

CITY OF MERCER ISLAND

DEVELOPMENT SERVICES GROUP

9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org



INSPECTION REQUESTS:

online:



voicemail: (206) 275-7730

NOTE: ALL RECORDS AND DRAWINGS ARE SUBJECT TO PUBLIC DISCLOSURE AS REQUIRED BY RCW 42.56

CONTACT INFORMATION:

Applicant is to complete the following information.

Applicant Contact information prior to permit issuance: Name, Address, Phone, Email
Applicant Contact information post permit issuance: Name, Address, Phone, Email

REQUIRED SPECIAL INSPECTIONS / STRUCTURAL OBSERVATIONS:

It is the Engineer of Record's responsibility to specify all required Special Inspections or Structural Observation (check items below). The owner is responsible for hiring an approved private Special Inspector for the checked inspections noted below.

STRUCTURAL OBSERVATION BY ENGINEER OF RECORD (EOR): Engineer of Record, Company, Phone, General Conformance to Construction Documents, Other

SOILS / GEOTECHNICAL: Special Inspector, Company, Phone, Erosion control measures, Shoring installation and monitoring, Observe and monitor excavation, Verification of soil bearing, Other

REINFORCED CONCRETE: Special Inspector, Company, Phone, Concrete strength, Reinforcing steel and concrete placement, Shotcrete placement, Other

STRUCTURAL STEEL: Special Inspector, Company, Phone, Fabrication and shop welds, Structural steel erection, field welds and bolting, Other

STRUCTURAL MASONRY: Special Inspector, Company, Phone, Mortar strength, Masonry unit strength, Other

WOOD: Special Inspector / Engineer of Record, Company, Phone, Lateral resisting system construction, High strength diaphragm construction, Other

OTHER SPECIAL INSPECTIONS: Special Inspector, Company, Phone, Epoxy grout installations, Expansion anchor installations, Other post installed anchors, Alternative construction methods, Alternative construction materials, Other

DEFERRED SUBMITTALS:

The Applicant is required to select all deferred submittals / shop drawings for submittal to the City for review and approval prior to item fabrication / construction.

Connector plate wood trusses, Metal joist / metal trusses, Premanufactured structures (stairs, etc.), Precast concrete elements, Other, Post tension layout, Exterior cladding, Window wall / curtain wall construction, Other

ENERGY CODE COMPLIANCE INFORMATION:

Indicate where the following information is located in the drawing set. Alternatively, incorporate or include the Residential Energy Code Prescriptive Compliance (RECPC) Form into the drawing set.

Building envelope, Whole house ventilation, Energy Credit Information, RECPC Form Information, Air Leakage Testing, Duct Leakage Testing, Postconstruction Test, Rough-in Test

TO BE COMPLETED BY DSG

PROJECT ALERTS:

Construction of the project shall be from approved plans only. No deviation from the approved project plans is allowed without prior approval from the City of Mercer Island. Approved plans must be kept on site and maintained in good condition.

Refer to "Conditions of Permit Approval" provided at permit issuance for required construction rules and regulations, including: Site Considerations, Hours of Work, Construction Vehicle Parking Restrictions, Access Road Requirements, ROW restrictions, Drainage Requirements, Sewer Requirements, Water Service Requirements, Additional Fire Code Requirements, Planning Requirements, Noise Abatement Certification, Tree Requirements

TREE PROTECTION REQUIREMENTS:

Tree protection as shown on approved drawings shall be installed at tree dripline prior to start of any site work and must remain in place throughout the project. No trees shall be cut without a City of Mercer Island tree permit. Replacement trees must be a minimum of six feet tall at installation.

FIRE PROTECTION REQUIREMENTS:

Separate Permits are required for ALL fire protection systems. For more information, see http://www.mercergov.org/Page.asp?NavID=2614

Fire Sprinkler, NFPA 13D, NFPA 13R, NFPA 13, Monitored Household Fire Alarm per NFPA 72, Monitored Sprinkler, Water Flow Alarm, Other, Approved Fire Code Alternatives: FCA1, FCA2, FCA3, FCA4

WATER SUPPLY REQUIREMENTS:

Fire sprinkler design calculations must be provided prior to determining water supply system requirements. Water Supply system upgrade required, City Installation, Applicant Installation, Required Service Line Size, Required Supply Line Size, Required Meter Size, Abandonment of existing service and meter required at main, Pressure reducing valve required if pressure exceeds 80 psi, Reduced pressure backflow assembly (RPBA) required for all lots with waterfront or non-city water supply, Additional water supply requirements

DRAINAGE REQUIREMENTS:

On site detention system required, On site infiltration system required, As-built Utility drawings required, Full Size drawings required, Direct discharge into the lake, No Storm Water permit required, Connection to public storm drainage conveyance system req'd, Other

SIDE SEWER REQUIREMENTS:

Side sewer requires a backflow preventer when connecting to the lake line or when the elevation of the lowest plumbing fixture is lower than the elevation of the upstream manhole rim or when side sewer is shared with one or more properties. Video tape of existing sewer required (see standard details), New connection, Connect to existing, Disconnect permit required, Reconnect permit required, Other

APPROVED CODE ALTERNATIVES:

Code alternatives must be inspected. Refer to the Inspection Checklist. CA1, CA2

SURVEY REQUIREMENTS (The following survey information must be submitted when checked):

Surveyor shall verify points chosen for height calculations and point verification shall be submitted at the time of City foundation inspection. A property survey may be required to verify setbacks and in some cases buildings must be surveyed onto the lot. The City reserves the right to request an impervious area survey at any time prior to issuance of Certificate of Occupancy.

Surveyor, Building height survey, Building setback survey, Impervious surface survey, Other, MAXIMUM 40 PERCENT ALTERATION INSPECTION: A Building Inspection prior to demolition is required for all legally nonconforming single family dwelling to ensure no more than 40 percent of the dwelling's exterior walls are structurally altered.

GEOTECHNICAL INFORMATION:

Land clearing, grading, filling and foundation work within geologic hazard areas is NOT PERMITTED between October 1 and April 1 without an approved Seasonal Development Limitation Waiver.

Geotechnical Report provided. All construction must comply with the recommendations of the Geotechnical Report. A copy of report and other geotechnical information must be kept on site at all times.

SEASONAL DEVELOPMENT LIMITATION RESTRICTION:

Applies (Geologic Hazard area). Grading not permitted between October 1 through April 1. Waiver approved. Grading and excavation permitted subject to all conditions noted in Seasonal Development Limitation Waiver Permit.

TO BE COMPLETED BY DSG

TO BE COMPLETED BY DSG

REQUIRED CONSTRUCTION INSPECTIONS:

It is the applicant's responsibility to contact DSG to schedule ALL inspections appropriate for the project. Request inspections online at www.MyBuildingPermit.com or by calling the Inspection Hotline at (206) 275-7730. Allow at least 24 hours (48 hours for Reinforcing steel) in advance of desired inspection. Be specific as to type of inspection.

Inspector shall initial and date appropriate inspection only if approved. Note: Items marked with an "A" require a separate permit. It is the applicants responsibility to apply for and obtain all City of Mercer Island permits.

INSPECTIONS: (Listed in order of typical sequencing) Pre-construction Meeting to Review Conditions of Permit Approval, Tree protection, Erosion control, Sewer disconnect and cap, Right-of-way use or work / easement, material delivery, etc., Land clearing, grading and demolition, Temporary power, Piling / Shoring / Shotcrete, Footings, setbacks, UFER ground, Foundation walls / concrete columns, Roof and footing drains, Foundation damproofing, Storm drainage, Connections to storm main in ROW, Detention systems, Infiltration systems, Catch basins including oil-water separator tees, Retaining wall drainage, Water Service, Water Supply, Water as-built drawings, Side sewer installation, Connections to side sewer main, Connections to existing side sewer, Driveway / Access road, Underslab electrical / mechanical / plumbing, Underslab insulation / vapor barrier / reinforcing, Underfloor framing, Nailing-Roof sheathing, Nailing-Exterior wall and Shearwall, Rough hydronic installation, Rough electric installation, Rough fire alarm (wiring inspection), Rough plumbing installation (DWV, water), Rough mechanical, Gas Piping, Rough fire sprinkler / hydrostatic and flow (bucket) test, Framing and glazing, Masonry construction (fireplace / walls / veneer / etc.), Insulation installation, Stucco (paper and lath), Shower pan (or tub), Miscellaneous, Code Alternative CA1, Code Alternative CA2, Impact Fees Paid (If applicable)

TO BE COMPLETED BY DSG

Final Inspection: Tree Restoration, Final Inspection: Fire protection, including (but not limited to): Sprinkler, Access Road, Fire Code Alternatives (see below), FCA1, FCA2, FCA3, FCA4, Final Inspection: Water supply protection, including (but not limited to) backflow devices for: Waterfront property, Fire / lawn sprinkler, Well water on property, Boiler, Final Inspection: Site and utility: includes landscape, utilities and ROW. Site restoration complete and as-built drawings ready for submittal. Final Inspection: Building, including electrical / mechanical / plumbing. If applicable, provide closeout (summary) letters from Engineer, Special Inspectors, Geotechnical Engineer, and exterior wall cladding inspectors (EIFS).

90 DAY TEMPORARY CERTIFICATE OF OCCUPANCY (TCO):

Applicant option. Additional fees will be required and must be approved prior to occupancy. TCO requires tree plantings be completed.

Approved, Start Date, End Date

ADDITIONAL REQUIRED CITY INSPECTIONS:

Call the appropriate contact to arrange the inspection. Required Inspection(s), Contact, Phone, Scheduling

Impact Fees: If applicable, Impact fees apply and are due prior to Final Inspection or on Date, whichever occurs first. PLAN REVIEW APPROVALS: Not all review disciplines may be required to review the documents. Building, Planning, Engineering, Tree, Fire

TO BE COMPLETED BY DSG



CERTIFICATE OF OCCUPANCY issued after all required inspections have been performed and approved.

PROJECT NAME: PROJECT ADDRESS:

APPROVED DRAWINGS MUST BE KEPT ON THE BUILDING SITE AT ALL TIMES REVIEWED FOR CODE COMPLIANCE

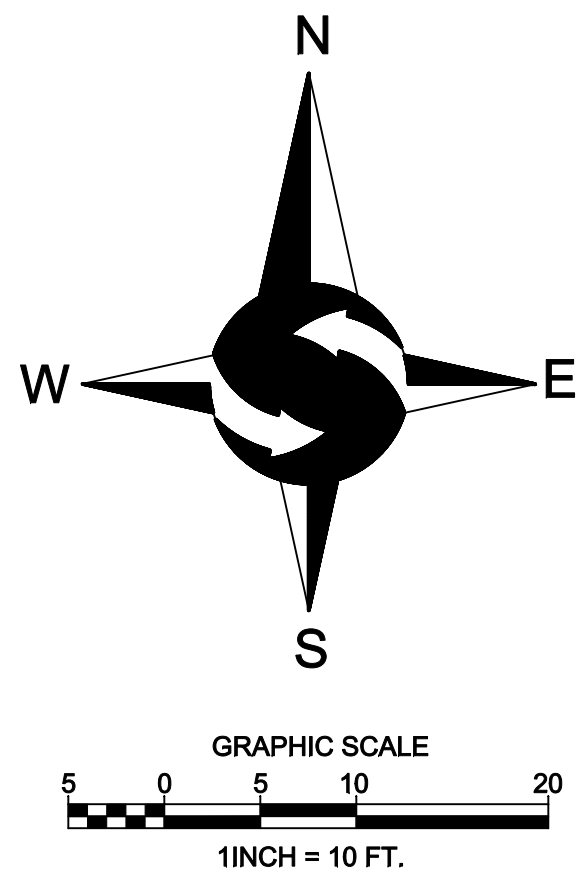
PERMIT NUMBER

Date

Approved

Date

Approved



LEGEND

- | | |
|---|--------------------------|
| ● FOUND MONUMENT AS DESCRIBED | —OHP— OVERHEAD POWER |
| ○ FOUND REBAR AS DESCRIBED | —OHU— OVERHEAD UTILITIES |
| ○ TACK IN LEAD FOUND | —X— CHAINLINK FENCE |
| ● SET 5/8" X 24" IRON ROD WITH YELLOW PLASTIC CAP | —□— WOOD FENCE |
| ⊠ POWER METER | ▨ CONCRETE WALL |
| ⊙ UTILITY POLE | ▭ ROCKERY |
| ⊙ GAS METER | ▭ ASPHALT SURFACE |
| ⊙ SANITARY SEWER CLEANOUT | ▭ CONCRETE SURFACE |
| ⊙ SANITARY SEWER MANHOLE | ▭ GRAVEL SURFACE |
| ⊙ WATER VALVE | CE CEDAR |
| ⊙ FIRE HYDRANT | DS DECIDUOUS |
| ⊙ WATER METER | SP SPRUCE |
| —SS— APPROXIMATE LOCATION SANITARY SEWER LINE | BI BIRCH |
| —SD— APPROXIMATE LOCATION STORM DRAIN LINE | PI PINE |
| | * INDICATES MULTI-TRUNK |

LEGAL DESCRIPTION

LOT 2, BLOCK 2, TIMBERLAND NO. 4, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 60 OF PLATS, PAGE 41, RECORDS OF KING COUNTY, WASHINGTON.
SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

THE PLAT OF TIMBERLAND NO. 4, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 60 OF PLATS, PAGE 41, RECORDS OF KING COUNTY, WASHINGTON.

PROJECT INFORMATION

SURVEYOR: SITE SURVEYING, INC.
21923 NE 11TH ST
SAMMAMISH, WA 98074
PHONE: 425.298.4412

PROPERTY OWNER: ROBERT WHEELER
9027 SE 60TH STREET
MERCER ISLAND, WA 98040

TAX PARCEL NUMBER: 865090-0030

PROJECT ADDRESS: 9027 SE 60TH STREET
MERCER ISLAND, WA 98040

ZONING: R-9.6

JURISDICTION: CITY OF MERCER ISLAND

PARCEL ACREAGE: 11,253 S.F. (± 0.258 ACRES)
AS SURVEYED

GENERAL NOTES

- THIS SURVEY WAS COMPLETED WITHOUT BENEFIT OF A CURRENT TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST ON THIS PROPERTY THAT ARE NOT SHOWN HEREON.
- INSTRUMENTATION FOR THIS SURVEY WAS A 3-SECOND SPECTRAPRECISION FOCUS 36 TOTAL STATION. PROCEDURES USED IN THIS SURVEY MEET OR EXCEED STANDARDS SET BY WAC 332-130-090.
- THE INFORMATION ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE IN DECEMBER 2019 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
- UTILITIES SHOWN ON THIS SURVEY ARE BASED UPON ABOVE GROUND OBSERVATIONS AND AS-BUILT PLANS WHERE AVAILABLE. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES MAY VARY AND UTILITIES NOT SHOWN ON THIS SURVEY MAY EXIST ON THIS SITE.
- ALL MONUMENTS WERE LOCATED DURING THIS SURVEY UNLESS OTHERWISE NOTED.

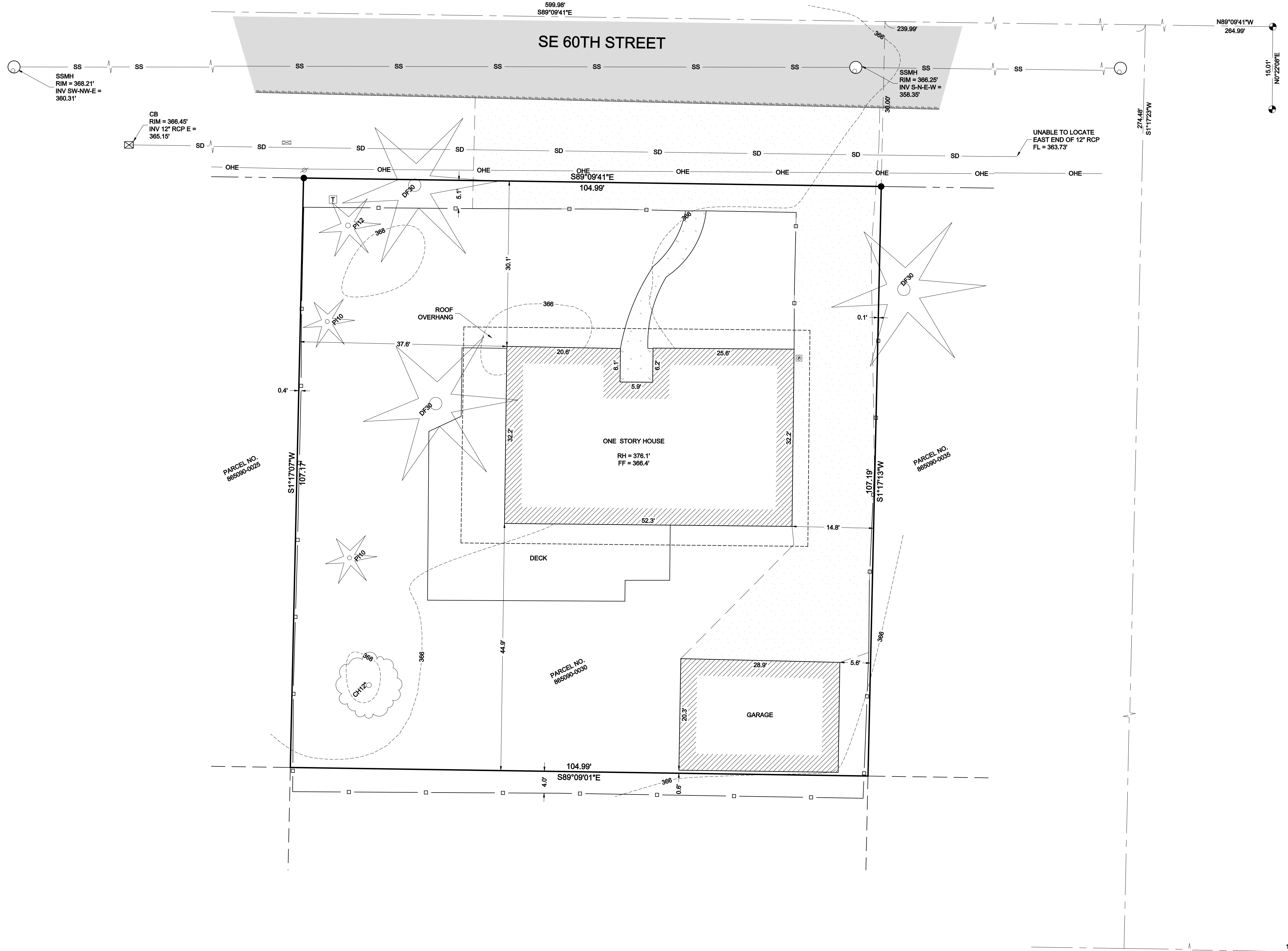
VERTICAL DATUM & CONTOUR INTERVAL

ELEVATIONS SHOWN ON THIS DRAWING WERE DERIVED FROM INFORMATION PROVIDED BY WCCS SURVEY CONTROL DATABASE.

THE MARK IS A MONUMENT IN CASE AT THE EAST END OF SE 60TH STREET, ± 150 FEET EAST OF THE INTERSECTION OF 92ND AVENUE SE.

POINT ID NO. MI-1063;
ELEVATION: 334.534 FEET - NAVD 88

2.0' CONTOUR INTERVAL - THE EXPECTED VERTICAL ACCURACY IS EQUAL TO 1/2 THE CONTOUR INTERVAL OR PLUS / MINUS 1.0' FOR THIS PROJECT.



SE 1/4, SW 1/4, SEC 19, TWP 24N, RNG 5E, W.M.



DATE	REVISION	DRN

TOPOGRAPHIC SURVEY
ROBERT WHEELER
9027 SE 60TH STREET
MERCER ISLAND, WA 98040

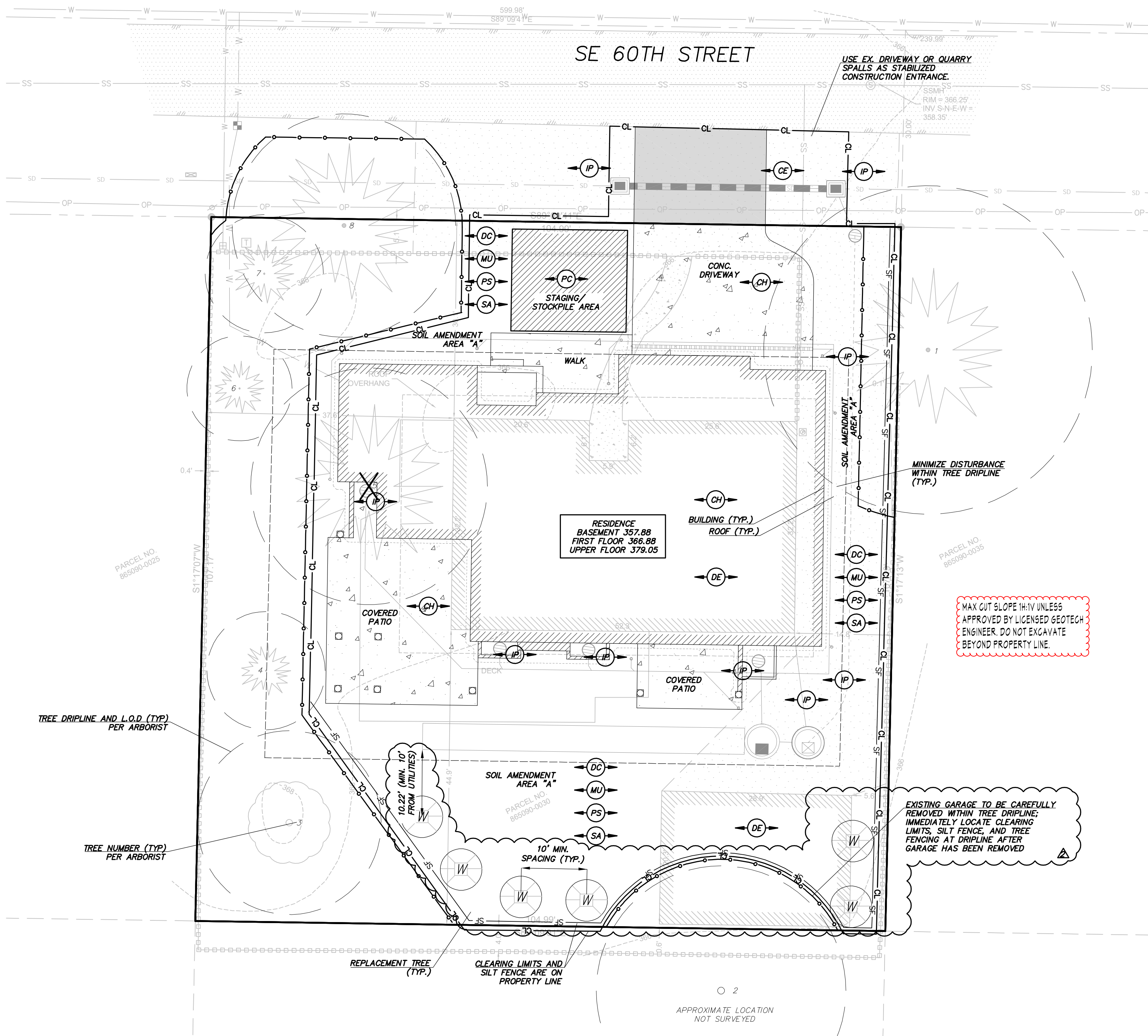


PROJECT NO. 19-497

DRAWN BY: EFJ
CHECKED BY: TNW
DATE: 12/5/19

SHEET 1 OF 1

SE 1/4, SW 1/4, SECTION 19, TOWNSHIP 24 N, RANGE 5 E, W.M.
TIMBERLAND RESIDENCE



- TESC LEGEND:**
 FOR ADDITIONAL TESC DETAILS REFER TO DOE 2012 SWMMWW
- CL CONSTRUCTION LIMITS, TO BE FLAGGED OR FENCED WHEN NO SILT FENCE IS PROPOSED (BMP C103)
 - SF SILT FENCE IS PROPOSED (BMP C233)
 - DE DEMO EXISTING IMPROVEMENTS
 - CE STABILIZED CONSTRUCTION ENTRANCE (BMP C105)
 - IP INLET PROTECTION (BMP C220)
 - DC DUST CONTROL (BMP C140)
 - MU MULCHING, MATTING, & COMPOST BLANKETS (BMP C121, BMP C125)
 - PS PERMANENT SEEDING AND PLANTING (BMP C120)
 - SA POST-CONSTRUCTION SOIL AMENDMENT QUALITY & DEPTH (BMP C120)
 - CH CONCRETE HANDLING (BMP C151)
 - PC PLASTIC COVERING (BMP C123)
 - Tree symbols: TREE TO BE REMOVED (circle with X), TREE TO BE SAVED, PROVIDE TREE PROTECTION FENCING (4-FOOT CHAIN LINK FENCE) (circle with dot)



VICINITY MAP
 1"=±500'

PROJECT DESCRIPTION:
 SITE ADDRESS: 9027 SE 60TH STREET
 MERCER ISLAND, WA 98040
 SITE AREA: 11,253 S.F. (0.258 AC)
 JURISDICTION: CITY OF MERCER ISLAND
 PROPERTY TAX NO: 865090-0030
 PROPOSED USE: SINGLE FAMILY RESIDENCE

PROJECT CONTACTS:
 OWNER: ROBERT WHEELER
 9027 SE 60TH STREET
 MERCER ISLAND, WA 98040

APPLICANT: THURMAN DEVELOPMENT GROUP, INC.
 2212 QUEEN ANNE AVE N. #273
 SEATTLE, WA 98109
 206.321.3129
 CONTACT: JOSHUA H. THURMAN

ARCHITECT: ANTONIO D'AMBROSIO
 3712 EAST MERCER WAY
 MERCER ISLAND, WA 98040
 206.232.6923

CIVIL ENGINEER: D.R. STRONG CONSULTING ENGINEERS, INC.
 620 7TH AVE NE
 KIRKLAND, WASHINGTON 98033
 425.827.3063
 CONTACT: YOSHIO L. PIEDISCALZI, P.E.
 YOSHIO.PIEDISCALZI@DRSTRONG.COM

SURVEYOR: SITE SURVEYING, INC.
 21923 NE 11TH STREET
 SAMMAMISH, WASHINGTON 98074
 425.298.4412
 CONTACT: THOMAS N. WOLDENDORP

GEOTECH ENGINEER: GEOTECH CONSULTANTS, INC.
 2401 10TH AVE EAST
 SEATTLE, WA 98102
 425.747.5618
 CONTACT: MARK R. MCGINNIS, P.E.

ARBORIST: EASTSIDE TREE WORKS
 206.396.9998
 CONTACT: RON PAQUETTE, CERTIFIED ARBORIST

DRAWING INDEX:
 C1 1 OF 4 COVER SHEET, CSWPPP/ CMP AND TREE PLAN
 C2 2 OF 4 CSWPPP NOTES & DETAILS
 C3 3 OF 4 DRAINAGE PLAN
 C4 4 OF 4 UTILITY NOTES & DETAILS

LEGAL DESCRIPTION: (BY SURVEYOR)
 LOT 2, BLOCK 2, TIMBERLAND NO. 4, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 60 OF PLATS, PAGE 41, RECORDS OF KING COUNTY, WASHINGTON;
 SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS: (BY SURVEYOR)
 THE PLAT OF TIMBERLAND NO. 4, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 60 OF PLATS, PAGE 41, RECORDS OF KING COUNTY, WASHINGTON.

- SURVEYOR'S NOTES:** (BY SURVEYOR)
- THIS SURVEY WAS COMPLETED WITHOUT BENEFIT OF A CURRENT TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST ON THIS PROPERTY THAT ARE NOT SHOWN HEREON.
 - INSTRUMENTATION FOR THIS SURVEY WAS A 3-SECOND SPECTRAPRECISION FOCUS 35 TOTAL STATION. PROCEDURES USED IN THIS SURVEY MEET OR EXCEED STANDARDS SET BY WAC 332-130-090.
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 - ALL MONUMENTS WERE LOCATED DURING THIS SURVEY UNLESS OTHERWISE NOTED.

VERTICAL DATUM AND CONTOUR: (BY SURVEYOR)
 ELEVATIONS SHOWN ON THIS DRAWING WERE DERIVED FROM INFORMATION PROVIDED BY WACS SURVEY CONTROL DATABASE.

THE MARK IS A MONUMENT IN CASE AT THE EAST END OF SE 60TH STREET, ± 150 FEET EAST OF THE INTERSECTION OF 92ND AVENUE SE.

POINT ID NO. MI-1063;
 ELEVATION: 334.534 FEET - NAVD 88

2.0' CONTOUR INTERVAL - THE EXPECTED VERTICAL ACCURACY IS EQUAL TO 1/2 THE CONTOUR INTERVAL OR PLUS / MINUS 1.0' FOR THIS PROJECT.

TREE INVENTORY/RETENTION REPORT: (BY ARBORIST)

Tree #	Species	Name	DBH (Over 24")	Height	Drip Line Radius	Condition	Exceptional Tree	L.O.D.	Retain Yes / No
1	Douglas Fir	Pseudotsuga menziesii	38"	100'	25'	Good	Yes	25'	Yes
2	Douglas Fir	Pseudotsuga menziesii	30" x 2	100'	19'	Good	Yes	19'	Yes
3	Cherry	Prunus avium	29"	30'	14'	Fair	Yes	14'	Yes
4	Pine	Pinus contorta	14"	45'	9'	Fair	No	9'	Yes
5	Douglas Fir	Pseudotsuga menziesii	32"	100'	18'	Good	Yes	18'	No
6	Pine	Pinus contorta	11"	45'	8'	Fair	No	8'	Yes
7	Pine	Pinus contorta	14"	45'	9'	Fair	No	9'	Yes
8	Douglas Fir	Pseudotsuga menziesii	34"	100'	17'	Good	Yes	17'	Yes

DBH in RED denotes trees over 24"

SITE VOLUME CALCULATIONS

CUT VOLUME (CU. YDS.)	FILL VOLUME (CU. YDS.)	NET VOLUME (CU. YDS.)
565	6	559 CUT

ALL VOLUMES ARE APPROXIMATE AND ARE PROVIDED FOR PERMITTING PURPOSES AND REPRESENT FINISH GRADE TO EXISTING GRADE AS SHOWN. CONTRACTOR SHALL RELY ON HIS/HER OWN ESTIMATES FOR DETERMINING ACTUAL EARTHWORK QUANTITIES. THE VOLUMES DO NOT INCLUDE STRIPPING, STRUCTURAL EXCAVATION, EXPANSION/COMPACTION FACTOR OR ANY SOIL TYPE RESTRICTIONS.

GRADING NOTE:
 TOTAL AREA TO BE DISTURBED ON-SITE.....8,572 S.F.
 TOTAL AREA TO BE DISTURBED OFF-SITE..... 450 S.F.
 TOTAL AREA TO BE DISTURBED FOR PROJECT.....9,020 S.F.
 FILL SHALL CONSIST OF SUITABLE MATERIAL ORIGINATING FROM THE SITE OR FROM AN APPROVED SUPPLIER.

GENERAL EROSION CONTROL NOTES:
 ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WILL BE PROTECTED WITH HIGH VISIBILITY CONSTRUCTION FENCING.
 AT THE COMPLETION OF THE PROJECT ALL DISTURBED AREAS WILL BE STABILIZED WITH COMPOST AMENDED SOILS AND HYDROSEEDING OR SOD.

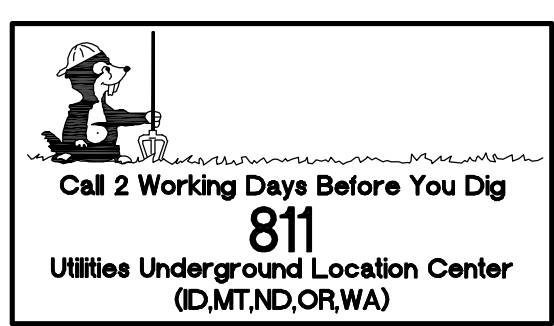
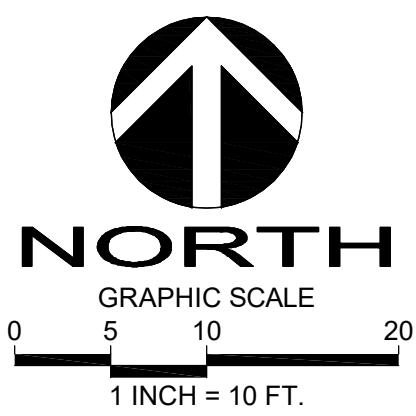
SOIL AMENDMENT NOTE:
 AREA "A": STOCKPILE SITE DUFF AND TOPSOIL FOR ALL DISTURBED PERVIOUS AREAS AND REAPPLY WITH SOIL AMENDMENT AFTER GRADING AND CONSTRUCTION. MINIMUM SCARIFICATION DEPTH 8-INCHES. PROVIDE A TOTAL OF 24 C.Y. OF AMENDMENT OVER AN AREA OF 4,298 S.F.

ON-SITE SOILS:
 THE ENTIRE SITE CONTAINS ARENTS, ALDERWOOD MATERIAL (AmB) SOILS PER THE NRCS SOIL MAP

P.E. CERTIFICATION FOR SECTION B:
 I HEREBY STATE THAT THIS CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN FOR 9027 SE 60TH STREET HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND MEETS THE STANDARD OF CARE AND EXPERTISE WHICH IS USUAL AND CUSTOMARY IN THIS COMMUNITY FOR PROFESSIONAL ENGINEERS. I UNDERSTAND THAT THE CITY OF MERCER ISLAND DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE SUFFICIENCY, SUITABILITY, OR PERFORMANCE OF CONSTRUCTION SWPPP BMP'S PREPARED BY ME.

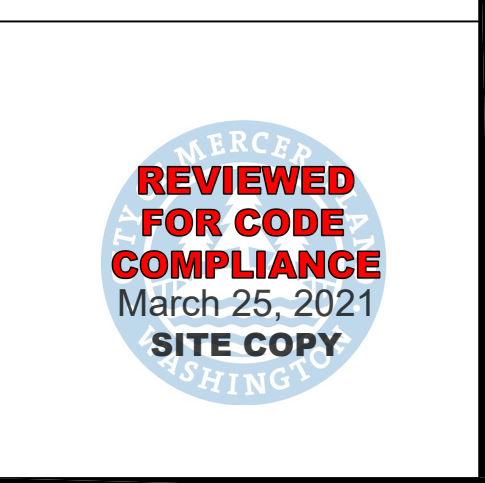
TREE REPLACEMENT NOTE:
 PER CITY OF MERCER ISLAND TREE REPLACEMENT STANDARDS, ANY EXCEPTIONAL TREE THAT IS TO BE REMOVED SHALL REQUIRE 6 REPLACEMENT TREES. TREE 5 IS THE ONLY TREE BEING REMOVED AS A PART OF THIS PROJECT, AND IS CONSIDERED AN EXCEPTIONAL TREE PER THE UPDATED ARBORIST REPORT. THIS REMOVED TREE WILL BE REPLACED WITH 6 TREES THAT WILL MEET THE MERCER ISLAND STANDARDS FOR TREE REPLACEMENT. THE LOCATION OF THESE REPLACEMENT TREES ARE SHOWN ON THIS SHEET. THE TREES SHALL BE WESTERN RED CEDAR TREES.

- CONSTRUCTION SEQUENCE**
- ARRANGE AND ATTEND A PRE-CONSTRUCTION MEETING WITH THE CITY INSPECTOR.
 - FLAG OR FENCE CLEARING LIMITS.
 - CALL ONE-CALL UTILITY LOCATE SERVICE PRIOR TO ANY EXCAVATION WORK.
 - GRADE ACCESS ROAD & CONSTRUCT/INSTALL ROCK CONSTRUCTION ENTRANCE IF NECESSARY.
 - INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
 - INSTALL SHORING WALL.
 - CONSTRUCT RESIDENCE AND OTHER SITE IMPROVEMENTS.
 - MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OR COUNTY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
 - MAINTAIN ACCESS TO OFF-SITE ROADS AND DRIVEWAYS AT ALL TIMES DURING THE DURATION OF THE PROJECT.
 - RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY TESC MINIMUM REQUIREMENTS.
 - COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING OR EQUIVALENT.
 - STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
 - SEED OR SOD ANY AREAS THAT REMAIN UNWORKED FOR MORE THAN 30 DAYS.
 - UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BMP'S REMOVED IF APPROPRIATE AFTER ACCEPTANCE BY INSPECTOR.



TIMBERLAND RESIDENCE
 COVER SHEET, C.S.W.P.P. PLAN & TREE PLAN
 9027 SE 60TH STREET
 MERCER ISLAND, WA 98040
 PARCEL NO. 865090-0030

THURMAN DEVELOPMENT GROUP, INC.
 2212 QUEEN ANNE AVENUE N. # 273
 SEATTLE, WA 98109
 206.321.3129



DATE	REVISION	BY	FOR
APR 02, 2020	YLP	YLP	
APR 02, 2020	REVISION	YLP	
APR 02, 2020	CITY COMMENTS	YLP	
APR 02, 2021	CITY COMMENTS	YLP	

DRAFTED BY: PFC
 DESIGNED BY: DLR
 PROJECT ENGINEER: YLP
 DATE: 1/21/20
 PROJECT NO.: 19106

DRAWING: C1
 SHEET: 1 OF 4

SE 1/4, SW 1/4, SECTION 19, TOWNSHIP 24 N, RANGE 5 E, W.M.
TIMBERLAND RESIDENCE

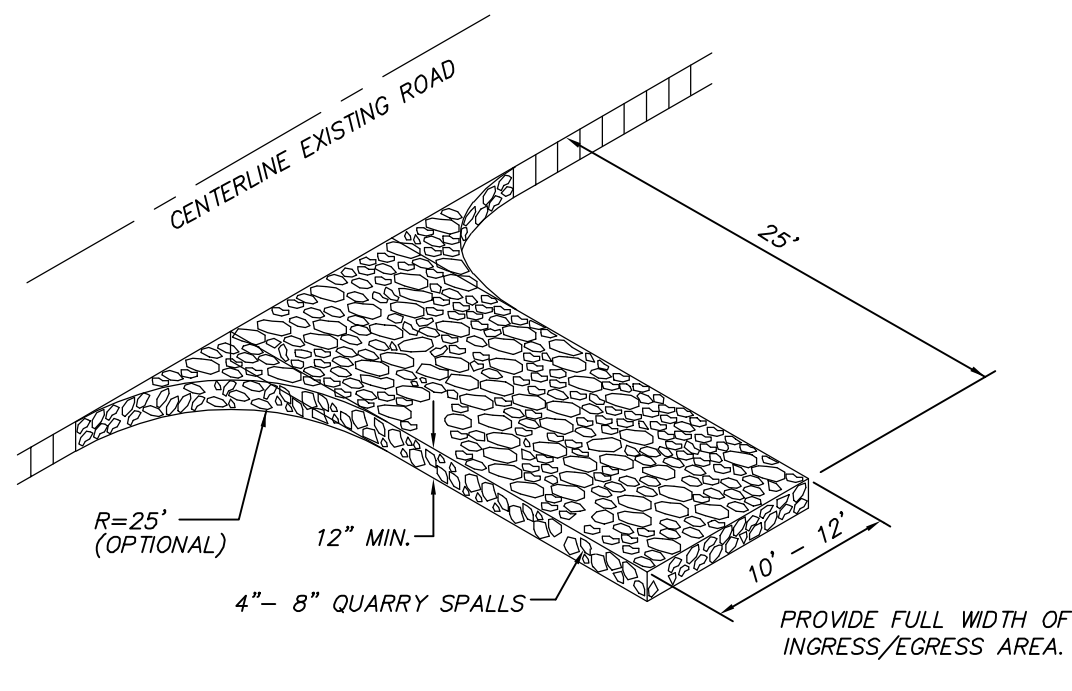


TIMBERLAND RESIDENCE

C.S.W.P.P. NOTES & DETAILS
 9027 SE 60TH STREET
 MERCER ISLAND, WA 98040
 PARCEL NO. 865090-0030

THURMAN DEVELOPMENT GROUP, INC.

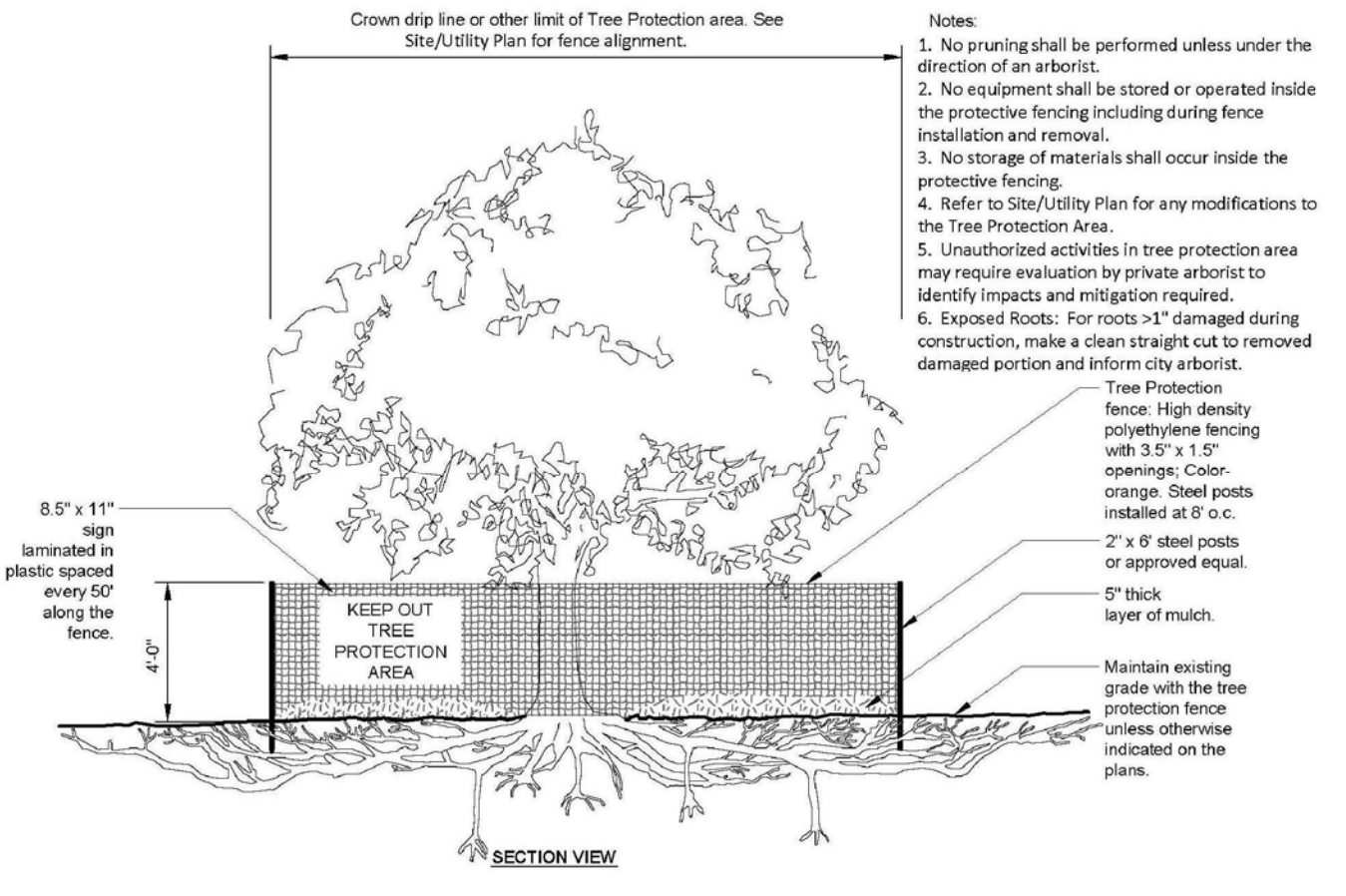
2212 QUEEN ANNE AVENUE N, # 273
 SEATTLE, WA 98109
 206.321.3129



DRIVEWAYS SHALL BE PAVED TO THE EDGE OF R-O-W PRIOR TO INSTALLATION OF THE CONSTRUCTION ENTRANCE TO AVOID DAMAGING OF THE ROADWAY
 IT IS RECOMMENDED THAT THE ENTRANCE BE CROWNED SO THAT RUNOFF DRAINS OFF THE PAD

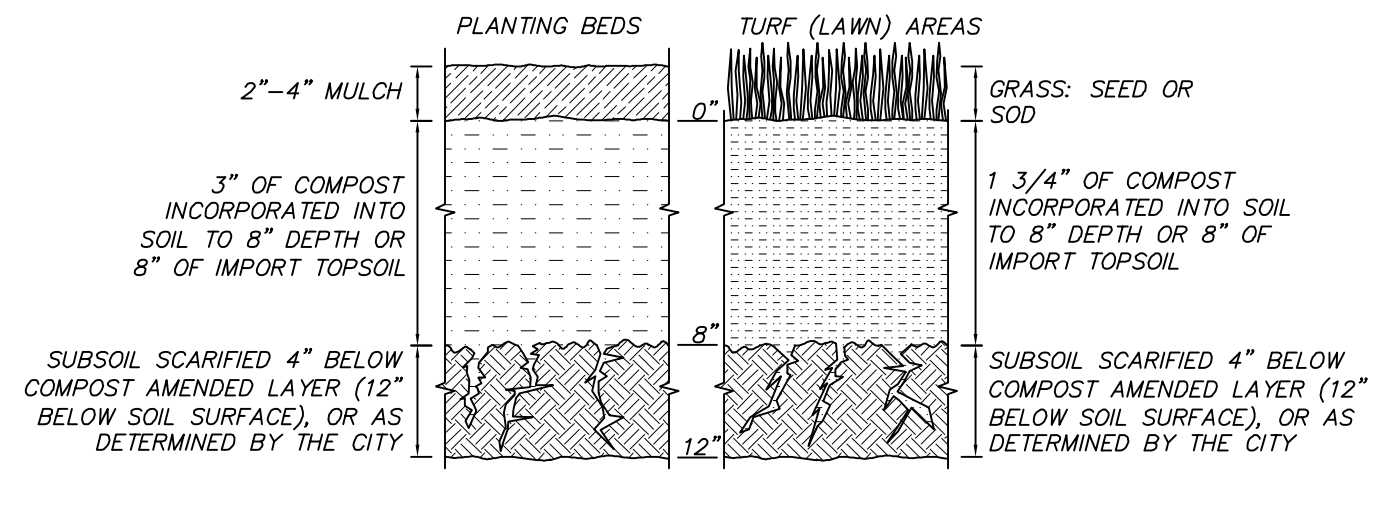
GRAVEL CONSTRUCTION ENTRANCE

NTS



TREE PROTECTION FENCING

NTS



SOIL AMENDMENT

NTS

SOIL AMENDMENT NOTES

*SOIL RETENTION: RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE, IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.

*SOIL QUALITY: ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:

1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHALL BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
2. MULCH PLANTING BEDS WITH 2-4 INCHES OF ORGANIC MATERIAL.
3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
 - A. THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIFICATION FOR BIOTENTION (BMP 17.30), WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
 - B. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE, OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173-330-220. THE RESULTING SOIL SHOULD BE CONGRUOUS TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

*IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:

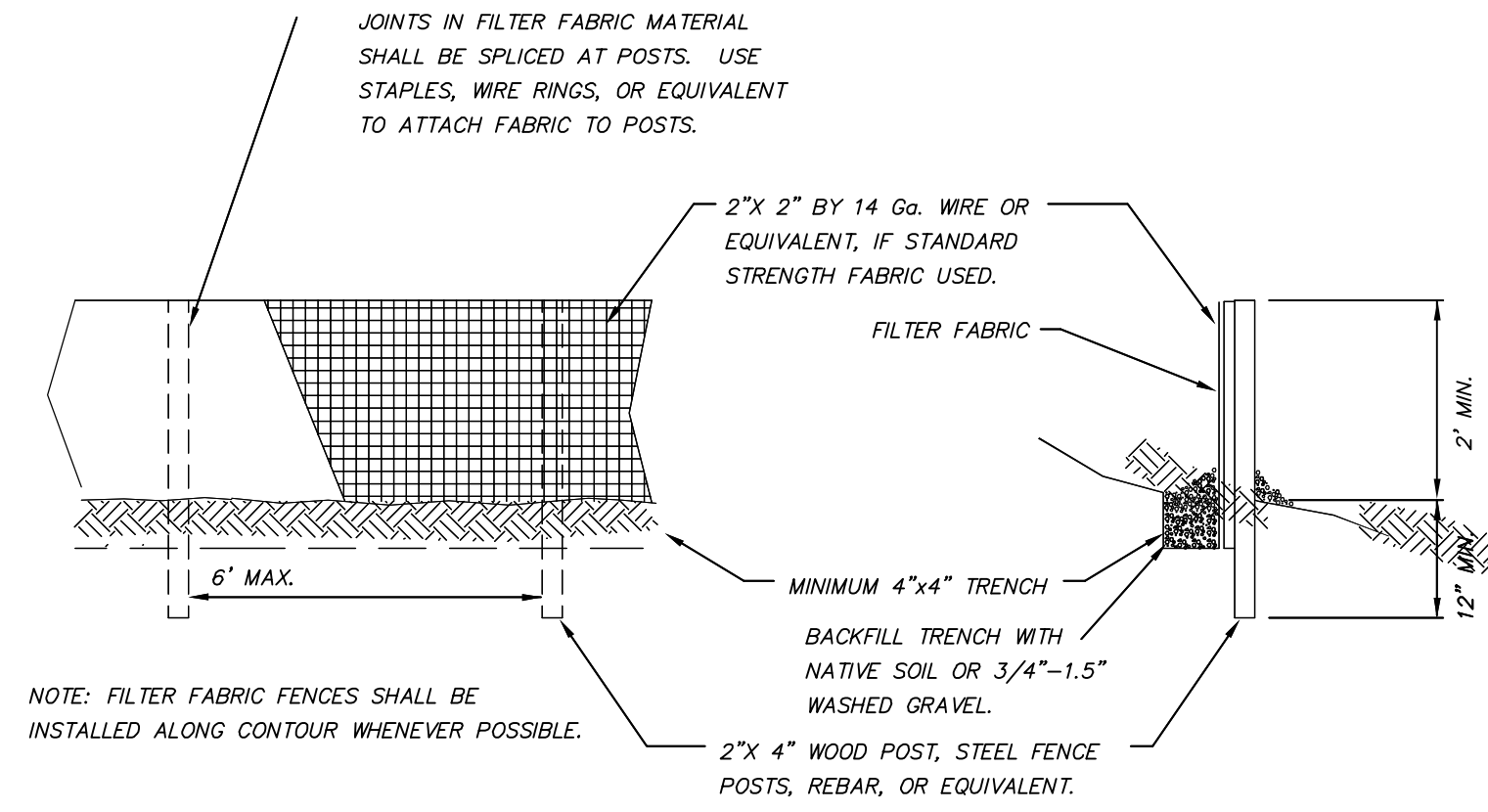
1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE-APPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
3. STOCKPILE EXISTING TOPSOIL DURING GRADING, AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.

MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

MAINTENANCE:
 *ESTABLISH SOIL QUALITY AND DEPTH TOWARD THE END OF CONSTRUCTION AND ONCE ESTABLISHED, PROTECT FROM COMPACTION, SUCH AS FROM LARGE MACHINERY USE, AND FROM EROSION.
 *PLANT VEGETATION AND MULCH THE AMENDED SOIL AREA AFTER INSTALLATION.
 *LEAVE PLANT DEBRIS OR ITS EQUIVALENT ON THE SOIL SURFACE TO REPLENISH ORGANIC MATTER.
 *REDUCE AND ADJUST, WHERE POSSIBLE, THE USE OF IRRIGATION, FERTILIZERS, HERBICIDES AND PESTICIDES, RATHER THAN CONTINUING TO IMPLEMENT FORMERLY ESTABLISHED PRACTICES.

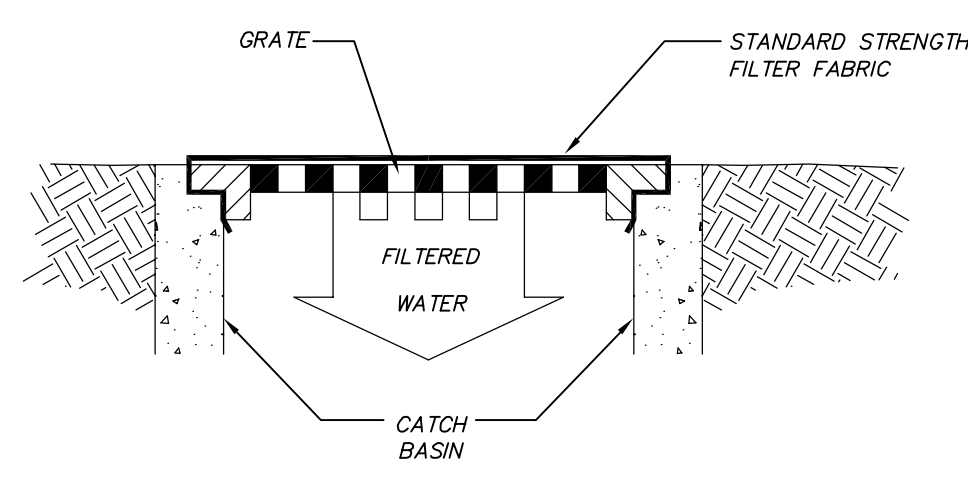
EROSION AND SEDIMENT CONTROL NOTES:

1. APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY A CONTINUOUS LENGTH OF SURVEY TAPE (OR FENCING, IF REQUIRED) PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
4. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
5. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE TESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
7. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G. SEEDING, MULCHING, PLASTIC COVERING, ETC.).
8. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
9. ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH-VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WILL BE PROTECTED WITH HIGH-VISIBILITY CONSTRUCTION FENCING.
10. ALL SOIL STOCKPILES TO BE COVERED WITH PLASTIC SHEETING UNTIL SUCH TIME THAT THE SOIL IS EITHER USED OR REMOVED. PILES SHOULD BE SITUATED AND LOCATED SUCH THAT SEDIMENT DOES NOT RUN INTO THE STREET OR ONTO ADJOINING PROPERTIES.
11. ALL EXPOSED SOIL AREAS SHALL BE COVERED OR PROTECTED USING AN APPROPRIATE BMP. STABILIZED DENuded AREAS OF THE SITE BY MULCHING, SEEDING, PLANTING, OR SODDING.
12. ALL ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY APPROPRIATE USE OF VEGETATION BUFFER STRIPS, SEDIMENT BARRIERS, OR FILTERS, DIKES, MULCHING, OR BY A COMBINATION OF THESE MEASURES AND OTHER APPROPRIATE BMP'S.
13. PROVIDE FOR PERIODIC STREET CLEANING TO REMOVE ANY SEDIMENT THAT MAY HAVE BEEN TRACKED OFF-SITE. SEDIMENT SHOULD BE REMOVED BY SHOVELING OR SWEEPING AND CAREFULLY REMOVED TO A SUITABLE DISPOSAL AREA WHERE IT WILL NOT BE RE-ERODED.
14. ALL INSTALLED EROSION AND SEDIMENT CONTROL BMP'S SHALL BE INSPECTED REGULARLY BY THE GENERAL CONTRACTOR ESPECIALLY AFTER ANY LARGE STORM. MAINTENANCE, INCLUDING REMOVAL AND PROPER DISPOSAL OF SEDIMENT SHOULD BE A NECESSARY TO INSURE THAT SEDIMENT AND EROSION IS CONTROLLED ON SITE.



SILT FENCE DETAIL

NTS



NOTE: ONLY TO BE USED WHERE PONDING OF WATER ABOVE THE CATCH BASIN WILL NOT CAUSE TRAFFIC PROBLEMS AND WHERE OVERFLOW WILL NOT RESULT IN EROSION OF SLOPES.

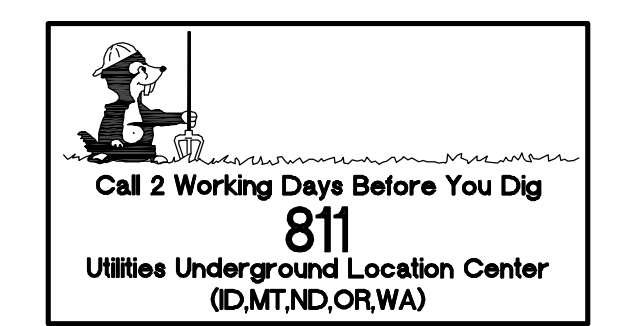
CATCH BASIN INLET FILTER

NTS

CATCH BASIN INSERT MAINTENANCE STANDARDS

1. ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC PROTECTION SHALL BE REMOVED IMMEDIATELY. SEDIMENT SHALL NOT BE REMOVED WITH WATER, AND ALL SEDIMENT MUST BE DISPOSED OF AS FILL ON SITE OR HAULED OFF-SITE.
2. ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN THE SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE. THE FILTER MEDIA FOR THE INSERT SHALL BE CLEANED OR REPLACED AT LEAST MONTHLY.
3. REGULAR MAINTENANCE IS CRITICAL FOR BOTH FORMS OF CATCH BASINS PROTECTION. UNLIKE MANY FORMS OF PROTECTION THAT FAIL GRADUALLY, CATCH BASIN PROTECTION WILL FAIL SUDDENLY AND COMPLETELY IF NOT MAINTAINED PROPERLY.

NO REVISIONS THIS SHEET



DATE	REVISION	BY
APR 02, 2020	YLP	YLP
02.26.20	CITY COMMENTS	01.28.20
02.23.21	CITY COMMENTS	

DRAFTED BY: PFC
 DESIGNED BY: DLR
 PROJECT ENGINEER: YLP
 DATE: 1/21/20
 PROJECT NO.: 19106

DRAWING: C2
 SHEET: 2 OF 4

TIMBERLAND RESIDENCE



TIMBERLAND RESIDENCE
DRAINAGE PLAN
9027 SE 60TH STREET
MERCER ISLAND, WA 98040
PARCEL NO. 865090-0030

THURMAN DEVELOPMENT GROUP, INC.
2212 QUEEN ANNE AVENUE N. # 273
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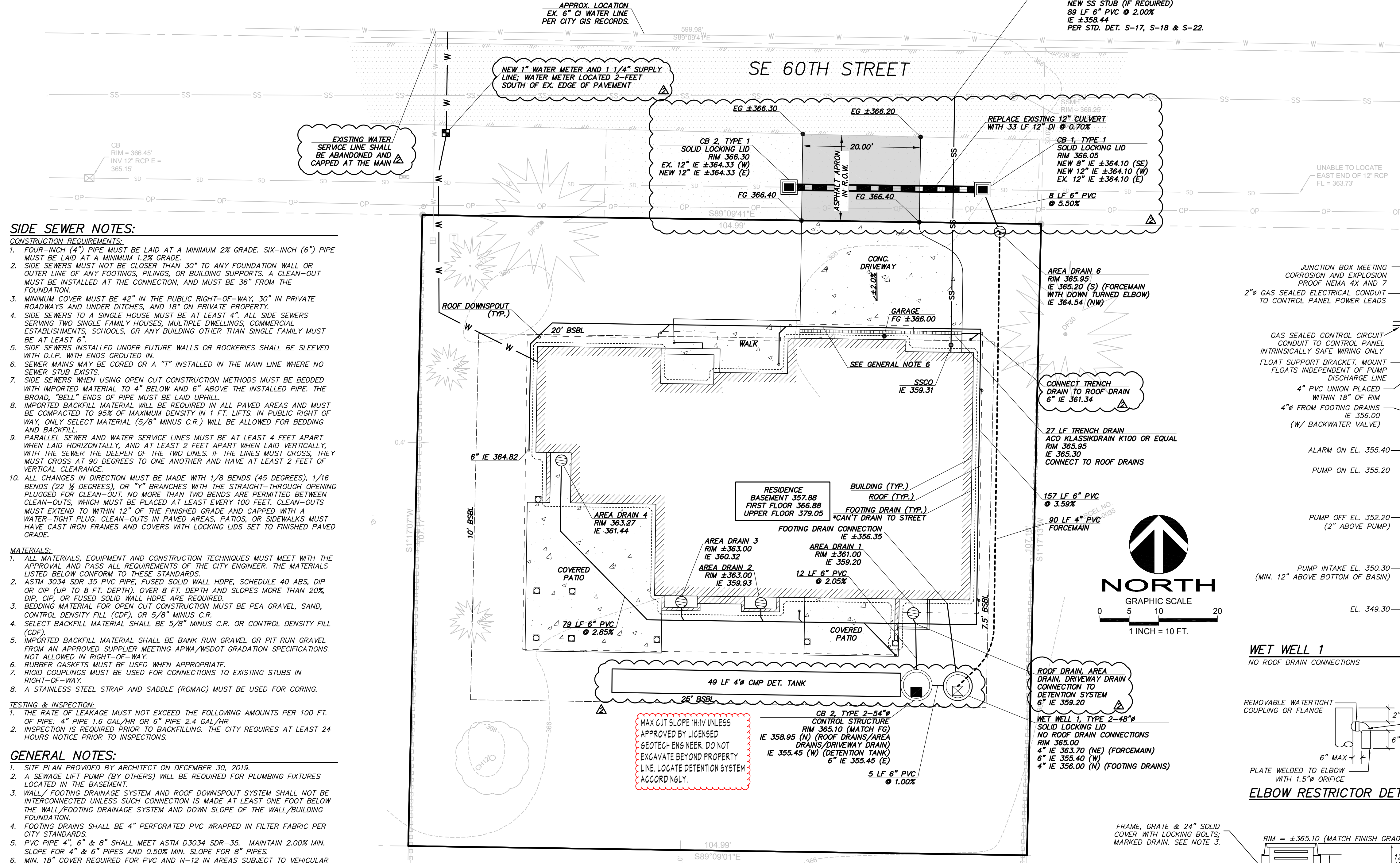


REVIEWED FOR CODE COMPLIANCE
March 25, 2021
SITE COPY

DATE	REVISION	CITY COMMENTS	CITY COMMENTS
APR 02, 2020	YLP	01.28.20	
APR 02, 2021	YLP	02.23.21	

DRAFTED BY: PFC
DESIGNED BY: DLR
PROJECT ENGINEER: YLP
DATE: 1/21/20
PROJECT NO.: 19106

DRAWING: **C3**
SHEET: **3** OF **4**



SIDE SEWER NOTES:

- CONSTRUCTION REQUIREMENTS:**
- FOUR-INCH (4") PIPE MUST BE LAID AT A MINIMUM 2% GRADE. SIX-INCH (6") PIPE MUST BE LAID AT A MINIMUM 1.2% GRADE.
 - SIDE SEWERS MUST NOT BE CLOSER THAN 30" TO ANY FOUNDATION WALL OR OUTER LINE OF ANY FOOTINGS, PILINGS, OR BUILDING SUPPORTS. A CLEAN-OUT MUST BE INSTALLED AT THE CONNECTION, AND MUST BE 36" FROM THE FOUNDATION.
 - MINIMUM COVER MUST BE 42" IN THE PUBLIC RIGHT-OF-WAY, 30" IN PRIVATE ROADWAYS AND UNDER DITCHES, AND 18" ON PRIVATE PROPERTY.
 - SIDE SEWERS TO A SINGLE HOUSE MUST BE AT LEAST 4". ALL SIDE SEWERS SERVING TWO SINGLE FAMILY HOUSES, MULTIPLE DWELLINGS, COMMERCIAL ESTABLISHMENTS, SCHOOLS, OR ANY BUILDING OTHER THAN SINGLE FAMILY MUST BE AT LEAST 6".
 - SIDE SEWERS INSTALLED UNDER FUTURE WALLS OR ROCKERIES SHALL BE SLEEVED WITH D.I.P. WITH ENDS CAPPED IN PLACE.
 - SEWER MAINS MAY BE CORED OR A "T" INSTALLED IN THE MAIN LINE WHERE NO SEWER STUB EXISTS.
 - SIDE SEWERS WHEN USING OPEN CUT CONSTRUCTION METHODS MUST BE BEDDED WITH IMPORTED MATERIAL TO 4" BELOW AND 6" ABOVE THE INSTALLED PIPE. THE BROAD, "BELL" ENDS OF PIPE MUST BE LAID UP HILL.
 - IMPORTED BACKFILL MATERIAL WILL BE REQUIRED IN ALL PAVED AREAS AND MUST BE COMPACTED TO 95% OF MAXIMUM DENSITY IN 1 FT. LIFTS. IN PUBLIC RIGHT OF WAY, ONLY SELECT MATERIAL (5/8" MINUS C.R.) WILL BE ALLOWED FOR BEDDING AND BACKFILL.
 - PARALLEL SEWER AND WATER SERVICE LINES MUST BE AT LEAST 4 FEET APART WHEN LAID HORIZONTALLY, AND AT LEAST 2 FEET APART WHEN LAID VERTICALLY. WITH THE SEWER THE DEEPER OF THE TWO LINES, IF THE LINES MUST CROSS, THEY MUST CROSS AT 90 DEGREES TO ONE ANOTHER AND HAVE AT LEAST 2 FEET OF VERTICAL CLEARANCE.
 - ALL CHANGES IN DIRECTION MUST BE MADE WITH 1/8 BENDS (45 DEGREES), 1/16 BENDS (22 1/2 DEGREES), OR "Y" BRANCHES WITH THE STRAIGHT-THROUGH OPENING PLUGGED FOR CLEAN-OUT. NO MORE THAN TWO BENDS ARE PERMITTED BETWEEN CLEAN-OUTS, WHICH MUST BE PLACED AT LEAST EVERY 100 FEET. CLEAN-OUTS MUST EXTEND TO WITHIN 12" OF THE FINISHED GRADE AND CAPPED WITH A WATER-TIGHT PLUG. CLEAN-OUTS IN PAVED AREAS, PATIOS, OR SIDEWALKS MUST HAVE CAST IRON FRAMES AND COVERS WITH LOCKING LIDS SET TO FINISHED GRADE.

- MATERIALS:**
- ALL MATERIALS, EQUIPMENT AND CONSTRUCTION TECHNIQUES MUST MEET WITH THE APPROVAL LIFT PUMP (BY OTHERS) WILL BE REQUIRED FOR PLUMBING FIXTURES LOCATED IN THE BASEMENT.
 - ASTM 3034 SDR 35 PVC PIPE, FUSED SOLID WALL HDPE, SCHEDULE 40 ABS, DIP OR OIP (UP TO 8 FT. DEPTH), OVER 8 FT. DEPTH AND SLOPES MORE THAN 20% DIP, OIP, OR FUSED SOLID WALL HDPE ARE REQUIRED.
 - BEDDING MATERIAL FOR OPEN CUT CONSTRUCTION MUST BE PEA GRAVEL, SAND, CONTROL DENSITY FILL (CDF), OR 5/8" MINUS C.R.
 - SELECT BACKFILL MATERIAL SHALL BE 5/8" MINUS C.R. OR CONTROL DENSITY FILL (CDF).
 - IMPORTED BACKFILL MATERIAL SHALL BE BANK RUN GRAVEL OR PIT RUN GRAVEL FROM AN APPROVED SUPPLIER MEETING APWA/WSDOT GRADATION SPECIFICATIONS. NOT ALLOWED IN RIGHT-OF-WAY.
 - RUBBER GASKETS MUST BE USED WHEN APPROPRIATE.
 - RIGID COUPLINGS MUST BE USED FOR CONNECTIONS TO EXISTING STUBS IN RIGHT-OF-WAY.
 - A STAINLESS STEEL STRAP AND SADDLE (ROMAC) MUST BE USED FOR CORING.

- TESTING & INSPECTION:**
- THE RATE OF LEAKAGE MUST NOT EXCEED THE FOLLOWING AMOUNTS PER 100 FT. OF PIPE: 4" PIPE GAL/AIR OR 6" PIPE 2 GAL/AIR
 - INSPECTION IS REQUIRED PRIOR TO BACKFILLING. THE CITY REQUIRES AT LEAST 24 HOURS NOTICE PRIOR TO INSPECTIONS.

GENERAL NOTES:

- SITE PLAN PROVIDED BY ARCHITECT ON DECEMBER 30, 2019.
- A SEWAGE LIFT PUMP (BY OTHERS) WILL BE REQUIRED FOR PLUMBING FIXTURES LOCATED IN THE BASEMENT.
- WALL/ FOOTING DRAINAGE SYSTEM AND ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED UNLESS SUCH CONNECTION IS MADE AT LEAST ONE FOOT BELOW THE WALL/FOOTING DRAINAGE SYSTEM AND DOWN SLOPE OF THE WALL/BUILDING FOUNDATION.
- FOOTING DRAINS SHALL BE 4" PERFORATED PVC WRAPPED IN FILTER FABRIC PER CITY STANDARDS.
- PVC PIPE 4", 6" & 8" SHALL MEET ASTM D3034 SDR-35. MAINTAIN 2.00% MIN. SLOPE FOR 4" & 6" PIPES AND 0.50% MIN. SLOPE FOR 8" PIPES.
- MIN. 18" COVER REQUIRED FOR PVC AND N-12 IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR USE DI PIPE.
- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES SHOWN, OR NOT SHOWN IN THEIR PROPER LOCATION.
- CONTRACTOR SHALL POT-HOLE LOCATION OF EXISTING UTILITIES TO BE RECONNECTED PRIOR TO BEGINNING CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS.
- CONTRACTOR TO VERIFY CONDITION AND GOOD WORKING ORDER OF ALL EXISTING UTILITIES TO BE RECONNECTED OR RE-USED PRIOR TO START OF CONSTRUCTION. 10. ALWAYS CALL 811 TWO WORKING DAYS BEFORE YOU DIG.

RESTRICTOR CATCH BASIN NOTES:

- USE A MINIMUM OF A 72 IN. DIAM. TYPE 2 CATCH BASIN WHEN CONNECTING PIPE MATERIAL IS CONCRETE OR LCP. A 54 IN. DIAM. TYPE 2 CATCH BASIN MAY BE USED FOR OTHER CIRCULAR SINGLE WALL PIPE (SUCH AS CORRUGATED ALUMINUM PIPE).
- OUTLET PIPE: MIN. 6 INCH.
- METAL PARTS: CORROSION RESISTANT NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1.
- FRAME AND LADDER OR STEPS OFFSET 50.
- CLEANOUT GATE IS VISIBLE FROM TOP.
- CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
- FRAME IS CLEAR OF CURB.
- IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4 IN.
- PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH 5/8 IN. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO CATCH BASIN WALL (MAXIMUM 3"-0" VERTICAL SPACING).
- THE SHEAR GATE SHALL BE MADE OF ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275. DESIGNATION 2032A; OR CAST IRON IN ACCORDANCE WITH ASTM A 48 CLASS 30B. THE LIFT HANDLE SHALL BE MADE OF SIMILAR METAL TO THE GATE (TO PREVENT GALVANIC CORROSION). IT MAY BE SOLID ROD OR HOLLOW TUBING, WITH ADJUSTABLE HOOK AS REQUIRED. A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANGE AND THE GATE FLANGE. INSTALL THE GATE SO THAT THE LEVEL-LINE MARK IS LEVEL WHEN THE GATE IS CLOSED. THE MATING SURFACES OF THE LID AND THE BODY SHALL BE MACHINED FOR PROPER FIT. ALL SHEAR GATE BOLTS SHALL BE STAINLESS STEEL.
- THE UPPER CATCH BASIN IS REQUIRED IF THE LENGTH OF THE DETENTION PIPE IS GREATER THAN 30 FEET.

PUMP SYSTEM OPERATION AND MAINTENANCE:

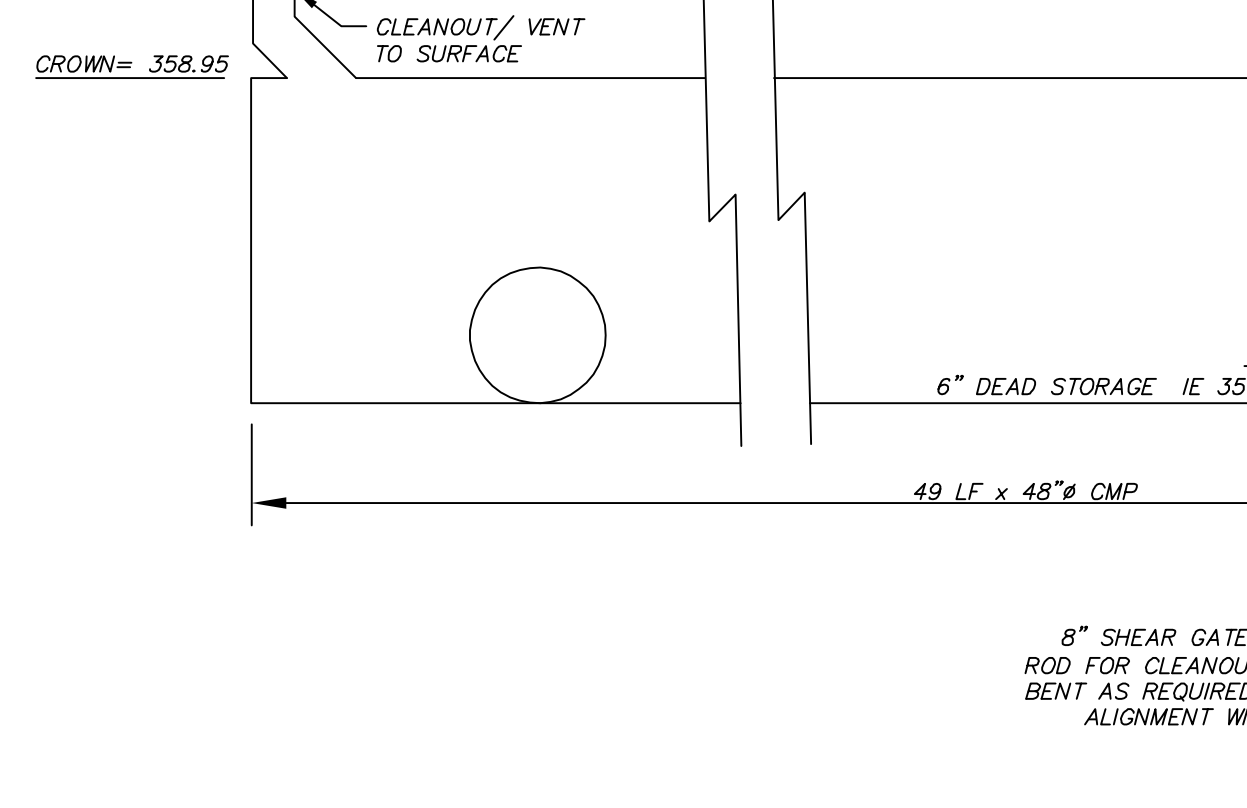
SYSTEM OPERATION:
IN A PUMP-TO-GRAVITY STORMWATER SYSTEM, A PUMP IS USED TO CONVEY STORMWATER COLLECTED IN A PUMP CHAMBER (WET WELL) TO THE APPROVED DISCHARGE LOCATION. THE WET WELL CONTAINS A PUMP OPERATING IN AN "ON-DEMAND" CONFIGURATION. THIS SYSTEM CONTAINS MINIMAL EMERGENCY STORAGE IN THE EVENT OF A SYSTEM FAILURE. A 1.5-INCH DIAMETER FORCE MAIN FROM THE WET WELL DISCHARGES TO A YARD DRAIN LOCATED NEAR THE SOUTHEASTERN CORNER OF THE BUILDING. THE DISCHARGE PIPE IN THE YARD DRAIN INCLUDES A DOWN ELBOW TO PROVIDE ENERGY DISSIPATION.

CONTROLS FOR THE PUMP INCLUDE: PUMP ON; PUMP OFF; AND HIGH WATER LEVEL ALARM. WHEN STORMWATER IN THE WET WELL RISES TO THE LEVEL OF THE "ON" FLOAT SETTING, THE PUMP IS ACTIVATED AND PUMPS THE LEVEL OF THE STORMWATER DOWN UNTIL IT REACHES THE "OFF" FLOAT SETTING. IF THE WATER LEVEL EXCEEDS THE "ALARM" LEVEL, A RED LIGHT AND AN AUDIBLE BUZZER WILL TURN ON AT THE CONTROL PANEL. PRESSING THE "SILENCE" BUTTON ON THE CONTROL PANEL WILL ONLY SILENCE THE AUDIBLE ALARM AND IS NOT A SOLUTION TO THE ALARM CONDITION. THE ALARM LIGHT WILL REMAIN LIT UNTIL THE ALARM CONDITION HAS BEEN RESOLVED. WE RECOMMEND THAT THE CONTROL PANEL BE EQUIPPED FOR REMOTE MONITORING BY A PRIVATE O&M FIRM TO ENSURE RESOLUTION OF ALARM CONDITIONS IN A TIMELY MANNER. CODE REQUIRES THAT THE PUMP AND ALARM BE ON DIFFERENT CIRCUITS SO THAT IF THE PUMP BREAKER TRIPS, THE ALARM CAN STILL OPERATE.

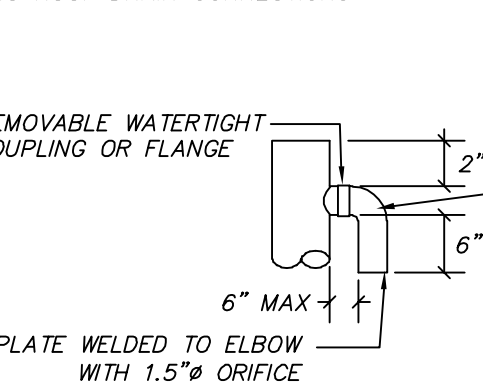
RECOMMENDED MAINTENANCE:
THE PUMP SHOULD BE SUBMERGED DURING NORMAL OPERATION BECAUSE HEAT GENERATED BY THE PUMP IS DISSIPATED IN THE SURROUNDING WATER. OTHERWISE, THE PUMP COULD BURN OUT IF ALLOWED TO OPERATE IN A NON-SUBMERGED CONDITION. CHECK TO SEE THAT THE FLOAT SWITCHES ARE CLEAN AND FREE IN THEIR MOVEMENTS, AND TEST THE HIGH ALARM FLOAT BY LIFTING IT, OR BY PUSHING DOWN ON THE LOW ALARM FLOAT (IF PRESENT). IF THE ALARM DOES NOT SOUND AND THE CIRCUIT BREAKER IS NOT TRIPPED, CONTACT A QUALIFIED ELECTRICIAN FOR SERVICING. PERFORM FLOAT TESTING QUARTERLY DURING THE FIRST YEAR OF OPERATION, THEN AT SEMI-ANNUALLY THEREAFTER.

FIRE SPRINKLER NOTE:
NFPA 13D SPRINKLER SYSTEM MUST BE INSTALLED FOR THIS RESIDENCE PER THE CITY OF MERCER ISLAND STANDARDS.

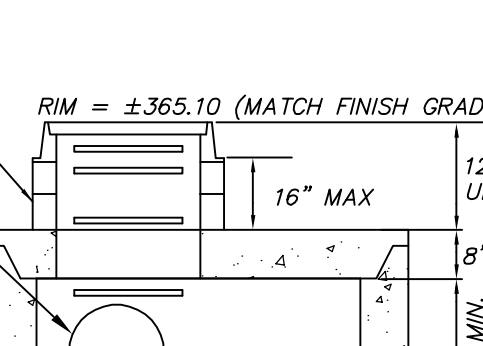
RESTRICTOR DETENTION TANK & CONTROL STRUCTURE CB



WET WELL 1
NO ROOF DRAIN CONNECTIONS



ELBOW RESTRICTOR DETAIL

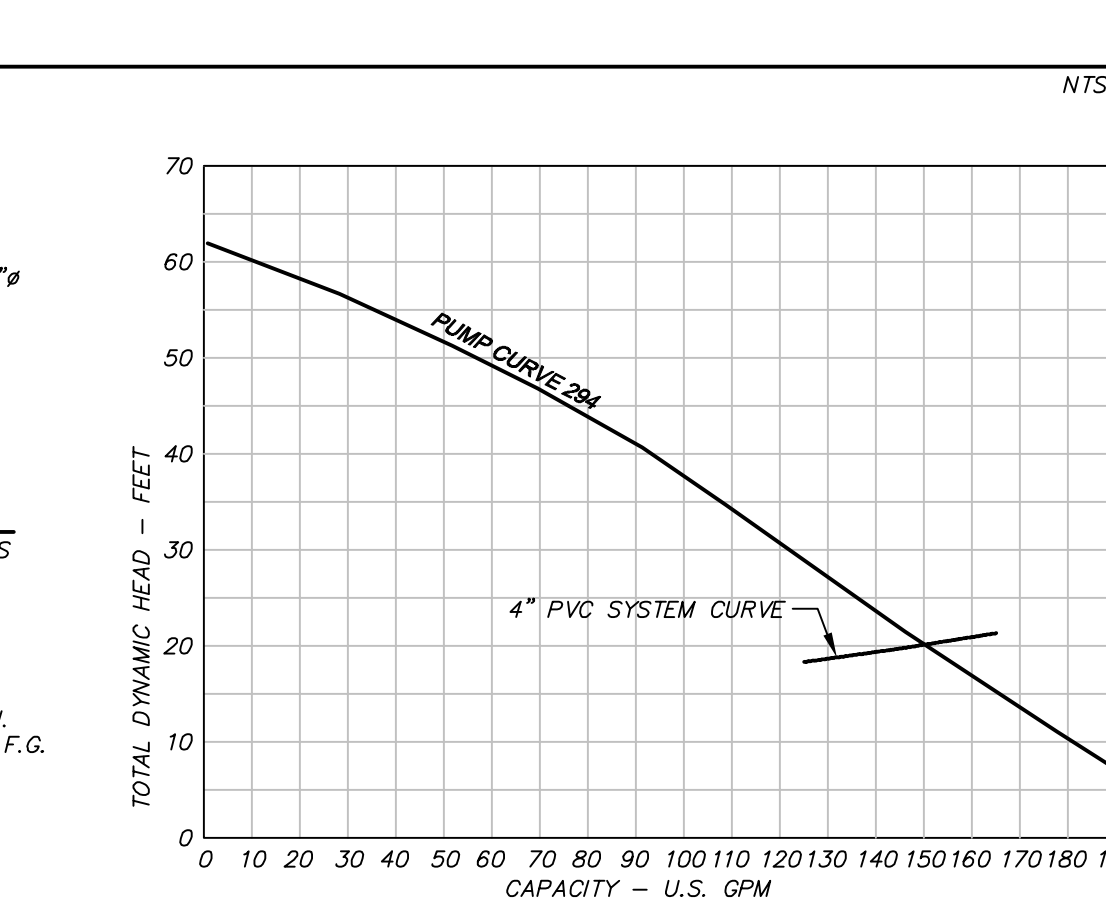
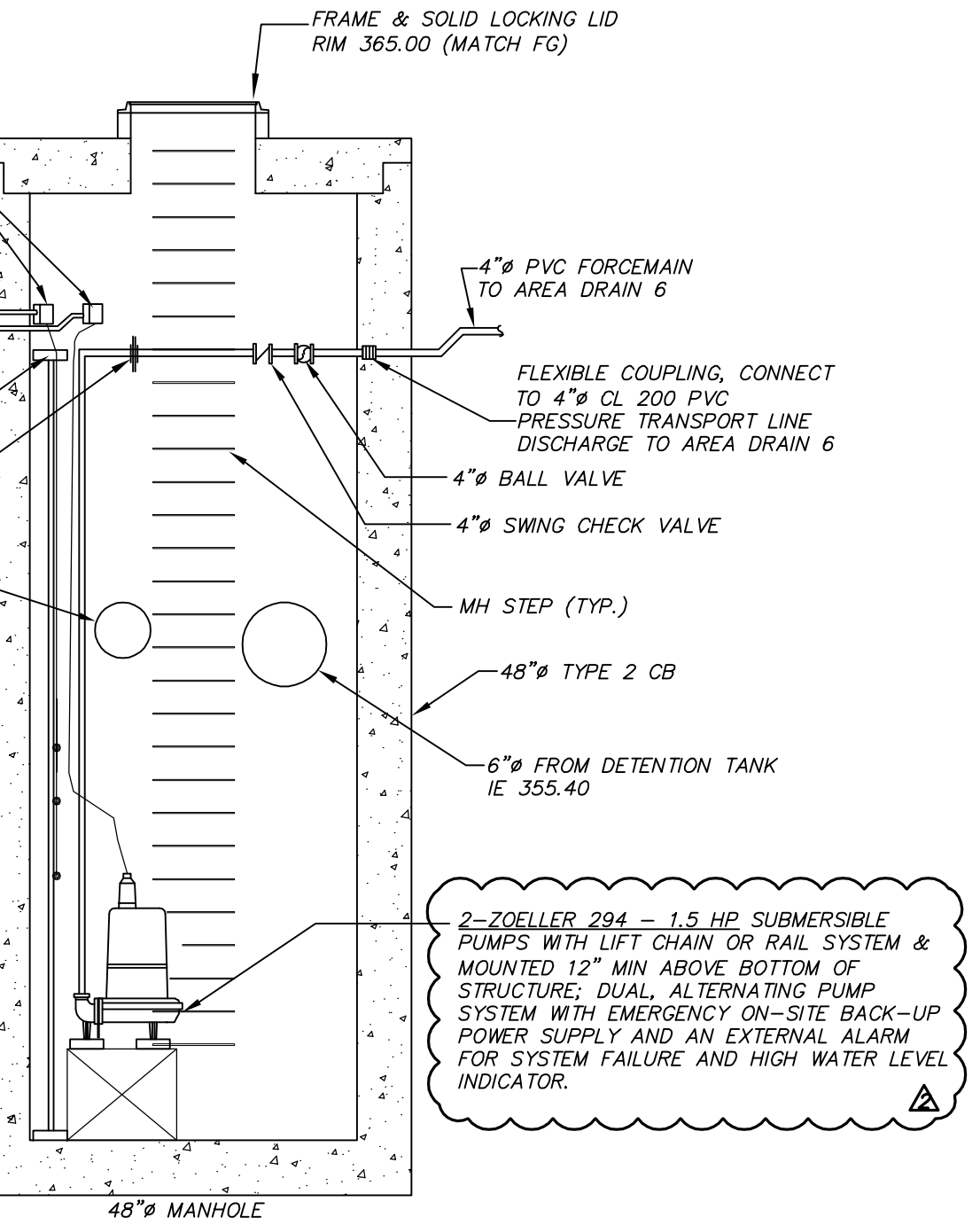


PUMP SYSTEM NOTES:

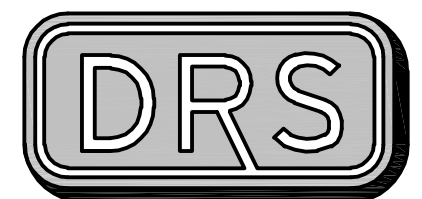
- THERE IS A TOTAL OF 13.9 FT. OF ELEVATION HEAD FROM THE PUMP TO A01 AND 19.7 FT. OF TDH THROUGH THE PIPE AND FITTINGS AT 145 GPM.
- PUMP LINE SHALL BE CLASS 200 PVC AND MEET THE REQUIREMENTS OF ASTM D2241 SDR-21.
- PUMP SHALL OPERATE IN AN "ON-DEMAND" CONFIGURATION. CONTROLS FOR PUMP SHALL INCLUDE: PUMP ON; PUMP OFF; HIGH WATER LEVEL ALARM. SIMPLEX CONTROL PANEL SHALL HAVE AUDIO VISUAL ALARM ON SEPARATE CIRCUITS AND BE MOUNTED IN DIRECT LINE OF SIGHT OF THE PUMP ACCESS LID.
- PROVIDE LIFT CHAIN OR RAIL SYSTEM FOR PUMP.
- FLOATS/ PUMP CONTROL SWITCHES SHALL BE MOUNTED INDEPENDENT OF THE PUMP AND TRANSPORT LINES.
- THE FOOTING DRAIN PUMPING SYSTEM SHALL BE OWNED, OPERATED, MAINTAINED, REPAIRED, AND REPLACED (AS NEEDED) BY PROPERTY OWNER(S) SERVED BY SUCH SYSTEM.
- PROPERTY OWNER(S) SHALL BE RESPONSIBLE FOR ANY ALL CLAIMS FOR INJURIES AND DAMAGE DUE TO THE OPERATION OR NON-OPERATION OF THE PUMP SYSTEM.
- AUTOMATIC EMERGENCY BACKUP POWER GENERATOR TO BE INSTALLED ON SITE FOR PUMP AND ALARM CIRCUITS (BY OTHERS).
- IT IS HIGHLY RECOMMENDED THAT THE PROPERTY OWNER(S) CONTRACT WITH A PRIVATE SECURITY/ MONITORING SERVICE TO MONITOR AND TROUBLESHOOT THE PUMP SYSTEM IN THE EVENT OF A TOTAL SYSTEM FAILURE (E.G., POWER OUTAGE AND GENERATOR FAILURE).

WET WELL NOTE:

- PUMP SIZE IS BASED ON A 100 YEAR FLOW RATE FOR TARGET SURFACES OF 0.32 CFS (145 GPM). CONTRACTOR SHALL VERIFY ADEQUACY OF PUMP SIZING PRIOR TO CONSTRUCTION AND REPORT ANY ISSUES TO THE ENGINEER OF RECORD.
- NO ROOF DRAIN CONNECTIONS.

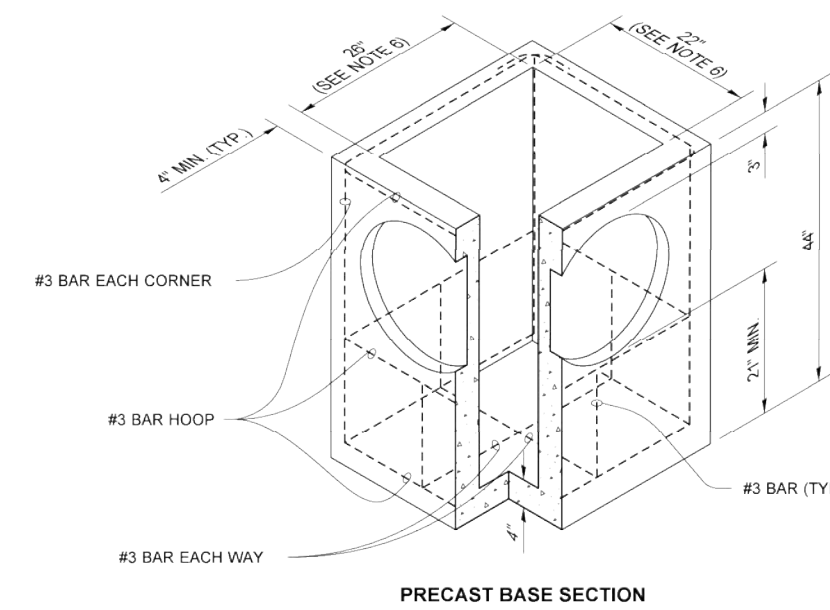
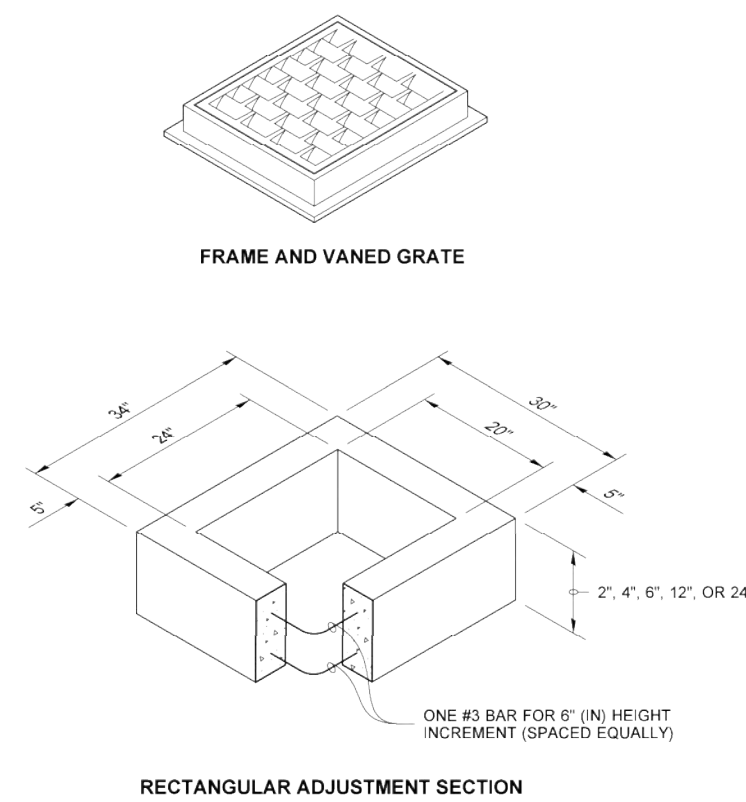


SE 1/4, SW 1/4, SECTION 19, TOWNSHIP 24 N, RANGE 5 E, W.M.
TIMBERLAND RESIDENCE



D.R. STRONG
 CONSULTING ENGINEERS
 ENGINEERS PLANNERS SURVEYORS
 620 - 7th AVENUE KIRKLAND, WA 98033
 O 425.827.3065 F 425.827.3423

DRAWN BY: LISA CYRARD



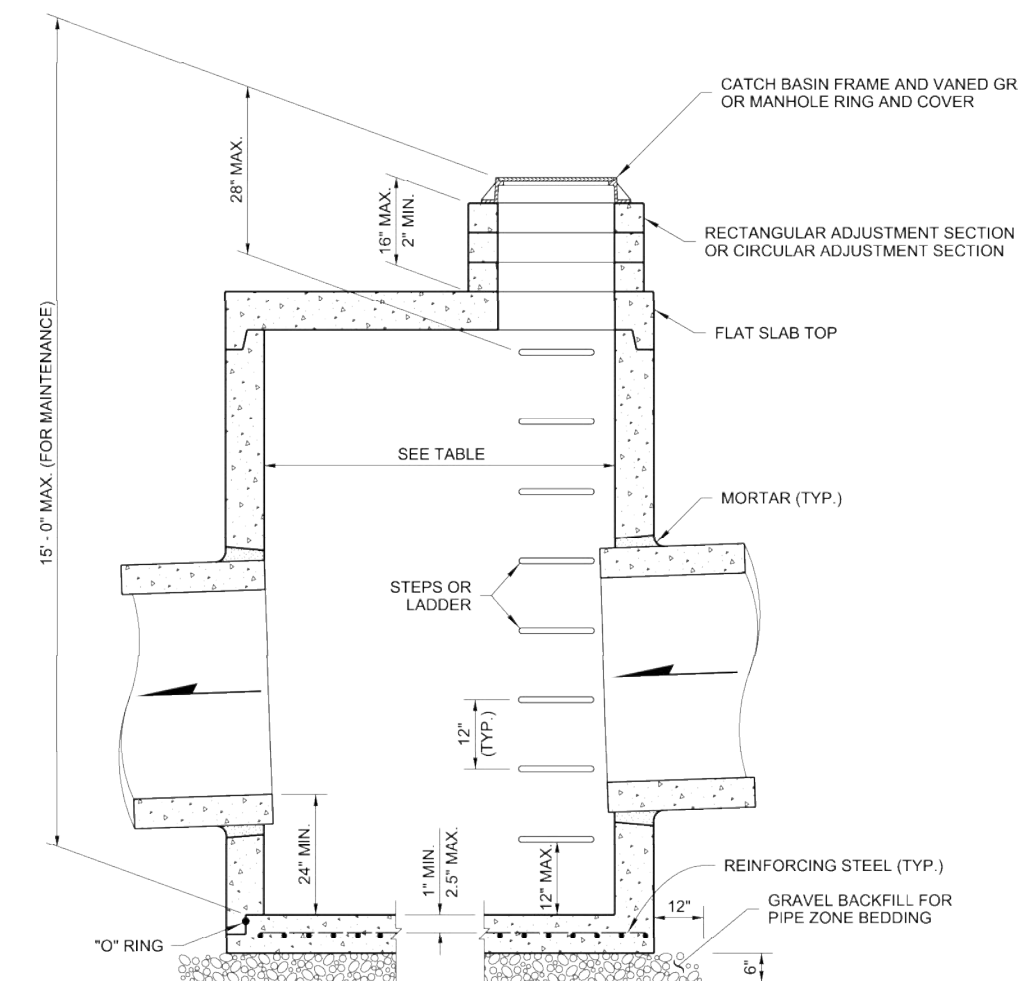
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER (INCHES)
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
GRSSP # (STD. SPEC. SECT. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. SECT. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. SECT. 9-05.12(2))	15"

* CORRUGATED POLYETHYLENE STORM SEWER PIPE

NOTES

- As acceptable alternatives to the rebar shown in the PRECAST BASE SECTION, fibers (placed according to the Standard Specifications) or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the ALTERNATIVE PRECAST BASE SECTION. Wire mesh shall not be placed in the knockouts.
- The knockout diameter shall not be greater than 20" (in). Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1/2" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with Standard Specification Section 9-04.3.
- The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
- The frame and grate may be installed with the flange down, or integrally cast into the adjustment section with flange up.
- The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1" : 24" or steeper.
- The opening shall be measured at the top of the Precast Base Section.
- All pickup holes shall be grouted full after the basin has been placed.

DRAWN BY: FERIE LEDELL



CATCH BASIN DIAMETER	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"
120"	10"	12"	96"	12"
144"	12"	12"	108"	12"

CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER			
	CONCRETE	ALL METAL	CPSSP (1)	SOLID WALL PVC (2)
48"	24"	30"	24"	30"
54"	30"	36"	30"	36"
60"	36"	42"	36"	42"
72"	42"	54"	42"	48"
84"	54"	60"	54"	48"
96"	60"	72"	60"	48"
120"	66"	84"	60"	48"
144"	78"	96"	60"	48"

- Corrugated Polyethylene Storm Sewer Pipe (See Standard Specification Section 9-05.20)
- (See Standard Specification Section 9-05.12(1))
- (See Standard Specification Section 9-05.12(2))
- Polypropylene Pipe (See Standard Specification Section 9-05.24)

NOTES

- No steps are required when height is 4' or less.
- The bottom of the precast catch basin may be sloped to facilitate cleaning.
- The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
- Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1/2" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with Standard Specification Section 9-04.3.



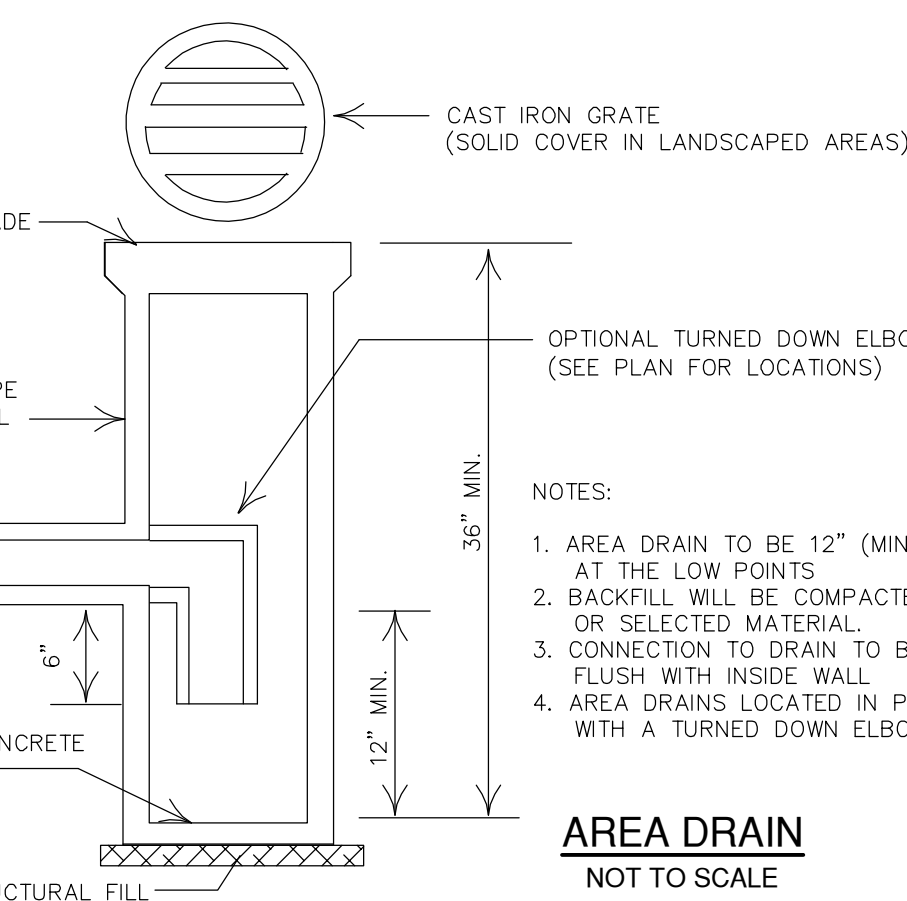
Julie Helman
 Helman, Julie
 Feb 20 2018 12:49 PM
CATCH BASIN TYPE 2

STANDARD PLAN B-10.20-02
 SHEET 1 OF 1 SHEET
 APPROVED FOR PUBLICATION
 (See Standard Specification Section 9-05.20)
 STATE DESIGN ENGINEER
 Washington State Department of Transportation

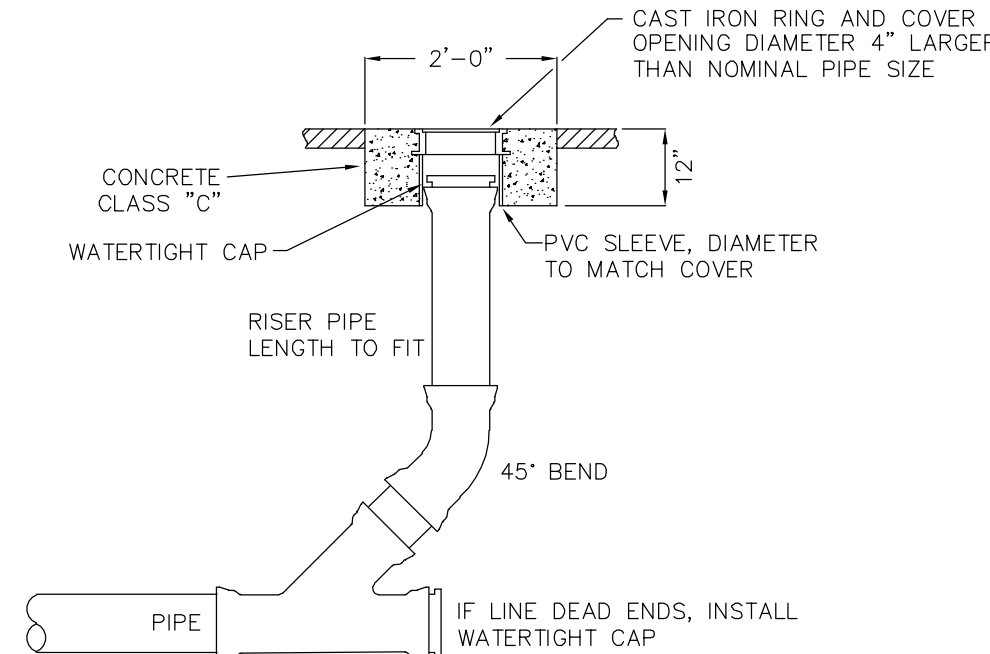


Julie Helman
 Helman, Julie
 Jan 23 2017 2:53 PM
CATCH BASIN TYPE 1

STANDARD PLAN B-5.20-02
 SHEET 1 OF 1 SHEET
 APPROVED FOR PUBLICATION
 (See Standard Specification Section 9-05.20)
 STATE DESIGN ENGINEER
 Washington State Department of Transportation



AREA DRAIN
 NOT TO SCALE



CLEAN OUT
 NOT TO SCALE

100-year Peak Runoff Analysis

Basin: Lot Area	100
Design Storm	3.9
P	from Isopluals
Land Cover 1	Lawns
Area 1	0.000 acres
C 1	0.25
Land Cover 2	Pavment & Roofs
Area 2	0.112 acres
C 2	0.9
Land Cover 3	Light Forest
Area 3	0 acres
C 3	0.15
Area Total	0.112 acres
aR	2.61
bR	0.63
Cc	0.90
Tc	6.3 minutes
iR	0.82
IR	3.19
Q100	0.32 cfs

Table 3.2.1.B Coefficients for the Rational Method "IR" Equation

	100 year	50 year	25 year	10 year	5 year	2 year
aR	2.61	2.75	2.66	2.44	2.33	1.58
bR	0.63	0.65	0.65	0.64	0.63	0.58

Table 3.2.1.A Runoff Coefficients

Land Cover	C
Dense Forest	0.10
Light Forest	0.15
Pasture	0.20
Lawns	0.25
Playgrounds	0.30
Gravel Areas	0.80
Pavement & Roofs	0.90
Composite Lots	0.48

100-YEAR FLOW RATE:

Table 1
 ON-SITE DETENTION DESIGN FOR PROJECTS BETWEEN 500 SF AND 9,500 SF NEW PLUS REPLACED IMPERVIOUS SURFACE AREA

New and Replaced Impervious Surface Area (sf)	Detention Pipe Diameter (in)	Detention Pipe Length (ft)		Lowest Orifice Diameter (in) ⁽¹⁾		Distance from Outlet Invert to Second Orifice (ft)		Second Orifice Diameter (in)	
		B soils	C soils	B soils	C soils	B soils	C soils	B soils	C soils
500 to 1,000 sf	36"	30	22	0.5	0.5	2.2	2.0	0.5	0.8
	48"	18	11	0.5	0.5	3.3	3.2	0.9	0.8
	60"	11	7	0.5	0.5	4.2	3.4	0.5	0.6
1,001 to 2,000 sf	36"	66	43	0.5	0.5	2.2	2.3	0.9	1.4
	48"	34	23	0.5	0.5	3.2	3.3	0.9	1.2
	60"	22	14	0.5	0.5	4.3	3.6	0.9	0.9
2,001 to 3,000 sf	36"	90	66	0.5	0.5	2.2	2.4	0.9	1.9
	48"	48	36	0.5	0.5	3.1	2.8	0.9	1.5
	60"	30	20	0.5	0.5	4.2	3.7	0.9	1.1
3,001 to 4,000 sf	36"	120	78	0.5	0.5	2.4	2.2	1.4	1.6
	48"	62	42	0.5	0.5	2.8	2.9	0.8	1.3
	60"	42	26	0.5	0.5	3.8	3.9	0.9	1.3
4,001 to 5,000 sf	36"	134	91	0.5	0.5	2.8	2.2	1.7	1.5
	48"	73	49	0.5	0.5	3.6	2.9	1.6	1.5
	60"	46	31	0.5	0.5	4.6	3.5	1.6	1.3
5,001 to 6,000 sf	36"	162	109	0.5	0.5	2.7	2.2	1.8	1.6
	48"	90	59	0.5	0.5	3.5	2.9	1.7	1.5
	60"	54	37	0.5	0.5	4.6	3.6	1.6	1.4
6,001 to 7,000 sf	36"	192	128	0.5	0.5	2.7	2.2	1.9	1.8
	48"	102	68	0.5	0.5	3.7	2.9	1.9	1.6
	60"	64	43	0.5	0.5	4.6	3.6	1.8	1.5
7,001 to 8,000 sf	36"	216	146	0.5	0.5	2.8	2.2	2.0	1.9
	48"	119	79	0.5	0.5	3.8	2.9	2.2	1.7
	60"	73	49	0.5	0.5	4.5	3.6	2.0	1.6
8,001 to 8,500 sf ⁽¹⁾	36"	228	155	0.5	0.5	2.8	2.2	2.1	1.9
	48"	124	84	0.5	0.5	3.7	2.9	1.9	1.8
	60"	77	53	0.5	0.5	4.6	3.6	2.0	1.6
8,501 to 9,000 sf	36"	NA ⁽¹⁾	164	0.5	0.5	NA ⁽¹⁾	2.2	NA ⁽¹⁾	1.9
	48"	NA ⁽¹⁾	89	0.5	0.5	NA ⁽¹⁾	2.9	NA ⁽¹⁾	1.9
	60"	NA ⁽¹⁾	55	0.5	0.5	NA ⁽¹⁾	3.6	NA ⁽¹⁾	1.7
9,001 to 9,500 sf ⁽²⁾	36"	NA ⁽¹⁾	174	0.5	0.5	NA ⁽¹⁾	2.2	NA ⁽¹⁾	2.1
	48"	NA ⁽¹⁾	94	0.5	0.5	NA ⁽¹⁾	2.9	NA ⁽¹⁾	2.0
	60"	NA ⁽¹⁾	58	0.5	0.5	NA ⁽¹⁾	3.7	NA ⁽¹⁾	1.7

DETENTION VOLUME CALCULATION:

TIMBERLAND RESIDENCE

UTILITY NOTES AND DETAILS
 9027 SE 60TH STREET
 MERCER ISLAND, WA 98040
 PARCEL NO. 865090-0030

THURMAN DEVELOPMENT GROUP, INC.

2212 QUEEN ANNE AVENUE N. # 273
 SEATTLE, WA 98109
 206.321.3129



REVIEWED FOR CODE COMPLIANCE
 March 25, 2021
 SITE COPY

APR 11 2021
 YLP
 YLP
 REVISION
 CITY COMMENTS 01.28.20
 CITY COMMENTS
 DATE
 02.26.20
 02.23.21

Call 2 Working Days Before You Dig
 811
 Utilities Underground Location Center
 (D,MT,ND,OR,WA)

DRAFTED BY: PFC
 DESIGNED BY: DLR
 PROJECT ENGINEER: YLP
 DATE: 1/21/20
 PROJECT NO.: 19106

DRAWING: C4
 SHEET: 4 OF 4

GENERAL NOTES

CODE

All materials, workmanship and construction shall conform to the 2015 Edition of the I.B.C. / I.R.C. Building Code requirements and all applicable codes and authorities having jurisdiction.

BUILDING

Type VB Site Class: D2
Occupancy Group: R-3 Wind Exposure: B (110 MPH)

Contractor shall verify all dimensions and conditions in the field, provide temporary bracing as required until all permanent connections and stiffenings have been installed. It is the contractor's responsibility to identify all discrepancies or confusions to the designer at the time they are noted.

FOUNDATION

Unless a soils investigation by a qualified soils engineer is provided, foundation design is based on an assumed average soil bearing of 1500 PSF. Exterior footings shall bear 1'-6" (minimum) below finished grade. All footings to bear on firm undisturbed earth below organic surface soils. Backfill to be thoroughly compacted per Specifications. Provide 2 #4 (minimum) continuous bottom of all walls and footings.

CONCRETE

CLASS AND USE	PSI	MINIMUM SLUMP	SACKS/C.Y.
A - Footings and Foundations	3000	3 - 4	5-1/2
B - Slabs on grade	2500	3 - 4	5-1/2

Note: 3000 PSI concrete is for weathering purposes only. No special inspection required.

1. Air-entraining agent (5% to 7%) to be used in all concrete flatwork exposed to weather.
2. Pozzolith 300 series (4 oz. per 100# of cement) to be used in all concrete.
3. Mix may be designed in accordance with the provisions the IBC/IRC.
4. Water - cement ratio per IBC/IRC.

REINFORCING STEEL

ASTM A615 grade 40, reinforcing steel details shall be prepared by an experienced detailer approved by the Designer and conform to standard practice outlined in ACI 318-14. Note: Grade 40 for #4 bars and smaller, grade 60 for #5 bars and larger.

CONCRETE COVER OF REINFORCING

- 3" Concrete poured against earth.
- 2" Formed concrete with earth backfill.
- 1-1/2" Beams and columns (stirrups, ties) walls exposed to weather, slabs on moisture barrier.
- 1" Walls, inside face.

Lap column verticals, Class "A" concrete and masonry column and wall verticals 40 diameters (2' min). Lap all other reinforcing 30 diameters (2' min). Splices at tension regions shall not be permitted.

FRAMING

All framing to comply with IBC Chapter 23. Nail sizes and spacing to conform to IBC Table 2304.10.1

All wood in contact with concrete to be pressure treated. All metal fasteners, hangers, straps, and miscellaneous hardware that comes in contact with pressure treated lumber shall be "Simpson Z Max" or equal (6105), hot dipped galvanized per ASTM A-153 or be stainless steel

Structural design is based on the following allowable stresses (units in PSI):

Timber connectors called out by letters and numbers shall be "Strong-Tie" by Simpson Company, as specified in their latest catalog.

If the contractor proposes the use of alternate nails or staples they shall submit specifications to the structural engineer (prior to construction) for review and approval.

LUMBER STRENGTHS

	Fv	Fb	E
JOIST, RAFTERS: Hem-Fir #2	150	950	1,300,000
BEAMS, HEADERS, LINTELS, GIRDBERS			
4" Nominal Hem-Fir #2	150	950	1,300,000
4" Nominal Doug-Fir #2	180	900	1,600,000
6" Nominal Doug-Fir #1	180	1,000	1,700,000
GLUE LAMINATED TIMBERS:			
Doug-Fir Larch (24F-V3)	165	2400	1,800,000
(22F-V3)	165	2200	1,700,000
(20F-V3)	165	2000	1,600,000
FARALAM (2.0E)	210	2400	2,000,000
LOADING:			
Roof:	15 PSF DEAD LOAD + 33 PSF LIVE LOAD	= 48 PSF	
Floor:	10 PSF DEAD LOAD + 40 PSF LIVE LOAD	= 50 PSF	
Ceiling:	5 PSF DEAD LOAD + 5 PSF LIVE LOAD	= 10 PSF	
Deck:	10 PSF DEAD LOAD + 60 PSF LIVE LOAD	= 70 PSF	
Interior Partition:		10 PSF	
Exterior Partition:		10 PSF	

Bolt heads and nuts bearing against wood to be provided with flat cut washers. Wood bearing or installed within 1" of masonry or concrete to be treated with an approved preservative. Solid blocking of not less than 2" thickness shall be provided at ends and at all support of joists and rafters. Between supports provide blocking or approved bridging at 8'-0" o.c. for floor joists, 10'-0" for roof joists. Typical sill bolts to be 5/8" diameter at 4'-0" o.c., embed 10". All metal framing anchors and hangers shown on drawings shall be "Strong Tie Connectors" as manufactured by Simpson Company or approved equal.

Anchor bolts (J-bolts) to have 3"x3"x.224" plate washers, 7" min. embedment.

WOOD TRUSSES

Shall be factory fabricated trusses. Design and fabrication shall conform to the requirements of the International Building Code. Engineering design and shop drawings bearing the stamp of a professional engineer registered in the State of Washington and showing all details of construction including bracing.

Trusses shall be designed for uniform loading as follows:

Top Chord	33 PSF of tributary area
Bottom Chord	7 PSF of tributary area

Fabricator shall be approved by the Designer.

STRUCTURAL GLUE-LAMINATED TIMBER

Glue laminated members shall be fabricated in conformance with ASTM and AITC standards. Each member shall bear an A. I. T. C. identification mark and shall be accompanied by an A. I. T. C. certificate of conformance. All simple span beams shall be Douglas Fir combination 24F-V4, Fb=2400 PSI, Fv=165 PSI. All cantilevered beams shall be Douglas Fir combination 24F-V8, Fb=2400 PSI, Fv=165 PSI. Center all simple span glulam beams to 2,000' radius, unless shown otherwise on plans. Glulam columns shall be Douglas Fir combination No. 5, Fc=2400 PSI, E=2,000,000 PSI.

PLYWOOD

Each sheet shall bear the trademark of the American Plywood Association. All grading shall conform to PS I. Use thickness and nailing as shown on the drawings. All Plywood shall be C-D Interior grade with exterior glue. Except as otherwise shown or noted, provide Bd at 6" on center supported panel edges and Bd at 12" on center on other supporting members for walls, roof and floors.

Roof Diaphragm: 1/2" plywood (panel Index = 24/16), with Bd nails at 6" o.c. at supported panel and at 12" o.c. at field (typical unless noted otherwise).

Floor Diaphragm: 5/4" plywood (panel Index = 24/16) with 10d nails at 6" o.c. at supported panel edges and at 12" o.c. at field (typical unless noted otherwise on plan).
Optional to use 0.148 diameter P-nails in lieu of 10d nails.

STRUCTURAL STEEL

Structural Grade ASTM A36, Fy = 36,000 psi. Pipe columns ASTM A53, grade B, Fy = 35,000 psi. Structural tubing columns ASTM A500, grade B, Fy = 46,000 psi. All steel except steel embedded in concrete shall be given one shop coat of approved paint. Welds to be 3/16" minimum continuous fillet by A.W.S. certified welders. Field connections not shown shall be bolted framed beam connections per AISC. All bolts to be A325. During erection, structural steel shall be secured from collapsing with temporary bracing. Where expansion anchors are specified, the contractor shall submit to the structural engineer a sample of the anchor to be used with laboratory data of pull-out and shear strength. Special inspections shall be required for all welding.

2015 WASHINGTON ENERGY CODE

(EDITED FROM) CHAPTER 51-11 W.A.C. - EFFECTIVE JULY 1, 2016

PRESCRIPTIVE REQUIREMENTS FOR GROUP R OCCUPANCY - CLIMATE ZONE 5 AND MARINE 4

GLAZING AREA ¹ % OF FLOOR	GLAZING U-FACTOR		DOOR U-FACTOR ⁴	CEILING ²	VAULTED CEILING ³	WALL ABOVE GRADE ⁵	WALL INT. BELOW GRADE ⁶	FLOOR ⁷	SLAB ON GRADE ⁸
	VERTICAL	OVERHEAD ¹¹							
UNLIMITED	0.25	0.50	0.20	R-49	R-38	R-21 INT. R-5.0	R-10	R-30	R-10

*REFERENCE CASE

1. NOMINAL R-VALUES ARE FOR WOOD FRAME ASSEMBLIES ONLY OR ASSEMBLIES BUILT IN ACCORDANCE WITH SECTION 601.1.
2. MINIMUM REQUIREMENTS FOR EACH OPTION LISTED. FOR EXAMPLE, IF A PROPOSED DESIGN HAS A GLAZING RATIO TO THE CONDITIONED FLOOR AREA OF 15%, IT SHALL COMPLY WITH ALL OF THE REQUIREMENTS OF THE 15% GLAZING OPTION (OR HIGHER). PROPOSED DESIGNS WHICH CANNOT MEET THE SPECIFIC REQUIREMENTS OF A LISTED OPTION ABOVE MAY CALCULATE COMPLIANCE BY CHAPTERS 4 OR 5 OF THIS CODE.
3. REQUIREMENT APPLIES TO ALL CEILING-5 EXCEPT SINGLE RAFTER OR JOIST VAULTED CEILINGS. 'ADV' DENOTES ADVANCED FRAMED CEILING.
4. REQUIREMENT APPLICABLE ONLY TO SINGLE RAFTER OR JOIST VAULTED CEILINGS.
5. BELOW GRADE WALLS SHALL BE INSULATED EITHER ON THE EXTERIOR TO A MINIMUM OF R-10 CONTINUOUS, OR ON THE INTERIOR AS A FRAMED WALL. EXTERIOR INSULATION INSTALLED ON BELOW GRADE WALLS SHALL BE A WATER RESISTANT MATERIAL, MANUFACTURED FOR ITS INTENDED USE AND INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. SEE SECTION 602.2.
6. FLOORS OVER CRAWL SPACES OR EXPOSED TO AMBIENT AIR CONDITIONS.
7. REQUIRED SLAB PERIMETER INSULATION SHALL BE A WATER RESISTANT MATERIAL, MANUFACTURED FOR ITS INTENDED USE, AND INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. SEE SECTION 602.4. FOR SLABS INSIDE A FOUNDATION WALL, THE INSULATION SHALL BE INSTALLED TO PROVIDE A THERMAL BREAK (TB) BETWEEN THE SLAB EDGE AND THE FOUNDATION. MONOLITHIC SLABS SHALL INCLUDE INSULATION INSTALLED OUTSIDE THE FOUNDATION WALL, AND SHALL EXTEND DOWNWARD FROM THE TOP OF THE SLAB FOR A MINIMUM OF 24 INCHES OR DOWNWARD AND THEN HORIZONTALLY FOR A MINIMUM COMBINED DISTANCE OF 24 INCHES. MONOLITHIC SLABS SHALL ALSO INCLUDE R-10 INSULATION UNDER THE NON-LOAD-BEARING PORTIONS OF THE SLAB.
8. INT. DENOTES STANDARD FRAMING 16 INCHES ON CENTER WITH HEADERS INSULATED WITH A MINIMUM OF R-10 INSULATION.
9. RESERVED
10. DOORS INCLUDING ALL FIRE DOORS, SHALL BE ASSIGNED DEFAULT U-FACTORS FROM TABLE 10-6C.
11. WHERE A MAXIMUM GLAZING AREA IS LISTED, THE TOTAL GLAZING AREA (COMBINED VERTICAL PLUS OVERHEAD) AS A PERCENT OF GROSS CONDITIONED FLOOR AREA SHALL BE LESS THAN OR EQUAL TO THAT VALUE. OVERHEAD GLAZING WITH U-FACTOR OF U=0.25 OR LESS IS NOT INCLUDED IN GLAZING AREA LIMITATIONS.
12. OVERHEAD GLAZING SHALL HAVE U-FACTORS DETERMINED IN ACCORDANCE WITH NFRC 100 OR AS SPECIFIED IN SECTION 602.1.5.
13. LOG AND SOLID TIMBER WALLS WITH A MINIMUM AVERAGE THICKNESS OF 5.5" ARE EXEMPT FROM THIS INSULATION REQUIREMENT.

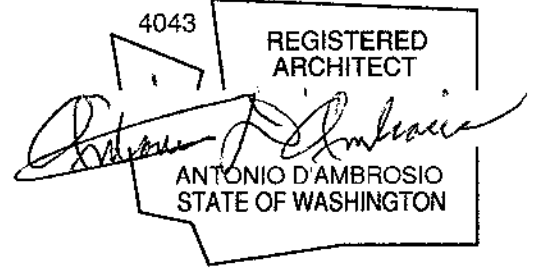
CERTIFICATE (MSEC R401.3)

A PERMANENT CERTIFICATE SHALL BE POSTED WITHIN 3 FEET OF THE ELECTRICAL DISTRIBUTION PANEL OR ON THE PANEL ITSELF. THE CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR REGISTERED DESIGN PROFESSIONAL, AND LIST THE FOLLOWING: INSULATION R-VALUES FOR ALL BUILDING FRAMING AND FOUNDATION/SLAB COMPONENTS, DUCT INSULATION OUTSIDE CONDITIONED AREAS, GLAZING U VALUES AND/OR SHGC VALUES, TYPE AND EFFICIENCY OF HEATING/COOLING SYSTEM AND HEATER HEATING EQUIPMENT, DUCT LEAKAGE RATES INCLUDING TEST CONDITIONS PER MSEC 509.10.2 AND AIR LEAKAGE RESULTS IF A BLOWER DOOR TEST WAS CONDUCTED.

GENERAL NOTES

1. COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES. ALL WORK SHALL CONFORM TO IRC / IBC (2015 EDITION).
2. THE ARCHITECT SHALL BE THE INTERPRETER OF THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS AND THE JUDGE OF THE PERFORMANCE THEREUNDER BY BOTH THE OWNER AND THE CONTRACTOR.
3. THESE DRAWINGS COVER THE FURNISHINGS AND INSTALLATION OF ALL MATERIALS AND WORK AS CALLED FOR ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS WHICH ARE BOUND SEPARATELY AND ARE PART OF THIS CONTRACT. STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. EACH CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CHECKING WITH THE ARCHITECTURAL DRAWINGS BEFORE THE INSTALLATION OF THEIR WORK. ANY DISCREPANCIES BETWEEN THE ARCHITECTURAL AND THE CONSULTING ENGINEER(S) DRAWINGS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION BY NOTIFICATION FOR CLARIFICATION. ANY WORK INSTALLED IN CONFLICT WITH THE ARCHITECTURAL DRAWINGS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT NO ADDITIONAL EXPENSE TO THE OWNER OR ARCHITECT.
4. DRAWINGS SHALL NOT BE USED FOR SCALING DIMENSIONS. CONTRACTORS SHALL USE DIMENSIONS SHOWN ON THE DRAWINGS AND ACTUAL FIELD MEASUREMENT. NOTIFY THE ARCHITECT IF ANY DISCREPANCIES ARE FOUND.
5. VERIFY ALL ROUGH IN DIMENSIONS FOR EQUIPMENT PROVIDED IN THIS CONTRACT OR BY OTHERS, PRIOR TO INSTALLATION. NOTIFY ARCHITECT IF CONFLICT IS DISCOVERED.
6. VERIFY SIZE AND LOCATION OF AND PROVIDE ALL OPENINGS THROUGH FLOORS AND WALLS, FURRING, ANCHORS, INSERTS, ROUGH BUCKS AND BACKING FOR SURFACE MOUNTING ITEMS.
7. PROVIDE FURRING AS REQUIRED TO CONCEAL MECHANICAL AND ELECTRICAL IN ALL FINISHED AREAS.
8. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES, SCHEDULES AND SYMBOLS.
9. THROUGHOUT THE PLANS ARE ABBREVIATIONS WHICH ARE COMMON USE. THE LIST OF ABBREVIATIONS PROVIDED IS NOT INTENDED TO BE COMPLETE OR REPRESENTATIVE OF CONDITIONS OR MATERIALS ACTUALLY USED ON THE PROJECT. THE ARCHITECT WILL DEFINE THE INTENT OF ANY IN QUESTION.
10. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION AND COORDINATION WITH OTHER CONTRACTORS TO SECURE COMPLIANCE OF DRAWING AND SPECIFICATIONS AND THE ACCURATE LOCATION OF STRUCTURAL MEMBERS AND OPENINGS FOR MECHANICAL, ELECTRICAL, AND MISCELLANEOUS EQUIPMENT.
11. IN CASE OF CONFLICT WHEREIN THE METHODS OR STANDARDS OF INSTALLATION OF THE MATERIALS SPECIFIED DO NOT EQUAL OR EXCEED THE REQUIREMENTS OF THE LAWS OR ORDINANCES, THE LAWS OR ORDINANCES SHALL GOVERN. NOTIFY THE ARCHITECT OF ALL CONFLICTS.
12. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, GRADES AND EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. DO NOT PROCEED WITH WORK RELATION TO DISCREPANCIES UNTIL DISCREPANCIES ARE RESOLVED THEN APPROVED BY THE ARCHITECT.
13. CONSULT WITH ARCHITECT REGARDING ANY SUSPECTED ERROR, OMISSIONS OR CHANGES ON PLANS BEFORE PROCEEDING WITH WORK.
14. REPETITIVE FEATURES ARE OFTEN DRAWN ONLY ONCE AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
15. ALL PLAN DIMENSIONS ARE TO FACE OF STUDS OR FACE OF CONCRETE WALLS, ETC., UNO.
16. 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"
17. VERIFY ALL ROUGH-IN DIMENSIONS.
18. FLOOR LINE REFERS TO TOP OF PLYWOOD SUBFLOOR.
19. ALL FOUNDATION FOOTINGS ARE TO REST ON FIRM UNDISTURBED SOIL.
20. PROVIDE ADEQUATE BRACINGS AND/OR BLOCKING IN HALLS TO SUPPORT COUNTER, CABINETS, SHELVES, AND EQUIPMENT, ETC., AS REQUIRED.
21. PROVIDE GALVANIC INSULATION BETWEEN DISSIMILAR MATERIALS.
22. THE JUNCTION OF THE ROOF AND VERTICAL SURFACES SHALL BE FLASHED AND COUNTER FLASHED IN A MANNER TO MAKE THEM WEATHERPROOF.
23. ALL EXTERIOR WALL OPENINGS, FLASHING, EXPANSION JOINTS SHALL BE CONSTRUCTED IN SUCH MANNER AS TO MAKE THEM WEATHERPROOF.
24. WHERE FLOOR DRAINS OR FLOOR SINKS OCCUR, ALL FINISH FLOORS SHALL SLOPE TO DRAIN. THE BASE OF WALLS AT ALL SLOPING FLOORS SHALL BE LEVEL.
25. THERE SHALL BE NO EXPOSED PIPE, CONDUITS, DUCTS, VENTS, ETC. ALL SUCH LINES SHALL BE CONCEALED OR FURRED AND FINISHED, UNLESS APPROVED OR NOTED OTHERWISE AS EXPOSED CONSTRUCTION ON DRAWINGS.
26. ALL EGRESS WINDOWS (E) TO HAVE NET 24" CLEAR OPENING HT., 20" MIN. NET CLEAR OPENING WIDTH, MIN. NET CLEAR OPENING AREA OF 5.7 SQ. FT. AND 44" MAX. SILL HT. TYP.
27. CONTRACTORS SHALL VERIFY SIZES AND LOCATIONS OF ALL OPENINGS FOR MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR AS WELL AS SHOP DRAWINGS AS APPROVED BY ARCHITECT BEFORE PROCEEDING WITH THE WORK.
28. CONTRACTORS SHALL VERIFY SIZES AND LOCATIONS OF ALL MECHANICAL EQUIPMENT PADS AND BASES AS WELL AS POWER AND WATER OR DRAIN INSTALLATION WITH EQUIPMENT MANUFACTURERS BEFORE PROCEEDING WITH THE WORK.
29. PROVIDE CAULKING BETWEEN SOLE PLATES AND SUBFLOOR AND BETWEEN RIM JOISTS AT BOTH TOP PLATE AND SUBFLOOR.
30. SAFETY GLAZING: WINDOW MANUFACTURER SHALL PROVIDE TEMPERED SAFETY GLAZING WHERE REQUIRED BY W.S.B.C. SECTION 2406.
31. THE ARCHITECT HAS NOT BEEN RETAINED OR COMPENSATED TO PROVIDE CONSTRUCTION REVIEW SERVICES RELATED TO THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR THE CONTRACTOR TO PERFORM HIS WORK. THE UNDERTAKING OF PERIODIC SITE VISITS BY THE ARCHITECT SHALL NOT BE CONSTRUED AS SUPERVISION OF ACTUAL CONSTRUCTION NOR MAKE HIM RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF WORK BY THE CONTRACTOR, SUBCONTRACTORS, SUPPLIERS OR THEIR EMPLOYEES, OR FOR ACCESS, VISITS, TRAVEL, OR OCCUPANCY BY ANY PERSON.
32. THE ARCHITECT HAS USED THAT DEGREE OF CARE SKILL ORDINARILY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY MEMBERS OF THE PROFESSION IN THIS LOCALITY, AND NO OTHER WARRANTY, EITHER EXPRESSED OR IMPLIED IS MADE IN CONNECTION WITH RENDERING OF PROFESSIONAL SERVICES.
33. CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACINGS OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION.

3426 GARDEN AVENUE NORTH
RENTON, WASHINGTON, 98056
CELL 206-310-4500
email dambrosioarchitect@yahoo.com



A New Residence For:
TIMBERLAND
 9027 SE 60TH ST. MERCER ISLAND, WA 98040

Drawing Title: PERMIT
 Notes: **REVIEWED FOR CODE COMPLIANCE**
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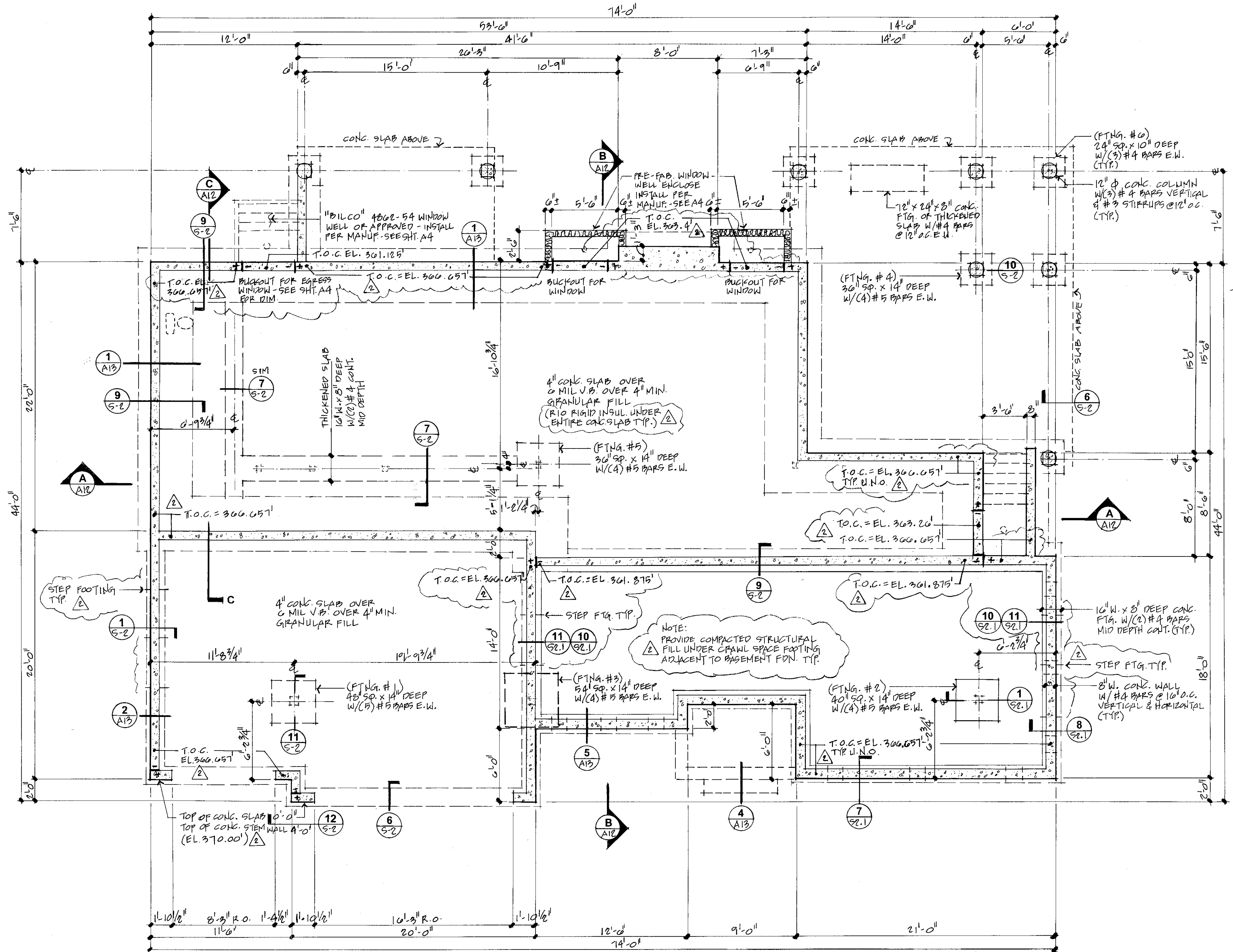
Drawn By: M.D., T.D.
 Checked By:
 Approved By:

Issue Date: 1/17/20

Revisions:
 No. Description Date
 1 PERMIT 2/22/21

Scale:
 Sheet No.

A2



FOUNDATION PLAN

SCALE 1/4" = 1'-0"



TIMBERLAND

A New Residence For:

9027 SE 60TH ST. MERCER ISLAND, WA 98040

Drawing Title: **REVIEWED FOR CODE COMPLIANCE**
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Checked By:
Approved By:

Issue Date: 1/17/20

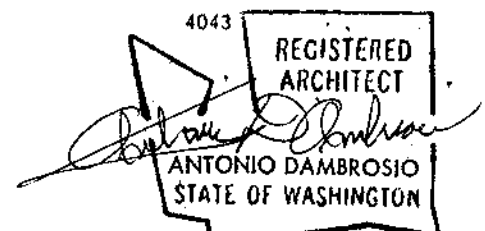
Revisions:

No.	Description	Date
1	PERMIT	2/22/21

Scale: 1/4" = 1'-0"

Sheet No.

A3



A New Residence For:
TIMBERLAND
9027 SE 60TH ST.
MERCER ISLAND, WA 98040

Drawing Title:
LOWER FLOOR PLAN
REVIEWED FOR CODE COMPLIANCE
March 25, 2021
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Drawn By: T.D.
Checked By:
Approved By:

Issue Date: 1/17/20

Revisions:

No.	Description	Date
1	PRESUBMITAL 2/29/20	
2	PERMIT 2/22/21	

Scale: 1/4" = 1'-0"

Sheet No.

A4

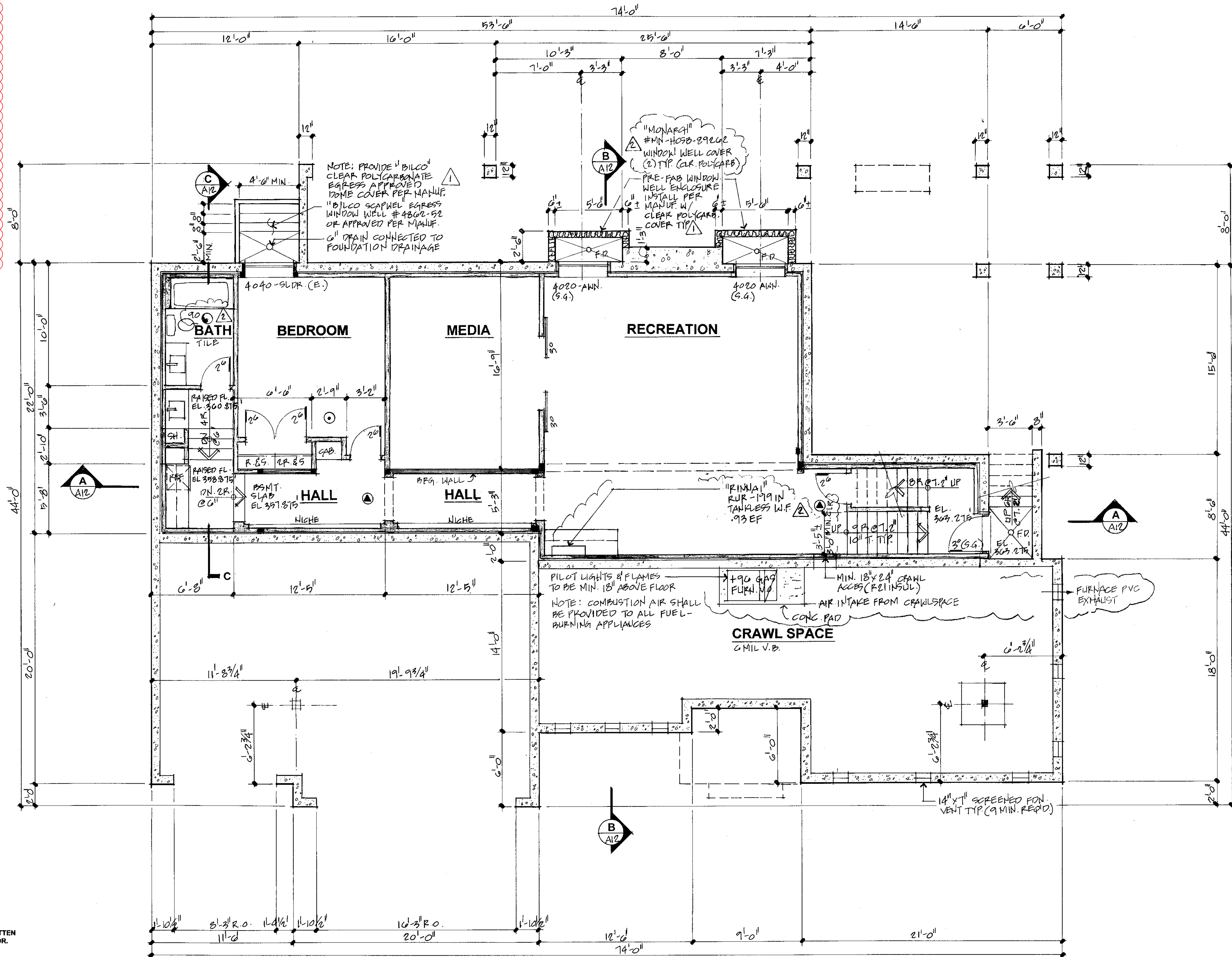
- TOTAL CREDITS:** 4.5 CREDITS
- ENERGY CREDITS:**
- 1b EFFICIENT BUILDING ENVELOPE 1b:
Prescriptive compliance is based on Table R402.1.1 with the following modifications:
Vertical fenestration U = 0.25
Wall R-21 plus R-4
Floor R-38
Basement wall R-21 int plus R-5 ci
Slab on grade R-10 perimeter and under entire slab
Below grade slab R-10 perimeter and under entire slab
 - 2a AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2a:
Compliance based on R402.4.1.2: Reduce the tested air leakage to 3.0 air changes per hour maximum
and
All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code shall be met with a high efficiency fan (maximum 0.35 watts/cfm), not interlocked with the furnace fan. Ventilation systems using a furnace including an ECM motor are allowed, provided that they are controlled to operate at low speed in ventilation only mode.
 - 3a HIGH EFFICIENCY HVAC EQUIPMENT 3a:
Gas, propane or oil-fired furnace with minimum AFUE of 94%, or
 - 5a EFFICIENT WATER HEATING 5a:
All showerhead and kitchen sink faucets installed in the house shall be rated at 1.75 GPM or less. All other lavatory faucets shall be rated at 1.0 GPM or less.
 - 5b EFFICIENT WATER HEATING 5b:
Water heating system shall include one of the following:
Gas, propane or oil water heater with a minimum EF of 0.74

- LIGHTING EFFICIENCY:**
1. A MIN. OF 75% OF PERMANENTLY INSTALLED LIGHTING MUST BE HIGH-EFFICIENCY LAMPS (WA ENERGY CODE R401.1)
 2. PERMANENTLY MOUNTED LIGHT FIXTURES PROVIDING OUTDOOR LIGHTING WILL BE HIGH EFFICIENCY UNLESS EQUIPPED WITH BUILT IN PHOTO CONTROL SENSOR. (WSEC 505.2)

- MECHANICAL & ENERGY NOTES:**
1. ALL GLAZING SHALL BE DOUBLE GLAZED, U = .28 MAX.
 2. ALL METAL DUCT JOINTS TO BE TAPED WITH DUCT TAPE.
 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 1.75 GPM OR LESS PER SHOWERHEAD.
 6. FACTORY-BUILT WINDOWS SHALL BE RATED AND TESTED BY THE ASTM STANDARD E-283-73 LISTING AIR LEAKAGE RATES.
 7. VERIFY R-4 (DUCTS WITHIN CONDITIONED SPACE) AND R-8 (DUCTS OUTSIDE CONDITIONED SPACE) INSULATION REQUIREMENTS ON ALL DUCTING PER APPLICABLE WSEC REGULATIONS.
 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 THE LATEST EDITION OF THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT.
 11. ALL WATER SERVICE PIPING SHALL BE THERMALLY INSULATED IN ACCORDANCE WITH LOCAL CODE. HOT WATER PIPES SHALL BE INSULATED TO R-3 PER WSEC R403.5.3.
 12. CONTINUOUS APPROVED VAPOR BARRIERS SHALL BE INSTALLED ON THE HEATING SIDE OF ALL BATT INSULATION INSTALLED.
 13. HEATING DUCTS SHALL BE CONTAINED INSIDE ONE-HOUR WRAPPED JOIST SPACE IF DUCT RUNS UP INTO JOISTS AREA.
 14. ONLY ONE DUCT IS ALLOWED PER JOIST BAY FOR BATH, KITCHEN, OR LAUNDRY ROOM VENT FANS.
 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 THE FIRE-RESISTIVE ASSEMBLIES WHERE APPLICABLE.
 16. DISHWASHER MUST BE PROVIDED WITH AN ATMOSPHERIC AIR GAP MOUNTED ABOVE 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 MANUFACTURERS RECOMMENDATION.
 18. DUCTS SHALL BE LEAKED TESTED IN ACCORDANCE WITH WSEC R403.3.3 A WRITTEN REPORT OF THE RESULTS SHALL BE PROVIDED TO THE MECHANICAL INSPECTOR.
 19. COMBUSTION AIR SHALL BE PROVIDED TO ALL FUEL-BURNING APPLIANCES PER IRC M1701.1
 20. FACTORY-BUILT FIREPLACES SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING. DECORATIVE SHROUDS SHALL BE LISTED AND LABELED FOR USE WITH THE SPECIFIC FACTORY-BUILT CHIMNEY SYSTEM AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS. IRC R1004
- INSTALL WHOLE HOUSE VENTILATION SYSTEM IN ACCORDANCE WITH IAQ 303.4.1. INSTALL ONE EXHAUST FAN IN A UTILITY ROOM OR AS SHOWN ON THE DRAWINGS. FAN SHALL BE CAPABLE OF PRODUCING 130 CFM AND BE PROVIDED WITH CONTROL FOR MANUAL, TIMED OR AUTOMATIC OPERATION.

WHOLE HOUSE VENTILATION FANS MUST BE RATED FOR SOUND AT A MAXIMUM OF 1.0 SONE PER ASHRAE 62-2-2010 SECTION 7.2.1.

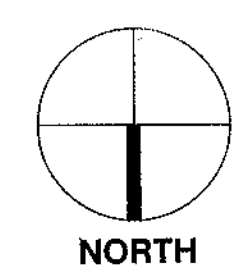
HVAC SUBCONTRACTOR TO DESIGN AND INSTALL A WHOLE HOUSE MECHANICAL VENTILATION (INTERMITTENT) SYSTEM THAT COMPLIES WITH ASHRAE STANDARD 62-2-2010, SECTIONS 4 AND 7 OR LOCAL EQUIVALENT. USE ASHRAE STANDARD 62-2-2010, EQUATION 4.2 TO DEMONSTRATE ADEQUATE VENTILATION AIR FLOW.

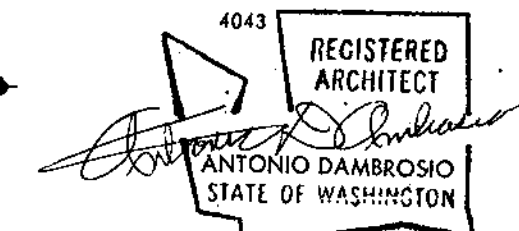


LOWER FLOOR PLAN

SCALE: 1/4" = 1'-0"

LOWER FLOOR (BASEMENT): 1,340 S.F.





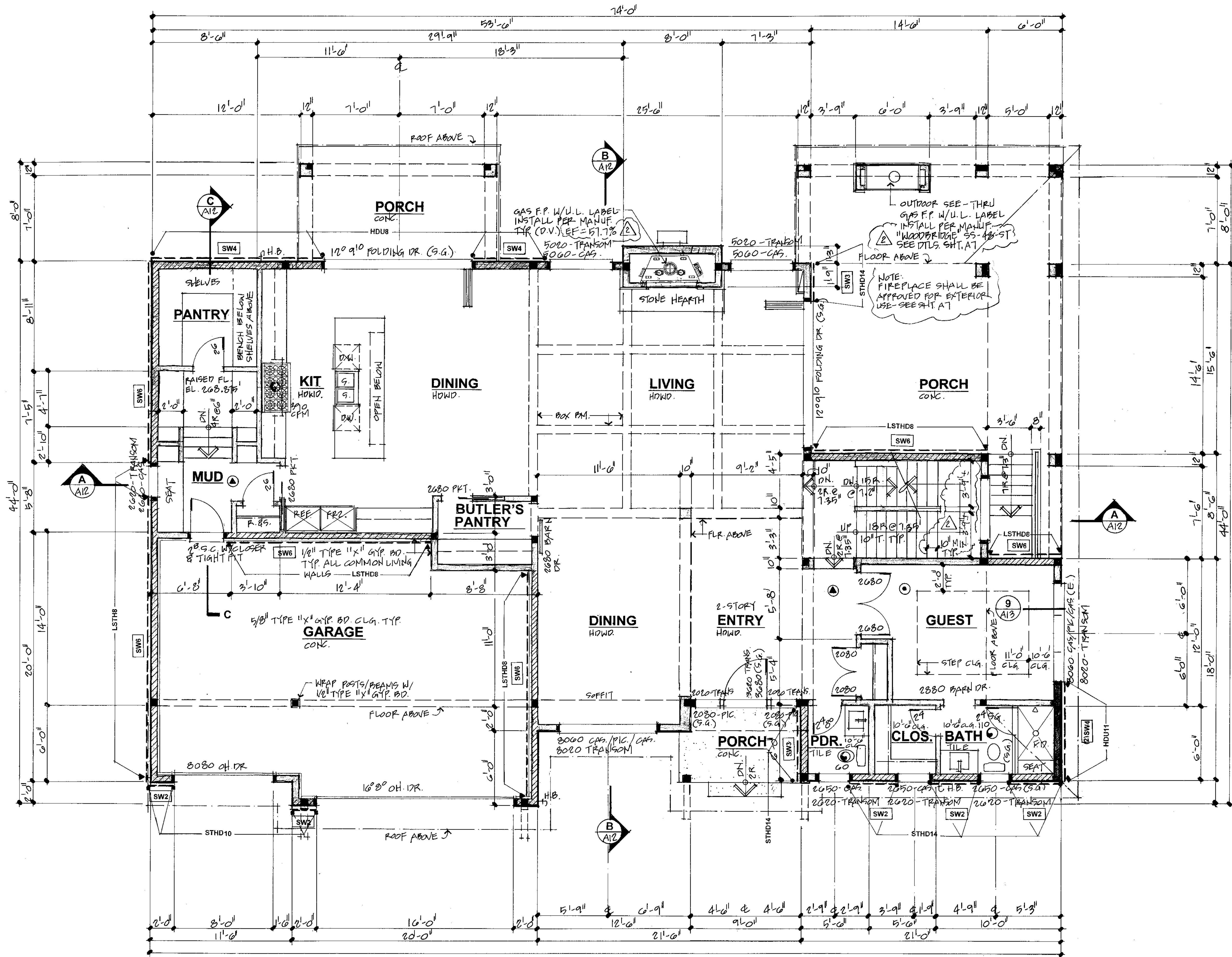
A New Residence For:
TIMBERLAND
9027 SE 60TH ST. MERCER ISLAND, WA 98040

FLOOR PLAN NOTES:

- ALL HEADERS TO BE 4X8 MIN. U.N.O. SEE FRAMING PLAN.
- CONTRACTOR SHALL VERIFY TO INSPECTOR THAT ALL GUARDS AND RAILINGS SHALL BE CAPABLE OF RESISTING A 200lb. LOAD ON TOP OF RAIL ACTING IN ANY DIRECTION AS REQUIRED BY IRC.
- ALL EGRESS WINDOWS (E.) TO HAVE NET 24" CLEAR OPENING HEIGHT, 20" NET CLEAR OPENING WIDTH, MIN. NET CLEAR OPENING AREA OF 5.7 S.F. AND 44" MAX. SILL HEIGHT TYP.
- FIREBLOCKING @ ALL PLUMBING PENETRATIONS.
- ALL EGRESS WINDOWS (E.) TO HAVE NET 24" CLEAR OPENING HEIGHT, 28" NET CLEAR OPENING WIDTH, MIN. NET CLEAR OPENING AREA OF 5.7 S.F. AND 44" MAX. SILL HEIGHT TYPICAL.
- UNIFORM RISERS @ ALL STAIRS.
- ALL WINDOWS ARE NOMINAL R.O. WIDTH AND HEIGHT, VERIFY WINDOW SIZES WITH MANUFACTURER.
- ALL WOOD IN CONTACT W/ CONCRETE TO BE P.T.
- ALL HEADERS IN EXTERIOR WALLS TO BE INSULATED WITH MIN. R10 INSULATION (EXCEPT @ FULL WALL CAVITY WIDTH HDRS.)
- CAULK AND WEATHERSTRIP ALL JOINTS AND OPENINGS PER WSEC.
- ALL DIMENSIONS TO FACE OF STUD.
- ■ DENOTES SOLID BEARING UNDER CONCENTRATED LOAD. SEE FRAMING PLAN.
- PROVIDE 26 GA. GALVANIZED SHEET METAL FLASHING ABOVE WINDOW AND DOORS TYP. LAP BUILDING PAPER OVER.
- SEE SHEET A2 FOR LUMBER GRADES AND STRUCTURAL/FRAMING NOTES.
- KITCHEN RANGE, DRYER, BATHROOM AND LAUNDRY ROOM VENTILATION DUCTS ARE TO HAVE SMOOTH NON-COMBUSTIBLE, NON-ABSORBENT SURFACE AND SHALL BE EQUIPPED W/BACKDRAFT DAMPERS.
- CLOTHES DRYER EXHAUST DUCTS SHALL NOT BE ASSEMBLED WITH METAL SCREWS OR OTHER FASTENING MEANS WHICH EXTEND INTO THE DUCT.
- ALL SHOWERS SHALL HAVE FLOW RESTRICTORS TO LIMIT WATER TO 1.75 GPM. PER WSEC.
- PROVIDE 'DENSIELD' TILE BACKER BOARD, OR APPROVED, AT ALL AREAS SUBJECT TO WATER SPLASH.
- FILL ALL EXISTING FRAMING CAVITIES WHICH ARE EXPOSED DURING CONSTRUCTION TO THE FULL DEPTH WITH BATT INSULATION OR INSULATION AN EQUIVALENT R-VALUE.
- ALL TOILETS TO BE MAX. 1.6 GALLONS/ FLUSH.
- SMOKE DETECTORS TO BE HARD WIRED W/ BATTERY BACKUP, INTERCONNECTED.
- THE POINT OF DISCHARGE OF EXHAUST FAN AIR SHALL BE AT LEAST 3' FROM ANY OPENING IN BLDG.

FIREBLOCKING IRC R302.11

IN COMBUSTIBLE CONSTRUCTION FIREBLOCKING SHALL BE PROVIDED TO CUT OFF BOTH VERTICAL AND HORIZONTAL CONCEALED DRAFT OPENINGS AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES AND BETWEEN A TOP STORY AND THE ROOF SPACES. FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAMED CONSTRUCTION IN CONCEALED SPACES INTERCONNECTIONS BETWEEN VERTICAL AND HORIZONTAL SPACES, AROUND PENETRATIONS FOR MEP INSTALLATION AND OTHER LOCATIONS AS INDICATED IN IRC R302.11



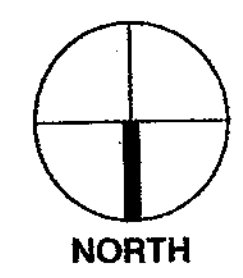
MAIN FLOOR PLAN

SCALE 1/4" = 1'-0"

MAIN FLOOR:	2000 S.F.
GARAGE:	664 S.F.
TOTAL BUILDING:	2664 S.F.
REAR PORCH A:	128 S.F.
REAR PORCH B:	482 S.F.
FRONT PORCH:	69 S.F.
TOTAL PORCHES:	674 S.F.
TOTAL STRUCTURE:	3338 S.F.

LEGEND:

- NEW CONSTRUCTION
- SHEAR WALL (SEE SCHED. SHT. S1)
- EXHAUST FAN
- 110 V. SMOKE DETECTOR W/ BATTERY BACKUP INTERCONNECTED
- COMBINATION SMOKE/CARBON MONOXIDE DETECTOR
- SAFETY GLASS
- EGRESS
- HOSE BIB



Drawing Title:
MAIN **REVIEWED FOR CODE COMPLIANCE**
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Checked By:
Approved By:

Issue Date: 1/17/20

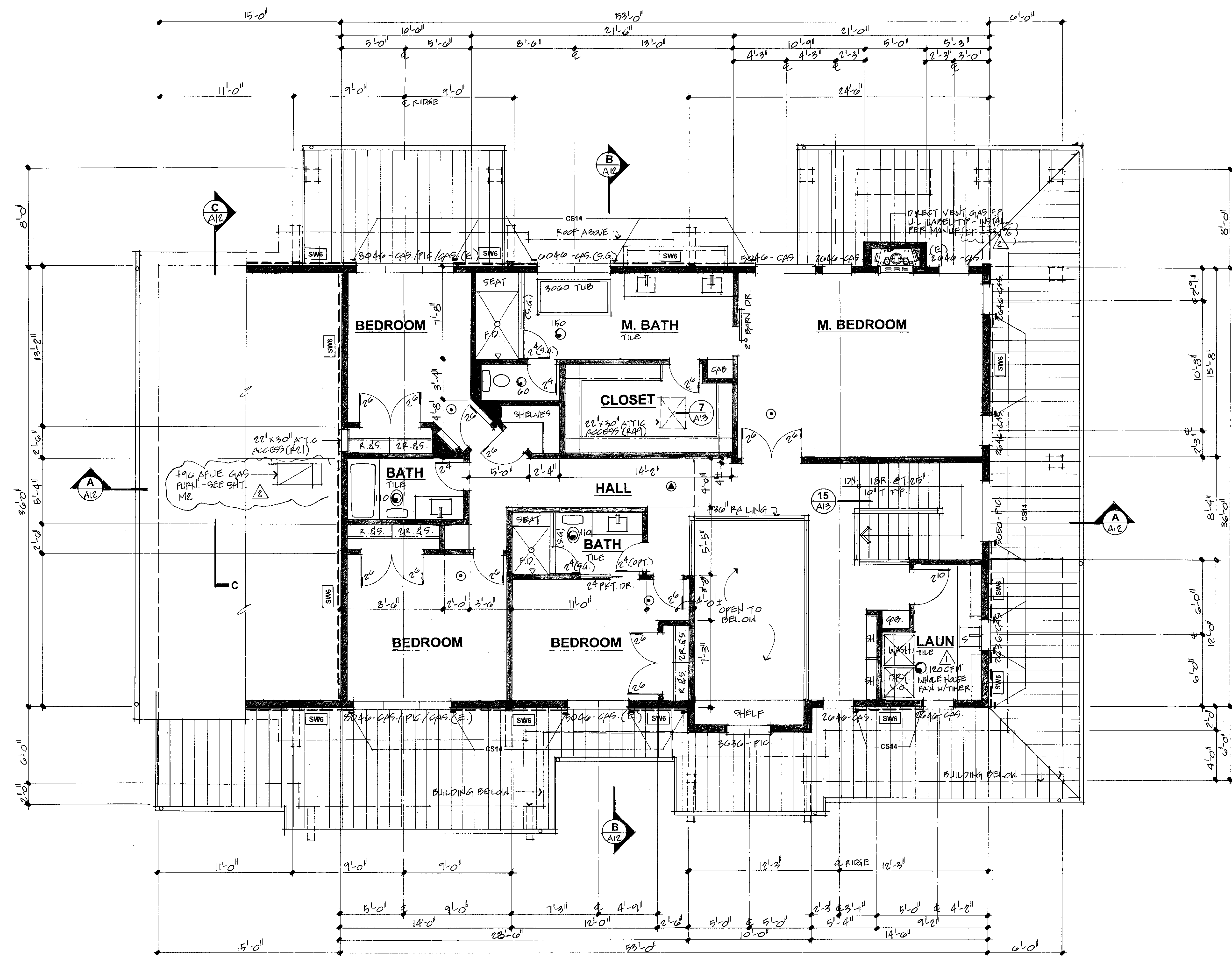
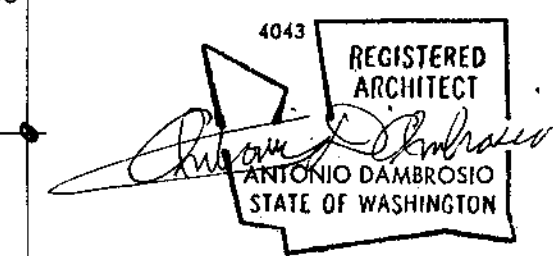
Revisions:

No.	Description	Date
1	PERMIT	2/22/21

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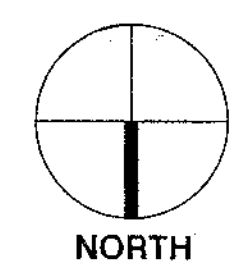
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A5



UPPER FLOOR PLAN

SCALE 1/4" = 1'-0"
UPPER FLOOR: (INCL VAULTED ENTRY) 1821 S.F.
UPPER FLOOR W.O. VAULT: 1686 S.F.



A New Residence For:
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9027 SE 60TH ST.
MERCER ISLAND, WA 98040

Drawing Title: UPPER FLOOR PLAN
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Checked By:
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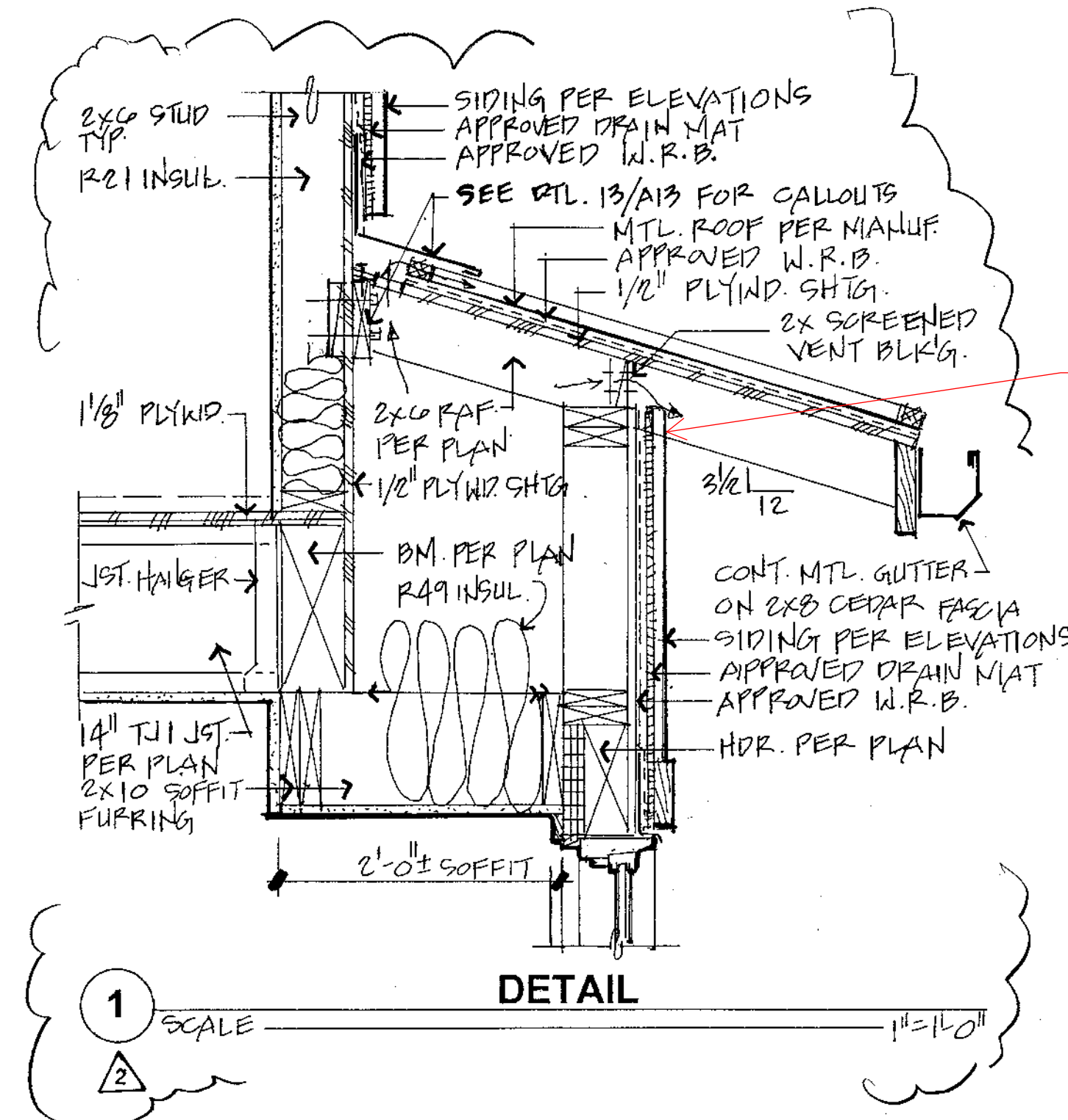
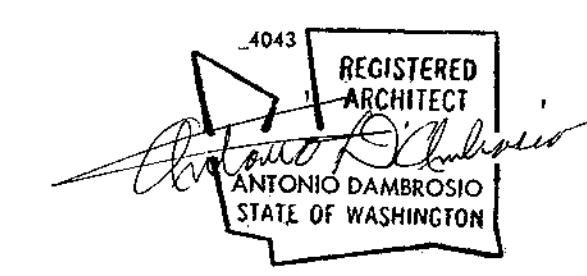
Issue Date: 1/17/20

Revisions:

No.	Description	Date
1	PERMIT	2/10/20
2	PERMIT	2/02/21

Scale: 1/4" = 1'-0"

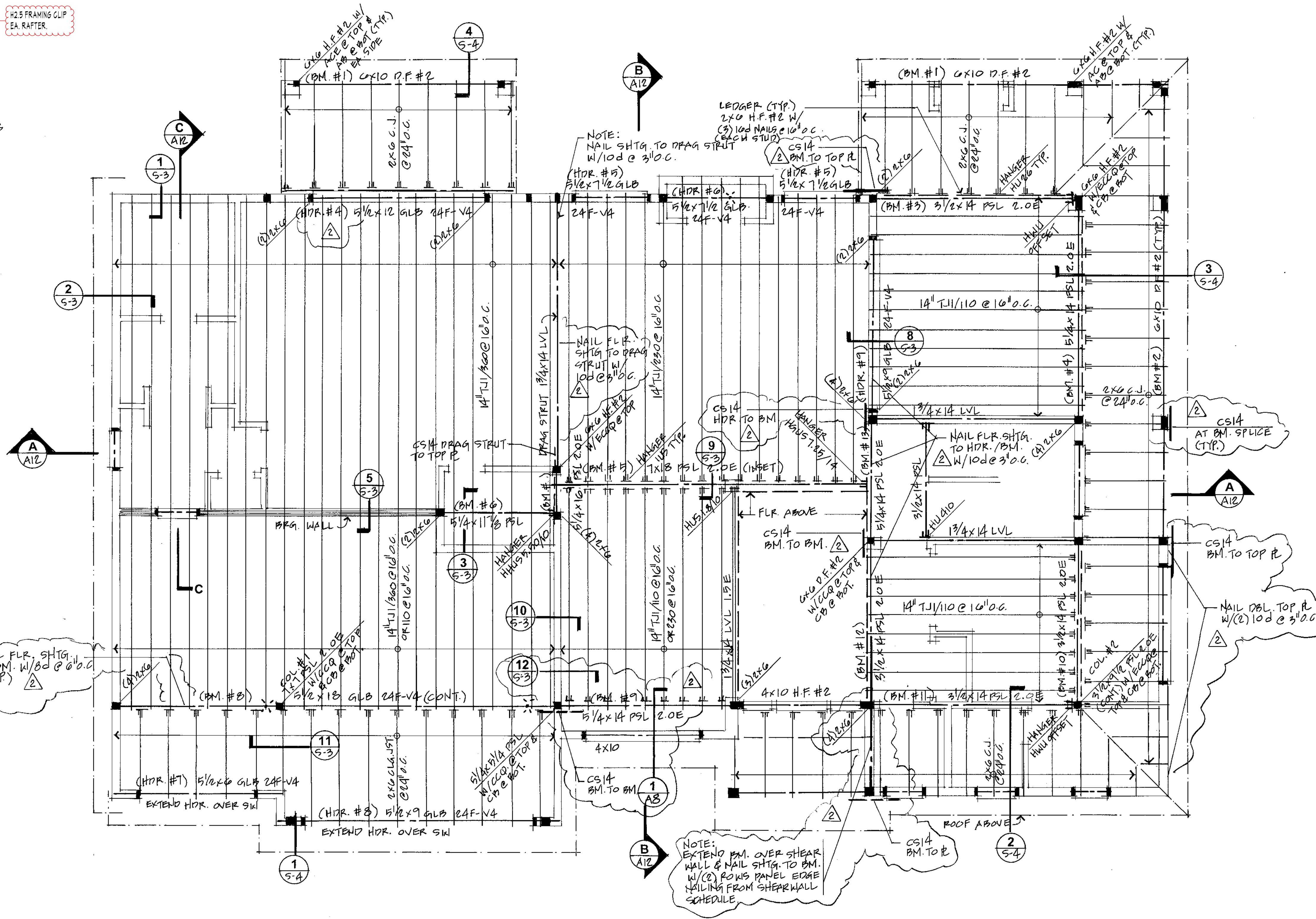
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H25 FRAMING CLIP
EA. RAFTER.

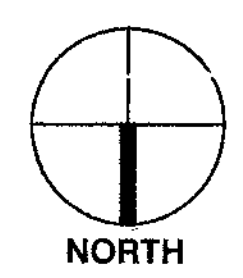
NAIL FLR. SHTG.
TO BM. W/ @ 6" O.C.
(TYP.)

NOTE:
EXTEND BM. OVER SHEAR
WALL & NAIL SHTG. TO BM.
W/ @ 6" ROWS PANEL EDGE
NAILING FROM SHEARWALL
SCHEDULE.



UPPER FLOOR FRAMING PLAN
SCALE 1/4" = 1'-0"

NOTE:
HDR. 4x8 H.F. #2 U.N.O.
POST (2) 2x6 (EXT. WALLS) U.N.O.



A New Residence For:
TIMBERLAND
9027 SE 60TH ST.
MERCER ISLAND, WA 98040

Drawing Title: UPPER FLOOR FRAMING
REVIEWED FOR CODE COMPLIANCE
March 25, 2021
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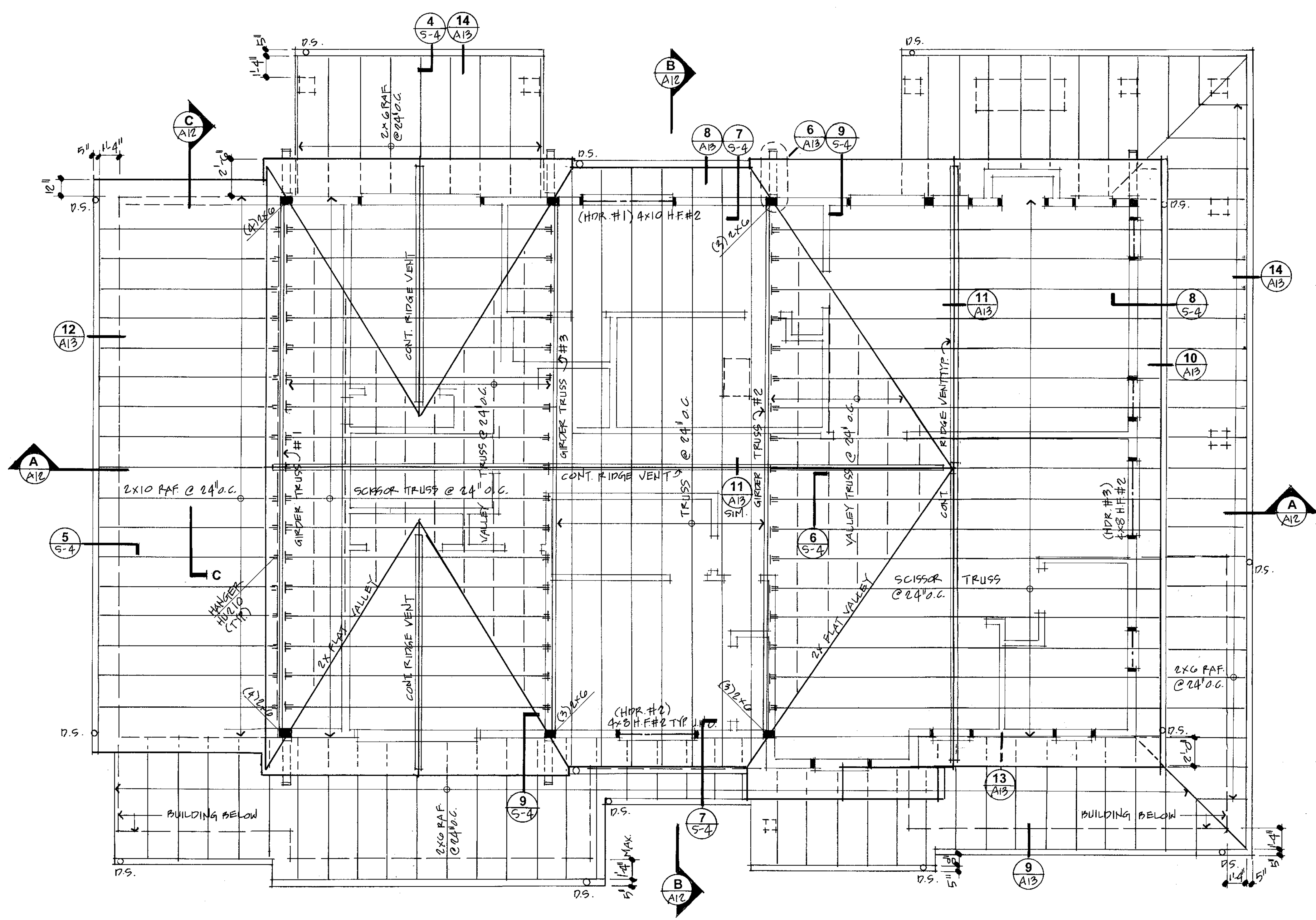
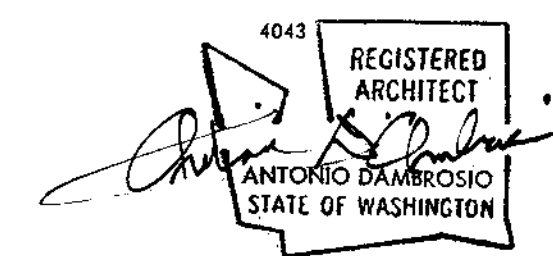
Issue Date: 1/17/20

Revisions:

No.	Description	Date
1	PERMIT 2/26/21	

Scale: AS NOTED
Sheet No.

A8



ROOF FRAMING PLAN
SCALE 1/4" = 1'-0"

ROOF VENTILATION:

UPPER ROOF: 2408 S.F. ÷ 150 = 16.49 x .15 = 8.225 S.F.
8.225 x 144 = 1185 SQ. IN.
PROVIDED: 108 LIN. FT. OF CONT. RIDGE VENT @ 13.5 SQ. IN. N.F.A./FT.
108 x 13.5 = 1458 SQ. IN. ✓
BALANCE W/ (2) 2" Ø VENT HOLES ALL LEAVES

REAR PORCH: 128 S.F. ÷ 150 = .85 S.F.
.85 x 144 = 123 SQ. IN.
PROVIDED: 10 LIN. FT. OF CONT. SOFFIT VENT @ 10 SQ. IN. N.F.A./FT.
10 x 10 = 100 SQ. IN. ✓

FRONT/SIDE ROOF: 826 S.F. ÷ 150 = 5.50 S.F.
5.50 x 144 = 793 SQ. IN.
PROVIDED: 126 LIN. FT. OF CONT. SOFFIT VENT @ 10 SQ. IN. N.F.A./FT.
10 x 126 = 1,260 SQ. IN. ✓

A New Residence For:
TIMBERLAND
9027 SE 60TH ST. MERCER ISLAND, WA 98040

Drawing Title: ROOF FRAMING PLAN
REVIEWED FOR CODE COMPLIANCE
March 25, 2021
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Drawn By: T.D.
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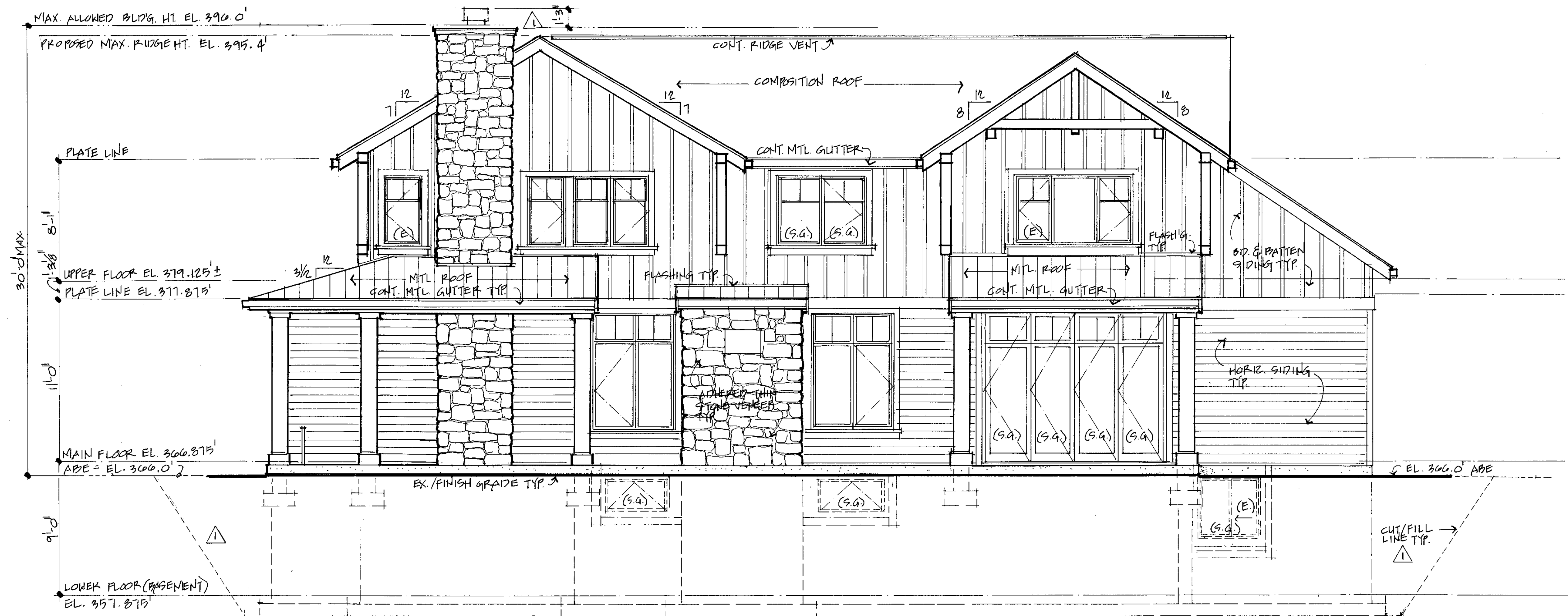
Issue Date: 1/11/20

Revisions:
No. Description Date

Scale: 1/4" = 1'-0"

Sheet No.

A9



SOUTH ELEVATION
SCALE 1/4" = 1'-0"



NORTH ELEVATION
SCALE 1/4" = 1'-0"

TIMBERLAND
 A New Residence For:
 9027 SE 60TH ST.
 MERCER ISLAND, WA 98040

Drawing Title: EXTERIOR ELEVATIONS
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 March 25, 2021
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Drawn By: T.D.
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 Approved By:

Issue Date: 1/17/20

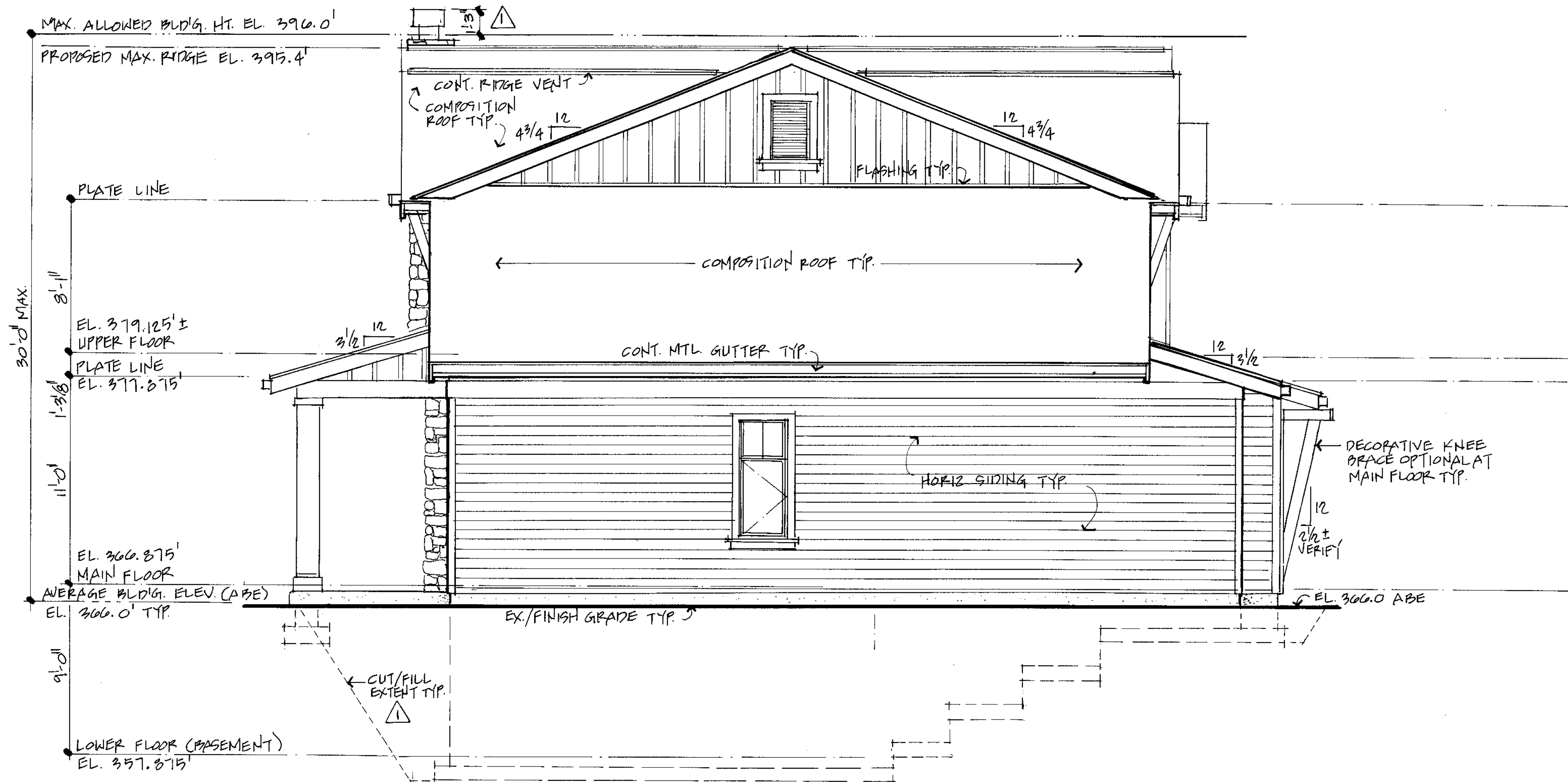
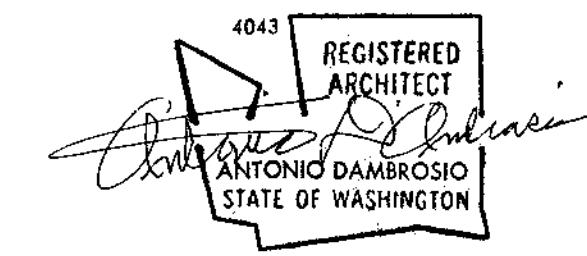
Revisions:

No.	Description	Date
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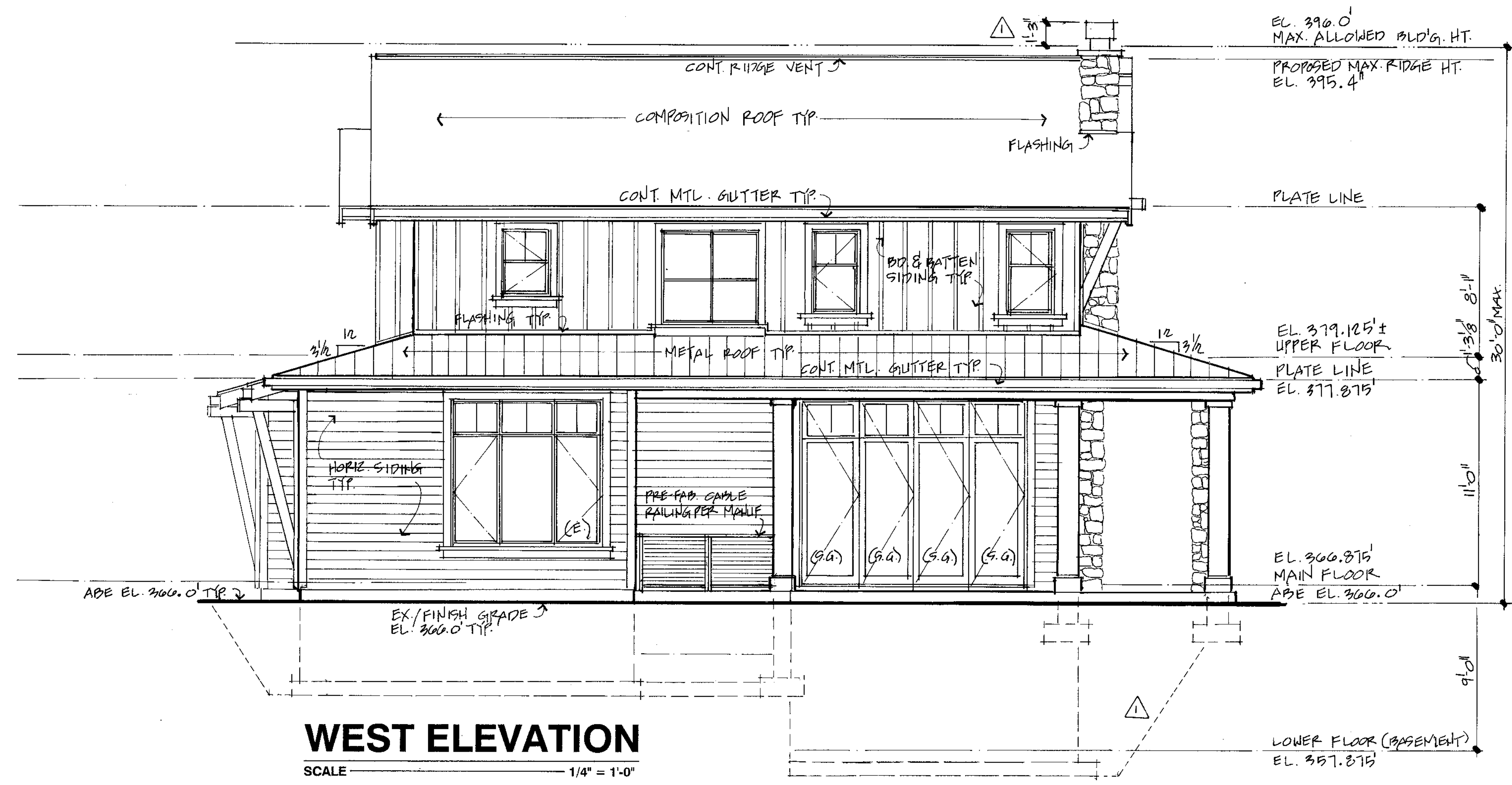
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Sheet No.

A10



EAST ELEVATION
SCALE 1/4" = 1'-0"



WEST ELEVATION
SCALE 1/4" = 1'-0"

A New Residence For:
TIMBERLAND
9027 SE 60TH ST. MERCER ISLAND, WA 98040

Drawing Title: EXTERIOR WALLS
REVIEWED FOR CODE COMPLIANCE
March 25, 2021
SITE COPY

Drawn By: T.D.
Checked By:
Approved By:

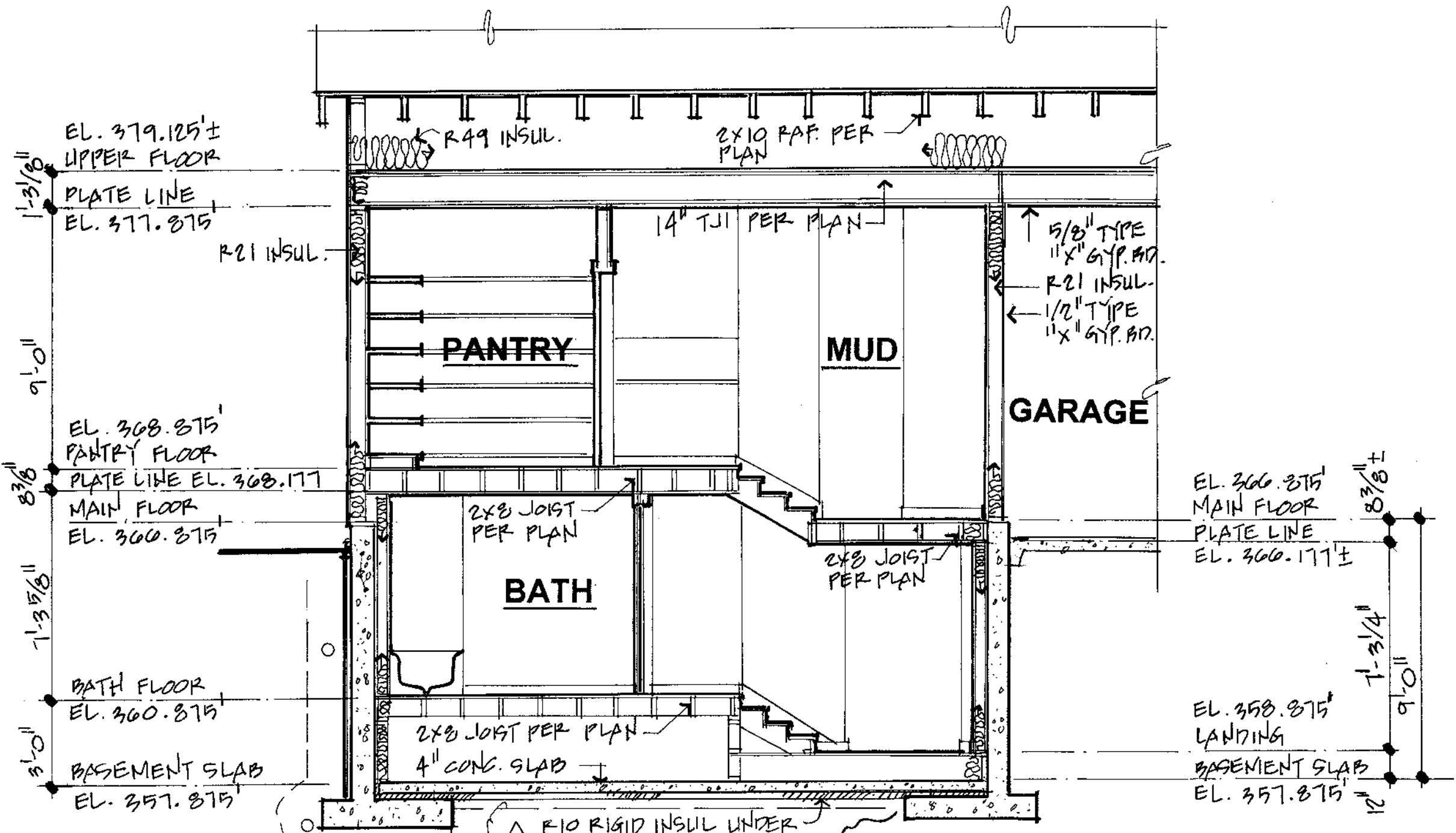
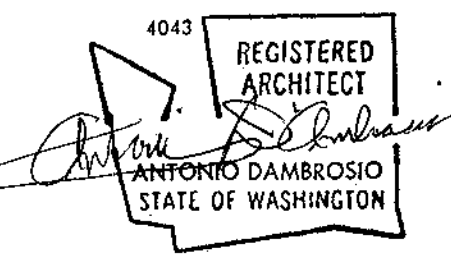
Issue Date: 1/17/20

Revisions:
No. Description Date
1 PRELIMINARY 2/10/20

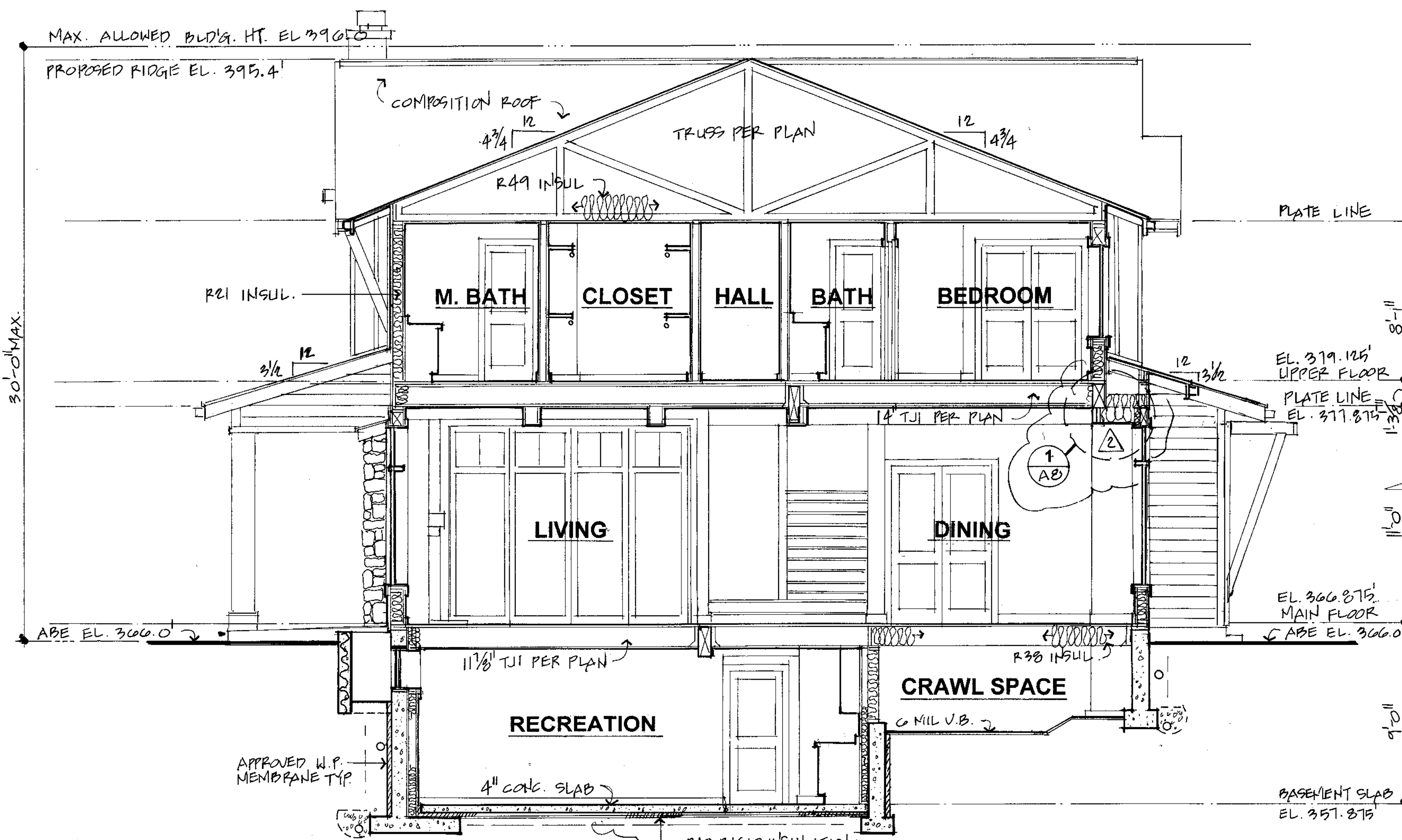
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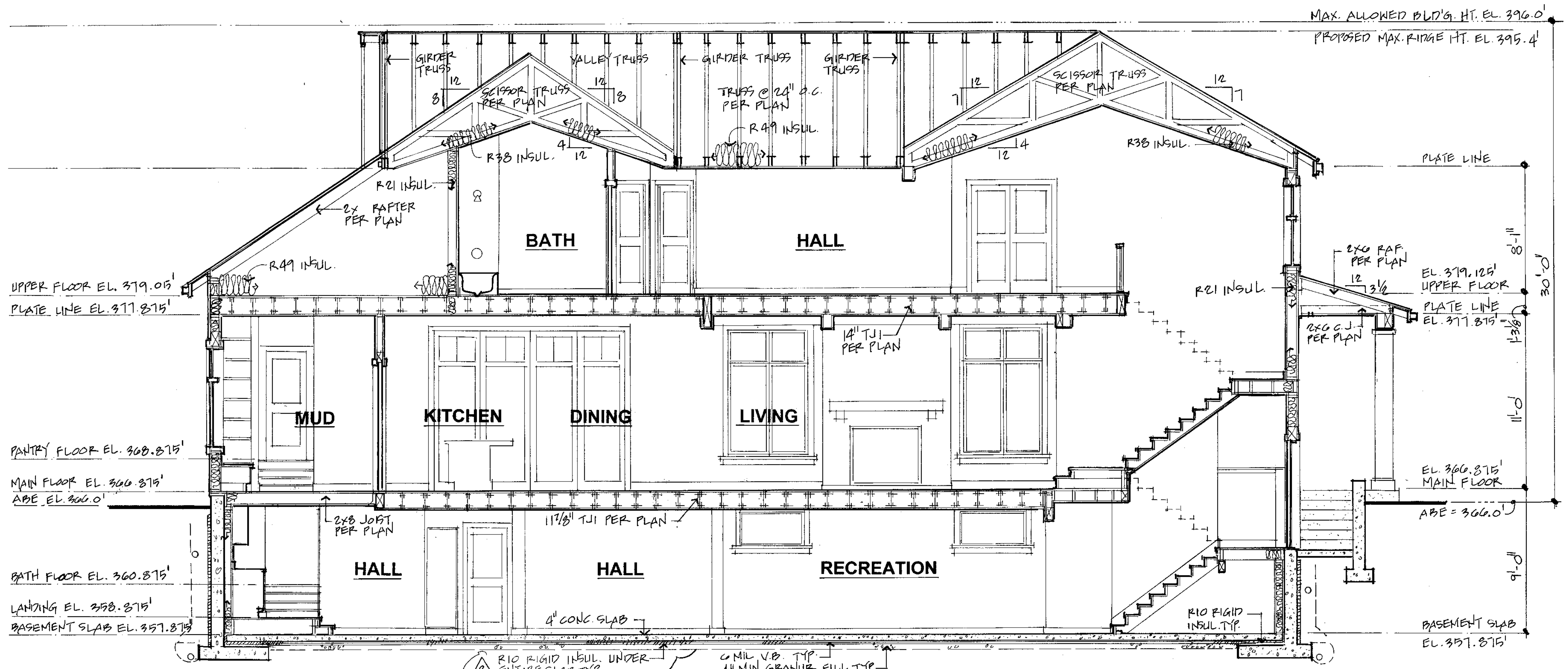
A11



SECTION CC
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SECTION BB
SCALE 1/4" = 1'-0"



SECTION AA
SCALE 1/4" = 1'-0"

TIMBERLAND
 A New Residence For:
 9027 SE 60TH ST. MERCER ISLAND, WA 98040

Drawing Title: SECTION AA
 REVIEWED FOR CODE COMPLIANCE
 March 25, 2021
 SITE COPY

Drawn By: J.D.
 Checked By:
 Approved By:

Issue Date: 1/17/20

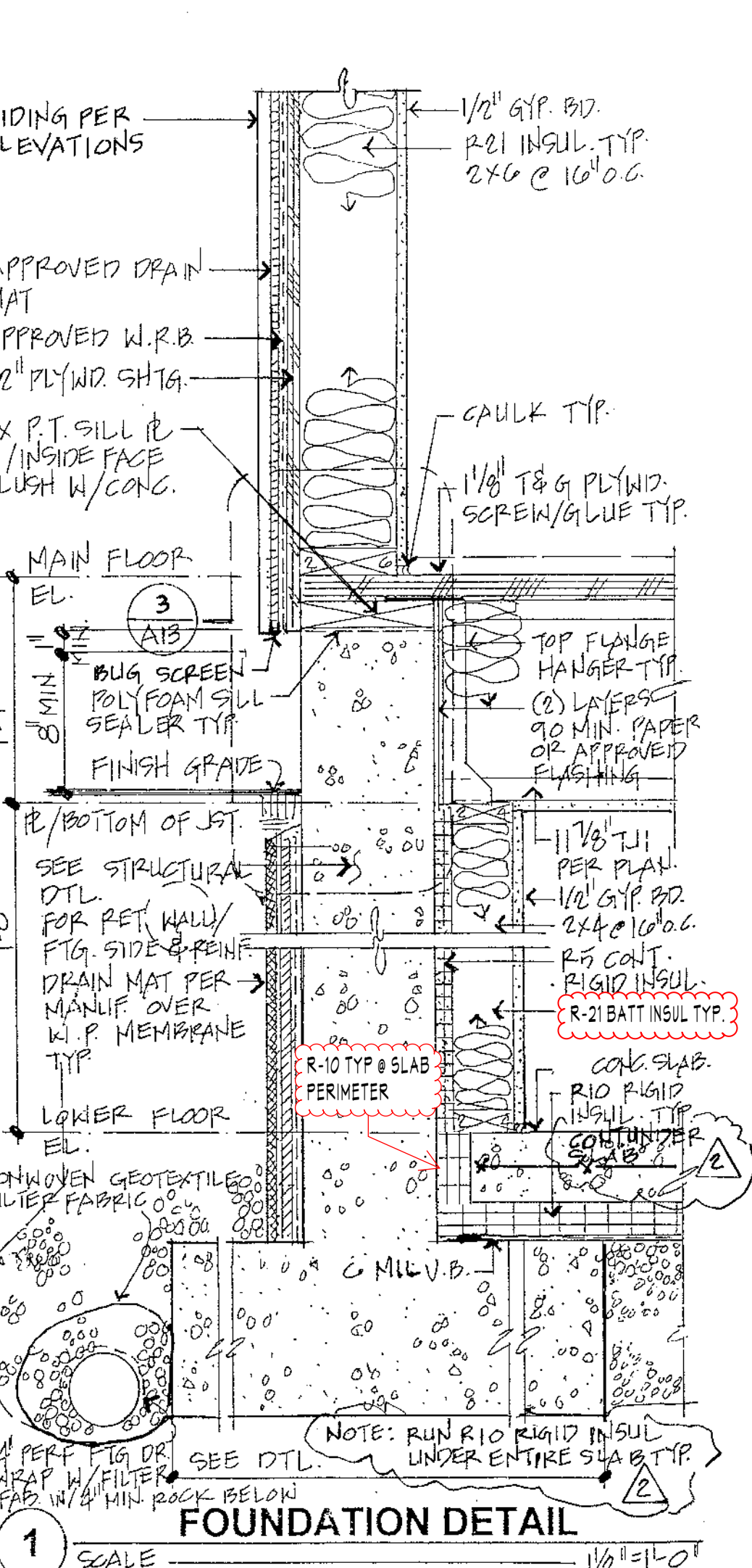
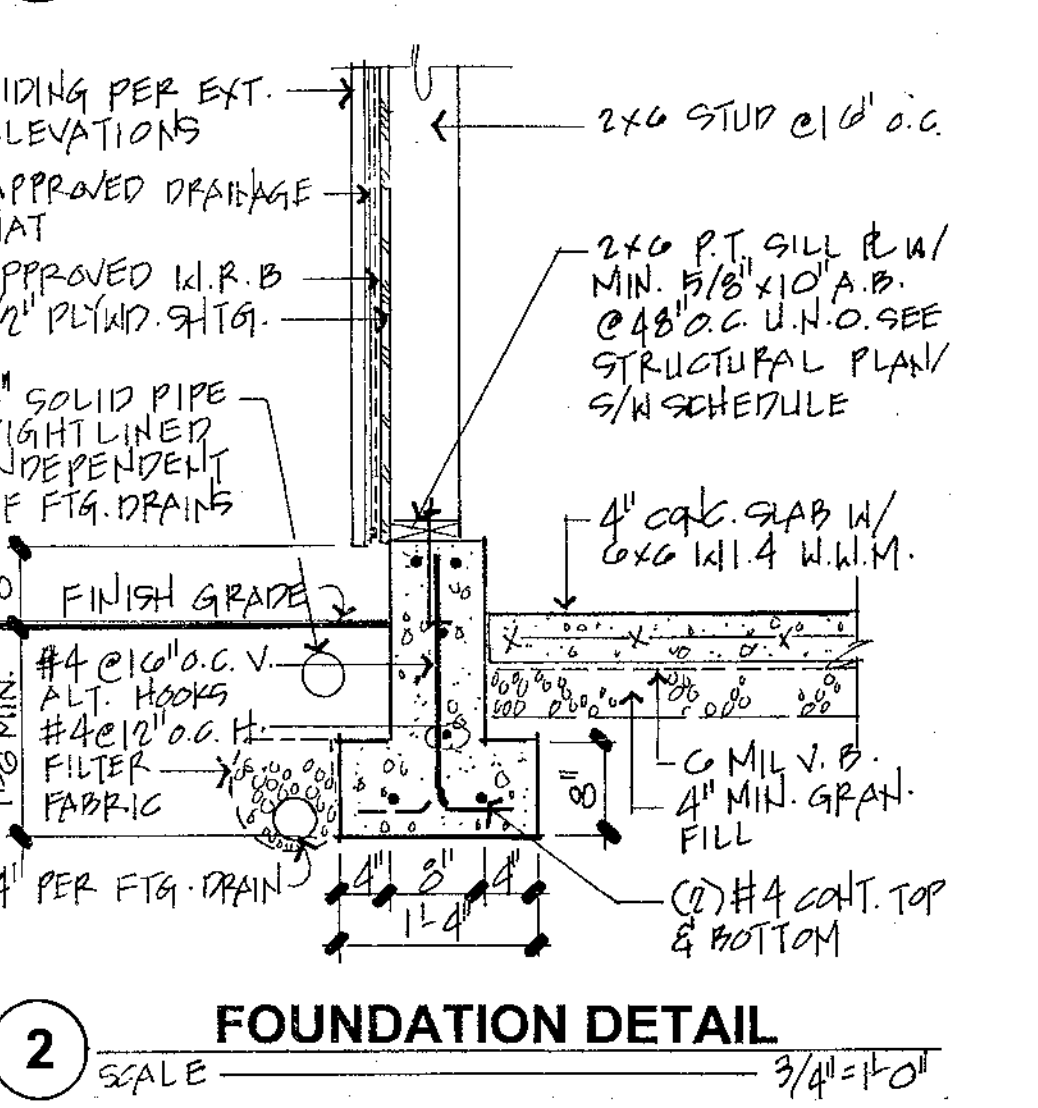
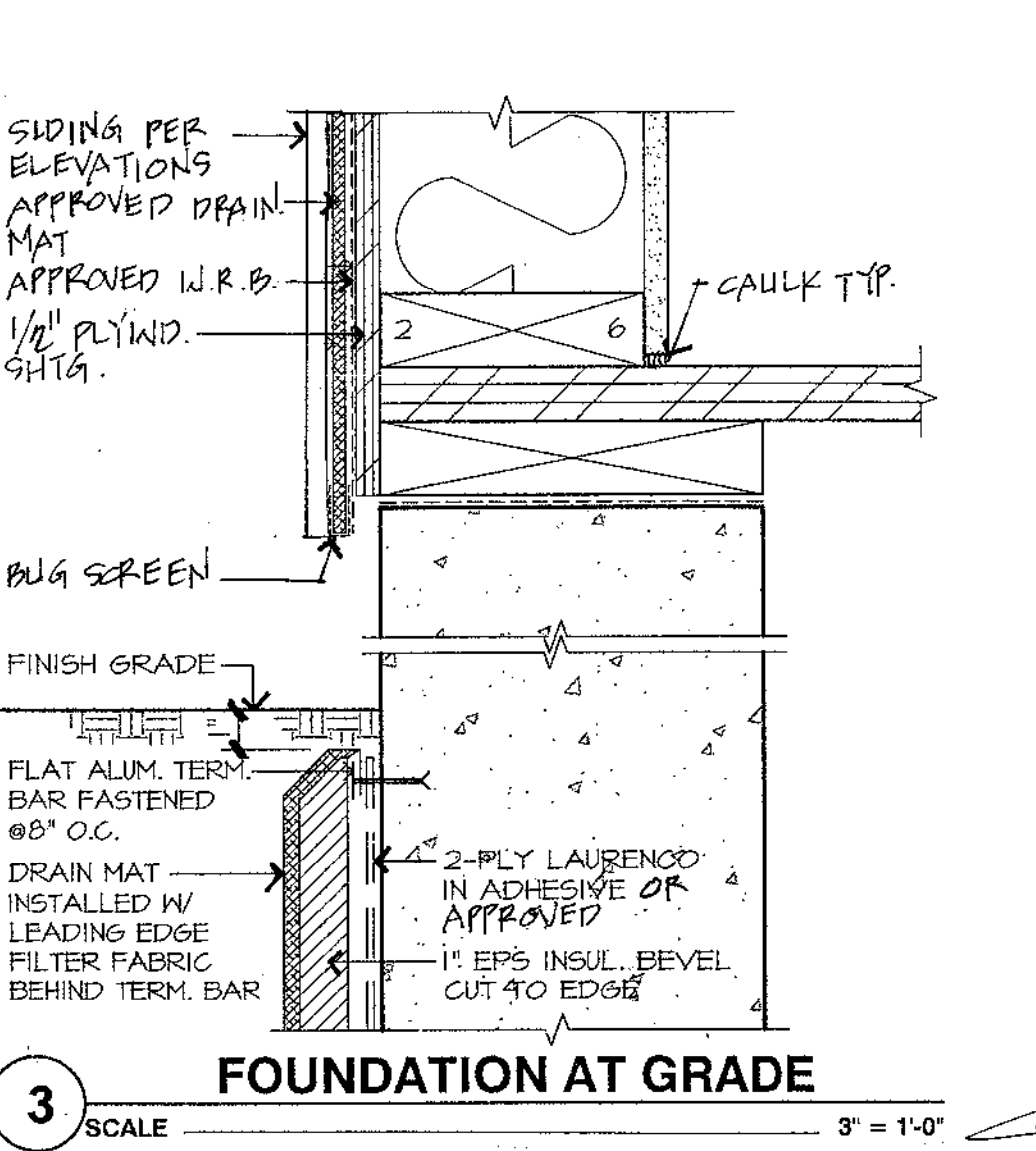
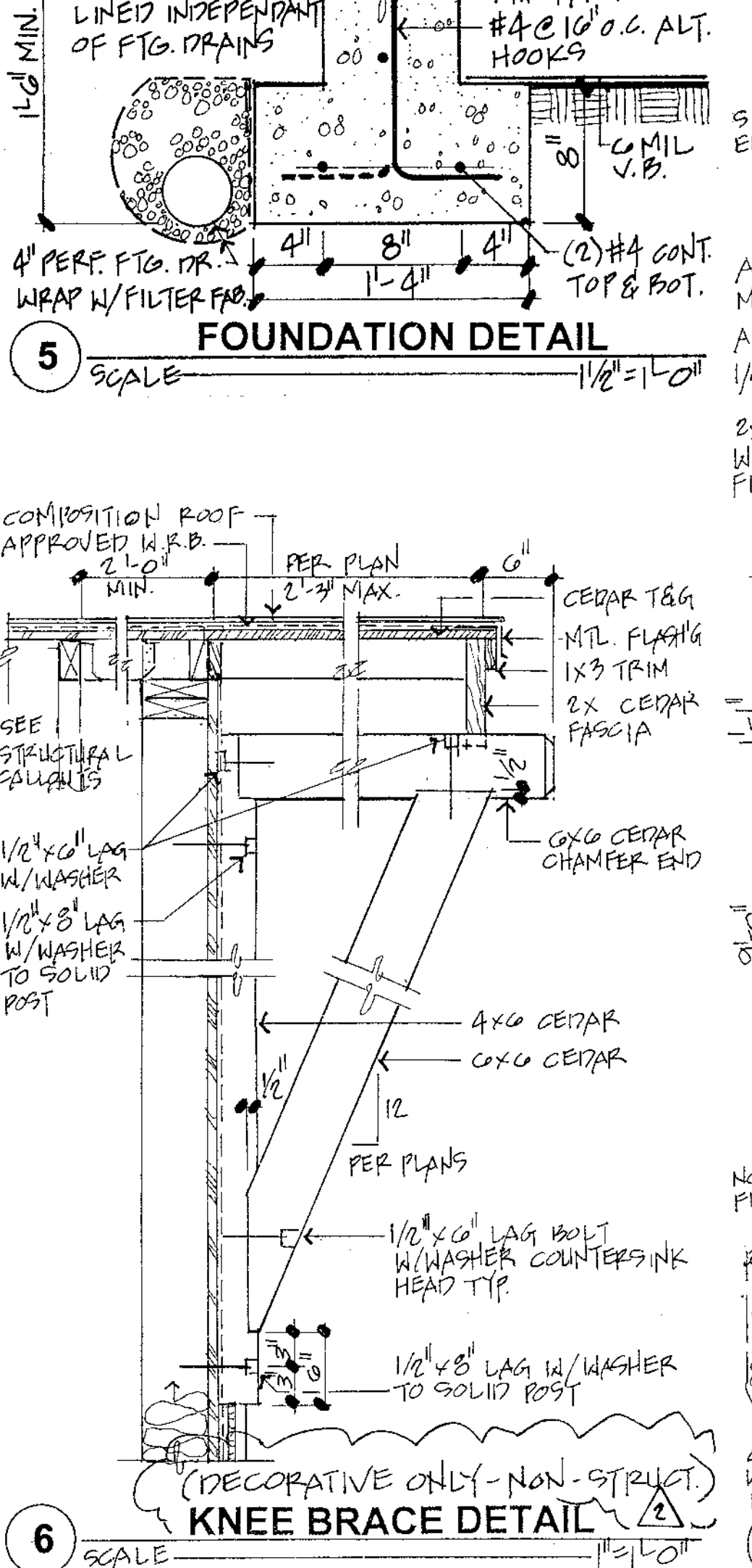
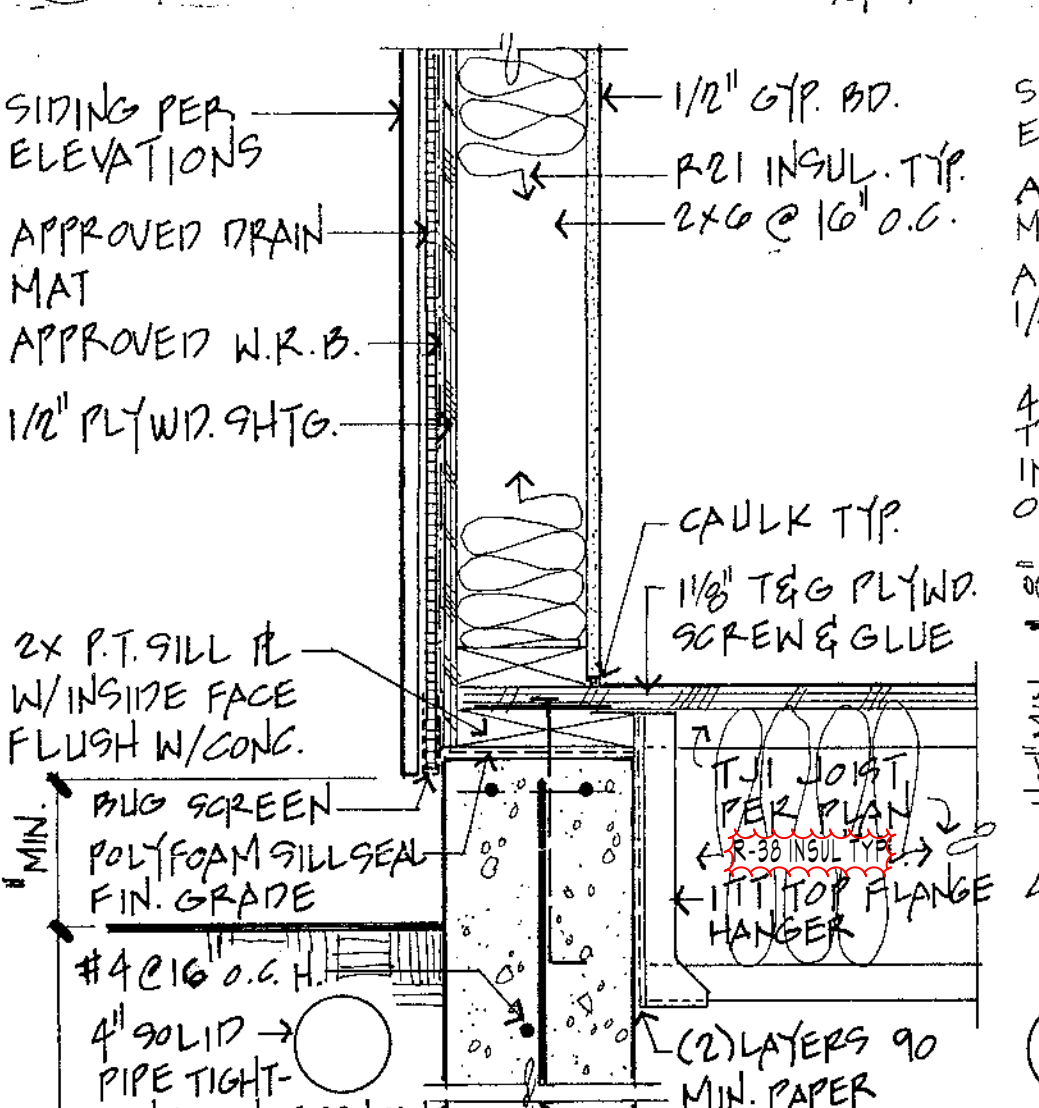
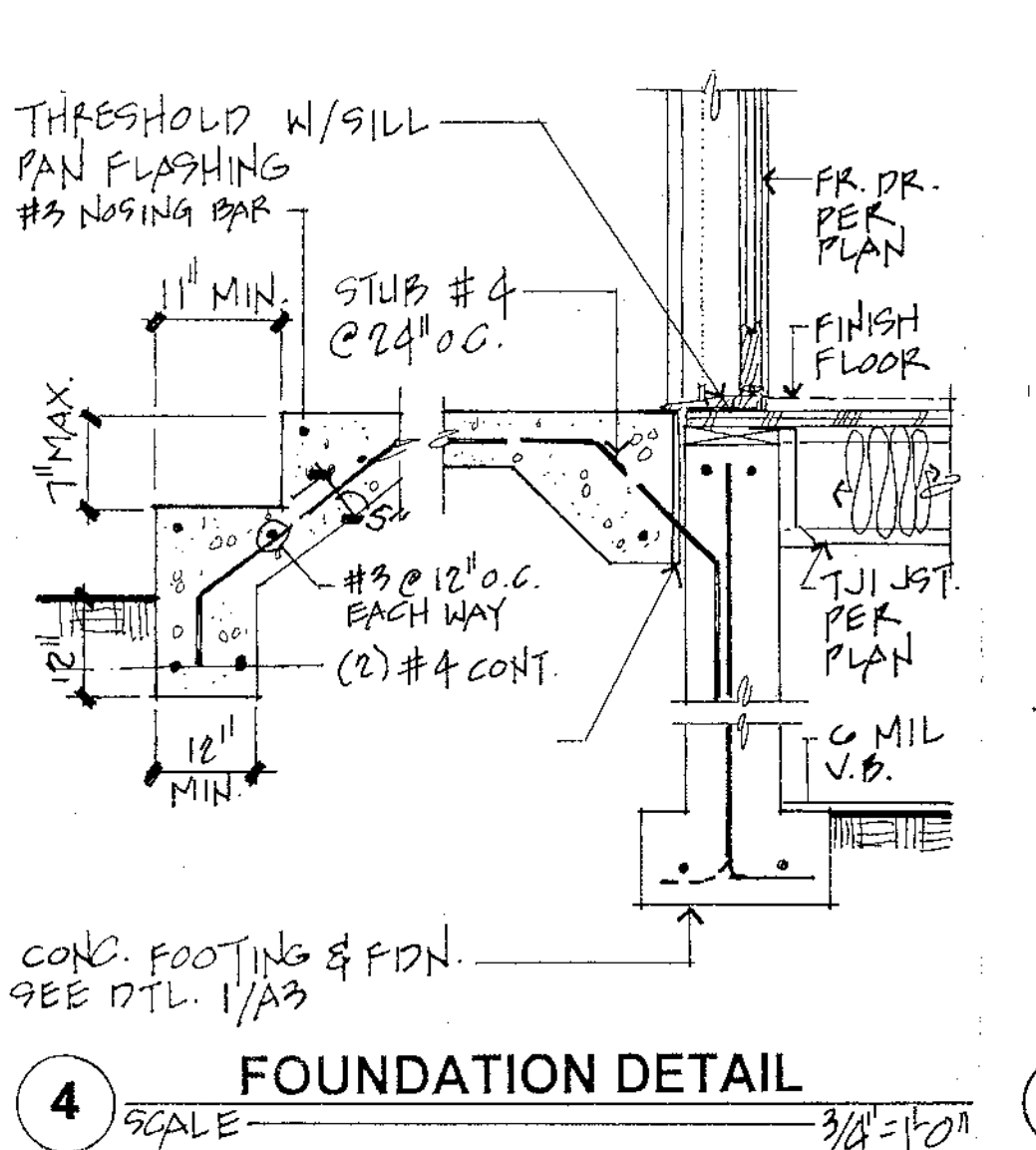
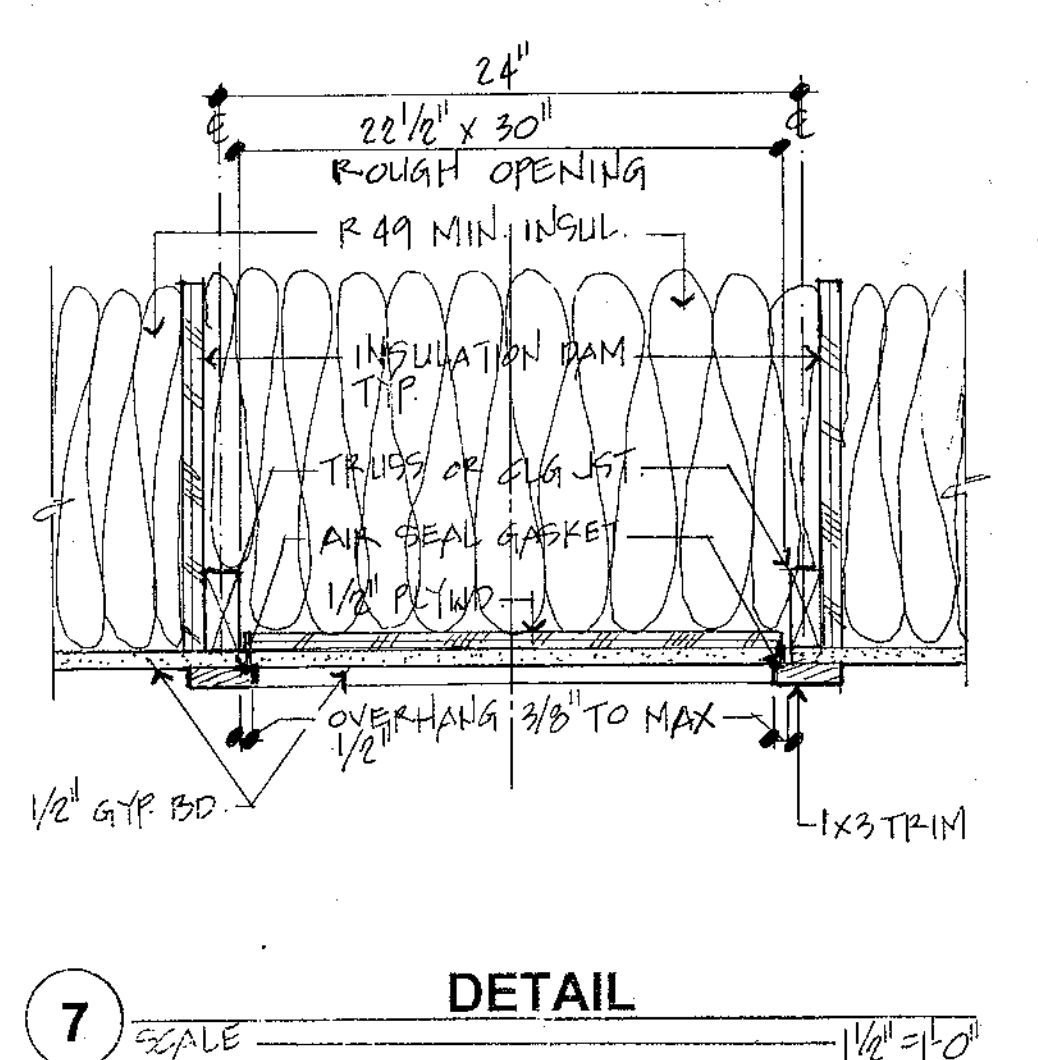
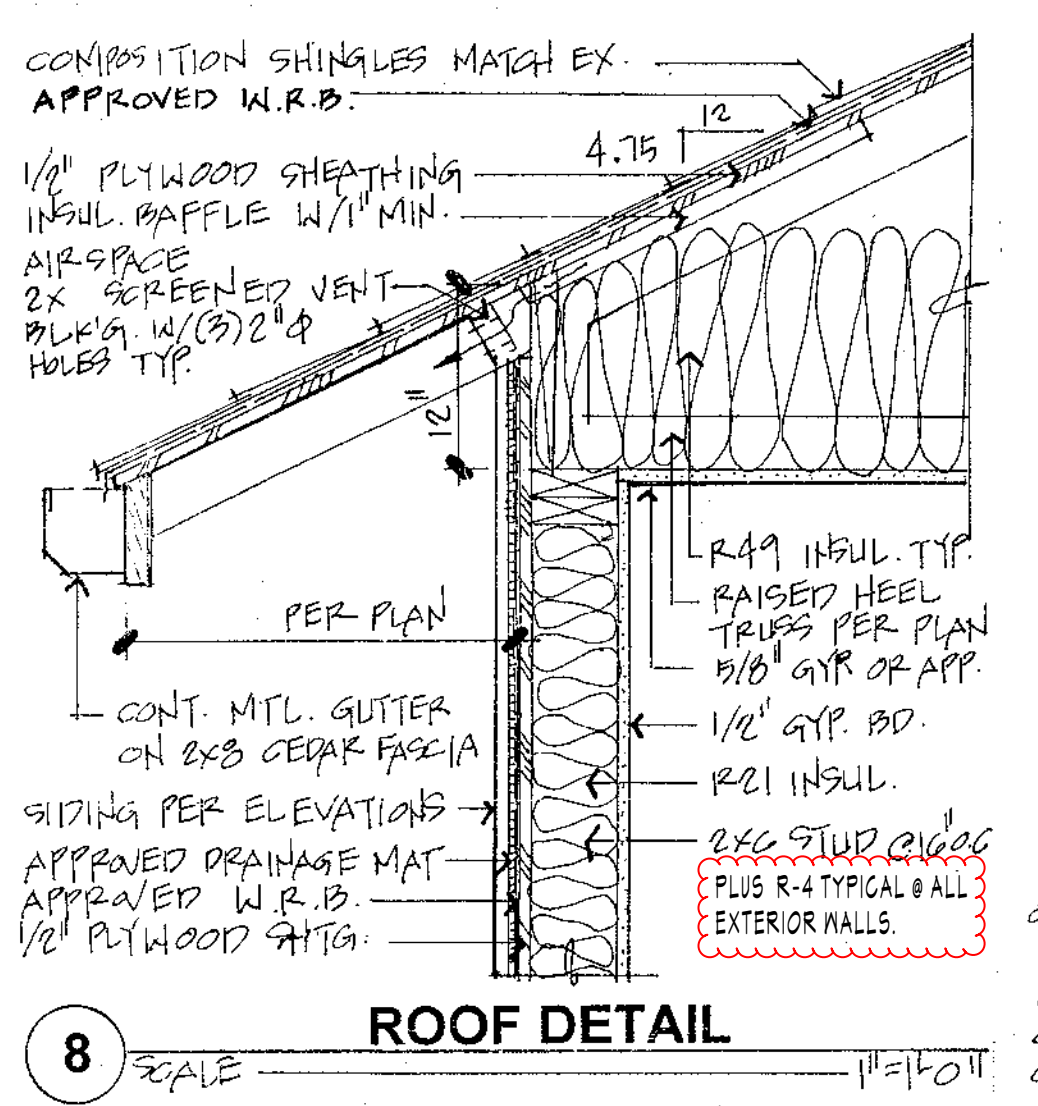
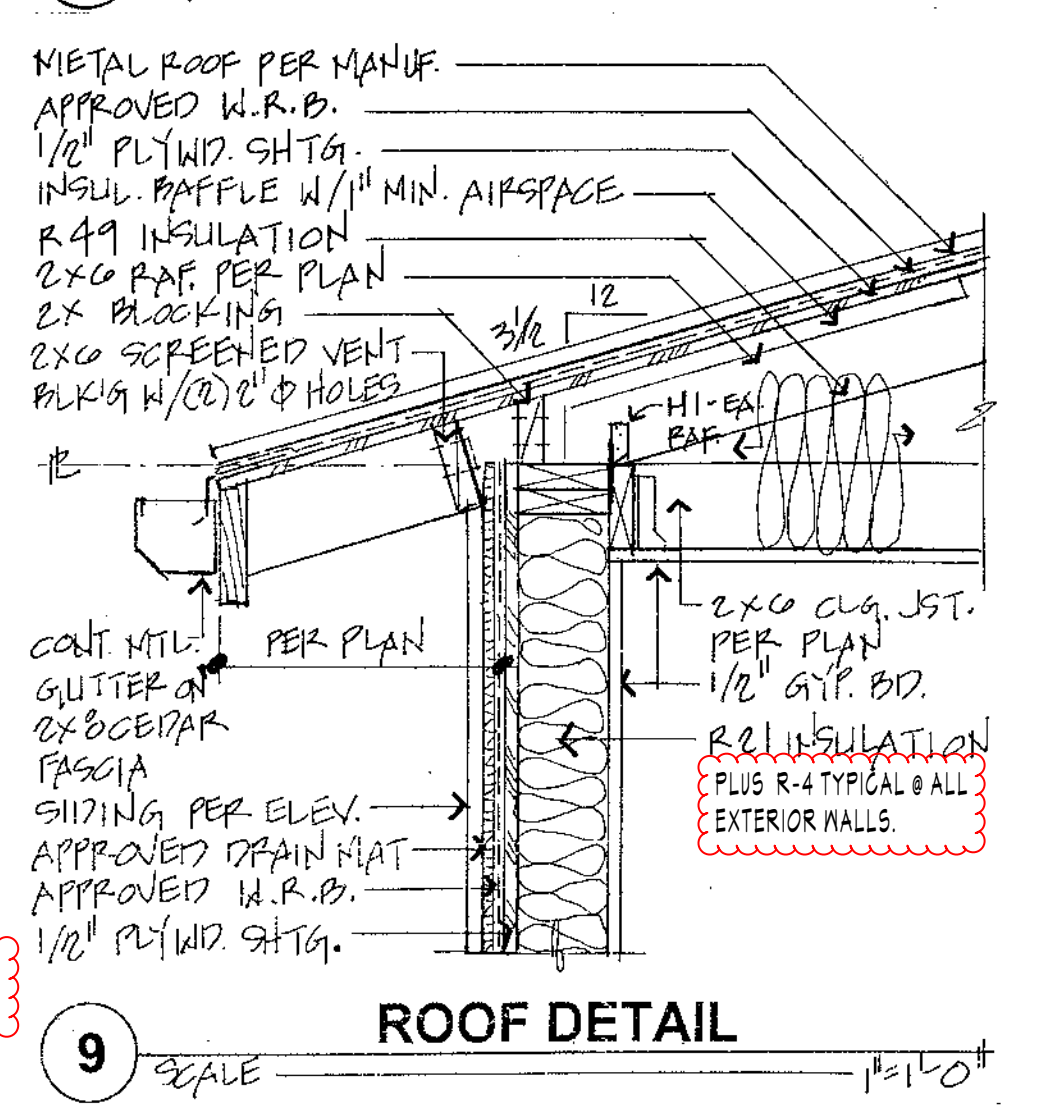
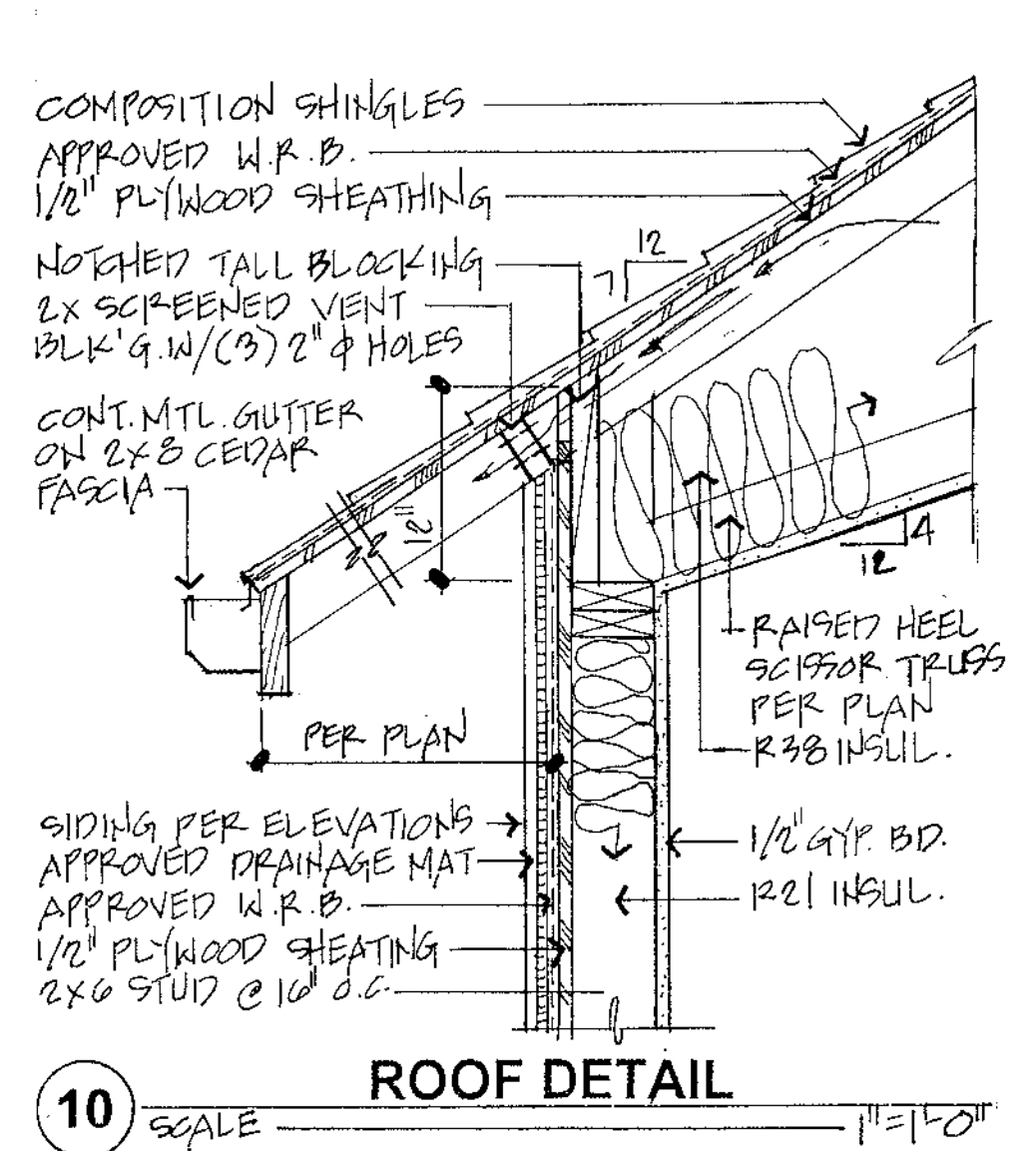
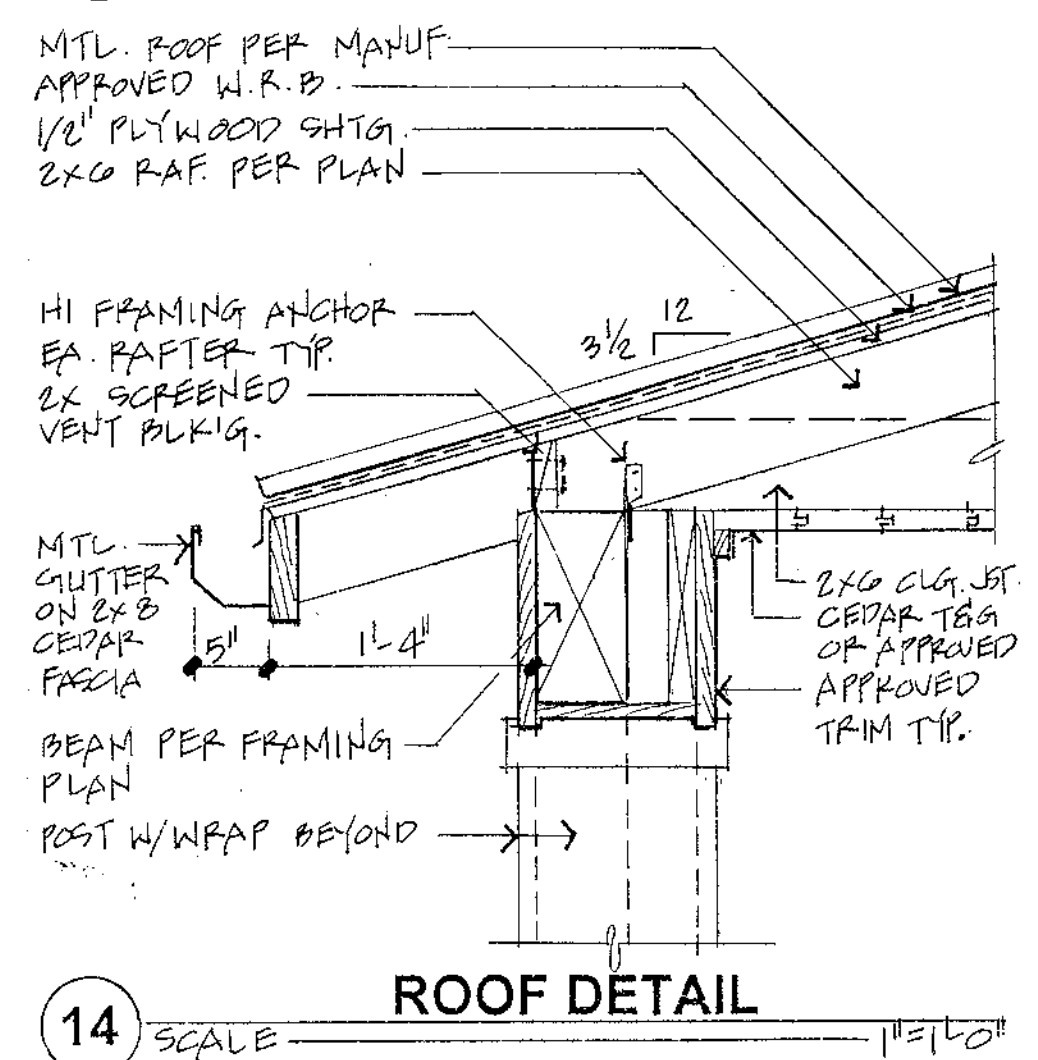
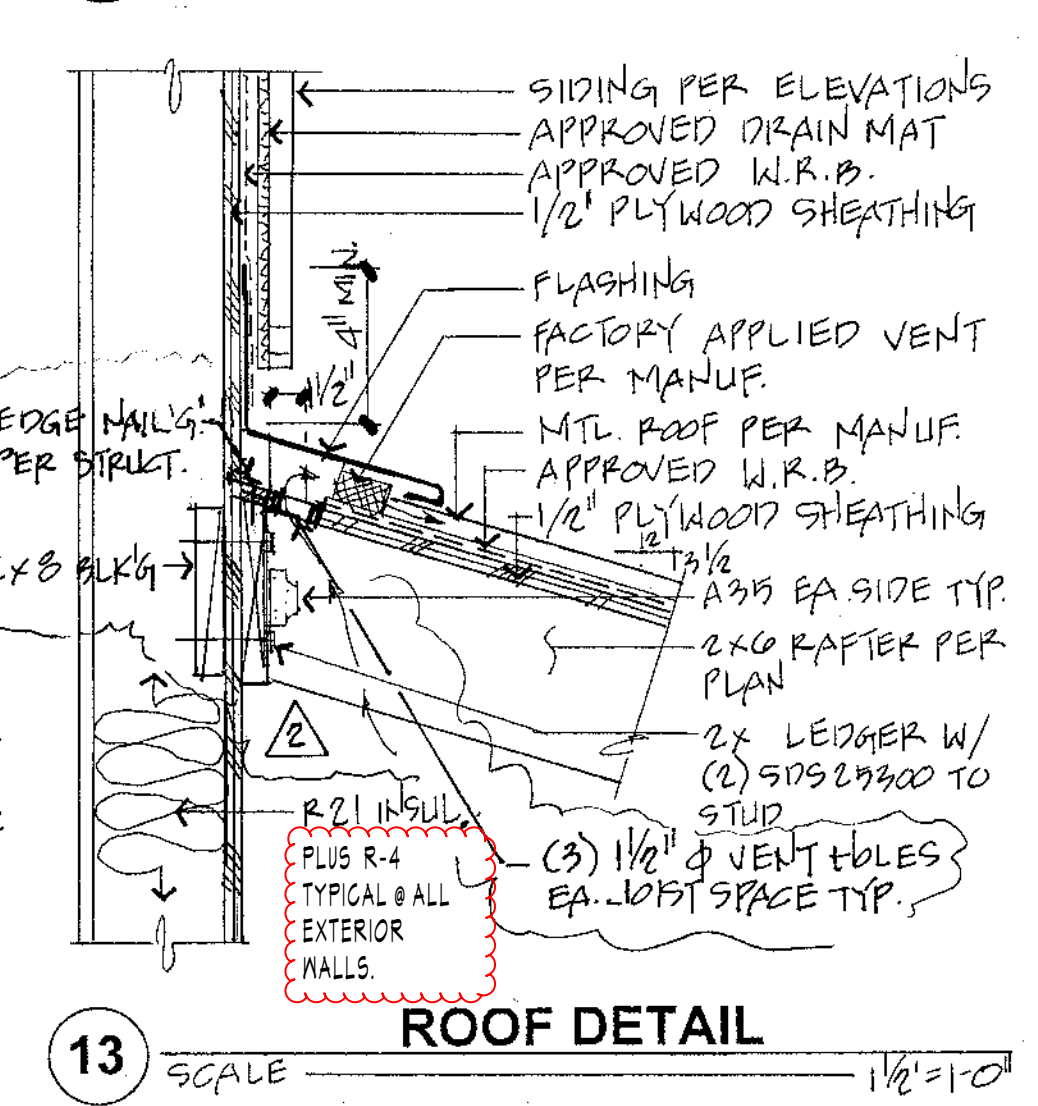
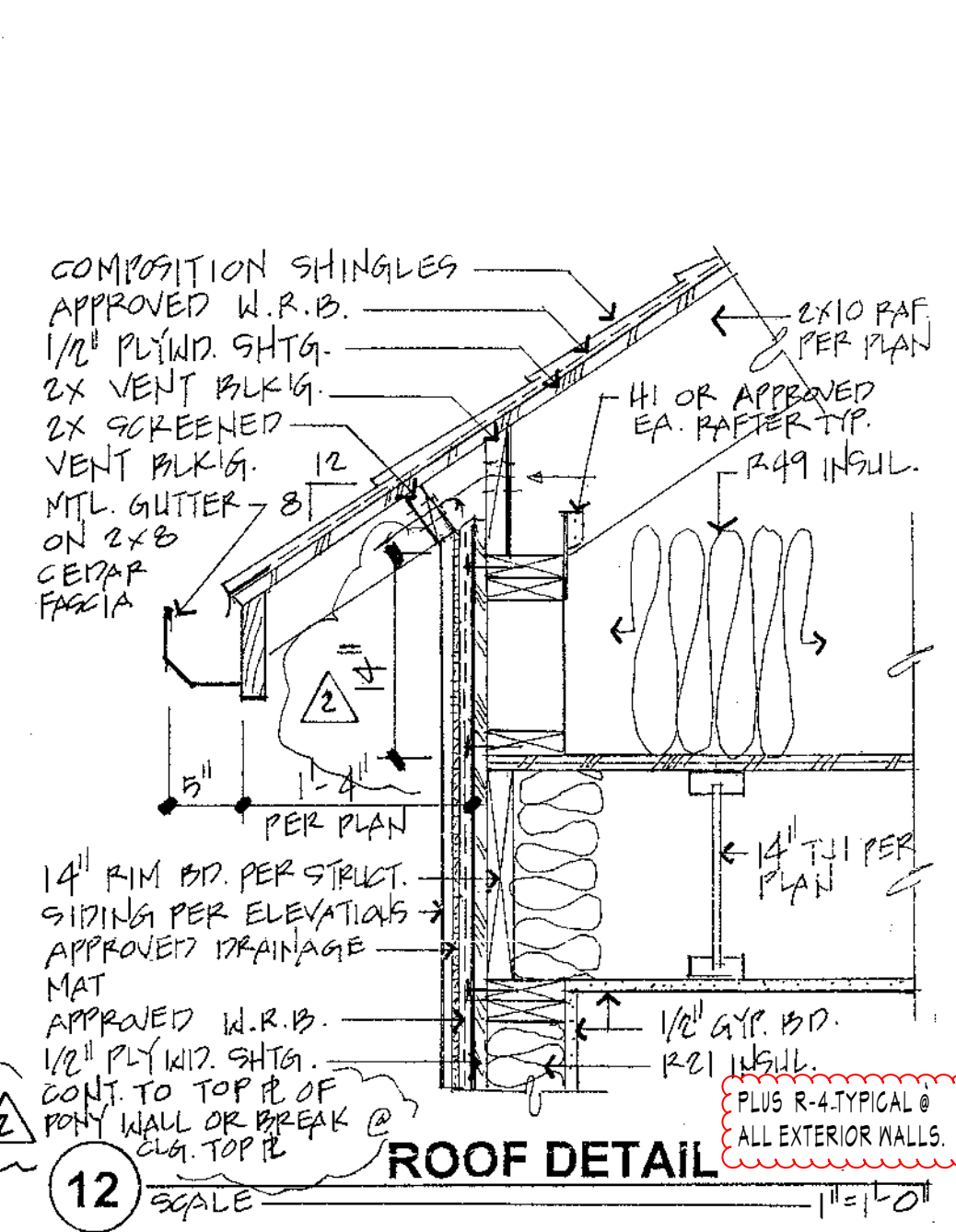
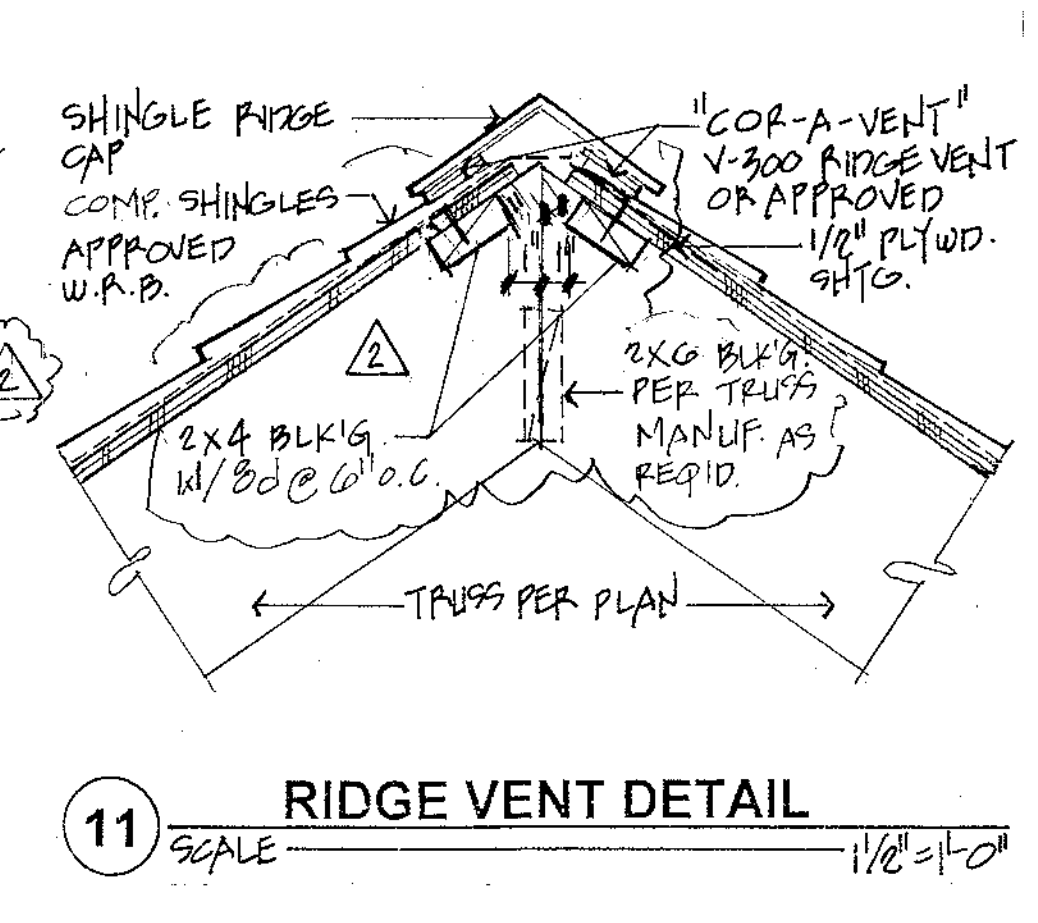
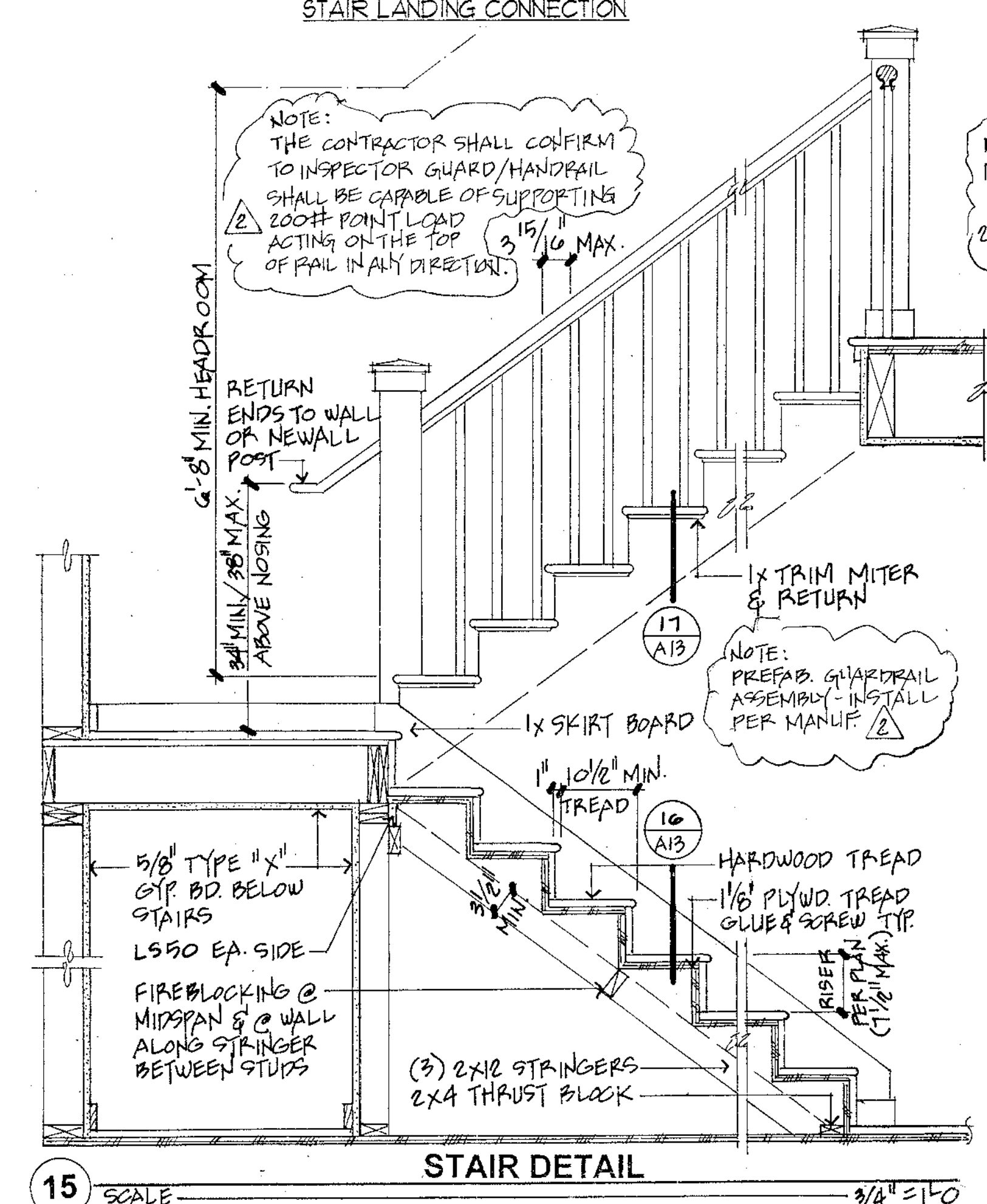
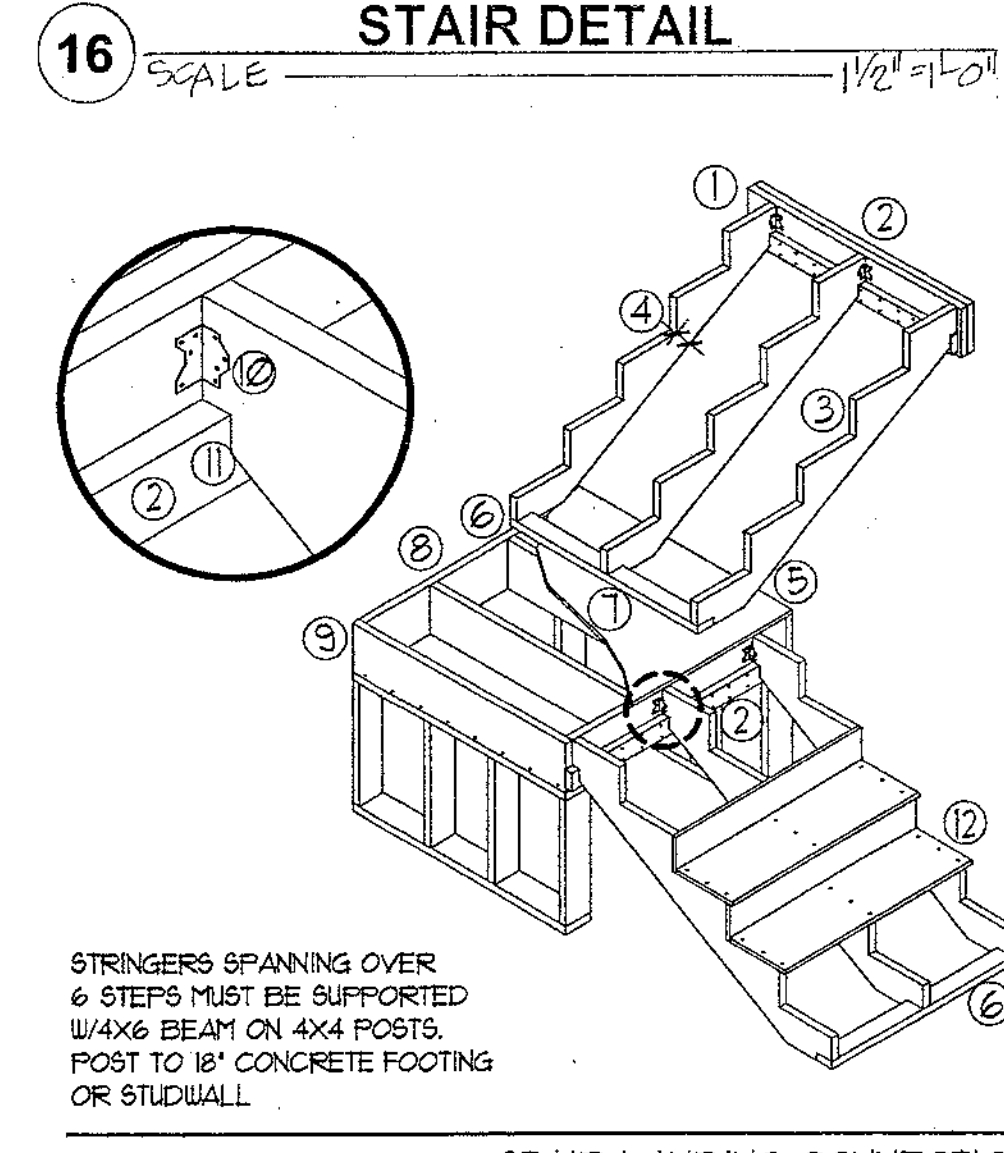
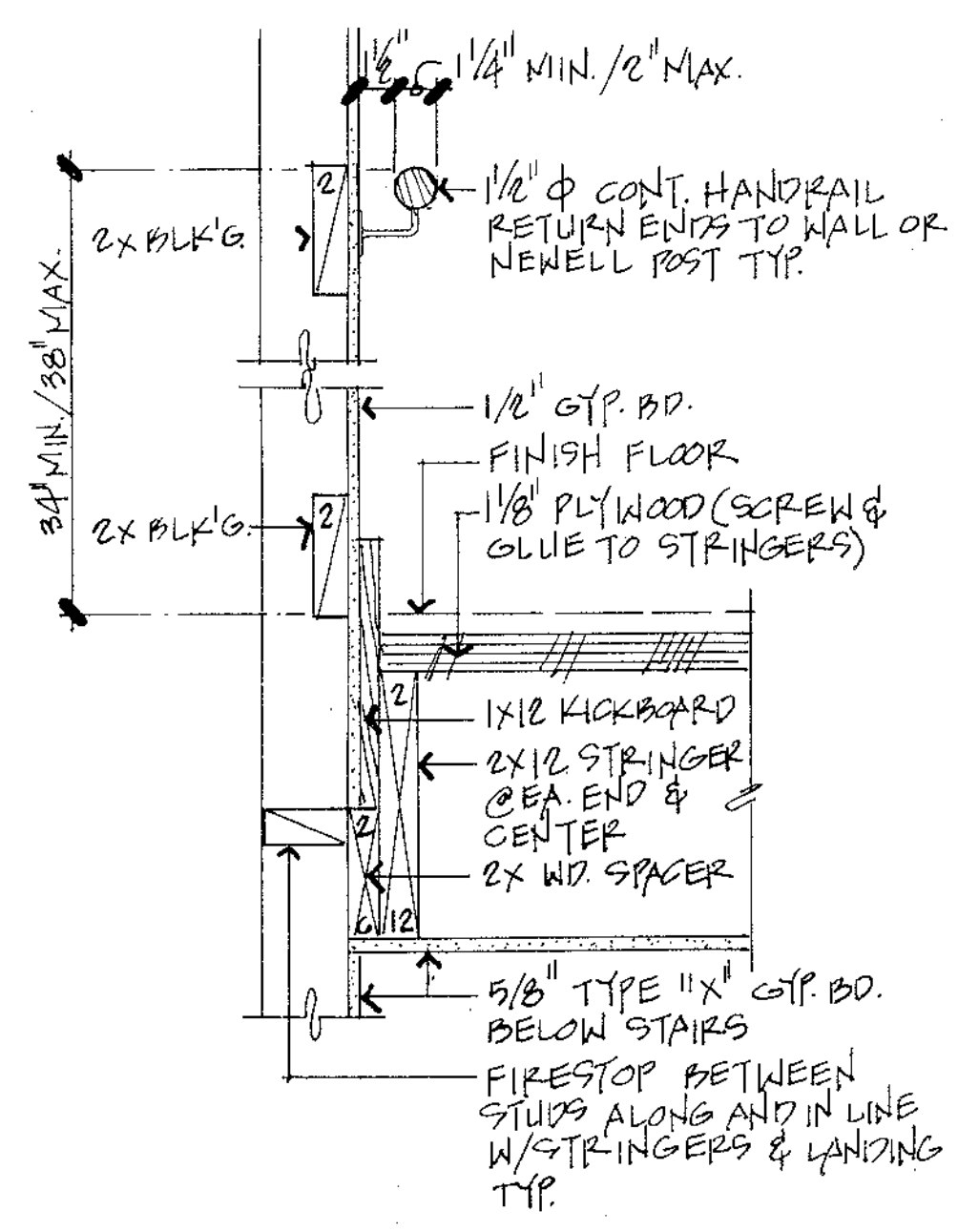
Revisions:

No.	Description	Date
1	PERMIT	2/22/21

Scale: 1/4" = 1'-0"

Sheet No.

A12



STRUCTURAL NOTES

GENERAL REQUIREMENTS & DESIGN CRITERIA

BUILDING CODE & REFERENCE STANDARDS: THE "INTERNATIONAL BUILDING CODE", 2015 EDITION, GOVERNS THE DESIGN AND CONSTRUCTION OF THIS PROJECT. REFERENCE TO A SPECIFIC SECTION IN THE CODE DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE ENTIRE MATERIALS REFERENCE STANDARDS NOTED BELOW. THE LATEST EDITION OF THE MATERIALS REFERENCE STANDARDS SHALL BE USED.

ARCHITECTURAL DRAWINGS: REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION INCLUDING, BUT NOT LIMITED TO: DIMENSIONS, ELEVATIONS, SLOPES, DOOR AND WINDOW OPENINGS, NON-BEARING WALLS, STAIRS, CURBS, DRAINS, DEPRESSIONS, RAILINGS, WATERPROOFING, FINISHES AND OTHER NONSTRUCTURAL ITEMS.

STRUCTURAL RESPONSIBILITIES: THE PE IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE PRIMARY STRUCTURE IN ITS COMPLETED STATE.

CONTRACTOR RESPONSIBILITIES: THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS SUCH AS OSHA AND WSHA. THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING, BRACING AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND THE REQUIREMENTS FOR EXECUTING IT PROPERLY.

DISCREPANCIES: IN CASE OF DISCREPANCIES BETWEEN THESE GENERAL NOTES, THE CONTRACT DRAWINGS AND SPECIFICATIONS, AND/OR REFERENCE STANDARDS, THE ENGINEER SHALL DETERMINE WHICH SHALL GOVERN. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

SITE VERIFICATION: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO FABRICATION AND/OR CONSTRUCTION. CONFLICTS BETWEEN THE DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK. ALL UNDERGROUND UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO EXCAVATION OR DRILLING.

WIND DESIGN: BASIC WIND SPEED (3-SECOND GUST), V = 85 MPH; WIND IMPORTANCE FACTOR, IW = 1.0; OCCUPANCY CATEGORY = II; EXPOSURE CATEGORY = B;

SEISMIC DESIGN: SEISMIC IMPORTANCE FACTOR IE = 1.0; OCCUPANCY CATEGORY = II; SS = 1.451G; S1 = 0.556G; SITE CLASS = D; SDS = 0.967G; SD1 = 0.556G; SEISMIC DESIGN CATEGORY = D; BASIC SEISMIC FORCE RESISTING SYSTEM = A-13 (BEARING WALL SYSTEMS) LIGHT-FRAMED WALLS WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE; CS = 0.104; R = 6.5; ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE PER ASCE 7, SEC 12.8.

SNOW LOAD: GROUND SNOW LOAD, PG = 20 PSF; FLAT ROOF SNOW LOAD, PF = 25 PSF (DRIFT LOADS CONSIDERED PER ASCE 7 WHERE APPLICABLE); SNOW EXPOSURE FACTOR, CE = 1.0; SNOW IMPORTANCE FACTOR, IS = 1.0; THERMAL FACTOR, CT = 1.2.

LIVE LOADS:

ROOF (LIVE)	20 PSF
ROOF (SNOW)	25 PSF
RESIDENTIAL FLOOR	40 PSF
RESIDENTIAL DECK	60 PSF

DESIGN-BY-OTHERS (DEFERRED SUBMITTALS) LOADS: ALL PRE-ENGINEERED/FABRICATED/MANUFACTURED OR OTHER PRODUCTS DESIGNED BY OTHERS SHALL BE DESIGNED FOR THE TRIBUTARY DEAD AND LIVE LOADS PLUS WIND, EARTHQUAKE, AND COMPONENT AND CLADDING LOADS WHEN APPLICABLE. DESIGN SHALL CONFORM TO THE PROJECT DRAWINGS AND SPECIFICATIONS, REFERENCE STANDARDS, AND GOVERNING CODE.

ROOF DEAD LOAD	15 PSF
TOP CHORD DEAD LOAD	8 PSF
BOTTOM CHORD DEAD LOAD	7 PSF
TRUSS UPLIFT LOAD (GROSS)	10 PSF

DEFERRED SUBMITTALS: ITEMS DESIGNED BY OTHERS SHALL INCLUDE CALCULATIONS, SHOP DRAWINGS AND PRODUCT DATA. DESIGN SHALL BE PREPARED BY THE SSE AND SUBMITTED TO THE ARCHITECT AND SER FOR REVIEW PRIOR TO SUBMISSION TO THE JURISDICTION FOR APPROVAL. THE SSE SHALL SUBMIT TO THE ENGINEER FOR REVIEW CALCULATIONS AND SHOP DRAWINGS THAT ARE STAMPED AND SIGNED BY THE SSE. REVIEW OF THE SSE'S SHOP DRAWINGS IS FOR GENERAL COMPLIANCE WITH DESIGN CRITERIA AND COMPATIBILITY WITH THE DESIGN OF THE PRIMARY STRUCTURE AND DOES NOT RELIEVE THE SSE OF RESPONSIBILITY FOR THAT DESIGN. ALL NECESSARY BRACING, TIES, ANCHORAGE, AND PROPRIETARY PRODUCTS SHALL BE FURNISHED AND INSTALLED PER MANUFACTURER'S INSTRUCTIONS OR THE SSE'S DESIGN DRAWINGS AND CALCULATIONS.

INSPECTIONS: ALL CONSTRUCTION IS SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL IN ACCORDANCE WITH IBC SEC 109. THE CONTRACTOR SHALL COORDINATE ALL REQUIRED INSPECTIONS WITH THE BUILDING OFFICIAL. SUBMIT COPIES OF ALL INSPECTION REPORTS TO THE ENGINEER FOR REVIEW.

PREFABRICATED CONSTRUCTION: ALL PREFABRICATED CONSTRUCTION SHALL CONFORM TO IBC SEC 1703.6.

GEOTECHNICAL INSPECTION: THE GEOTECHNICAL ENGINEER OR BUILDING OFFICIAL SHALL INSPECT ALL PREPARED SOIL BEARING SURFACES PRIOR TO PLACEMENT OF CONCRETE AND REINFORCING STEEL AND PROVIDE A LETTER TO THE OWNER STATING THAT SOILS ARE ADEQUATE TO SUPPORT THE "ALLOWABLE FOUNDATION PRESSURE" SHOWN BELOW. SOIL VALUES SHALL BE FIELD VERIFIED BY THE BUILDING OFFICIAL OR THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.

DESIGN SOIL VALUES:

ALLOWABLE BEARING PRESSURE (ASSUMED)	1500 PSF
PASSIVE LATERAL PRESSURE	150 PSF/FT
ACTIVE LATERAL PRESSURE (UNRESTRAINED)	35 PSF/FT
ACTIVE LATERAL PRESSURE (RESTRAINED)	50 PSF/FT
COEFFICIENT OF SLIDING FRICTION	0.25

SLABS-ON-GRADE & FOUNDATIONS: ALL FOUNDATIONS SHALL BEAR ON STRUCTURAL COMPACTED FILL OR COMPETENT NATIVE SOIL PER THE GEOTECHNICAL REPORT. ALL SLABS-ON-GRADE SHALL BE FOUNDED ON APPROPRIATE SUB-GRADE PREPARATION AS NOTED IN THE GEOTECHNICAL REPORT. EXTERIOR PERIMETER FOOTINGS SHALL BEAR NOT LESS THAN 18 INCHES BELOW FINISH GRADE, OR BY THE GEOTECHNICAL ENGINEER AND THE BUILDING OFFICIAL. INTERIOR FOOTINGS SHALL BEAR NOT LESS THAN 12 INCHES BELOW FINISH GRADE.

COMPACTION: UNLESS OTHERWISE SPECIFIED BY A GEOTECHNICAL ENGINEER, FOOTINGS SHALL BE PLACED ON COMPACTED MATERIAL AND SHALL BE WELL-GRADED GRANULAR MATERIAL WITH NO MORE THAN 5% PASSING A #2 SIEVE. FILLS PLACED SHALL BE IN MAXIMUM 8" LIFTS AND ALL BEARING SOILS SHALL BE COMPACTED TO 95% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT USING THE MODIFIED PROCTOR TEST.

CAST-IN-PLACE CONCRETE & REINFORCEMENT

REFERENCE STANDARDS: CONFORM TO:

- (1) ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY".
- (2) IBC CHAPTER 19.
- (3) ACI 301 "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE", SEC 3 "REINFORCEMENT AND REINFORCEMENT SUPPORTS."

FIELD REFERENCE: THE CONTRACTOR SHALL KEEP A COPY OF ACI FIELD REFERENCE MANUAL, SP-15, "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301) WITH SELECTED ACI AND ASTM REFERENCES."

CONCRETE MIXTURES: CONFORM TO ACI 318 CHAPTER 5 "CONCRETE QUALITY, MIXING, AND PLACING."

MATERIALS: CONFORM TO ACI 318 CHAPTER 3 "MATERIALS" FOR REQUIREMENTS FOR CEMENTITIOUS MATERIALS, AGGREGATES, MIXING WATER AND ADMIXTURES.

REINFORCING BARS	ASTM A615, GRADE 60, DEFORMED BARS.
DEFORMED WELDED WIRE FABRIC	ASTM A497
BAR SUPPORTS	CRSI MSP-2, CHAPTER 3 "BAR SUPPORTS."
TIE WIRE	16.5 GAGE OR HEAVIER, BLACK ANNEALED.

MIX DESIGNS: PROVIDE A 5-SACK MINIMUM, 28-DAY COMPRESSIVE STRENGTH f'c = 2,500 PSI CONCRETE MIX WITH MAXIMUM 3/4" AGGREGATE AND 0.50 W/C RATIO FOR ALL ISOLATED POST AND CONTINUOUS WALL FOOTINGS, SLABS-ON-GRADE, AND BASEMENT WALLS EXTENDING NO MORE THAN 8" ABOVE FINISH GRADE. ELEVATION. FOR BASEMENT WALLS EXTENDING MORE THAN 8" ABOVE FINISH GRADE AND ALL SITE WALLS, PROVIDE A 5-1/2 SACK MINIMUM f'c = 3,000 PSI CONCRETE MIX WITH MAXIMUM 3/4" AGGREGATE AND 0.50 W/C RATIO.

MIX DESIGN NOTES:

- (1) W/C RATIO: WATER-CEMENTITIOUS MATERIAL RATIOS SHALL BE BASED ON THE TOTAL WEIGHT OF CEMENTITIOUS MATERIALS.
- (2) CEMENTITIOUS CONTENT: THE USE OF FLY ASH, OTHER POZZOLANS, SILICA FUME, OR SLAG SHALL CONFORM TO ACI 301 SEC 4.2.2.8.B. MAXIMUM AMOUNT OF FLY ASH SHALL BE 20% OF TOTAL CEMENTITIOUS CONTENT UNLESS REVIEWED AND APPROVED OTHERWISE BY PE.

- (3) AIR CONTENT: CONFORM TO ACI 301 SEC 4.2.2.4. HORIZONTAL EXTERIOR SURFACES IN CONTACT WITH THE SOIL REQUIRE ENTRAINED AIR. USE "MODERATE EXPOSURE". VERTICAL EXTERIOR SURFACES REQUIRE "MODERATE EXPOSURE". TOLERANCE IS +/- 1-1/2%. AIR CONTENT SHALL BE MEASURED AT POINT OF PLACEMENT.
- (4) SLUMP: CONFORM TO ACI 301 SEC 4.2.2.2. SLUMP SHALL BE DETERMINED AT POINT OF PLACEMENT.
- (5) NON-CHLORIDE ACCELERATOR: NON-CHLORIDE ACCELERATING ADMIXTURE MAY BE USED IN CONCRETE SLABS PLACED AT AMBIENT TEMPERATURES BELOW 50°F AT THE CONTRACTOR'S OPTION.

FORMWORK: CONFORM TO ACI 301 SEC 2 "FORMWORK AND FORM ACCESSORIES." REMOVAL OF FORMS SHALL CONFORM TO SEC 2.3.2 EXCEPT STRENGTH INDICATED IN SEC 2.3.2.5 SHALL BE 0.75 F'C.

MEASURING, MIXING, AND DELIVERY: CONFORM TO ACI 301 SEC 4.3.

HANDLING, PLACING, CONSTRUCTING AND CURING: CONFORM TO ACI 301 SEC 5.

REBAR FABRICATION & PLACING: CONFORM TO ACI 301, SEC 3.2.2 "FABRICATION", AND ACI SP-66 "ACI DETAILING MANUAL" CONFORM TO ACI 301, SEC 3.3.2 "PLACEMENT." PLACING TOLERANCES SHALL CONFORM TO SEC 3.3.2.1 "TOLERANCES."

SPICES: CONFORM TO ACI 301, SEC 3.3.2.7. REFER TO PLANS FOR TYPICAL SPICES.

FIELD BENDING: CONFORM TO ACI 301 SEC 3.3.2.8. "FIELD BENDING OR STRAIGHTENING." BAR SIZES #3 THROUGH #5 MAY BE FIELD BENT COLD THE FIRST TIME. OTHER BARS REQUIRE PREHEATING. DO NOT TWIST BARS.

CORNERS BARS: PROVIDE MATCHING-SIZED "L" CORNER BARS FOR ALL HORIZONTAL WALL AND FOOTING BARS WITH THE APPROPRIATE SPLICE LENGTH, UNO.

CONCRETE COVER: CONFORM TO THE FOLLOWING COVER REQUIREMENTS FROM ACI 301, TABLE 3.3.2.3:

CONCRETE CAST AGAINST EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER (#5 & SMALLER)	1-1/2"
BARS IN SLABS AND WALLS	3/4"

CONSTRUCTION JOINTS: CONFORM TO ACI 301 SEC 2.2.2.5, 5.1.2.3A, 5.2.1.1, AND 5.3.2.6. CONSTRUCTION JOINTS SHALL BE LOCATED AND DETAILED AS ON THE CONSTRUCTION DRAWINGS. USE OF AN ACCEPTABLE ADHESIVE, SURFACE RETARDER, PORTLAND CEMENT GROUT, OR ROUGHENING THE SURFACE IS NOT REQUIRED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. WHERE SHEAR BOND IS REQUIRED, ROUGHEN SURFACES TO 1/4" AMPLITUDE.

WOOD FRAMING

REFERENCE STANDARDS: CONFORM TO:

- (1) IBC CHAPTER 23 "WOOD",
- (2) NDS AND NDS SUPPLEMENT - "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION",
- (3) ANSI/TPI 1 "NATIONAL DESIGN STANDARD FOR METAL-PLATE-CONNECTED WOOD TRUSS CONSTRUCTION",

DEFERRED SUBMITTALS: SUBMIT PRODUCT DATA AND PROOF OF ICC APPROVAL FOR FRAMING MEMBERS AND FASTENERS THAT HAVE BEEN DESIGNED BY OTHERS. SUBMIT CALCULATIONS PREPARED BY THE SSE IN THE STATE OF WASHINGTON FOR ALL MEMBERS AND CONNECTIONS DESIGNED BY OTHERS ALONG WITH SHOP DRAWINGS. ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS AND WEB STIFFENERS SHALL BE DETAILED AND FURNISHED BY THE SUPPLIER. TEMPORARY AND PERMANENT BRIDGING SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DEFLECTION LIMITS SHALL BE AS NOTED UNDER DESIGN LOADS SECTION.

IDENTIFICATION: ALL SAWN LUMBER AND PRE-MANUFACTURED WOOD PRODUCTS SHALL BE IDENTIFIED BY THE GRADE MARK OR A CERTIFICATE OF INSPECTION ISSUED BY THE CERTIFYING AGENCY.

MATERIALS:

- **SAWN LUMBER:** CONFORM TO GRADING RULES OF WMPA, WCLIB OR NLGA. FINGER JOINTED STUDS ACCEPTABLE AT INTERIOR WALLS ONLY.

MEMBER USE	SIZE	SPECIES	GRADE
STUDS & POSTS	2x, 4x	HEM-FIR	NO. 2
RAFTERS	2x4 - 2x10	HEM-FIR	NO. 2
BEAMS	4x8 - 4x12	HEM-FIR	NO. 2
BEAMS	6x8 - 6x12	HEM-FIR	NO. 2
POSTS & TIMBERS	6x, 8x	DOUG-FIR	NO. 2

- **GLUED LAMINATED TIMBER:** CONFORM TO AITC 117 "STANDARD SPECIFICATIONS FOR STRUCTURAL GLUE-LAMINATED TIMBER OF SOFTWOOD SPECIES, MANUFACTURING AND DESIGN" AND ANSI/AITC A190.1 "STRUCTURAL GLUED LAMINATED TIMBER." CAMBER ALL GLUED LAMINATED MEMBERS BEAMS TO 2000" RADIUS, UNLESS SHOWN OTHERWISE ON THE PLANS.

MEMBER USE	SIZES	SPECIES	STRESS CLASS	USES
BEAMS	ALL	DF/DF	24F-1.8E	SIMPLE SPANS
	ALL	DF/DF	24F-1.8E [(-FB)=(+FB)]	CANTILEVER SPANS

- **METAL PLATE CONNECTED WOOD ROOF TRUSSES:** CONFORM TO IBC SEC 2303.4 "TRUSSES"

- **WOOD STRUCTURAL SHEATHING (PLYWOOD):** WOOD APA-RATED STRUCTURAL SHEATHING INCLUDES: ALL VENEER PLYWOOD, ORIENTED STRAND BOARD, WATERBOARD, PARTICLEBOARD, 11-11 SIDING, AND COMPOSITES OF VENEER AND WOOD BASED MATERIAL. CONFORM TO PRODUCT STANDARDS PS-1 AND PS-2 OF THE U.S. DEPT. OF COMMERCE AND THE AMERICAN PLYWOOD ASSOCIATION (APA).

LOCATION	THICKNESS	SPAN RATING	PLYWOOD GRADE	EXPOSURE	MINIMUM APA RATING	
					SIZE	DIAMETER
ROOF	15/32"	32/16	C-D	1		
FLOOR	23/32" T&G	24 OC	STURD-I-FLOOR	1		
WALLS	15/32"	32/16	C-D	1		
WALLS(ALT)	7/16" OSB	24/16	C-D	1		

- **JOIST HANGERS AND CONNECTORS:** SHALL BE "STRONG TIE" BY SIMPSON COMPANY OR USP EQUIVALENT AS SPECIFIED IN THEIR LATEST CATALOGS. ALTERNATE CONNECTORS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUIVALENT OR GREATER LOAD CAPACITIES AND ARE REVIEWED AND APPROVED BY THE SER PRIOR TO ORDERING. CONNECTORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE 1/2 OF THE NAILS OR BOLTS IN EACH MEMBER. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE ALL NAILS SHALL BE FULL LENGTH COMMON. NAIL STRAPS TO WOOD FRAMING AS LATE AS POSSIBLE IN THE FRAMING PROCESS TO ALLOW THE WOOD TO SHRINK AND THE BUILDING TO SETTLE.

- **NAILS AND STAPLES:** CONFORM TO IBC SEC 2303.6 "NAILS AND STAPLES." UNLESS NOTED ON PLANS, NAIL PER IBC TABLE 2304.9.1. UNLESS NOTED OTHERWISE ALL NAILS SHALL BE COMMON. NAIL SIZES SPECIFIED ON THE DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS.

SIZE	LENGTH	DIAMETER
8d	2-1/2"	0.131"
10d	4"	0.148"
(8d & 10d ALTERNATIVE) PASLODE TETRAGRIP NAILS	2-3/8"	0.113"
12d (16d SINKER)	3-1/4"	0.148"
16d	3-1/2"	0.162"

- **LAG BOLTS/BOLTS:** CONFORM TO ASTM A307.

NAILING REQUIREMENTS: PROVIDE MINIMUM NAILING IN ACCORDANCE WITH IBC TABLE 2304.9.1 "FASTENING SCHEDULE" EXCEPT AS NOTED ON THE DRAWINGS. NAILING FOR ROOF/FLOOR DIAPHRAGMS/SHEAR WALLS SHALL BE PER DRAWINGS. NAILS SHALL BE DRIVEN FLUSH AND SHALL NOT FRACTURE THE SURFACE OF SHEATHING.

STANDARD LIGHT-FRAME CONSTRUCTION: UNLESS NOTED ON THE PLANS, CONSTRUCTION SHALL CONFORM TO IBC SEC 2308 "CONVENTIONAL LIGHT-FRAME CONSTRUCTION" AND IBC SEC 2304 "GENERAL CONSTRUCTION REQUIREMENTS."

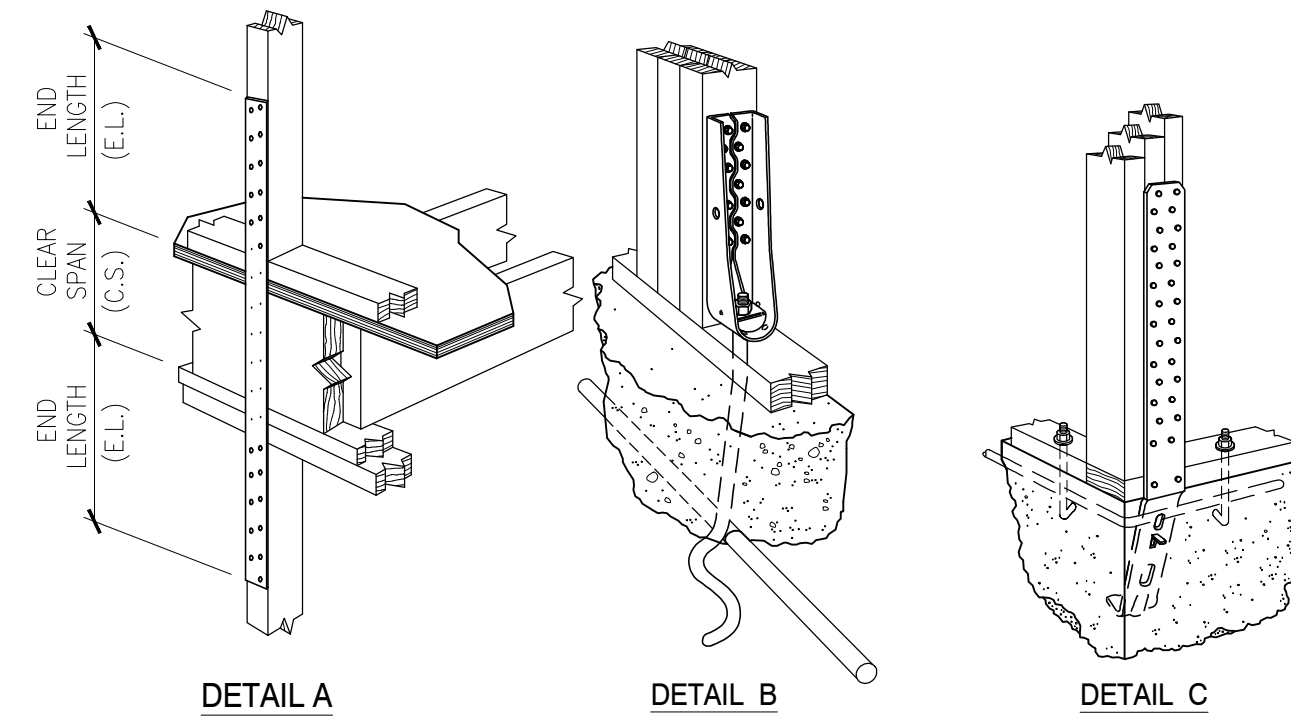
(1) **WALL FRAMING:** UNLESS OTHERWISE NOTED, ALL INTERIOR WALLS SHALL BE 2X4 @ 16"OC AND ALL EXTERIOR WALLS SHALL BE 2X6 @ 16"OC. PROVIDE (2) BUNDLED STUDS MIN AT WALL ENDS AND EACH SIDE OF ALL OPENINGS. UNO, ALL SOLID SAWN LUMBER HEADERS SHALL BE SUPPORTED BY A MINIMUM OF (1) TRIM AND (1) KING STUD AND ALL GULUM OR ENGINEERED WOOD HEADERS BY (2) TRIM AND (2) KING STUDS. AT FRAMED WALLS, UNO, ALL SOLID SAWN LUMBER BEAMS SHALL BE SUPPORTED ON A MINIMUM OF (2) BUNDLED 2X STUDS AND ALL GULUM OR ENGINEERED WOOD BEAMS ON A MINIMUM OF (3) BUNDLED 2X STUDS. STITCH-NAIL BUNDLED STUDS WITH (2) 10D @ 12"OC, UNO, ALL INTERIOR AND EXTERIOR HEADERS SHALL BE 4X6. PROVIDE SOLID BLOCKING THRU FLOORS TO SUPPORTS BELOW FOR BEARING WALLS AND POSTS. UNO, ATTACH BOTTOM PLATES OF STUD WALLS TO WOOD FRAMING BELOW WITH 16D @ 12"OC OR TO CONCRETE WITH 5/8" DIA. ANCHOR BOLTS X 7" EMBEDMENT AT 48"OC. REFER TO SHEAR WALL SCHEDULE FOR SPECIFIC SHEATHING, STUD, AND NAILING REQUIREMENTS AT SHEAR WALLS. UNO, PROVIDE GYPSUM SHEATHING ON INTERIOR SURFACES AND PLYWOOD SHEATHING ON EXTERIOR SURFACES.

(2) **ROOF/FLOOR FRAMING:** UNLESS OTHERWISE NOTED, PROVIDE DOUBLE JOISTS/RAFTERS UNDER ALL PARALLEL BEARING PARTITIONS AND SOLID BLOCKING AT ALL BEARING POINTS. PROVIDE DOUBLE JOISTS AROUND ALL ROOF/FLOOR OPENINGS. UNO, MULTI-JOISTS/RAFTERS SHALL BE STITCH-NAILED TOGETHER WITH (2) 10D @ 12"OC. PROVIDE ROOF SHEATHING EDGE CLIPS CENTERED BETWEEN FRAMING AT UNBLOCKED PLYWOOD EDGES. ALL FLOOR SHEATHING SHALL HAVE TONGUE AND GROOVE JOINTS OR BE SUPPORTED BY SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF ROOF/FLOOR SHEATHING. ROOF/FLOOR SHEATHING SHALL BE LAID FACE GRAIN PERPENDICULAR TO FRAMING MEMBERS.

MOISTURE CONTENT: WOOD MATERIAL USED FOR THIS PROJECT SHALL HAVE MAXIMUM MOISTURE CONTENT OF 19% EXCEPT FOR THE PRESSURE-TREATED WOOD SILL PLATE.

PRESERVATIVE TREATMENT: WOOD MATERIALS ARE REQUIRED TO BE "TREATED WOOD" UNDER CERTAIN CONDITIONS IN ACCORDANCE WITH IBC SEC 2304.11 "PROTECTION AGAINST DECAY AND TERMITES". CONFORM TO THE APPROPRIATE STANDARDS OF THE AMERICAN WOOD-PRESERVERS ASSOCIATION (AWPA) FOR SAWN LUMBER, GLUED LAMINATED TIMBER, ROUND POLES, WOOD PILES AND MARINE PILES. FOLLOW AMERICAN LUMBER STANDARDS COMMITTEE (ALSC) QUALITY ASSURANCE PROCEDURES. PRODUCTS SHALL BEAR THE APPROPRIATE MARK.

METAL CONNECTORS/PT WOOD: CK ENGINEERING LLC RECOMMENDS THAT ALL METAL HARDWARE AND FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER BE STAINLESS STEEL TYPE 316L. AT THE OWNER'S RISK AND DISCRETION, HOT-DIPPED GALVANIZED METAL HARDWARE AND FASTENERS MAY BE INVESTIGATED FOR USE IN LIEU OF STAINLESS STEEL PROVIDED THAT THE FINISH HAS A MINIMUM ZINC CONTENT OF AT LEAST 1.85 OZ/SF AND ITS USE IS COORDINATED BY THE CONTRACTOR AND WOOD SUPPLIER FOR THE EXPECTED ENVIRONMENT AND MOISTURE EXPOSURE FOR APPROPRIATE USE BASED ON THE METHOD OF PRESERVATIVE TREATMENT OF THE WOOD.



MODEL # (a)	ANCHORAGE TYPE (a,b)	FASTENERS	END STUD REQUIRED (a,b)	CAPACITY (LBS)	
				DOUG-FIR	HEM-FIR
CS14	FLR-TO-FLR STRAP (E.L.=19")	(30) 10d COMMON	2x STUD	2,490	2,490
LSTD8/RJ	CAST-IN-PLACE	(16) 16d SINKERS	(2) 2x STUDS ⁷	1,975	1,975
STHD10/RJ	CAST-IN-PLACE	(18) 16d SINKERS	(2) 2x STUDS ⁷	2,640	2,640
STHD14/RJ	CAST-IN-PLACE	(22) 16d SINKERS	(2) 2x STUDS ⁷	3,695	3,695
HDU8	SSTB28	(20) 1/4" x 2 1/2" SDS WOOD SCREWS	(3) 2x STUDS	7,870	5,665
HDU11	SB1x30	(30) 1/4" x 2 1/2" SDS WOOD SCREWS	4x6 MINIMUM	9,535	6,865

NOTES:

- HOLD-DOWNS SPECIFIED ARE AS MANUFACTURED BY SIMPSON ANCHOR TIE DOWN CO., INC; ACCEPTABLE EQUIVALENT PRODUCT SUBSTITUTIONS ARE AVAILABLE FROM OTHER MANUFACTURERS WITH SER APPROVAL.
- LOCATE ALL HOLD-DOWNS AT ENDS OF ALL SHEAR WALLS & FASTEN TO BUNDLED END STUDS.
- BUNDLED END STUDS SHOULD BE STITCH-NAILED TOGETHER USING MINIMUM (2) 16d @ 10"OC, UNO.
- LOCATE "HDU#", "LSTD#", "STHD#" & "STHD#" HOLD-DOWNS AT CONCRETE FOUNDATION LEVEL. (DETAIL B & C)
- LOCATE "CS#", "MST", "MSTG#" & "MSTG#" STRAPS AT FLOOR-TO-FLOOR CONNECTIONS. (DETAIL A)
- ALL HOLD-DOWN ANCHOR BOLTS SHALL BE MIN 5" FROM CONCRETE WALL ENDS.
- USE "SSTB" FOR 2x SILL PLATES & "SSTBL" FOR 3x SILL PLATES.
- ADDITIONAL END STUD REQUIRED TO MEET MINIMUM 1 1/2" EDGE DISTANCE FROM CONCRETE CORNER TO "STD" STRAP. USE "RU" STYLE WITH "STD" WHERE RIM JOIST IS PRESENT.
- INSTALL ALL HOLD-DOWN HARDWARE PER MANUFACTURER'S INSTRUCTIONS & RECOMMENDATIONS.

HOLD-DOWN SCHEDULE

SCALE: N.T.S.

8

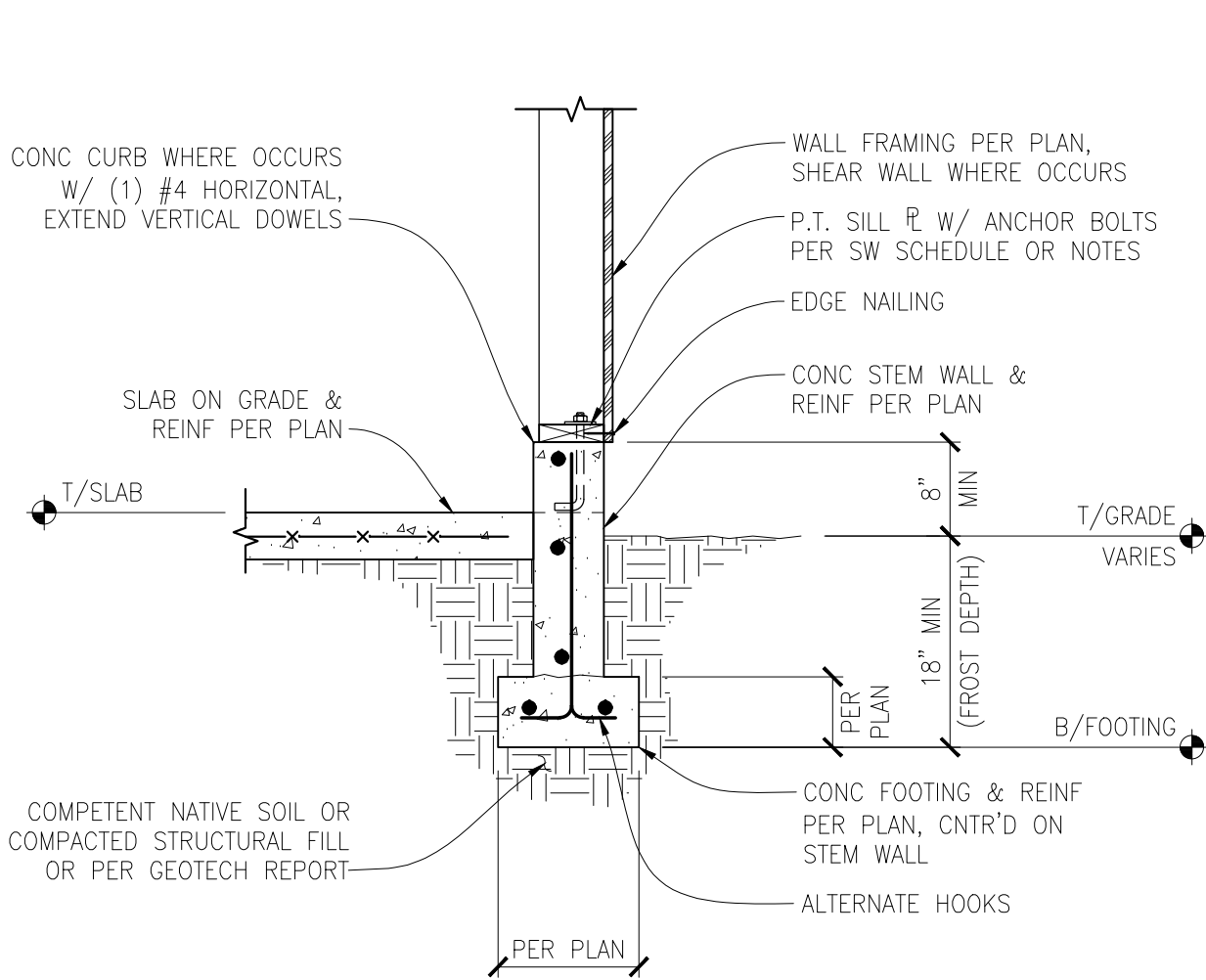
WOOD-FRAMED SHEAR WALL SCHEDULE

FOR HEM-FIR/DOUG-FIR STUD FRAMING

SW TYPE	SW SHEATHING APA-RATED	NAIL SIZE & SPACING @ PANEL EDGES [a, b, c]	RIM JOIST OR BLOCKING ATTACHMENT TO TOP PLATE BELOW [a, b]	BOTTOM PLATE & EDGE MEMBER REQUIREMENTS [b, 7, 19]		SILL PLATE REQUIREMENTS		SHEAR LOAD CAPACITY (PLF)
				SHEAR NAILING TO WOOD FRAMING BELOW	BOTTOM PLATE AT FRAMING	ANCHOR BOLT TO CONCRETE FOUNDATION [19]	SILL PLATE AT FOUNDATION [11]	
SW-6	15/32" CD-EXT	0.131" x 2 1/2" @ 6"OC	CLIP @ 18"OC	0.148" x 3 1/2" @ 6"OC	2x	5/8" @ 48"OC	P.T. 2x	260
SW-4	15/32" CD-EXT	0.131" x 2 1/2" @ 4"OC	CLIP @ 14"OC	0.148" x 4" @ 4"OC	3x	5/8" @ 32"OC 5/8" @ 48"OC	P.T. 2x P.T. 3x [19]	380
SW-3	15/32" CD-EXT	0.131" x 2 1/2" @ 3"OC, STAGGERED	CLIP @ 12"OC	0.148" x 4" @ 4"OC & CLIP @ 18"OC	3x [19]	5/8" @ 24"OC 5/8" @ 32"OC	P.T. 2x P.T. 3x [19]	490
SW-2	15/32" CD-EXT	0.131" x 2 1/2" @ 2"OC, STAGGERED	CLIP @ 8"OC	0.148" x 4" @ 4"OC & CLIP @ 16"OC	3x [19]	5/8" @ 16"OC 5/8" @ 24"OC	P.T. 2x P.T. 3x [19]	640
2SW-4	15/32" CD-EXT BOTH SIDE	0.131" x 2 1/2" @ 4"OC, STAGGERED	CLIP @ 6"OC	0.148" x 4" @ 4"OC & CLIP @ 12"OC	3x [19]	5/8" @ 24"OC	P.T. 3x [19]	760
2SW-3	15/32" CD-EXT BOTH SIDE	0.131" x 2 1/2" @ 3"OC, STAGGERED	CLIP @ 8"OC BOTH SIDES, STAGGERED	0.148" x 4" @ 4"OC & CLIP @ 8"OC	3x [19]	5/8" @ 16"OC	P.T. 3x [19]	980
2SW-2	15/32" CD-EXT BOTH SIDE	0.131" x 2 1/2" @ 2"OC, STAGGERED	CLIP @ 6"OC BOTH SIDES, STAGGERED	0.148" x 4" @ 4"OC & CLIP @ 5"OC	3x [19]	5/8" @ 12"OC	P.T. 3x [19]	1280

NOTES:

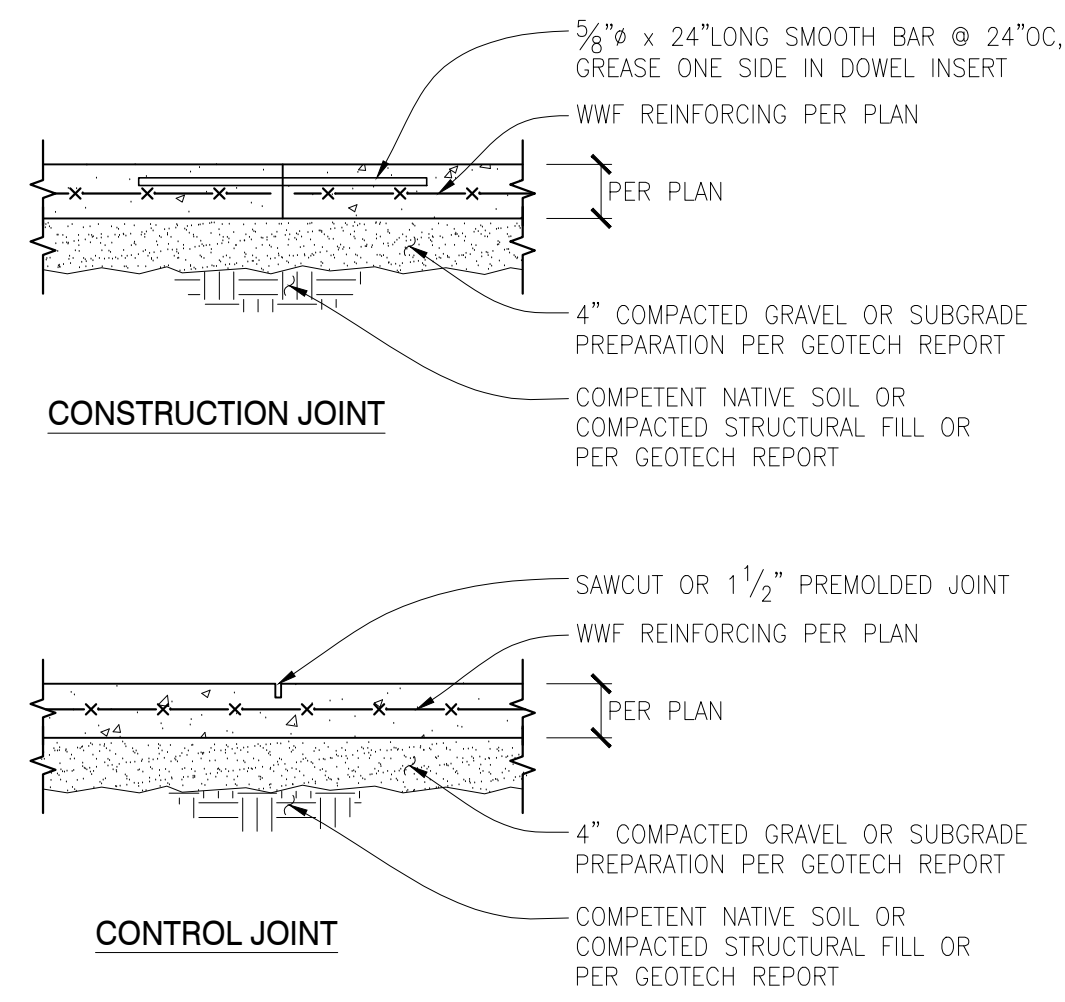
- INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY
- WHERE SHEATHING IS APPLIED ON BOTH SIDES OF WALL, PANEL EDGE JOINTS ON 2x FRAMING SHALL BE STAGGERED SO THAT JOINTS ON OPPOSITE SIDES ARE NOT LOCATED ON THE SAME STUDS.
- BLOCKING IS REQUIRED AT ALL PANEL EDGES.
- PROVIDE SHEAR WALL SHEATHING AND NAILING FOR ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT WALLS ARE DESIGNATED BY WINDOWS, OR DOORWAYS OR AS DESIGNATED ON PLANS. HOLD-DOWN REQUIREMENTS PER PLANS.
- SHEAR WALLS DESIGNATED AS PERFORATED SHEAR WALLS REQUIRE SHEATHING, SHEAR WALL NAILING, ETC. ABOVE AND BELOW ALL OPENINGS.
- SHEATHING EDGE N



TYPICAL FOUNDATION FOOTING AND STEM WALL WITH SLAB ON GRADE

SCALE: 3/4" = 1'-0"

1



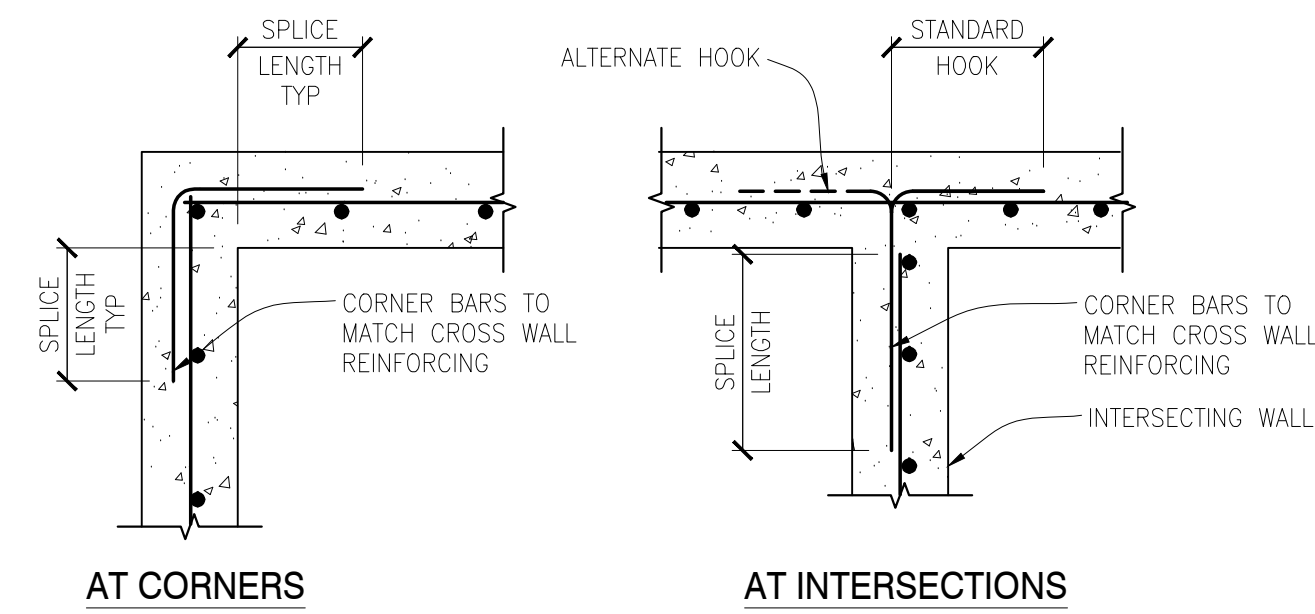
NOTES:

- FOR CONSTRUCTION OR CONTROL JOINT LOCATIONS REFERENCE FOUNDATION/SLAB PLAN
- USE "SOFTCUT SAW" AS SOON AS POSSIBLE WITHOUT CAUSING RAVELING OF CONCRETE EDGES. SAWCUT ALONG SHORT DIRECTION OF POUR FIRST
- PROVIDE CONSTRUCTION/CONTROL JOINT TO ENCLOSE APPROXIMATE SQUARE AREAS OF 225 SF MAX

TYPICAL SLAB ON GRADE JOINT DETAILS

SCALE: N.T.S.

2



NOTES:

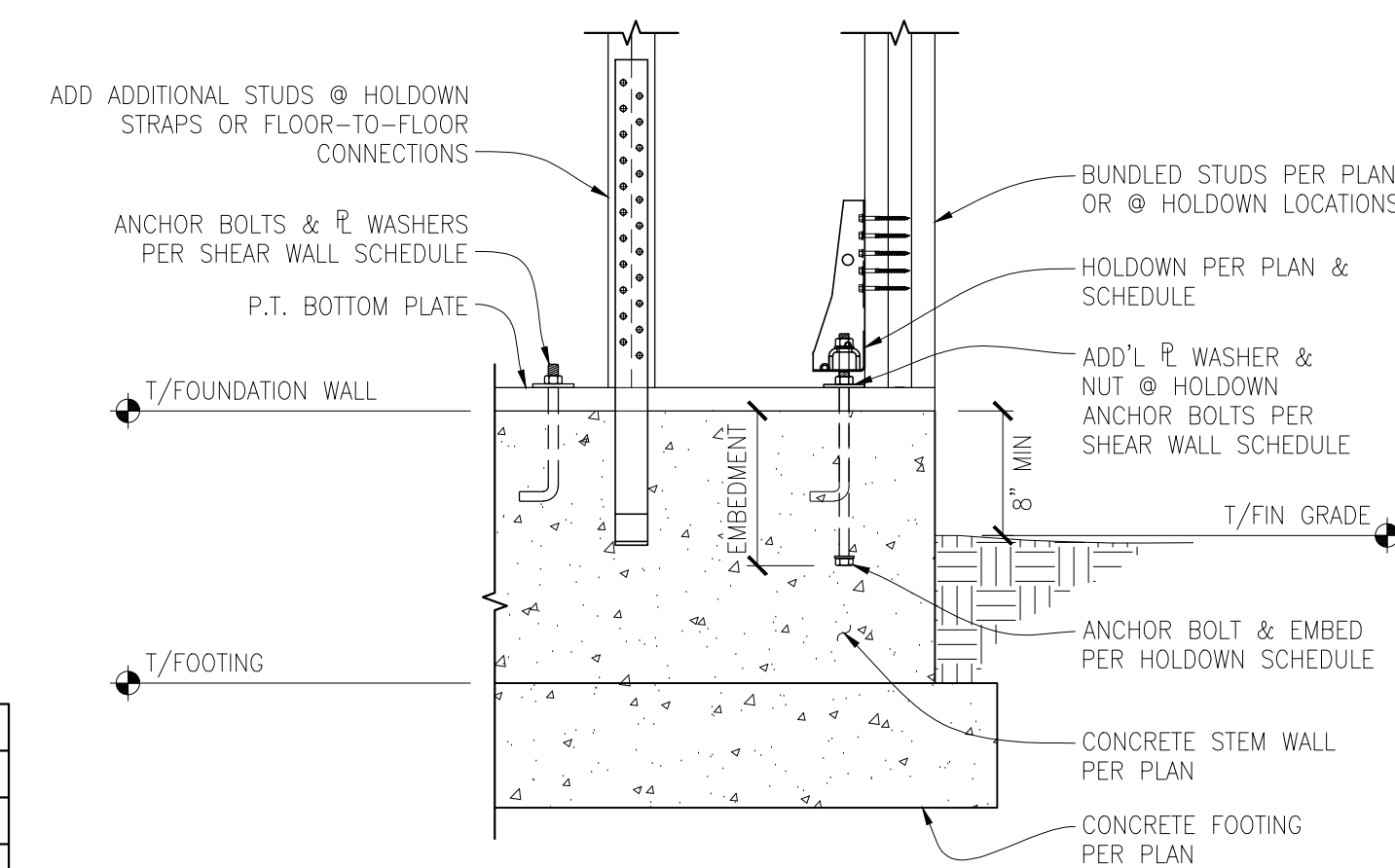
- WALL SIZE & REINFORCING PER PLAN.
- CORNER BARS SIZE & SPACING TO MATCH HORIZONTAL REINFORCING.

TYPICAL CORNER BARS AT CONCRETE WALLS - SINGLE MAT

SCALE: N.T.S.

3

SPLICE LENGTH	
BAR	LENGTH
#4	28"
#5	36"

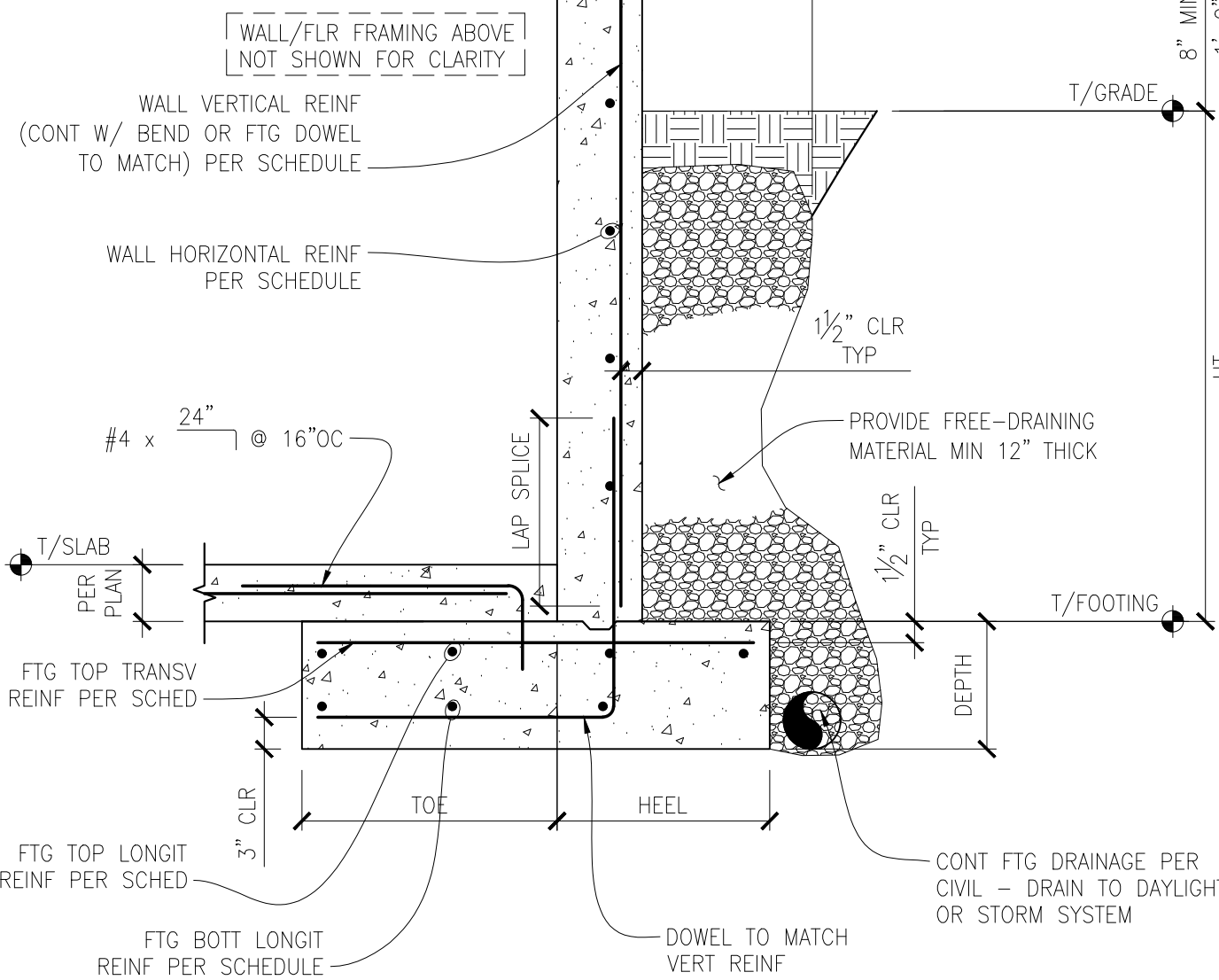


TYPICAL SHEAR WALL HOLDDOWN CONNECTIONS AT FOUNDATION CONCRETE WALL

SCALE: N.T.S.

4

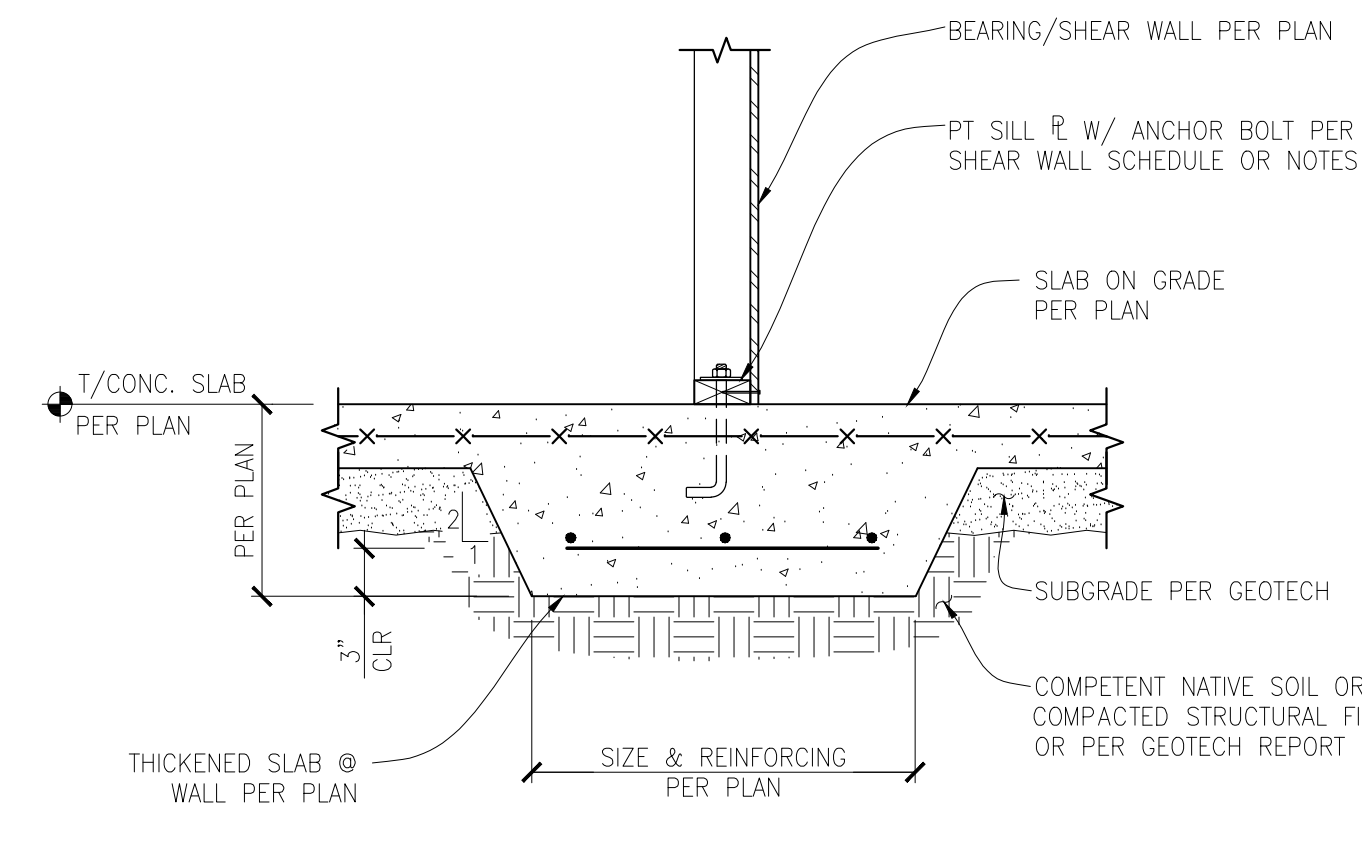
SPLICE LENGTH	
BAR	LENGTH
#4	28"
#5	36"



TYPICAL THICKENED SLAB EDGE FOOTING

SCALE: 3/4" = 1'-0"

6



TYPICAL INTERIOR THICKENED SLAB FOOTING AT BEARING / SHEAR WALL

SCALE: 1" = 1'-0"

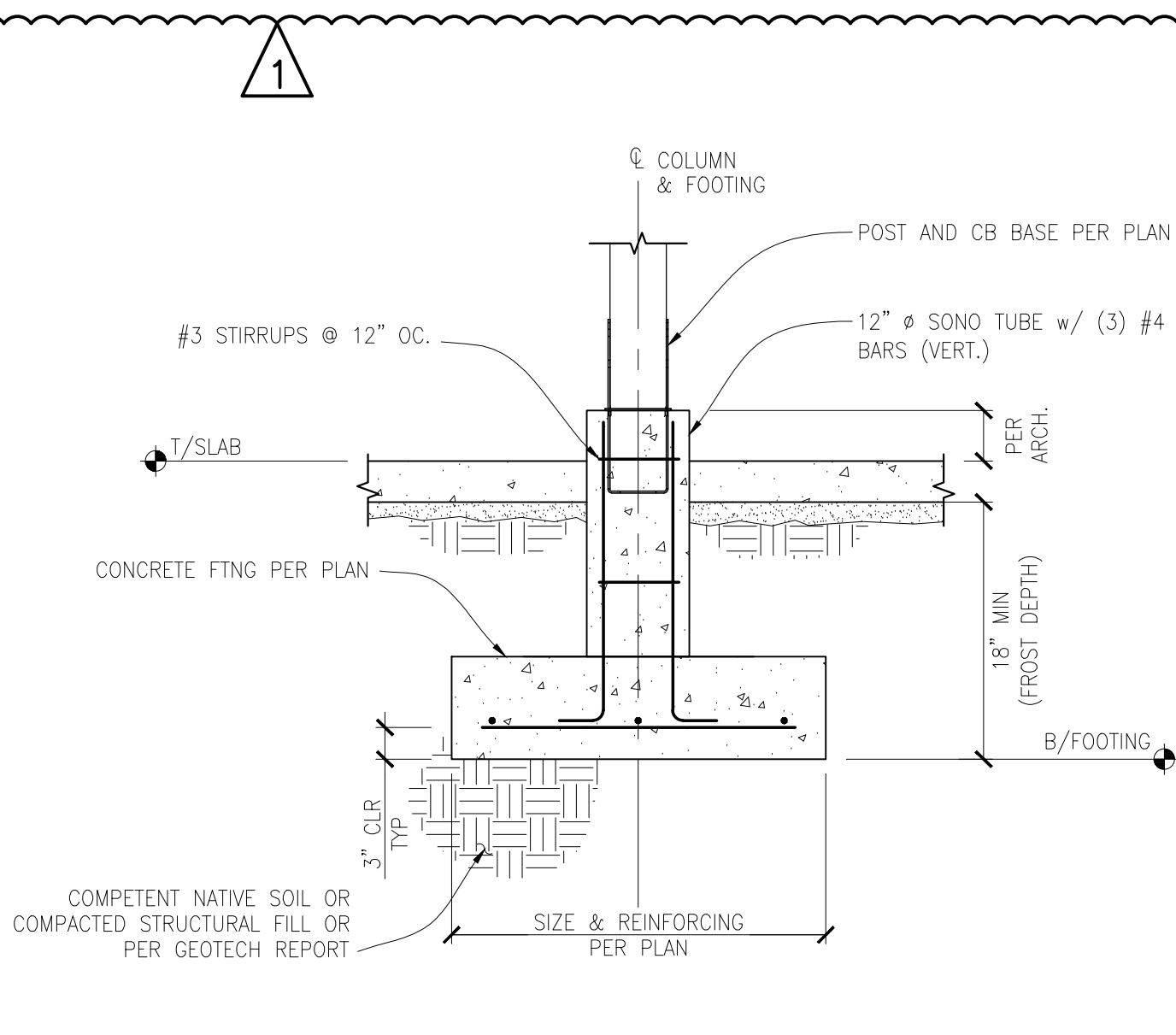
7

RETAINING WALL/FOOTING SCHEDULE									
WALL					FOOTING				
HT (MAX)	THK	VERTICAL	HORIZONTAL	TOE	HEEL	DEPTH	TOP/TRANSV	TOP/LONGIT	BOTTOM/LONGIT
4'-0"	8"	#4 @ 16"OC	#4 @ 12"OC	1'-0"	1'-0"	10"	#4 @ 16"OC	(3) #4	(2) #4
6'-0"	8"	#4 @ 12"OC	#4 @ 12"OC	2'-0"	1'-0"	10"	#4 @ 10"OC	(3) #4	(2) #4
8'-0"	8"	#5 @ 8"OC	#4 @ 12"OC	2'-9"	1'-9"	14"	#5 @ 8"OC	(4) #5	(4) #5
10'-0"	10"	#6 @ 8"OC	#5 @ 12"OC	4'-6"	1'-9"	16"	#6 @ 8"OC	(5) #6	(5) #6

RETAINING WALL AND SCHEDULE

SCALE: N.T.S.

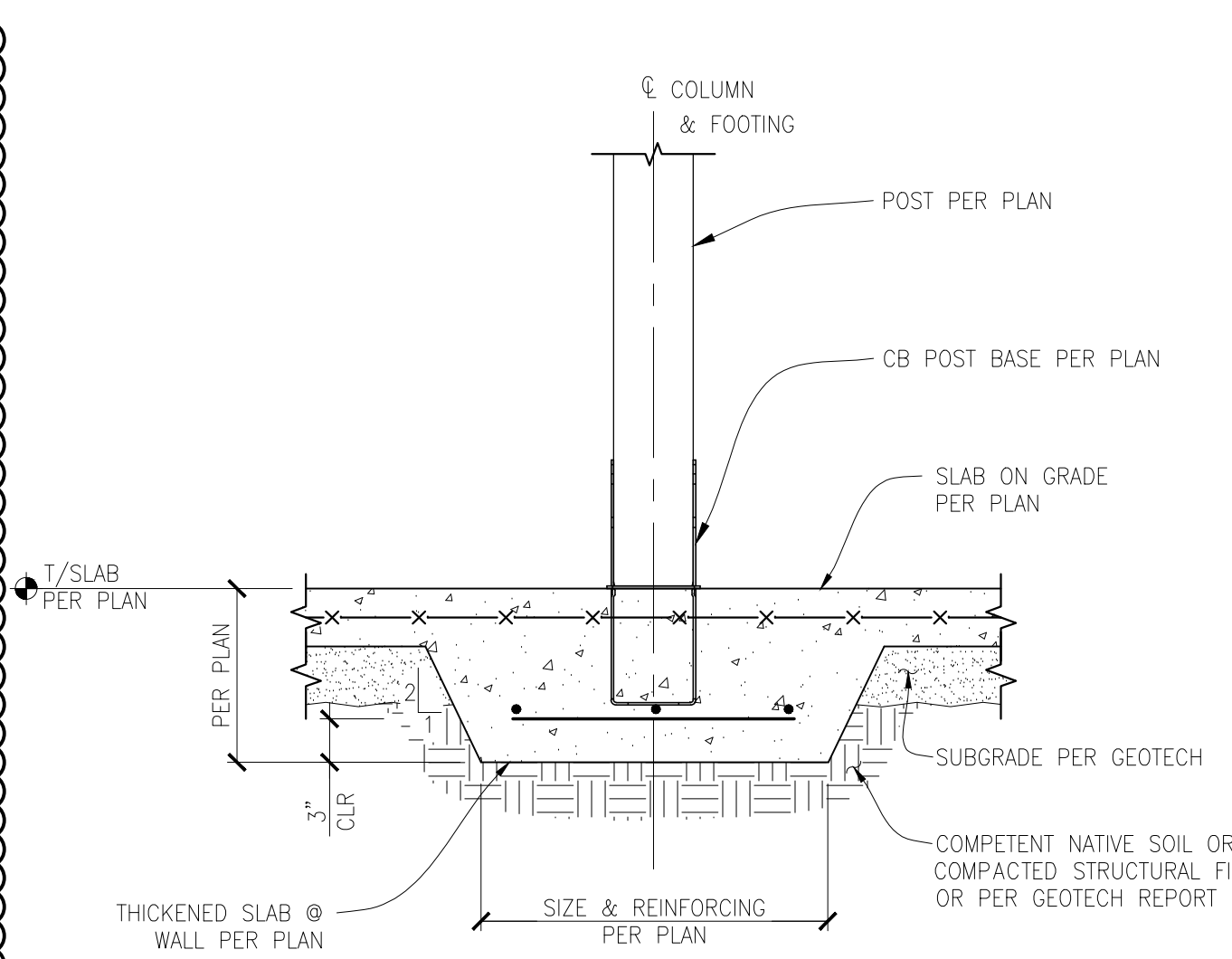
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NEW FOOTING/POST CONNECTION

SCALE: 3/4" = 1'-0"

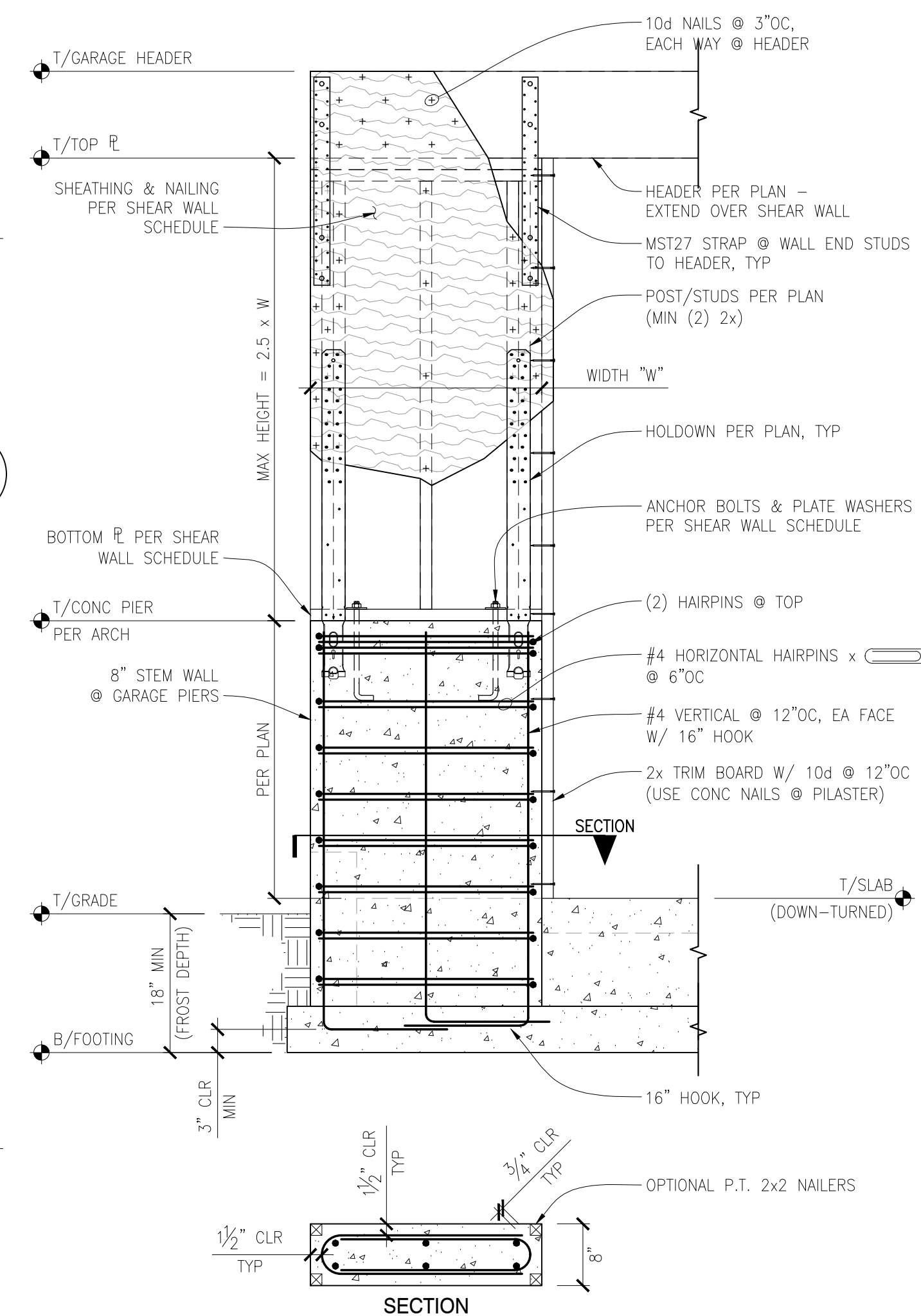
10



TYPICAL INTERIOR THICKENED SLAB FOOTING AND WOOD POST CONNECTION

SCALE: 1" = 1'-0"

11



GARAGE PORTAL SHEAR WALL

SCALE: 3/4" = 1'-0"

12



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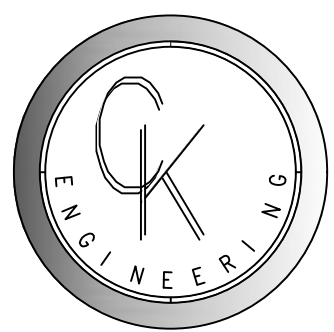
REVISION #	DATE	DESCRIPTION
1	02-22-2021	FOR CODE COMPLIANCE

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Checked By: SC
Date: 2-22-2021

CK JOB NO.
19-061

STRUCTURAL DETAILS

S-2.0



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REVISION #	DATE	DESCRIPTION
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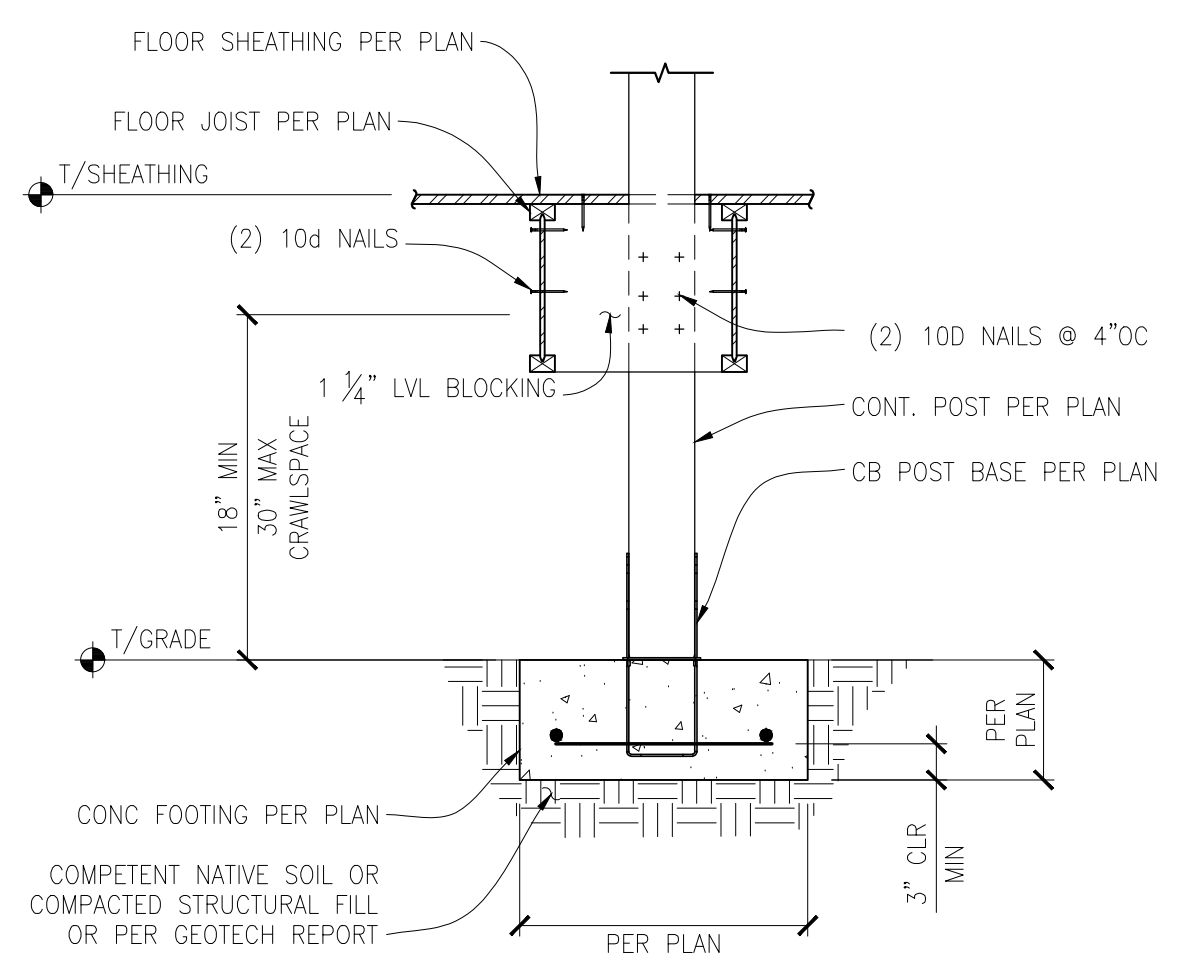
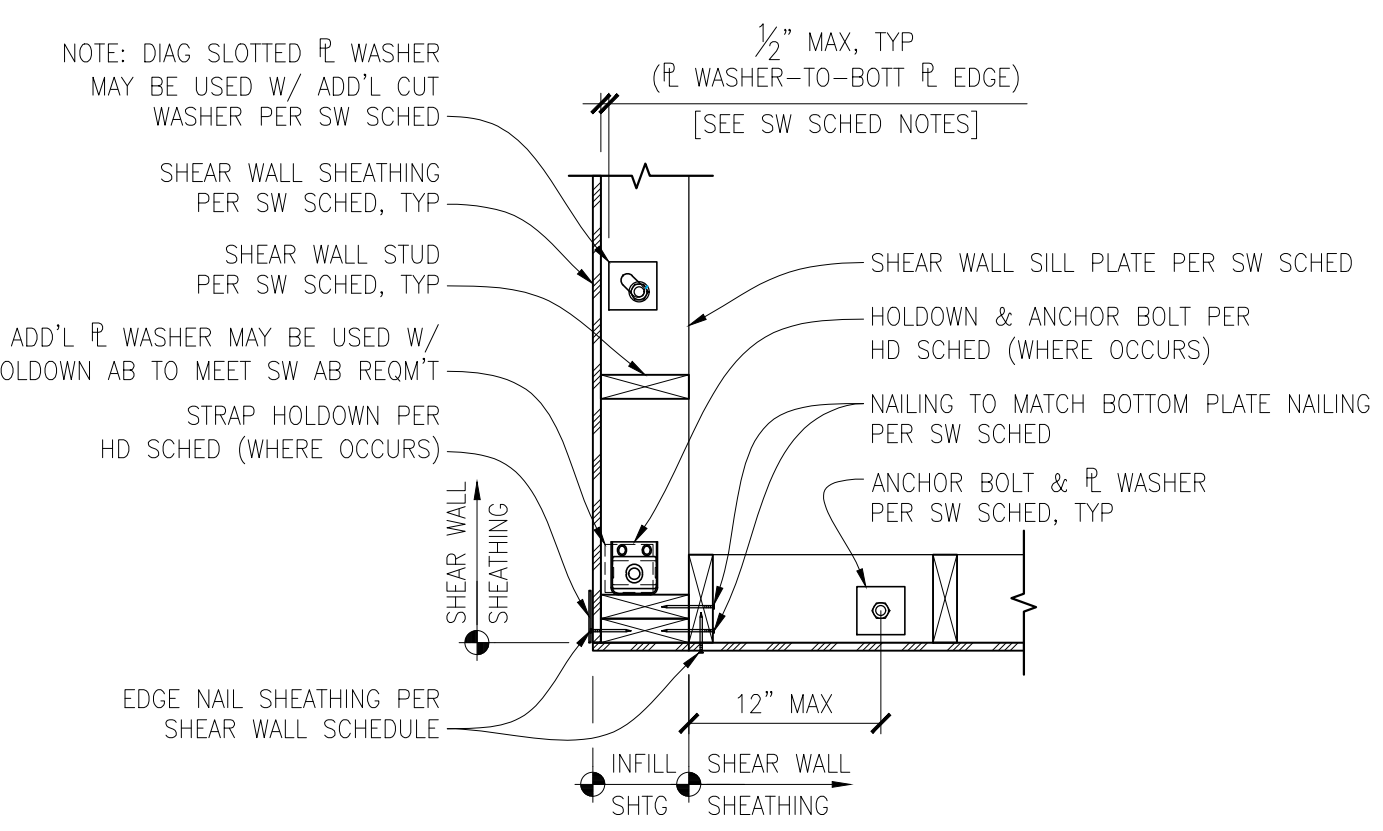
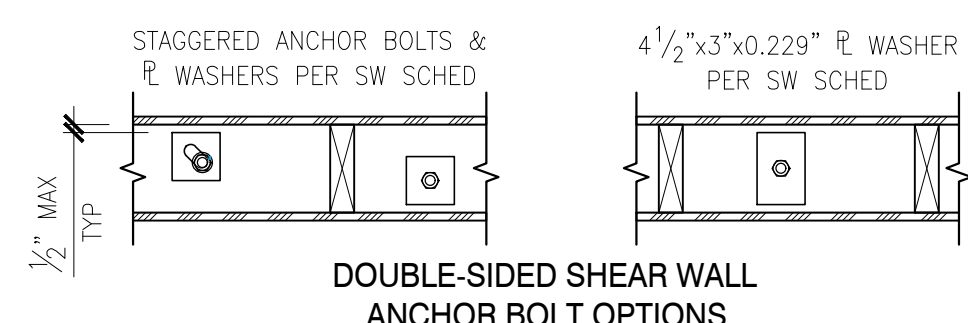
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S-2.1

SIMPSON STRONG-TIE
 SLOTTED PLATE WASHERS
 W/ 3/8" ANCHOR BOLTS
 3x3x0.229 BPS#-3
 4.5x3x0.229 BPS#-6



CB POST TO FOOTING CONNECTION

SCALE: 3/4" = 1'-0"

1

EXTERIOR SHEAR WALL WITH JOISTS PERALLEL TO RETAINING WALL

SCALE: 3/4" = 1'-0"

2

EXTERIOR SHEAR WALL WITH JOISTS PERPENDICULAR TO RETAINING WALL

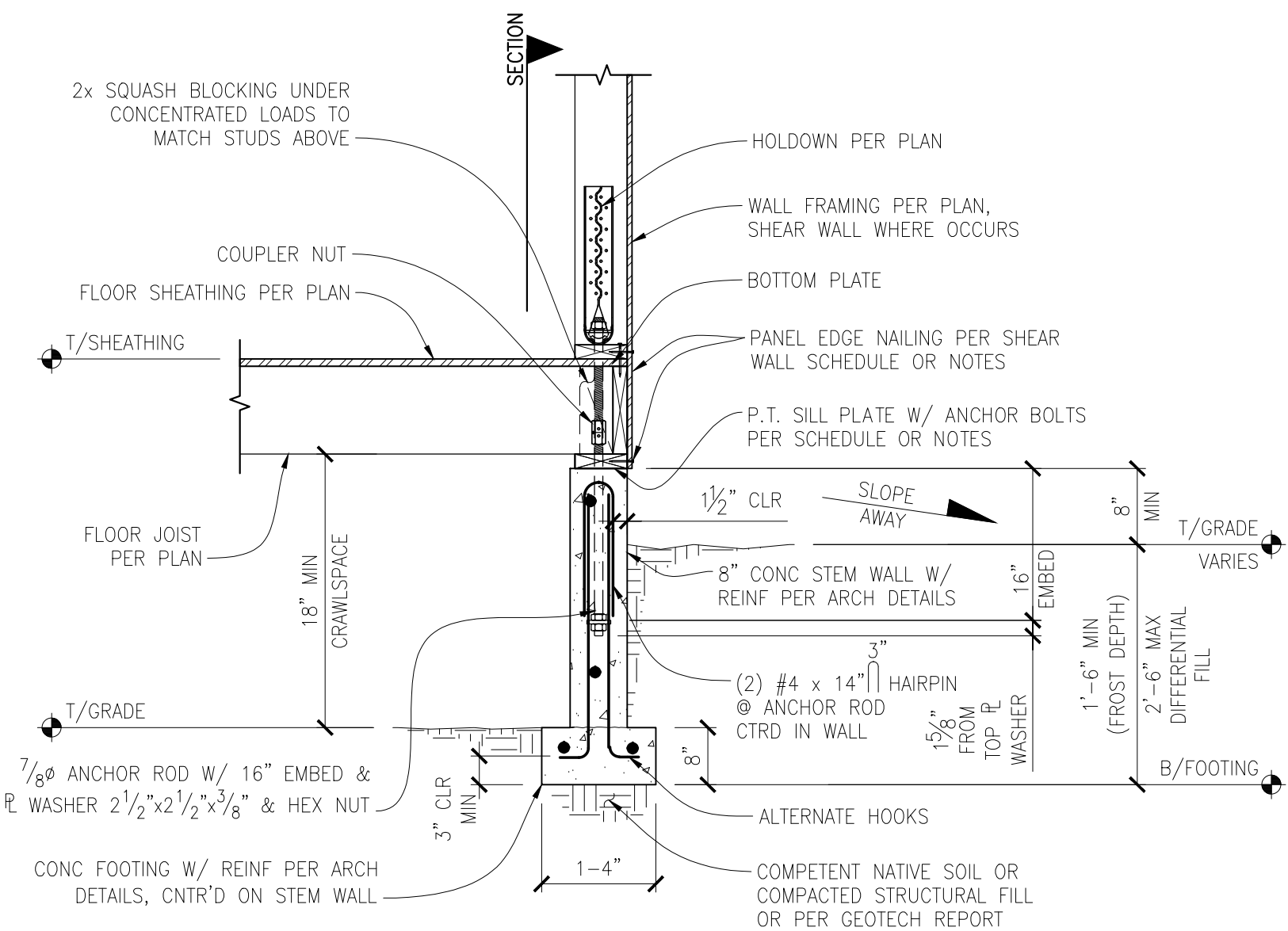
SCALE: 3/4" = 1'-0"

3

TYPICAL PLAN VIEW - SHEAR WALL HOLDOWNS & ANCHOR BOLTS

SCALE: 1" = 1'-0"

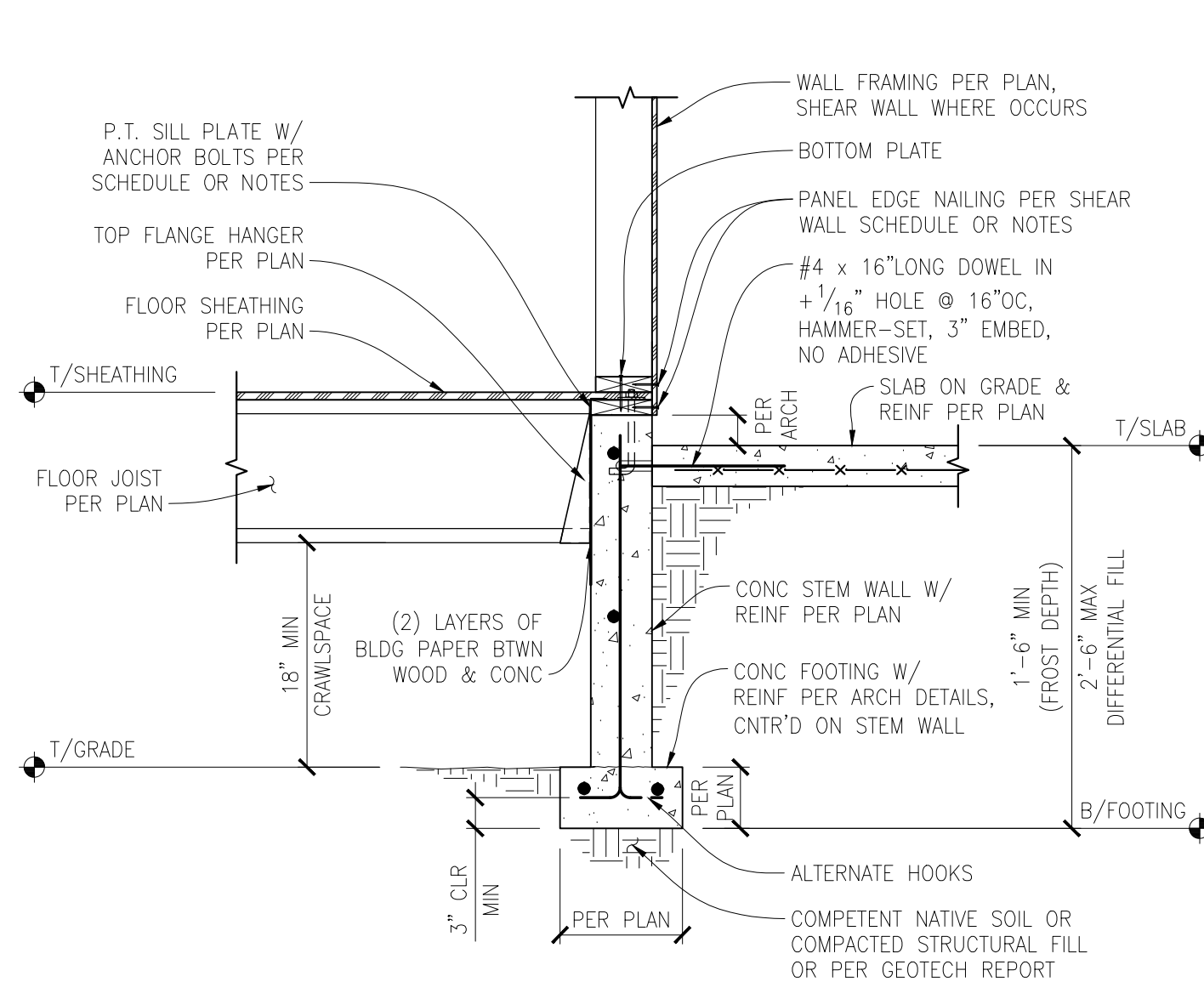
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HOLDOWN AT SHEAR WALL WITH JOISTS PERPENDICULAR

SCALE: 3/4" = 1'-0"

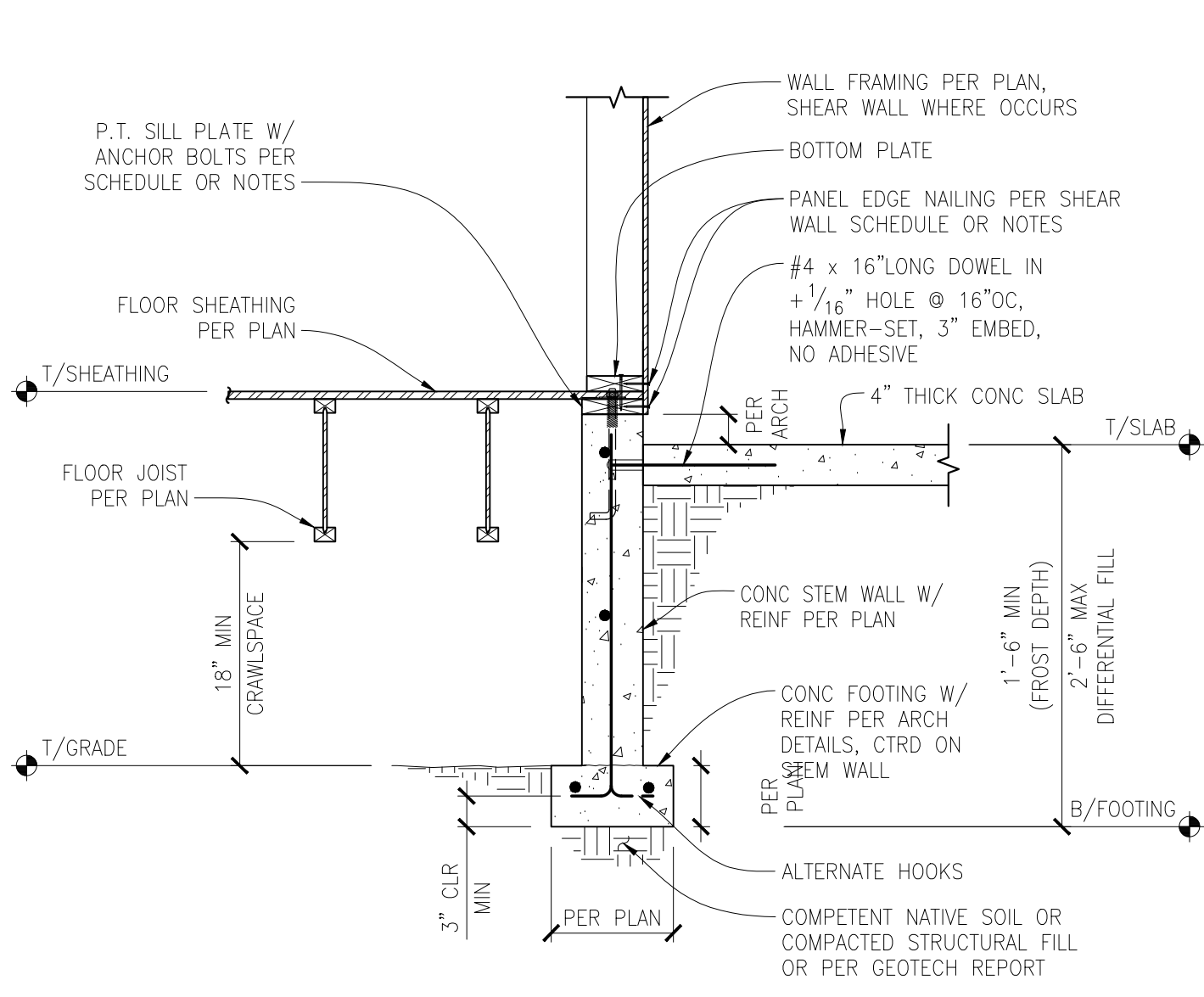
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CRAWL SPACE EXTERIOR SHEAR WALL WITH JOISTS PERPENDICULAR TO RAISED STEM WALL

SCALE: 3/4" = 1'-0"

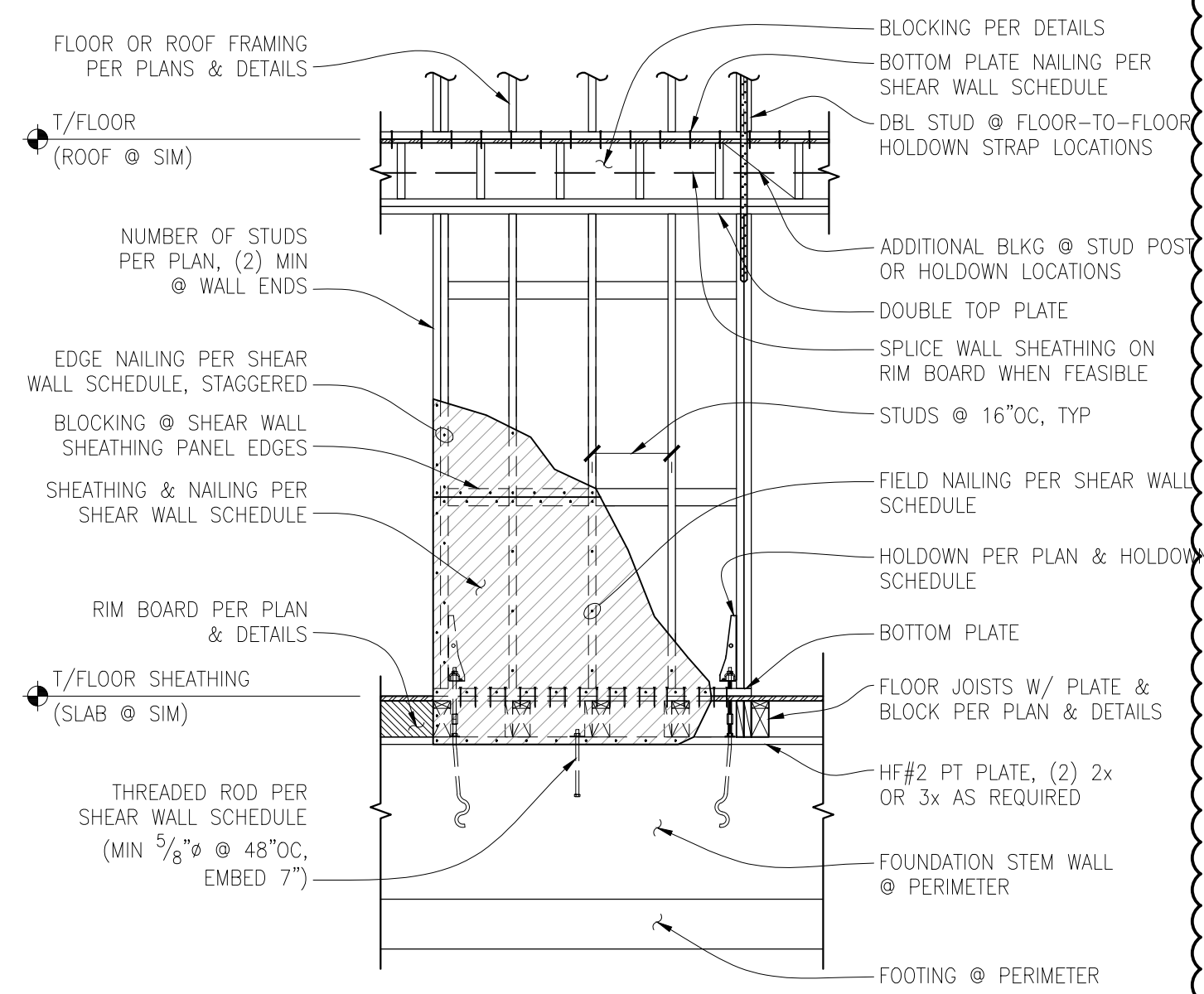
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SHEAR WALL WITH JOISTS PARALLEL TO RAISED STEM WALL

SCALE: 3/4" = 1'-0"

8

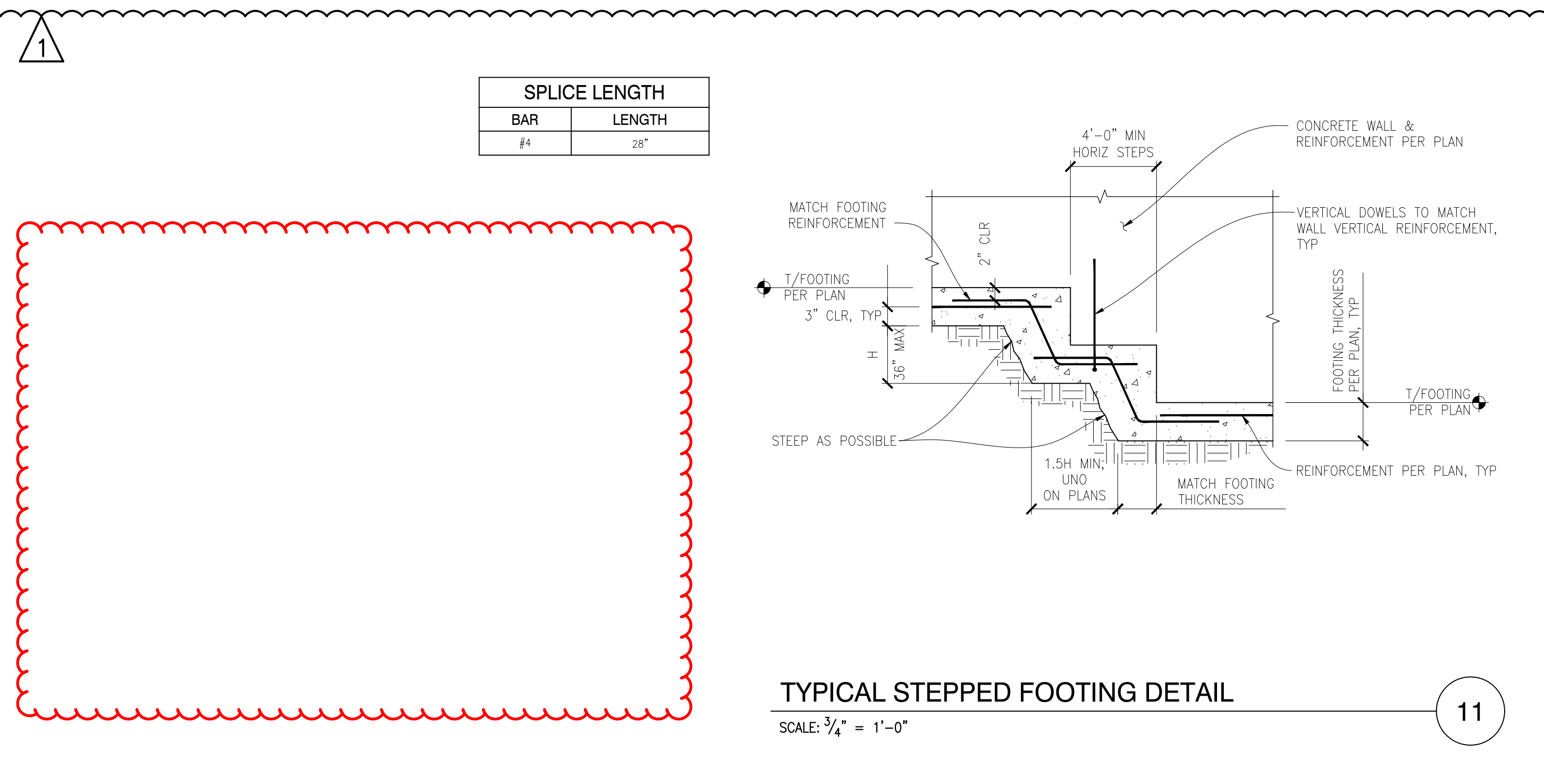


TYPICAL SHEAR WALL ELEVATION

SCALE: N.T.S.

9

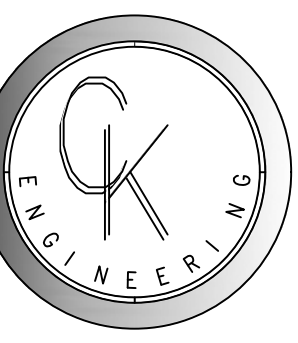
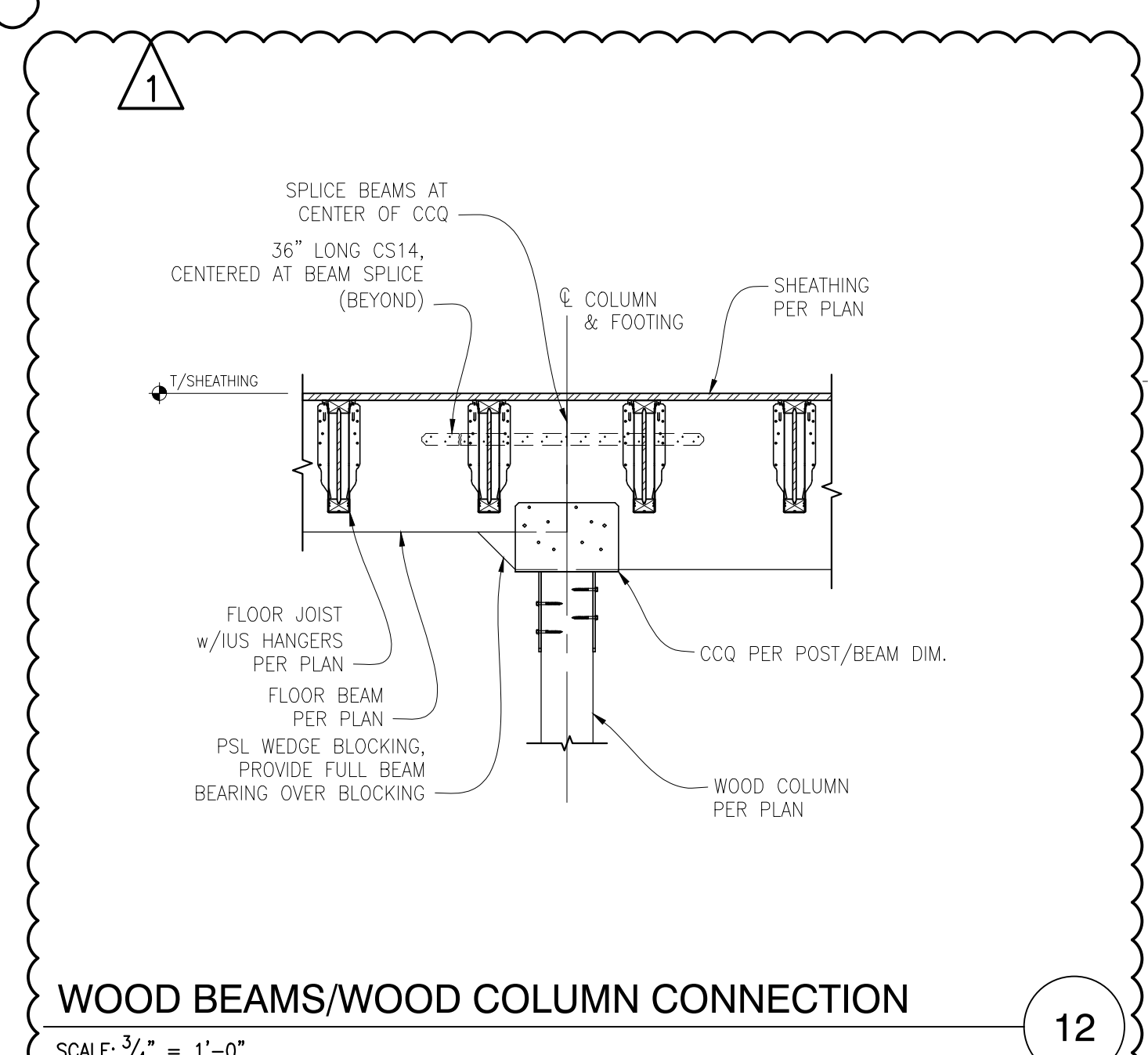
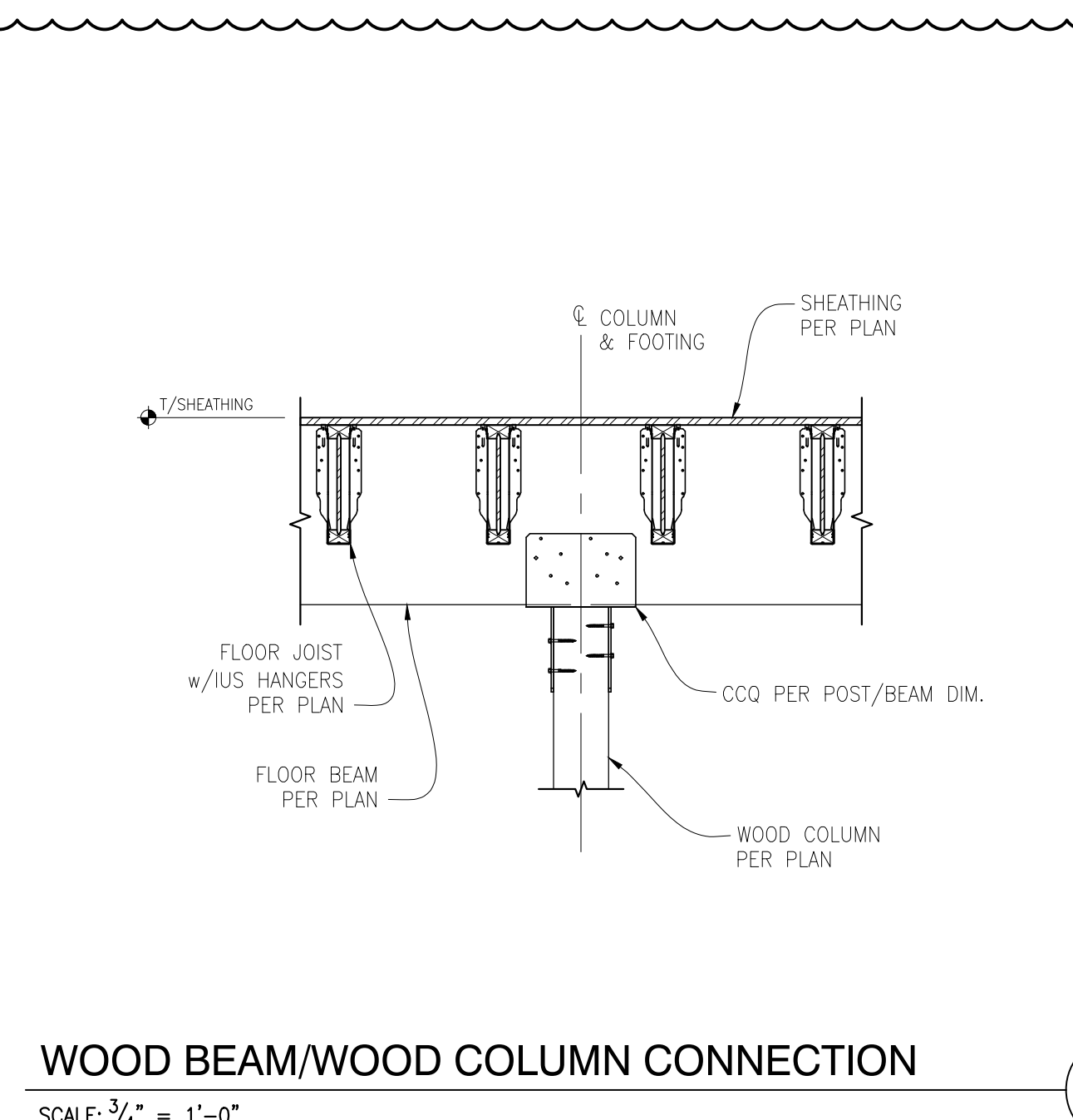
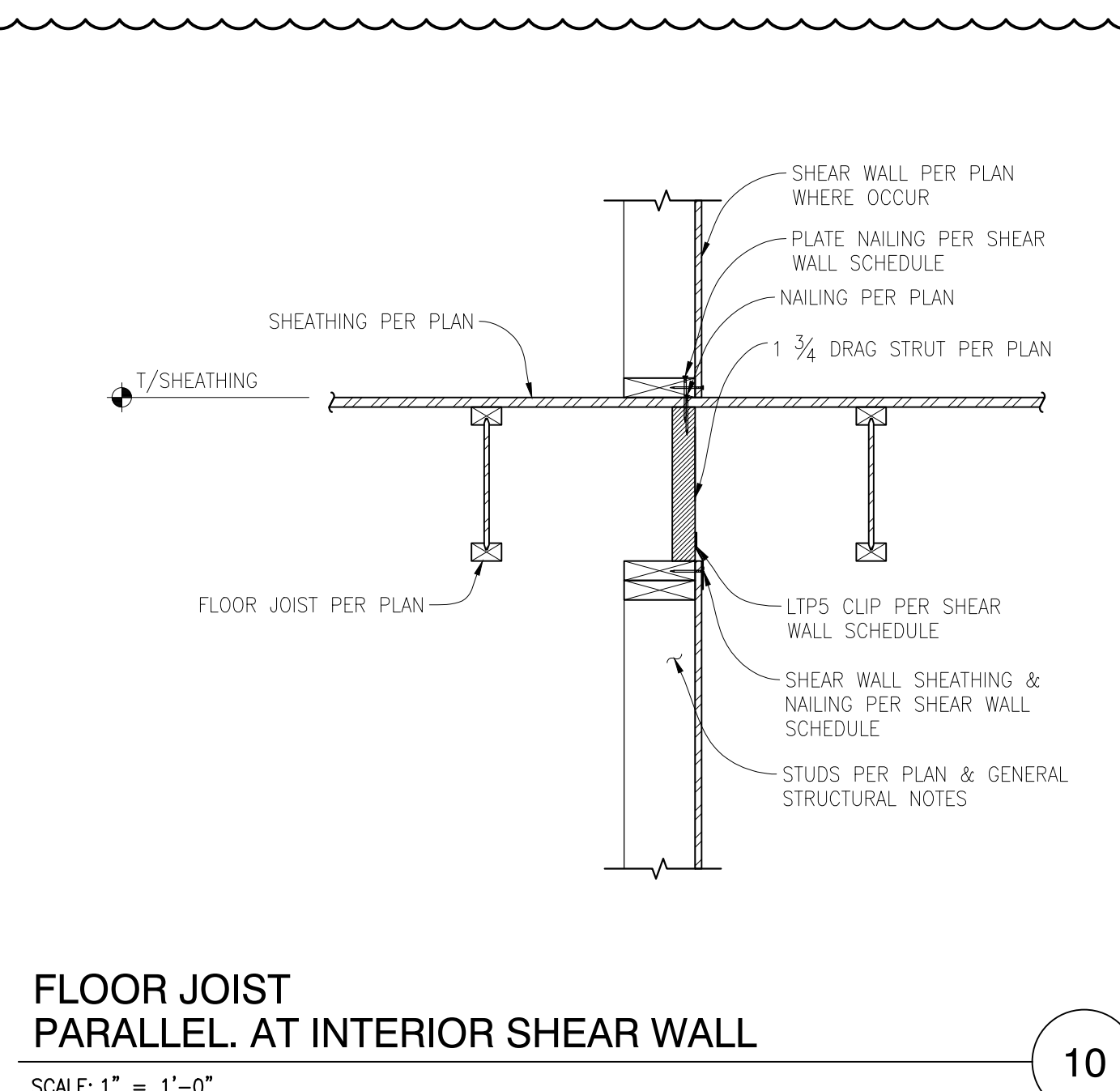
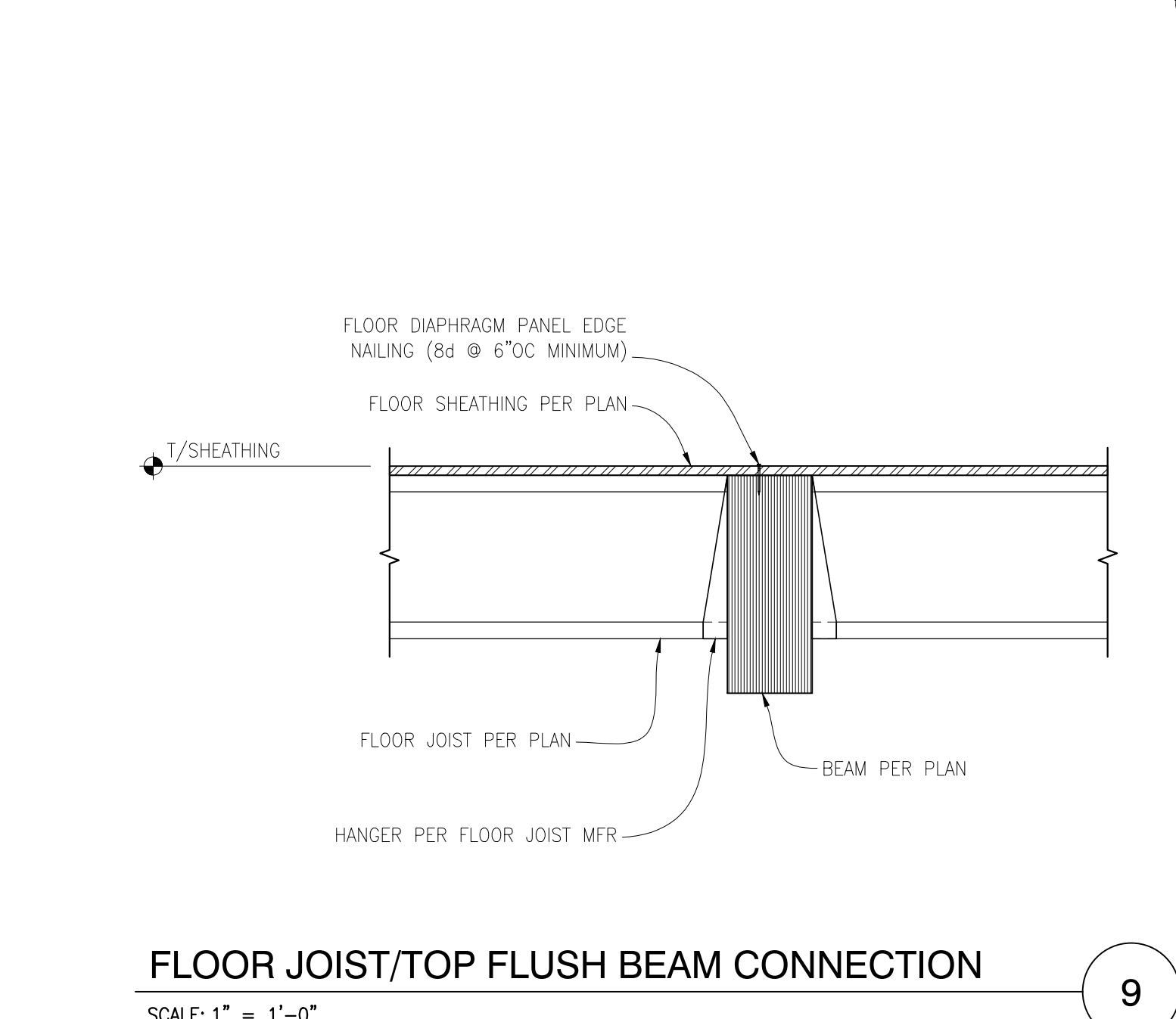
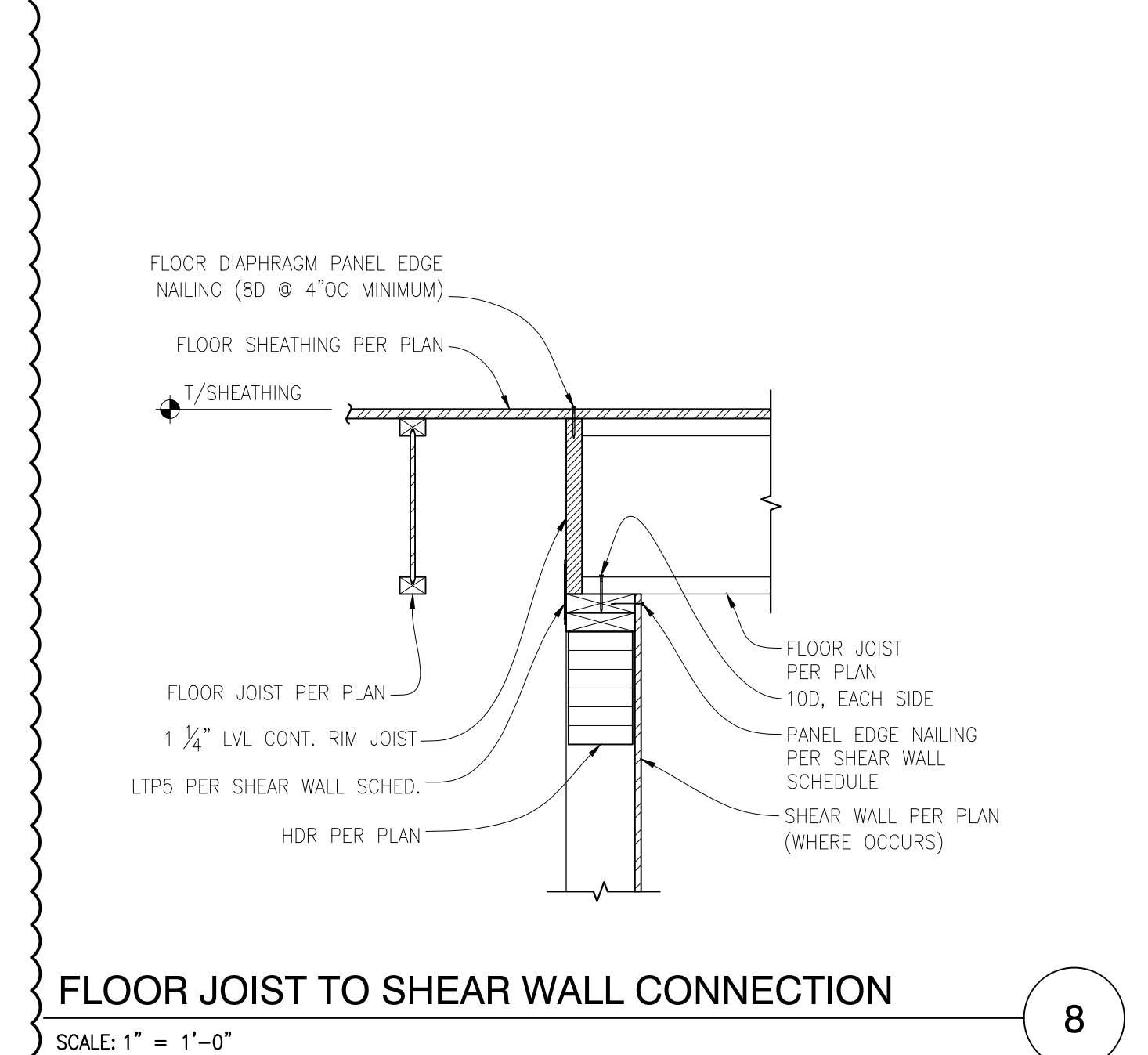
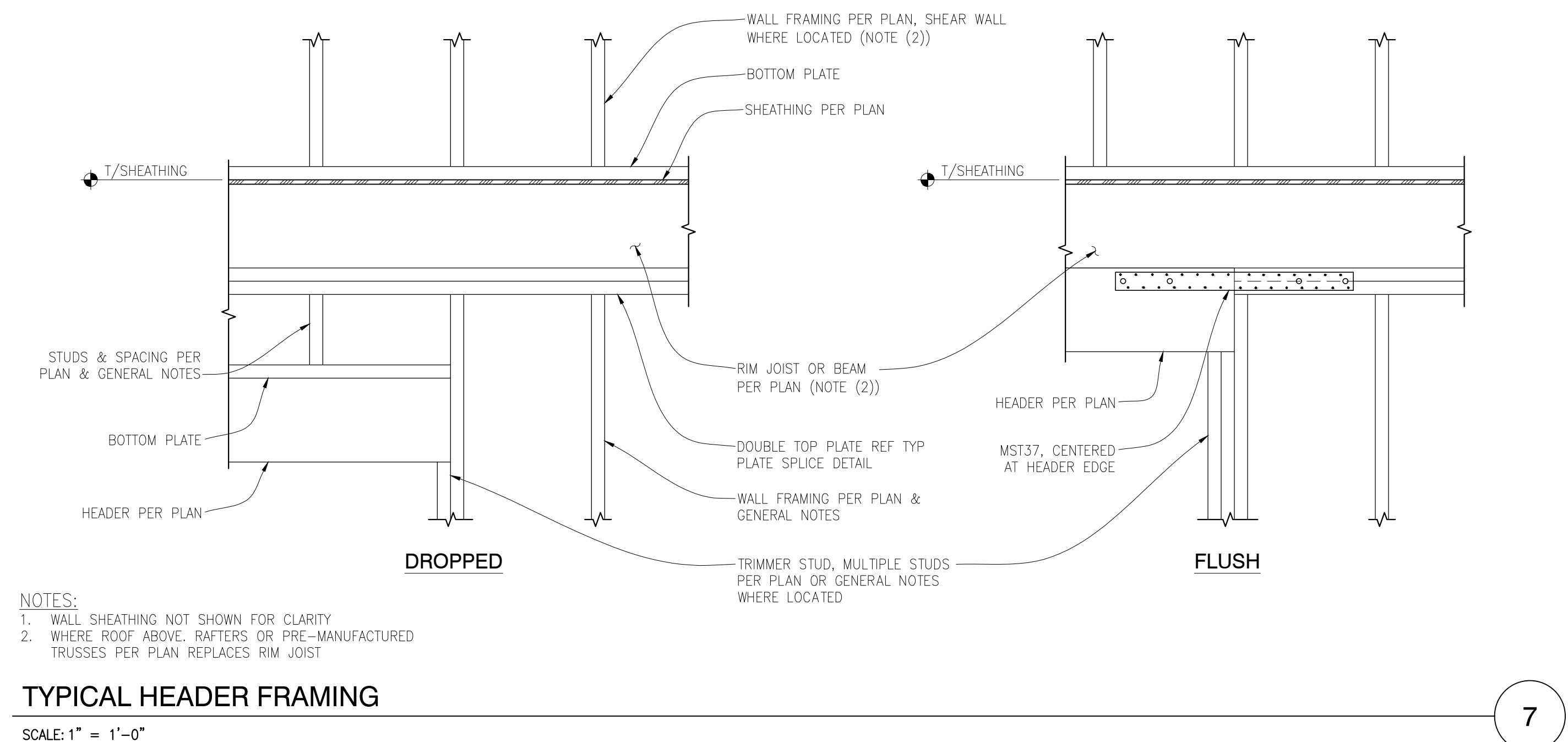
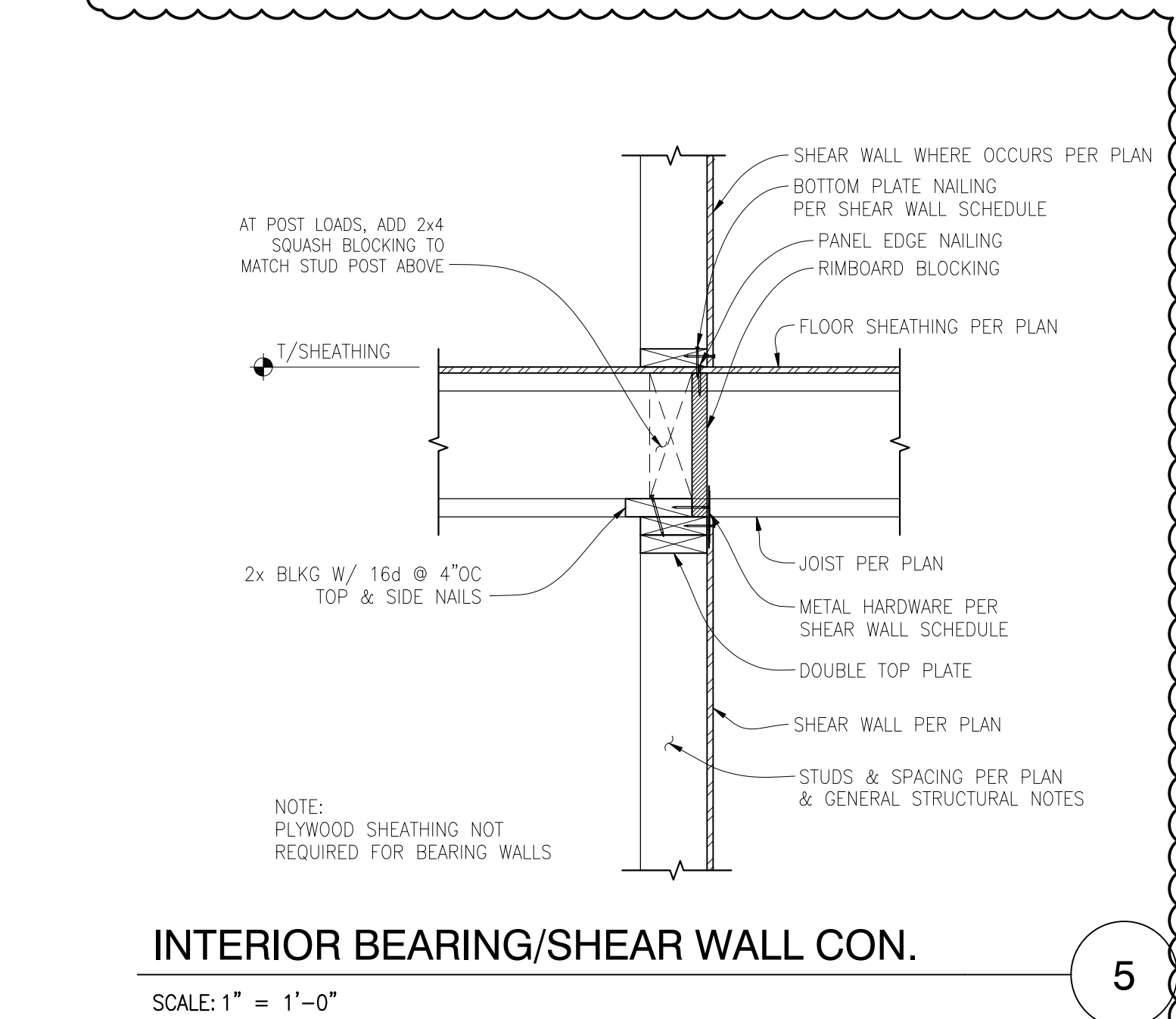
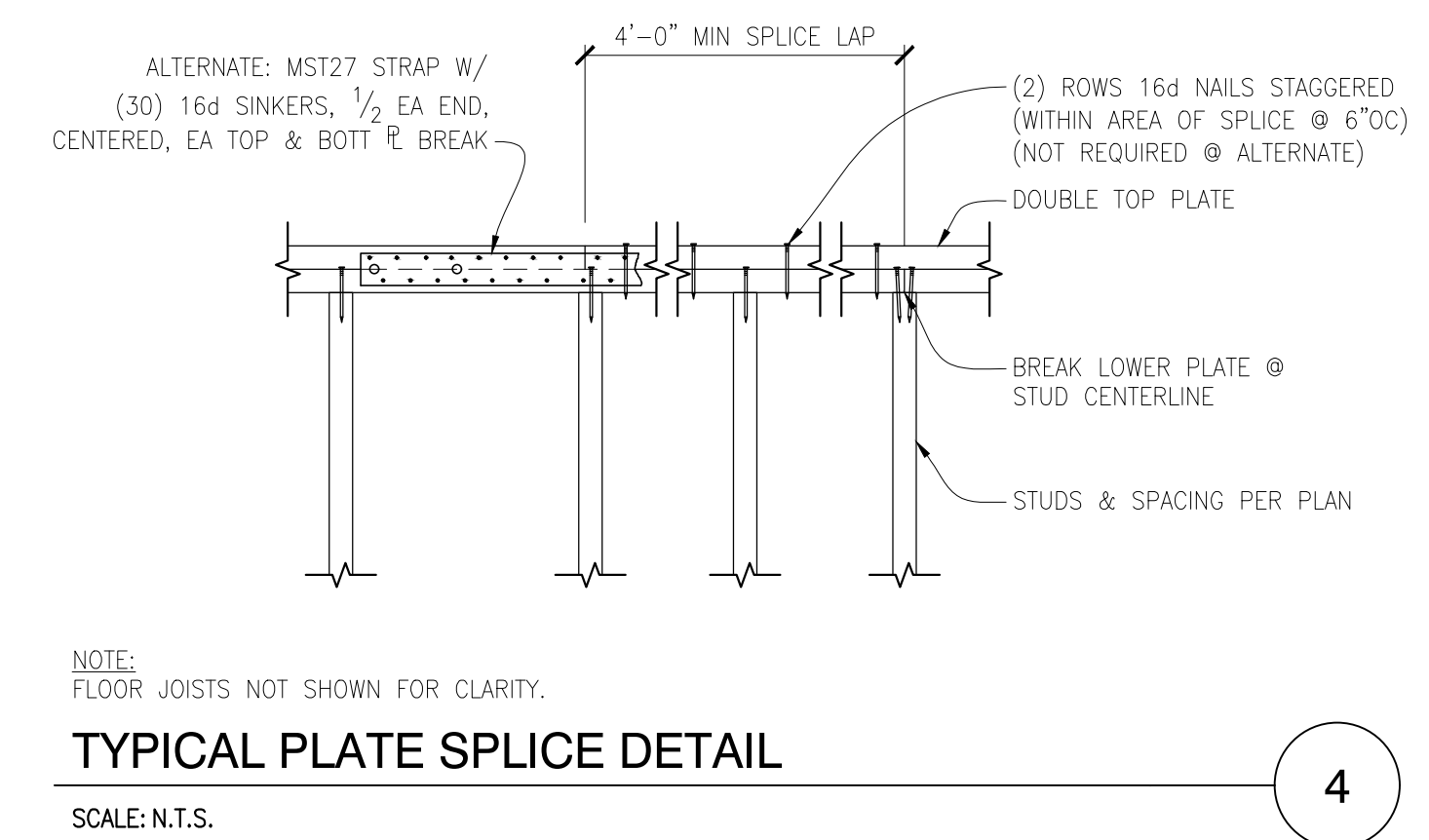
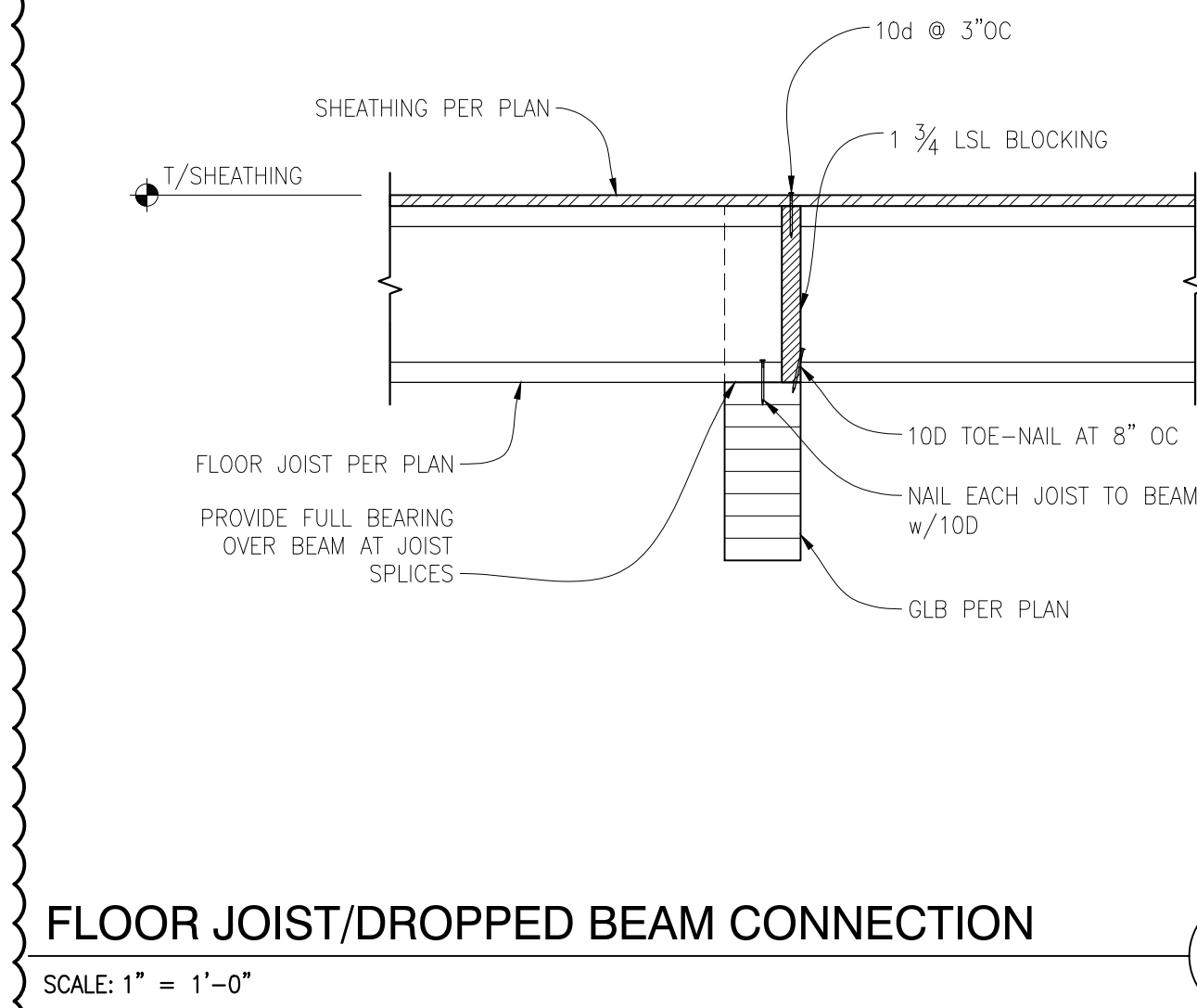
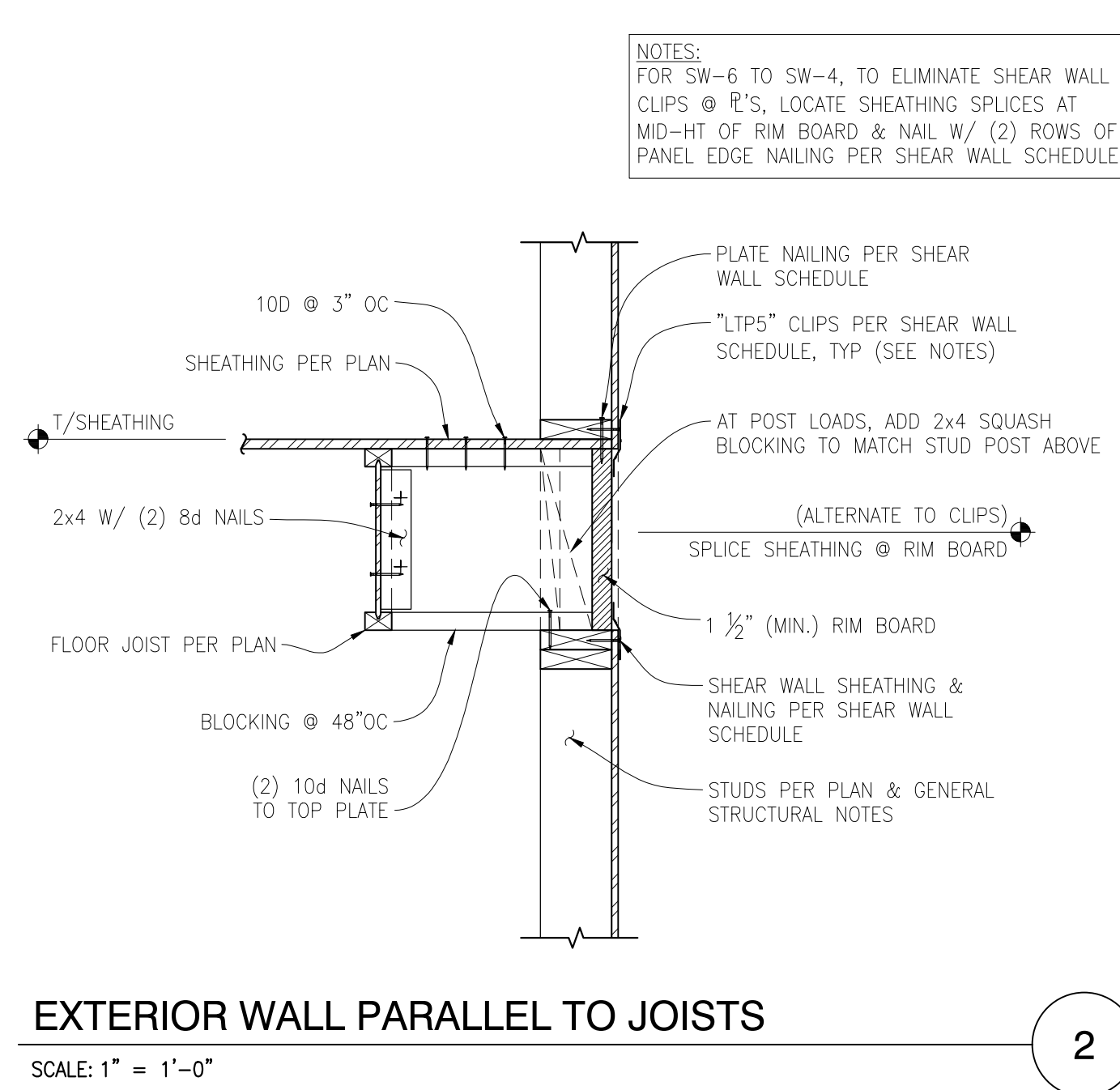
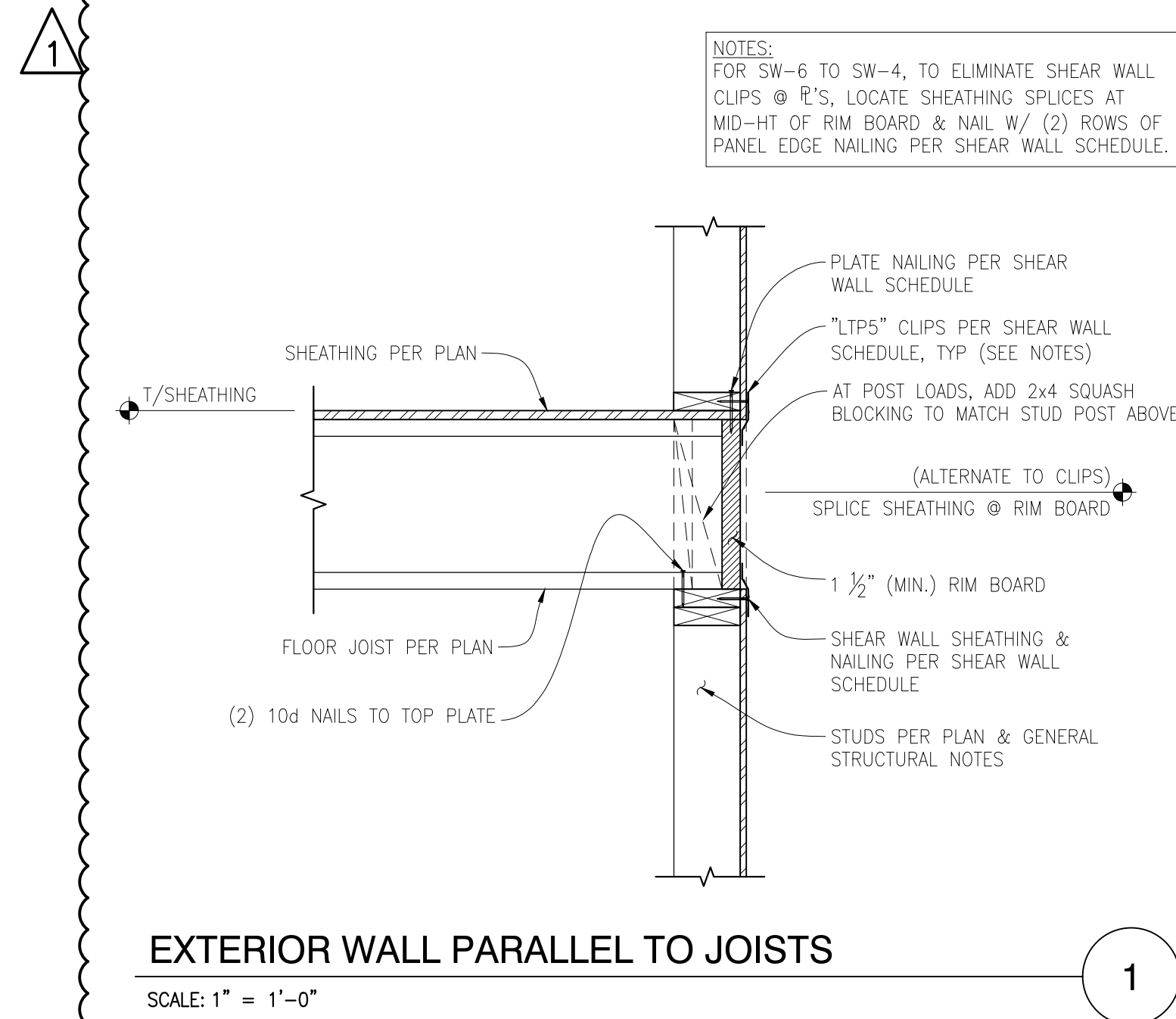
SPLICE LENGTH	
BAR	LENGTH
#4	28"



TYPICAL STEPPED FOOTING DETAIL

SCALE: 3/4" = 1'-0"

11



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2/22/2021

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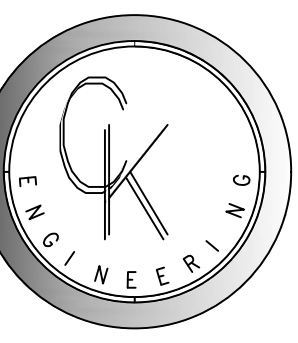
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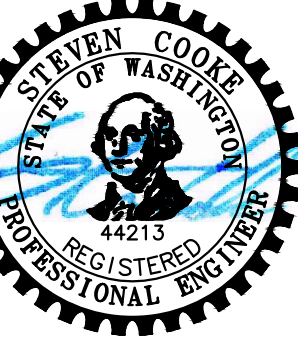
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19-061

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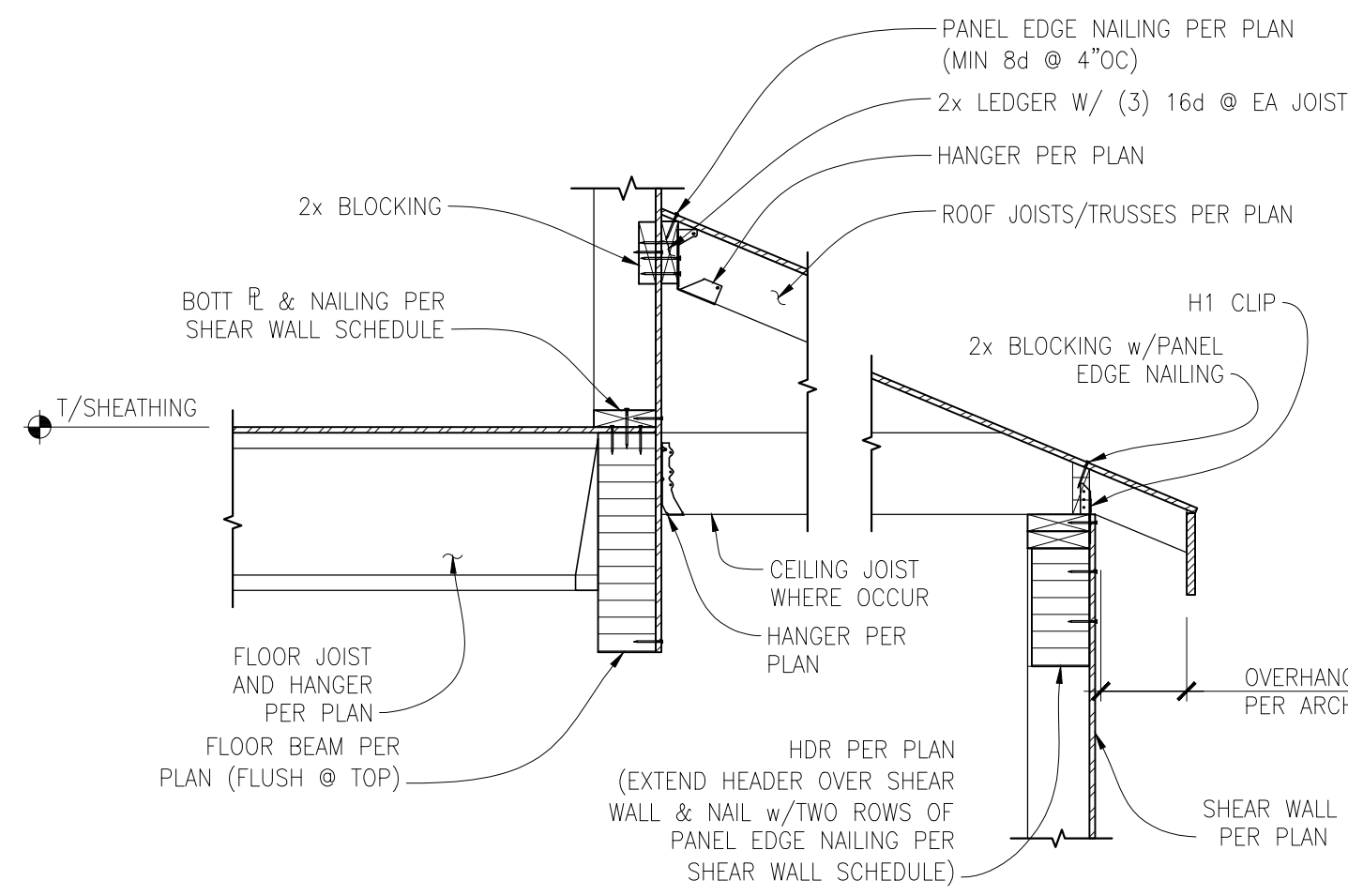
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CK JOB NO.
19-061

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 DETAILS

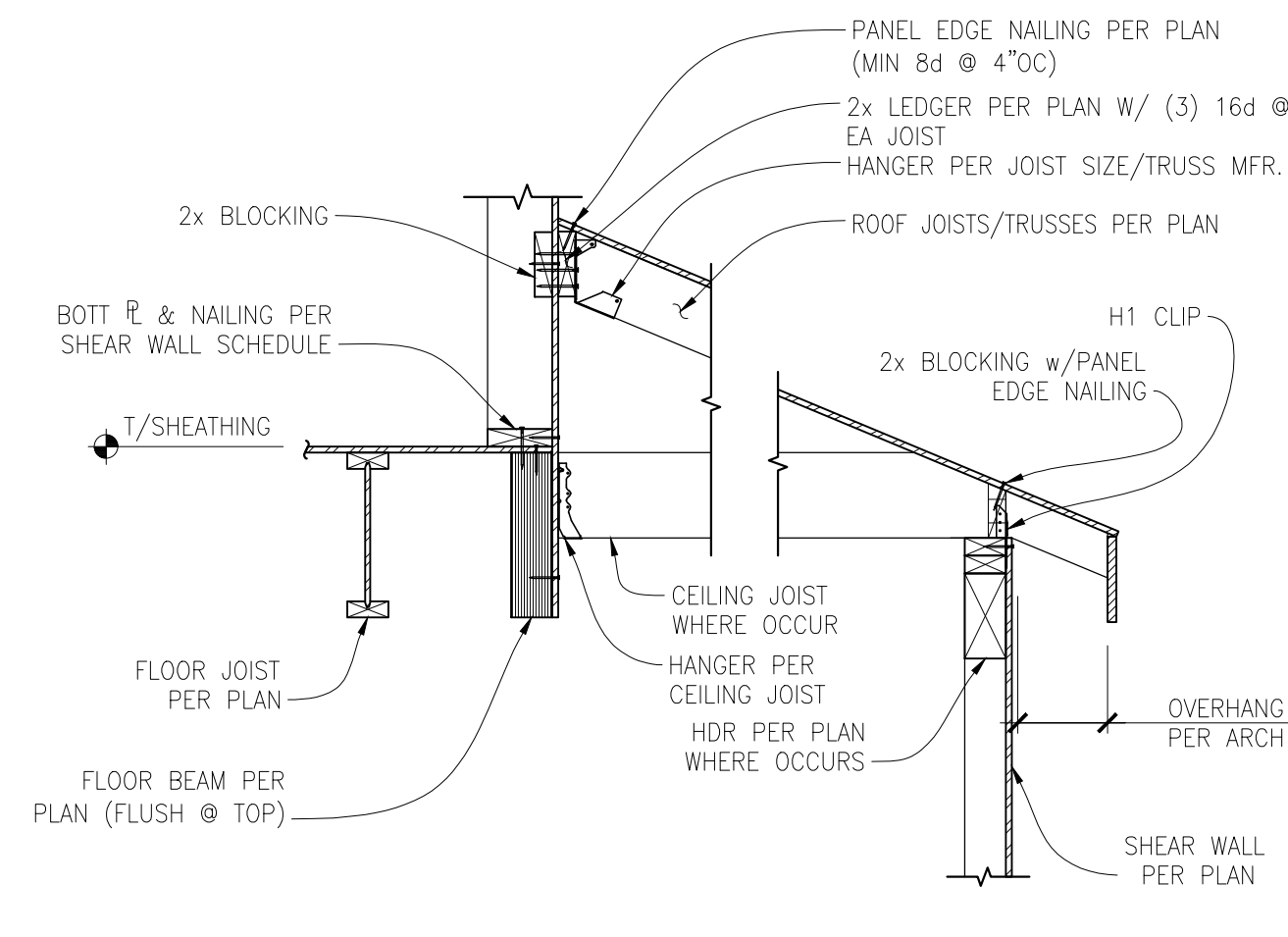
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UPPER FLOOR SHEAR WALL TO MAIN FLOOR SHEAR WALL CONNECTION

SCALE: 3/4" = 1'-0"

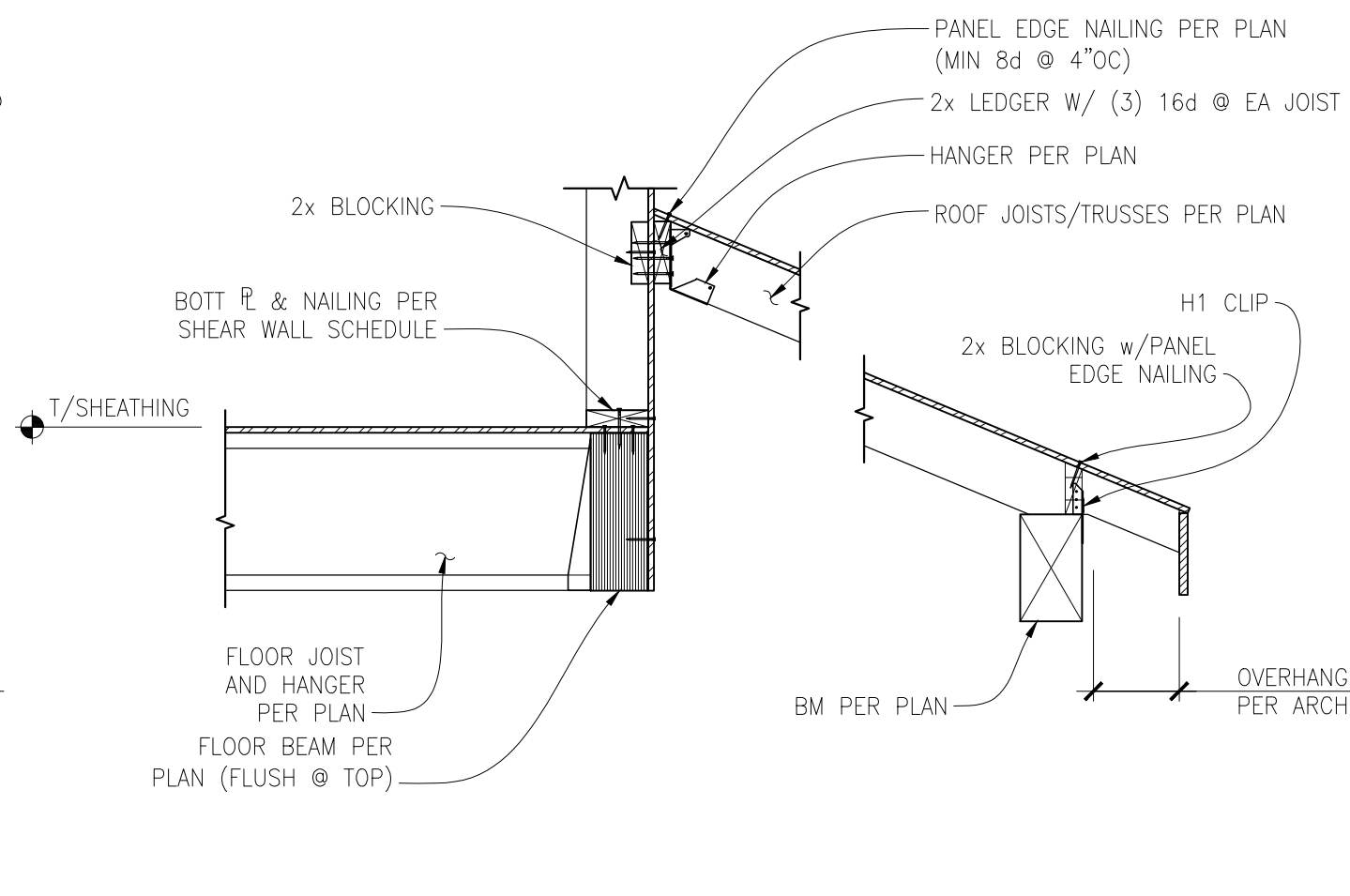
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UPPER FLOOR SHEAR WALL TO MAIN FLOOR SHEAR WALL CONNECTION

SCALE: 3/4" = 1'-0"

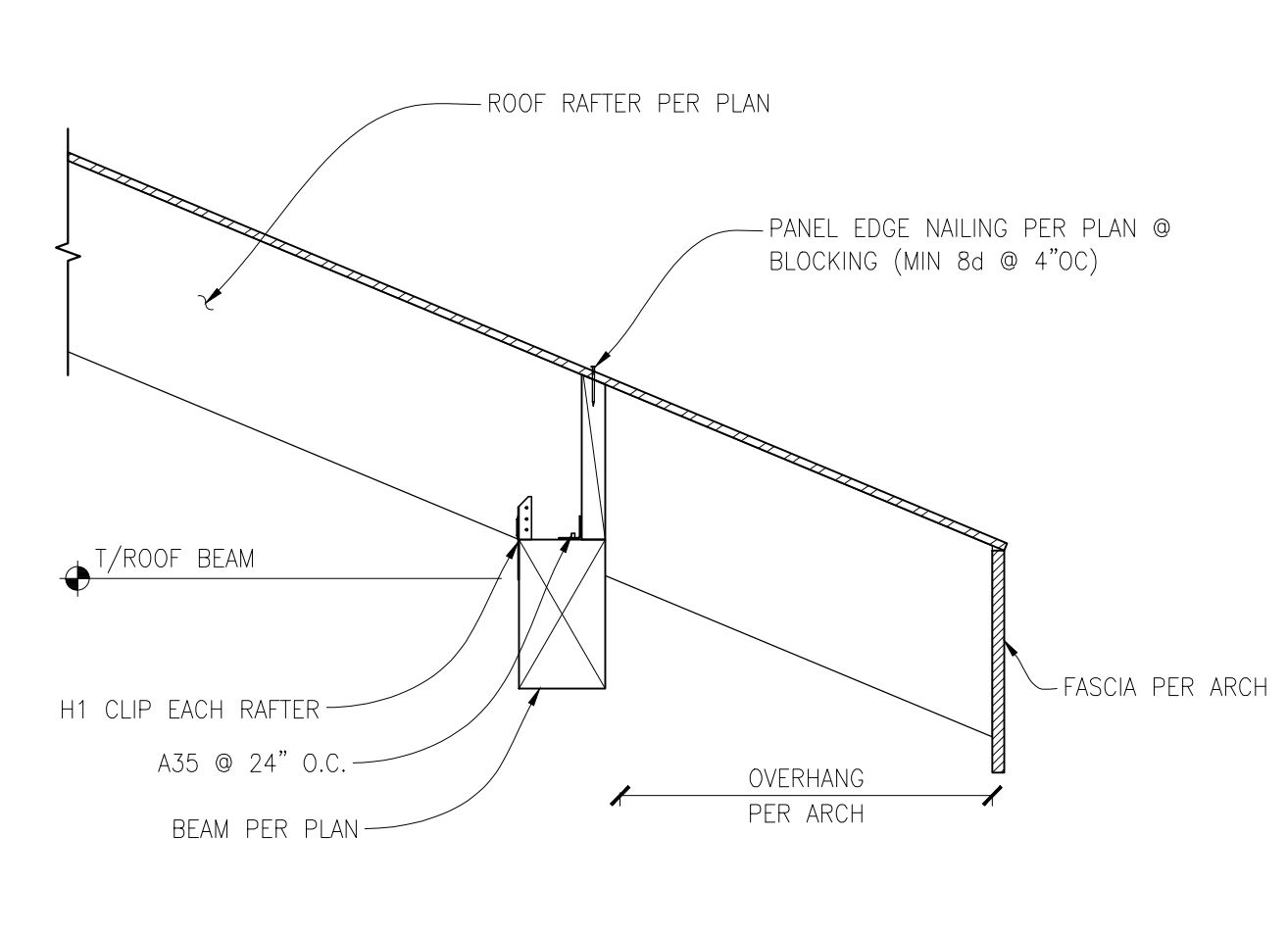
2



UPPER FLOOR SHEAR WALL TO MAIN FLOOR/LOWER ROOF CONNECTION

SCALE: 3/4" = 1'-0"

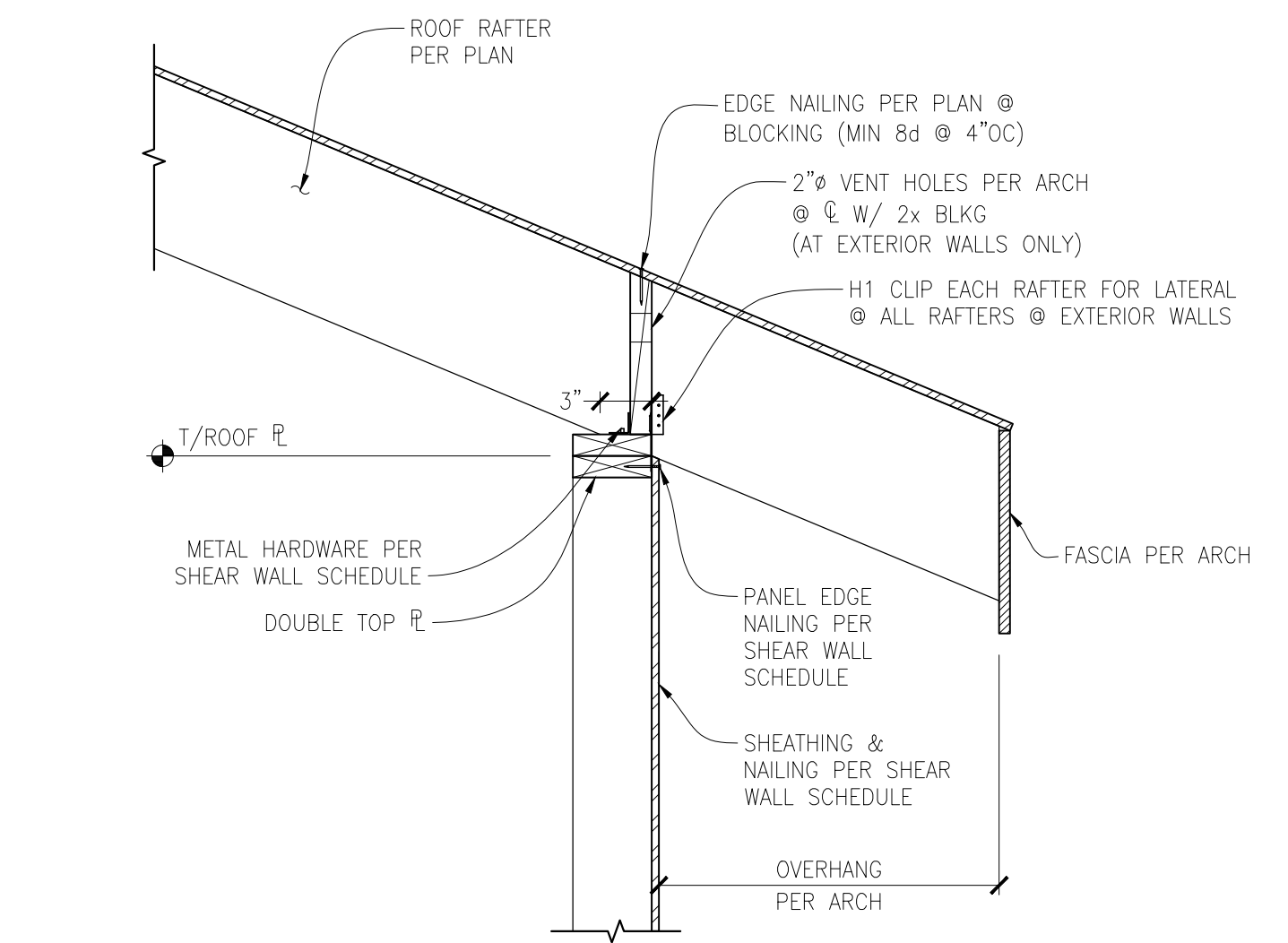
3



EXTERIOR ROOF RAFTERS TO ROOF BEAM CONNECTION

SCALE: 1" = 1'-0"

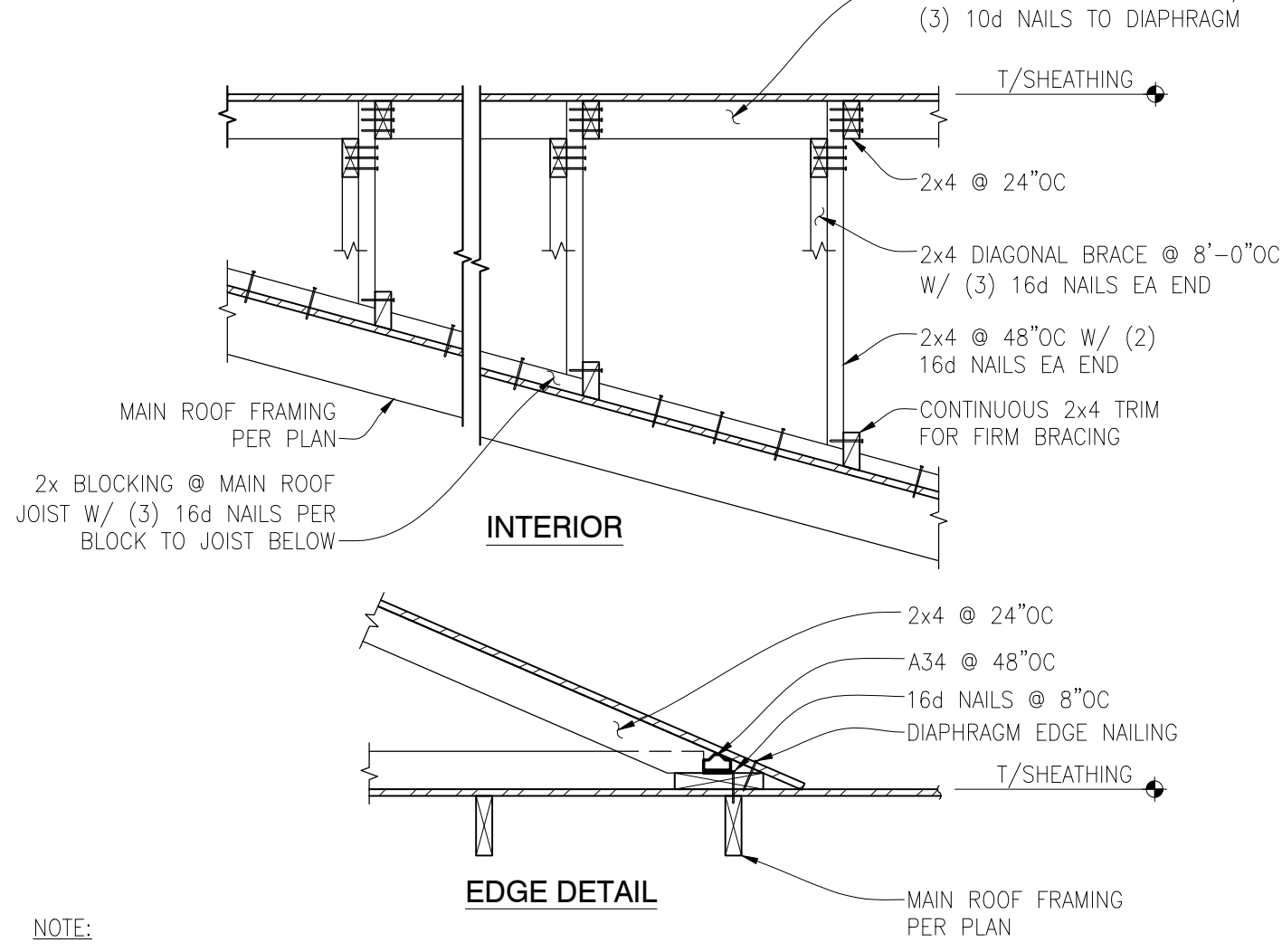
4



SHEAR WALL PERPENDICULAR TO ROOF RAFTER

SCALE: 1" = 1'-0"

5



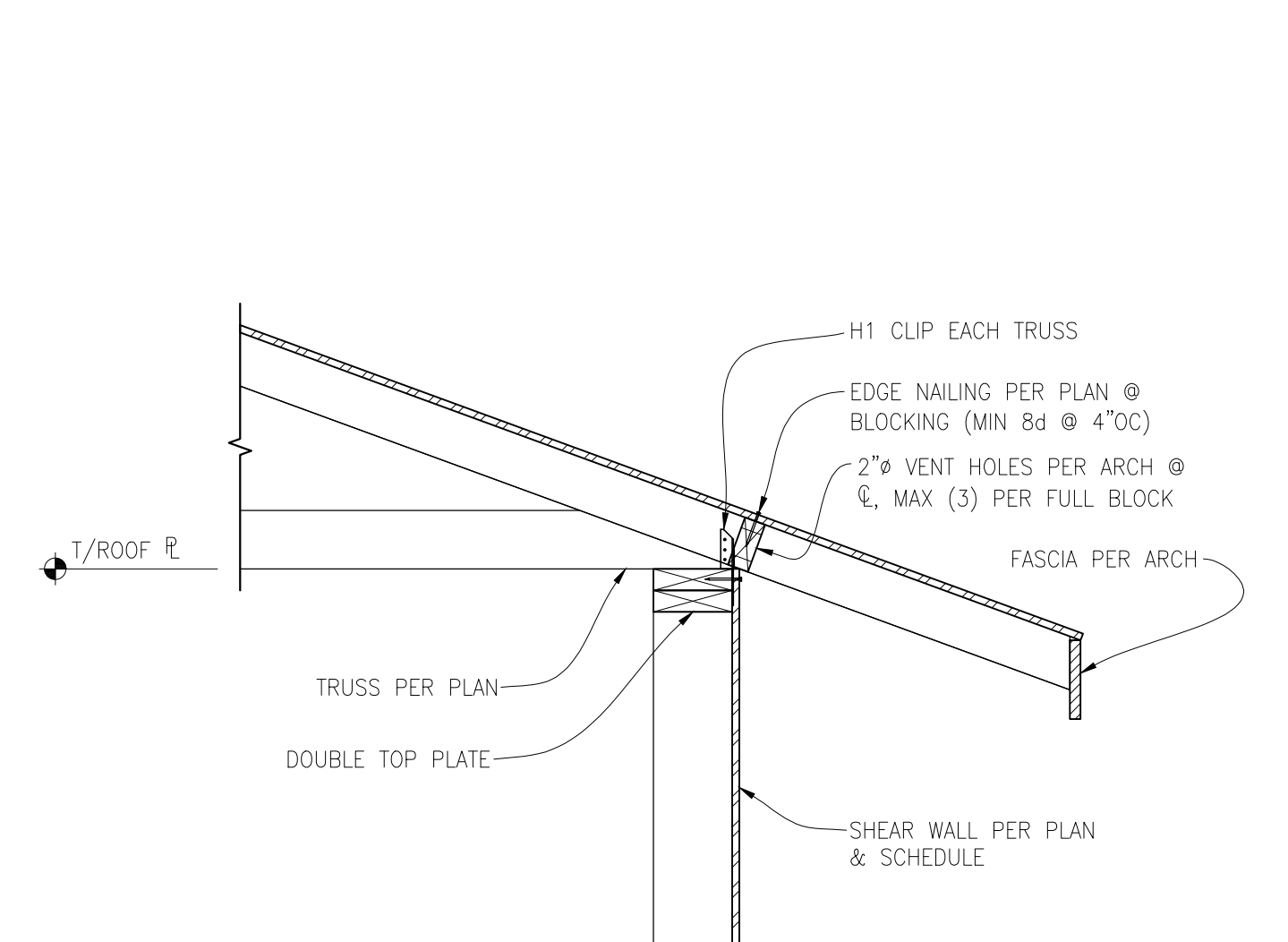
NOTE:

VENTILATION MAY BE REQUIRED AT BLOCKING. VERIFY METHOD WITH ENGINEER PRIOR TO CONSTRUCTION.

TYPICAL ROOF OVERFRAMING DETAIL

SCALE: N.T.S.

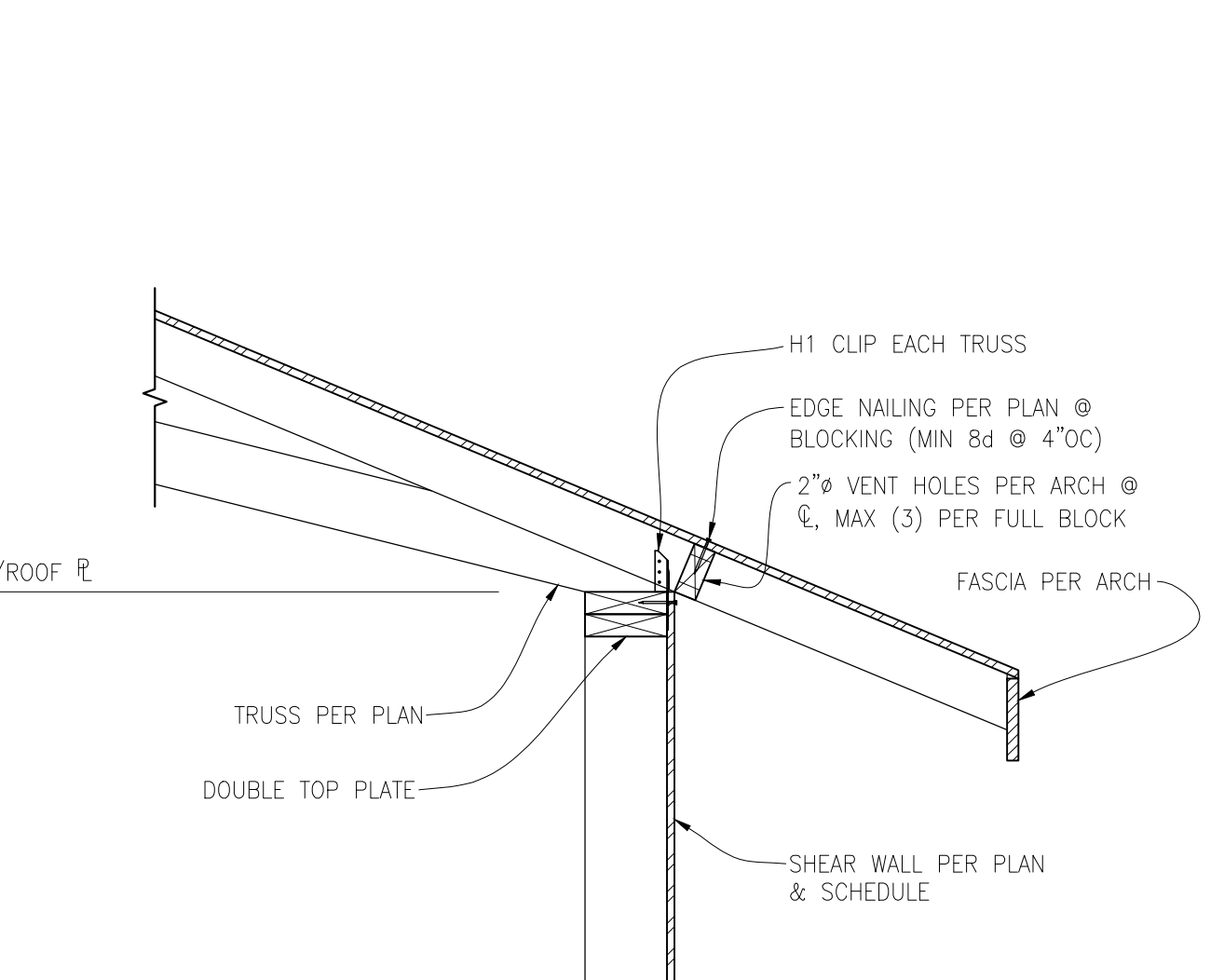
6



EXTERIOR SHEAR WALL PERPENDICULAR TO ROOF TRUSS CONNECTION

SCALE: 1" = 1'-0"

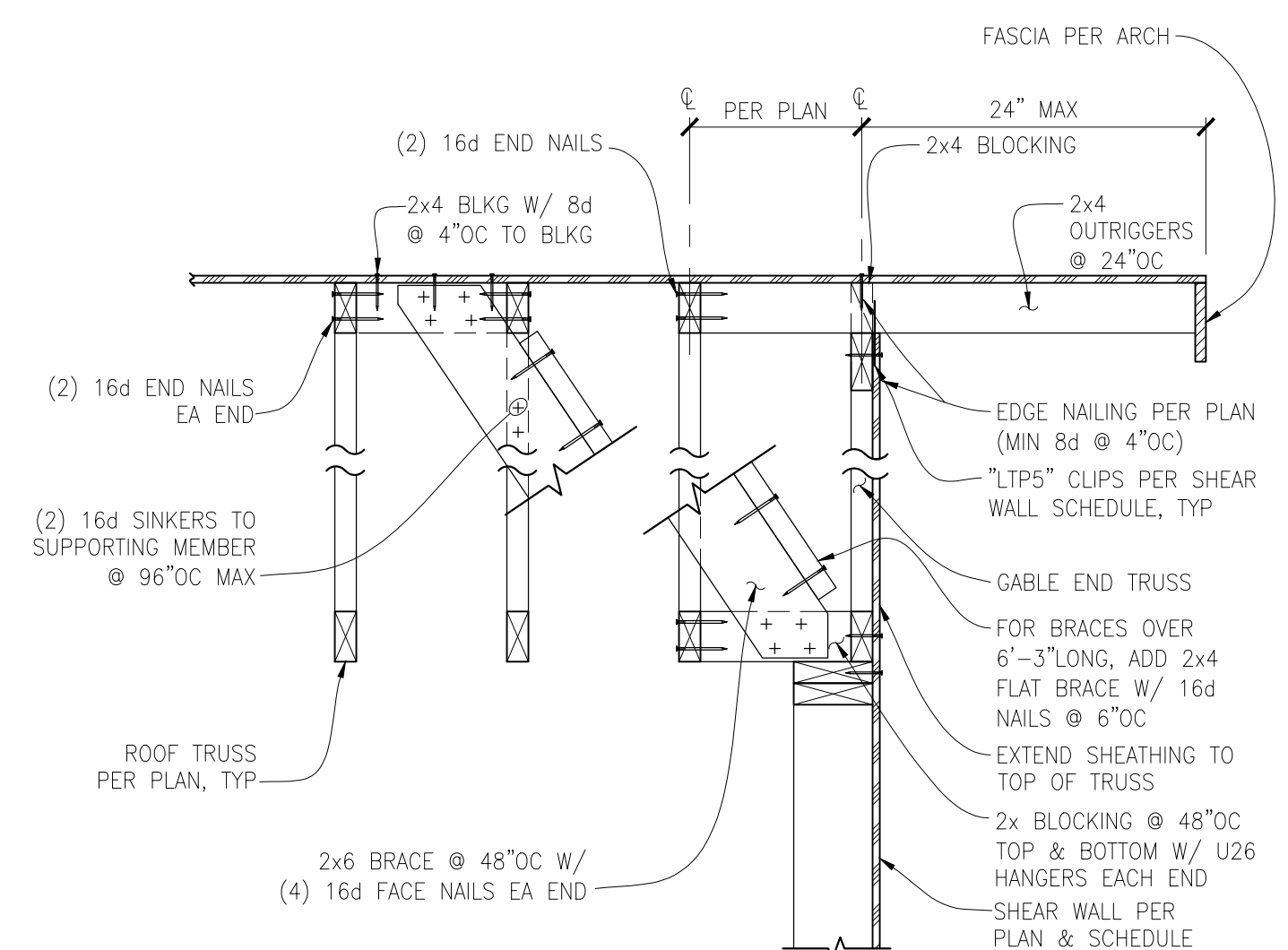
7



EXTERIOR SHEAR WALL PERPENDICULAR TO ROOF TRUSS

SCALE: 1" = 1'-0"

8



EXTERIOR SHEAR WALL PARALLEL TO ROOF TRUSS

SCALE: N.T.S.

9