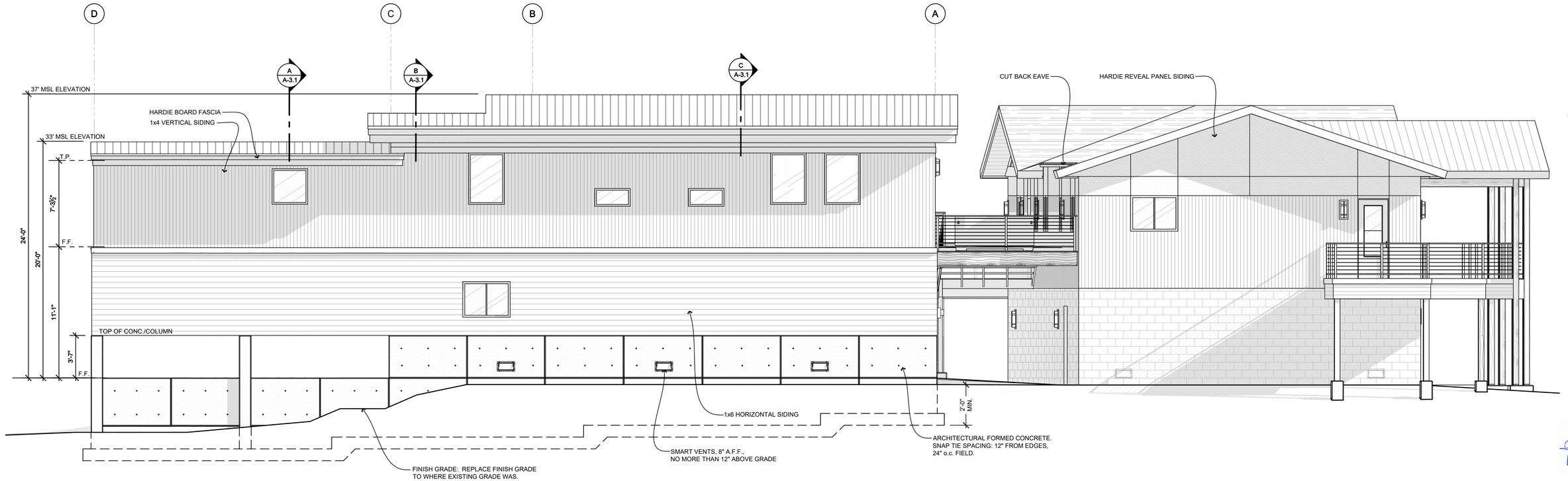
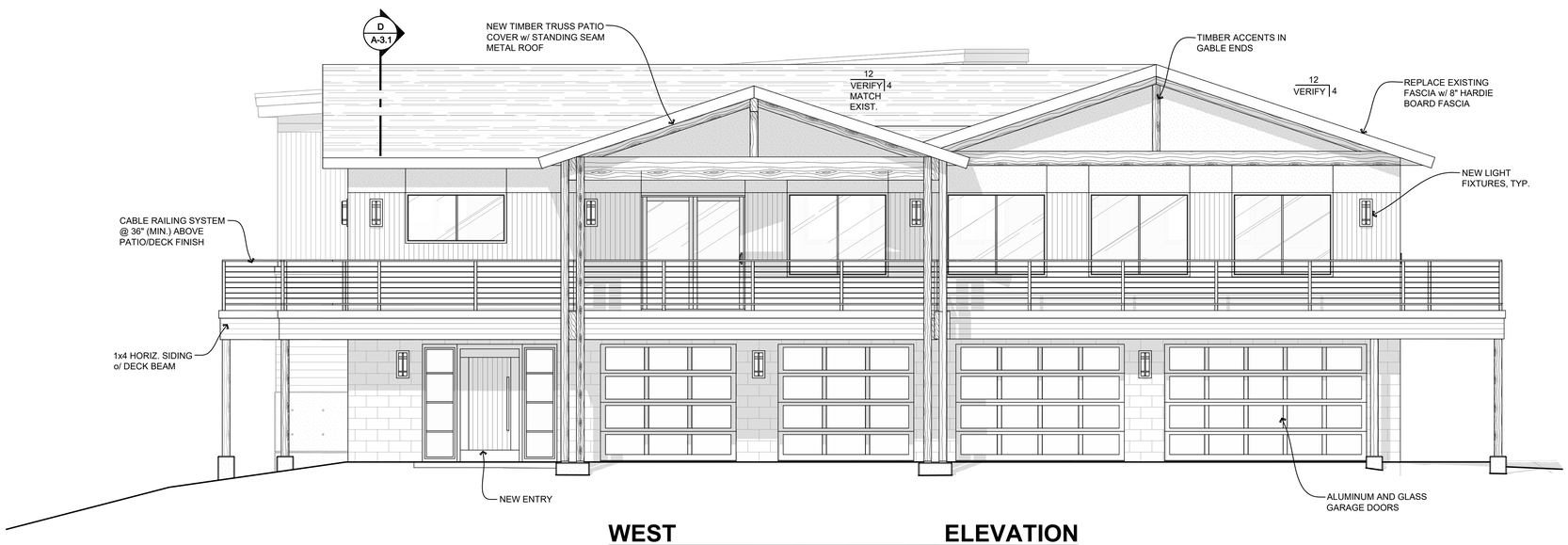


NORTH ELEVATION

SCALE 1/4" = 1'-0"



WEST ELEVATION

SCALE 1/4" = 1'-0"

EXISTING HOUSE, NEW FINISHES:

- VINYL WINDOWS AND SLIDING GLASS DOORS
- ALUMINUM AND GLASS GARAGE DOORS
- SIDING on 2ND STORY (HARDIE PLANK & AZTEK VERTICAL SIDING)
- NEW PAINT on 1ST STORY CMU
- ALL NEW DECK INCLUDING: FRAMING, COLUMNS, DECKING AND RAILING.
- NEW TIMBER FRAME PATIO COVER ROOF w/ STANDING SEAM METAL ROOF

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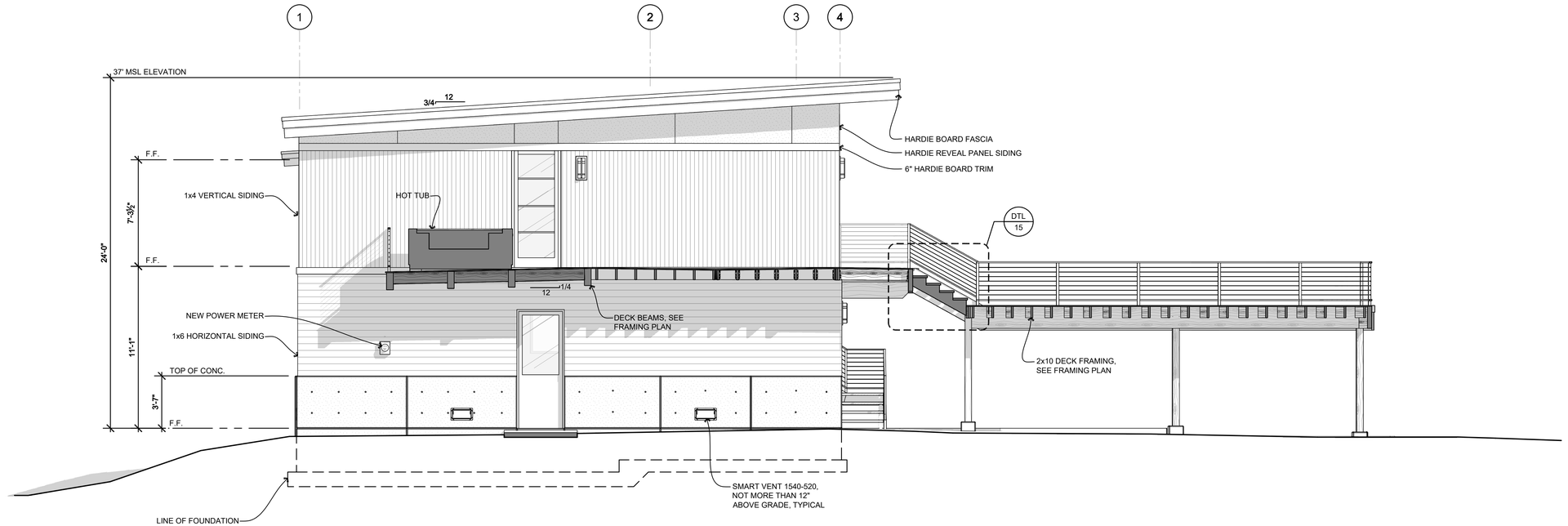
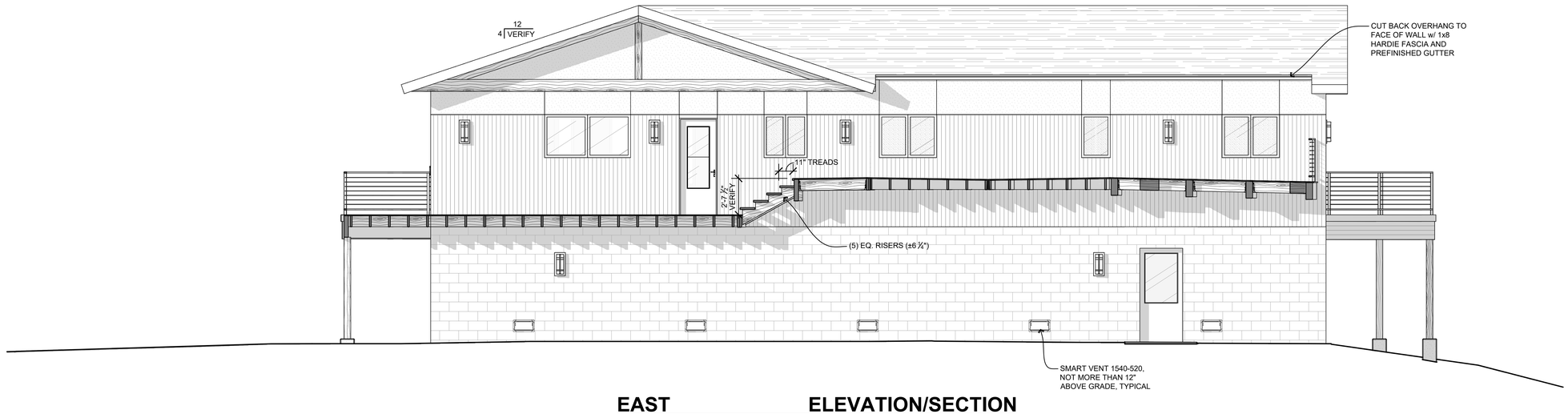


WEST ELEVATION/SECTION

SCALE 1/4" = 1'-0"



EAST ELEVATION/SECTION

SCALE 1/4" = 1'-0"

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A-2.3
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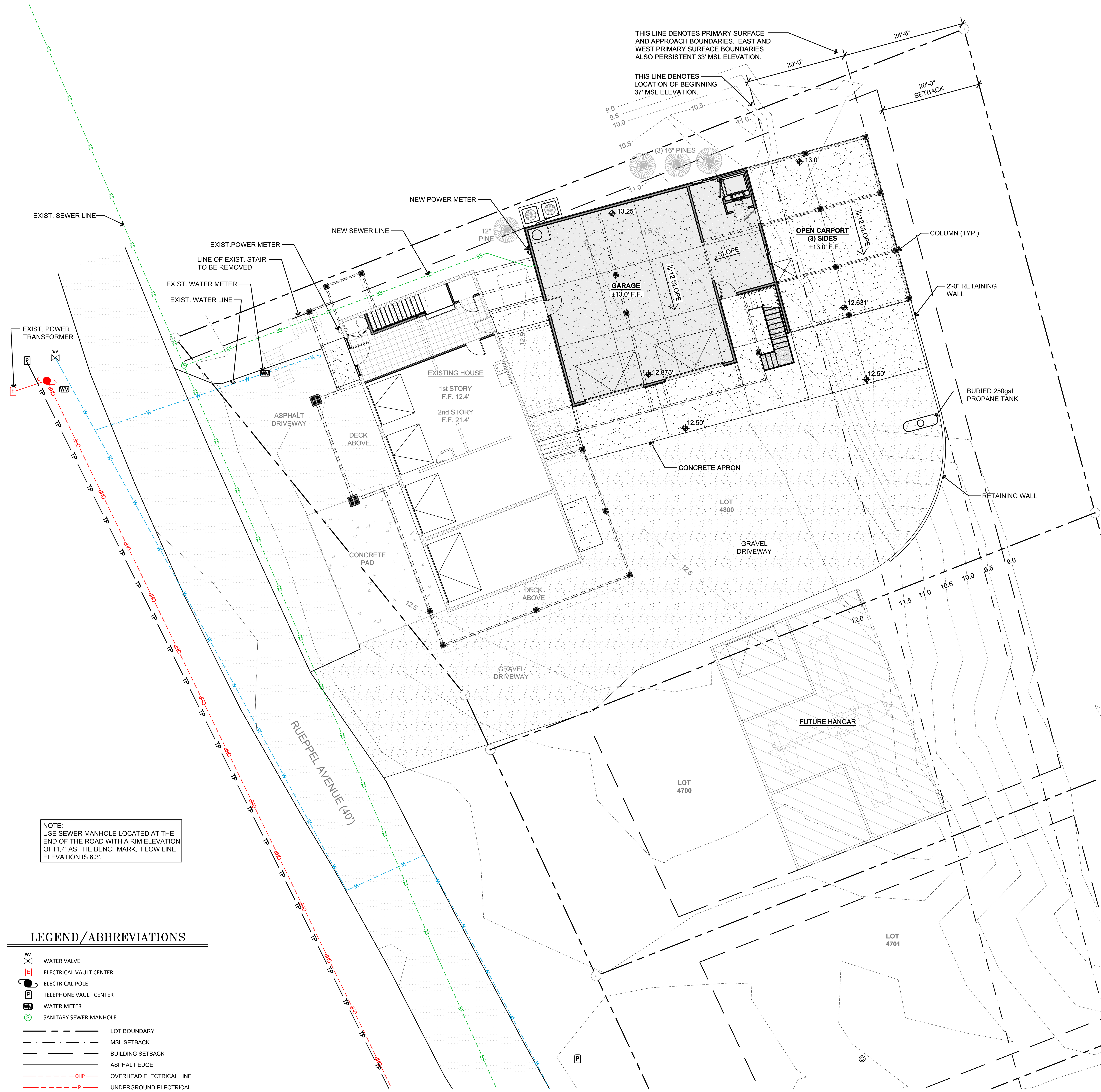


SITE PLAN
SCALE 1" = 10'-0"
NORTH

LEGEND/ABBREVIATIONS

- WV WATER VALVE
- E ELECTRICAL VAULT CENTER
- ELECTRICAL POLE
- P TELEPHONE VAULT CENTER
- WM WATER METER
- S SANITARY SEWER MANHOLE
- LOT BOUNDARY
- MSL SETBACK
- BUILDING SETBACK
- ASPHALT EDGE
- OHP OVERHEAD ELECTRICAL LINE
- P UNDERGROUND ELECTRICAL
- SS SANITARY SEWER LINE
- MAJOR CONTOUR
- MINOR CONTOUR
- W UNDERGROUND WATER LINE
- TP UNDERGROUND TELEPHONE LINE

SITE DATA

SITE ADDRESS:	35465 RUEPPELL AVE PACIFIC CITY, OREGON 97135
PARCEL #:	4S1030BD04800
LOT AREA:	14,810.4 S.F. / 0.34 ACRES

TILLAMOOK COUNTY ZONING DATA

JURISDICTION:	TILLAMOOK COUNTY
ZONING:	PCW-AP
USE:	SINGLE FAMILY DWELLING
FRONT YARD BSL:	20' SETBACK FROM PL
SIDE YARD BSL:	5' SETBACK FROM PL
REAR YARD BSL:	20' SETBACK FROM PL
HEIGHT LIMIT:	35' & AIRPORT OVERLAY HEIGHT RESTRICTIONS

DESIGN CRITERIA

GRAVITY:

SNOW LOAD:	36 PSF 25 PSF
LIVE LOAD:	40 PSF RESIDENTIAL & 60 PSF DECKS
DEAD LOADS:	15 PSF or "SELF-WEIGHT"

LATERAL:

SEISMIC:
EQUIVALENT LATERAL FORCE PROCEDURE PER 2018 IBC AND ASCE 7-16 SITE CLASS E, SEISMIC DESIGN CATEGORY IS "D"

UPPER (MAIN) LEVEL:
SYSTEMS:
CANTILEVERED CONCRETE COLUMNS @ CARPORT → R=2.5
Cs = 0.184
WOOD FRAMED SHEAR-WALLS BALANCE → R=6.0 (USED 5.0 TO BE CONSERVATIVE)
Cs = 0.1364
Veq = 14,720 LB TOTAL

WIND:
WIND SPEED = 115 MPH, 3 SECOND GUSTS (ULTIMATE)
WIND EXPOSURE, "C"
WIND Kzt = 1.02
V = 5,862 LB N/S
V = 11,244 LB E/W

TYPE OF CONSTRUCTION:
TYPE V-B

SHEET SCHEDULE

A-0.1	SITE PLAN
A-1.1	FIRST FLOOR PLAN
A-1.2	SECOND FLOOR PLAN
A-1.3	DOOR/WINDOW SCHEDULES and ROOF PLAN
A-2.1	SOUTH and EAST ELEVATIONS
A-2.2	NORHT and WEST ELEVATIONS
A-3.1	SECTIONS
S-1.1	FOUNDATION PLAN
S-1.1a	FOUNDATION DETAILS
S-1.2	FLOOR FRAMING PLAN
S-1.3	ROOF FRAMING PLAN
S-1.4	SHEAR WALL PLANS and DETAILS
S-1.5	STRUCTURAL NOTES
E-1.1	MAIN FLOOR ELECTRICAL PLAN
E-1.2	UPPER FLOOR ELECTRICAL PLAN

DETAIL SHEET SCHEDULE

DTL-1	EAVE & GUTTER DETAIL
DTL-2	EAVE @ RAKE DETAIL
DTL-3	OVERHANG DETAIL
DTL-4	DECK EDGE @ SOUTH DETAIL
DTL-5	DECK @ GARAGE DOOR DETAIL
DTL-6	DECK EDGE @ EAST CARPORT WALL DETAIL
DTL-7	DECK EDGE @ SOUTH CARPORT DETAIL
DTL-8	DECK @ OUTDOOR KITCHEN DETAIL
DTL-9	DECK BEAM CONNECTION @ EXISTING HOUSE DETAIL
DTL-10	COLUMN @ TIMBER FRAME PATIO COVER DETAIL
DTL-11	GARAGE WALL @ FOUNDATION DETAIL
DTL-12	CLIPPED EAVE DETAIL
DTL-13	B-4 to B-5 & B-18 STEEL PLATE CONNECTION DETAIL
DTL-14	STEEL STAIR CONNECTION TO WALL DETAIL
DTL-15	DECK STAIR @ EXISTING HOUSE DETAIL
DTL-16	VERT. SIDING AT BOTTOM OF WALL w/ HORIZ. NAILER & DRAINAGE STRIP
DTL-17	VERT. SIDING AT BOTTOM OF WALL DRAINAGE STRIP DETAIL

SUBMITTAL NOTES

DEFERRED SUBMITTALS:
PLUMBING PERMIT
HVAC PERMIT
ELECTRICAL PERMIT
NOTE: POWER, SEWER AND WATER UTILITIES ARE EXISTING.

ENERGY CODE SUMMARY

WHOLE HOUSE VENTILATION, NEW CONSTRUCTION ONLY:
- FOLLOW ASHRAE STANDARD 62.2, WITH FLOOR AREA BETWEEN 1,501 to 3,000 S.F.
- WITH ONE BEDROOM, 45 CFM IS REQUIRED. TABLE 4.1z AND IS THE SAME AS IMC TABLE.
- M1507.3.3(1), CHAPTER 15

HEAT SOURCE:
HIGH EFFICIENCY DUCTLESS SPLIT SYSTEM WITH HEAT PUMPS, ZONAL CONTROL

COMPONENTS WILL MEET THE FOLLOWING:
- FENESTRATION: U-0.28
- SKYLIGHT: U-0.50 N/A
- CEILING: R-49
- 6" WOOD FRAME WALL: R-21
- 8" WOOD FRAME WALL: R-21
- FLOOR: R-30
- BELOW GRADE WALL R-VALUE: 10/15/21 INT + TB
- SLAB: R-10

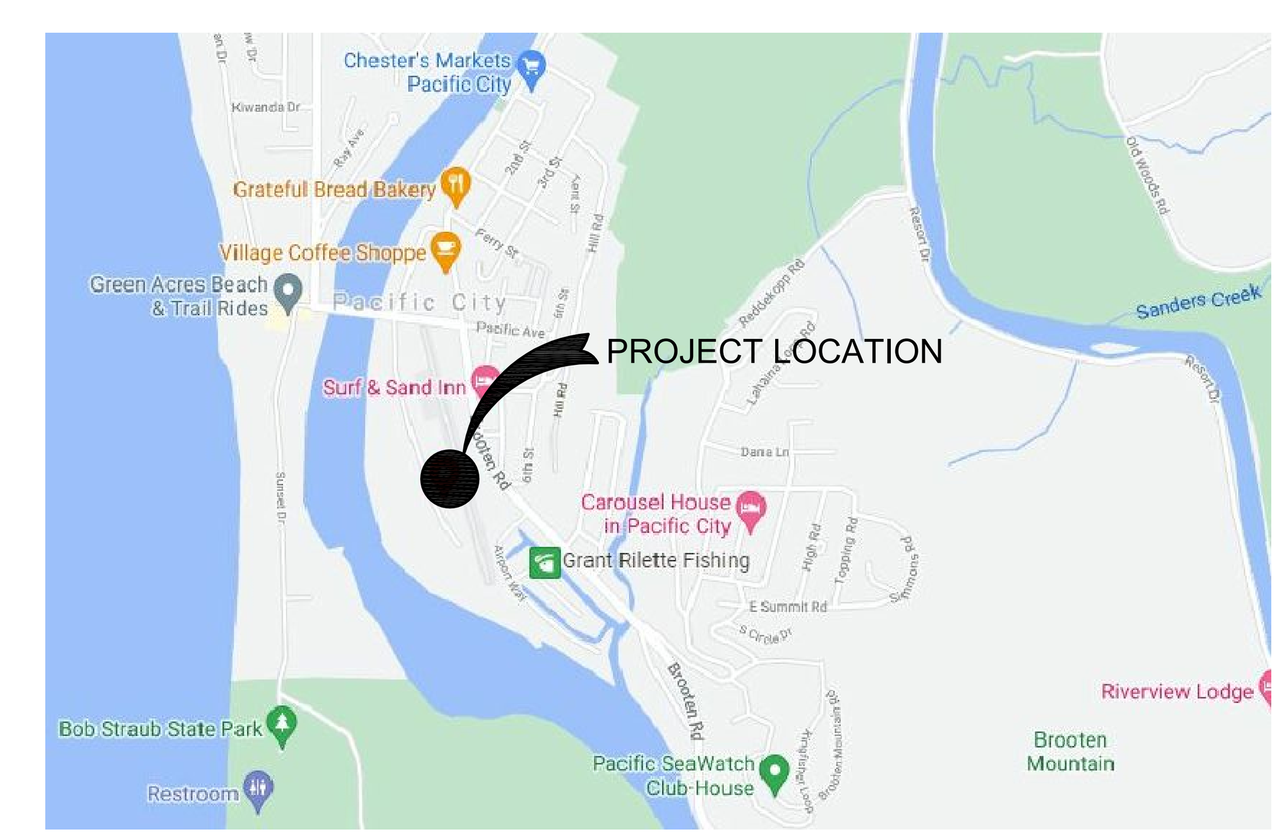
COMPONENTS PROPOSED:
- FENESTRATION: U-0.28
- SKYLIGHT: U-.55
- CEILING: R-59.1
- 6" WOOD WALL: R-33
- 8" WOOD WALL: R-45
- FLOOR: R-30
- B.G. WALL: R-10
- SLAB: R-10

WINDOW AND DOOR HEADERS SHALL BE INSULATED TO A MINIMUM OF R-10

RESIDENTIAL ENERGY ADDITIONAL MEASURE SELECTION:

TABLE N1101.1(2) ADDITIONAL MEASURES:
ENVELOPE ENHANCEMENT MEASURES:
- UPGRADED FEATURES
  - EXTERIOR WALLS - U-0.057 / R-23 INTERMEDIATE or R-21 ADVANCED
  - FRAMED DOORS - U-0.026 / R-38
  - WINDOWS - U-0.28 (AVERAGE UA)

CONSERVATION MEASURES:
- DUCTLESS HEAT PUMP
  - DUCTLESS HEAT PUMP HSPF 10.0 IN PRIMARY ZONE OF DWELLING
- HIGH EFFICIENCY WATER HEATER
  - ELECTRIC HEAT PUMP WATER HEATER TIER 1 NORTHERN CLIMATE SPECIFICATION PRODUCT



VICINITY MAP
SCALE NONE
NORTH

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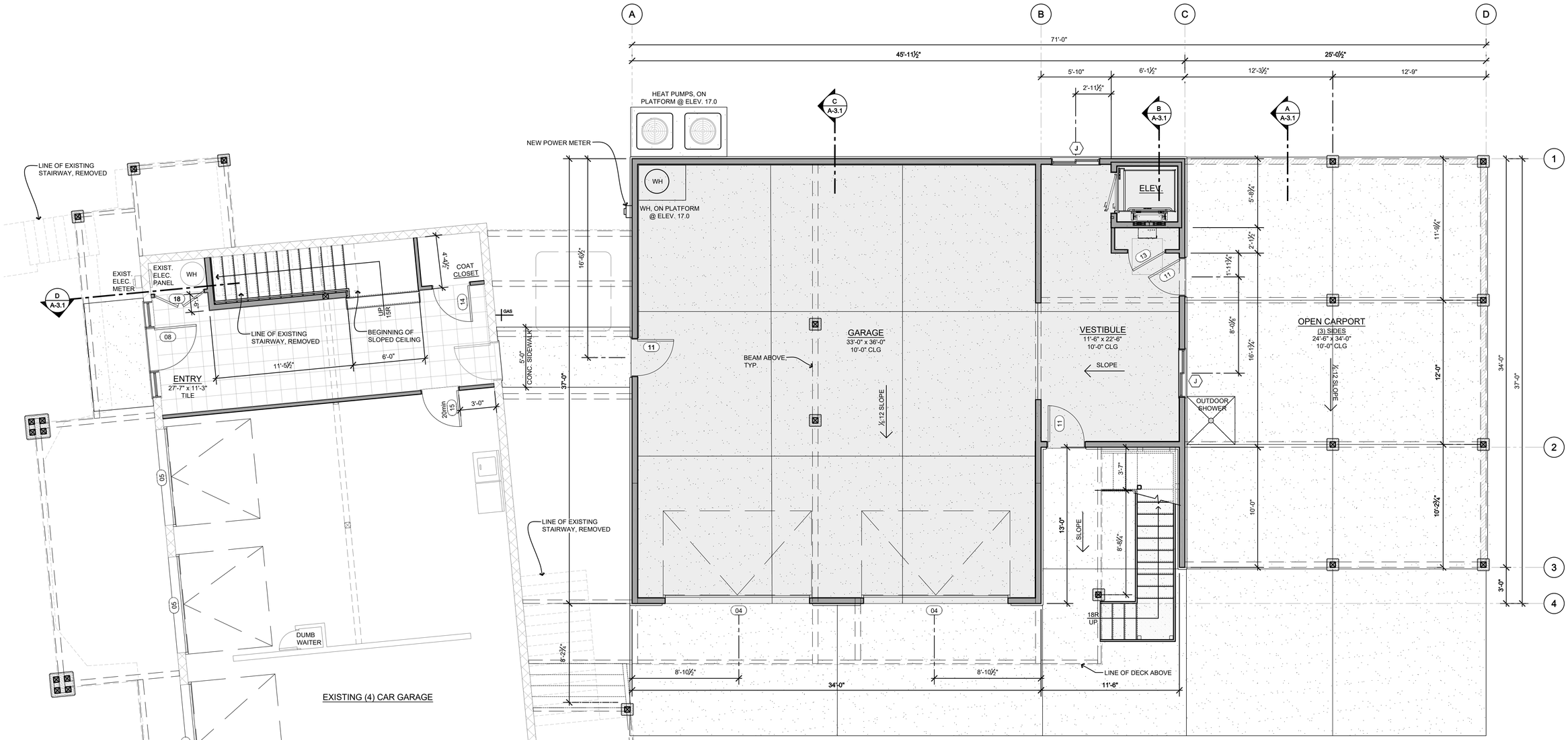

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- 2x4 WALL w/ STUDS @ 16" o.c., ⅝" GWB. EA. SIDE (2x6) WHERE NOTED
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- EXISTING FRAMED WALL
- EXISTING CMU WALL

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- DETAIL DESIGNATION
- SMOKE / CO² DETECTOR
- EXHAUST FAN (110 CFM, TYPICAL)
- MINI-SPLIT
- CENTER LINE
- DOOR DESIGNATION
- WINDOW DESIGNATION

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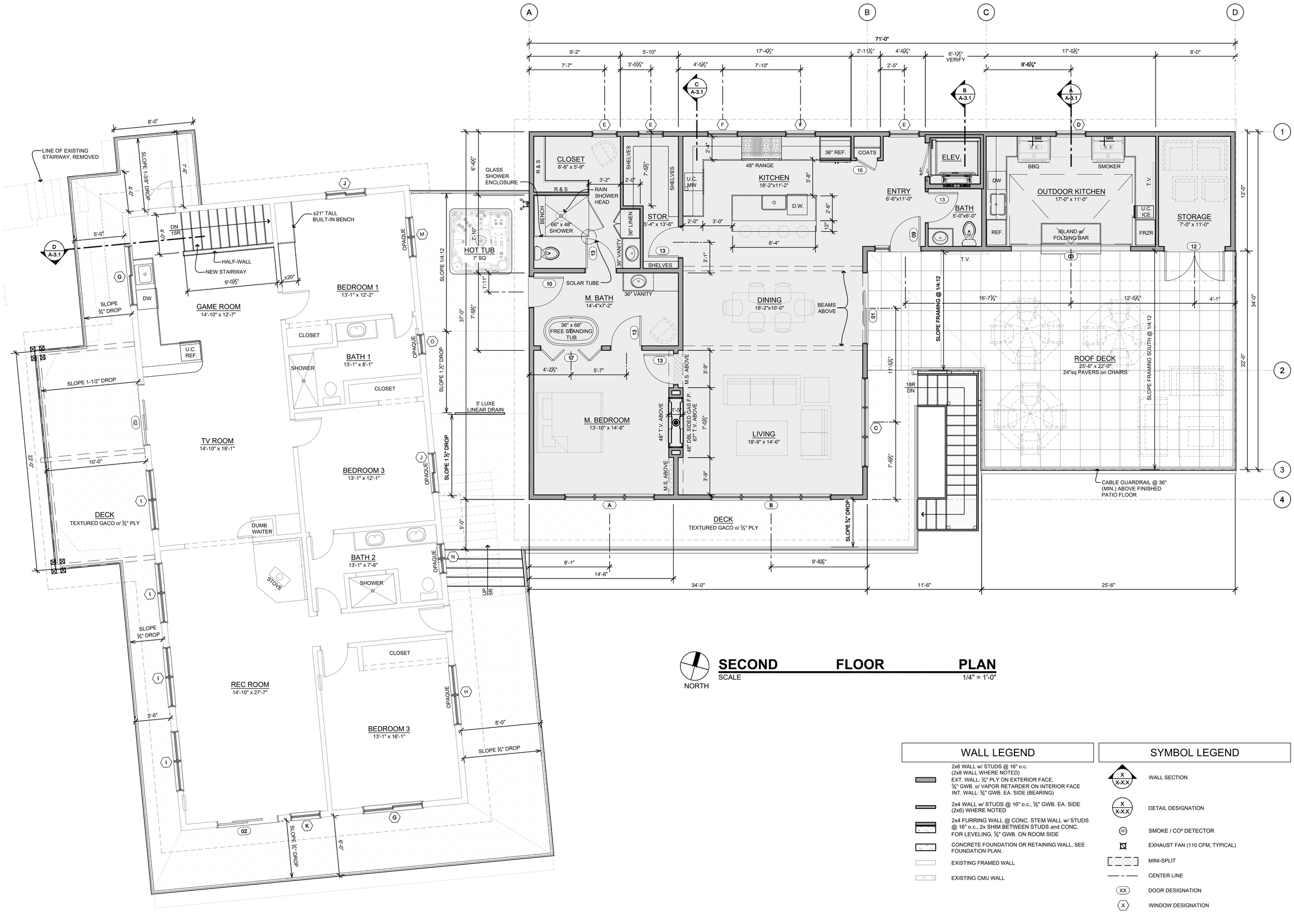

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- 2x4 FURRING WALL @ CONC. STEM WALL w/ STUDS @ 16" o.c., 2x SHIM BETWEEN STUDS and CONC. FOR LEVELING, ⅝" GWB. ON ROOM SIDE
- CONCRETE FOUNDATION OR RETAINING WALL, SEE FOUNDATION PLAN.
- EXISTING FRAMED WALL
- EXISTING CMU WALL

SYMBOL LEGEND

- WALL SECTION
- DETAIL DESIGNATION
- SMOKE / CO² DETECTOR
- EXHAUST FAN (110 CFM, TYPICAL)
- MINI-SPLIT
- CENTER LINE
- DOOR DESIGNATION
- WINDOW DESIGNATION

COULTER ARCHITECTURE

RESIDENTIAL & COMMERCIAL ARCHITECTURE

Member, The American Institute of Architects AIA

CORRESPONDENCE
P. O. Box 2323
Lake Chelan, WA 98816
(509) 630 . 5518 off

OFFICE
105 N Emerson St. Suite 201
Lake Chelan, WA 98816

REGISTERED ARCHITECT RONALD E. COULTER LAKE CHELAN, WASHINGTON STATE OF OREGON

ADDITION FOR:
DAVE AND PATTIE COULTER
35465 RUEPPELL AVE
PACIFIC CITY, TILLAMOOK COUNTY, OREGON

Project No: 2021-1
Drawn: MEC
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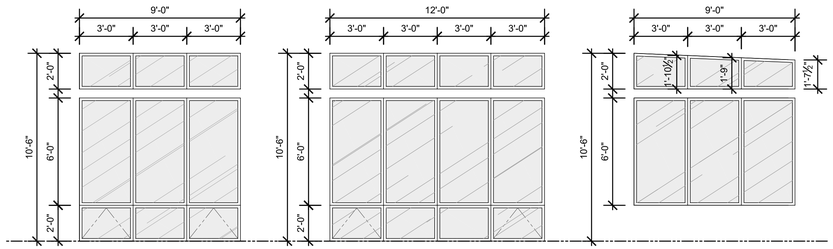
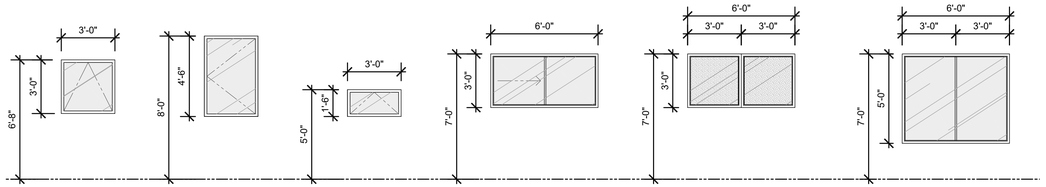
A-1.2
PERMIT SET DRAWINGS



A
(3) FIXED HIGH WINDOWS (MULLED)
(3) FIXED WINDOWS w/
OXO AWNING TEMPERED (MULLED)
ALUMINUM CLAD
DESIGNED FOR 125mph WIND LOAD

B
(4) FIXED HIGH WINDOWS (MULLED)
(4) FIXED WINDOWS w/
OXXO AWNING TEMPERED (MULLED)
ALUMINUM CLAD
DESIGNED FOR 125MPH WIND LOAD

C
(3) FIXED TRAPEZOID HIGH WINDOWS (MULLED
(3) FIXED WINDOWS (MULLED)
ALUMINUM CLAD



D
AWNING WINDOW
VINYL

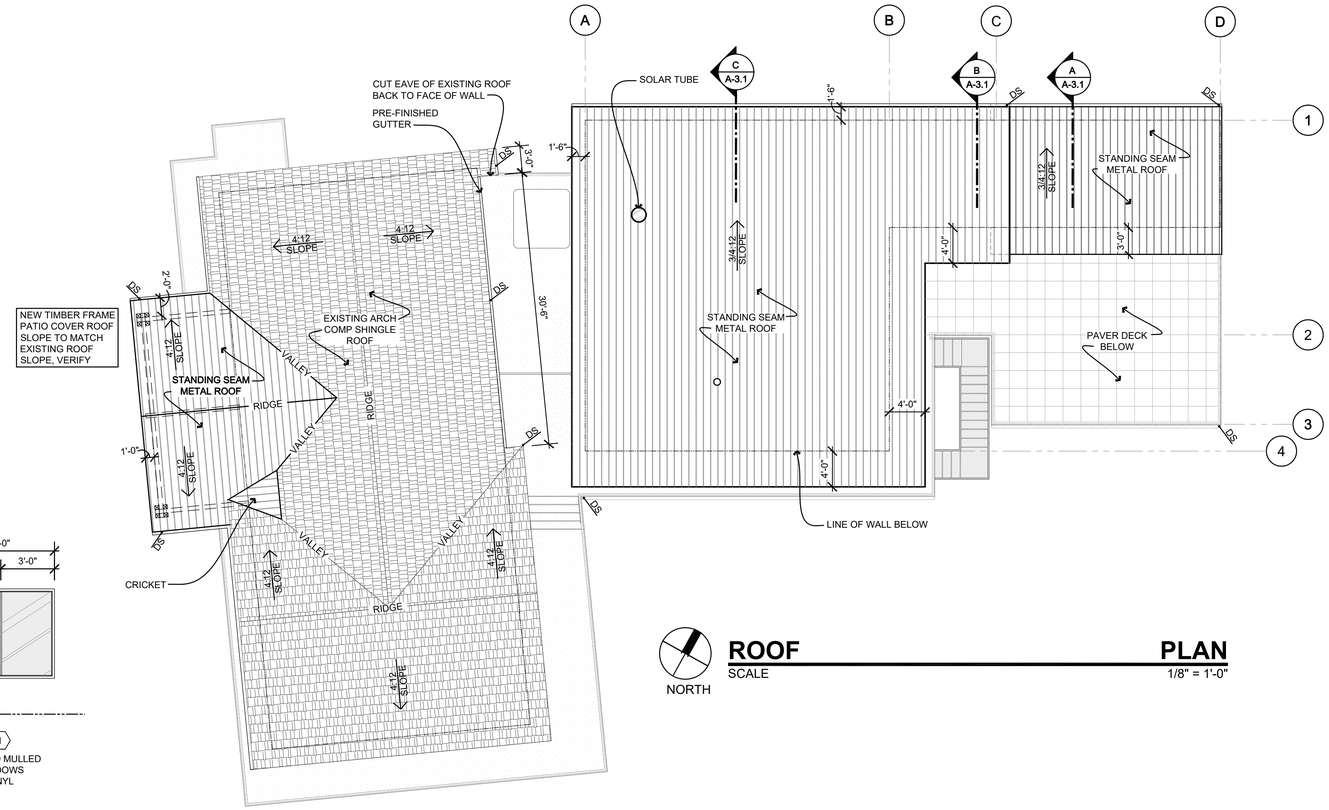
E
CASEMENT WINDOW
ALUMINUM CLAD

F
AWNING WINDOW
ALUMINUM CLAD

G
SLIDER WINDOW
VINYL

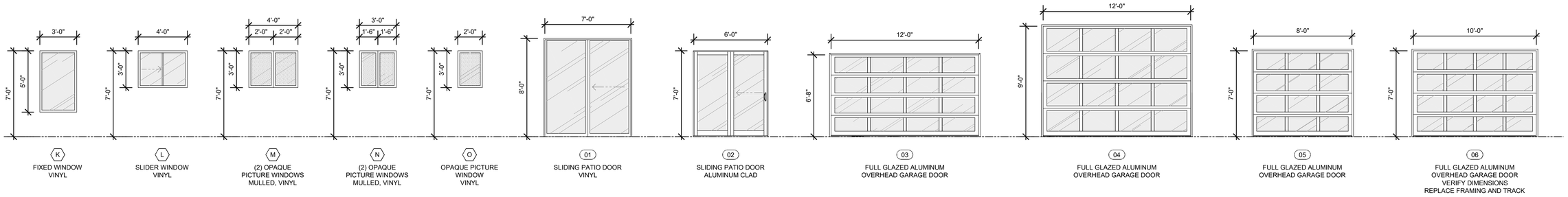
H
(2) OPAQUE
PICTURE WINDOWS
MULLED, VINYL

I
(2) FIXED MULLED
WINDOWS
VINYL



NORTH

ROOF PLAN
SCALE 1/8" = 1'-0"



K
FIXED WINDOW
VINYL

L
SLIDER WINDOW
VINYL

M
(2) OPAQUE
PICTURE WINDOWS
MULLED, VINYL

N
(2) OPAQUE
PICTURE WINDOWS
MULLED, VINYL

O
OPAQUE PICTURE
WINDOW
VINYL

01
SLIDING PATIO DOOR
VINYL

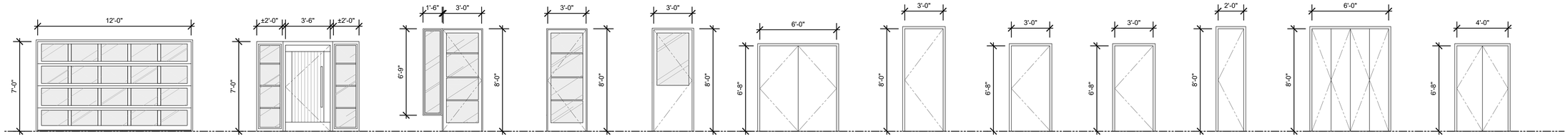
02
SLIDING PATIO DOOR
ALUMINUM CLAD

03
FULL GLAZED ALUMINUM
OVERHEAD GARAGE DOOR

04
FULL GLAZED ALUMINUM
OVERHEAD GARAGE DOOR

05
FULL GLAZED ALUMINUM
OVERHEAD GARAGE DOOR

06
FULL GLAZED ALUMINUM
OVERHEAD GARAGE DOOR
VERIFY DIMENSIONS
REPLACE FRAMING AND TRACK



07
FULL GLAZED ALUMINUM
OVERHEAD GARAGE DOOR
VERIFY DIMENSIONS
REPLACE FRAMING AND TRACK

08
SOLID CORE WOOD ENTRY
DOOR w/ SIDELIGHTS
CUSTOM FIT TO EXISTING O.H.
GARAGE DOOR OPENING

09
FULLY GLAZED
ALUMINUM CLAD ENTRY
DOOR w/ SIDELIGHT

10
FULLY GLAZED
ALUMINUM CLAD WOOD
ENTRY DOOR

11
INSULATED METAL
HALF-GLAZED
ENTRY DOOR

12
INSULATED METAL
DOUBLE SWING
STORAGE DOORS

13
SOLID CORE WOOD
SWING DOOR

14
SOLID CORE
WOOD SWING
DOOR

15
SOLID CORE WOOD
SWING DOOR
20 MIN RATED

16
SOLID CORE
WOOD SWING
DOOR

17
SOLID CORE DOUBLE
BIFOLD DOORS

18
SOLID CORE DOUBLE
SWING DOORS

WINDOW and DOOR SCHEDULE
SCALE 1/4" = 1'-0"

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AIA

CORRESPONDENCE
P. O. Box 2323
Lake Chelan, WA 98816
(509) 630 . 5518 off

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REGISTERED ARCHITECT
RONALD E. COULTER
CHELAN, WASHINGTON
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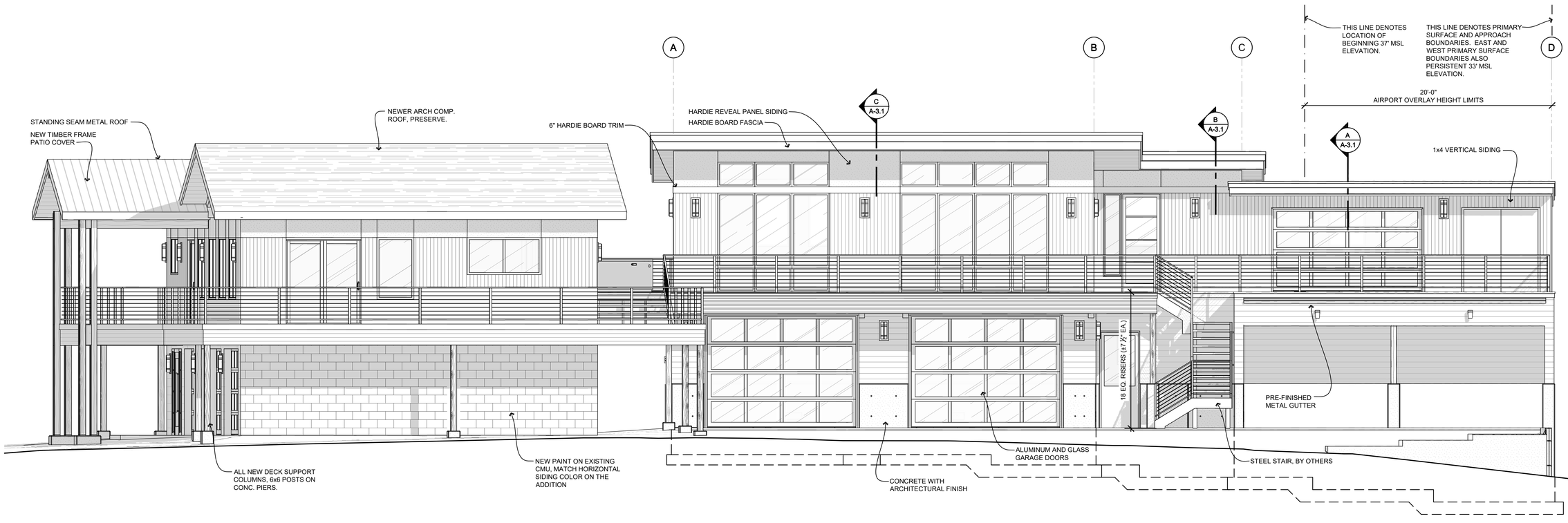
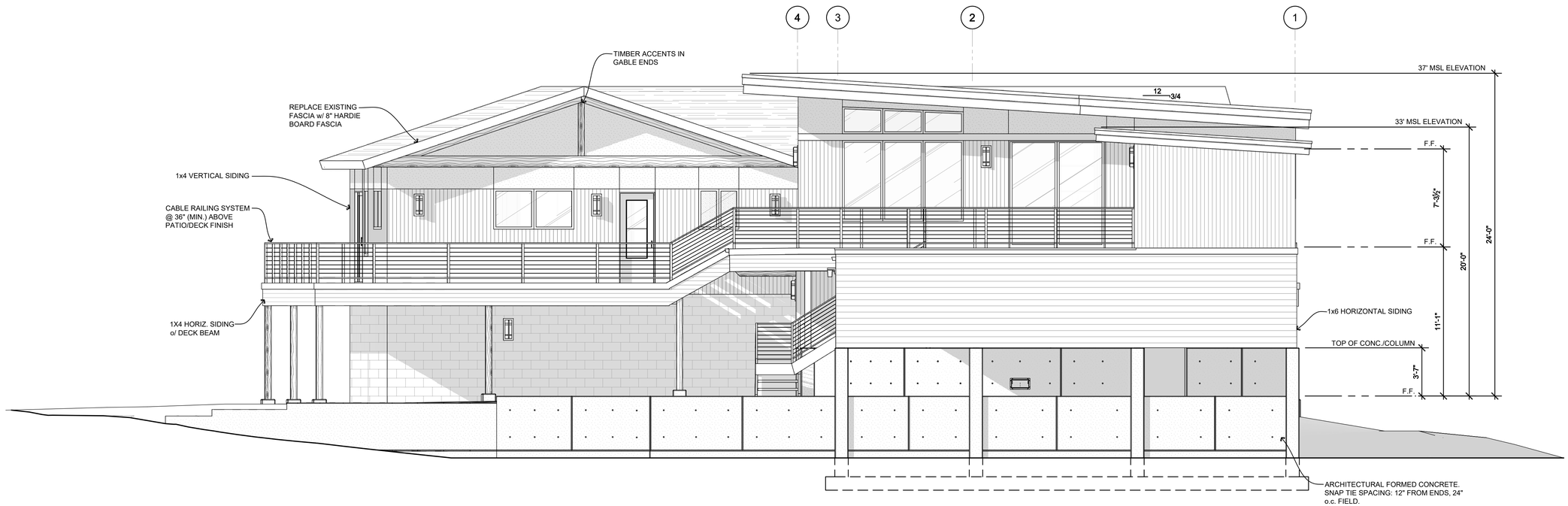
A-1.3
PERMIT SET DRAWINGS



SOUTH ELEVATION

SCALE 1/4" = 1'-0"



EAST ELEVATION

SCALE 1/4" = 1'-0"

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CORRESPONDENCE
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Lake Chelan, WA 98816
(509) 630 . 5518 off

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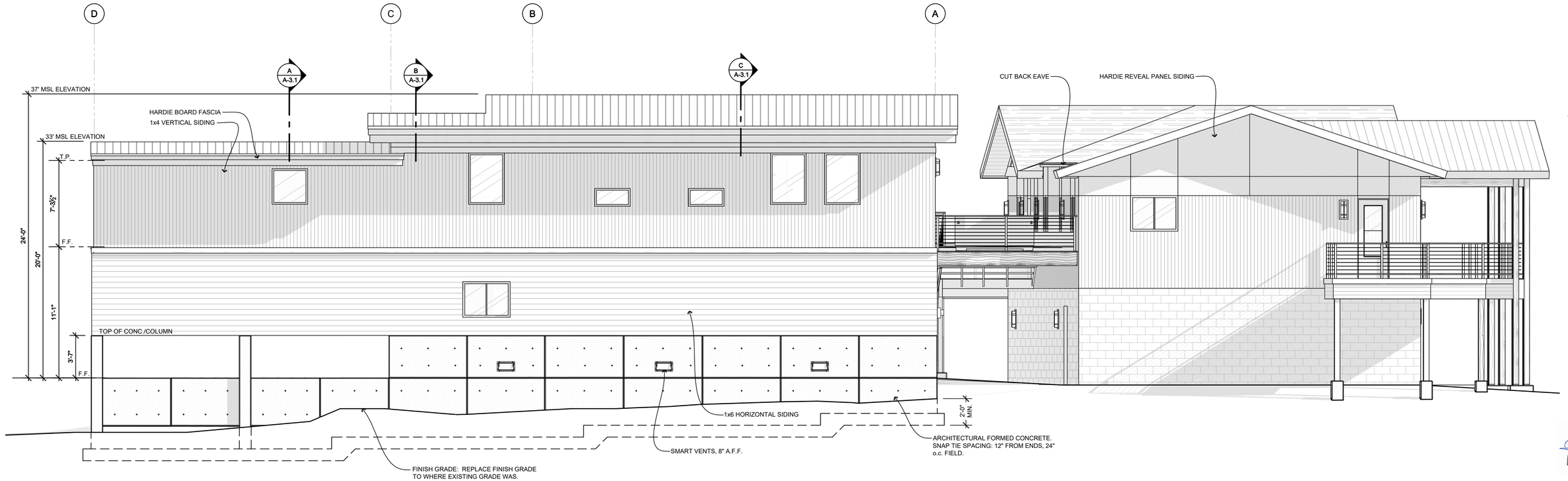
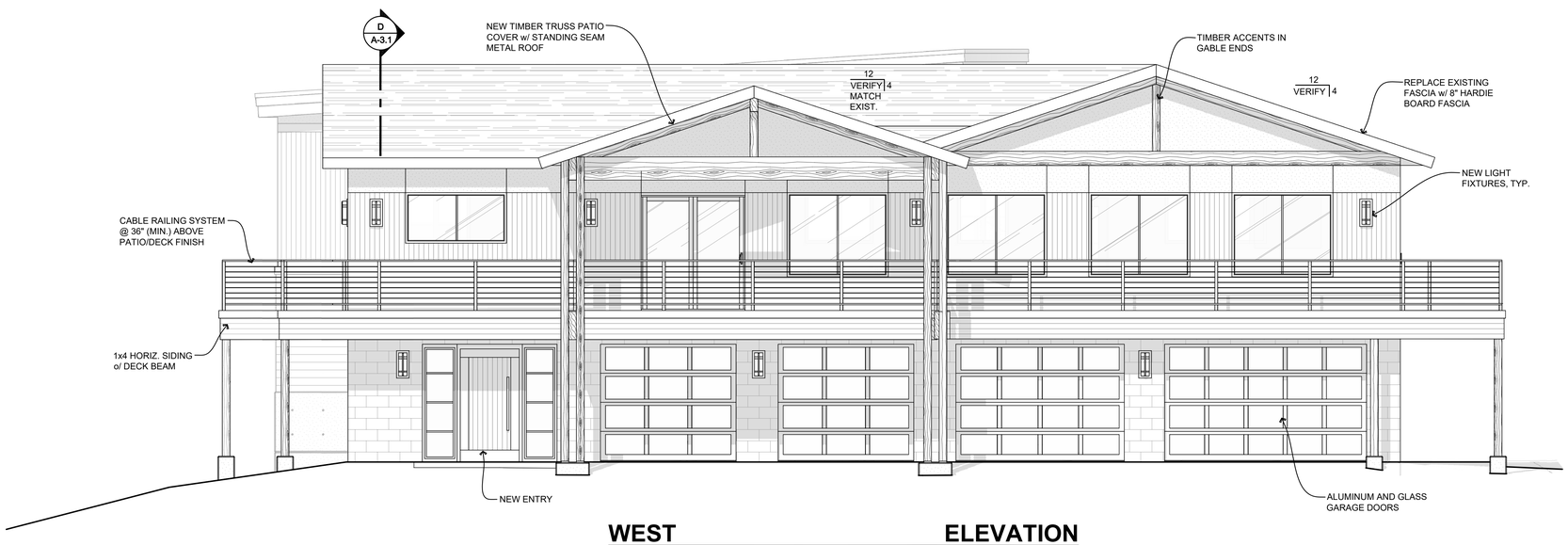
A-2.1
PERMIT SET DRAWINGS



NORTH ELEVATION

SCALE 1/4" = 1'-0"



WEST ELEVATION

SCALE 1/4" = 1'-0"

EXISTING HOUSE, NEW FINISHES:

- VINYL WINDOWS AND SLIDING GLASS DOORS
- ALUMINUM AND GLASS GARAGE DOORS
- SIDING on 2ND STORY (HARDIE PLANK & AZTEK VERTICAL SIDING)
- NEW PAINT on 1ST STORY CMU
- ALL NEW DECK INCLUDING: FRAMING, COLUMNS, DECKING AND RAILING.
- NEW TIMBER FRAME PATIO COVER ROOF w/ STANDING SEAM METAL ROOF

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CORRESPONDENCE
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Lake Chelan, WA 98816
(509) 630 . 5518 off

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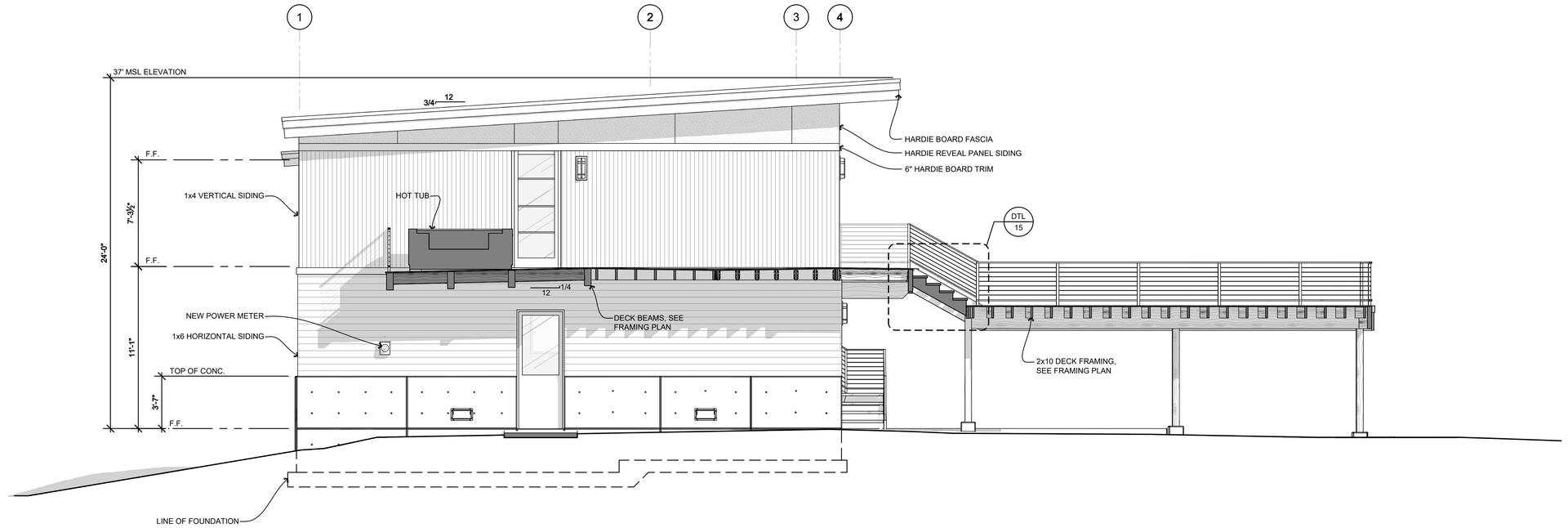
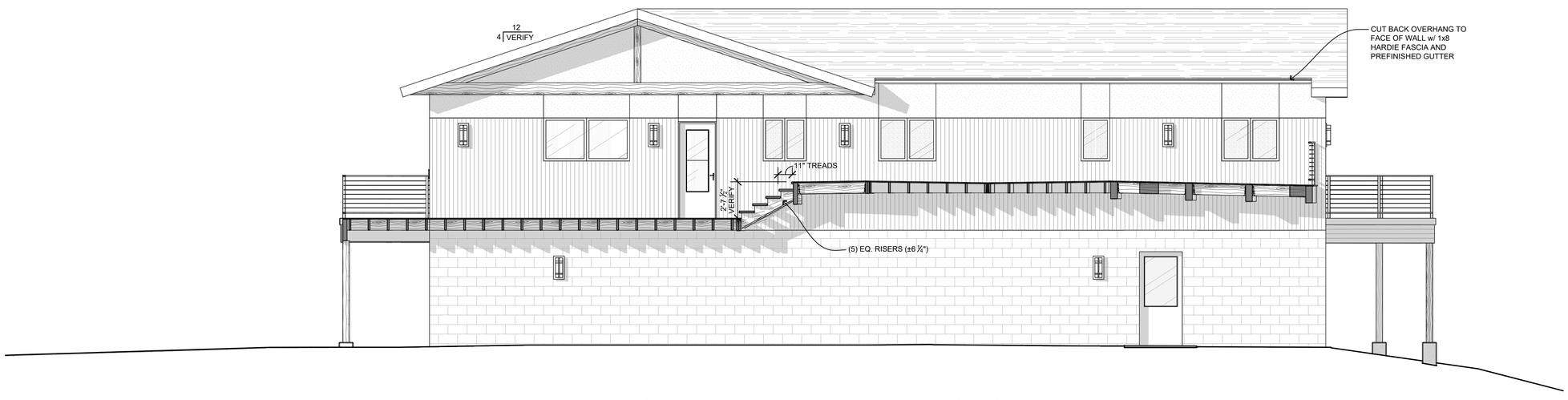


WEST ELEVATION/SECTION

SCALE 1/4" = 1'-0"



EAST ELEVATION/SECTION

SCALE 1/4" = 1'-0"

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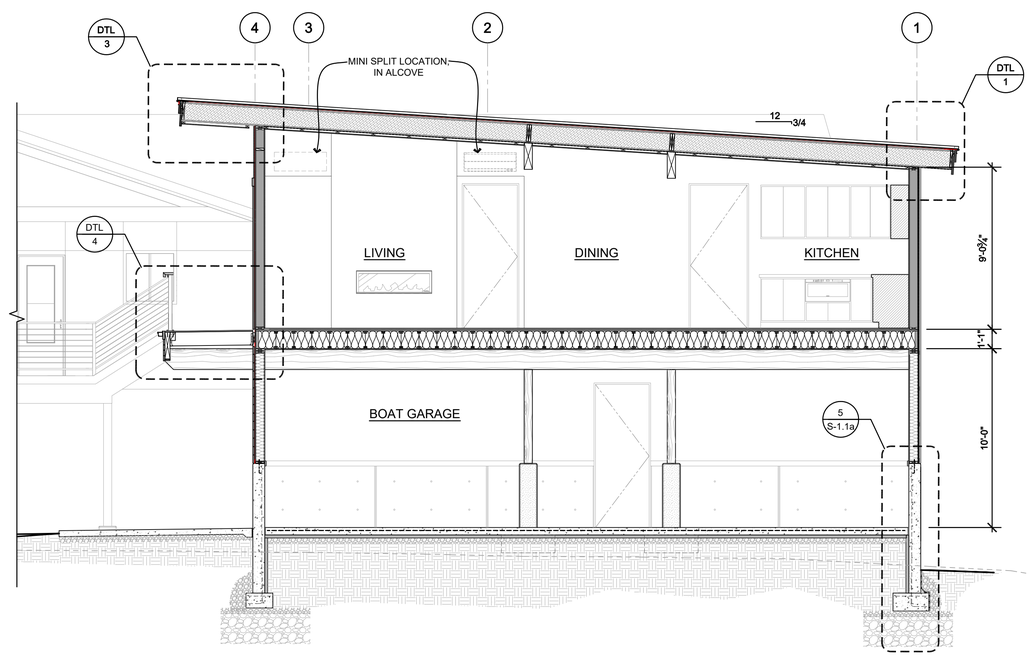
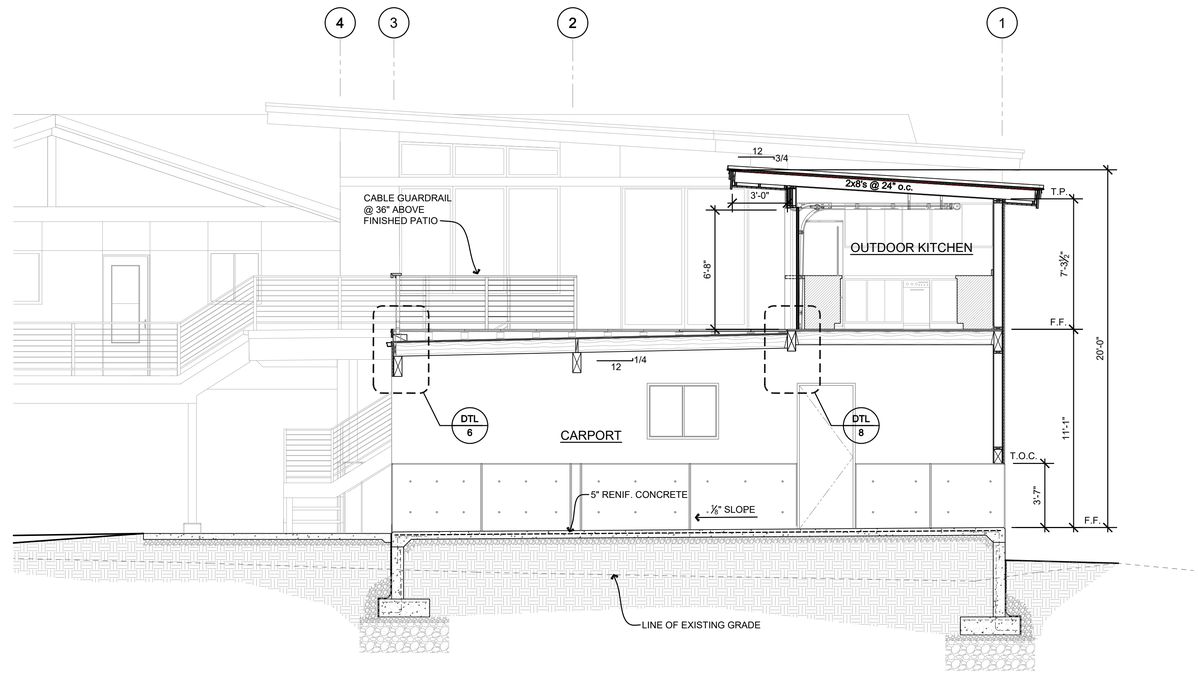
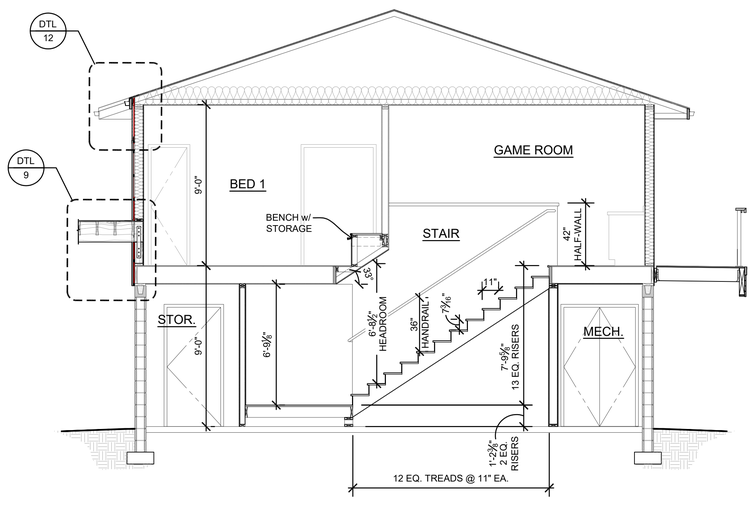


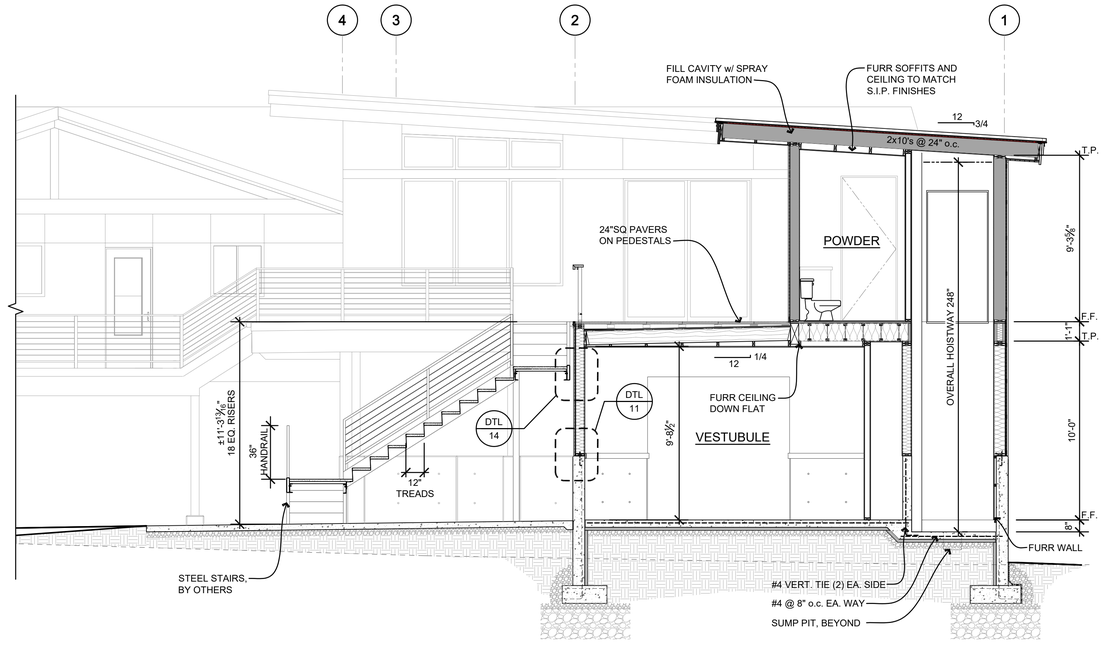
C **BUILDING SECTION**
SCALE 1/4" = 1'-0"



A **BUILDING SECTION**
SCALE 1/4" = 1'-0"



D **BUILDING SECTION**
SCALE 1/4" = 1'-0"



B **BUILDING SECTION**
SCALE 1/4" = 1'-0"

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CORRESPONDENCE
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A-3.1
PERMIT SET DRAWINGS

WALL LEGEND

	BEARING WALL
	NON-BEARING WALL
	FOUNDATION or RETAINING WALL AND FOOTING, SEE PLANS FOR SIZE
	NEW BEAM or HEADER, SEE PLANS FOR SIZE
	EXISTING BEAM or HEADER

SYMBOL LEGEND

- X / X-X.X — WALL SECTION DESIGNATION
- X / X-X.X — ELEVATION DESIGNATION
- X / X-X.X — DETAIL DESIGNATION

FOUNDATION GENERAL NOTES

- NOTES TO FOUNDATION CONTRACTOR AND FIELD SUPERINTENDENT:
- REFERENCE STRUCTURAL NOTES SHEET S-1.5 FOR CONCRETE AND REINFORCING STEEL DESIGN REQUIREMENTS.
- VERIFY THE LOCATION AND SPACING OF ANCHOR BOLTS AND HOLDOWNS PRIOR TO POURING FOUNDATION. REFER TO SHEARWALL SCHEDULE AND ENGINEERING NOTES AS APPLICABLE.
- SILL PLATES AND POSTS MUST BE 6" ABOVE EXPOSED EARTH. BEAMS MUST BE 12"min. AND FLOOR JOISTS 18"min. ABOVE EXPOSED EARTH. BEAMS AND JOISTS IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED OR SEPARATED WITH AN APPROVED VAPOR BARRIER.
- HOLDOWN HARDWARE MUST BE INSTALLED PER MANUFACTURERS SPECIFICATIONS AND SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
- 2x6 (SBX) P.T. SILL PLATE (SODIUM BORATE PRESSURE TREATED) WITH 5/8"dia. MINIMUM x 12"L ANCHOR BOLTS 7"min. EMBEDMENT w/ 3"x3"x1/4" PLATE WASHERS SPACED @ 2'-0"o.c. MAXIMUM (OR PER FOUNDATION DETAILS AND ENGINEER SHEAR WALL SCHEDULE AS APPLICABLE). THERE SHALL BE A MINIMUM OF TWO BOLTS PER PLATE SECTION WITH (1) BOLT 12"max. (OR NOT LESS THAN 7 BOLT DIAMETERS) FROM EACH END OF THE PLATE SECTION
- SLOPE ALL PORCHES, PATIOS, STOOPS AND HARD-SCAPE MATERIAL AWAY FROM BUILDING 1% SLOPE MINIMUM.
- FRAME CONSTRUCTION & NAILING TO BE IN ACCORDANCE WITH R602 & TABLE R602.3(1)
- PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS AND STIFFENERS HAVE BEEN INSTALLED.

HOLD DOWN NOTES

- HDU: SEE DETAIL H/S-1.4, EPOXY VS. CAST IN PLACE, TYPICAL
- STRAP: SEE DETAIL C/S-1.4, STRAP ABOVE EACH HDU, TYPICAL

FOUNDATION PLAN

NORTH

SCALE 1/4" = 1'-0"

COULTER ARCHITECTURE

RESIDENTIAL & COMMERCIAL ARCHITECTURE

Member, The American Institute of Architects AIA

CORRESPONDENCE
P. O. Box 2323
Lake Chelan, WA 98816
(509) 630 . 5518 off

OFFICE
105 N Emerson St. Suite 201
Lake Chelan, WA 98816

REGISTERED ARCHITECT RONALD E. COULTER WASHINGTON STATE OF OREGON

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S-1.1

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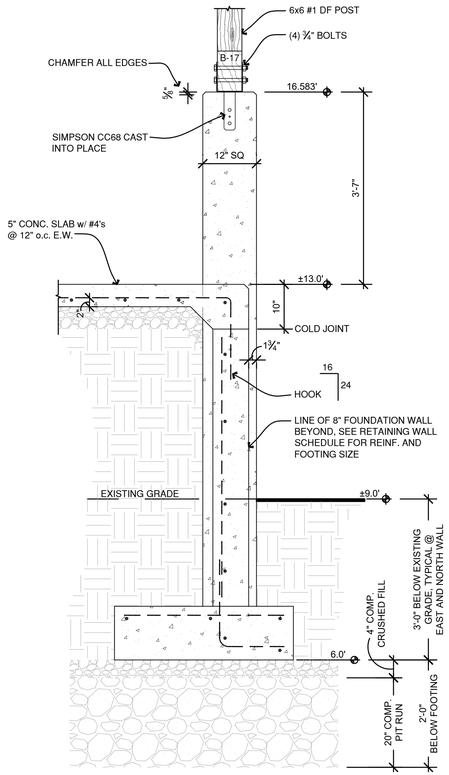
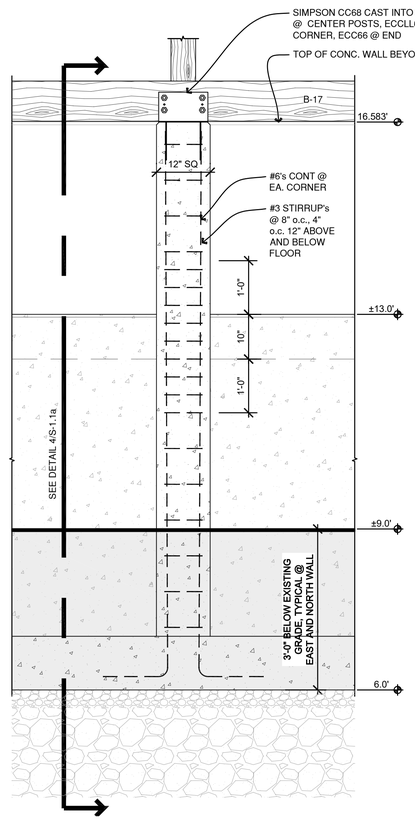


4 PILASTER DETAIL
SCALE 3/4"= 1'-0"

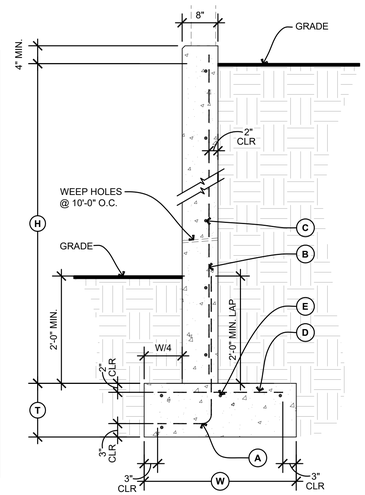


3 PILASTER DETAIL
SCALE 3/4"= 1'-0"

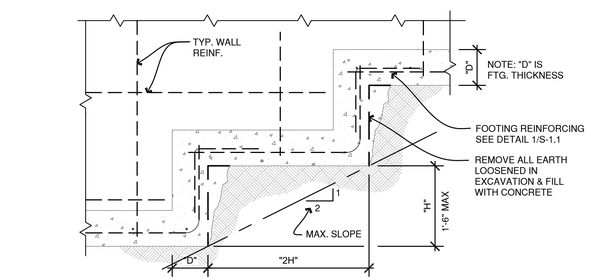
RETAINING WALL SCHEDULE							
WALL			REINFORCEMENT				
H	W	T	A	B	C	D	E
7'	3'-4"	12"	#4 @ 10"	#4 @ 10"	#5 @ 15"	#4 @ 16"	(4) #4
6'	2'-10"	12"	#4 @ 16"	#4 @ 16"	#5 @ 15"	#4 @ 16"	(4) #4
5'	2'-6"	12"	#4 @ 16"	#4 @ 16"	#5 @ 15"	#4 @ 16"	(4) #4
4'	2'-0"	12"	#4 @ 16" FULL HT.		#5 @ 15"	#4 @ 16"	(4) #4
3'	1'-6"	10"	#4 @ 16" FULL HT.		#5 @ 15"	#4 @ 16"	(3) #4

NOTES:

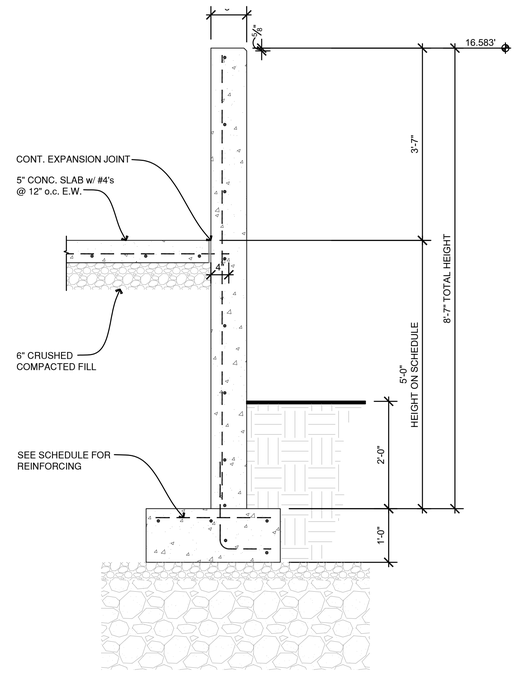
1. ALL RE-BAR TO BE SECURELY TIED IN PLACE.
2. LAP BARS 50 x DIAMETER
3. DELETE WEEP HOLES WHEN RETAINING WALL IS PART OF A FOUNDATION WALL. PROVIDE DRAIN ROCK AND DRAIN TILE AT FOOTING AS REQUIRED TO SUIT SITE CONDITIONS.



1 RETAINING WALL SCHEDULE
SCALE 3/4"= 1'-0"



2 STEP FOOTING DETAIL
SCALE 3/4"= 1'-0"



5 FOUNDATION DETAIL
SCALE 3/4"= 1'-0"

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AIA

CORRESPONDENCE
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S-1.1a
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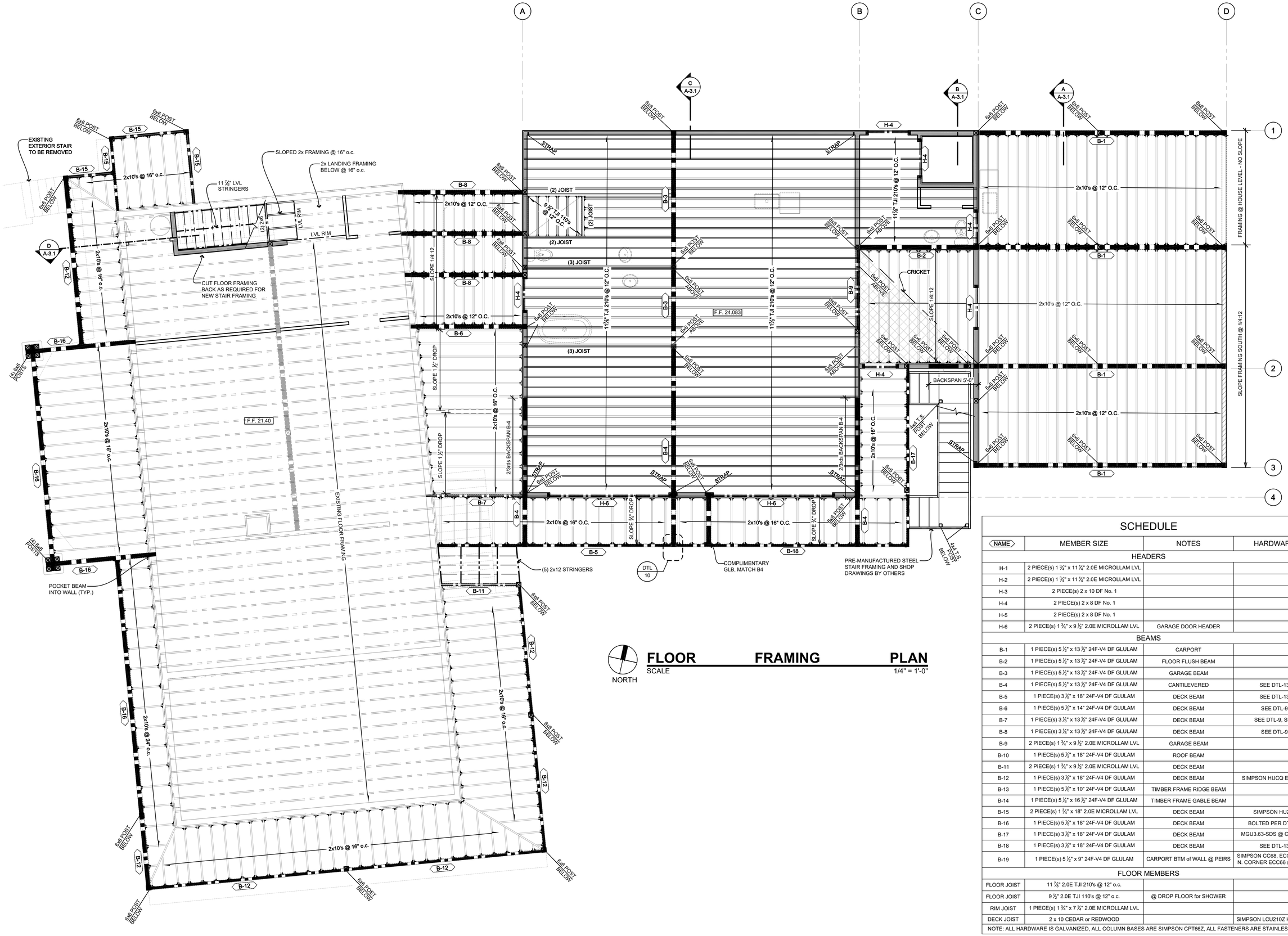

NORTH

FLOOR FRAMING PLAN

SCALE 1/4" = 1'-0"

SCHEDULE

NAME	MEMBER SIZE	NOTES	HARDWARE
HEADERS			
H-1	2 PIECE(s) 1 ¾" x 11 ⅞" 2.0E MICROLLAM LVL		
H-2	2 PIECE(s) 1 ¾" x 11 ⅞" 2.0E MICROLLAM LVL		
H-3	2 PIECE(s) 2 x 10 DF No. 1		
H-4	2 PIECE(s) 2 x 8 DF No. 1		
H-5	2 PIECE(s) 2 x 8 DF No. 1		
H-6	2 PIECE(s) 1 ¾" x 9 ½" 2.0E MICROLLAM LVL	GARAGE DOOR HEADER	
BEAMS			
B-1	1 PIECE(s) 5 ½" x 13 ½" 24F-V4 DF GLULAM	CARPORT	
B-2	1 PIECE(s) 5 ½" x 13 ½" 24F-V4 DF GLULAM	FLOOR FLUSH BEAM	
B-3	1 PIECE(s) 5 ½" x 13 ½" 24F-V4 DF GLULAM	GARAGE BEAM	
B-4	1 PIECE(s) 5 ½" x 13 ½" 24F-V4 DF GLULAM	CANTILEVERED	SEE DTL-13
B-5	1 PIECE(s) 3 ½" x 18" 24F-V4 DF GLULAM	DECK BEAM	SEE DTL-13
B-6	1 PIECE(s) 5 ½" x 14" 24F-V4 DF GLULAM	DECK BEAM	SEE DTL-9
B-7	1 PIECE(s) 3 ⅛" x 13 ½" 24F-V4 DF GLULAM	DECK BEAM	SEE DTL-9, SIM.
B-8	1 PIECE(s) 3 ⅛" x 13 ½" 24F-V4 DF GLULAM	DECK BEAM	SEE DTL-9
B-9	2 PIECE(s) 1 ¾" x 9 ½" 2.0E MICROLLAM LVL	GARAGE BEAM	
B-10	1 PIECE(s) 5 ½" x 18" 24F-V4 DF GLULAM	ROOF BEAM	
B-11	2 PIECE(s) 1 ¾" x 9 ½" 2.0E MICROLLAM LVL	DECK BEAM	
B-12	1 PIECE(s) 3 ½" x 18" 24F-V4 DF GLULAM	DECK BEAM	SIMPSON HUCQ EA. SIDE
B-13	1 PIECE(s) 5 ½" x 10" 24F-V4 DF GLULAM	TIMBER FRAME RIDGE BEAM	
B-14	1 PIECE(s) 5 ⅛" x 16 ½" 24F-V4 DF GLULAM	TIMBER FRAME GABLE BEAM	
B-15	2 PIECE(s) 1 ¾" x 18" 2.0E MICROLLAM LVL	DECK BEAM	SIMPSON HU216
B-16	1 PIECE(s) 5 ½" x 18" 24F-V4 DF GLULAM	DECK BEAM	BOLTED PER DTL-10
B-17	1 PIECE(s) 3 ½" x 18" 24F-V4 DF GLULAM	DECK BEAM	MGU3.63-SDS @ CORNER
B-18	1 PIECE(s) 3 ½" x 18" 24F-V4 DF GLULAM	DECK BEAM	SEE DTL-13
B-19	1 PIECE(s) 5 ½" x 9" 24F-V4 DF GLULAM	CARPORT BTM of WALL @ PEIRS	SIMPSON CC68, ECCLL666 @ N. CORNER ECC66 @ S. END
FLOOR MEMBERS			
FLOOR JOIST	11 ⅞" 2.0E TJI 210's @ 12" o.c.		
FLOOR JOIST	9 ½" 2.0E TJI 110's @ 12" o.c.	@ DROP FLOOR for SHOWER	
RIM JOIST	1 PIECE(s) 1 ¾" x 7 ¼" 2.0E MICROLLAM LVL		
DECK JOIST	2 x 10 CEDAR or REDWOOD		SIMPSON LCU210Z HANGERS

NOTE: ALL HARDWARE IS GALVANIZED, ALL COLUMN BASES ARE SIMPSON CPT66Z, ALL FASTENERS ARE STAINLESS STEEL

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CORRESPONDENCE
P. O. Box 2323
Lake Chelan, WA 98816
(509) 630 . 5518 off

OFFICE
105 N Emerson St. Suite 201
Lake Chelan, WA 98816

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PACIFIC CITY, TILLAMOOK COUNTY, OREGON

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S-1.2
PERMIT SET DRAWINGS

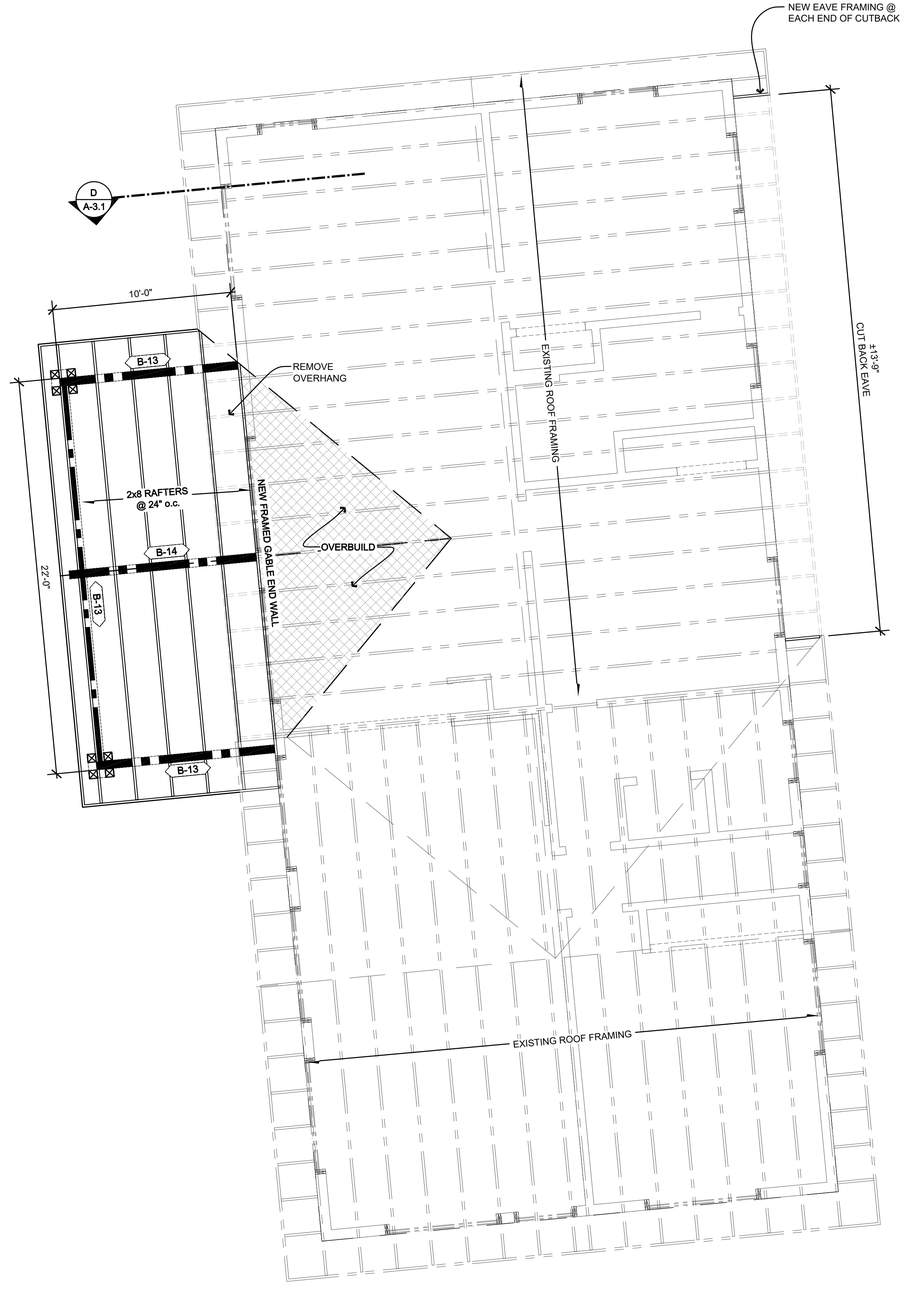
DEFERRED SUBMITTAL:

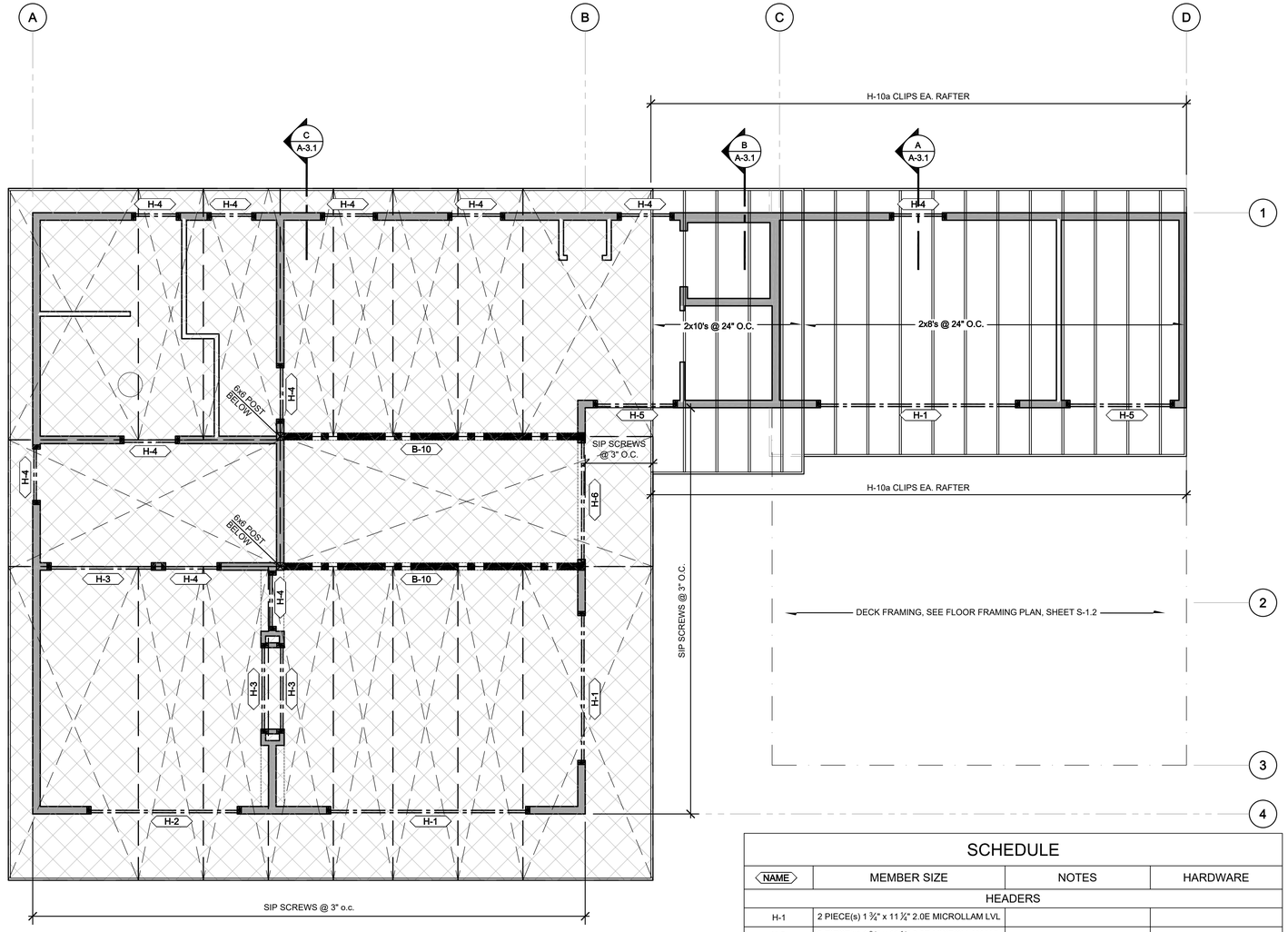
FINAL STRUCTURAL CALCULATION ON THE SIP (STRUCTURAL INSULATED PANELS) IS BY THE MANUFACTURER:

INSULSPAN #1- 600 CHESTER / ROAD
DELTA, BC, V3M 5Y3, CANADA

FINAL CALCULATIONS STAMPED BY PROFESSIONAL ENGINEER, STATE OF WASHINGTON

- INSULATION THICKNESS: 11.375 INC.
- THICKNESS: 12.25 INC.
- R- VALUE: 59.1 EPS: NEOPOR
- 7/16" OSB





ROOF FRAMING & SIP PANEL LAYOUT PLAN

NORTH

SCALE 1/4" = 1'-0"

SCHEDULE			
NAME	MEMBER SIZE	NOTES	HARDWARE
HEADERS			
H-1	2 PIECE(s) 1 ¾" x 11 ¼" 2.0E MICROLLAM LVL		
H-2	2 PIECE(s) 1 ¾" x 11 ¼" 2.0E MICROLLAM LVL		
H-3	2 PIECE(s) 2 x 10 DF No. 1		
H-4	2 PIECE(s) 2 x 8 DF No. 1		
H-5	2 PIECE(s) 2 x 8 DF No. 1		
H-6	2 PIECE(s) 1 ¾" x 9 ½" 2.0E MICROLLAM LVL	GARAGE DOOR HEADER	
BEAMS			
B-1	1 PIECE(s) 5 ½" x 13 ⅞" 24F-V4 DF GLULAM	CARPORT	
B-2	1 PIECE(s) 5 ½" x 13 ⅞" 24F-V4 DF GLULAM	FLOOR FLUSH BEAM	
B-3	1 PIECE(s) 5 ½" x 13 ⅞" 24F-V4 DF GLULAM	GARAGE BEAM	
B-4	1 PIECE(s) 5 ½" x 13 ⅞" 24F-V4 DF GLULAM	CANTILEVERED	SEE DTL-13
B-5	1 PIECE(s) 3 ⅛" x 18" 24F-V4 DF GLULAM	DECK BEAM	SEE DTL-13
B-6	1 PIECE(s) 5 ½" x 14" 24F-V4 DF GLULAM	DECK BEAM	SEE DTL-9
B-7	1 PIECE(s) 3 ⅛" x 13 ⅞" 24F-V4 DF GLULAM	DECK BEAM	SEE DTL-9, SIM.
B-8	1 PIECE(s) 3 ⅛" x 13 ⅞" 24F-V4 DF GLULAM	DECK BEAM	SEE DTL-9
B-9	2 PIECE(s) 1 ¾" x 9 ½" 2.0E MICROLLAM LVL	GARAGE BEAM	
B-10	1 PIECE(s) 5 ½" x 18" 24F-V4 DF GLULAM	ROOF BEAM	
B-11	2 PIECE(s) 1 ¾" x 9 ½" 2.0E MICROLLAM LVL	DECK BEAM	
B-12	1 PIECE(s) 3 ⅛" x 18" 24F-V4 DF GLULAM	DECK BEAM	SIMPSON HUCQ EA. SIDE
B-13	1 PIECE(s) 5 ⅛" x 10" 24F-V4 DF GLULAM	TIMBER FRAME RIDGE BEAM	
B-14	1 PIECE(s) 5 ⅛" x 16 ½" 24F-V4 DF GLULAM	TIMBER FRAME GABLE BEAM	
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S-1.3
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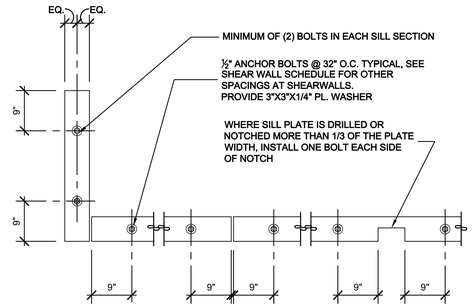
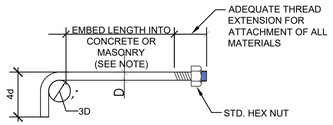


A TYPICAL SILL PLATE CONNECTION

SCALE: N.T.S.

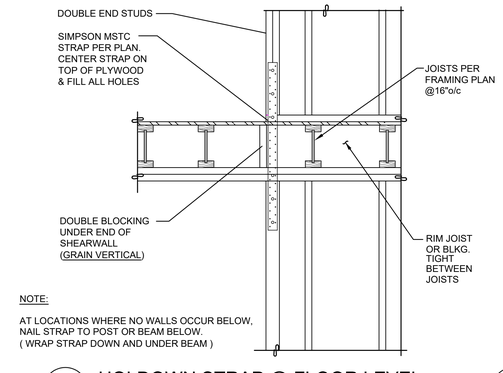


BOLT DIA. "D"	MINIMUM EMBEDMENT	
	HORIZONTAL ANCHOR BOLTS	VERTICAL ANCHOR BOLTS
1/2"	5"	7"
5/8"	5"	7"
3/4"	5"	7"
7/8"	6"	8"
1"	7"	9"

NOTE:
HORIZ. ANCHOR BOLT EMBEDMENT APPLIES TO CONC. ONLY.

B TYPICAL ANCHOR BOLT EMBED.

SCALE: N.T.S.

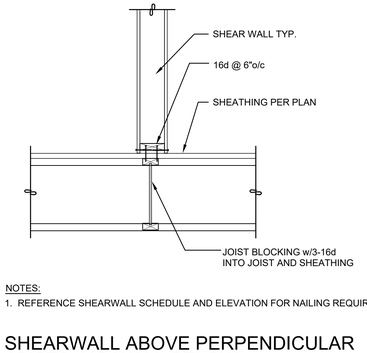


NOTE:

AT LOCATIONS WHERE NO WALLS OCCUR BELOW, NAIL STRAP TO POST OR BEAM BELOW.
(WRAP STRAP DOWN AND UNDER BEAM)

C HOLDOWN STRAP @ FLOOR LEVEL

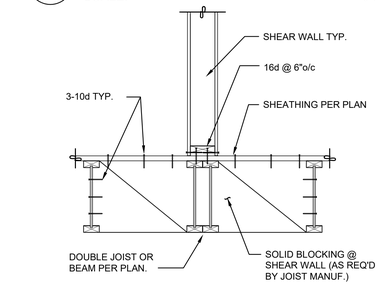
SCALE: 3/4"=1'-0"



NOTES:
1. REFERENCE SHEARWALL SCHEDULE AND ELEVATION FOR NAILING REQUIREMENTS

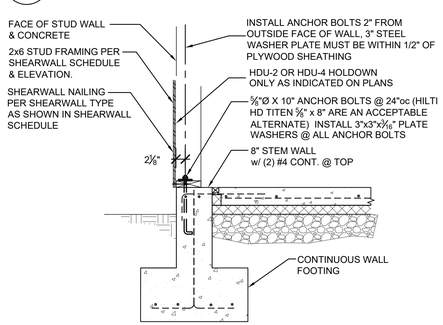
D SHEARWALL ABOVE PERPENDICULAR JOISTS, NO WALL BELOW

SCALE: 3/4"=1'-0"



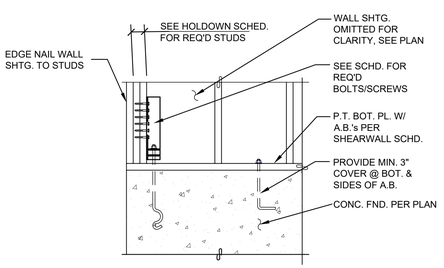
E SHEARWALL ABOVE PARALLEL JOISTS, NO WALL BELOW

SCALE: 3/4"=1'-0"

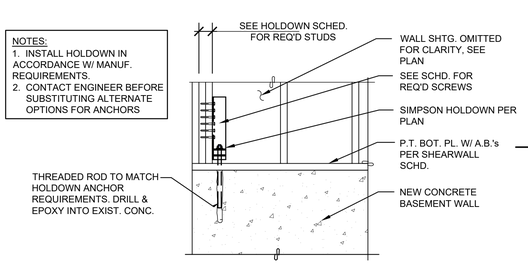


F TYPICAL EXTERIOR SHEARWALL

SCALE: 3/4"=1'-0"



NOTES:
1. INSTALL HOLDOWN IN ACCORDANCE W/ MANUF. REQUIREMENTS.
2. CONTACT ENGINEER BEFORE SUBSTITUTING ALTERNATE OPTIONS FOR ANCHORS



HOLDOWN SCHEDULE					
MODEL NO.	MIN. NO. OF STUDS	BOLTS/SCREWS REQ'D @ STUDS	REQ'D ROD DIAMETER	SIMPSON SSTB ANCHORS	EPOXY ROD ANCHORS
HDU2	2	(10) SDS 1/4x3	5/8"	SSTB 16 (2)	5/8" ASTM1554 A36 8" EMBED.
HDU4	2	(14) SDS 1/4x3	5/8"	SSTB 20 (2)	5/8" ASTM1554 A36 8" EMBED.

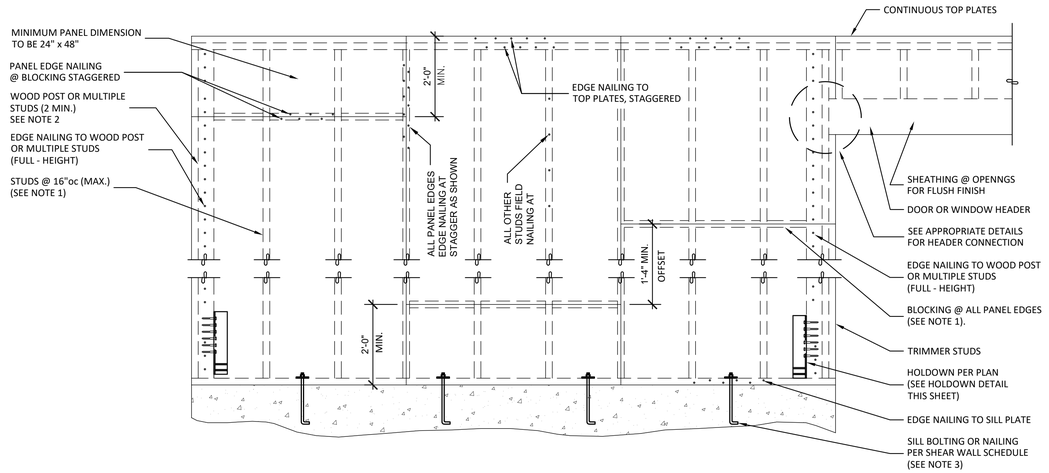
THESE ANCHORS REQUIRE DEEP FOOTINGS. PROVIDE A MINIMUM OF 3" CLEAR BETWEEN BOTTOM OF ANCHORS AND SOIL AT BOTTOM OF FOOTING.

H CAST IN WALL ANCHORS

SCALE: 3/4"=1'-0"

J DRILL & EPOXY WALL ANCHORS

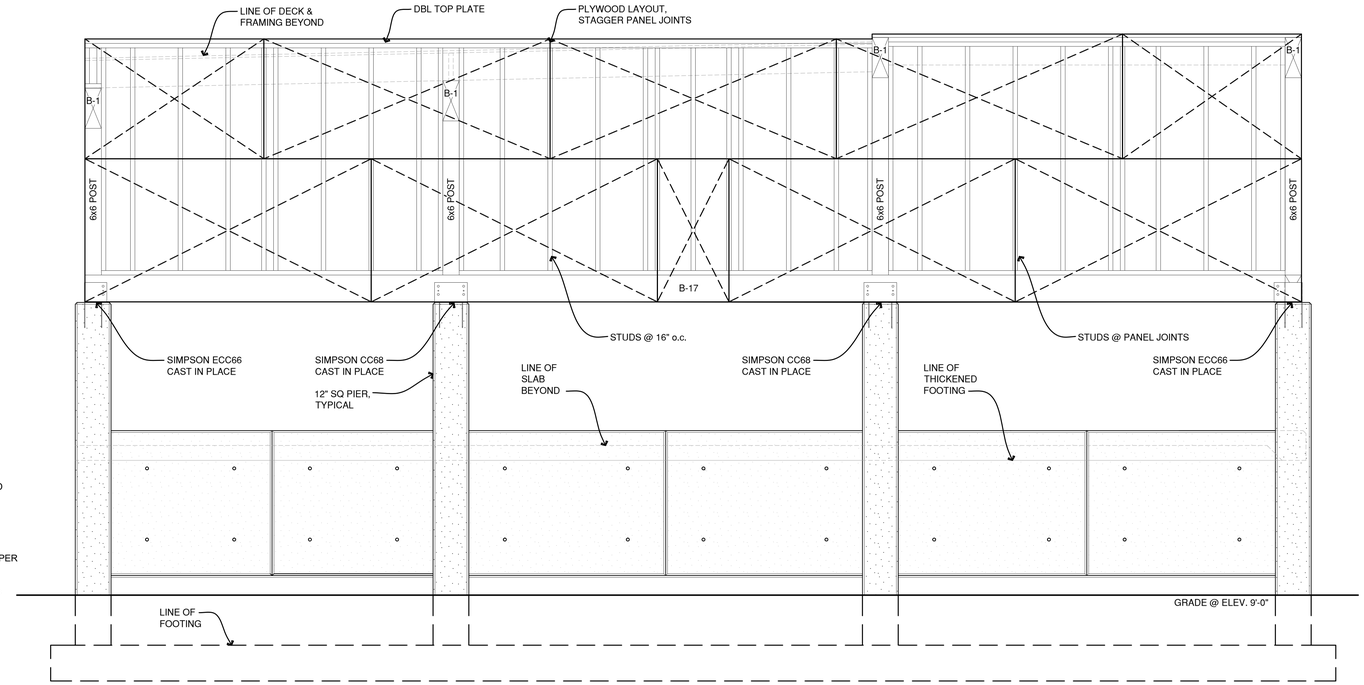
SCALE: 3/4"=1'-0"



NOTES:
1. ALLOWABLE SHEAR CAPACITY ASSUMES HEM-FIR FRAMING (SP GRAVITY = 0.42) AND IS IN CONFORMANCE WITH THE 2018 INTERNATIONAL BUILDING CODE. A 40% INCREASE IN CAPACITY IS ALLOWED FOR WIND FORCES.
2. 7/16" APA-RATED OSB SHEATHING MAY BE USED IN PLACE OF THE 15/32" PLYWOOD SHEATHING PROVIDED ALL STUDS ARE SPACED AT 16" O.C. MAX.
3. USE COMMON NAILS, U.N.O. (8d=0.133"Ø0x2 1/2", 16d=0.162"Ø3 1/2") . SDS SCREWS SHALL BE SIMPSON ¼x5" OR EQUIVALENT.
4. SILL PLATE ANCHOR BOLTS SHALL BE PROVIDED WITH 3"X3"X¾" STEEL PLATE WASHERS. THE PLATE WASHERS MUST BE LOCATED SUCH THAT ONE EDGE IS NO FARTHER THAN 1/2" FROM SHEATHED SIDE OF PLATE. (CENTER OF HOLE = 2" FROM SHEATHED SIDE). REFERENCE DETAIL F ON THIS SHEET.
5. TO MINIMIZE CORROSION, PROVIDE HOT-DIPPED GALVANIZED (ELECTRO-PLATED IS NOT ACCEPTABLE) NAILS AND CONNECTOR PLATES (FRAMING ANGLES, ETC.) FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED FRAMING MEMBERS.
6. REFERENCE TYPICAL SHEAR WALL ELEVATION FOR ADDITIONAL FRAMING INFORMATION.

1 SHEARWALL ELEVATION TYPICAL FRAMING

SCALE: N.T.S.



2 SHEARWALL ELEVATION @ EAST CARPORT WALL

SCALE: 1/2" - 1'-0"

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Member, The American Institute of Architects
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CORRESPONDENCE
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Lake Chelan, WA 98816
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S-1.4
PERMIT SET DRAWINGS

STRUCTURAL GENERAL NOTES

GOVERNING CODE: THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION SHALL GOVERN DESIGN AND CONSTRUCTION.

REFERENCE STANDARDS: REFERENCE TO ASTM AND OTHER STANDARDS SHALL MEAN THE LATEST EDITION IN EFFECT ON THE BID DATE OR DATE OF OWNER-CONTRACTOR AGREEMENT UNLESS NOTED IN THESE DOCUMENTS OR DESIGNATED BY THE GOVERNING CODE.

FOUNDATION: ALL NEW EXTERIOR FOOTINGS SUPPORTING PERMANENT AND HEATED PORTIONS OF THE STRUCTURE SHALL BEAR A MINIMUM OF 24" BELOW ADJACENT FINISHED GRADE. THE CONTRACTOR SHALL REVIEW THE SITE CONDITIONS AFTER BECOMING FAMILIAR WITH THE FOUNDATION PLANS. AN ALLOWABLE BEARING PRESSURE FOR SPREAD FOOTINGS OF 1,500 POUNDS PER SQUARE FOOT IS USED IN THE DESIGN OF THE FOUNDATION.

PLAN NOTES AND SPECIFICATIONS: THESE NOTES SPECIFY A MINIMUM LEVEL OF PERFORMANCE REQUIRED FOR THIS PROJECT. WHERE NOTES ON INDIVIDUAL STRUCTURAL DRAWINGS AND DETAILS DIFFER FROM THE GENERAL NOTES, THE MORE RESTRICTIVE SHALL APPLY. REFER TO THE ARCHITECTURAL "A" DRAWINGS FOR INFORMATION IN ADDITION TO THESE NOTES AND STRUCTURAL DRAWINGS.

DISCREPANCIES: IN CASE OF DISCREPANCIES BETWEEN THE PLANS, SPECIFICATIONS, REFERENCE STANDARDS, AND GOVERNING CODE, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH ANY WORK INVOLVED.

CONTRACTOR'S NOTES: STRUCTURAL DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED, BUT ARE OF A SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO APPROVAL BY THE ENGINEER.

ANY TEMPORARY BRACING AND SHORING REQUIRED UNTIL ALL STRUCTURAL CONNECTIONS HAVE BEEN COMPLETED, IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE ENGINEER HAS NOT BEEN RETAINED TO PROVIDE DESIGN AND/OR CONSTRUCTION REVIEW SERVICES RELATED TO THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR THE CONTRACTOR TO PERFORM THEIR WORK.

VERIFY AND COORDINATE OPENINGS IN ROOF, FLOORS, AND WALLS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR OTHER NON-STRUCTURAL WALLS, FINISHES AND DIMENSIONS.

DESIGN CRITERIA:
LIVE LOADS:
RESIDENTIAL----------40 PSF

ROOF SNOW LOAD = 25 PSF
EXPOSURE FACTOR, Ce = 1.0 IMPORTANCE FACTOR, Is = 1.0
THERMAL FACTOR, Ct = 1.0

LATERAL LOADS:
WIND: BASIC WIND SPEED (3-SEC. GUST) = 125 MPH
EXPOSURE CATEGORY C, KZt = 1.02
IMPORTANCE FACTOR, Iw = 1.0
BUILDING CATEGORY II
DESIGN BASE SHEAR V = 5,862 LB NORTH/SOUTH
V = 11,244 LB EAST/WEST
SEISMIC: IMPORTANCE FACTOR, Ie = 1.0
MAPPED SPECTRAL RESPONSE ACCELERATIONS,
Ss = 1.33 %g, S1 = 0.678%g

SITE CLASS E
DESIGN SPECTRAL RESPONSE COEFFICIENTS,
Sds = 0.887 %g, Sd1 = 0.904 %g

SEISMIC DESIGN CATEGORY D
BASIC SEISMIC-RESISTING SYSTEM:
REF. ASCE TABLE 12.2-1 "LIGHT FRAMED WOOD SHEARWALLS"
DESIGN BASE SHEAR, V = 14,720LB
EARTHQUAKE FORCES CONTROL LATERAL DESIGN
SEISMIC RESPONSE COEFFICIENT, Cs = 0.1364
RESPONSE MODIFICATION FACTOR, R = 5.0
EQUIVALENT LOAD PROCEDURE WAS USED

SOIL PARAMETERS: SOIL AND HYDROLOGY ASSESSMENTS AND RECOMMENDATIONS PROVIDED BY SOILS ENGINEER: MORGAN CIVIL ENGINEERING, INC. (503) 801-6016

ALLOWABLE SOIL BEARING PRESSURE----------1,500 PSI

CAST-IN-PLACE CONCRETE:
CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF IBC CHAPTER 19, ACI 301, "STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE", AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".

MATERIALS:
CEMENT: ASTM C150, TYPE I, U.N.O.
AGGREGATES: ASTM C33
ADMIXTURES: ASTM C260, C494, C618, AND C1017
WATER: ASTM C94
FLY ASH: ASTM C618

CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES:
SLABS ON GRADE----------f'c = 4,000 PSI (28 DAYS), MAX. W/C = 0.45
WALLS ----------f'c = 4,000 PSI (28 DAYS), MAX. W/C = 0.45
FOUNDATIONS----------f'c = 2,500 PSI (28 DAYS), MAX. W/C = 0.59

WATER/CEMENT RATIO:
W/C RATIO SHALL BE CALCULATED ON THE BASIS OF TOTAL CEMENTITIOUS MATERIAL. MAINTAIN MINIMUM 5 1/2 SACKS OF CEMENT PER CUBIC YARD. FOR AIR-ENTRAINED CONCRETE, MAXIMUM SPECIFIED W/C LIMITS SHALL BE REDUCED BY 10%.

AIR CONTENT:
AIR ENTRAINMENT OF 5% (+ OR - 1 1/2%) SHALL BE PROVIDED IN THE CONCRETE MIX FOR ALL CONCRETE EXPOSED TO FREEZE/THAW ACTION, INCLUDING BUT NOT LIMITED TO, EXTERIOR CAST-IN-PLACE FOUNDATIONS, EXTERIOR WALLS, EXTERIOR SLABS ON GRADE, AND STRUCTURAL SLABS EXPOSED TO WEATHER. AIR-ENTRAINED CONCRETE SHALL CONTAIN 10% LESS WATER THAN NON-AIR-ENTRAINED.

SLUMP:
SLUMP FOR ALL CONCRETE MIXES SHALL BE 4", UNLESS NOTED OTHERWISE. SLUMP REQUIREMENTS MAY BE WAIVED, UPON APPROVAL OF THE ARCHITECT AND ENGINEER OF RECORD, IF WATER/CEMENT (W/C) RATIOS ARE MAINTAINED. TOLERANCE FOR SLUMP SHALL CONFORM TO ASTM C94.

FLY ASH:
UP TO 20% OF THE CEMENT CAN BE REPLACED WITH FLY ASH, CONFORMING TO ASTM C618.

CURING:
MAINTAIN CONCRETE IN A MOIST CONDITION FOR A SUITABLE PERIOD AFTER PLACEMENT, IN ACCORDANCE WITH ACI 301, SECTION 5.

GROUT:
USE A NON-SHRINK GROUT WITH ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS OF 6000 PSI MINIMUM, UNLESS NOTED OTHERWISE.

EPOXY EMBEDMENTS:
UNLESS NOTED OTHERWISE, ALL EPOXY EMBEDDED ITEMS CALLED OUT ON THE STRUCTURAL DRAWINGS SHALL BE SIMPSON SET-XP OR HILTI HIT-HY200. ALL EMBEDDED ITEMS SHALL BE INSTALLED PER THE EPOXY MANUFACTURER'S RECOMMENDATIONS.

CONCRETE REINFORCEMENT: EXCEPT AS MODIFIED BELOW, CONCRETE REINFORCEMENT SHALL CONFORM TO THE LATEST EDITIONS OF ACI 315 AND 318.

MATERIALS:
REINFORCING BARS: ASTM A615, GRADE 60, DEFORMED BARS, U.N.O.
(DOWELS THAT WILL BE BENT ON SITE MAY BE GRADE 40)
WELDED WIRE FABRIC: SMOOTH FABRIC, ASTM A185. DEFORMED FABRIC, ASTM A497.
TIE WIRE: 16 GAUGE OR HEAVIER, BLACK ANNEALED.

FIELD BENDING:
BARS SHALL BE BENT COLD THROUGH AN ANGLE NOT GREATER THAN 90 DEGREES, AND SHALL ONLY BE BENT ONCE. BARS PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT UNLESS NOTED OR SHOWN OTHERWISE OR APPROVED BY THE ENGINEER OF RECORD. BARS THAT DEVELOP CRACKS OR SPLITS AFTER BENDING SHALL BE REPLACED.

LAP SPLICES:
LAP ALL CONTINUOUS REINFORCEMENT 40 BAR DIAMETERS OR 1'-6" MINIMUM, UNLESS NOTED OTHERWISE. PROVIDE CORNER BARS AT ALL WALL INTERSECTIONS AND LAP 30 BAR DIAMETERS OR 1'-6" MINIMUM. FOR WELDED WIRE MESH, LAP ALL EDGES 1-1/2 MESH MINIMUM.

CONCRETE COVER:
MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH--------3"
CONCRETE EXPOSED TO EARTH OR WEATHER (#5 & SMALLER)--------2"
TIES IN COLUMNS AND WALLS----------3/4"

STRUCTURAL STEEL:
EXCEPT AS MODIFIED BELOW, STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING DOCUMENTS: AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".

MATERIALS:

STRUCTURAL STEEL (OTHER SHAPES & PLATES): ASTM A36
STRUCTURAL TUBING & ROUND HSS: ASTM A500, GRADE B
STEEL PIPE: ASTM A53, GRADE B
MACHINE BOLTS: ASTM A307, GRADE A
HIGH-STRENGTH BOLTS: ASTM A325N, TYPE 1 (ALL BOLTS IN STEEL BEAMS AND CHANNELS)
ANCHOR BOLTS: ASTM F1554, GRADE 36
THREADED RODS: ASTM A36
HEADED SHEAR STUDS: ASTM A108, INSTALL IN ACCORDANCE WITH AWS D1.1
BASE PLATE GROUT: NON-SHRINK, MINIMUM F'C = 6,000 PSI AT 28 DAYS

WELDING:
ALL STRUCTURAL WELDING SHALL CONFORM TO AWS D1.1, "STRUCTURAL WELDING CODE-STEEL". WELDERS SHALL BE CERTIFIED IN ACCORDANCE WITH AWS/WABO REQUIREMENTS.

ALL FIELD WELDS SHALL USE E70 ELECTRODES. ALL FIELD WELDS AND SHOP WELDS FOR ALL CONNECTIONS SHALL USE E70 ELECTRODES WITH A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LBS AT -20 DEGREES FAHRENHEIT AND 40 FT-LBF AT 70 DEGREES F..

SHOP PAINTING:
STEEL CONCEALED BY BUILDING FINISH OR IN CONTACT WITH CONCRETE NEED NOT BE PAINTED. ALL OTHER STEEL SHALL BE GIVEN ONE COAT OF SHOP PAINT, IN ACCORDANCE WITH SECTION M3 OF THE AISC "SPECIFICATION" AND SECTION 6.5 OF THE AISC "CODE", UNLESS NOTED OTHERWISE.

WOOD FRAMING:
EXCEPT AS MODIFIED BELOW, WOOD FRAMING SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING DOCUMENTS: IBC CHAPTER 23, AITC "TIMBER CONSTRUCTION MANUAL", AND THE NDS "NATIONAL DESIGN SPECIFICATION".

MATERIALS:
GLUED LAMINATED TIMBER: AITC 190.1 AND 117
PLYWOOD: DOC PS 1-95
BOLTS: ASTM A307, GRADE A
LAG BOLTS: ASTM A307
ANCHOR BOLTS: ASTM F1554, GRADE 36
NAILS: COMMON WIRE NAILS CONFORMING TO ASTM F1667
CONNECTORS: SIMPSON STRONG-TIE OR APPROVED EQUAL.

SAWN STRUCTURAL LUMBER:
ALL STRUCTURAL LUMBER SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

JOISTS---------- DOUG-FIR #1
BEAMS AND POSTS----------DOUG-FIR #1
STUDS MORE THAN 9'-0" TO 16'-0' ---- SHALL BE LVL

ALL DIMENSIONS NOTED ARE NOMINAL. WOOD BEARING ON OR WITHIN 1" OF CONCRETE OR CMU OR WITHIN 6" OF EARTH SHALL BE TREATED WITH AN APPROVED PRESERVATIVE. PROVIDE MILD STEEL PLATE WASHERS AT ALL BOLT HEADS AND NUTS BEARING ON WOOD, EXCEPT PROVIDE CUT WASHERS AT SILL PLATES. MINIMUM FASTENING SHALL BE IN ACCORDANCE WITH SBC TABLE 2304.9.1, UNLESS NOTED OTHERWISE. ALL NAILS IN TREATED TIMBER SHALL BE HOT DIPPED GALVANIZED.

GLUED LAMINATED TIMBER:
GLUED LAMINATED TIMBER SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

SIMPLE SPAN----------DOUGLAS FIR (24F-V4, DF/DF)
CANTILEVER AND CONTINUOUS SPANS----------DOUGLAS FIR (24F-V8, DF/DF)

PROVIDE WET-USE ADHESIVES (ADVENTEX). MOISTURE CONTENT SHALL BE 16% MAXIMUM. WOOD BEARING OR INSTALLED WITHIN 1" OF CONCRETE SHALL BE TREATED WITH AN APPROVED PRESERVATIVE. A COAT OF END SEALER SHALL BE APPLIED TO THE ENDS OF ALL MEMBERS EXPOSED TO WEATHER AS SOON AS PRACTICABLE AFTER END TRIMMING. ALL NAILS IN TREATED TIMBER SHALL BE GALVANIZED

CAMBER ALL GLUED LAMINATED BEAMS TO 3,500-FOOT RADIUS UNLESS SHOWN OTHERWISE ON THE PLANS.

STANDARD STUD WALL CONSTRUCTION SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

INTERIOR BEARING WALLS----------2x6 @ 16" oc (UNLESS NOTED BY ARCHITECT)
EXTERIOR BEARING WALLS & SHEAR WALLS-----2x6 @ 16" O.C.
INTERIOR BEARING WALL HEADERS----------3 ½ x 9 - 24F/V4 GLULAM OR AS NOTED ON PLAN
TYPICAL EXTERIOR WINDOW HEADERS UP TO 4'-0"--DOUBLE DF #1 2x8
EXTERIOR WINDOW HEADERS 4'-0" TO 6'-0"------DOUBLE DF #1 2x10
BALANCE OF HEADERS PER PLAN

STANDARD CONSTRUCTION DICTATES DOUBLE TOP PLATES AT ALL INTERIOR AND EXTERIOR BEARING WALLS. ALSO, PROVIDE DOUBLE TOP PLATES AT ALL INTERIOR SHEAR WALLS AND ALL EXTERIOR NON-BEARING WALLS. UNLESS NOTED OTHERWISE, ATTACH ALL BEARING AND SHEAR WALLS TO THE FOUNDATION WITH 5/8" DIAMETER ANCHOR BOLTS WITH WASHERS @ 32" O.C. MAXIMUM, WITH 12" EMBEDMENT DEPTH.

ROOF SHEATHING:
ROOF SHEATHING SHALL BE 5/8" (NOMINAL) APA-RATED SHEATHING, 32/16, EXPOSURE 1, SIZED FOR SPACING.
IF ½" NOMINAL IS DESIRED PLEASE CALL THE ENGINEER PRIOR TO BEGINNING INSTALL.
INSTALL PANELS WITH 1/8" SPACING AT END JOINTS AND 1/8" SPACING AT EDGE JOINTS MINIMUM. NAILING SHALL BE 8d (COMMON) AT 6" O.C. AT SUPPORTED PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS, UNLESS NOTED OTHERWISE. INSTALL PLYWOOD SHEATHING WITH FACE GRAIN PERPENDICULAR TO SUPPORTS.

FLOOR SHEATHING:
FLOOR SHEATHING SHALL BE 1 1/8" APA – RATED T&G PLYWOOD, EXPOSURE 1. INSTALL PANELS WITH 1/8" MIN. SPACING BETWEEN EDGE AND END JOINTS, GLUE AND FASTEN TO ALL SUPPORTS AND BLOCKING. USE 10D RING SHANK NAILS, OR #8 X 2 1/2" SCREWS AT 6" O.C. AT SUPPORTED EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS., UNLESS OTHERWISE NOTED. INSTALL WITH FACE GRAIN PERPENDICULAR TO JOISTS.

THIS PROJECT: SEE WARMBOARD-S INSTALLATION GUIDE BEFORE THE INSTALL. EACH SHEET OF PLYWOOD WILL HAVE A SPECIFIC LOCATION TO WHICH IS TO BE INSTALLED. USE 2 3/4" SCREWS AND USE ADVANTECH SUBFLOOR ADHEASIVE.

SHEAR WALL SHEATHING:
SHEAR WALL SHEATHING SHALL BE "3/4" CDX PLYWOOD APA-RATED SHEATHING AND NAILING SHALL BE AS SPECIFIED IN THE SHEAR WALL SCHEDULE. MINIMUM NAILING WHEN NOT SPECIFIED SHALL BE 8d (COMMON) AT 6" O.C. AT ALL BLOCKED PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. PLYWOOD PANEL EDGE BLOCKING IS REQUIRED AT ALL EDGES ON SHEAR WALLS.

PRESERVATIVE TREATMENT:
UNLESS NOTED OTHERWISE, ALL LUMBER AND PLYWOOD REQUIRED TO BE PRESERVATIVE TREATED SHALL BE PRESSURE TREATED AND SHALL BEAR AN APPROVED QUALITY MARK OR THAT OF AN APPROVED INSPECTION AGENCY WHICH MAINTAINS CONTINUING SUPERVISION, TESTING, AND INSPECTION OVER THE QUALITY OF THE PRODUCT, AND SHALL BE IDENTIFIED. ALL CONNECTORS AND FASTENERS IN CONTACT WITH TREATED WOOD SHALL BE STAINLESS STEEL OR HOT-DIP GALVANIZED.

STRUCTURAL INSULATED PANELS (SIPS):
THE MANUFACTURER SHALL DESIGN THE INSULATED ROOF PANELS FOR THE SPANS AND CONDITIONS SHOWN ON THE DRAWINGS AND THE LOADS LISTED BELOW.

ROOF AREA LIVE LOAD----------25 PSF SNOW (NOT REDUCIBLE)
ROOF AREA DEAD LOAD----------15 PSF
TOTAL ROOF DEAD AND LIVE LOAD---------- 40 PSF
NET UPLIFT FORCE ON TRIBUTARY AREA----------18 PSF INTERIOR / 30 PSF OVERHANG

SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ENGINEER AND ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. ALL SUBMITTALS SHALL BEAR THE STAMP OF A REGISTERED STRUCTURAL WASHINGTON STATE PROFESSIONAL ENGINEER. THE TRUSSES WILL BE REVIEWED FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT. THIS REVIEW WILL NOT COVER INTERNAL FORCES OR CONNECTIONS WITHIN THE TRUSS, ONLY THE MANUFACTURER CAN DETERMINE THE ADEQUACY OF THESE PORTIONS OF THE TRUSS. PROVIDE CONNECTION DETAILS FOR ALL TRUSS-TO-TRUSS CONNECTIONS IF REQUIRED. PROVIDE ADDITIONAL TRUSSES AS REQUIRED BY FABRICATOR TO CARRY ALL CONCENTRATED LOADS AND MECHANICAL UNITS. PROVIDE ALL WEB AND CHORD BRACING REQUIRED BY THE TRUSS FABRICATOR.

PROPRIETARY PRODUCTS:
ENGINEERED JOISTS AND BEAMS SHALL BE OF THE SIZE AND TYPE NOTED ON THE STRUCTURAL DRAWINGS AS MANUFACTURED BY I-LEVEL/WEYERHAUSER, OR APPROVED EQUAL. JOISTS SHALL HAVE LOAD CARRYING CAPACITY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED LOAD TABLES AND SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. SUBMIT SHOP DRAWINGS, WITH PLAN LAYOUT AND REQUIRED CONNECTION DETAILS, FOR REVIEW BY THE ENGINEER PRIOR TO FABRICATION.

INSPECTIONS: INSPECTIONS SHALL CONFORM TO IBC SECTION 109.

SPECIAL INSPECTIONS: THE "CANTILEVERED SPECIAL STEEL COLUMNS" (SEE DTL-5, 5a, AND 8) WILL REQUIRE SPECIAL INSPECTION FOR WELDS PERFORMED IN THE FIELD.

INSPECTION NOTES:
SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY A COUNTY INSPECTOR. WORK WHICH IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE INSPECTOR IS SUBJECT TO REMOVAL OR EXPOSURE.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY BEFORE PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION. ALL WORK PERFORMED WITHOUT THE REQUIRED SPECIAL INSPECTION IS SUBJECT TO REMOVAL.

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Member, The American Institute of Architects
AIA

CORRESPONDENCE
P. O. Box 2323
Lake Chelan, WA 98816
(509) 630 . 5518 off

OFFICE
105 N Emerson St. Suite 201
Lake Chelan, WA 98816

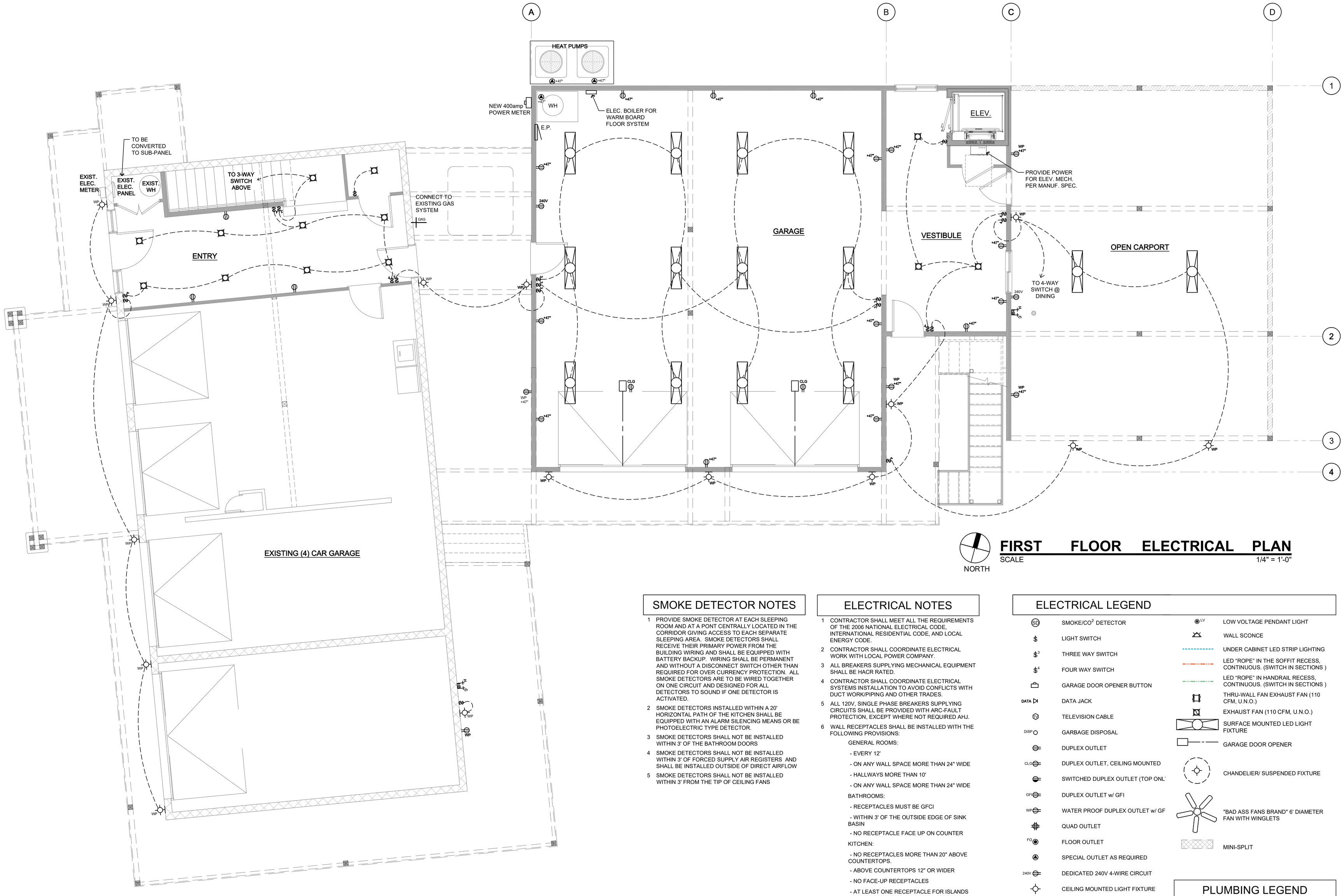
REGISTERED ARCHITECT
RONALD E. COULTER
STATE OF WASHINGTON
STATE OF OREGON

ADDITION FOR:
DAVE AND PATTIE COULTER
35465 RUEPPELL AVE
PACIFIC CITY, TILLAMOOK COUNTY, OREGON

Project No: 2021-1
Drawn: MEC
Checked By: REC
Date: July 01, 2021
REV. 1: XXX
REV. 2: XXX

S-1.5
PERMIT SET DRAWINGS

www.coulterarchitects.com



NORTH

FIRST FLOOR ELECTRICAL PLAN

SCALE 1/4" = 1'-0"

SMOKE DETECTOR NOTES

1. PROVIDE SMOKE DETECTOR AT EACH SLEEPING ROOM AND AT A PONT CENTRALLY LOCATED IN THE CORRIDOR GIVING ACCESS TO EACH SEPARATE SLEEPING AREA. SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND SHALL BE EQUIPPED WITH BATTERY BACKUP. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECT SWITCH OTHER THAN REQUIRED FOR OVER CURRENCY PROTECTION. ALL SMOKE DETECTORS ARE TO BE WIRED TOGETHER ON ONE CIRCUIT AND DESIGNED FOR ALL DETECTORS TO SOUND IF ONE DETECTOR IS ACTIVATED.
2. SMOKE DETECTORS INSTALLED WITHIN A 20' HORIZONTAL PATH OF THE KITCHEN SHALL BE EQUIPPED WITH AN ALARM SILENCING MEANS OR BE PHOTOELECTRIC TYPE DETECTOR.
3. SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 3' OF THE BATHROOM DOORS
4. SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 3' OF FORCED SUPPLY AIR REGISTERS AND SHALL BE INSTALLED OUTSIDE OF DIRECT AIRFLOW
5. SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 3' FROM THE TIP OF CEILING FANS

ELECTRICAL NOTES

1. CONTRACTOR SHALL MEET ALL THE REQUIREMENTS OF THE 2006 NATIONAL ELECTRICAL CODE, INTERNATIONAL RESIDENTIAL CODE, AND LOCAL ENERGY CODE.
2. CONTRACTOR SHALL COORDINATE ELECTRICAL WORK WITH LOCAL POWER COMPANY.
3. ALL BREAKERS SUPPLYING MECHANICAL EQUIPMENT SHALL BE HACR RATED.
4. CONTRACTOR SHALL COORDINATE ELECTRICAL SYSTEMS INSTALLATION TO AVOID CONFLICTS WITH DUCT WORK/PIPING AND OTHER TRADES.
5. ALL 120V, SINGLE PHASE BREAKERS SUPPLYING CIRCUITS SHALL BE PROVIDED WITH ARC-FAULT PROTECTION, EXCEPT WHERE NOT REQUIRED AHJ.
6. WALL RECEPTACLES SHALL BE INSTALLED WITH THE FOLLOWING PROVISIONS:

   GENERAL ROOMS:

   - EVERY 12'
   - ON ANY WALL SPACE MORE THAN 24" WIDE
   - HALLWAYS MORE THAN 10'
   - ON ANY WALL SPACE MORE THAN 24" WIDE

   BATHROOMS:

   - RECEPTACLES MUST BE GFCI
   - WITHIN 3' OF THE OUTSIDE EDGE OF SINK BASIN
   - NO RECEPTACLE FACE UP ON COUNTER

   KITCHEN:

   - NO RECEPTACLES MORE THAN 20" ABOVE COUNTERTOPS.
   - ABOVE COUNTERTOPS 12" OR WIDER
   - NO FACE-UP RECEPTACLES
   - AT LEAST ONE RECEPTACLE FOR ISLANDS OR PENINSULAS
   - AT LEAST TWO BRANCH CIRCUITS MUST SUPPLY THE COUNTERTOP RECEPTACLES
7. UNDER DECK LIGHTING, LOCATE CONDUIT IN CONCRETE STEM WALL BELOW THE SLAB. CONDUIT AT THE UPPER LANDSCAPING
8. ELECTRICAL ON THE EXTERIOR WALL WILL BE SURFACE MOUNTED CONDUIT BEHIND THE CORTEN.
9. GARAGE OUTLETS TO BE CONNECTED w/ EXPOSED CONDUIT @ CONCRETE.

ELECTRICAL LEGEND

- SMOKE/CO^2 DETECTOR
- LIGHT SWITCH
- THREE WAY SWITCH
- FOUR WAY SWITCH
- GARAGE DOOR OPENER BUTTON
- DATA JACK
- TELEVISION CABLE
- GARBAGE DISPOSAL
- DUPLEX OUTLET
- DUPLEX OUTLET, CEILING MOUNTED
- SWITCHED DUPLEX OUTLET (TOP ONL'
- DUPLEX OUTLET w/ GFI
- WATER PROOF DUPLEX OUTLET w/ GF
- QUAD OUTLET
- FLOOR OUTLET
- SPECIAL OUTLET AS REQUIRED
- DEDICATED 240V 4-WIRE CIRCUIT
- CEILING MOUNTED LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- WALL MOUNTED EXTERIOR LIGHT FIXTURE
- FLUSH MOUNTED LED CAN LIGHT
- WATER PROOF LED CAN LIGHT
- EXHAUST FAN (110 CFM, U.N.O.), FAN/LIGHT COMBO WHERE NOTED
- LOW VOLTAGE PENDANT LIGHT
- WALL SCONCE
- UNDER CABINET LED STRIP LIGHTING
- LED "ROPE" IN THE SOFFIT RECESS, CONTINUOUS. (SWITCH IN SECTIONS)
- LED "ROPE" IN HANDRAIL RECESS, CONTINUOUS. (SWITCH IN SECTIONS)
- THRU-WALL FAN EXHAUST FAN (110 CFM, U.N.O.)
- EXHAUST FAN (110 CFM, U.N.O.)
- SURFACE MOUNTED LED LIGHT FIXTURE
- GARAGE DOOR OPENER
- CHANDELIER/ SUSPENDED FIXTURE
- "BAD ASS FANS BRAND" 6' DIAMETER FAN WITH WINGLETS
- MINI-SPLIT

PLUMBING LEGEND

- PROPANE GAS
- HOSE BIB: POTABLE WATER
- HOSE BIB: POTABLE WATER w/ HOT & COLD WATER

COULTER ARCHITECTURE

RESIDENTIAL & COMMERCIAL ARCHITECTURE

Member, The American Institute of Architects AIA

CORRESPONDENCE
P. O. Box 2323
Lake Chelan, WA 98816
(509) 630 . 5518 off

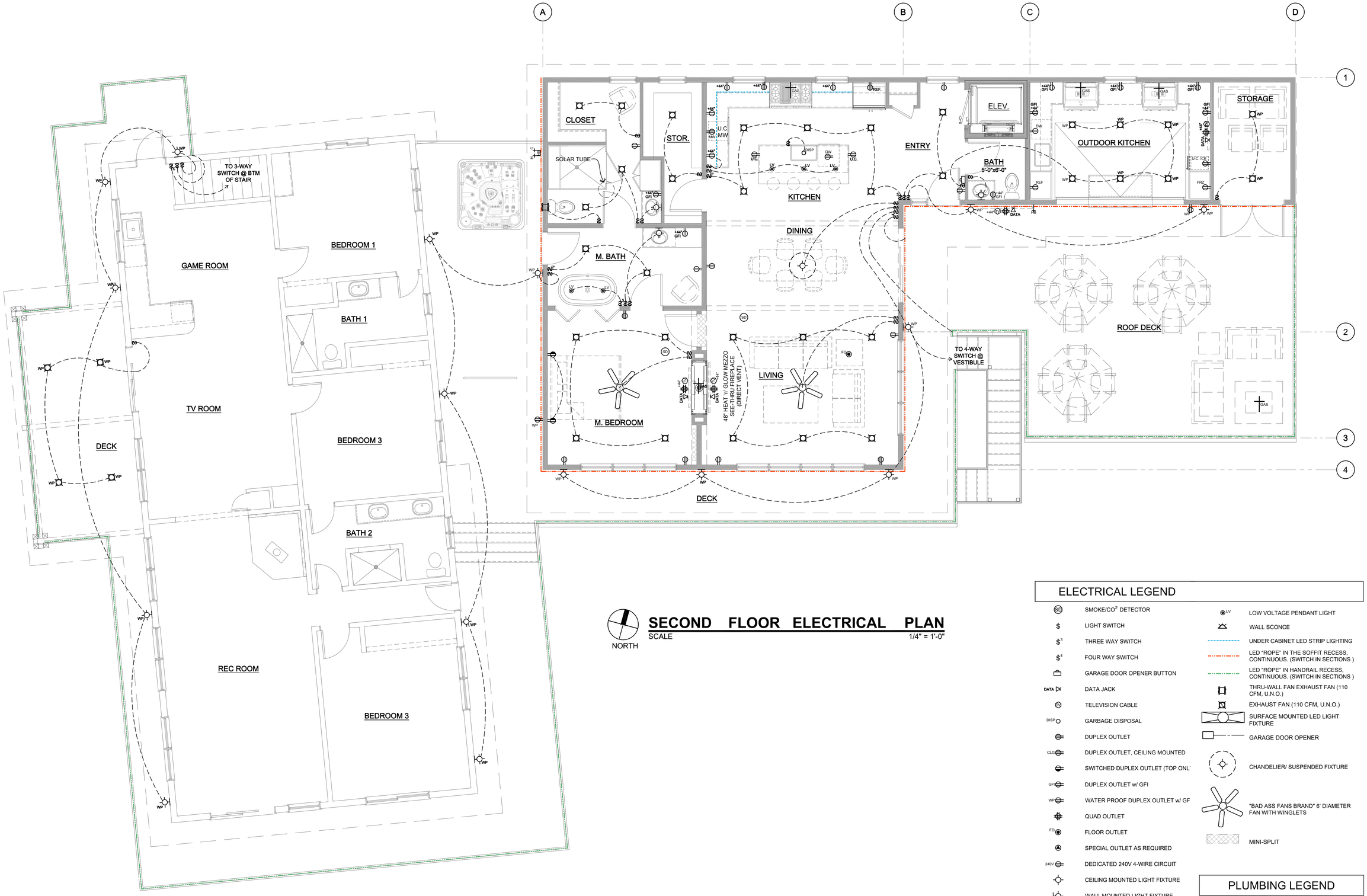
OFFICE
105 N Emerson St. Suite 201
Lake Chelan, WA 98816

REGISTERED ARCHITECT RONALD E. COULTER CHELAN, WASHINGTON STATE OF OREGON

ADDITION FOR:
DAVE AND PATTIE COULTER
35465 RUEPPELL AVE
PACIFIC CITY, TILLAMOOK COUNTY, OREGON

Project No: 2021-1
Drawn: MEC
Checked By: REC
Date: July 01, 2021
REV. 1: XXX
REV. 2: XXX

E-1.1
PERMIT SET DRAWINGS



SECOND FLOOR ELECTRICAL PLAN

SCALE 1/4" = 1'-0"

NORTH

ELECTRICAL LEGEND

SE	SMOKE/CO^2 DETECTOR
$	LIGHT SWITCH
$^3	THREE WAY SWITCH
$^4	FOUR WAY SWITCH
	GARAGE DOOR OPENER BUTTON
DATA	DATA JACK
TV	TELEVISION CABLE
DISP	GARBAGE DISPOSAL
	DUPLEX OUTLET
CLG	DUPLEX OUTLET, CEILING MOUNTED
	SWITCHED DUPLEX OUTLET (TOP ONL`
GFI	DUPLEX OUTLET w/ GFI
WP	WATER PROOF DUPLEX OUTLET w/ GF
	QUAD OUTLET
FO	FLOOR OUTLET
	SPECIAL OUTLET AS REQUIRED
240V	DEDICATED 240V 4-WIRE CIRCUIT
	CEILING MOUNTED LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
WP	WALL MOUNTED EXTERIOR LIGHT FIXTURE
	FLUSH MOUNTED LED CAN LIGHT
WP	WATER PROOF LED CAN LIGHT
	EXHAUST FAN (110 CFM, U.N.O.), FAN/LIGHT COMBO WHERE NOTED
LV	LOW VOLTAGE PENDANT LIGHT
	WALL SCONCE
	UNDER CABINET LED STRIP LIGHTING
	LED "ROPE" IN THE SOFFIT RECESS, CONTINUOUS. (SWITCH IN SECTIONS)
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	THRU-WALL FAN EXHAUST FAN (110 CFM, U.N.O.)
	EXHAUST FAN (110 CFM, U.N.O.)
	SURFACE MOUNTED LED LIGHT FIXTURE
	GARAGE DOOR OPENER
	CHANDELIER/ SUSPENDED FIXTURE
	"BAD ASS FANS BRAND" 6' DIAMETER FAN WITH WINGLETS
	MINI-SPLIT

PLUMBING LEGEND

GAS	PROPANE GAS
HB	HOSE BIB: POTABLE WATER
H C	HOSE BIB: POTABLE WATER w/ HOT & COLD WATER

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RONALD E. COULTER
CHELAN, WASHINGTON
STATE OF OREGON

ADDITION FOR:
DAVE AND PATTIE COULTER
35465 RUEPPELL AVE
PACIFIC CITY, TILLAMOOK COUNTY, OREGON

Project No:	2021-1
Drawn:	MEC
Checked By:	REC
Date:	July 01, 2021
REV. 1:	XXX
REV. 2:	XXX

E-1.2

PERMIT SET DRAWINGS

EXHIBIT C

Melissa Jenck

From: Crowley, Josha <Josha.Crowley@atkinsglobal.com>
Sent: Monday, April 26, 2021 8:51 AM
To: Melissa Jenck
Subject: RE: EXTERNAL: Fwd: David Coulter

Melissa – this looks good to me. No comments.

Josha Crowley, PE, PMP, CFM, D.WRE
RSC Lead | STARR II - Region X Service Center
Phone: (425) 329-3679
Cell: (206) 499-2440

From: Melissa Jenck <mjenck@co.tillamook.or.us>
Sent: Monday, April 19, 2021 3:32 PM
To: Crowley, Josha <Josha.Crowley@atkinsglobal.com>
Subject: FW: EXTERNAL: Fwd: David Coulter

Good afternoon Josha,

Another day, another model 😊 I hope I'm not keeping you too busy! I've got another no-rise for a property in Nestucca. Can you please review for compliance?

Thank you much!

Melissa Jenck | CFM, Land Use Planner II
Phone (503) 842-3408 x3301
(she/her)

The Department is excited to announce that we are OPEN to the public by appointment. To review the list of services provided and to schedule an appointment with us, please visit https://www.co.tillamook.or.us/gov/ComDev/ to access the appointment scheduler portal.

From: ronald coulter <ron.coulterarchitects@gmail.com>
Sent: Monday, April 19, 2021 12:31 PM
To: Melissa Jenck <mjenck@co.tillamook.or.us>
Subject: EXTERNAL: Fwd: David Coulter

I'm forwarding Jake's final report.....this has both the PDF and the computer model.
Per our discussion this morning.

thanks Melissa

---------- Forwarded message ---------
From: **Jake Hofeld** <jakeh@watways.com>
Date: Tue, Mar 30, 2021 at 1:27 PM
Subject: RE: David Coulter
To: ronald coulter <ron.coulterarchitects@gmail.com>

Hi Ron,

Attached is our report and the associated hydraulic model for you to send to the County. Please let me know if you have any questions.

Thanks,

Jake D. Hofeld PE/CWRE

Senior Engineer

Waterways Consulting, Inc.

503-528-4816

www.watways.com

From: Jake Hofeld
Sent: Monday, March 29, 2021 1:31 PM
To: ronald coulter <ron.coulterarchitects@gmail.com>
Subject: RE: David Coulter

Hi Ron,

The next step will be for me to finalize the hydraulic analysis model and report for you to send to the County with your permit application. I expect to have this over to you by tomorrow.

Thanks,

-Jake

From: ronald coulter <ron.coulterarchitects@gmail.com>
Sent: Monday, March 29, 2021 12:56 PM
To: Jake Hofeld <jakeh@watways.com>
Subject: David Coulter

What's the next step.....do I review, then you send to the county?

Hope you had a great vacation on the coast.

Ron

Melissa Jenck

From: BROWN Jevra * DSL <Jevra.BROWN@dsl.oregon.gov>
Sent: Tuesday, March 15, 2022 5:39 PM
To: Melissa Jenck
Subject: EXTERNAL: RE: Notice of Application - Coulter DP
Attachments: TillamookPacCity04S10W30BD4800.pdf

[**NOTICE:** This message originated outside of Tillamook County -- **DO NOT CLICK** on **links** or open **attachments** unless you are sure the content is safe.]

Find attached SWI.

Jevra Brown, Aquatic Resource Planner
Department of State Lands
Cell 503-580-3172
NOTE NEW EMAIL ADDRESS: Jevra.Brown@DSL.Oregon.gov

Checking for wetlands and waters? – Use the STATEWIDE WETLANDS INVENTORY

To help prevent the spread of COVID-19 many of the DSL staff are telecommuting.

From: Melissa Jenck <mjenck@co.tillamook.or.us>
Sent: Tuesday, March 15, 2022 4:58 PM
To: Melissa Jenck <mjenck@co.tillamook.or.us>
Cc: Sarah Absher <sabsher@co.tillamook.or.us>
Subject: Notice of Application - Coulter DP

Good afternoon,

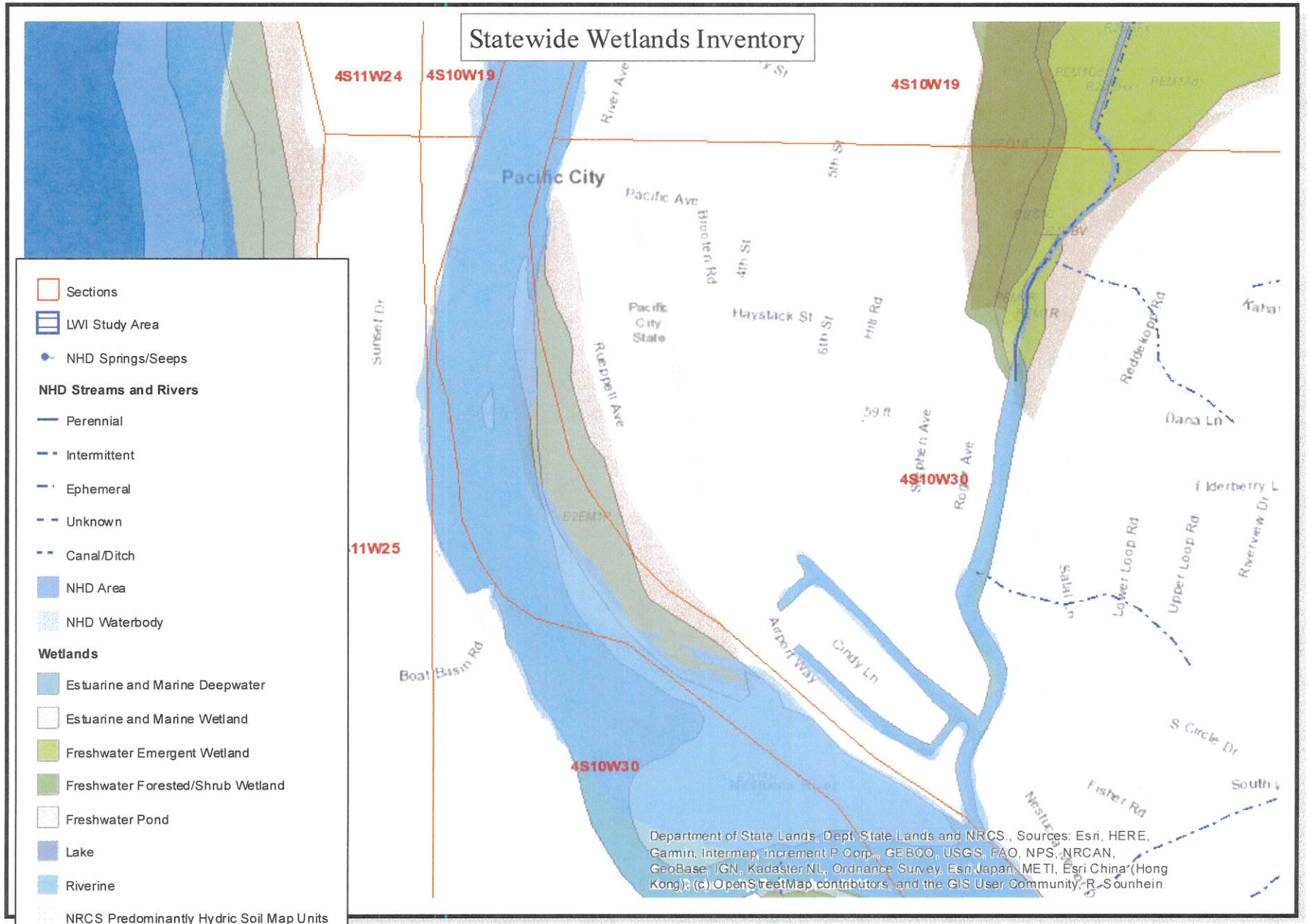
Please see the Notice of Application completed for a Floodplain Development Permit request for Ronald Coulter and David Coulter. The application request is #851-21-000321-PLNG. The comment period ends March 29, 2022. The request is for an single-family dwelling addition.

You may find a copy of the application materials contained on the Departments Website here.

Thank you,

Melissa Jenck (she/her) | CFM, Land Use Planner II
TILLAMOOK COUNTY | Community Development
1510-B Third Street
Tillamook, OR 97141
Phone (503) 842-3408 x3301
mjenck@co.tillamook.or.us

Statewide Wetlands Inventory



- Sections
- LWI Study Area
- NHD Springs/Seeps

NHD Streams and Rivers

- Perennial
- Intermittent
- Ephemeral
- Unknown
- Canal/Ditch
- NHD Area
- NHD Waterbody

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- NRCS Predominantly Hydric Soil Map Units
- NRCS Agate-Winlo Soils in Jackson County

https://www.oregon.gov/dsl/WW/Pages/SWI.aspx

1 inch = 0.14 miles

0 0.05 0.1 0.2 0.3 0.4 mi

The Statewide Wetlands Inventory (SWI) represents the best data available at the time this map was published and is updated as new data becomes available. In all cases, actual field conditions determine the presence, absence and boundaries of wetlands and waters (such as creeks and ponds). An onsite investigation by a wetland professional can verify actual field conditions.

N

Date: 3/15/2022

State of Oregon
Department of State Lands
775 Summer Street, NE, Ste 100
Salem, OR. 97301-1279
(503) 986-5200

Wetland Land Use Notice Response

Response Page

Department of State Lands (DSL) WN# *

WN2019-0462

Responsible Jurisdiction

Staff Contact	Jurisdiction Type	Municipality
Melissa Jenck	County	TILLAMOOK

Local case file #	County
851-19-000291-PLNG	Tillamook

Activity Location

Township	Range	Section	QQ section	Tax Lot(s)
04S	10W	30	BD	6700

Street Address

Address Line 2

City

State / Province / Region

Postal / Zip Code

Country

Tillamook

Latitude	Longitude
45.195055	-123.958049

Wetland/Waterway/Other Water Features

☑ The property includes or is adjacent to designated Essential Salmonid Habitat.

☑ The property includes or is adjacent to state-owned waters.

☑ It is unlikely that there are jurisdictional wetlands or waterways on the property based upon a review of wetland maps, the county soil survey and other available information.

Your Activity

☑ A state permit will not be required for the proposed project because, based on the submitted site plan, the project avoids impacts to jurisdictional wetlands, waterways, or other waters.

Closing Information

Additional Comments

The project is within 50' of ESH and State-owned waters. Best Management Practices for erosion and sediment control are recommended.

This is a preliminary jurisdictional determination and is advisory only.

This report is for the State Removal-Fill law only. City or County permits may be required for the proposed activity.

Contact Information

- For information on permitting, use of a state-owned water, wetland determination or delineation report requirements please contact the respective DSL Aquatic Resource, Proprietary or Jurisdiction Coordinator for the site county. The current list is found at: http://www.oregon.gov/dsl/ww/pages/wwstaff.aspx
- The current Removal-Fill permit and/or Wetland Delineation report fee schedule is found at: https://www.oregon.gov/dsl/WW/Documents/Removal-FillFees.pdf

Response Date

8/23/2019

Response by:

Daniel Evans

Response Phone:

503-986-5271