

LOT 3 7418 - 78th AVENUE SE • MERCER ISLAND • WASHINGTON • 98040

GENERAL NOTES

- ALL WORK SHALL CONFORM TO APPLICABLE CODES, INCLUDING BUT NOT LIMITED TO THE 2021 INTERNATIONAL BUILDING CODE, INTERNATIONAL RESIDENTIAL CODE, THE CURRENT WASHINGTON STATE ENERGY CODE, THE WASHINGTON STATE BUILDING CODES, THE AMERICANS WITH DISABILITIES ACT, AND ALL RULES, REGULATIONS AND ORDINANCES OF THE GOVERNING AUTHORITY.
- ENGINEERED DESIGN IN ACCORDANCE WITH THE IBC IS PERMITTED.
- THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, AND SITE CONDITIONS, AND SHALL NOTIFY THE ARCHITECT IMMEDIATELY IN WRITING OF ANY DISCREPANCIES, ERRORS, OR OMISSIONS PRIOR TO PROCEEDING WITH THE WORK.
- DO NOT SCALE THE DRAWINGS FOR CRITICAL DIMENSIONS. DIMENSIONS ARE SHOWN TO FACE OF STUDS, POSTS AND CONCRETE UNLESS INDICATED OTHERWISE.
- THE PROJECT SHALL BE SCHEDULED AND INSTALLATION OF ELEMENTS COORDINATED AS NECESSARY BY THE CONTRACTOR TO PERMIT WORK BETWEEN DIFFERENT TRADES TO PROCEED WITHOUT UPSETTING PROPER CONSTRUCTION SEQUENCES OR DELAYING THE PROJECT SCHEDULE.
- CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY ALL DOOR AND WINDOW ROUGH-OPENING DIMENSIONS WITH THE DOOR AND WINDOW MANUFACTURERS.
- PLUMBING, ELECTRICAL AND MECHANICAL CONTRACTORS SHALL VERIFY ALL REQUIREMENTS FOR THIS PROJECT AND COMPLY WITH ALL LOCAL CODES, SUBMIT PLANS FOR APPROVAL AND OBTAIN PERMIT BEFORE STARTING WORK.
- SHOWN ONLY ONCE, TYPICAL DETAILS ARE NOT REFERENCED AT ALL LOCATIONS; THE INTENT IS THAT THEY APPLY THROUGHOUT THE PROJECT UNLESS OTHERWISE NOTED.
- ALL REQUIRED SHOP DRAWINGS AND SUBMITTALS SHALL BE REVIEWED BY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
- ALL SHOP DRAWING DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE CAUSED BY HIMSELF OR OTHER TRADES.
- INSPECTIONS ARE TO BE PER IRC SECTION R109.
- ADDRESS MUST BE POSTED AND VISIBLE AT CONSTRUCTION SITE PER IRC SEC R319; BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.
- ANY DEVIATION IN CONSTRUCTION FROM APPROVED PLANS REQUIRES PRIOR REVIEW AND APPROVAL FROM THE CITY OF MERCER ISLAND, PLANNING AND BUILDING DEPARTMENT.

TABLE R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

ROOF SNOW LOAD:	25 PSF
WIND SPEED:	98 MPH
SEISMIC DESIGN CATEGORY:	D2
WEATHERING:	MODERATE
FROST LINE DEPTH:	12 INCHES
TERMITE:	SLIGHT TO MODERATE
DECAY:	SLIGHT TO MODERATE
WINTER DESIGN TEMP:	24 DEGREES FAHRENHEIT
ICE SHIELD UNDERLAYMENT REQUIRED:	NO
FLOOD HAZARDS:	NA
AIR FREEZING INDEX:	113
MEAN ANNUAL TEMP:	53 DEGREES FAHRENHEIT
ASSUMED SOIL BEARING:	3000 PSF STATIC (PER SOILS REPORT DATED 4/17/24)

AUTOMATIC FIRE SPRINKLER SYSTEMS

FIRE SPRINKLERS ☒ ARE ☐ ARE NOT REQUIRED FOR THIS PROJECT. AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13D AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED.

SECTION M1501 EXHAUST SYSTEMS

M1501.1 OUTDOOR DISCHARGE
THE AIR REMOVED BY EVERY MECHANICAL EXHAUST SYSTEM SHALL BE DISCHARGED TO THE OUTDOORS IN ACCORDANCE WITH SECTION M1504.3. AIR SHALL NOT BE EXHAUSTED INTO AN ATTIC, SOFFIT, RIDGE VENT OR CRAWL SPACE...

M1502 CLOTHES DRYER EXHAUST
M1502.1 GENERAL
CLOTHES DRYERS SHALL BE EXHAUSTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

M1502.2 INDEPENDENT EXHAUST SYSTEMS
DRYER EXHAUST SYSTEMS SHALL BE INDEPENDENT OF ALL OTHER SYSTEMS AND SHALL CONVEY THE MOISTURE TO THE OUTDOORS.
EXCEPTION: THIS SECTION SHALL NOT APPLY TO LISTED AND LABELED CONDENSING (DUCTLESS) CLOTHES DRYERS.

M1502.3 DUCT TERMINATION
EXHAUST DUCTS SHALL TERMINATE ON THE OUTSIDE OF THE BUILDING. EXHAUST DUCT TERMINATIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. IF THE MANUFACTURER'S INSTRUCTIONS DO NOT SPECIFY A TERMINATION LOCATION, THE EXHAUST DUCT SHALL TERMINATE NOT LESS THAN 3 FEET IN ANY DIRECTION FROM OPENINGS INTO BUILDINGS, INCLUDING OPENINGS IN VENTILATED SOFFITS, EXHAUST DUCT TERMINATIONS SHALL BE EQUIPPED WITH A BACKDRAFT DAMPER. SCREENS SHALL NOT BE INSTALLED AT THE DUCT TERMINATION.

M1502.4 DRYER EXHAUST DUCTS
DRYER EXHAUST DUCTS SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS M1502.4.1 THROUGH M1502.4.8.

M1502.4.1 MATERIAL AND SIZE
EXHAUST DUCTS SHALL HAVE A SMOOTH INTERIOR FINISH AND SHALL BE CONSTRUCTED OF METAL NOT LESS THAN 0.0157 INCH IN THICKNESS (NO. 28 GAGE). THE DUCT SHALL BE 4 INCHES NOMINAL IN DIAMETER.

M1502.4.2 DUCT INSTALLATION
EXHAUST DUCTS SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 12 FEET AND SHALL BE SECURED IN PLACE. THE INSERT END OF THE DUCT SHALL EXTEND INTO THE ADJOINING DUCT OR FITTING IN THE DIRECTION OF AIRFLOW. EXHAUST DUCT JOINTS SHALL BE SEALED IN ACCORDANCE WITH SECTION M1504.1 AND SHALL BE MECHANICALLY FASTENED. DUCTS SHALL NOT BE JOINED WITH SCREWS OR SIMILAR FASTENERS THAT PROTRUDE MORE THAN 1/8 INCH INTO THE INSIDE OF THE DUCT. WHERE DRYER EXHAUST DUCTS ARE ENCLOSED IN WALL OR CEILING CAVITIES, SUCH CAVITIES SHALL ALLOW THE INSTALLATION OF THE DUCT WITHOUT DEFORMATION.

M1502.4.3 TRANSITION DUCT
TRANSITION DUCTS USED TO CONNECT THE DRYER TO THE EXHAUST DUCT SYSTEM SHALL BE A SINGLE LENGTH THAT IS LISTED AND LABELED IN ACCORDANCE WITH UL 2158A. TRANSITION DUCTS SHALL BE NOT GREATER THAN 8 FEET IN LENGTH. TRANSITION DUCTS SHALL NOT BE CONCEALED WITHIN CONSTRUCTION.

M1502.4.4 DRYER EXHAUST DUCT POWER VENTILATORS
DOMESTIC DRYER EXHAUST DUCT POWER VENTILATORS SHALL CONFORM TO UL 705 FOR USE IN DRYER EXHAUST DUCT SYSTEMS. THE DRYER EXHAUST DUCT POWER VENTILATOR SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

M1502.4.6 DUCT LENGTH
THE MAXIMUM ALLOWABLE EXHAUST DUCT LENGTH SHALL BE DETERMINED BY ONE OF THE METHODS SPECIFIED IN SECTIONS M1502.4.6.1 THROUGH M1502.4.6.3.

M1502.4.6.1 SPECIFIED LENGTH
THE MAXIMUM LENGTH OF THE EXHAUST DUCT SHALL BE 38 FEET FROM THE CONNECTION TO THE TRANSITION DUCT FROM THE DRYER TO THE OUTLET TERMINAL WHERE FITTINGS ARE USED. THE MAXIMUM LENGTH OF THE EXHAUST DUCT SHALL BE REDUCED IN ACCORDANCE WITH TABLE M1502.4.6.1. THE MAXIMUM LENGTH OF THE EXHAUST DUCT DOES NOT INCLUDE THE TRANSITION DUCT.

DRYER EXHAUST DUCT FITTING TYPE	EQUIVALENT LENGTH
4-INCH RADIUS MITERED 45-DEGREE ELBOW	2 FEET 6 INCHES
4-INCH RADIUS MITERED 90-DEGREE ELBOW	5 FEET
6-INCH RADIUS MITERED 45-DEGREE ELBOW	1 FOOT
6-INCH RADIUS MITERED 90-DEGREE ELBOW	1 FOOT 9 INCHES
8-INCH RADIUS MITERED 45-DEGREE ELBOW	1 FOOT
8-INCH RADIUS MITERED 90-DEGREE ELBOW	1 FOOT 7 INCHES
10-INCH RADIUS MITERED 45-DEGREE ELBOW	9 INCHES
10-INCH RADIUS MITERED 90-DEGREE ELBOW	1 FOOT 6 INCHES

M1503 DOMESTIC COOKING EXHAUST EQUIPMENT

M1503.2 DOMESTIC COOKING EXHAUST
WHERE DOMESTIC COOKING EXHAUST EQUIPMENT IS PROVIDED, IT SHALL COMPLY WITH ONE OF THE FOLLOWING:
1. THE FAN FOR OVERHEAD RANGE HOODS AND DOWNDRAFT EXHAUST EQUIPMENT NOT INTEGRAL WITH THE COOKING APPLIANCE SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 507.
2. OVERHEAD RANGE HOODS AND DOWNDRAFT EXHAUST EQUIPMENT WITH INTEGRAL FANS SHALL COMPLY WITH UL 507.
3. DOMESTIC COOKING APPLIANCES WITH INTEGRAL DOWNDRAFT EXHAUST EQUIPMENT SHALL BE LISTED AND LABELED IN ACCORDANCE WITH ANSI Z21.1 OR UL 858.
4. MICROWAVE OVENS WITH INTEGRAL EXHAUST FOR INSTALLATION OVER THE COOKING SURFACE SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 923.

M1503.6 MAKEUP AIR REQUIRED
WHERE ONE OR MORE GAS, LIQUID OR SOLID FUEL-BURNING APPLIANCE THAT IS NEITHER DIRECT-VENT NOR USES A MECHANICAL DRAFT VENTING SYSTEM IS LOCATED WITHIN A DWELLING UNIT'S AIR BARRIER, EACH EXHAUST SYSTEM CAPABLE OF EXHAUSTING IN EXCESS OF 400 CUBIC FEET PER MINUTE SHALL BE MECHANICALLY OR PASSIVELY PROVIDED WITH MAKEUP AIR AT A RATE APPROXIMATELY EQUAL TO THE EXHAUST AIR RATE. SUCH MAKEUP AIR SYSTEMS SHALL BE EQUIPPED WITH ONE DAMPER COMPLYING WITH SECTION M1503.6.2.
EXCEPTION: MAKEUP AIR IS NOT REQUIRED FOR EXHAUST SYSTEMS INSTALLED FOR THE EXCLUSIVE PURPOSE OF SPACE COOLING AND INTENDED TO BE OPERATED ONLY WHEN WINDOWS OR OTHER AIR INLETS ARE OPEN.
M1503.6.1 LOCATION
KITCHEN EXHAUST MAKEUP AIR SHALL BE DISCHARGED INTO THE SAME ROOM IN WHICH THE EXHAUST SYSTEM IS LOCATED OR INTO ROOMS OR DUCT SYSTEMS THAT COMMUNICATE THROUGH ONE OR MORE PERMANENT OPENINGS WITH THE ROOM IN WHICH SUCH EXHAUST SYSTEM IS LOCATED. SUCH PERMANENT OPENINGS SHALL HAVE A NET CROSS-SECTIONAL AREA NOT LESS THAN THE REQUIRED AREA OF THE MAKEUP AIR SUPPLY OPENINGS.
M1503.6.2 MAKEUP AIR DAMPERS
WHERE MAKEUP AIR IS REQUIRED BY SECTION M1503.6, MAKEUP AIR DAMPERS SHALL COMPLY WITH THIS SECTION. EACH DAMPER SHALL HAVE A GRAVITY DAMPER OR AN ELECTRICALLY OPERATED DAMPER THAT AUTOMATICALLY OPENS WHEN THE EXHAUST SYSTEM OPERATES. DAMPERS SHALL BE LOCATED TO ALLOW ACCESS FOR INSPECTION, SERVICE, REPAIR AND REPLACEMENT WITHOUT REMOVING PERMANENT CONSTRUCTION OR ANY OTHER DUCTS NOT CONNECTED TO THE DAMPER BEING INSPECTED, SERVICED, REPAIRED OR REPLACED. GRAVITY OR BAROMETRIC DAMPERS SHALL NOT BE USED IN PASSIVE MAKEUP AIR SYSTEMS EXCEPT WHERE THE DAMPERS ARE RATED TO PROVIDE THE DESIGN MAKEUP AIRFLOW AT A PRESSURE DIFFERENTIAL OF 0.01 IN. W.C. OR LESS.

M1504 EXHAUST DUCTS AND EXHAUST OPENINGS

M1504.2 DUCT LENGTH
THE LENGTH OF EXHAUST AND SUPPLY DUCTS USED WITH VENTILATING EQUIPMENT SHALL NOT EXCEED THE LENGTHS DETERMINED IN ACCORDANCE WITH TABLE M1504.2.
EXCEPTION: DUCT LENGTH SHALL NOT BE LIMITED WHERE THE DUCT SYSTEM COMPLIES WITH THE MANUFACTURER'S DESIGN CRITERIA OR WHERE THE FLOW RATE OF THE INSTALLED VENTILATING EQUIPMENT IS VERIFIED BY THE INSTALLER OR APPROVED THIRD PARTY USING A FLOW HOOD, FLOW GRID OR OTHER AIRFLOW MEASURING DEVICE.

DUCT TYPE	FLEX DUCT	SMOOTH-WALL DUCT
FAN AIRFLOW RATING	50 80 100 125 150 200 250 300	50 80 100 125 150 200 250 300
DIAMETER (INCHES)	MAXIMUM LENGTH (FEET)	MAXIMUM LENGTH (FEET)
3	X X X X X X X X	X X X X X X X X
4	56 4 X X X X X X	114 31 10 X X X X X
5	NL 81 42 16 2 X X X	NL 152 91 51 28 4 X X
6	NL NL 158 91 55 18 1 X	NL NL NL 168 112 53 25 9
7	NL NL NL 161 78 40 19	NL NL NL NL 148 88 54
8 AND ABOVE	NL NL NL NL NL 189 111 69	NL NL NL NL NL NL 198 133

- FAN AIRFLOW RATING SHALL BE IN ACCORDANCE WITH ANSI/AMCA 210-ANSI/ASHRAE 51.
- FOR NONCIRCULAR DUCTS, CALCULATE THE DIAMETER AS FOUR TIMES THE CROSS-SECTIONAL AREA DIVIDED BY THE PERIMETER.
- THIS TABLE ASSUMES THAT ELBOWS ARE NOT USED. FIFTEEN FEET OF ALLOWABLE DUCT LENGTH SHALL BE DEDUCTED FOR EACH ELBOW INSTALLED IN THE DUCT RUN.
- NL = NO LIMIT ON DUCT LENGTH OF THIS SIZE.
- X = NOT ALLOWED, ANY LENGTH OF DUCT OF THIS SIZE WITH ASSUMED TURNS AND FITTINGS WILL EXCEED THE RATED PRESSURE DROP.

M1504.3 EXHAUST OPENINGS

AIR EXHAUST OPENINGS SHALL TERMINATE AS FOLLOWS:

- NOT LESS THAN 3 FEET FROM PROPERTY LINES.
- NOT LESS THAN 3 FEET FROM GRAVITY AIR INTAKE OPENINGS, OPERABLE WINDOWS AND DOORS.
- NOT LESS THAN 10 FEET FROM MECHANICAL AIR INTAKE OPENINGS EXCEPT WHERE EITHER OF THE FOLLOWING APPLY:
3.1 THE EXHAUST OPENING IS LOCATED NOT LESS THAN 3 FEET ABOVE THE AIR INTAKE OPENING.
3.2 THE EXHAUST OPENING IS PART OF A FACTORY-BUILT INTAKE/EXHAUST COMBINATION TERMINATION FITTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, AND THE EXHAUST AIR IS DRAWN FROM A LIVING SPACE.
- OPENINGS SHALL COMPLY WITH SECTIONS R303.5.2 AND R303.6.

M1505 MECHANICAL VENTILATION

M1505.4 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM

M1505.4.1 SYSTEM DESIGN
THE WHOLE-HOUSE VENTILATION SYSTEM SHALL CONSIST OF ONE OR MORE SUPPLY FANS, ONE OR MORE EXHAUST FANS, OR AN ERV/HRV WITH INTEGRAL FANS, ASSOCIATED DUCTS AND CONTROLS. WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM WITH SUPPLY AND EXHAUST FANS PER SECTIONS M1505.4.1.2, M1505.4.1.3, M1505.4.1.4, AND M1505.4.1.5. LOCAL EXHAUST FANS ARE PERMITTED TO SERVE AS PART OF THE WHOLE-HOUSE VENTILATION SYSTEM WHEN PROVIDED WITH THE FOLLOWING CONTROLS PER SECTION M1505.4.2. THE SYSTEMS SHALL BE DESIGNED AND INSTALLED TO EXHAUST AND/OR SUPPLY THE MINIMUM OUTDOOR AIRFLOW RATES PER SECTION M1505.4.3 AS MODIFIED BY THE WHOLE-HOUSE VENTILATION SYSTEM COEFFICIENTS IN SECTION M1504.5.3.1 WHERE APPLICABLE. THE WHOLE-HOUSE VENTILATION SYSTEM SHALL OPERATE CONTINUOUSLY AT THE MINIMUM VENTILATION RATE DETERMINED PER SECTION M1505.4.2 UNLESS CONFIGURED WITH INTERMITTENT OFF CONTROLS PER SECTION M1505.4.3.2.

M1505.4.1.1 WHOLE-HOUSE SYSTEM COMPONENT REQUIREMENTS
WHOLE-HOUSE VENTILATION SUPPLY AND EXHAUST FANS SPECIFIED IN THIS SECTION SHALL HAVE A MINIMUM EFFICACY AS PRESCRIBED IN THE WASHINGTON STATE ENERGY CODE. DESIGN AND INSTALLATION OF THE SYSTEM OR EQUIPMENT SHALL BE CARRIED OUT IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. WHOLE-HOUSE VENTILATION FANS SHALL BE RATED FOR SOUND AT NO LESS THAN THE MINIMUM AIRFLOW RATE REQUIRED BY SECTION M1505.4.3.1. VENTILATION FANS SHALL BE RATED FOR SOUND AT A MAXIMUM OF 1.0 SONE. THIS SOUND RATING SHALL BE AT A MINIMUM OF 0.1 IN. W.C. (25 PA) STATIC PRESSURE IN ACCORDANCE WITH HVI PROCEDURES SPECIFIED IN SECTIONS M1505.4.1.2 AND M1505.4.1.3.
EXCEPTION: HVAC AIR HANDLERS, ERV/HRV UNITS, AND REMOTE-MOUNTED FANS NEED NOT MEET THE SOUND REQUIREMENTS, TO BE CONSIDERED FOR THIS EXCEPTION, A REMOTE-MOUNTED FAN MUST BE MOUNTED OUTSIDE THE HABITABLE SPACES, BATHROOMS, TOILETS, AND HALLWAYS, AND THERE MUST BE AT LEAST 4 FEET (1219 MM) OF DUCTWORK BETWEEN THE FAN AND THE INTAKE GRILLE.

THE WHOLE-HOUSE SUPPLY FAN SHALL PROVIDE DUCTED OUTDOOR VENTILATION AIR TO EACH HABITABLE SPACE WITHIN THE RESIDENTIAL UNIT.
EXCEPTION: INTERIOR JOINING SPACES PROVIDED WITH A 30 CFM (0.0141 M3/S) WHOLE-HOUSE TRANSFER FAN OR A PERMANENT OPENING WITH AN AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF THE INTERIOR ADJOINING SPACE BUT NOT LESS THAN 25 SQUARE FEET (2.3 M2) DO NOT REQUIRE DUCTED OUTDOOR VENTILATION AIR TO BE SUPPLIED DIRECTLY TO THE SPACE. WHOLE-HOUSE TRANSFER FANS SHALL MEET THE SONE RATING OF SECTION M1505.4.1.1 AND SHALL HAVE WHOLE-HOUSE VENTILATION CONTROLS THAT COMPLY WITH SECTION M1505.4.2.

M1505.4.1.2 EXHAUST FANS
EXHAUST FANS REQUIRED SHALL BE DUCTED DIRECTLY TO THE OUTSIDE. EXHAUST AIR OUTLETS SHALL BE DESIGNED TO LIMIT THE PRESSURE DIFFERENCE TO THE OUTSIDE AND EQUIPPED WITH BACKDRAFT DAMPERS OR MOTORIZED DAMPERS IN ACCORDANCE WITH THE WASHINGTON STATE ENERGY CODE. EXHAUST FANS SHALL BE TESTED AND RATED IN ACCORDANCE WITH THE AIRFLOW AND SOUND RATING PROCEDURES OF THE HOME VENTILATING INSTITUTE (HVI 915, HVI 916, HVI 920, HVI 921, HVI 922, HVI 923, HVI 924, HVI 925, HVI 926, HVI 927, HVI 928, HVI 929, HVI 930, HVI 931, HVI 932, HVI 933, HVI 934, HVI 935, HVI 936, HVI 937, HVI 938, HVI 939, HVI 940, HVI 941, HVI 942, HVI 943, HVI 944, HVI 945, HVI 946, HVI 947, HVI 948, HVI 949, HVI 950, HVI 951, HVI 952, HVI 953, HVI 954, HVI 955, HVI 956, HVI 957, HVI 958, HVI 959, HVI 960, HVI 961, HVI 962, HVI 963, HVI 964, HVI 965, HVI 966, HVI 967, HVI 968, HVI 969, HVI 970, HVI 971, HVI 972, HVI 973, HVI 974, HVI 975, HVI 976, HVI 977, HVI 978, HVI 979, HVI 980, HVI 981, HVI 982, HVI 983, HVI 984, HVI 985, HVI 986, HVI 987, HVI 988, HVI 989, HVI 990, HVI 991, HVI 992, HVI 993, HVI 994, HVI 995, HVI 996, HVI 997, HVI 998, HVI 999, HVI 1000, HVI 1001, HVI 1002, HVI 1003, HVI 1004, HVI 1005, HVI 1006, HVI 1007, HVI 1008, HVI 1009, HVI 1010, HVI 1011, HVI 1012, HVI 1013, HVI 1014, HVI 1015, HVI 1016, HVI 1017, HVI 1018, HVI 1019, HVI 1020, HVI 1021, HVI 1022, HVI 1023, HVI 1024, HVI 1025, HVI 1026, HVI 1027, HVI 1028, HVI 1029, HVI 1030, HVI 1031, HVI 1032, HVI 1033, HVI 1034, HVI 1035, HVI 1036, HVI 1037, HVI 1038, HVI 1039, HVI 1040, HVI 1041, HVI 1042, HVI 1043, HVI 1044, HVI 1045, HVI 1046, HVI 1047, HVI 1048, HVI 1049, HVI 1050, HVI 1051, HVI 1052, HVI 1053, HVI 1054, HVI 1055, HVI 1056, HVI 1057, HVI 1058, HVI 1059, HVI 1060, HVI 1061, HVI 1062, HVI 1063, HVI 1064, HVI 1065, HVI 1066, HVI 1067, HVI 1068, HVI 1069, HVI 1070, HVI 1071, HVI 1072, HVI 1073, HVI 1074, HVI 1075, HVI 1076, HVI 1077, HVI 1078, HVI 1079, HVI 1080, HVI 1081, HVI 1082, HVI 1083, HVI 1084, HVI 1085, HVI 1086, HVI 1087, HVI 1088, HVI 1089, HVI 1090, HVI 1091, HVI 1092, HVI 1093, HVI 1094, HVI 1095, HVI 1096, HVI 1097, HVI 1098, HVI 1099, HVI 1100, HVI 1101, HVI 1102, HVI 1103, HVI 1104, HVI 1105, HVI 1106, HVI 1107, HVI 1108, HVI 1109, HVI 1110, HVI 1111, HVI 1112, HVI 1113, HVI 1114, HVI 1115, HVI 1116, HVI 1117, HVI 1118, HVI 1119, HVI 1120, HVI 1121, HVI 1122, HVI 1123, HVI 1124, HVI 1125, HVI 1126, HVI 1127, HVI 1128, HVI 1129, HVI 1130, HVI 1131, HVI 1132, HVI 1133, HVI 1134, HVI 1135, HVI 1136, HVI 1137, HVI 1138, HVI 1139, HVI 1140, HVI 1141, HVI 1142, HVI 1143, HVI 1144, HVI 1145, HVI 1146, HVI 1147, HVI 1148, HVI 1149, HVI 1150, HVI 1151, HVI 1152, HVI 1153, HVI 1154, HVI 1155, HVI 1156, HVI 1157, HVI 1158, HVI 1159, HVI 1160, HVI 1161, HVI 1162, HVI 1163, HVI 1164, HVI 1165, HVI 1166, HVI 1167, HVI 1168, HVI 1169, HVI 1170, HVI 1171, HVI 1172, HVI 1173, HVI 1174, HVI 1175, HVI 1176, HVI 1177, HVI 1178, HVI 1179, HVI 1180, HVI 1181, HVI 1182, HVI 1183, HVI 1184, HVI 1185, HVI 1186, HVI 1187, HVI 1188, HVI 1189, HVI 1190, HVI 1191, HVI 1192, HVI 1193, HVI 1194, HVI 1195, HVI 1196, HVI 1197, HVI 1198, HVI 1199, HVI 1200, HVI 1201, HVI 1202, HVI 1203, HVI 1204, HVI 1205, HVI 1206, HVI 1207, HVI 1208, HVI 1209, HVI 1210, HVI 1211, HVI 1212, HVI 1213, HVI 1214, HVI 1215, HVI 1216, HVI 1217, HVI 1218, HVI 1219, HVI 1220, HVI 1221, HVI 1222, HVI 1223, HVI 1224, HVI 1225, HVI 1226, HVI 1227, HVI 1228, HVI 1229, HVI 1230, HVI 1231, HVI 1232, HVI 1233, HVI 1234, HVI 1235, HVI 1236, HVI 1237, HVI 1238, HVI 1239, HVI 1240, HVI 1241, HVI 1242, HVI 1243, HVI 1244, HVI 1245, HVI 1246, HVI 1247, HVI 1248, HVI 1249, HVI 1250, HVI 1251, HVI 1252, HVI 1253, HVI 1254, HVI 1255, HVI 1256, HVI 1257, HVI 1258, HVI 1259, HVI 1260, HVI 1261, HVI 1262, HVI 1263, HVI 1264, HVI 1265, HVI 1266, HVI 1267, HVI 1268, HVI 1269, HVI 1270, HVI 1271, HVI 1272, HVI 1273, HVI 1274, HVI 1275, HVI 1276, HVI 1277, HVI 1278, HVI 1279, HVI 1280, HVI 1281, HVI 1282, HVI 1283, HVI 1284, HVI 1285, HVI 1286, HVI 1287, HVI 1288, HVI 1289, HVI 1290, HVI 1291, HVI 1292, HVI 1293, HVI 1294, HVI 1295, HVI 1296, HVI 1297, HVI 1298, HVI 1299, HVI 1300, HVI 1301, HVI 1302, HVI 1303, HVI 1304, HVI 1305, HVI 1306, HVI 1307, HVI 1308, HVI 1309, HVI 1310, HVI 1311, HVI 1312, HVI 1313, HVI 1314, HVI 1315, HVI 1316, HVI 1317, HVI 1318, HVI 1319, HVI 1320, HVI 1321, HVI 1322, HVI 1323, HVI 1324, HVI 1325, HVI 1326, HVI 1327, HVI 1328, HVI 1329, HVI 1330, HVI 1331, HVI 1332, HVI 1333, HVI 1334, HVI 1335, HVI 1336, HVI 1337, HVI 1338, HVI 1339, HVI 1340, HVI 1341, HVI 1342, HVI 1343, HVI 1344, HVI 1345, HVI 1346, HVI 1347, HVI 1348, HVI 1349, HVI 1350, HVI 1351, HVI 1352, HVI 1353, HVI 1354, HVI 1355, HVI 1356, HVI 1357, HVI 1358, HVI 1359, HVI 1360, HVI 1361, HVI 1362, HVI 1363, HVI 1364, HVI 1365, HVI 1366, HVI 1367, HVI 1368, HVI 1369, HVI 1370, HVI 1371, HVI 1372, HVI 1373, HVI 1374, HVI 1375, HVI 1376, HVI 1377, HVI 1378, HVI 1379, HVI 1380, HVI 1381, HVI 1382, HVI 1383, HVI 1384, HVI 1385, HVI 1386, HVI 1387, HVI 1388, HVI 1389, HVI 1390, HVI 1391, HVI 1392, HVI 1393, HVI 1394, HVI 1395, HVI 1396, HVI 1397, HVI 1398, HVI 1399, HVI 1400, HVI 1401, HVI 1402, HVI 1403, HVI 1404, HVI 1405, HVI 1406, HVI 1407, HVI 1408, HVI 1409, HVI 1410, HVI 1411, HVI 1412, HVI 1413, HVI 1414, HVI 1415, HVI 1416, HVI 1417, HVI 1418, HVI 1419, HVI 1420, HVI 1421, HVI 1422, HVI 1423, HVI 1424, HVI 1425, HVI 1426, HVI 1427, HVI 1428, HVI 1429, HVI 1430, HVI 1431, HVI 1432, HVI 1433, HVI 1434, HVI 1435, HVI 1436, HVI 1437, HVI 1438, HVI 1439, HVI 1440, HVI 1441, HVI 1442, HVI 1443, HVI 1444, HVI 1445, HVI 1446, HVI 1447, HVI 1448, HVI 1449, HVI 1450, HVI 1451, HVI 1452, HVI 1453, HVI 1454, HVI 1455, HVI 1456, HVI 1457, HVI 1458, HVI 1459, HVI 1460, HVI 1461, HVI 1462, HVI 1463, HVI 1464, HVI 1465, HVI 1466, HVI 1467, HVI 1468, HVI 1469, HVI 1470, HVI 1471, HVI 1472, HVI 1473, HVI 1474, HVI 1475, HVI 1476, HVI 1477, HVI 1478, HVI 1479, HVI 1480, HVI 1481, HVI 1482, HVI 1483, HVI 1484, HVI 1485, HVI 1486, HVI 1487, HVI 1488, HVI 1489, HVI 1490, HVI 1491, HVI 1492, HVI 1493, HVI 1494, HVI 1495, HVI 1496, HVI 1497, HVI 1498, HVI 1499, HVI 1500, HVI 1501, HVI 1502, HVI 1503, HVI 1504, HVI 1505, HVI 1506, HVI 1507, HVI 1508, HVI 1509, HVI 1510, HVI 1511, HVI 1512, HVI 1513, HVI 1514, HVI 1515, HVI 1516, HVI 1517, HVI 1518, HVI 1519, HVI 1520, HVI 1521, HVI 1522, HVI 1523, HVI 1524, HVI 1525, HVI 1526, HVI 1527, HVI 1528, HVI 1529, HVI 1530, HVI 1531, HVI 1532, HVI 1533, HVI 1534, HVI 1535, HVI 1536, HVI 1537, HVI 1538, HVI 1539, HVI 1540, HVI 1541, HVI 1542, HVI 1543, HVI 1544, HVI 1545, HVI 1546, HVI 1547, HVI 1548, HVI 1549, HVI 1550, HVI 1551, HVI 1552, HVI 1553, HVI 1554, HVI 1555, HVI 1556, HVI 1557, HVI 1558, HVI 1559, HVI 1560, HVI 1561, HVI 1562, HVI 1563, HVI 1564, HVI 1565, HVI 1566, HVI 1567, HVI 1568, HVI 1569, HVI 1570, HVI 1571, HVI 1572, HVI 1573, HVI 1574, HVI 1575, HVI 1576, HVI 1577, HVI 1578, HVI 1579, HVI 1580, HVI 1581, HVI 1582, HVI 1583, HVI 1584, HVI 1585, HVI 1586, HVI 1587, HVI 1588, HVI 1589, HVI 1590, HVI 1591, HVI 1592, HVI 1593, HVI 1594, HVI 1595, HVI 1596, HVI 1597, HVI 1598, HVI 1599, HVI 1600, HVI 1601, HVI 1602, HVI 1603, HVI 1604, HVI 1605, HVI 1606, HVI 1607, HVI 1608, HVI 1609, HVI 1610, HVI 1611, HVI 1612, HVI 1613, HVI 1614, HVI 1615, HVI 1616, HVI 1617, HVI 1618, HVI 1619, HVI 1620, HVI 1621, HVI 1622, HVI 1623, HVI 1624, HVI 1625, HVI 1626, HVI 1627, HVI 1628, HVI 1629, HVI 1630, HVI 1631, HVI 1632, HVI 1633, HVI 1634, HVI 1635, HVI 1636, HVI 1637, HVI 1638, HVI 1639, HVI 1640, HVI 1641, HVI 1642, HVI 1643, HVI 1644, HVI 1645, HVI 1646, HVI 1647, HVI 1648, HVI 1649, HVI 1650, HVI 1651, HVI 1652, HVI 1653, HVI 1654, HVI 1655, HVI 1656, HVI 1657, HVI 1658, HVI 1659, HVI 1660, HVI 1661, HVI 1662, HVI 1663, HVI 1664, HVI 1665, HVI 1666, HVI 1667, HVI 1668, HVI 1669, HVI 1670, HVI 1671, HVI

BUILDING THERMAL ENVELOPE

R401 COMPLIANCE & CERTIFICATE POSTED
THE BUILDING THERMAL ENVELOPE SHALL MEET THE PRESCRIPTIVE REQUIREMENTS OF SECTION R402 OF THE WSEC.

- R401.3 CERTIFICATE.** A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR OTHER APPROVED PARTY AND POSTED ON A WALL IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM, OR AN *APPROVED* LOCATION INSIDE THE *BUILDING*, WHEN LOCATED ON AN ELECTRICAL PANEL, THE CERTIFICATE SHALL NOT COVER OR OBSTRUCT THE VISIBILITY OF THE CIRCUIT DIRECTORY LABEL, SERVICE DISCONNECT LABEL, OR OTHER REQUIRED LABELS. THE CERTIFICATE SHALL INDICATE THE FOLLOWING:
- THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN OR ON CEILING/ROOF, WALLS, FOUNDATION (SLAB, *BELOW-GRADE WALL*, AND/OR FLOOR) AND DUCTS OUTSIDE CONDITIONED SPACES.
 - U-FACTORS FOR FENESTRATION AND THE SOLAR HEAT GAIN COEFFICIENT (SHGC) OF FENESTRATION, WHERE THERE IS MORE THAN ONE VALUE FOR EACH COMPONENT, THE CERTIFICATE SHALL INDICATE THE AREA WEIGHTED AVERAGE VALUE.
 - THE RESULTS FROM ANY REQUIRED DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING DONE ON THE BUILDING.
 - THE RESULTS FROM THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FLOW RATE TEST.
 - THE TYPES, SIZES AND EFFICIENCIES OF HEATING, COOLING, WHOLE-HOUSE MECHANICAL VENTILATION, AND SERVICE WATER HEATING APPLIANCES, WHERE A GAS-FIRED UNVENTED ROOM HEATER, ELECTRIC FURNACE OR BASEBOARD ELECTRIC HEATER IS INSTALLED IN THE RESIDENCE, THE CERTIFICATE SHALL LIST "GAS-FIRED UNVENTED ROOM HEATER," "ELECTRIC FURNACE" OR "BASEBOARD ELECTRIC HEATER," AS APPROPRIATE. AN EFFICIENCY SHALL NOT BE *LISTED* FOR GAS-FIRED UNVENTED ROOM HEATERS, ELECTRIC FURNACES OR ELECTRIC BASEBOARD HEATERS.
 - WHERE *ON-SITE PHOTOVOLTAIC* PANEL SYSTEMS HAVE BEEN INSTALLED, THE ARRAY CAPACITY, INVERTER EFFICIENCY, PANEL TILT, ORIENTATION AND ESTIMATED ANNUAL ELECTRICAL GENERATION SHALL BE NOTED ON THE CERTIFICATE.

ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS

R406.1 SCOPE. THIS SECTION ESTABLISHES ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS FOR ALL NEW CONSTRUCTION COVERED BY THIS CODE, INCLUDING ADDITIONS SUBJECT TO SECTION R502 AND CHANGE OF OCCUPANCY OR USE SUBJECT TO SECTION R505 UNLESS SPECIFICALLY EXEMPTED IN SECTION R406. CREDIT FROM BOTH SECTIONS R406.2 AND R406.3 ARE REQUIRED.

R406.2 CARBON EMISSION EQUALIZATION. THIS SECTION ESTABLISHES A BASE EQUALIZATION BETWEEN FUELS USED TO DEFINE THE EQUIVALENT CARBON EMISSIONS OF THE OPTIONS SPECIFIED. THE PERMIT SHALL DEFINE THE BASE FUEL SELECTION TO BE USED AND THE POINTS SPECIFIED IN TABLE R406.2 SHALL BE USED TO MODIFY THE REQUIREMENTS IN SECTION R406.3. THE SUM OF CREDITS FROM TABLES R406.2 AND R406.3 SHALL MEET THE REQUIREMENTS OF SECTION R406.3.

R406.3 ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS. EACH DWELLING UNIT IN A RESIDENTIAL BUILDING SHALL COMPLY WITH SUFFICIENT OPTIONS FROM TABLE R406.2 AND TABLE 406.3 TO ACHIEVE THE FOLLOWING MINIMUM NUMBER OF CREDITS. TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION SELECTED AND THE MAXIMUM TESTED BUILDING AIR LEAKAGE, AND SHOW THE QUALIFYING VENTILATION SYSTEM AND ITS CONTROL SEQUENCE OF OPERATION.

- SMALL DWELLING UNIT: 5.0 CREDITS
DWELLING UNITS LESS THAN 1500 SQUARE FEET IN CONDITIONED FLOOR AREA WITH LESS THAN 300 SQUARE FEET OF FENESTRATION AREA. ADDITIONS TO EXISTING BUILDING GREATER THAN 500 SQUARE FEET OF HEATED FLOOR AREA BUT LESS THAN 1500 SQUARE FEET.
- MEDIUM DWELLING UNIT: 8.0 CREDITS
ALL DWELLING UNITS THAT ARE NOT INCLUDED IN #1, #3 OR #4.
- LARGE DWELLING UNIT: 9.0 CREDITS
DWELLING UNITS EXCEEDING 5000 SQUARE FEET OF CONDITIONED FLOOR AREA.
- R-2 OCCUPANCIES: 6.5 CREDITS
SECTION R401.1 AND RESIDENTIAL BUILDING SECTION R202 FOR GROUP R-2.
- ADDITIONS: 2.0 CREDITS
150 SQUARE FEET TO 500 SQUARE FEET.

THE DRAWINGS INCLUDED WITH THE PERMIT APPLICATION SHALL IDENTIFY WHICH OPTIONS HAVE BEEN SELECTED AND THE POINT VALUE OF EACH OPTION, REGARDLESS OF WHETHER SEPARATE MECHANICAL, PLUMBING, ELECTRICAL, OR OTHER PERMITS ARE UTILIZED FOR THE PROJECT.

ENERGY EQUALIZATION CREDITS, SYSTEM 2 (1.5 CREDITS)
FOR AN INITIAL HEATING SYSTEM USING A HEAT PUMP THAT MEETS FEDERAL STANDARDS FOR THE EQUIPMENT LISTED IN TABLE C403.3.2(2) AND SUPPLEMENTAL HEATING PROVIDED BY ELECTRIC RESISTANCE OR A COMBUSTION FURNACE MEETING MINIMUM STANDARDS LISTED IN TABLE C403.3.2(5)(b)

EFFICIENT WATER HEATING OPTION 5.6 (2.0 CREDITS)
ELECTRIC HEAT PUMP WATER HEATER MEETING THE STANDARDS FOR TIER III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION.
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 THE MINIMUM EQUIPMENT EFFICIENCY.

RENEWABLE ELECTRIC ENERGY OPTION 6.1 (4.5 CREDITS)
FOR EACH 600 KWH OF ELECTRICAL GENERATION PER HOUSING UNIT PROVIDED ANNUALLY BY ON-SITE WIND OR SOLAR EQUIPMENT A 0.5 CREDIT SHALL BE ALLOWED, UP TO 4.5 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 OR ALTERNATIVE APPROVED BY THE CODE OFFICIAL. DOCUMENTATION NOTING SOLAR ACCESS SHALL BE INCLUDED ON THE PLANS. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SHOW THE PHOTOVOLTAIC EQUIPMENT TYPE, PROVIDE DOCUMENTATION OF SOLAR ACCESS, AND INCLUDE A CALCULATION OF THE MINIMUM ANNUAL ENERGY POWER PRODUCTION.

MINIMUM ANNUAL POWER PRODUCTION OF THE RENEWABLE ELECTRIC ENERGY:
SYSTEM SIZE (kWDC) = 5kW
FIRST YEAR POWER OUTPUT (kWh)= 5270 kWh
SPECIFIC PRODUCTION (kWh/m²/DAY)= 3.77 kWh/m²/DAY
SYSTEM LOSSES= 14.08%
SYSTEM SPECIFICATIONS= STANDARD MODULE AND FIXED ARRAY TYPE
ARRAY TILT= 20 DEGREES
ARRAY AZIMUTH= 180 DEGREES

MOISTURE CONTROL

R405.2.2 FOUNDATION VAPOR RETARDERS
A 6 MIL-THICK POLYETHYLENE VAPOR RETARDER SHALL BE APPLIED OVER THE POROUS LAYER WITH THE BASEMENT FLOOR CONSTRUCTED OVER THE POLYETHYLENE.

- R702.7 WALL VAPOR RETARDERS
A VAPOR RETARDER SHALL BE PROVIDED ON THE INTERIOR SIDE OF FRAME WALLS OF THE CLASS INDICATED IN TABLE R702.7(2), INCLUDING COMPLIANCE WITH TABLE R702.7(3) OR R702.7(4) WHERE APPLICABLE.
EXCEPTIONS:
- BASEMENT WALLS.
 - BELOW-GRADE PORTION OF ANY WALL.
 - CONSTRUCTION WHERE ACCUMULATION, CONDENSATION OR FREEZING OF MOISTURE WILL NOT DAMAGE THE MATERIALS.
 - A VAPOR RETARDER SHALL NOT BE REQUIRED IN CLIMATE ZONES 1,2 AND 3.

TABLE R702.7(1) VAPOR RETARDER MATERIALS AND CLASSES			
CLASS	ACCEPTABLE MATERIALS		
I	SHEET POLYETHYLENE, NONPERFORATED ALUMINUM FOIL OR OTHER APPROVED MATERIALS WITH A PERM RATING LESS THAN OR EQUAL TO 0.1.		
II	KRAFT-FACED FIBERGLASS BATTS, VAPOR RETARDER PAINT OR OTHER APPROVED MATERIALS APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR A PERM RATING GREATER THAN 0.1 AND LESS THAN OR EQUAL TO 1.0.		
III	LATEX PAINT, ENAMEL PAINT OR OTHER APPROVED MATERIALS APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR AS PERM RATING GREATER THAN 1.0 AND LESS THAN OR EQUAL TO 10.0.		

TABLE R702.7(2) VAPOR RETARDER OPTIONS			
CLIMATE ZONE	CLASS I ^a	CLASS II ^a	CLASS III
1, 2	NOT PERMITTED	NOT PERMITTED	PERMITTED
3, 4 EXCEPT MARINE 4)	NOT PERMITTED	PERMITTED ^c	PERMITTED
MARINE 4, 5, 6, 7, 8	PERMITTED ^b	PERMITTED ^c	SEE TABLE R702.7(3)

- CLASS I AND II VAPOR RETARDERS WITH VAPOR PERMEANCE GREATER THAN 1 PERM WHEN MEASURED BY ASTM E96 WATER METHOD (PROCEDURE B) SHALL BE ALLOWED ON THE INTERIOR SIDE OF ANY FRAME WALL IN ALL CLIMATE ZONES.
- USE OF A CLASS I VAPOR RETARDER IN FRAME WALLS WITH A CLASS I VAPOR RETARDER ON THE EXTERIOR SIDE SHALL REQUIRE AN APPROVED DESIGN.
- WHERE A CLASS II VAPOR RETARDER IS USED IN COMBINATION WITH FOAM PLASTIC INSULATING SHEATHING INSTALLED AS CONTINUOUS INSULATION ON THE EXTERIOR SIDE OF FRAME WALLS, THE CONTINUOUS INSULATION SHALL COMPLY WITH TABLE R702.7(4) AND THE CLASS II VAPOR RETARDER SHALL HAVE A PERMEANCE GREATER THAN 1 PERM WHEN MEASURED BY ASTM E96 WATER METHOD (PROCEDURE B).

R805.1 CEILING INSTALLATION
CEILINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS FOR INTERIOR WALL FINISHES AS PROVIDED IN SECTIONS R702.1 THROUGH R702.6.

MAXIMUM HEAT EQUIPMENT OUTPUT
WASHINGTON STATE SIMPLE HEATING SYSTEM SIZING= 72,523 BTU/Hr

2021 WSEC TABLE R402.1.1			
* MODIFIED BY U-FACTOR COMPLIANCE			
CLIMATE ZONE 5 AND MARINE 4	DEFAULT VALUE	R VALUE	U-FACTORS
FENESTRATION U-FACTOR (b)	0.30	N/A	0.30
SKYLIGHT(b) U-FACTOR	0.50	N/A	0.50
CEILING ATTIC R-VALUE (e)	0.024	60	0.024
CEILING VAULT R-VALUE (e)	0.027	38	0.027
WOOD FRAMED WALL (g,i) R-VALUE	0.056	21 int. + 0 c.i.*	0.054*
FLOOR R-VALUE	0.029	38*	0.027*
BELOW GRADE (c,h) WALL 2' DEPTH	0.042	21 int. + Lb.	0.042
BELOW GRADE (c,h) WALL 3.5' DEPTH	0.040	21 int. + Lb.	0.040
BELOW GRADE (c,h) WALL 7' DEPTH	0.035	21 int. + Lb.	0.035
SLAB (d,f) 2' DEPTH	0.59	10, ENTIRE SLAB	0.50
SLAB (d,f) 3.5' DEPTH	0.56	10, ENTIRE SLAB	0.56
SLAB (d,f) 7' DEPTH	0.50	10, ENTIRE SLAB	0.50

- FOR S_k: 1 FOOT = 304.8 MM, C_i = CONTINUOUS INSULATION, INT = INTERMEDIATE FRAMING.
- R-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, THE COMPRESSED R-VALUE OF THE INSULATION FROM APPENDIX TABLE A101.4 SHALL NOT BE LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.
 - THE FENESTRATION U-FACTOR COLUMN EXCLUDES SKYLIGHTS.
 - "10/15/21 +5TB" MEANS R-10 CONTINUOUS INSULATION ON THE EXTERIOR OF THE WALL, OR R-15 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 +5TB" 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. "5TB" MEANS R-5 THERMAL BREAK BETWEEN FLOOR SLAB AND BASEMENT WALL.
 - R-10 CONTINUOUS INSULATION IS REQUIRED UNDER HEATED SLAB ON GRADE FLOORS. SEE SECTION R402.2.3(1).
 - FOR SINGLE RAFTER- OR JOIST-VAULTED CEILINGS, THE INSULATION MAY BE REDUCED TO R-38 IF THE FULL INSULATION DEPTH EXTENDS OVER THE TOP PLATE OF THE EXTERIOR WALL.
 - R-7.5 CONTINUOUS INSULATION INSTALLED OVER AN EXISTING SLAB IS DEEMED TO BE EQUIVALENT TO THE REQUIRED PERIMETER SLAB INSULATION WHEN APPLIED TO EXISTING SLASS COMPLYING WITH SECTION R503.1.1. IF FOAM PLASTIC IS USED, IT SHALL MEET THE REQUIREMENTS FOR THERMAL BARRIERS PROTECTING FOAM PLASTICS.
 - FOR LOG STRUCTURES DEVELOPED IN COMPLIANCE WITH STANDARD ICC 400, LOG WALLS SHALL MEET THE REQUIREMENTS FOR CLIMATE ZONE 5 OF ICC 400.
 - INT, (INTERMEDIATE FRAMING) DENOTES FRAMING AND INSULATION AS DESCRIBED IN SECTION A103.2.2 INCLUDING STANDARD FRAMING 16 INCHES ON CENTER, 78 PERCENT OF THE WALL CAVITY INSULATED AND HEADERS INSULATED WITH A MINIMUM OF R-10 INSULATION. THE FIRST VALUE IS CAVITY INSULATION; THE SECOND VALUE IS CONTINUOUS INSULATION. THEREFORE, AS AN EXAMPLE, "R-13+10" MEANS R-13 CAVITY INSULATION PLUS R-10 CONTINUOUS INSULATION.
 - A MAXIMUM U-VALUE OF 0.32 SHALL APPLY TO VERTICAL FENESTRATION PRODUCTS INSTALLED IN BUILDINGS LOCATED ABOVE 4000 FEET IN ELEVATION ABOVE SEA LEVEL, OR IN WINDBORNE DEBRIS REGIONS WHERE PROTECTION OF OPENINGS IS REQUIRED UNDER SECTION R301.2.1.2 OF THE INTERNATIONAL RESIDENTIAL CODE.

2021 WSEC TABLE R406.3

ADDITIONAL REQUIREMENTS FOR MEDIUM DWELLING = 8.0 CREDITS		
ENERGY EQUALIZATION CREDIT	SYSTEM 2.0	1.5 CREDITS
ENERGY EFFICIENCY CREDIT	OPTION	CREDITS EARNED
OPTION 1 BUILDING ENVELOPE	NA	NA
OPTION 2 AIR LEAKAGE CONTROL	NA	NA
OPTION 3 HVAC EQUIPMENT	NA	NA
OPTION 4 HVAC DISTRIBUTION	NA	NA
OPTION 5 WATER HEATING	OPTION 5.6	2.0 CREDITS
OPTION 6 RENEWABLE ENERGY	OPTION 6.1	4.5 CREDITS
OPTION 7 APPLIANCE OPTION	NA	NA
TOTAL CREDITS EARNED		8.0 CREDITS

PVWATTS CALCULATOR RESULTS

RESULTS

5,269 kWh/Year*

System output may range from 5,029 to 5,447 kWh per year near this location.

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)
January	1.43	178
February	2.32	263
March	3.19	392
April	4.77	554
May	5.13	609
June	5.66	631
July	6.22	709
August	5.90	680
September	4.61	522
October	2.80	340
November	1.71	208
December	1.45	184
Annual	3.77	5,270

Location and Station Identification

Requested Location	7414 78th avenue se, mercer island
Weather Data Source	Lat, Lng: 47.53, -122.22 0.8 mi
Latitude	47.53° N
Longitude	122.22° W

PV System Specifications

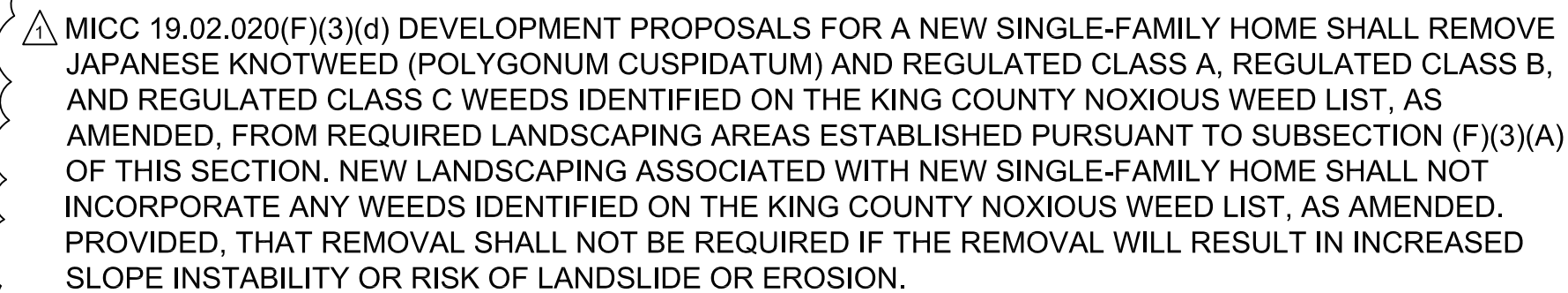
DC System Size	5 kW
Module Type	Standard
Array Type	Fixed (open rack)
System Losses	14.08%
Array Tilt	20°
Array Azimuth	180°
DC to AC Size Ratio	1.2
Inverter Efficiency	96%
Ground Coverage Ratio	0.4

Window, Skylight and Door Schedule

Project Information		Contact Information	
SEARS PLAT - LOT 3		McCullough Architects	
7414 - 78th Avenue NE		5601 - 6th Ave S, #317	
Mercer Island, Wa 98040		Seattle, Wa 98108	

Vertical Fenestration (Windows and Doors)			Width		Height		Area	
Component								
Description	Ref.U-factor		Qt.Feet	Inch	Feet	Inch	Area	UA
Upper Floor							0.0	0.00
6/0x6/0 FIX	0.30		2	6	6		72.0	21.60
4/9x3/0 FIX	0.30		1	4	9	3	14.3	4.28
3/0x6/0 CSMT	0.30		2	3	6		36.0	10.80
5/0x3/0 FIX	0.30		1	5	3		15.0	4.50
5/0x5/0 FIX	0.30		1	5	5		25.0	7.50
3/0x5/0 CSMT	0.30		17	3	5		255.0	76.50
5/0x8/0 FIX	0.30		2	5	8		80.0	24.00
7/0x8/0 FIX	0.30		1	7	8		56.0	16.80
3/10.5x3/0 FIX	0.30		1	3	10	3	11.5	3.45
6/0x5/0 FIX	0.30		1	6	5		30.0	9.00
6/0x3/0 FIX	0.30		1	6	3		18.0	5.40
							0.0	0.00
							0.0	0.00
							0.0	0.00
Main Floor							0.0	0.00
6/0x10/0 FIX	0.30		3	6	10		180.0	54.00
3/0x10/0 CSMT/FIX	0.30		2	3	10		60.0	18.00
4/9x3/0 FIX	0.30		1	4	9	3	14.3	4.28
12/0x10/0 3 PANEL SLDR	0.30		2	12	10		240.0	72.00
4/0x10/0 FIX	0.30		2	4	10		80.0	24.00
3/0x7/0 FIX	0.30		2	3	7		42.0	12.60
3/0x8/0 FIX	0.30		2	3	8		48.0	14.40
2/8x8/0 SWING	0.30		2	2	8	8	42.7	12.80
4/0x10/0 SWING	0.30		1	4	8		32.0	9.60
6/0x3/0 FIX	0.30		1	6	3		18.0	5.40
7/0x3/0 FIX	0.30		1	7	3		21.0	6.30
							0.0	0.00
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CONCRETE PAVERS



A.D.	AREA DRAIN
C.B.	CATCHBASIN
C.O.	CLEANOUT
D.S.	DOWNSPOUT
Y.D.	YARD DRAIN

LEGAL DESCRIPTION:
LOT 3
E 1/2 OF NW 1/4 OF SE 1/4 LESS N 769.98 FT & LESS S 450 FT LESS
COR'D

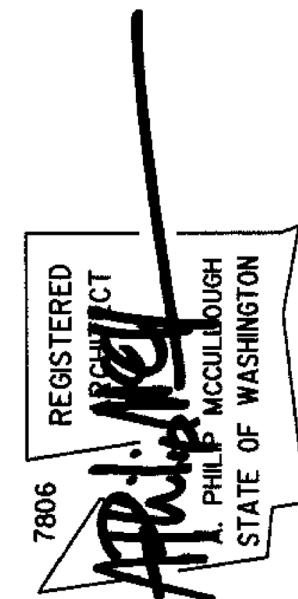
MAX. PROPOSED ROOF HEIGHT= EL. 341.79'
UPPER UPR. SUBFLOOR LEVEL= EL. 326.0625
MAIN FLR. SUBFLOOR LEVEL= 313.50'
GARAGE SLAB (FRONT)= EL. 311.17'

Revisions
2/25/26

2025.10.22
24-008

Date:
Job No:
Project No:
Drawn:
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Site Plan

A1.0

GROSS FLOOR AREA

STAIR:	130 SF
MAIN LEVEL:	2,183 SF
UPPER LEVEL:	2,046 SF
GARAGE:	629 S.F.

TOTAL PROPOSED :

4,988 SF

TOTAL ALLOWED:

4,988 SF

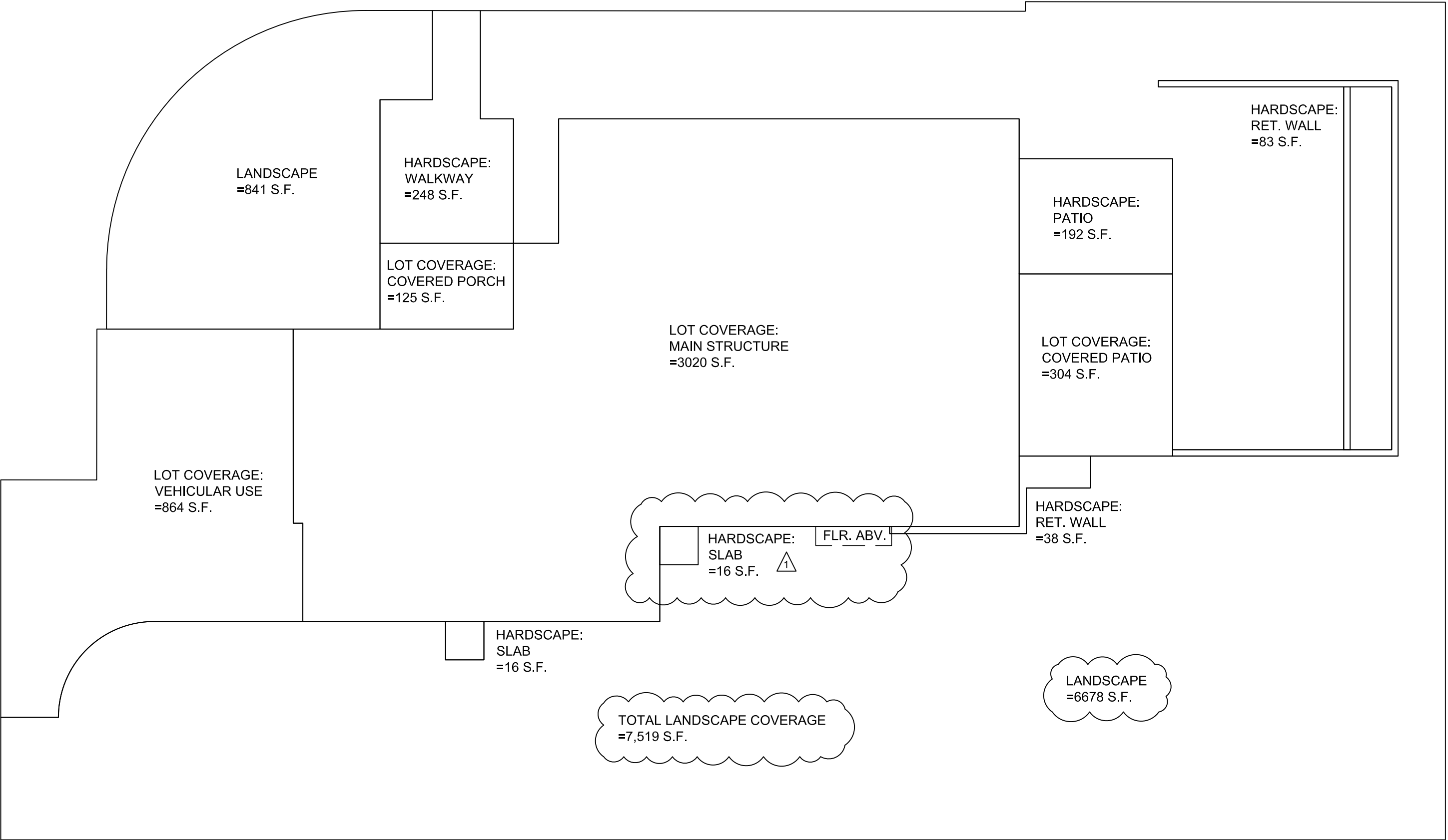
LOT COVERAGE

MAIN STRUCTURE ROOF AREA= 3,036 S.F.
ACCESSORY STRUCTURE ROOF AREA= 0 S.F.
VEHICULAR USE= 864 S.F.
COVERED PATIOS AND DECKS= 429 S.F.
TOTAL NEW LOT COVERAGE AREA 4,329 S.F.

ALLOWED= 12,470 S.F. (0.40)= 4,970 S.F.

Sears Lot 2 Average Building Elevation Calculation						
Point	Length	Height	LxH			
A	9	311.33	2801.97			
B	18.67	311.75	5820.3725			
C	32.67	312.83	10220.1561			
D	7.75	312.83	2424.4325			
E	7.67	312.83	2399.4061			
F	16	313.33	5013.28			
G	1.25	312.83	391.0375			
H	15	313.5	4702.5			
I	19	313.25	5951.75			
J	7.5	316	2370			
K	9.92	311	3085.12			
L	16	316	5056			
M	37.5	312.5	11718.75			
N	37.17	311.67	11584.7739			
O	1	311.17	311.17			
P	10.25	311.17	3189.4925			
Q	20.25	311.17	6301.1925			
R	9	311.58	2804.22			
S	13	312.83	4066.79			
T			0			
U			0			
totals	288.6		90212.4136			

ABE:	312.5863257
Max Ht:	342.5863257



PROPOSED HARDSCAPE:

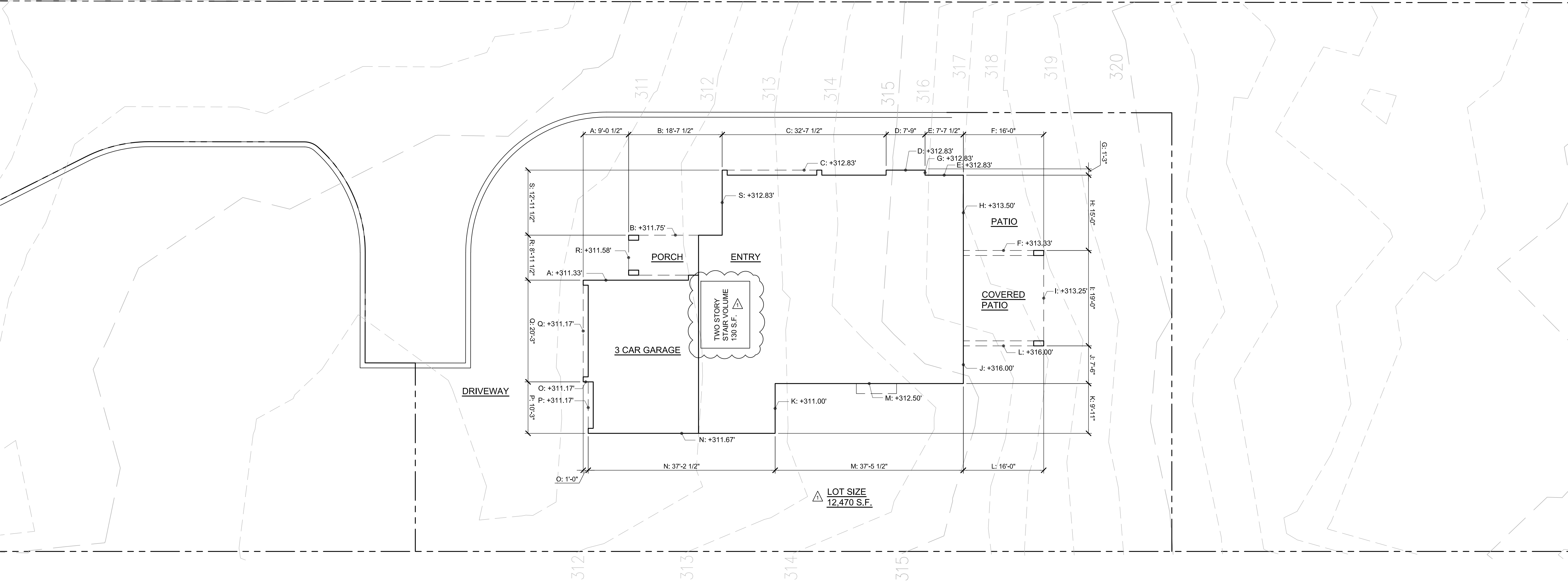
WALKWAY= 248 S.F.
PATIO= 192 S.F.
SLAB= 16 S.F.
SLAB= 16 S.F.
RET. WALL= 38 S.F.
RET. WALL= 83 S.F.
TOTAL PROPOSED= 593 S.F. (4.61%)

ALLOWED= 12,498(0.09)= 1,125 S.F.

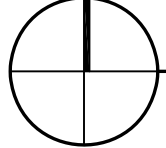
LOT SLOPE:

HIGHEST ELEVATION POINT: 320.0'
LOWEST ELEVATION POINT: 311.0'
ELEVATION DIFFERENCE: 9.0'
HORIZONTAL DISTANCE: 158.7'
LOT SLOPE= 5.67%

(SEE BOUNDARY PLAN ON SHT A1.0 FOR DATA POINTS)

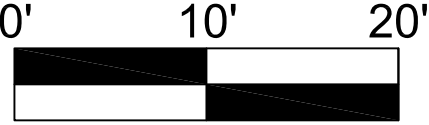


NORTH



A.B.E. / G.F.A. / LOT COVERAGE

SCALE: 1" = 10'-0"



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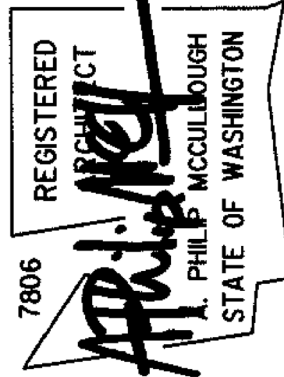
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Revisions
2/25/26

2025.10.22
24-008

Date:
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Mercer Island
Washington
98040

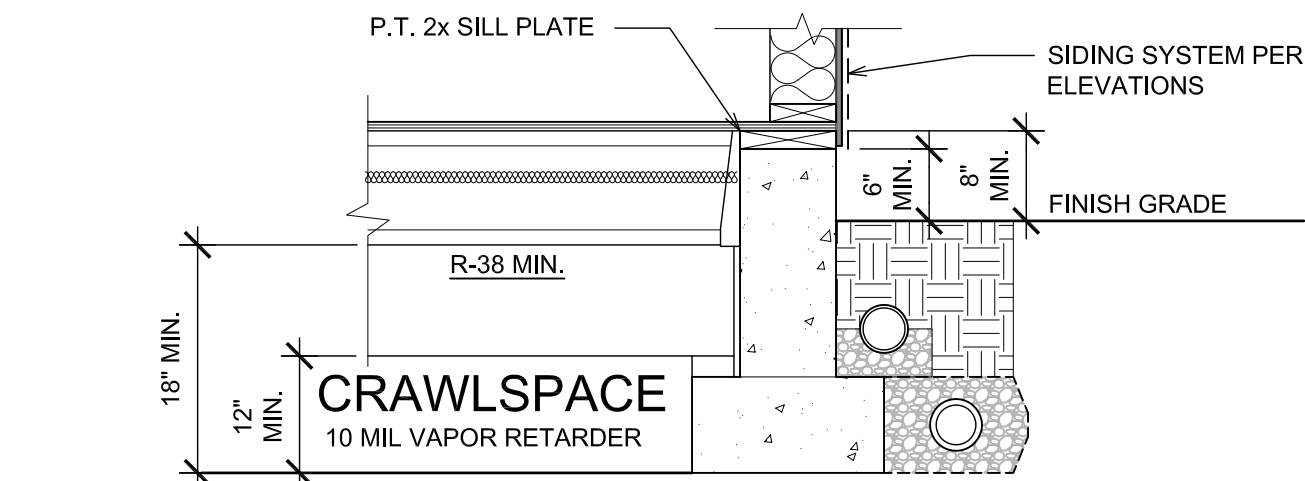
PERMIT SUBMITTAL

Site
Calculations

A1.1

SECTION R317 PROTECTION OF WOOD AND WOOD-BASED PRODUCTS AGAINST DECAY
Protection of wood and wood-based products from decay shall be provided in the following locations by the use of naturally durable wood or wood that is preservative-treated in accordance with AWPA U1.

1. Wood joists or the bottom of a wood structural floor where closer than 18 inches or wood girders where closer than 12 inches to the exposed ground in crawl spaces or unexcavated area located within the periphery of the building foundation.
2. Wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches from the exposed ground.
3. Sills and sleepers on a concrete or masonry slab that is in direct contact with the ground unless separated from such slab by an impervious moisture barrier.
4. The ends of wood girders entering exterior masonry or concrete walls having clearances of less than 1/2 inch on tops, sides and ends.
5. Wood siding, sheathing and wall framing on the exterior of a building having a clearance of less than 6 inches from the ground or less than 2 inches measured vertically from concrete steps, porch slabs, patio slabs and similar horizontal surfaces exposed to the weather.
6. Wood structural members supporting moisture-permeable floors or roofs that are exposed to the weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier.
7. Wood furring strips or other wood framing members attached directly to the interior of exterior masonry walls or concrete walls below grade except where an approved vapor retarder is applied between the wall and the furring strips or framing members.
8. Portions of wood structural members that form the structural supports of buildings, balconies, porches or similar permanent building appurtenances where those members are exposed to the weather without adequate protection from a roof, eave, overhang or other covering that would prevent moisture or water accumulation on the surface or at joints between members.
9. Wood columns in contact with basement floor slabs unless supported by concrete piers or metal pedestals projecting not less than 1 inch above the concrete floor and separated from the concrete pier by an impervious moisture barrier.



FOUNDATION - PROTECTION OF WOOD
SCALE: 3/4" = 1'-0"

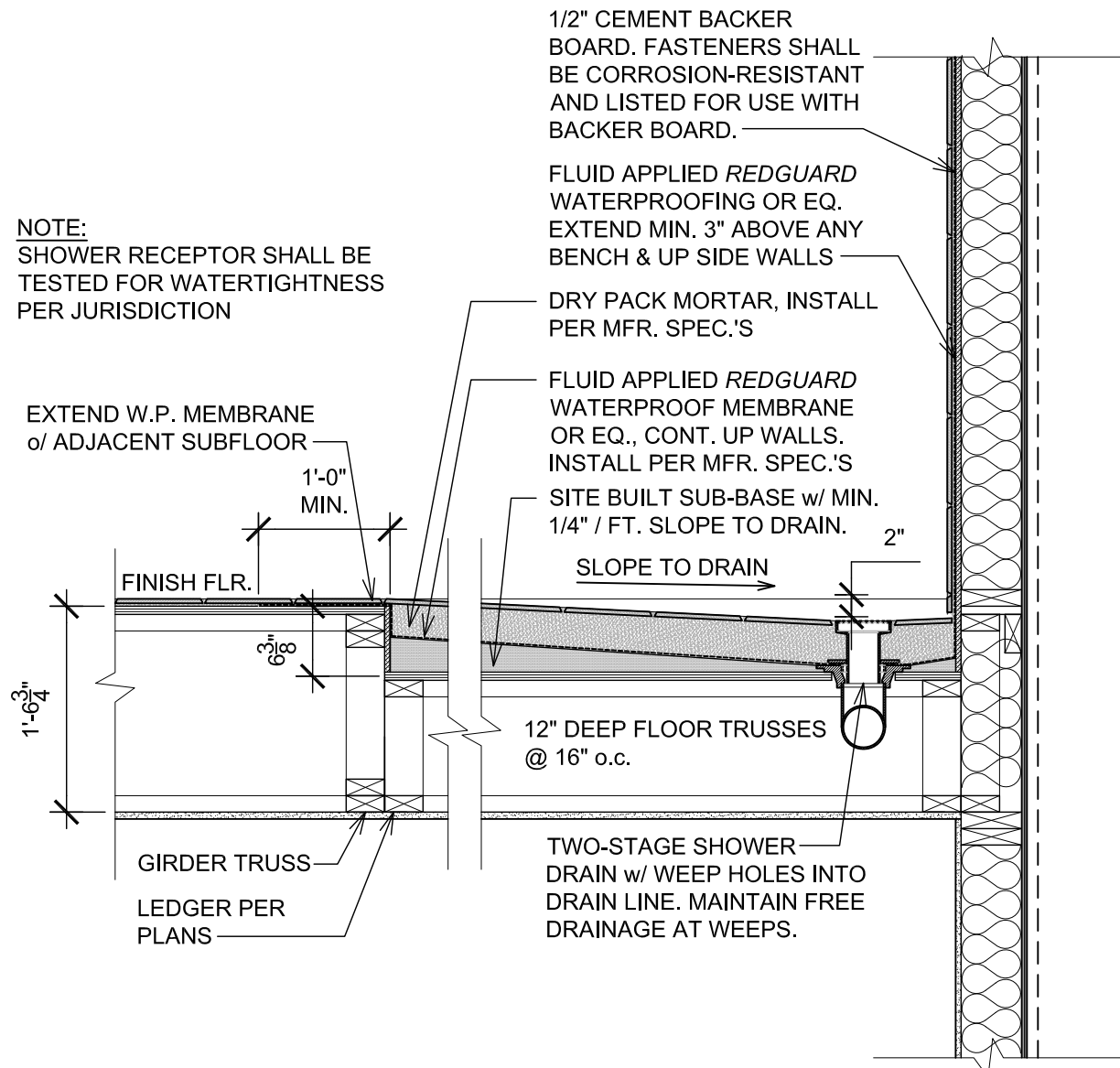
12
A2.2

WINDOW INSTALLATION SEQUENCE
1. STRUCTURAL SHEATHING INSTALLED OVER FRAME WALL
2. INSTALL FLASHING AT SILL
3. INSTALL WINDOW PLUMB, LEVEL AND SQUARE
4. INSTALL FLASHING AT JAMBS
5. INSTALL FLASHING AT HEAD
6. AIR SEAL INT. OF WINDOW AROUND ENTIRE PERIMETER W/ SEALANT AND BACK ROD

TYPICAL ASSEMBLY INSULATION VALUES:
ATTIC INSULATION R-60 BLOWN-IN
VAULTED CL'G INSULATION N.A.
FLOOR INSULATION R-38 BATT
ABV. GRADE EXT. WALL INSUL. R-21 BATT
BELOW GRADE EXT. WALL INSUL. N.A.
SLAB INSULATION R-10 (ENTIRE SLAB)

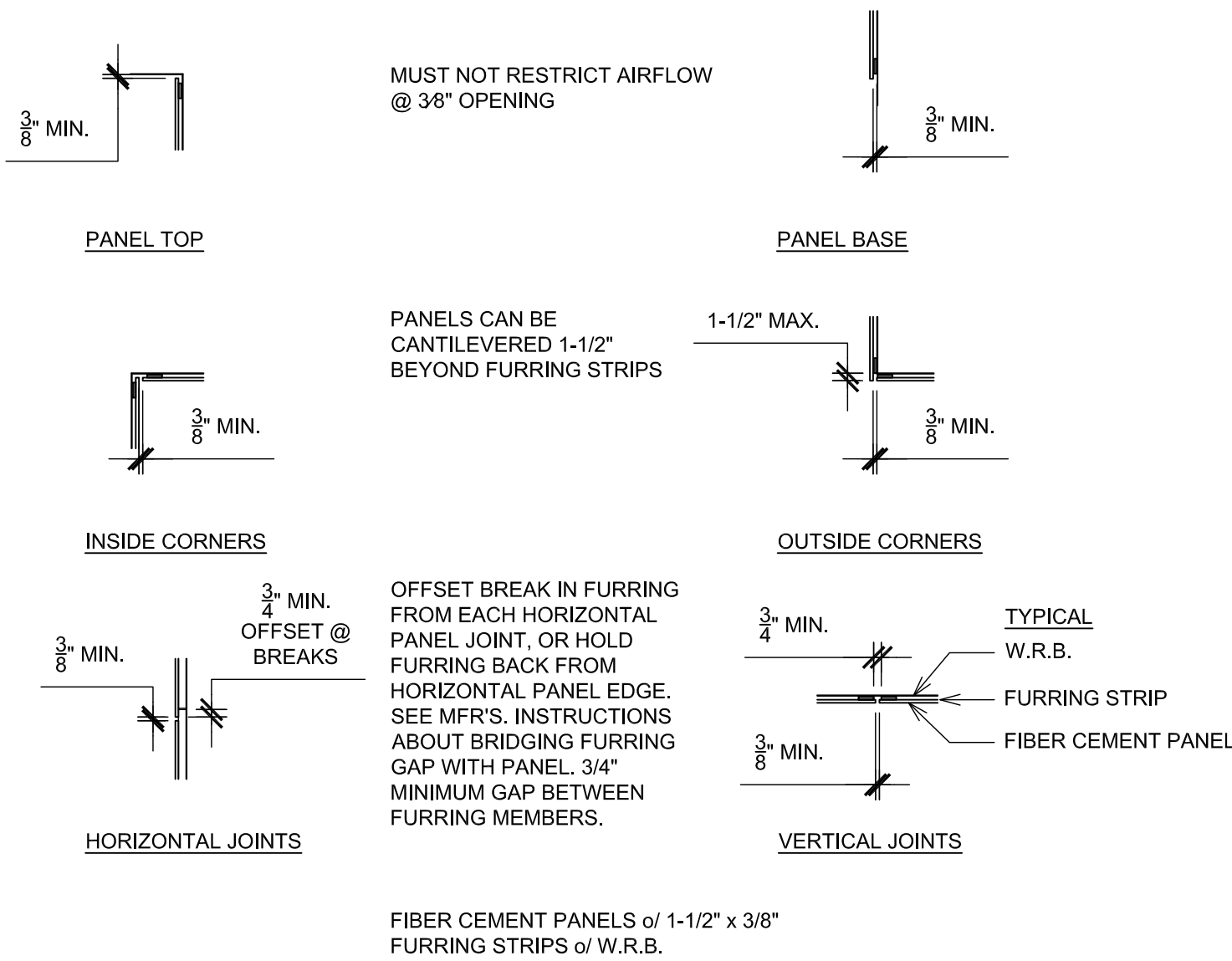
TYPICAL ASSEMBLY INSULATION VALUES
SCALE: 3/4" = 1'-0"

11
A2.2



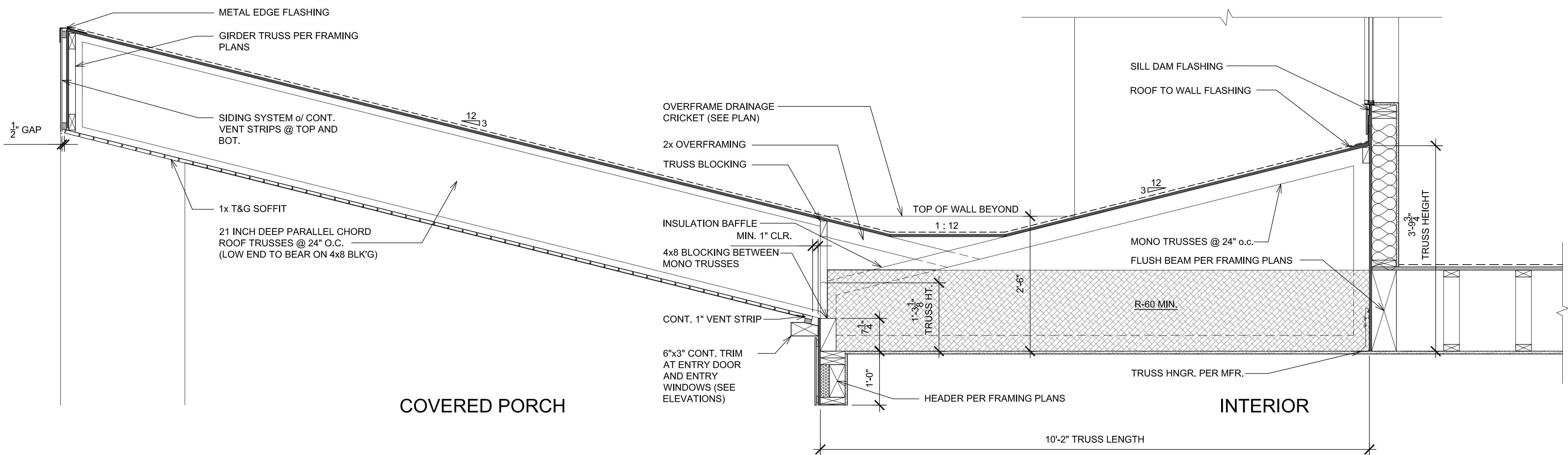
RECESSED MUD SET SHOWER
SCALE: 3/4" = 1'-0"

10
A2.2



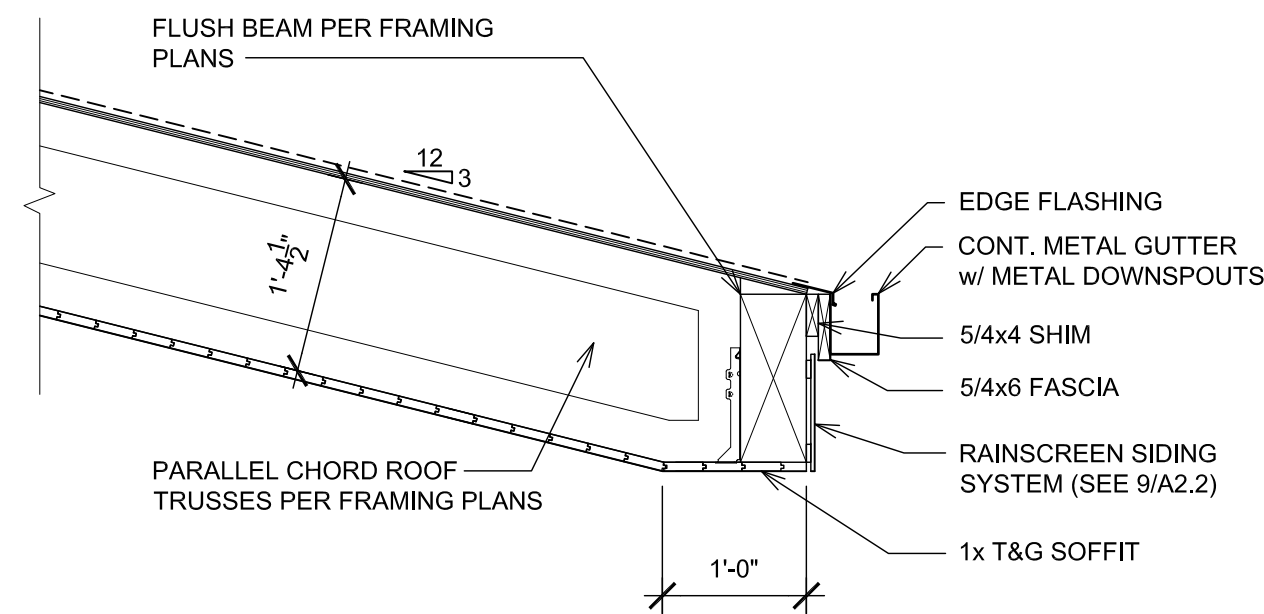
TYPICAL - RAINSCREEN SIDING DETAILS
SCALE: 3/4" = 1'-0"

9
A2.2



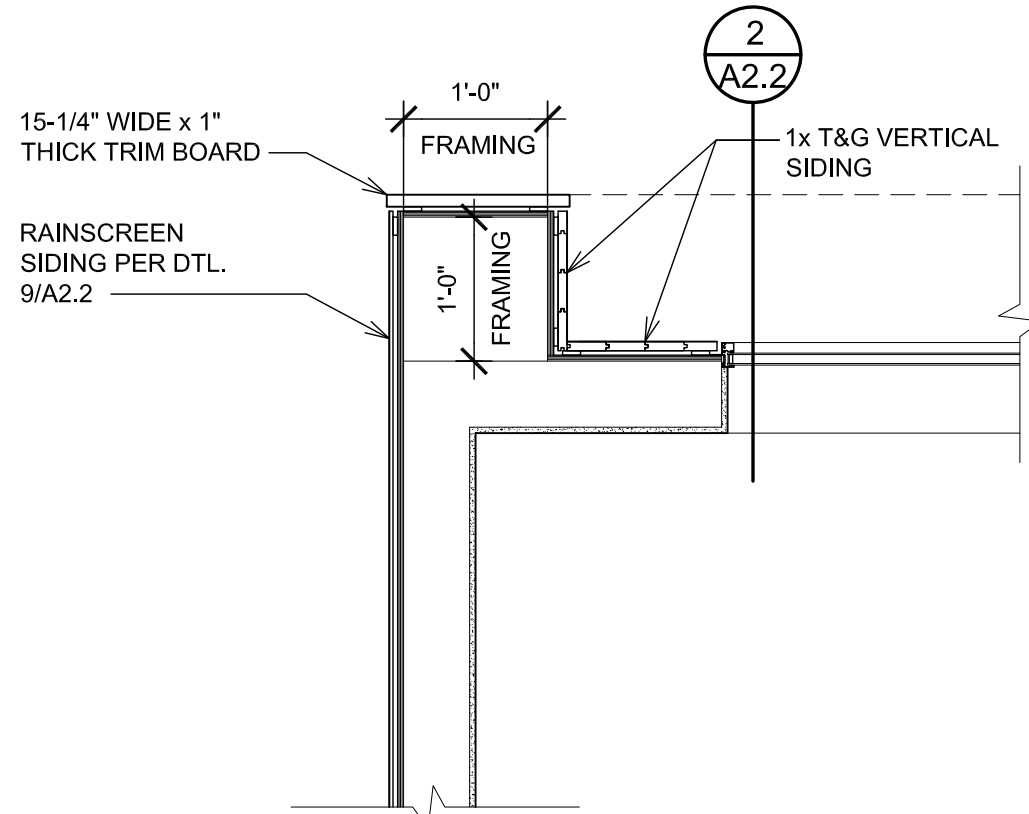
ROOF @ COVERED ENTRY
SCALE: 3/4" = 1'-0"

6
A2.2



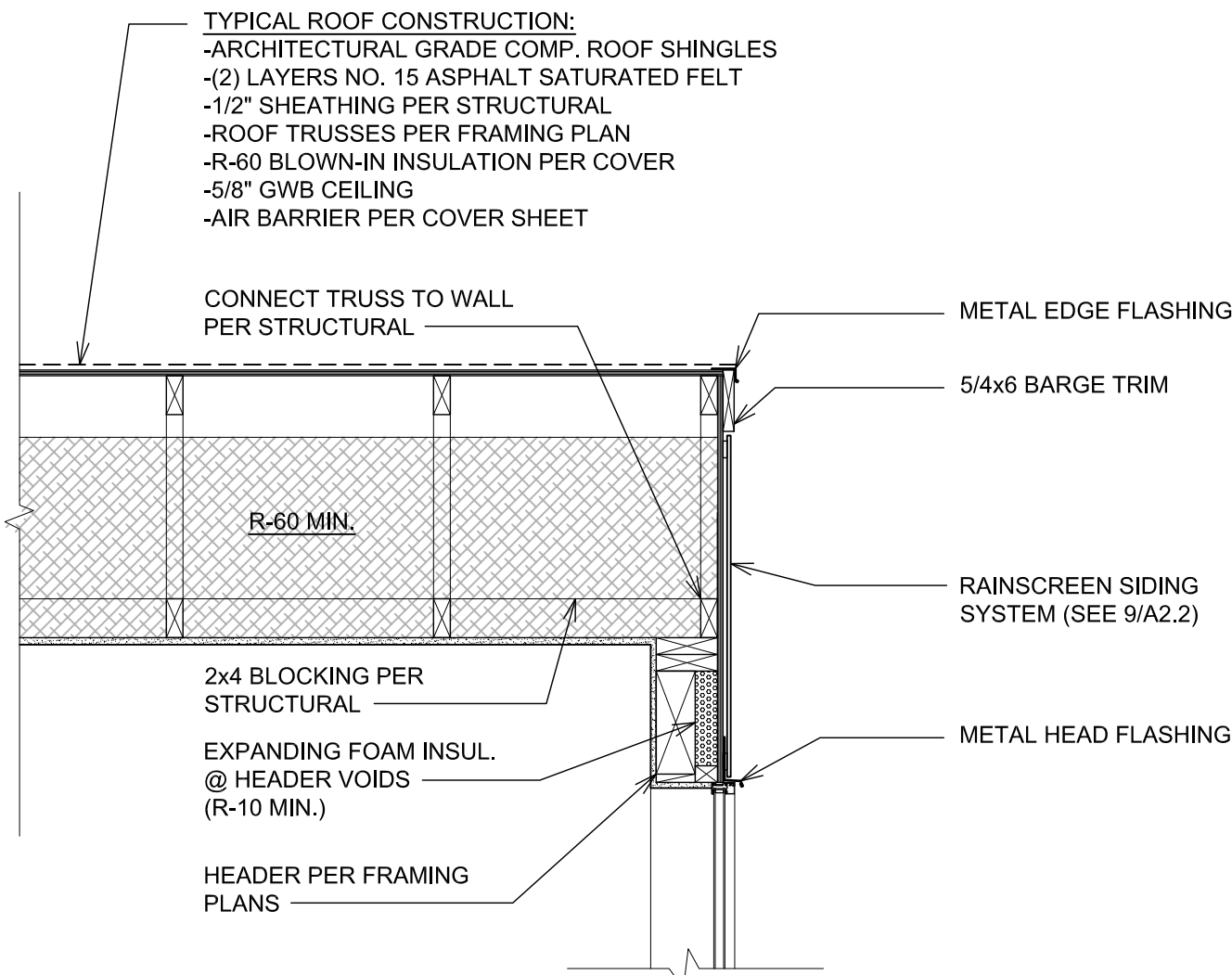
ROOF @ COVERED PATIO
SCALE: 3/4" = 1'-0"

5
A2.2



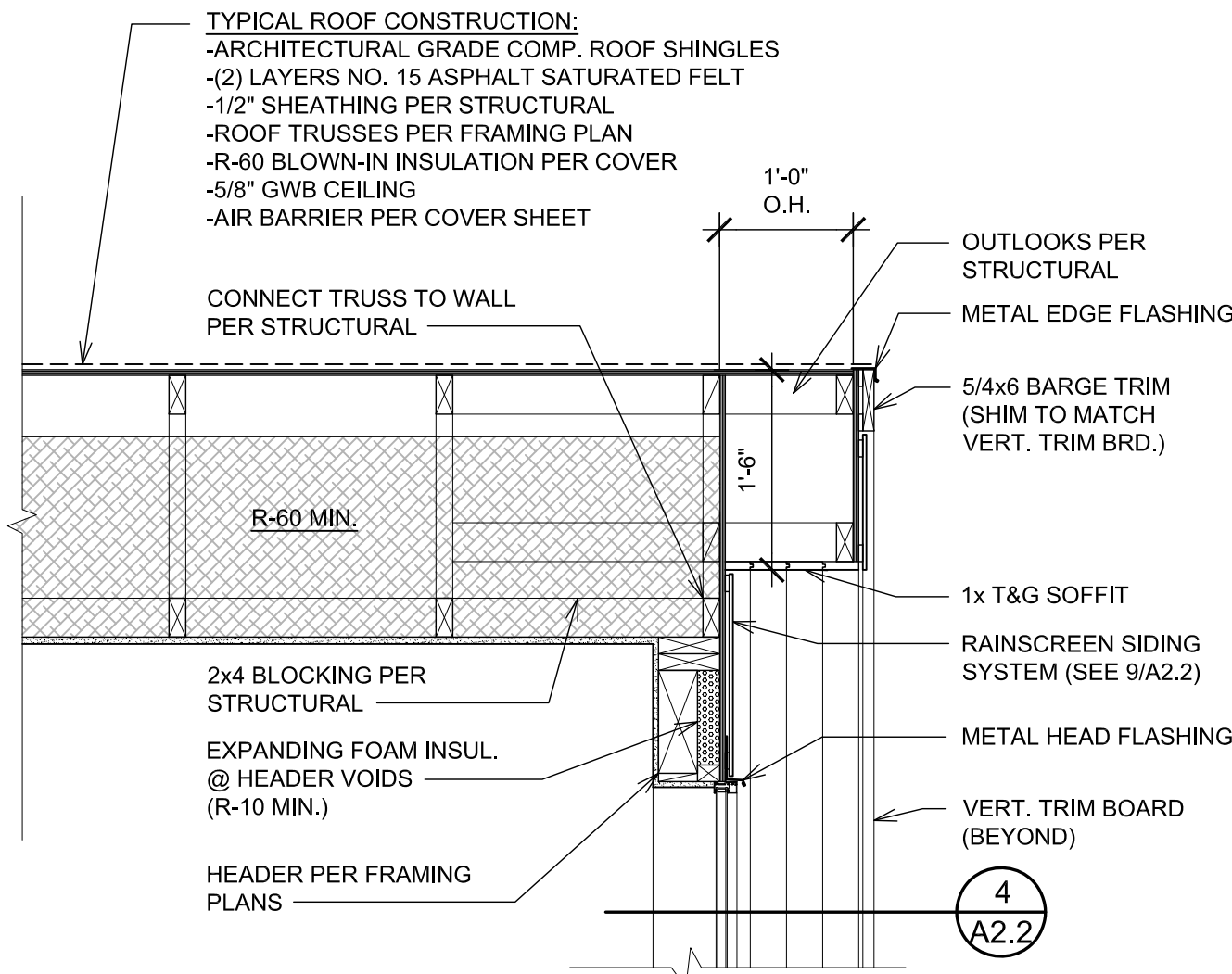
SIDING DETAIL @ GABLE O.H.

4
A2.2



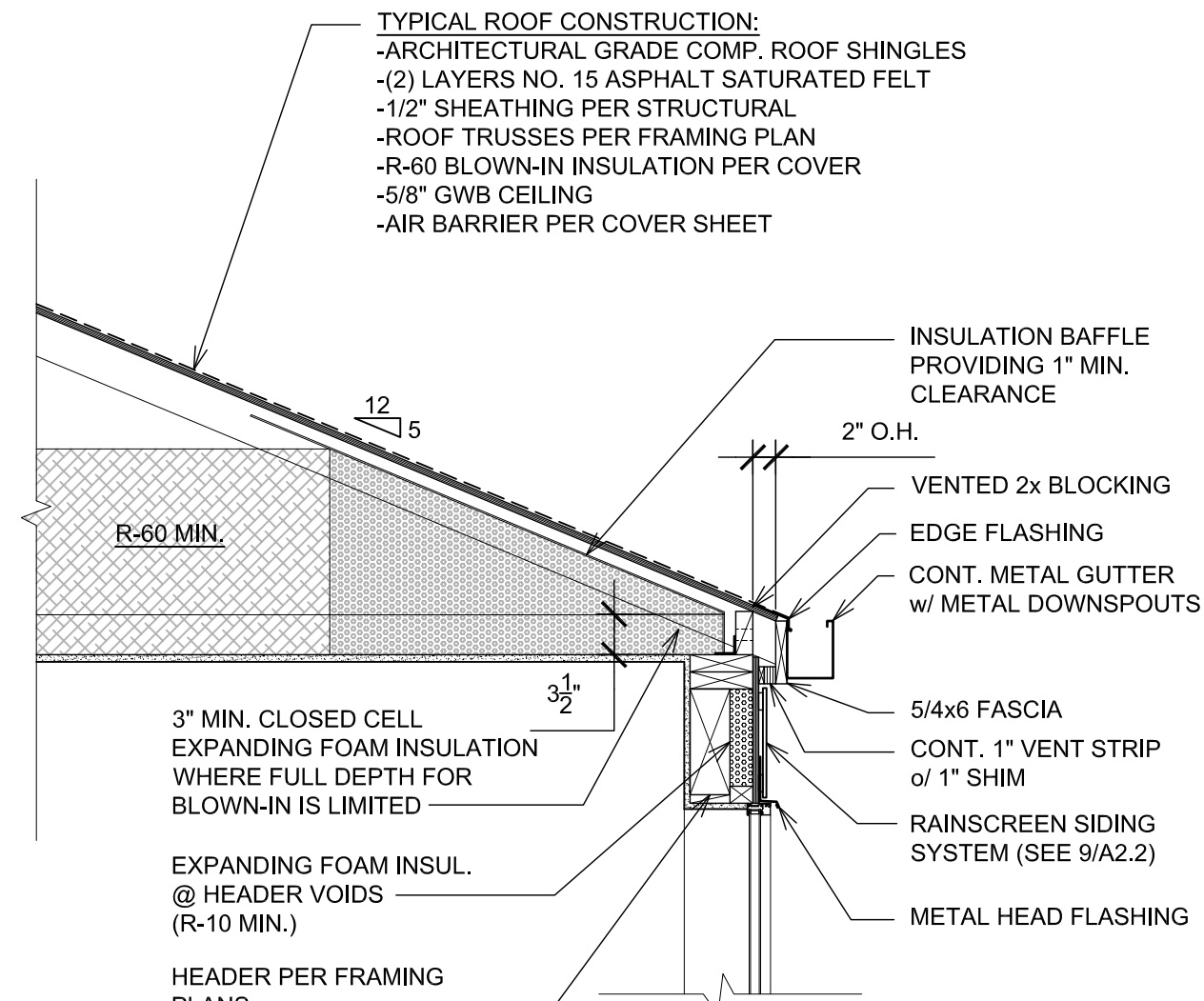
TYPICAL RAKE w/ 0" O.H.

3
A2.2



TYPICAL RAKE w/ O.H.

2
A2.2



TYPICAL - 5:12 ROOF EAVE O.H.

1
A2.2

SEARS PLAT - LOT 3

Mercer Island
Washington
98040

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Wall Sections &
Roof Details

A2.2

Date: 2025.10.22
Job No: 24-008

Project No:
Drawn:
Approved:

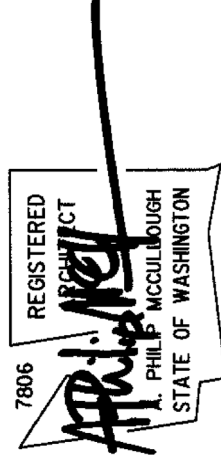
Owner
SAINTFIELD2 LLC

Comment
Revisions

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ARCHITECTS

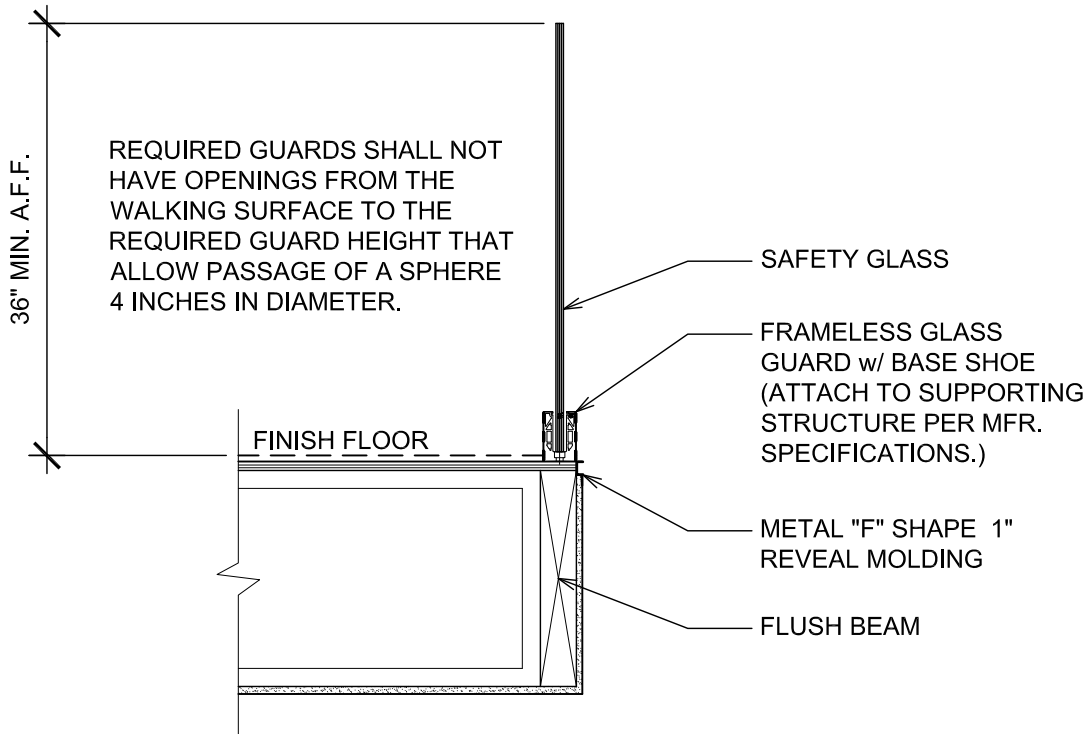
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PROVIDE HANDRAILS PER I.R.C. SEC. R311.7.8. TOP OF HANDRAIL SHALL BE NOT LESS THAN 34" OR MORE THAN 38" ABOVE THE TREAD NOSINGS. HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE FLIGHT. HANDRAIL GRIPS: 1 1/4" MIN., 2" MAX. DIA., 4" MIN., 6 1/4" MAX. CIRCUM. HANDRAIL MUST BE CONTINUOUS FOR FULL LENGTH OF STAIR BUT MAY TERMINATE AT NEWEL POST OVER THE LOWEST TREAD. ENDS OF HANDRAIL SHALL RETURN TO WALL OR NEWEL POST. HANDRAIL MUST RESIST 200 LB. POINT LOAD IN ANY DIRECTION. OPEN HANDRAIL MEMBERS SPACED TO NOT ALLOW PASSAGE OF 4" DIA. SPHERE EXCEPT TRIANGULAR OPENING BETWEEN BOTTOM MEMBER AND STAIR TREAD MUST NOT ALLOW PASSAGE OF 6" DIA. SPHERE.

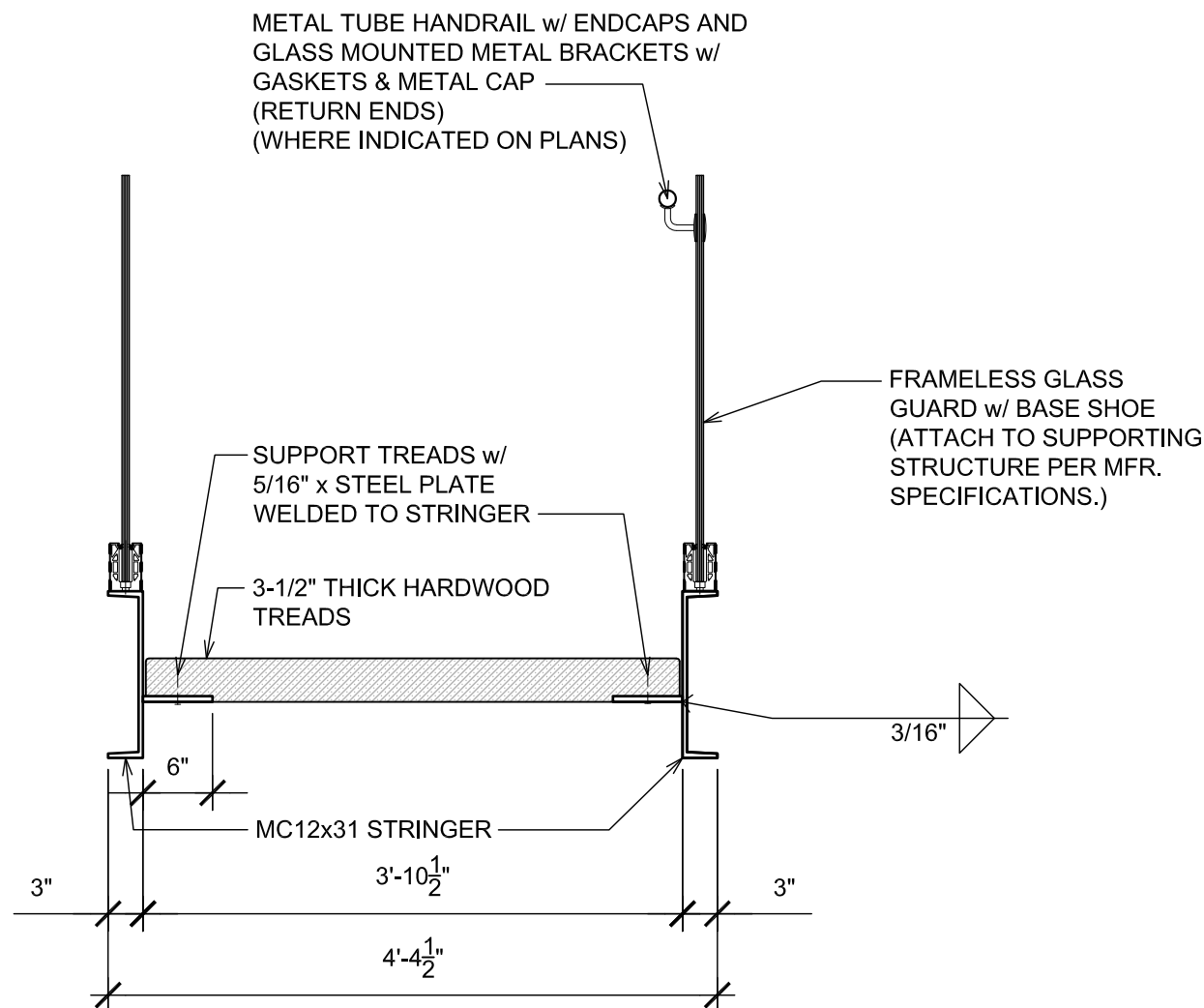
GUARDS R301.5 LIVE LOADS CONCENTRATED LOAD=200 LBS GLAZING USED IN HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED WITH A LOAD ADJUSTMENT FACTOR OF 4. THE LOAD ADJUSTMENT FACTOR SHALL BE APPLIED TO EACH OF THE CONCENTRATED LOADS APPLIED TO THE TOP OF THE RAIL, AND TO THE LOAD ON THE IN-FILL COMPONENTS. THESE LOADS SHALL BE DETERMINED INDEPENDENT OF ONE ANOTHER, AND LOADS ARE ASSUMED NOT TO OCCUR WITH ANY OTHER LIVE LOAD. WHERE THE TOP OF A GUARD SYSTEM IS NOT REQUIRED TO SERVE AS A HANDRAIL, THE SINGLE CONCENTRATED LOAD SHALL BE APPLIED AT ANY POINT ALONG THE TOP, IN THE VERTICAL DOWNWARD DIRECTION AND IN THE HORIZONTAL DIRECTION AWAY FROM THE WALKING SURFACE. WHERE THE TOP OF A GUARD IS ALSO SERVING AS THE HANDRAIL, A SINGLE CONCENTRATED LOAD SHALL BE APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP. CONCENTRATED LOADS SHALL NOT BE APPLIED CONCURRENTLY.



GLASS GUARD DETAIL

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

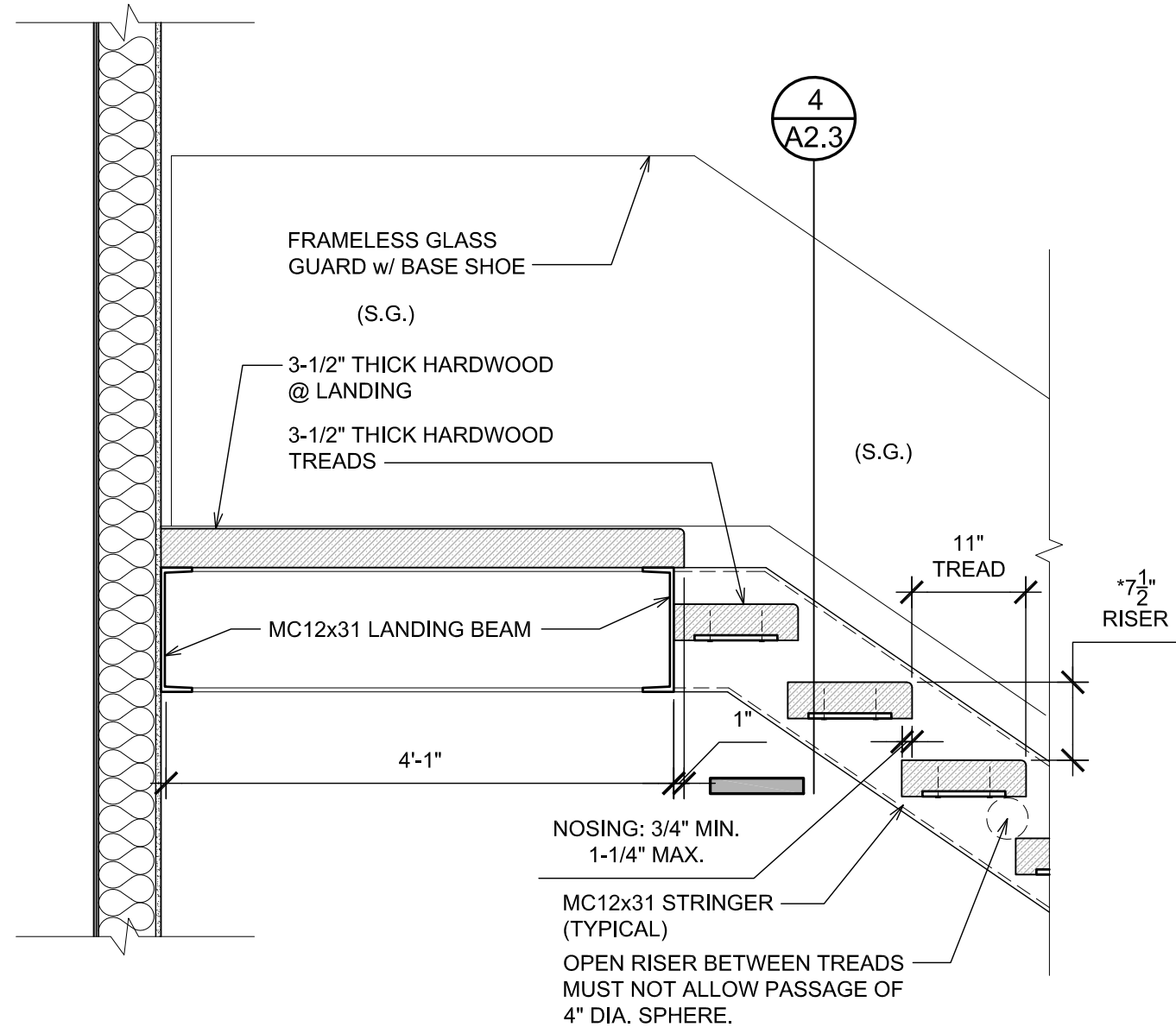
5
A2.3



STAIR STRINGER DETAIL

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

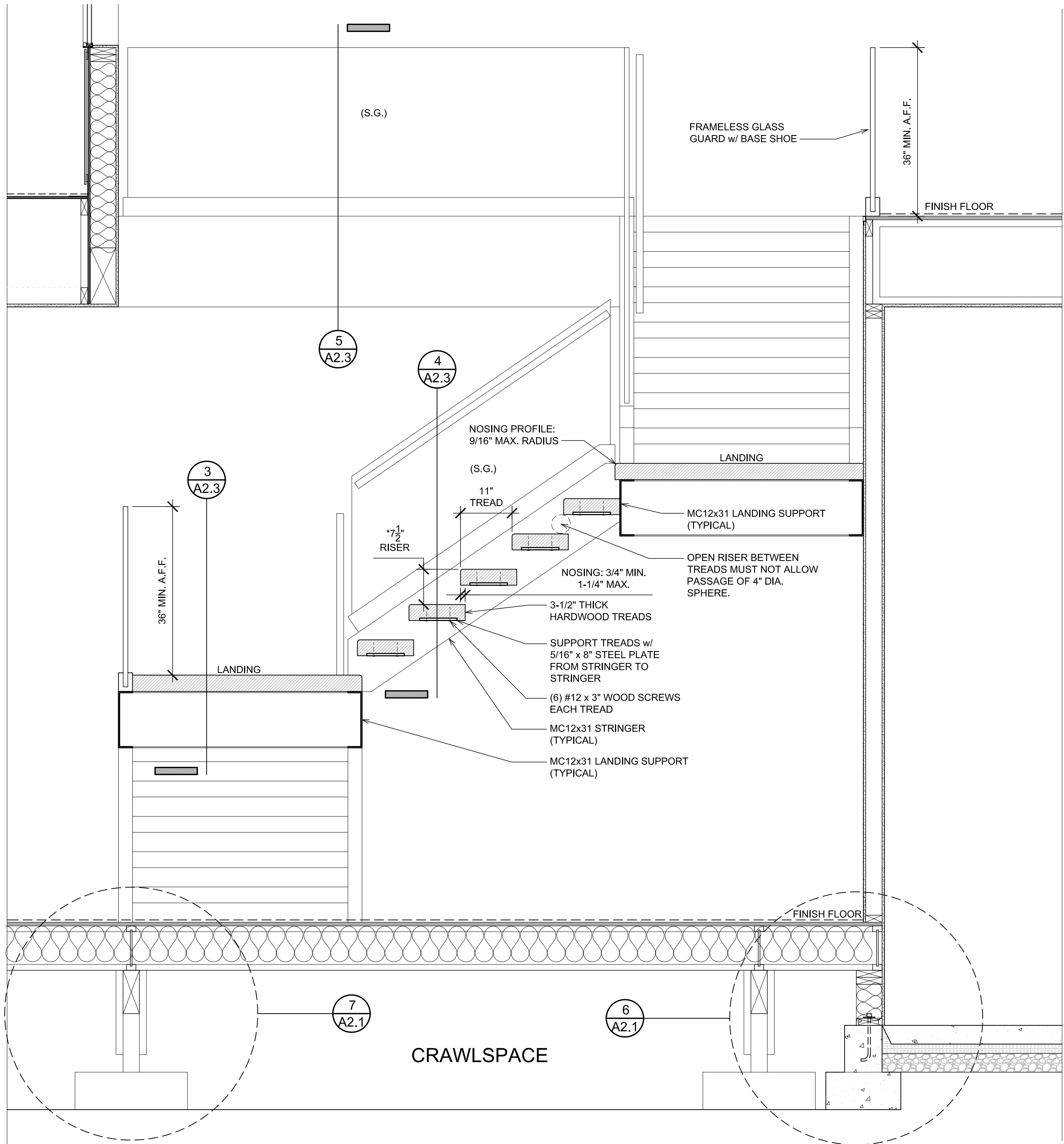
4
A2.3



STAIR LANDING DETAIL

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

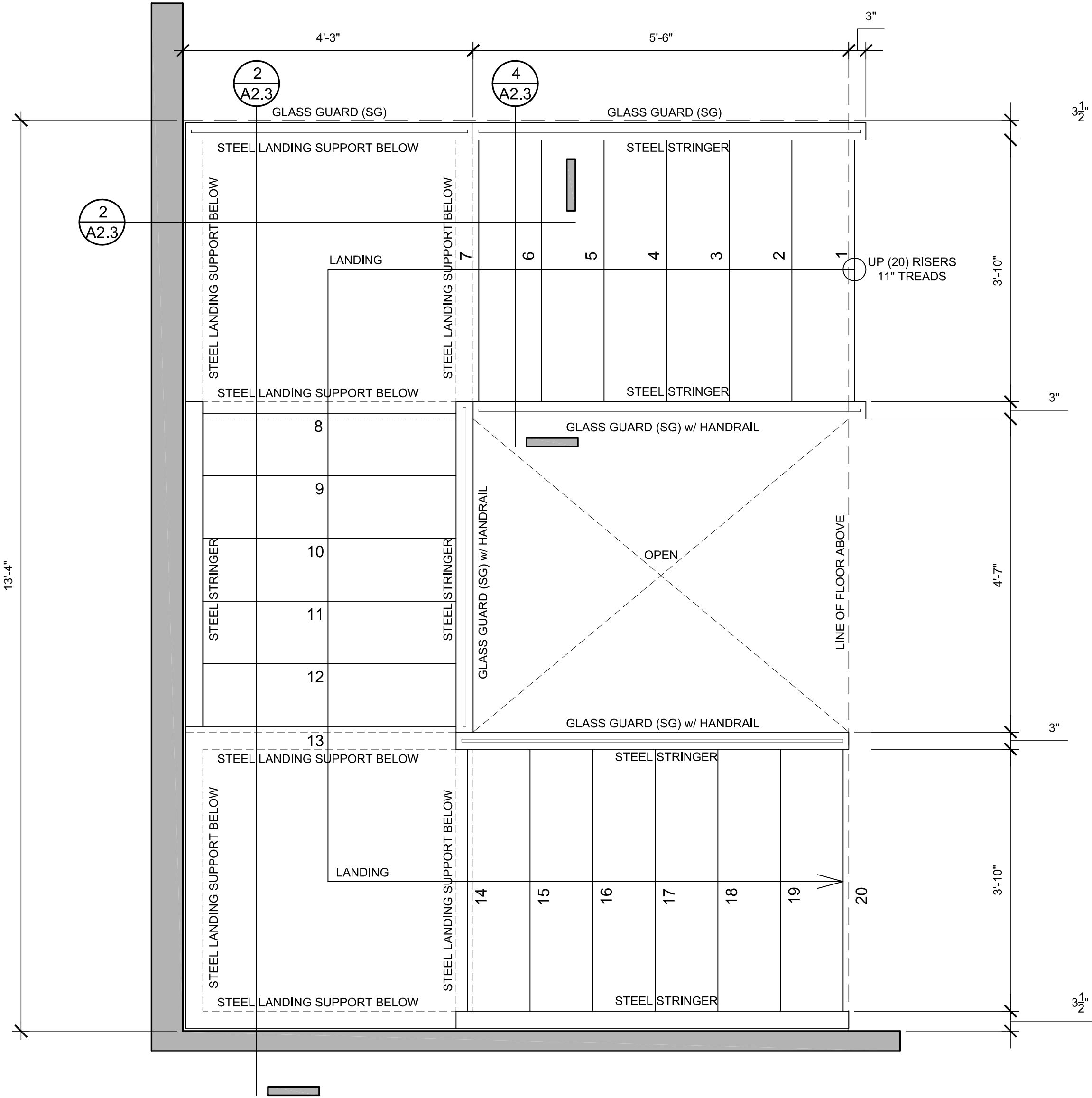
3
A2.3



STAIR - SECTION

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

2
A2.3



STAIR - MAIN FLOOR PLAN

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

1
A2.3

SEARS PLAT - LOT 3

Mercer Island
Washington
98040

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Stair Details

A2.3

2025.10.22
24-008

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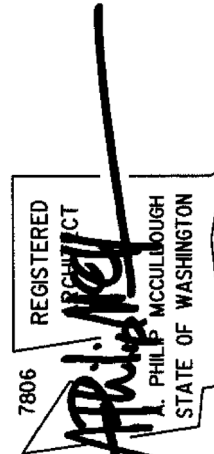
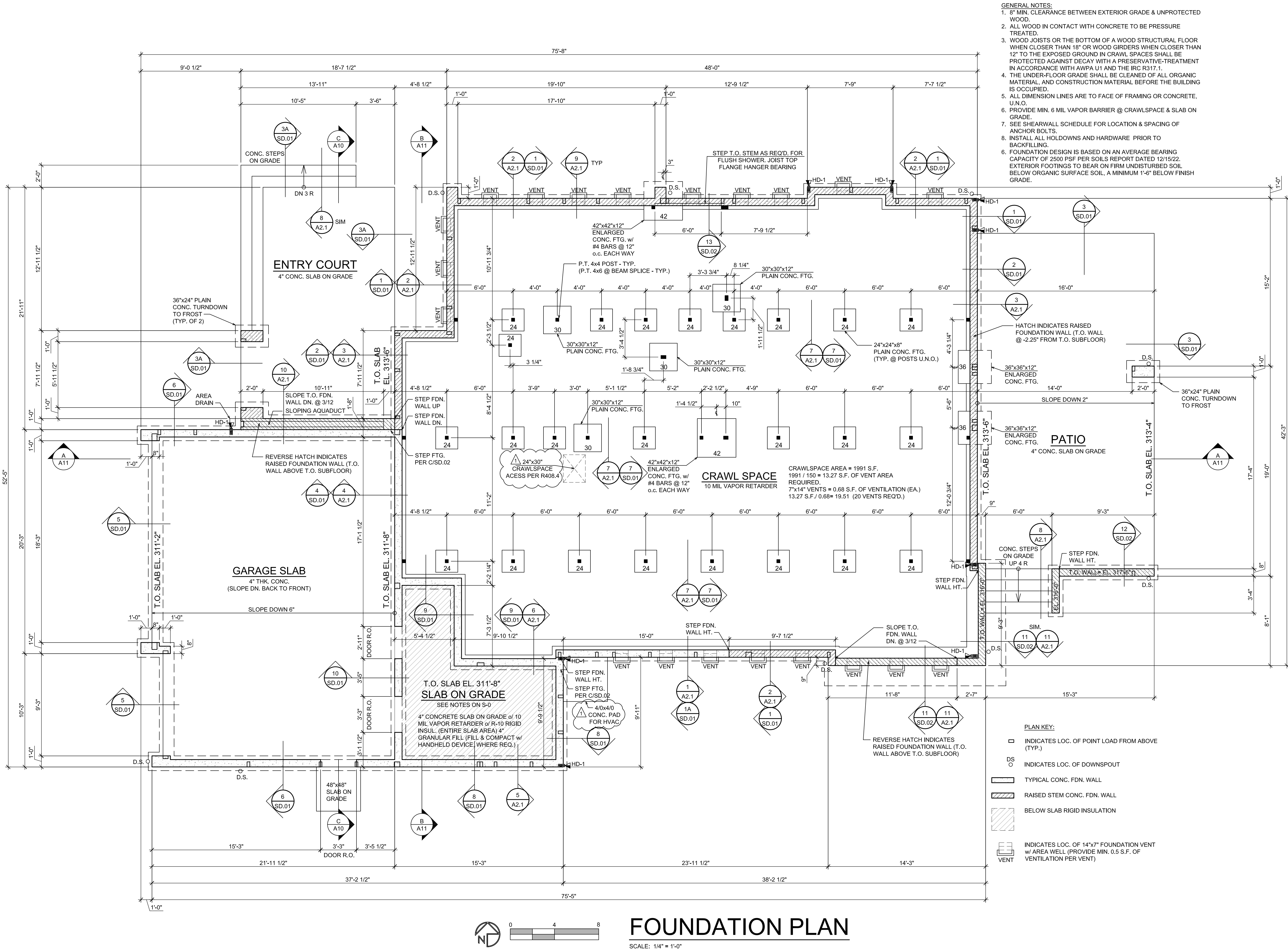
Revisions

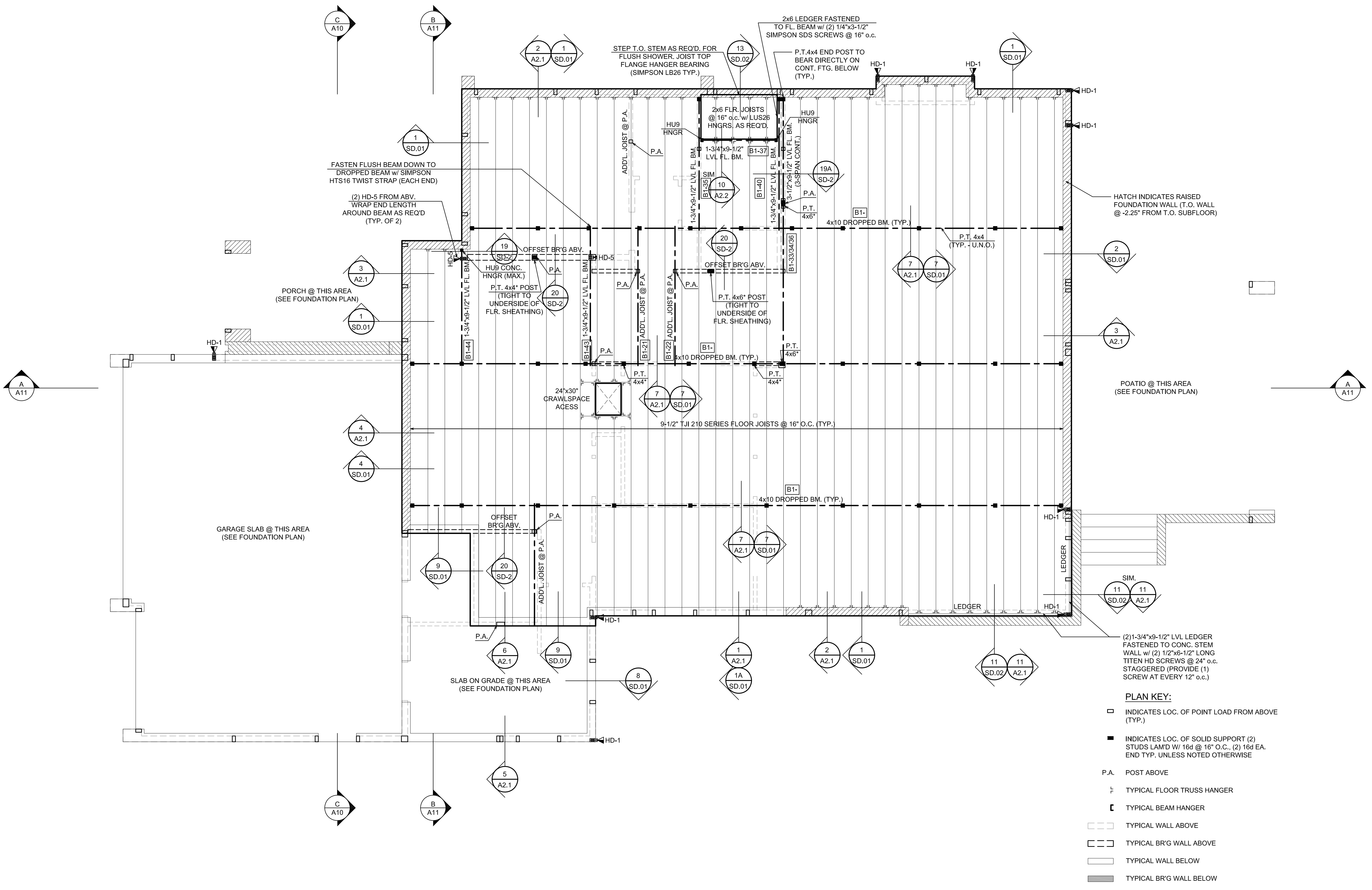
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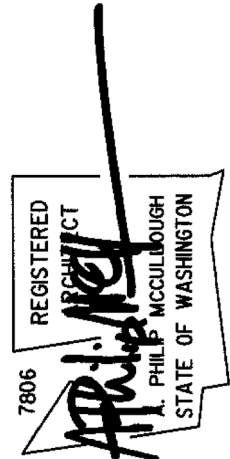


- GENERAL NOTES:
1. TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER 9-1/2" TJI FLOOR JOISTS AT 16" o.c., U.N.O. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
 2. GLUE AND NAIL FLOOR SHEATHING w/ 8d AT 6" o.c. AT FRAMED PANEL EDGES AND AT 12" o.c. IN THE FIELD, UNO.
 3. REFER TO SHEET SD-4 FOR TYPICAL FOUNDATION AND CONCRETE DETAILS.
 4. REFER TO GENERAL STRUCTURAL NOTES SHEET S-0 FOR ADDITIONAL REQUIREMENTS.
 5. DO NOT SCALE DRAWINGS. REFER TO LISTED DIMENSIONS.

Revisions
2/25/26
PLAN REVIEW 1

2025.10.22
24-008

Date:
Job No:
Project No:
Drawn:
Approved:
Owner:



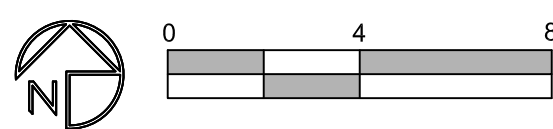
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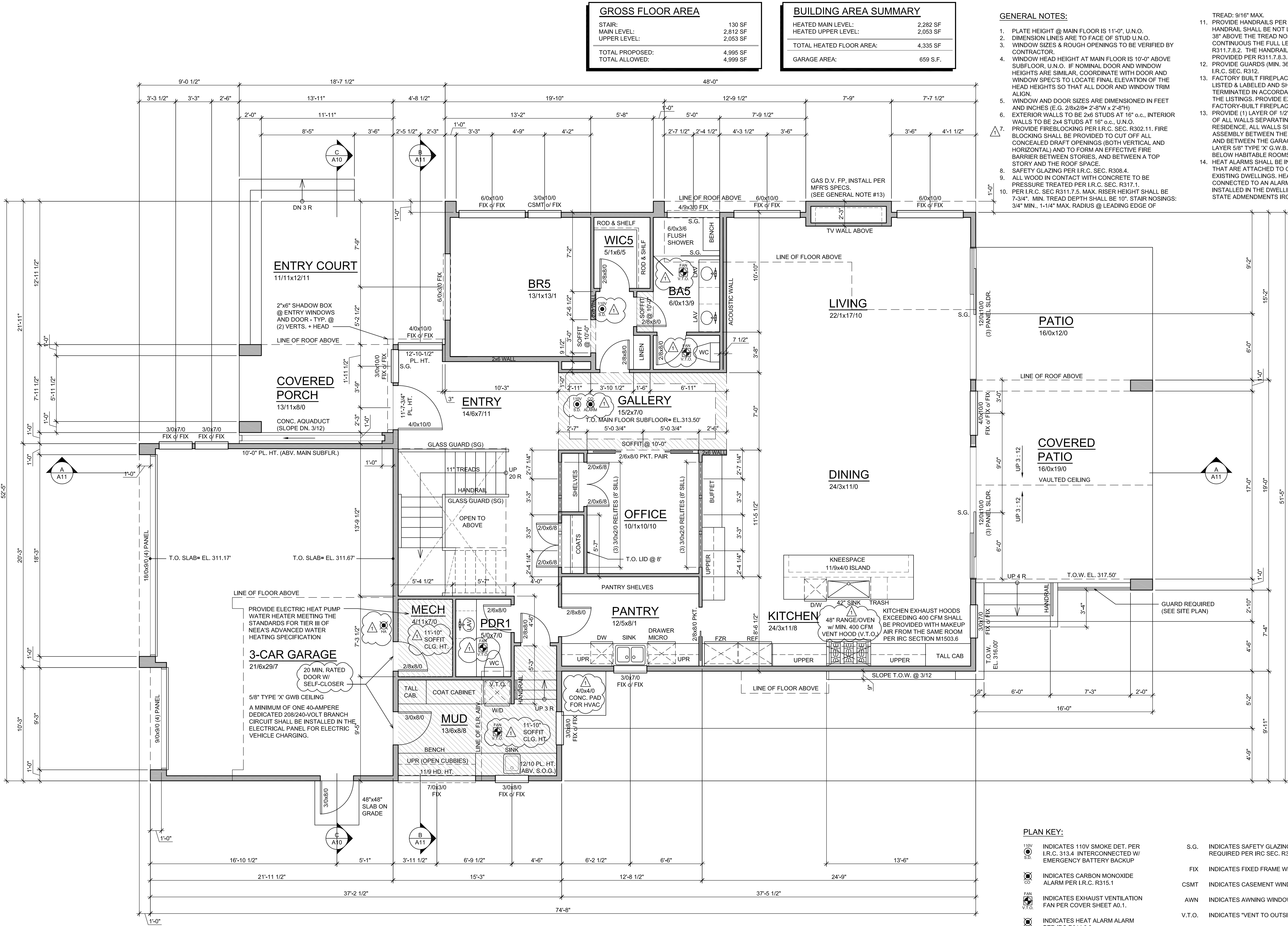
Main Floor
Plan

A4



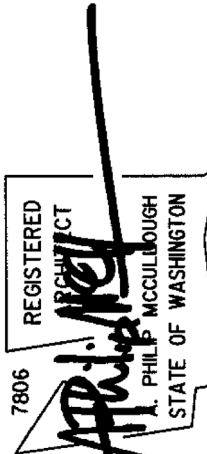
MAIN FLOOR FRAMING PLAN

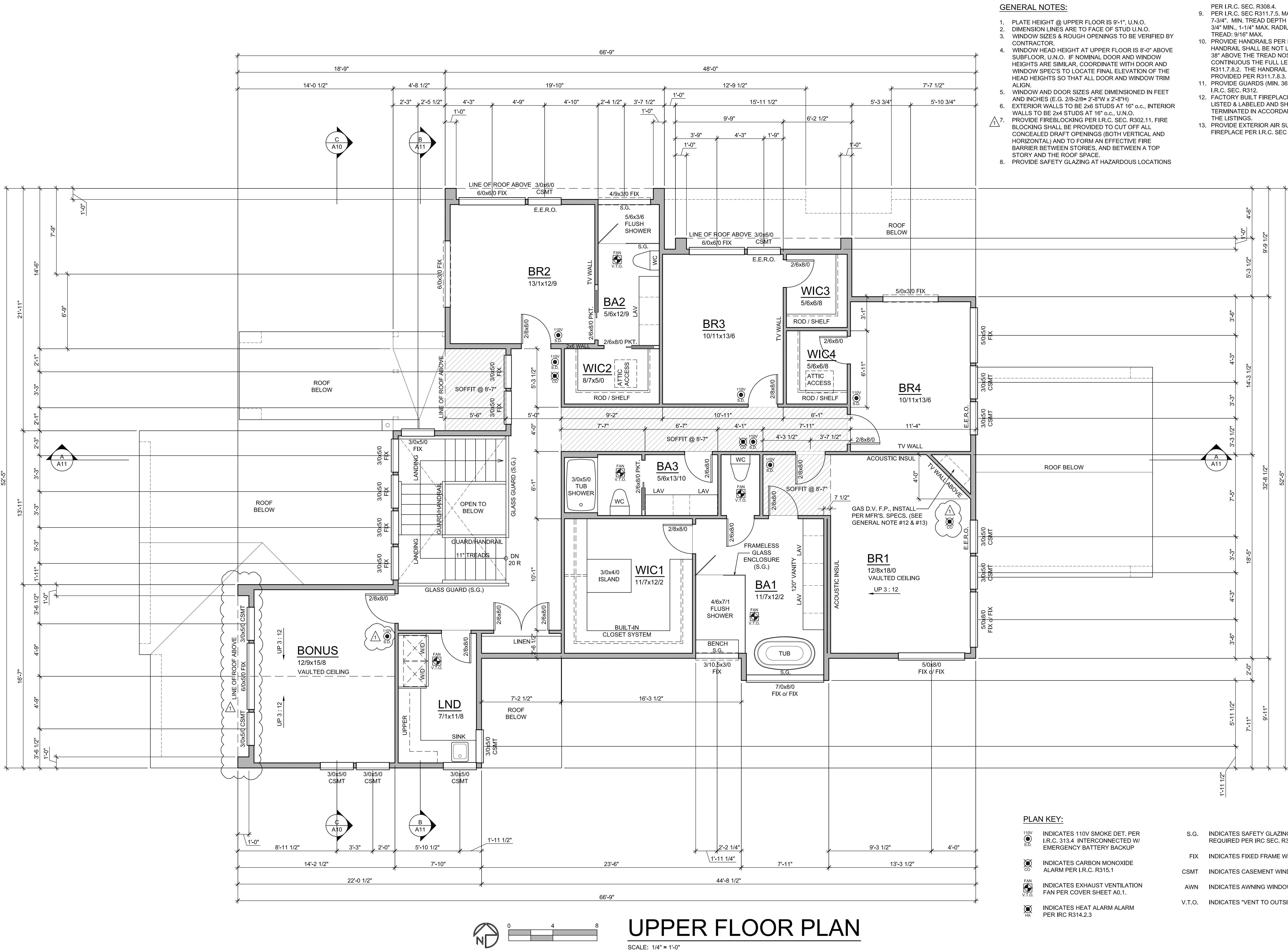
SCALE: 1/4" = 1'-0"



MAIN FLOOR PLAN

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





- GENERAL NOTES:
1. PLATE HEIGHT @ UPPER FLOOR IS 9'-1", U.N.O.
 2. DIMENSION LINES ARE TO FACE OF STUD U.N.O.
 3. WINDOW SIZES & ROUGH OPENINGS TO BE VERIFIED BY CONTRACTOR.
 4. WINDOW HEAD HEIGHT AT UPPER FLOOR IS 8'-0" ABOVE SUBFLOOR, U.N.O. IF NOMINAL DOOR AND WINDOW HEIGHTS ARE SIMILAR, COORDINATE WITH DOOR AND WINDOW SPEC'S TO LOCATE FINAL ELEVATION OF THE HEAD HEIGHTS SO THAT ALL DOOR AND WINDOW TRIM ALIGN.
 5. WINDOW AND DOOR SIZES ARE DIMENSIONED IN FEET AND INCHES (E.G. 2/8-2/8" 2'-8"W x 2'-8"H)
 6. EXTERIOR WALLS TO BE 2x6 STUDS AT 16" o.c., INTERIOR WALLS TO BE 2x4 STUDS AT 16" o.c., U.N.O.
 7. PROVIDE FIREBLOCKING PER I.R.C. SEC. R302.11. FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE.
 8. PROVIDE SAFETY GLAZING AT HAZARDOUS LOCATIONS
 9. PER I.R.C. SEC. R308.4.
 10. PER I.R.C. SEC R311.7.5, MAX. RISER HEIGHT SHALL BE 7-3/4". MIN. TREAD DEPTH SHALL BE 10". STAIR NOSINGS: 3/4" MIN., 1-1/4" MAX. RADIUS @ LEADING EDGE OF TREAD: 9/16" MAX.
 11. PROVIDE HANDRAILS PER I.R.C. SEC. R311.7.8. TOP OF HANDRAIL SHALL BE NOT LESS THAN 34" OR MORE THAN 38" ABOVE THE TREAD NOSINGS. HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE FLIGHT PER R311.7.8.2. THE HANDRAIL GRIP-SIZE SHALL BE PROVIDED PER R311.7.8.3.
 12. PROVIDE GUARDS (MIN. 36" HEIGHT) IN LOCATIONS PER I.R.C. SEC. R312.
 13. FACTORY BUILT FIREPLACES & CHIMNEYS SHALL BE LISTED & LABELED AND SHALL BE INSTALLED & TERMINATED IN ACCORDANCE TO THE CONDITIONS OF THE LISTINGS.
 14. PROVIDE EXTERIOR AIR SUPPLY TO ANY FACTORY-BUILT FIREPLACE PER I.R.C. SEC R1006.

- PLAN KEY:
- 110V S.D. INDICATES 110V SMOKE DET. PER I.R.C. 313.4 INTERCONNECTED W/ EMERGENCY BATTERY BACKUP
 - CD INDICATES CARBON MONOXIDE ALARM PER I.R.C. R315.1
 - FAN V.T.O. INDICATES EXHAUST VENTILATION FAN PER COVER SHEET A0.1.
 - HA INDICATES HEAT ALARM ALARM PER IRC R314.2.3
 - S.G. INDICATES SAFETY GLAZING REQUIRED PER IRC SEC. R308.4
 - FIX INDICATES FIXED FRAME WINDOW
 - CSMT INDICATES CASEMENT WINDOW
 - AWN INDICATES AWNING WINDOW
 - V.T.O. INDICATES "VENT TO OUTSIDE"

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Upper Floor Plan

A7

7418 - 78TH AVE. SE

Mercer Island

Washington

98040

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2025-10-22

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PLAN REVIEW 1

PLAN REVIEW 1

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DATE:

JOB NO.:

PROJECT NO.:

DRAWN:

APPROVED:

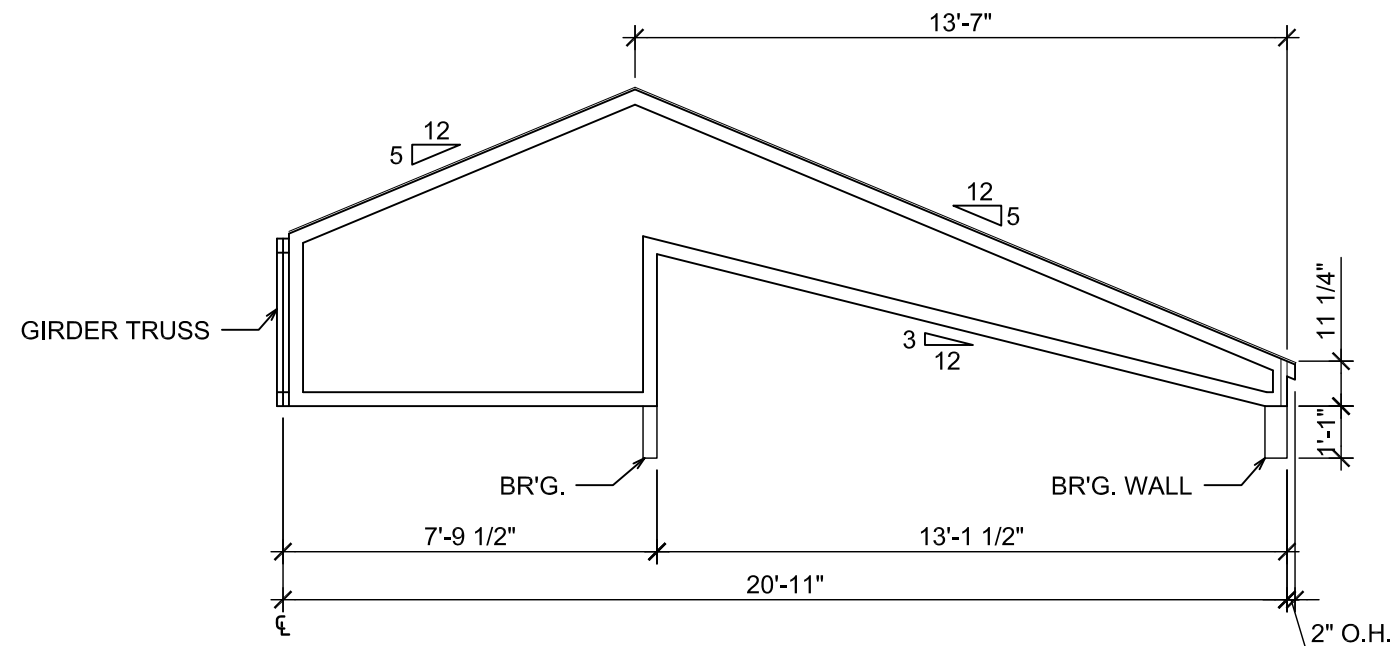
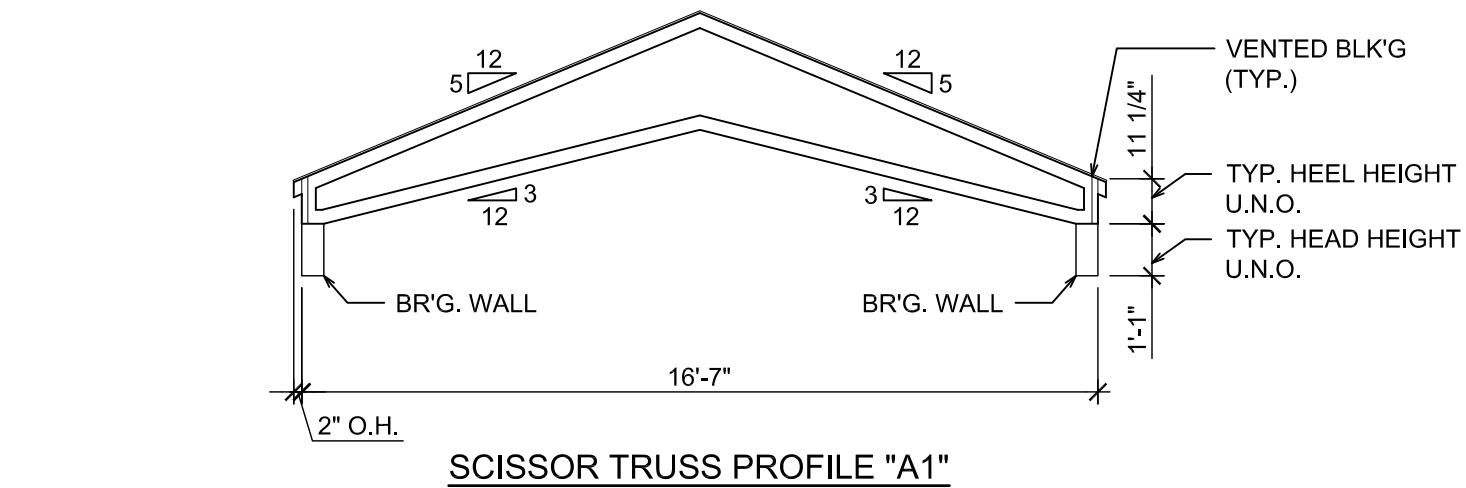
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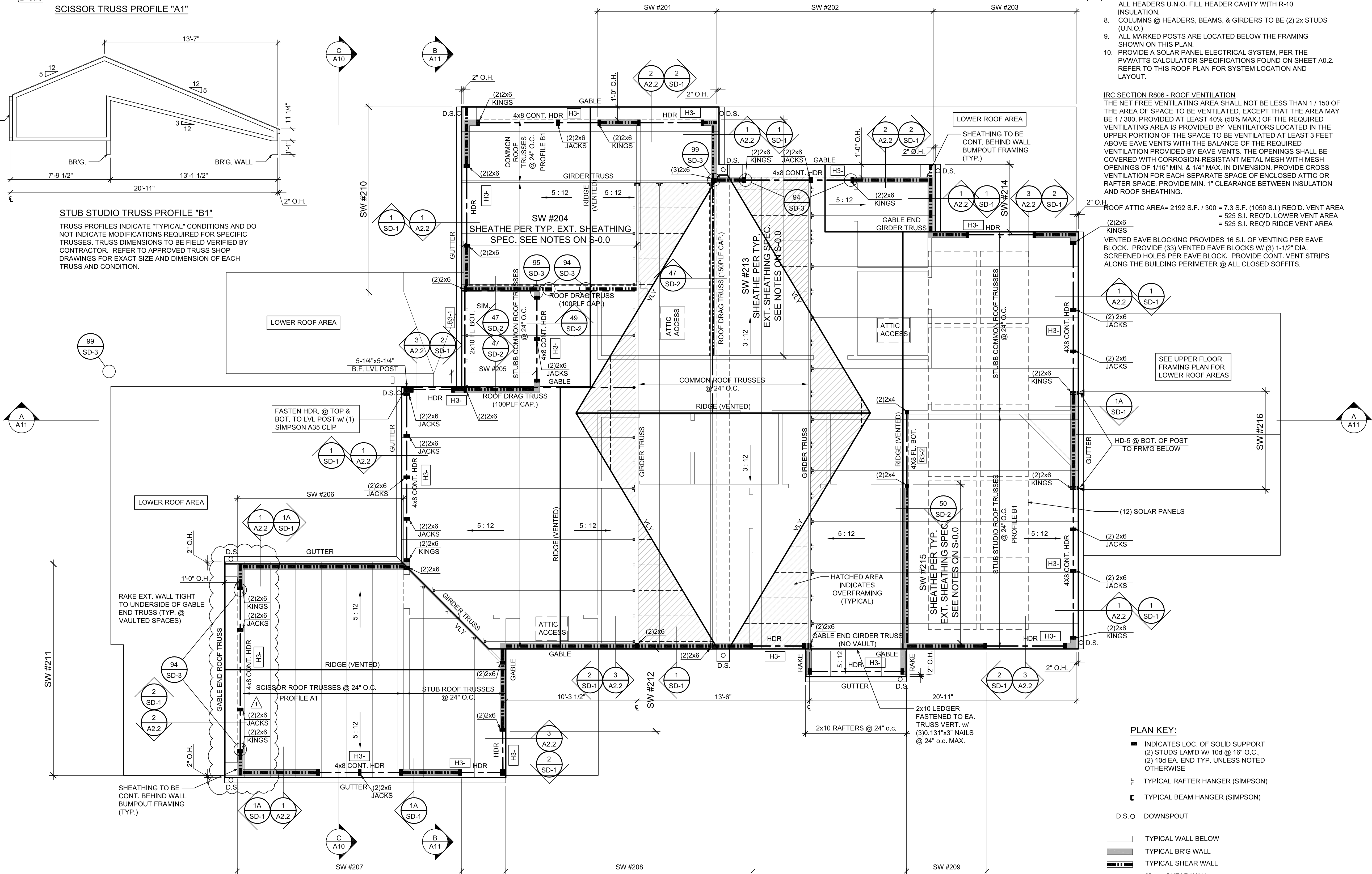
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ARCHITECT

STATE OF WASHINGTON



TRUSS PROFILES INDICATE "TYPICAL" CONDITIONS AND DO NOT INDICATE MODIFICATIONS REQUIRED FOR SPECIFIC TRUSSES. TRUSS DIMENSIONS TO BE FIELD VERIFIED BY CONTRACTOR. REFER TO APPROVED TRUSS SHOP DRAWINGS FOR EXACT SIZE AND DIMENSION OF EACH TRUSS AND CONDITION.



GENERAL NOTES:

- BEARING WALLS ARE SHADED.
- 5/12 ROOF PITCH, U.N.O.
- EAVE OVERHANG TO BE 2", GABLE OVERHANG TO BE 0", U.N.O.
- APPLY ROOF UNDERLAYMENT IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. ICE BARRIER IS REQUIRED FOR LOW SLOPE ROOFS.
- APPLY SINGLE PLY ROOFING MEMBRANE IN ACCORDANCE WITH I.R.C. SEC. 905.12.
- ROOF FRAMING TO BE MANUFACTURED TRUSSES @ 24" O.C., U.N.O.
- 4x8 AT ALL EXT. OPENINGS U.N.O. PROVIDE (1) 2x TRIMMER @ ALL HEADERS U.N.O. FILL HEADER CAVITY WITH R-10 INSULATION.
- COLUMNS @ HEADERS, BEAMS, & GIRDERS TO BE (2) 2x STUDS (U.N.O.)
- ALL MARKED POSTS ARE LOCATED BELOW THE FRAMING SHOWN ON THIS PLAN.
- PROVIDE A SOLAR PANEL ELECTRICAL SYSTEM, PER THE PVWATTS CALCULATOR SPECIFICATIONS FOUND ON SHEET A0.2. REFER TO THIS ROOF PLAN FOR SYSTEM LOCATION AND LAYOUT.

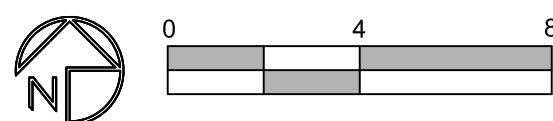
IRC SECTION R806 - ROOF VENTILATION
THE NET FREE VENTILATING AREA SHALL NOT BE LESS THAN 1 / 150 OF THE AREA OF SPACE TO BE VENTILATED, EXCEPT THAT THE AREA MAY BE 1 / 300 PROVIDED AT LEAST 40% (50% MAX.) OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE EAVE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE VENTS. THE OPENINGS SHALL BE COVERED WITH CORROSION-RESISTANT METAL MESH WITH MESH OPENINGS OF 1/16" MIN. & 1/4" MAX. IN DIMENSION. PROVIDE CROSS VENTILATION FOR EACH SEPARATE SPACE OF ENCLOSED ATTIC OR RAFTER SPACE. PROVIDE MIN. 1" CLEARANCE BETWEEN INSULATION AND ROOF SHEATHING.

ROOF ATTIC AREA= 2192 S.F. / 300 = 7.3 S.F. (1050 S.I.) REQ'D VENT AREA
= 525 S.I. REQ'D. LOWER VENT AREA
= 525 S.I. REQ'D VENT AREA

VENTED EAVE BLOCKING PROVIDES 16 S.I. OF VENTING PER EAVE BLOCK. PROVIDE (3) VENTED EAVE BLOCKS W/ (3) 1-1/2" DIA. SCREENED HOLES PER EAVE BLOCK. PROVIDE CONT. VENT STRIPS ALONG THE BUILDING PERIMETER @ ALL CLOSED SOFFITS.

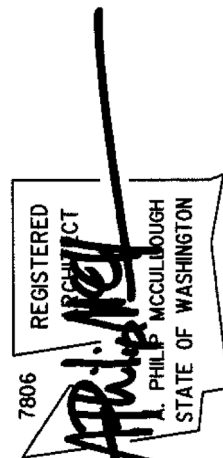
PLAN KEY:

- INDICATES LOC. OF SOLID SUPPORT
- (2) STUDS L&M'D W/ 10d @ 16" O.C.
- (2) 10d EA. END TYP. UNLESS NOTED OTHERWISE
- TYPICAL RAFTER HANGER (SIMPSON)
- TYPICAL BEAM HANGER (SIMPSON)
- D.S.O DOWNSPOUT
- TYPICAL WALL BELOW
- TYPICAL BR'G WALL
- TYPICAL SHEAR WALL
- 3" o.c. SHEAR WALL
- INDICATES LOC. OF HOLD-DOWN
- HATCHED AREA REPRESENTS OVERFRAMING
- LOWER ROOF AREA (SEE UPPER FLOOR FRAMING PLAN)



ROOF FRAMING PLAN

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

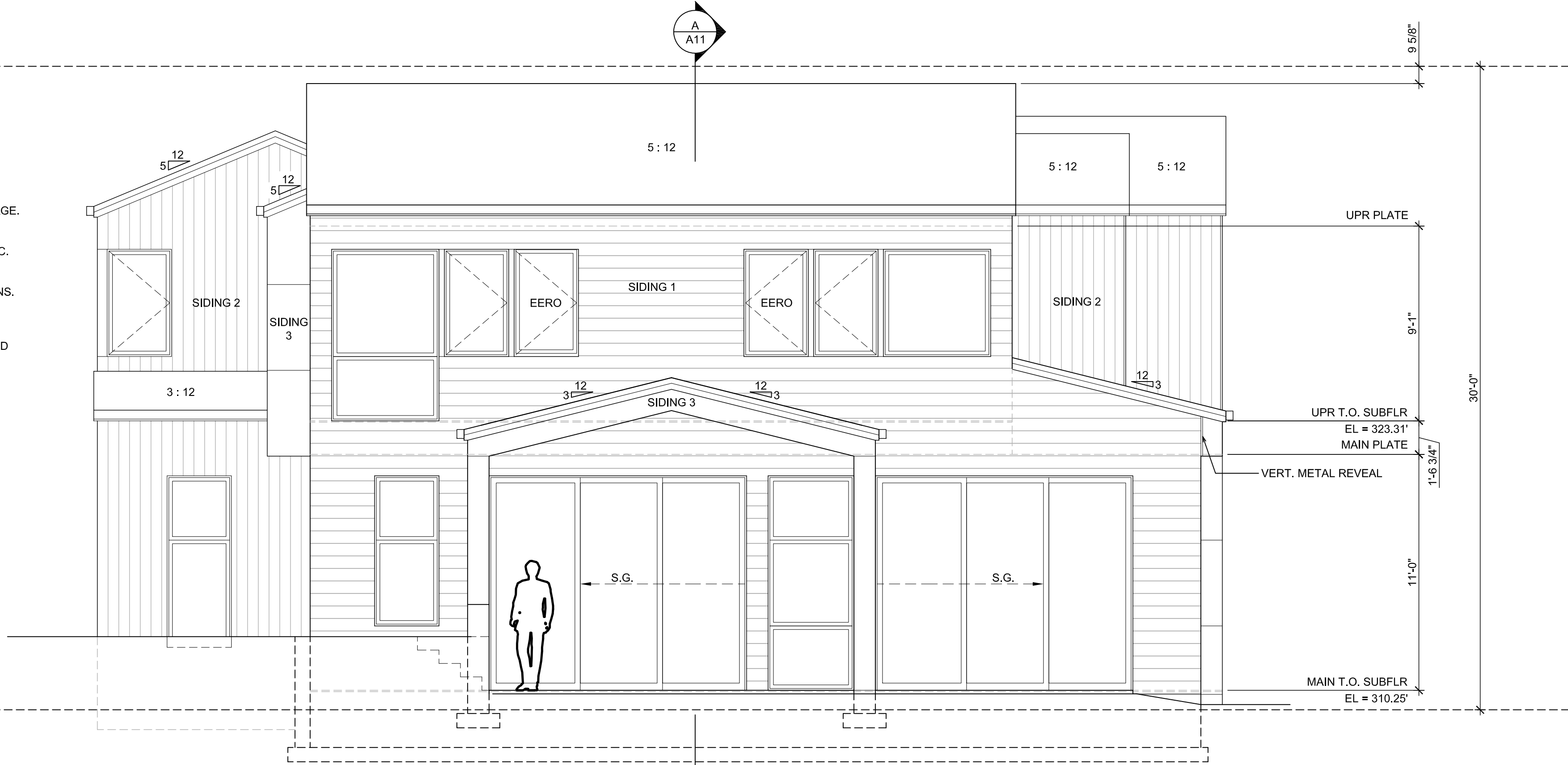


EXTERIOR ELEVATION NOTES:

1. VERIFY SHEAR WALL NAILING AND HOLDDOWNS PER STRUCTURAL PLANS AND SCHEDULES PRIOR TO INSTALLING SIDING
2. THE BUILDING ENVELOPE SHALL BE SEALED, CAULKED, GASKETED, AND WEATHERSTRIPPED TO LIMIT AIR LEAKAGE.
3. PROVIDE GALVANIZED OR ANODIZED SHEET METAL FLASHING AND COUNTERFLASHING AT ALL ROOF PENETRATIONS, CHIMNEYS, AND SKYLIGHTS PER IRC SEC. R703.4.
4. PROVIDE ROOF COVERINGS PER IRC SECTION R905. INSTALL PER MANUFACTURER'S WRITTEN SPECIFICATIONS.
5. PROVIDE EXTERIOR WALL COVERINGS PER IRC SECTION R703. INSTALL PER MANUFACTURER'S WRITTEN SPECIFICATIONS.
6. A SURVEY, MEASURED TO FINISHES, WILL BE CONDUCTED TO VERIFY STRUCTURE AREA AND HEIGHT)
7. (ABE)= AVERAGE BUILDING ELEVATION

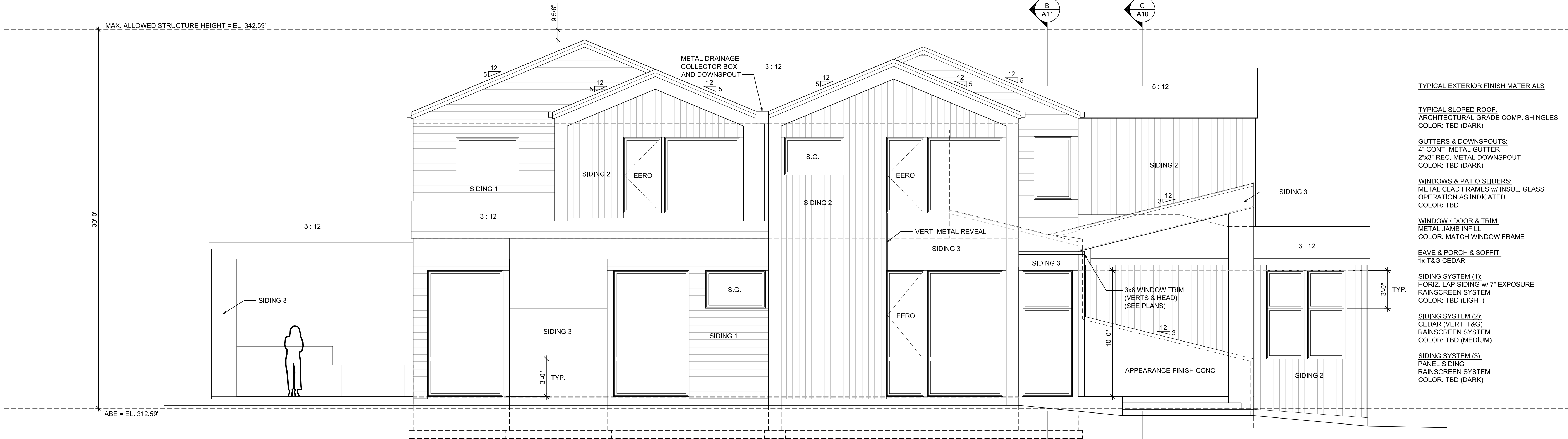
WINDOW & DOOR NOTES:

1. UNIT FRAMES TO BE METAL CLAD, U.N.O.
2. "U" VALUES FOR WINDOWS TO BE NFRC CERTIFIED.
3. GLAZING UNITS TO HAVE 1/2" INSULATED GLASS, U.N.O.
4. USE SAFETY GLASS WHERE REQUIRED PER IRC SEC. R308.4 (LABELED; S.G.)
5. USE OBSURED GLASS WHERE NOTED ON THE PLANS (LABELED; O.G.)
6. WINDOWS & DOORS SHALL LIMIT INFILTRATION PER ASTM 32873.
7. SITE VERIFY ALL ROUGH OPENING DIMENSIONS PRIOR TO FABRICATION.



EAST ELEVATION

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



NORTH ELEVATION

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

TYPICAL EXTERIOR FINISH MATERIALS

TYPICAL SLOPED ROOF:
ARCHITECTURAL GRADE COMP. SHINGLES
COLOR: TBD (DARK)

GUTTERS & DOWNSPOUTS:
4" CONT. METAL GUTTER
2"x3" REC. METAL DOWNSPOUT
COLOR: TBD (DARK)

WINDOWS & PATIO SLIDERS:
METAL CLAD FRAMES w/ INSUL. GLASS
OPERATION AS INDICATED
COLOR: TBD

WINDOW / DOOR & TRIM:
METAL JAMB INFILL
COLOR: MATCH WINDOW FRAME

EAVE & PORCH & SOFFIT:
1x T&G CEDAR

SIDING SYSTEM (1):
HORIZ. LAP SIDING w/ 7" EXPOSURE
RAINSCREEN SYSTEM
COLOR: TBD (LIGHT)

SIDING SYSTEM (2):
CEDAR (VERT. T&G)
RAINSCREEN SYSTEM
COLOR: TBD (MEDIUM)

SIDING SYSTEM (3):
PANEL SIDING
RAINSCREEN SYSTEM
COLOR: TBD (DARK)

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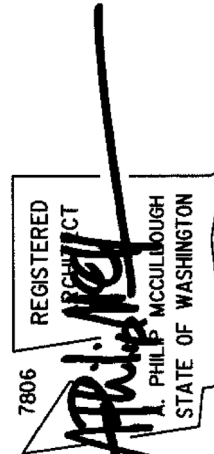
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Revisions
2/25/26
PLAN REVIEW 1

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24-008

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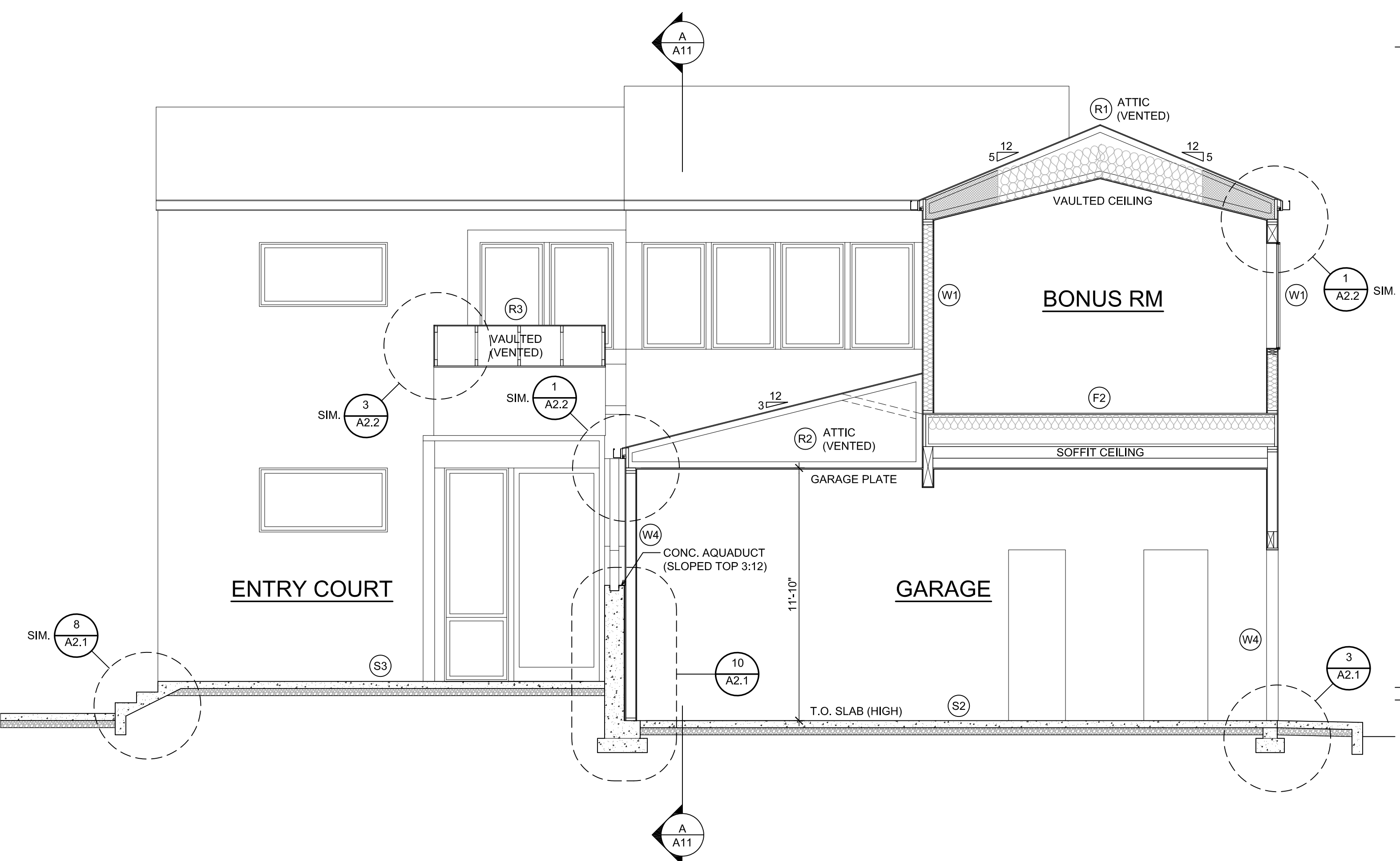
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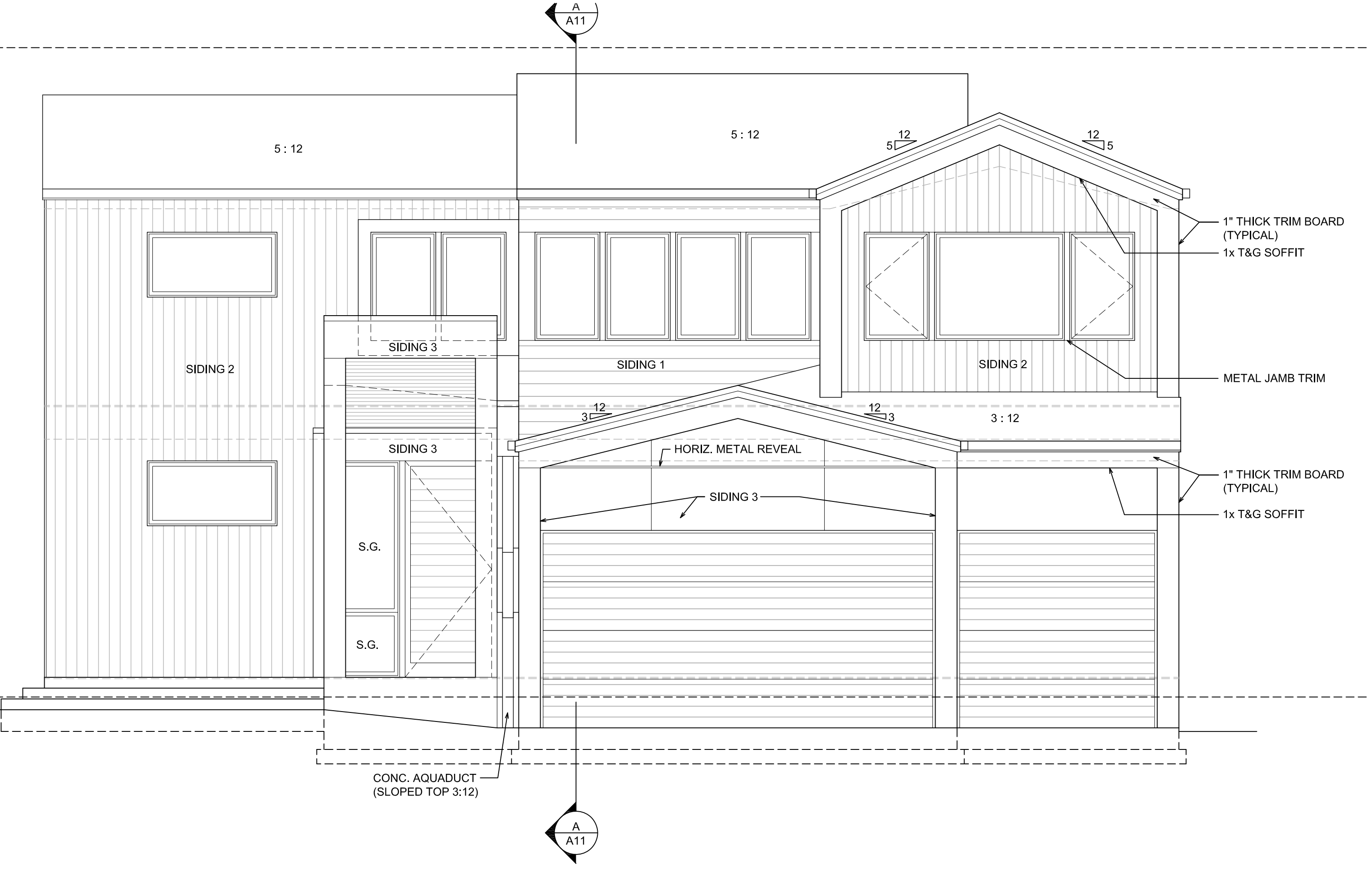
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Elevations

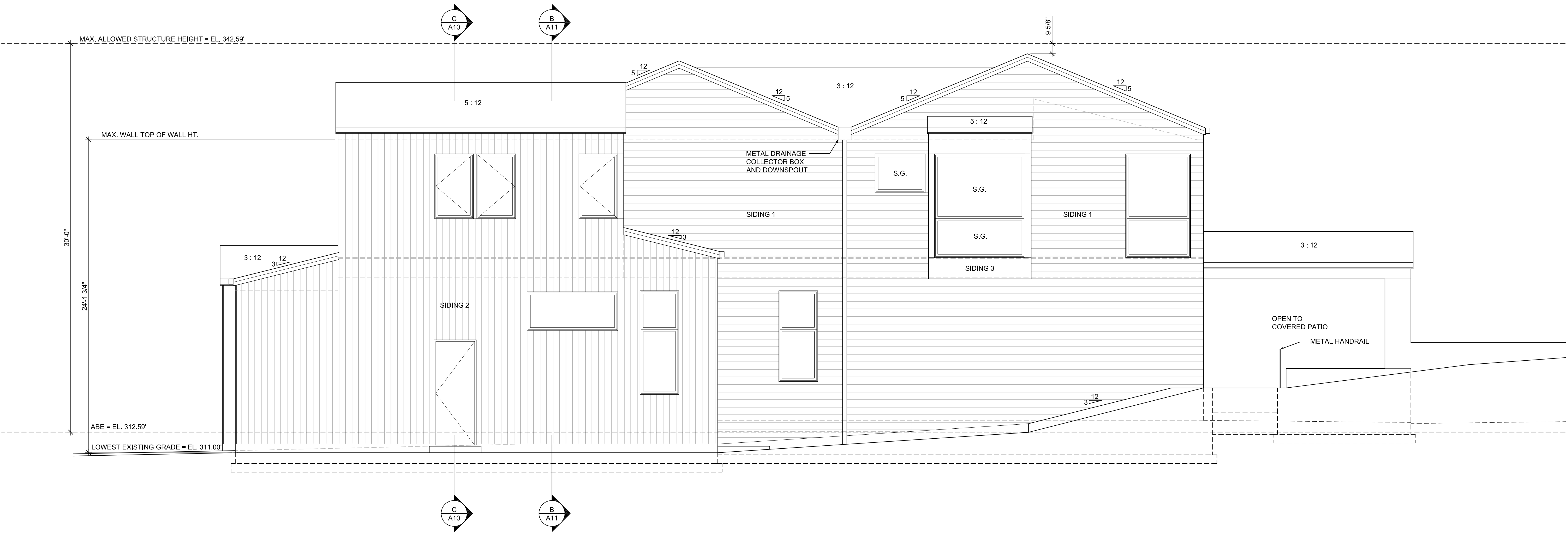
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SECTION C-C
SCALE: 1/4" = 1'-0"



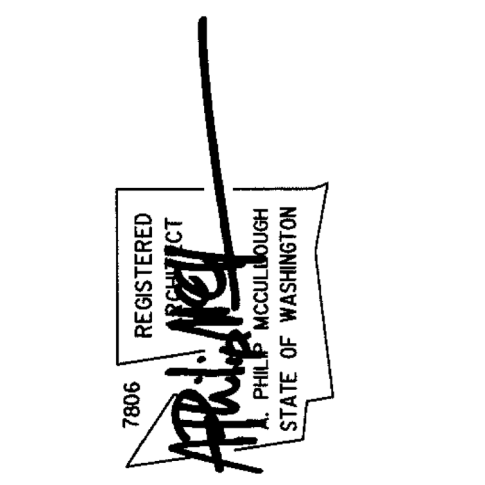
WEST ELEVATION
SCALE: 1/4" = 1'-0"



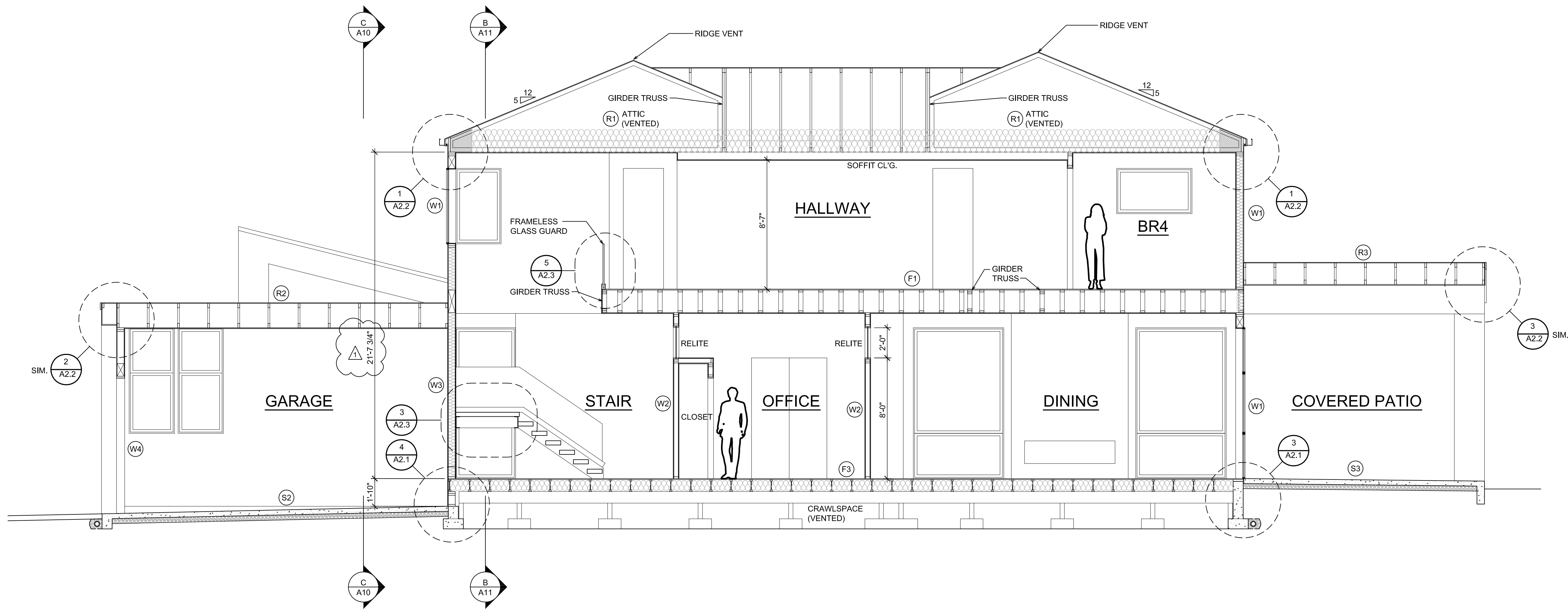
SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

Revisions	Comment
2/25/26	PLAN REVIEW 1

2025.10.22	24-008
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Approved:	Owner



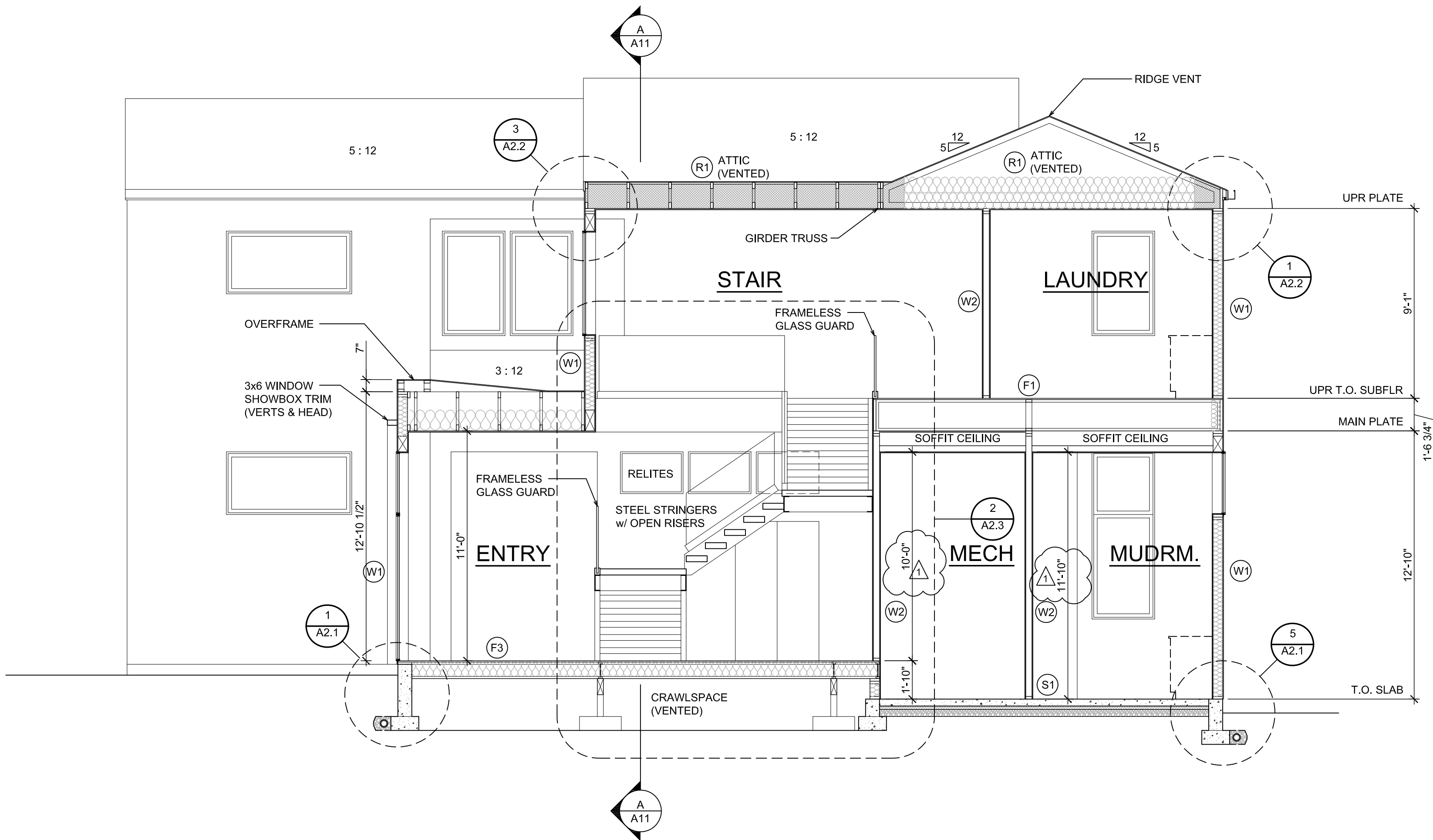
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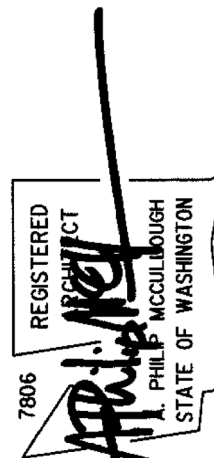
SECTION A-A
SCALE: 1/4" = 1'-0"

- (W1) TYPICAL ABOVE GRADE EXTERIOR WALL:
-SIDING SYSTEM PER ELEVATIONS
-NO. 15 ASPHALT SATURATED FELT (WRB)
-1/2" SHEATHING PER STRUCTURAL
-2x6 STUDS PER STRUCTURAL
-R-21 BATT INSULATION PER COVER SHEET
-1/2" G.W.B. INTERIOR FINISH
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL
- (W2) TYPICAL INTERIOR WALL:
-1/2" G.W.B. INTERIOR FINISH
-2x4 STUDS PER STRUCTURAL (2x6 WHERE NOTED ON PLANS)
-1/2" G.W.B. INTERIOR FINISH
- (W3) TYPICAL HOUSE/GARAGE WALL:
-1/2" G.W.B. INTERIOR FINISH
-2x6 STUDS PER STRUCTURAL
-R-21 BATT INSULATION PER COVER SHEET
-1/2" SHEATHING PER STRUCTURAL
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL
- (W4) TYPICAL GARAGE EXTERIOR WALL:
-SIDING SYSTEM PER ELEVATIONS
-NO. 15 ASPHALT SATURATED FELT (WRB)
-2x6 STUDS PER STRUCTURAL
-1/2" G.W.B. INTERIOR FINISH
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL
- (S) TYPICAL SLAB-ON-GRADE (INTERIOR):
-FINISH FLOOR PER PLAN
-4" CAST-IN-PLACE CONCRETE
-10 MIL VAPOR RETARDER
-R-10 RIGID INSULATION PER COVER SHEET
-4" GRANULAR FILL
- (S2) GARAGE SLAB-ON-GRADE (GARAGE):
-4" CAST-IN-PLACE CONCRETE (SLOPE PER PLAN)
-10 MIL VAPOR RETARDER
-4" GRANULAR FILL
- (S3) PATIO SLAB-ON-GRADE:
-4" CAST-IN-PLACE CONCRETE (SLOPE PER PLAN)
-4" GRANULAR FILL

- (F1) TYPICAL FLOOR of HEATED SPACE:
-FINISH FLOOR PER PLAN
-3/4" T&G SHEATHING PER STRUCTURAL (GLUE & NAIL TO JOISTS)
-FLOOR JOISTS OR TRUSSES PER FRAMING PLAN
-5/8" G.W.B. CEILING
- (F2) TYPICAL FLOOR of GARAGE:
-FINISH FLOOR PER PLAN
-3/4" T&G SHEATHING PER STRUCTURAL (GLUE & NAIL TO JOISTS)
-FLOOR JOISTS OR TRUSSES PER FRAMING PLAN
-R-30 BATT INSULATION PER COVER
-5/8" G.W.B. CEILING (TYPE 'X' WHERE INDICATED)
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL
- (F3) TYPICAL FLOOR of CRAWLSPACE:
-FINISH FLOOR PER PLAN
-3/4" T&G SHEATHING PER STRUCTURAL (GLUE & NAIL TO JOISTS)
-FLOOR JOISTS OR TRUSSES PER FRAMING PLAN
-R-38 BATT INSULATION PER COVER
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL
- (F4) TYPICAL FLOOR of EXTERIOR SPACE:
-FINISH FLOOR PER PLAN
-3/4" T&G SHEATHING PER STRUCTURAL (GLUE & NAIL TO JOISTS)
-FLOOR JOISTS OR TRUSSES PER FRAMING PLAN
-R-30 BATT INSULATION PER COVER
-VENTED 1x T&G CEDAR
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL
- (R1) TYPICAL ROOF CONSTRUCTION of HEATED (VENTED):
-ARCHITECTURAL GRADE COMPOSITION ROOF SHINGLES (SLOPE TO GUTTER)
-1/2" SHEATHING PER STRUCTURAL
-ROOF TRUSSES PER FRAMING PLAN
-R-60 BATT INSULATION PER COVER
-5/8" G.W.B. CEILING
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL
- (R2) TYPICAL ROOF CONSTRUCTION of UNHEATED (VENTED):
-ARCHITECTURAL GRADE COMPOSITION ROOF SHINGLES (SLOPE TO GUTTER)
-1/2" SHEATHING PER STRUCTURAL
-ROOF TRUSSES PER FRAMING PLAN
-5/8" TYPE 'X' G.W.B. CEILING
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL
- (R3) TYPICAL ROOF CONSTRUCTION of UNHEATED (VENTED):
-ARCHITECTURAL GRADE COMPOSITION ROOF SHINGLES (SLOPE TO GUTTER)
-1/2" SHEATHING PER STRUCTURAL
-ROOF TRUSSES PER FRAMING PLAN
-5/8" TYPE 'X' G.W.B. CEILING
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL



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



BASEMENT SLAB

4" CONC. SLAB ON 10 MIL VAPOR BARRIER ON 4" MIN. GRANULAR FILL ON 95% COMPACTED FILL/VIRGIN SOIL

GARAGE SLAB

4" CONC. SLAB ON 4" MIN. GRANULAR FILL ON 95% COMPACTED FILL/VIRGIN SOIL

PORCH SLAB

4" CONC. SLAB ON GRADE ON 4" MIN. GRANULAR FILL ON 95% COMPACTED FILL/VIRGIN SOIL

GENERAL STRUCTURAL NOTES

FOUNDATION

- DESIGN IS BASED ON 2021 INTERNATIONAL RESIDENTIAL CODE & 2021 INTERNATIONAL BUILDING CODE
- DESIGN LOADS:
 - SOIL: 1500 PSF ALLOWABLE BEARING PRESSURE
- CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS IN 28 DAYS, UNO:
 - $f_c = 3000$ psi: FOUNDATION WALLS
 - 3000 psi: FOOTINGS
 - 2500 psi: INTERIOR SLABS ON GRADE
 - 3500 psi: GARAGE & EXT. SLABS ON GRADE
 - $f_y = 60,000$ psi
- * ALL CONCRETE HAS BEEN DESIGNED FOR 2500 PSI, ANYTHING GREATER THAN THIS SPECIFICATION IS FOR WEATHERING ONLY.
- ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 1% AIR ENTRAINMENT.
- FOUNDATION WALL DESIGN IS BASED ON BACKFILL SOIL PRESSURE OF 55 PCF AT-REST, 35 PCF ACTIVE & 7th SEISMIC SURCHARGE.
- TYPICAL REINFORCEMENT DETAILS: LAP ALL REBAR 24" MIN, BEND BARS AND LAP AT CORNERS; PROVIDE 6" HOOK INTO SUPPORTING FOOTINGS WHEN FOOTINGS INTERSECT; PROVIDE 3" MINIMUM COVER AT THE BOTTOM BARS AND 1 1/2" COVER AT THE SIDES.
- FOUNDATION WALLS SHALL BE BRACED, PRIOR TO BACKFILLING, BY EITHER ADEQUATE TEMPORARY BRACING OR INSTALLATION OF FIRST FLOOR DECK.
- ALL FOOTINGS SHALL BEAR BELOW FROST LINE. CONSULT SOILS REPORT/ LOCAL MUNICIPALITY FOR MINIMUM DEPTH BELOW GRADE.
- FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 95% COMPACTED FILL.
- PROVIDE CONTROL JOINTS AT ALL INSIDE CORNERS OF SLAB EDGES, AND OTHER LOCATIONS WHERE SLAB CRACKS ARE LIKELY TO DEVELOP. (15'-0" O.C.)
- FASTEN SILL PLATES TO FOUNDATION WALLS WITH 3/8" DIA. ANCHOR BOLTS w/ MIN. 3"x3"x 1/4" PLATE WASHERS (EDGE OF WASHER TO BE LOCATED WITHIN 1/8" OF EXTERIOR EDGE OF SILL PLATE) PROVIDE A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAXIMUM FROM PLATE ENDS, UNO. (SEE FND. DETAILS).
- ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT W/ CONCRETE OR MASONRY FOUNDATION SHALL BE PRESERVATIVE TREATED HEM FIR #2.
- ARCH/BUILDER TO VERIFY ALL DIMENSIONS

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HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
	SIMPSON STDH14 (RJ) HOLD-DOWN
	SIMPSON CSI6 STRAP TIE (14" END LENGTH)
	SIMPSON MSTC40 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM UNO.)
	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM UNO.)

MEANS & METHODS NOTES

THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FINISHED AND ALL PLAN DETAIL AND NOTE SPECIFICATIONS HAVE BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, AND TIE-DOWNS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF THE PROJECT.

STRUCTURAL DESIGN AND SPECIFICATIONS ASSUME THAT ALL SUPPORTING AND NON-SUPPORTING ELEMENTS IN CONTACT WITH FLOOR FRAMING ARE LEVEL, INCLUDING, BUT NOT LIMITED TO; FOUNDATIONS, SLABS ON GRADE, BEAMS, WALLS, AND NON-BEARING ELEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY, INCLUDING CONSIDERATION OF THOSE AREAS THAT MAY BE WITHIN CONTRACTUAL, INDUSTRY, OR WARRANTY TOLERANCES.

ADDITIONAL NOTES FOR TRUSS & I-JOIST MANUFACTURER

ROOF TRUSSES, FLOOR TRUSSES AND ENGINEERED JOISTS SHALL BE DESIGNED TO MEET THE DIFFERENTIAL DEFLECTION CRITERIA BELOW UNLESS NOTED OTHERWISE ON PLAN. MULHERN & KULP CANNOT BE HELD RESPONSIBLE FOR ANY STRUCTURAL ISSUES RELATED TO ANY BUILDING COMPONENT IF COMPONENT SHOP DRAWINGS ARE NOT SUBMITTED TO MKC FOR REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALLATION.

TRUSSES SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES OR GIRDER TRUSSES DOES NOT EXCEED THE FOLLOWING:

A. ROOF TRUSSES:
1/4" DEAD LOAD

B. FLOOR TRUSSES, ATTIC TRUSSES, & I-JOISTS:
1/8" DEAD LOAD

C. FLOOR TRUSSES & ATTIC TRUSSES ADJACENT TO FLOOR FRAMING BY OTHERS:
LIMIT ABSOLUTE TRUSS DEFLECTION TO 3/16" DEAD LOAD. (NOT DIFFERENTIAL DEFLECTION)

LOADING AND DESIGN PARAMETERS

GRAVITY DESIGN LOADS:

DEAD LOAD (PSF):

- ROOF TRUSSES TOP CHORD :
- ROOF TRUSSES BOTTOM CHORD :
- ROOF RAFTERS :
- FLOOR (TRUSSES) :
- FLOOR (JOISTS) :
- TILE FLOORS :
- SOLAR PANELS :

LIVE LOAD (PSF):

- ROOF :
- RESIDENTIAL LIVING AREAS :
- RESIDENTIAL SLEEPING AREAS :
- RESIDENTIAL WOOD DECKS :
- GARAGE :

SNOW LOAD:

- GROUND SNOW LOAD (P_g) (PSF) :
- FLAT ROOF SNOW LOAD (P_f) (PSF) :
- SNOW EXPOSURE FACTOR (C_e) :
- SNOW LOAD IMPORTANCE FACTOR (I_s) :
- THERMAL FACTOR (C_t) :

LATERAL DESIGN LOADS:

- WIND LOAD: (IBC 1609)
- SPEED (V_w) (MPH) :
- WIND RISK CATEGORY :
- IMPORTANCE FACTOR (I_w) :
- EXPOSURE CATEGORY :
- INTERNAL PRESSURE COEFF. (GC_w) :
- TOPOGRAPHIC FACTOR (K_{zt}) :

SEISMIC LOAD: (IBC 1613)

- SEISMIC RISK CATEGORY :
- SEISMIC IMPORTANCE FACTOR (I_w) :
- MAPPED SPECTRAL RESPONSE:
- S_{ms} 1.471
- S_{ms} 0.508
- SITE CLASS :
- D (DEFAULT)
- SPECTRAL RESPONSE COEFF. :
- S_{ms} 0.601
- SEISMIC DESIGN CATEGORY:
- D
- BASIC SEISMIC-FORCE-RESISTING SYS.:
- LIGHT FRAMED WALLS
- W/ WOOD STRUCTURAL PANELS
- ULTIMATE BASE SHEAR:
- TRANS: 20k
- LONG: 20k
- SEISMIC RESPONSE COEFF. (C_w) :
- TRANS: 0.01
- LONG: 0.01
- RESPONSE MODIFICATION FACTOR (R_s) :
- TRANS: 6.5
- LONG: 6.5
- ANALYSIS PROCEDURE USED:
- EQUIVALENT LATERAL FORCE

LATERAL BRACING NOTES

THIS HOME HAS BEEN ENGINEERED TO RESIST LATERAL FORCES RESULTING FROM: 100 MPH WIND SPEED, EXP. B (ASCE 7-16 WIND MAP, PER IRC R301.2.1.1) RISK CAT. 2 & SEISMIC CAT. D2.

100 MPH WIND IN 2021 IRC MAP ENGINEERED DESIGN WAS COMPLETED PER 2021 IBC (SECTION 1609 & 1613) & ASCE 7-16, AS PERMITTED BY R301.1.3 OF THE 2021 IRC. ACCORDINGLY, THIS HOME, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES, AND DOES NOT NEED TO CONFORM TO THE PRESCRIPTIVE PROVISIONS OF R602.10.

STANDARD EXTERIOR WALL SHEATHING SPECIFICATIONS

(INTERIOR WALL SPECIFICATION WHERE NOTED ON PLANS)

- 3/16" OSB OR 15/32" PLYWOOD:

FASTEN SHEATHING w/ 2 1/2"x0.131" NAILS @ 6" o.c. AT ALL SUPPORTED PANEL EDGES AND 12" o.c. IN THE PANEL FIELD. ALL SHEATHING SHEET PANEL EDGES SHALL OCCUR OVER WALL FRAMING MEMBERS OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT PANEL EDGE. ALL EXTERIOR WALLS SHALL BE CONSTRUCTED PER THIS SPECIFICATION UNO. ON PLANS.

3" o.c. EDGE NAILING

(WHERE NOTED ON PLANS)

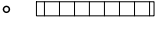
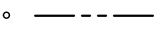
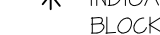
- 3/16" OSB OR 15/32" PLYWOOD:

ONLY AT LOCATIONS INDICATED ON PLANS - SHEATH WALL SHOWN WITH 3/16" OSB. FASTEN SHEATHING w/ 2 1/2"x0.131" NAILS @ 3" o.c. AT EDGES AND 12" o.c. AT CENTER. ALL SHEATHING SHEET PANEL EDGES SHALL OCCUR OVER WALL FRAMING MEMBERS OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT PANEL EDGE AND 3" o.c. FASTENING.

NOTES:

- LATERAL ANALYSIS ASSUMES STUD SPACING @ 16" o.c.
- ALL SHEAR WALLS SHALL HAVE DOUBLE TOP PLATES FASTENED TOGETHER w/ 3"x0.131" NAILS @ 8" o.c. USE (12R) 3/2"x0.131" NAILS AT EACH LAP SPLICE, (6) EACH SIDE OF JOINT (TYP. UNO.)
- ALL EXTERIOR WALLS ARE CONTINUOUSLY SHEATHED.
- ALL INTERIOR SHEAR WALLS AND EXTERIOR WALLS ARE SHEATHED ABOVE AND BELOW OPENINGS.

LEGEND

-  INTERIOR BEARING WALL
-  BEARING WALL ABOVE (B/A), OR SHEAR WALL ABOVE (S/A)
-  BEAM / HEADER
-  INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
-  AREA OF OVERFRAMING
-  J.L. METAL HANGER
-  * INDICATES POST ABOVE (P.A.). PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
-   INDICATES HOLD-DOWN.

GENERAL STRUCTURAL NOTES

DESIGN PARAMETERS

- DESIGN IS BASED ON 2021 INTERNATIONAL RESIDENTIAL CODE & 2021 INTERNATIONAL BUILDING CODE
- WOOD FRAME ENGINEERING IS BASED ON NDS, NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION - LATEST EDITION.

GENERAL FRAMING

- EXTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" o.c. (w/ DOUBLE TOP PLATE) HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, UNO.
- INTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" o.c. (w/ DOUBLE TOP PLATE) HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, UNO.
- ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x "STUD" GRADE MEMBERS SPACED @ 24" o.c. (MAX.)
- ALL WALLS TALLER THEN TYP. PLATE HEIGHT SHALL BE CONSIDERED BALLOON FRAMED & SHALL BE CONSTRUCTED FROM FLOOR TO UNDERSIDE OF FRAMING AT NEXT LEVEL. B.F. WALLS SHALL BE 2x6 HEM FIR (HF) #2 GRADE LUMBER, OR BETTER, UNO.
- ALL SHEATHING AND LEDGERS ARE TO BE DIRECTLY APPLIED AND FASTENED TO FRAMING. DO NOT PROVIDE CONTINUOUS INSULATION BETWEEN FRAMING AND SHEATHING/LEDGERS
- ALL HEADERS SHALL BE SUPPORTED BY (1)2x JACK STUD & (1)2x KING STUD, MINIMUM - THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, UNO.
- BUILT-UP POSTS SHALL BE 2x4 OR 2x6 HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, UNO. & SOLID WOOD COLUMNS SHALL BE SPRUCE PINE FIR (SPT) #2 GRADE LUMBER, OR BETTER, UNO.
- ALL 2x6 AND LARGER SOLID SAWN BEAMS/HEADERS SHALL BE HEM FIR #2 (HF #2) OR BETTER. ALL 4x6 AND LARGER SOLID SAWN LUMBER SHALL BE DOUG FIR #2 (DF #2) OR BETTER.
- ALL FRAMING LUMBER SHALL BE KILN DRIED TO 19% MC (KD-15).
- ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN GENERAL NOTES, IN DETAILS, OR ON PLANS. ALL NAILS SPECIFIED ARE MIN DIAMETER AND LENGTH REQUIRED FOR CONNECTION. ALL HANGER NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX CHARTED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING GUN NAILS.
- FASTEN ALL BEAMS TO COLUMNS, OR FLUSH BEAMS TO SUPPORTING BEAMS, w/ (4) 3"x0.131" TOENAILS (MIN), TYP. UNO.
- PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS & HOLD-DOWNS CONTINUOUS TO FOUNDATION/BEARING. BLOCKING TO MATCH POST ABOVE.
- ENGINEERED LUMBER TO MEET OR EXCEED THE FOLLOWING:
 - LVL MEMBERS - Fb=2325 PSI; Fv=310 PSI; E=1,55x10⁶ PSI
 - LVL MEMBERS - Fb=2400 PSI; Fv=285 PSI; E=1,2x10⁶ PSI
 - GLB MEMBERS - Fb=1-2400 PSI; Fv=1-1850 PSI; Fv=265 PSI; E=1.8x10⁶ PSI; DF/DF, 24F-V4 (UNO)
- ENGINEERED LUMBER POSTS TO MEET OR EXCEED THE FOLLOWING:
 - LVL MEMBERS - Fb=2400 PSI; Fc=1-2500 PSI; E=1.8x10⁶ PSI
- FACE NAIL MULTI-PLY 2x BEAMS & HEADERS W/ 3-ROWS OF 3"x0.131" NAILS (MIN) @ 12" o.c. STAGGERED. APPLY NAILING FROM BOTH FACES @ 3-PLY OR MORE CONDITIONS. UTILIZE 2 ROWS OF NAILS FOR 2x6 & 2x8 MEMBERS.
- TRUSS SHOP DWGS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF PROPOSED CONSTRUCTION SHALL BE SUBMITTED TO BUILDING DESIGNER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY IN ACCORDANCE WITH TPI-1 2.3.2.3 & 2.3.4.3.
- REFER TO IRC FASTENING SCHEDULE TABLE R602.3(1) FOR ALL CONNECTIONS, TYP. UNO.
- BUILDER RESPONSIBLE TO DETERMINE CORROSION-RESISTANCE REQUIREMENTS AND COMPATIBILITY OF HARDWARE, FASTENERS AND CONNECTORS FOR ENVIRONMENTAL EXPOSURE AND IN CONTACT W/ PRESERVATIVE-TREATED WOOD OF ACTUAL FINAL CONDITIONS AND SOURCED MATERIALS. CONTACT LUMBER & HARDWARE SUPPLIERS TO COORD. IN THE ABSENCE OF MANUFACTURER'S RECOMMENDATIONS, NOT LESS THAN ASTM A653, TYPE G95 ZINC-COATED GALVANIZED STEEL, OR EQUIVALENT, SHALL BE USED.

FLOOR FRAMING

- I-JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/360 LIVE LOAD DEFLECTION CRITERIA AND SHALL RUN CONTINUOUS OVER SUPPORTS WHEREVER POSSIBLE. ALL LOADS SHOWN ON PLAN FOR MANUF. DESIGNS ARE ASD LEVEL LOADS, UNO. (EXCLUDES STONE/MARBLE OR WET BED CONSTRUCTED FLOORS - CONTACT MKC FOR EXCLUDED DESIGNS).
- ALL METAL I-JOIST/TRUSS HANGERS SHALL BE SPECIFIED BY I-JOIST/TRUSS MANUFACTURER, UNLESS OTHERWISE NOTED.
- 2x FLOOR JOISTS HAVE BEEN DESIGNED TO MEET OR EXCEED L/360 LIVE LOAD DEFLECTION CRITERIA.
- TYPICAL 2x JOIST HANGERS UNO. ON PLANS:
 - SINGLE PLY: SIMPSON LUS210
 - DOUBLES: SIMPSON LUS210-2
- FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED "STURD-I-FLOOR" 24" o.c. EXPOSURE 1 (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS W/ GLUE AND 2 1/2" x 0.131" NAILS @ 6" o.c. @ PANEL EDGES & @ 12" o.c. FIELD.
- ALL FLUSH CONNECTIONS SHALL BE CONNECTED WITH HANGER APPROPRIATE FOR MEMBER SIZE, UNO.
- FASTEN HANGERS TO SINGLE PLY FLUSH BEAMS w/ 1/2" LONG NAILS.

ROOF FRAMING

- FASTEN EACH ROOF TRUSS TO TOP PLATE W/ (4) 3"x0.131" TOENAILS (MIN) & (1) SIMPSON H25T CLIP @ ALL BEARING POINTS. PROVIDE (2) SIMPSON H25T CLIPS AT 2-PLY GIRDER TRUSSES, (3) SIMPSON H25T CLIPS AT 3-PLY GIRDER TRUSSES AT ALL BEARING POINTS.
- FASTEN EACH ROOF RAFTER TO TOP PLATE WITH (1) SIMPSON H25T CLIP. PROVIDE (2) SIMPSON H25T CLIPS AT FLUSH BEAMS IN THE ROOF - AT ALL BEARING POINTS.
- ROOF SHEATHING SHALL BE 7/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE 1 (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS w/ 2 1/2" x 0.131" NAILS @ 6" o.c. AT PANEL EDGES & @ 6" o.c. AT INTERMEDIATE SUPPORTS. ROOF SHEATHING SHALL EXTEND BELOW ALL INSTANCES OF OVERFRAMING. BLOCKING SHALL BE INSTALLED AS REQUIRED TO LIMIT ROOF SHEATHING SPANS TO 24" MAX.
- ALL METAL HANGERS SHALL BE SPECIFIED BY THE TRUSS MANUFACTURER, UNLESS OTHERWISE NOTED.
- ROOF TRUSS SHOP DRAWINGS & CALCULATIONS SHALL BE DESIGNED FOR UNBALANCED SNOW LOADINGS PER ASCE 7-16, SECTION 1.6.
- ERECT AND INSTALL ROOF TRUSSES PER WTCA & TPI'S BC51 I-08. (GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES)
- FASTEN OVER-FRAMED TRUSS SETS TO TRUSSES BELOW w/ (2) 3"x0.131" TOENAILS AT EA. TRUSS.
- FASTEN ALL INTERIOR NON-BEARING PARTITION WALLS TO TRUSS BOTTOM CHORD ABOVE WITH SIMPSON STC CLIPS AT 24" o.c. MAX. PROVIDE BLOCKING BETWEEN THE TRUSS BOTTOM CHORDS AS REQUIRED FOR THE PARALLEL CONDITIONS.

seal:



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M&K project number:

244-25015

project mgr:

NJM

drawn by:

AJC

issue date:

09-05-25

REVISIONS:

date:

initial:

MCCULLOUGH ARCHITECTS

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Seattle, WA 98106
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STRUCTURAL NOTES

SEARS PLAT

LOT 3

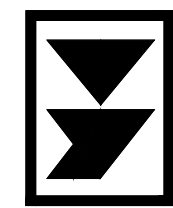
MERCER ISLAND, WASHINGTON

sheet:

S-O.O



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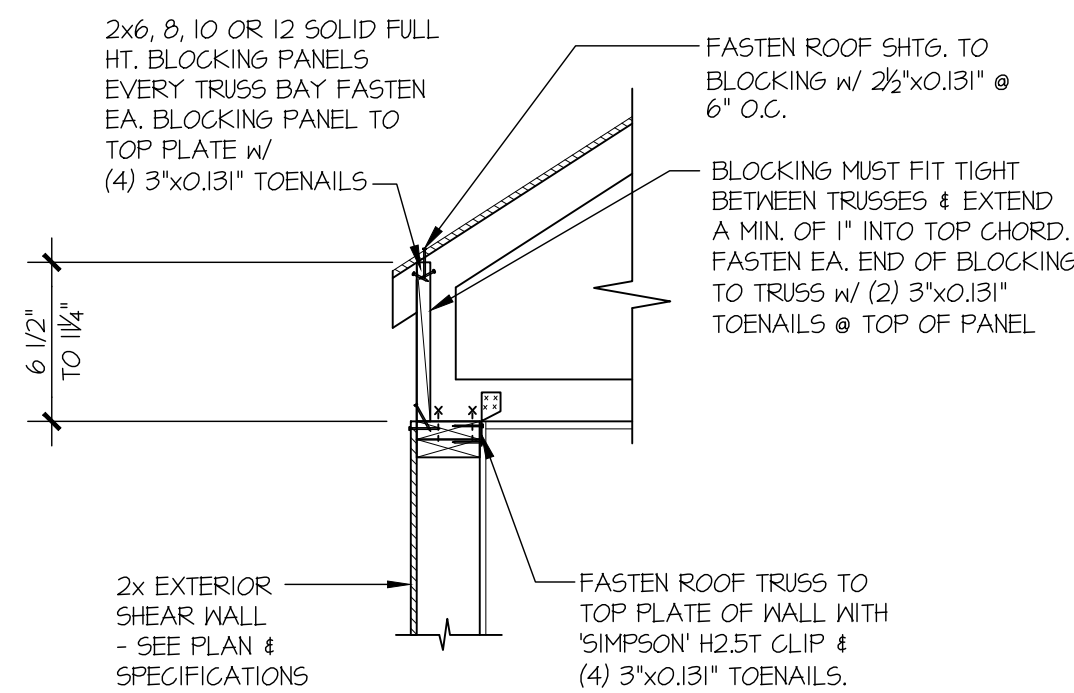
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drawn by: **AJC**
issue date: **09-05-25**

REVISIONS:
date: _____ initial: _____

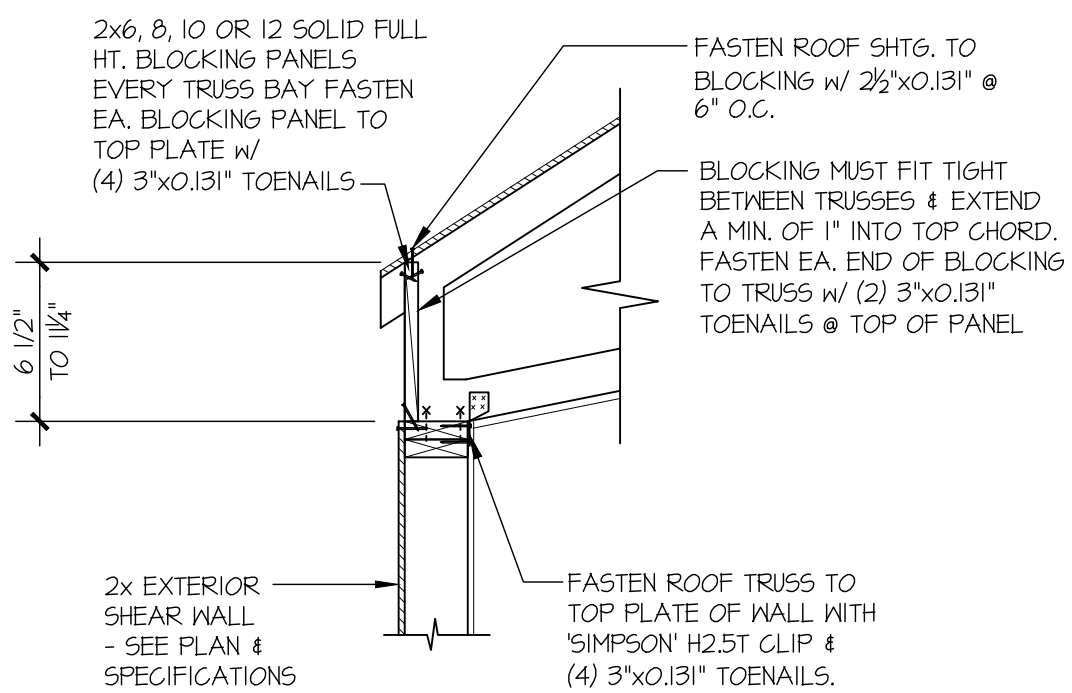
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STRUCTURAL DETAILS
SEARS PLAT
LOT 3
MERCER ISLAND, WASHINGTON

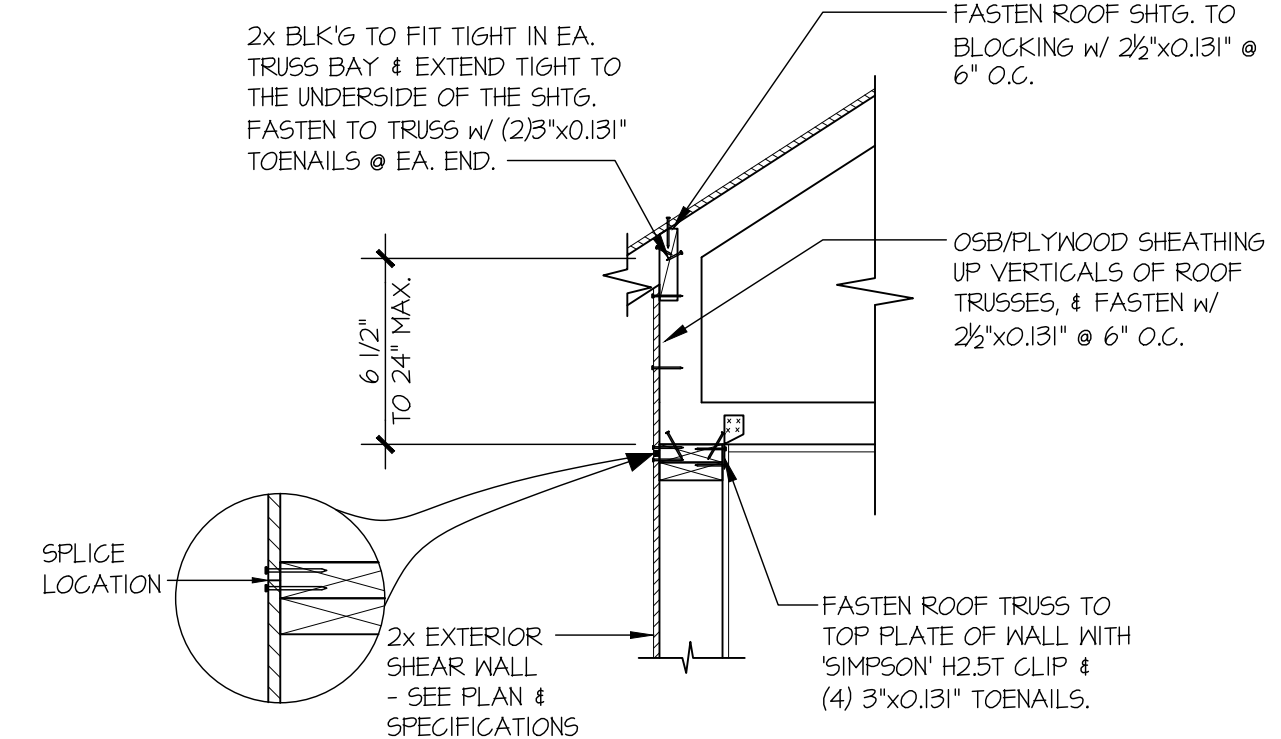
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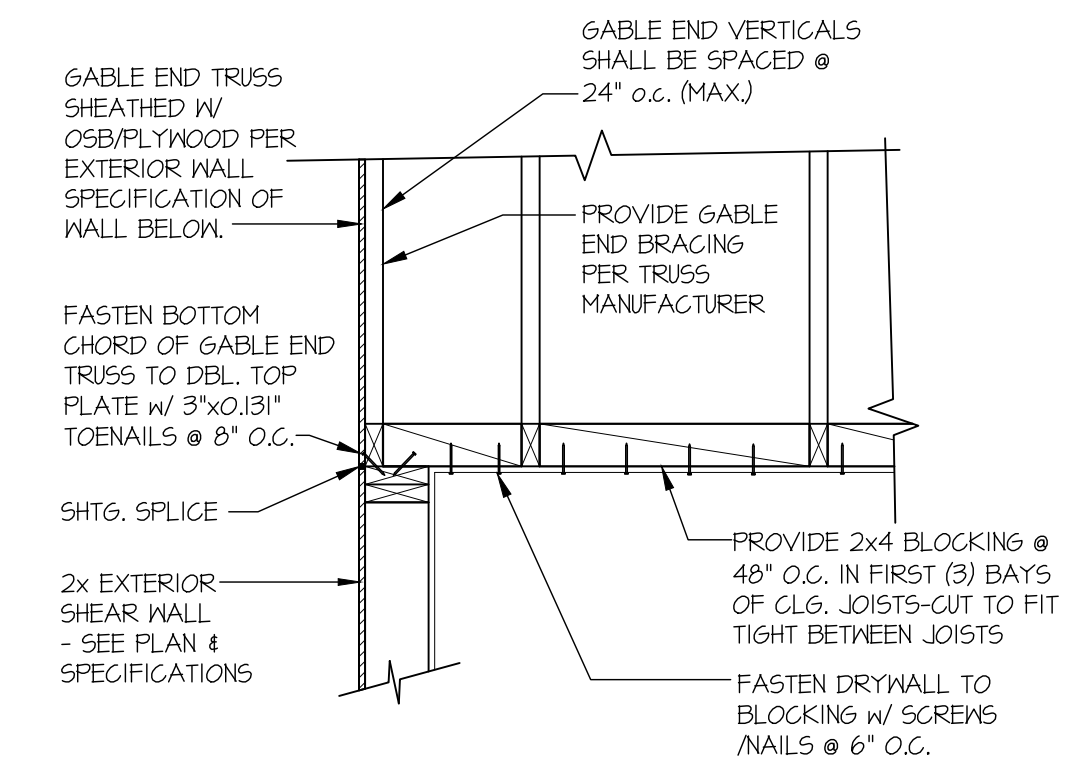
1 TYPICAL SHEAR
TRANSFER DETAIL @ ROOF
SCALE: 3/4"=1'-0" HEEL HEIGHT BETWEEN 6 1/2" - 11/4"



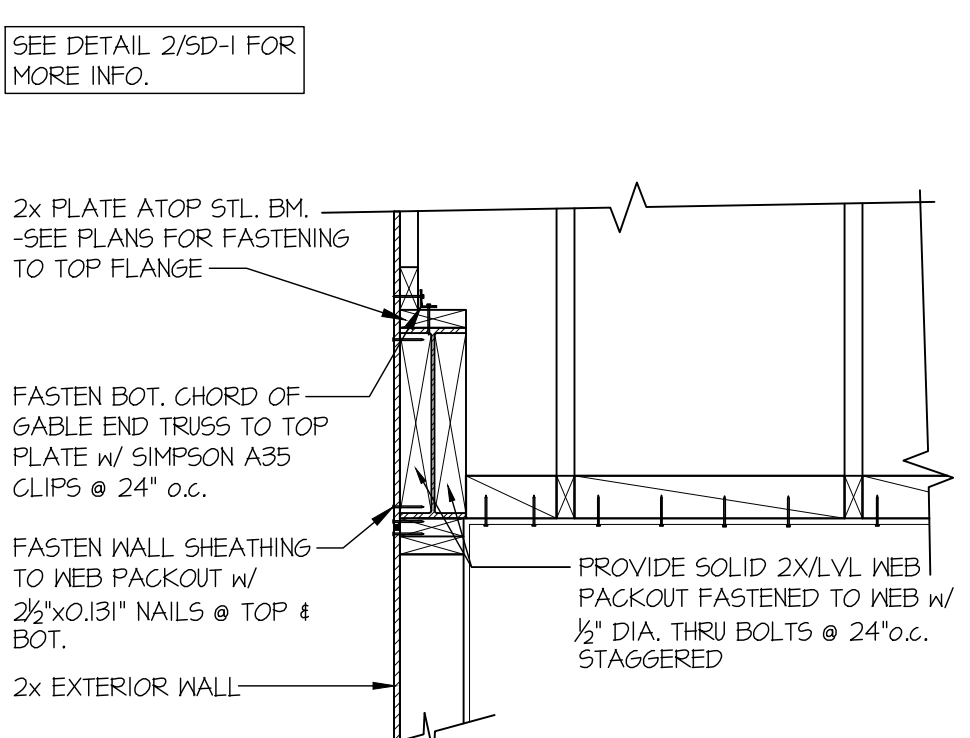
1A TYPICAL SHEAR TRANSFER
DETAIL @ VAULTED CEILING
SCALE: 3/4"=1'-0" HEEL HEIGHT BETWEEN 6 1/2" - 11/4"



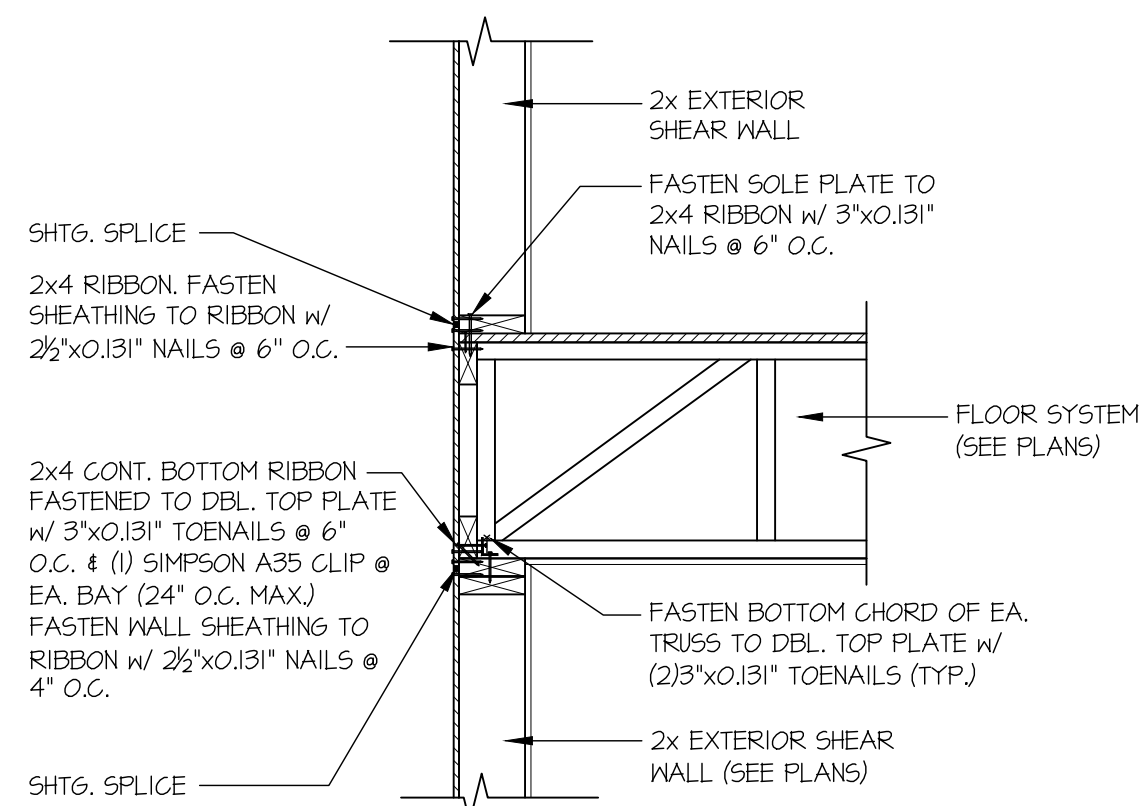
1B TYPICAL SHEAR TRANSFER
DETAIL @ RAISED HEEL TRUSS
SCALE: 3/4"=1'-0" HEEL HEIGHT UP TO 24" MAX.



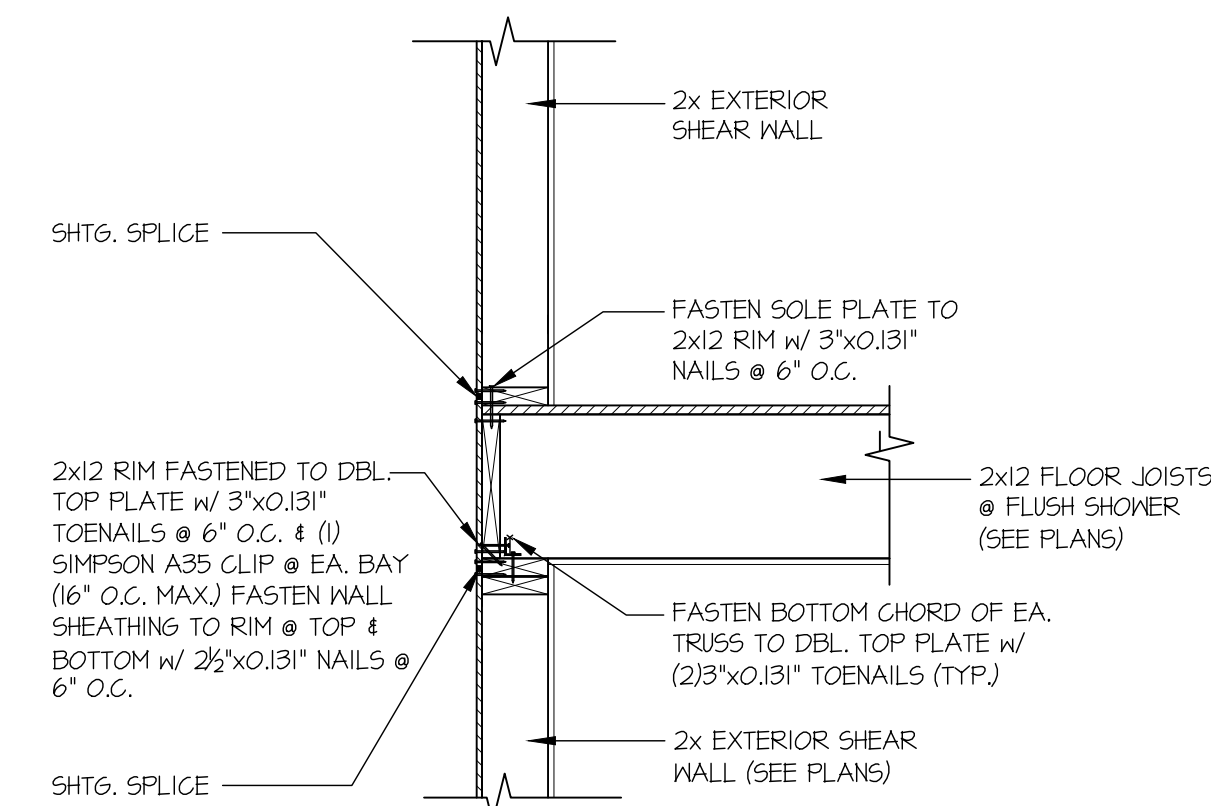
2 TYPICAL GABLE END DETAIL
SCALE: 3/4"=1'-0"



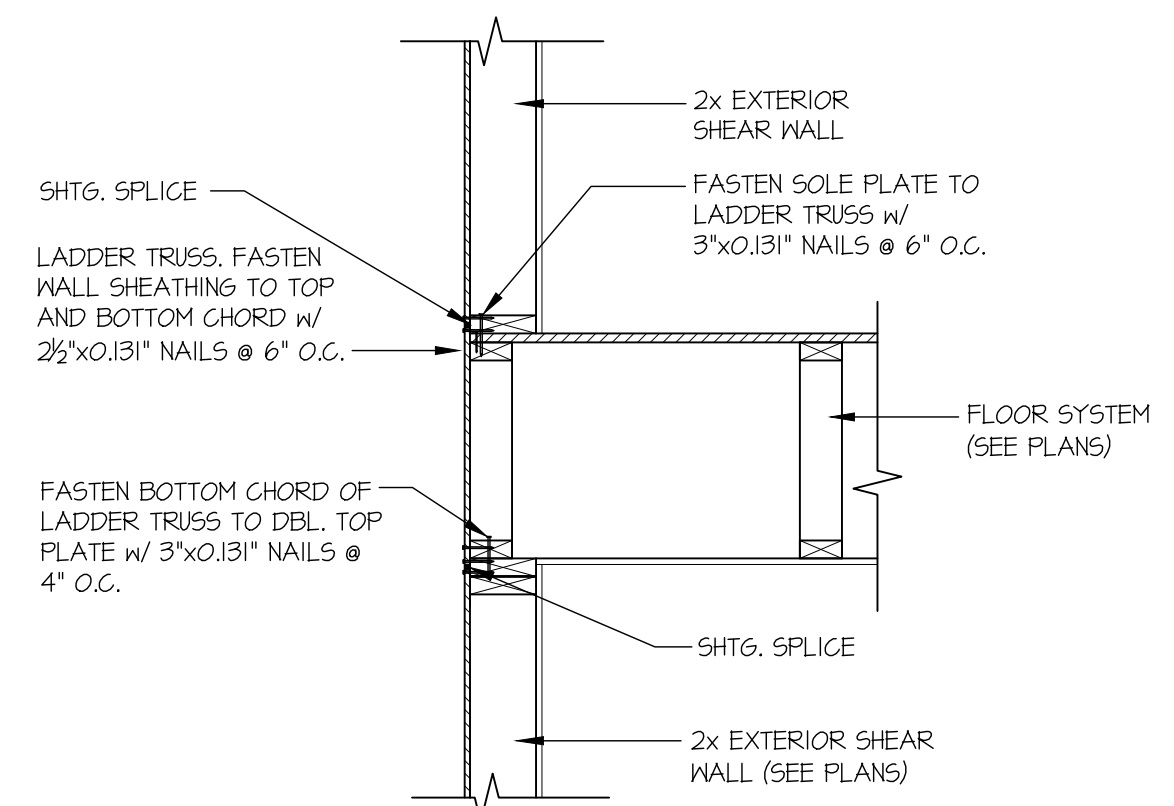
2A GABLE END DETAIL
SCALE: 3/4"=1'-0"



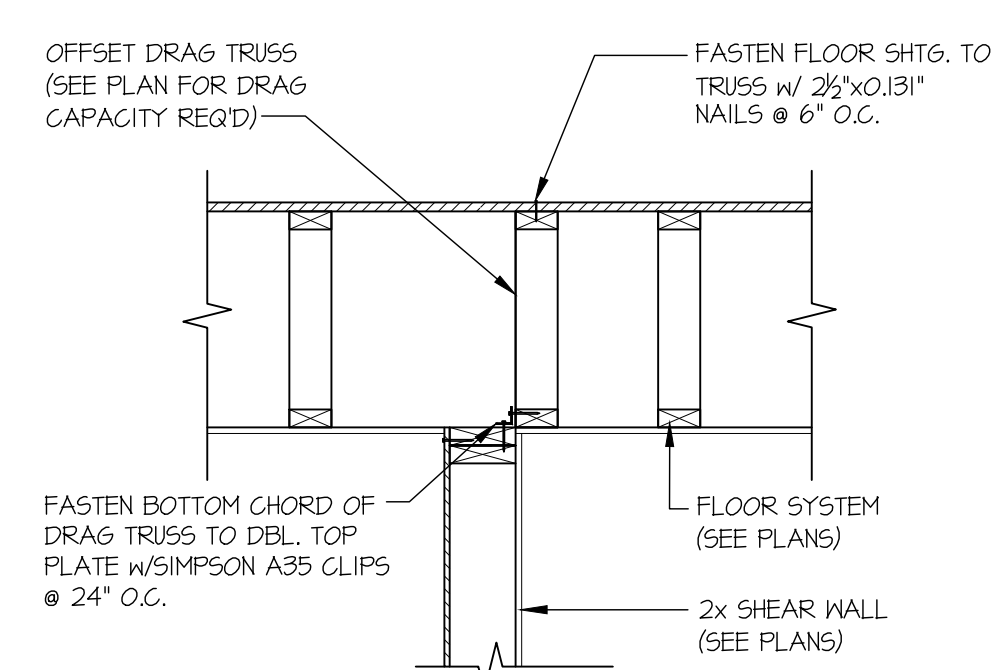
3 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ EXTERIOR WALL
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



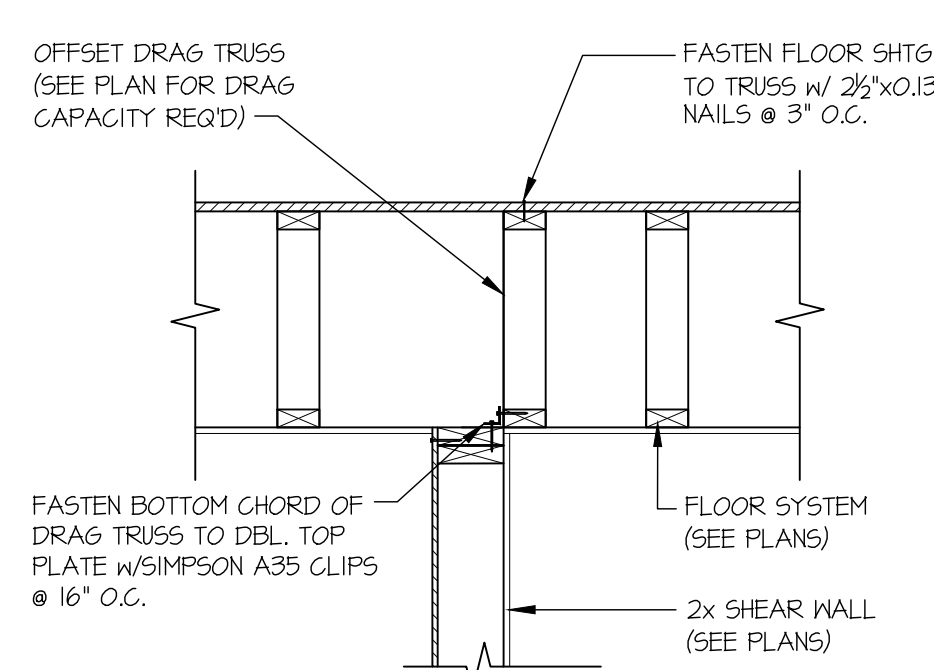
3A SHEAR TRANSFER DETAIL BETWEEN
FLOORS @ EXTERIOR WALL
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



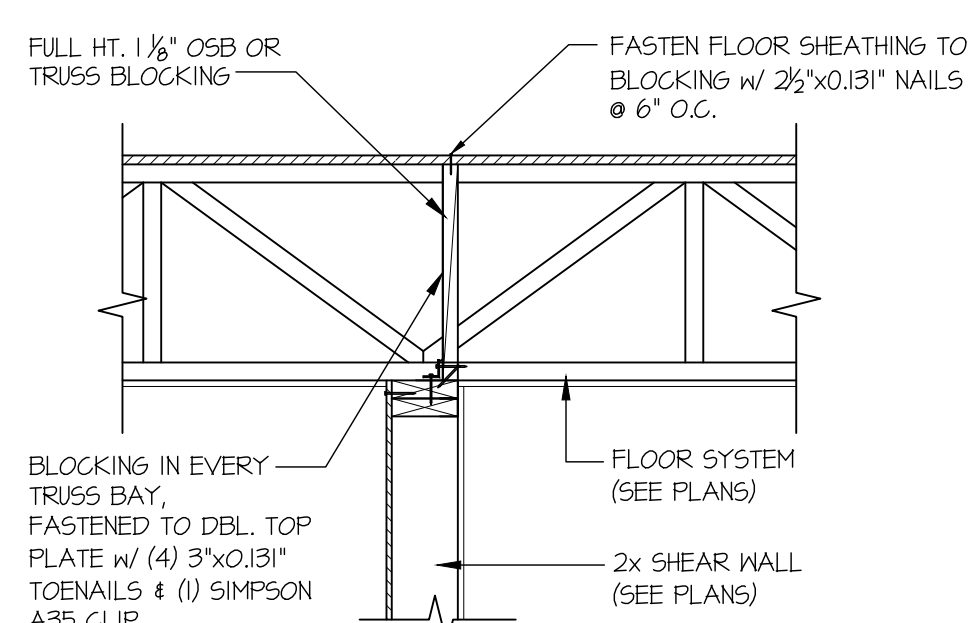
4 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ EXTERIOR WALL
SCALE: 3/4"=1'-0" PARALLEL FRAMING



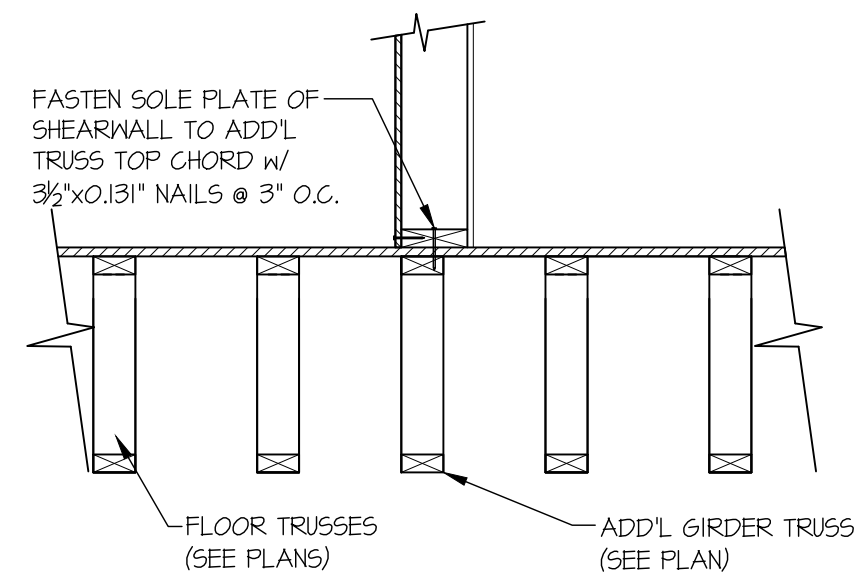
11 SHEAR TRANSFER DETAIL
@ SHEAR WALL BELOW
SCALE: 3/4"=1'-0"



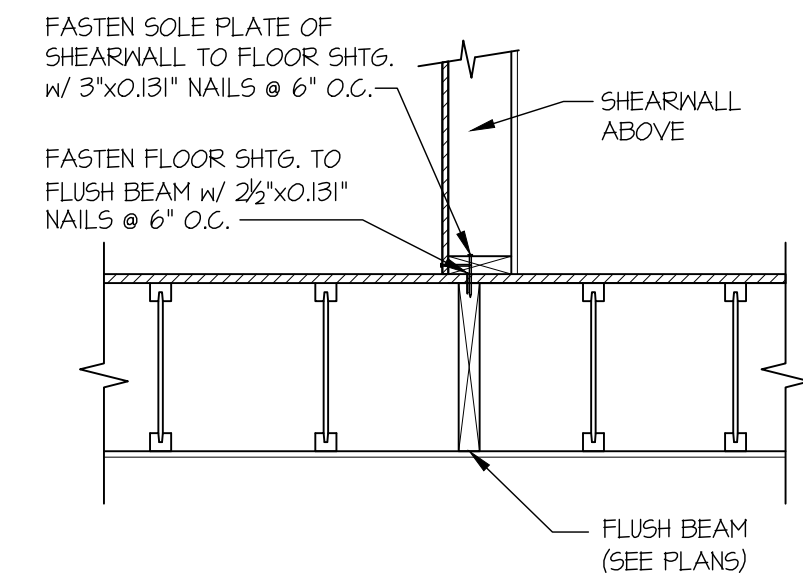
12 SHEAR TRANSFER DETAIL
@ SHEAR WALL BELOW
SCALE: 3/4"=1'-0"



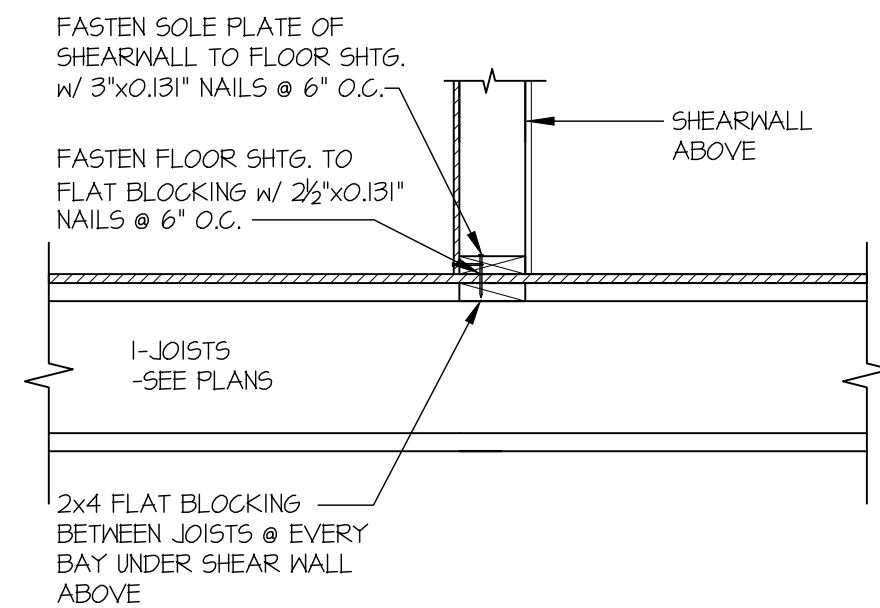
13 SHEAR TRANSFER DETAIL
@ SHEAR WALL BELOW
SCALE: 3/4"=1'-0"



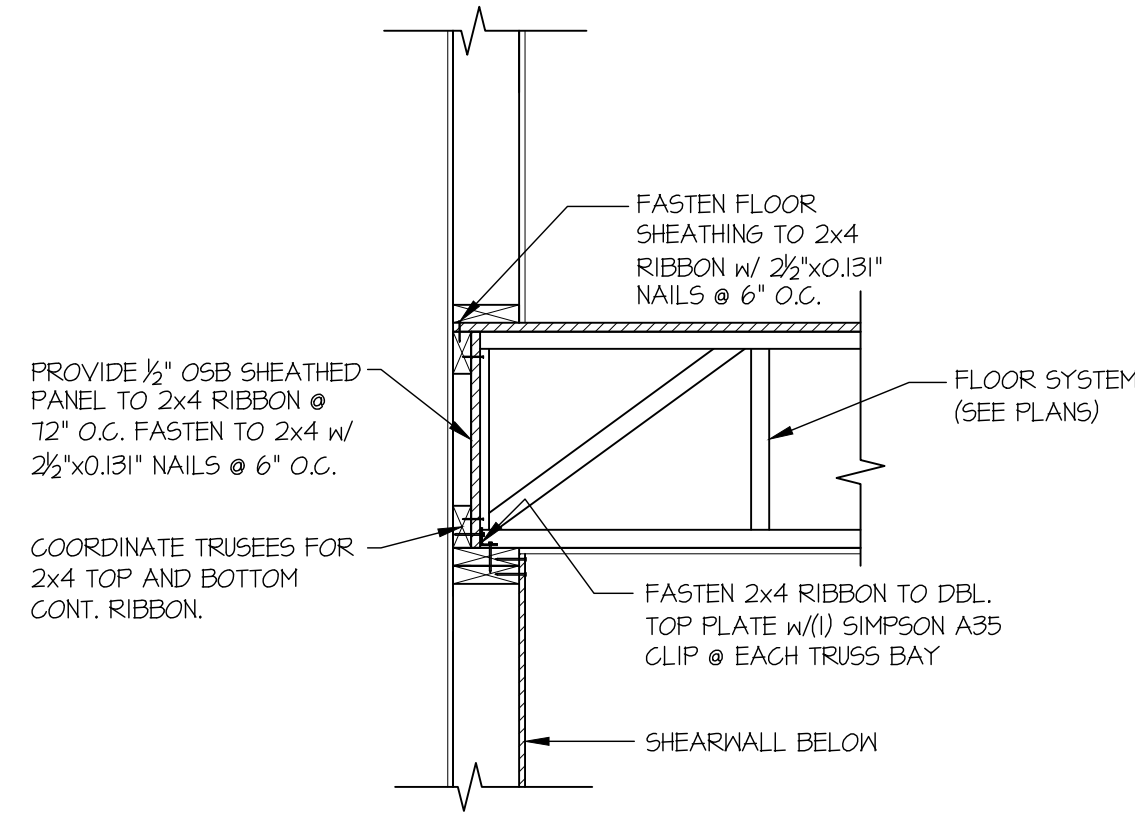
19 SHEAR TRANSFER DETAIL @
INTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0" PARALLEL FRAMING



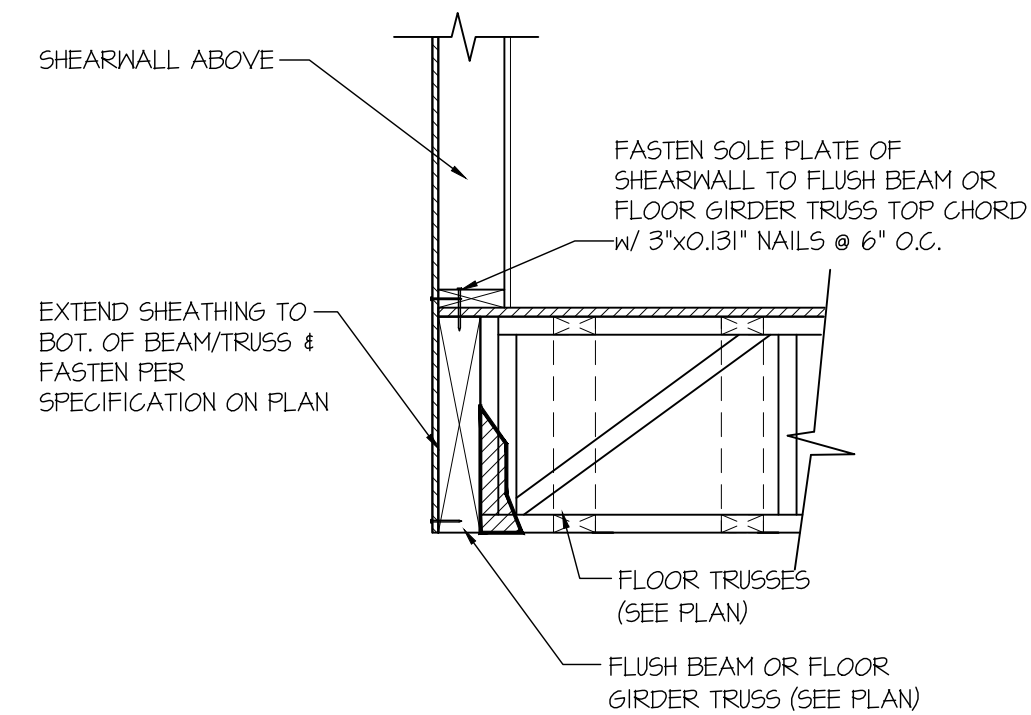
19A SHEAR TRANSFER DETAIL @
INTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0" PARALLEL FRAMING



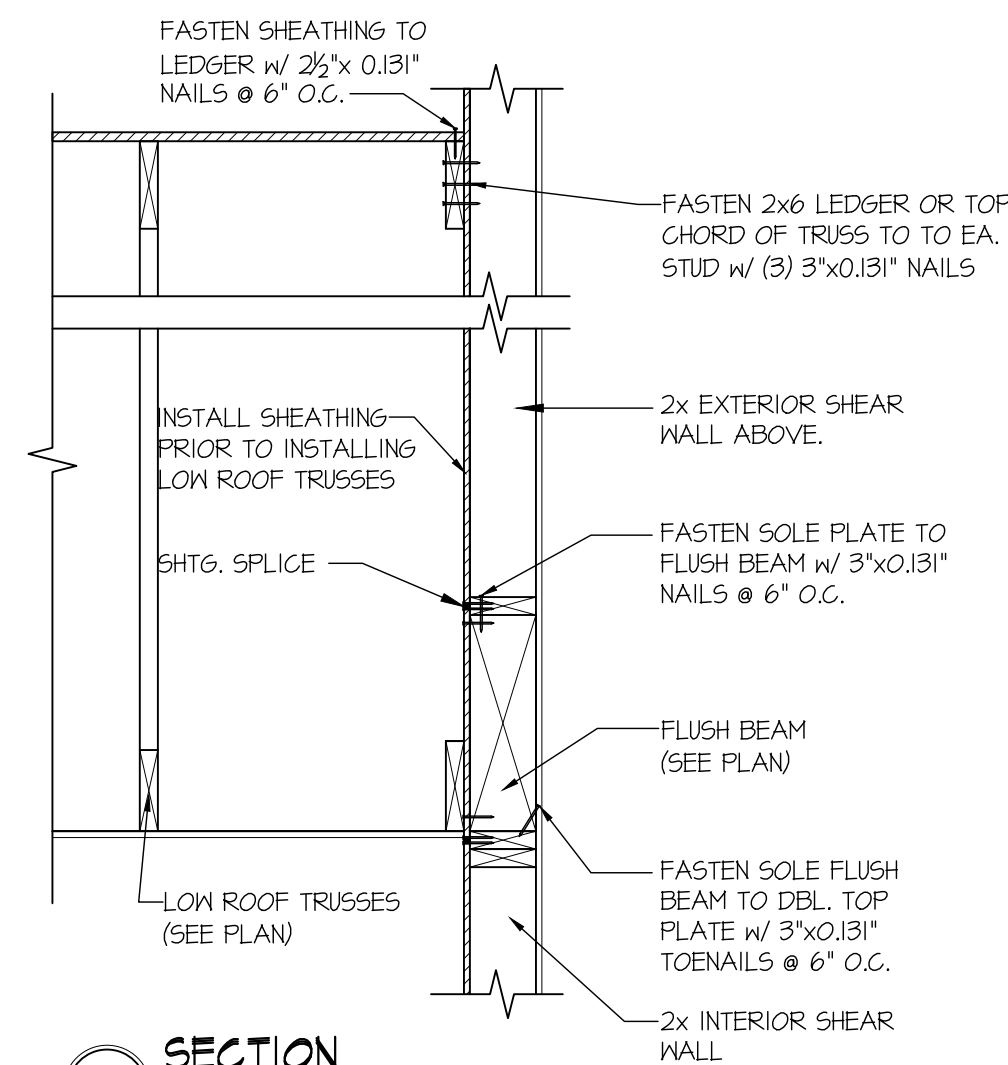
20 SHEAR TRANSFER DETAIL
@ INT. SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



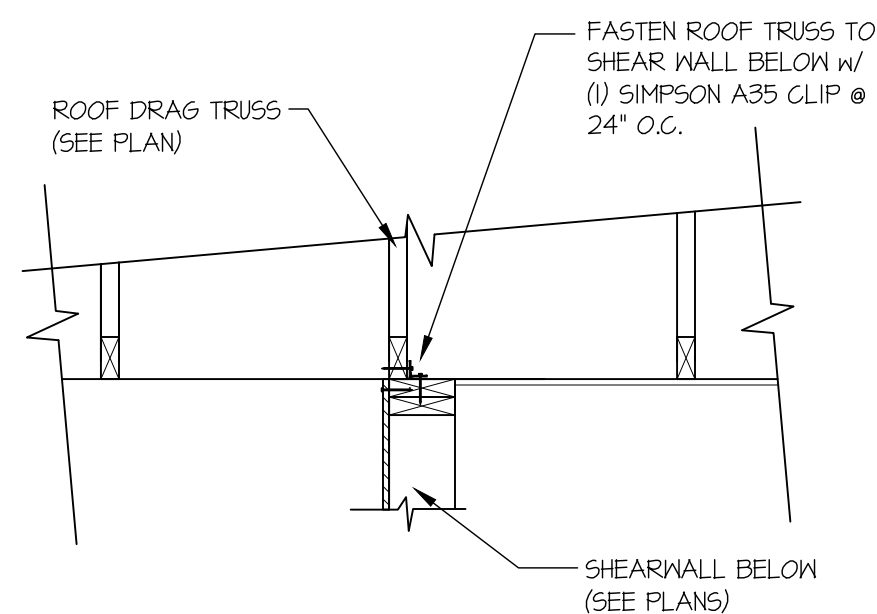
21 SHEAR TRANSFER DETAIL
@ INTERIOR SHEAR WALL
SCALE: 3/4"=1'-0"



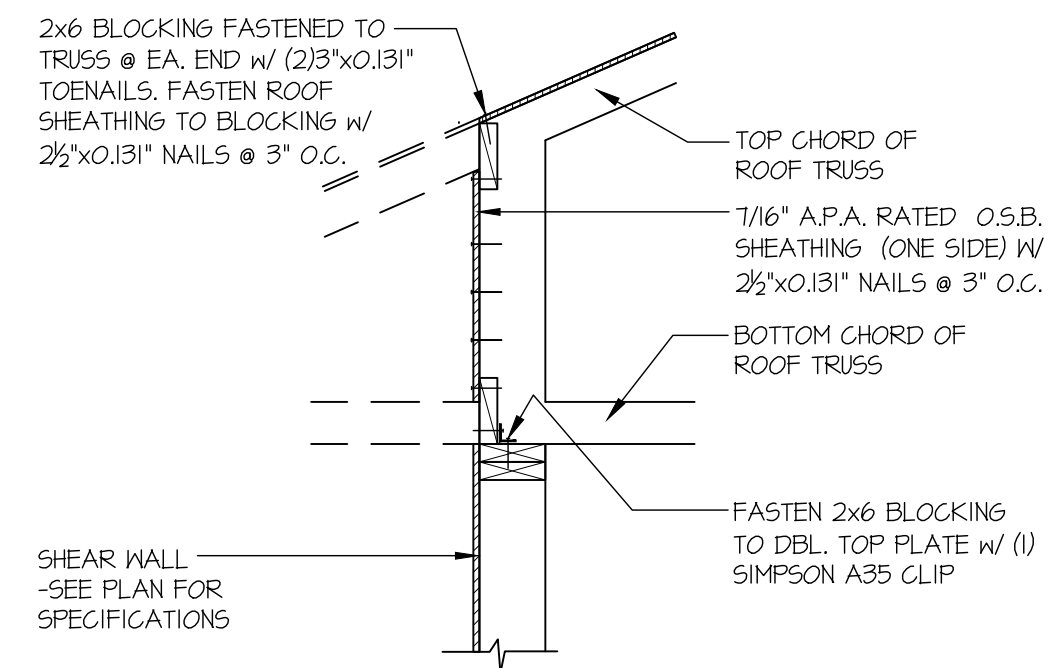
35 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



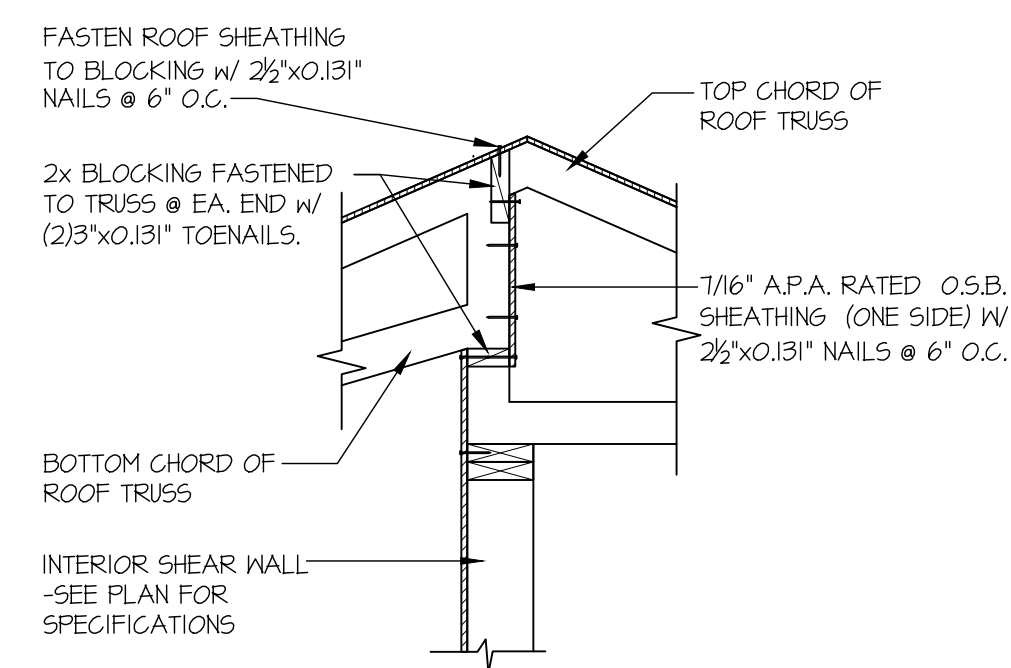
42 SECTION
SCALE: 3/4"=1'-0"



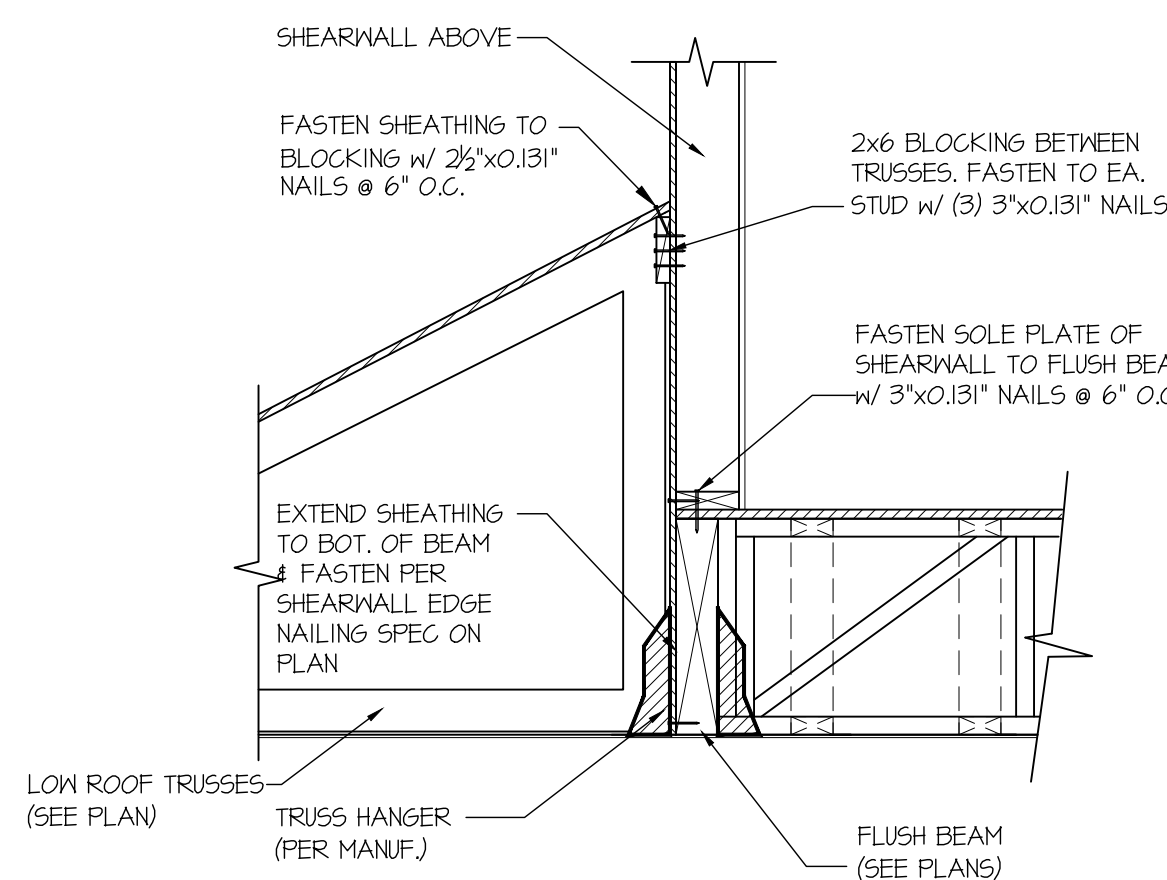
47 SHEAR TRANSFER DETAIL @
INTERIOR SHEARWALL BELOW
SCALE: 3/4"=1'-0"



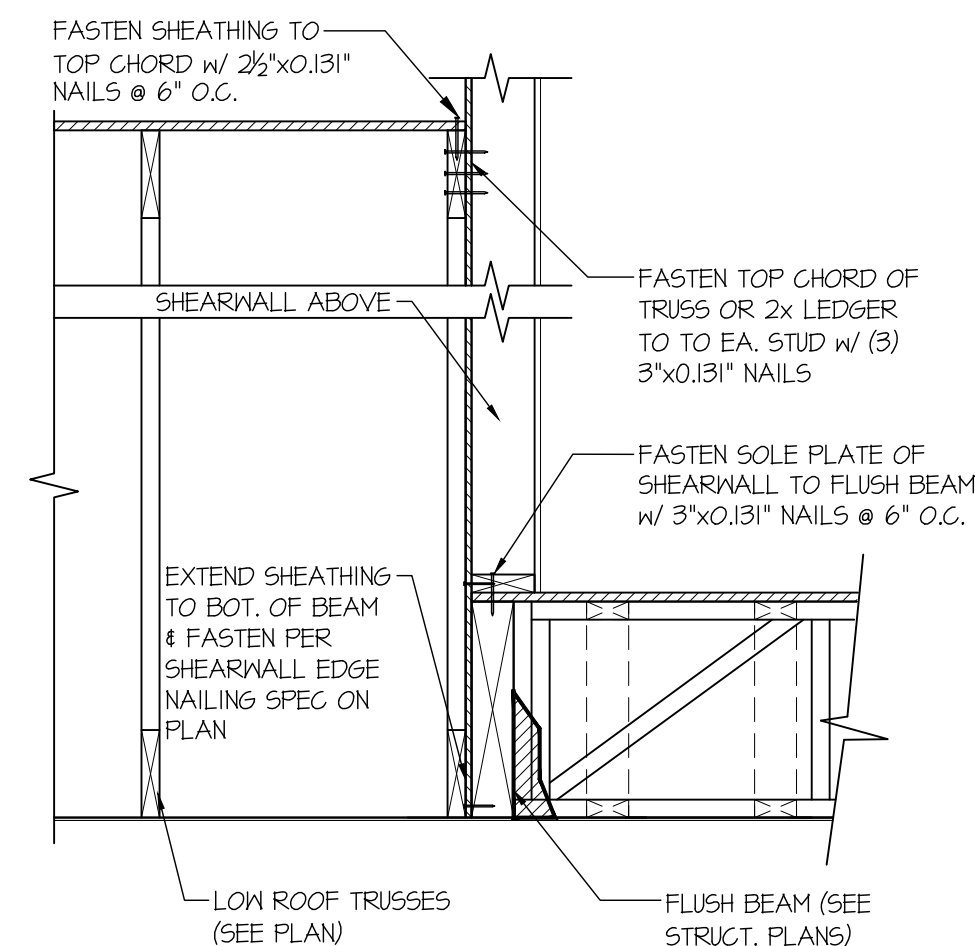
49 SHEAR TRANSFER DETAIL @
SHEARWALL BELOW
SCALE: 3/4"=1'-0"



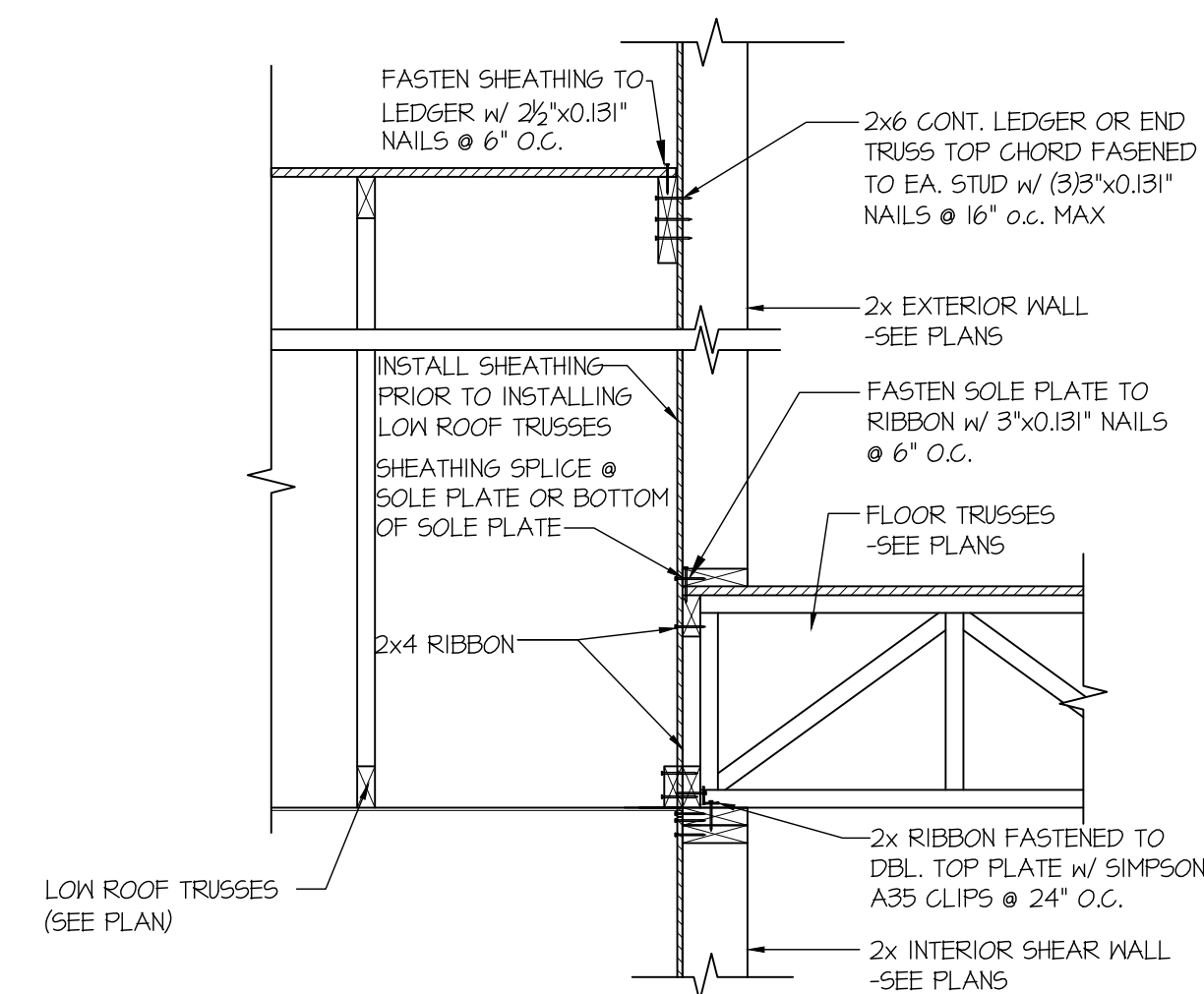
50 SHEAR TRANSFER DETAIL @
SHEARWALL BELOW
SCALE: 3/4"=1'-0"



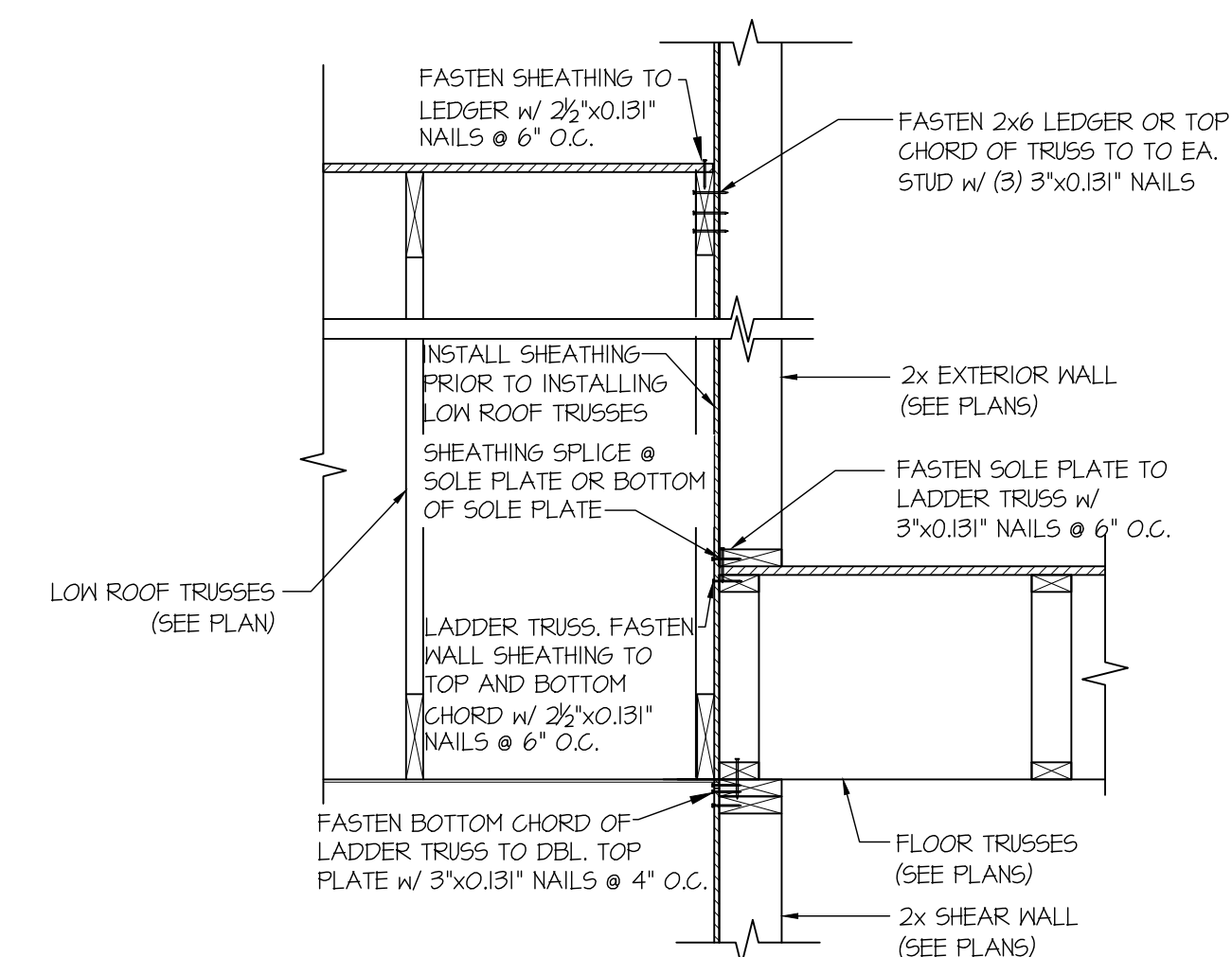
58 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



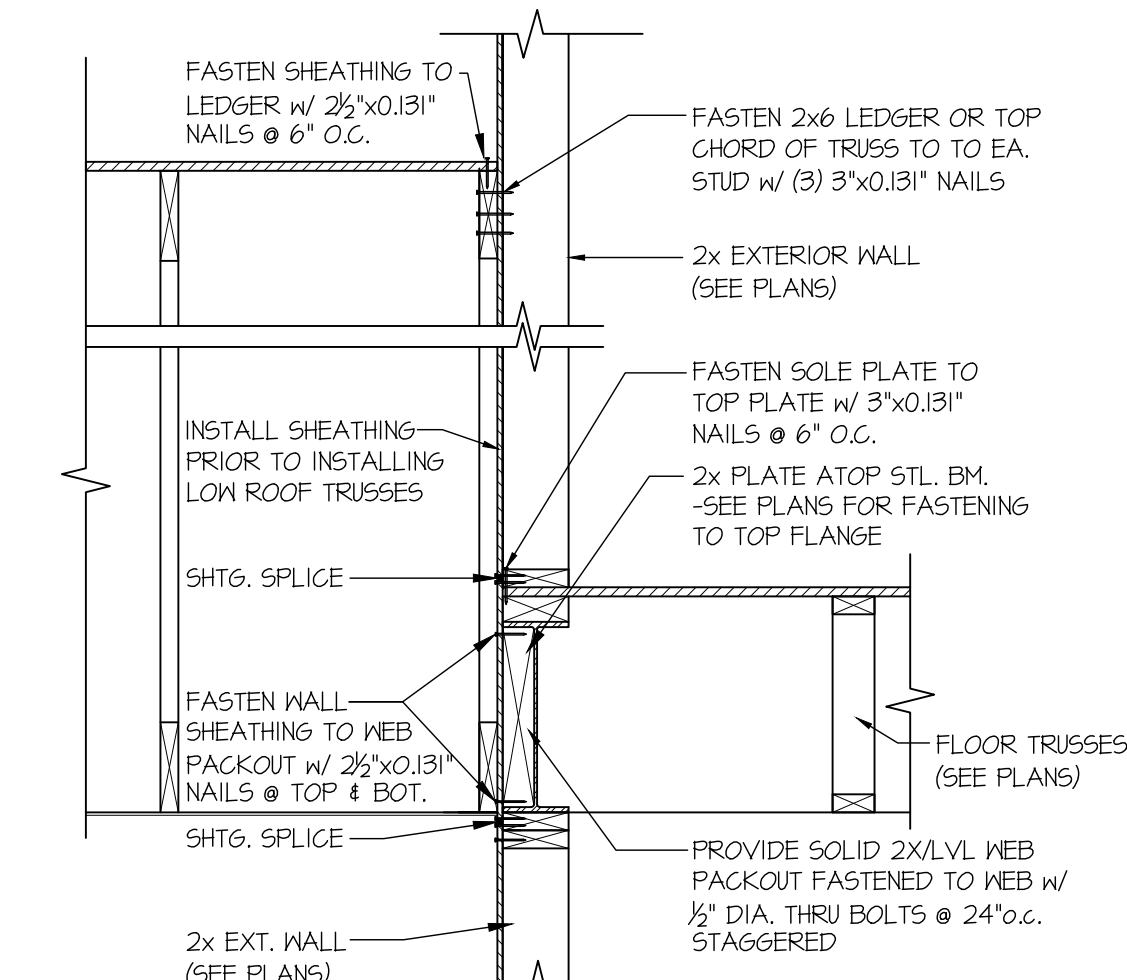
59 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



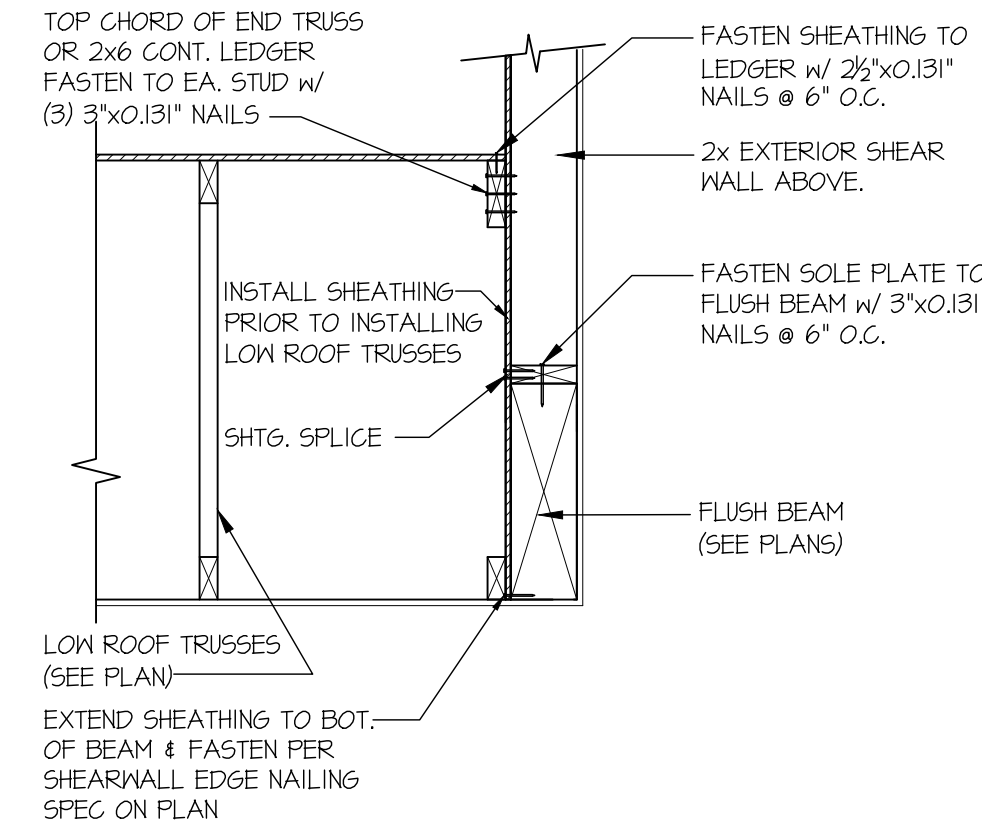
61 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



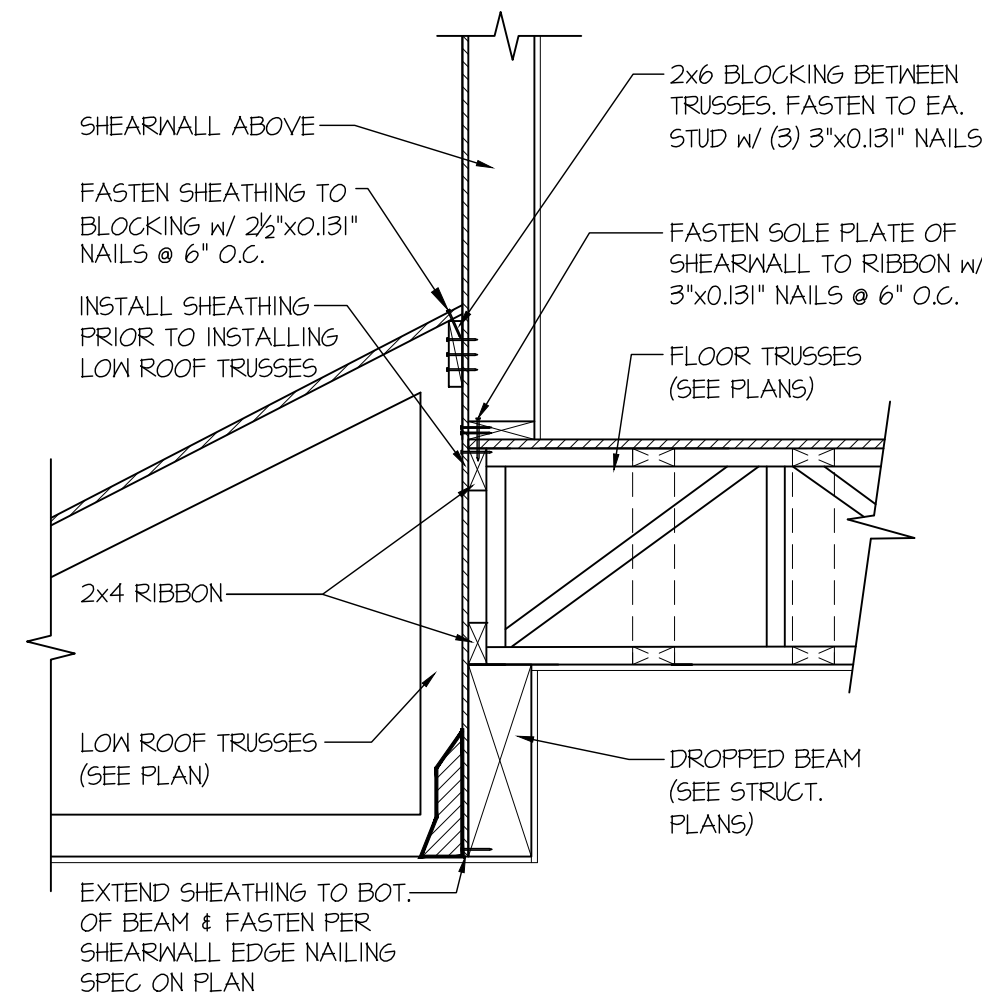
62 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4"=1'-0"



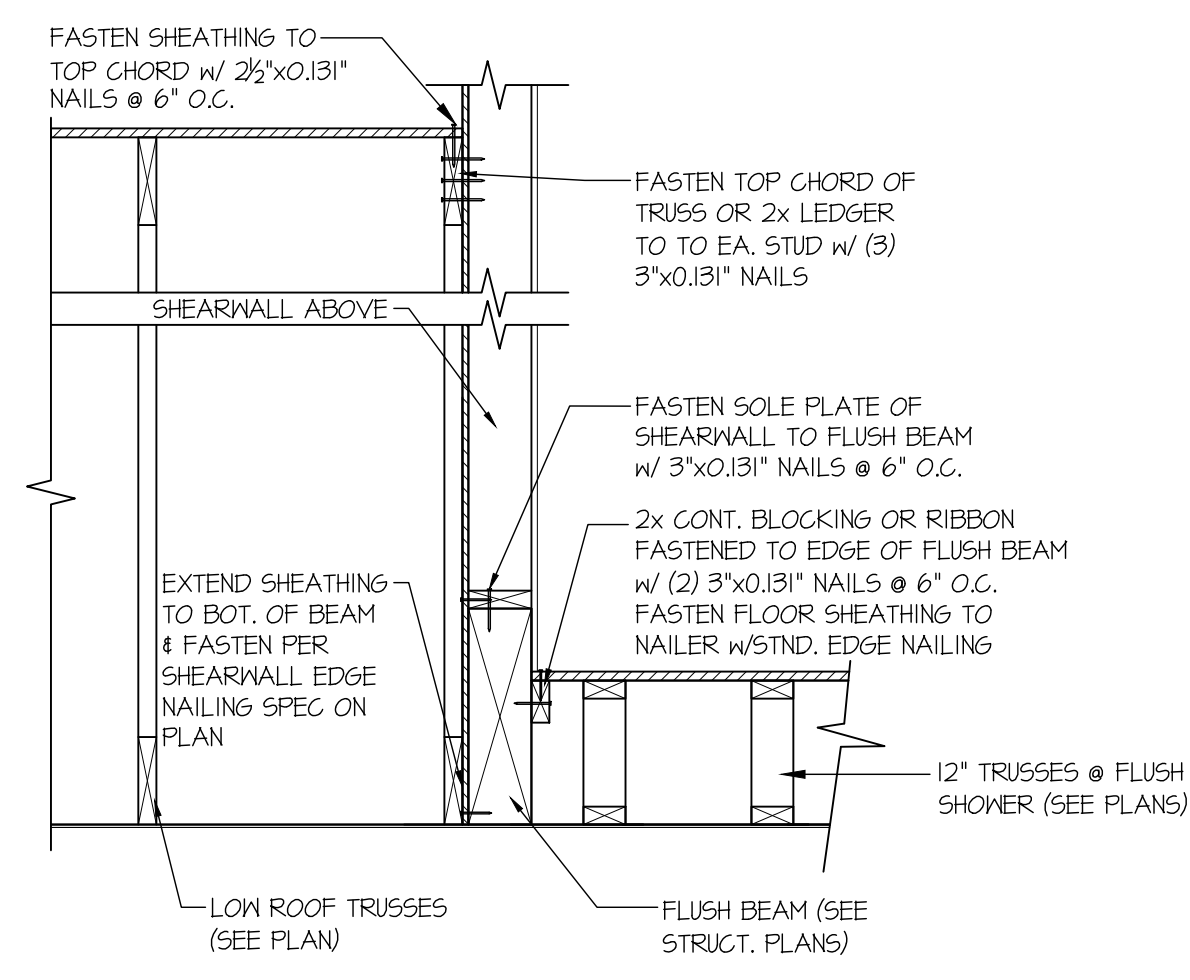
63 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4"=1'-0"



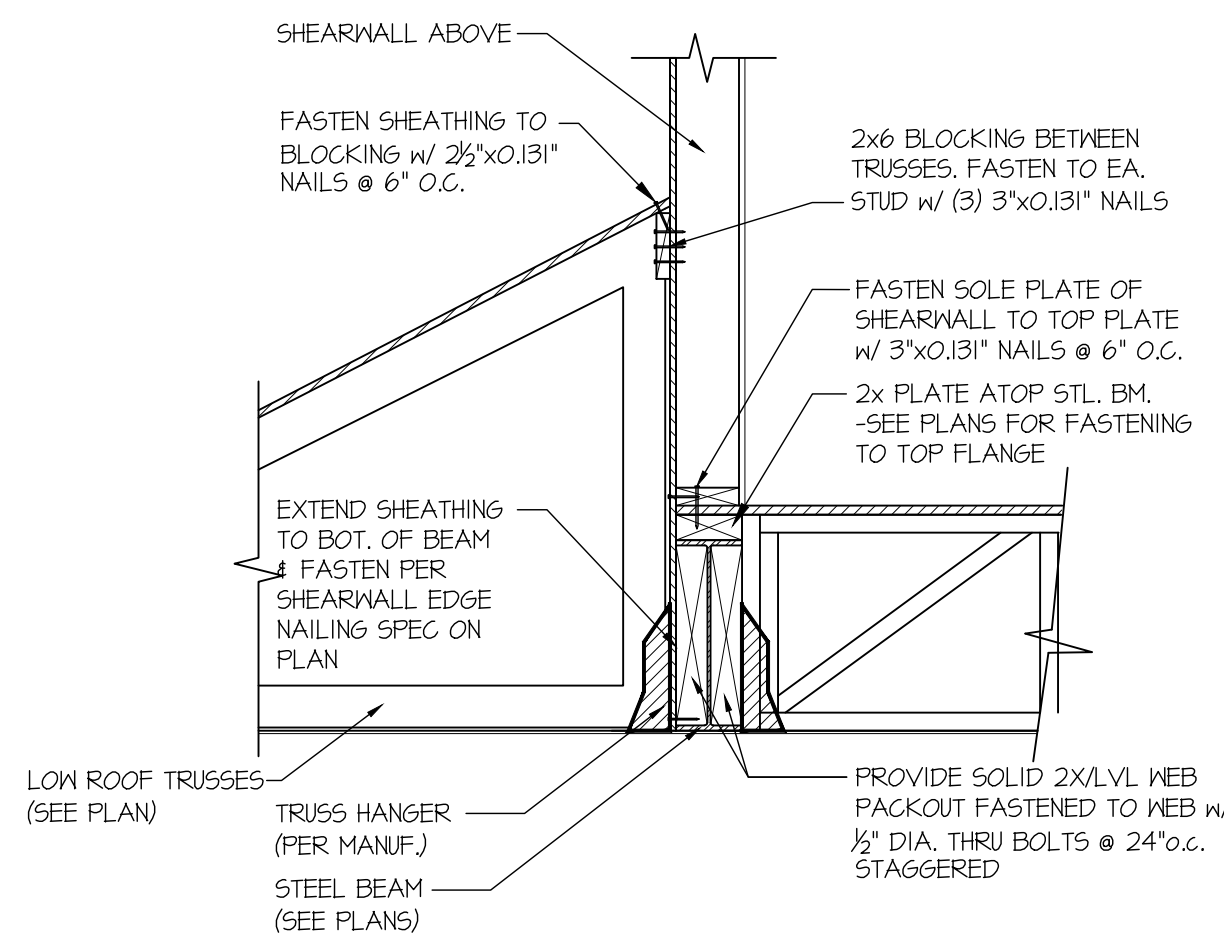
65 SHEAR TRANSFER DETAIL @ LOW ROOF
SCALE: 3/4"=1'-0"



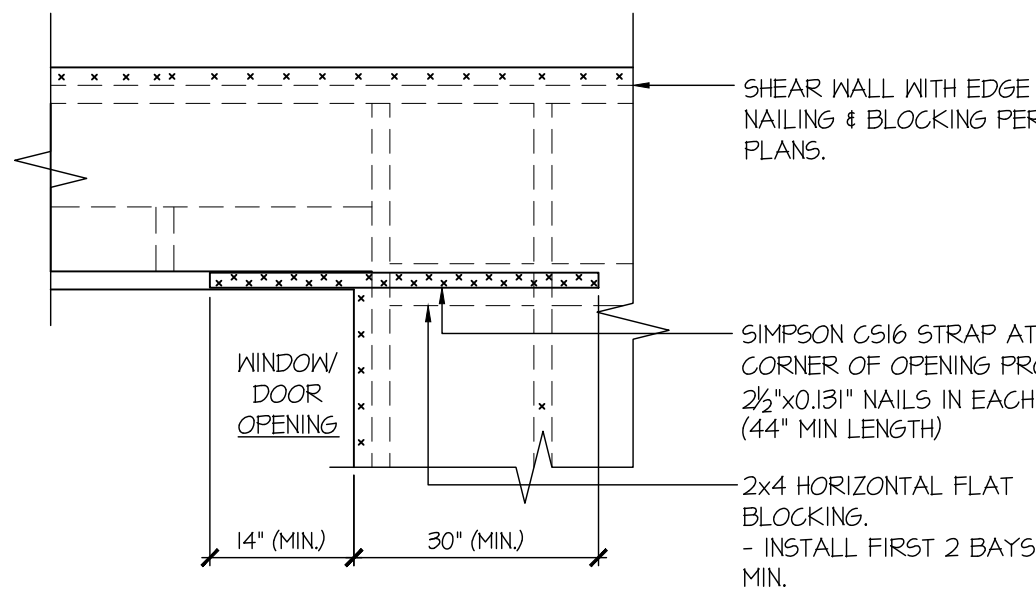
69 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



70 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"

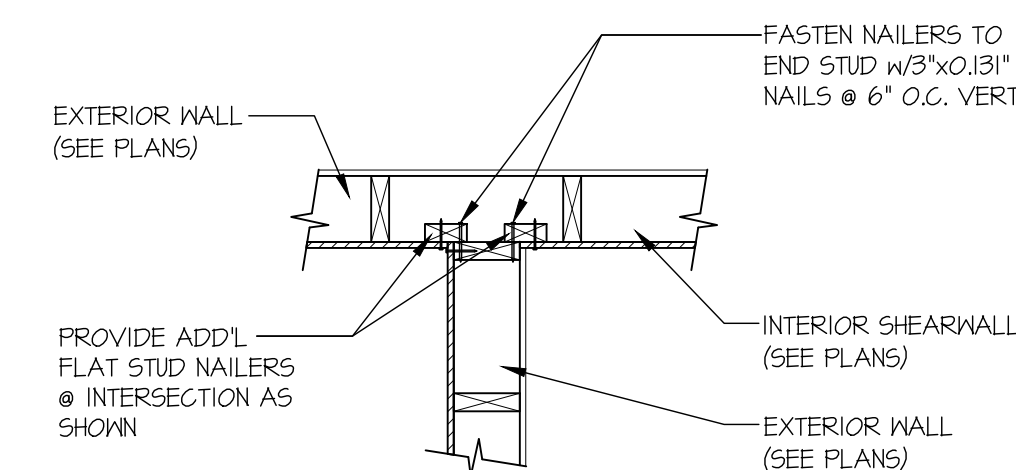


71 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"

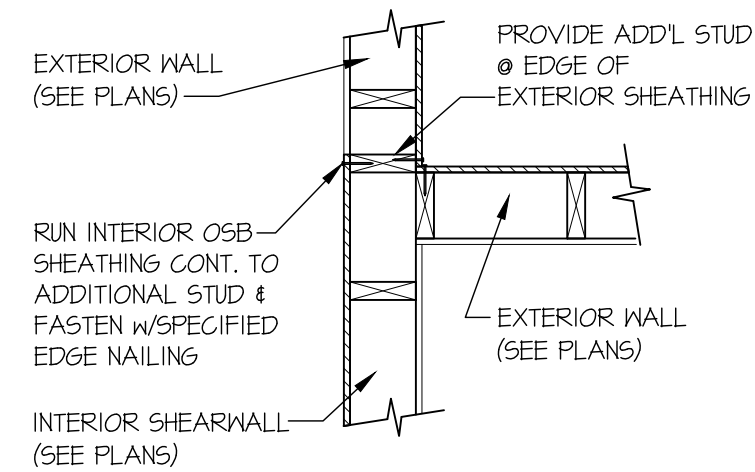


- DETAIL SIMILAR AT BOTTOM CORNERS OF WINDOWS.
- ONLY REQUIRED WHERE SPECIFIED ON STRUCTURAL PLANS
- IF MIN LENGTH IS NOT PROVIDED RUN STRAP TO END OF WALL

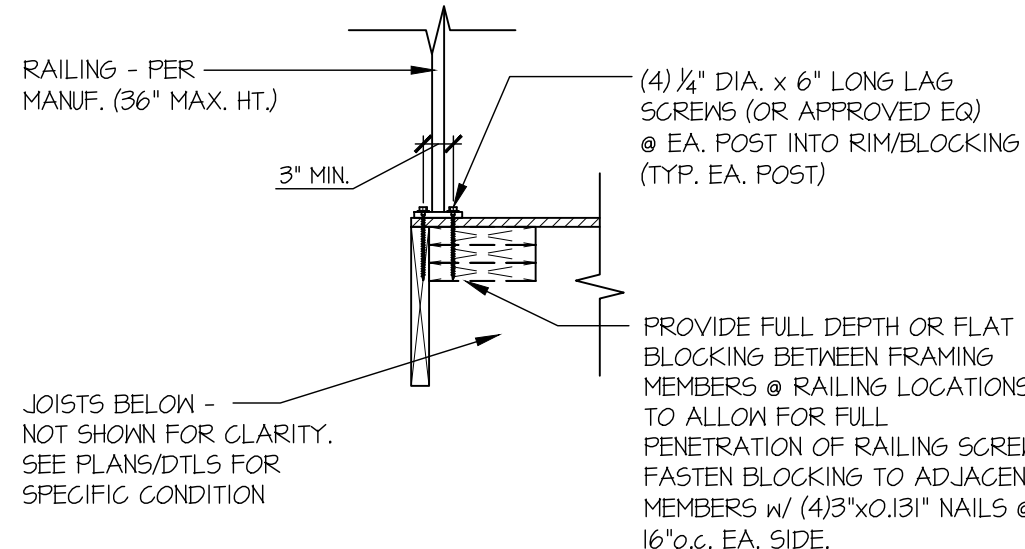
94 EXT. WALL & INT. SHEARWALL
OPENING ELEVATION
SCALE: NTS



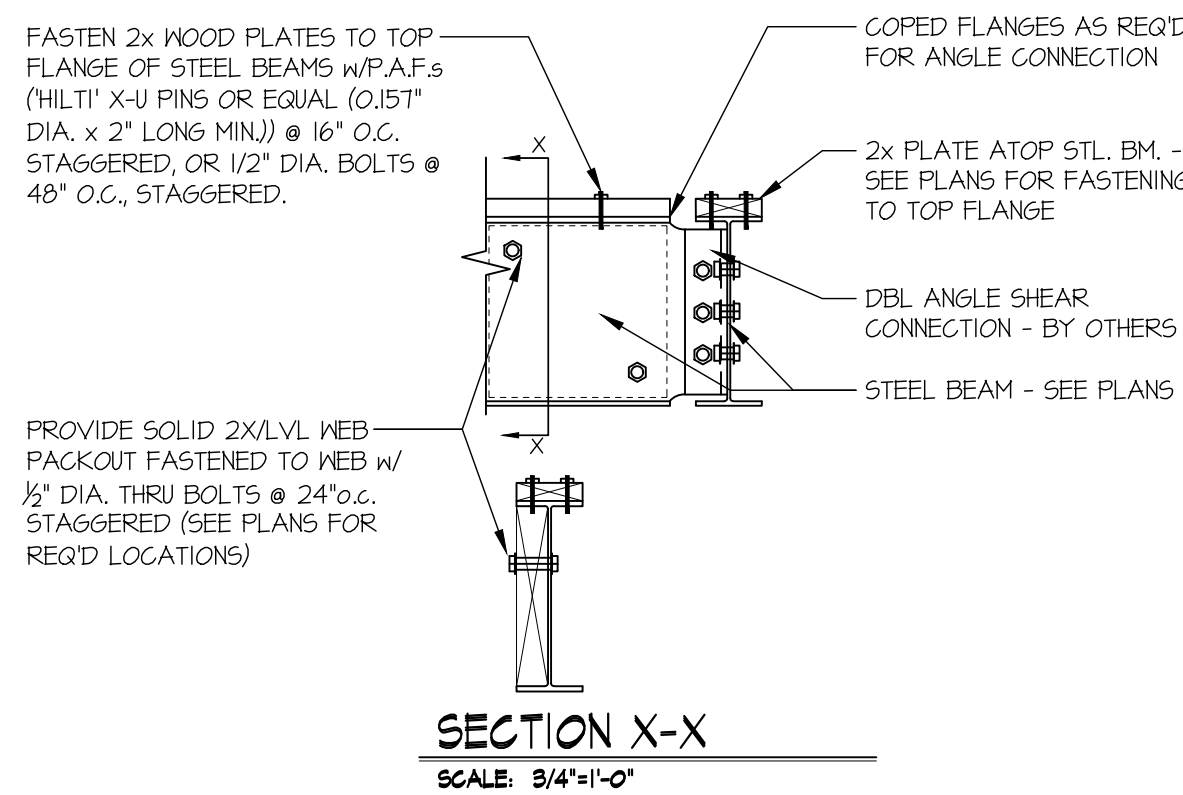
95 SHEAR TRANSFER DETAIL @
INTERSECTING INT. SHEARWALL
SCALE: 3/4"=1'-0" SHTG. ON SAME FACE



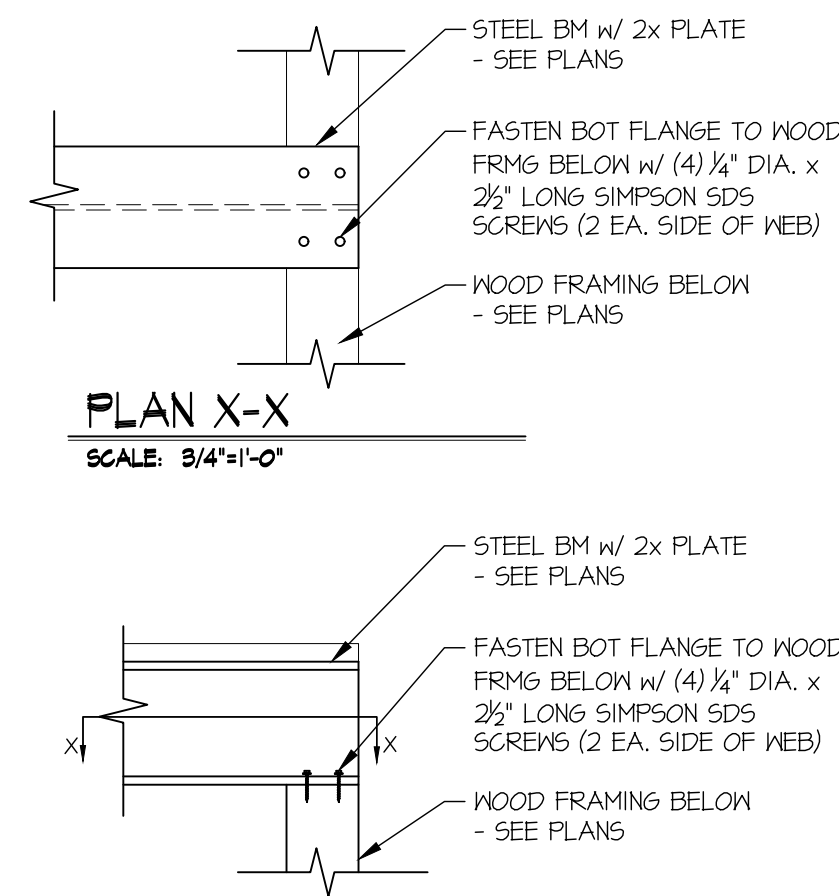
99 SHEAR TRANSFER DETAIL @
INTERSECTING INT. SHEARWALL
SCALE: 3/4"=1'-0" SHTG. OPPOSITE FACES



A TYP. RAILING CONNECTION
SCALE: 3/4"=1'-0" WOOD FRMG BELOW



B DOUBLE ANGLE STEEL CONNECTION
SCALE: 3/4"=1'-0"



C STL BM TO WOOD FRMG CONNECTION
SCALE: 3/4"=1'-0"



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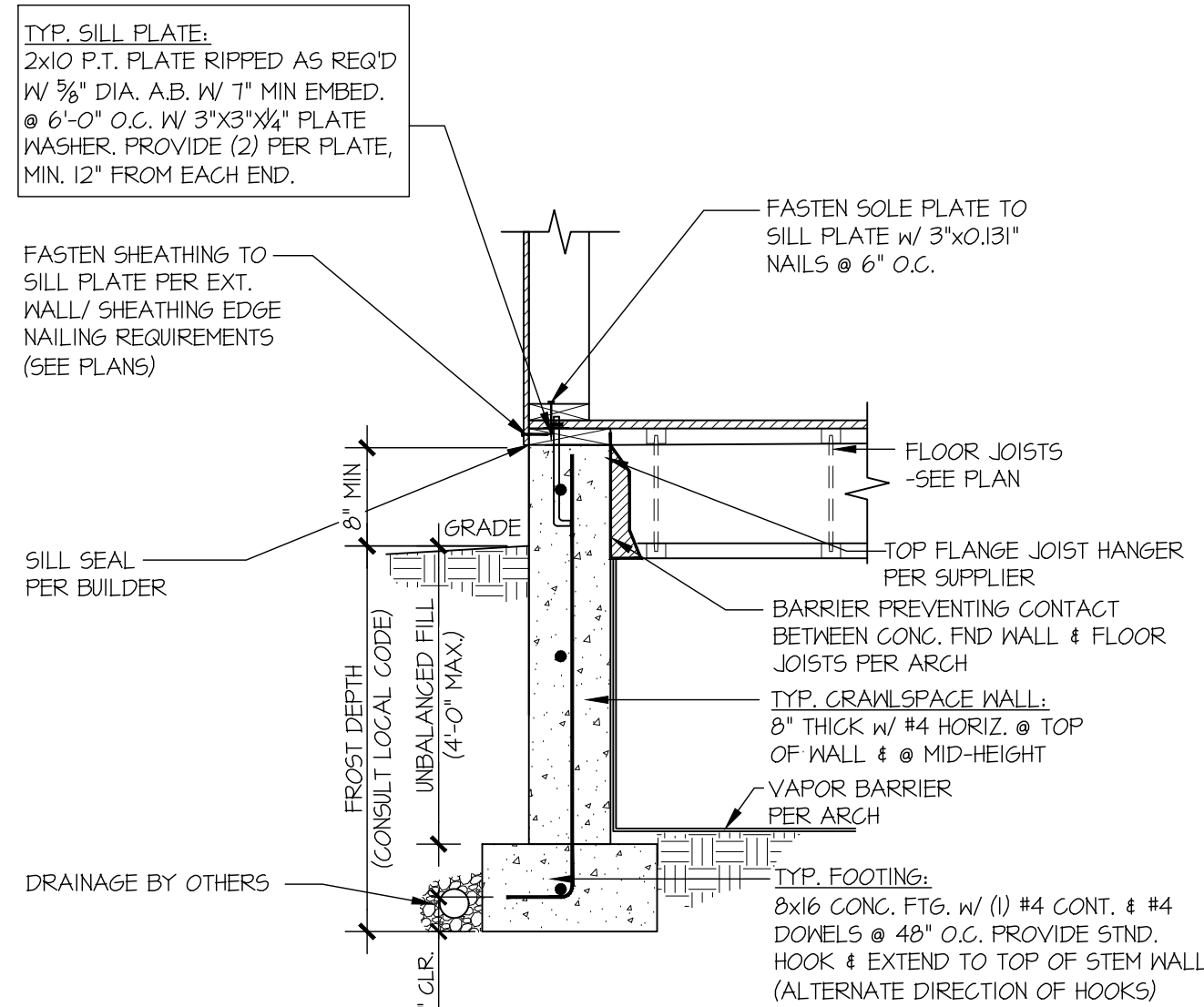
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drawn by: AJC
issue date: 09-05-25

REVISIONS:
date: initial:

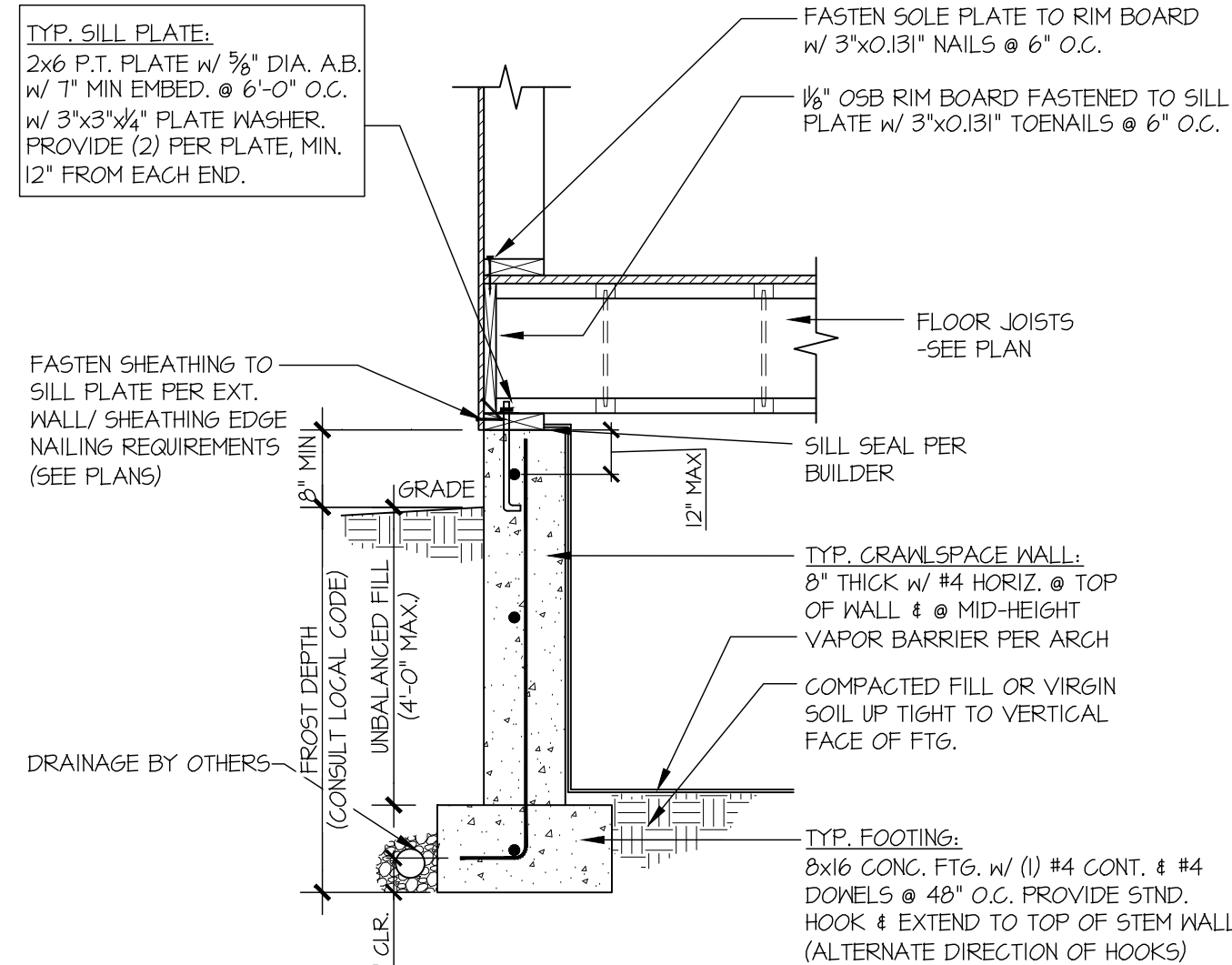
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STRUCTURAL DETAILS
SEARS PLAT
LOT 3
MERCER ISLAND, WASHINGTON

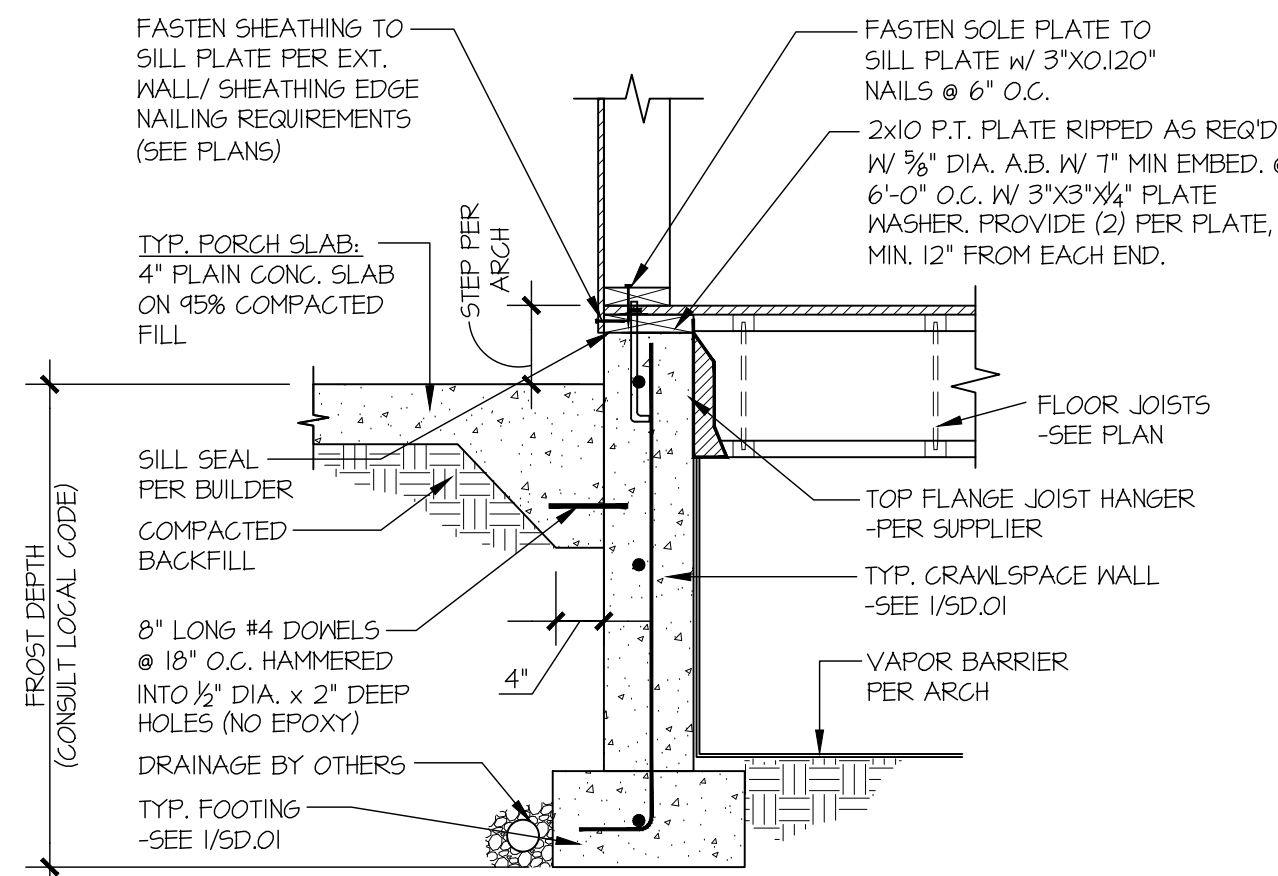
sheet:
SD-3



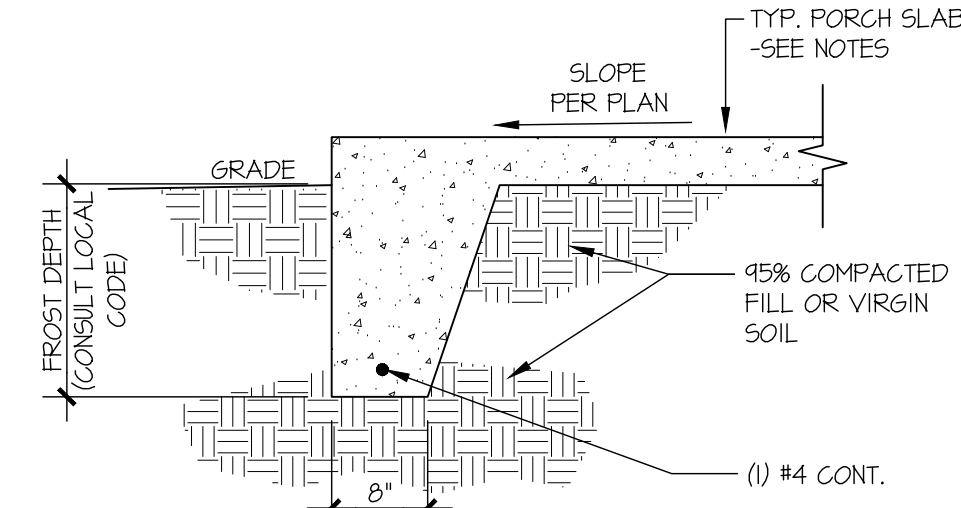
1 TYPICAL CRAWLSPACE FOUNDATION
SCALE: 3/4"=1'-0"



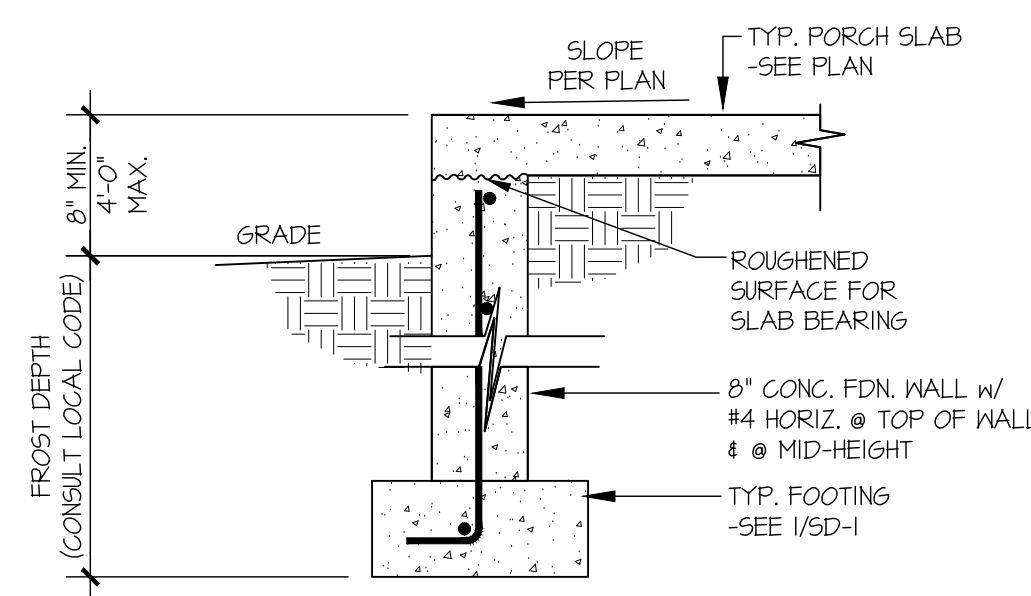
1A TYPICAL CRAWLSPACE FOUNDATION
SCALE: 3/4"=1'-0"



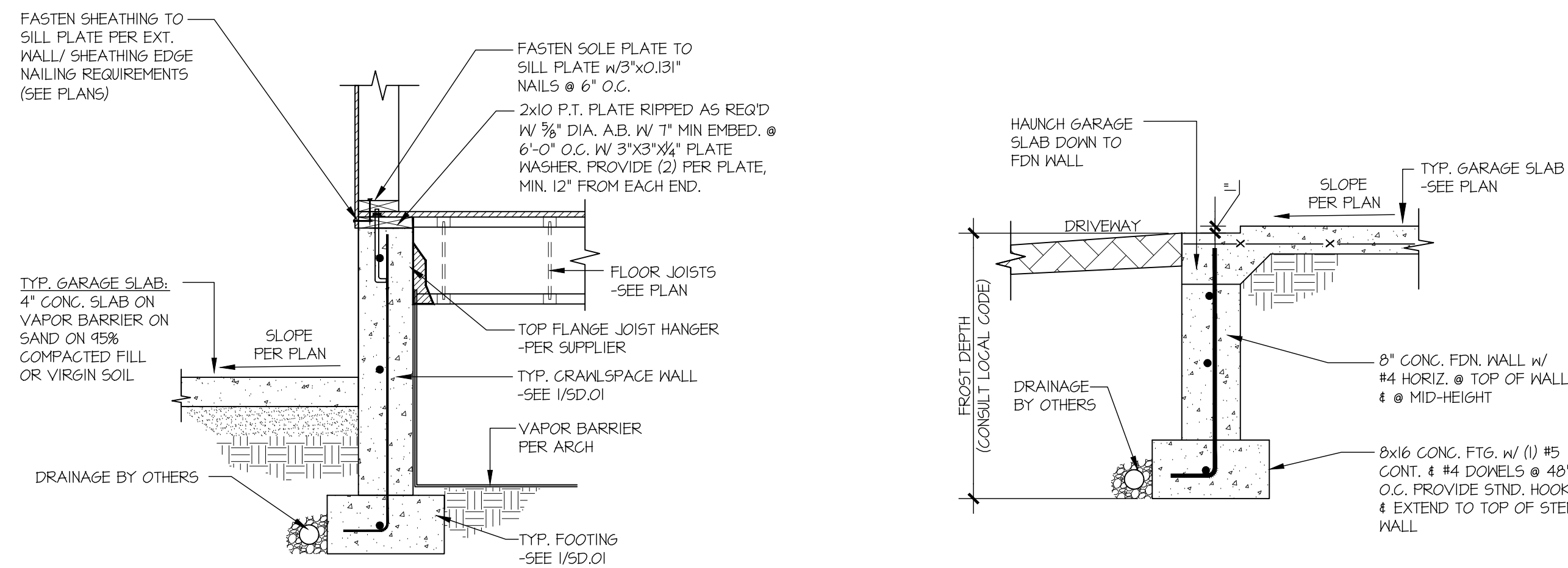
2 TYPICAL CRAWLSPACE FOUNDATION
SCALE: 3/4"=1'-0"



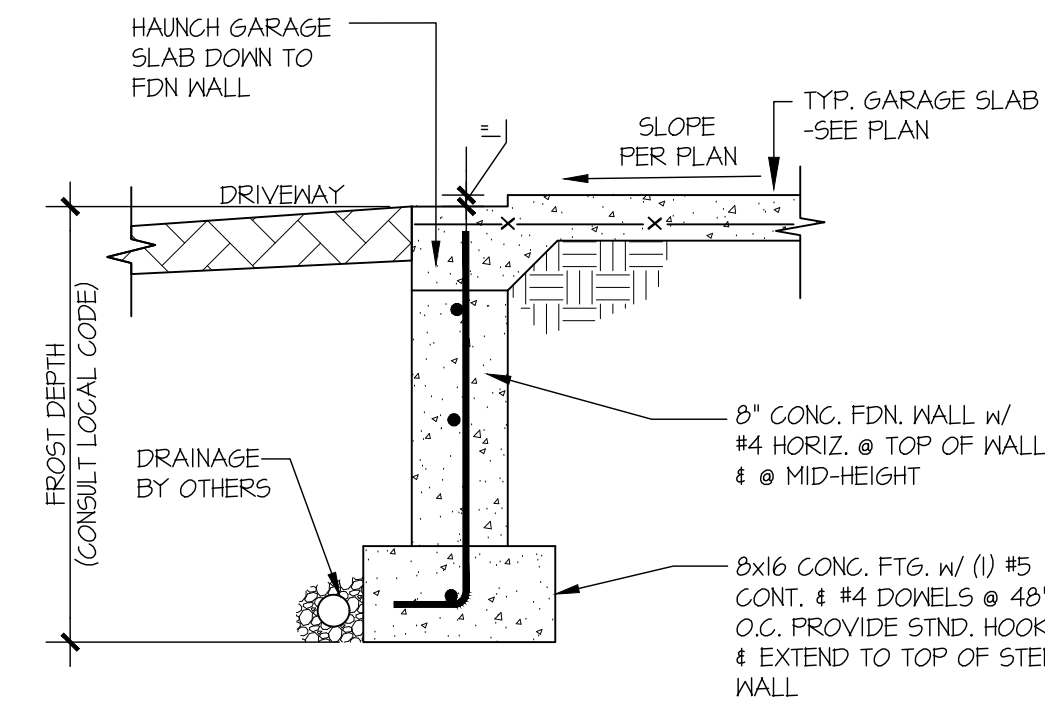
3 TYPICAL FOOTING @ PORCH SLAB
SCALE: 3/4"=1'-0"



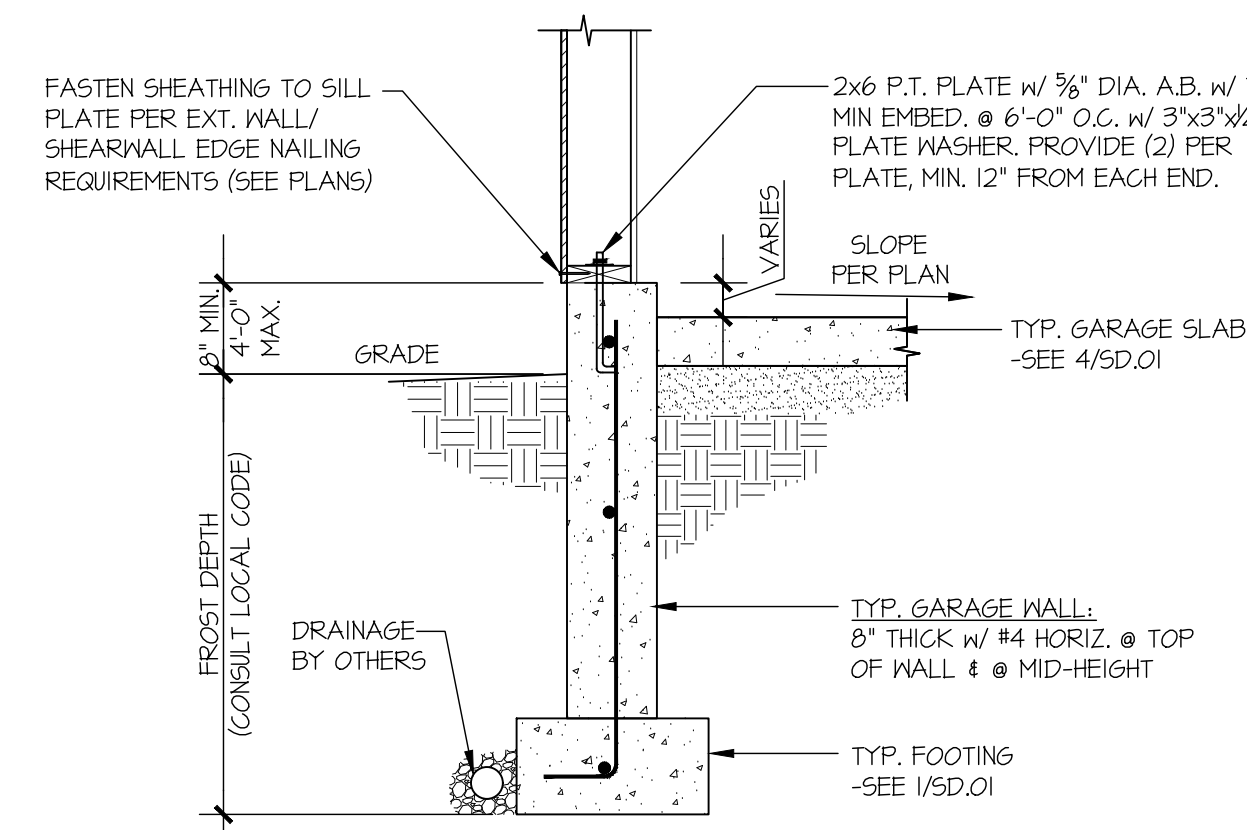
3A TYPICAL FOOTING @ PORCH SLAB
SCALE: 3/4"=1'-0"



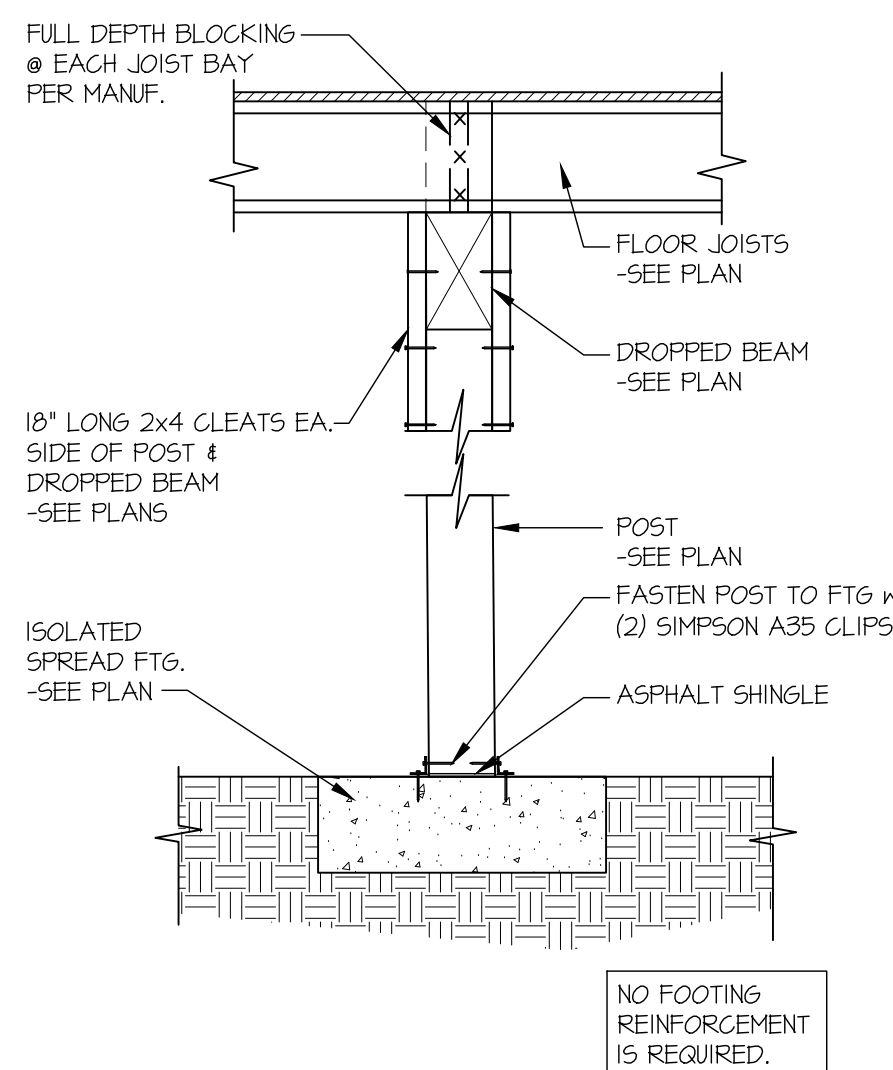
4 TYPICAL CRAWLSPACE FOUNDATION @ GARAGE
SCALE: 3/4"=1'-0"



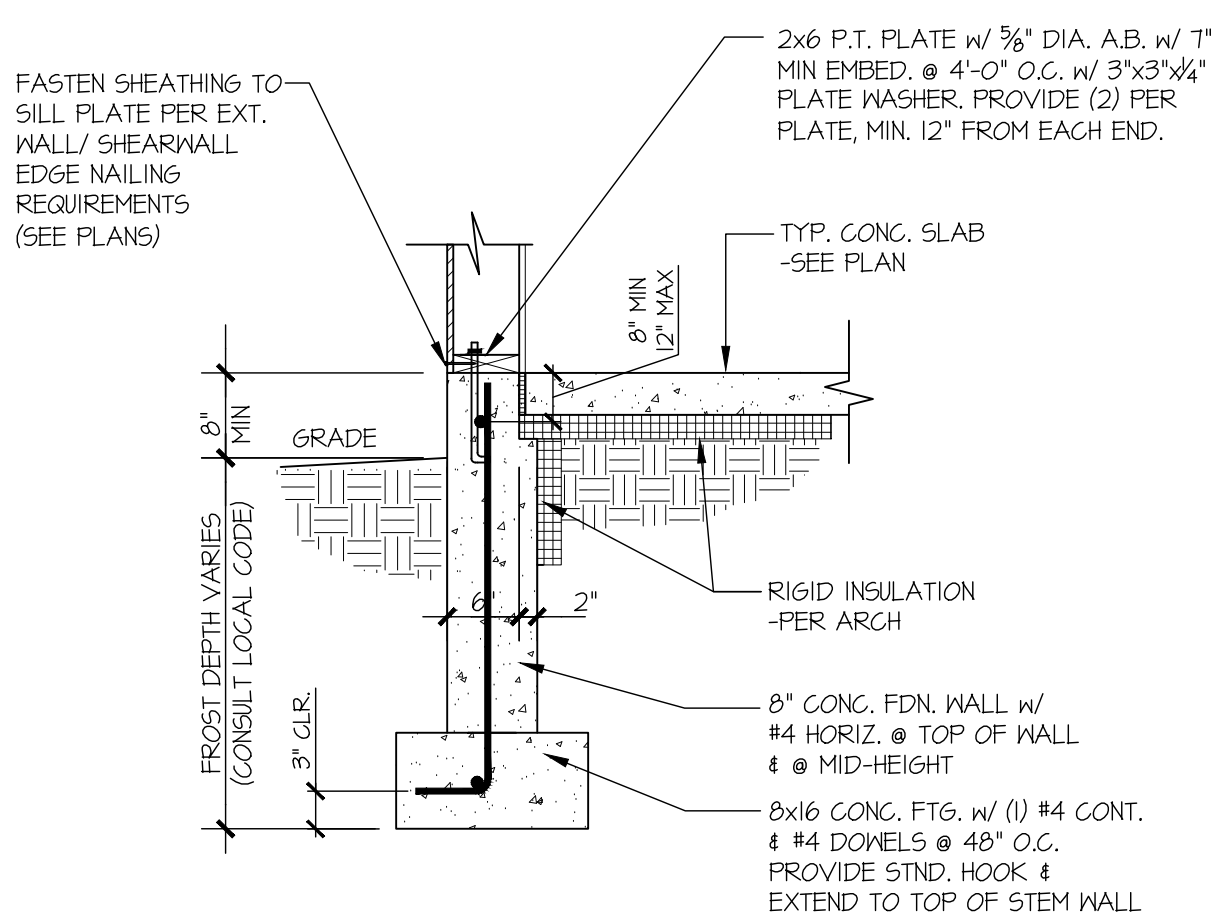
5 TYPICAL CONCRETE FOOTING @ GARAGE DOOR OPENING
SCALE: 3/4"=1'-0"



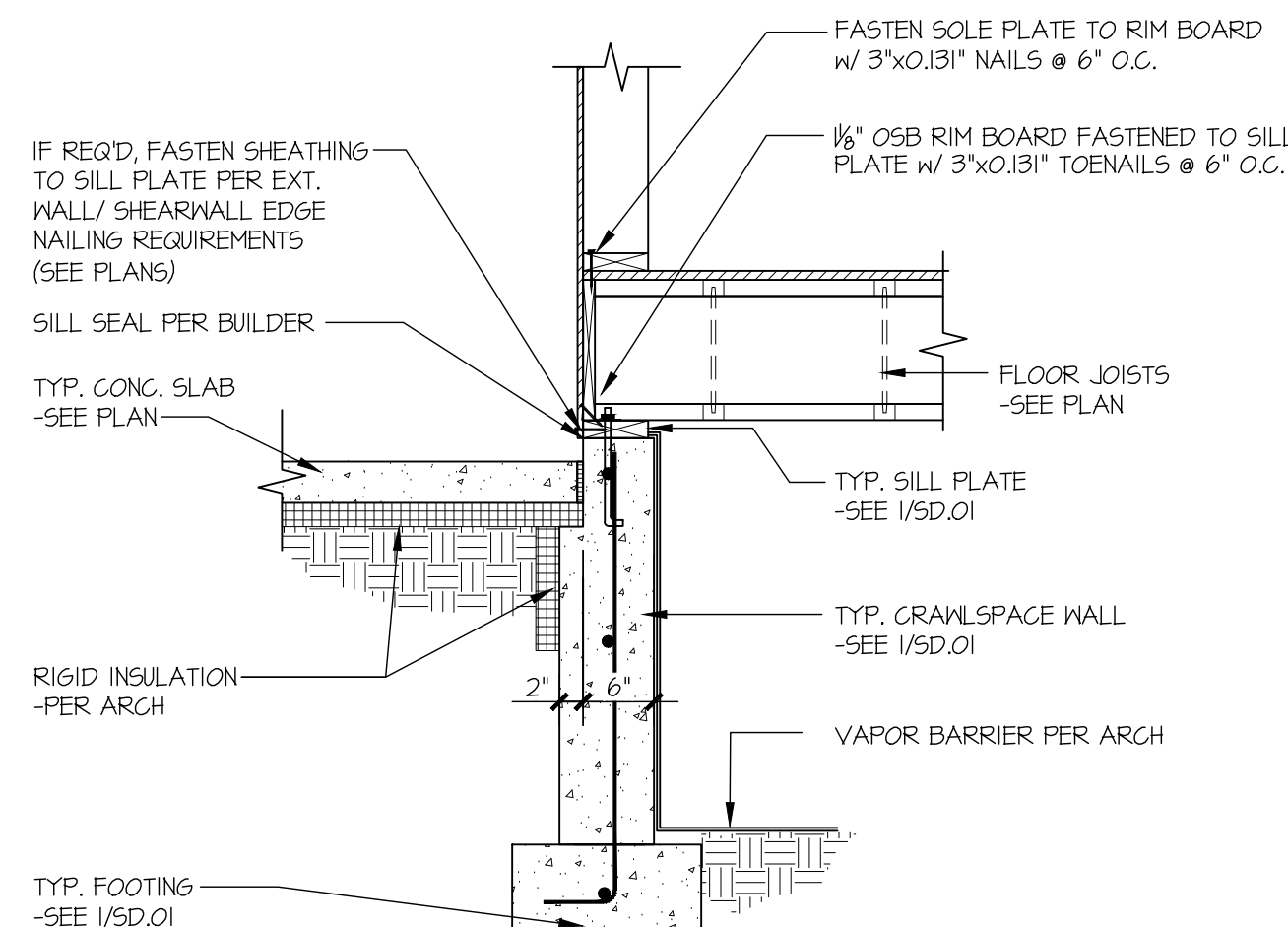
6 TYPICAL EXT. GARAGE FOUNDATION
SCALE: 3/4"=1'-0"



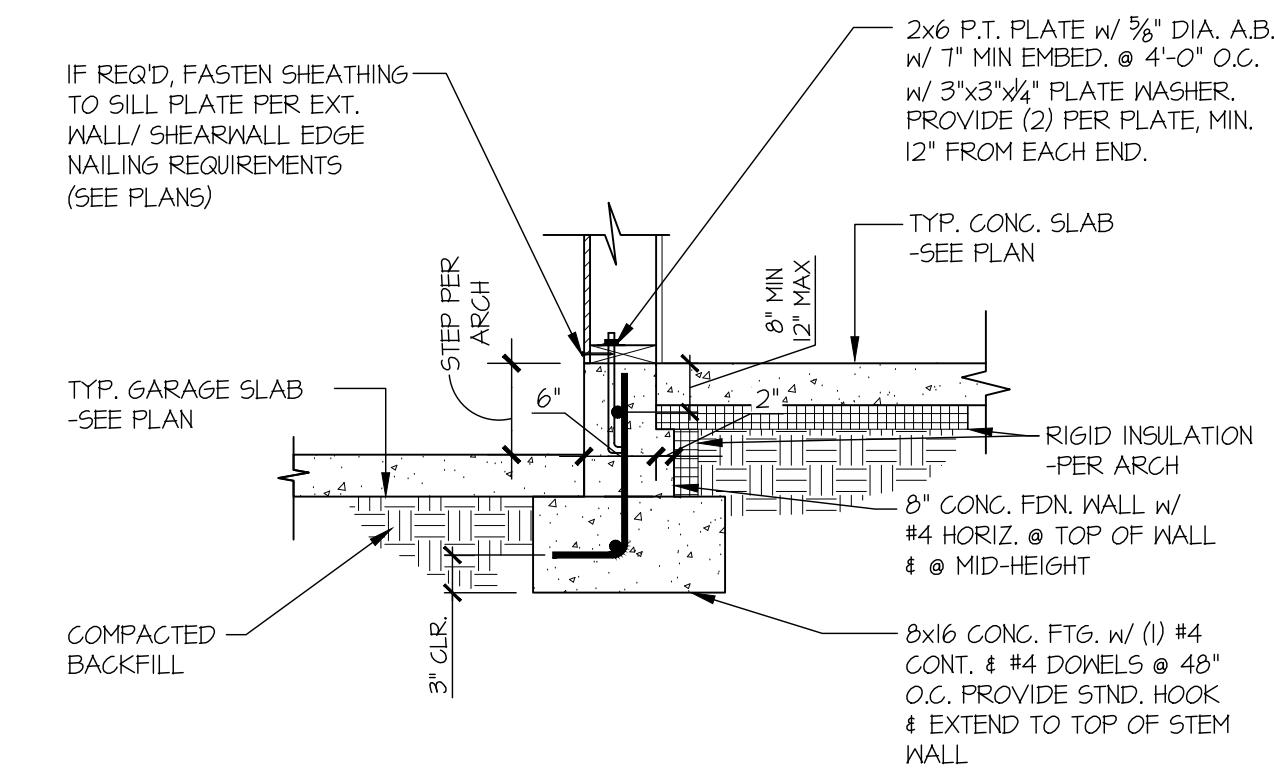
7 TYPICAL CRAWL SPACE FOOTING DETAIL
SCALE: 3/4"=1'-0"



8 TYPICAL FOOTING @ SLAB ON GRADE
SCALE: 3/4"=1'-0"



9 TYPICAL CRAWLSPACE FOUNDATION @ MUD/MECH.
SCALE: 3/4"=1'-0"



10 TYPICAL SLAB ON GRADE FOOTING @ GARAGE
SCALE: 3/4"=1'-0"



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244-25015

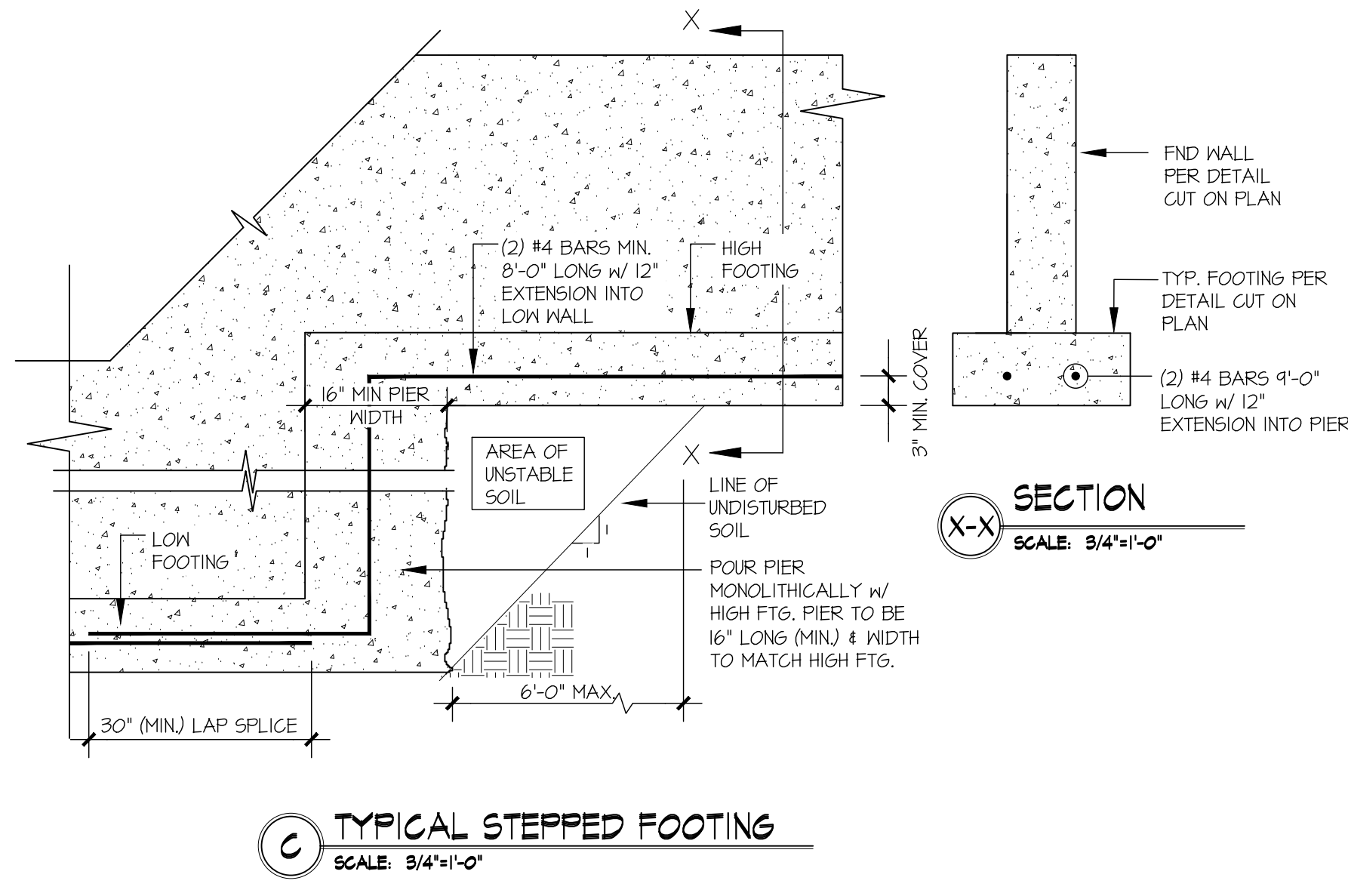
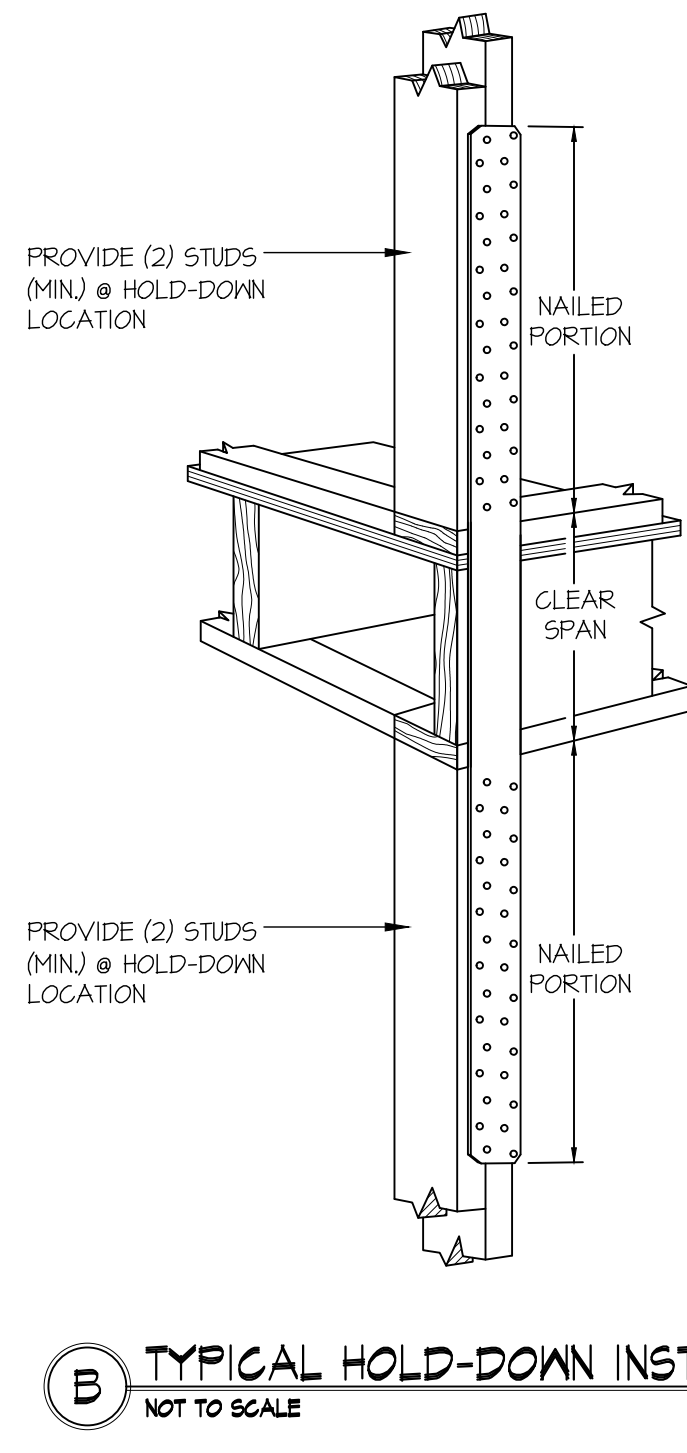
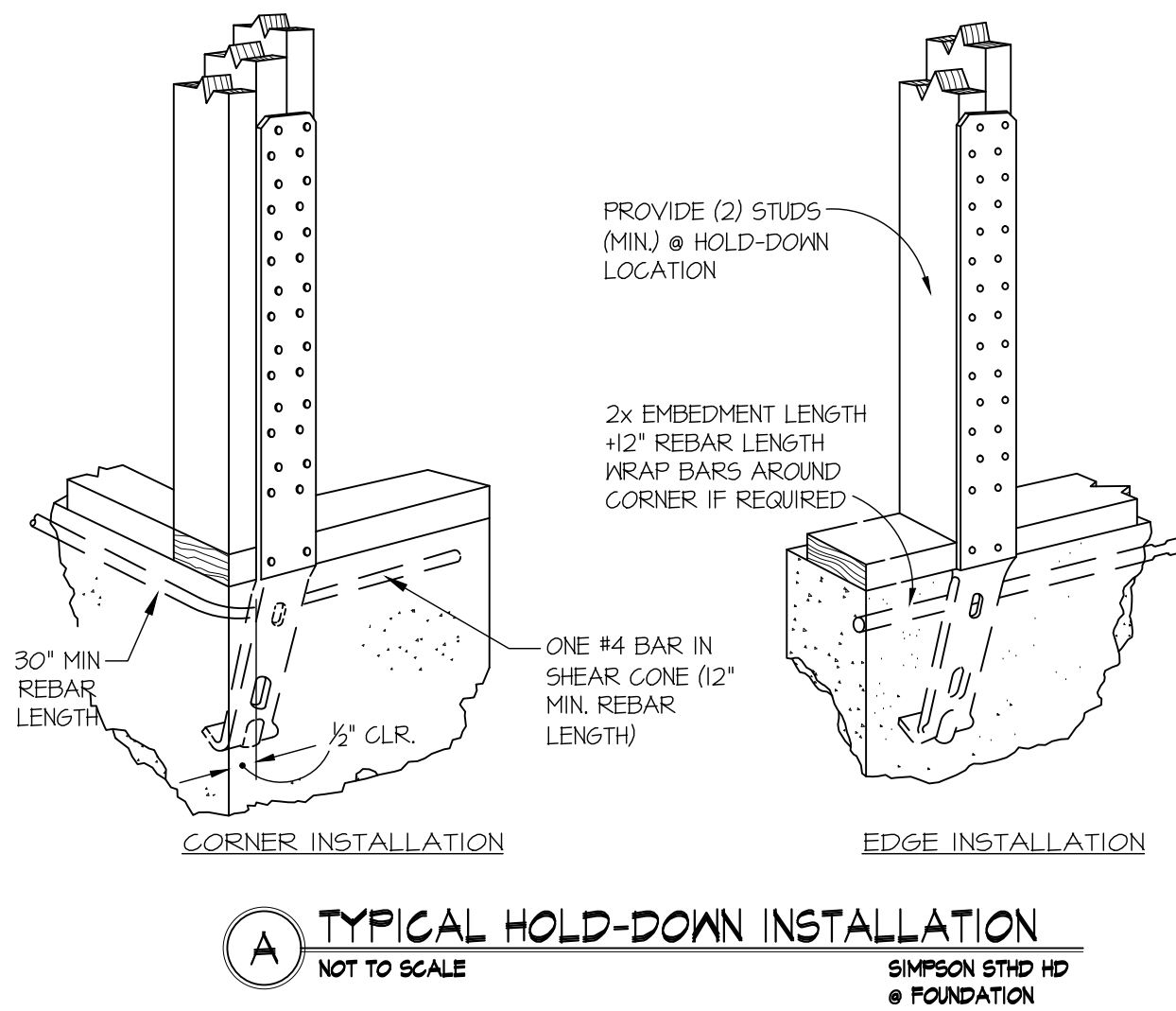
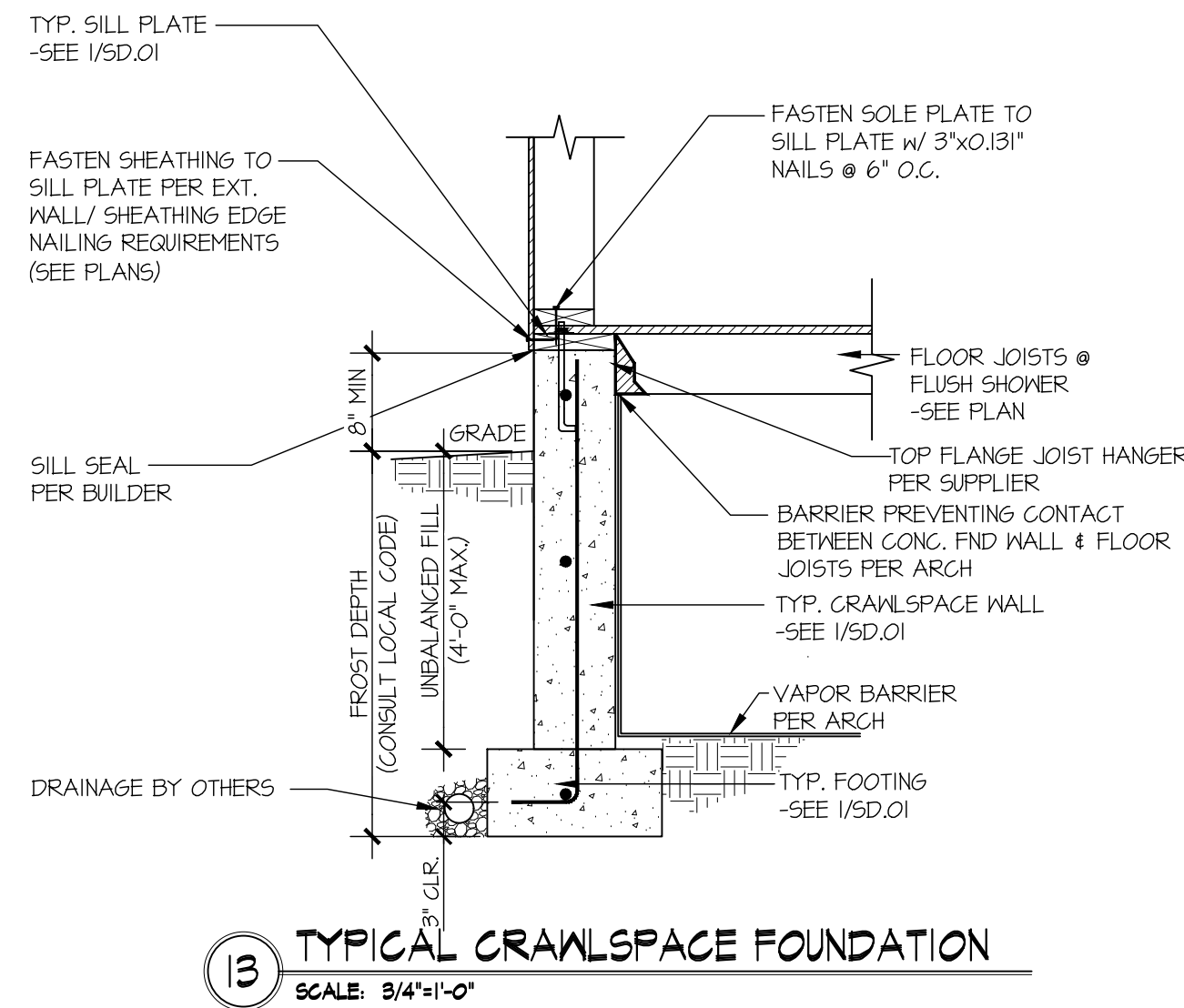
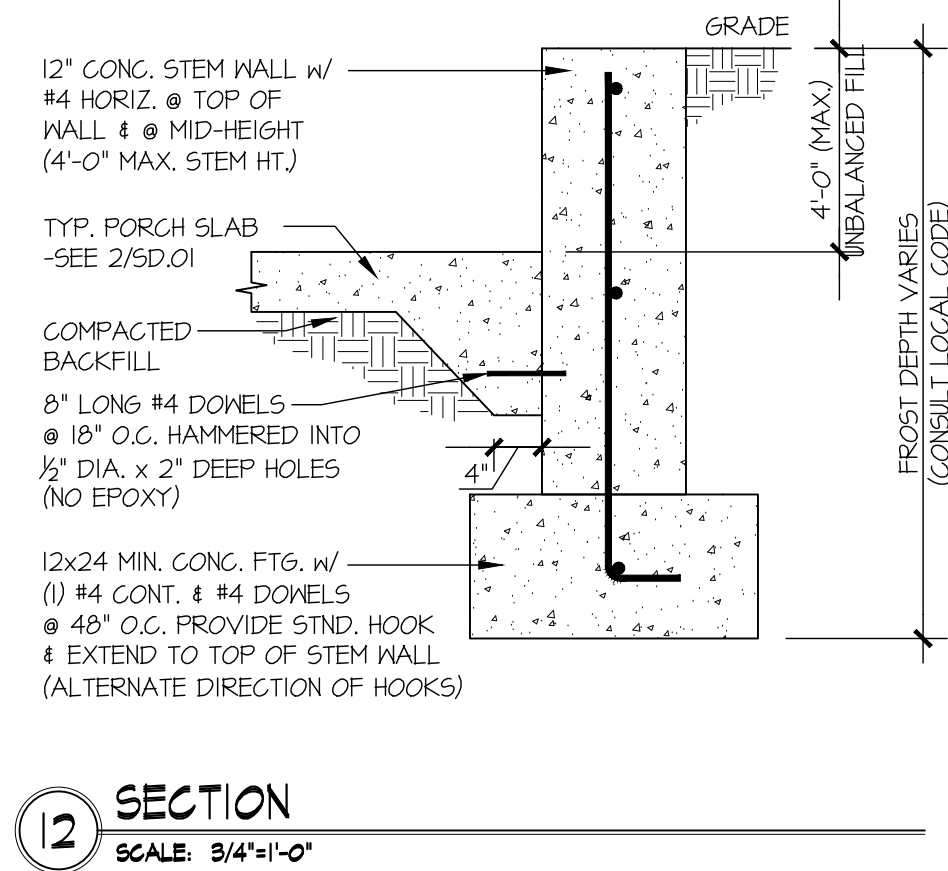
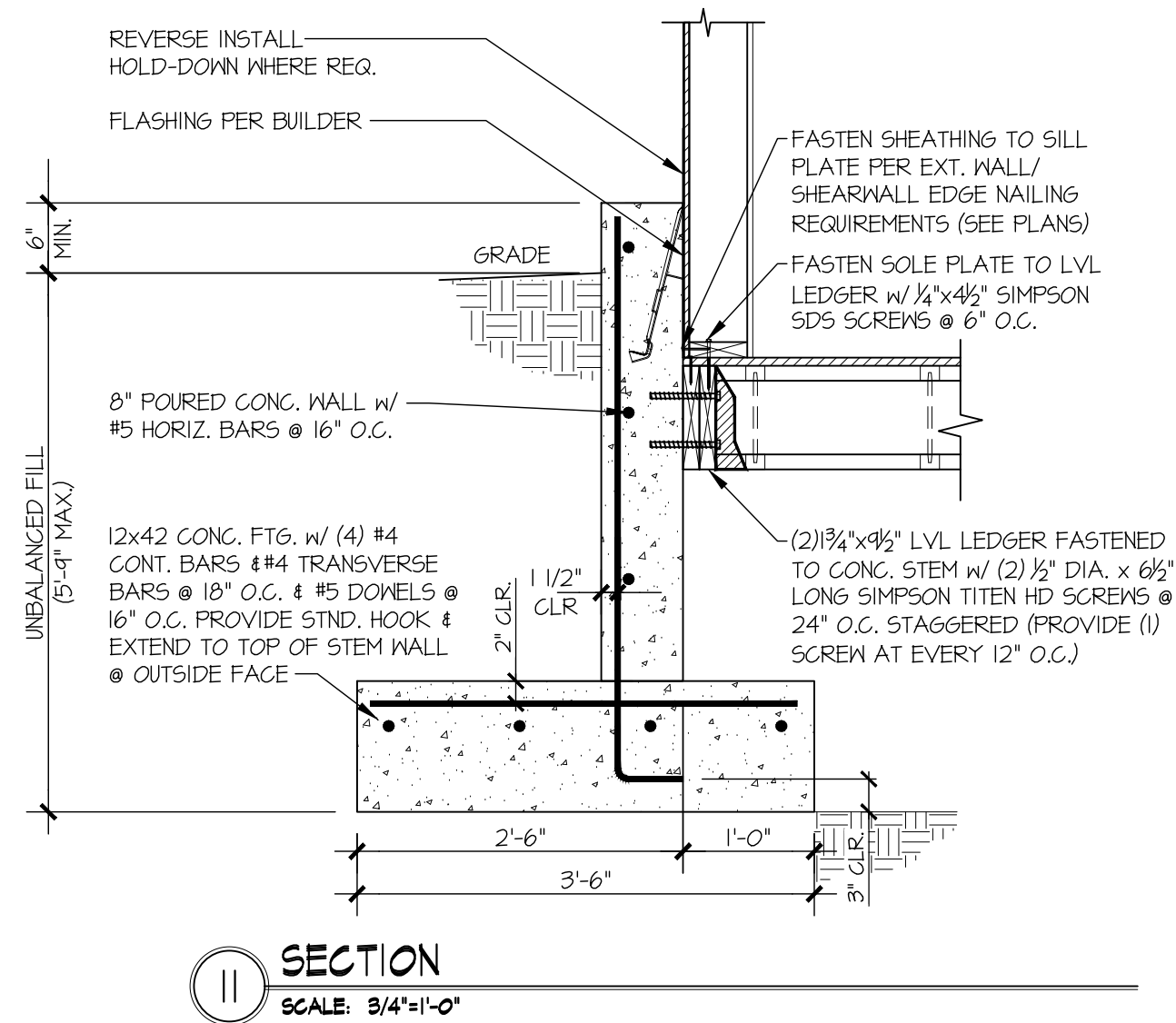
project mgr: NJM
drawn by: AJC
issue date: 09-05-25

REVISIONS:
date: initial:

McCULLOUGH
ARCHITECTS
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FOUNDATION DETAILS
SEARS PLAT
LOT 3
MERCER ISLAND, WASHINGTON

sheet:
SD.01



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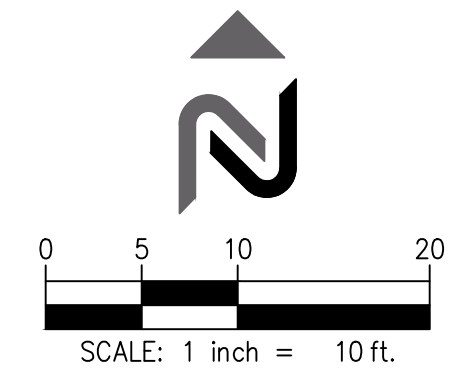
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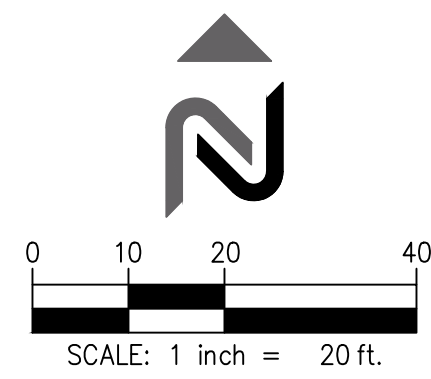
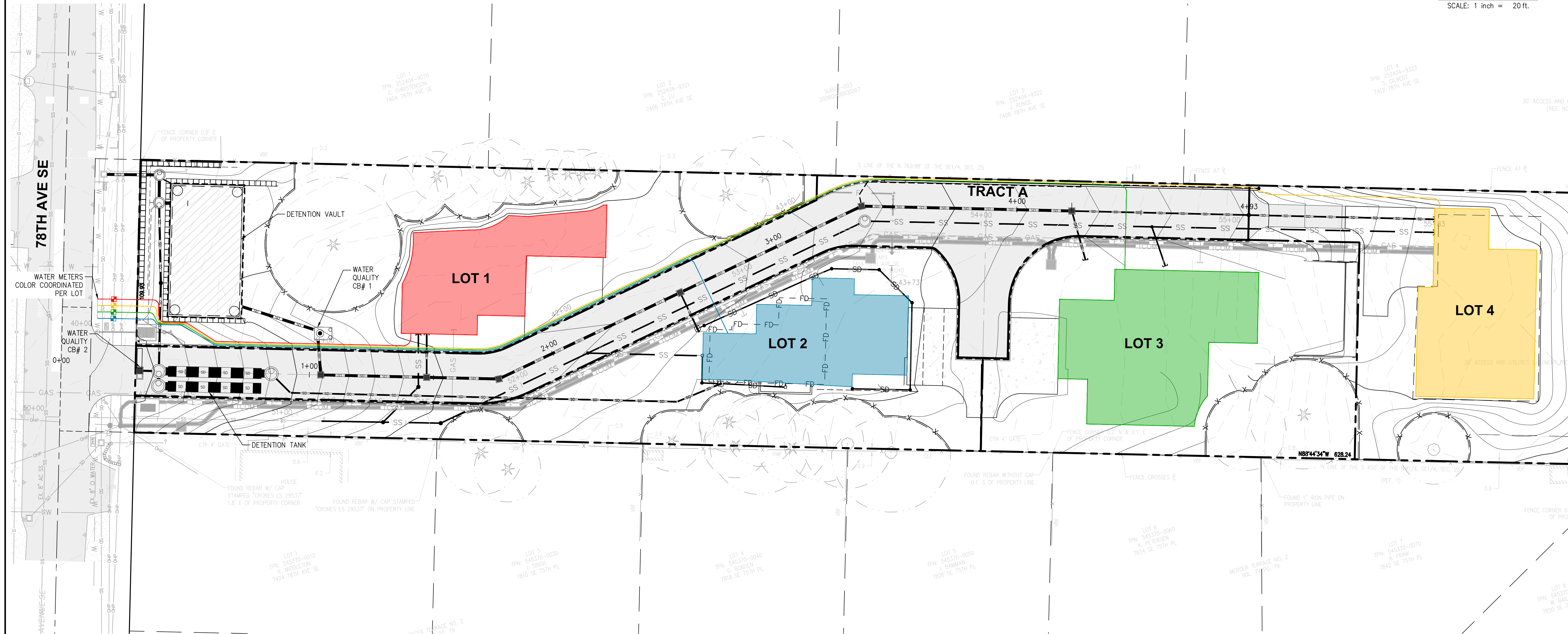
FOUNDATION DETAILS
SEARS PLAT
LOT 3
MERCER ISLAND, WASHINGTON

sheet:
SD.02



----	PROPERTY LINE
----	BUILDING LINE
-----401-----	MINOR CONTOUR
-----400-----	MAJOR CONTOUR
-- -- RIDGE	-- -- RIDGE LINE
● XXX.XX	SPOT ELEVATION
↖ X.X%	SLOPE ARROWS
○ ○ ○ ○	ROCKERY
	CIP CONCRETE WALL
	ASPHALT
	CONCRETE DRIVEWAY
	LANDSCAPE
— FD — FD —	4" PERF PVC FOUNDATION DRAIN LINE
	6" PVC ROOF STORM DRAIN LINE
FD	FOUNDATION DRAIN
●	STORM CLEANOUT
	NYOPLAST DRAIN PER DETAIL 1 THIS SHEET

C4.3



- LEGEND:**
- — — — — LIMIT OF DISTURBANCE
 - X — X — — TREE PROTECTION FENCE
 - SS — — — — — SANITARY PIPE
 - SS — — — — — 6" PVC SANITARY LOT STUB
 - SD — — — — — STORM DRAIN PIPE
 - SD — — — — — 6" PVC STORM LOT STUB
 - — — — — ZURN Z886 TRENCH DRAIN OR APPROVED EQUAL, WITH SLOTTED HEEL-PROOF GRATE
 - — — — — 4" FOUNDATION DRAINAGE
 - CLEANOUT
 - CATCH BASIN, TYPE 1
 - ⊙ MH/CATCH BASIN, TYPE 2
 - ⊙ ○ ○ WATER QUALITY VAULT
 - ⊙ WATER QUALITY CATCH BASIN
 - ▨ STORM DRAINAGE VAULT



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CLIENT/OWNER

SAINTFIELD2 LLC

PROJECT NAME

SEARS

NAVIX PROJECT NUMBER: 50-215-004
PROJECT ADDRESS

7414 78TH AVE SE
MERCER ISLAND, WA 98004

STAMP



REVISIONS

REV	ISSUED FOR:	DATE
LOT 2 BP SUBMITTAL		06/30/25
△ LOT 2 BP RESUBMITTAL		09/29/25



SECTION, TOWNSHIP, RANGE:
SECTION 25, TOWNSHIP 24 NORTH,
RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY: J. TAFLIN
DESIGNED BY: B. MCMURTRY

SHEET NAME

LOT 2
OVERALL
PLAN

SHEET NUMBER

C8.0