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MERCER

ISLAND TOWN

AVERAGE BUILDING ELEVATION (A.B.E.) - HOUSE

MIDPOINT

67.8 68.3

A.B.E. = \sum PRODUCTS / \sum WALL LENGTHS

MAXIMUM HEIGHT = A.B.E. + 30.0'

MAXIMUM HEIGHT = A.B.E. + 30.0

ELEVATION MARK

KELLYM@STUARTSILK.COM

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PROJECT ADDRESS SCOPE OF WORK PROPOSED NEW SINGLE FAMILY **42XX HOLLY LANE** RESIDENCE WITH ATTACHED GARAGE MERCER ISLAND, WA 98040 LOT AREA 15,876 SF (0.36+/- ACRES)

PROPERTY DATA

ASSESSOR'S TAX NUMBER

ROGERS HOLLY LANE ADD AND UND

ISLAND LLR #SUB16-013 REC #

INT IN COMMUNITY TR PCL B MERCER

RR MI BLA #86-03-03 REC #8604109002

BEING POR LOTS 2 & 3 SD ADD TGW

POR TR 15 OF HARRY WHITES EAST

SEATTLE ACRE TRACTS; PLAT LOT 2 & 3

(33% LOT WIDTH PER MICC 19.02.020C)

COMBINED 17% OF 94'-10' = 16.12'

(MICC19.02.020C(1)(C)(ii), LARGEST

DIAMETER OF LOT WIDTH CIRCLE)

20170510900005 SD LLR DAF - LOTS 2 & 3

LEGAL DESCRIPTION

ZONING DESIGNATION

SETBACKS

FRONT YARD: 20'-0"

REAR YARD: 25'-0"

LOT WIDTH: 94'-10"

SIDE YARD DETERMINATION:

MINIMUM SIDE YARD: 5'-4"

738900-0020

ON EXISTING VACANT LOT PROPOSED POOL AND HOT TUB, COVERED TERRACE **BUILDING HEIGHT LIMIT**

30'-0" FEET FROM TEH 'AVERAGE **BUILDING ELEVATION'** 30'-0" FEET ON DOWNHILL SIDE FROM **EXISTING OR FINISHED GRADE TO TOP** PLATE OF ROOF, WITH ROOF RIDGE NOT EXCEEDING 30' ABOVE TEH ABR. SEE 3/A-1.0 & CALC'S WITH SHEETS A-3.0 & A-3.1 FOR BUILDING ELEVATION CALCULATIONS AND HEIGHT LIMITS

LOT SLOPE 84.0' ELEV HIGHEST ELEVATION LOWEST ELEVATION 53.5' ELEV ELEVATION DIFFERENCE 30.5' ELEV HOIZONTAL DISTANCE BTWN HIGH AND LOW POINTS 155.0' LOT SLOPE: 30.5'/155.0' = 19.67%

LOT COVERAGE SEE 2/A-1.2 & LOT COVERAGE CALCULATION DIAGRAM

PRESCRIPTIVE COMPLIANCE INSULATION & FENESTRATION REQUIREMENTS

2015 WASHINGTON STATE ENERGY CODE) CLIMATE ZONE THE BUILDER SHALL COMPLETE AND POST AN "INSULATION CERTIFICATE FOR RESIDENTIAL CONSTRUCTION" WITHIN 3' OF THE ELECTRICAL PANEL PRIOR TO FINAL INSPECTION PER SEC R401.3.

PROVIDE MIN BUILDING THERMAL ENVELOPE OR BETTER PER SECTION R402

FENESTRATION U-FACTOR .25 SKYLIGHT U-FACTOR CEILING R-VALUE **VAULTED CEILING** WOOD FRAMED WALL R-VALUE MASS WALL R-VALUE 21/21

ENERGY DATA

21 PLUS R-4 FLOOR R-38 FLOOR R-VALUE BELOW GRADE WALL R-VALUE 21 INT. PLUS R-5 CI SLAB R-VALUE

EACH DWELLING UNIT IN ONE AND TWO FAMILY DWELLINGS AND TOWNHOUSES, AS DEFINED IN SECTION 101.2 OF THE IRC SHALL COMPLY WITH SUFFICIENT OPTIONS FROM TABLE R406.2 SO AS TO ACHIEVE THE FOLLOWING MINIMUM # OF CREDITS.

CATEGORY: LARGE DWELLING UNIT: 4.5 CREDITS

1A EFFICIENT BUILDING ENVELOPE: 1.0 CREDIT 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

COMPLIANCE BASED ON SECTION R402.1.4: REDUCE THE TOTAL UA BY 5%.

3A HIGH EFFICIENCY HVAC EQUIPMENT: 1.0 CREDIT GAS, PROPANE OR OIL FIRED FURNACE WITH MINIMUM AFUE OF 94%, OR GAS, PROPANE OR OILED FIRED BOILER WITH MINIMUM AFUE OF 92%. PROJECTS MAY ONLY INCLUDE CREDIT FROM ONE SPACE HEATING OPTION, 3A, 3B, 3C OR 3D. WHEN A HOUSING UNIT HAS TWO PIECES OF EQUIPMENT (I.E., TWO FURNACES) BOTH MUST MEET THE STANDARD TO RECEIVE THE CREDIT.

4 HIGH EFFICIENCY HVAC DISTRIBUTION SYSTEM: 1.0 CREDIT ALL HEATING AND COOLING SYSTEM COMPONENTS INSTALLED INSIDE THE CONDITIONEDSPACE. THIS INCLUDES ALL EQUIPMENT AND DISTRIBUTION SYSTEM COMPONENTS SUCH AS FORCEDAIR DUCTS, HYDRONIC PIPING, HYDRONIC FLOOR HEATING LOOP, CONVECTORS AND RADIATORS. ALL COMBUSTION EQUIPMENT SHALL BE DIRECT VENT OR SEALED COMBUSTION.

FOR FORCED AIR DUCTS: A MAXIMUM OF 10 LINEAR FEET OF RETURN DUCTS AND 5 LINEAR FEETOF SUPPLY DUCTS MAY BE LOCATED OUTSIDE THE CONDITIONED SPACE. ALL METALLIC DUCTSLOCATED OUTSIDE THE CONDITIONED SPACE MUST HAVE BOTH TRANSVERSE AND LONGITUDINAL JOINTSSEALED WITH MASTIC. IF FLEX DUCTS ARE USED. FLEX DUCTCONNECTIONS MUST BE MADE WITH NYLON STRAPS AND INSTALLED USING A PLASTIC STRAPPING TENSIONING TOOL. DUCTS LOCATED OUTSIDE THE CONDITIONED SPACE MUST BE INSULATED TO A MINIMUM OF R-8.

5C EFFICIENT WATER HEATING: 1.5 CREDITS WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: GAS, PROPANE OR OIL WATER HEATER WITH A MINIMUM EF OF 0.91 OR SOLAR WATER HEATING SUPPLEMENTING A MINIMUM STANDARD WATER HEATER. SOLARWATER HEATING WILL PROVIDE A RATED MINIMUM SAVINGS OF 85 THERMS OR 2000 KWH BASED ONTHE SOLAR RATING AND CERTIFICATION CORPORATION (SRCC) ANNUAL PERFORMANCE OFOG 300 CERTIFIED SOLAR WATER HEATING SYSTEMS OR

ELECTRIC HEAT PUMP WATER HEATER WITH A MINIMUM EF OF 2.0 AND MEETING THE STANDARDS OF NEEA'S NORTHERN CLIMATE SPECIFICATIONS FOR HEAT PUMP WATER HEATERS

6 RENEWABLE ELECTRIC ENERGY: 0.5 CREDITS FOR EACH 1200KWH OF ELECTRICAL GENERATION PER EACH HOUSING UNIT PROVIDED ANNUALLY BY ON-SITE WIND OR SOLAR EQUIPMENT A 0.5 CREDIT SHALL BE ALLOWED. UP TO 3 CREDITS, GENERATION SHALL BE CALCUATLED AS FOLLOWS: FOR SOLOR ELECTRIC SYSTEMS, THE DESIGN SHALL BE DEMONDSTRATED TO MEET THIS REQUIREMENT USING TEH NATIONAL RENEWABLE ENERGY LABORATORY CALCULATOR PVWATTS. DOCUMENTATION NOTING SOLAR ACCESS SHALL BE INCLUDED ON THE PLANS.

AVERAGE BUILDING ELEVATION

1/16" = 1'-0"

SYSTEM DESIGN SPRINKLER SYSTEM THIS SYSTEM IS DESIGN/BUILD **SYSTEM CRITERIA CARBON MONOXIDE PROTECTION** PER 2015 IRC TABLE M1507.3.3(1) AN APPROVED CARBON MONOXIDE **CONTINUOUS WHOLE-HOUSE** ALARM SHALL BE INSTALLED IN DWELLING UNITS AND SLEEPING UNITS, MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS: PER SECTION R315. PROVIDE 135 CFM AIRFLOW NOTE: WHEN MORE THAN ONE PER 2015 IRC TABLE M1507.3.3(2) CARBON MONOXIDE ALARM IS INTERMITTENT WHOLE HOUSE REQURIED TO BE INSTALLED, THE MECHANICAL VENTILATION RATE ALARM DEVICES SHALL BE FACTORS, RUN TIME % IN EACH 4-HOUR INTERCONNECTED IN SUCH A MANNER THANT THE ACTIVATION OF ONE ALARM SEGMENT TO BE 75% WITH A FACTOR OF 1.3: 135 CFM X 1.3 = 175.5 CFM WILL ACTIVATE ALL OF THE ALARMS IN THE UNIT. MIN OF 0.35 AND MAX OF 0.50 AIR

FIRE PROTECTION DATA

EXCHANGES PER HOUR FOR ALL HABITABLE ROOMS **SYSTEM COMPONENTS** TIMER. INTAKE GRILL & DUCTING (EXTERIOR), MOTORIZED DAMPER, INTAKE BLOWER, ELECTRIC AIR TAMPERING, EXHAUST DUCTING & PORT WITH BACK DRAFT DAMPER, **DISTRIBUTION DUCTING & GRILLS** (HABITABLE ROOMS), ELECTRIC **EXHAUST FAN**

GARAGE + STORAGE

LOWER FLR AREA EXCLUDED

LOWER FLOOR

UPPER FLOOR

MAIN FLOOR

SUBTOTAL

VENTILATION DATA

SURVEY 1 OF 1 SURVEY CIVIL C1.1 **COVER SHEET AND GENERAL NOTES** C2.1 TEMPORARY EROSION CONTROL PLAN C2.2 TEMPORARY EROSION CONTROL DETAILS C3.1 GRADING AND DRAINAGE PLAN AND DETAILS C4.1 WATER AND SEWER PLAN C4.2 WATER AND SEWER DETAILS SHORING SH1 **GENERAL SHORING NOTES** SH2 SHORING PLAN SEQUENCE 1 OF 3 SH3 SHORING PLAN SEQUENCE 2 OF 3 SH4 SHORING PLAN SEQUENCE 3 OF 3 SH5 SHORING SECTIONS & DETAILS ARCHITECTURAL

GENERAL NOTES

WALL SECTIONS

WINDOW DIAGRAMS

FIREPLACE DETAILS

WINDOW SCHEDULE & DIAGRAMS

GENERAL STRUCTURAL NOTES

EXTERIOR DOOR SCHEDULE & DIAGRAMS

ENLARGED STAIR PLANS & SECTIONS

SHEET INDEX

GENERAL

A-1.0

A-1.1

A-5.0

A-6.0

A-6.1

A-6.2

A-7.0

A-7.1

S1.1

STRUCTURAL

SHEET NAME

LIGHTING

PROJECT DATA

A-1.2 SITE PLAN FLOOR AREAS - GROSS FLOOR AREA A-1.3 WSEC WORKSHEETS LOWER FLOOR PLAN A-2.0 A-2.1 MAIN FLOOR PLAN 710 SF A-2.2 UPPER FLOOR PLAN 1512 SF A-2.3 **ROOF PLAN** 2143 SF A-3.0 **EXTERIOR ELEVATIONS** SPORT COURT (16' CLNG) 457 SF X 1.5 = 686 SF A-3.1 **EXTERIOR ELEVATIONS** 2017 SF A-3.2 **EXTERIOR ELEVATIONS** 7.068 SF A-3.3 EXTERIOR ELEVATIONS LOWER FLOOR REDUCTION -1605.5 SF A-3.4 PAVILION EXTERIOR ELEVATIONS A-4.0 **BUILDING SECTIONS** A-4.1 **BUILDING SECTIONS** A-4.2 PAVILION SECTION

LOWER FLOOR AREA REDUCTION WALL SEGMENT RESULT ('%) 8.0 26.6 100 26.6 3.0 8.4 4.7 4.7 7.3 7.3 55.2 100 55.2 11.3 11.3 6.0

= 1.969 X (193.4/213)

= 1,605.5 SF EXCLUDED FROM GROSS FLOOR AREA

S2.1 FOUNDATION PLAN S2.2 MAIN FLOOR FRAMING PLAN S2.3 UPPER FLOOR FRAMING PLAN S2.4 ROOF FRAMING PLAN S2.5 PAVILION FOUNDATION PLAN PAVILION FRAMING PLAN S2.6 S3.1 CONCRETE DETAILS S3.2 CONCRETE DETAILS WOOD DETAILS WOOD DETAILS = LOWER FLR AREA X (RESULT % TOTAL / LENGTH TOTAL) \$5.1 STEEL DETAILS

REGISTERED ARCHITECT STUART NAYLOR SILK STATE OF WASHINGTON

SNS, BKM

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DRAWN CHECKED DM SHEET ISSUE DATE 02/01/2019 DRAWING SETS 12/18/18 PRE-APP MEETING 02/01/19 PERMIT SUBMITTAL

DESIGN

REVISIONS # DATE DESCRIPTION

57.8 46.3 2676.1 271.2 67.8 4.0 67.8 2.5 169.5 67.8 7.6 515.3 67.8 2.5 169.5 67.8 15.1 1023.8 G 67.8 2.4 162.7 67.8 9.6 650.9 67.8 23.2 1573.0 69.8 2.1 146.6 71.5 13.4 958.1 73.1 2.0 146.2 74.7 10.1 754.5 75.2 24.7 1857.4 0 75.5 4.4 332.2 1162.7 75.5 15.4 Q 75.5 7.0 528.5 72.4 38.4 2780.2 68.3 16.0 1092.8 67.8 11.5 779.7 67.8 5.8 393.2

WALL SEGMENT

WALL SEGMENT

67.8

26.8

295.9

20,306.9 / 295.9 = 68.6'

68.6' + 30.0 = 98.6'

72.3' + 30.0 = 102.3'

PRODUCT

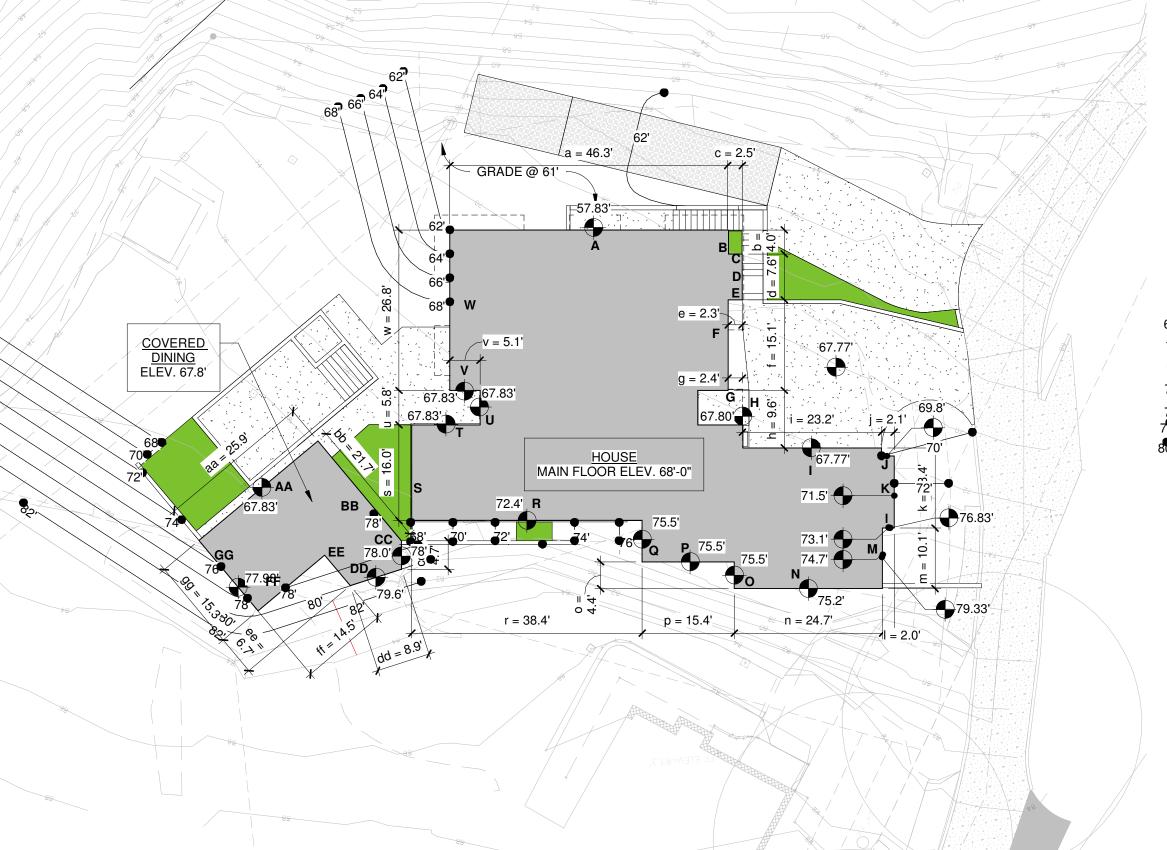
345.8

1817.0

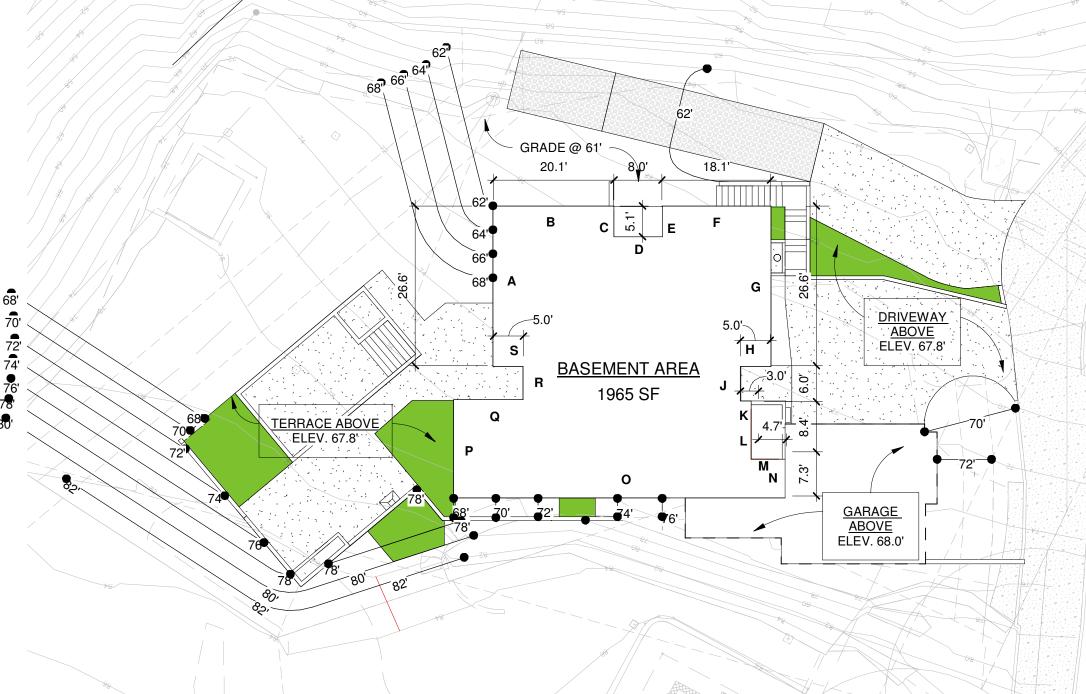
20,306.9

AVERAGE BUII	LDING ELEVA	TION (A.B.E.) - C	OVERED DININ	IG
ELEVATION MARK	MIDPOINT ELEVATION	WALL SEGMENT MARK	WALL SEGMENT LENGTH (FT)	PRODUCT
AA	67.8	aa	25.9	2676.1
BB	67.8	bb	21.7	271.2
CC	78.0	CC	4.7	169.5
DD	79.6	dd	8.9	515.3
EE	78.0	ee	6.7	169.5
FF	78.0	ff	14.5	1023.8
GG	72.5	99	15.3	162.7
		TOTALS	97.7	7,065.2
A.B.E. = ∑ F	PRODUCTS / ∑ WAL	L LENGTHS	7,065.2 / 9	7.7 = 72.3'

TOTALS



TOTAL 4.5 CREDITS



Stuart Silk Architects

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PERLA RESIDENCE

42XX HOLLY LANE MERCER ISLAND, WA 98040

PERMIT

PROJECT DATA

A-1.0

BASEMENT REDUCTION
1/16" = 1'-0"

LEGAL DESCRIPTION TOPOGRAPHIC & BOUNDARY SURVEY (PER CHICAGO TITLE INSURANCE COMPANY'S "GUARANTEE" NO.0122668-ETU) PARCEL B OF MERCER ISLAND LOT LINE REVISION NO. SUB-16-013, AS RECORDED UNDER RECORDING NO. 20170510900005, RECORDS OF EASEMENTS OVER EXISTING ROADWAY: KING COUNTY AUDITOR; ROADWAY AND UTILITY ESM'T , REC. NO. 6007260 & GAS ESM'T, REC. NO. 6061461 & APPROX. LOC. PRIVATE-SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF NAIL/WASHER-ROAD ESM'T, REC. NOS. 3650946 AND 3650947 PER ROGER'S LS#50711₂ HOLLY LANE ADDITION & ROAD ESM'T, REC. NO. 599776 REBAR/CAP-PUBLIC AND PRIVATE UTILITY AND STORM DRAIN EASEMENT REC. NO. LS#46876 **BASIS OF BEARINGS** STEEP SLOPE/BUFFER DISCLAIMER FOUND NAIL 8408169004 THE LIMITS OF THE 40% AS SHOWN ON THIS DRAWING IS OUR INTERPRETATION WHICH MAY DIFFER FROM THAT OF W/WASHER-THE REVIEWING AGENCY. THE LIMITS OF THE 40% SLOPES ACCEPTED A BEARING OF N 80°49'03"E, BETWEEN FOUND IRON AND ASSOCIATED SETBACKS NEEDS TO BE DETERMINED PIPE AND REBAR WITH CAP, PER REF. 1 BY THE RESPECTIVE REVIEWING AGENCY, PRIOR TO ANY DESIGN AND OR CONSTRUCTION TAKING PLACE. 5' WATER ESM'Y ____REC. NO. 6070300 REFERENCES 10' POWER ESM'T REC. NO. 6140733 RECORD OF SURVEY VOL 49, PG 79, RECORDING NUMBER BUILDING OVERHANG PLAT OF ROGER'S HOLLY LANE ADDITION, VOL 79, PAGE 16 3. SHORT SUBDIVISION NO 99-0166, VOL 132, PG 41; 15' POWER ESM'T RECORDING NUMBER 19990909900002 FOUND NAIL W/WASHER-LS#46876 VERTICAL DATUM APPROX. LOC. DOCK AND ACCESS ESM'T, REC. NO. 9070300 NAVD 88, PER GPS OBSERVATION (OVER EXISTING DRIVE) 5' WATER ESM'T SURVEYOR'S NOTES REC. NO. 6070300 AD RIM=84.31' IE(N/S) 4"PVC=82.81" IE(E) 4"PVC=83.46" (IN FEET) 1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IE(SW) 4"PVC=82.46" 1 inch = 10 ft.IN DECEMBER OF 2015. THE FIELD DATA WAS COLLECTED √°5' PUBLIC & PRIVATE: YUTILITY AND STORM ESM'T, OLD LOT LINE BEFORE AND RECORDED ON MAGNETIC MEDIA THROUGH AN :: LLA.:: SUB--16--01/3 REC. NO. 6070300 ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. 20170510900005 CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS. 2. BURIED UTILITIES SHOWN BASED ON RECORDS FURNISHED BY OTHERS AND VERIFIED WHERE POSSIBLE IN THE FIELD. GEODIMENSIONS ASSUMES NO LIABILITY FOR THE ACCURACY GREENBELT-BUFFER OF THOSE RECORDS OR ACCEPT RESPONSIBILITY FOR ESM'T, REC. NO. UNDERGROUND LINES WHICH ARE NOT MADE PUBLIC RECORD. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS REBAR/CAP CRITICAL TO DESIGN CONTACT THE UTILITY OWNER/AGENCY. AS ALWAYS, CALL 1-800-424-5555 BEFORE CONSTRUCTION. 40% OR GREATER 3. SUBJECT PROPERTY TAX PARCEL NO. 738900-0020 4. SUBJECT PROPERTY AREA PER THIS SURVEY IS 15,876± S.F. $(0.36 \pm ACRES)$ 5. ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM CHICAGO TITLE INSURANCE COMPANY'S "GUARANTEE", POLICY NO. 0122668-ETU, DATED JUNE 6, UNDERGROUND POWER PER AS-BUILT RECORDS 5' WIDE 2018. IN PREPARING THIS MAP, TERRANE, INC. HAS EASEMENT CENTERED OVER CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS EXISTING UTILITIES, REC. TERRANE, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE NO. 8112280400 SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY THE REFERENCED "GUARANTEE" TERRANE, INC. HAS RELIED WHOLLY ON CHICAGO TITLE INSURANCE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND TERRANE, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO FOUND REBAR/CAP INSTRUMENTATION FOR THIS SURVEY WAS A TRIMBLE LS#7914 YUHL ELECTRONIC DISTANCE MEASURING UNIT. PROCEDURES USED 0.20(W X 0.13'S IN THIS SURVEY WERE DIRECT AND REVERSE ANGLES, NO OF\PROP COR CORRECTION NECESSARY. MEETS STATE STANDARDS SET BY WAC 332-130-090. LEGEND RIM=68.39' TE(W) 8"PVC=62.94" IE(E/SE) 8"PVC=64.23" CONCRETE SURFACE CONCRETE WALL LIGHT, AIR AND VIEW — CONTOUR (MAJOR) —ESM'T, REC∫NO.— LANDSCAPE ESM'T, REC — CONTOUR (MINOR) FOUND IRON 8607071040 NO. 8607071040 0.08'W OF IRON PIPE (FOUND) EL=74.03 PROPERTY LINE NAIL AS NOTED FOUND REBAR AND CAP MONUMENT IN CASE (FOUND) REBAR AS NOTED (FOUND) OF PROPERTY X BUILDING LINE CORNER FOUND IRON ROCKERY PIPE 0.52'W_ 10' SEWER ESM'T LINE BEARING DISTANCE L1 N 80°49'03" E 10.66' L2 N 00°13'08" E 110.51' L3 N 54°51'48" E 73.70' L4 N 35°08'12" W 10.00' L5 N 54°51'48" E 88.00' L6 N 35°08'12" W 10.00' L7 N 54°51'48" E 38.16' L8 N 82°38'09" W 43.99' L9 N 18°54'39" W 18.00' L10 N 01°40'26" W 56.94' L11 N 52°41'16" W 52.49' L12 N 15°32'58" W 72.15' OF PROPERTY SIZE TYPE (o) TREE (AS NOTED) REC. NO. 8408169004 FOUND IRON PIPE _0.20'W X 0.14'S/ OF PROPERTY WV MATER VALVE CORNER GRAVEL SURFACE STEEP SLOPE AREA REBAR/CAP GAZEBO —— UP —— POWER (UNDERGROUND) EL=83.06' CUT 6'-2" ---- G ---- GAS LINE RIM=88.64' L12 N 15'32'58" W VICINITY MAP CHICKEN COOP-L13 N 80°49'03" E 101.89' L14 N 80°49'03" E 177.77' AND CAP 1,12'W X 0.18'S 0.20'W X 0.33'S OF PROP COR LS#40016 OF PROP LINE 0.02'W X 0.01'S LEANING SOUTHWEST JOB NUMBER: SET REBAR/CAP LS#46876-> 12/17/2015 SE 41st St DRAFTED BY: CHECKED BY. SITE (SEE DETAIL) REVISION HISTORY SET REBAR/CAP 04/18/16 REMOVE ROAD ESM 06/27/18 ADD.'T TOPO _0.02'E X 1.14'S FOUND IRON PIPE /17/18 ADD.'T UTILITIES 0.06'W X 1.25'S 10/02/18 ADD'T TOPO

SCALE: 1" = 100'

9-23-11) HILLSIDE TO DANGEROUS TO

SHEET NUMBER

1 OF 1

DATUM

NAVD 88

PERLA RESIDENCE

42XX HOLLY LN MERCER ISLAND, WA 98040

OWNER

CONSULTANTS

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LEGAL DESCRIPTION

(PER CHICAGO TITLE INSURANCE COMPANY'S "GUARANTEE" NO.0122668-ETU)

PARCEL B OF MERCER ISLAND LOT LINE REVISION NO. SUB-16-013, AS RECORDED UNDER RECORDING NO. 20170510900005, RECORDS OF KING COUNTY AUDITOR;

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

PARCEL NUMBER

GENERAL NOTES

GENERAL NOTES

1. STANDARD SPECIFICATIONS:

- A. ALL WORK TO BE PERFORMED AND MATERIALS TO BE USED SHALL BE IN ACCORDANCE WITH THE WSDOT/APWA 2016 STANDARD SPECIFICATIONS AND STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, AS APPLICABLE AND AS MODIFIED BELOW, AND UNLESS OTHERWISE NOTED, SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF MERCER ISLAND.
- B. LOCAL AMENDMENTS TO THE STANDARD SPECIFICATIONS, CONSISTING OF STANDARD DRAWINGS AND SPECIAL TECHNICAL CONDITIONS ARE REFERENCED IN THESE NOTES. COPIES OF THESE DOCUMENTS ARE
- C. THESE SPECIFICATIONS SHALL BE APPLICABLE FOR, BUT NOT LIMITED TO, PUBLIC AND PRIVATE STREETS, DRIVEWAYS, PARKING LOTS, COMMERCIAL AND INDUSTRIAL DEVELOPMENTS, APARTMENTS, ETC. WORK IN PRIVATE DEVELOPMENTS SHALL CONFORM TO THE SAME STANDARDS OF WORKMANSHIP AND MATERIALS AS ARE SPECIFIED WITHIN THE CITY RIGHT-OF-WAY, EXCEPT AS INDICATED ON THE PLANS.

PRIOR TO CONSTRUCTION, AND IN ADDITION TO ANY OTHER PERMITS REQUIRED, A CITY OF MERCER ISLAND "STREET USE PERMIT" MUST BE OBTAINED FOR ANY AND ALL WORK WITHIN THE CITY RIGHT-OF-WAY.

- IT IS A REQUIREMENT OF THE CITY OF MERCER ISLAND ENGINEERING DEPARTMENT. THAT AN APPROVED SET OF CONSTRUCTION PLANS FOR ALL WORK BE KEPT ON THE CONSTRUCTION SITE AT ALL TIMES DURING THE CONSTRUCTION PERIOD.
- THE ENGINEERING DEPARTMENT CONSTRUCTION INSPECTOR 236-5300, OR 236-3587. (24-HR TAPED INSPECTION LINE) SHALL BE NOTIFIED24-HOURS PRIOR TO STARTING ANY TYPE OF CONSTRUCTION INCLUDING CLEARING, SANITARY SEWERS, WATER MAINS, STORM DRAINS, CURB AND UTTERS, SIDEWALKS, DRIVEWAYS, STREET GRADING AND PAVING.

CONTROL OF MATERIAL

THE SOURCE OF SUPPLY AND A DETAILED LIST OF EACH LIST OF EACH OF THE MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO DELIVER. ONLY MATERIALS CONFORMING TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPROVED BY THE CITY SHALL BE USED IN THE WORK. TESTING OF MATERIALS MAY INCLUDE TESTS OF ACTUAL SAMPLES. MANUFACTURER'S CERTIFICATIONS, APPROVAL OF CATALOGUE CUTS, OR FIELD ACCEPTANCE REPORTS. TESTING OF MATERIALS FOR INCORPORATION IN PRIVATE WORK SHALL BE PERFORMED AT OTHER THAN CITY EXPENSE.

EROSION AND SEDIMENTATION CONTROL

- THE IMPLEMENTATION OF THESE EROSION SEDIMENTATION CONTROL (ESC) PLANS AND THE CONSTRUCTION. MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE PERMIT HOLDER/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
- 2. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO INSURE THAT SEDIMENT-LADEN WATER DIES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS. AND MUST BE COMPLETED PRIOR TO ALL
- 3. 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 (E.G. ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES), AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.
- 4. THE ESC FACILITIES SHALL BE INSPECTED DAILY DURING NONRAINFALL PERIODS, EVERY HOUR (DAYLIGHT) DURING A RAINFALL EVENT AND AT THE END OF EVERY RAINFALL BY THE PERMIT HOLDER/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, TEMP. SILTATION PONDS AND ALL TEMP. SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND OR CONSTRUCTION IS COMPLETED, PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED.
- 5. ANY AREA STRIPPED OF VEGETATION, INCLUDING ROADWAY EMBANKMENTS WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF SEVEN (7) DAYS, SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G. SEEDING, MULCHING, NETTING, EROSION BLANKETS, ETC...).
- 6. ANY AREAS NEEDING ESC MEASURE, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE
- 7. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A STORM EVENT.
- 8. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER DOWNSTREAM SYSTEM.
- 9. STABILIZED CONSTRUCTION ENTRANCES AND WASH PADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL REQUIREMENTS SHALL BE ENFORCED BY THE INSPECTOR TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN OF SILT FROM
- 10. WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE. (E.G. ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE)

EROSION AND SEDIMENTATION CONTROL (CONT)

- 11. WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF THREE INCHES.
- 12. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF MERCER ISLAND STANDARDS AND SPECIFICATIONS.
- 13. EROSION/SEDIMENTATION CONTROL FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS IF DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL, UNLESS OTHERWISE APPROVED BY THE
- 14. A COPY OF THE APPROVED EROSION CONTROL PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS
- 15. TEMPORARY EROSION/SEDIMENTATION CONTROLS SHALL BE INSTALLED AND OPERATING PRIOR TO ANY GRADING OR LAND CLEARING.
- 16. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
- 17. ALL CUT AND FILL SLOPES 5:1 (5 FEET HORIZONTAL TO 1 FOOT VERTICAL) OR STEEPER THAT WILL BE LEFT EXPOSED FOR MORE THAN 7 DAYS SHALL BE PROTECTED BY JUTE MATTING, PLASTIC SHEETING, MULCH, OR OTHER APPROVED STABILIZATION METHOD AND PROVIDED WITH ADEQUATE RUNOFF CONVEYANCE TO INTERCEPT RUNOFF AND CONVEY IT TO AN APPROVED STORM DRAIN.
- 18. OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET, THE STREET SHALL BE CLEANED. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION VEHICLE ENTRANCE AND SHALL BE CLEANED OF MUD PRIOR TO EXITING ONTO THE STREET. SILT SHALL BE CLEANED FROM ALL CATCH BASINS WHEN THE BOTTOM HALF BECOMES FILLED WITH SILT.
- 19. ANY CATCH BASIN COLLECTING WATER FROM THE SITE, WHETHER THEY ARE ON OR OFF OF THE SITE, SHALL HAVE THEIR GRATES COVERED WITH FILTER FABRIC DURING CONSTRUCTION.
- 20. WASHED GRAVEL BACKFILL ADJACENT TO THE FILTER FABRIC FENCES SHALL BE REPLACED AND THE FABRIC CLEANED IF CLOGGED BY SILT. ALL INTERCEPTOR SWALES SHALL BE CLEANED IF SILT ACCUMULATION EXCEEDS ONE-QUARTER DEPTH.
- 21. IF ANY PORTION OF THE EROSION/SEDIMENTATION CONTROL ELEMENTS ARE DAMAGED OR NOT FUNCTIONING, OR IF THE CLEARING LIMIT BOUNDARY BECOMES NON-DEFINED, IT SHALL BE REPAIRED

STORM DRAINAGE CONSTRUCTION

- STORM DRAINAGE PIPE:
- PIPE SHALL BE CONCRETE OR ALUMINUM METAL, WITHIN THE PUBLIC RIGHT OF WAY. CONCRETE PIPE UP TO AND INCLUDING 24" DIAMETER SHALL BE UNREINFORCED AND SHALL CONFORM TO ASTM C-14, TABLE II, EXTRA STRENGTH, RUBBER GASKETED. CORRUGATED ALUMINUM ALLOY CULVERT PIPE SHALL BE AASHTO M-196, M-197, M-211, AND M-219, HELICAL, GAUGES AND TYPES SHALL BE AS NOTED ON THE PLANS. REINFORCED PIPE SHALL CONFORM TO ASTM DESIGNATION C-76 UNLESS OTHERWISE SPECIFIED. STORM SEWER DETENTION PIPE GREATER THAN 24" DIAMETER SHALL BE RUBBER GASKETED, HELICAL CORRUGATED ALUMINUM PIPE. BEDDING TO BE CLASS "C". GAUGE OF PIPE WILL BE AS SHOWN ON THE PLANS. INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 7-04 OF THE SPECIFICATIONS AND MAY BE SUBJECT TO EXFILTRATION TEST.
- 2. OTHER MATERIALS:
- OTHER MATERIALS FOR STORM DRAINAGE CONSTRUCTION REQUIRE WRITTEN APPROVAL OF THE CITY FNGINFFR.
- 3. BACKFILL RESTRICTIONS:
 - A. BEDDING SHALL CONFORM TO STANDARD PLAN B-11 B. MINIMUM COVER OVER STORM DRAIN SHALL BE 18".
 - C. TRENCH BACKFILL COMPACTED TO 95% OF MAXIMUM DENSITY SHALL BE REQUIRED WHEREVER TRENCH EXCAVATION IS MADE IN PAVED ROADWAY, SIDEWALK OR ANY OTHER AREA WHERE MINOR SETTLEMENT
- 4. CATCH BASIN:
- A. TYPE 1, CATCH BASIN INLET SHALL CONFORM TO SECTION 7-05 OF THE STANDARD SPECIFICATIONS AND AS SHOWN ON STANDARD PLAN B-1. THE MAXIMUM DISTANCE TO INVERT IS 5'0" WITH A MAXIMUM PIPE DIAMETER UP TO 15" FOR CONCRETE PIPE, 18" FOR CMP. THE GRIT DROP CHAMBER IS A MINIMUM OF
- B. TYPE 2, CATCH BASIN INLET SHALL CONFORM TO SECTION 7-05 OF THE STANDARD SPECIFICATION AND AS SHOWN ON STANDARD PLAN B-1B. MAXIMUM PIPE DIAMETER OF 24" FOR CONCRETE PIPE, 30' FOR CMP; A MINIMUM OF 8" BETWEEN HOLES. THE GRIT DROP CHAMBER IS A MINIMUM OF 24".
- STANDARD PLAN B-41. 6. GRATE COVERS: A. COVERS FOR CATCH BASINS AND INLETS SHALL CONFORM TO OLYMPIC FOUNDRY CO. #SM50G OR EQUAL

CURB INLETS SHALL CONFORM TO SECTION 8-04 OF THE STANDARD SPECIFICATIONS AND AS SHOWN ON

SHALL BE DUCTILE IRON AND HAVE THE LETTERS "DUCTS" CAST IN THE COVER. B. SOLID COVERS FOR MANHOLES, WHERE PERMITTED, SHALL BE 24" DIAMETER, WITH "DRAIN" CAST IN COVER IN 2" LETTERS, CONFORMING TO OLYMPIC FOUNDRY CO. MH43, INLAND FOUNDRY NO. 835, OR

FOR SLOPES LESS THAN 3%. WHERE SLOPES EXCEED 3%, USE OLYMPIC FOUNDRY CO. #SM50V. GRATES

- C. DRAINAGE STRUCTURES NOT WITHIN PUBLIC RIGHT-OF-WAY SHALL HAVE LOCKING LIDS.
- FRAMES FOR CATCH BASINS AND INLETS SHALL BE OF CAST IRON OR DUCTILE IRON CONFORMING TO OLYMPIC FOUNDRY CO. SM50 OR EQUAL. VANED GRATES(SM50V) SHALL BE INSTALLED WHERE SHOWN ON THE PLANS, EXCEPT THROUGH-CURB INLET FRAMES WHICH SHALL CONFORM TO OLYMPIC FOUNDRY CO. SM52 OR EQUAL.



CAUTION! CALL BEFORE YOU DIG!

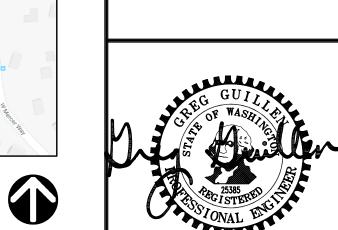
BURIED UTILITIES EXIST IN THE AREA AND UTILITY INFORMATION SHOWN MAY NOT BE COMPLETE. CONTACT THE ONE- CALL UTILITY LOCATE SERVICE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION

1-800-424-5555

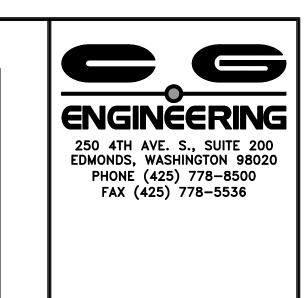
		SHEET INDEX
	C1.1	COVER SHEET & GENERAL NOTES
	C2.1	TEMPORARY EROSION CONTROL PLAN
BASIS OF BEARINGS	C2.2	EROSION CONTROL DETAILS
	C3.1	GRADING & UTILITY PLAN
ACCEPTED A BEARING OF N 80°49'03"E, BETWEEN FOUND IRON PIPE AND	C3.2	GRADING & UTILITY DETAILS
REBAR WITH CAP, PER REF. 1	C4.1	SEWER PLAN
	C4.2	SEWER PROFILE & DETAILS

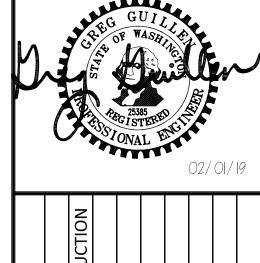






		LEGEND				
DESCRIPTION	EXISTING	PROPOSED		ABBREV	IATIONS	5
PROPERTY LINE			ABN	ABANDONED	MIN	MINIMUM
ADJACENT PROPERTY LINE			BLDG	BUILDING	MJ	MECHANICAL JOINT
CENTERLINE			BOW	BOTTOM OF WALL	MON	MONUMENT
CLEARING LIMITS		~~~~~	Ę.	CENTERLINE	NTS	NOT TO SCALE
SILT FENCE	XX	xx	СВ	CATCH BASIN	ОС	ON CENTER
CONTOUR LINE			СМР	CORRUGATED METAL PIPE	PC	POINT OF CURVATURE
FENCE			со	CLEANOUT	PI	POINT OF INTERSECTION
SANITARY SEWER LINE	\longrightarrow \rightarrow $-$ SS $ \rightarrow$ $-$ SS $-$	→ SS → SS —	CONC	CONCRETE	PIV	POST INDICATOR VALVE
MANHOLE	6	•	CONST	CONSTRUCTION	P	PROPERTY LINE
STORM DRAIN MAIN	$\longrightarrowSD- \rightarrowSD-$	\longrightarrow SD \longrightarrow SD \longrightarrow	СР	CONCRETE PIPE	PT	POINT OF TANGENCY
STORM DRAIN PIPE			CU YD	CUBIC YARD	PVC	POLYVINYL CHLORIDE PIPE
ROOF DRAIN	— — R — — R — — R —		DDCVA	DOUBLE DETECTOR CHECK VALVE ASSEMBLY	PVI	POINT OF VERTICAL INTERSECTION
FOOTING DRAIN	— — F — — F — — F —	FF	DI	DUCTILE IRON PIPE	PVMT	PAVEMENT
PRESSURE LINE	— — — P — — P — — P —	P P	DIA	DIAMETER	PVT	POINT OF VERTICAL TANG.
CATCH BASIN (TYPE 1)			DIP	DUCTILE IRON PIPE	R	RADIUS
CATCH BASIN (TYPE 2)			EA	EACH	REINF	REINFORCEMENT
CLEANOUT	0	•	EJ	EXPANSION JOINT	RJ	RESTRAINED JOINT
CLEANOUT AND WYE		7	ELEV	ELEVATION	RET	RETAINING
GRADE BREAK			EOP	EDGE OF PAVEMENT	RT	RIGHT
SURFACE SWALE	· >— · · · · ·	· >— · · · · ·	EX	EXISTING	SD	STORM DRAIN
DRAINAGE ARROW			FDC	FIRE DEPT. CONNECTION	SECT	SECTION
WATER LINE			FFE	FINISHED FLOOR ELEVATION	SDMH	STORM DRAIN MANHOLE
WATER METER	H	6	FH	FIRE HYDRANT	SIM	SIMILAR
FIRE HYDRANT	₩,	X	FL	FLANGE	SQ	SQUARE
FDC	V	₩	FT	FEET/FOOT	SS	SANITARY SEWER
PIV	0	•	GV	GATE VALVE	SSMH	SANITARY SEWER MANHOLE
GATE VALVE	Χ	X	HP	HIGH POINT	STA	STATION
TEE	Į,	八	HT	HEIGHT	STD	STANDARD
90° BEND	Ļ	Ļ	ID	INSIDE DIAMETER	STL	STEEL
THRUST BLOCKING	Δ	A	IE	INVERT ELEVATION	ТВ	THRUST BLOCK
CAP		u	L	LENGTH/LINE	TOC	TOP OF CURB
CONCRETE PAVEMENT		A A A	LCPE	LINED CORRUGATED POLYETHYLENE PIPE	TOW	TOP OF WALL
ASPHALT PAVEMENT			LF	LINEAL FOOT	ТОР	TOP ELEVATION
CRUSHED SURFACING			LP	LOW POINT	TYP	TYPICAL
ROCKERY	000000000	000000000	LT	LEFT	VC	VERTICAL CURVE
SPOT ELEVATION	20.0	20.0	MAX	MAXIMUM	W/	WITH
TELEPHONE LINE	— — — T — — T — — T —	TT	MECH	MECHANICAL	WM	WATER METER
POWER LINE	— — — E — — E — — E —	EE	МН	MANHOLE		
GAS LINE	— — — G — — — G —	G				
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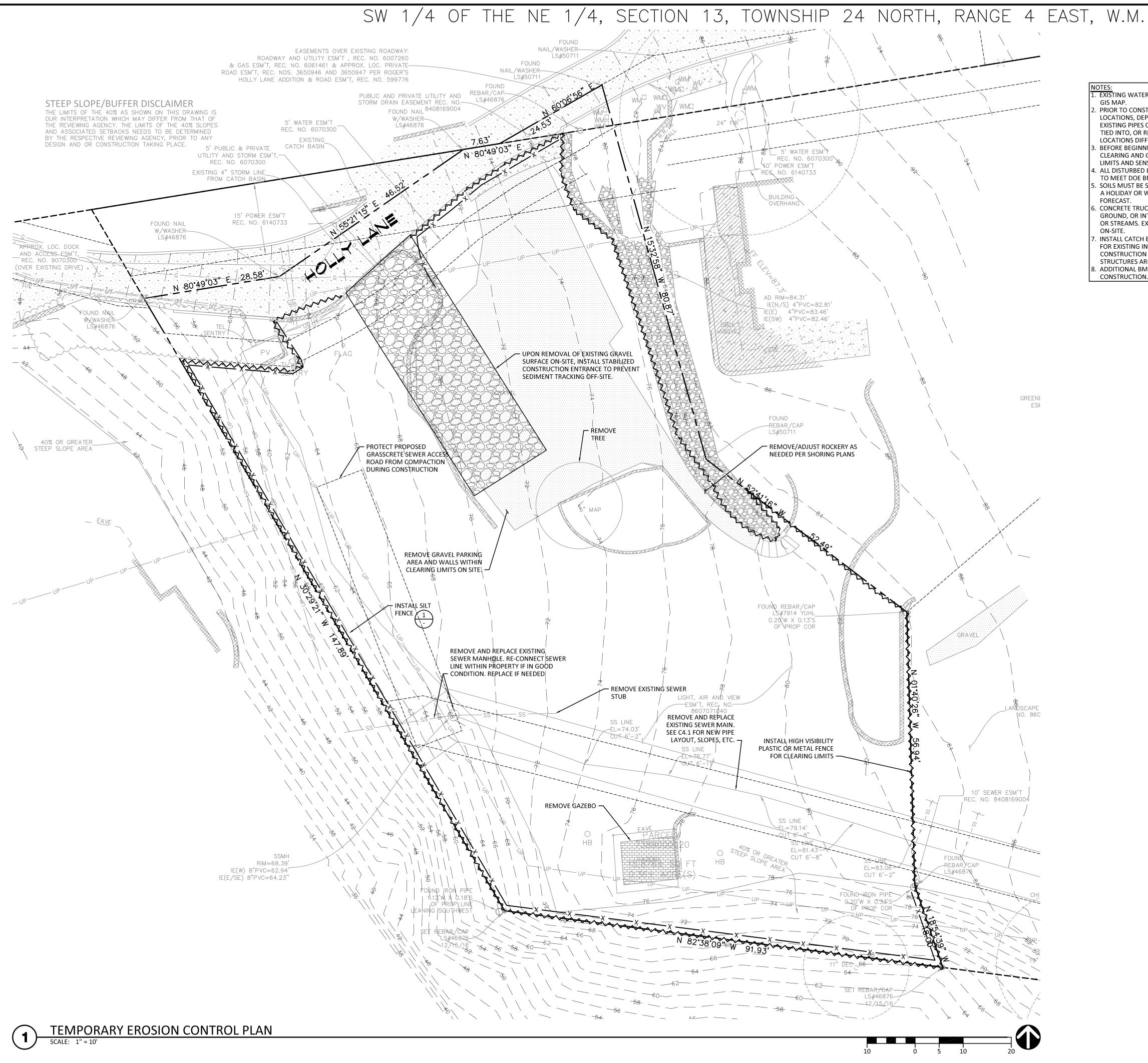


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- NOTES:

 1. EXISTING WATER SERVICE LINES SHOWN PER MERCER ISLAND 2. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY
- LOCATIONS, DEPTH, CONDITION, SIZE, AND MATERIAL OF ALL EXISTING PIPES ON-SITE THAT EITHER NEED TO BE RELOCATED, TIED INTO, OR REPLACED. REPORT ELEVATIONS AND
- LOCATIONS DIFFERING FROM DRAWINGS TO ENGINEER. B. BEFORE BEGINNING LAND-DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRADING, CLEARLY MARK ALL CLEARING LIMITS AND SENSITIVE AREAS AND THEIR BUFFERS.
- 1. ALL DISTURBED LANDSCAPED SURFACES SHALL BE AMENDED TO MEET DOE BMP T5.13. 5. SOILS MUST BE STABILIZED AT THE END OF THE SHIFT BEFORE
- A HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER 5. CONCRETE TRUCKS MUST NOT BE WASHED OUT ONTO THE GROUND, OR INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS. EXCESS CONCRETE MUST NOT BE DUMPED
- 7. INSTALL CATCH BASIN INLET PROTECTION PER DETAIL 3/C2.2 FOR EXISTING INLETS ON-SITE AND WITHIN 100' OF CONSTRUCTION SITE IN ROW AND AS PROPOSED DRAINAGE STRUCTURES ARE INSTALLED.
- 8. ADDITIONAL BMPS MAY BE REQUIRED DURING CONSTRUCTION.

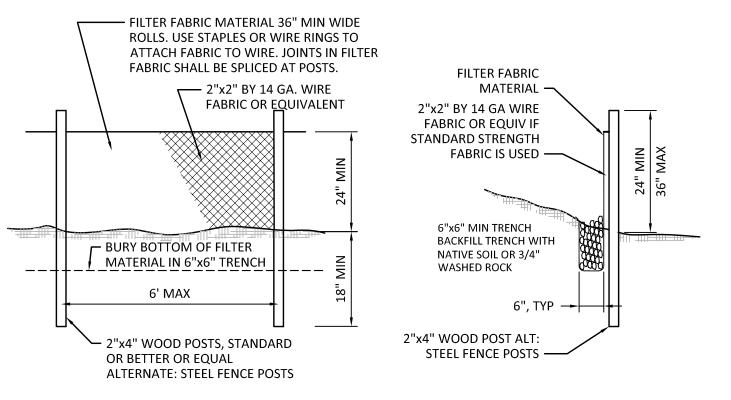
250 4TH AVE. S., SUITE 200 EDMONDS, WASHINGTON 98020 PHONE (425) 778-8500 FAX (425) 778-5536



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SW 1/4 OF THE NE 1/4, SECTION 13, TOWNSHIP 24 NORTH, RANGE 4 EAST, W.M.

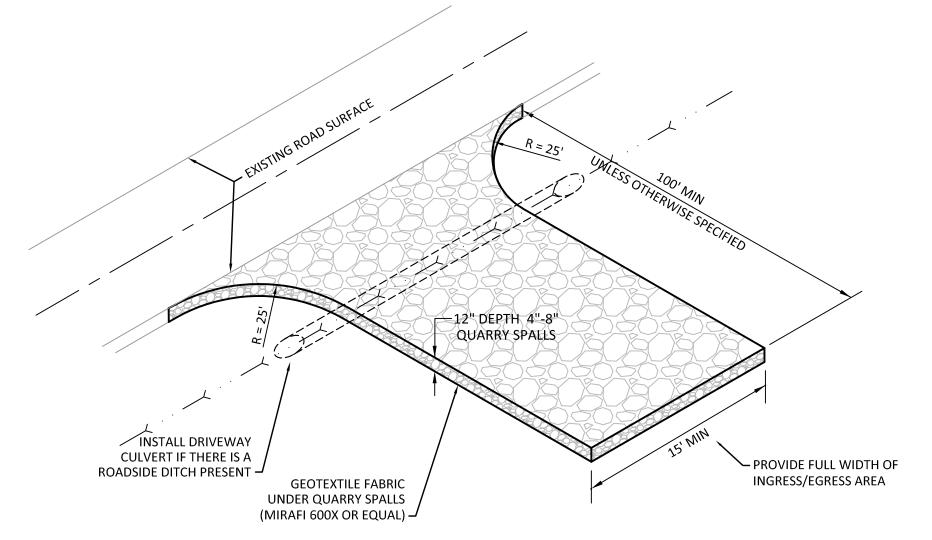


SILT FENCE NOTES:

- 1. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.
- 2. THE SILT FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS (WHERE FEASIBLE). THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 18 INCHES).
- 3. A SHALLOW TRENCH SHALL BE EXCAVATED, ROUGHLY 6 INCHES WIDE AND 6 INCHES DEEP, UPSLOPE AND ADJACENT TO THE WOOD POSTS TO ALLOW THE LOWER EDGE OF THE FILTER FABRIC TO BE SECURED WITH GRAVEL.
- 4. WHEN FILTER FABRIC NOT AS STRONG AS MIRAFI 700X IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE MESH SHALL EXTEND INTO THE SHALLOW TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- 5. THE MIRAFI 700X FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND AT LEAST 18 INCHES OF THE FABRIC SHALL BE BURIED IN THE SHALLOW TRENCH. THE FILTER FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE AND SHALL NOT BE STAPLED TO TREES.
- 6. WHEN EXTRA-STRENGTH FILTER FABRIC (MIRAFI 700X OR EQUAL) AND FOUR (4') POST SPACING IS USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF NOTE 5 APPLYING.
- 7. THE TRENCH SHALL BE BACKFILLED WITH NATIVE SOIL OR 3/4" -1.5" WASHED ROCK.
 8. FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED. THE NEWLY DISTURBED AREAS RESULTING FROM SILT FENCE REMOVAL SHALL BE IMMEDIATELY SEEDED AND MULCHED, OR OTHERWISE PERMANENTLY STABILIZED TO THE
- SATISFACTION OF THE CIVIL INSPECTOR.

 9. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 10.MAINTENANCE: ANY DAMAGED OR CLOGGED FENCE SHALL BE REPAIRED/REPLACED IMMEDIATELY. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT DEPTH IS 6 INCHES OR GREATER. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.



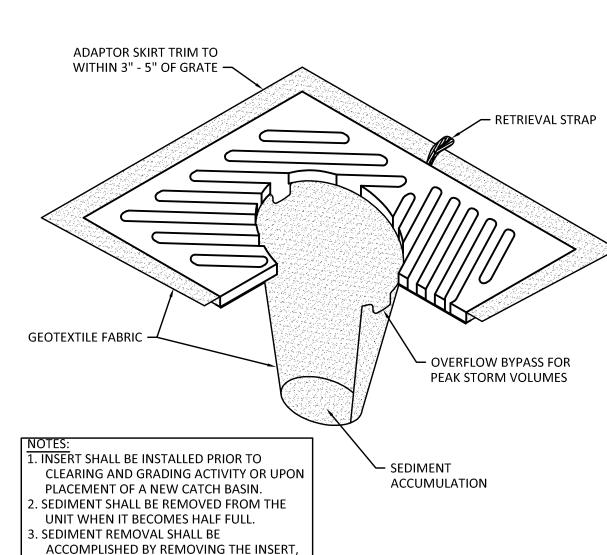


STABILIZED CONSTRUCTION ENTRANCE NOTES:

- 1. INSTALLATION: THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL. THE QUARRY SPALLS SHALL BE PLACED TO THE SPECIFIED DIMENSIONS. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHOULD BE CONSTRUCTED ACCORDING TO SPECIFICATIONS IN THE PLAN. IF WASH RACKS ARE USED, THEY SHOULD BE
- INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

 2. AGGREGATE: 4" TO 8" QUARRY SPALLS PER WSDOT STD. SPECS. SEC. 9-13.6.\
- 3. ENTRANCE DIMENSIONS: THE AGGREGATE LAYER MUST BE AT LEAST 12" THICK. IT MUST EXTEND THE FULL WIDTH OF THE VEHICULAR INGRESS AND EGRESS AREA. THE LENGTH OF THE ENTRANCE MUST BE AT LEAST 100 FEET (UNLESS OTHERWISE APPROVE BY CIVIL INSPECTOR).
- 4. WASHING: IF CONDITIONS ON THE SITE ARE SUCH THAT MOST OF THE MUD IS NOT REMOVED FROM VEHICLE TIRES BY CONTACT WITH THE ROCK ENTRANCE, THEN THE TIRES MUST BE WASHED BEFORE VEHICLES ENTER A PUBLIC ROAD. WASH WATER MUST BE CARRIED AWAY FROM THE ENTRANCE TO A SETTLING AREA TO REMOVE SEDIMENT. A WASH RACK MAY ALSO BE USED TO MAKE WASHING MORE CONVENIENT AND EFFECTIVE.
- 5. MAINTAINENCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2" STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAY OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY BY SWEEPING. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY.



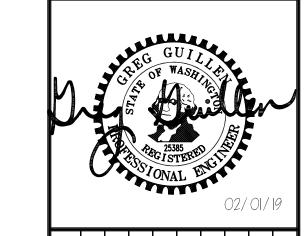


CATCH BASIN INSERT

EMPTYING, AND RE-INSERTING INTO THE

CATCH BASIN.





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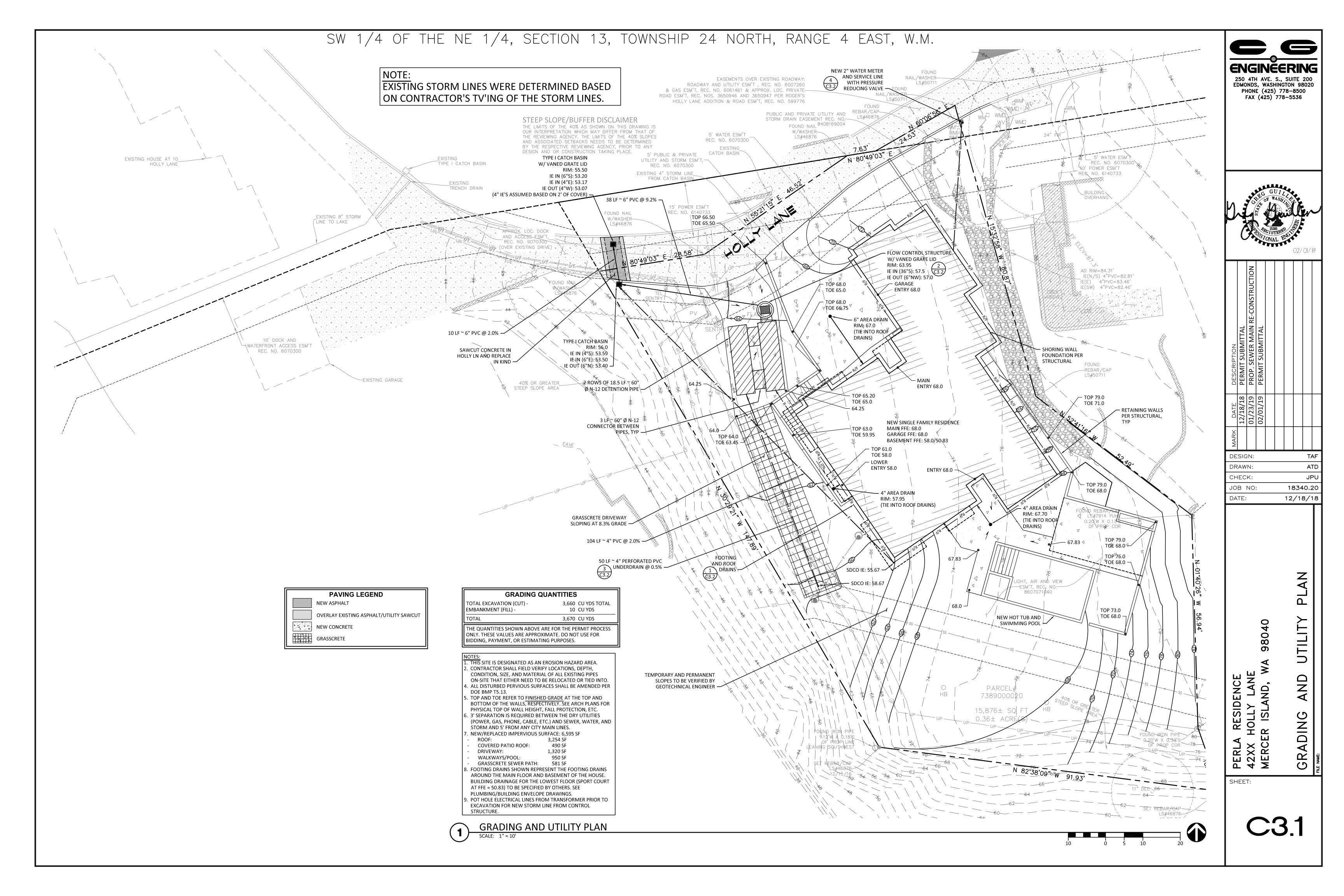
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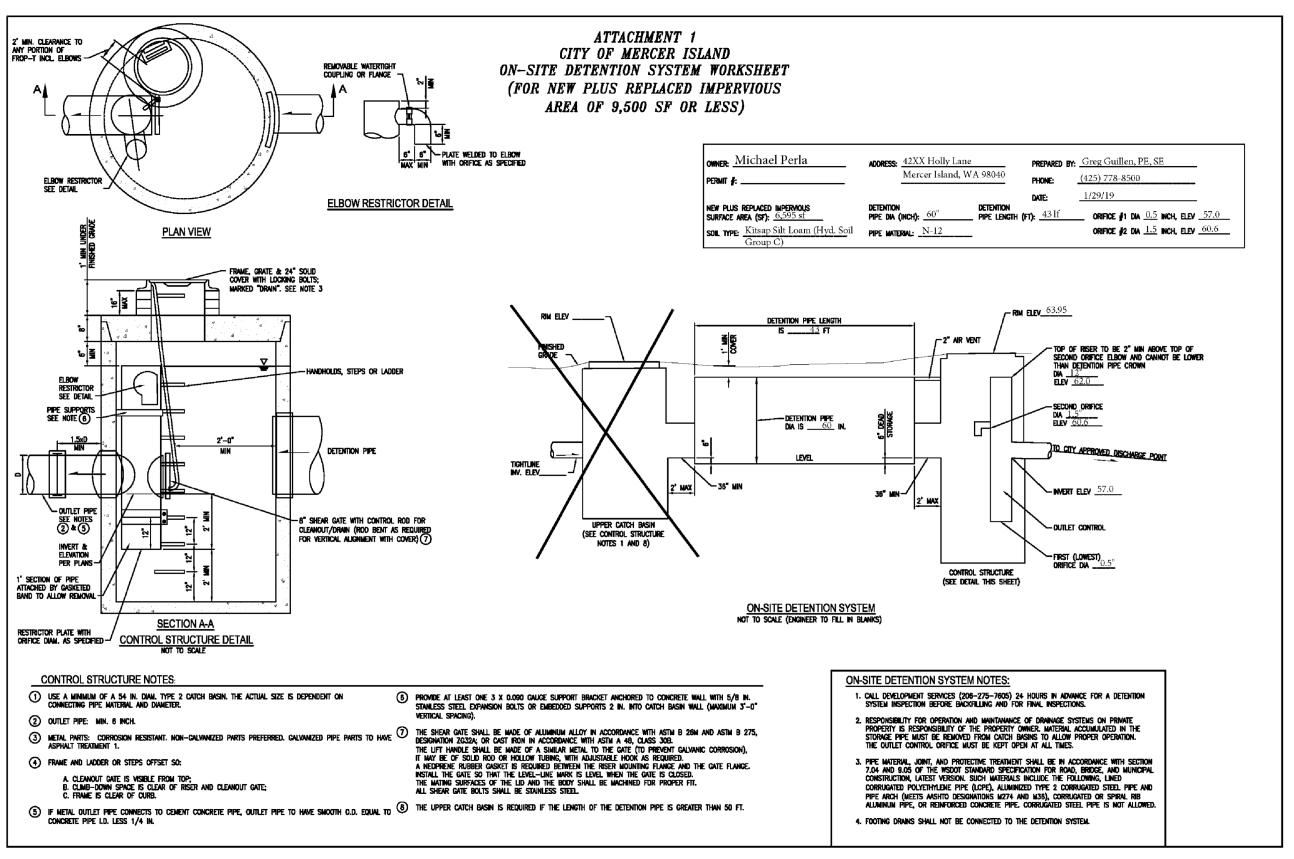
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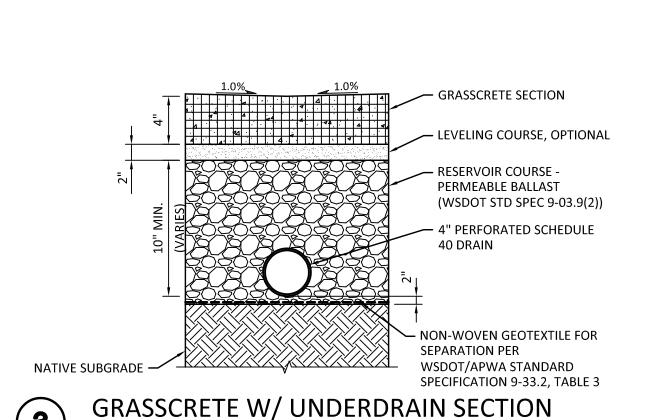
42XX HULLI LANE MERCER ISLAND, WA 98040 EROSION CONTROL DE

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C2.2







FOOTING AND ROOF DRAIN SECTION

SCALE: NTS

CONCRETE

LINE OF MAX EXCAVATION.

IF SOIL IS OVEREXCAVATED,

REPLACE WITH LEAN MIX

8" MIN FROM WOOD.

FINISHED GRADE -

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SEE STRUCTURAL DRAWINGS

4" DIA PERFORATED PVC PIPE

WITH 6" OF 1" MINUS GRAVEL ALL AROUND, WRAPPED IN

PERFORATIONS AS SHOWN -

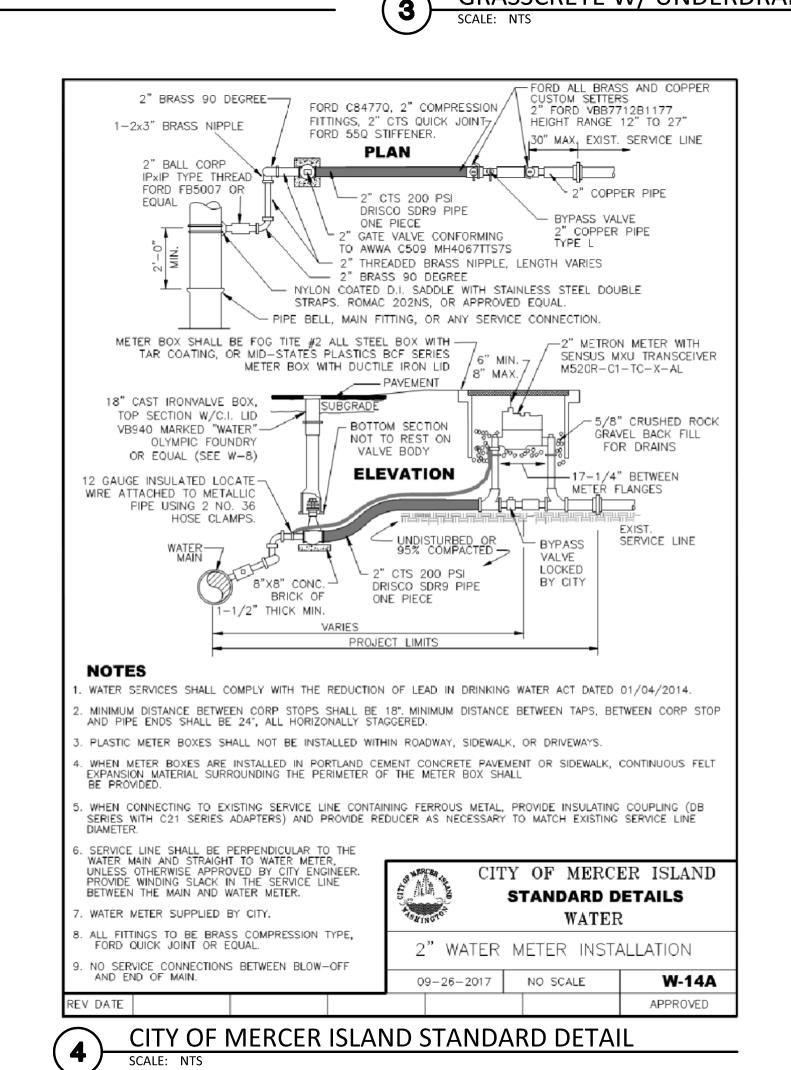
NON-WOVEN GEOTEXTILE FABRIC, SLOPE AT 0.5% MIN. TURN DOWN

6" DOWNSPOUT TIGHTLINE TO CONVEYANCE SYSTEM @ 0.5% MIN. PLACE NEXT TO FOOTING

(CONTRACTOR MAY LOCATE ON EITHER SIDE OF FOOTING DRAIN) —

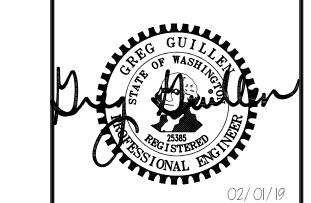
DRAIN OR AS SHOWN ON GRADING & DRAINAGE PLAN

CITY OF MERCER ISLAND ON-SITE DETENTION SYSTEM WORKSHEET



ENGINEERING

250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536



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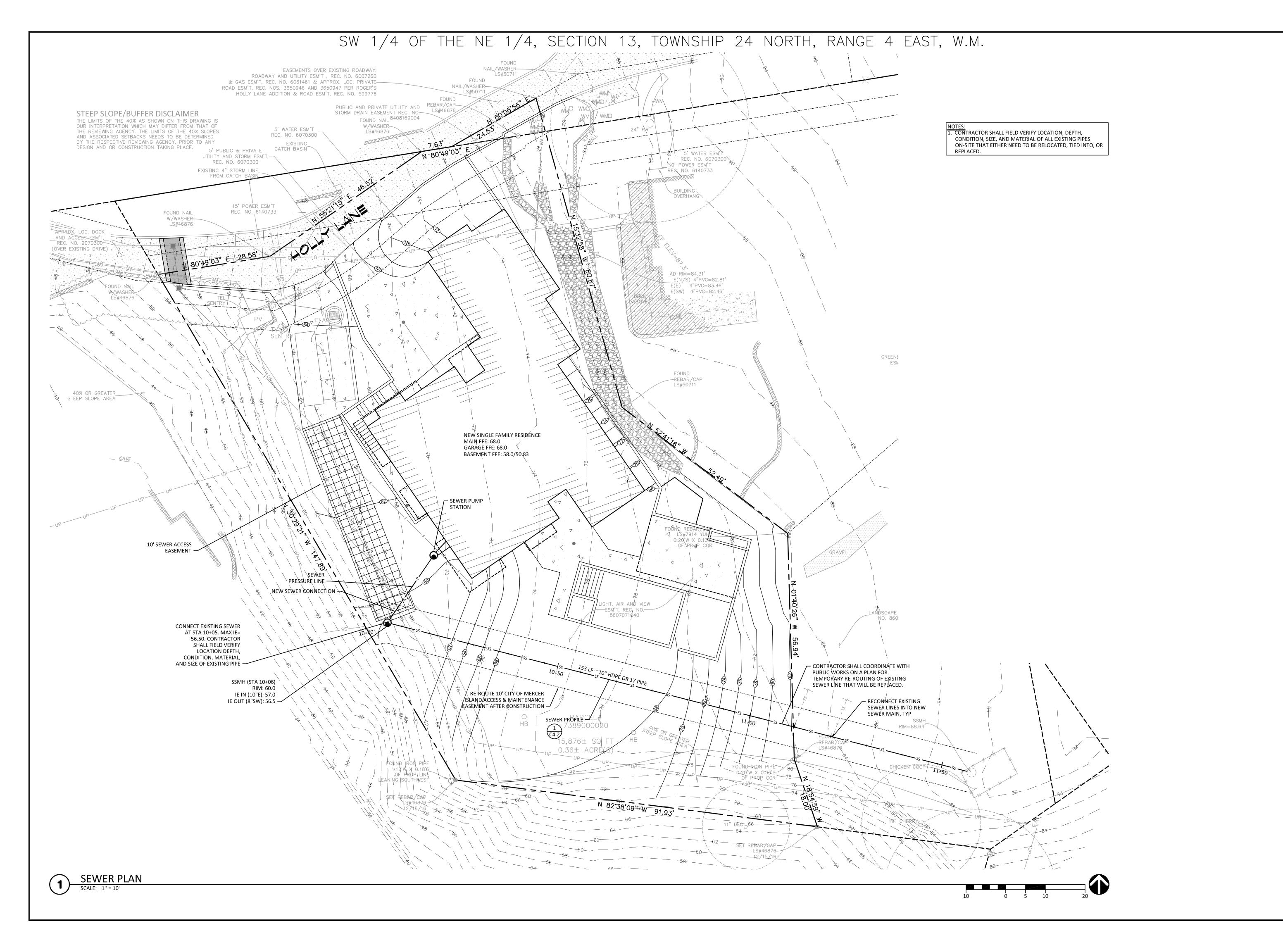
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RESIDENCE HOLLY LANE ER ISLAND, WA 98040

SHEET:

C4.

BASIS OF BEARINGS

ACCEPTED A BEARING OF N 80°49'03"E

BETWEEN FOUND IRON PIPE AND

REBAR WITH CAP, PER REF. 1

DATUM

NAVD 88

SW 1/4 OF THE NE 1/4, SECTION 13, TOWNSHIP 24 NORTH, RANGE 4 EAST, W.M. SECTION 13, TOWNSHIP 24 NORTH, RANGE 4 EAST, W.M.

42XX HOLLY LN MERCER ISLAND, WA 98040

OWNER

MICHAEL & CARA PERLA 5320 W MERCER WAY MERCER ISLAND, WA 98040

CONSULTANTS

ARCHITECT STAURT SILK ARCHITECTS 2400 NORTH 45TH ST SEATTLE, WA 98103 206.728.9500 FAX:206.448.1337 CIVIL ENGINEER CG ENGINEERING 250 4TH AVE S, SUITE 200 EDMONDS, WA 98020 425.778.8500 FAX 778.5536 SOIL/GEOTECH ENGINEER ROBERT M. PRIDE, LLC 13203 HOLMES POINT DR NE KIRKLAND. WA 98034 425.814.3970

LEGAL DESCRIPTION

(PER CHICAGO TITLE INSURANCE COMPANY'S "GUARANTEE" NO.0122668-ETU)

PARCEL B OF MERCER ISLAND LOT LINE REVISION NO. SUB-16-013, AS RECORDED UNDER RECORDING NO. 20170510900005, RECORDS OF KING COUNTY AUDITOR;

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

PARCEL NUMBER

GENERAL NOTES

GENERAL NOTES

1. STANDARD SPECIFICATIONS:

- A. ALL WORK TO BE PERFORMED AND MATERIALS TO BE USED SHALL BE IN ACCORDANCE WITH THE WSDOT/APWA 2016 STANDARD SPECIFICATIONS AND STANDARD PLANS FOR ROAD, BRIDGE AND SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF MERCER ISLAND.
- B. LOCAL AMENDMENTS TO THE STANDARD SPECIFICATIONS, CONSISTING OF STANDARD DRAWINGS AND SPECIAL TECHNICAL CONDITIONS ARE REFERENCED IN THESE NOTES. COPIES OF THESE DOCUMENTS ARE
- C. THESE SPECIFICATIONS SHALL BE APPLICABLE FOR, BUT NOT LIMITED TO, PUBLIC AND PRIVATE STREETS DRIVEWAYS, PARKING LOTS, COMMERCIAL AND INDUSTRIAL DEVELOPMENTS, APARTMENTS, ETC. WORK IN PRIVATE DEVELOPMENTS SHALL CONFORM TO THE SAME STANDARDS OF WORKMANSHIP AND MATERIALS AS ARE SPECIFIED WITHIN THE CITY RIGHT-OF-WAY, EXCEPT AS INDICATED ON THE PLANS.

PRIOR TO CONSTRUCTION, AND IN ADDITION TO ANY OTHER PERMITS REQUIRED, A CITY OF MERCER ISLAND "STREET USE PERMIT" MUST BE OBTAINED FOR ANY AND ALL WORK WITHIN THE CITY RIGHT-OF-WAY.

- IT IS A REQUIREMENT OF THE CITY OF MERCER ISLAND ENGINEERING DEPARTMENT. THAT AN APPROVED SET OF CONSTRUCTION PLANS FOR ALL WORK BE KEPT ON THE CONSTRUCTION SITE AT ALL TIMES DURING THE CONSTRUCTION PERIOD.

THE ENGINEERING DEPARTMENT CONSTRUCTION INSPECTOR 236-5300, OR 236-3587. (24-HR TAPED INSPECTION LINE) SHALL BE NOTIFIED24-HOURS PRIOR TO STARTING ANY TYPE OF CONSTRUCTION INCLUDING CLEARING, SANITARY SEWERS, WATER MAINS, STORM DRAINS, CURB AND UTTERS, SIDEWALKS, DRIVEWAYS, STREET GRADING AND PAVING.

CONTROL OF MATERIAL

THE SOURCE OF SUPPLY AND A DETAILED LIST OF EACH LIST OF EACH OF THE MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO DELIVER. ONLY MATERIALS CONFORMING TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPROVED BY THE CITY SHALL BE USED IN THE WORK. TESTING OF MATERIALS MAY INCLUDE TESTS OF ACTUAL SAMPLES, MANUFACTURER'S CERTIFICATIONS, APPROVAL OF CATALOGUE CUTS, OR FIELD ACCEPTANCE REPORTS. TESTING OF MATERIALS FOR INCORPORATION IN PRIVATE WORK SHALL BE PERFORMED AT OTHER THAN CITY EXPENSE.

EROSION AND SEDIMENTATION CONTROL

- THE IMPLEMENTATION OF THESE EROSION SEDIMENTATION CONTROL (ESC) PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE PERMIT HOLDER/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
- 2. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO INSURE THAT SEDIMENT-LADEN WATER DIES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS, AND MUST BE COMPLETED PRIOR TO ALL
- 3. 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 (E.G. ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES), AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.
- 4. THE ESC FACILITIES SHALL BE INSPECTED DAILY DURING NONRAINFALL PERIODS, EVERY HOUR (DAYLIGHT) DURING A RAINFALL EVENT AND AT THE END OF EVERY RAINFALL BY THE PERMIT HOLDER/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, TEMP. SILTATION PONDS AND ALL TEMP. SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND OR CONSTRUCTION IS COMPLETED, PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED.
- ANY AREA STRIPPED OF VEGETATION, INCLUDING ROADWAY EMBANKMENTS WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF SEVEN (7) DAYS, SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G. SEEDING, MULCHING, NETTING, EROSION BLANKETS, ETC...).
- 6. ANY AREAS NEEDING ESC MEASURE, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE
- 7. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A STORM EVENT.
- 8. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER DOWNSTREAM SYSTEM.
- 9. STABILIZED CONSTRUCTION ENTRANCES AND WASH PADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL REQUIREMENTS SHALL BE ENFORCED BY THE INSPECTOR TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN OF SILT FROM
- 10. WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE. (E.G. ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE)

EROSION AND SEDIMENTATION CONTROL (CONT)

SURVEYOR

425.458.4488

10801 MAIN ST, SUITE 102

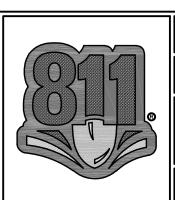
CONTACT: EDWIN GREEN JR.

BELLEVUE, WA 98004

TFRRANE

- 11. WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF THREE INCHES.
- 12. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF MERCER ISLAND STANDARDS AND SPECIFICATIONS.
- 13. EROSION/SEDIMENTATION CONTROL FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS IF DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL, UNLESS OTHERWISE APPROVED BY THE
- 14. A COPY OF THE APPROVED EROSION CONTROL PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS
- 15. TEMPORARY EROSION/SEDIMENTATION CONTROLS SHALL BE INSTALLED AND OPERATING PRIOR TO ANY GRADING OR LAND CLEARING.
- 16. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL
- 17. ALL CUT AND FILL SLOPES 5:1 (5 FEET HORIZONTAL TO 1 FOOT VERTICAL) OR STEEPER THAT WILL BE LEFT EXPOSED FOR MORE THAN 7 DAYS SHALL BE PROTECTED BY JUTE MATTING, PLASTIC SHEETING, MULCH, OR OTHER APPROVED STABILIZATION METHOD AND PROVIDED WITH ADEQUATE RUNOFF CONVEYANCE TO INTERCEPT RUNOFF AND CONVEY IT TO AN APPROVED STORM DRAIN.
- 18. OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET, THE STREET SHALL BE CLEANED. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION VEHICLE ENTRANCE AND SHALL BE CLEANED OF MUD PRIOR TO EXITING ONTO THE STREET. SILT SHALL BE CLEANED FROM ALL CATCH BASINS WHEN THE BOTTOM HALF BECOMES FILLED WITH SILT.
- 19. ANY CATCH BASIN COLLECTING WATER FROM THE SITE, WHETHER THEY ARE ON OR OFF OF THE SITE, SHALL HAVE THEIR GRATES COVERED WITH FILTER FABRIC DURING CONSTRUCTION.
- 20. WASHED GRAVEL BACKFILL ADJACENT TO THE FILTER FABRIC FENCES SHALL BE REPLACED AND THE FABRIC CLEANED IF CLOGGED BY SILT. ALL INTERCEPTOR SWALES SHALL BE CLEANED IF SILT ACCUMULATION EXCEEDS ONE-QUARTER DEPTH.
- 21. IF ANY PORTION OF THE EROSION/SEDIMENTATION CONTROL ELEMENTS ARE DAMAGED OR NOT FUNCTIONING, OR IF THE CLEARING LIMIT BOUNDARY BECOMES NON-DEFINED, IT SHALL BE REPAIRED

- PIPE SHALL BE CONCRETE OR ALUMINUM METAL, WITHIN THE PUBLIC RIGHT OF WAY. CONCRETE PIPE UP TO AND INCLUDING 24" DIAMETER SHALL BE UNREINFORCED AND SHALL CONFORM TO ASTM C-14, TABLE II, EXTRA STRENGTH, RUBBER GASKETED. CORRUGATED ALUMINUM ALLOY CULVERT PIPE SHALL BE AASHTO M-196, M-197, M-211, AND M-219, HELICAL, GAUGES AND TYPES SHALL BE AS NOTED ON THE PLANS. REINFORCED PIPE SHALL CONFORM TO ASTM DESIGNATION C-76 UNLESS OTHERWISE SPECIFIED. STORM SEWER DETENTION PIPE GREATER THAN 24" DIAMETER SHALL BE RUBBER GASKETED, HELICAL CORRUGATED ALUMINUM PIPE. BEDDING TO BE CLASS "C". GAUGE OF PIPE WILL BE AS SHOWN ON THE PLANS. INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 7-04 OF THE SPECIFICATIONS AND MAY BE SUBJECT TO EXFILTRATION TEST.
- 2. OTHER MATERIALS:
- OTHER MATERIALS FOR STORM DRAINAGE CONSTRUCTION REQUIRE WRITTEN APPROVAL OF THE CITY ENGINEER.
- 3. BACKFILL RESTRICTIONS:
- A. BEDDING SHALL CONFORM TO STANDARD PLAN B-11 B. MINIMUM COVER OVER STORM DRAIN SHALL BE 18".
- C. TRENCH BACKFILL COMPACTED TO 95% OF MAXIMUM DENSITY SHALL BE REQUIRED WHEREVER TRENCH EXCAVATION IS MADE IN PAVED ROADWAY, SIDEWALK OR ANY OTHER AREA WHERE MINOR SETTLEMENT
- 4. CATCH BASIN:
- A. TYPE 1, CATCH BASIN INLET SHALL CONFORM TO SECTION 7-05 OF THE STANDARD SPECIFICATIONS AND AS SHOWN ON STANDARD PLAN B-1. THE MAXIMUM DISTANCE TO INVERT IS 5'0" WITH A MAXIMUM PIPE DIAMETER UP TO 15" FOR CONCRETE PIPE, 18" FOR CMP. THE GRIT DROP CHAMBER IS A MINIMUM OF
- B. TYPE 2, CATCH BASIN INLET SHALL CONFORM TO SECTION 7-05 OF THE STANDARD SPECIFICATION AND AS SHOWN ON STANDARD PLAN B-1B. MAXIMUM PIPE DIAMETER OF 24" FOR CONCRETE PIPE, 30' FOR CMP; A MINIMUM OF 8" BETWEEN HOLES. THE GRIT DROP CHAMBER IS A MINIMUM OF 24".
- CURB INLETS SHALL CONFORM TO SECTION 8-04 OF THE STANDARD SPECIFICATIONS AND AS SHOWN ON STANDARD PLAN B-41.
- A. COVERS FOR CATCH BASINS AND INLETS SHALL CONFORM TO OLYMPIC FOUNDRY CO. #SM50G OR EQUAL FOR SLOPES LESS THAN 3%. WHERE SLOPES EXCEED 3%, USE OLYMPIC FOUNDRY CO. #SM50V. GRATES SHALL BE DUCTILE IRON AND HAVE THE LETTERS "DUCTS" CAST IN THE COVER.
- B. SOLID COVERS FOR MANHOLES, WHERE PERMITTED, SHALL BE 24" DIAMETER, WITH "DRAIN" CAST IN COVER IN 2" LETTERS, CONFORMING TO OLYMPIC FOUNDRY CO. MH43, INLAND FOUNDRY NO. 835, OR
- C. DRAINAGE STRUCTURES NOT WITHIN PUBLIC RIGHT-OF-WAY SHALL HAVE LOCKING LIDS.
- FRAMES FOR CATCH BASINS AND INLETS SHALL BE OF CAST IRON OR DUCTILE IRON CONFORMING TO OLYMPIC FOUNDRY CO. SM50 OR EQUAL. VANED GRATES(SM50V) SHALL BE INSTALLED WHERE SHOWN ON THE PLANS, EXCEPT THROUGH-CURB INLET FRAMES WHICH SHALL CONFORM TO OLYMPIC FOUNDRY CO. SM52 OR EQUAL.



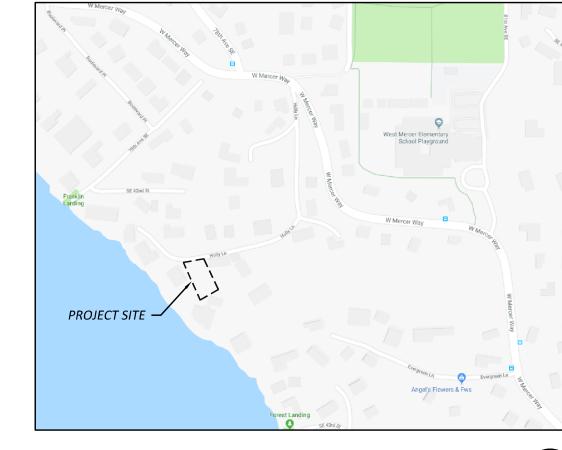
CAUTION! CALL BEFORE YOU DIG!

INFORMATION SHOWN MAY NOT BE COMPLETE. CONTACT THE ONE- CALL UTILITY LOCATE SERVICE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION

1-800-424-5555

SHEET INDEX

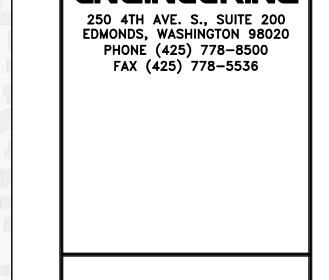
SS1.1 COVER SHEET & GENERAL NOTES SS1.2 SEWER PROFILE & DESIGN



VICINITY MAP

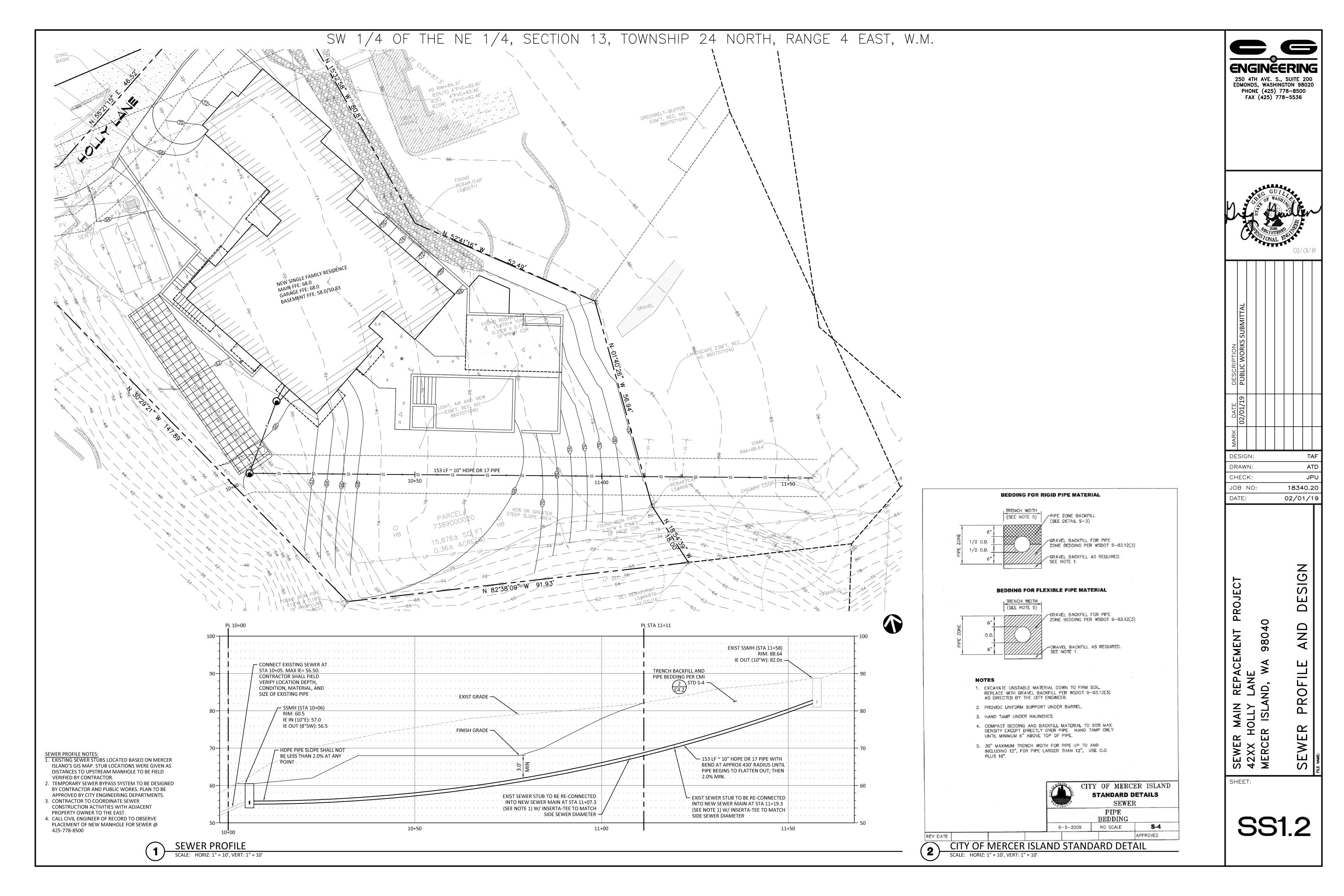


		LEGEND				
DESCRIPTION	EXISTING	PROPOSED	<u>'</u>	ABBREV	IATIONS	
PROPERTY LINE			ABN	ABANDONED	MIN	MINIMUM
ADJACENT PROPERTY LINE			BLDG	BUILDING	MJ	MECHANICAL JOINT
CENTERLINE			BOW	BOTTOM OF WALL	MON	MONUMENT
CLEARING LIMITS		~~~~~~-	ę	CENTERLINE	NTS	NOT TO SCALE
SILT FENCE	XX		CB	CATCH BASIN	OC	ON CENTER
CONTOUR LINE			CMP	CORRUGATED METAL PIPE	PC	POINT OF CURVATURE
FENCE			CO	CLEANOUT	PI	POINT OF INTERSECTION
SANITARY SEWER LINE	$\longrightarrowSS \longrightarrowSS \longrightarrow$		CONC	CONCRETE	PIV	POST INDICATOR VALVE
MANHOLE	6		CONST	CONSTRUCTION	FE.	PROPERTY LINE
STORM DRAIN MAIN	$\longrightarrowSD \longrightarrowSD \longrightarrow$		CP	CONCRETE PIPE	PT	POINT OF TANGENCY
		30 30	CU YD	CUBIC YARD	PVC	POLYVINYL CHLORIDE PIP
STORM DRAIN PIPE				DOUBLE DETECTOR CHECK		POINT OF VERTICAL
ROOF DRAIN	— — — R — — — R — — — — — — — — — — — —	R—— R——	DDCVA	VALVE ASSEMBLY	PVI	INTERSECTION
FOOTING DRAIN	— — — F — — F — — — F —	FF	DI	DUCTILE IRON PIPE	PVMT	PAVEMENT
PRESSURE LINE		P — P — —	DIA	DIAMETER	PVT	POINT OF VERTICAL TANG
CATCH BASIN (TYPE 1)			DIP	DUCTILE IRON PIPE	R	RADIUS
CATCH BASIN (TYPE 2)			EA	EACH	REINF	REINFORCEMENT
CLEANOUT	0	•	EJ	EXPANSION JOINT	RJ	RESTRAINED JOINT
CLEANOUT AND WYE			ELEV	ELEVATION	RET	RETAINING
GRADE BREAK			EOP	EDGE OF PAVEMENT	RT	RIGHT
SURFACE SWALE	· > · · · · ·	· >- · · · ·	EX	EXISTING	SD	STORM DRAIN
DRAINAGE ARROW			FDC	FIRE DEPT. CONNECTION	SECT	SECTION
WATER LINE		——— WA—————————————————————————————————	FFE	FINISHED FLOOR ELEVATION	SDMH	STORM DRAIN MANHOLE
WATER METER	⊞	5	FH	FIRE HYDRANT	SIM	SIMILAR
FIRE HYDRANT	750	X	FL	FLANGE	SQ	SQUARE
FDC	V	₩	FT	FEET/FOOT	SS	SANITARY SEWER
PIV	0	•	GV	GATE VALVE	SSMH	SANITARY SEWER MANHOLE
GATE VALVE	X	X	НР	HIGH POINT	STA	STATION
TEE	Į,	,I,	HT	HEIGHT	STD	STANDARD
90° BEND	J	Ļ	ID	INSIDE DIAMETER	STL	STEEL
THRUST BLOCKING	Δ	A	IE	INVERT ELEVATION	ТВ	THRUST BLOCK
CAP		u	L	LENGTH/LINE	тос	TOP OF CURB
CONCRETE PAVEMENT	A	Δ Δ Δ	LCPE	LINED CORRUGATED POLYETHYLENE PIPE	TOW	TOP OF WALL
ASPHALT PAVEMENT			LF	LINEAL FOOT	ТОР	TOP ELEVATION
CRUSHED SURFACING			LP	LOW POINT	TYP	TYPICAL
ROCKERY	000000000	0000000000	LT	LEFT	VC	VERTICAL CURVE
SPOT ELEVATION	20.0	20.0	MAX	MAXIMUM	W/	WITH
TELEPHONE LINE		тт	MECH	MECHANICAL	WM	WATER METER
POWER LINE	— E E E -	EE	МН	MANHOLE		
GAS LINE	— — — G — — — G —	G G				
SIGN		Д				





E) <u>N</u> 4 ∑ SHEET:



General Structural Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CODE REQUIREMENTS:

ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE 2015 IBC AND THE LATEST EDITION OF THE PTI DOCUMENT, "RECOMMENDATIONS FOR PRE-STRESSED ROCK AND SOIL ANCHORS".

2. REFERENCE DOCUMENTS:

TOPOGRAPHIC AND BOUNDARY SURVEY BY
GEOTECHNICAL RECOMMENDATIONS BY ROBERT M. PRIDE, LLC FOR 4211 HOLLY LANE,
M. I., WA.

3. GENERAL REQUIREMENTS:

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTOR'S WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL OR ACTUAL SUPERVISORY AUTHORITY AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES AT THE PROJECT SITE.

UTILITY LOCATION: THE SHORING CONTRACTOR SHALL DETERMINE THE HORIZONTAL AND VERTICAL LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO DRILLING PILE HOLES, TIEBACK ANCHORS, OR CUTTING OR DIGGING IN STREETS OR ALLEYS. THE UTILITIES INFORMATION SHOWN ON THE PLANS MAY NOT BE COMPLETE. THIS INCLUDES CALLING UTILITY LOCATE AT 1-800-424-5555 AND THEN POTHOLING ALL UTILITIES PRIOR TO CONSTRUCTION TO CONFIRM DEPTHS AND LOCATIONS AND TO VERIFY THAT THERE ARE NO CONFLICTS WITH THE PILE AND TIEBACK CROSSING ELEVATIONS. PILES AND TIEBACKS, INCLUDING CONCRETE CASING SHALL MAINTAIN A MINIMUM OF 12"CLEARANCE TO ANY EXISTING UTILITIES TO REMAIN. CONTRACTOR SHALL RESOLVE ANY PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF EXISTING STRUCTURES IN THE FIELD AND SHALL NOTIFY THE ENGINEER OF ALL FIELD CHANGES PRIOR TO FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBER.

ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATIONS, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ENGINEER AND ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. SHOULD ANY DISCREPANCIES BE FOUND IN THE PROJECT DOCUMENTS, THE CONTRACTOR WILL BE DEEMED TO HAVE INCLUDED IN THE PRICE THE MOST EXPENSIVE WAY OF COMPLETING THE WORK, UNLESS PRIOR TO SUBMISSION OF THE PRICE THE CONTRACTOR ASKS FOR A DECISION FROM THE ENGINEER AND ARCHITECT AS TO WHICH SHALL GOVERN. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK.

4. GEOTECHNICAL INFORMATION AND CRITERIA:

INSTALLATION OF SHORING, SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION AND FILLING REQUIREMENTS SHALL CONFORM WITH THE RECOMMENDATIONS CONTAINED IN THE SOILS REPORT AND/OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE SUBSURFACE CHARACTERIZATIONS USED TO DESIGN THE SHORING ARE CONTAINED IN THE SOILS REPORT AS REFERENCED ABOVE.

EXCAVATIONS FOR FOUNDATIONS SHALL BE PER PLAN DOWN TO UNDISTURBED NATIVE MATERIAL PER THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS. OVER EXCAVATED AREAS SHALL BE BACKFILLED WITH LEAN CONCRETE OR PER GEOTECHNICAL RECOMMENDATIONS AT THE CONTRACTOR'S EXPENSE. EXCAVATION SLOPES SHALL BE SAFE AND SHALL NOT BE GREATER THAN THE LIMITS SPECIFIED BY LOCAL, STATE, AND NATIONAL SAFETY REGULATIONS. CONTRACTOR SHALL PROTECT CUT SLOPES AS NECESSARY IF CONSTRUCTION OCCURS DURING WET WEATHER, AND SHALL CONTROL AND MANAGE RUNOFF TO MINIMIZE EFFECTS ON CONSTRUCTION.

DESIGN LOADS ARE DETERMINED BY THE GEOTECHNICAL ENGINEER. THE SOIL PRESSURES INDICATED ON THE SOIL PRESSURE DIAGRAM WERE USED FOR DESIGN, IN ADDITION TO THE DEAD AND LIVE LOADS. SEE REPORT OF GEOTECHNICAL INVESTIGATION FOR MORE COMPLETE INFORMATION, INCLUDING RECOMMENDATIONS FOR SHORING IN GENERAL, SHORING MONITORING, EXCAVATION, LAGGING, AND DRAINAGE.

DESIGN PARAMETERS AS APPROVED BY THE GEOTECHNICAL ENGINEER ARE AS FOLLOWS:

LATERAL EARTH PRESSURES (EQUIVALENT FLUID PRESSURE)	E. F. P.
ACTIVE EARTH PRESSURE (LEVEL BACKFILL)	30 PCF
ACTIVE EARTH PRESSURE (2: 1 SLOPING BACKFILL	35 PCF
PASSIVE EARTH PRESSURE (INCLUDES FS=1.5) LEVEL CUT	300 PCF
PASSIVE EARTH PRESSURE (INCLUDES FS=1.5) 1:1 TEMP EXC CUT	200 PCF
ALLOWABLE SKIN FRICTION . 45(A	CTIVE)KCF

SHORING DURATION: THE SHORING IS PERMANENT. THE CONSTRUCTION OF THE PERMANENT STRUCTURE SHALL COMMENCE IMMEDIATELY AFTER THE SHORING IS INSTALLED AND THE BULK EXCAVATION IS COMPLETE.

5. SHOP DRAWINGS:

SHOP DRAWINGS ARE REQUIRED FOR THE FOLLOWING ITEMS:

STRUCTURAL STEEL
MISCELLANEOUS METALS
REINFORCING STEEL
GROUTS AND CONCRETES.

CONTRACTOR SHALL ALSO COORDINATE APPROVED SHORING SUBMITTALS WITH BUILDING DEPARTMENT REQUIREMENTS.

SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE A REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED WITHIN TWO WEEKS OF RECEIPT WITH A NOTATION INDICATING THAT THE SUBMITTAL HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE STRUCTURAL DESIGN. THE SUBMITTED ITEMS SHALL NOT BE INSTALLED UNTIL THEY HAVE BEEN APPROVED BY THE DESIGN TEAM AND/OR THE OWNER'S REPRESENTATIVE. ELECTRONIC SUBMITTSIONS MAY ALSO BE DEEMED TO MEET THE SUBMITTAL REQUIREMENTS NOTED ABOVE.

SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS.

6. INSPECTIONS:

THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL INSPECTIONS REQUIRED BY THE LOCAL BUILDING DEPARTMENT. IN ADDITION TO INSPECTIONS REQUIRED BY THE LOCAL BUILDING DEPARTMENT, THE OWNER OR A REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS FOR ITEMS NOTED IN THE SPECIFICATIONS AND IBC SECTIONS 108 AND 1704. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER IMMEDIATELY AND PRIOR TO COMPLETION OF THAT PHASE OF WORK.

SOILS INSPECTION: INSPECTION BY THE SOILS ENGINEER SHALL BE PERFORMED FOR PILE PLACEMENT, EXCAVATION, AND LAGGING INSTALLATION. THE GEOTECHNICAL ENGINEER SHALL ALSO ADVISE ON WATER CONTROL AND SLAB ON GRADE CONSTRUCTION.

SPECIAL INSPECTION REPORTS ARE TO BE DISTRIBUTED TO THE ARCHITECT, OWNER, BUILDING DEPARTMENT AND STRUCTURAL ENGINEER WITHIN TWO WEEKS OF COMPLETION OF EACH PHASE OF WORK UNLESS DISCREPANCIES ARE NOT CORRECTED AS NOTED ABOVE.

THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTIONS:

CONSTRUCTION TYPE	TYPE OF INSPECTION
CONCRETE CONSTRUCTION	PER TABLE 1704.4
STRUCTURAL STEEL FABRICATION AND ERECTION	PER TABLE 1704. 3
AUGER-CAST PILE, OR DRIVEN PILE INSTALLATION	PERIODIC
FXCAVATION AND GRADING	PERIONIC

PERIODIC INSPECTION ALLOWS INSPECTION AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS.

CONTINUOUS SPECIAL INSPECTION REQUIRES THAT THE INSPECTOR BE ONSITE AT ALL TIMES THAT WORK REQUIRING SPECIAL INSPECTION IS PERFORMED.

7. CONCRETE:

CONCRETE CONSTRUCTION SHALL CONFORM TO ALL REQUIREMENTS OF IBC CHAPTER 19 AND THE ACI STANDARD 318-02 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".

CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD CYLINDER TESTS, UNLESS APPROVED OTHERWISE. REQUIRED ULTIMATE COMPRESSIVE STRENGTH OF STRUCTURAL GROUT SHALL BE REACHED BY 5 DAYS FOR TIEBACKS AND RAKER FOOTINGS AND 28 DAYS FOR PILES AND OTHER FOUNDATIONS.

f'c	Minimum Cement	Max. Water Per	
(psi)	Per Cubic Yard	94 LB Cement	Use
	1-1/2 sacks		pile lean concrete
3, 000	9 sack pumpable mix		pile structural grout
3,000	5-1/2 sacks	.5 w/c	raker foundations
3, 000	5-1/2 sacks	.5 w/c	misc. foundations

REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF IBC SECTION 1904. DESIGN STRENGTH IS f'c = 2,500 PSI.

AS AN ALTERNATIVE TO THE ABOVE, THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE ALTERNATE MIX DESIGN ALONG WITH REQUIRED SUBSTANTIATING TEST DATA WILL BE REVIEWED FOR CONFORMANCE TO SECTION 1905.

8. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, FY = 40,000 PSI.

9. **W**00E

FRAMING LUMBER SHALL BE KILN DRIED OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH W.C.L.B. STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

Use	Grade	Fb (psi, single use)
4X TIMBER LAGGING	HEM-FIR NO. 2	850

WOOD IN CONTINUOUS CONTACT WITH WATER OR SOIL SHALL BE TREATED TO A RETENTION OF . 40 PCF. SODIUM BORATE (SBX) TREATED WOOD SHALL NOT BE USED WHERE EXPOSED TO WEATHER.

10. STEEL:

STEEL SPECIFICATIONS: DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC MANUAL, AISC 360 AND IBC SECTION 2205.

STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

TYPE OF MEMBER	ASTM SPECIFICATION	Fy
WIDE FLANGE SHAPES OTHER SHAPES, PLATES, AND RODS	A992 A36	50 KSI 36 KSI
PIPE COLUMNS WOOD CONNECTION BOLTS	A53 (E OR S, GR.B) A307	35 KSI
ANCHOR BOLTS HEADED SHEAR STUDS	A307 OR ASTM A-36 A108	

ALL WELDING SHALL BE IN CONFORMANCE WITH A. I. S. C. AND A. W. S. STANDARDS AND SHALL BE PERFORMED BY W. A. B. O. CERTIFIED WELDERS USING E70 XX ELECTRODES.

ONLY PREQUALIFIED WELDS (AS DEFINED BY A. W. S.) SHALL BE USED. ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE MADE WITH A FILLER MATERIAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT 20 DEGREES F AND 40 FT-LBS AT 70 DEGREES F, AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

11. PILE AND LAGGING CONSTRUCTION:

DIMENSIONS AND LOCATION OF EXISTING STRUCTURES SHALL BE VERIFIED PRIOR TO FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBER. NOTIFY ENGINEER ABOUT ANY DISCREPANCIES PRIOR TO FABRICATION.

PILE AND ANCHOR HOLES SHALL BE DRILLED WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED PILES AND ANCHORS. THIS MAY INVOLVE CASING THE HOLES OR OTHER METHODS OF PROTECTION FROM CAVING. REFER TO REPORT OF GEOTECHNICAL INVESTIGATION FOR RECOMMENDED HOLE DRILLING PROCEDURE.

AUGER-CAST PILE PLACEMENT: ALTERNATE PILES SHALL BE PLACED AND COMPLETED SO THAT AT LEAST 24 HOURS IS ALLOWED FOR THE CONCRETE TO SET PRIOR TO DRILLING ADJACENT PILES.

STEEL PILE PLACEMENT TOLERANCES: 1"IN ANY DIRECTION

LAGGING: TIMBER LAGGING SHALL BE INSTALLED IN ALL AREAS. VOIDS BETWEEN LAGGING AND SOIL SHALL BE BACKFILLED WITH PEA GRAVEL OR LEAN MIX FILL. DRAINAGE BEHIND THE WALL MUST BE MAINTAINED. IT IS CONTRACTOR'S RESPONSIBILITY TO LIMIT THE AMOUNT OF EXPOSED SOIL WITHOUT LAGGING TO AVOID LOSS OF SOIL. MAXIMUM HEIGHT OF 4 FEET IS RECOMMENDED. SPECIAL CARE SHOULD BE TAKEN TO AVOID GROUND LOSS DURING EXCAVATION.

12. SHORING MONITORING:

A PRE-CONSTRUCTION MEETING WITH THE BUILDING DEPARTMENT WILL BE REQUIRED PRIOR TO THE START OF EXCAVATIONS. ATTENDEES SHALL INCLUDE REPRESENTATIVES OF THE OWNER, GENERAL CONTRACTOR, EXCAVATION AND SHORING SUBCONTRACTORS, THE PROJECT GEOTECHNICAL ENGINEER, PROJECT SURVEYORS, BUILDING DEPARTMENT SHORING REVIEW AND INSPECTION PERSONNEL.

A SYSTEMATIC PROGRAM OF MONITORING SHALL BE CONDUCTED DURING THE PROJECT EXECUTION TO DETERMINE THE EFFECT OF CONSTRUCTION ON ADJACENT FACILITIES AND STRUCTURES IN ORDER TO PROTECT THEM FROM DAMAGE. REFER TO REPORT OF GEOTECHNICAL INVESTIGATION FOR RECOMMENDATIONS. FIELD DATA AND MEASUREMENTS ARE TO BE SUBMITTED TO THE OWNER'S REPRESENTATIVE, STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER FOR REVIEW.

UNLESS OTHERWISE REQUIRED BY THE GEOTECHNICAL ENGINEER, THE MONITORING PROGRAM SHALL INCLUDE A VIDEO OR PHOTOGRAPHIC SURVEY PRIOR TO THE BEGINNING OF THE SHORING INSTALLATION TO DOCUMENT THE CURRENT CONDITIONS OF THE SURROUNDING FEATURES. THE SIZE AND LOCATION OF ANY EXISTING CRACKS IN ADJACENT SLABS, PAVEMENTS OR BUILDINGS SHOULD BE MEASURED AND DOCUMENTED. CONTROL POINTS SHOULD BE ESTABLISHED AT A DISTANCE WELL AWAY FROM THE WALLS AND SLOPES, AND DEFLECTIONS FROM THE REFERENCE POINTS SHOULD BE MEASURED THROUGHOUT CONSTRUCTION BY OPTICAL SURVEY.

FOLLOWING INSTALLATION OF THE SOLDIER PILES, LATERAL MONITORING POINTS SHALL BE ESTABLISHED ON THE TOP OF THE PILES PRIOR TO PROCEEDING WITH THE EXCAVATION. ONE MONITORING POINT SHOULD BE ESTABLISHED FOR THE LESSOR OF 20 FEET ON CENTER OR EVERY FOUR PILES. THE MONITORING POINTS SHOULD BE READ DAILY DURING EXCAVATION OPERATIONS AND TWICE WEEKLY ONCE THE EXCAVATION IS COMPLETED. THE INITIAL READINGS FOR THIS MONITORING SHOULD BE TAKEN BEFORE STARTING ANY DEMOLITION OR EXCAVATION ON THE SITE. IMMEDIATELY AND DIRECTLY NOTIFY THE GEOTECHNICAL AND STRUCTURAL ENGINEERS, THE OWNER'S REPRESENTATIVE, AND THE BUILDING DEPARTMENT IF 0.5 INCH OF MOVEMENT OCCURS BETWEEN TWO CONSECUTIVE READINGS AND WHEN TOTAL MOVEMENTS REACH .5 INCH. AT THAT AMOUNT OF MOVEMENT, THE ENGINEERS SHALL DETERMINE THE CAUSE OF DISPLACEMENT AND DEVELOP REMEDIAL MEASURES SUFFICIENT TO LIMIT TOTAL WALL MOVEMENT TO .5 INCH. ALL EARTHWORK AND CONSTRUCTION ACTIVITIES MUST BE DIRECTED TOWARDS IMMEDIATE IMPLEMENTATION OR REMEDIAL MEASURES NECESSARY TO LIMIT FURTHER WALL MOVEMENT.

A MINIMUM OF 3 VERTICAL MONITORING POINTS SHALL BE ESTABLISHED ON NEARBY ADJACENT BUILDINGS PRIOR TO PILE INSTALLATION AND EXCAVATION. MONITORING POINTS SHALL ALSO BE ESTABLISHED BEHIND THE WALL AT LEAST A LATERAL DISTANCE EQUAL TO THE HEIGHT OF THE EXCAVATION CUT.

EACH SET OF MONITORING DATA MUST BE PROVIDED TO THE OWNER'S REPRESENTATIVE AND GEOTECHNICAL ENGINEER FOR REVIEW. IT MAY BE NECESSARY TO INSTALL ADDITIONAL MONITORING POINTS IF WARRANTED BY THE DATA. RECOMMENDATIONS WILL BE PROVIDED BY THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION IF ADDITIONAL MONITORING POINTS BECOME NECESSARY.

A LICENSED SURVEYOR (NOT THE CONTRACTOR) SHOULD ESTABLISH THE SURVEYING PRIOR TO PILE INSTALLATION AND MONITOR AT LEAST ONCE A WEEK UNTIL OPERATIONS ARE COMPLETED.

LATERAL SURVEY FREQUENCY MAY BE DECREASED AFTER THE SHORING SYSTEM HAS BEEN INSTALLED AND EXCAVATION IS COMPLETE IF THE DATA INDICATES LITTLE OR NO ADDITIONAL MOVEMENT. SURVEYING MUST CONTINUE UNTIL THE PERMANENT STRUCTURE (INCLUDING FLOOR SLABS AS BRACES) IS COMPLETE UP TO FINAL AND STREET GRADES. THE SURVEY FREQUENCY WOULD BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND REVIEWED AND APPROVED BY THE GEOTECHNICAL AND STRUCTURAL ENGINEERS BASED ON SHORING PERFORMANCE.

SUBMIT SURVEY DATA, INCLUDING BASELINE READINGS AND EVALUATION OF SHORING PERFORMANCE BY THE GEOTECHNICAL ENGINEER AT LEAST ON A WEEKLY BASIS TO THE OWNER'S REPRESENTATIVE, THE GEOTECHNICAL AND STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT.

13. RAKER CONSTRUCTION:

TIE OFF RAKERS.

RAKER INSTALLATION: TRENCH BERM AS REQUIRED FOR INSTALLATION OF RAKER. RAKER FOOTING SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 2500 PSI BEFORE INSTALLING THE RAKER.

RAKER INSTALLATION SHALL BE COMPLETED PRIOR TO EXCAVATING MORE THAN TWO FEET BELOW RAKER LEVEL.

UNLESS OTHERWISE NOTED ON PLANS, RAKERS SHALL BE PRELOADED IN COMPRESSION TO 50 PERCENT OF THE DESIGN LOAD PRIOR TO BEING TIED OFF.

STRUCTURE, INCLUDING FLOOR SLABS AND BRACES, IS COMPLETE UP TO FINAL GRADES.

THE INTERNAL BRACING SYSTEM MUST REMAIN IN PLACE UNTIL THE PERMANENT

AS A MINIMUM THE FOLLOWING RAKER SEQUENCE SHALL BE EMPLOYED:

INSTALL PILES
EXCAVATE TO 2 FEET BELOW RAKER ELEVATION
SLOPE CUT 1.5H: 1.0V TO INSTALL RAKER FOOTING
INSTALL RAKERS WITH PRELOAD

14. WET WEATHER CONDITIONS:

A SITE VISIT FROM THE GEOTECHNICAL SPECIAL INSPECTOR SHALL OCCUR DURING EACH DAY OF ACTIVE GRADING AND IN THE EVENT OF SIGNIFICANT RAINFALL WHICH MIGHT COMPROMISE STABILIZATION MEASURES BETWEEN NOVEMBER 1 AND MARCH 31. THE DETERMINATION OF WHAT CONSTITUTES SIGNIFICANT RAINFALL IS SUBJECT TO THE DISCRETION OF THE GEOTECHNICAL SPECIAL INSPECTOR. HOWEVER, AS A MINIMUM STANDARD, THE GEOTECHNICAL SPECIAL INSPECTOR IS REQUIRED TO CONDUCT A SITE VISIT IF MORE THAN ONE HALF INCH OF PRECIPITATION OCCURS ON ANY GIVEN DAY. ANY RECOMMENDATIONS REQUIRED TO MAINTAIN STABILITY OF EXCAVATIONS AND PROPER FUNCTIONING OF THE SEDIMENT/EROSION CONTROL SYSTEM PROVIDED BY THE GEOTECHNICAL SPECIAL INSPECTOR AND BUILDING DEPARTMENT PERSONNEL SHALL BE IMPLEMENTED IMMEDIATELY. THE GEOTECHNICAL SPECIAL INSPECTOR SHALL PROVIDE COPIES OF FIELD REPORTS TO THE OWNER'S REPRESENTATIVE AND THE BUILDING DEPARTMENT NO LATER THAN 48 HOURS AFTER EACH INSPECTION. THE GEOTECHNICAL SPECIAL INSPECTOR SHALL PROVIDE WRITTEN NOTICE THAT THE SITE HAS BEEN STABILIZED FOLLOWING COMPLETION OF GRADING.

15. DRIVEN PILES:

DRIVEN WF PILE SIZES AND DEPTHS ARE AS SHOWN ON THE PLANS. DRIVEN PILES DO NOT REQUIRE A VERTICAL LOAD CAPACITY. THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER IN THE EVENT ANY DRIVEN PILES DO NOT MEET THE MINIMUM PILE EMBEDMENT DEPTH. SHOULD THIS OCCUR, ADDITIONAL PILES MAY BE REQUIRED.



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PROJECT TITLE:

Perla Residence

42xx Holly Lane Mercer Island, WA

ARCHITECT:

Stuart Silk Architects
2400 N. 45th St.

Seattle, WA 98103

SSUE:		

Permit

General

Shoring Notes

SCALE:

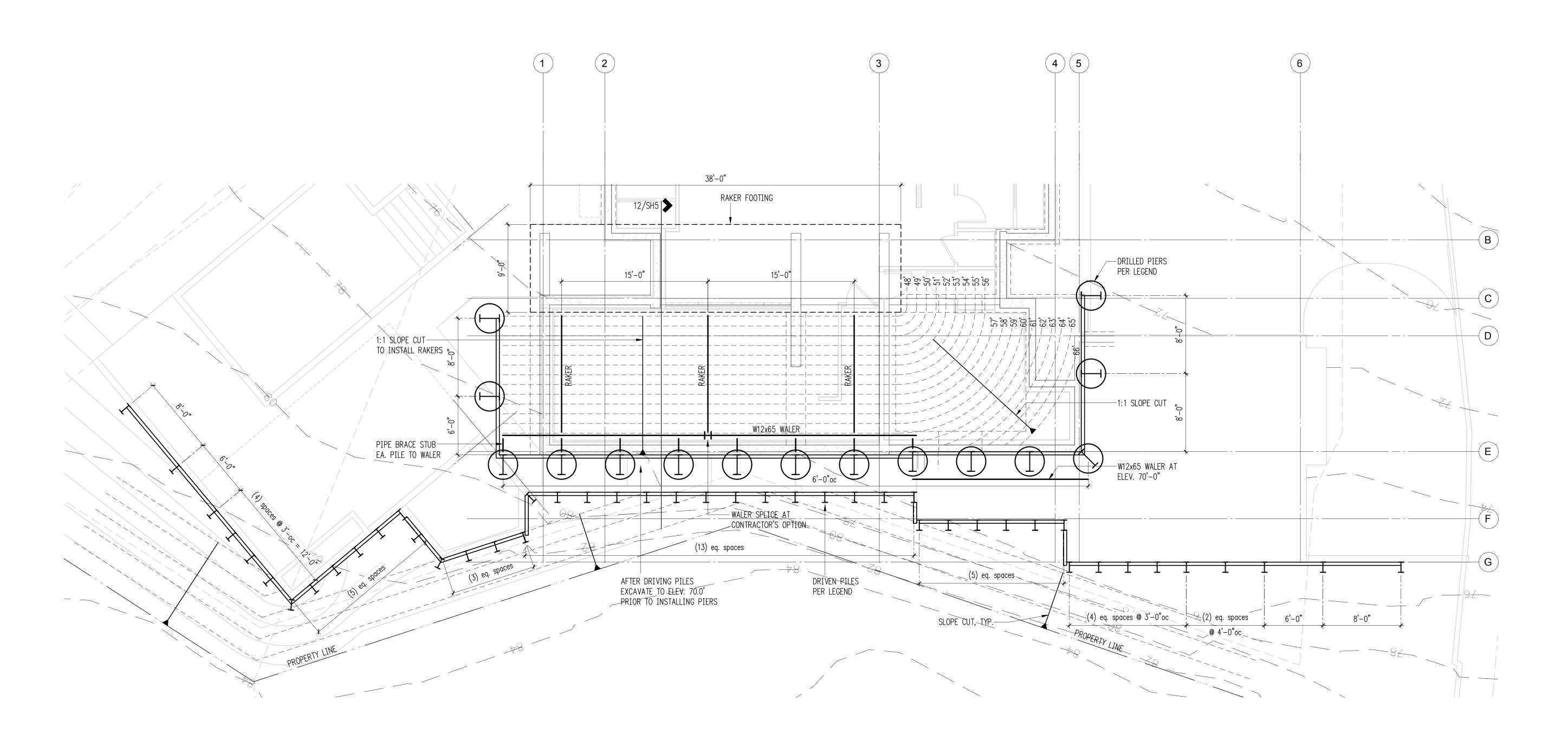
DATE:

December 17, 2018

PROJECT NO:

00101-2018-06 SHEET NO:

SH₁



	Driven Pile Height Schedule					
Height	Pile	Max. Spacing		TVDION DDIVED DIED	1	EXCAVATE 2:1 FROM PROPERTY LINE, UNLESS EXISTING SLOPE PROVIDED
≤ 7'-0"	W12x35 x 25'-0"	8'-0"oc	T	TYPICAL DRILLED PIER: 36"ø AUGER W/	1.	EXONANTE 2.1 THOSE THOTERED CHEESS EXISTING SEGRE THOUSED
8'-0"	W12x35 x 25'-0"	6'-0"oc	(\perp)	W24x84 x 35'-0"	2.	INSTALL DRIVEN PILES FLUSH TO GRADE
9'-0"	W12x35 x 25'-0"	4'-0"oc		SPACING PER PLAN	3.	EXCAVATE IN FRONT OF DRIVEN PILES & INSTALL LAGGING
10'-0"	W12x35 x 25'-0"	3'-0"oc	I	TYPICAL DRIVEN PILE: W12x35 x 25'-0"	4.	INSTALL SOLDIER PILES
				SPACING PER PLAN SEE SCHEDULE	5.	INSTALL WALERS
					6.	EXCAVATE TO RAKER ELEVATION & INSTALL LAGGING
					7.	EXCAVATE 1:1 MAX. IN FRONT OF PILES
					8.	INSTALL RAKER FOOTING
					9.	INSTALL RAKERS





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PROJECT TITLE:

Perla Residence

42xx Holly Lane Mercer Island, WA

HITECT:
Jart Silk Arc

Stuart Silk Architects 2400 N. 45th St. Seattle, WA 98103

SUE:

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EET TITLE:

Shoring Plan Sequence 1 of 3

SCALE:

3/16" = 1'-0" U.N.O.

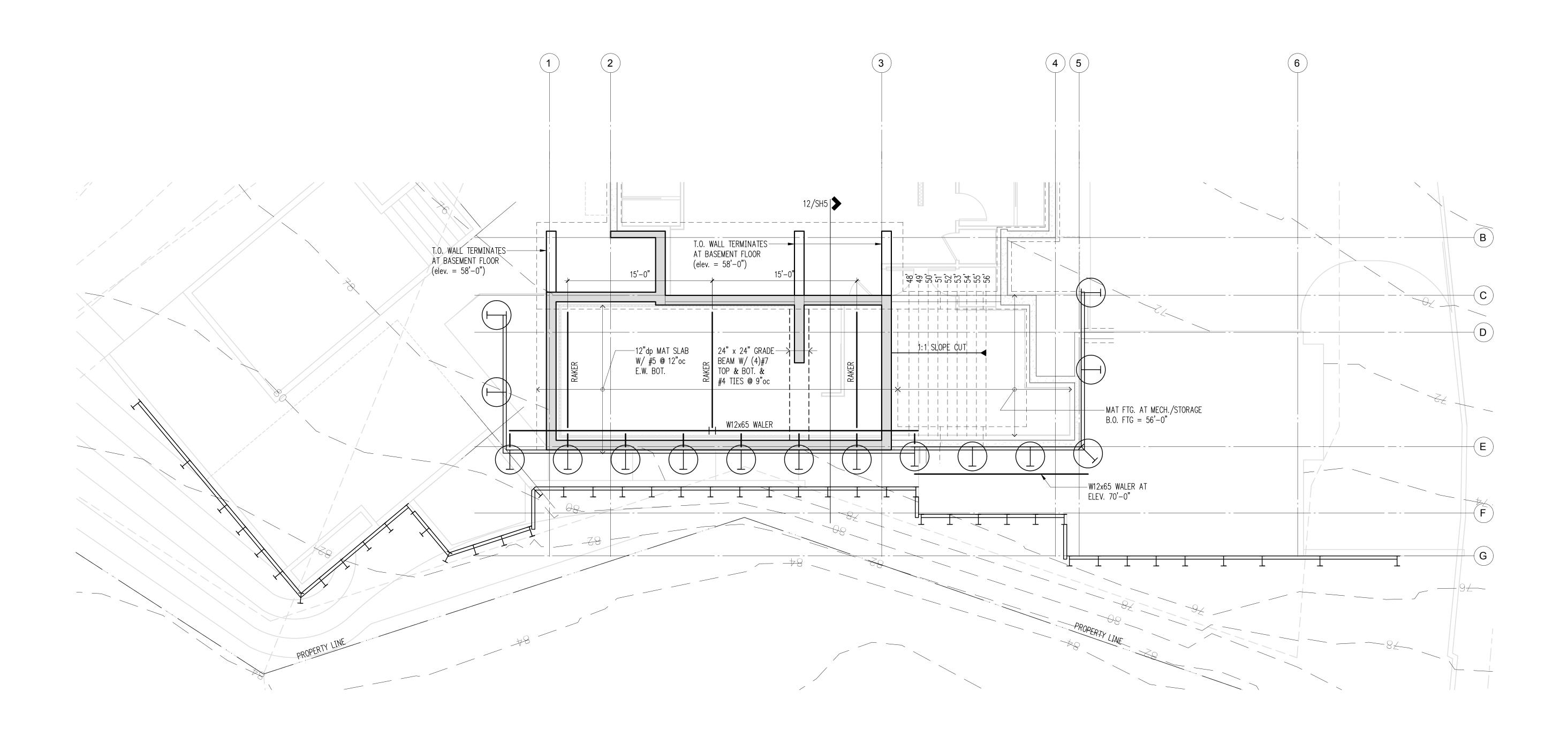
DATE:

December 17, 2018

PROJECT NO:

00101-2018-06
SHEET NO:

CLO



Plan Notes

- 1. OPEN CUT MAT SLAB ELEVATION AND MAINTAIN SLOPE CUT NORTH OF STAIRS
- 2. POUR MAT SLAB
- 3. POUR CONCRETE WALLS TO UNDERSIDE OF LOWER FLOOR SLAB
- 4. BACKFILL UP TO LOWER FLOOR SLAB
- 5. INSTALL MAT FOOTING AT MECH./STORAGE

Scale: 3/16" = 1'-0"



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Perla Residence

42xx Holly Lane Mercer Island, WA

ARCHITECT:
Stuart Silk

Stuart Silk Architects 2400 N. 45th St. Seattle, WA 98103

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SHEET TITLE:

Shoring Plan Sequence 2 of 3

3/16" = 1'-0" U.N.O.

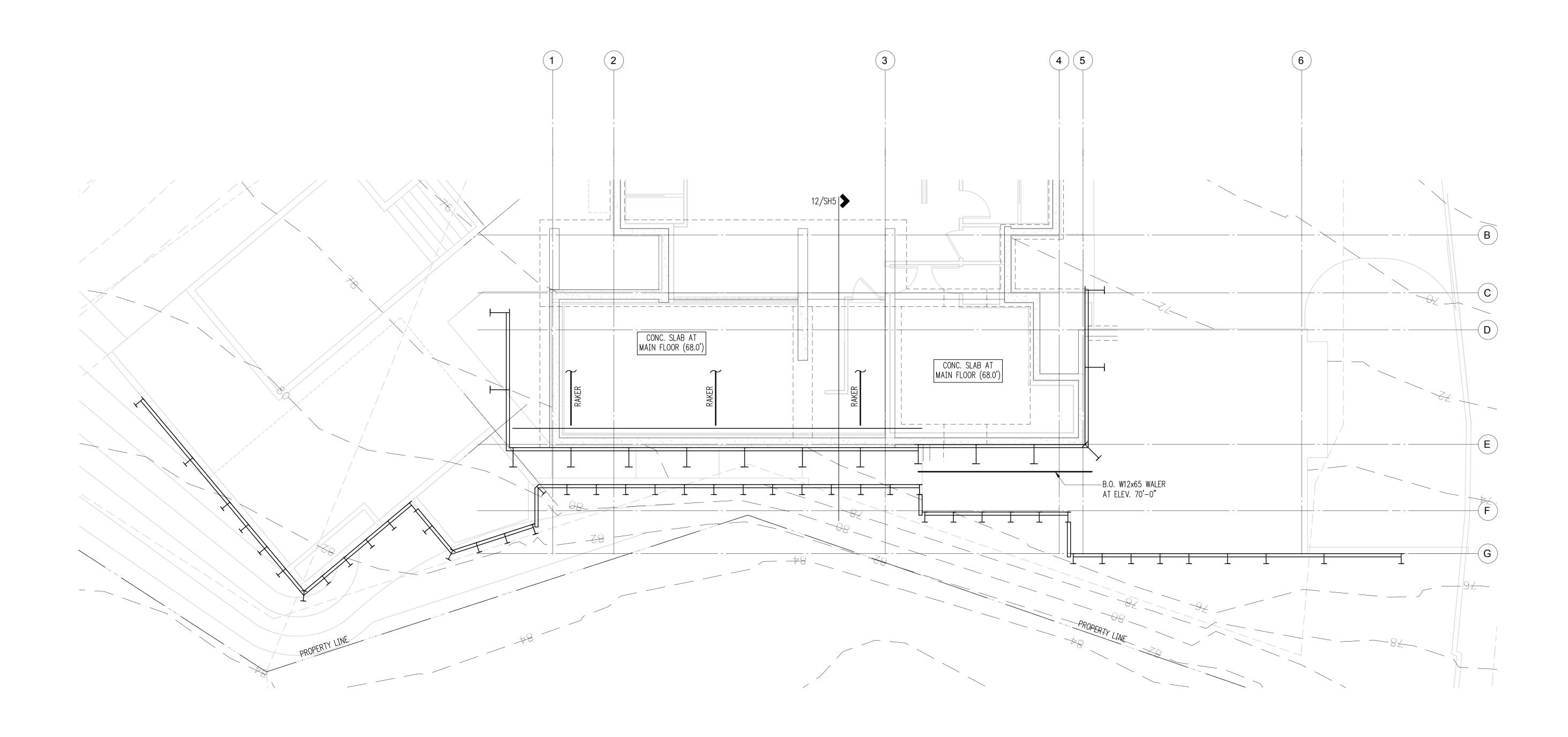
DATE:

December 17, 2018

PROJECT NO:

00101-2018-06
SHEET NO:

SH3



Plan Notes

- 1. POUR CONCRETE WALLS TO BOTTOM OF MAIN FLOOR SLAB
- 2. POUR MAIN FLOOR SLAB
- 3. REMOVE RAKERS & PATCH OPEN POCKETS
- 4. REMOVE PORTION OF WALER ADJACENT TO SLAB ON GRADE STORAGE
- 5. CUT PILES ADJACENT TO GARAGE & STORAGE TO BOTTOM OF FOOTING ELEVATION
- 6. INSTALL REMAINDER OF FOOTINGS





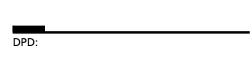
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ARCHITECT:

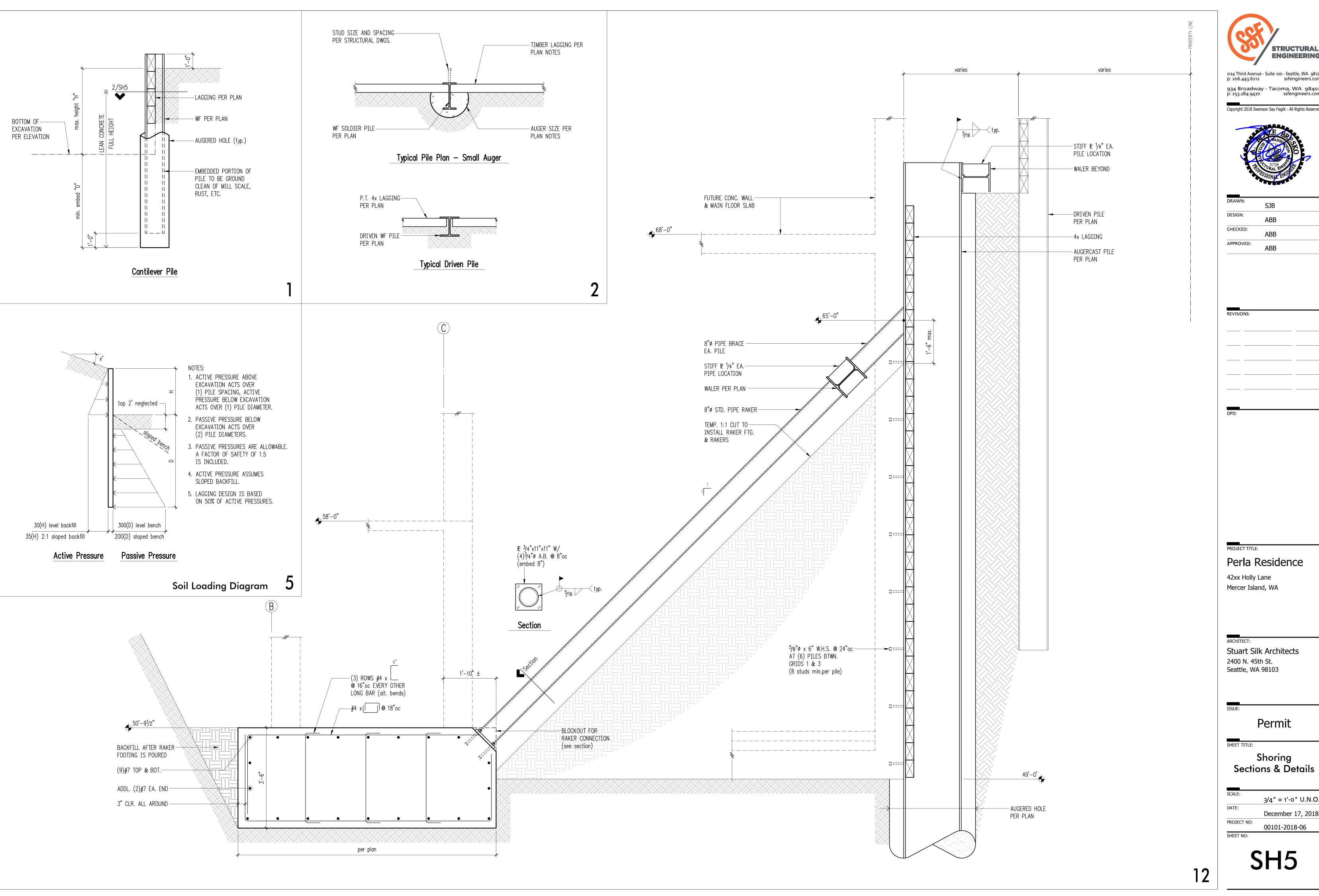
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Shoring Plan Sequence 3 of 3

3/16" = 1'-0" U.N.O. December 17, 2018

PROJECT NO: 00101-2018-06 SHEET NO:





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Perla Residence

Mercer Island, WA

Stuart Silk Architects

2400 N. 45th St. Seattle, WA 98103

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Shoring

3/4" = 1'-0" U.N.O. December 17, 2018

PROJECT NO: 00101-2018-06 SHEET NO:

GENERAL NOTES

- ALL WORK TO COMPLY WITH 2015 IRC WITH WASHINGTON AND CITY AMMENDMENTS.
- 2. ALL APPLICABLE CODES, ORDINANCES AND MINIMUM STRUCTURAL REQUIREMENTS TAKE PRECEDENCE OVER ALL DRAWINGS, NOTES AND SPECIFICATIONS.
- 3. DO NOT SCALE DRAWINGS; USE PRINTED DIMENSIONS ONLY. NOTIFY ARCHITECT OF ANY OMISSIONS OR DISCREPANCIES BEFORE PROCEEDING WITH WORK IN
- 4. CONTRACTOR MUST CONTACT ARCHITECT IMMEDIATELY FOR ANY DISCREPANCIES IN CONTRACT DOCUMENTS OR EXISTING CONDITIONS PRIOR TO PROCEEDING WITH
- 5. CONTRACTOR MUST CONTACT ARCHITECT IMMEDIATELY FOR ANY DISCREPANCIES BETWEEN CONTRACT DOCUMENTS AND APPLICABLE CODES PRIOR TO PROCEEDING
- 5. CONTRACTOR TO VERIFY ALL DIMENSIONS, GRADES AND EXISTING CONDITIONS BEFORE PROCEEDING WITH WORK.
- CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF/HERSELF WITH ALL ASPECTS OF THE WORK PRIOR TO CONTRACTING WITH THE OWNER TO PERFORM
- 3. CONTRACTOR SHALL VERIFY CONFORMANCE OF ACTUAL SOIL CONDITIONS WITH SOILS REPORT AND DESIGN ASSUMPTIONS.
- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS FOR THE WORK, EXCEPT FOR THE BUILDING PERMIT WHICH IS THE RESPONSIBILITY
- 0. GUARANTEE ON ALL MATERIALS AND WORKMANSHIP TO BE (1) YEAR FROM DATE OF COMPLETION UNLESS NOTED OTHERWISE IN CONTRACT.
- 1. REPETITIVE FEATURES MAY BE DRAWN ONLY ONCE, BUT SHALL BE PROVIDED AS IF DRAWN IN FULL. REPETITIVE NOTES MAY BE CALLED OUT ONLY ONCE AND INDICATED AS TYPICAL
- 12. DIMENSIONS ARE TO FACE OF STUD OR FACE OF CONCRETE OR CENTERLINE OF INTERIOR COLUMNS UNLESS NOTED OTHERWISE.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING MECHANICAL ELECTRICAL AND PLUMBING CONTRACTORS AND NOTIFYING THE ARCHITECT OF ANY DISCREPANCIES IN FRAMING PRIOR TO PROCEEDING WITH WORK.
- 14. THIS PROJECT TO BE DESIGN-BUILD IN THE AREAS OF MECHANICAL, ELECTRICAL AND PLUMBING.

JOB SITE SAFETY

- . THE ARCHITECT HAS NOT BEEN RETAINED OR COMPENSATED TO PROVIDE DESIGN AND/OR CONSTRUCTION REVIEW SERVICES RELATING TO THE CONTRACTOR'S SAFETY PRECAUTIONS.
- PERIODIC SITE VISITS PERFORMED BY THE ARCHITECT SHALL NOT BE CONSTRUED. AS SUPERVISION OF ACTUAL CONSTRUCTION SAFETY PRECAUTIONS.
- B. THE ARCHITECT IS NOT RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF WORK BY THE CONTRACTOR OR THE CONTRACTOR'S EMPLOYEES OR EMPLOYEES OF SUPPLIERS OR SUBCONTRACTORS, OR FOR ACCESS, VISITS, USE, WORK, TRAVEL OR OCCUPANCY BY ANY PERSON.

- . ALL EXCAVATION AND FILL SHALL BE STORED AND PROTECTED SUCH AS TO PREVENT RUN OFF OF MATERIAL TO ADJACENT PROPERTIES.
- FOOTING DRAIN TO BE SEPARATE FROM ROOF AND IMPERVIOUS AREA DRAINS.
- 3. DOWNSPOUT DRAIN TO BE 4" DIAMETER TIGHTLINE UNLESS NOTED OTHERWISE
- 4. FOOTING DRAIN TO BE 4" DIAMETER PERFORATED PIPE UNLESS NOTED OTHERWISE 5. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH REQUIRED SEPTIC AND/OR

EARTH WORK

- . EXTEND EXCAVATION DOWN TO UNDISTURBED SOIL OF THE SPECIFIED STRENGTH WITH A MINIMUM OF 18" BELOW LOWEST ADJACENT FINISH GRADE.
- 2. COMPACTED FILL TO BE WELL GRADED AND GRANULAR WITH NOT MORE THAN 5% PASSING A 200 SIEVE. PLACE IN 8" LOOSE LIFTS AND COMPACT TO 95% MODIFIED AASHO DENSITY AT OPTIMUM MOISTURE CONTENT.
- BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

MOISTURE PROTECTION

6. CAULK ALL OPENINGS THOROUGHLY.

STORM WATER DETENTION SYSTEMS.

- . PROVIDE PRESSURE TREATED PLATES BETWEEN CONCRETE AND FRAMING.
- 2. PROVIDE A MINIMUM OF 12" CLEAR BETWEEN WOOD GIRDERS AND EARTH.
- 3. PROVIDE A MINIMUM OF 18" CLEAR BETWEEN WOOD JOISTS AND EARTH.
- 4. PROVIDE A MINIMUM OF 8" CLEAR BETWEEN WOOD POSTS AND EARTH.
- 5. PROVIDE A MINIMUM OF 1" CLEAR BETWEEN WOOD POSTS AND CONCRETE FLOORS
- 7. FLASH ALL OPENINGS WITH A MINIMUM OF 26 GAUGE GALVANIZED STEEL TO
- ACCEPTABLE INDUSTRY STANDARDS.
- 8. METAL COPING AT PARAPET TO BE A MINIMUM OF 22 GAUGE GALVANIZED STEEL.

SAFETY AND SECURITY

- . DEADBOLTS WITH A MINIMUM THROW OF 1/2" AND A VIEWPORT ARE REQUIRED AT ALL EXTERIOR DOORS.
- 2. DEADBOLTS OR APPROVED LOCKING DEVICES ARE REQUIRED ON ALL SLIDING
- 3. ALL LOCKS SHALL BE OPENABLE WITHOUT ANY SPECIAL KNOWLEDGE OR EFFORT.
- . WINDOWS WITHIN 10'-0" OF FINISHED GRADE SHALL BE PROVIDED WITH LATCHING
- 5. STAIRWAYS TO MEET THE FOLLOWING REQUIREMENTS:
- (OCCUPANCIES LESS THAN 10) STAIR WIDTH 36" (Minimum) TREAD WIDTH 10" (Minimum), 6" Minimum for Winders RISER HEIGHT 7 3/4" (Maximum) HEADROOM 80" (Minimum)
- HANDRAIL HEIGHT 34" to 38" above nosing HANDRAIL GRASP 1-1/4"(Min) to 2" (Max) 6. HANDRAIL INTERMEDIATE MEMBERS SHALL BE CONFIGURED AS TO PROHIBIT
- PASSING A 4" DIAMETER SPHERE THROUGH ANY OPENING. '. GUARDRAILS SHALL BE A MINIMUM OF 36" ABOVE FINISH FLOOR.
- B. GUARDRAIL INTERMEDIATE MEMBERS SHALL BE CONFIGURED AS TO PROHIBIT PASSING A 4" DIAMETER SPHERE THROUGH ANY OPENING.

ENERGY NOTES

- 1. ALL WORK SHALL COMPLY WITH THE RESIDENTIAL PROVISIONS OF THE 2015 WASHINGTON STATE ENERGY CODE (WSEC).
- 2. HEATING UNIT(S) SHALL MAINTAIN 70 DEGREES FAHRENHEIT AT 36" ABOVE FLOOR WHEN OUTSIDE TEMPERATURE IS 24 DEGREES FAHRENHEIT, OR CURRENT REQUIREMENTS.
- 3. AT LEAST ONE PROGRAMMABLE THERMOSTAT IS REQUIRED FOR THE REGULATION OF TEMPERATURE. PROVIDE NIGHT SETBACK THERMOSTAT.
- 4. CAULK ALL JOINTS AROUND EXTERIOR OPENINGS AND ALL JOINTS IN SIDING AND FLASHING WHERE INFILTRATION MAY BE POSSIBLE.
- 5. SEAL ALL TEARS AND JOINTS IN INSULATION WITH APPROVED TAPE.
- 6. SHOWER FLOW CONTROL SHALL BE LIMITED TO 2.5 GALLONS PER MINUTE, OR CURRENT REQUIREMENTS.
- 7. ALL CRAWLSPACES SHALL HAVE A MINIMUM OF 6 MIL BLACK VISQUEEN GROUND
- COVER EXTENDED OVER THE TOP OF THE FOOTINGS. LAP ALL JOINTS 12" MINIMUM. 8. FIREPLACE(S) SHALL HAVE TIGHT FITTING DAMPERS AND SHALL BE PROVIDED WITH
- A MINIMUM OF 6 SQUARE INCHES OF OUTSIDE COMBUSTIBLE AIR SUPPLY. 9. METAL DUCTS OUTSIDE THE CONDITIONED SPACE SHALL BE INSULATED TO R-8
- LOCATED ON THE EXTERIOR OF THE BUILDING. 10. HOT WATER PIPES SHALL BE WRAPPED WITH INSULATION (R-4 MINIMUM) PER THE

MINIMUM PER THE 2012 SEC, SECTION R403.2.1. PROVIDE WEATHER BARRIER IF

- 2015 WSEC, SECTION R403.4.2.
- 11. WATER HEATER(S) SHALL MEET 1987 NATIONAL APPLIANCE ENERGY CONSERVATION ACT.
- 12. MINIMUM INSULATION VALUES UNLESS NOTED OTHERWISE FENESTRATION U-FACTOR SKYLIGHT U-FACTOR **CEILING R-VALUE VAULTED CEILING**
 - WOOD FRAMED WALL R-VALUE 21 PLUS R-4 FLOOR R-38 MASS WALL R-VALUE
- FLOOR R-VALUE 21 INT. PLUS R-5 CI BELOW GRADE WALL R-VALUE SLAB R-VALUE
- 13. VAPOR RETARDER SHALL BE INSTALLED ON THE CONDITIONED ROOM SIDE OF THE INSULATION.
- 14. BLOWER DOOR TESTING: AIR LEAKAGE SHALL NOT EXCEED 4 AIR CHANGES/HOUR, AND SHALL BE TESTED PER THE 2015 WSEC, SECTION R402.4.1.2. PROVIDE A WRITTEN REPORT OF THE TEST RESULTS, SIGNED BY THE TESTING PARTY, TO THE BUILDING INSPECTOR, PRIOR TO APPROVED FINAL INSPECTION.
- 15. 75% MIN. OF LUMINAIRES TO BE HIGH EFFICACY LUMINARIES PER THE 2015 WSEC, SECTION R404.1. ALL EXTERIOR LIGHTING SHALL BE HIGH EFFICACY LUMINARIES.
- 16. EXISTING CEILING, WALL OR FLOOR CAVITIES EXPOSED DURING CONSTRUCTION FOUND UNINSULATED, OR WITH DAMAGED INSULATION, SHALL BE FILLED WITH R15 INSULATION AT 2X4 FRAMING AND R21 INSULATION AT 2X6 FRAMING PER SEC R101.4.3- EXCEPTION 3
- 17. DUCT LEAKAGE TEST RESULTS SHALL BE PROVIDED TO THE BUILDING INSPECTOR AND HOMEOWNER PRIOR TO AN APPROVED FINAL INSPECTION.

VENTILATION NOTES

- 1. VENTILATION AND EXHAUST SYSTEMS TO COMPLY WITH THE REQUIREMENTS OF CHAPTER 15 OF THE 2015 WASHINGTON RESIDENTIAL CODE (WRC).
- 2. SOURCE SPECIFIC FANS SHALL BE LOCATED IN ALL KITCHENS, BATHROOMS, WATER CLOSETS, AND LAUNDRY FACILITIES IN COMPLIANCE WITH THE 2015 WRC, SECTION M1507.4 VENTILATION CAPACITY SHALL BE AT LEAST 50 C.F.M. FOR BATHROOMS, WATER CLOSETS, AND LAUNDRY ROOMS (Intermittent use) AND 100 C.F.M. FOR KITCHENS (INTERMITTENT USE). RANGE HOODS SHALL BE EXHAUSTED IN ACCORDANCE WITH SECTION M1503.
- 3. CLOTHES DRYERS SHALL BE EXHAUSTED IN ACCORDANCE WITH THE 2015 WRC, SECTION M1502.3. DUCT LENGTH SHALL NOT EXCEED 35 FEET, PLUS THE LENGTH OF THE TRANSITION DUCT, LESS THE EQUIVALENT LENGTH OF FITTINGS PER TABLE
- 4. INTERMITTENT WHOLE HOUSE VENTILATION SYSTEM SHALL COMPLY WITH THE 2015 WRC, SECTION M1507.3. INTERMITTENT VENTILATION SHALL OCCUR AT LEAST 25% OF EACH 4-HOUR SEGMENT. VENTILATION RATE SHALL BE NOT LESS THAN AS SPECIFIED BY TABLE M1507.3.3(1), MULTIPLIED BY THE RATE FACTOR INDICATED ON TABLE M1507.3.3(2). FAN SHALL HAVE A SONE RATING OF 1.0 OR LESS MEASURED AT 0.1 INCHES WATER GAUGE. OUTDOOR AIR SHALL BE PROVIDED TO ALL HABITABLE ROOMS.
- 5. EXHAUST DUCT WORK SHALL CONFORM TO THE 2015 WRC, CHAPTER 16. EXHAUST DUCTING TERMINATIONS SHALL BE OUTSIDE THE BUILDING, SHALL BE LOCATED IN COMPLIANCE WITH SECTION M1506.2, AND SHALL BE EQUIPPED WITH BACKDRAFT
- 6. SUPPLY DUCTS WITHIN CONDITIONED SPACE SHALL BE INSULATED TO A MINIMUM
- 7. PROVIDE A MINIMUM NET AREA OF 1 SQUARE FOOT OF VENTILATION AREA FOR EACH 300 SQUARE FEET OF CRAWLSPACE AREA. PLACE OPENINGS AS NEAR AS TO CORNERS AS PRACTICABLE AND SHALL PROVIDE CROSS VENTILATION.
- 8. ALL CRAWLSPACE VENTS SHALL BE PROVIDED WITH 1/4" NON-CORROSIVE WIRE
- 9. ROVIDE A MINIMUM NET AREA OF 1 SQUARE FOOT OF VENTILATION AREA FOR EVERY 150 SQUARE FEET OF ATTIC AREA. PROVIDE A CONTINUOUS 1 INCH MINIMUM AIR SPACE ABOVE INSULATION FOR CROSS VENTILATION.
- 10. ALL ATTIC VENTS SHALL BE PROVIDED WITH 1/4" NON-CORROSIVE WIRE MESH OR APPROVED SOFFIT VENTS

GLAZING NOTES

- 1. ALL GLAZING TO BE (2) PANE INSULATED GLASS OR BETTER UNLESS NOTED OTHERWISE.
- 2. SLIDING DOORS TO BE SAFETY GLASS, LAMINATED GLASS, OR TEMPERED GLASS.
- 3. SHOWER DOORS AND ENCLOSURES TO BE SAFETY GLASS, LAMINATED GLASS, OR
- 4. REFER TO WINDOW SCHEDULE FOR ADDITIONAL REQUIREMENTS.
- 5. PROVIDE NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS IN ACCORDANCE WITH SECTION 1205.2 OR SHALL BE PROVIDED WITH ARTIFICIAL LIGHT IN ACCORDANCE WITH SECTION 1205.3.
- 6. ALL FENESTRATION TO BE NFRC CERTIFIED.

BATHROOM NOTES

- 1. WALL COVERINGS IN SHOWERS TO BE MOISTURE RESISTANT MATERIAL TO 72" (Minimum) ABOVE DRAIN INLET.
- 2. TOILET TO HAVE CLEAR SPACE OF 30" WIDE (Minimum) AND 24" CLEAR (Minimum) IN FRONT OF STOOL.

FIRE PROTECTION

A 13R SPRINKLER SYSTEM AND HOUSEHOLD MONITORED FIRE ALARM WILL BE INSTALLED PER CURRENT MERCER ISLAND MUNICIPAL CODE TITLE 17 REQUIREMENTS AND STANDARDS. THE FOLLOWING SIZING WILL BE INSTALLED TO SUPPORT THE 13R

WATER METER: 1.5' SERVICE LINE (MAIN TO METER): 2" SUPPLY LINE (METER TO HOUSE): 2"

- 1. THE GARAGE SHALL BE SEPARATED FROM TEH RESIDENCE AND ITS ATTIC BY NOT LESS THAN THE FOLLOWING: A. 5/8" GYPSUM WALLBOARD REQUIRED AT ALL WALLS SEPARATING GARAGE AND
- DWELLING. NOT LESS THAN (1) LAYERS OF 5/8" TYPE "X" GYPSUM WALLBOARD AT B. 1-3/8" MINIMUM THICK, SOLID CORE, OR HONEYCOMB CORE STEEL DOOR, OR A 20-MIN. FIRE-RATED DOOR.
- C. DUCTS PIERCING FIRE SEPARATION TO BE A MINIMUM OF 26 GAUGE, AND HAVE NO D. OPENINGS INTO THE GROUP "U" OCCUPANCY.
- 2. FIRE SEPARATION TO BE HORIZONTAL AND VERTICAL INCLUDING ALL STRUCTURAL MEMBERS SUPPORTING THE FIRE SEPARATION.
- 3. ALL ENCLOSED USEABLE SPACE UNDER STAIRWAYS SHALL BE (1) LAYER OF 5/8" TYPE 'X' GYPSUM WALLBOARD ON ENCLOSED SIDE.
- 4. SMOKE ALARMS SHALL MEET 2012 SEATTLE FIRE CODE 907.2.11.2. SMOKE ALARMS SHALL BE HARDWIRED, PROVIDED A BATTERY BACKUP, AND INTERCONNECTED WITHIN EACH DWELLING UNIT. IN ORDER TO REDUCE THE CHANCES OF NUISANCE ACTIVATIONS, SMOKE ALARMS SHOULD NOT BE LOCATED NEAR KITCHEN
- 5. SMOKE DETECTORS SHALL BE AUDIBLE IN ALL SLEEPING ROOMS, AND OUTSIDE EACH SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
- 6. A MINIMUM OF (1) SMOKE DETECTOR SHALL BE INSTALLED ON EACH FLOOR INCLUDING THE GARAGE.
- 7. FIRESTOPPING AND DRAFTSTOPPING SHALL CONSIST OF 2" NOMINAL LUMBER.
- 8. FIRESTOPPING AND DRAFTSTOPPING IS REQUIRED IN THE FOLLOWING PLACES: A. CONCEALED SPACES AT ALL FLOOR AND CEILING LEVELS AND AT 10 FOOT
- INTERVALS ALONG THE LENGTH OF THE WALL. B. INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES
- C. CONCEALED SPACES BETWEEN STAIR STRINGERS AT TOP AND BOTTOM OF THE
- 9. ROCK WOOL AROUND ALL OPENINGS FOR VENTS, PIPES, DUCTS, ETC.
- 10. EMERGENCY EGRESS WINDOWS SHALL MEET THE FOLLOWING REQUIREMENTS: CLEAR OPEN WIDTH 20" (Minimum) CLEAR OPEN HEIGHT 24" (Minimum) CLEAR OPEN AREA 5.7 s.f. (Minimum)
- 11. PREFABRICATED FIREPLACES SHALL BEAR U.L. OR I.C.B.O. SEAL OF APPROVAL AND SHALL BE INSTALLED PER MANUFACTURER INSTRUCTIONS.

44" (Maximum)

- 12. APPLIANCE GENERATING A GLOW, A SPARK, OR FLAME MAY BE INSTALLED IN THE GARAGE PROVIDED THE HEATING ELEMENTS AND SWITCHES ARE 18" ABOVE THE
- 13. GARAGE FLOOR TO BE CONSTRUCTED OF NON COMBUSTIBLE MATERIAL
- 14. CARBON MONOXIDE ALARMS SHALL MEET 2012 SEATTLE FIRE CODE 908.7. USE OF COMBINATION SMOKE ALARM/CARBON MONOXIDE ALARM DEVICES IS ACCEPTABLE.

SHOP DRAWINGS

SILL HEIGHT

- SHOP DRAWINGS ARE REVIEWED FOR DESIGN INTENT ONLY.
- 2. THE CONTRACTOR IS TO REVIEW AND APPROVE ALL SHOP DRAWINGS PRIOR TO SUBMITTING TO ARCHITECT OR STRUCTURAL ENGINEER.
- 3. SEE STRUCTURAL NOTES AND PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND CLARIFICATIONS REGARDING SHOP DRAWINGS.

ANCHOR BOLT JST JOIST JOINT ABOVE AIR CONDITIONING ACOUSTICAL TILE KD KILN DRIED ADDITIONAL **LAMINATED ADJUSTABLE** ABOVE FINISH FLOOR LB POUNDS LINEAL FOO AGGREGATE LEFT HAND ALTERNATE ALUMINUM LIVE LOAD **APPROXIMATE** LIGHT ARCHITECT/ARCHITECTURAL LTG LIGHTING **ASPHALT MATERIAL** BOARD MAX MAXIMUM MACHINE BOLT **BFLOW** MEDICINE CABINET BUILDING **MECH** BLOCKING MECHANICAL **MEMBRANE** BY OTHERS MFR MANUFACTURER BOTTOM OF FOOTING MINIMUM MIN BOTTOM MIRROR **BOTTOM OF WALL** MISC MISCELLANEOUS MTL **BEARING** METAL **BASEMENT** NORTH BETWEEN BUILT UP ROOFING NOT APPLICABLE NOT IN CONTRACT CABINET NUMBER **CAPACITY** NOMINAL NOM CABLE TELEVISION NTS NOT TO SCALE CATCH BASIN **CAST IN PLACE** OBSC CONTROL JOINT OBSCURE **CENTER LINE** OC ON CENTER CEILING OD **OUTSIDE DIAMETER** OVERFLOW DRAIN CAULKING OD OVERHEAD CONCRETE MASONRY UNIT OPNG OPENING OPPOSITE CENTER **CLEAN OUT** COLUMN PBD PARTICLE BOARD CONCRETE PERF PERFORATED CONSTRUCTION PERP PERPENDICULAR PH PAPER HOLDER CONTINUOUS CONTRACTOR PLATE PROPERTY LINE CARPET CONTINUOUS RIDGE VENT PLAM PLASTIC LAMINATE **PLYWOOD** CASEMENT CERAMIC TILI POLISHED CUBIC YARD POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH PENNY PSI PRESSURE TREATED DEEP PTD PAINTED DRYER DOUBLE DIAMETER **QUARRY TILE** DIAGONAL QTY QUANTITY DIMENSION RADIUS DOWN DOOR RISER DOWNSPOUT (EXTERIOR) RD **ROOF DRAIN** DETAIL REFRIGERATOR DISHWASHER **REINF** REINFORCING DRAWING REQD REQUIRED DRAWER RIGHT HAND **ROOF JACK/VENT** ROOM EACH RO **ROUGH OPENING EXPANSION JOINT** RIDGE VENT ELEVATION ELECTRIC **ELEVATION** SETBACK SAND BLAST FNCLOSURE **ENGINEER** SOLID CORE **EQUAL** SCHED SCHEDULE EQUIPMEN SQUARE FOO **EACH WAY** SHEET METAL **EXISTING** SHEATHING SHTHG

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WATERPROOF

WOOD SCREW

WATER RESISTANT

WELDED WIRE MESH

WOOD

WEIGHT

YARD

VERTICAL GRAIN

TONGUE AND GROOVE

UNIFORM BUILDING CODE

VINYL COMPOSITION TILE

VENTED TO EXTERIOR

UNLESS NOTED OTHERWISE

STEEL

SPECIFICATIONS

STAINLESS STEEL

SPECS

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EXTERIOR

FLAT BAR

FLASHING

FINISH

FLOOR

FLOOR DRAIN

FINISH FLOOR

FLUORESCENT

FOUNDATION

FACE OF FINISH

FACE OF STUD

FRAMING

FOOTING

GAUGE

GLASS

GRADE

GYPSUM

HEIGHT

HOSE BIBB

HEADER

HOLLOW CORE

HEAVY DUTY

HARDWOOD

HARDWARE

HORIZONTAI

INSULATION

INTERIOR

HOT WATER TANK

INSIDE DIAMETER

INTERIOR DOWNSPOUT

HANGER

HOUR

HEIGHT

GALLON

GALVANIZED

GROUND FAULT INTERRUPTER

GLU-LAMINATED BEAM

GYPSUM WALL BOARD

FOOT/FEET

FACE OF CONCRETE

EW

EXT

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FIN

FLASH

FLUOF

FLR

FND

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INSUL

GALV

FRMG

CONTR

CJ

ADDT

DESCRIPTION REMARKS SYMBOL SEE WINDOW SCHEDULE WINDOW SYMBOL DOOR SYMBOL SEE DOOR SCHEDULE 202 ROOM NUMBER (5)— — — — GRID LINE T .O. WALL 27' - 4" **VERTICAL DATUM POINT** MATCHLINE DWG / SHEET DWG SECTION CUT SEE SECTION SHEETS SHEET REFERENCE DWG# INTERIOR / EXTERIOR SHEET SEE ELEVATION ELEVATION REFERENCE | SHEETS DWG# SEE DETAIL SHEETS DETAIL REFERENCE SHEET SEE A-1.1 GENERAL (sA)NOTES, FIRE PROTECTION SECTION SMOKE ALARM AND SEE A-1.1 GENERAL SA/CC CARBON MONOXIDE NOTES, FIRE DETECTOR PROTECTION SECTION EXHAUST FAN EXHAUST VENTS MUST TERMINATE AT THE **EXTERIOR OF THE** STRUCTURE WITH 90 CFM **CLEARANCES PER WAC** M1506.2 EXTERIOR WALLS 2X6 STUDS PER STRUCTURAL INTERIOR WALLS 2X4 STUDS UNO STAGGERED 2X STUDS SOUND WALL ON A 2X6 SILL PLATE W/ ROCK WOOL SOUND BATTS FOUNDATION WALL • CONC. WALL PER STRUCT. 1/2" AIR SPACE 2X FRAMING MATERIAL SYMBOL LEGEND SYMBOL DESCRIPTION SYMBOL DESCRIPTION EARTH / COMPACT FILL FINISH WOOD

DRAWING LEGEND

GRAVEL / POROUS FILL RIGID INSULATION CONCRETE BATT INSULATION CMU / BRICK / STONE PLYWOOD VENEER GYPSUM WALL BOARD / **ROUGH WOOD FRAMING** STEEL OR OTHER METALS WOOD BLOCKING NATURAL STONE

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CHECKED SHEET ISSUE DATE 02/01/2019 DRAWING SETS 12/18/18 PRE-APP MEETING

02/01/19 PERMIT SUBMITTAL

DESIGN

DRAWN

REVISIONS # DATE DESCRIPTION

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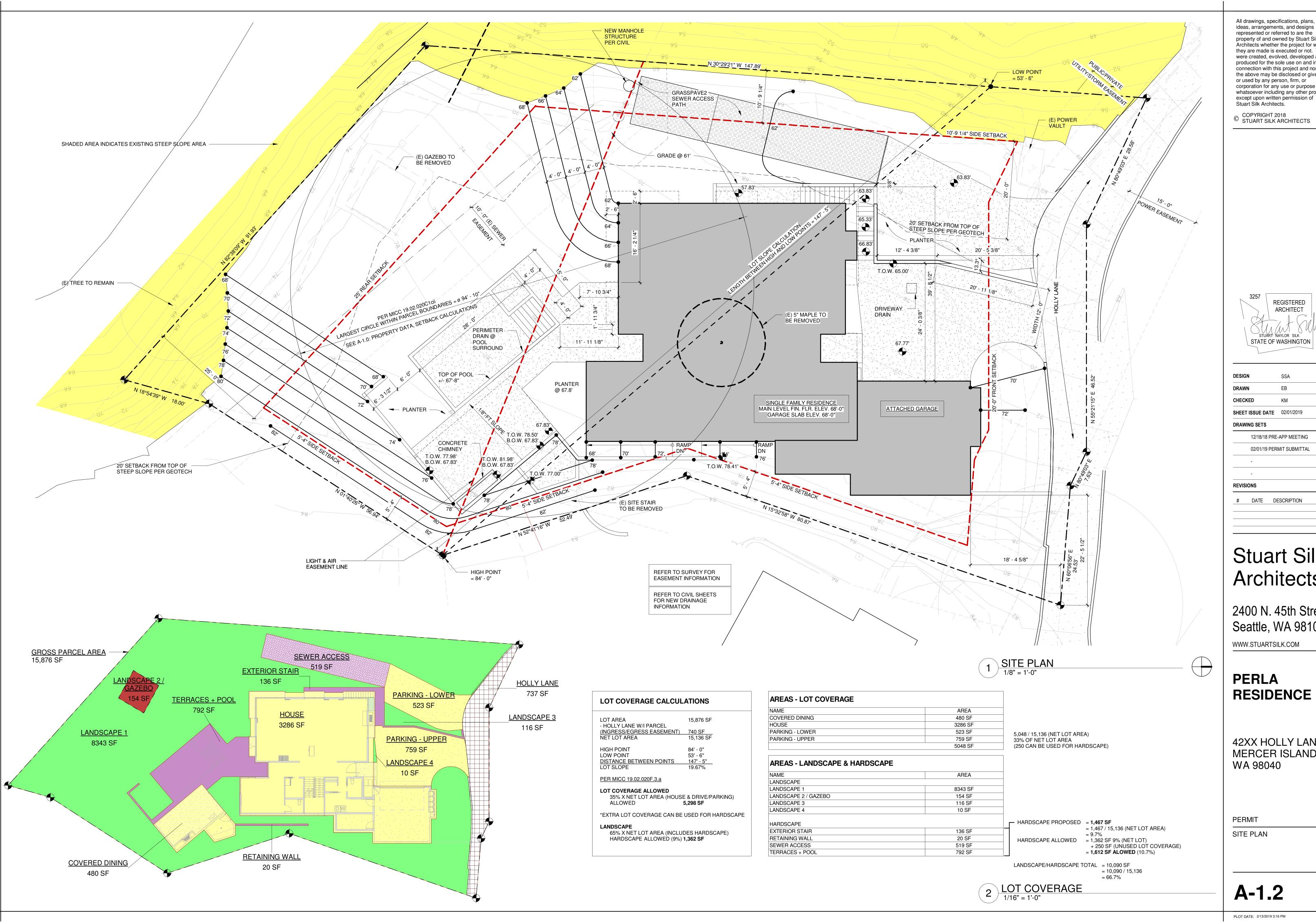
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GENERAL NOTES

A-1.1



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SHEET ISSUE DATE 02/01/2019 12/18/18 PRE-APP MEETING 02/01/19 PERMIT SUBMITTAL

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2015 WSEC & IRC Ventilation Worksheet (Effective July 1, 2016)

INFORMATION IN THESE WORKSHEETS MUST BE INCLUDED IN THE CONSTRUCTION DOCUMENTS This set of worksheets has been developed to assist permit applicants with documenting compliance with the 2015 Washington State Energy Code. The following worksheets provide much of the required documentation for plan review. The details, systems, and ratings noted here must also be shown on the drawings.

PRESCRIPTIVE ENERGY CODE COMPLIANCE FOR CLIMATE ZONE MARINE 4

Component	Fenes	stration 1	Ceiling	Vaulted	Wood Framed	Mass Wall (Above	Below-Grade Wall ^{2,3}	Framed	Slab R-Value &
Component	Vertical	Overhead	w/ Attic	Ceiling	Wall (Int.) ²	grade)	Delow-Grade wall	Floor	Depth
Prescriptive	U. 0.30	U. 0.50	R-49	D 20 min	R-21 min.	R-21 min.	R- 10/15/21 Int. + TB	R-30 min.	R-10 min.
Value	max.	max.	min.	R-38 min.	K-Z1 MIN.	K-Z1 MIN.	K- 10/15/21 INL. + 1B	R-30 min.	2'
							urs alazed doors alazed bla		ation

Fenestration is defined as skylights, roof windows, vertical windows (fixed or moveable), opaque doors, glazed doors, glazed block and combination opaque/glazed doors. Fenestration includes products with glass and non-glass glazing materials.

 2 Int. (intermediate framing) denotes standard framing $16^{\prime\prime}$ o.c. with headers insulated with a minimum R-10 insulation.

³ 10/15/21 +TB" means R-10 continuous insulation on the exterior of the wall, or R-15 on the continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "TB" means thermal break between floor slab and basement wall.

Whole House Ventilation (Prescriptive)

Please check the appropriate box to describe which of the four prescriptive Whole House Ventilation Systems you will be using AND fill in the required whole house ventilation rate in CFM's. (See "2015 Residential Whole House Ventilation Rate" Handout.) A complete system required by one of the sections noted below must be specified on the drawings.

	WHOLE HOUSE VENTILATION METHOD	Whole House Ventilation Rate
	Intermittent Whole House Ventilation Using Exhaust Fans & Fresh Air Inlets. (IRC M1507.3.4)	
~	Intermittent Whole House Ventilation Integrated with a Forced Air System. (IRC M1507.3.5)	135 CFM
	Intermittent Whole House Ventilation using a Supply Fan. (IRC M1507.3.6)	
	Intermittent Whole House Ventilation Using a Heat Recovery Ventilation System (IRC M1507.3.7)	

Source Specific Exhaust Ventilation & Fan Efficiency

Required in each kitchen, bathroom, water closet compartment, laundry room, indoor swimming pool, spa and other rooms where water vapor or cooking odor is produced. (IRC M 1507.4) Fan efficiency from WAC 51-11R - Table R403.6.1. Kitchen Hoods greater

than 400 cfm require makeup air per IRC M1503.4									
Minimu	ım Source Specific	Ventilation Capac	city Requirements						
	Bathrooms –	Utility Rooms	Kitchens	In-line fan					
Intermittently operating	50 cfr	m min	100 cfm min						
Continuous operation	20 cfr	n min	25 cfm min						
Minimum Efficacy (cfm/watt)	1.4 cfm/watt if	2.8 cfm/watt if	2.8 cfm/watt	2.8 cfm/watt					

Energy Efficiency Credits

Each dwelling unit shall comply with sufficient options from WSEC Table R406.2 so as to achieve the following minimum number of credits as described on the reverse side of this page.

Small Dwelling Unit: 1.5 credits (Dwelling units less than 1500 SF in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building that are greater than 500 SF of heated floor area, but less than 1500 SF. TOTAL SQUARE FEET OF FENESTRATION: ____ (doors, windows, skylights)

Medium Dwelling Unit: 3.5 credits (All dwelling units not included in #1 or #3. Exception: Dwelling units serving R-2 occupancies shall require 2.5 credits. Large Dwelling Unit: 4.5 credits (Dwelling Units exceeding 5000 SF of conditioned floor area. Additions less than 500 SF: 0.5 credits

S:\DSG\FORMS\2017\Building\2015_WSEC_IRC_Ventilation.pdf

2015 WSCE – Table R406.2 – circle the options that you will be using for this project

PTION	DESCRIPTION	CREDI
	EFFICIENT BUILDING ENVELOPE 1a:	
	Vertical fenestration U = 0.28	
1a	Floor R-38	0.5
$\overline{}$	Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab.	0.5
	<u>OR</u> Compliance based on Section R402.1.4: Reduce the Total UA by 5%.	
	EFFICIENT BUILDING ENVELOPE 1b:	
	Vertical fenestration U = 0.25	
	Wall R-21 plus R-4 Floor R-38	
1b	Basement wall R-21 int plus R-5 ci	1.0
	Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab.	
ш	OR Compliance based on Section R402.1.4: Reduce the Total UA by 15%.	
	EFFICIENT BUILDING ENVELOPE 1c:	
	Prescriptive compliance is based on Table R402.1.1 with the following modifications: Vertical fenestration U = 0.22	
	Ceiling and single-rafter or joist-vaulted R-49 advanced Wood frame wall R-21 int plus R-12 ci	
1c	Floor R-38	2.
	Basement wall R-21 int plus R-12 ci	
	Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab	
	OR Compliance based on Section R402.1.4: Reduce the Total UA by 30%.	
	EFFICIENT BUILDING ENVELOPE 1d:	i
1.4	Prescriptive compliance is based on Table R402.1.1 with the following modifications: Vertical fenestration U = 0.24. Projects using this	0.
1d	option may not use Option 1a, 1b or 1c.	J 0.
Ш		₩
	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2a:	1
	Compliance based on R402.4.1.2: Reduce the tested air leakage to 3.0 air changes per hour maximum	1
	AND All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code shall be met	
2a	with a high efficiency fan (maximum 0.35 watts/cfm), not interlocked with the furnace fan. Ventilation systems using a furnace including	0.
	an ECM motor are allowed, provided that they are controlled to operate at low speed in ventilation only mode. To qualify to claim this credit, the building permit drawings shall specify theoption being selected and shall specify the maximum	
ш	tested building air leakage and shall show the qualifying ventilation system.	
		<u> </u>
	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2b:	
	Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 2.0air changes per hour maximum	
2b	AND All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code shall be met with	1.
	a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.70.	
	To qualify to claim this credit, the building permit drawings shall specify theoption being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.	
		╂
	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2c:	
	Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 1.5air changes per hour maximum.	
2c	AND All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code shall be met	1.
	with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.85.	
Ш	To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.	
	, , ,	
	HIGH EFFICIENCY HVAC EQUIPMENT 3a:	
	Gas, propane or oil-fired furnace with minimum AFUE of 94%, or Gas, propane or oiled-fired boiler with minimum AFUE of 92%.	
2-	Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e.,	1
3a	two furnaces) both must meet the standard to receive the credit.	1 1
	To qualify to claim this credit, the building permit drawings shall specify theoption being selected and shall specify the heating	
	equipment type and the minimum equipment efficiency.	
	HIGH EFFICIENCY HVAC EQUIPMENT 3b:	t
	Air-source heat pump with minimum HSPF of 9.0. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d.	1
3b	When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit.	1.
30	To qualify to claim this credit, the building permit drawings shall specify theoption being selected and shall specify the heating	1 1
	equipment type and the minimum equipment efficiency.	1
		\vdash
	HIGH EFFICIENCY HVAC EQUIPMENT 3c:	1
	Closed-loop ground source heat pump; with a minimum COP of 3.3	1
2.	OR Open loop water source heat pump with a maximum pumping hydraulic head of 150 feet and minimum COP of 3.6. Projects may	,
3c	only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit.	1.
	To qualify to claim this credit, the building permit drawings shall specify theoption being selected and shall specify the heating	1
	equipment type and the minimum equipment efficiency.	1
		\vdash
		1
	HIGH EFFICIENCY HVAC EQUIPMENT 3d:	
	Ductless Split System Heat Pumps, Zonal Control: In homes where the primary space heating system is zonal electric heating, a ductless	
	Ductless Split System Heat Pumps, Zonal Control: In homes where the primary space heating system is zonal electric heating, a ductless heat pump system shall be installed and provide heating to the largest zone of the housing unit. Projects may only include credit from	
3d	Ductless Split System Heat Pumps, Zonal Control: In homes where the primary space heating system is zonal electric heating, a ductless heat pump system shall be installed and provide heating to the largest zone of the housing unit. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the	1.
3d	Ductless Split System Heat Pumps, Zonal Control: In homes where the primary space heating system is zonal electric heating, a ductless heat pump system shall be installed and provide heating to the largest zone of the housing unit. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit.	1.
3d	Ductless Split System Heat Pumps, Zonal Control: In homes where the primary space heating system is zonal electric heating, a ductless heat pump system shall be installed and provide heating to the largest zone of the housing unit. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the	1.

Fenestration Schedule

Please check the applicable boxes and complete the information below

Weighted Average: Using the Prescriptive Method, all glazing must have an "area weighted average" U-Factor of 0.30. This means that some windows can have a higher U-factor than 0.30 and some can have a lower U-factor than 0.30, as long as the area weighted average is U-0.30 or lower you may need to complete this form to document glazing compliance when applying for your

Dwelling units less than 1500 SF in conditioned floor area: If using the option for new dwellings less than 1500 SF of conditioned floor area with no more than 300 SF fenestration

Electronic version available at: http://www.energy.wsu.edu/Documents/2015%20Glazing%20Schedule.xlsx

		Glazing	ing		Width Height		Glaz	zing		
Exemptions	Ref	U-Factor		Qt.	Feet	Inch	Feet	Inch	Area	UA
Swing Door (24 SF Max)										
Glazed Fenestration (15 SF										
Max)										

VERTICAL FENESTRATION (WINDOWS AND GLAZED DOORS)

Plan	Component	Ref	Glazing		Qt.	Wi	dth	Hei	ght		Glaz	ing
ID	Description		U-Factor			Feet	Inch	Feet	Inch		Area	UA
										Į		
										ļ		
										ļ		
										F		
										-		
										ŀ		
		-								F		
]						-		
				9	Sum of	Vertical F	enestrat	ion Area a	and UA	Į		
Area Weighted U = UA/Area												

OVERHEAD GLAZING (SKYLIGHT)

Plan	Component	Ref	Glazing]	Qt.	Width		Height			Glazing	
ID	Description		U-Factor			Feet	Inch	Feet	Inch		Area	UA
										_		
				-								
				J						_		
					Sum	of Overh	ead Glaz	ing Area	and UA			
						Are	a Weigh	ted U = U	A/Area			

Total Sums of Area and UA for Vertical Fenestration and Overhead Glazing Area and UA:

5d	A drain water heat recovery unit(s) shall be installed, which captures waste water heat from all the showers, and has a minimum efficiency of 40% if installed for equal flow or a minimum efficiency of 52% if installed for unequal flow. Such units shall be rated in accordance CSA B55.1 and be so labeled. To qualify to claim this credit, the building permit drawings shall include a plumbing diagram that specified the drain water heat recovery units and the plumbing layout needed to install it and labels or other documentation shall be provided that demonstrates that the unit complies with the standard.	0.5
6	RENEWABLE ELECTRIC ENERGY: For each 1200 kWh of electrical generation per each housing unit provided annually by on-site wind or solar equipment a 0.5 credit shall be allowed, up to 3 credits. Generation shall be calculated as follows: For solar electric systems, the design shall be demonstrated to meet this requirement using the National Renewable Energy Laboratory calculator PVWATTs. Documentation noting solar access shall be included on the plans. For wind generation projects designs shall document annual power generation based on the following factors: The wind turbine power curve; average annual wind speed at the site; frequency distribution of the wind speed at the site and height of the tower. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall show the photovoltaic or wind turbine equipment type, provide documentation of solar and wind access, and include a calculation of the minimum annual energy power production.	0.9

DESCRIPTION

All heating and cooling system components installed inside the conditioned space. This includes all equipment and distribution

For forced air ducts: A maximum of 10 linear feet of return ducts and 5 linear feet of supply ducts may be located outside the

conditioned space. All metallic ducts located outside the conditioned space must have both transverse and longitudinal joints sealed

with mastic. If flex ducts are used, they cannot contain splices. Flex duct connections must be made with nylon straps and installed

Locating system components in conditioned crawl spaces is not permitted under this option. Electric resistance heat and ductless heat pumps are not permitted under this option. Direct combustion heating equipment with AFUE less than 80% is not permitted

To qualify to claim this credit, the building permit drawings shall specify theoption being selected and shall specify the heating

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

Plumbing Fixtures Flow Ratings. Low flow plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall

1. Residential bathroom lavatory sink faucets: Maximum flow rate - 3.8 L/min (1.0 gal/min) when tested in accordance with ASME

2. Residential kitchen faucets: Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA

3. Residential showerheads: Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA

To qualify to claim this credit, the building permit drawings shall specify theoption being selected and shall specify the maximum flo

OR For R-2 occupancy, a central heat pump water heater with an EF greater than 2.0that would supply DHW to all the units through a ce

To qualify to claim this credit, the building permit drawings shall specify theoption being selected and shall specify the water heater

OR Solar water heating supplementing a minimum standard water heater. Solar water heating will provide a rated minimum savings of 85 therms or 2000 kWh based on the Solar Rating and Certification Corporation (SRCC) Annual Performance of OG-300 Certified Solar OR Electric heat pump water heater with a minimum EF of 2.0 and meeting thestandards of NEEA's Northern Climate Specifications for

To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and theminimum equipment efficiency and, for solar water heating systems, the calculation of the minimum energy

Water heating system shall include one of the following: Gas, propane or oil water heater with a minimum EF of 0.74

Water heating system shall include one of the following: Gas, propane or oil water heater with a minimum EF of 0.91

system components such as forcedair ducts, hydronic piping, hydronic floor heating loop, convectors and radiators. All

using a plastic strapping tensioningtool. Ducts located outside the conditioned space must be insulated to a minimum of R-8.

quipment type and shall show the location of the heating and cooling equipment and all the ductwork.

2015 WSCE – Table R406.2 - Continued

rated at 1.0 GPM or less.

A112.18.1/CSA B125.1.

comply with the following requirement

EFFICIENT WATER HEATING 5b:

minimum pipe insulation.

Heat Pump Water Heaters

EFFICIENT WATER HEATING 5d:

Conditioned Floor Area (sq ft)

Average Ceiling Height (ft)

HIGH EFFICIENCY HVAC DISTRIBUTION SYSTEM:

combustion equipment shall be direct vent or sealed combustion

rates for all showerheads, kitchen sink faucets, and other lavatory faucets.

OR Water heater heated by ground source heat pump meeting the requirements of Option 3c.

Simple Heating System Size Electronic version available at: http://www.energy.wsu.edu/Documents/Heat Sizing code%20specs final 2015.xls

Please complete the following information regarding the heating system for this project. The electronic version automatically calculates the information based on the information selected. The paper form below may be used if a computer is not available but will need to be hand calculated.

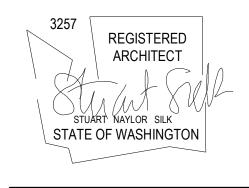
7068

_x 9.94

Sum of UA x 45 Air Leakage Heat Load Volume x 0.6 x 45 x .018 Building Design Heat Load Air Leakage Heat Load + Envelope Heat Load Building and Duct Heat Load Ducts in unconditioned space: Building Design Heat Load x 1.10 Ducts in conditioned space: Building Design Heat Load x 1		Conditioned Volume (cu ft)	70,279					
Attic U-Factor X Area = UA		oors	u= 0.28 U-Factor		1,444.66 st		404.5	
Single Rafter or U-Factor X Area = UA	Insulation	Attic		x			UA	
Above Grade Walls U-Factor X Area = UA 1.07 Below Grade Walls U-Factor X Area = UA 1.869 sf 89.71 Slab Below Grade F-Factor X Length = UA N/A N/A f UA Slab on Grade F-Factor X Length = UA Sum of UA Air Leakage Heat Load Volume x 0.6 x 45 x . 018 Building Design Heat Load Building and Duct Heat Load Ducts in unconditioned space: Building Design Heat Load x 1.10 Ducts in conditioned space: Building Design Heat Load x 1 Maximum Heat Equipment Output 87,886.9 Btu / Ho 87,886.9 Btu / Ho 87,886.9 Btu / Ho		Single Rafter or		×			UA	
Floors U-Factor X Area = UA 1.07 Below Grade Walls U-Factor X Area = UA 1.869 sf 89.71 Slab Below Grade F-Factor X Length = UA N/A N/A f UA Slab on Grade F-Factor X Length = UA 88.74 Sum of UA 803.42 Envelope Heat Load Sum of UA × 45 Air Leakage Heat Load Volume x 0.6 x 45 x .018 Building Design Heat Load Air Leakage Heat Load Ducts in unconditioned space: Building Design Heat Load x 1.10 Ducts in conditioned space: Building Design Heat Load x 1 Maximum Heat Equipment Output 87,886.9 Btu / Ho 1.07 1			-	×			UA	
Below Grade Walls		Floors	-					
Slab Below Grade F-Factor X Length = UA Slab on Grade F-Factor X Length = UA Sum of		Below Grade Walls		×				
Slab on Grade F-Factor X Length = UA 88.74 Sum of UA 803.42 Envelope Heat Load Sum of UA x 45 Air Leakage Heat Load Volume x 0.6 x 45 x .018 Building Design Heat Load Air Leakage Heat Load Ducts in unconditioned space: Building Design Heat Load x 1.10 Ducts in conditioned space: Building Design Heat Load x 1 Maximum Heat Equipment Output 87,886.9 Btu / Ho 88,886.9 Btu / Ho 88,886.9 Btu / Ho 88,886.9 Btu / Ho 88,886.9		Slab Below Grade		x				
Envelope Heat Load Sum of UA x 45 Air Leakage Heat Load Volume x 0.6 x 45 x .018 Building Design Heat Load Air Leakage Heat Load Building and Duct Heat Load Ducts in unconditioned space: Building Design Heat Load x 1.10 Ducts in conditioned space: Building Design Heat Load x 1 Maximum Heat Equipment Output Bana 36,153.9 Btu / Ho 34,155.6 Btu / Ho 70,309.5 Btu / Ho 87,886.9 Btu / Ho		Slab on Grade		×		=	UA	
Sum of UA x 45 Air Leakage Heat Load Volume x 0.6 x 45 x .018 Building Design Heat Load Air Leakage Heat Load + Envelope Heat Load Building and Duct Heat Load Ducts in unconditioned space: Building Design Heat Load x 1.10 Ducts in conditioned space: Building Design Heat Load x 1 Maximum Heat Equipment Output 34,155.6 Btu / Ho 70,309.5 Btu / Ho 87,886.9 Btu / Ho			f= .36			um of UA		
Air Leakage Heat Load Volume x 0.6 x 45 x .018 Building Design Heat Load Air Leakage Heat Load + Envelope Heat Load Building and Duct Heat Load Ducts in unconditioned space: Building Design Heat Load x 1.10 Ducts in conditioned space: Building Design Heat Load x 1 Maximum Heat Equipment Output Btu / Ho							36,153.9	Btu / Hour
Air Leakage Heat Load + Envelope Heat Load Building and Duct Heat Load Ducts in unconditioned space: Building Design Heat Load x 1.10 Ducts in conditioned space: Building Design Heat Load x 1 Maximum Heat Equipment Output To,309.5 Btu / Ho			Air Leakage Heat Load				34,155.6	Btu / Hour
Ducts in unconditioned space: Building Design Heat Load x 1.10 Ducts in conditioned space: Building Design Heat Load x 1 Maximum Heat Equipment Output 87,886.9 Btu / Ho				70,309.5	Btu / Hour			
Maximum Heat Equipment Output 87,886.9 Btu / Ho			Building and Duct Heat Loa Ducts in unconditioned s	10	70,309.5	Btu / Hour		
Building and Duct Heat Load x 1.25 for Heat Pump			Maximum Heat Equipment Building and Duct Heat L	Output oad x 1.40 for I	Forced Air Furnace		87,886.9	Btu / Hour

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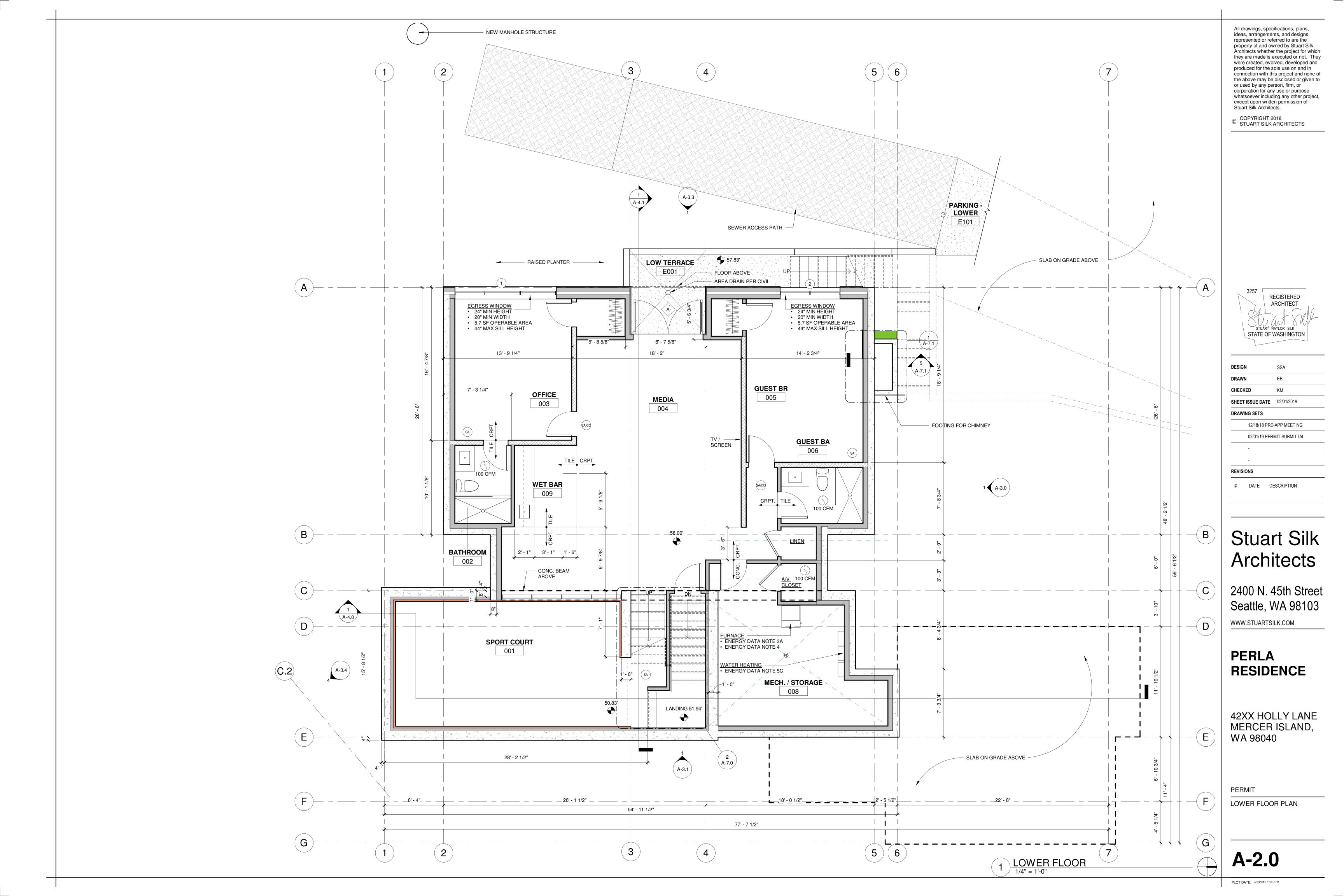
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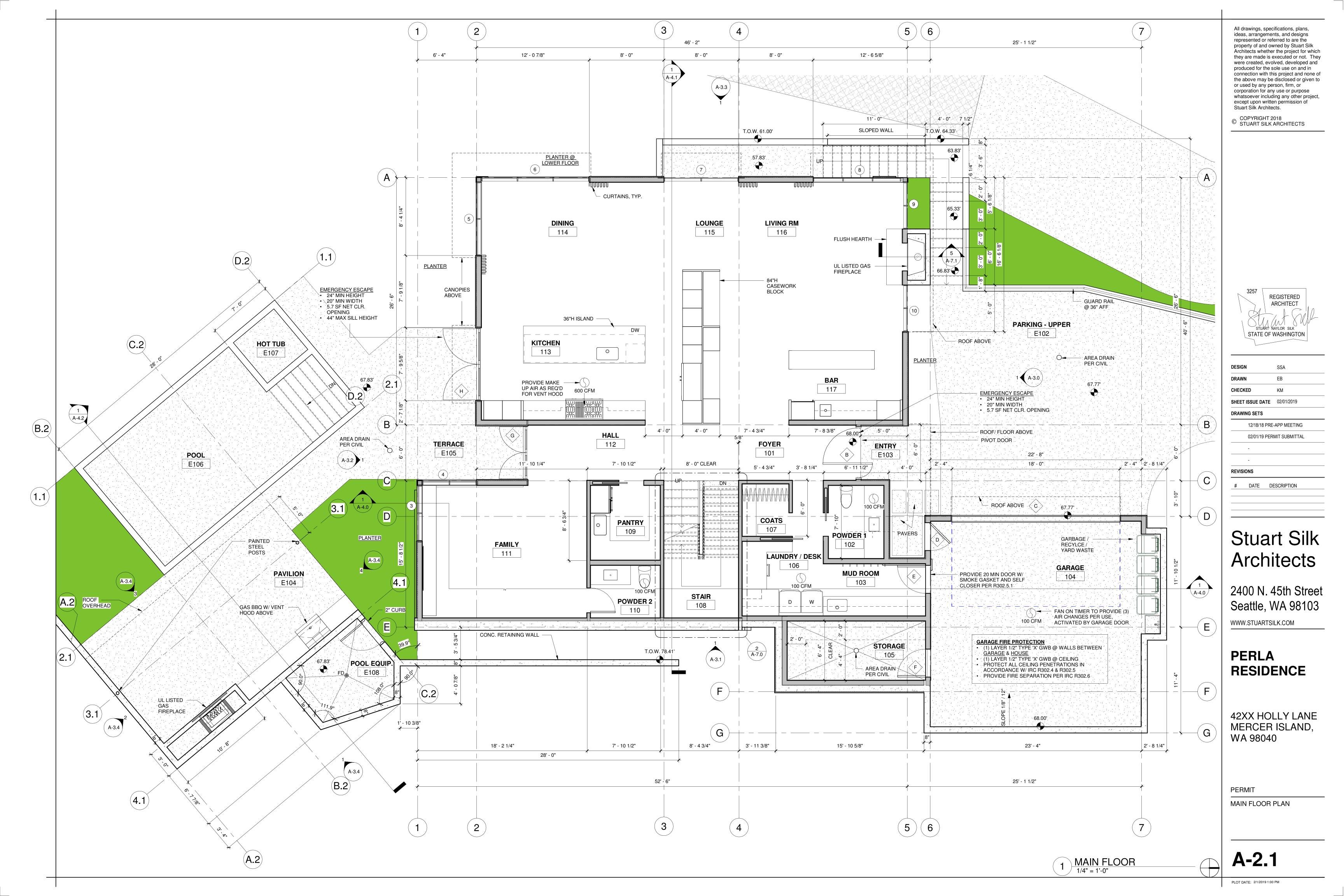
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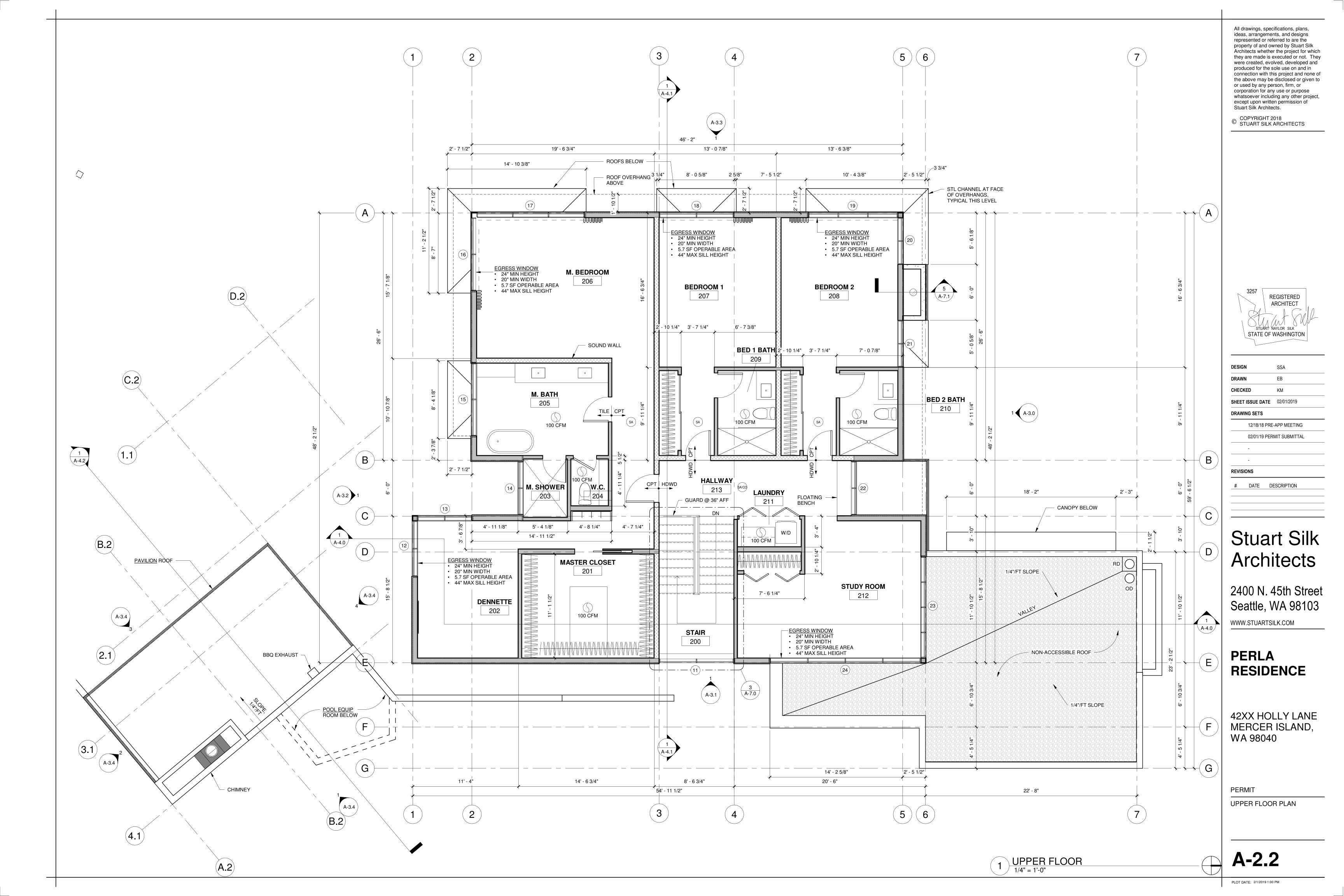
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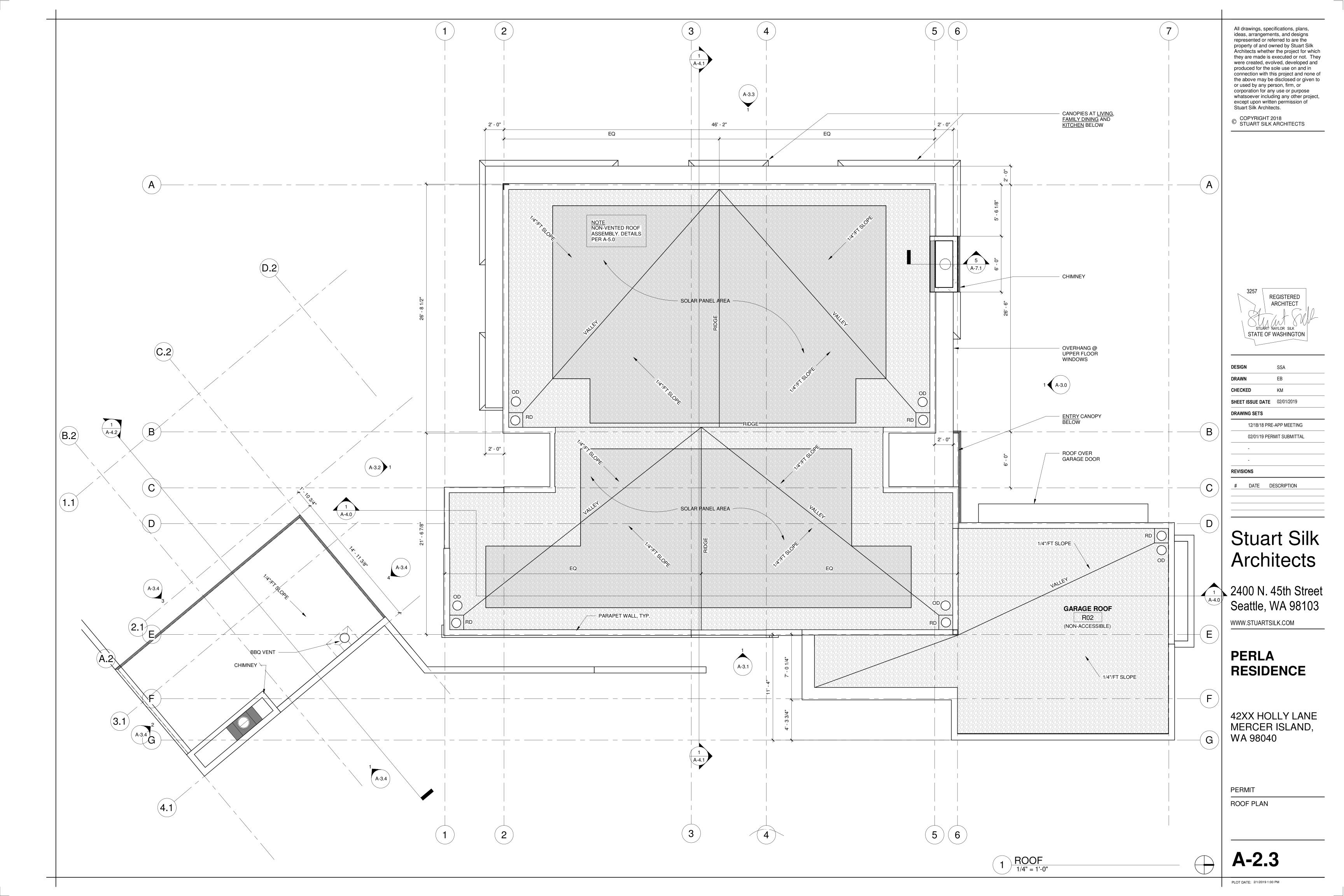
WSEC WORKSHEETS

A-1.3









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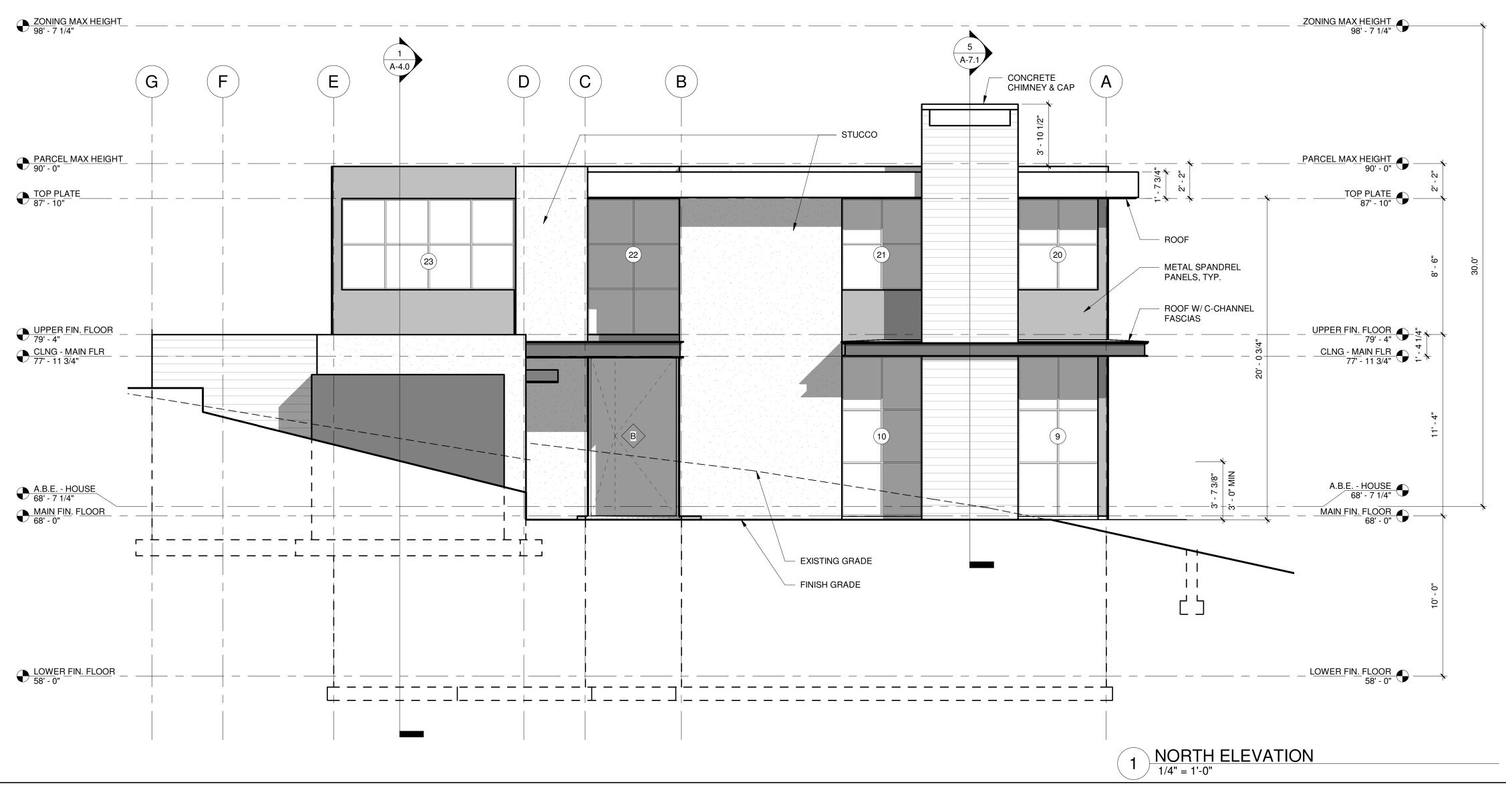
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EXTERIOR ELEVATIONS

A-3.0

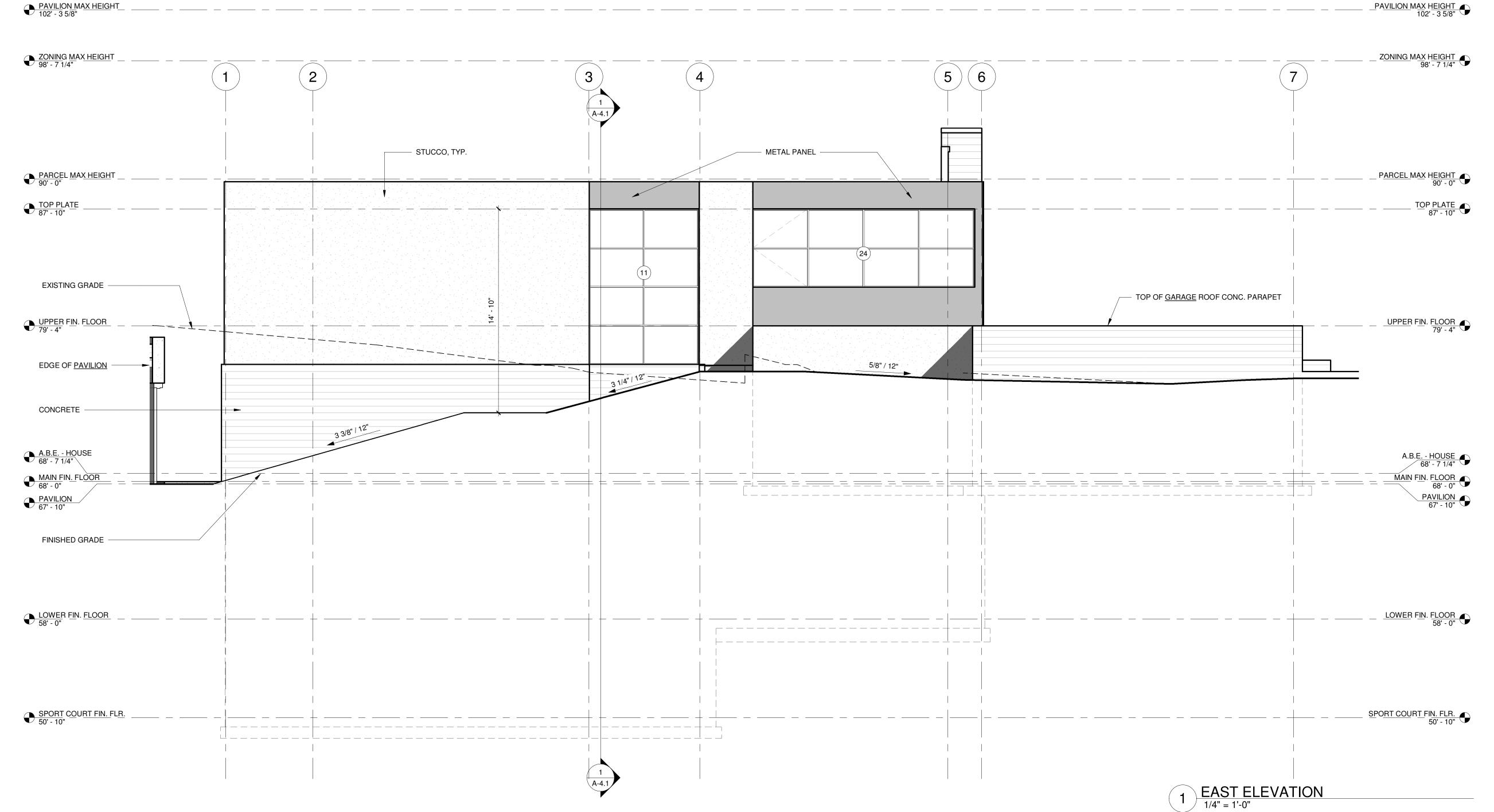


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EXTERIOR ELEVATIONS

A-3.1

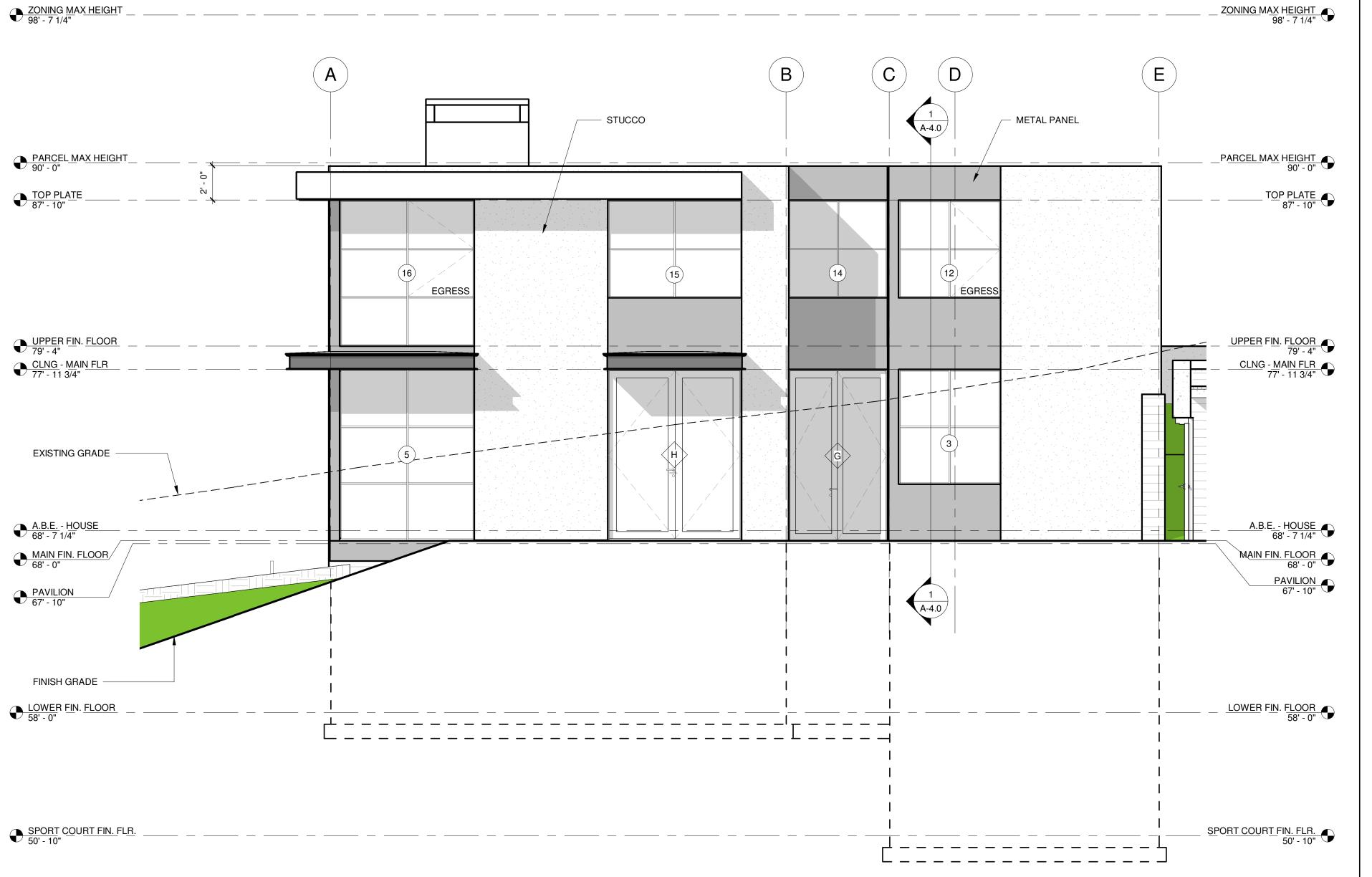
PLOT DATE: 2/1/2019 1:00

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

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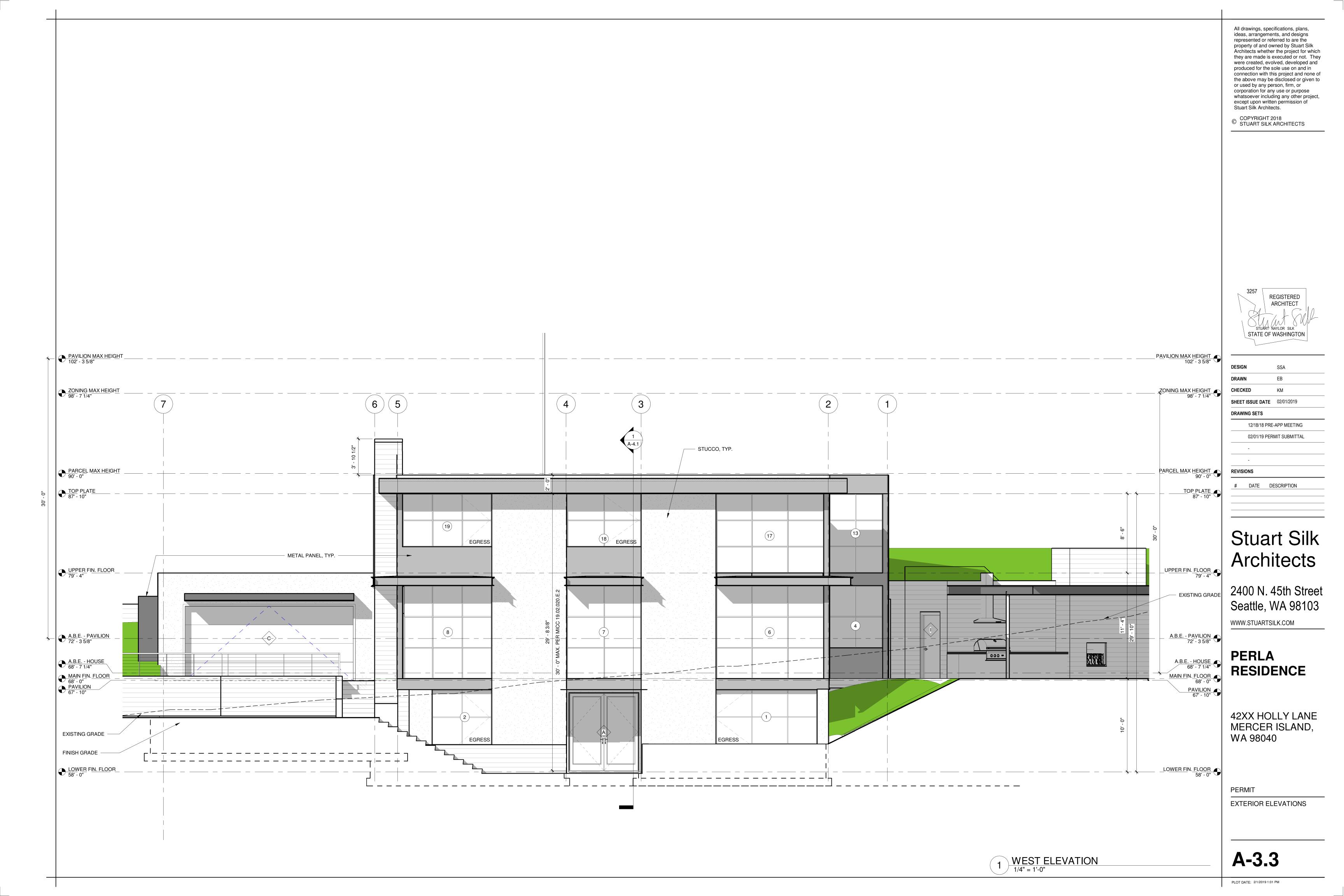
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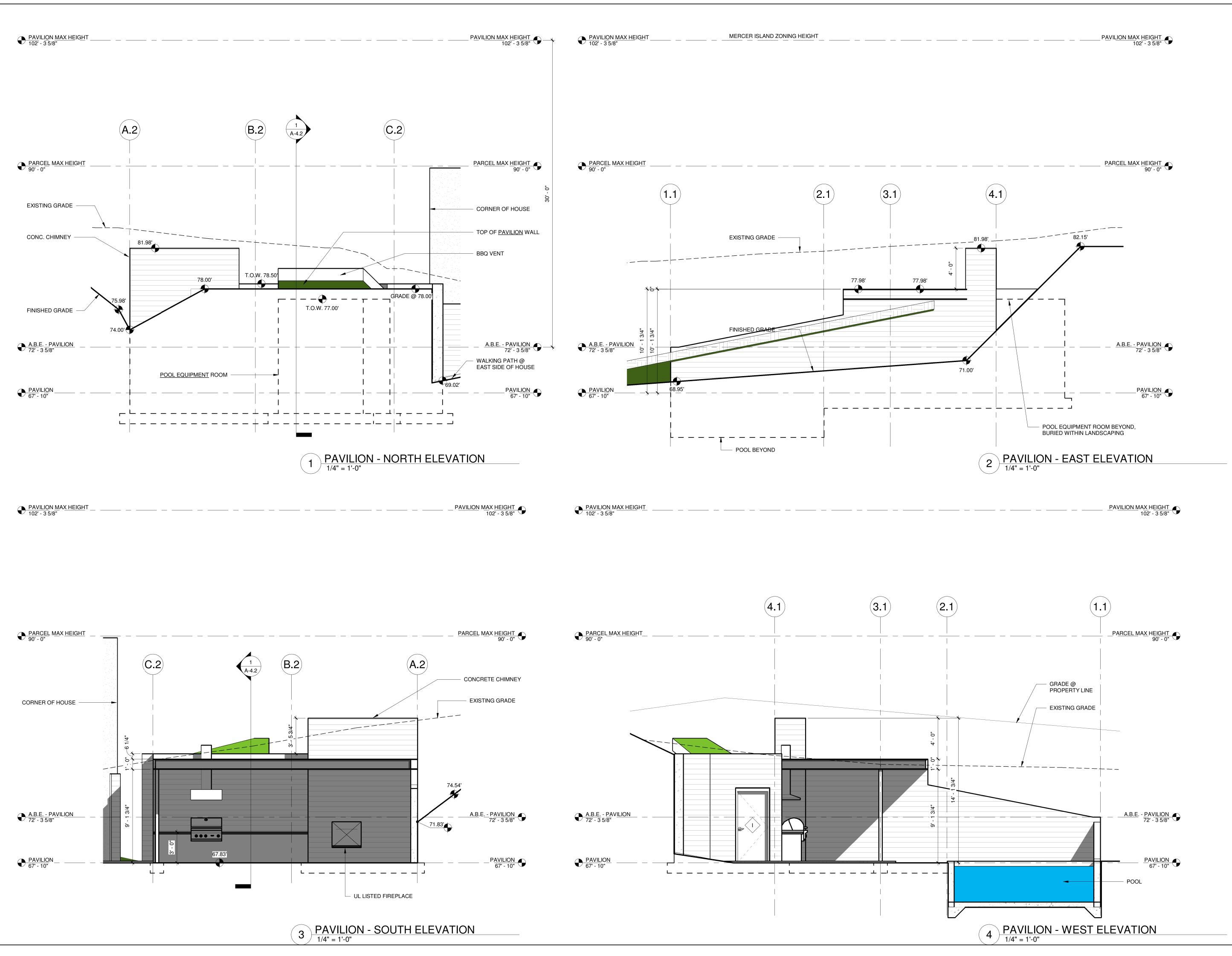
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EXTERIOR ELEVATIONS

A-3.2





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PAVILION EXTERIOR ELEVATIONS

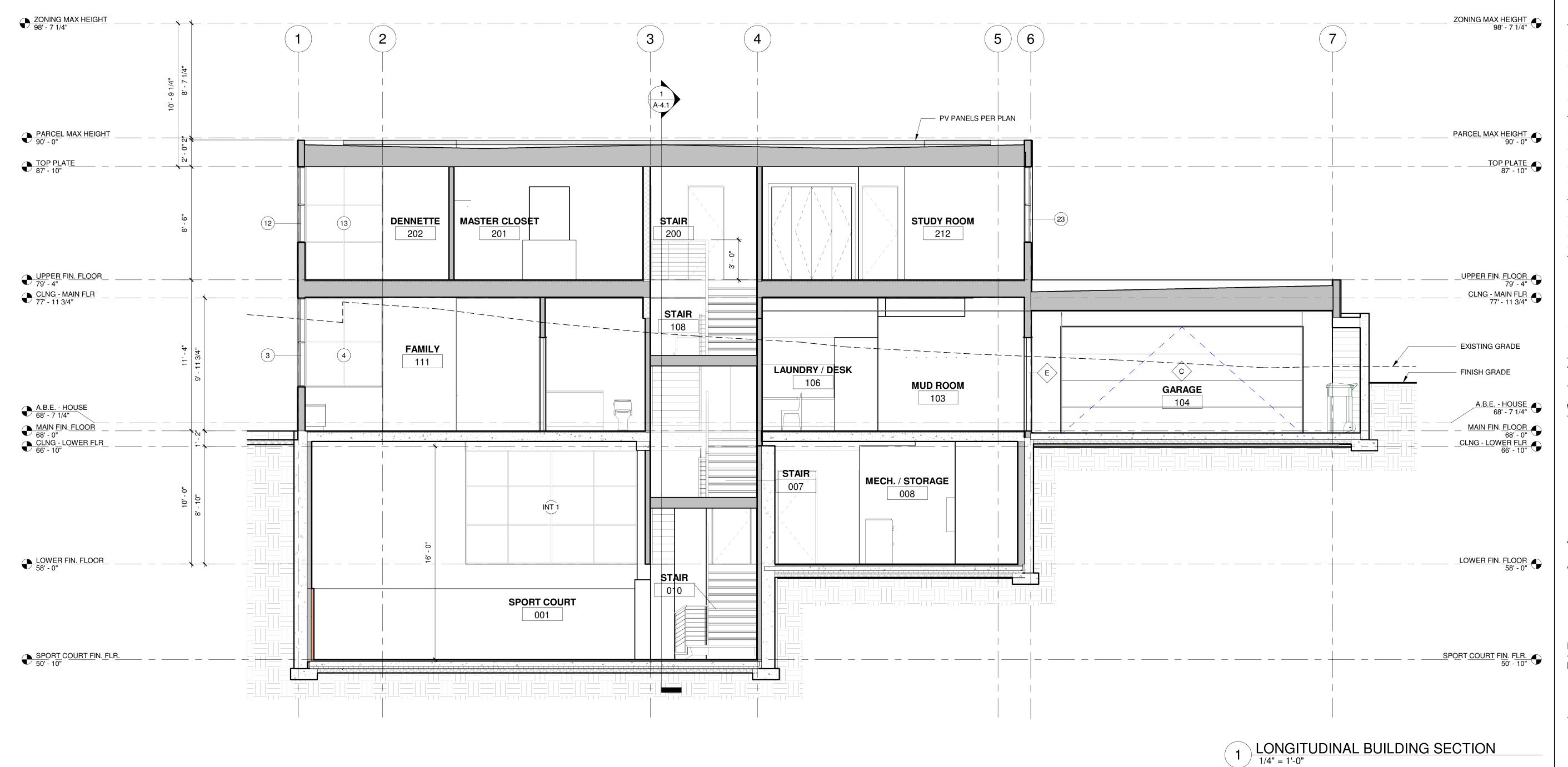
A-3.4

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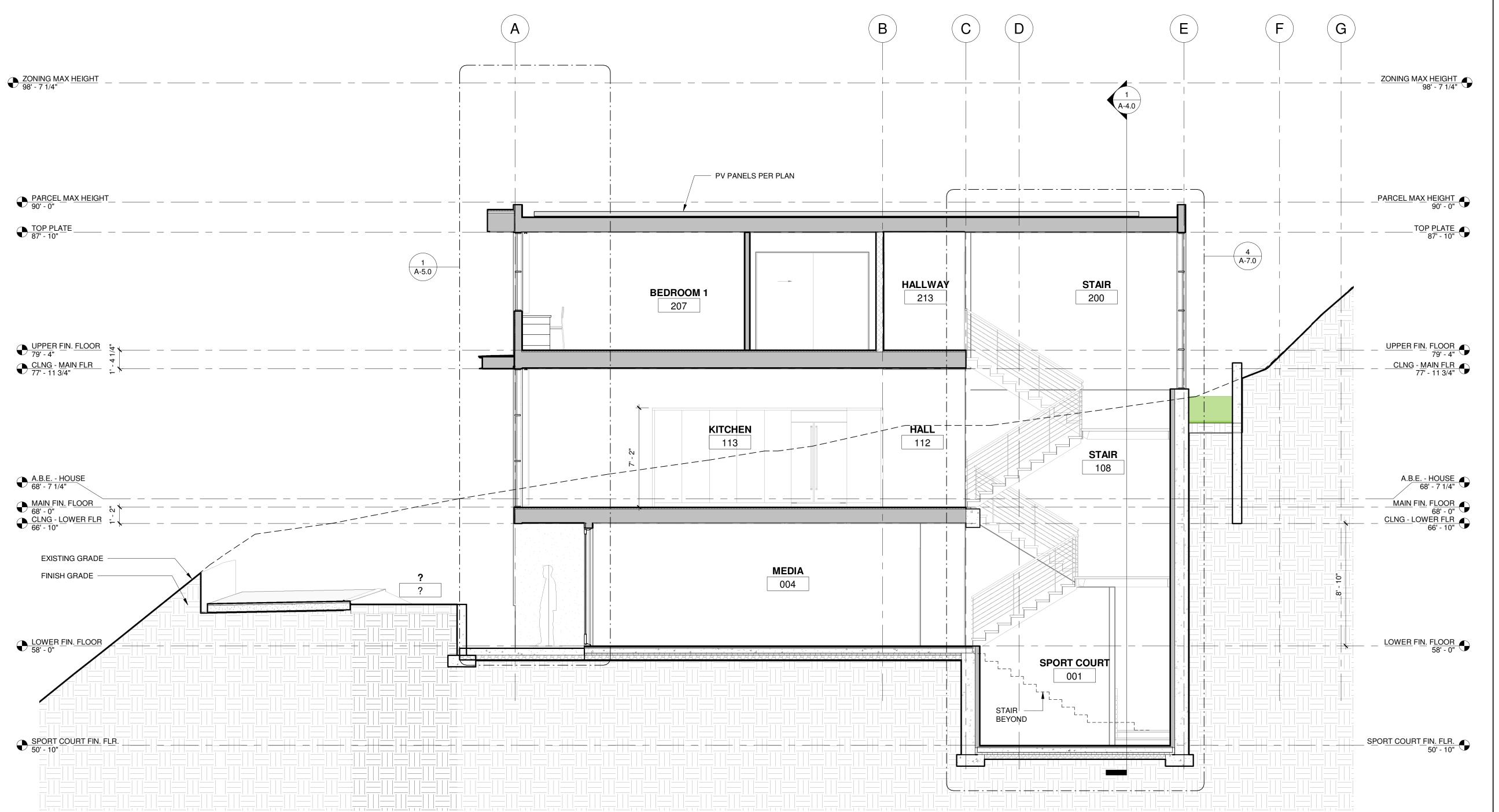
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BUILDING SECTIONS

A-4.0

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1 TRANSVERSE BUILDING SECTION
1/4" = 1'-0"

BUILDING SECTIONS

A-4.1

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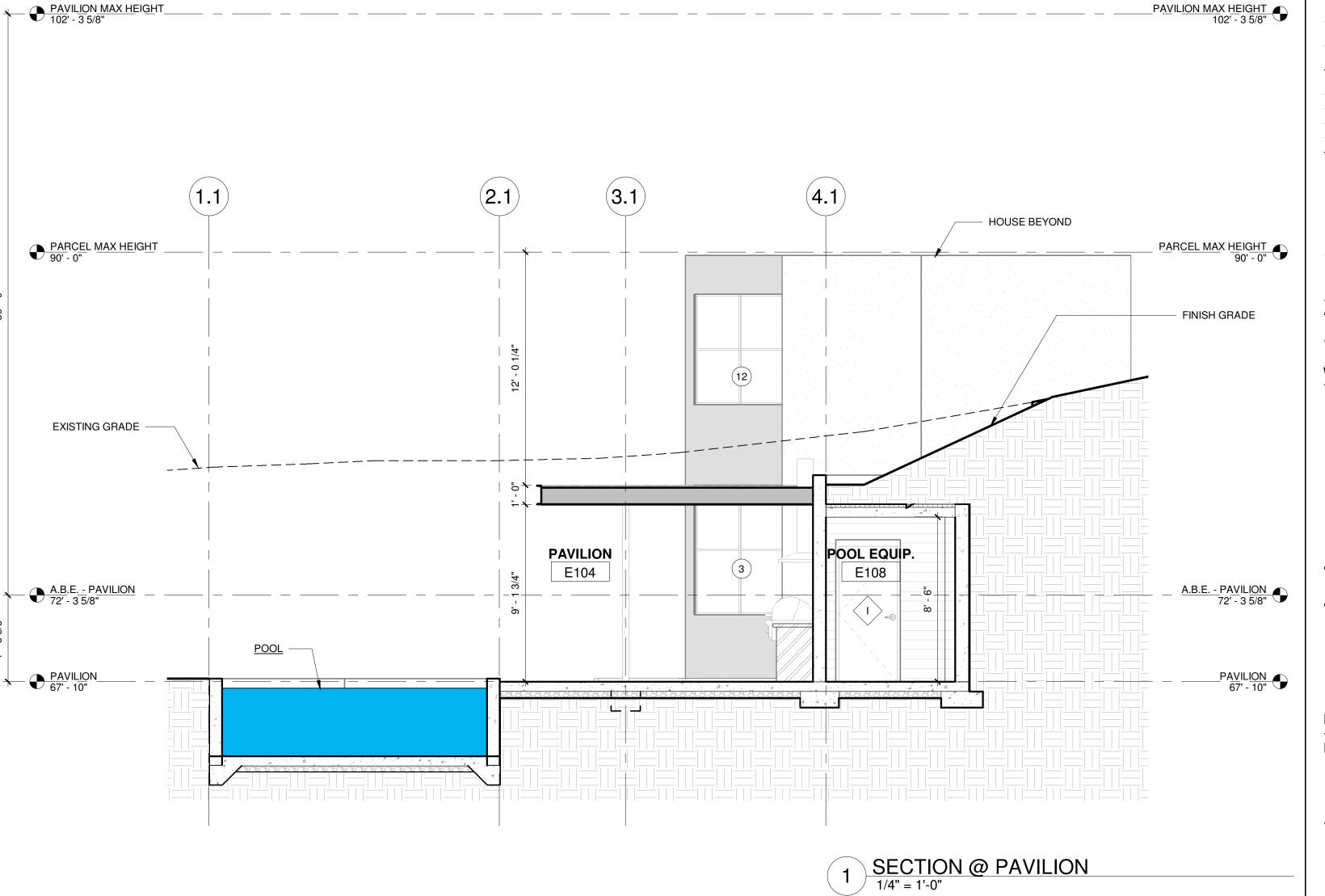
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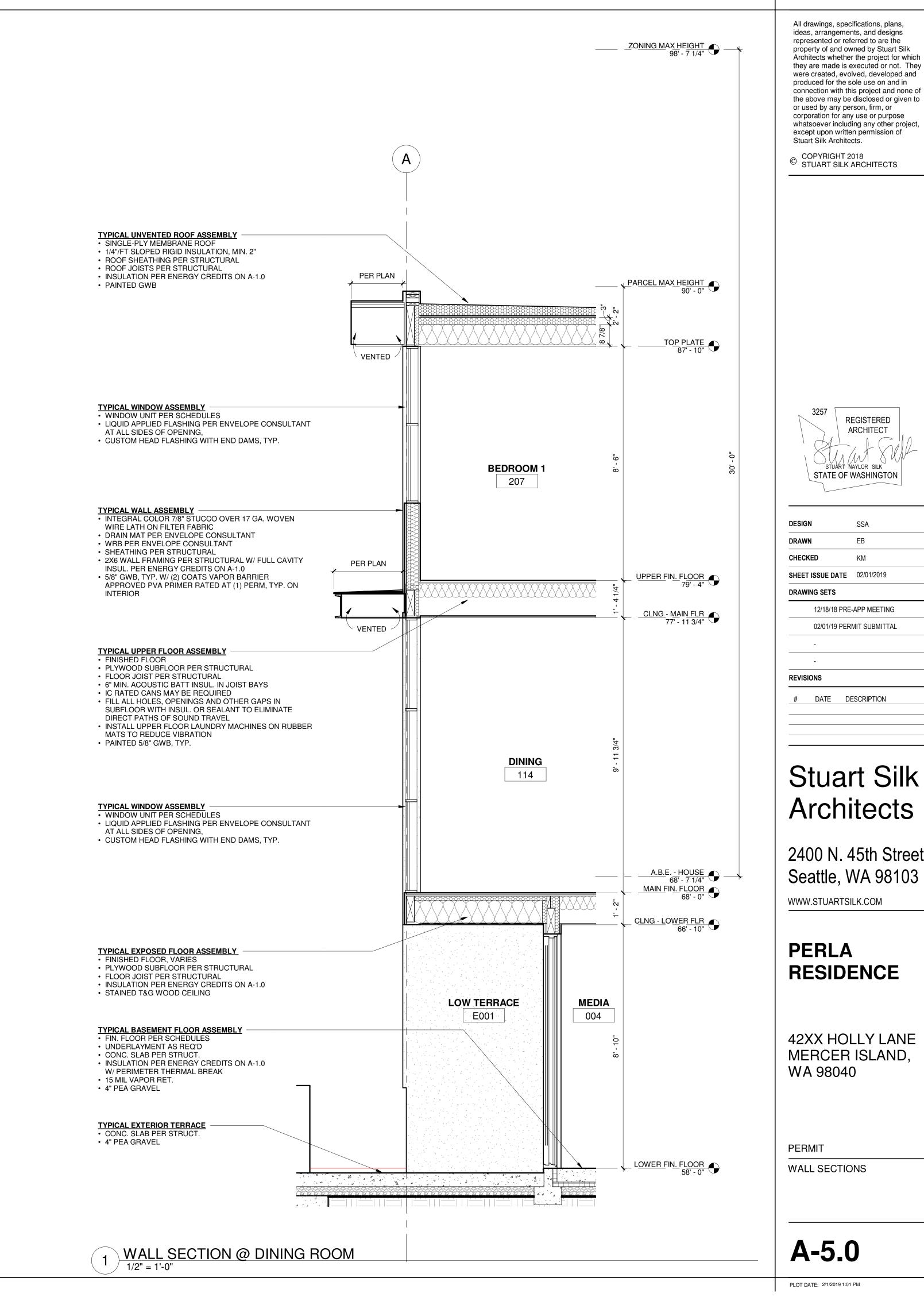
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PAVILION SECTION

A-4.2





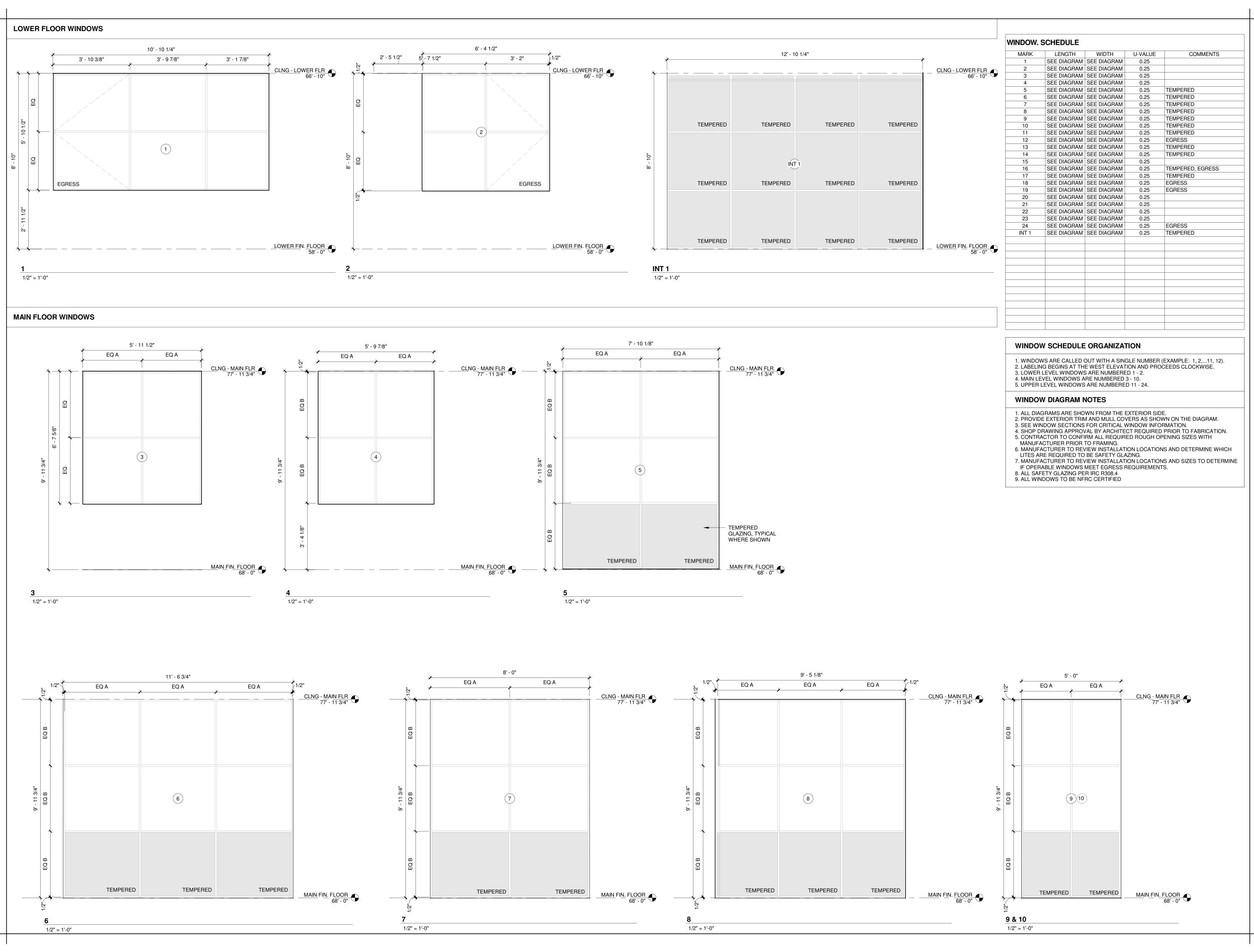
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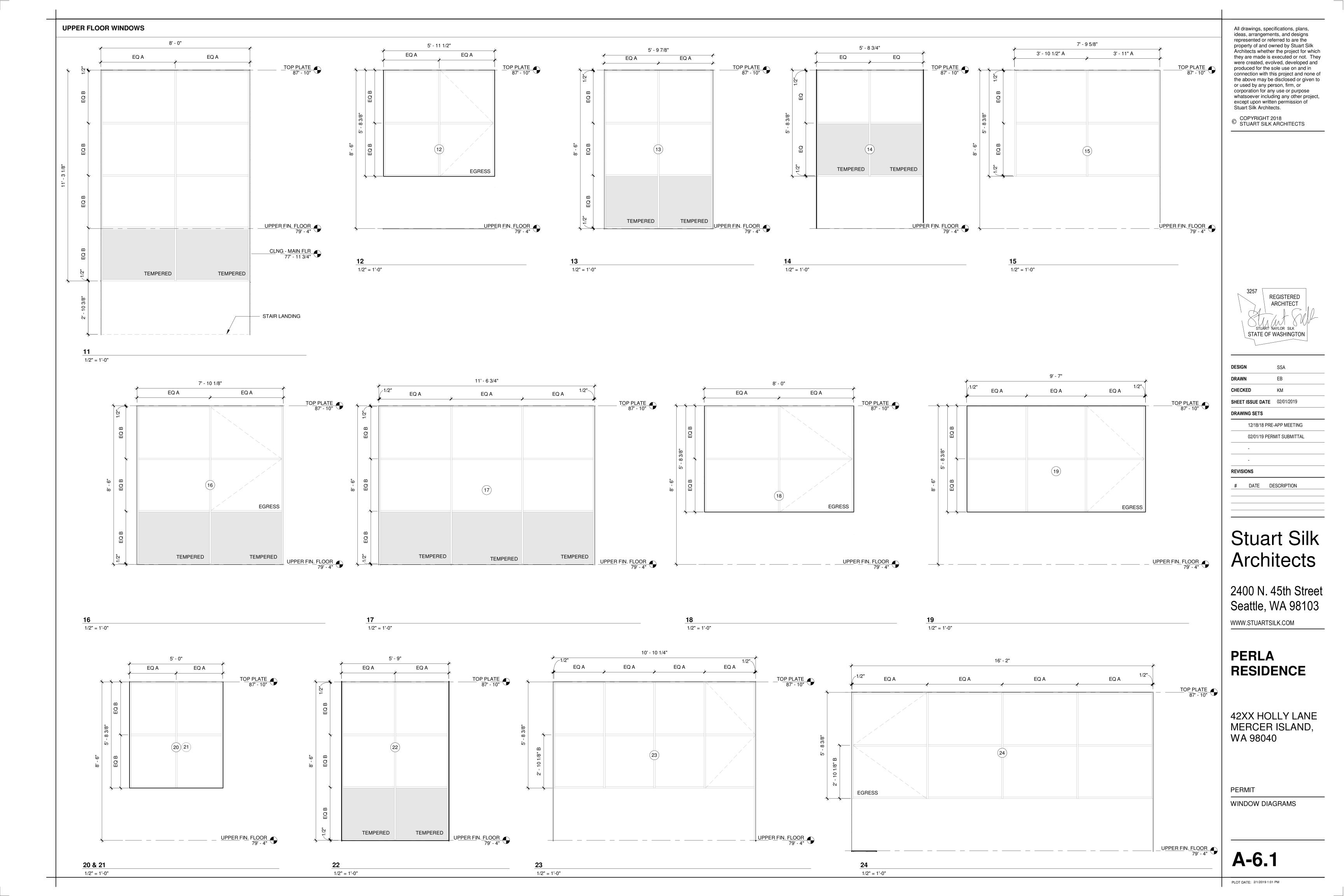
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PERMIT

WINDOW SCHEDULE & DIAGRAMS

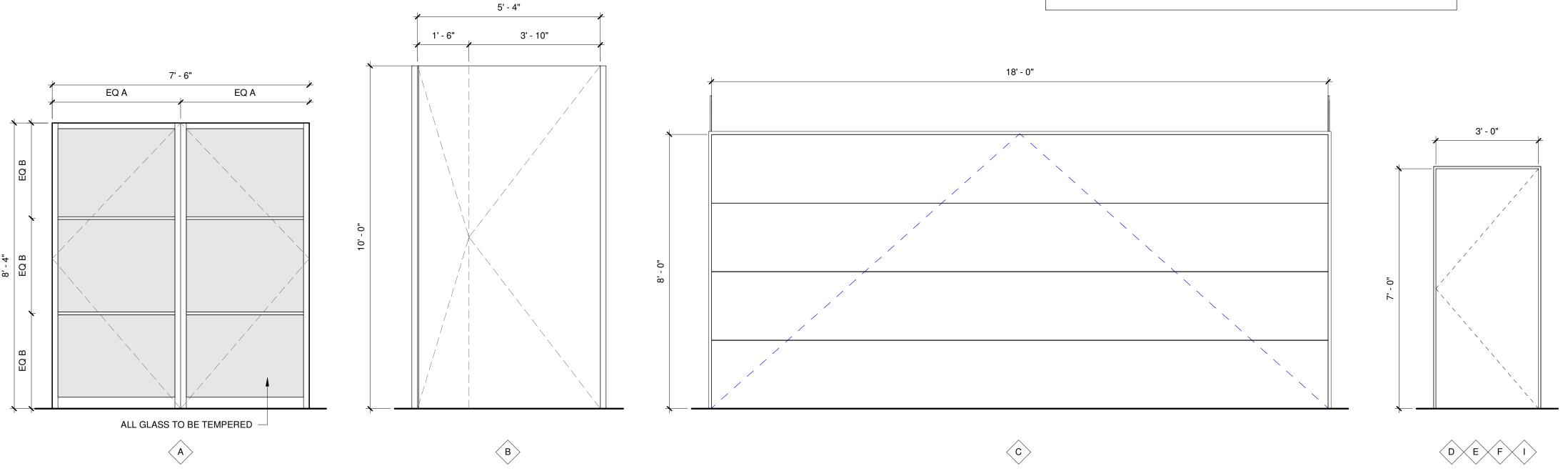
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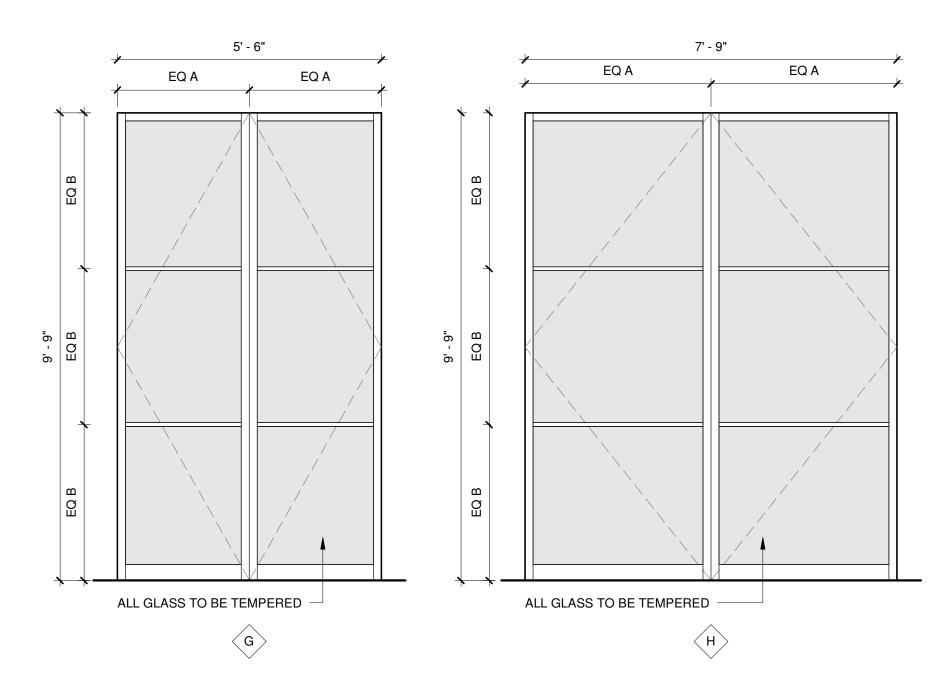


DOOR SCHEDULE - EXTERIOR							
MARK	ROOM #	ROOM NAME	DESCRIPTION	SIZE	U VALUE	COMMENTS	
-			SWING, DOUBLE				
Α	004	MEDIA	SWING, DOUBLE	SEE DIAGRAM	0.25		
В	101	FOYER	PIVOT	SEE DIAGRAM	0.25		
С	104	GARAGE	UPWARD ACTING	SEE DIAGRAM			
D	104	GARAGE	SINGLE HINGED	SEE DIAGRAM			
Е	104	GARAGE	SINGLE HINGED	SEE DIAGRAM	0.25	20 MIN W/ SMOKE GASKET & SEL CLOSURE	
F	104	GARAGE	SINGLE HINGED	SEE DIAGRAM	0.25	20 MIN W/ SMOKE GASKET & SELICLOSURE	
G	112	HALL	SWING, DOUBLE	SEE DIAGRAM			
Н	113	KITCHEN	SWING, DOUBLE	SEE DIAGRAM	0.25		

DOOR DIAGRAM NOTES

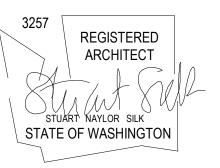
- 1. ALL DIAGRAMS ARE SHOWN FROM THE EXTERIOR SIDE.
- 2. SEE DOOR SECTIONS FOR CRITICAL DOOR INFORMATION.
- 3. SHOP DRAWING APPROVAL BY ARCHITECT REQUIRED PRIOR TO FABRICATION. 4. CONTRACTOR TO CONFIRM ALL REQUIRED ROUGH OPENING SIZES WITH
- MANUFACTURER PRIOR TO FRAMING. 5. MANUFACTURER TO REVIEW INSTALLATION LOCATIONS AND DETERMINE WHICH
- LITES ARE REQUIRED TO BE SAFETY GLAZING. 6. MANUFACTURER TO REVIEW INSTALLATION LOCATIONS AND SIZES TO DETERMINE
- IF OPERABLE DOORS MEET EGRESS REQUIREMENTS.
 7. ALL DOORS TO BE NFRC CERTIFIED





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DESIGN SSA DRAWN CHECKED

SHEET ISSUE DATE 02/01/2019 DRAWING SETS

> 12/18/18 PRE-APP MEETING 02/01/19 PERMIT SUBMITTAL

REVISIONS

DATE DESCRIPTION

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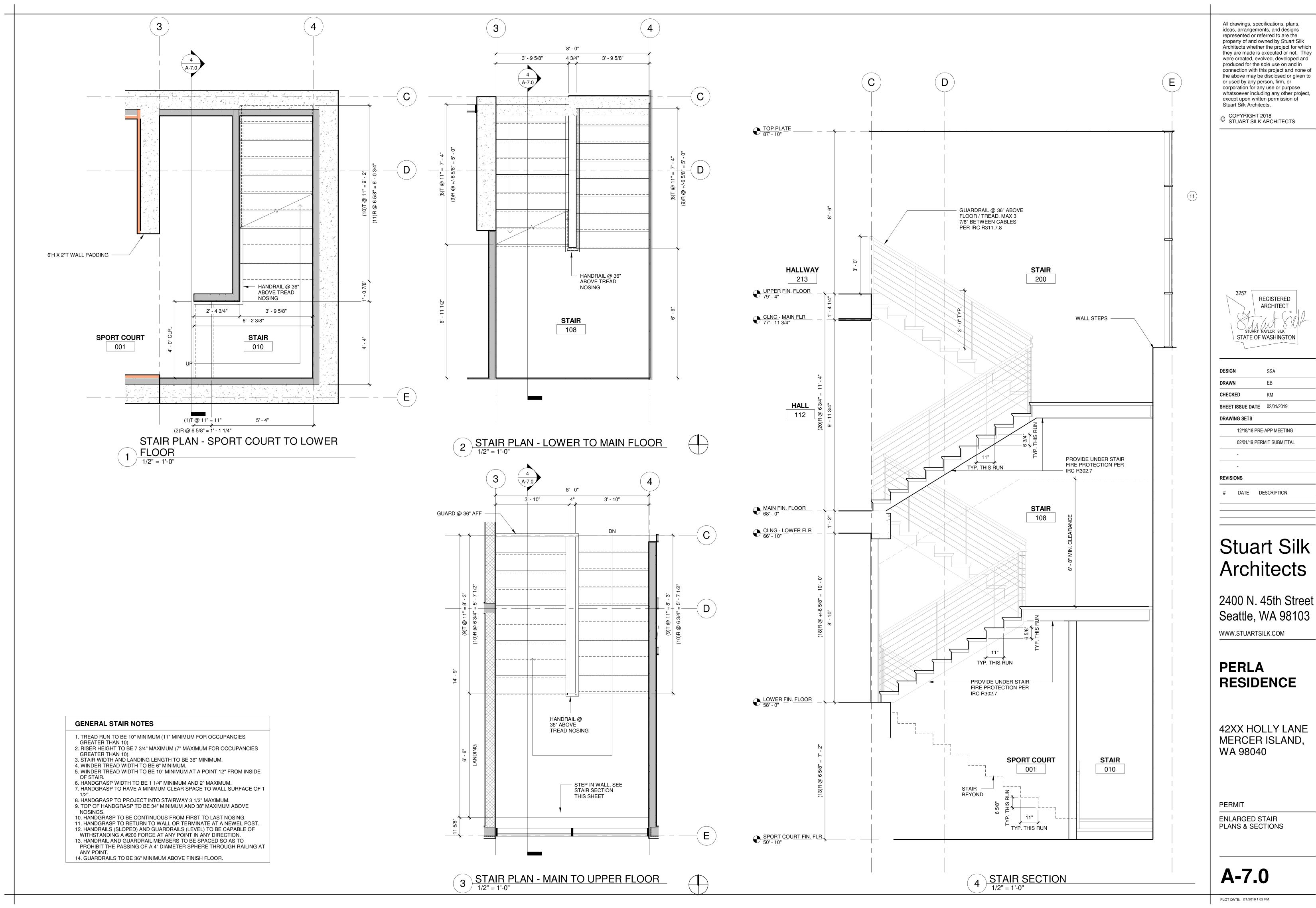
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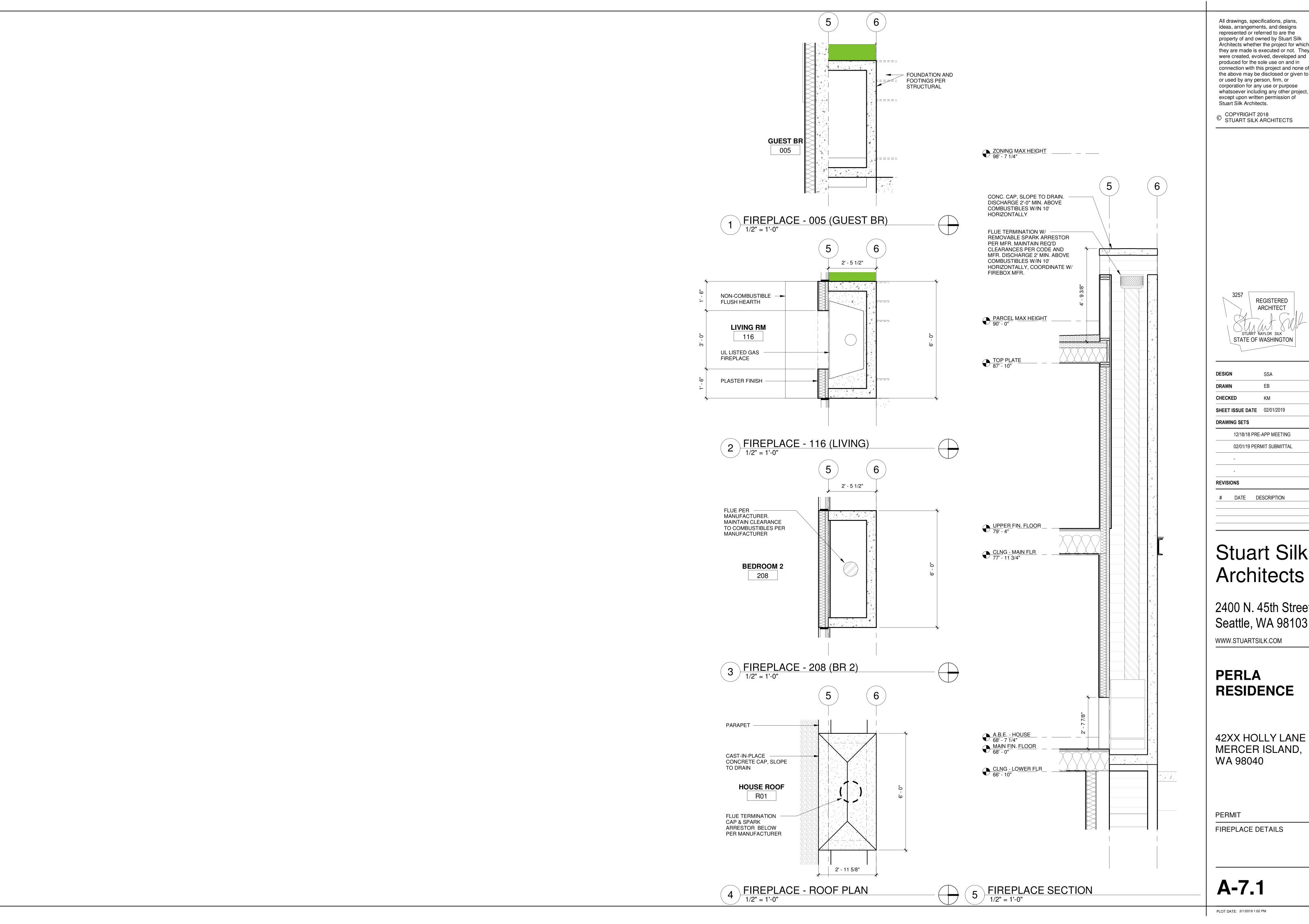
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EXTERIOR DOOR SCHEDULE & DIAGRAMS

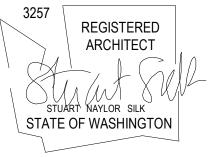
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12/18/18 PRE-APP MEETING

Stuart Silk

2400 N. 45th Street Seattle, WA 98103

42XX HOLLY LANE MERCER ISLAND,

General Structural Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE 12. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT DRAWINGS, SPECIFICATIONS, AND THE 2015 INTERNATIONAL BUILDING CODE.

2. DESIGN LOADING CRITERIA:

GARAGES	
FLOOR LIVE LOAD (PASSENGER VEHICLES) 40	PSF
FLOOR CONCENTRATED LOAD (PASSENGER VEHICLES)	LBS
RESIDENTIAL - ONE AND TWO-FAMILY DWELLINGS	
FLOOR LIVE LOAD	PSF
R00F	
ROOF DEAD LOAD (INCLUDING 5 PSF PV PANEL ALLOWANCE)	PSF
ROOF LIVE LOAD (SNOW)	25 PSF
MISCELLANEOUS LOADS	
STAIRS	PSF
DECKS	
DEFLECTION CRITERIA	
LIVE LOAD DEFLECTION	/360
TOTAL LOAD DEFLECTION	/240
ENVIRONMENTAL LOADS	
WIND Kzt, GCpi=0.18, 110 MPH, RISK CATEGORY II, EXPOSURE	"B"

EARTHQUAKE . ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS SITE CLASS=D, Ss=1.42, Sds=.943, S1=.54, SD1=.54, Cs=0.15

SDC D, Ie=1.0, R=6.5

- 3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATION, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK.
- PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL PLANS AND DETAILS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL WALL SECTIONS, BUILDING SECTION, AND PLANS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT. SUPERVISE. NOTE. CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- 6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION".
- 7. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
- 8. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. ALL TYPICAL NOTES AND DETAILS SHOWN ON DRAWINGS SHALL APPLY, UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE PLANS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO TYPICAL DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED OR REQUEST ADDITIONAL INFORMATION. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.
- 9. ALL STRUCTURAL SYSTEMS, WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED, SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.
- 10. SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

MANUFACTURED LUMBER (PSL'S, LSL'S, LVL'S)

PLYWOOD WEB JOISTS

APPROVED SETS OF ALL SHOP DRAWINGS SHALL ALSO BE SUBMITTED TO THE BUILDING DEPARTMENT WHERE REQUIRED BY THE JURISDICTION.

11. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE A REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED WITHIN TWO WEEKS OF RECEIPT WITH A NOTATION INDICATING THAT THE SUBMITTAL HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE SUBMITTED ITEMS SHALL NOT BE INSTALLED UNTIL THEY HAVE BEEN APPROVED BY ALL REQUIRED ENTITIES.

SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

QUALITY ASSURANCE

SPECIFICATIONS AND SECTIONS 110 AND 1705 OF THE INTERNATIONAL BUILDING CODE BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS. SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION IS REQUIRED UNLESS NOTED OTHERWISE.

PER TABLE 1705. 3 CONCRETE CONSTRUCTION PFR TABLE 1705.6 SOIL CONDITIONS, FILL PLACEMENT, AND DENSITY POST INSTALLED BOLTS PERIODIC EPOXY GROUTED INSTALLATIONS PERIODIC

REQUIRING INSPECTION AT ALL TIMES THAT WORK IS PERFORMED.

PERIODIC INSPECTION: INSPECTION SHALL BE PERFORMED AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS. CONTINUOUS INSPECTION: INSPECTOR SHALL BE ONSITE AND OBSERVE THE WORK

- 13. UNLESS OTHERWISE NOTED, THE FOLLOWING ELEMENTS COMPRISE THE SEISMIC-FORCE-RESISTING SYSTEM AND ARE SUBJECT TO SPECIAL INSPECTION FOR SEISMIC RESISTANCE IN ACCORDANCE WITH SECTION 1705.12 OF THE INTERNATIONAL BUILDING CODE.
- A. STRUCTURAL WOOD SHEAR WALL SYSTEMS REQUIRE PERIODIC INSPECTION FOR FIELD GLUEING, NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC FORCE, RESISTING SYSTEM INCLUDING SHEAR WALLS, DIAPHRAGMS, DRAG STRUTS, BRACES AND HOLDOWNS.

GEOTECHNICAL

14. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH OR COMPACTED STRUCTURAL FILL AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY: THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND SOILS ENGINEER. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

ALLOWABLE SOIL PRESSURE (NATIVE SOILS / STRUCTURAL FILL). . . 3000/3000 PSF LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED). 50PCF/35 PCF SEISMIC SURCHARGE PRESSURE (UNIFORM LOAD) 8H PSF

SOILS REPORT REFERENCE: 4211 HOLLY LANE, DATED 7-20-16 BY ROBERT PRIDE, LLC

CONCRETE

- 15. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 3,000 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF IBC SECTION 1904. DESIGN STRENGTH IS f'c = 2,500 PSI.
- 16. ALL CONCRETE WITH SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318, TABLE 19.3.2.1 MODERATE EXPOSURE, F1.
- 17. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60, FY = 60,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.
- 18. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-11. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

19. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

FTGS AND UNFORMED SURFACES CAST AGAINST AND EXPOSED TO EARTH 3" FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER). . 1-1/2"

20. CONCRETE WALL REINFORCING--PROVIDE THE FOLLOWING UNLESS NOTED OTHERWISE:

6" AND 8" WALLS #4 @ 12 HORIZ. #4 @ 12 VERTICAL 1 CURTAIN

21. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES.

ANCHORAGE

22. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-XP" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON STRONG, TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2508. MINIMUM BASE MATERIAL TEMPERATURE IS 50 DEGREES, F. RODS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED. PERIODIC SPECIAL INSPECTION OF INSTALLATION IS REQUIRED TO VERIFY ANCHOR OR EMBEDED BAR TYPE AND DIMENSIONS, LOCATION, ADHESIVE IDENTIFICATION AND EXPIRATION, HOLE DIMENSIONS, HOLE CLEANING PROCEDURE, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS.

23. EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2" WEDGE ANCHORS AS 34. ALL WOOD IN DIRECT CONTACT WITH CONCRETE SHALL BE PRESSURE-TREATED WITH AN 40. WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY AND INSTALLED IN STRICT CONFORMANCE TO ICC-ES REPORT NUMBER ESR-3037. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. PERIODIO SPECIAL INSPECTION IS REQUIRED TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, ANCHOR LOCATION, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS.

24. CONCRETE SCREW ANCHORS INTO CONCRETE SHALL BE "TITEN HD" HEAVY DUTY SCREW ANCHOR AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2713. PERIODIC SPECIAL INSPECTION IS REQUIRED TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, ANCHOR LOCATION, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS.

MASONRY

25. ADHERED MASONRY VENEER, 2-5/8" MAXIMUM THICKNESS, SHALL BE ADHERED TO BACKING WALLS PER SECTION 1405.10 OF THE INTERNATIONAL BUILDING CODE. ADHERED MASONRY SHALL BE ABLE TO DEVELOP SHEAR STRENGTH OF 50 PSI MINIMUM BETWEEN THE BACKING AND THE UNIT IN ACCORDANCE WITH ASTM C 482 OR SHALL BE ADHERED PER ARTICLE 3.3C OF TMS602/ACI530.1/ASCE 6.

- 26. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, FY = 50 KSI. OTHER ROLLED SHAPES INCLUDING PLATES, SHALL CONFORM TO ASTM A36, FY = 36 KSI. STEEL PIPE SHALL CONFORM TO ASTM A-53, TYPE E OR S, GRADE B, Fy = 35 KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, FY = 46 KSI. CONNECTION BOLTS SHALL CONFORM TO ASTM A307.
- 27. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES
- 28. ALL STEEL EXPOSED TO THE WEATHER OR IN CONTACT WITH GROUND SHALL BE CORROSION PROTECTED BY GALVANIZATION OR PROVIDED WITH EXTERIOR PAINT SYSTEM, UNLESS OTHERWISE NOTED. REFER ARCHITECTURAL DRAWINGS FOR TREATMENT OF ARCHITECTURALLY EXPOSED STEEL.

WOOD

29. FRAMING LUMBER SHALL BE S-DRY, KD, OR MC-19, AND GRADED AND MARKED I CONFORMANCE WITH WCLIB STANDARD, GRADING RULES FOR WEST COAST LUMBER NO. 17. OR WWPA STANDARD, WESTERN LUMBER GRADING RULES 2011. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

k 3X MEMBERS)	HEM-FIR NO. 2 MINIMUM BASE VALUE, Fb	= 850 PSI
(MEMBERS)	DOUGLAS FIR-LARCH NO. MINIMUM BASE VALUE, FI	
6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, FI	b = 1350 PSI
MEMBERS)	DOUGLAS FIR-LARCH NO. 2 MINIMUM BASE VALUE, FO	
(AND LARGER)	DOUGLAS FIR-LARCH NO. MINIMUM BASE VALUE, 1	=
	MEMBERS) . 6X AND LARGER) MEMBERS)	MINIMUM BASE VALUE, Fb DOUGLAS FIR-LARCH NO. MINIMUM BASE VALUE, FI OUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, FI MEMBERS) DOUGLAS FIR-LARCH NO. 2 MINIMUM BASE VALUE, FI MINIMUM BASE VALUE, FI DOUGLAS FIR-LARCH NO.

30. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA-EWS CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv =265 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2400 PSI, Fv = 265 PSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS TO 3,500' RADIUS, UNLESS SHOWN OTHERWISE ON THE PLANS.

DOUGLAS-FIR-LARCH OR HEM-FIR NO. 2

STUDS, PLATES & MISC. FRAMING:

ACCORDANCE WITH ACI 318-11, CLASS B. LAP ADJACENT MATS OF WELDED WIRE 31. MANUFACTURED LUMBER, PSL, LVL, AND LSL SHOWN ON PLAN ARE BASED PRODUCTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION IN ACCORDANCE WITH ICC-ES 39. NOTCHES AND HOLES IN WOOD FRAMING: REPORT ESR-1387. MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

> Fb = 2900 PSI, E = 2000 KSI, Fv = 290 PSIPSL (2.0E) Fb = 2600 PSI, E = 2000 KSI, Fv = 285 PSILVL (2.0E) LSL (1.55E) Fb = 2325 PSI, E = 1550 KSI, Fv = 310 PSI

ALTERNATE MANUFACTURED LUMBER MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE MANUFACTURER'S PRODUCTS SHALL BE COMPATIBLE WITH THE JOIST HANGERS AND OTHER HARDWARE SPECIFIED ON PLANS, OR ALTERNATE HANGERS AND HARDWARE SHALL SUBMITTED FOR REVIEW AND APPROVAL. SUBSTITUTED ITEMS SHALL HAVE ICC-ES REPORT APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES.

MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEEDS THIS VALUE.

- GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER 32. PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION.
 - 33. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1 OR PS 2. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

ROOF SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24. FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24. WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 24/0.

PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING.

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

- APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE.
- 35. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO AWPA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWPA UC4A. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWPA UC4B.
- 36. FASTENERS AND TIMBER CONNECTORS USED WITH TREATED WOOD SHALL HAVE CORROSION RESISTANCE AS INDICATED IN THE FOLLOWING TABLE, UNLESS OTHERWISE

WOOD TREATMENT	CONDITION	PROTECTION
HAS NO AMMONIA CARRIER	INTERIOR DRY	G90 GALVANIZED
CONTAINS AMMONIA CARRIER	INTERIOR DRY	G185 OR A185 HOT DIPPED O
		CONTINUOUS HOT-GALVANIZE
		PER ASTM A653
CONTAINS AMMONIA CARRIER	INTERIOR WET	TYPE 304 OR 316 STAINLESS
CONTAINS AMMONIA CARRIER	EXTERIOR	TYPE 304 OR 316 STAINLESS
A 7 C A	ANY	TYPE 304 OR 316 STAINLESS

INTERIOR DRY CONDITIONS SHALL HAVE WOOD MOISTURE CONTENT LESS THAN 19%. WOOD MOISTURE CONTENT IN OTHER CONDITIONS (INTERIOR WET. EXTERIOR WET. AND EXTERIOR DRY) IS EXPECTED TO EXCEED 19%. CONNECTORS AND THEIR FASTENERS SHALL BE THE SAME MATERIAL. COMPLY WITH THE TREATMENT MANUFACTURERS RECOMMENDATIONS FOR PROTECTION OF METAL.

- 37. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2017. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER FOR MAXIMUM LOAD CARRYING CAPACITY. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- ALL 2X JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITS" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIT" SERIES JOIST HANGERS.

WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM)AS MEMBERS CONNECTED.

38. WOOD FASTENERS

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETE
8d	2-1/2"	0. 131"
16d	3-1/4"	0. 131"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DIGRESS WITH THE MEMBER AND STARTED 1/3 THE LENGTH OF THE NAIL FROM THE MEMBER END.

B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS.

- A. NOTCHES ON THE ENDS OF SOLID SAWN JOISTS AND RAFTERS SHALL NOT EXCEED ONE-FOURTH THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF SOLID SAWN JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. HOLES BORED IN SOLID SAWN JOISTS AND RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST. AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE JOIST.
- B. IN EXTERIOR WALLS AND BEARING PARTITIONS, ANY WOOD STUD IS PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.
- C. NOTCHES AND HOLES IN MANUFACTURED LUMBER AND PREFABRICATED PLYWOOD WEB JOISTS SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE

- A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE, THE AITC "TIMBER CONSTRUCTION MANUAL" AND THE AF&PA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING. UNLESS OTHERWISE NOTED. SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL
- B. WALL FRAMING: REFER ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" O.C. UNO. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS. AND AT BEAM OR HEADER BEARING LOCATIONS. TWO 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS. AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d @ 12" O.C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE EIGHT 16d NAILS @ 4" O.C. EACH SIDE JOINT.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16d NAILS @ 12" ON-CENTER. OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS @ 4'-0" ON-CENTER EMBEDDED 7" MINIMUM, UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @12" ON-CENTER. UNLESS INDICATED OTHERWISE, 1/2" (NOMINAL)APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS @ 6" ON-CENTER AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES)AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS @ 12" ON-CENTER ALLOW 1/8" SPACING AT ALL PANEL EDGES AND

C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOE-NAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI JOIST BEAMS TOGETHER WITH TWO ROWS 16d @ 12" ON-CENTER.

UNLESS OTHERWISE NOTED ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AT 6" ON-CENTER WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" ON-CENTER TO INTERMEDIATE SUPPORTS PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES A UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING.

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Perla Residence

42xx Holly Lane Mercer Island, WA

Stuart Silk Architects 2400 N. 45th St.

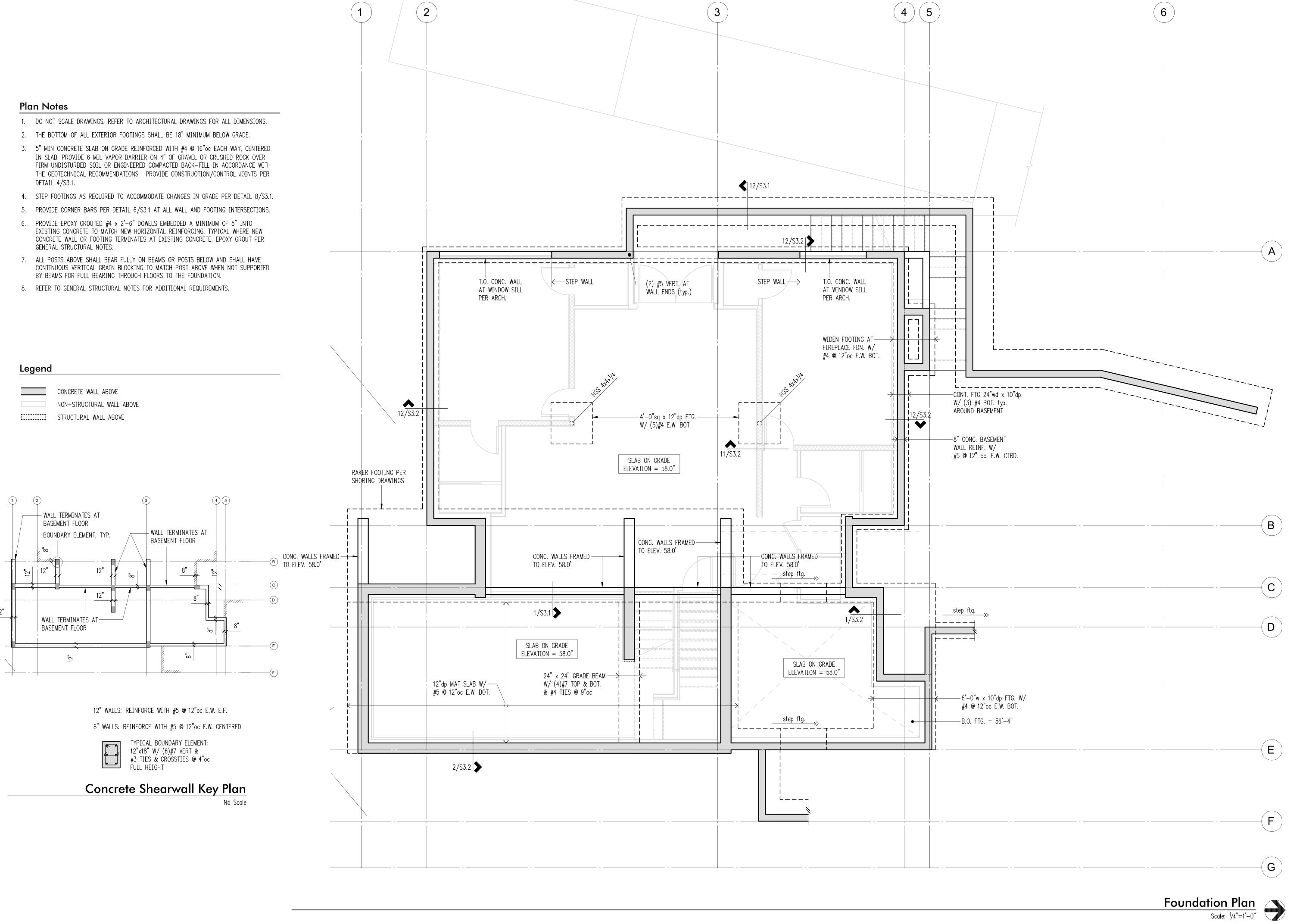
Seattle, WA 98103

General Structural Notes

Permit

DATE: February 4, 2019 PROJECT NO:

00101-2018-06



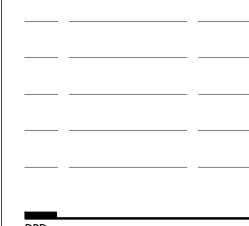
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PROJECT TITLE:
Perla Residence

42xx Holly Lane Mercer Island, WA

ARCHITECT:

Stuart Silk Architects
2400 N. 45th St.

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ET TITLE:

Seattle, WA 98103

Foundation Plan

SCALE:

1/4" = 1'-0" U.N.O.

DATE:

February 4, 2019

PROJECT NO:

00101-2018-06

S2.1

Plan Notes

- 1. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- 2. FLOOR SHEATHING SHALL BE 3/4" A.P.A. RATED PANELS (EXPOSURE 1, SPAN RATING 48/24) FACE GRAIN PERPENDICULAR TO SUPPORTS OVER ROOF FRAMING PER PLAN. NAIL SHEATHING AT ALL FRAMED PANEL EDGES WITH 8d AT 6"oc AND TO ALL INTERMEDIATE FRAMING AT 12"oc.
- 3. UPPER FLOOR JOISTS SHALL BE 14" TJI/230 AT 16"oc, UNO. MAIN FLOOR JOISTS SHAL BE 11-7/8 TJI/230 AT 16"oc, UNO. SEE PLAN FOR AREAS WITH CLOSER SPACING OR DIFFERENT JOIST CALLOUTS.
- 4. PROVIDE (2) STUDS (MINIMUM) AT EACH END OF ALL BEAMS UNLESS NOTED OTHERWISE ON PLANS. BEAR BEAM FULLY ON BUILT UP COLUMN AND PROVIDE LCE, ACE, PCZ, OR LPCZ CAP TO FIT.
- 5. W# INDICATES SHEAR WALL. SEE SHEARWALL SCHEDULE FOR CONSTRUCTION
- 6. ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE ON PLANS.
- 7. (X)CS16 INDICATES VERTICAL HOLD-DOWN STRAP AT END OF SHEAR WALL ABOVE. (X) INDICATES STRAP QUANTITY. SEE DETAIL 4/S4.2 FOR INSTALLATION REQUIREMENTS.
- 8. MANUFACTURED LUMBER PRODUCTS (LSL, LVL, PSL, GL) SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%.
- 9. ALL POSTS ABOVE SHALL BEAR FULLY ON BEAMS OR POSTS BELOW AND SHALL HAVE CONTINUOUS VERTICAL GRAIN BLOCKING TO MATCH POST ABOVE WHEN NOT SUPPORTED BY BEAMS FOR FULL BEARING THROUGH FLOORS TO THE FOUNDATION.
- 10. SPLICE ALL TOP PLATE SPLICES PER DETAIL 6/S4.1.
- 11. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

Legend

CONCRETE WALL

STRUCTURAL WALL BELOW

NON-STRUCTURAL WALL BELOW

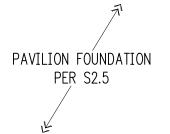
← EXTENTS OF FRAMING

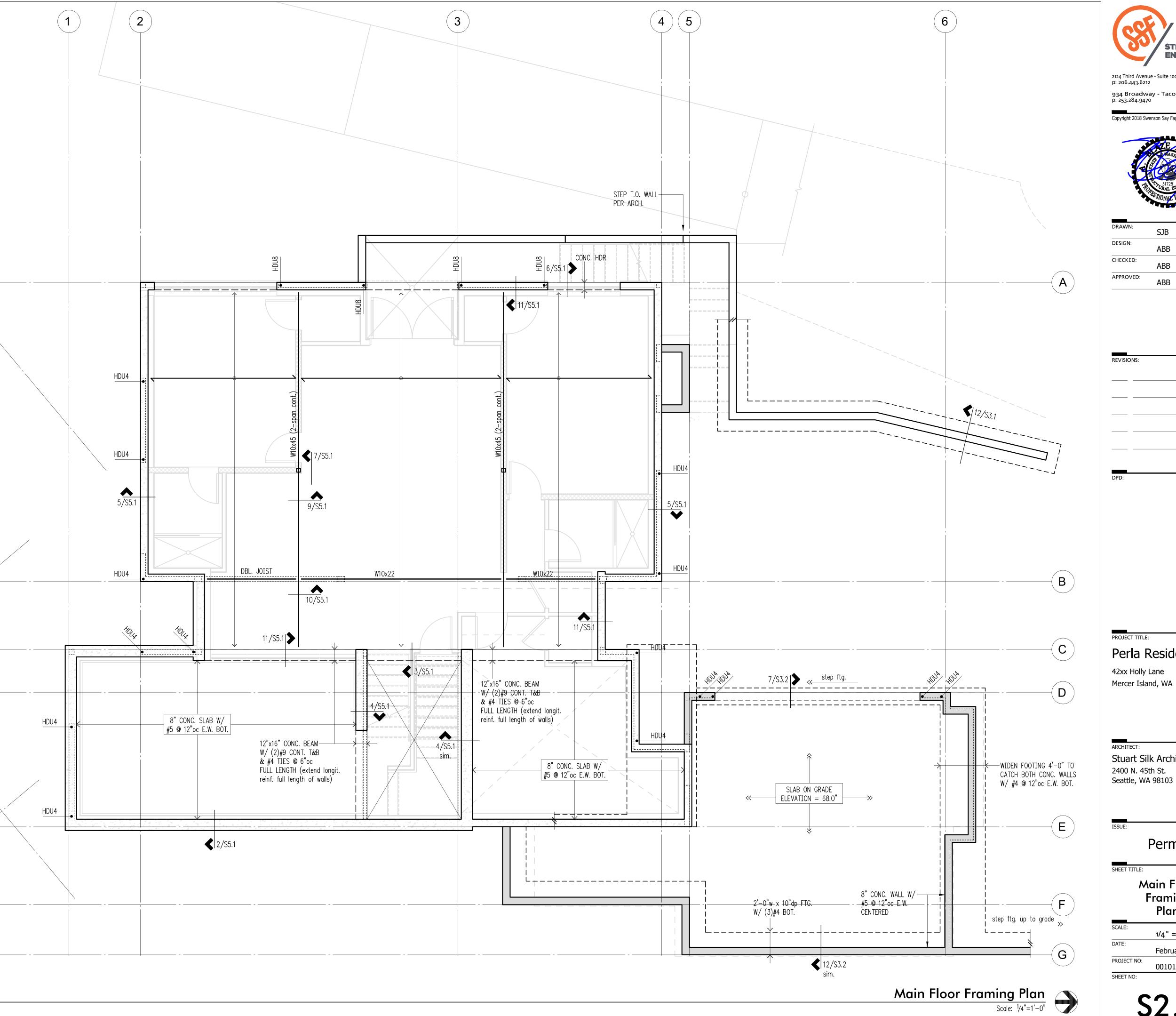
SPAN & DIRECTION OF FRAMING

SHEARWALL PER SCHEDULE 12/S4.1 BEAM/JOIST HANGER

Beam Schedule

-	Mark	Size	Hanger
	B1	LSL 1 ³ /4x11 ⁷ /8	HUCQ1.81/9
	B2	PSL 1 ³ /4x11 ⁷ /8	HUCQ410
•	В3	PSL 5 ¹ /4x11 ⁷ /8	HUCQ610





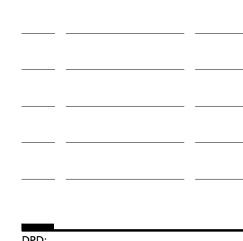
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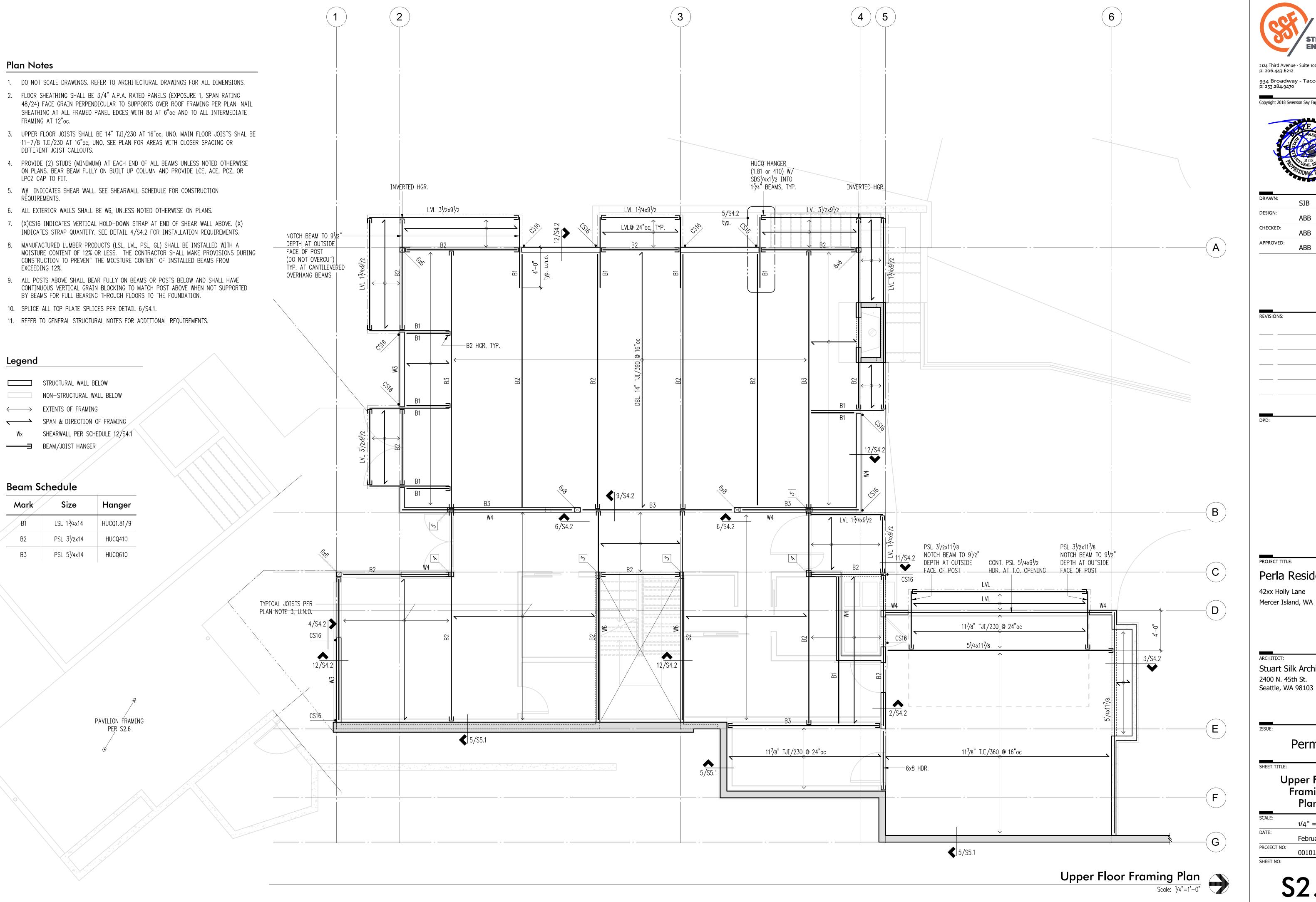
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Main Floor Framing Plan

1/4" = 1'-0" U.N.O. February 4, 2019 PROJECT NO: 00101-2018-06 SHEET NO:



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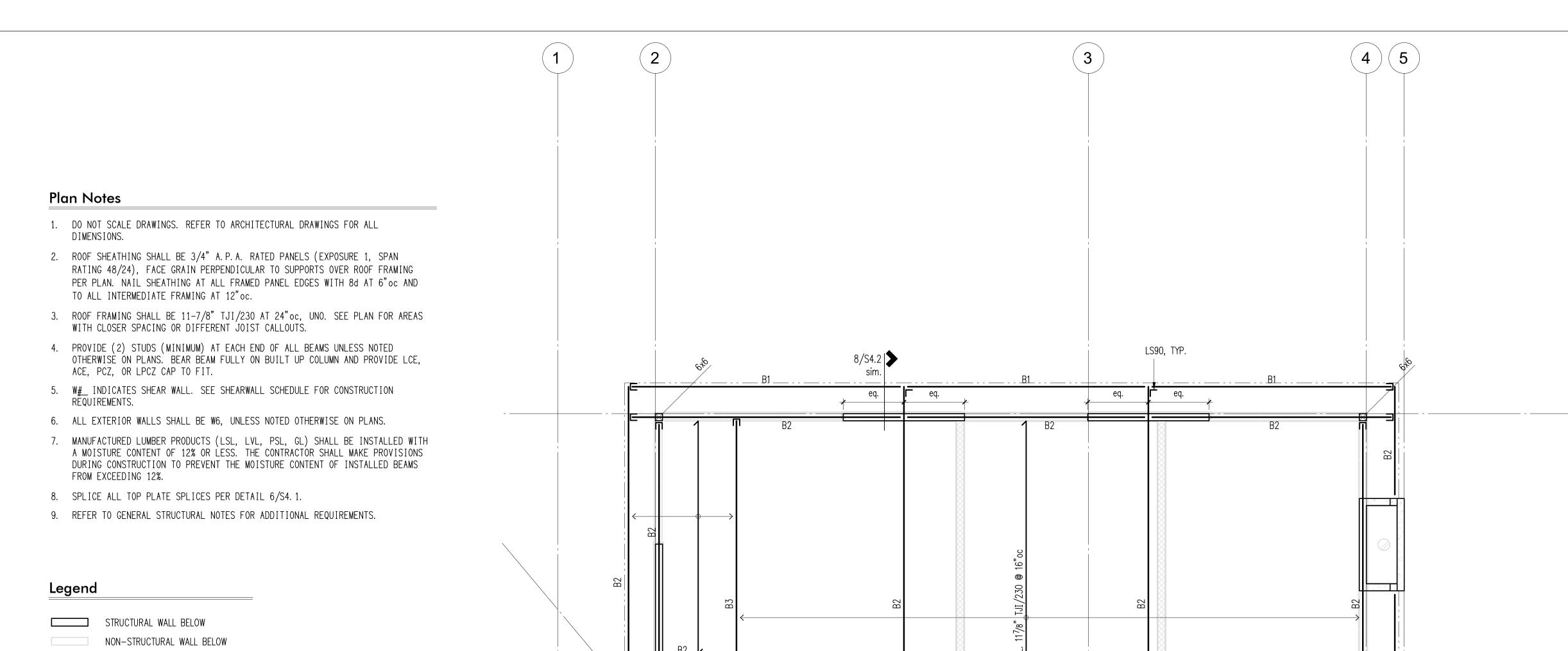
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Upper Floor Framing Plan

1/4" = 1'-0" U.N.O. February 4, 2019 PROJECT NO: 00101-2018-06 SHEET NO:



Beam Schedule

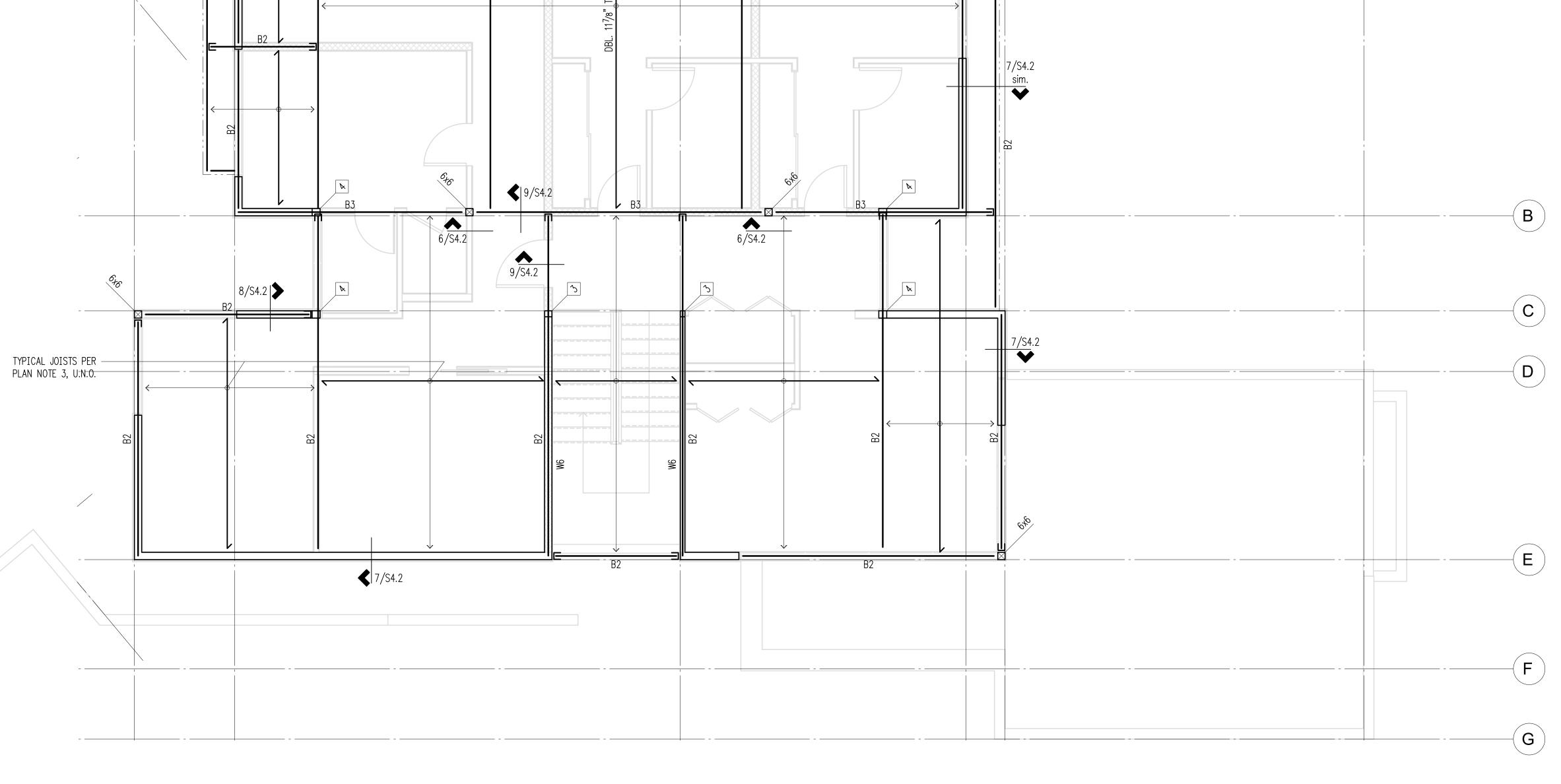
← → EXTENTS OF FRAMING

BEAM/JOIST HANGER

SPAN & DIRECTION OF FRAMING

SHEARWALL PER SCHEDULE 12/S4.1

Mark	Size	Hanger
B1	LSL 1 ³ /4x11 ⁷ /8	HUCQ1.81/9
B2	PSL 1 ³ /4x11 ⁷ /8	HUCQ410
B3	PSL 5 ¹ /4x11 ⁷ /8	HUCQ610



Roof Framing Plan
Scale: 1/4"=1'-0"



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PROJECT TITLE:

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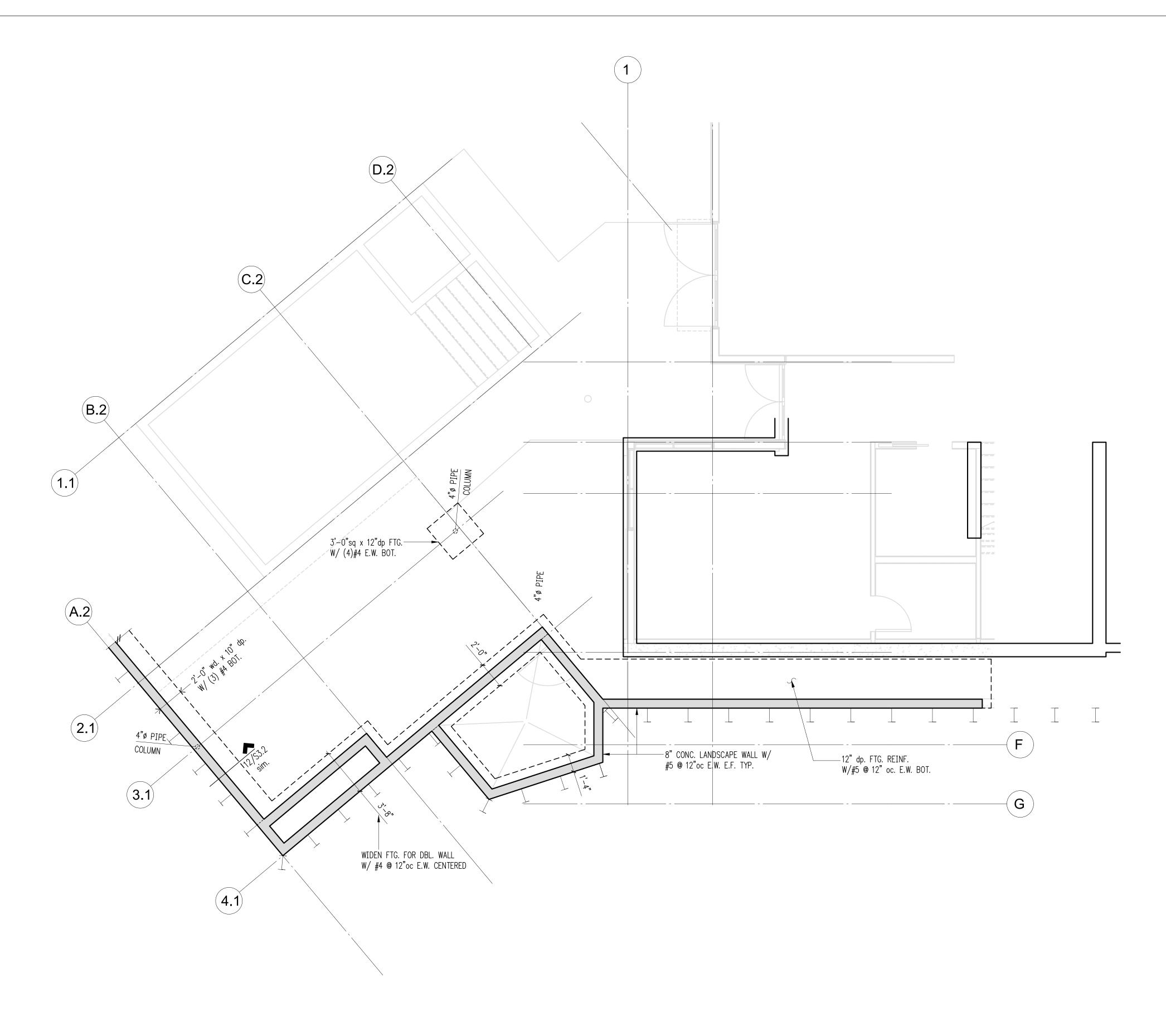
Mercer Island, WA

ARCHITECT: Stuart Silk Architects 2400 N. 45th St. Seattle, WA 98103

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Roof Framing Plan

1/4" = 1'-0" U.N.O. February 4, 2019 PROJECT NO: 00101-2018-06



Legend CONCRETE WALL ABOVE STRUCTURAL WALL ABOVE DRIVEN PILE PER SH2

Pavilion Foundation Plan
Scale: 1/4"=1'-0"





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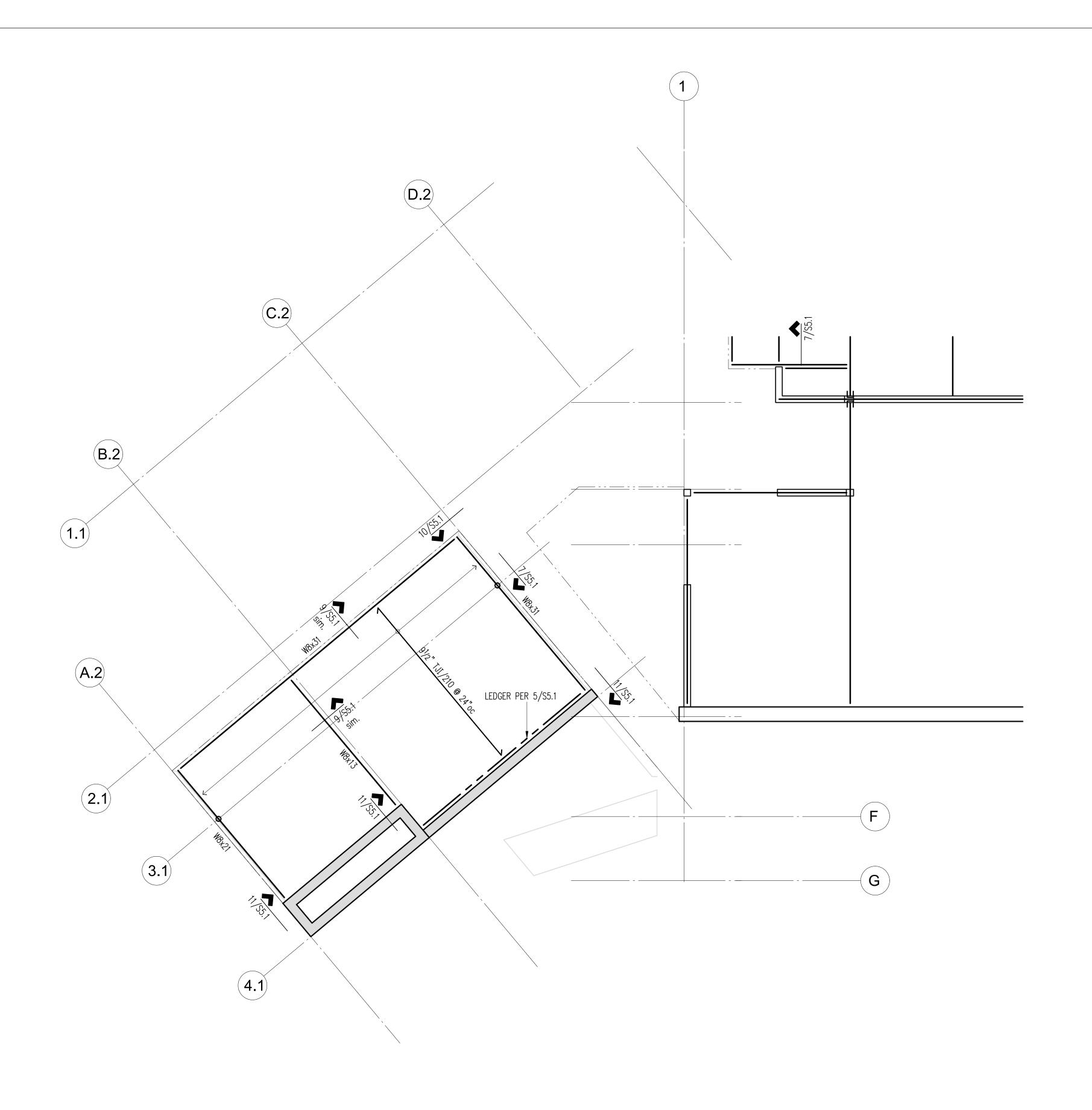
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Pavilion Foundation Plan

1/4" = 1'-0" U.N.O. February 4, 2019 PROJECT NO: 00101-2018-06 SHEET NO:



Legend

← → EXTENTS OF FRAMING

SPAN & DIRECTION OF FRAMING

BEAM/JOIST HANGER

BEAM/JOIST HANGER

Pavilion Framing Plan
Scale: 1/4"=1'-0"



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42xx Holly Lane Mercer Island, WA

ARCHITECT:
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Pavilion Framing Plan

TATE:

1/4" = 1'-0" U.N.O.

DATE:

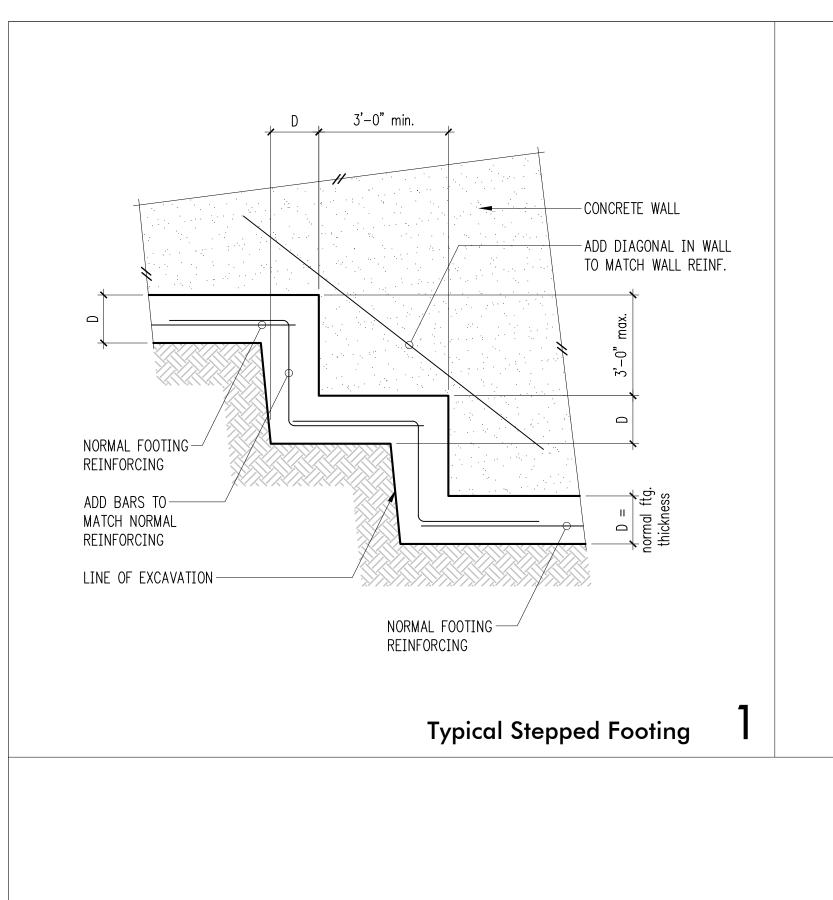
February 4, 2019

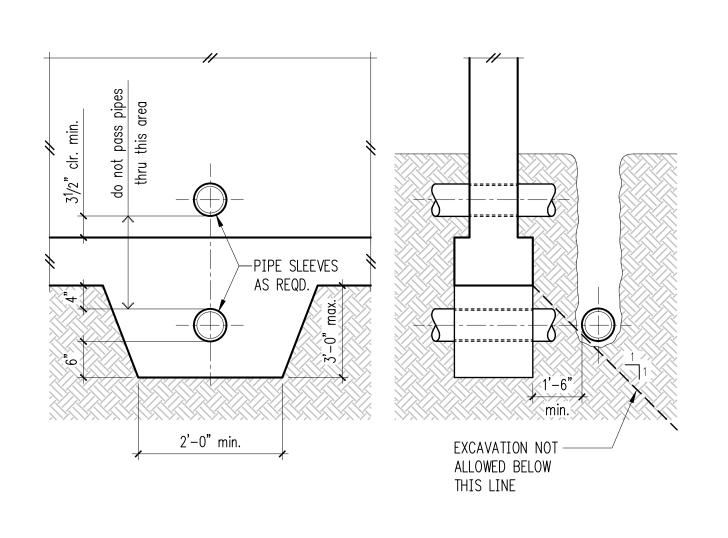
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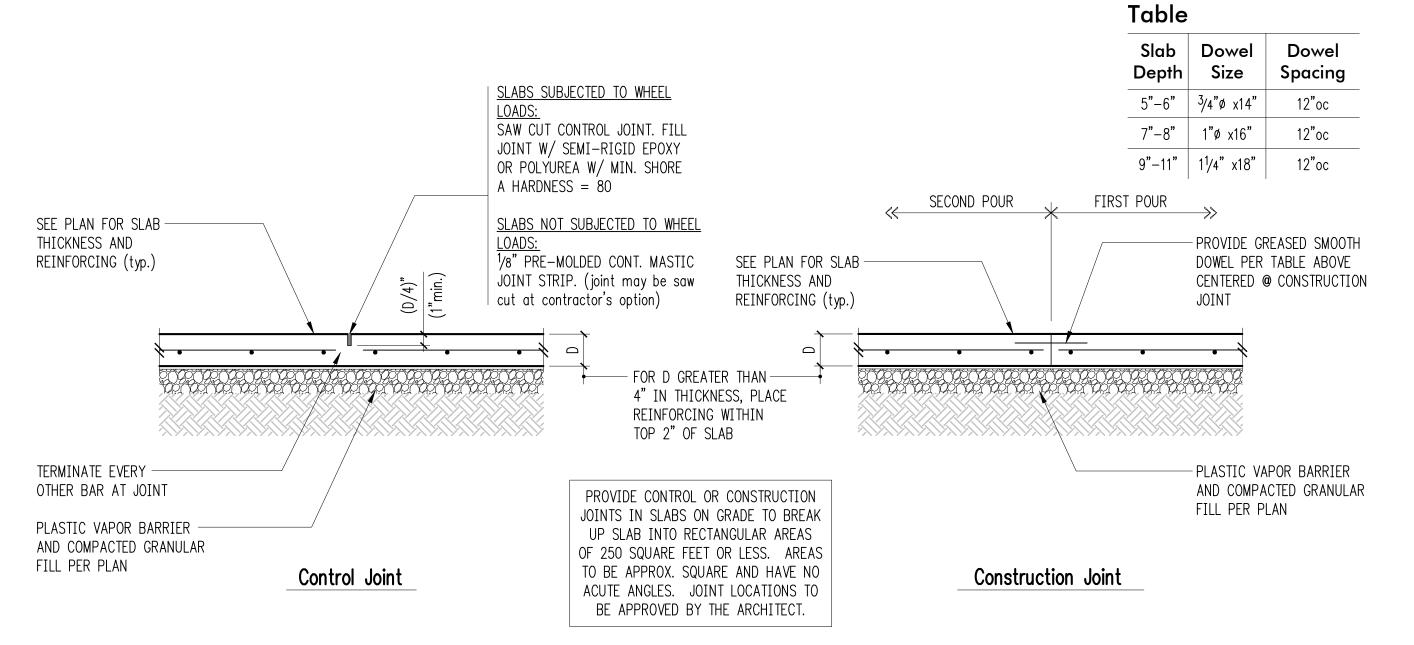
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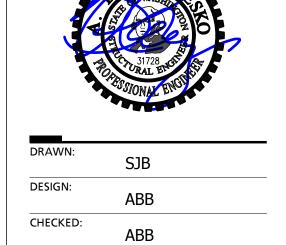
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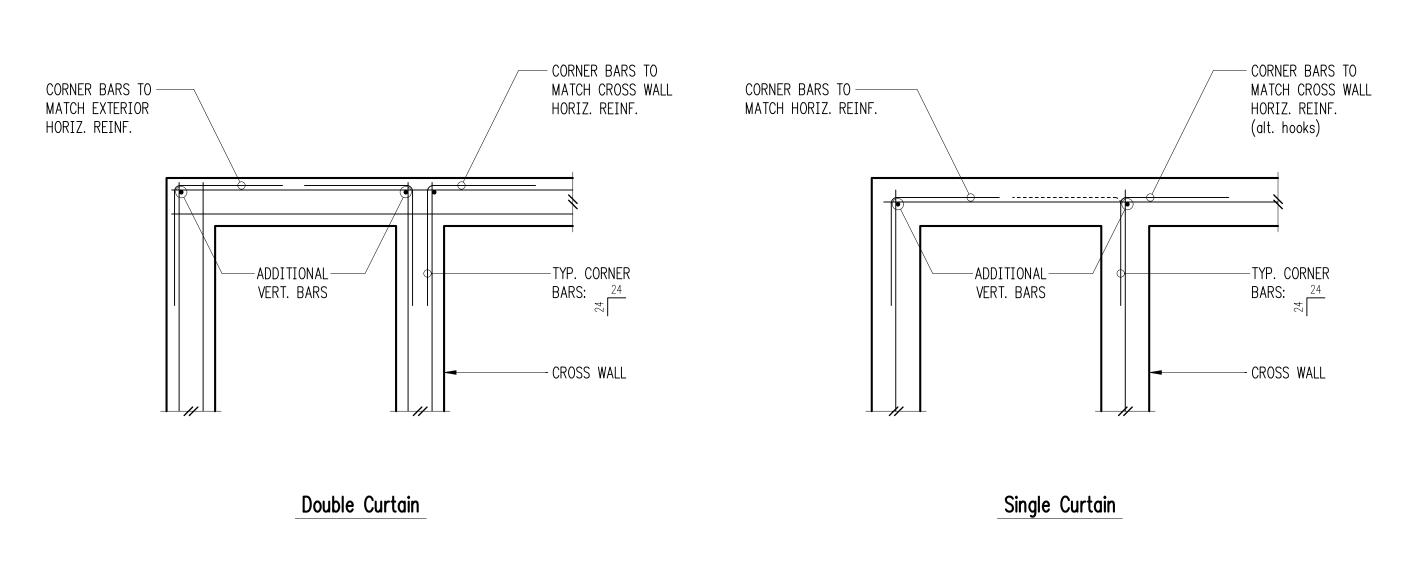
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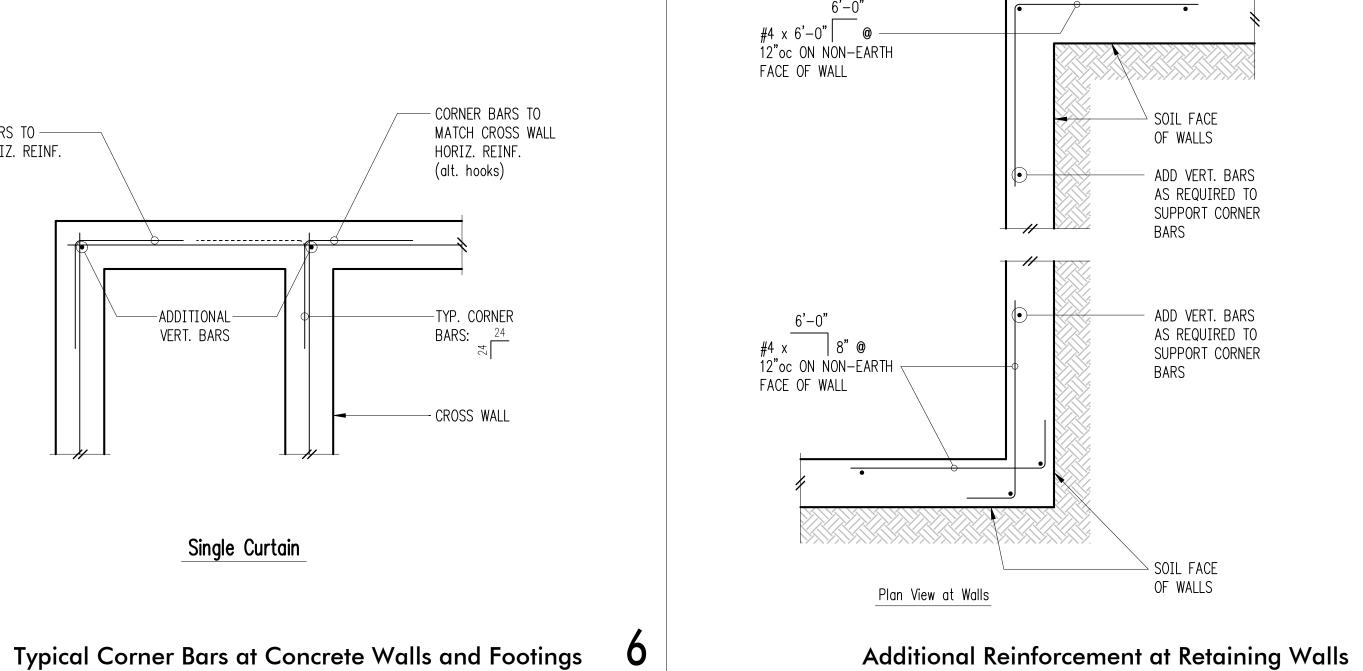
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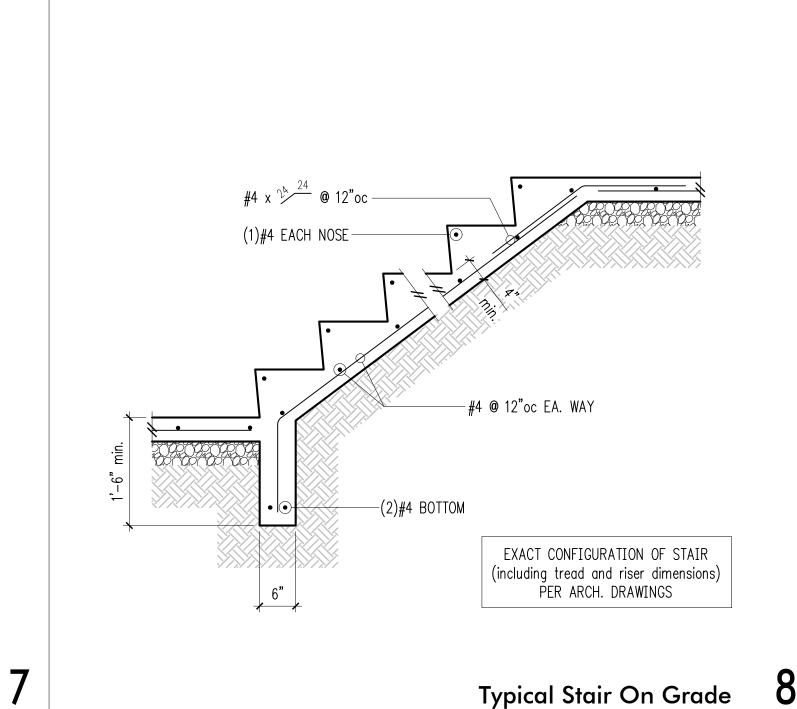
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Typical Slab Joints (rebar)





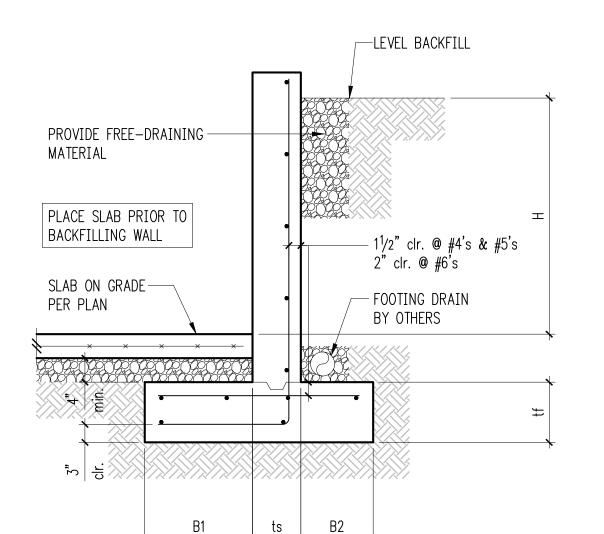


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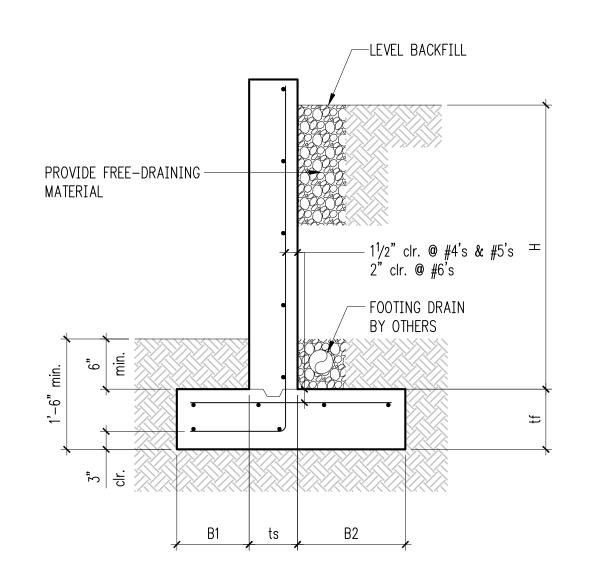
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LJ /£L \	B1	1.	D2	tf	Stem Reinforcing		Footing Reinforcing	
H (ft.)	DI	ts	B2	11	Vert.	Horiz.	Тор	Longit.
3'-0"	5"	8"	5"	8"	#4 @ 18"oc	#4 @ 12"oc	_	(2)#4
4'-0"	1'-0"	8"	5"	8"	#4 @ 18"oc	#4 @ 12"oc	_	(2)#4
6'-0"	2'-3"	8"	5"	10"	#4 @ 12"oc	#4 @ 12"oc	_	(4)#4
8'-0"	2'-9"	8"	1'-0"	12"	#5 @ 12"oc	#4 @ 12"oc	#4 @ 18"oc	(6)#5
10'-0"	3'-9"	8"	1'-6"	18"	#7 @ 12"oc	#4 @ 12"oc	#4 @ 18"oc	(8)#5



LI /ft. \	B1	ts	B2 tf Stem Reinforcing Footing	Stem Reinforcing		einforcing		
H (ft.)	БІ	15	DZ	11	Vert.	Horiz.	Тор	Longit.
3'-0"	5"	8"	5"	8"	#4 @ 18"oc	#4 @ 12"oc	_	(2)#4
4'-0"	5"	8"	1'-0"	8"	#4 @ 18"oc	#4 @ 12"oc	#4 @ 18"oc	(2)#4
6'-0"	5"	8"	2'-3"	10"	#4 @ 12"oc	#4 @ 12"oc	#4 @ 12"oc	(4)#4
8'-0"	1'-0"	8"	2'-9"	12"	#5 @ 12"oc	#4 @ 12"oc	#5 @ 12"oc	(5)#5
10'-0"	1'-9"	8"	3'-9"	18"	#7 @ 12"oc	#4 @ 12"oc	#6 @ 12"oc	(8)#5

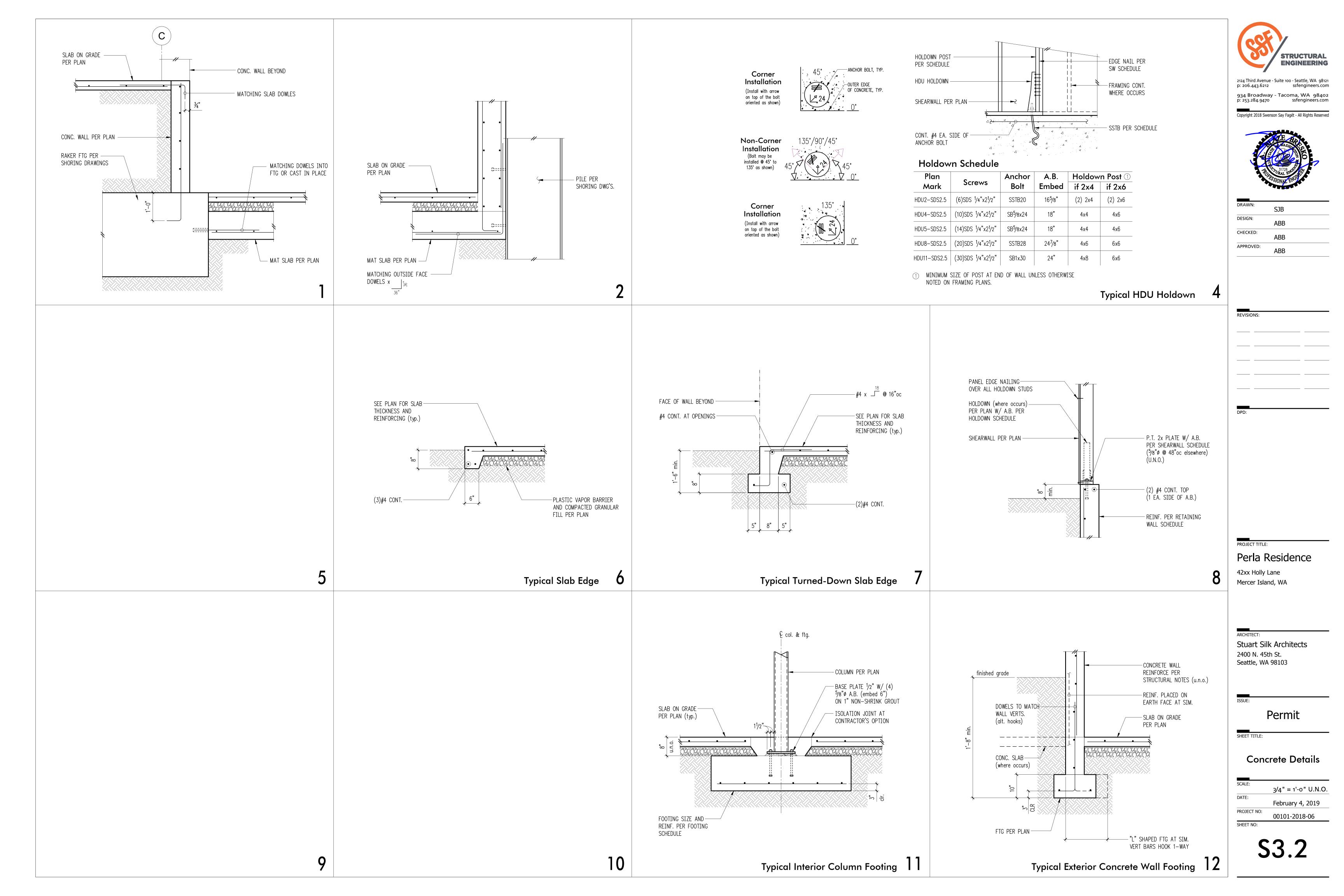
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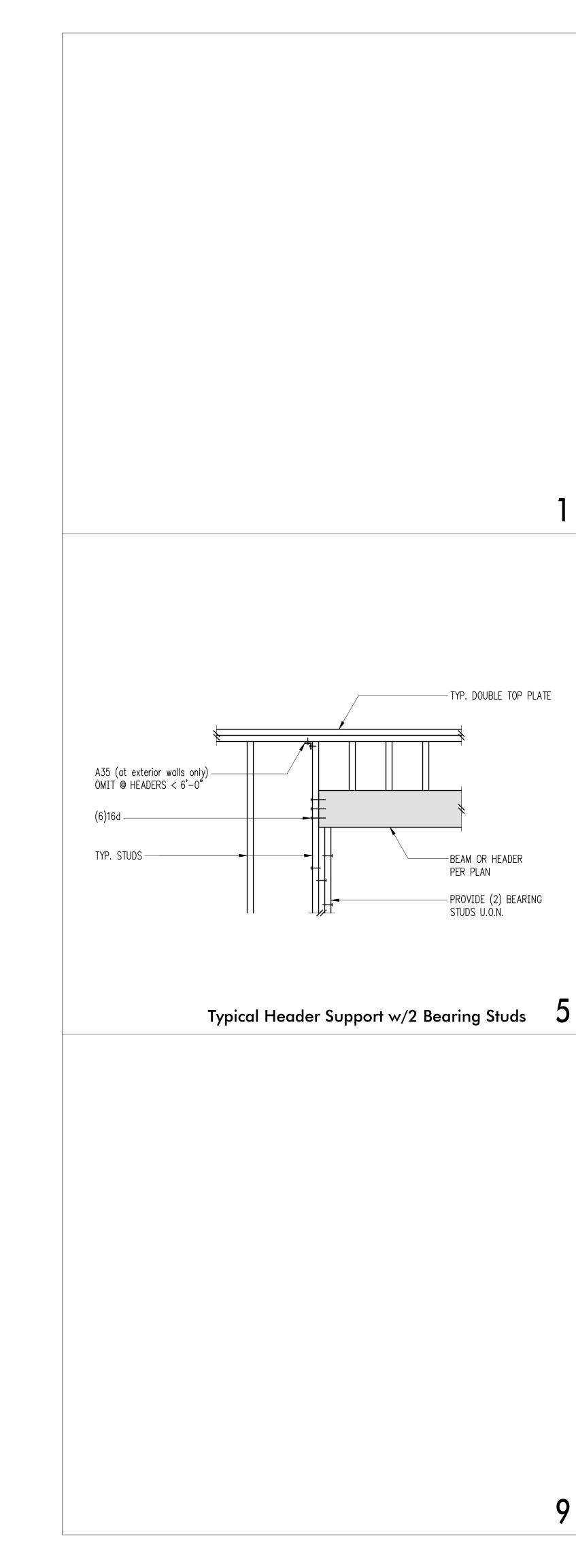
Permit

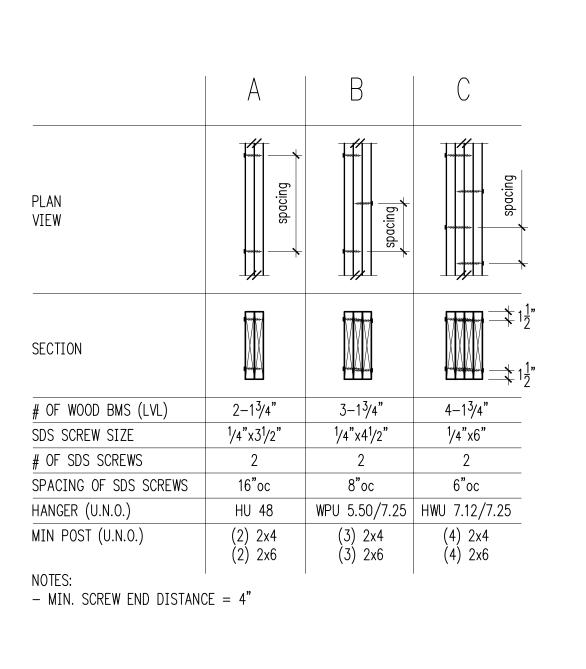
3/4" = 1'-0" U.N.O. February 4, 2019 PROJECT NO: 00101-2018-06 SHEET NO:

12

10







Sistering Schedule for Multi Beams

—(2) 16d @ EA. STUD

-BOTTOM CHORD

SPLICE

Typical Top Plate Splice 6

ÈLSEWHERE

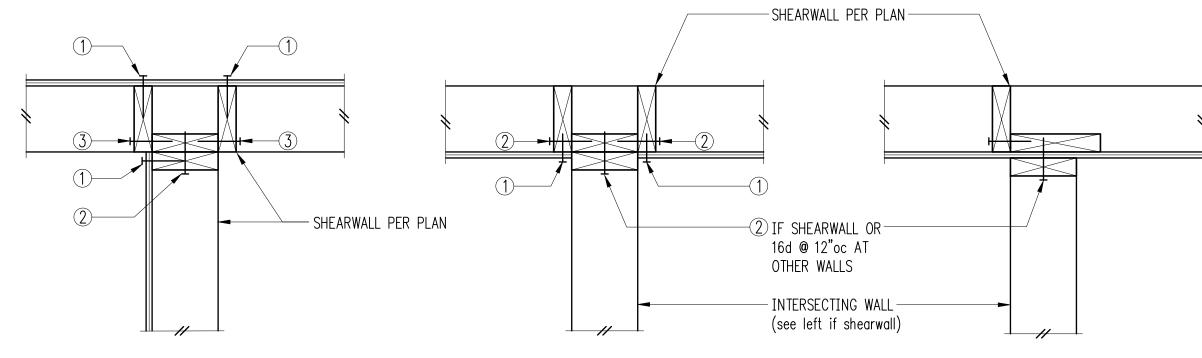
-(8)16d @ 4"oc STAGGERED

AT EACH SIDE OF SPLICE

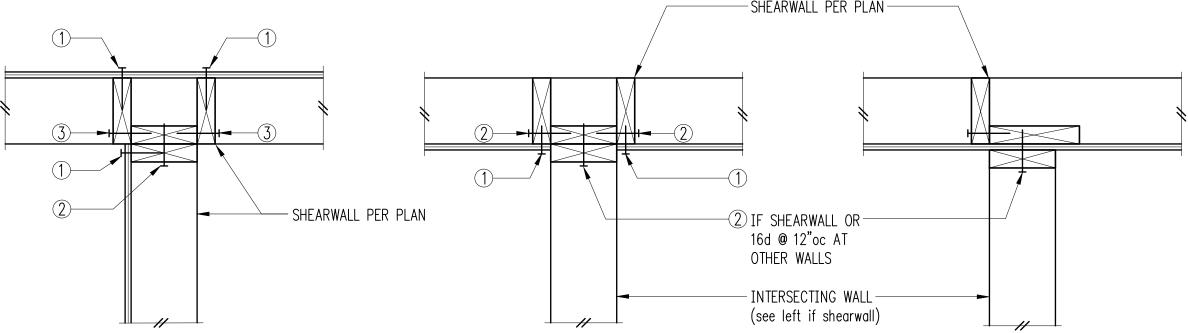
TOP CHORD SPLICE,

6'-0" min. BETWEEN SPLICES

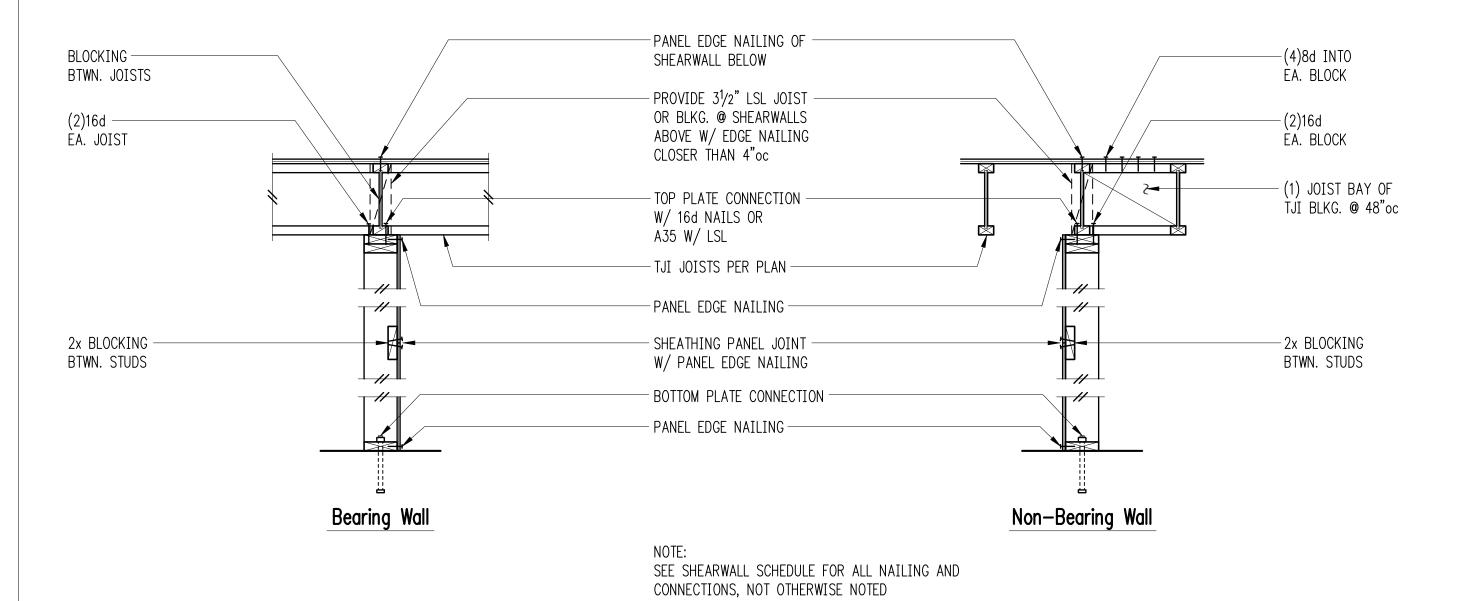
— SPLICE TO OCCUR AT € OF VERT. STUD TYP.



- 1) PLYWOOD PANEL EDGE NAILING PER SHEARWALL SCHEDULE
- 2 BASE PLATE NAILING PER SHEARWALL SCHEDULE
- (3) 16d **@** 8"oc



Typical Shearwall Intersections



Typical Shearwall Construction 8

Shearwall Schedule 1123567

-16d NAILING

2x NAILER

— PLYWOOD

EDGE

Detail A

Detail B

PLAN VIEW AT ABUTTING PANEL

EDGES OF W3 & W2

PER SCHEDULE

1/2" MAX. TO

3/8"

min

Detail C

Detail D

ÉDGE OF

WASHER

SAWN OR MFR. → П

LUMBER. 2x MIN.

SEE NOTES FOR

REQUIREMENTS

ADDITIONAL

16d NAILING-

PER SCHEDULE

EDGE NAILING

OVER EA. STUD

16d NAILING —

PER SCHEDULE

10

Shedrwall Schedule Televier								
A AI -	Clara sulla lica su	Panel Edge	Top Plate C	onnection	Base Plate Connection			
Mark	Sheathing	Nailing	if TJI	if Wood ${8 \over 9}$	at Wood ¹⁰	at Concrete		
W6	15/32" CDX PLYWOOD	8d @ 6"oc	16d @ 6"oc	A35 @ 24"oc	16d @ 6"oc	⁵ /8"ø A.B. @ 48"oc		
W4	15/32" CDX PLYWOOD	8d @ 4"oc	16d @ 4"oc	A35 @ 16"oc	(2)rows 16d @ 6"oc	⁵ /8"ø A.B. @ 32"oc		
W3 4	15/32" CDX PLYWOOD	8d @ 3"oc	(2)rows 16d @ 4"oc	A35 @ 12"oc	(2)rows 16d @ 6"oc	⁵ /8"ø A.B. @ 24"oc		
W2 4	15/32" CDX PLYWOOD	8d @ 2"oc	(2)rows 16d @ 4"oc	A35 @ 9"oc	(2)rows 16d @ 4"oc 11	⁵ /8"ø A.B. @ 16"oc		

- ① BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12"o.c.
- ② 8d NAILS SHALL BE 0.131"ø x 2 1/2" (common) 16d NAILS SHALL BE 0.135"ø x 3 1/2" (box)
- ③ EMBED ANCHOR BOLTS AT LEAST 7". EXPANSION BOLTS MAY BE SUBSTITUTED FOR ANCHOR BOLTS WITH 4" EMBEDMENT. TITEN HD SCREW ANCHORS MAY BE SUBSTITUTED FOR ANCHOR BOLTS W/ 4" EMBEDMENT. ALL BOLTS SHALL HAVE 3" x 3" x 1/4" MIN. PLATE WASHERS. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING. SEE DETAIL C.
- ④ 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2.
- SEE DETAIL B. WHERE 3x STUDS ARE USED FOR W2, STAGGER NAILS AT ADJOINING PANEL EDGES.
- 5 TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING. SEE PLANS AND HOLDOWN SCHEDULE FOR ALTERNATE REQUIREMENTS.
- ⑥ ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.
- 7/16" O.S.B. MAY BE SUBSITUTED FOR 15/32" CDX.
- ® LTP4's (HORIZIONTAL ORIENTATION) W/8d COMMON MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- 9 A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- ① AT MULTI-ROW NAILING, MINIMUM OFFSET BETWEEN ROWS AND ROW SPACING 1/2", SEE DETAIL D.
- ① PROVIDE (3) ROWS 16d @ 6"oc AT LVL RIMS.

Shearwall Schedule - (Sheathed One Side) 12

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DRAWN:	SJB	
DESIGN:	ABB	
CHECKED:	ABB	
APPROVED:	ABB	

Perla Residence

42xx Holly Lane Mercer Island, WA

Stuart Silk Architects 2400 N. 45th St. Seattle, WA 98103

SHEET TITLE:

SHEET NO:

Permit

Wood Details

3/4" = 1'-0" U.N.O. February 4, 2019 PROJECT NO: 00101-2018-06

S4.1

