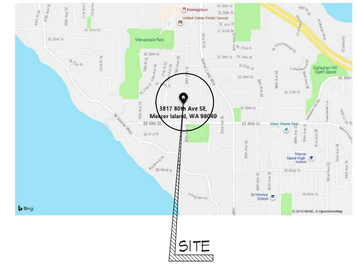
WALSH ADDITION

VICINITY MAP

N.T.S.

3817 80TH AVE SE, MERCER ISLAND, WA 98040



PROJECT DATA

TAX PARCEL #	545900-0225
LAND SIZE	9,600 SF
JURISDICTION	CITY OF MERCER ISLAND
LAND USE ZONING	R-9.6

PROJECT LEGAL DESCRIPTION

LOT 7, BLOCK 11, MERCERDALE NO. 2, ACCORDING TO THE PLAT THEREFORE RECORDED IN VOLUME 60 OF PLATS, PAGE 28, RECORDS OF KING COUNTY, WASHINGTON;

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON

PROJECT SCOPE OF WORK

NEW COVERED PATIO AND REPLACE THE INSULATION IN GARAGE CEILING.

LOT SIZE CALCULATION

TOTAL LOT SIZE	9,600 SF

PROPOSED SQ. FT CALCULATION

HEATED AREA	UNHEATED COVERED AREA
EXISTING (NO CHANGE)	NEW
	208 SF
TOTAL	208 SF

LIST OF DRAWINGS:

PROJECT TEAM

OWNER

TOM WALSH AND ELAINE WINTERS
3817 80TH AVE SE
MERCER ISLAND, WA 98040
PHONE: (206) 310-6398
CONTACT: TOM WALSH
EMAIL: tomwl415@gmail.com

CONTRACTOR

TBD

STRUCTURAL

BTL ENGINEERING
17924 140TH AVE NE, SUITE 220
WOODINVILLE, WA 98072
PHONE: (425) 814-8448
FAX: (425) 821-2120
CONTACT: BRIAN LAMPE
EMAIL: Lampe@btleng.net

ARCHITECT

BAYLIS ARCHITECTS
10801 MAIN ST, SUITE 110
BELLEVUE, WA 98004
PHONE: (425) 454-0566
CONTACT: Jin Han
EMAIL: jhan@baylisarchitects.com

SURVEYOR

SITE SURVEYING INC
21423 NE 11TH STREET
SAMMAMISH, WA 98074
PHONE: (425) 298-4412
CONTACT: THOMAS N. WOLDENDORP
EMAIL: tnw@sitesurveymapping.com

GENERAL NOTES

1. GENERAL NOTES DO NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITIES DOCUMENTED IN AIA FORM A201 GENERAL CONDITIONS AND SUPPLEMENTAL GENERAL CONDITIONS OR INFORMATION CONTAINED WITHIN THE CONTRACT DOCUMENTS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES TO ASSURE COMPLIANCE WITH THE CONTRACT DOCUMENTS.

CODES
3. ALL WORK SHALL CONFORM TO ALL APPLICABLE BUILDING CODES AND ORDINANCES. IN ANY CONFLICT WHERE THE METHOD OR STANDARDS OF INSTALLATION OF THE MATERIALS SPECIFIED DO NOT EQUAL OR EXCEED THE REQUIREMENTS OF THE APPLICABLE CODE OR ORDINANCES, THE CODE OR ORDINANCES SHALL GOVERN. IN THE EVENT THIS OCCURS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY. CURRENT EDITIONS OF THE CODE ARE LISTED HERE FOR GENERAL REFERENCE, BUT DO NOT RELEASE THE CONTRACTOR FROM CONFORMING TO ALL APPLICABLE BUILDING CODES AND ORDINANCES AND THEIR SUBSECTIONS.

APPLICABLE CODES PER CITY/TOWN REQUIREMENTS:

2015 INTERNATIONAL BUILDING CODE (IBC) - WAC 51-50
2015 INTERNATIONAL RESIDENTIAL CODE (IRC) - WAC 51-51
2015 INTERNATIONAL MECHANICAL CODE (IMC) - WAC 51-52
2015 WASHINGTON STATE ENERGY CODE, WAC 51-11C & WAC 51-11R
2015 UNIFORM PLUMBING CODE (UPC) WAC 51-52 & WAC 51-57
2015 INTERNATIONAL FIRE CODE (IFC) WAC 51-54A
2015 INTERNATIONAL FUEL GAS CODE (NFGC) - WAC 51-52
2010 NFPA 13

CONSULTANT'S DRAWINGS:
4. CONSULTANT DRAWINGS INCLUDING BUT NOT LIMITED TO STRUCTURAL ARE SUPPLEMENTARY TO THE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY AND ALL DISCREPANCIES IDENTIFIED BETWEEN THE CONSULTANT DRAWINGS WITH A WRITTEN REQUEST FOR CLARIFICATION. WORK INSTALLED IN CONFLICT WITH THE CONTRACT DOCUMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

CONSTRUCTION:
5. 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 ARCHITECT.

6. THE CONTRACTOR SHALL INVESTIGATE EXISTING CONDITIONS BEFORE BEGINNING WORK.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT INDICATED IN THE CONTRACT DOCUMENTS, AND PROVIDED BY OTHERS.

8. THE CONTRACTOR SHALL PROVIDE ALL BLOCKING, BUCK-OUTS, BACKING AND JACKS AS REQUIRED FOR THE WORK, UNLESS NOTED OTHERWISE.

9. SUBCONTRACTORS SHALL BE RESPONSIBLE FOR INSPECTING THE WORKMANSHIP OF SUBCONTRACTORS PRECEDING. DISCREPANCIES IN PROCEEDING WORK SHALL BE REPORTED TO THE CONTRACTOR IMMEDIATELY. FAILURE TO DO SO IN A TIMELY MANNER SHALL BE CONSTRUED AS ACCEPTANCE OF THAT WORK.

10. SUBCONTRACTORS SHALL BE RESPONSIBLE FOR DAMAGE TO ADJACENT WORK CAUSED BY THE SUBCONTRACTOR, IT'S AGENTS, OR EMPLOYEES. SUBCONTRACTOR SHALL REPAIR SAID DAMAGE AT THE SUBCONTRACTOR'S EXPENSE.

DRAWING STANDARDS / DIMENSIONS:

11. DO NOT SCALE DRAWINGS; USE WRITTEN DIMENSIONS. IN THE EVENT THAT DISCREPANCIES ARE FOUND IN THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY CLARIFY SAID CONDITION WITH THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

12. ALL INFORMATION RELATED TO EXISTING CONDITIONS HAS BEEN REPRESENTED TO THE BEST KNOWLEDGE OF THE ARCHITECT. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES THAT WOULD EFFECT THE CONSTRUCTION OF THE PROJECT BEFORE STARTING THE WORK.

13. DIMENSIONS ARE TO THE FACE OF FRAMING, FACE OF CONCRETE, GRID LINES, OR CENTERLINE OF COLUMNS, DOORS AND WINDOWS UNLESS NOTED OTHERWISE.

14. VERIFY SIZE AND LOCATION OF AND PROVIDE ALL OPENINGS THROUGH FLOORS AND WALLS, FURRING, ANCHORS, INSERTS, ROUGH BLOCKS AND BACKING FOR SURFACE MOUNTED ITEMS.

15. PROVIDE FURRING AS REQUIRED TO CONCEAL MECHANICAL AND ELECTRICAL IN ALL FINISHED AREAS.

16. ALL SWING DOORS NOT LOCATED BY DIMENSIONS ON PLANS OR DETAILS SHALL BE 4" FROM FACE OF STUD TO EDGE OF ROUGH OPENINGS OR CENTERED BETWEEN ROOM PARTITIONS AS SHOWN.

17. PLANS ARE DRAWN ASSUMING THE FOLLOWING ROUGH OPENINGS:

SWINGING DOORS:	NOMINAL SIZE +2"
BIFOLD DOORS:	NOMINAL SIZE +1 1/2"
BI-PASS DOORS:	NOMINAL SIZE +0"
WINDOWS:	NOMINAL SIZE +0"

18. PROVIDE CAULKING BETWEEN SOLE PLATES AND SUBFLOOR AND BETWEEN RIM JOISTS AT BOTH TOP PLATE AND SUBFLOOR.

19. SAFETY GLAZING: WINDOW MFR. SHALL PROVIDE TEMPERED SAFETY GLAZING WHERE REQUIRED BY W.S.B.C. SECTION 2406.

20. SKYLIGHTS SHALL COMPLY WITH W.S.B.C. 2409.

21. REFER TO ARCHITECTS' STANDARDS FOR SYMBOLS AND ABBREVIATIONS FOR CLARITY OF DRAWINGS. IF A SYMBOL OR ABBREVIATION IS IDENTIFIED ON THE ARCHITECTURAL DRAWINGS THAT IS IN DISCREPANCY WITH THE STANDARDS THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION.

22. DEFERRED SUBMITTALS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR BIDDER DESIGN AND FOR SUBMITTING DRAWINGS AND/OR SPECIFICATIONS TO THE CITY AS DEFERRED SUBMITTALS FOR THE FOLLOWING:
-PLUMBING
-HVAC, MECHANICAL SYSTEMS
-AUTOMATIC SPRINKLER SYSTEMS, VERIFY
THESE SUBMITTALS SHALL BE PROVIDED TO THE CITY PRIOR TO COMMENCING ANY WORK ON THE SYSTEM.

24. ALL FASTENERS, CONNECTORS & HANGERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD ARE REQUIRED TO BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 OR BE STAINLESS STEEL.

MECHANICAL & ENERGY GENERAL NOTES

1. ALL GLAZING SHALL BE DOUBLE GLAZED PER SPECIFICATIONS.

2. ALL METAL DUCT JOINTS TO BE SEALED WITH DUCT SEALANT AND TESTED.

3. ALL OPENINGS IN THE EXTERIOR WALLS SHALL BE SEALED OR WEATHERSTRIPPED AS APPROPRIATE TO LIMIT AIR LEAKAGE.

4. BATT INSULATION SHALL BE CAREFULLY INSTALLED TO AVOID TEARING OR RIPPING THE VAPOR BARRIER. ALL JOINTS (BETWEEN BATT SPLICES) AND TEARS SHALL BE SEALED WITH DUCT TAPE (OR OTHER APPROVED MATERIAL).

5. SHOWERS SHALL BE EQUIPPED WITH FLOW-CONTROL DEVICES THAT LIMIT TOTAL FLOW TO A MAXIMUM OF 2.5 GPM PER SHOWERHEAD.

6. FACTORY-BUILT WINDOWS SHALL BE RATED AND TESTED BY THE ASTM STANDARD E 283-73 LISTING AIR LEAKAGE RATES.

7. R-10 DUCT INSULATION REQUIREMENTS PER WSEC TABLE 5-11.

8. ALL FAN DUCTING TO BE SMOOTH WALL 26-GAUGE OR HEAVIER.

9. FUEL FOR WATER AND SPACE HEATING SHALL BE GAS.

10. SERVICE WATER HEATER SHALL HAVE A LABEL WHICH STATES THAT IT COMPLIES WITH 1987 THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT

11. ALL WATER SERVICE PIPING SHALL BE THERMALLY INSULATED IN ACCORDANCE WITH LOCAL CODE.

12. CONTINUOUS APPROVED VAPOR BARRIERS SHALL BE INSTALLED ON THE HEATED SIDE OF ALL INSULATION INSTALLED.

13. ONLY ONE DUCT IS ALLOWED PER JOIST BAY FOR BATH, KITCHEN OR LAUNDRY ROOM VENT FANS.

14. ALL HVAC AND MECHANICAL CONTRACTORS SHALL COMPLY WITH ALL APPLICABLE WSEC AND VIAQ REGULATIONS.

15. ALL AIR DUCTS, DRYER EXHAUST VENTS AND DUCTS, OUTSIDE COMBUSTION AIR, FLUES, PLUMBING WASTE, ELECTRIC LIGHT RECESSED CANS AND BOXES MUST MAINTAIN THE INTEGRITY OF FIRE-RESISTIVE ASSEMBLIES. REF. WSBC 704, 709, 710 AND 713, UFC AND CITY OF SEATTLE STANDARDS.

16. DISHWASHER MUST BE PROVIDED WITH AN ATMOSPHERIC AIR GAP MOUNTED ABOVE THE FLOOD LEVEL RIM OF SINK.

17. HOT WATER TANKS MUST BE PROVIDED WITH ALL OF THE FOLLOWING:
a) BE SECURED TO PREVENT SEISMIC DISPLACEMENT
b) BE PROVIDED WITH A PRESSURE RELIEF VALVE DISCHARGING TO THE EXTERIOR OF THE BUILDING TERMINATING 6" TO 24" ABOVE THE GROUND.
c) BE PROVIDED WITH A THERMAL EXPANSION TANK SIZED IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS.

18. ELECTRIC RESISTANCE HEAT IS NOT ALLOWED.

19. ENCLOSURES AT HOT WATER TANKS AND FURNACES MUST BE PROVIDED WITH OUTSIDE AIR, AND THERMALLY ISOLATED TO SAME STANDARDS AS EXTERIOR ENVELOPE WITH TIGHT-FITTING U-0.40 DOOR.

20. IF THE WATER HEATER HAS A NONRIGID WATER CONNECTION AND IS OVER 4' IN HEIGHT IT MUST BE ANCHORED OR STRAPPED TO RESIST EARTHQUAKE MOTION

21. INSTALL BACKWATER VALVE AT BASEMENT LEVEL AS REQUIRED TO PREVENT SEWERAGE BACKUPS PER UPS 710.1

22. MAKE-UP AIR SYS REQ'D & PERFORM REQUIRED SOUND TEST FOR INTERIOR RANGE HOOD WITH FAN CAPACITY GREATER THAN 400 CFM.

#3369 REGISTERED ARCHITECT STATE OF WASHINGTON

BRIAN BRAND

WALSH ADDITION

3817 80TH AVE SE
MERCER ISLAND, WA 98040

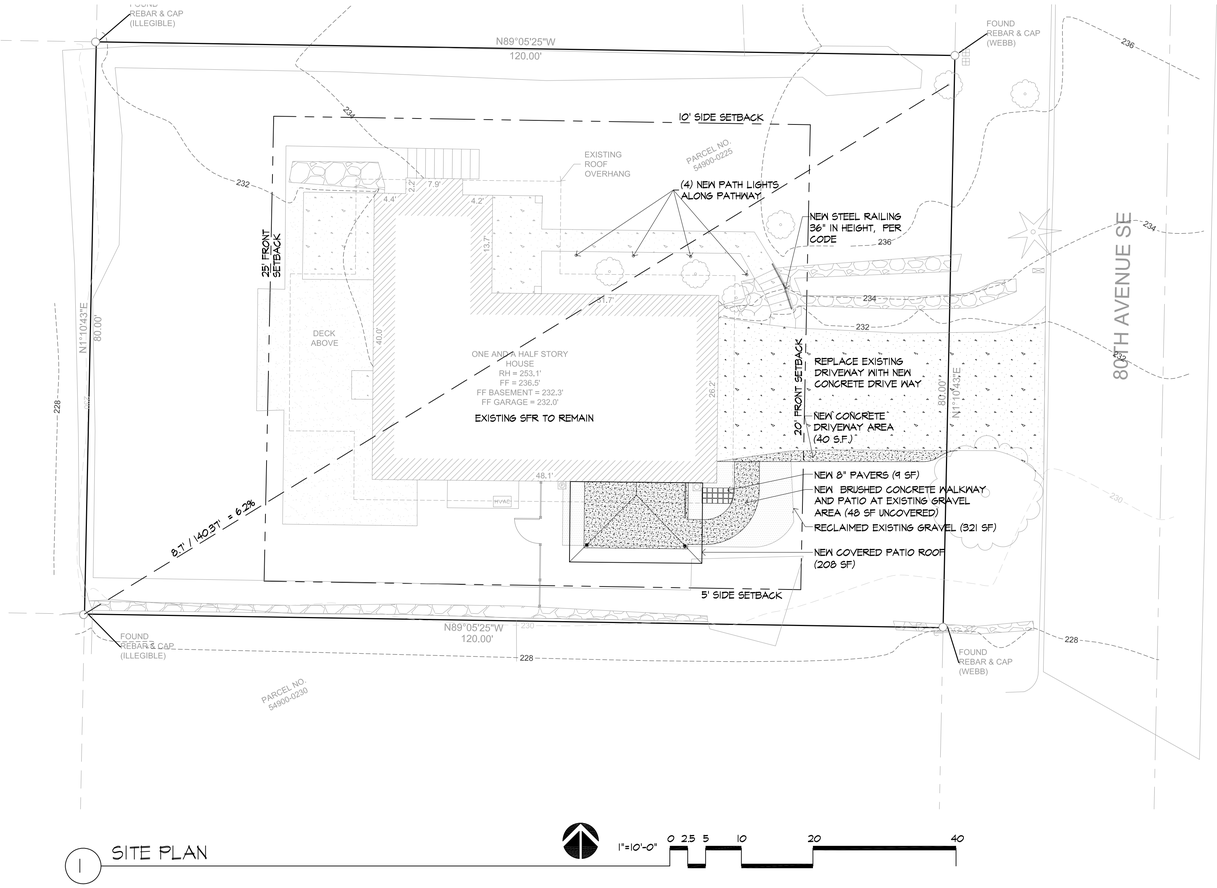
PROJECT NUMBER:	19-0446
PROJECT MANAGER:	JW
DRAWN BY:	JW
PLOT DATE:	Jul 16, 2019 - 11:12am
DATE:	

PERMIT SET

baylis ARCHITECTS
10801 Main Street, #110 | Bellevue,WA 98004
BaylisArchitects.com | (425) 454 0566

COVER SHEET

A001



1 SITE PLAN

1"=10'-0" 0 2.5 5 10 20 40

PROJECT DATA

TAX PARCEL #	549000-0225
LAND SIZE	9,600 SF
JURISDICTION	CITY OF MERCER ISLAND
LAND USE ZONING	R-9.6

PROJECT LEGAL DESCRIPTION

LOT 7, BLOCK 11, MERCERDALE NO. 2, ACCORDING TO THE PLAT THEREFORE RECORDED IN VOLUME 60 OF PLATS, PAGE 28, RECORDS OF KING COUNTY, WASHINGTON;

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON

LOT SLOPE

LOT SLOPE: (HIGHEST ELEV. - LOWEST ELEV./DISTANCE
236.8' - 228.1 = 8.7
8.7 / 140.37' = .0619
LOT SLOPE = 6.2%

LOT COVERAGE CALCULATION

NET LOT SIZE	9,600 SF
TOTAL LOT COVERAGE ALLOWED:	LOT SLOPE = 6.2%
	(15% THEREFORE) 40% ALLOWED
	9,600 * 40% = 3840 S.F.
EXISTING DRIVEWAY:	556 SF
EXISTING DECKS (LESS ROOF):	200 SF
EXISTING GRAVEL WALKWAYS/PATIO:	611 SF
EXISTING HOUSE W/ ROOF OVERHANGS:	2,257 SF
TOTAL EXISTING LOT COVERAGE:	3,624 SF
NEW ADDITIONAL DRIVEWAY:	40 SF
NEW PAVERS:	9 SF
NEW PATH UNCOVERED:	48 SF
NEW ROOF	208 SF
RECLAIMED GRAVEL COVERAGE	(-321 SF)
TOTAL NEW LOT COVERAGE:	3,608 SF
	< 3,840 S.F. = ALLOWED

IMPERVIOUS AREA DECREASED BY 16 SF AFTER CONSTRUCTION.

#3369 REGISTERED ARCHITECT STATE OF WASHINGTON

BRIAN BRAND

WALSH ADDITION

3817 80TH AVE SE
MERCER ISLAND, WA 98040

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PROJECT MANAGER:	JW
DRAWN BY:	JW
PLOT DATE:	Jul 16, 2019 - 12:06pm

DATE:

PERMIT SET

ARCHITECTS
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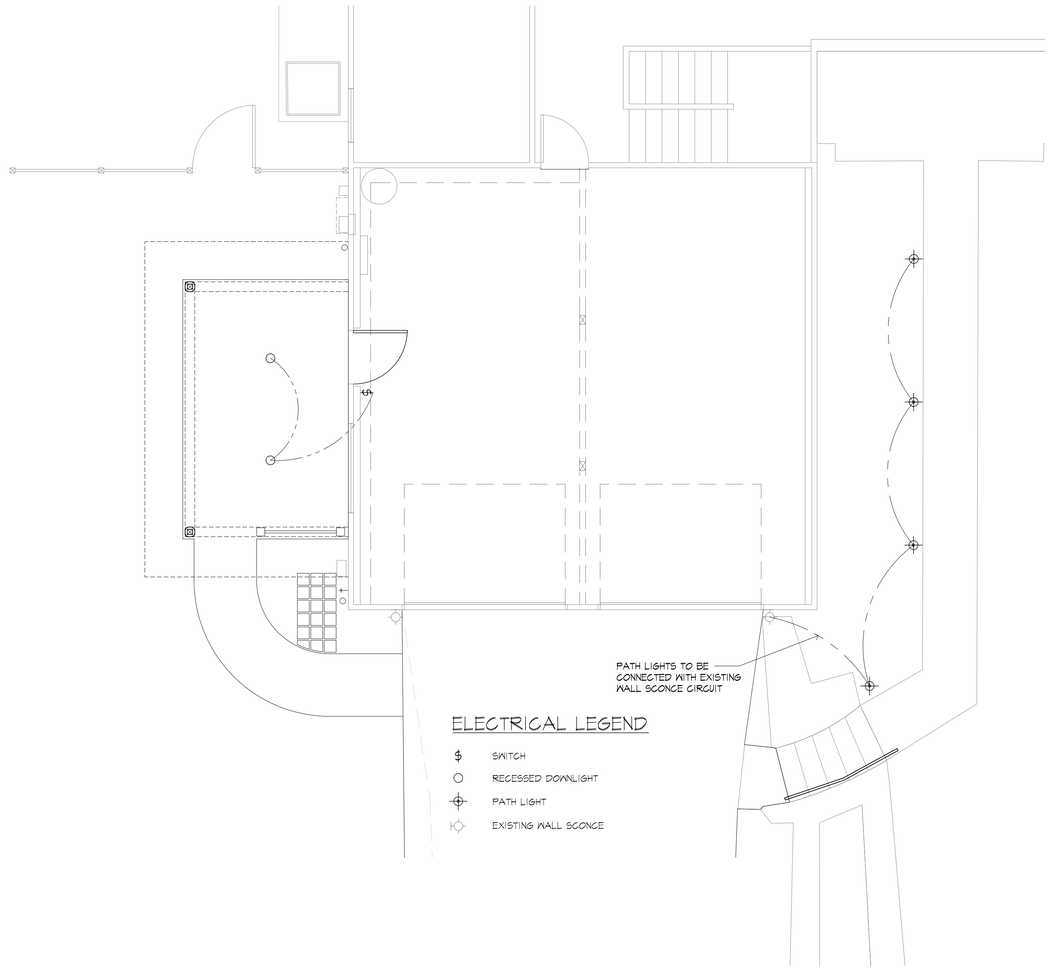
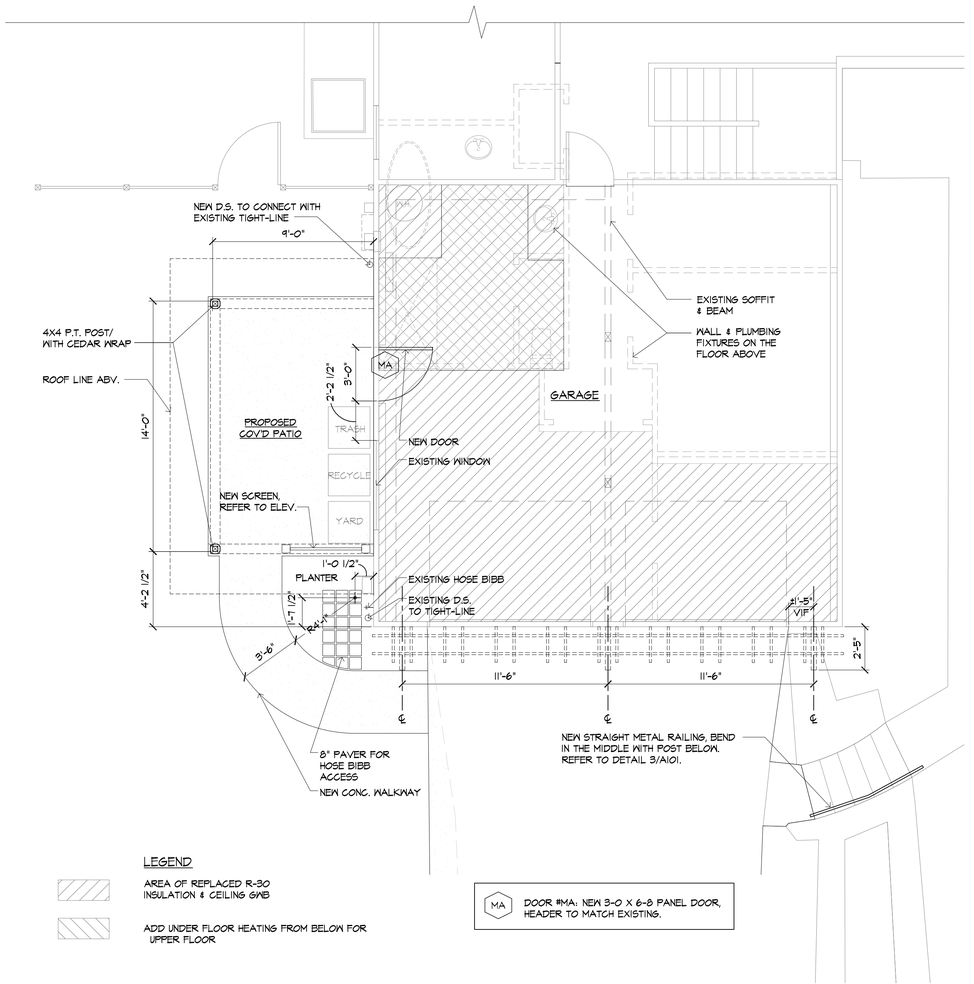
SITE PLAN & SITE CALCULATIONS

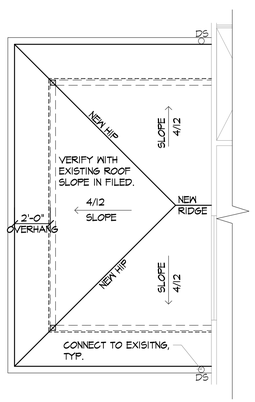
A002



2 ELECTRICAL PLAN 1/4"=1'-0" 0 1 2 4 8 16



1 LOWER FLOOR PLAN 1/4"=1'-0" 0 1 2 4 8 16



LEGEND
DS DOWNSPOUT
---- VENT

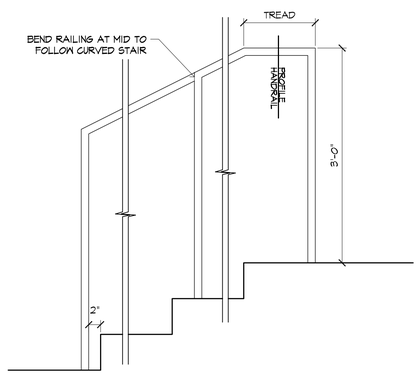
NOTES:

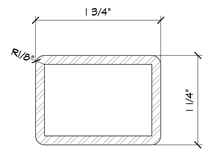
1) DS - DOWNSPOUT

2) ROOF VENTILATION CALCULATION: CONFIRM WITH IRC R806.

- COVERED PATIO VENTING REQ. ... 198 SF / 150 =1.32 SF
PROVIDE:
1" CONTINUOUS SOFFIT VENTING:
129' LF X (1"/12)=11 SF > 1.32 SF...OK

4 ROOF PLAN - NEW COVERED PATIO 1/4"=1'-0" 0 1 2 4 8 16





HANDRAIL PROFILE
SCALE: 1'-0"=1'-0"

3 HANDRAIL FOR EXISTING STAIR 1"=1'-0" 0 .25 .5 1 2 4

#3369 REGISTERED ARCHITECT STATE OF WASHINGTON
BRIAN BRAND

WALSH ADDITION

3817 80TH AVE SE
MERCER ISLAND, WA 98040

PROJECT NUMBER:	19-0446
PROJECT MANAGER:	JW
DRAWN BY:	JW
PLOT DATE:	Jul 17, 2019 - 2:53pm

DATE:

PERMIT SET

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10801 Main Street, #110 | Bellevue,WA 98004
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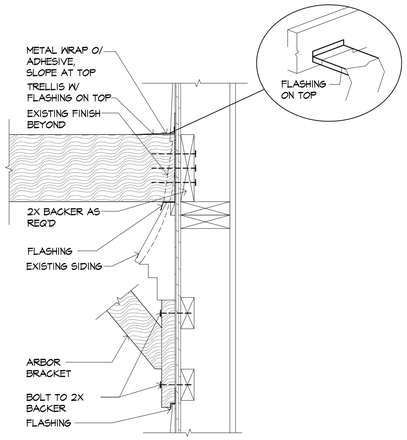
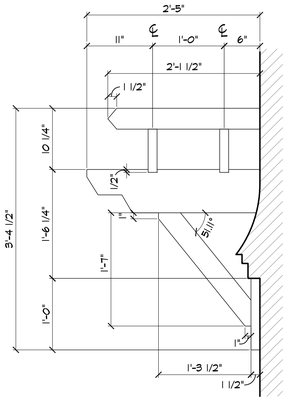
PLANS & DETAILS

A101



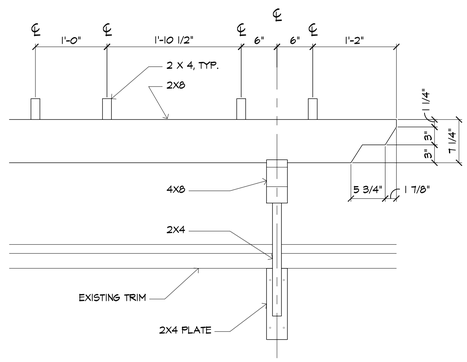
C NEW ARBOR @ BOLT

1 1/2"=1'-0" 0 .25 .5 1 2



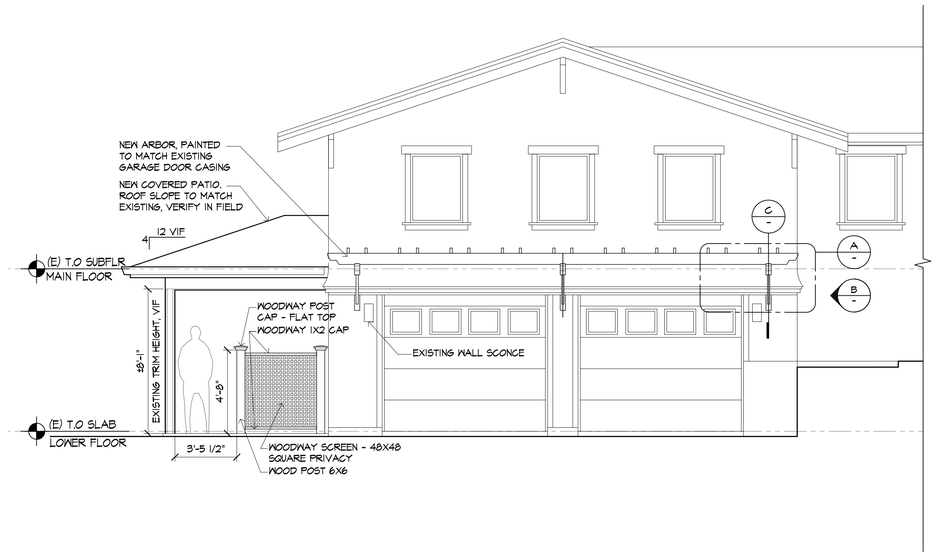
B NEW ARBOR - SECTION

1"=1'-0" 0 .25 .5 1 2 4



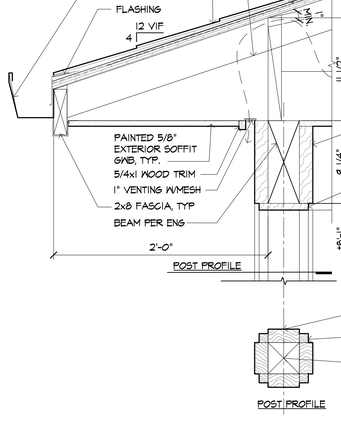
A NEW ARBOR - ELEVATION

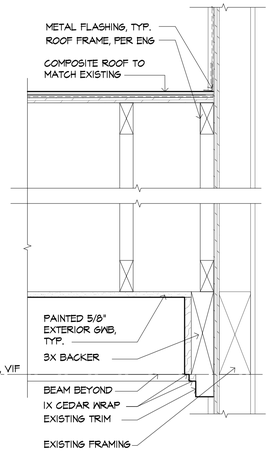
1"=1'-0" 0 .25 .5 1 2 4



1 EAST ELEVATION

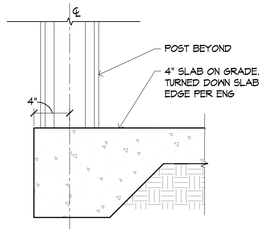
1/4"=1'-0" 0 1 2 4 8 16





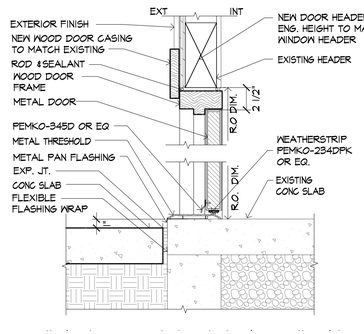
D PATIO ROOF @ E. WALL

1 1/2"=1'-0" 0 .25 .5 1 2



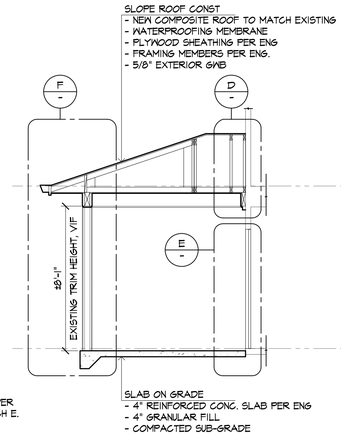
F PATIO DETAIL @ EAVE & CONC. EDGE

1 1/2"=1'-0" 0 .25 .5 1 2

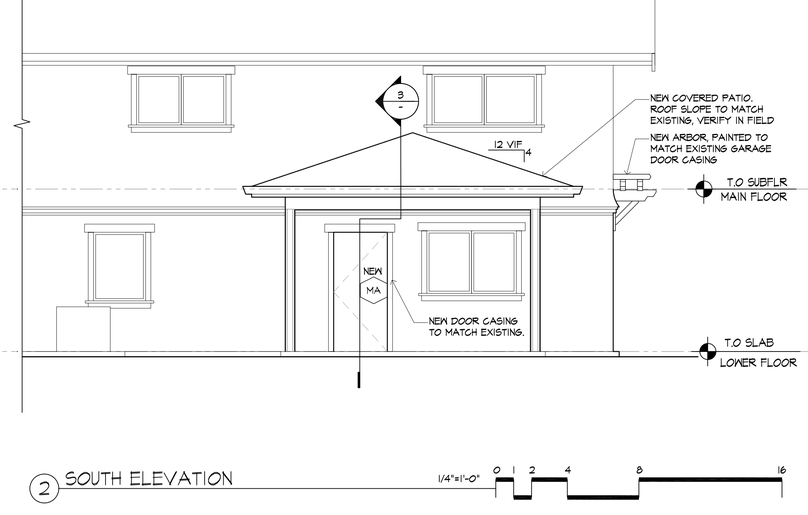


E PATIO DETAIL @ DOOR

1 1/2"=1'-0" 0 .25 .5 1 2



3 SECTION



2 SOUTH ELEVATION

1/4"=1'-0" 0 1 2 4 8 16

#3369 REGISTERED ARCHITECT STATE OF WASHINGTON
BRIAN BRAND

WALSH ADDITION

3817 80TH AVE SE
MERCER ISLAND, WA 98040

PERMIT SET

PROJECT NUMBER:	19-0446
PROJECT MANAGER:	JW
DRAWN BY:	JW
PLOT DATE:	Jul 16, 2019 - 12:08pm
DATE:	

baylis ARCHITECTS
10801 Main Street, #110 | Bellevue,WA 98004
BaylisArchitects.com | (425) 454 0566

ELEVATIONS & DETAILS

A201

GENERAL STRUCTURAL NOTES:

CRITERIA:

1.1 All Materials, workmanship, design, and construction shall conform to the drawings, specifications, and the International Building Code (IBC), 2015 Edition.

1.2 Design Loading Criteria
The Design Loading of the Structure is as follows:

Live Loads (in accordance with IBC Table 1607.1)			
Occupancy or Use	**Uniform Live Load**	**Concentrated Live Load**	**Notes**
Floor, Residential	40-psf	-	
Balconies & Decks	60-psf	-	1.5 x Occupancy Load

Wind Design Data ASCE 7-10, Chapter 28: Simplified Envelope Procedure	
Ultimate Design Wind Speed (3-sec gust), V_{ult} Nominal Wind Speed, V_{asd}	110-mph 85-mph
Risk Catagory	II
Wind Exposure	D
Internal Pressure Coefficient	N/A
Exterior Components and Cladding	25-psf
Topographical Factor, K_{zt}	1.60

Seismic Design Data ASCE 7-10, Section 12.8: Equivalent Lateral Force Procedure	
Risk Catagory	II
Seismic Importance Factor, I_e	1.0
Mapped Spect. Accel., Short Period, S_S Mapped Spect. Accel., 1-Sec, S_1	1.400 0.538
Site Class	D
Spectral Response Coeff., Short Period, S_{DS} Spectral Response Coeff., 1-Sec, S_{D1}	0.933 0.538
Seismic Design Catagory	D
Basic Seismic-Force-Resistance System	Ply. Shear Walls
Response Modification Factor, R	6.5
Seismic Response Coefficient, C_S	0.14
Design Base Shear, V	13.12 kips

Snow Loads (ASCE 7-10, Chapter 7)		
Ground Snow Load, P_g		25-psf
Flat Roof Snow Load, $P_f = 0.7\ C_e\ C_t\ I_s\ P_g$ * Snow Exposure Factor, C_e * Snow Load Importance Factor, I_s * Thermal Factor, C_t	 1.0 1.0 1.2	25-psf

See Drawings for Additional Loading Criteria.

1.3 Structural Drawings shall be used in conjunction with all other project documents for bidding and construction. Contractor shall verify dimensions and conditions for compatibility and shall notify architect of all discrepancies prior to construction.

1.4 Contractor shall provide Temporary Bracing for the structure and structural components until all final connections have been completed in accordance with the drawings.

1.5 Contractor shall be responsible for all safety precautions and the methods, techniques, sequences or procedures required to perform the work.

1.6 Contractor-initiated changes shall be submitted in writing to the Architect and Structural Engineer for approval prior to fabrication or construction. Changes shown on shop drawings only will not satisfy this requirement.

1.7 Drawings indicate general and typical details of construction. Where conditions are not specifically indicated but are of similar character to details shown, similar details of construction shall be used, subject to review and approval by the Architect and the Structural Engineer.

1.8 All structural systems composed of components to be field erected shall be supervised by the Supplier during manufacturing, delivery, handling, storage and erection in accordance with instructions prepared by the Supplier.

GEOTECHNICAL:

2.1 Allowable Soil Pressure, Lateral Earth Pressure, and Soil Profile Type are assumed and therefore must be verified. If soils are found to be other than assumed, notify the Structural Engineer for possible foundation redesign. Footings shall bear on firm, undisturbed earth at least 18" below adjacent finished grade. Unless otherwise noted, footings shall be centered below columns or walls above. Backfill behind all retaining walls with free draining, granular fill and provide for subsurface drainage.

Geotechnical Properties	
Soil Site Class	D
Allowable Soil Bearing Pressure	1500-psf

CONCRETE:

3.1 Concrete shall be mixed, proportioned, conveyed and placed in accordance with IBC Chapter 19 and ACI 318-14. Mix shall be proportioned to produce a slump of 5" or less. All concrete with surfaces exposed to standing water shall be air-entrained with an air-content conforming to ACI 318-14 Table 4.2.1. Concrete Strength, based on IBC Section 1904.1, shall be as follows:

Type or Location of Concrete Construction (Moderate Exposure)	**Min. 28-Day Compressive Strength, f'c**
Interior Slabs-on-Grade	2500-psi
Footings, Basement Walls, Foundation/Stem Walls	3000-psi[1]

[1] Specified compressive strength (f'_c) specifications address serviceability requirements. Design strength of concrete is 2500-psi, therefore, strength tests are not required. Provided concrete mix tickets verifying strength specifications.

3.2 Reinforcing Steel shall conform to ASTM A615-12 and the following:

Bar Size	**Steel Grade**
#5 bar and larger	Grade 60, fy = 60,000-psi
#4 bar and smaller	Grade 40, fy = 40,000-psi

Welded Wire Fabric shall conform to ASTM A1064-15

3.3 Reinforcing Steel shall be detailed (including hooks and bends) in accordance with ACI 318-14. Lap all continuous reinforcement (#5 and smaller) 40 bar diameters or 2'-0" minimum. Provide corner bars at all wall and footing intersections. Lap corner bars (#5 and smaller) 40 bar diameters or 2'-0" minimum. Laps of larger bars shall be made in accordance with ACI 318-14, Class B. Lap adjacent mats of welded wire fabric a minimum of 8" at sides and ends.

No bars partially embedded in hardened concrete shall be field bent unless otherwise noted on the drawings or approved by the structural engineer.

3.4 Concrete Protection (cover) for Reinforcing Steel shall be as follows:

Condition	**Clear Cover**
Footings and Unformed Surfaces cast against and permanently exposed to Earth	3"
Formed Surfaces exposed to Earth or Weather (#6 bars or larger)	2"
Formed Surfaces exposed to Earth or Weather (#5 bars or smaller)	1½"
Slabs and Walls, interior face (#11 bars and smaller)	¾"
Column Ties or Spirals and Beam Stirrups	1½"

WOOD:

6.1 Framing Lumber shall be kiln dried or MC-19, and graded and marked in conformance with WCLB Standard Grading Rules for West Coast Lumber No. 17. Unless otherwise noted, furnish to the following minimum standards:

Member Use	**Size**	**Species**	**Grade**
Studs	2x, 3x	Hem-Fir or SPF	STUD
Joists/Rafters	2x, 3x	Hem-Fir	No. 2
Plates/Misc.	2x, 3x	Hem-Fir	No. 2
Beams	4x	Douglas Fir-Larch	No. 2
Posts	4x	Douglas Fir-Larch	No. 2
Timber, Beams	6x & Larger	Douglas Fir-Larch	No. 2
Timber, Posts	6x & Larger	Douglas Fir-Larch	No. 2

6.2 Prefabricated Connector Plate Wood Trusses shall be designed by the manufacturer in accordance with TPI 1-2007 for the spans and conditions shown on the drawings. Wood trusses shall utilize approved connector plates (MITEK, ITW or other approved Truss Plate Manufacturer).

Unless otherwise noted, loading shall be as follows:

Roof Truss Design Loading	
Member	**Uniform Load**
Top Chord Snow Load	25-psf
Top Chord Wind Load (Uplift)	15-psf
Top Chord Dead Load	10-psf
Bottom Chord Live Load	10-psf
Bottom Chord Dead Load	5-psf

Submit shop drawings and design calculations prior to fabrication. Submitted documents shall bear the stamp and signature of a registered Professional Engineer, State of Washington. Truss design drawings shall include, at a minimum, the following:

A. Slope or Depth, Span and Spacing
B. Location of all Joints and Support Locations
C. Number of Plies if greater than one
D. Required Bearing Widths
E. Design Loads and Locations: Include Top and Bottom Chord Live and Dead Loads, Girder Loads, and Environmental Loads (Seismic, Wind, Snow, etc.)
F. Other Lateral Loads, including Drag Strut Loads
G. Adjustments to Wood and Metal Connector Plate Design Value for Conditions of Use
H. Maximum Reaction Force and Direction (including Maximum Uplift)
I. Metal-Connector-Plate Type, Size, Thickness, and Location
J. Size Species and Grade for each Member
K. Truss-to-Truss Connections and Truss Field Assembly Requirements
L. Calculated Span-to-Deflection Ratio and maximum Vertical and Horizontal Deflection for Live and Total Loads
M. Maximum Axial Tension and Compression Forces in each Truss Member
N. Required Permanent Individual Truss Member Restraint Location and the Method and Details of Restraint Bracing to be used
O. Placement Layout including Bearing Points, Intersections, Hips, Valleys, etc.
P. Truss-to-Truss and Truss-to-Beam Connection Details and Hardware

6.3 Roof, Floor & Wall Sheathing shall be APA Rated, Exterior or Exposure 1 Plywood or OSB manufactured under the provisions of Voluntary Product Standards DOC PS-1 or DOC PS-2, or APA PRP-108 Performance Standards and Policies for Structural Use Panels. See Drawings for thickness, span rating, and nailing requirements. Unless otherwise noted, wall sheathing shall be ½" (nominal) with Span Rating of 24/0. Glue floor sheathing to all supporting members with adhesive conforming to APA Specification AFG-01.

6.4 Wood members shall be protected against decay and termites in accordance with IBC Section 2304.12. Where required, members shall be naturally durable species or shall be treated with waterborne preservatives wood in accordance with American Wood Protection Association specification AWPA U1. Members shall be clearly labeled. Modifed treated members (ripped or end cut) shall be field treated in accordance with specification AWPA M4.

6.5 Timber Connectors and Proprietary Fasteners shall be "Strong-Tie" by Simpson Company, as specified in their current catalog. Provide number and size of fasteners as specified by manufacturer. Connectors shall be installed in accordance with the manufacturer's instructions. Where connector straps connect two members, center strap on joint and provide number and size of fasteners as specified by manufacturer, with equal number and size of fasteners in each member.

Alternate hardware manufacturer substitutions, such as USP Connectors, shall be ICC approval for equal or greater load capacities. All joist hangers and other hardware shall be compatible in size with specified framing members. See Hanger Conversion Table for pre-approved substitutions.

Timber Connectors and their fasteners shall be protected from corrosion in accordance with manufacturer's recommendations or ASTM A 653, Type G185.

6.6 Dowel-Type Fasteners (Bolts, Lag Screws, Wood Screws and Nails) shall conform to Sections 11 and 12 of the ANSI/AWC NDS-2015.

Dowel Type Fastener	**Grade**	**Requirements at Exterior Use or when in Contact w/ Treated Lumber**	**Installation**
Bolts	ASTM A307	ASTM B 695, Class 55 Galvanized or Stainless Steel	ANSI/AWC NDS-2015 Section 12.1.3 Hole = Bolt Ø + (1/32" to 1/16") Washer @ Bolt Head and @ Nut
All-Thread/Threaded Rod	ASTM F1554	ASTM B 695, Class 55 Galvanized or Stainless Steel	ANSI/AWC NDS-2015 Section 12.1.3 Hole = Rod Ø + (1/32" to 1/16") Washer @ Each Nut
Lag Screws	ASTM A307	ASTM A 153 Galvanized or Stainless Steel	ANSI/AWC NDS-2015 Section 12.1.4 Lead Hole = 0.5 x Shank Ø; Shank Hole = Shank Ø Washer @ Lag Head
Wood Screws		ASTM A 153 Galvanized or Stainless Steel	ANSI/AWC NDS-2015 Section 12.1.5 Pilot Hole = 0.75 x Root Ø (Unless Self-Boring)
Nails	ASTM F1667	ASTM A 153 Galvanized or Stainless Steel	ANSI/AWC NDS-2015 Section 12.1.6 Avoid Overdriving or Underdriving; Avoid Wood Splitting Toenails 30°, 1/3 Nail Length from Joint

Nails specified on the drawings shall be as follows:

Nail Use	**Penny Weight**	**Grade**
Framing Nails	12d Box	0.131"Ø x 3¼"
Sheathing Nails	8d Common	0.131"Ø x 2½"

All Metal Fasteners exposed to weather or in contact with treated wood shall be protected from corrosion according to table above. Nuts and bolts exposed to weather or in contact with treated wood shall be galvanized in accordance with ASTM A 153 or Stainless Steel. See above for Proprietary Fastener requirements. Do not substitute standard Dowel-Type Fasteners for Proprietary Fasteners unless specifically allowed.

6.7 Wood Framing Notes: The following apply unless otherwise noted on the drawings:

A. All wood framing details shall be constructed to the minimum standards of the IBC. Nailing not specified on the drawings shall conform to IBC Table 2304.10.1 or ICC ES ESR-1539. Coordinate the size and location of all openings with Mechanical and Architectural Drawings.
B. Wall Framing: Stud wall size and spacing shall be in accordance with the plan notes. Two studs minimum shall be provided at the ends of all walls, at each side of all openings, and at the ends of all beams and headers. All stud bearing walls on wood framing shall have their lower wood plates attached to framing or concrete below per P1-6 of the shear wall schedule.
C. Individual members of Built-Up stud posts shall be nailed to each other with framing nails @ 12"oc, staggered. Individual members of Built-Up joist beams shall be nailed to each other with framing nails @ 12"oc, staggered.
D. Solid blocking for wood columns shall be provided through floors to supports below.
E. Floor and Roof Framing: Provide solid blocking at all bearing points. Toenail joists to supports with two framing nails. Attach timber joists to flush headers or beams with metal joist hangers in accordance with notes above.
F. Roof and floor sheathing shall be laid up with grain perpendicular to supports and nailed per plan notes. Allow 1/8" spacing at all panel edges and ends of floor and roof sheathing. Provide approved panel edge clips centered between joists/trusses at unblocked roof sheathing edges. All floor sheathing edges shall have approved tongue-and-groove joints. Toenail blocking to supports with framing nails @ 12"oc. At blocked floor and roof diaphragms, provide flat 2x blocking at all unframed panel edges and nail with edge nailing specified.

QUALITY ASSURANCE:

7.1 Standard inspections shall be in accordance with IBC Section 110.
Special Inspection shall be in accordance with IBC Section 1704. Perform Special Inspection on the following items:

Post-Installed Concrete Anchors

7.2 Structural Observation is not required.

7/10/2019

WALSH ADDITION

3817 80th AVE SE
MERCER ISLAND, WA 98040

PROJECT NUMBER: 19-010-03
PROJECT MANAGER: BTL
DRAWN BY: BDS
PLOT DATE: 7/10/2019

DATE:
7/10/2019 PERMIT SET

REVISIONS:

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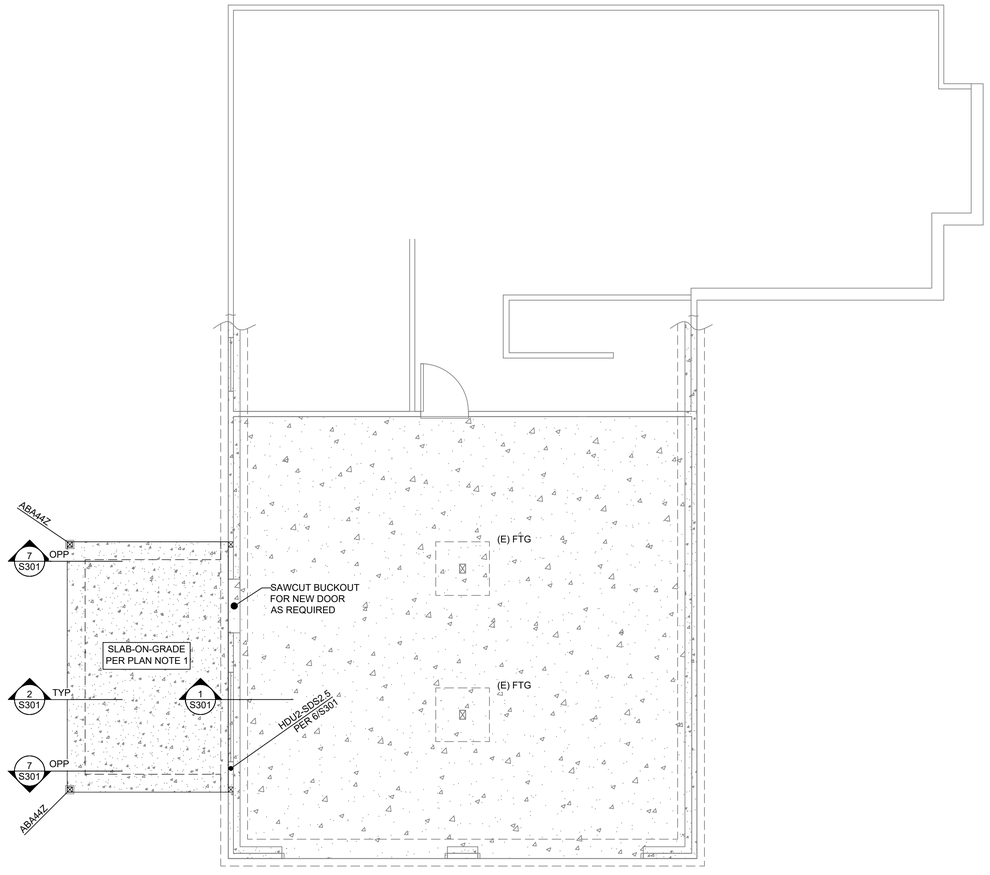
GENERAL STRUCTURAL NOTES

S101



FOUNDATION PLAN NOTES:

1. Slab-on-Grade shall be 4" thick with 6x6 W1.4xW1.4 WWM or #3 @ 18"oc, each way, at center, u.o.n Slab shall be poured over Free-Draining Granular Fill. See Architectural Drawings for Slab Elevation, Depression, and Slope requirements.
2. Bottom of Footings shall be set on competent, properly compacted Bearing Soil below Frost Depth. The Contractor shall determine actual footing elevations based on final grades and site conditions.

LEGEND

- DETAIL CALL-OUT
- SLAB-ON-GRADE PER PLAN NOTE 1

1/4"=1'-0" 0 1 2 4 8 16

BRIAN T. LAMB — STATE OF WASHINGTON — 15666 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

7/10/2019

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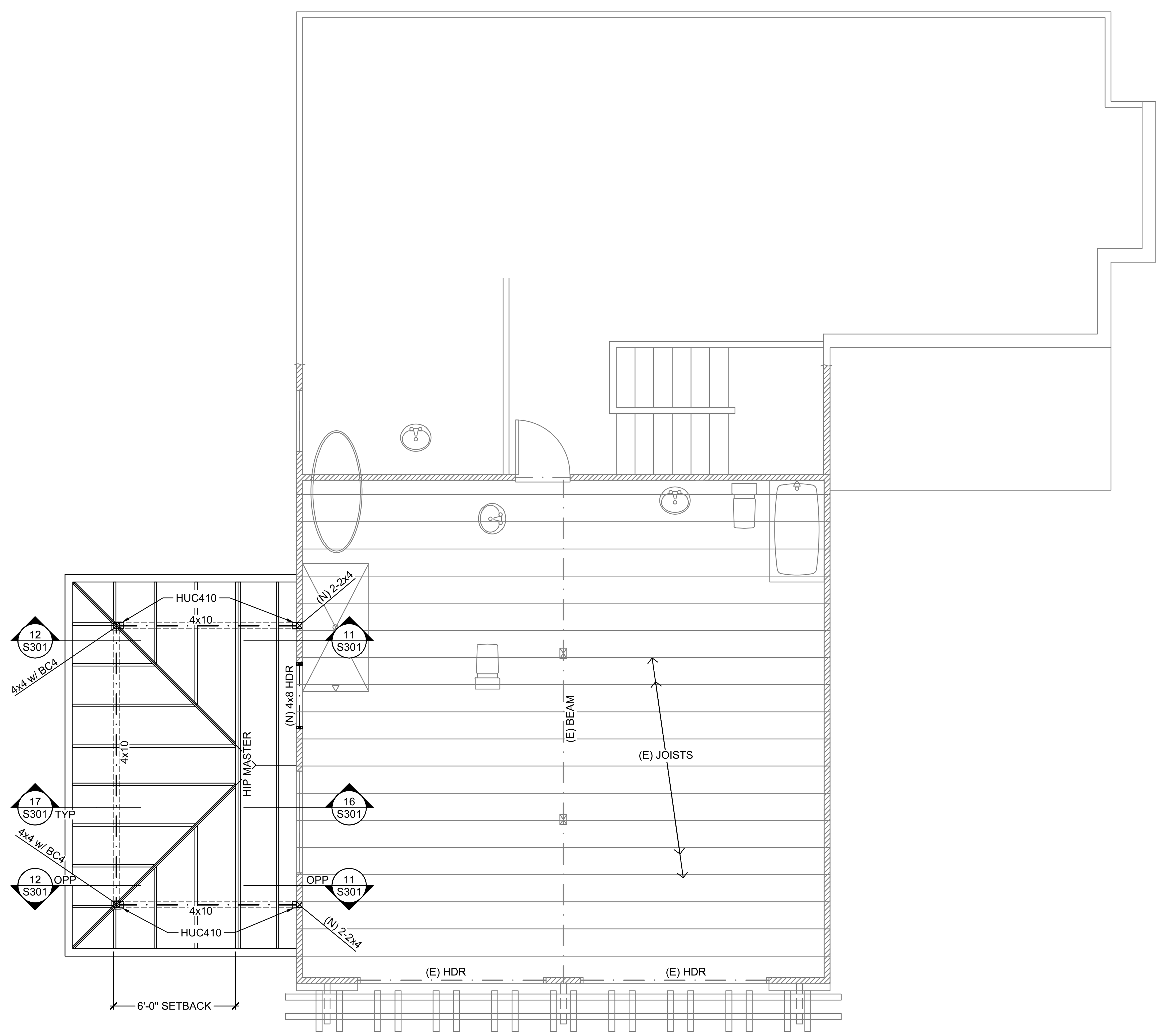
FOUNDATION PLAN

S201



ROOF FRAMING PLAN NOTES:

1. Roof Sheathing shall be ⅝" thick (Panel Span Rating 32/16) [or 7⁄16" thick (Panel Span Rating 24/16)]. Fasten Sheathing to Framing with 0.131"Ø x 2½" Nails as follows:

Framing, Edges	6"oc
Framing, Field	12"oc
Boundaries, Blocking, Struts	6"oc

At Unframed Panel Edges, provide PSCA Framing Clips centered between each Framing Member. See Drawings for other Sheathing Nailing requirements.

See Drawings for other Sheathing Nailing requirements.

2. Roof Framing shall be Connector-Plate Trusses @ 24"oc, u.o.n. Refer to General Structural Notes.

WALL FRAMING PLAN NOTES:

3. Headers shall be 4x8, u.o.n. Headers shall be supported by (1) Jamb Stud and (1) Full-Height Stud, u.o.n. Number of Studs at header support specified on Plan indicates number of Jamb Studs below Header plus (1) Full-Height Stud.

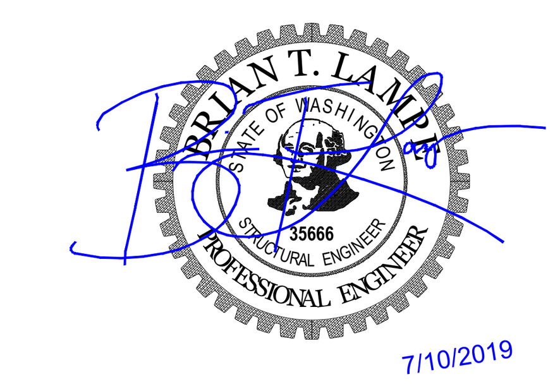
4. Built-up Stud Groups in Walls supporting Beams, Posts or Girder Trusses above shall be (2) Studs, u.o.n. See General Structural Notes for fastening requirements.

LEGEND

XX / SXXX — DETAIL CALL-OUT

XXX — POST BELOW

1/4"=1'-0" 0 1 2 4 8 16



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COVERED PATIO ROOF FRAMING PLAN

S202

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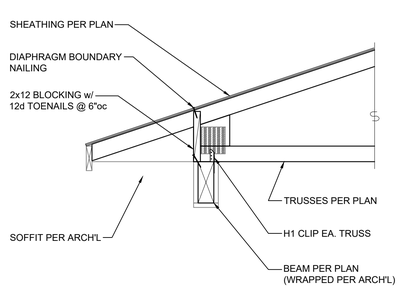

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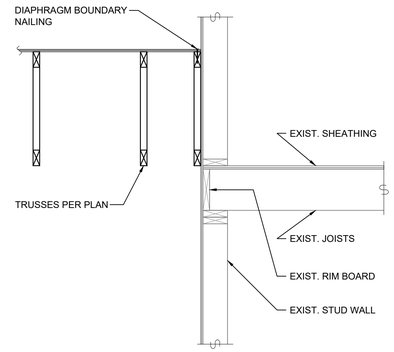

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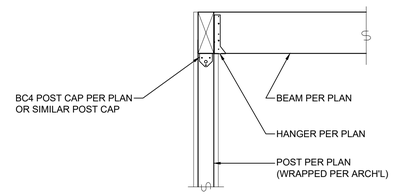

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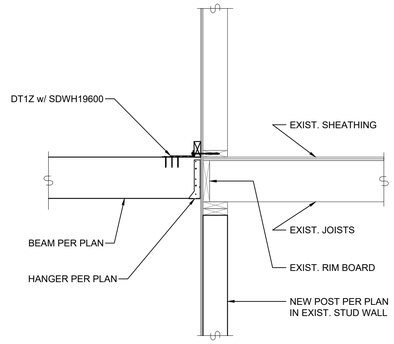

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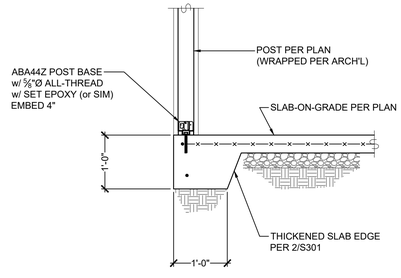

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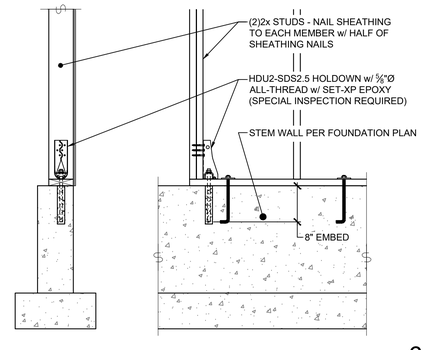

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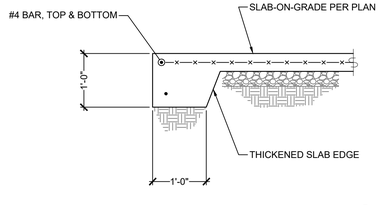

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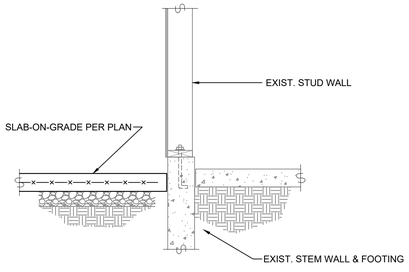

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DETAILS

S301