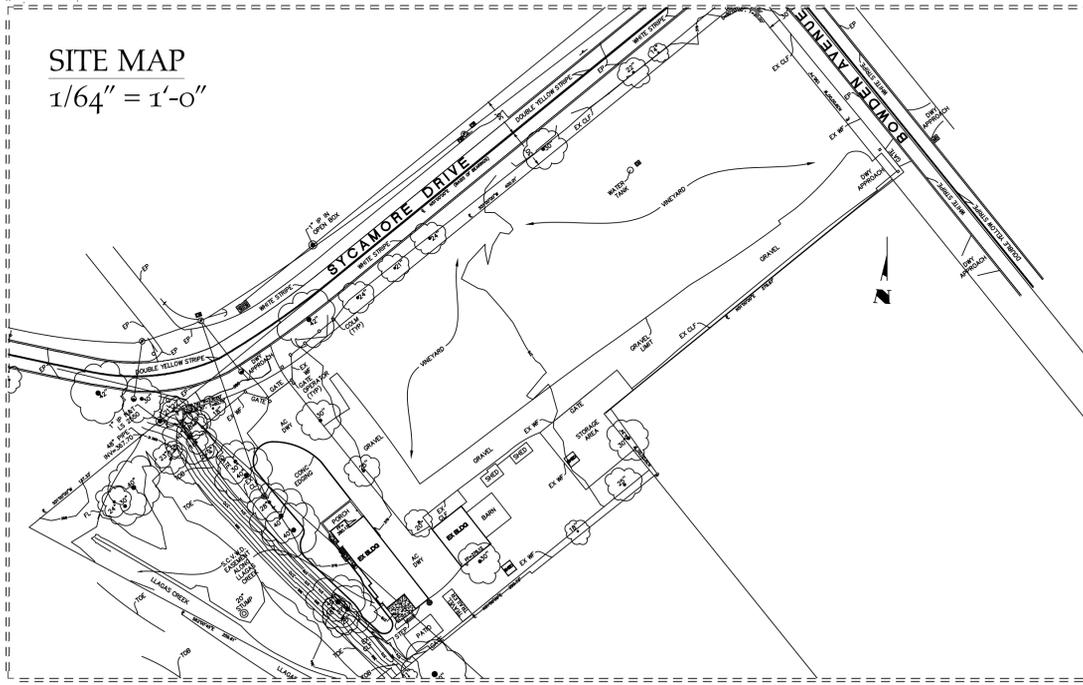
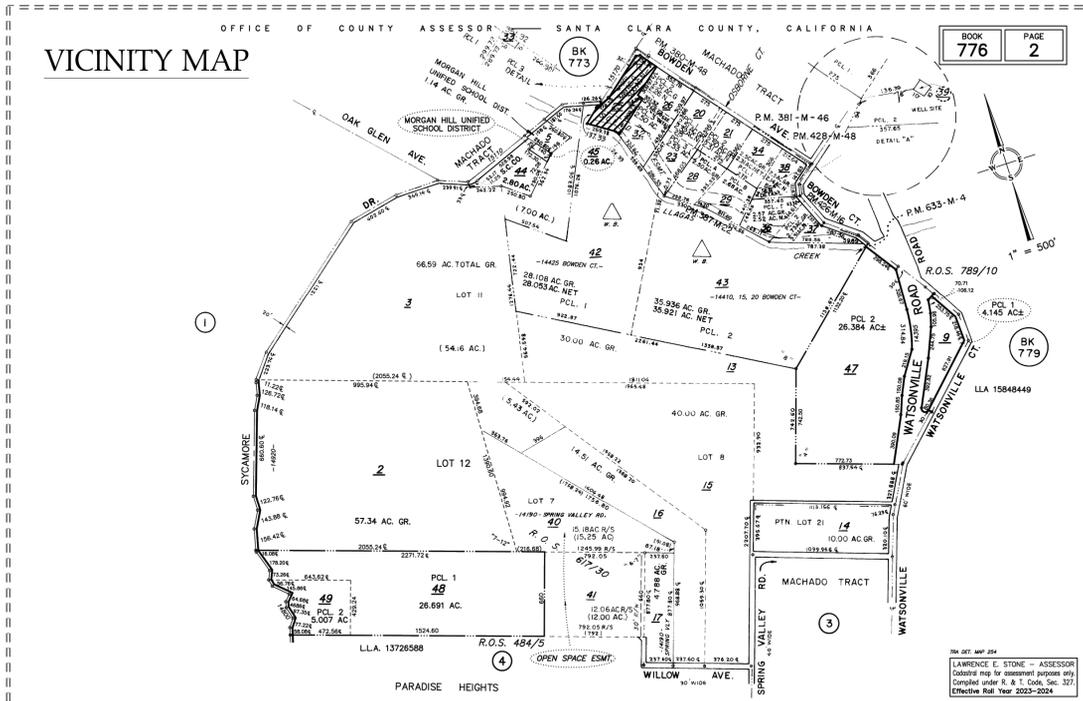


SYCAMORE RESIDENCE

15170 SYCAMORE DR.
MORGAN HILL, CA, 95037



- 8 WINDOWS & DOOR SIZES SHOWN ARE FOR DESIGN PURPOSES ONLY. ACTUAL WINDOW & DOOR SIZES & ROUGH OPENINGS SHALL BE PER MANUFACTURER SPECIFICATIONS. THE CONTRACTOR OR OWNER SHALL BE RESPONSIBLE FOR VERIFYING THAT THE WINDOW ORDER MATCHES THE PLANS. ANY VARIATION FROM THE SPECIFIED WINDOW SIZE OR STYLE SPECIFIED ON THE PLANS SHALL BE VERIFIED WITH THE DESIGNER PRIOR TO CONSTRUCTION.
- 9 ALL NEW EXTERIOR HEADERS SHALL BE @ 6" U.N.O.
- 10 ALL EXTERIOR DOORS SHALL BE AT LEAST 1-1/4" THICK
- 11 ALL GLASS DOORS, GLASS WITHIN 24" OF DOORS & WITHIN 18" OF FLOORS, GLASS SUBJECT TO HUMAN IMPACT, ETC., SHALL BE SAFETY TEMPERED PER R308.3.1
- 12 WRAP ALL EXTERIOR WALLS WITH CDX OR OSB PLYWOOD TYPICAL THROUGHOUT
- 13 ALL SHEARWALLS TO BE FRAMED TO BOTTOM OF ROOF SHEATHING TYPICAL
- 14 ALL EXTERIOR WALLS TO HAVE R-19 INSULATION
- 15 ALL DOORS & WINDOWS W/GLASS TO HAVE DUAL PANE GLAZING W/LOW "E"
- 16 ALL WALLS TO BE 2X4" D.F. STUDS SPACED AT 16" O.C. U.N.O.
- 17 SEE STRUCTURAL DRAWINGS & DETAILS FOR ALL FRAMING MEMBERS & SPECIFICATIONS

CONSULTANTS

ENGINEER BARN	ALLIANCE ENGINEERING 2700 MARKET ST. NE SALEM, OR 97301 503.589.1727
ENGINEER ADU	CIBOTTI ENGINEERING 12935 ALCOSTA BLVD. #2025 SAN RAMON, CA 94583 925.829.0920
TITLE 24	FRI ENERGY CONSULTANTS, LLC 5570 WINFIELD BLVD. #15 SAN JOSE, CA 95123 408.866.1620
ENGINEER CIVIL	LE ENGINEERING 598 E. SANTA CLARA ST, #270 SAN JOSE, CA 95112 408.806.7187

BARN SF TOTALS		ADU SF TOTALS	
BARN	3,528	ADU	1,199
TOTAL	N/A	JR. ADU	499
LIVABLE	N/A	TOTAL	1698
GARAGE	N/A	LIVABLE	400
PORCH	1274	GARAGE	393
TOTAL	4,802	PORCH	393
		TOTAL	2491

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SCOPE OF WORK

1	BUILD NEW ADU w/ ATTACHED JR. ADU
2	BUILD NEW AGRICULTURE BUILDING

PROJECT INFORMATION

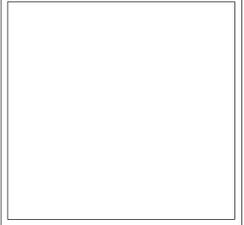
OWNER INFORMATION	MR. & MRS. SILVA 15170 SYCAMORE DR. MORGAN HILL, CA, 95037
PROJECT LOCATION	15170 SYCAMORE DR. MORGAN HILL, CA 95037
APN	776-02-025
OCCUPANCY GROUP	SINGLE FAMILY RESIDENTIAL
CONSTRUCTION TYPE	V-B

GENERAL NOTES

APPLICABLE CODES	CODE YEAR
CALIFORNIA BUILDING CODE	2022
CALIFORNIA PLUMBING CODE	2022
CALIFORNIA MECHANICAL CODE	2022
CALIFORNIA ELECTRICAL CODE	2022
CALIFORNIA FIRE CODE	2022
CALIFORNIA ENERGY CODE	2022
CALIFORNIA RESIDENTIAL CODE	2022
CALIFORNIA GREEN BUILDING STANDARDS	2022
LOCAL CODES	2022

- 1 CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR METHOD & MANNER OF CONSTRUCTION AND FOR ALL JOBSITE SAFETY DURING CONSTRUCTION
- 2 CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL FIELD CONDITIONS PRIOR TO CONSTRUCTION
- 3 CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION & REMOVAL OF ALL MATERIALS REQUIRED IN THIS PROJECT
- 4 CONTRACTOR SHALL MATCH ALL NEW MODIFICATIONS TO EXISTING RESIDENCE AS REQUIRED TO ASSURE CONFORMITY
- 5 CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO START OF WORK
- 6 VERIFY LOCATION OF ALL UTILITIES @ JOBSITE - RELOCATE AS REQUIRED
- 7 SLOPE OFF ALL FINISH GRADES A MIN. OF 5% FOR 10'-0" AWAY FROM STRUCTURE FOR DRAINAGE @ LANDSCAPED AREAS SLOPE GRADES 2% MIN. @ PAVED AREAS

SILVA
CUSTOM CONSTRUCTION INC.
MORGAN HILL, CA
409 TENNANT STATION, STE 227
MORGAN HILL, CA 95037
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DRAWN BY: TIM HENDERSEN

REVISION:

DATE: 7/11/2023

PRINT DATE: 1/22/2024

SCALE:

T1

COUNTY OF SANTA CLARA

GENERAL CONSTRUCTION SPECIFICATIONS

GENERAL CONDITIONS

- ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS AND/OR GEOTECHNICAL REPORT PREPARED BY SILICON VALLEY SOIL ENGINEERING
1916 O'TOOLE WAY, SAN JOSE, CA. 95131 FILE NO. SV2418
AND DATED JUNE 6, 2022
THIS REPORT IS SUPPLEMENTED BY: 1) THESE PLANS AND SPECIFICATIONS, 2) THE COUNTY OF SANTA CLARA STANDARD DETAILS, 3) THE COUNTY OF SANTA CLARA STANDARD SPECS, 4) STATE OF CALIFORNIA STANDARD DETAILS, 5) STATE OF CALIFORNIA STANDARD SPECIFICATIONS. IN THE EVENT OF CONFLICT THE FORMER SHALL TAKE PRECEDENCE OVER THE LATTER. THE PERFORMANCE AND COMPLETION OF ALL WORK MUST BE TO THE SATISFACTION OF THE COUNTY.
- DEVELOPER IS RESPONSIBLE FOR INSTALLATION OF THE IMPROVEMENTS SHOWN ON THESE PLANS AND HE OR HIS SUCCESSOR PROPERTY OWNERS ARE RESPONSIBLE FOR THEIR CONTINUED MAINTENANCE.
- DEVELOPER SHALL BE RESPONSIBLE FOR CORRECTION OF ANY ERRORS OR OMISSIONS IN THESE PLANS. THE COUNTY SHALL BE AUTHORIZED TO REQUIRE DISCONTINUANCE OF ANY WORK AND SUCH CORRECTION AND MODIFICATION OF PLANS AS MAY BE NECESSARY TO COMPLY WITH COUNTY STANDARDS OR CONDITIONS OF DEVELOPMENT APPROVAL.
- DEVELOPER SHALL OBTAIN ENCROACHMENT PERMITS FROM THE SANTA CLARA VALLEY WATER DISTRICT AND CALIFORNIA DEPARTMENT OF TRANSPORTATION WHERE NEEDED. COPIES OF THESE PERMITS SHALL BE KEPT AT THE JOB SITE FOR REVIEW BY THE COUNTY'S INSPECTOR.
- DEVELOPER SHALL REMOVE OR TRIM ALL TREES TO PROVIDE AN UNOBSTRUCTED FIFTEEN (15) FOOT VERTICAL CLEARANCE FOR ROADWAY AREA.
- THIS PLAN AUTHORIZES THE REMOVAL OF ONLY THOSE TREES WITH TRUNK DIAMETERS GREATER THAN 12 INCHES MEASURED 4.5 FEET ABOVE THE GROUND THAT ARE SHOWN TO BE REMOVED UNLESS AN AMENDED PLAN IS APPROVED OR A SEPARATE TREE REMOVAL PERMIT IS OBTAINED FROM THE PLANNING OFFICE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT REMOVAL OF ADDITIONAL TREES HAS BEEN PERMITTED.
- DEVELOPER SHALL PROVIDE ADEQUATE DUST CONTROL AS REQUIRED BY THE COUNTY INSPECTOR.
- ALL PERSONS MUST COMPLY WITH SECTION 4442 OF THE PUBLIC RESOURCES CODE AND SECTION 13005 OF THE HEALTH AND SAFETY CODE RELATING TO THE USE OF SPARK ARRESTERS.
- UPON DISCOVERING OR UNEARTHING ANY BURIAL SITE AS EVIDENCED BY HUMAN SKELETAL REMAINS OR ARTIFACTS, THE PERSON MAKING SUCH DISCOVERY SHALL IMMEDIATELY NOTIFY THE COUNTY CORONER AT (408) 454-2520 AND LAND DEVELOPMENT ENGINEERING OFFICE AT (408) 299-5730. NO FURTHER DISTURBANCE OF THE SITE MAY BE MADE EXCEPT AS AUTHORIZED BY THE LAND DEVELOPMENT OFFICE IN ACCORD WITH PROVISIONS OF THIS ORDINANCE (COUNTY ORDINANCE CODE SECTION 86-18).
- THESE PLANS ARE FOR THE WORK DESCRIBED IN THE SCOPE OF WORK ONLY. A SEPARATE PERMIT WILL BE REQUIRED FOR THE SEPTIC LINE CONSTRUCTION.
- ANY DEVIATION FROM THESE APPROVED PLANS SHALL BE RE-APPROVED IN WRITING BY THE COUNTY ENGINEER PRIOR TO CONSTRUCTION.

CONSTRUCTION STAKING

- THE DEVELOPER'S ENGINEER IS RESPONSIBLE FOR THE INITIAL PLACEMENT AND REPLACEMENT OF CONSTRUCTION GRADE STAKES. THE STAKES ARE TO BE ADEQUATELY IDENTIFIED, LOCATED, STABILIZED, ETC. FOR THE CONVENIENCE OF CONTRACTORS. LATERAL OFFSET OF STAKES SET FOR CURBS AND GUTTERS SHALL NOT EXCEED 2 1/2 FEET FROM BACK OF CURB.
- ANY PROPERTY LINE STAKES OR ROAD MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY DEVELOPER'S ENGINEER AND LICENSED LAND SURVEYOR.
- PROPERTY LINE STAKING MUST BE PERFORMED BY THE PROJECT ENGINEER OR LAND SURVEYOR TO ESTABLISH OR RE-ESTABLISH THE PROJECT BOUNDARY AND SHALL BE INSPECTED BY THE COUNTY INSPECTOR PRIOR TO THE BEGINNING OF THE WORK.
- PROPER CONSTRUCTION STAKES SHALL BE SET IN THE FIELD BY THE PROJECT ENGINEER OR LAND SURVEYOR AND VERIFIED BY THE COUNTY INSPECTOR PRIOR TO THE COMMENCEMENT OF GRADING.

CONSTRUCTION INSPECTION

- CONTRACTOR SHALL NOTIFY PERMIT INSPECTION UNIT, SANTA CLARA COUNTY PRIOR TO COMMENCING WORK AND FOR FINAL INSPECTION OF WORK AND SITE.
- THE COUNTY REQUIRES A MINIMUM OF 24 HOURS ADVANCE NOTICE FOR GENERAL INSPECTION, 48 HOURS FOR ASPHALT CONCRETE INSPECTION.
- INSPECTION BY SANTA CLARA COUNTY SHALL BE LIMITED TO INSPECTION OF MATERIALS AND PROCESSES OF CONSTRUCTION TO OBSERVE THEIR COMPLIANCE WITH PLANS & SPECIFICATIONS BUT DOES NOT INCLUDE RESPONSIBILITY FOR THE SUPERINTENDENT OF CONSTRUCTION, SITE CONDITIONS, EQUIPMENT OR PERSONNEL. CONTRACTOR SHALL NOTIFY THE COUNTY LAND DEVELOPMENT INSPECTOR AT PHONE (408) 299-6868 AT LEAST 24 HOURS PRIOR TO COMMENCING WORK AND FOR FINAL INSPECTION OF WORK AND SITE.
- DEVELOPER AND/OR HIS AUTHORIZED REPRESENTATIVE MUST SUBMIT WRITTEN REQUEST FOR FINAL INSPECTION AND ACCEPTANCE. SAID REQUEST SHALL BE DIRECTED TO THE INSPECTION OFFICE NOTED ON THE PERMIT FORM.
- THE CONTRACTOR SHALL PROVIDE TO THE COUNTY CONSTRUCTION INSPECTOR WITH PAD ELEVATION AND LOCATION CERTIFICATES, PREPARED BY THE PROJECT ENGINEER OR LAND SURVEYOR, PRIOR TO COMMENCEMENT OF THE BUILDING FOUNDATION.

SITE PREPARATION (CLEARING AND GRUBBING)

- EXISTING TREES AUTHORIZED FOR REMOVAL, ROOTS, AND FOREIGN MATERIAL IN AREAS TO BE IMPROVED WILL BE REMOVED TO AN AUTHORIZED DISPOSAL SITE AS FOLLOWS:
 - TO A MINIMUM DEPTH OF TWO FEET BELOW THE FINISHED GRADE OF PROPOSED ROADWAYS (EITHER PRIVATE OR TO BE DEDICATED TO PUBLIC USE)
 - FROM AREAS AFFECTED BY THE PROPOSED GRADING EXCEPT WHERE NOTED ON THE PLANS.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO MOVE OR RELOCATE UTILITY POLES AND OTHER OBSTRUCTIONS IN THE WAY OF CONSTRUCTION.

UTILITY LOCATION, TRENCHING & BACKFILL

- CONTRACTOR SHALL NOTIFY USA (UNDERGROUND SERVICE ALERT) AT 1-800-277-2600 A MINIMUM OF 24 HOURS BEFORE BEGINNING UNDERGROUND WORK FOR VERIFICATION OF THE LOCATION OF UNDERGROUND UTILITIES.
- ACCURATE VERIFICATION AS TO SIZE, LOCATION, AND DEPTH OF EXISTING UNDERGROUND CONDUITS OR FACILITIES SHALL BE THE INDIVIDUAL CONTRACTORS RESPONSIBILITY. PLAN LOCATIONS ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY.
- ALL UNDERGROUND INSTALLATIONS SHALL BE IN PLACE AND THE TRENCH BACKFILLED AND COMPACTED BEFORE PLACING AGGREGATE BASE MATERIAL OR SURFACE STRUCTURES. SURFACING MAY BE DONE IF THE UTILITY COMPANY CONCERNED INDICATES BY LETTER THAT IT WILL BORE, UNLESS SPECIFICALLY AUTHORIZED BY THE COUNTY. GAS AND WATER MAINS SHALL BE INSTALLED OUTSIDE THE PAVED AREAS.
- TRENCH BACKFILL IN EXISTING PAVEMENT AREAS SHALL BE SAND MATERIAL IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE SPECIFICATIONS. THE STRUCTURAL SECTION FOR TRENCH REPLACEMENT SHALL CONSIST OF NOT LESS THAN 12 INCHES OF APPROVED AGGREGATE BASE MATERIAL COMPACTED TO A RELATIVE COMPACTION OF AT LEAST 95% AND 4 INCHES OF HOT ASPHALT CONCRETE PLACED IN TWO LIFTS. TRENCH RESTORATION FOR HIGHER TYPE PAVEMENTS SHALL BE MADE IN KIND OR AS DIRECTED BY THE COUNTY.
- TRENCH BACKFILL IN NEW CONSTRUCTION AREAS SHALL BE SAND MATERIAL COMPACTED TO A RELATIVE COMPACTION OF AT LEAST 90%. THE REQUIREMENT FOR SELECT MATERIAL MAY BE WAIVED BY COUNTY IF THE NATIVE SOIL IS SUITABLE FOR USE AS TRENCH BACKFILL BUT THE COMPACTION REQUIREMENTS WILL NOT BE THEREBY WAIVED.
- BACKFILL AND TRENCH RESTORATION REQUIREMENTS SHALL APPLY AS MINIMUM STANDARDS TO ALL UNDERGROUND FACILITIES INSTALLED BY OTHER FIRMS OR PUBLIC AGENCIES.

RETAINING WALLS

- REINFORCED CONCRETE AND CONCRETE MASONRY UNIT RETAINING WALLS SHALL HAVE FOUNDATION AND REINFORCEMENT INSPECTED BY THE COUNTY ENGINEERING INSPECTOR AND ENGINEER OF RECORD PRIOR TO POURING THE FOUNDATION AND FORMING THE WALL.
- SEGMENTAL BLOCK RETAINING WALLS SHALL HAVE FOUNDATION AND REINFORCEMENT INSPECTED BY THE COUNTY ENGINEERING INSPECTOR.

GRADING

- EXCAVATED MATERIAL SHALL BE PLACED IN THE FILL AREAS DESIGNATED OR SHALL BE HAULED AWAY FROM THE SITE TO A COUNTY APPROVED DISPOSAL SITE. WHERE FILL MATERIAL IS TO BE PLACED ON NATURAL GROUND, IS SHALL BE STRIPPED OF ALL VEGETATION. TO ACHIEVE A PROPER BOND WITH THE FILL MATERIAL, THE SURFACE OF THE GROUND SHALL BE SCARIFIED TO A DEPTH OF 6" BEFORE FILL IS PLACED. WHERE NATURAL GROUND IS STEEPER THAN 5:1, IT SHALL BE BENCHED AND THE FILL KEYED IN TO ACHIEVE STABILITY. WHERE NEW FILL IS TO BE PLACED ON EXISTING FILL THE EXISTING FILL SHALL BE REMOVED UNTIL MATERIAL COMPACTED TO 90% RELATIVE COMPACTION IS EXPOSED. THEN THE NEW FILL MATERIAL SHALL BE PLACED AS PER THESE CONSTRUCTION NOTES. FILL MATERIAL SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 6" IN UNCOMPACTED THICKNESS. BEFORE COMPACTION BEGINS, THE FILL SHALL BE BROUGHT TO A WATER CONTENT THAT WILL PERMIT PROPER COMPACTION BY EITHER 1) AERATING THE FILL IF IT IS TOO WET OR 2) MOISTENING THE FILL WITH WATER IF IT IS TOO DRY. EACH LIFT SHALL BE THOROUGHLY MIXED BEFORE COMPACTION TO ENSURE A UNIFORM DISTRIBUTION OF MOISTURE.
- EXCESS CUT MATERIAL SHALL NOT BE SPREAD OR STOCKPILED ON THE SITE.
- SURPLUS EARTH FILL MATERIAL SHALL BE PLACED IN A SINGLE (8" MAX) THICK LAYER COMPACTED TO WITHSTAND WEATHERING IN THE AREA(S) DELINEATED ON THE PLAN.
- NO ORGANIC MATERIAL SHALL BE PLACED IN ANY FILL. NO TREES SHALL BE REMOVED OUTSIDE OF CUT, FILL OR ROADWAY AREAS.
- THE UPPER 6" OF SUBGRADE BELOW DRIVEWAY ACCESS ROAD OR PARKING AREA SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY.
- MAXIMUM CUT SLOPE SHALL BE 2 HORIZONTAL TO 1 VERTICAL. MAXIMUM FILL SLOPE SHALL BE 2 HORIZONTAL TO 1 VERTICAL.

LOCATION	CUT (C.Y.)	FILL (C.Y.)	VERT. DEPTH
BARN	-	14	1.00
ACCESSORY STRUCTURE	-	3	-
RETENTION	30	-	1.30
LANDSCAPE	-	-	-
SITE GRADING & DWY	24	78	1.50
OFF SITE IMPROVEMENTS	-	-	-
TOTAL	54	95	-

NOTE: FILL VOLUMES INCLUDE 10% SHRINKAGE.

- EXCESS MATERIAL SHALL BE OFF HAULED TO A COUNTY APPROVED DUMP SITE.
- NOTIFY SOILS ENGINEER TWO (2) DAYS PRIOR TO COMMENCEMENT OF ANY GRADING WORK TO COORDINATE THE WORK IN THE FIELD.
- ALL MATERIALS FOR FILL SHOULD BE APPROVED BY THE SOILS ENGINEER BEFORE IT IS BROUGHT TO THE SITE.
- THE UPPER 6" OF THE SUBGRADE SOIL SHALL BE SCARIFIED, MOISTURE CONDITIONED AND COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95%
- ALL AGGREGATE BASE MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% RELATIVE COMPACTION.
- THE GEOTECHNICAL PLAN REVIEW LETTER MUST BE REVIEWED AND APPROVED BY THE COUNTY GEOLOGIST PRIOR TO FINAL APPROVAL BY THE COUNTY ENGINEER FOR BUILDING OCCUPANCY.
- THE PROJECT GEOTECHNICAL ENGINEER SHALL PERFORM COMPACTION TESTING AND PRESENT THE RESULTS TO THE COUNTY ENGINEERING INSPECTOR PRIOR TO THE CONSTRUCTION OF ANY PAVED AREA.
- GRADING WORK BETWEEN OCTOBER 15TH AND APRIL 15TH IS AT THE DISCRETION OF THE SANTA CLARA COUNTY GRADING OFFICE.
- TOTAL DISTURBED AREA FOR THE PROJECT 49,687 SF.
- WDD NO. NA
- THE INSPECTOR MAY VERIFY THAT A VALID NOTICE OF INTENT (NOI) HAS BEEN ISSUED BY THE STATE AND THAT A CURRENT AND UP TO DATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS AVAILABLE ON SITE.

TREE PROTECTION

- FOR ALL TREES TO BE RETAINED WITH A CANOPY IN THE DEVELOPMENT AREA OR INTERFACES WITH THE LIMITS OF GRADING FOR ALL PROPOSED DEVELOPMENT ON SITE, THE TREES SHALL BE PROTECTED BY THE PLACEMENT OF RIGID TREE PROTECTIVE FENCING, CONSISTENT WITH THE COUNTY INTEGRATED LANDSCAPE GUIDELINES, AND INCLUDE THE FOLLOWING:
 - FENCING SHOULD BE PLACED ALONG THE OUTSIDE EDGE OF THE DRIPLINE OF THE TREE OR GROVE OF TREES.
 - THE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE CONSTRUCTION PERIOD AND SHALL BE INSPECTED PERIODICALLY FOR DAMAGE AND PROPER FUNCTION.
 - FENCING SHALL BE REPAIRED, AS NECESSARY, TO PROVIDE A PHYSICAL BARRIER FROM CONSTRUCTION ACTIVITIES.
 - SIGNAGE STATING, "WARNING- THIS FENCING SHALL NOT BE REMOVED WITHOUT PERMISSION FROM THE SANTA CLARA COUNTY PLANNING OFFICE (408) 299-5770. COUNTY OF SANTA CLARA TREE PROTECTION MEASURES MAY BE FOUND AT HTTP://WWW.SCCPLANNING.GOV." SHALL BE PLACED ON THE TREE PROTECTIVE FENCING UNTIL FINAL OCCUPANCY.
- PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY, TREE PROTECTIVE FENCING SHALL BE SECURELY IN PLACED AND INSPECTED BY THE LAND DEVELOPMENT ENGINEERING INSPECTOR.
- SEE EXISTING TREE PROTECTION DETAILS FOR MORE INFORMATION.

ACCESS ROAD AND DRIVEWAY

- DRIVEWAY LOCATIONS SHALL BE AS SHOWN ON THE IMPROVEMENT PLANS WITH CENTERLINE STATIONING. THE MINIMUM CONCRETE THICKNESS SHALL BE 6 INCHES THROUGHOUT (WITH A MAXIMUM APPROACH SLOPE OF 1 1/4 INCHES PER FOOT).
- ALL DRIVEWAY OR COMMON ACCESS ROAD SECTIONS IN EXCESS OF 15 LONGITUDINAL SLOPE MUST BE PAVED WITH A MINIMUM 2-INCH ASPHALT LIFT OR FULL DEPTH CONCRETE LIFT PRIOR TO ANY COMBUSTIBLE FRAMING.
- THE OWNER AND PRIME CONTRACTOR ARE RESPONSIBLE FOR MAINTAINING PROJECT SITE ACCESS AND NEIGHBORHOOD ACCESS FOR EMERGENCY VEHICLES AND LOCAL RESIDENTS. ROADWAYS DESIGNATED AS NOT COUNTY MAINTAINED ROADS AS SHOWN ON THE PLAN WILL NOT BE ELIGIBLE FOR COUNTY MAINTENANCE UNTIL THE ROADWAYS ARE IMPROVED (AT NO COST TO THE COUNTY) TO THE PUBLIC MAINTENANCE ROAD STANDARDS APPROVED BY THE BOARD OF SUPERVISORS AND IN EFFECT AT SUCH TIME THAT THE ROADWAYS ARE CONSIDERED FOR ACCEPTANCE INTO THE COUNTY'S ROAD SYSTEM.
- ALL WORK IN THE COUNTY ROAD RIGHT-OF-WAY REQUIRES AN ENCROACHMENT PERMIT FROM THE ROADS AND AIRPORTS DEPARTMENT. EACH INDIVIDUAL ACTIVITY REQUIRES A SEPARATE PERMIT - I.E. CABLE, ELECTRICAL, GAS, SEWER, WATER, RETAINING WALLS, DRIVEWAY APPROACHES, FENCES, LANDSCAPING, TREE REMOVAL, STORM DRAINAGE IMPROVEMENTS, ETC..

STREET LIGHTING

- PACIFIC GAS & ELECTRIC ELECTROLYSER SERVICE FEE SHALL BE PAID BY THE DEVELOPER AND/OR HIS AUTHORIZED REPRESENTATIVE.

SANITARY SEWER

- THE SANITARY SEWER AND WATER UTILITIES SHOWN ON THESE PLANS ARE NOT PART OF THIS GRADING PERMIT AND ARE SHOWN FOR REFERENCE ONLY.
- ALL MATERIALS AND METHODS OF CONSTRUCTION OF SANITARY SEWERS SHALL CONFORM TO THE SPECIFICATIONS OF THE JURISDICTION INVOLVED. INSPECTION OF SANITARY SEWER WORK SHALL BE DONE BY SAID JURISDICTION.

PORTLAND CEMENT CONCRETE

- CONCRETE USED FOR STRUCTURAL PURPOSES SHALL BE CLASS "A" (6 SACK PER CUBIC YARD) AS SPECIFIED IN THE STATE STANDARD SPECIFICATIONS. CONCRETE PLACED MUST DEVELOP A MINIMUM STRENGTH FACTOR OF 2800 PSI IN A SEVEN-DAY PERIOD. THE CONCRETE MIX DESIGN SHALL BE UNDER THE CONTINUAL CONTROL OF THE COUNTY INSPECTOR.

AIR QUALITY, LANDSCAPING AND EROSION CONTROL

- WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
- COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
- PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY (NON-TOXIC) SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES.
- SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES. THE USE OF DRY POWDER SWEEPING IS PROHIBITED.
- SWEEP STREETS DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PUBLIC STREETS. THE USE OF DRY POWDER SWEEPING IS PROHIBITED.
- ALL CONSTRUCTION VEHICLES, EQUIPMENT AND DELIVERY TRUCKS SHALL HAVE A MAXIMUM IDLING TIME OF 5 MINUTES (AS REQUIRED BY THE CALIFORNIA AIRBORNE TOXIC CONTROL MEASURE TITLE 13, SECTION 2485 OF CALIFORNIA CODE OF REGULATIONS (CCR)). ENGINES SHALL BE SHUT OFF IF CONSTRUCTION REQUIRES LONGER IDLING TIME UNLESS NECESSARY FOR PROPER OPERATION OF THE VEHICLE.
- ALL VEHICLE SPEEDS ON UNPAVED ROADS SHALL BE LIMITED TO 15 MILES PER HOUR.
- ALL CONSTRUCTION EQUIPMENT SHALL BE MAINTAINED AND PROPERLY TUNED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. ALL EQUIPMENT SHALL BE CHECKED BY A CERTIFIED MECHANIC AND DETERMINED TO BE RUNNING IN PROPER CONDITION PRIOR TO OPERATION.
- POST A SIGN THAT IS AT LEAST 32 SQUARE FEET MINIMUM 2 INCHES LETTER HEIGHT VISIBLE NEAR THE ENTRANCE OF CONSTRUCTION SITE THAT IDENTIFIES THE FOLLOWING REQUIREMENTS. OBTAIN ENCROACHMENT PERMIT FOR SIGN FROM ROADS DEPARTMENT OR OTHER APPLICABLE AGENCY IF REQUIRED.
- 15 MILES PER HOUR (MPH) SPEED LIMIT
- 5 MINUTES MAXIMUM IDLING TIME OF VEHICLES
- TELEPHONE NUMBER TO CONTACT THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT REGARDING DUST COMPLAINTS. NOTE PHONE NUMBER OF THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT AIR POLLUTION COMPLAIN HOTLINE OF 1-800-334-6367.
- ALL FILL SLOPES SHALL BE COMPACTED AND LEFT IN A SMOOTH AND FIRM CONDITION CAPABLE OF WITHSTANDING WEATHERING.
- ALL EXPOSED DISTURBED AREAS SHALL BE SEEDED WITH BROME SEED SPREAD AT THE RATE OF 5 LB. PER 1000 SQUARE FEET (OR APPROVED EQUAL). SEEDING AND WATERING SHALL BE MAINTAINED AS REQUIRED TO ENSURE GROWTH.
- ALL DITCHES SHALL BE LINED PER COUNTY STANDARD SDB.
- ALL STORM DRAINAGE STRUCTURES SHALL BE INSTALLED WITH EFFECTIVE ENTRANCE & OUTFALL EROSION CONTROLS E.G. SACKED CONCRETE RIP-RAP. ENERGY DISSIPATORS SHALL BE INSTALLED AT ALL DITCH OUTFALLS WHERE OUTFALLS ARE NOT INTO AN EXISTING CREEK OR WATER COURSE. RUNOFF SHALL BE RELEASED TO SHEET FLOW.
- PRIOR TO GRADING COMPLETION AND RELEASE OF THE BOND, ALL GRADED AREAS SHALL BE RESEEDED IN CONFORMANCE WITH THE COUNTY GRADING ORDINANCE TO MINIMIZE THE VISUAL IMPACTS OF THE GRADE SLOPES AND REDUCE THE POTENTIAL FOR EROSION OF THE SUBJECT SITE.
- PERMANENT LANDSCAPING SHOWN ON THE ATTACHED LANDSCAPE PLAN MUST BE INSTALLED AND FIELD APPROVED BY THE COUNTY PLANNING OFFICE PRIOR TO FINAL APPROVAL BY THE COUNTY ENGINEER, AND FINAL OCCUPANCY RELEASE BY THE BUILDING INSPECTION OFFICE.
- THE OWNER SHALL PREPARE AND PRESENT A WINTERIZATION REPORT TO THE COUNTY INSPECTOR FOR REVIEW PRIOR TO OCTOBER 15TH OF EVERY YEAR.
- THE OWNER, CONTRACTOR, AND ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES SHALL INSTALL AND MAINTAIN CONSTRUCTION BEST MANAGEMENT PRACTICES (BMPs) ON THE PROJECT SITE AND WITHIN THE SANTA CLARA COUNTY ROAD RIGHT-OF-WAY THROUGHOUT THE DURATION OF THE CONSTRUCTION AND UNTIL THE ESTABLISHMENT OF PERMANENT STABILIZATION AND SEDIMENT CONTROL TO PREVENT THE DISCHARGE OF POLLUTANTS INCLUDING SEDIMENT, CONSTRUCTION MATERIALS, EXCAVATED MATERIALS, AND WASTE INTO THE SANTA CLARA COUNTY RIGHT-OF-WAY, STORM SEWER WATERWAYS, ROADWAY INFRASTRUCTURE. BMPs SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - PREVENTION OF POLLUTANTS IN STORM WATER DISCHARGES FROM THE CONSTRUCTION SITE AND THE CONTRACTOR'S MATERIAL AND EQUIPMENT LAYDOWN / STAGING AREAS.
 - PREVENTION OF TRACKING OF MUD, DIRT, AND CONSTRUCTION MATERIALS ONTO THE PUBLIC ROAD RIGHT-OF-WAY.
 - PREVENTION OF DISCHARGE OF WATER RUN-OFF DURING DRY AND WET WEATHER CONDITIONS ONTO THE PUBLIC ROAD RIGHT-OF-WAY.
 - THE OWNER, CONTRACTOR, AND ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES SHALL ENSURE THAT ALL TEMPORARY CONSTRUCTION FACILITIES, INCLUDING BUT NOT LIMITED TO CONSTRUCTION MATERIALS, DELIVERIES, HAZARDOUS AND NON-HAZARDOUS MATERIAL STORAGE, EQUIPMENT, TOOLS, PORTABLE TOILETS, CONCRETE WASHOUT, GARBAGE CONTAINERS, LAYDOWN YARDS, SECONDARY CONTAINMENT AREAS, ETC. ARE LOCATED OUTSIDE THE SANTA CLARA COUNTY ROAD RIGHT-OF-WAY.
 - EROSION CONTROL PLAN IS A GUIDE AND SHALL BE AMENDED AS NECESSARY TO PREVENT EROSION AND ILLICIT DISCHARGES ON A YEAR AROUND BASIS, DEPENDING ON THE SEASON, WEATHER, AND FIELD CONDITIONS. EROSION CONTROL MEASURES IN ADDITION TO THOSE NOTED IN THE PERMITTED PLANS MAY BE NECESSARY. FAILURE TO INSTALL SITE AND SITUATIONALLY APPROPRIATE EROSION CONTROL MEASURES MAY RESULT IN VIOLATIONS, FINES, AND A STOPPAGE OF WORK.

NOTICE TO CONTRACTORS

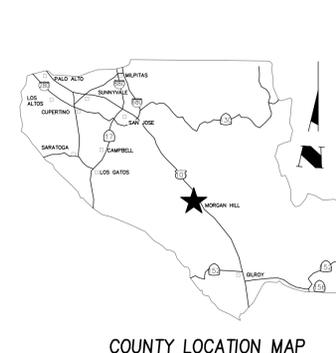
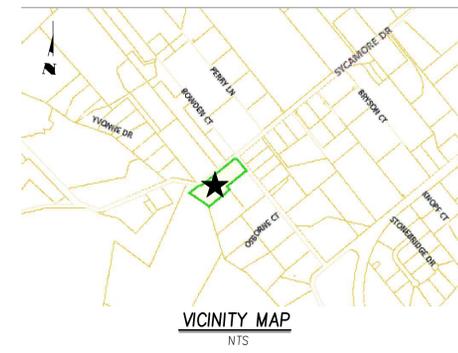
CONTRACTOR SHALL NOTIFY USA (UNDERGROUND SERVICE ALERT) AT 800-227-2600 A MINIMUM OF 24 HOURS OF THE LOCATION OF UNDERGROUND UTILITIES.

NOTE:

"ROADWAYS DESIGNATED AS NOT COUNTY MAINTAINED ROADS AS SHOWN UPON THIS MAP/PLAN WILL NOT BE ELIGIBLE FOR COUNTY MAINTENANCE UNTIL THE ROADWAYS ARE IMPROVED (AT NO COST TO THE COUNTY) TO PUBLIC MAINTENANCE ROAD STANDARDS APPROVED BY THE BOARD OF SUPERVISORS AND IN EFFECT AT SUCH TIME THAT THE ROADWAYS ARE CONSIDERED TO ACCEPTANCE INTO THE COUNTY'S ROAD SYSTEM."

SCOPE OF WORK

- THE DEVELOPER IS RESPONSIBLE FOR THE INSTALLATION OF THE WORK PROPOSED ON THE EROSION CONTROL PLAN. THE ENGINEER OF RECORD IS RESPONSIBLE FOR THE DESIGN OF THE EROSION CONTROL PLANS AND ANY MODIFICATIONS OF THE EROSION CONTROL PLANS TO PREVENT ILLICIT DISCHARGES FROM THE SITE DURING CONSTRUCTION.
- GRADE DRIVEWAY, BARN, SEPTIC SYSTEM AND DETACHED ADU



SURVEY MONUMENT PRESERVATION

- THE LANDOWNER / CONTRACTOR MUST PROTECT AND ENSURE THE PERPETUATION OF SURVEY MONUMENTS AFFECTED BY CONSTRUCTION ACTIVITIES.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE, STAKE, AND FLAG OR OTHERWISE IDENTIFY WITH PAINT OR OTHER MARKINGS ALL PERMANENT SURVEY MONUMENTS OF RECORD AND ANY UNRECORDED MONUMENTS THAT ARE DISCOVERED THAT ARE WITHIN 50 FEET OF THE CONSTRUCTION ACTIVITY.
- THE LANDOWNER, CONTRACTOR AND/OR ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES THAT WILL OR MAY DISTURB AN EXISTING MONUMENT, CORNER STAKE, OR ANY OTHER PERMANENT SURVEYED MONUMENT SHALL CAUSE TO HAVE A LICENSED LAND SURVEYOR OR CIVIL ENGINEER, AUTHORIZED TO PRACTICE SURVEYING, ENSURE THAT A CORNER RECORD AND/OR RECORD OF SURVEY ARE FILED WITH THE COUNTY SURVEYOR'S OFFICE PRIOR TO DISTURBING SAID MONUMENTS AND RESET PERMANENT MONUMENT(S) IN THE SURFACE OF THE NEW CONSTRUCTION OR SET A WITNESS MONUMENT(S) TO PERPETUATE THE LOCATION IF ANY PERMANENT MONUMENT COULD BE DESTROYED, DAMAGED, COVERED, DISTURBED, OR OTHERWISE OBLITERATED. THE LICENSED LAND SURVEYOR OR CIVIL ENGINEER SHALL FILE A CORNER RECORD OR RECORD OF SURVEY WITH COUNTY SURVEYOR PRIOR TO FINAL ACCEPTANCE OF THE PROJECT BY THE LAND DEVELOPMENT ENGINEERING INSPECTOR.

STORM DRAINAGE AND STORMWATER MANAGEMENT

- DEVELOPER IS RESPONSIBLE FOR ALL NECESSARY DRAINAGE FACILITIES WHETHER SHOWN ON THE PLANS OR NOT AND HE OR HIS SUCCESSOR PROPERTY OWNERS ARE RESPONSIBLE FOR THE ADEQUACY AND CONTINUED MAINTENANCE OF THESE FACILITIES IN A MANNER WHICH WILL PRECLUDE ANY HAZARD TO LIFE, HEALTH, OR DAMAGE TO ADJOINING PROPERTY, CONSISTENT WITH NPDES PERMIT CAS612008 / ORDER NO. R2-2009-0047 AND NPDES PERMIT CAS000004/ ORDER NO. 2013-0001-DW0.
- DROP INLETS SHALL BE COUNTY STANDARD TYPE 5 UNLESS OTHERWISE NOTED ON THE PLANS. THE DEVELOPER'S ENGINEER SHALL BE RESPONSIBLE FOR THE PROPER LOCATION OF DROP INLETS. WHERE STREET PROFILE GRADE EXCEEDS 6% DROP INLETS SHALL BE SET AT 500 ANGLE CURB LINE TO ACCEPT WATER OR AS SHOWN ON THE PLANS.
- WHERE CULVERTS ARE INSTALLED THE DEVELOPER SHALL BE RESPONSIBLE FOR GRADING THE OUTLET DITCH TO DRAIN TO AN EXISTING SWALE OR TO AN OPEN AREA FOR SHEET FLOW.
- UPON INSTALLATION OF DRIVEWAY CONNECTIONS, PROPERTY OWNERS SHALL PROVIDE FOR THE UNINTERRUPTED FLOW OF WATER IN ROADSIDE DITCHES.
- THE COUNTY SHALL INSPECT UNDERGROUND DRAINAGE IMPROVEMENTS AND STORMWATER MANAGEMENT FEATURES PRIOR TO BACKFILL.

AS-BUILT PLANS STATEMENT

THIS IS A TRUE COPY OF THE AS-BUILT PLANS. THERE (___) WERE (___) WERE NOT) MINOR FIELD CHANGES - MARKED WITH THE SYMBOL (*). THERE (___) WERE (___) WERE NOT) PLAN REVISIONS INDICATING SIGNIFICANT CHANGES REVIEWED BY THE COUNTY ENGINEER AND MARKED WITH THE SYMBOL Δ

DATE _____ SIGNATURE _____

NOTE: THIS STATEMENT IS TO BE SIGNED BY THE PERSON AUTHORIZED BY THE COUNTY ENGINEER TO PERFORM THE INSPECTION WORK. A REPRODUCIBLE COPY OF THE AS-BUILT PLANS MUST BE FURNISHED TO THE COUNTY ENGINEER AFTER CONSTRUCTION.

GEOTECHNICAL ENGINEER OBSERVATION

A CONSTRUCTION OBSERVATION LETTER FROM THE RESPONSIBLE GEOTECHNICAL ENGINEER AND ENGINEERING GEOLOGIST DETAILING CONSTRUCTION OBSERVATIONS AND CERTIFYING THAT THE WORK WAS DONE IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL AND GEOLOGIC REPORTS SHALL BE SUBMITTED PRIOR TO THE GRADING COMPLETION AND RELEASE OF THE BOND.

PROJECT NOTE

ALL GEOTECHNICAL ASPECTS OF THE CONSTRUCTION, INCLUDING EARTHWORK, BASEMENT AND SWIMMING POOL EXCAVATION, EXCAVATION OF DRILLED PIER AND SPREAD FOOTING FOUNDATIONS, PREPARATION OF SUBGRADE AND PLACEMENT OF NON-EXPANSIVE FILL BENEATH SLABS-ON-GRADE AND FLEXIBLE HARDSCAPES, RETAINING WALL BACKFILL, AND INSTALLATION OF SURFACE AND SUBSURFACE DRAINAGE SHOULD BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS BY GEOTECHNICAL ENGINEER. CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER AT LEAST 48 HOURS ADVANCE OF ANY GEOTECHNICAL OPERATIONS. THE GEOTECHNICAL ENGINEER SHOULD BE PRESENT TO OBSERVE AND/OR TEST AS NECESSARY THE EARTHWORK, FOUNDATION, AND DRAINAGE INSTALLATION PHASES OF THE PROJECT.

SHEET INDEX:

- SHEET 1: TITLE SHEET
- SHEET 2: OVERALL SITE PLAN
- SHEET 3: DEMOLITION PLAN
- SHEET 4: GRADING & DRAINAGE PLAN
- SHEET 5: CROSS SECTIONS
- SHEET 6: UTILITY PLAN
- SHEET 7: EROSION CONTROL PLAN
- SHEET 8: EROSION CONTROL DETAILS - 1
- SHEET 9: EROSION CONTROL DETAILS - 2

COUNTY OF SANTA CLARA DEPT. OF ROADS AND AIRPORTS
ISSUED BY: _____ DATE: _____
ENCROACHMENT PERMIT NO. _____

COUNTY OF SANTA CLARA
LAND DEVELOPMENT ENGINEERING & SURVEYING
GRADING / DRAINAGE PERMIT NO. _____
ISSUED BY: _____ DATE: _____

NO WORK SHALL BE DONE IN THE COUNTY'S RIGHT-OF-WAY WITHOUT AN ENCROACHMENT PERMIT, INCLUDING THE STAGING OF CONSTRUCTION MATERIAL AND THE PLACEMENT OF PORTABLE TOILETS.

ENGINEER'S STATEMENT

I HEREBY STATE THAT THESE PLANS ARE IN COMPLIANCE WITH ADOPTED COUNTY STANDARDS, THE APPROVED TENTATIVE MAP (OR PLAN) AND CONDITIONS OF APPROVAL PERTAINING THERETO DATED FILE(S) NO. _____

DATE _____ SIGNATURE _____ 47518 R.C.E. NO. _____

COUNTY ENGINEER'S NOTE

ISSUANCE OF A PERMIT AUTHORIZING CONSTRUCTION DOES NOT RELEASE THE DEVELOPER, PERMITTEE OF ENGINEER FROM RESPONSIBILITY FOR THE CORRECTION OF ERRORS OR OMISSIONS CONTAINED IN THE PLANS. IF, DURING THE COURSE OF CONSTRUCTION, THE PUBLIC INTEREST REQUIRES A MODIFICATION OF (OR DEPARTURE FROM) THE SPECIFICATIONS OF THE PLANS, THE COUNTY SHALL HAVE THE AUTHORITY TO REQUIRE THE SUSPENSION OF WORK, AND THE NECESSARY MODIFICATION OR DEPARTURE AND TO SPECIFY THE MANNER IN WHICH THE SAME IS TO BE MADE.

DATE _____ DARRELL WONG
63958 9/30/24
R.C.E. NO. EXPIRATION DATE

ENGINEERING

598 E Santa Clara St. #270
San Jose, CA 95112
Phone: (408) 606-7187

California

PROJECT NO.

TITLE SHEET

LANDS OF SILVA

15170 SYCAMORE DRIVE

APN 776-02-025

CONTRACT NO.

DRAWING NO.

SHT NO. 1 OF 9

FILE NO.

NO.

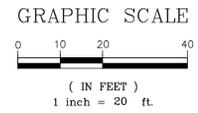
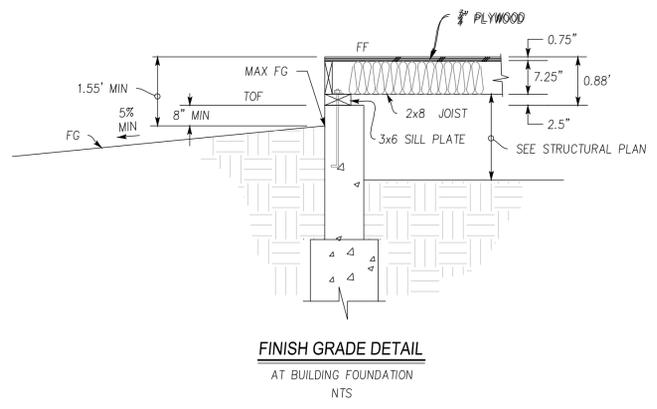
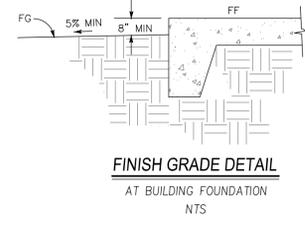
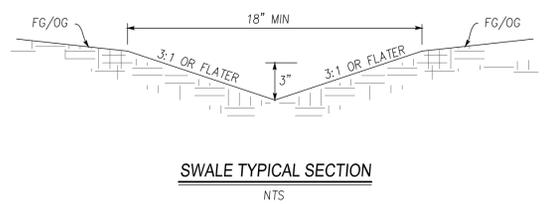
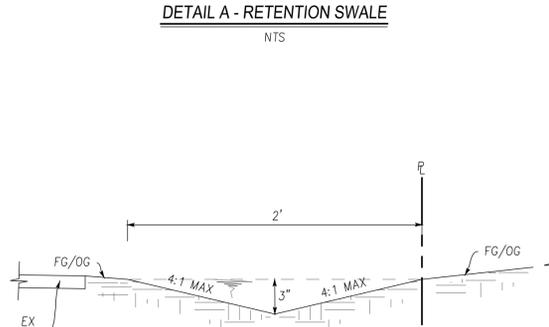
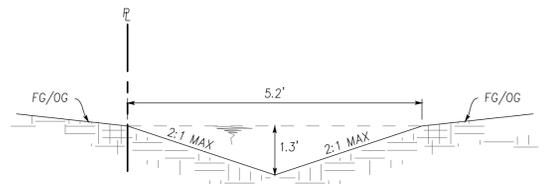
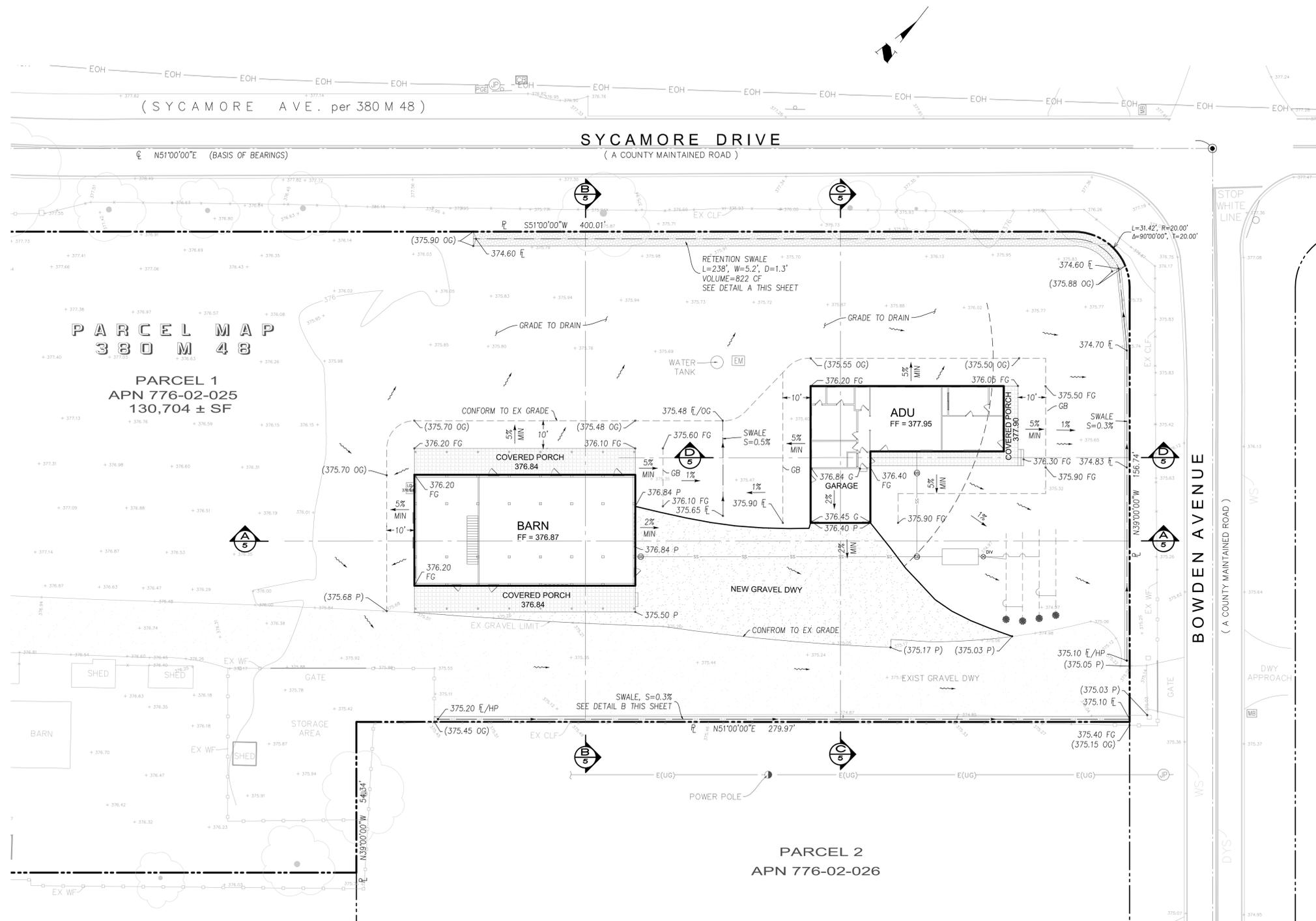
REVISIONS

APPRD

DATE

BY

DATE



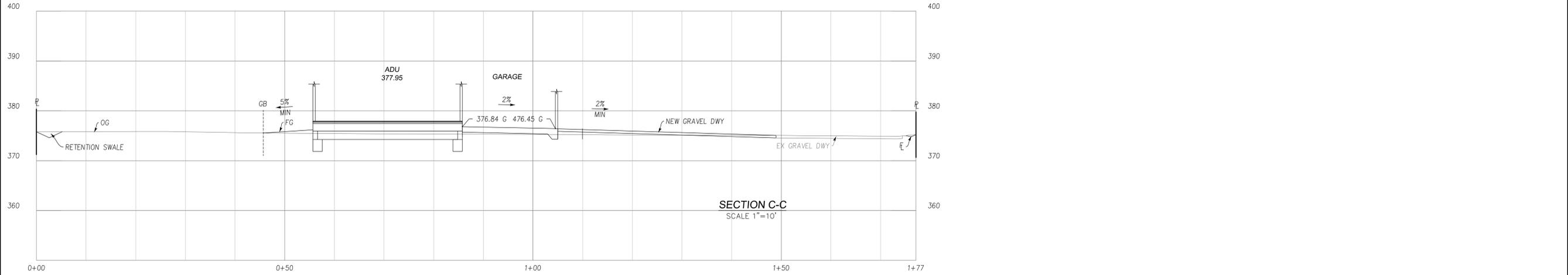
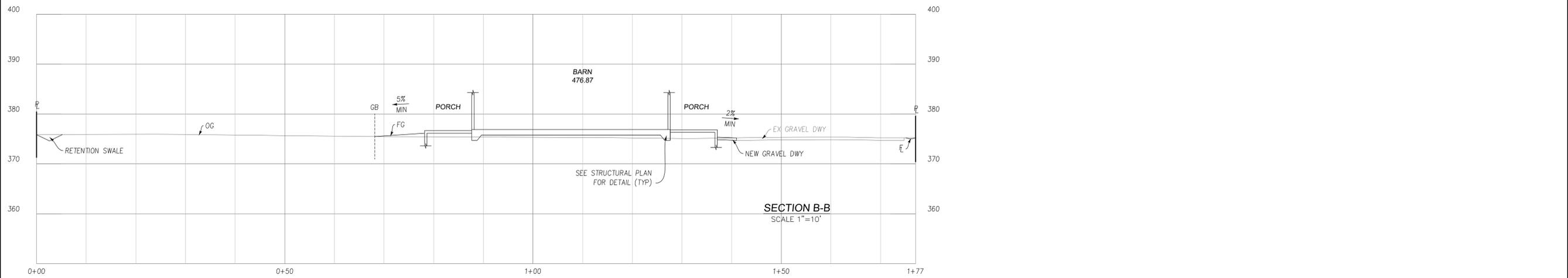
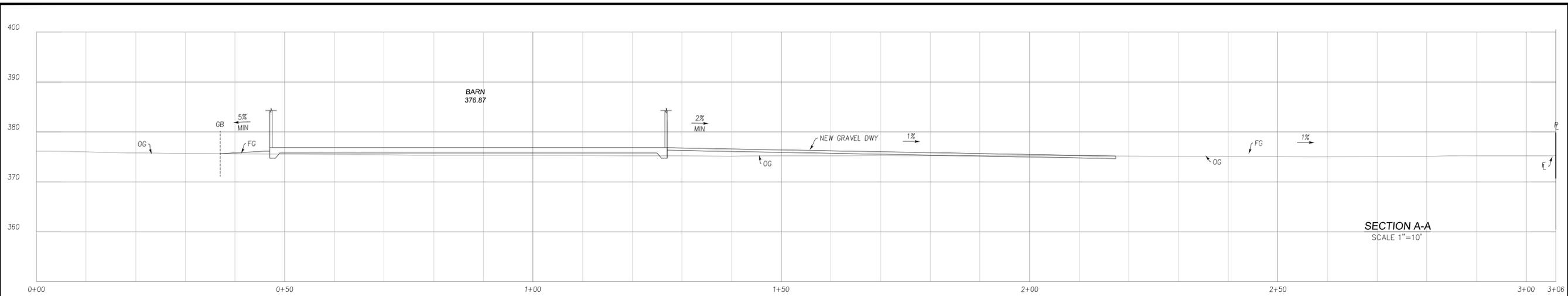
APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERS

DRAWING NO.	SHEET NO.	FILE NO.	CONTRACT NO.	PROJECT NO.	DATE	BY	DATE	APP'D	REVISIONS	NO.
					01/16/24		01/16/24			
DESIGNED		DRAWN		CHECKED		SCALE				
01/16/24		01/16/24		01/16/24		01/16/24				
ENGINEERING 598 E Santa Clara St. #270 San Jose, CA 95112 Phone: (408) 606-7187										
GRADING & DRAINAGE PLAN LANDS OF SILVA 15170 SYCAMORE DRIVE APN 776-02-025 California										
Morgan Hill										
4 of 9										

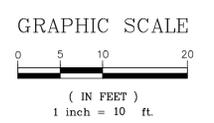
APPLICANT : SILVA

ROAD NAME : SYCAMORE DRIVE

CITY FILE NO : DEV22-2036

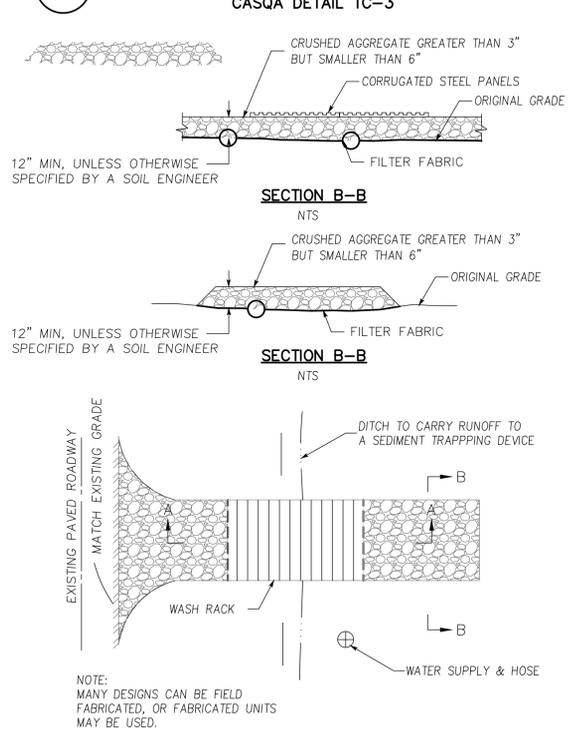


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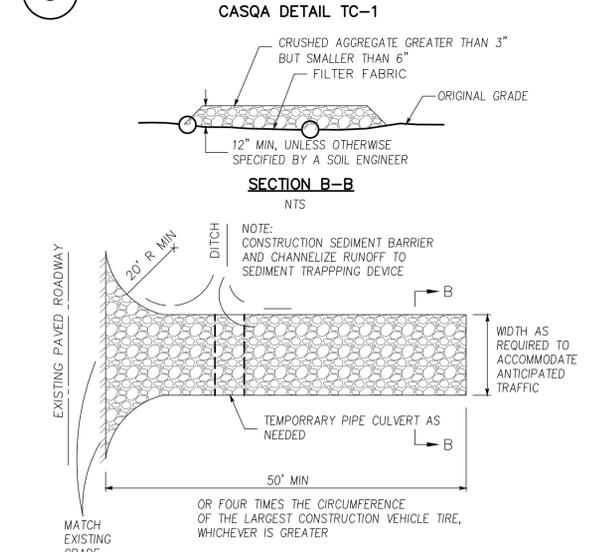


DRAWING NO. 5	SHT NO. 5 OF 9	FILE NO.	CONTRACT NO.	PROJECT NO.	California	BUILDING CROSS SECTIONS LANDS OF SILVA 15170 SYCAMORE DRIVE APN 776-02-025	ENGINEERING 598 E Santa Clara St. #270 San Jose, CA 95112 Phone: (408) 806-7187	DESIGNED	DATE	APPD	REVISIONS	NO.
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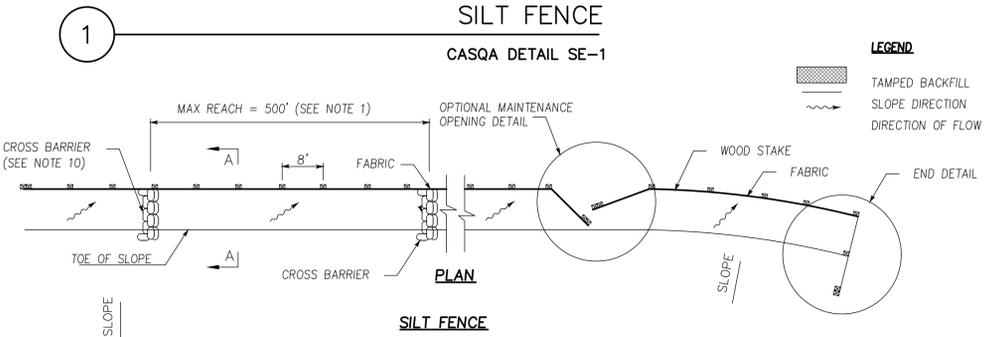
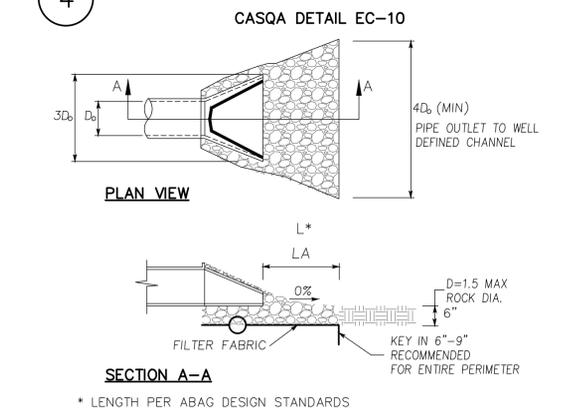
5 ENTRANCE/OUTLET TIRE WASH



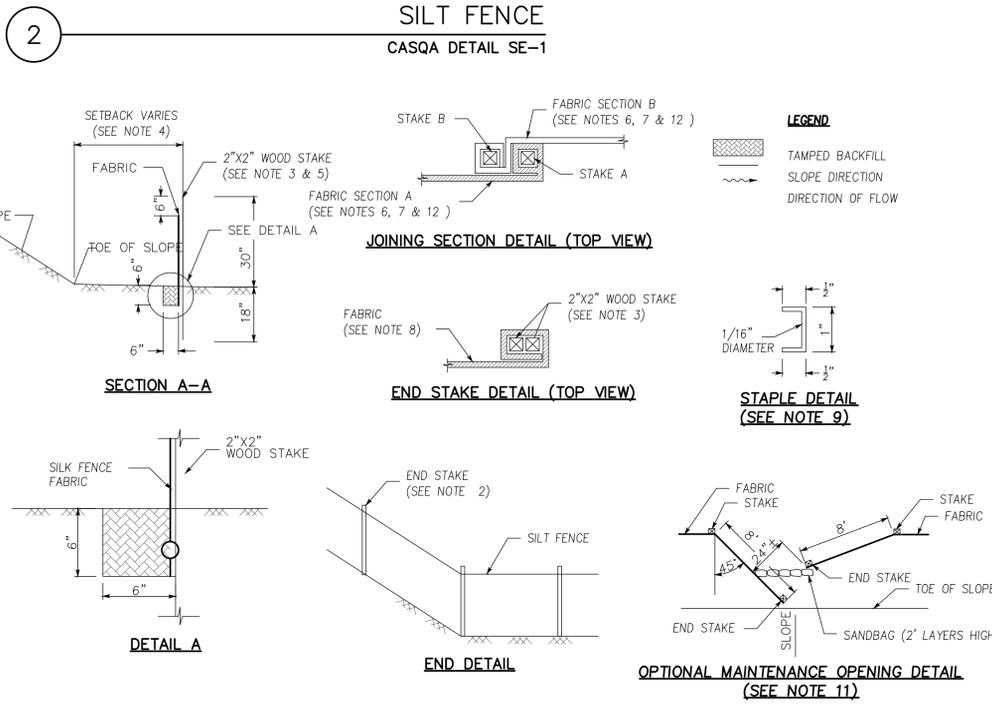
3 STABILIZED CONSTRUCTION ENTRANCE/EXIT



4 VELOCITY DISSIPATION DEVICES



- NOTES:**
- CONSTRUCTION LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED 1/3 THE HEIGHT OF THE LINEAR BARRIER, IN NO CASE SHALL THE REACH LENGTH EXCEED 500'
 - THE LAST 8'-0" AT FENCE SHALL BE TURNED UP SLOPE.
 - STAKE DIMENSIONS ARE NOMINAL.
 - DIMENSION MAY VARY TO FIT FIELD CONDITION.
 - STAKES SHALL BE SPACED AT 8'-0" MAXIMUM AND SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE.
 - STAKE SHALL BE OVERLAP DRIVEN TIGHTLY TOGETHER TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT. THE TOP OF STAKE SHALL BE SECURE WITH WIRE.
 - FOR END STAKE, FENCE FABRIC SHALL BE FOLDED AROUND TWO STAKES ONE FULL TURN AND SECURED WITH 4 STAPLES.
 - MINIMUM 4 STAPLES PER STAKE. DIMENSIONS SHOWN ARE TYPICAL.
 - CROSS BARRIERS SHALL BE A MINIMUM OF 1/3 A MAXIMUM AT 1/2 THE HEIGHT OF THE LINEAR BARRIER.
 - MAINTENANCE OPENINGS SHALL BE CONSTRUCTED IN A MANNER TO ENSURE SEDIMENT REMAINS BEHIND SILT FENCE.
 - JOINING SECTIONS SHALL NOT BE PLACED AT SUMP LOCATIONS.
 - SANDBAG ROWS AND LAYERS SHALL BE OFFSET TO ELIMINATE GAPS.



SOURCE FOR GRAPHICS: CALIFORNIA STORMWATER BMP HANDBOOK, CALIFORNIA STORMWATER QUALITY ASSOCIATION, JANUARY 2003. AVAILABLE FROM WWW.CASBMPHANDBOOKS.COM.

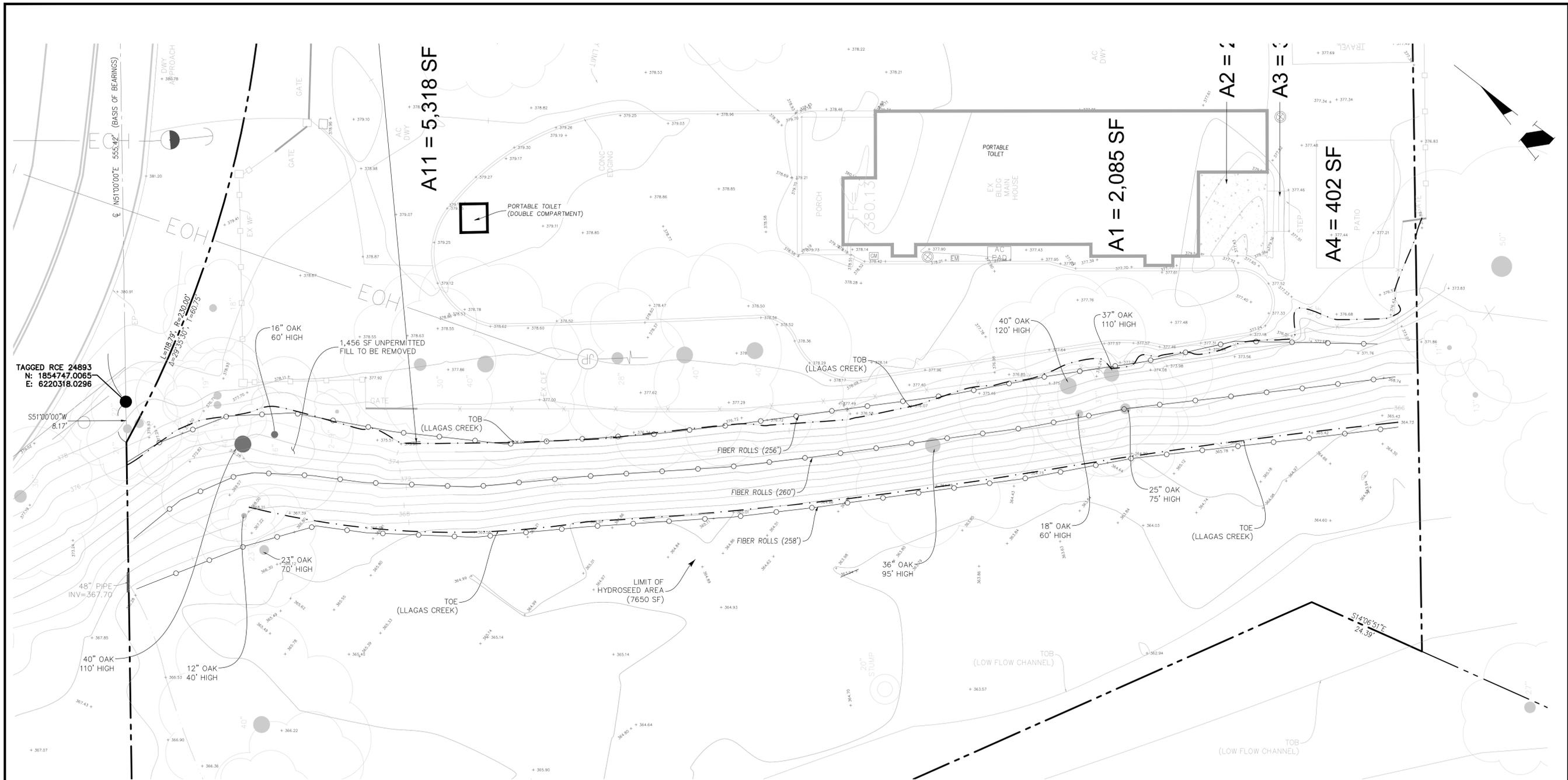
- STANDARD BEST MANAGEMENT PRACTICE NOTES**
- SOLID AND DEMOLITION WASTE MANAGEMENT: PROVIDE DESIGNATED WASTE COLLECTION AREAS AND CONTAINERS ON SITE AWAY FROM STREETS, GUTTERS, STORM DRAINS, AND WATERWAYS, AND ARRANGE FOR REGULAR DISPOSAL. WASTE CONTAINERS MUST BE WATERTIGHT AND COVERED AT ALL TIMES EXCEPT WHEN WASTE IS DEPOSITED. REFER TO EROSION & SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGE C3) OR LATEST. HAZARDOUS WASTE MANAGEMENT: PROVIDE PROPER HANDLING AND
 - DISPOSAL OF HAZARDOUS WASTES BY A LICENSED HAZARDOUS WASTE MATERIAL HAULER. HAZARDOUS WASTES SHALL BE STORED AND PROPERLY LABELED IN SEALED CONTAINERS CONSTRUCTED OF SUITABLE MATERIALS. REFER TO EROSION & SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-5 TO C-6) OR LATEST.
 - SPILL PREVENTION AND CONTROL: PROVIDE PROPER STORAGE AREAS FOR LIQUID AND SOLID MATERIALS, INCLUDING CHEMICALS AND HAZARDOUS SUBSTANCES, AWAY FROM STREETS, GUTTERS, STORM DRAINS, AND WATERWAYS. SPILL CONTROL MATERIALS MUST BE KEPT ON SITE WHERE READILY ACCESSIBLE. SPILLS MUST BE CLEANED UP IMMEDIATELY AND CONTAMINATED SOIL DISPOSED PROPERLY. REFER TO EROSION & SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-7 TO C-8, C-13 TO C-14) OR LATEST. VEHICLE AND CONSTRUCTION EQUIPMENT SERVICE AND STORAGE:
 - AN AREA SHALL BE DESIGNATED FOR THE MAINTENANCE, WHERE ON-SITE MAINTENANCE IS REQUIRED, AND STORAGE OF EQUIPMENT THAT IS PROTECTED FROM STORMWATER RUN-ON AND RUNOFF. MEASURES SHALL BE PROVIDED TO CAPTURE ANY WASTE OILS, LUBRICANTS, OR OTHER POTENTIAL POLLUTANTS AND THESE WASTES SHALL BE PROPERLY DISPOSED OF OFF SITE. FUELING AND MAJOR MAINTENANCE/REPAIR, AND WASHING SHALL BE CONDUCTED OFF-SITE WHENEVER FEASIBLE. REFER TO EROSION & SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGE C9) OR LATEST.
 - MATERIAL DELIVERY, HANDLING AND STORAGE: IN GENERAL, MATERIALS SHOULD NOT BE STOCKPILED ON SITE. WHERE TEMPORARY STOCKPILES ARE NECESSARY AND APPROVED BY THE COUNTY, THEY SHALL BE COVERED WITH SECURED PLASTIC SHEETING OR TARP AND LOCATED IN DESIGNATED AREAS NEAR CONSTRUCTION ENTRANCES AND AWAY FROM DRAINAGE PATHS AND WATERWAYS. BARRIERS SHALL BE PROVIDED AROUND STORAGE AREAS WHERE MATERIALS ARE POTENTIALLY IN CONTACT WITH RUNOFF. REFER TO EROSION & SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-11 TO C-12) OR LATEST.
 - HANDLING AND DISPOSAL OF CONCRETE AND CEMENT: WHEN CONCRETE TRUCKS AND EQUIPMENT ARE WASHED ON-SITE, CONCRETE WASTEWATER SHALL BE CONTAINED IN DESIGNATED CONTAINERS OR IN A TEMPORARY LINED AND WATERTIGHT PIT WHERE WASTED CONCRETE CAN HARDEN FOR LATER REMOVAL. IF POSSIBLE HAVE CONCRETE CONTRACTOR REMOVE CONCRETE WASH WATER FROM SITE. IN NO CASE SHALL FRESH CONCRETE BE WASHED INTO THE ROAD RIGHT-OF-WAY. REFER TO EROSION & SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-15 TO C-16) OR LATEST.
 - PAVEMENT CONSTRUCTION MANAGEMENT: PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS FROM PAVING OPERATIONS, USING MEASURES TO PREVENT RUN-ON AND RUNOFF POLLUTION AND PROPERLY DISPOSING OF WASTES. AVOID PAVING IN THE WET SEASON AND RESCHEDULE PAVING WHEN RAIN IS IN THE FORECAST. RESIDUE FROM SAW-CUTTING SHALL BE VACUUMED FOR PROPER DISPOSAL. REFER TO EROSION & SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-17 TO C-18) OR LATEST.
 - CONTAMINATED SOIL AND WATER MANAGEMENT: INSPECTIONS TO IDENTIFY CONTAMINATED SOILS SHOULD OCCUR PRIOR TO CONSTRUCTION AND AT REGULAR INTERVALS DURING CONSTRUCTION. REMEDIATING CONTAMINATED SOIL SHOULD OCCUR PROMPTLY AFTER IDENTIFICATION AND BE SPECIFIC TO THE CONTAMINANT IDENTIFIED, WHICH MAY INCLUDE HAZARDOUS WASTE REMOVAL. REFER TO EROSION & SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-19 TO C-20) OR LATEST.
 - SANITARY/SEPTIC WATER MANAGEMENT: TEMPORARY SANITARY FACILITIES SHOULD BE LOCATED AWAY FROM DRAINAGE PATHS, WATERWAYS, AND TRAFFIC AREAS. ONLY LICENSED SANITARY AND SEPTIC WASTE HAULERS SHOULD BE USED. SECONDARY CONTAINMENT SHOULD BE PROVIDED FOR ALL SANITARY FACILITIES. REFER TO EROSION & SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGE C-21) OR LATEST.
 - INSPECTION & MAINTENANCE: AREAS OF MATERIAL AND EQUIPMENT STORAGE SITES AND TEMPORARY SANITARY FACILITIES MUST BE INSPECTED WEEKLY. PROBLEM AREAS SHALL BE IDENTIFIED AND APPROPRIATE ADDITIONAL AND/OR ALTERNATIVE CONTROL MEASURES IMPLEMENTED IMMEDIATELY, WITHIN 24 HOURS OF THE PROBLEM BEING IDENTIFIED.
- STANDARD EROSION CONTROL NOTES**
- SEDIMENT CONTROL MANAGEMENT: TRACKING PREVENTION & CLEAN UP: ACTIVITIES SHALL BE ORGANIZED AND MEASURES TAKEN AS NEEDED TO PREVENT OR MINIMIZE TRACKING OF SOIL ONTO THE PUBLIC STREET SYSTEM. A GRAVEL OR PROPRIETARY DEVICE CONSTRUCTION ENTRANCE/EXIT IS REQUIRED FOR ALL SITES. CLEAN UP OF TRACKED MATERIAL SHALL BE PROVIDED BY MEANS OF A STREET SWEEPER PRIOR TO AN APPROACHING RAIN EVENT, OR AT LEAST ONCE AT THE END OF EACH WORKDAY THAT MATERIAL IS TRACKED, OR, MORE FREQUENTLY AS DETERMINED BY THE COUNTY INSPECTOR. REFER TO EROSION & SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES B-31 TO B-33) OR LATEST.
 - STORM DRAIN INLET AND CATCH BASIN INLET PROTECTION: ALL INLETS WITHIN THE VICINITY OF THE PROJECT AND WITHIN THE PROJECT LIMITS SHALL BE PROTECTED WITH GRAVEL BAGS PLACED AROUND INLETS OR OTHER INLET PROTECTION. AT LOCATIONS WHERE EXPOSED SOILS ARE PRESENT, STAKED FIBER ROLLS OR STAKED SILT FENCES CAN BE USED. INLET FILTERS ARE NOT ALLOWED DUE TO CLOGGING AND SUBSEQUENT FLOODING. REFER TO EROSION & SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES B-49 TO B-51) OR LATEST. STORM WATER RUNOFF: NO STORM WATER RUNOFF SHALL BE ALLOWED TO DRAIN IN TO THE EXISTING AND/OR PROPOSED UNDERGROUND STORM DRAIN SYSTEM OR OTHER ABOVE GROUND WATERCOURSES UNTIL APPROPRIATE EROSION CONTROL MEASURES ARE FULLY INSTALLED. DUST CONTROL: THE CONTRACTOR SHALL PROVIDE DUST CONTROL IN GRADED AREAS AS REQUIRED BY PROVIDING WET SUPPRESSION OR CHEMICAL STABILIZATION OF EXPOSED SOILS, PROVIDING FOR RAPID CLEAN UP OF SEDIMENTS DEPOSITED ON PAVED ROADS, FURNISHING CONSTRUCTION ROAD ENTRANCES AND VEHICLE WASH DOWN AREAS, AND LIMITING THE AMOUNT OF AREAS DISTURBED BY CLEARING AND EARTH MOVING OPERATIONS BY SCHEDULING THESE ACTIVITIES IN PHASES. STOCKPILING: EXCAVATED SOILS SHALL NOT BE PLACED IN STREETS OR ON PAVED AREAS. BORROW AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES (TARPS, STRAW BALES, SILT FENCES, ECT.) TO ENSURE SILT DOES NOT LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM OR NEIGHBORING WATERCOURSE.
 - EROSION CONTROL: DURING THE RAINY SEASON, ALL DISTURBED AREAS MUST INCLUDE AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROL. IT IS REQUIRED THAT TEMPORARY EROSION CONTROL MEASURES ARE APPLIED TO ALL DISTURBED SOIL AREAS PRIOR TO A RAIN EVENT. DURING THE NON-RAINY SEASON, EROSION CONTROL MEASURES MUST BE APPLIED SUFFICIENT TO CONTROL WIND EROSION AT THE SITE.
 - INSPECTION & MAINTENANCE: DISTURBED AREAS OF THE PROJECT'S SITE, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND ALL EROSION AND SEDIMENT CONTROLS THAT ARE IDENTIFIED AS PART OF THE EROSION CONTROL PLANS MUST BE INSPECTED BY THE CONTRACTOR BEFORE, DURING, AND AFTER STORM EVENTS, AND AT LEAST WEEKLY DURING SEASONAL WET PERIODS. PROBLEM AREAS SHALL BE IDENTIFIED AND APPROPRIATE ADDITIONAL AND/OR ALTERNATIVE CONTROL MEASURES IMPLEMENTED IMMEDIATELY, WITHIN 24 HOURS OF THE PROBLEM BEING IDENTIFIED.
 - PROJECT COMPLETION: PRIOR TO PROJECT COMPLETION AND SIGNOFF BY THE COUNTY INSPECTOR, ALL DISTURBED AREAS SHALL BE RESEED, PLANTED, OR LANDSCAPED TO MINIMIZE THE POTENTIAL FOR EROSION ON THE SUBJECT SITE.
 - IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THE EROSION CONTROL PLAN.
 - EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SHALL BE OPERABLE YEAR ROUND OR UNTIL VEGETATION IS FULLY ESTABLISHED ON LANDSCAPED SURFACES.
 - GRADING WORK BETWEEN OCTOBER 15 AND APRIL 15 IS AT THE DISCRETION OF SANTA CLARA COUNTY BUILDING OFFICIAL.
 - EXPOSED SLOPE SHALL BE PROTECTED WITH JUTE NET AND/OR HYDROSEED. HYDROSEED SHALL BE A HOMOGENEOUS MIX OF SLURRY CONTAINING NOT LESS THAN 44 LBS ORGANIC MULCHING AMENDMENT PLUS FERTILIZER, CHEMICAL ADDITIVES AND SOILS FOR EACH 100 GALLONS OF WATER.

Best Management Practices and Erosion Control Details Sheet 1
County of Santa Clara

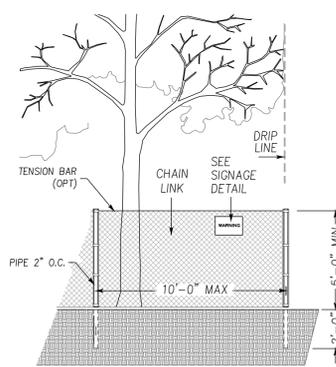


APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERS

DRAWING NO.	8	SHT NO.	8	FILE NO.	Morgan Hill	CONTRACT NO.	PROJECT NO.	California	EROSION CONTROL DETAILS LANDS OF SILVA 15170 SYCAMORE DRIVE APN 776-02-025	ENGINEERING 598 E Santa Clara St. #270 San Jose, CA 95112 Phone: (408) 806-7187	DESIGNED	DATE	BY	DATE	APPROVED	DATE	REVISIONS	NO.
											DRAWN	DATE	CHECKED	DATE	BY	DATE		



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 N: 1854747.0065
 E: 6220316.0296



EXISTING TREE PROTECTION DETAIL

1. PRIOR TO THE COMMENCEMENT OF ANY GRADING, TREE PROTECTIVE FENCING SHALL BE IN PLACE IN ACCORDANCE WITH THE TREE PRESERVATION PLAN AND INSPECTED BY A CERTIFIED ARBORIST. THE ARBORIST SHALL MONITOR CONSTRUCTION ACTIVITY TO ENSURE THAT THE TREE PROTECTION MEASURES ARE IMPLEMENTED AND ADHERED TO DURING CONSTRUCTION. THIS CONDITION SHALL BE INCORPORATED INTO THE GRADING PLANS.
2. FENCE SHALL BE MINIMUM 5 FEET TALL CONSTRUCTED OF STURDY MATERIAL (CHAIN-LINK OR EQUIVALENT STRENGTH/DURABILITY).
3. FENCE SHALL BE SUPPORTED BY VERTICAL POSTS DRIVEN 2 FEET (MIN) INTO THE GROUND AND SPACED NOT MORE THAN 10 FEET APART.
4. TREE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE DURING THE CONSTRUCTION PERIOD, INSPECTED PERIODICALLY FOR DAMAGE AND PROPER FUNCTION, REPAIRED AS NECESSARY TO PROVIDE A PHYSICAL BARRIER FROM CONSTRUCTION ACTIVITIES, AND REMAIN IN PLACE UNTIL THE FINAL INSPECTION.
5. A SIGN THAT INCLUDES THE WORDS, "WARNING: THIS FENCE SHALL NOT BE REMOVED WITHOUT THE EXPRESSED PERMISSION OF THE SANTA CLARA COUNTY PLANNING OFFICE," SHALL BE SECURELY ATTACHED TO THE FENCE IN A VISUALLY PROMINENT LOCATION.

LEGEND

- 1,456 SF UNPERMITTED FILL TO BE REMOVED
- POST-VIOLATION
- PRE-VIOLATION
- DESCRIPTION
- 40' CONTOUR LINE

NOTES:

1. EXPOSED SLOPE SHALL BE PROTECTED WITH JUTE NET AND/OR HYDROSEED. HYDROSEED SHALL BE A HOMOGENEOUSLY MIX OF SLURRY CONTAINING NOT LESS THAN 44 LBS ORGANIC MULCHING AMENDMENT PLUS FERTILIZER, CHEMICAL ADDITIVES AND SOILS FOR EACH 100 GALLONS OF WATER.

DISTURBED AREAS

NO.	DESCRIPTION	AREA (SQUARE FEET)
1.	TEMPORARY	7,650
	TOTAL AREA	7,650

APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERS



		598 E Santa Clara St. #270 San Jose, CA 95112 Phone: (408) 606-7187
EROSION CONTROL PLAN LANDS OF SILVA 15170 SYCAMORE DRIVE APN 776-02-025	California Morgan Hill	PROJECT NO. CONTRACT NO.
DRAWING NO. C6 SHT NO. 6 OF 9	DATE 01/16/24	REVISIONS NO.

LEGEND & ABBREVIATIONS

AC	ASPHALT CONCRETE	MIN	MINIMUM	BENCHMARK
BSL	BUILDING	N&S	NAIL AND SILVER	BOUNDARY
BLD	BUILDING SETBACK LINE	NTS	NOT TO SCALE	CATCH BASIN
CG	CURB & GUTTER	OH	OVERHEAD	CLF FENCE
C	CENTERLINE	OG	ORIGINAL GROUND	DESIGN GRADE
CLF	CHAIN LINK FENCE	P	PAVEMENT FINISH GRADE	DIVERSION VALVE
CO	SANITARY SEWER CLEANOUT	PAD	PAD ELEVATION	BACKWATER VALVE
CONC	CONCRETE	P	PROPERTY LINE	DRAINAGE SWALE
CSD	COUNTY STANDARD DETAIL	PP	POWER POLE PROP PROPOSED	EASEMENT LINE
DWY	DRIVEWAY	PVC	POLYVINYL CHLORIDE	EXISTING ELEVATION
EA	EASEMENT	R	RADIUS	EXISTING TREE TO BE REMOVED
ELEV	ELEVATION	R/W	RIGHT OF WAY	EXISTING TREE TO REMAIN
EM	ELECTRIC METER	SS	SANITARY SEWER/LATERAL	FOUND IRON PIPE AT PROPERTY CORNER
E(OH)	ELECTRIC OVERHEAD	SP	SOIL PROFILE	ELECTRIC METER
E(UC)	ELECTRIC UNDERGROUND	STA	STATION	GRADE TO DRAIN
EP	EDGE OF PAVEMENT	SW	SIDEWALK	GUY POLE
EX	EXISTING	TB	TOP OF BANK	HIGH POINT
FC	FACE OF CURB	TC	TOP OF CURB	JOINT POLE
FD	FOUND	TEMP	TEMPORARY	PVC SOLID PIPE (PVC SCH40 OR SDR26)
FF	FINISH ELEVATION OF SUBFLOOR	TOC	TOP OF COVER	4" PVC PERFORATED PIPE (SDR35)
FG	GROUND FINISH GRADE	TOE	TOE OF BANK	POPOVER
FL	FLOW LINE	TG	TOP OF GRATE	SANITARY SEWER CLEAN OUT
G	GARAGE SLAB ELEVATION/GAS LINE	TYP	TYPICAL	SOIL PROFILE
GPE	GENERAL PUBLIC EASEMENT	W	WATER	TEST PIT
CSB	GRADING SETBACK	WLK	WALKWAY	UTILITY: EXISTING
GM	GAS METER	WM	WOOD FENCE	UTILITY: PROPOSED OR NEW
HP	HI POINT	WM	WATER METER	
INV	INVERT			
LIP	LIP OF GUTTER			
LS	LANDSCAPED AREA			
LSB	LEACH FIELD SETBACK			
MAX	MAXIMUM			
MH	MANHOLE			

DISPERSAL TRENCH LENGTH CALCULATIONS

REFERENCE
SANTA CLARA COUNTY ONSITE
SYSTEM MANUAL (OSM), MAY 2014

WASTEWATER DESIGN FLOW (WWDF)
ACCESSORY DWELLING UNIT NO. BEDROOM = 2
FROM TABLE 3-1 OSM
3 BEDROOM ADU = 300 GAL/DAY
WWDF = 300 GAL/DAY

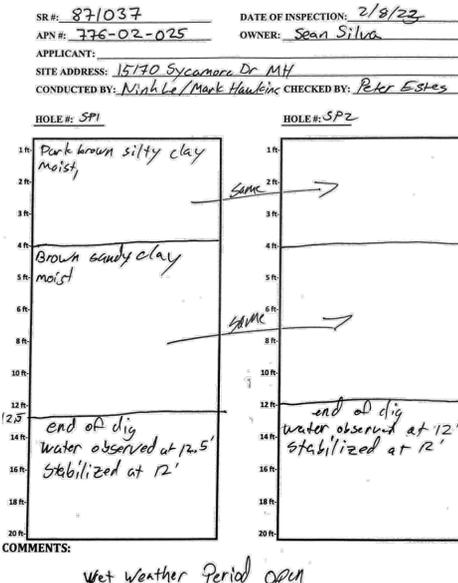
STANDARD WASTEWATER APPLICATION RATES (SWAR)
AVERAGE ADJUSTED PERCOLATION RATE = 7.26 MPI
FROM TABLE 1 OSM WITH 8 MPI:
SWAR = 0.96

TRENCH LENGTH CALCULATIONS
 $L = \frac{Q}{A \times R}$
L = TRENCH LENGTH;
Q = DESIGN WASTEWATER FLOW (GPD)
R = SWAR (GPD/SF)
A = TOTAL INFILTRATIVE AREA PER
LINEAL FOOT OF TRENCH (SF)

WITH LEACHFIELD AREA GROUND SLOPE < 20% &
SOIL PERCOLATION RATE BETWEEN 5 AND 60 MPI
USE INFILTRATIVE SURFACE OF 5 SF

$L = \frac{300}{(0.96)5} = 62.5'$; USE 63'

**SOIL PROFILE RESULTS
CONVENTIONAL SYSTEMS**



County of Santa Clara - Department of Environmental Health
SOIL PERCOLATION TEST RECORDED MEASUREMENTS

HOLE #	DEPTH (ft)	START TIME	FINISH TIME	START WATER LEVEL (ft)	FINISH WATER LEVEL (ft)	AMIN	AMAX	AV	REMARKS
HOLE #1	12"	11:58	12:05	11.0	10.5	10.5	11.0	10.75	4.69 MPI
	18"	12:05	12:15	10.5	10.0	10.0	10.5	10.25	7.15 MPI
HOLE #2	12"	12:15	12:25	11.0	10.5	10.5	11.0	10.75	4.59 MPI
	18"	12:25	12:35	10.5	10.0	10.0	10.5	10.25	5.77 MPI
HOLE #3	12"	12:35	12:45	11.0	10.5	10.5	11.0	10.75	4.74 MPI
	18"	12:45	12:55	10.5	10.0	10.0	10.5	10.25	4.19 MPI

Summary: HOLE #1 AV=4.69 MPI, HOLE #2 AV=7.15 MPI, HOLE #3 AV=4.59 MPI, HOLE #4 AV=5.77 MPI, HOLE #5 AV=4.74 MPI, HOLE #6 AV=4.19 MPI

***TABLE 3-1
WASTEWATER DESIGN FLOWS FOR SINGLE
FAMILY RESIDENCES AND SECOND UNITS**

No. of Bedrooms	Design Flow (gal/day)
1	150
2	300
3	450
4	525
5	600
6	675
>6	+75 per bedroom

***TABLE 1. STANDARD WASTEWATER
APPLICATION RATES-SEPTIC TANK
EFFLUENT**

Percolation Rate (MPI)	Application Rate (gdp/ft ²)
7	1.04
8	0.96

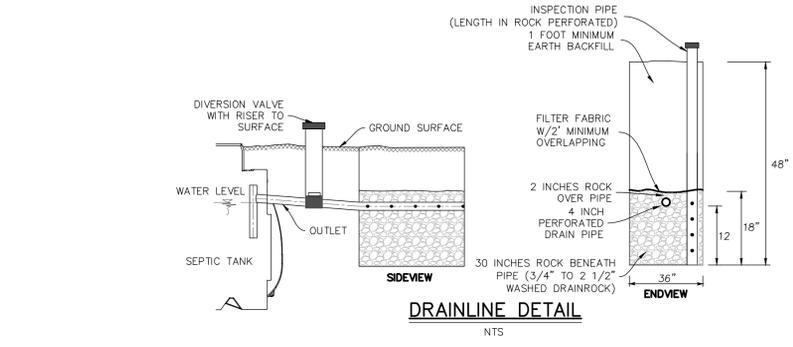
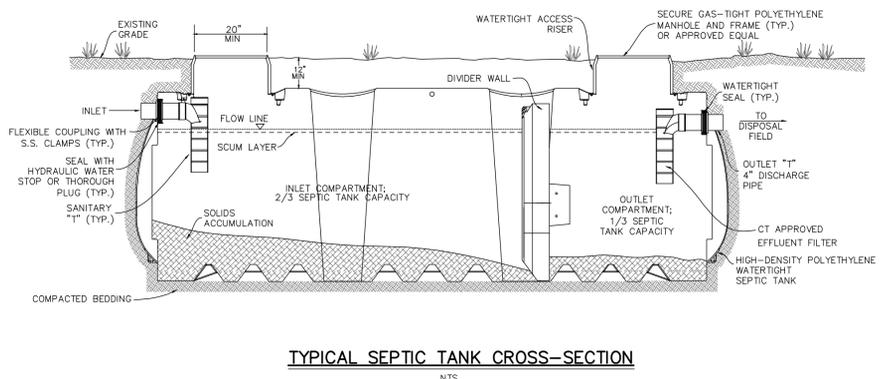
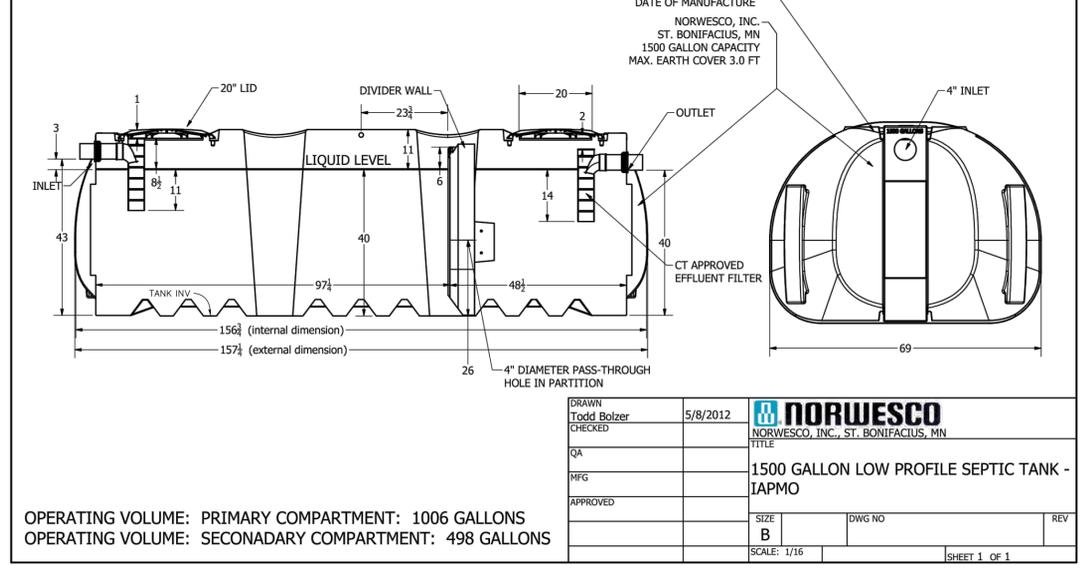


TABLE 3-4. CONVENTIONAL OWTs DISPERSAL TRENCH DESIGN

PARAMETER	REQUIREMENT
Trench length	Determined based on design flow and percolation rate; see below
Trench width	18 inches minimum; 36 inches maximum
Trench depth	2.5 feet minimum; 8 feet maximum
Minimum cover over rock, in inches*	12 inches
Depth of rock under pipe (minimum)*	12 inches
Depth of rock over pipe (minimum)*	2 inches
Size of rock *	3/4 to 2 1/2 inches
Spacing of trenches, center to center, in feet, minimum	2 times the depth of rock below pipe; 6 feet minimum, plus 1-foot additional spacing for every 5% increase in dispersal area ground slope above 20%



**MATERIAL: HIGH-DENSITY POLYETHYLENE
WALL THICKNESS: TANK WALL - .250"
DIVIDER WALL - .19"**



SEPTIC SYSTEM CONSTRUCTION NOTES

- A. PROJECT REQUIREMENTS**
- SYSTEM TO SERVE A NEW 2 BEDROOM ACCESSORY DWELLING UNIT (ADU) AND A NEW BARN. INSTALLATION OF SYSTEM TO CONFORM TO SANTA CLARA COUNTY SEWAGE DISPOSAL ORDINANCE. CALL SANTA CLARA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH 24 HOURS MIN. PRIOR TO START OF WORK AT (408)-918-3400.
 - SEWAGE DISPOSAL SYSTEM CONSISTS OF ONE 1,500 GALLON SEPTIC TANKS WITH WATERTIGHT ACCESS RISERS TO GRADE; A BULL-RUN DIVERSION VALVE; AND ONE 63 LF X ONE 63 LF DISPERSAL FIELD OF 36" WIDE BY 12" DEEP DRAINROCK BED WITH INSPECTION RISERS TO GRADE. THE DISPERSAL FIELDS SHALL BE INTERCONNECTED WITH A DIVERSION VALVE. THE VALVE MUST BE CAPABLE OF DIRECTING THE SEPTIC TANK EFFLUENT TO ONE DISPERSAL FIELD AT A TIME.
 - GROUND SLOPE OF DISPERSAL FIELD #1 & DISPERSAL FIELD #2 IS APPROXIMATELY 1%. DISPERSAL FIELDS SHALL BE INSTALLED LEVEL AND ON CONTOURS AS SHOWN ON PLAN. EXCESS SOIL FROM LEACHFIELD CONSTRUCTION SHALL BE SPREAD ON SITE AT A DEPTH OF 8" MAX OR BE REMOVED OFF-SITE.
 - THE DIVERSION VALVE SHALL BE OPERATED ANNUALLY TO ROTATE THE USE OF DISPERSAL FIELDS TO EXTEND THE LIFE OF THE SEPTIC SYSTEM.
 - MARK CAPS OF ALL BULL RUN VALVES (DV) AND RISERS (R) WITH A PERMANENT MARKER OR LABEL.
 - SWIMMING POOLS OR SPAS MUST NOT BE DRAINED OR BACKWASHED INTO THE SEPTIC SYSTEM.
 - AVOID PLANTING TREES IN DISPERSAL FIELD OR CLOSE TO SEPTIC TANK.
 - GARBAGE DISPOSAL IS NOT RECOMMENDED. IF THEY ARE INSTALLED, THEY SHOULD BE USED SPARINGLY OR NOT AT ALL.
 - THE SOLIDS THAT ACCUMULATE IN THE SEPTIC TANK SHOULD BE REMOVED BY PUMPING EVERY 3-5 YEARS TO PREVENT SOLIDS FROM ENTERING AND CLOGGING THE DISPERSAL FIELD.
 - ALL WORK TO BE PERFORMED BY AN APPROPRIATELY LICENSED CONTRACTOR.
 - PRIOR TO STARTING CONSTRUCTION, CONTRACTOR SHALL CONTACT USA AT 1-800-227-2600 TO LOCATE ALL UNDERGROUND UTILITIES.

- B. SEPTIC TANK REQUIREMENTS**
- MINIMUM CAPACITY. SEPTIC TANKS MUST HAVE A MINIMUM CAPACITY OF ONE THOUSAND (1,500) GALLONS OR TWICE THE PEAK DAILY WASTEWATER FLOW FOR THE FACILITY SERVED, WHICHEVER IS GREATER. MINIMUM SEPTIC TANK CAPACITY FOR ASSISTED CARE FACILITIES SHALL BE EQUAL TO THREE TIMES THE PEAK DAILY WASTEWATER FLOW.
 - TWO COMPARTMENTS. SEPTIC TANKS MUST BE OF TWO-COMPARTMENT CONSTRUCTION, WITH THE FIRST COMPARTMENT EQUAL TO TWO-THIRDS THE TOTAL TANK VOLUME. THE COMPARTMENTS MUST BE SEPARATED BY A Baffle OR EQUIVALENT ARRANGEMENT.
 - MATERIALS. SEPTIC TANKS MUST BE WATERTIGHT, PROPERLY VENTED AND CONSTRUCTED OF REINFORCED CONCRETE, HEAVYWEIGHT REINFORCED CONCRETE BLOCKS, FIBERGLASS OR OTHER DURABLE, NON-CORRODIBLE MATERIALS AS APPROVED BY THE DIRECTOR. SEPTIC TANKS SHALL BE DESIGNED TO WITHSTAND ANY ANTICIPATED WEIGHT PLACED ABOVE IT. ALL SEPTIC TANKS SHALL BE LISTED AND APPROVED BY IAPMO OR AN ANSI ACCREDITED TESTING ORGANIZATION; EXCEPTION TO THIS REQUIREMENT MAY BE GRANTED WHERE STRUCTURAL DESIGN CALCULATIONS FOR THE SEPTIC TANK ARE PROVIDED BY A CALIFORNIA REGISTERED CIVIL ENGINEER.
 - ACCESS OPENINGS. ACCESS TO EACH SEPTIC TANK COMPARTMENT MUST BE PROVIDED BY A MANHOLE OPENING AT LEAST TWENTY INCHES IN DIAMETER.
 - ACCESS RISERS. A RISER MUST EXTEND FROM EACH MANHOLE OPENING TO OR ABOVE THE SURFACE OF THE GROUND. THE RISER MUST BE OF A SIZE LARGER THAN THE MANHOLE OPENING, BE BOTH GAS- AND WATER-TIGHT, BE CONSTRUCTED OF DURABLE MATERIAL AND EQUIPPED WITH A SECURE COVER.
 - EFFLUENT FILTER. THE OUTLET OF THE SEPTIC TANK SHALL BE FITTED WITH AN EFFLUENT FILTER CAPABLE OF SCREENING SOLIDS IN EXCESS THREE-SIXTEENTHS (3/16) OF AN INCH IN DIAMETER AND CONFORMING TO NSF/ANSI STANDARD 46 OR AS OTHERWISE APPROVED BY THE DIRECTOR.
 - TANK CONNECTIONS. ALL CONNECTIONS FROM BUILDING TO SEPTIC TANK MUST CONFORM TO CONSTRUCTION STANDARDS AS REQUIRED BY THE COUNTY BUILDING OFFICIAL.
 - WATER-TIGHTNESS TESTING. ALL NEW SEPTIC TANK INSTALLATIONS AND MODIFICATIONS TO EXISTING SEPTIC TANKS SHALL UNDERGO WATER-TIGHTNESS TESTING AS FOLLOWS:
A) NEW TANKS. FOR NEW TANK INSTALLATIONS, THE TESTING SHALL BE DONE WITH THE RISERS IN PLACE AND THE INLET AND OUTLET PIPES PLUGGED. THE TANK SHALL BE FILLED WITH WATER TO A LEVEL EXTENDING A MINIMUM OF TWO (2) INCHES INTO THE RISERS, AND MONITORED FOR A 1- HOUR PERIOD, WITH NO MEASURABLE DROP IN THE WATER LEVEL.
B) EXISTING TANKS. FOR EXISTING TANKS, THE TANK SHALL BE FILLED WITH WATER TO A LEVEL EVEN WITH THE INVERT OF THE OUTLET PIPE, AND MONITORED FOR A 1-HOUR PERIOD, WITH NO MEASURABLE DROP IN WATER LEVEL. HOWEVER, IN CASES WHERE THERE THE GROUNDWATER LEVEL IS KNOWN OR ESTIMATED TO RISE ABOVE THE LEVEL OF THE OUTLET PIPE DURING ANY TIME OF THE YEAR, THE WATER-TIGHTNESS TEST SHALL BE CONDUCTED FOLLOWING THE PROCEDURE FOR NEW TANK INSTALLATIONS; I.E., BY FILLING THE TANK WITH WATER INTO THE RISERS.

- C. PIPE REQUIREMENTS**
- SOLID PIPE, JOINTS AND CONNECTIONS. SOLID (NON-PERFORATED) PIPE FOR OWTs MUST CONFORM TO THE STANDARDS OF THE MOST RECENT EDITION OR COMPACTED SURFACE. NATURAL TOPOGRAPHY SHALL NOT BE GRADED TO MODIFY SLOPE.
B) THE BOTTOM OF A TRENCH MUST BE LEVEL, WITH A VARIATION OF NO MORE THAN 2 INCHES PER 100 LINEAL FEET OF TRENCH; TRENCHES SHALL BE ALIGNED PARALLEL TO THE GROUND SURFACE CONTOURS TO THE GREATEST EXTENT PRACTICABLE.
C) ADJACENT TRENCHES ON SLOPES MUST BE CONNECTED WITH A WATERTIGHT OVERFLOW LINE ("RELIEF LINE") IN A MANNER THAT ALLOWS EACH TRENCH TO BE FILLED WITH SEWAGE EFFLUENT TO THE DEPTH OF THE ROCK BEFORE THE SEWAGE FLOWS TO THE NEXT LOWER TRENCH. ALTERNATIVELY, A DISTRIBUTION BOX (D-BOX) MAY BE USED TO EQUALLY DIVIDE THE FLOW AMONGST THE TRENCHES, PROVIDED THE PROPOSED D-BOX IS OF A DESIGN APPROVED AND LISTED BY THE DEH PER PART 3.1.E (MATERIALS AND EQUIPMENT) OF THIS MANUAL. FOR SYSTEMS LOCATED ON SITES HAVING SLOPES OF LESS THAN 5%, A "GRID" DESIGN MAY BE USED IN ACCORDANCE WITH GUIDELINES PROVIDED UNDER AT THE END OF THIS SECTION (E.3.F).
D) TRENCHES MUST NOT BE EXCAVATED WHEN THE SOIL IS SO WET THAT SMEARING OR COMPACTION OCCURS.
E) IN CLAY SOILS WHEN GLAZING OCCURS, THE TRENCH SURFACES MUST BE SCARIFIED TO THE DEPTH OF THE GLAZING AND THE LOOSE MATERIAL REMOVED.
F) ROCK MATERIAL IN THE TRENCH MUST BE WASHED AND FREE OF FINES, AND MUST BE COVERED WITH AN APPROVED FILTER FABRIC SILT BARRIER (GEOTEXTILE) PRIOR TO BACKFILLING WITH NATURAL EARTH.
G) A CAPPED INSPECTION RISER SHALL BE INSTALLED WITHIN EACH TRENCH TO PROVIDE A MEANS OF OBSERVING THE EFFLUENT LEVEL IN THE TRENCH.
H) EROSION CONTROL MEASURES SHALL BE IMPLEMENTED FOLLOWING INSTALLATION PER REQUIREMENTS OF SECTION B11-83(C) FOR ANY CONVENTIONAL DISPERSAL SYSTEM WHERE: (1) GROUND SLOPE EXCEEDS 20%; (2) ABOVE-GRADE COVER FILL IS ADDED; (3) DESIGN FLOW EXCEEDS 1,000 GPD; OR (4) A GRADING AND/OR DRAINAGE PERMIT IS REQUIRED FOR PROJECT SITE DEVELOPMENT PER DIVISION C12, CHAPTER III OF THE COUNTY CODE. THE PLAN SUBMITTAL FOR THE OWTs SHALL INCLUDE AN EROSION CONTROL PLAN IN ACCORDANCE WITH REQUIREMENTS OF ORDINANCE SECTION B11-83(C).
- D. DISPERSAL SYSTEM REQUIREMENTS**
- TRENCH CONSTRUCTION.
A) TRENCHES MUST BE PLACED IN UNDISTURBED EARTH, IN AN ACCESSIBLE AREA, AND SHALL NOT BE COVERED BY PAVING OR OTHER IMPERMEABLE WATER-TIGHTNESS TESTING AS FOLLOWS:
B) THE BOTTOM OF A TRENCH MUST BE LEVEL, WITH A VARIATION OF NO MORE THAN 2 INCHES PER 100 LINEAL FEET OF TRENCH; TRENCHES SHALL BE ALIGNED PARALLEL TO THE GROUND SURFACE CONTOURS TO THE GREATEST EXTENT PRACTICABLE.
C) ADJACENT TRENCHES ON SLOPES MUST BE CONNECTED WITH A WATERTIGHT OVERFLOW LINE ("RELIEF LINE") IN A MANNER THAT ALLOWS EACH TRENCH TO BE FILLED WITH SEWAGE EFFLUENT TO THE DEPTH OF THE ROCK BEFORE THE SEWAGE FLOWS TO THE NEXT LOWER TRENCH. ALTERNATIVELY, A DISTRIBUTION BOX (D-BOX) MAY BE USED TO EQUALLY DIVIDE THE FLOW AMONGST THE TRENCHES, PROVIDED THE PROPOSED D-BOX IS OF A DESIGN APPROVED AND LISTED BY THE DEH PER PART 3.1.E (MATERIALS AND EQUIPMENT) OF THIS MANUAL. FOR SYSTEMS LOCATED ON SITES HAVING SLOPES OF LESS THAN 5%, A "GRID" DESIGN MAY BE USED IN ACCORDANCE WITH GUIDELINES PROVIDED UNDER AT THE END OF THIS SECTION (E.3.F).
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ENGINEERING
598 E Santa Clara St., #270
San Jose, CA 95112
Phone: (408) 806-7187
Fax: (408) 583-4006

SEPTIC SYSTEM PLAN

DATE: 08/23/23
BY: [Signature]
CHECKED: [Signature]

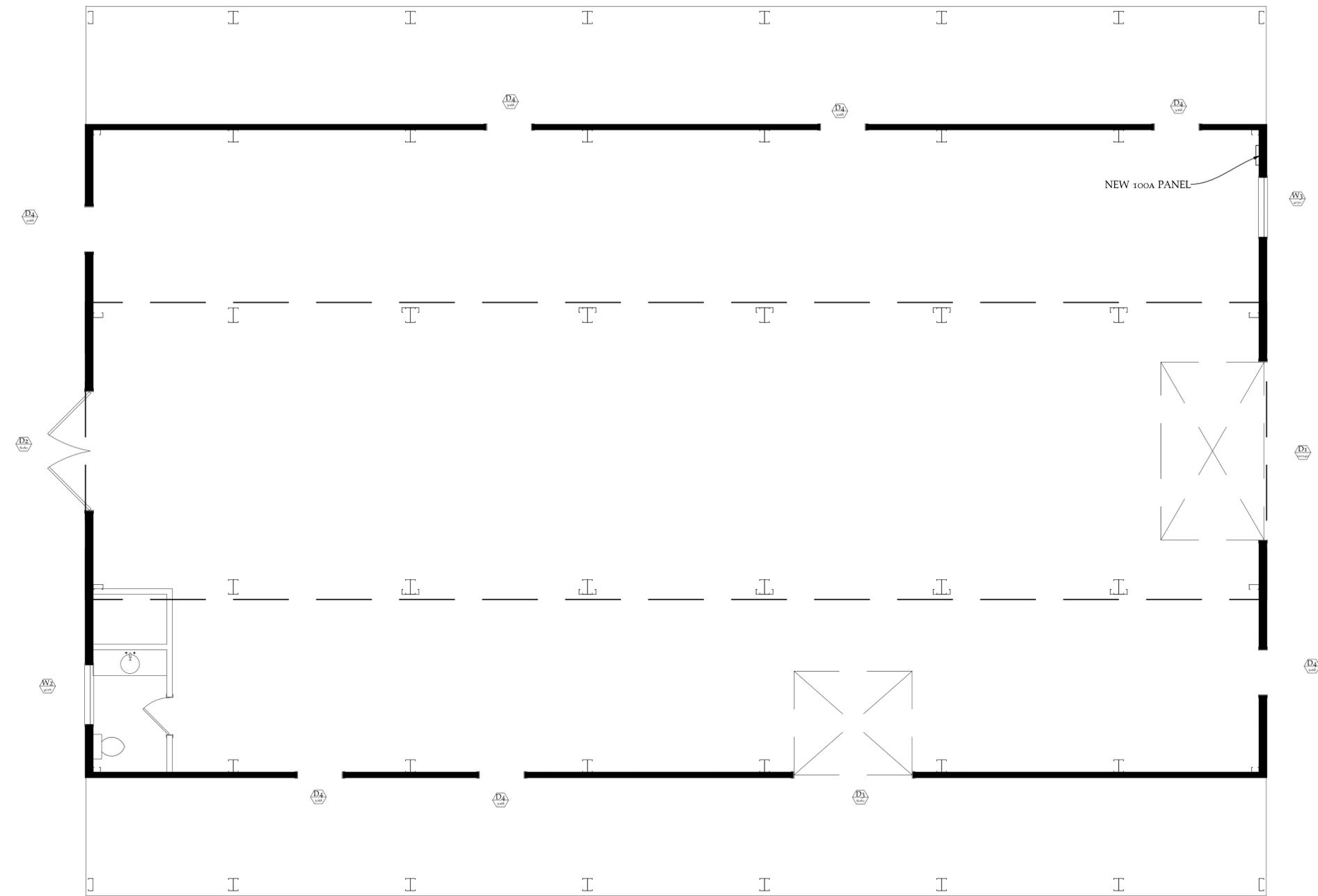
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CONTRACT NO. [Blank]
SHEET NO. 1 OF 2
FILE NO. [Blank]

APPLICANT : SILVA

ROAD NAME : SYCAMORE DRIVE

COUNTY FILE NO : DEV22-2036

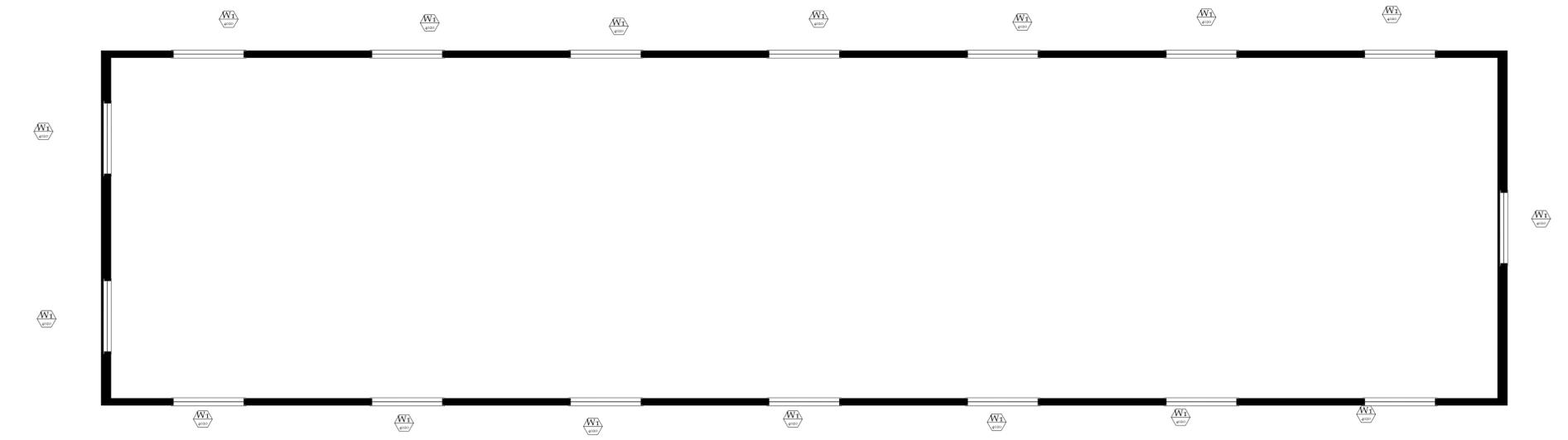
MAIN LEVEL



DOOR & WINDOW SCHEDULE

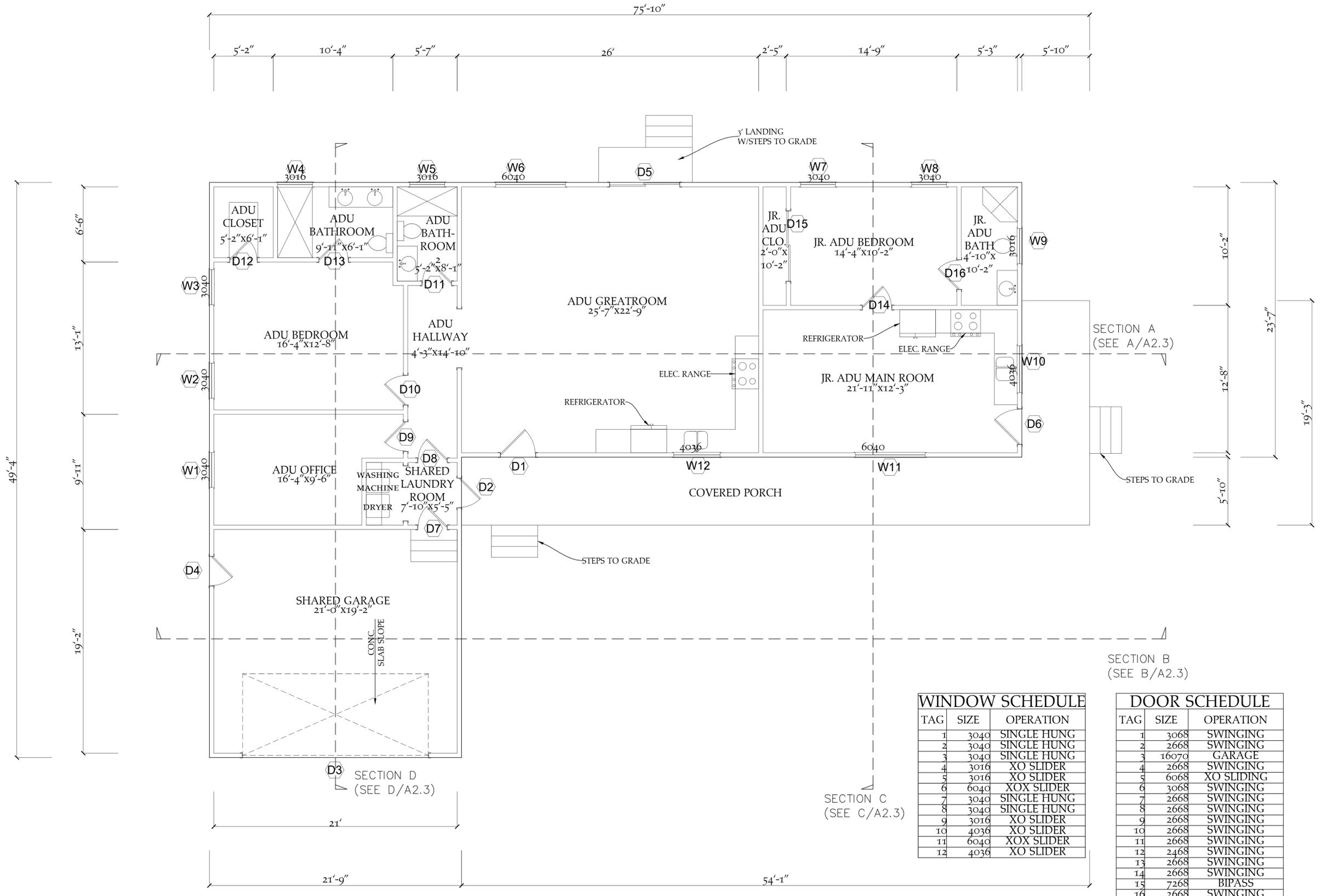
NAME	TYPE	SIZE	LOC.	QTY
D1	GARAGE ROLL UP	120140	SHOP	1
D2	DOUBLE FRENCH DOOR	8080	SHOP	2
D3	GARAGE	8080	SHOP	1
D4	HINGED	3068	SHOP	7
W1	PICTURE	4020	2F	17
W2	SLIDER	4016	1F	1
W3	SLIDER	4030	1F	1

SECOND LEVEL



SYCAMORE RESIDENCE
 15170 SYCAMORE DR.
 MORGAN HILL, CA 95037
BARN FLOORPLAN

DRAWN BY: TIM HENDERSEN
 REVISION:
 DATE: 8/24/2023
 PRINT DATE: 1/22/2024
 SCALE: 1/4" = 1'-0"



WINDOW SCHEDULE

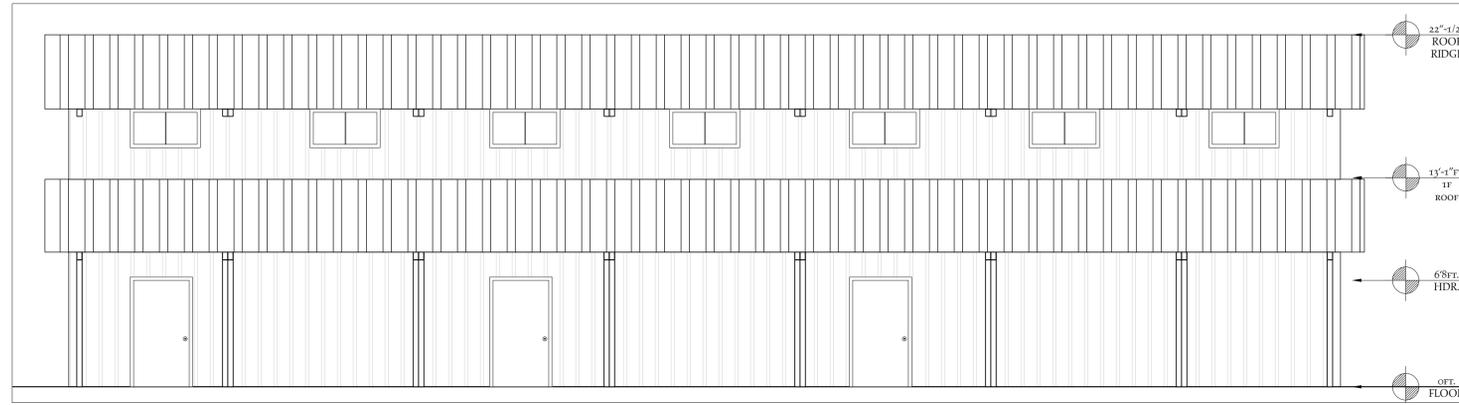
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3	3040	SINGLE HUNG
4	3016	XO SLIDER
5	3016	XO SLIDER
6	6040	XOX SLIDER
7	3040	SINGLE HUNG
8	3040	SINGLE HUNG
9	3016	XO SLIDER
10	4036	XO SLIDER
11	6040	XOX SLIDER
12	4036	XO SLIDER

DOOR SCHEDULE

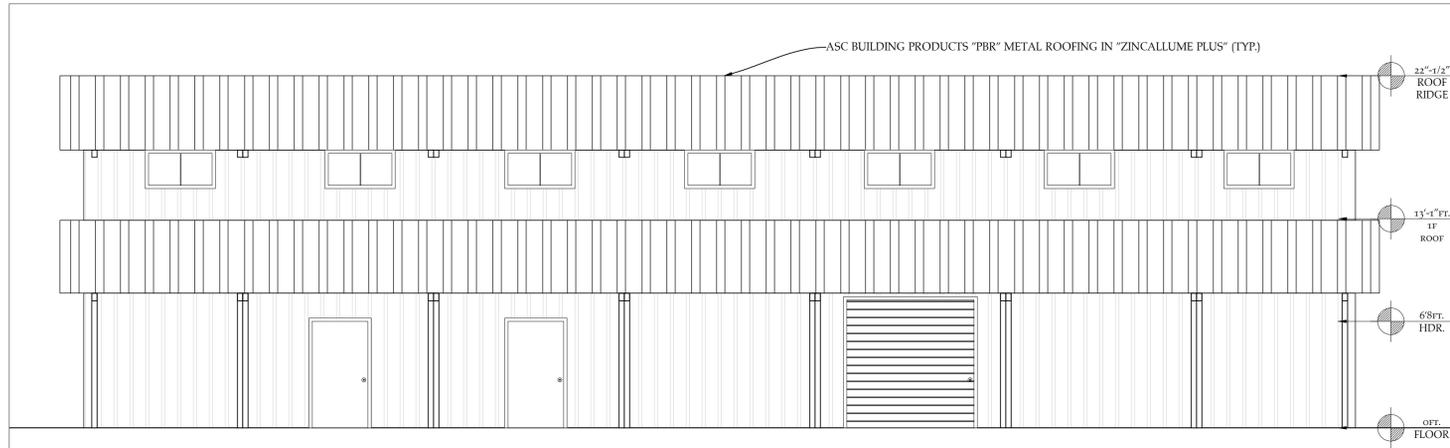
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3	16070	GARAGE
4	2668	SWINGING
5	6068	XO SLIDING
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7	2668	SWINGING
8	2668	SWINGING
9	2668	SWINGING
10	2668	SWINGING
11	2668	SWINGING
12	2468	SWINGING
13	2668	SWINGING
14	2668	SWINGING
15	7268	BYPASS
16	2668	SWINGING

SYCAMORE
 15170 SYCAMORE DR.
 MORGAN HILL, CA
 95037
ADU FLOORPLAN

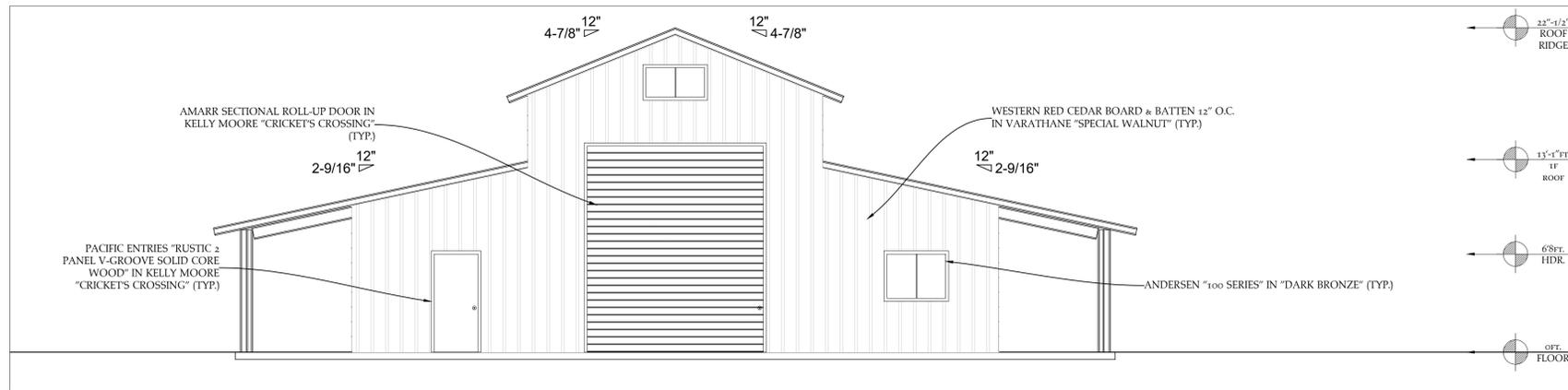
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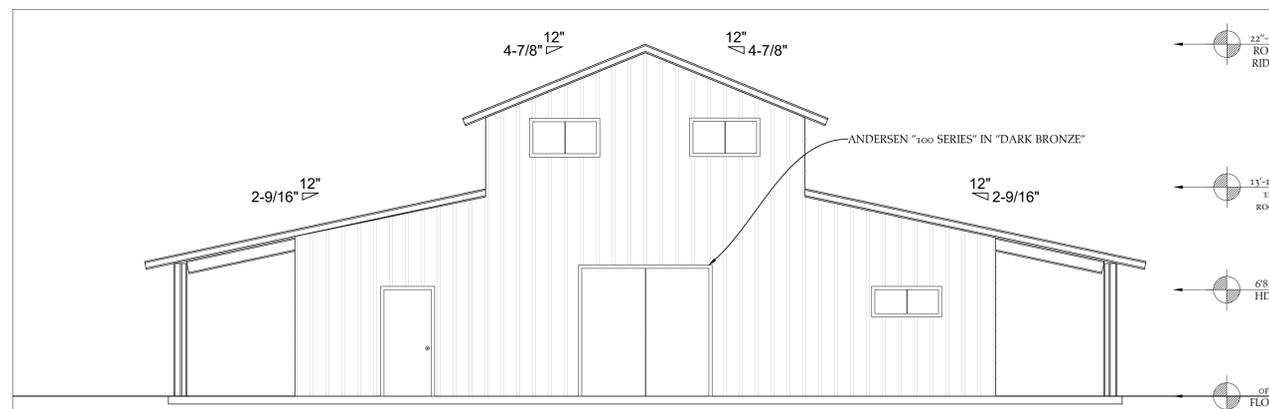
BACK ELEVATION



FRONT ELEVATION



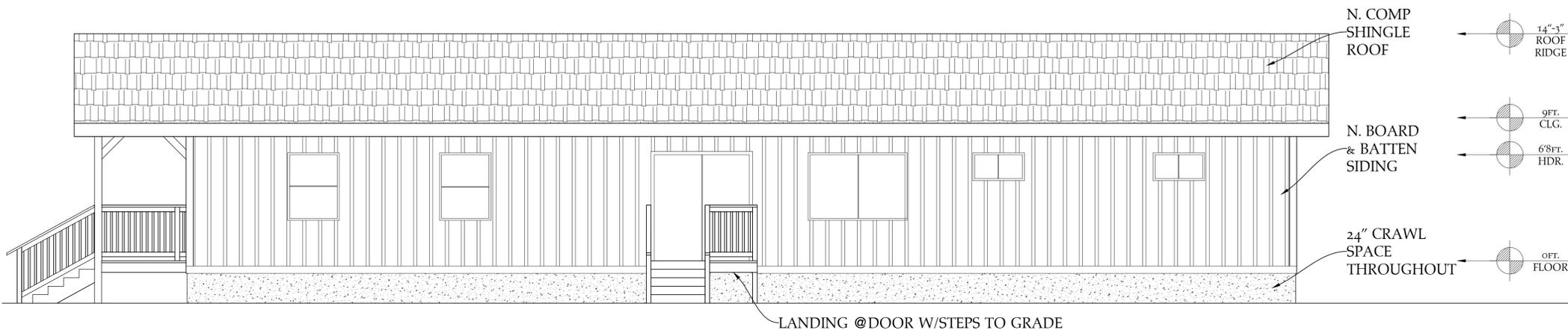
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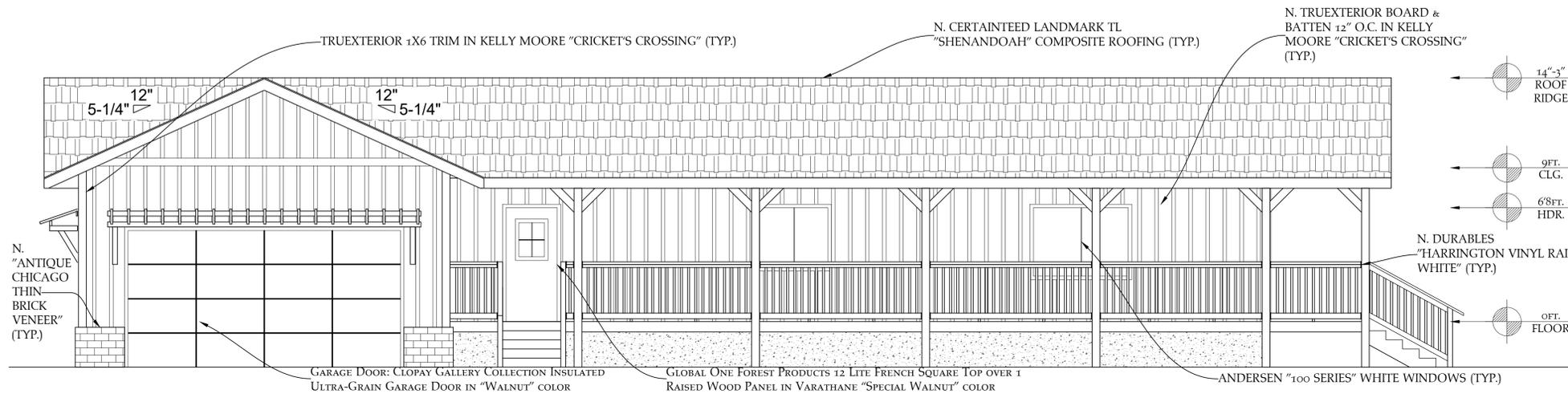
LEFT ELEVATION

SYCAMORE RESIDENCE
 15170 SYCAMORE DR.
 MORGAN HILL, CA
 95037
BARN ELEVATIONS

DRAWN BY:	TIM HENDERSEN
REVISION:	
DATE:	11/3/2023
PRINT DATE:	1/22/2024
SCALE:	3/16" = 1'-0"



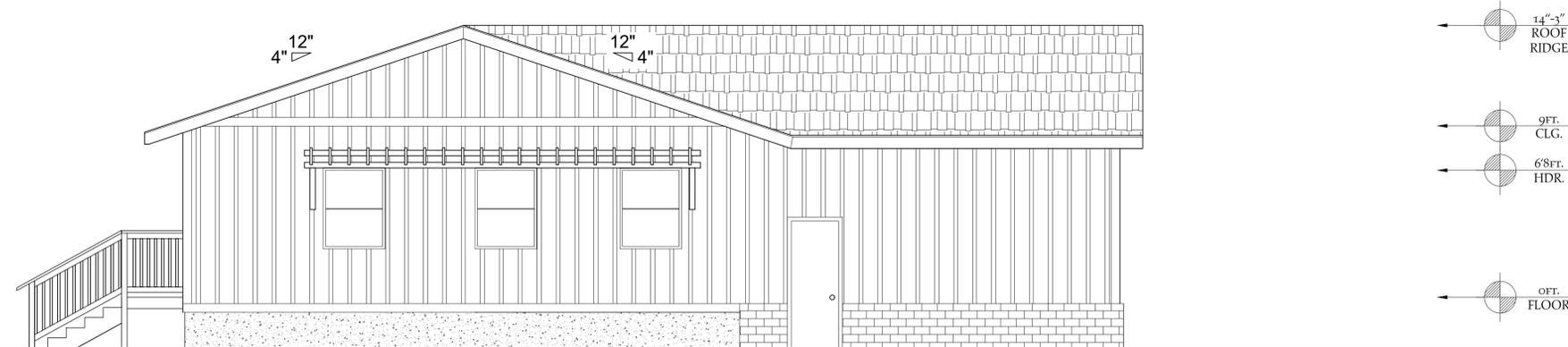
BACK ELEVATION



FRONT ELEVATION



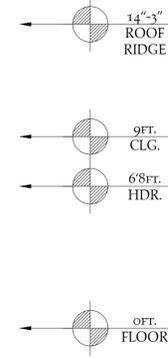
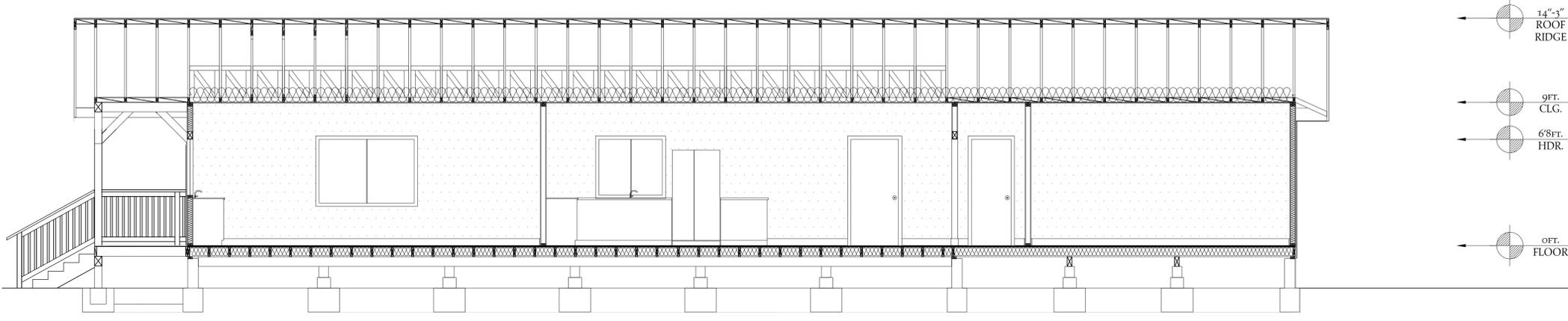
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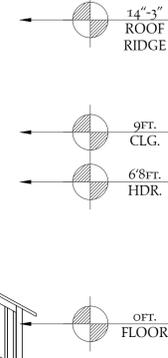
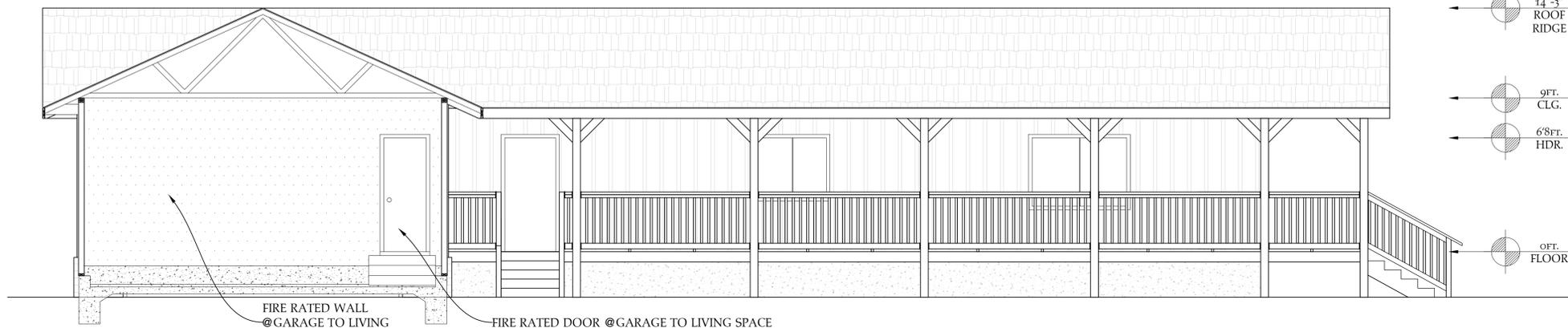
LEFT ELEVATION

SYCAMORE RESIDENCE
 15170 SYCAMORE DR.
 MORGAN HILL, CA
 95037
ADU ELEVATIONS

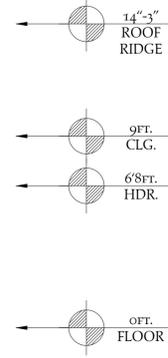
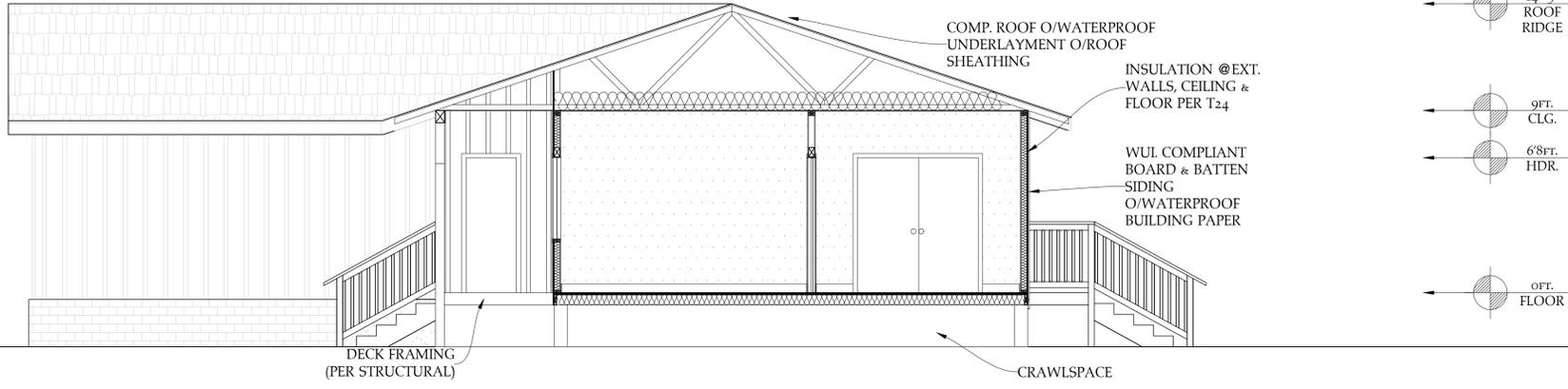
DRAWN BY:	TIM HENDERSEN
REVISION:	
DATE:	11/1/2023
PRINT DATE:	1/22/2024
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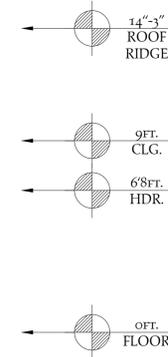
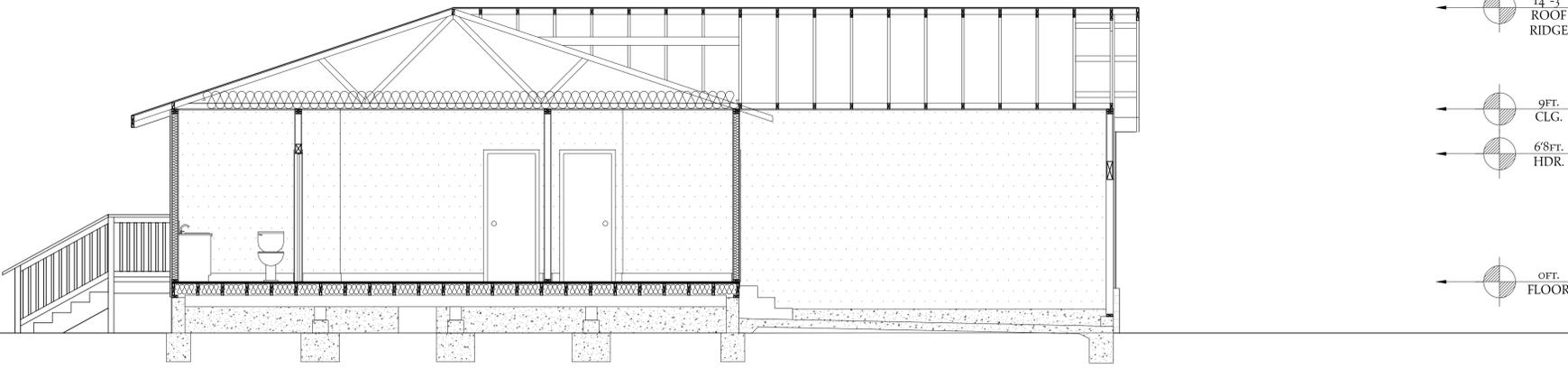
SECTION A



SECTION B



SECTION C



SECTION D

FIRE RATED WALL @GARAGE TO LIVING SPACE
 FIRE RATED DOOR @GARAGE TO LIVING SPACE

COMP. ROOF O/WATERPROOF UNDERLAYMENT O/ROOF SHEATHING
 INSULATION @EXT. WALLS, CEILING & FLOOR PER T24
 WUI COMPLIANT BOARD & BATTEN SIDING O/WATERPROOF BUILDING PAPER

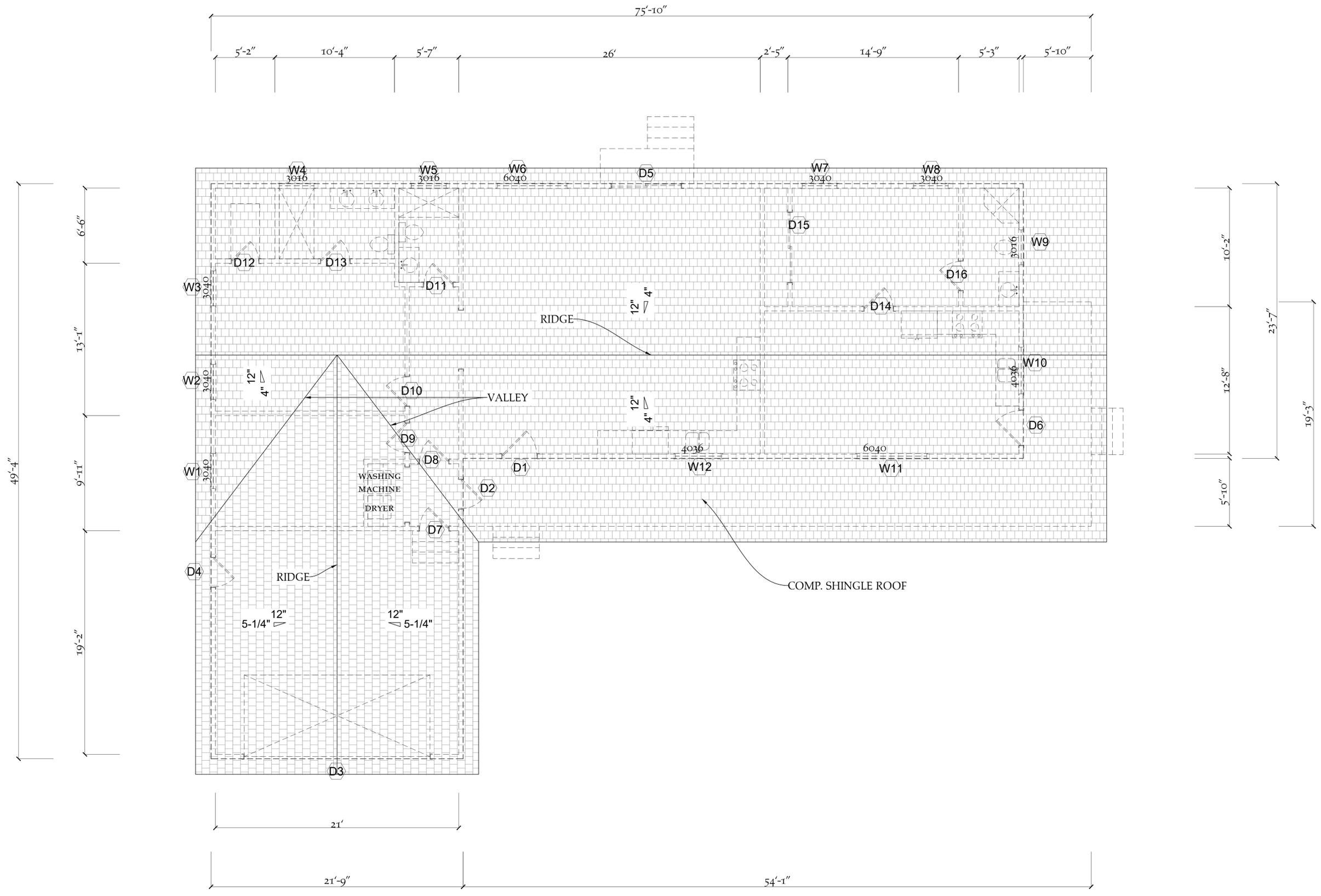
DECK FRAMING (PER STRUCTURAL)
 CRAWLSPACE

SYCAMORE RESIDENCE
 15170 SYCAMORE DR.
 MORGAN HILL, CA 95037
ADU SECTIONS

DRAWN BY:	TIM HENDERSEN
REVISION:	
DATE:	6/19/2023
PRINT DATE:	1/22/2024
SCALE:	1/4" = 1'-0"

SYCAMORE
 15170 SYCAMORE DR.
 MORGAN HILL, CA 95037
ADU ROOFPLAN

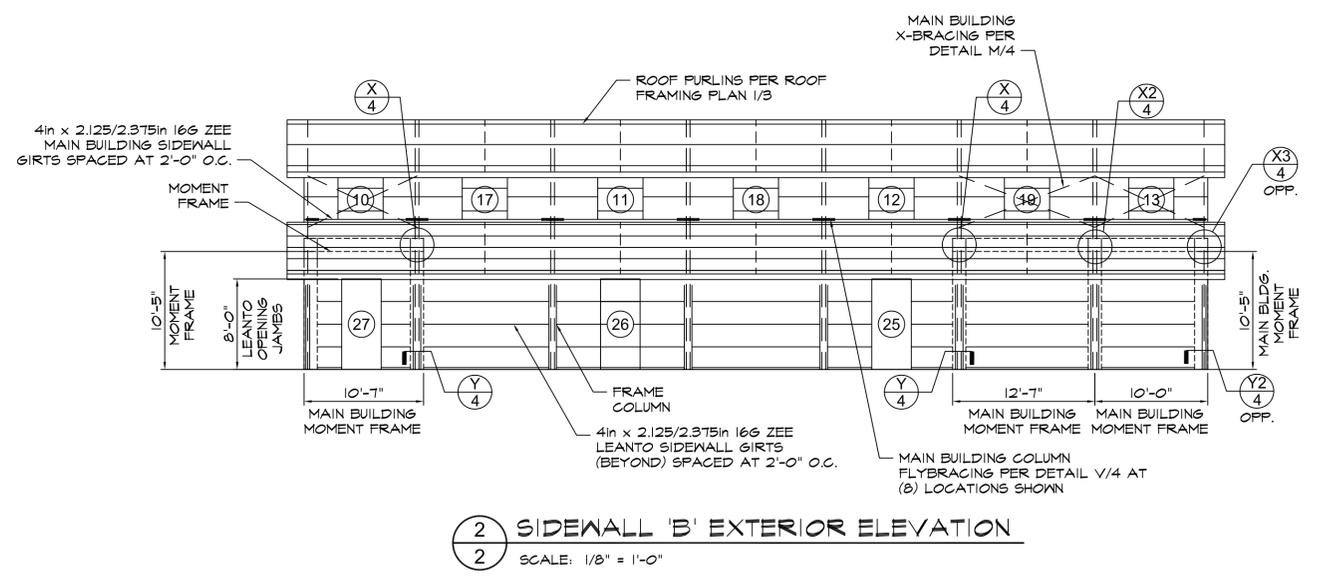
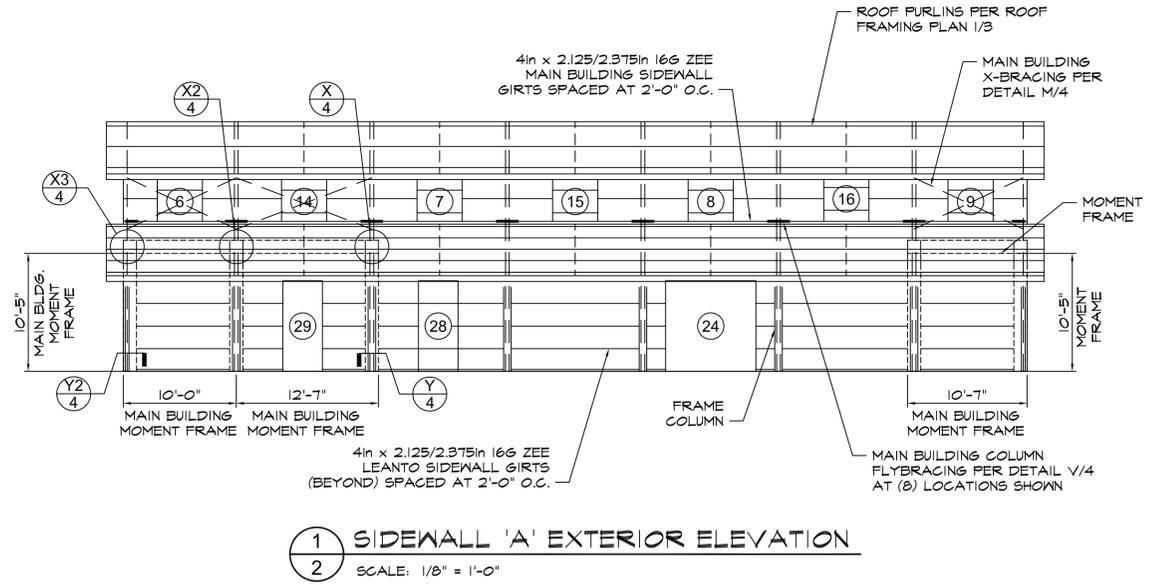
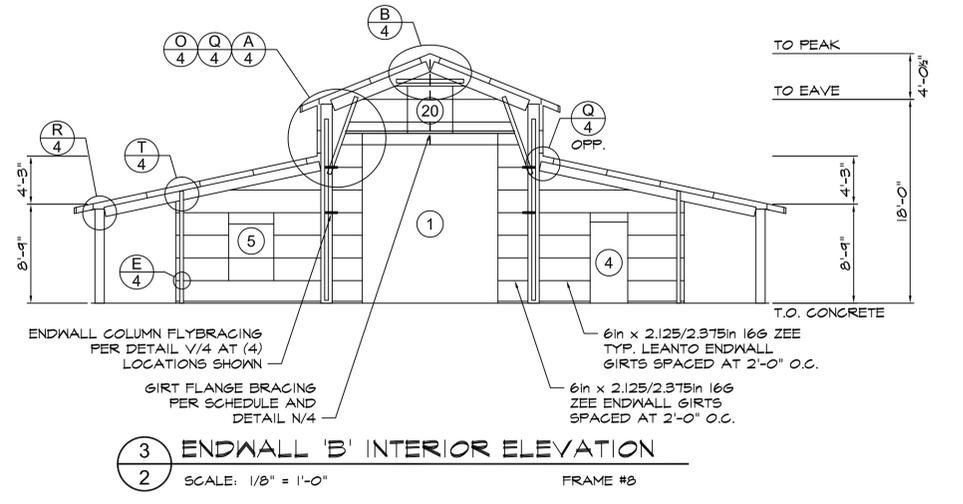
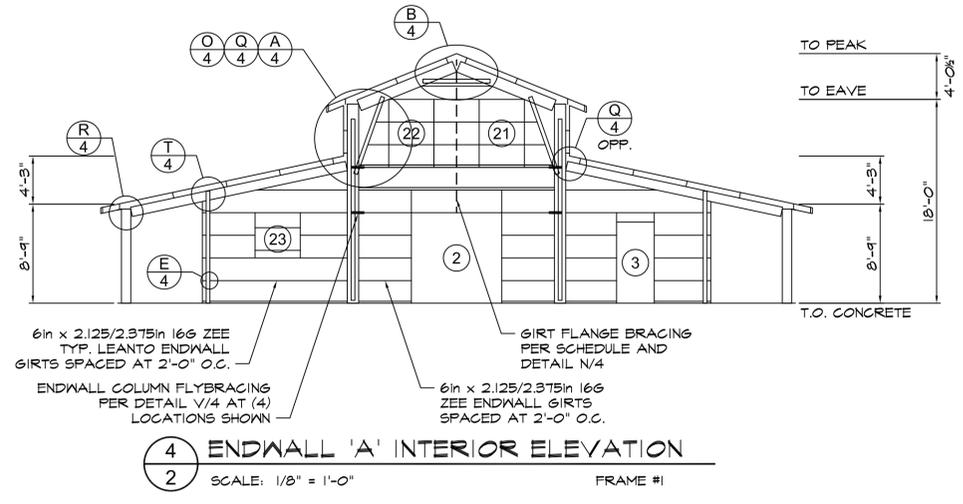
DRAWN BY:	TIM HENDERSEN
REVISION:	REVISION
DATE:	9/14/2023
PRINT DATE:	1/22/2024
SCALE:	1/4" = 1'-0"



GIRT FLANGE BRACING SCHEDULE

Endwall	BAY #1
Endwall 'A'	M/S
Endwall 'B'	M/S

M/S = MIDSPAN



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 aeOregon.com
 2700 MARKET ST NE
 SALEM, OR 97301
 503 589-1727
 FAX 503 589-1728



ACTBUILDING SYSTEMS

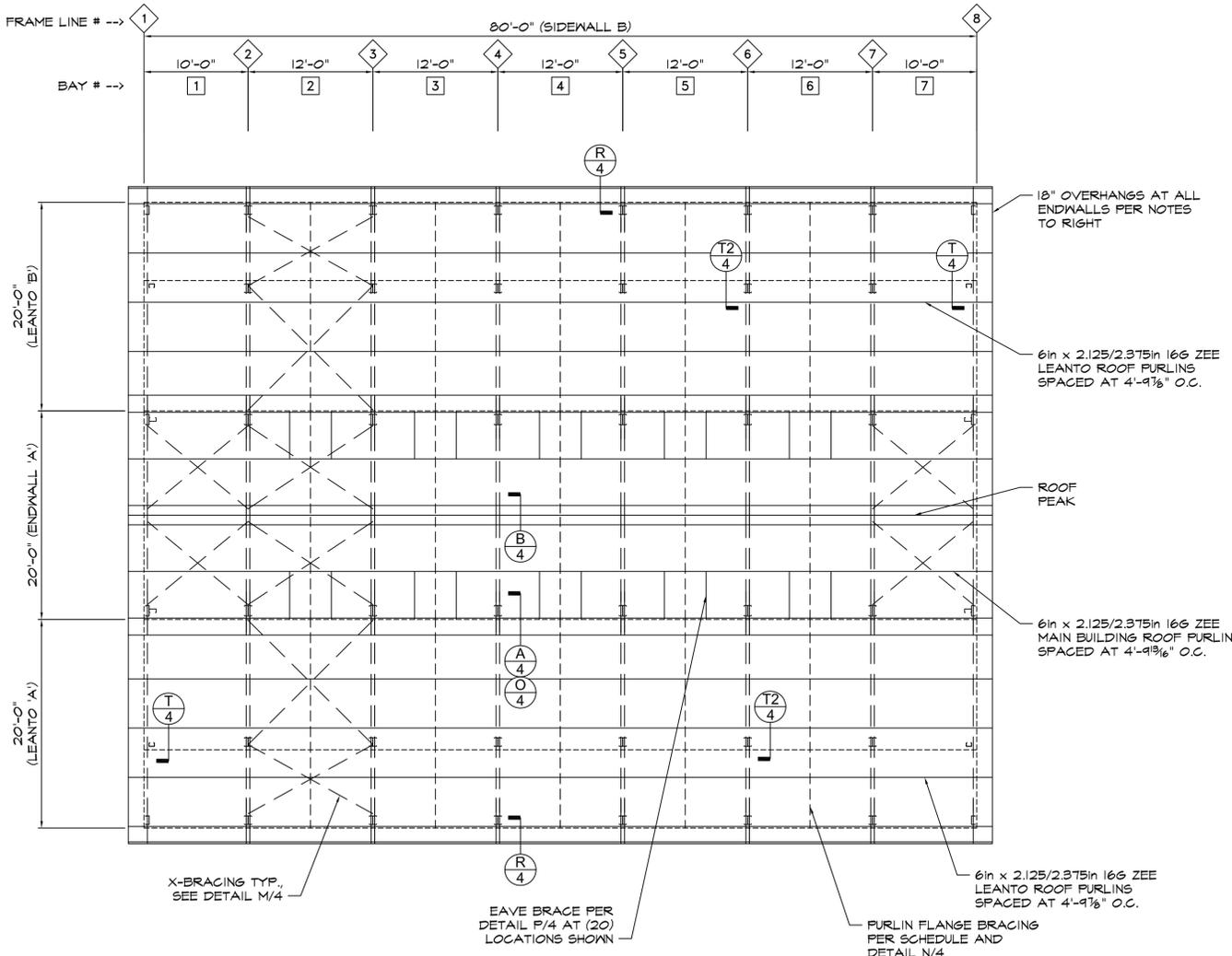
DISTRIBUTOR:
Metal Building Outlet Corp.
 JOB NAME:
Sean Silva
 JOB ADDRESS:
 15170 Sycamore Dr.
 Morgan Hill, CA 95037

DRAWN
CHECKED
DATE 8/30/2023
JOB NO. MLIT91738742
SHEET 2 OF 4

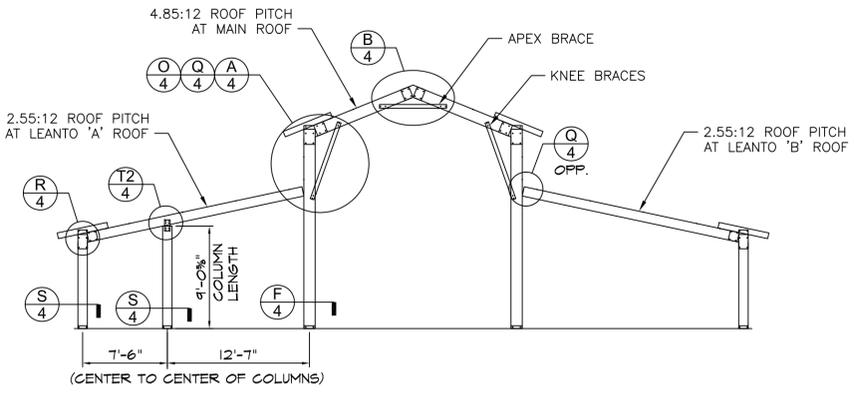
FURLIN FLANGE BRACING SCHEDULE

	BAY #2	BAY #3	BAY #4	BAY #5	BAY #6
Main Roof	M/S	M/S	M/S	M/S	M/S
Leanto 'A' Roof	M/S	M/S	M/S	M/S	M/S
Leanto 'B' Roof	M/S	M/S	M/S	M/S	M/S

M/S = MIDSPAN



1 ROOF FRAMING PLAN
3 SCALE: 1/8" = 1'-0"



2 TYP. FRAME CROSS-SECTION
3 SCALE: 1/8" = 1'-0" FRAMES 2-7

STRUCTURAL GENERAL NOTES

- GOVERNING CODE: 2022 CALIFORNIA BUILDING CODE
- DRAWING OWNERSHIP: THESE DRAWINGS ARE JOINTLY OWNED BY METAL SALES MANUFACTURING CORP. (MSM) AND ALLIANCE ENGINEERING OF OREGON, INC. DRAWINGS ARE PROVIDED FOR THE SOLE PURPOSE OF OBTAINING BUILDING PERMITS. ENGINEERING SEAL IS VALID FOR THE CONSTRUCTION OF A SINGLE BUILDING AT THE JOB ADDRESS SHOWN IN DRAWING TITLEBLOCK. ANY OTHER USE OF THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM MSM AND ALLIANCE ENGINEERING OF OREGON, INC IS PROHIBITED.
- DRAWING SEAL REQUIREMENTS: THESE DRAWINGS ARE NOT VALID UNLESS 1) THE SEAL (STAMP) ON A PAPER COPY IS WET SIGNED IN INK BY THE ENGINEER, OR 2) THE PAPER COPIES ARE OF A DRAWING DIGITALLY SIGNED BY THE ENGINEER, OR 3) THE ELECTRONIC FILE OF THE DRAWING IS DIGITALLY SIGNED BY THE ENGINEER. IF A COPY OF THESE DRAWINGS IS DISTRIBUTED WITHOUT EITHER A PROPER WET SIGNATURE OR A DIGITAL SIGNATURE, THE DRAWING IS CONSIDERED INVALID. IF A COPY OF THESE DRAWINGS IS DISTRIBUTED WITHOUT EITHER A PROPER WET SIGNATURE OR A DIGITAL SIGNATURE, THE DRAWING IS CONSIDERED INVALID. THE ENGINEER ACCEPTS NO LIABILITY OR RESPONSIBILITY FOR DRAWINGS CONSIDERED INVALID AS NOTED ABOVE.
- CONTRACTOR RESPONSIBILITIES: CONTRACTOR SHALL VERIFY AND CONFIRM ALL EXISTING CONDITIONS AND DIMENSIONS. ALLIANCE ENGINEERING OF OREGON, INC (ENGINEER) SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN DRAWINGS AND EXISTING CONDITIONS PRIOR TO START OF WORK. CONTRACTOR MUST SUBMIT IN WRITING ANY REQUEST FOR MODIFICATION TO THE PLANS AND/OR SPECIFICATIONS AND NO STRUCTURAL CHANGES FROM THE APPROVED PLANS SHALL BE MADE IN THE FIELD UNLESS, PRIOR TO MAKING CHANGES, WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. SHOP DRAWINGS SUBMITTED TO THE ENGINEER FOR REVIEW BUT NOT CONSTITUTE "IN WRITING" UNLESS IT IS NOTED THAT SPECIFIC CHANGES ARE BEING REQUESTED. IF CHANGES ARE MADE WITHOUT WRITTEN APPROVAL, SUCH CHANGES SHALL BE THE LEGAL AND FINANCIAL RESPONSIBILITY OF THE CONTRACTOR OR SUB-CONTRACTORS INVOLVED AND IT SHALL BE THEIR FULL RESPONSIBILITY TO REPLACE OR REPAIR THE CONDITION AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING, SHORING, GUYING, OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING ERECTION. THESE TEMPORARY PROVISIONS SHALL REMAIN IN PLACE UNTIL SUFFICIENT PERMANENT MEMBERS ARE ERECTED TO INSURE THE SAFETY OF PARTIALLY ERECTED STRUCTURES. CONTRACTOR IS RESPONSIBLE FOR MEETING ALL LAWS REGULATING THE ERECTION OF STEEL BUILDINGS. THESE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. BUILDING IS NOT CONSIDERED COMPLETE UNTIL THE INSTALLATION OF ALL COMPONENTS AND DETAILS SHOWN HEREIN ARE INSTALLED ACCORDING TO THE DRAWINGS.
- ENGINEERING: THE SUPPLYING OF STAMPED ENGINEERING CALCULATIONS AND DRAWINGS FOR THIS METAL BUILDING DOES NOT IMPLY OR CONSTITUTE AN AGREEMENT THAT ALLIANCE ENGINEERING OF OREGON, INC IS ACTING AS THE ENGINEER OR ARCHITECT OF RECORD OR THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR THE WHOLE OF THE PROJECT. THIS BUILDING HAS BEEN REVIEWED BY ALLIANCE ENGINEERING OF OREGON, INC FOR CONFORMITY ONLY TO THE STRUCTURAL DESIGN PORTIONS OF THE GOVERNING CODE. THE BUILDING OWNER IS RESPONSIBLE TO SEEK PROFESSIONAL ADVICE IN ADDRESSING ANY OTHER CODE REQUIREMENTS (INCLUDING, BUT NOT LIMITED TO, FIRE AND LIFE SAFETY, ENVIRONMENTAL ACCESSIBILITY, OR ELECTRICAL) THAT MAY APPLY TO THIS PROJECT. DRAWINGS SCALES INDICATED ON DRAWINGS ARE APPROXIMATE AND INTENDED TO BE USED FOR REFERENCE ONLY. DO NOT SCALE DRAWINGS FOR CONSTRUCTION PURPOSES. DOCUMENTS ARE STAMPED ONLY AS TO THE COMPONENTS FURNISHED BY MSM. IT IS THE RESPONSIBILITY OF THE PURCHASER TO COORDINATE DRAWINGS PROVIDED BY ALLIANCE ENGINEERING OF OREGON, INC WITH OTHER PLANS AND/OR OTHER COMPONENTS THAT ARE PART OF THE OVERALL PROJECT. IN CASES OF DISCREPANCIES, DRAWINGS PROVIDED BY ALLIANCE ENGINEERING OF OREGON, INC SHALL GOVERN. THE UNDERSIGNED ENGINEER WILL NOT SUPERVISE THE FABRICATION OR ERECTION OF THIS STRUCTURE. ANY OBSERVATION VISITS TO THE PROJECT SITE BY THE UNDERSIGNED ENGINEER ARE NOT TO BE CONSTRUED AS BEING INSPECTIONS FOR THE CONSTRUCTION OF ANY COMPONENT OF THIS BUILDING.
- INSPECTIONS: NO SPECIAL INSPECTIONS ARE REQUIRED BY THE GOVERNING CODE ON THIS JOB. ALL SPECIAL INSPECTIONS AND ANY OTHER ADDITIONAL INSPECTIONS REQUESTED BY BUILDING DEPARTMENT SHALL BE AT OWNER'S EXPENSE.
- SOIL REQUIREMENTS: ALLOWABLE SOIL BEARING VALUE INDICATED ON DRAWING SHEET 1 OCCURS AT 12" BELOW FINISH GRADE, OR EXISTING NATURAL GRADE, OR AT FROST DEPTH SPECIFIED BY BUILDING DEPARTMENT, WHICHEVER IS THE LOWEST ELEVATION. FOUNDATION DESIGN SHOWN ASSUMES BOTTOM OF FOOTING BEARS ON NATIVE SOILS. FOUNDATION DESIGN SHOWN DOES NOT ACCOUNT FOR EXPANSIVE SOIL CONDITIONS OR FOR CONCRETE THAT WILL BE EXPOSED TO SULFATE CONTAINING SOLUTIONS OR CHLORIDES. OWNER SHALL CONTACT ENGINEER PRIOR TO CONSTRUCTION IF ANY OF THESE CONDITIONS EXIST.
- CONCRETE REQUIREMENTS: ALL CONCRETE SHALL HAVE A MIN. 28-DAY STRENGTH OF 2500 PSI. HIGHER STRENGTH CONCRETE MAY BE USED, AT OWNER'S DISCRETION, FOR FINISH AND DURABILITY PURPOSES. CEMENT SHALL COMPLY WITH ASTM C150, TYPE 2, AND SHALL CONTAIN NO FLASH. ALL CONCRETE PLACEMENT SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE", WHICH IS HEREBY MADE A PART OF THESE DOCUMENTS. CONCRETE REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60 FOR #4 BARS AND LARGER, GRADE 40 FOR #3 BARS. WELDED WIRE MESH SHALL CONFORM TO ASTM A185 (FY MIN. OF 70 KSI). ALL FOOTING REINFORCING BARS TO BE CONTINUOUS AROUND CORNERS. LAP SPICE FOOTING REINFORCING MIDWAY BETWEEN COLUMNS. ALL LAP SPICES TO BE 48 BAR DIAMETERS MIN., U.N.O. CONCRETE GRADE BEAMS, THICKENED SLAB EDGES, PIERS, AND SPREAD FOOTINGS SHALL BE POURED ONTO UNDISTURBED, NATIVE SOIL WHICH IS FREE FROM ANY MATERIAL THAT WILL ADVERSELY AFFECT THE MIN. ALLOWABLE SOIL BEARING PRESSURE SPECIFIED ON SHEET 1. CONCRETE ANCHOR INSTALLATION SHALL BE DONE IN ACCORDANCE WITH ICC REPORT ESR-3889, SECTION 4.3.
- STRUCTURAL STEEL REQUIREMENTS: ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 (FY MIN. OF 36000 PSI), U.N.O. ALL BOLTS SHALL CONFORM TO ASTM A307, U.N.O. BOLT HOLE DIAMETERS SHALL BE 1/16" LARGER THAN NOMINAL BOLT DIAMETER. ALL INSTALLATION SHALL BE IN ACCORDANCE WITH AISC "CODE OF STANDARD PRACTICE". NO WELDING IS REQUIRED ON THIS JOB.
- LIGHT GAUGE STRUCTURAL STEEL REQUIREMENTS: ALL LIGHT GAUGE STEEL FRAMING MATERIAL AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS". ALL LIGHT GAUGE STEEL MATERIAL SHALL CONFORM TO ASTM A653 HAVING A MINIMUM YIELD STRENGTH OF 55000 PSI. THE GRADE AND ASTM SPECIFICATION NUMBER SHALL BE INDICATED BY PAINTING, DECAL, TAGGING, OR OTHER SUITABLE MEANS, ON EACH LIFT OR BUNDLE OF FABRICATED ELEMENTS. UNLESS NOTED OTHERWISE, CEE, ZEE, AND CHANNEL MEMBERS' WEB AND FLANGE DIMENSIONS (IN INCHES) SHALL BE AS NOTED IN DETAILS IN THE FOLLOWING FORMAT: [WEB DEPTH] x [FLANGE WIDTH] x [GAUGE]. FOR ZEES WITH UNEQUAL FLANGES, THE WIDTHS FOR BOTH FLANGES WILL BE LISTED, SEPARATED BY A "/". MIN. FLANGE STIFFENER LIPS SHALL BE 0.8" FOR 120 ZEES, 0.900" FOR 140 ZEES, 0.773" FOR 160 ZEES, 0.900" FOR 120 ZEES, 0.900" FOR 140 ZEES, AND 0.900" FOR 160 ZEES. ALL BEND RADII SHALL BE .1875". FOR ANGLES, THE FIRST TWO NUMBERS ARE THE LEG DIMENSIONS. DECIMAL THICKNESS OF THE DELIVERED LIGHT GAUGE STEEL MATERIAL, ACCORDING TO NOMINAL GAUGES, SHALL MEET OR EXCEED 95% THE FOLLOWING DESIGN VALUES GAUGE NO. DECIMAL THICKNESS, IN. GAUGE NO. DECIMAL THICKNESS, IN. GAUGE NO. DECIMAL THICKNESS, IN. GAUGE NO. DECIMAL THICKNESS, IN. EXCEPT AS SHOWN ON DRAWINGS, CEE COLUMN AND RAFTER MEMBERS SHALL NOT BE DRILLED OR NOTCHED WITHOUT PRIOR APPROVAL OF THE ENGINEER. DOOR JAMB, ROOF PURLIN, AND WALL GIRT ENDS MAY HAVE FLANGES COPED 3" MAX. IF CONNECTION IS MADE TO PERPENDICULAR MEMBER PER DETAIL E/4, ROUND HOLES MAY BE DRILLED THROUGH ANY GIRT OR PURLIN MEMBER WITHIN THE MIDDLE THIRD OF THE DEPTH OF THAT MEMBER AND NOT WITHIN 24" OF MEMBER END (FIELD-DRILLED BOLT HOLES INDICATED AT ENDS OF KNEE OR APEX BRACE WEBS AND SHOP-PUNCHED HOLES IN BRACE FLANGES EXCEPTED). ALL BOLTS USED TO CONNECT LIGHT GAUGE MATERIAL SHALL CONFORM TO ASTM A307. BOLTS TO BE SHUG TIGHT PER THE RCSC AND AISC SPECIFICATIONS, UNLESS SPECIFICALLY NOTED OTHERWISE. BOLTS SHALL BE SPACED NO LESS THAN 3 BOLT DIAMETERS BETWEEN CENTERS. DISTANCE FROM BOLT CENTER TO THE END OR EDGE OF ANY LIGHT GAUGE MEMBER SHALL BE A MIN. OF 1.5 BOLT DIAMETERS. ALL SCREWS USED TO CONNECT LIGHT GAUGE MATERIAL SHALL BE SELF-DRILLING SCREWS AND SHALL HAVE A MIN. TENSILE BREAKING STRENGTH OF 100,000 PSI. SCREWS SHALL BE SPACED NO LESS THAN 1" O.C. AND EDGE OR END DISTANCE SHALL NOT BE LESS THAN 1". UNLESS NOTED OTHERWISE, ALL REFERENCES TO "SCREWS" CONNECTING MATERIAL THICKER THAN 20 GA. SHALL BE MIN. #14 SCREWS AND SHALL HAVE MIN. 14 THREADS PER INCH. SCREW ROOT DIAMETERS SHALL NOT BE LESS THAN: #14 SCREW: .200" #12 SCREW: .177" #10 SCREW: .153"
- STEEL ROOF AND WALL PANELS (CLADDING): LIGHT GAUGE STEEL ROOF AND WALL PANELS SHALL CONFORM TO ASTM A653 AND THE STEEL DECK INSTITUTE SPECIFICATIONS AND HAVE A MIN. YIELD STRENGTH OF 80000 PSI. DECIMAL THICKNESSES, ACCORDING TO NOMINAL GAUGES, SHALL MEET OR EXCEED THE FOLLOWING: GAUGE NO. DECIMAL THICKNESS, IN. GAUGE NO. DECIMAL THICKNESS, IN. GAUGE NO. DECIMAL THICKNESS, IN. GAUGE NO. DECIMAL THICKNESS, IN. SEE DETAILS H/4 AND I/4 FOR ROOF AND WALL PANEL FASTENER TYPES AND SPACINGS.



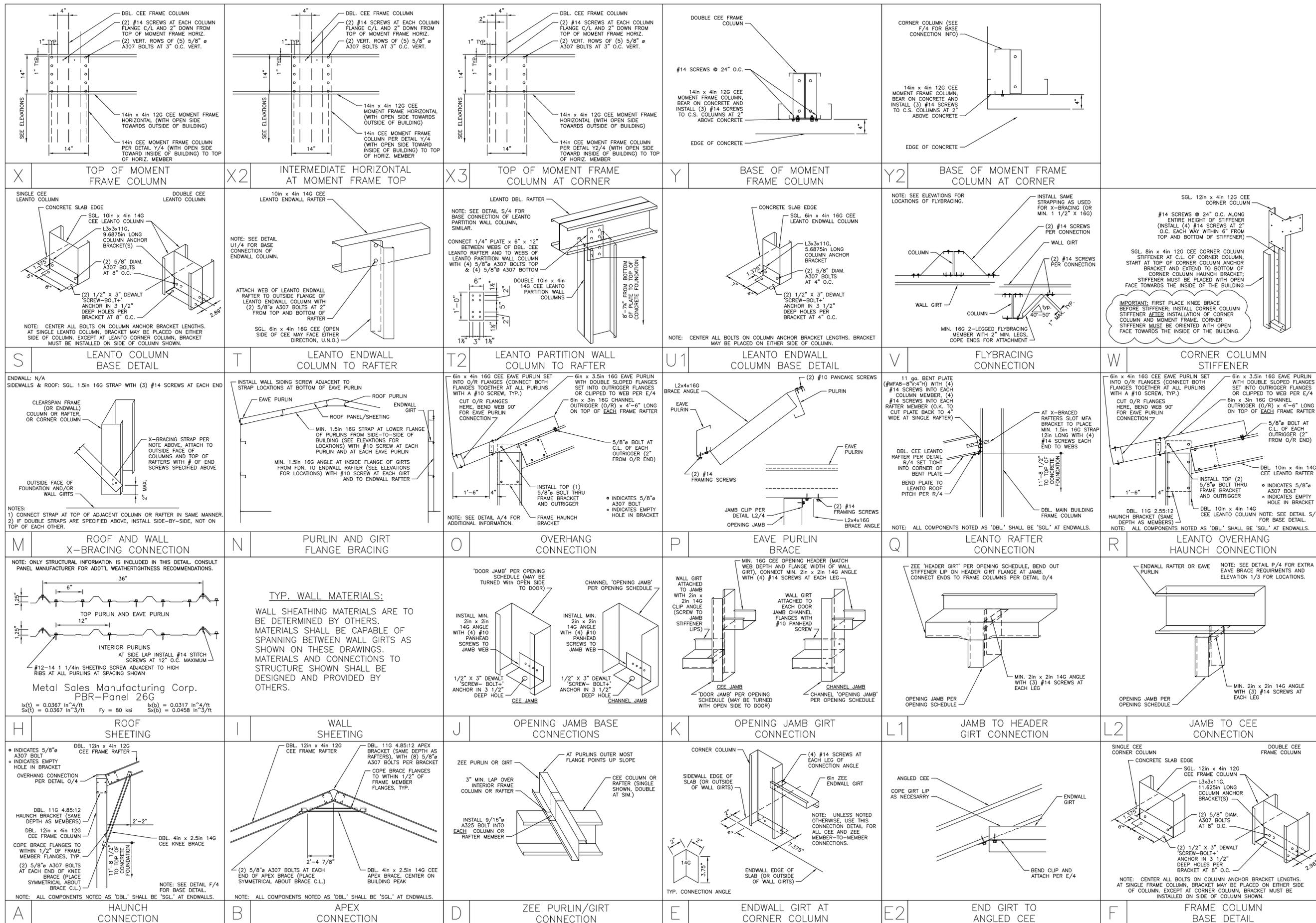
ALLIANCE ENGINEERING
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2700 MARKET ST NE
SALEM, OR 97301
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FAX 503 589-1728



ACTBUILDING SYSTEMS

DISTRIBUTOR: **Metal Building Outlet Corp.**
JOB NAME: **Sean Silva**
JOB ADDRESS: **15170 Sycamore Dr.
Morgan Hill, CA 95037**

DRAWN
CHECKED
DATE: **8/30/2023**
JOB NO. **MLIT91738742**
SHEET **3** OF **4**



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ACTBUILDING SYSTEMS

DISTRIBUTOR: Metal Building Outlet Corp.
JOB NAME: Sean Silva
JOB ADDRESS: 15170 Sycamore Dr.
Morgan Hill, CA 95037

DATE: 8/30/2023
JOB NO.: MLIT91738742
SHEET: 4 OF 4

STRUCTURAL GENERAL NOTES

GENERAL NOTES:

- All work performed in this project shall comply with all pertinent State and Local Code requirements, laws and ordinances.
- All work performed shall comply with these general requirements unless otherwise noted on plans or specifications.
- Contractor shall coordinate all drawings, verify all dimensions, elevations and connections before construction.
- Contractor shall be responsible for on site verification of conditions.
- Drawings are not to be scaled. Dimensions not specified, when required by field condition, shall be determined by engineer.
- Engineer shall be notified for any field conditions different from those indicated on drawings.
- Engineer shall be notified for any question which may arise pertaining to the drawings and specifications.
- General contractor and his/her subcontractors are responsible for order and means of construction and all temporary bracing & erection during construction.
- Contractor and his/her subcontractors are responsible for all excavation procedures including lagging, shoring and the protection of adjacent property, structures, street and utilities. Typical details on these sheets shall apply where no specific details or sections are given.
- Material notes and details on drawings shall take precedence over the structural notes contained herein.
- All drawings and subsequent revisions if any shall be approved by Building Official prior to starting construction.
- All drawings and subsequent revisions if any shall be made with the written approval of engineer.
- Contractor shall verify all heating, ventilating, plumbing and electrical openings and notify the engineer for any deviations from the drawings.
- The structural drawings show structural features only. See Architectural, Mechanical, Electrical and other drawings for non-structural items.
- Except as noted herein, no structural members shall be omitted, notched out, blocked out, or relocated without prior approval by this Engineer.
- The Structural Drawings for this project describe the building structure only, and are not intended to show non-structural items. Coordination for and installation of mechanical, electrical, architectural and miscellaneous non- structural items shown elsewhere in the project plans shall be the responsibility of the General Contractor.
- Subcontractors for structural portions of the building, including but not limited to foundations and structural frame, are advised to review all divisions of the plans and specifications for non-structural items which may be embedded in, attached to or otherwise connected to the structural elements of the building before submitting their bids.
- In case of conflict, the more stringent requirement shall govern.
- Material notes and specifications on drawings shall take precedence over the project specifications.

LUMBER NOTES:

- All lumber shall be at a moisture content of 19% or less before being covered with insulation, interior wall finish, floor covering or other material.
- Sill plates, wood against concrete and other members located within 8" of finish grade shall be pressure treated Douglas Fir Larch.
- 2x4 studs shall be Douglas Fir Larch Standard Grade or better
- 2x6 studs shall be Douglas Fir Larch #2 or better.
- Top & sole plates shall be Douglas Fir Larch #2 or better.
- 3x & 4x posts shall be Douglas Fir Larch #2 or better
- 2x & 4x joists and beams shall be Douglas Fir Larch #2 or better
- 6x & 8x framing members shall be Douglas Fir Larch #1 or better
- Simply supported Glued-Lam beams shall be 24F-V4 DFL/DFL per NDS
- Glued-Lam beams cantilevered at ends or continuously across supports shall be 24F-V8 DFL/DFL per NDS.
- Glued-lam beams shall bear AITC connections and submitted to the Building Official.
- Shop drawings shall be submitted to Engineer for review before fabrication.
- PSL beam shall be 2.0E with minimum Fb=2900psi and Fv=290 psi.
- LVL beam shall be 2.0E with minimum Fb=2900psi and Fv=285 psi.

PRE-FABRICATED TRUSS/MANUFACTURE "I" JOISTS NOTES:

- The design and fabrication of roof trusses or "I" joists are to be performed by the manufacturer.
- Calculations shall be submitted to project Engineer for review, then to Building official prior to installation.
- Truss or "I" joist designer/fabricator shall notify Engineer when uplift occurs at support of any truss or "I" joists and submit corresponding truss design calculation and shop drawings to Engineer for reviewing before fabrication.
- U.O.N. all trusses or "I" joists spanning across 3 or more supports shall be designed as simply-supported from one support to another, except in cantilever condition.
- U.O.N. all the gable end trusses shall be structural gable ends and designed to resist lateral forces.
- U.O.N., all flush mounted single trusses shall have "LUS26" or "U26" hangers minimum for spans up to 20 feet and "LUS210" hangers up to 35 feet.
- U.O.N., all girder trusses and multiple rafters shall have "HHUS" hangers where flush mounted.
- U.O.N., all hip trusses shall be hung off of girder trusses with LUS/LSU hangers.
- Where 2 trusses are placed together as a Girder-truss, these 2 trusses shall be identical in their configuration and unless properly connected otherwise 16d at 6" o.c. of face nailing shall be provided along top chord, bottom chord and web members typical. all.
- All collector(coll), gable end trusses and girder trusses shall receive roof OSB edge nailing (8d at 6" o.c., U.O.N.) along its full length.
- "I" joist shall be manufactured by Louisiana Pacific. Other manufacturer products equal or greater than LPI are acceptable.
- Notches or drilled holes are not allowed in Micro-Lam beams unless approved in advance by Manufacturer.
- Trusses or "I" joists shall be designed to resist stresses due to the loadings and shall be designed and specified by the manufacturer.
- Crossing bracing and bracing shall be provided and detailed by manufacturers as required to adequate brace all trusses.
- Truss or "I" joist manufacturer is responsible for providing details which allow for normal deflection (vertical and horizontal) without imposing lateral loads on their supports.
- Truss or "I" joist manufacturer is responsible for providing framing plans and structural details prior to fabrication of trusses.
- All trusses or "I" joists designed by "I" joist manufacturer shall be adequate to sustain all vertical, lateral and other pertinent loads, including bracing of top and bottom chords, in addition to any connections related to trusses & "I" joists.
- Truss or "I" joist manufacturer is responsible for meeting the profile as indicated on drawings.

- Trusses or "I" joists design load requirements shall be determined and verified by truss engineer or "I" joist designer.
- Maximum (dead + live load) deflection of trusses or "I" joists shall be:
Floor - L/480
Roof - L/360
- Prior to fabrication of trusses, two copies of the following materials bearing the approval of the designer (in the form of "shop drawing approval" or separate letter) must be submitted to the building official for review at least two weeks prior to frame inspections: (1) truss layout drawings; and (2) truss calculations and details showing axial and bending stresses and joint designs, clearly indicating that design conform to the 2021 IBC/ 2022CBC, sheet S1, IBC/CBC 106.3.4.2
- For the floor truss construction load limits, the stacked sheetrock shall be limited to the following quantities in any one room :
5/8" : 16 individual 4 x 10 sheets
(8 pairs of sheets)
1/2" : 20 individual 4 x 10 sheets
(10 pairs of sheets)
stacked sheetrock shall be laid perpendicular to the direction of the framing.

FRAMING NOTES:

- Contractor shall review all typical framing details (example top plate splice, wall corner connections, shear panel nailing, DRF etc...), sill nailing and block nailing requirements per footnotes in SHEAR WALL SCHEDULE prior to starting any framing work.
- Beam-to-post (isolated) connections shall be properly aligned and connected with BC brackets U.O.N.
- Where partition walls parallel to the framing below, double joists shall be provided below the wall. Where perpendicular, 2x blockings shall be provided between each joist.
- 2x blockings shall be provided between the floor joists at the ends and at each support of the floor joists, such as bearing wall, structural beam, etc. Blockings may be omitted only as specified on plan, or at the ends of the floor joists where they are nailed to a header, beam, or rim joist.
- Bottom of posts shall have full bearing in a tight-fit condition with the supporting structural member below.
- Where posts terminated on floor with stud walls or beams below, the space between the bottom of the post and the top of the plate or the beam shall be solidly filled with 2x blockings and the stud wall below shall have matching post at same location.
- U.O.N. Bottom of isolated posts when terminated on floor shall be fixed to the floor diaphragm by 2-A35 framing anchors.
- U.O.N. all exterior headers at plate heights higher than 8'-1 shall be 4x8 DF #2 Grade at 2x4 walls or 6x8 DF #1 Grade at 2x6 walls
- Cutting beams, joists, and rafters: notched from top edge and bored holes shall be : 1) Limited to 1/6 member depth, 2) Located away from bearing not more than 3 times member depth. All other cuts,notches, and bored holes exceeding 2" diameter are permitted only when approved in advance
- All framing, bracing, nailing, notching, drilling, or boring shall be in accordance with 2022CBC unless more stringent requirements are specified.
- U.O.N. All window and door openings 8 ft and wider shall have double king studs & trimmers.
- U.O.N. All flush mounted sawn lumber beams or multiple joists shall have "HHUS" hangers where flush mounted. Flush mounted glulam beams shall be as indicated on plan.
- U.O.N. All flush mounted single floor joists shall have "LUS210" hangers and all flush mounted single roof rafters shall have "LSU" hangers.
- All exterior wall corners shall be tied with ST2125's, at sloping plate condition.
- Posts or multi-studs shall be provided at lower floor under posts or multi-studs above.
- U.O.N. all bearing and/or shear walls which are plumbing walls shall be 2x6.
- All California Framing shall be 2x6 rafters at 24" o.c. with cripple walls support at 8"-0" at high rafter.
- Provide A35 clip on each side of girder truss at bearing walls.
- Provide 3/8" cdx(osb) at fireplace framing.
- Provide sill gasket between the sill plate and foundation walls The sill gasket shall be installed per the specification and method as follows:
1) Smooth top surface of foundation wall to no greater variation than 1/4" and brush off loose debris.
2) Unroll 3 1/2" or 5 1/2" width x 3/16" thickness FoamSealR or equivalent sill gasket on top surface of foundation wall. Pierce it at anchor bolt locations.
3) Butt all end and perpendicular joints tightly.
4) Set and anchor sill plate to foundation wall.

SHEATHING NOTES:

- Any plywood sheathing panels used on roof, floor and shear walls shall not be less than 4 ft by 8 ft, except at boundaries and changes in framing where minimum sheet dimension shall be 24 inches unless all edges of the undersized sheets are supported by framing member or blocking.
- Roof plywood shall be 1/2" CDX (OSB) APA 24/0, face grain perpendicular to framing members below, stagger adjacent panels by 4 feet, nailed with 8d Common nails at 6" o.c. all plywood panel edges and at 12" o.c. all intermediate supports.
- Floor plywood shall be 3/4" CDX (OSB) APA 48/24 tongue and groove, face grain perpendicular to framing member below stagger adjacent panels by 4 feet, nailed with 10d Common nails at 6" o.c. all plywood panel edges and at 10" o.c. all intermediate supports. (Floor truss spaced @ 19.2" o.c.) (Use ring shank nail and glue.)
Floor plywood shall be 3/4" tongue and groove at floor when joists are 16" o.c. or less and 1 1/8" tongue and groove at floor when trusses are greater than 16" o.c.
- All floor plywood shall be glued to the joists. The field-glued floor system shall be installed according to the manufacturer's recommendation of the APA. Glue shall be applied to joists and to the groove in the edge of the T&G panel. Glue shall meet the requirements of the APA adhesive spec. AFG-D1. and shall be applied as directed by the glue manufacturer. Glue may be applied manually or with pneumatic or electric equipment
- Shear wall plywood shall be 3/8" OR 1/2" CDX(OSB) APA 24/0, all plywood panel edges blocked and nailed per Shearwall Schedule. All plywood panel intermediate supports shall be nailed with 8d (10d) Common or Galvanized Box nails at 12" o.c.
- Shear wall CDX(OSB) shall be placed on the designated side of studs as shown on plans. The CDX may be placed on the opposite side provided: 1) There are no perpendicular walls intersecting full length of shear wall, 2) Shearwall CDX (OSB) is continuously placed across perpendicular wall framing, or 3) Shear wall corner detail on sh. S-2 is properly followed.
- When gypsum wallboard is called for shear wall sheathing, the contractor shall use collar nails and is not to crush the gypsum material by over-driving the nails.
- All California Roof Framing shall have roof CDX(OSB) at both upper and lower roofs.
- All roof and floor beams and collectors(coll) shall receive CDX(OSB) edge nailing along its full length.

NAILING SCHEDULE (MINIMUM):

This nailing schedule to be used only if not specified elsewhere in these structural drawings.

- All nailing specified on drawings and this schedule shall be in accordance with 2022 CBC table 2304.10.1.
 - Joists to sill or girder, toenail 3-8d
 - Bridging to joist, toenail each end 2-8d
 - Sole plate to joist or blocking, typical face nail 16d at 16" o.c.
 - (also see shear wall schedule)
 - Sole plate to joist or blocking, at braced wall panels 3-16d per 16"
 - (also see shear wall schedule)
 - Top plate to stud, end nail 2-16d
 - Stud to sole plate 4-8d, toenail or 2-16d, end nail 16d at 12" o.c. 16d at 16" o.c. 8-16d
 - Multiple studs, face nail g. Double top plates, typical face nail 3-8d
 - Double top plates, lap splice h. Blocking between joists or rafters to top plate, toenail 3-8d
 - Rim joist to top plate, toenail 8d at 6" o.c.
 - Top plates, laps and intersections, face nail 2-16d 16d at 16" o.c.
 - Continuous header, two pieces 2-16d 16d at 16" o.c. along each edge 3-8d
 - Ceiling joists to plate, toenail m. Continuous header to stud, toenail 4-8d
 - Ceiling joists, laps over partitions, face nail 3-16d
 - Ceiling joists to parallel rafters, face nail 3-16d
 - Rafter plate, toenail 3-8d
 - 1" brace to each stud and plate, face nail 2-8d
 - Built-up corner studs 16d at 24" o.c.
 - Beltam of posts shall have full bearing in a tight-fit condition with the supporting structural member below. 2 rows 16d @ 16" o.c.
 - Where posts terminated on floor with stud walls or beams below, the space between the bottom of the post and the top of the plate or the beam shall be solidly filled with 2x blockings and the stud wall below shall have matching post at same location. 1/2" ø m.b. @ 24" o.c. staggered, 2" min. from edges
 - Studs, posts or mullions to bearing 2-8d toe nails each side, each end into plates.
 - Top plates splice, non-shear walls only 6-16d each side of splice.

ANCHORAGE NOTES:

- (plates overlapped not less than 48") 16d at 16" o.c. staggered along full length
 - Facia to end of rafter 2-16d, galvanized
 - Collar tie to rafter 3-10d face nail
 - Jack rafter to hip 3-10d toe nail
 - Roof rafter to 2-by ridge beam 2-16d toe nail
 - Joist to band joist 3-16d face nail
 - Ledger strip 3-16d face nail
- Any continuous wall lines containing shear wall segments shall have their top plates spliced according to the detail "TYPICAL CONTINUOUS TOP PLATES" located on sheet S-3.
 - All machine bolts shall conform to ASTM A307.
 - Bolt holes shall be 1/32" to 1/16" larger than the bolt diameter
 - A metal plate, metal strap, or washer not less than a standard cut washer shall be between the wood and the bolt head and between the wood and the nut.
 - Holes for nails shall be pre-drilled where splitting of wood may occur.
 - Fasteners for pressure-preservative treated and fire-retardant treated wood shall be of hot-dipped zinc coated galvanized, stainless steel, silicon bronze or copper.

MISCELLANEOUS NOTES:

- Maximum floor live load is 40 psf.
- Maximum roof live load is 20 psf.
- All framing anchors, straps, hangers, post caps, column bases, holdowns, hinge connectors, angles and clips shall be manufactured by SIMPSON or equal. Nailing schedule shall be in accordance with product requirements.
- The contractor shall be responsible for selecting the appropriate size and configuration of connectors from the series designated on drawings, unless noted otherwise.
- Unless noted otherwise all nails shall be common nail.
- All toe nailing shall be 8d nails.
- All nails exposed to the weather shall be hot-dipped galvanized nails.
- Conventional let-in bracing are not required in this project.
- NELSON studs shall be manufactured and fabricated per TRW NELSON requirements.
- All items (sprinkler pipes, mechanical equipments... etc.) intended to be supported on, or from the structure, unless within the structural drawings, shall be submitted to this Engineer prior to installing.
- Unless notes otherwise, see Architectural drawings for dimensions, walks, ramps, patios, elevations, roof pitches, etc.
- U.O.N. Provide ST6236 at plates at plumbing penetrations.
- All Simpson CS straps shall be attached to framing 8d nails in every other nail hole in blocks. Fill every nail hole at top plate and collector beam.

ADDITION AND REMODELING:

- Existing construction shown on drawings was obtained from existing drawings and/or by field measurements.
- Contractor shall verify all existing field conditions and dimensions prior to starting construction.
- Cutting, drilling, removal, etc. of the existing construction shall be performed in a great care not to damage the integrity of the building.
- No existing members may be removed unless the structural plans indicated otherwise.
- If structural members not indicated for removal are interfering with the new work, the engineer shall be immediately notified.
- Contractor shall safely shore the existing construction wherever the existing supports are removed to allow the installation of the new work.
- All locations where new structure is attached to existing structure shall be waterproof and dampproof.
- Owner or his/her Contractor ensure that the new alteration works shall not cause any existing mechanical, electrical, plumbing etc. systems unoperational.

SHEAR WALL SCHEDULE

I.D.	PLF s-seis w-wind	SHEAR MATERIAL	EDGE NAILING	FIELD NAILING (intermediate)	SILL NAILING @ ea 16" o.c. (footnote 2)	BLOCK NAILING @ ea 16" o.c. (footnote 3)
P1	260	3/8" CDX (OSB)	8d Common or Galv Box @ 6" Block All Edges 2x (Mud & Sole)	8d Common or Galv Box @ 12"	4-16d	2-8d T.N. + A35
P2	350	3/8" CDX (OSB)	8d Common or Galv Box @ 4" Block All Edges 2x (Mud & Sole)	8d Common or Galv Box @ 12"	6-16d in 2 rows w/ 4x member below diaphragm	2-8d T.N. + A35
P3	490	3/8" CDX (OSB)	8d Common or Galv Box @ 3" Staggered, 3x at all adjoin'g panel edges & 2x sole, 3x Mud	8d Common or Galv Box @ 12"	8-16d in 2 rows w/ 4x member below diaphragm	2-8d T.N. +2-A35
P4	640	3/8" CDX (OSB)	8d Common or Galv Box @ 2" Staggered, 3x at all adjoin'g panel edges & 2x sole, 3x Mud	8d Common or Galv Box @ 12"	10-16d in 2 rows w/ 4x member below diaphragm	2-8d T.N. +2-A35
P8	770	1/2" CDX (OSB)	10d Common or Galv Box @ 2" Staggered, 3x at all adjoin'g panel edges & 3x (Mud & Sole)	10d Common or Galv Box @ 12"	(4) 3/8" X 6" Log Bolts w/ 4x member below diaphragm	2-8d T.N. +3-A35
P9	870	5/8" CDX (OSB) or 1/2" STRUCTURAL I	10d Common or Galv Box @ 2" Staggered, 3x at all adjoin'g panel edges & 3x (Mud & Sole)	10d Common or Galv Box @ 12"	(4) 3/8" X 6" Log Bolts w/ 4x member below diaphragm	2-8d T.N. +3-A35
P3D	980	3/8" CDX (OSB) Both Sides	8d Common or Galv Box @ 3" Staggered, Block All Edges, Offset panel joints. 3x @ all adjoin'g panel edges 3x (Mud & Sole)	8d Common or Galv Box @ 12"	(4) 1/2" x 6" Log Bolt w/ 4x member below diaphragm	2-8d T.N. +3-A35
P4D	1280	3/8" CDX (OSB) Both Sides	8d Common or Galv Box @ 2" Staggered, Block All Edges, Offset panel joints, 3x at all adjoin'g panel edges & 3x (Mud & Sole)	8d Common or Galv Box @ 12"	(4) 1/2" x 6" Log Bolt w/ 4x member below diaphragm	2-8d T.N. +4-A35

FOUNDATION NOTES:

- Soil report prepared by: N/A.
- Finish grade shall be sloped away from the foundation and minimum 8" below the sill plate.
- Site drainage requirements including final pad grades, roof drainage downslopes shall be referenced to grading & plot plans.
- The location and dimension of under-floor ventilation, concrete driveway, walkway, door pads and other similar items per Architectural plans.
- Owner of adjacent property shall be notified in writing in no less than 10 days before the foundation excavation along the property line.
- Allowable bearing pressure under dead load plus live load is 1500 psf Per 2022 CBC TABLE 1806.2.

CONCRETE NOTES:

- Re-bars, dowels and other embedded elements shall be secured in place (and approved by the Building Official) before pouring concrete.
- Cold joints may be used where shown. Jointing surface shall be clean, free of foreign material and intentionally roughened.
- U.O.N., foundation and footing concrete shall be minimum 3000 psi compressive strength at 28 days for seismic design category "D". special inspection is not required for concrete and rebar if the foundation design is based on Fc=2500 psi, however, contractor shall show proof of design mix. from the Redi-Mix company.

REINFORCEMENT NOTES:

- Reinforcing steel shall be deformed bars of billet or axle steel bar ASTM A615 Grade 40.
- Reinforcement shall be clean and free of extraneous material.
- All reinforcement shall be placed and supported in a true line as shown.
- 3" clearance shall be provided where concrete is casted against earth. 2" clearance for concrete exposed to earth or weather but deposited against forms, and 3/4" clearance for slabs and walls where concrete is not exposed to earth or weather.
- Lap all reinforcing splices a minimum 30 bar diameters but in no case less than 24".
- Welded wire fabric shall conform to ASTM A185.
- Contractor shall inform Engineer 48 hours prior to pouring structural concrete for reviewing the work.

ANCHORAGE NOTES:

- U.O.N. on foundation plan, sill plates for all exterior, interior bearing and shear walls shall be anchored to concrete foundation on each end with anchor bolts at maximum 4 feet on center. Anchor bolts shall be installed with Simpson post 5/8 - 3,(3"x3"x1/4") bearing plate.
- Bearing/shear wall and/or exterior wall sills receiving fasteners shall have the first fastener at 4" minimum and 12" maximum (per 2022CBC 2308.3.1) from each cut end of the sill (Two fasteners minimum per mudsill piece)
- Interior non-bearing wall sills to receive the first fastener ESR-2379 may be used on interior non-shear and non-bearing. Anchor bolts material shall be ASTM A307.
- Powder driven anchor pins (Hilti X-DNI 72 PB S36, ICC report 2379 at 4" minimum and 12" minimum from each cut end of the sill wall only.
- Powder driven anchor pins shall be spaced at maximum 16" o.c.
- Unless held in place when pouring concrete, fasteners to be installed after the concrete has set for 7 days minimum.
- Anchor bolts shall be imbedded 7" minimum into concrete or reinforced masonry and 15" minimum into unreinforced grouted masonry.
- U.O.N., STDH, HT, PHD, HDQ and HDU holdowns shall be attached to 4x4 post in with shear edge nailing along full height
- Contractor is to verify location of holdowns and anchor bolts with rough framing to assure proper and accurate installation.
- U.O.N., individual isolated posts shall be anchored by Simpson FB connectors.
- Holdowns shall be tied in place prior to inspection.
- Fasteners for pressure-preservative treated and fire-retardant treated wood shall be of hot-dipped zinc coated galvanized, stainless steel, silicon bronze or copper.

DESIGN INFORMATION:

BASE SHEAR SEISMIC DESIGN PARAMETERS

(IBC2001/CBC2022 - ASCE7-16)
(WITH EQUIVALENT LATERAL PROCEDURE)

PER GOOGLE MAPS THE PROJECT BUILDING IS AT THE LOCATION WITH:
LATITUDE: 37.0891243
LONGITUDE: -121.6594801

PER THE PARAMETERS OBTAINED FROM USSS SITE:

$$S_1 = 1.56 \text{ (USSS WEBSITE)} \quad I = 1 \quad R = 6.5$$

$$S_1 = 0.66 \text{ (USSS WEBSITE)}$$

$$F_v = 1.7 \quad F_a = 1$$

$$SM = F_v S_1 = 1.0200$$

$$S_a = 2/3 SM = 1.26$$

$$CS = S_a / (R/7) = 0.1856$$

$$V_e = CS W_e = 0.185W_e$$

$$USE 3.7.0.129W$$

WIND DESIGN PARAMETERS

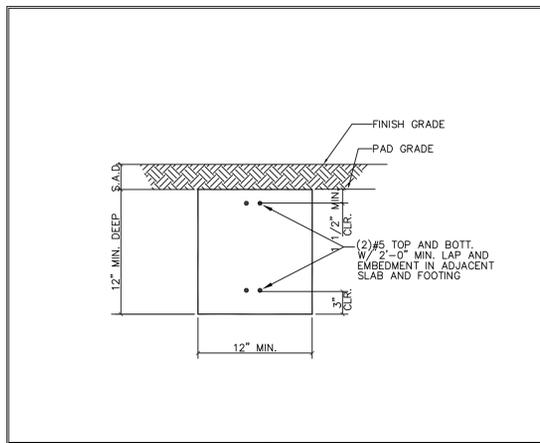
BASIC DESIGN WIND SPEED = 95 MPH (EXPOSURE C)

SPECIAL INSPECTION NOTES:

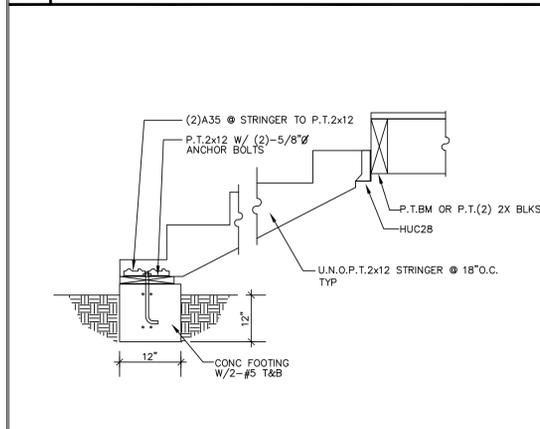
- Special inspections and tests are required for the followings per cbc 2022 CBC section 1705 :
- A. Special Inspections and Test of concrete construction :
 - Inspection of reinforcing steel, and verify placement.
 - Inspect bolts to be installed in concrete prior to and during placement of concrete.
 - verifying use of required design mix.
 - At time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests and determine the temperature of the concrete
 - Inspection of concrete placement for proper application techniques.
 - Inspection for maintenance of specified curing temperature and techniques.
 - inspect formwork for shape, location, and dimensions of the concrete member being formed.
 - Inspect anchor post-installed in hardened concrete members.
- B. Special Inspection For Seismic Resistance - wood framing
 - inspect field guling operations of elements of the seismic-force-resisting system.
 - inspect nailing, bolting, anchoring, and other fastening of components within the seismic-force-resisting system, including wood shear wall, wood diaphragms, drag struts, braces, shear panels and holdowns, when the shear wall edge nailing is 4" o.c. or less.

ABBREVIATIONS

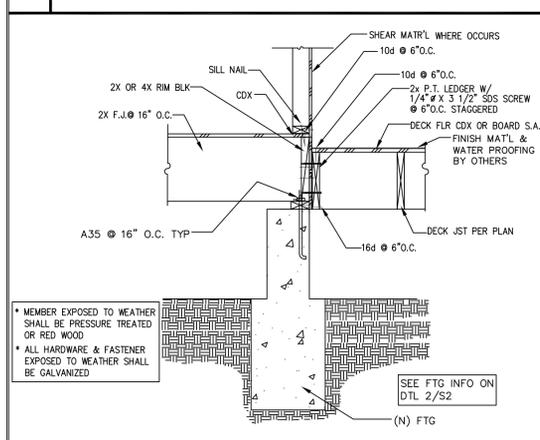
A & B	ABOVE AND BELOW	F.P.	FIREPLACE	SIM	SIMILAR
A.B.	ANCHOR BOLTS	FRAM'G	FRAMING	SHT	SHEET
ABV	ABOVE	FT	FOOTING	SHT'G	SHEATHING
ADJ.	ADJACENT	FTG	FOOTING	SIMP	SIMPSON COMPANY
A.F.F.	ABOVE FINISH FLOOR	GALV	GALVANIZED	SPC'G	SPACING
APA	AMERICAN PLYWOOD ASSO.	GAR	GARAGE	s.n.	bill note
ARCH	ARCHITECTURAL	GEN.	GENERAL	SPECS	SPECIFICATIONS
BLDG	BUILDING	GLB	GLU-LAM BEAM	SQ	SQUARE
BLK'G	BLOCKING	GR	GRADE	S.S.D.	SEE STR. DRWGS
BR	BROW	HDR	HEADER	STL	STEEL
BOTT	BOTTOM	HT	HEIGHT	STR	STRUCTURAL
BRG	BEARING	INFO	INFORMATION	S.W.S.	SHEAR WALL SCHEDULE
C	CAMBER	INT	INTERIOR	S.W.T.	SHEAR WALL TYPE
CANT'L	CANTILEVER	J.H.	JOIST HANGER	T & G	TOP AND BOTTOM
C.J.	CEILING JOIST	JNT	JOINT	T & G	TONGUE AND GROOVE
CLG	CEILING	JST	JOIST POST	T.B.F.V.	TO BE FIELD VERIFIED
CTR	CENTER	KEP	KING POST	T.D.	TIEDOWN OR HOLDOWN
CSU	COUNTERFRANCE	KS	KNUTTED	T.N.	TOE NAIL
CONC	CONCRETE	LAT	LATERAL(LOAD)	T.O.	TOP OF
C.M.U.	CONC. MASONRY UNIT	LOC.	LOCATION	T.O.C.	TOP OF CONCRETE
CON.	CONNECT. CONNECTION	MANF.	MANUFACTURER	T.O.S.F.	TOP OF SUB-FLOOR
CONSTR.	CONSTRUCTION	MAT'L	MATERIAL	T.O.W.	TOP OF WALL
CONT	CONTINUOUS	MAX	MAXIMUM	TOT	TOTAL
CSK	COUNTERSNK	M.E.	MACHINE BOLT	TR	TRIMMER
COLLAR	COLLAR TIE	MFG.	MANUFACTURING	TYP.	TYPICAL
DBL	DOUBLE	MIN	MINIMUM	U.O.N.	UNLESS NOTED OTHERWISE
DET	DETAIL	MTD.	MENTIONED	U.O.N.	UNLESS OTHERWISE NOTED
DIAG	DIAGONAL	ND	NOT	W.D.	WOOD
DIAPH	DIAPHRAGM	N/A	NOT APPLICABLE	WF	STEEL WIDE FLANGE
DIR	DIRECTION	NAIL'G	NAILING	WFW	WELDED WIRE FABRIC
DIM	DIMENSION	N.T.S.	NOT TO SCALE	W/	WITH
DR	DOOR	O.V.	OUT VENT	W/O	WITHOUT
DRF	DOOR FRAME	Ø	ON CENTER	Ø	AT
DRW'G	DRAWING	O.H.	OPPOSITE HAND	-	FEET
EACH	EACH WAY	OP'G	OPENS	///	OPTIONAL
E.F.	EACH FACE	OPT.	OPTIONAL	PARALLEL	PARALLEL
E.L.	ELEVATION	OSB	ORIENTED STRAND BOARD	⊥	PERPENDICULAR
EMB	EMBLEMENT	PC'S	PIECES	∩	AND
E.N.	EDGE NAILING	P.E.N.	PENETRATION	Ø	DIAMETER
EQ	EQUAL	PERIM	PERIMETER	CL	CENTER LINE
E.W.	EACH WAY	PL	PLATE	U	HANGER
E.W.F.	EACH WAY EACH FACE	PL'CS	PLACES	±	APPROXIMATELY
EXP</					



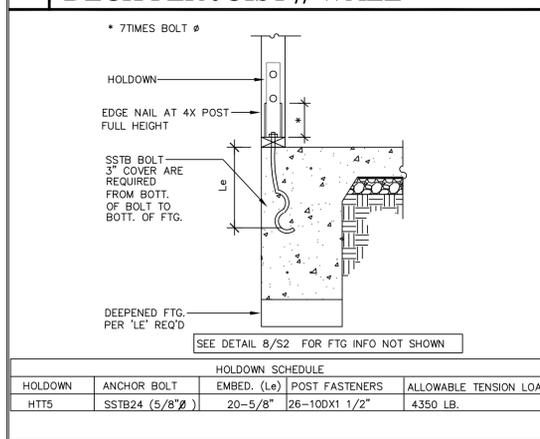
17 TIE BEAM



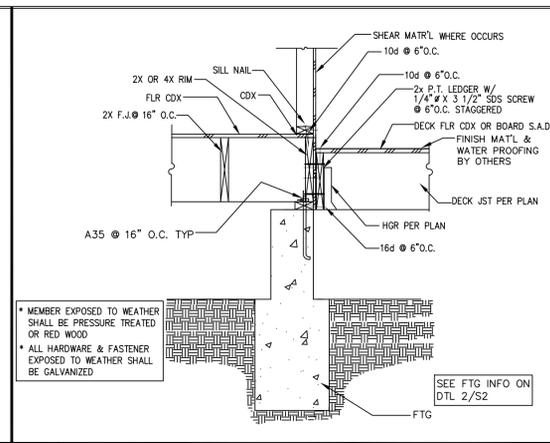
18 OUTDOOR STAIR



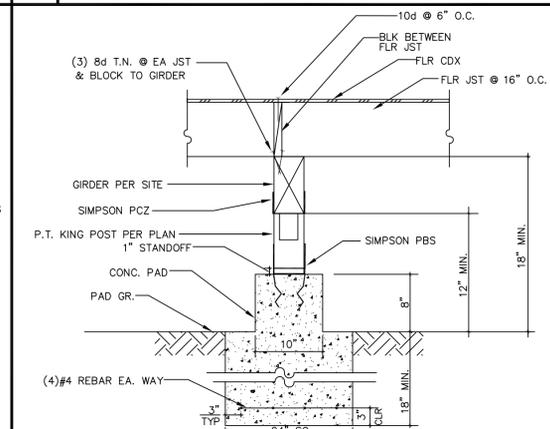
19 DECK FLR JOIST // WALL



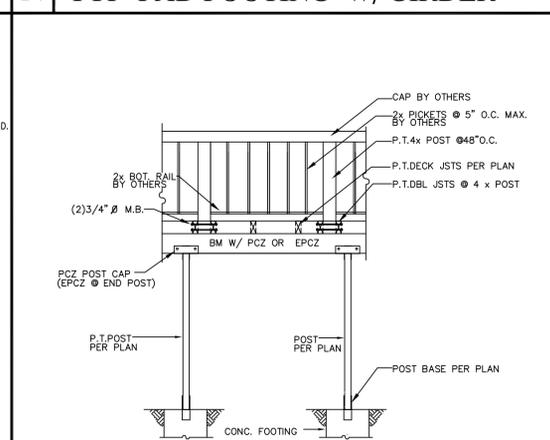
20 TYPICAL HD (SLAB-ON-GRADE)



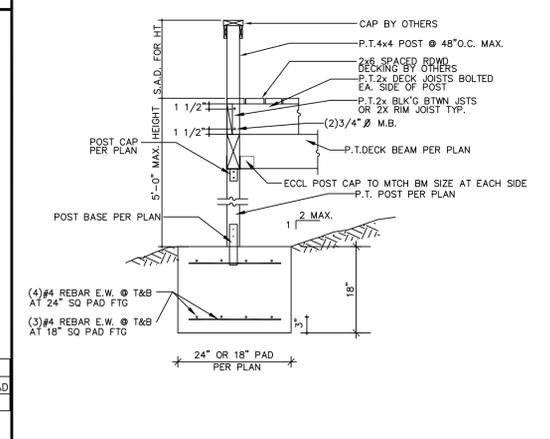
13 DECK FLR JOIST ⊥ WALL



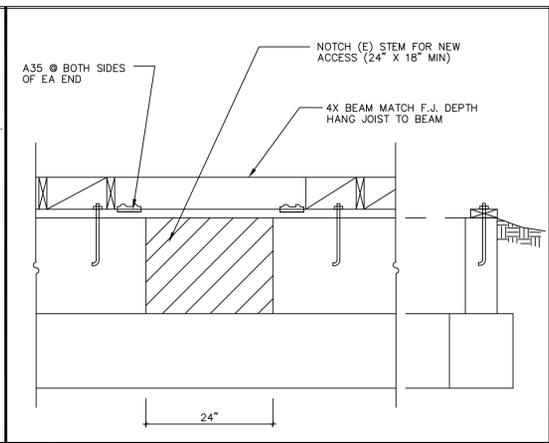
14 TYP PAD FOOTING W/ GIRDER



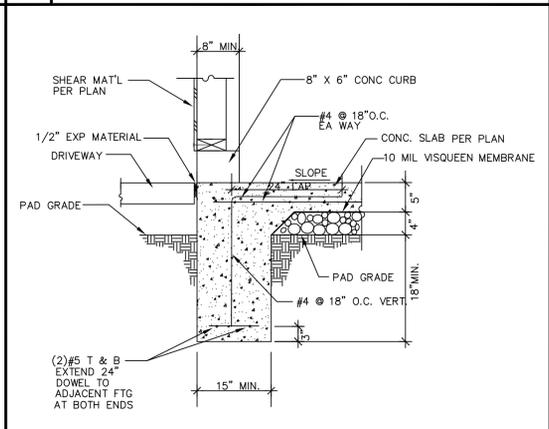
16 DECK



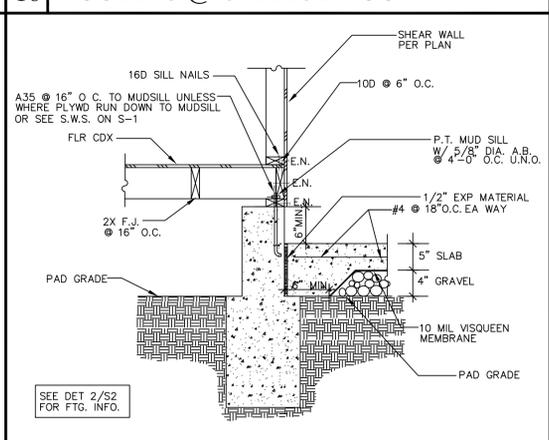
12 DECK FLR JOIST ⊥ WALL



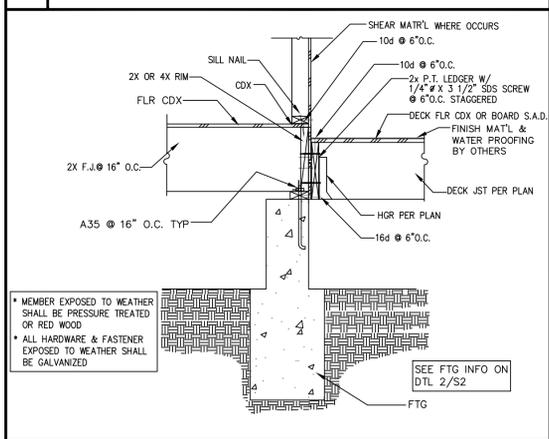
9 UNDER FLOOR ACCESS



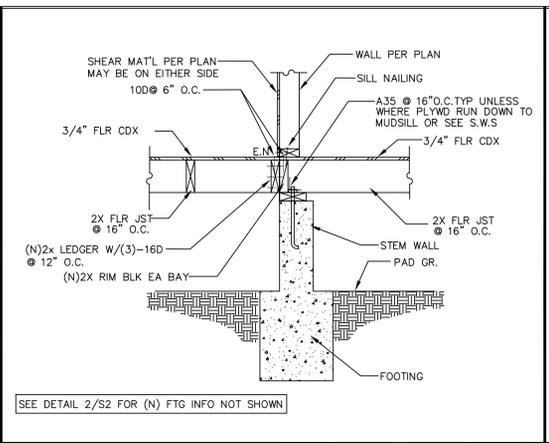
10 FOOTING @ GARAGE DOOR



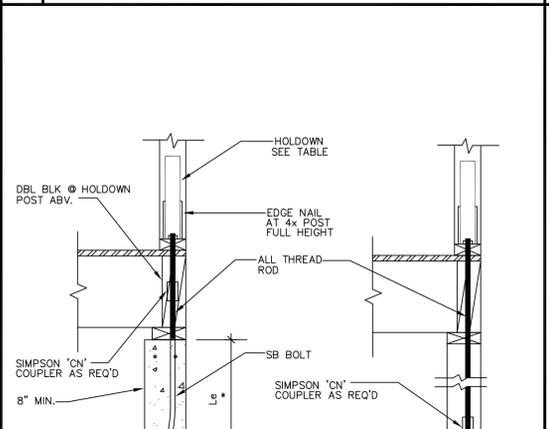
11 FLOOR JOISTS AT \"T\" FTG / SLAB



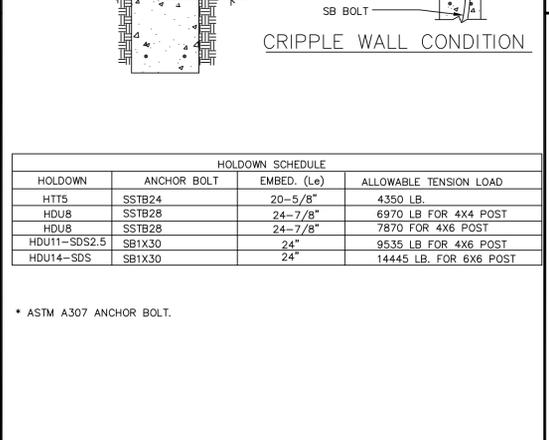
8 EXTERIOR FOOTING @ GARAGE



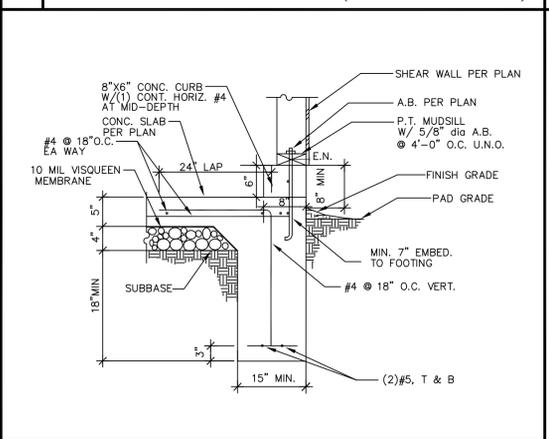
5 FLOOR JOISTS AT INTERIOR FTG



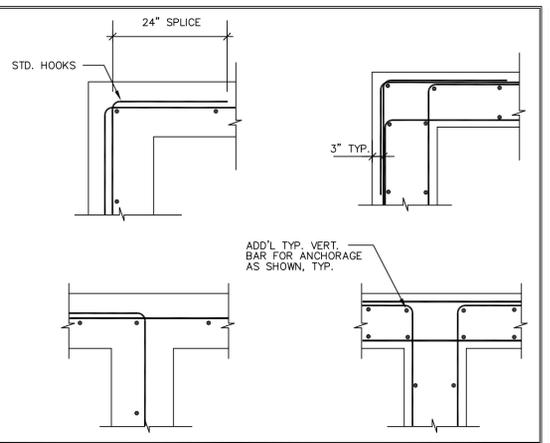
7 TYPICAL HOLDOWN (RAISED FLR)



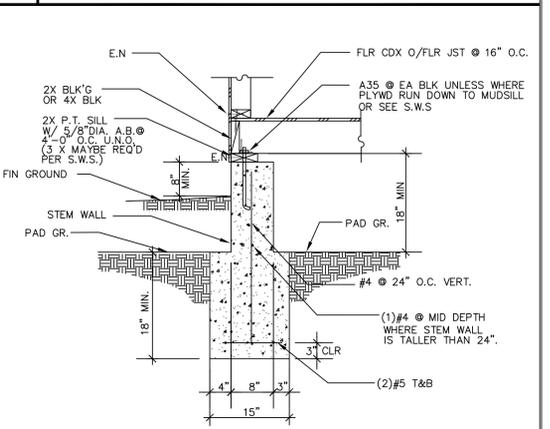
1 BAR @ CONC. CORNER



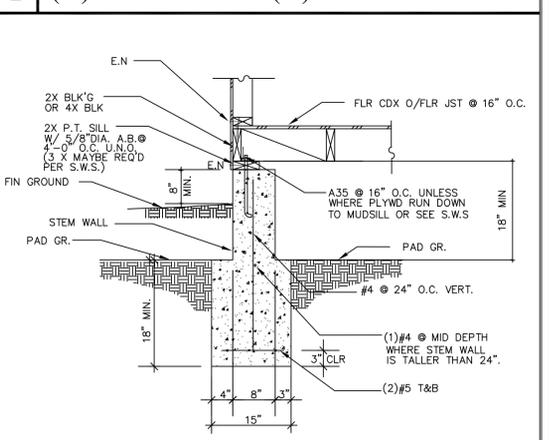
4 GIRDER HANGER



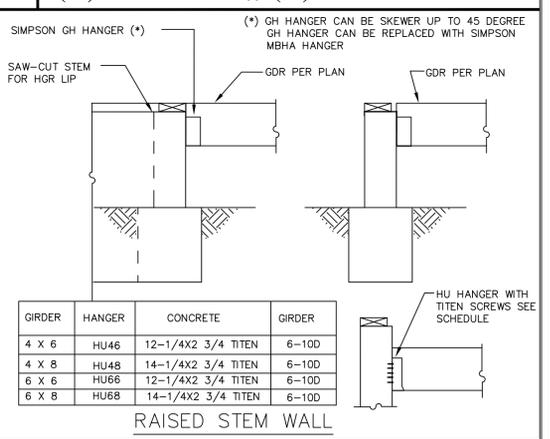
2 (N) FLR JOIST ⊥ (N) EXT. FOOTING



3 (N) FLR JOIST // (N) EXT. FOOTING



6 CRIPPLE WALL CONDITION



12 DECK FLR JOIST ⊥ WALL

REVISIONS

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 SAN RAMON, CA 94583
 BUS:(925) 829-0920
 EMAIL:SCOTT@CIBOTTI.COM

SYCAMORE RESIDENCE (ADU)
 15170 SYCAMORE DRIVE
 MORGAN HILL, CA 95037

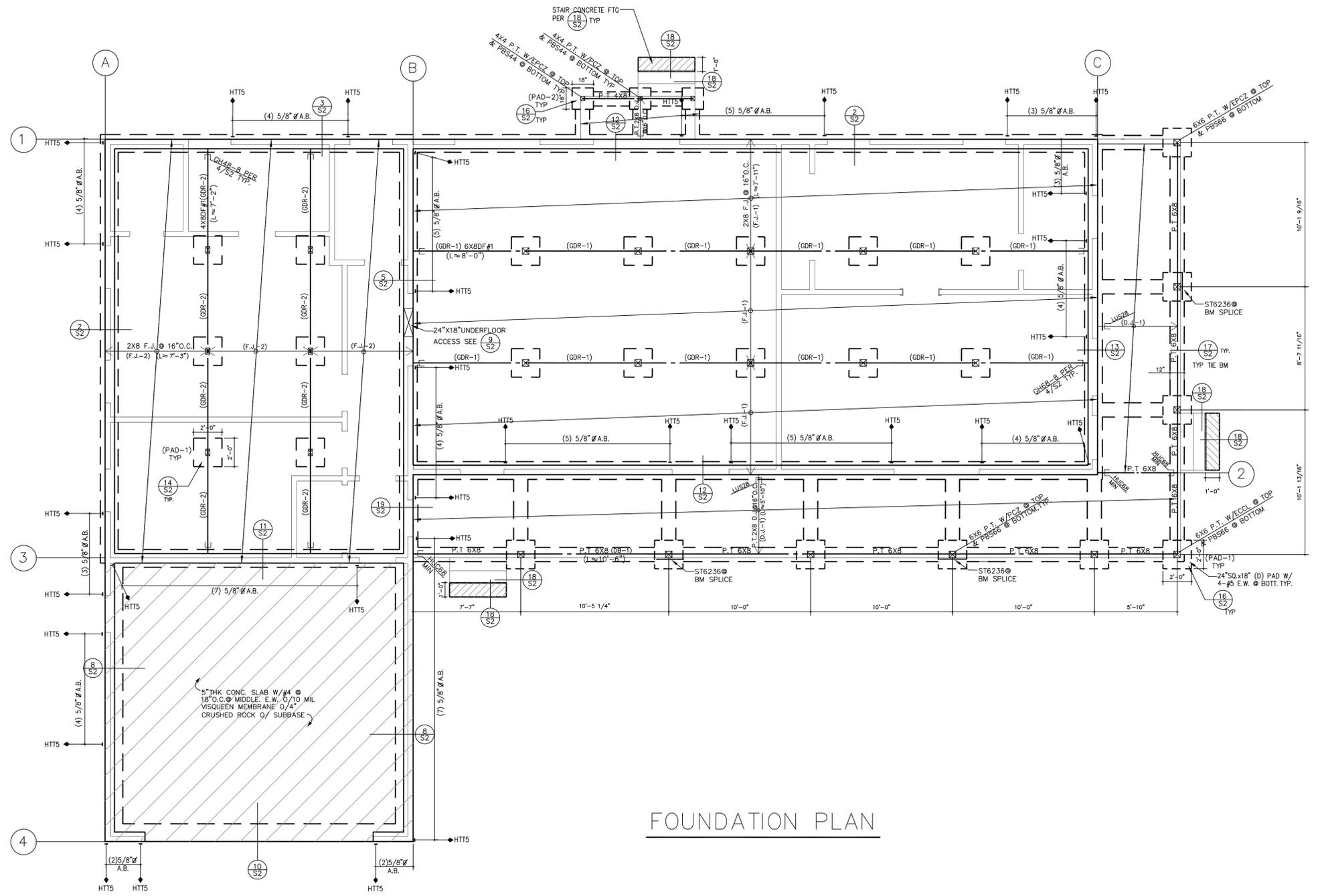
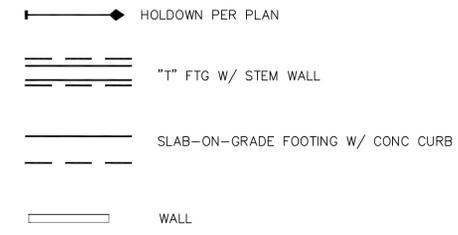
STRUCTURAL DETAILS
 DATE: 9-12-2023
 SCALE:
 DRAWN:
 APPR:
 SHEET: S-2

FOUNDATION NOTES:

- FLOOR SHEATHING TO BE 3/4" OSB, T&G & NAILED AND PLACED PER STRUCTURAL NOTES NOTES ON SHEET S1.
- U.N.O. ALL FLOOR JOISTS ARE 2X8 DF#2 AT 16" O.C. ALL FLOOR GIRDERS ARE 4x8 DF#1 OR 6x8 DF#1 PER PLAN.
- U.N.O. ALL RIM JOISTS SHALL BE 2x8 DF #2.
- ALL LUMBER MEMBERS IN DIRECTLY CONTACT WITH CONCRETE FOUNDATION SHALL BE PREEASURE-TREATED DOUGLAS OR RED WOOD.
- FASTENERS, HARDWARES IN CONTACT WITH PREEASURE-TREATED AND FIRE-RETARDENT TREATED WOOD SHALL BE OF HOT-DIPPED ZINC COATED GALVANIZED, STAINLESS STEEL, SILCON BRONZE OR COPPER.
- U.N.O. ALL CONCRETE SHALL BE 15" WIDE FTG. SEE DETAIL 1/S2 FOR MORE INFORMATION.
- U.N.O. ALL ANCHORS BOLTS SHALL BE 5/8" DIAMETER (7" MINIMUM EMBEDMENT) AT 4'-0" O.C. MAX TO BE EQUALLY SPACED. TWO BOLTS MINIMUM PER LENGTH. OF MUDSILL PLATE, 12" MAXIMUM AND 4 1/2" MINIMUM FROM PLATE ENDS. ANCHOR BOLTS SHALL BE INSTALLED WITH Simpson BP 5/8-3 (1/4" X 3" X 3") BEARING PLATES.
- ANCHOR BOLTS SHALL BE A307 STEEL.
- ANCHOR BOLTS MAY BE SUBSTITUTED BY EPOXY ANCHORS OF EQUAL DIAMETER, FOLLOW ICB0 REPORT FOR INSTALLATION.
- A.B.'s SHALL BE PROVIDED AT ALL EXTERIOR WALLS, INTERIOR BEARING AND SHEARWALLS AS SPECIFIED ABOVE.
- ALL NON-BEARING WALLS MAY BE ATTACHED WITH HILTI X-DNI72 P8 S36,ICC REPORT ESR-2379 EQUAL SHOT PINS AT 16" O.C. WITH PLATE WASHERS. FIRST TWO PINS PLACED 6" AND 10" FROM PLATE ENDS.

- WEDGE ANCHORS AND OR SHOT PINS SHALL BE INSTALLED MINIMUM 7 DAYS AFTER THE CONCRETE IS POURED.
- HOLDOWNS SHALL NOT BE SCALED OFF OF FOUNDATION PLANS. THEY SHALL BE LOCATED BY CLOSE EVALUATION OF ARCHITECTURAL FLOOR PLANS, SHEARWALL PLANS, AND THE FRAMING PLANS ABOVE.
- HOLDOWN RODS OR STRAPS MUST BE CAST IN PLACE WITH THE CONCRETE.
- HOLDOWN RODS MAY BE STANDARD " HEX-HEAD", "L" BOLTS OR SIMPSON "SSTB" BOLTS. REFER TO MANUFACTURE SPECIFICATIONS FOR EMBED, COVERAGE AND OTHER REQUIREMENTS.
- U.O.N., STD, HTT, HDQ, HDU, AND HD HOLDOWNS SHALL BE ATTACHED TO 4X4 POST MINIMUM WITH SHEAR EDGE NAILING ALONG FULL HEIGHT.
- SEE DETAIL 7/S2 OR 8/S2 FOR TYPICAL HOLDOWNS AT FOUNDATION.
- SEE ALL PERTINENT INFORMATION IN STRUCTURAL NOTES ON SHEET S1. ALSO SEE ARCHITECTURAL FOUNDATION DIMENSION PLAN.
- CONTRACTOR TO VERIFY EXISTING FOUNDATION, NOTIFY ENGINEER IF EXISTING FOOTING IS PIER & GRADE BEAM TYPE OF FOUNDATION.
- U.N.O. ALL SLAB-ON-GRADE SHALL BE 5" CONCRETE SLAB WITH #4 @ 18" O.C. EACH WAY AT MID-DEPTH OVER 10MIL VISQUEEN BARRIER 0/4" GRAVEL O/SUBGRADE
- U.O.N., FOUNDATION AND FOOTING CONCRETE SHALL BE MINIMUM 3000PSI COMPRESSIVE STRENGTH AT 28 DAYS FOR SEISMIC DESIGN CATEGORY "D". SPECIAL INSPECTION IS NOT REQUIRED FOR CONCRETE AND REBAR IF THE FOUNDATION DESIGN IS BASED ON FC'=2500PSI. HOWEVER, CONTRACTOR SHALL SHOW PROOF OF DESIGN MIX. FROM THE REDI-MIX COMPANY.

LEGEND:



ROOF FRAMING NOTES:

1. ROOF SHEATHING TO BE 1/2" CDX NAILED & PLACED PER STRUCTURAL NOTES ON SHEET S1.
2. ALL CALIFORNIA ROOF FRAMING SHALL HAVE ROOF CDX AT BOTH UPPER AND LOW ROOFS.
3. ALL COLLECTOR TRUSSES SHALL BE DESIGNED TO CARRY THE SPECIFIED LATERAL LOAD (LAT = 240 PLF U.N.O.) FROM TOP CHORD TO BOTTOM. CHORD 10D AT 6" O.C. ROOF EDGE NAILING SHALL BE PROVIDED ALONG THE FULL LENGTH OF THE TRUSSES.
4. U.N.O. ALL "STRUCTURAL GABLED END TRUSSES" SHALL BE DESIGNED TO CARRY 240 PLF ALONG THE FULL LENGTH OF THE TOP CHORD AND BE CAPABLE TO TRANSFER THE LOAD TO THE BOTTOM CHORD.
5. U.N.O. TRUSS HANGERS FOR REGULAR TRUSSES SHALL BE SIMPSON LUS26 FOR UP TO 20'-0" CLEAR SPAN AND LUS210 FOR UP TO 35'-0" CLEAR SPAN. HIP TRUSS HANGERS TO BE LSU26 UP TO 12'-0" SPAN & LSU210 UP TO 16'-0" SPAN. U.N.O. GIRDER TRUSS HANGERS SHALL FOLLOW PLAN SPECIFICATIONS OR AS TABLE BELOW FOR REFERENCE ONLY.

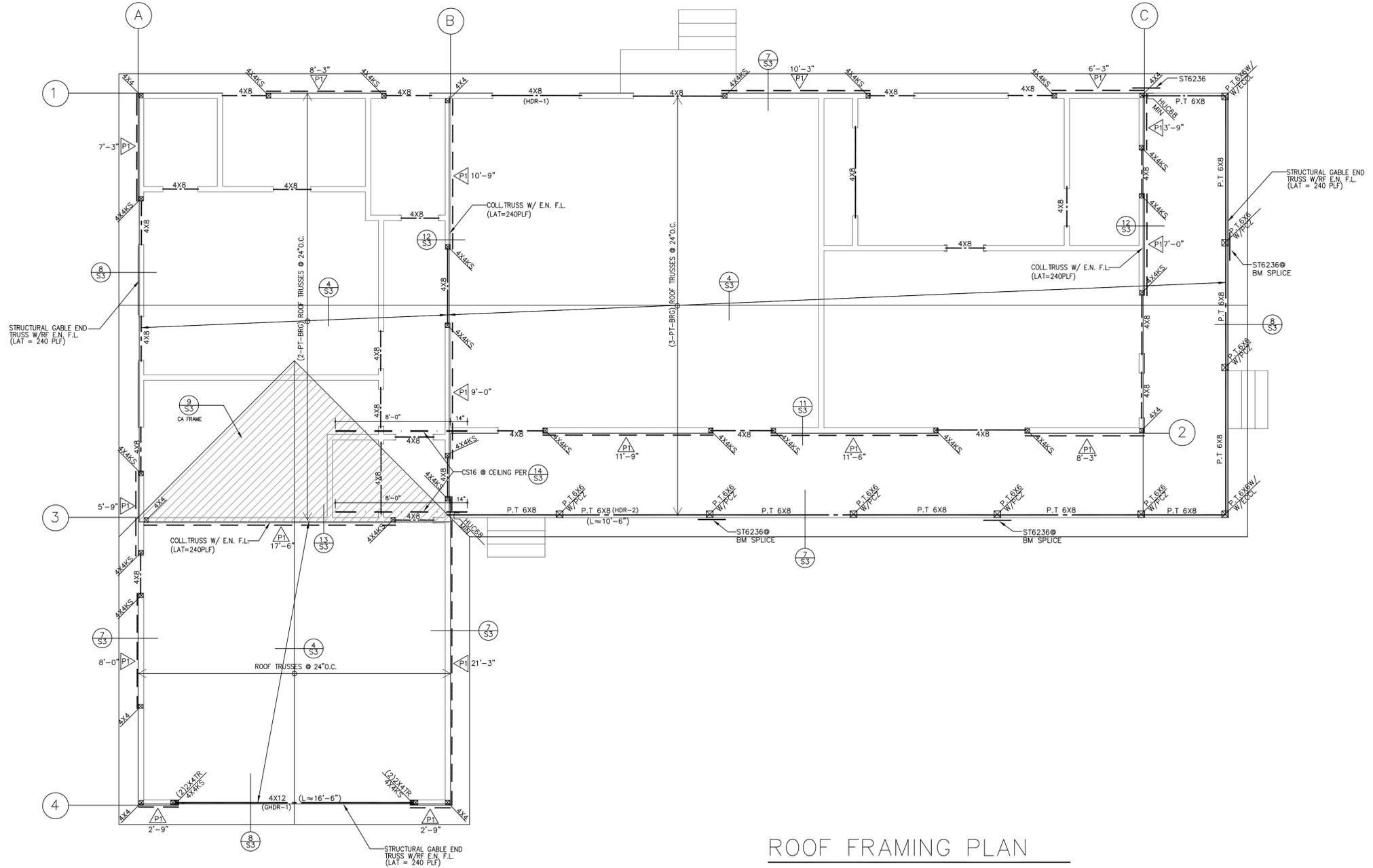
TRUSS SPAN	(1)PLY	(2)PLY	(3)PLY
20'-0"	HUS 26	HHUS26-2	HGUS26-3
35'-0"	HUS210	HHUS210-2	HHUS210-3

CONTRACTOR SHALL REFER TO SHOP DRAWINGS FOR HANGER SPECIFIED BY TRUSS MANUFACTURER.

6. ALL EXTERIOR WALLS AND STRUCTURAL WALLS SHALL REFER TO DETAIL 1/S3 FOR TOP PLATE CONTINUITY.
7. U.N.O. ALL HEADERS SHALL BE 4 X 8 DF-L #2 AT 2 X 4 WALLS OR 6X8 DF-L #1 AT 2X6 WALLS.
8. U.N.O. ALL EXTERIOR WALLS, ALL STRUCTURAL WALLS & ALL STRUCTURAL BEARING WALLS SHALL BE 2X4 OR 2X6 STUD AT 16" O.C.. 2X4 STUD CAN BE UP TO 10 FEET HEIGHT. FOR WALL HEIGHT EXCEEDS 10 FEET SHALL BE 2X6 @16" O.C.. FOR NON BEARING WALL, 2X4 STUD AT 16" O.C. CAN BE UP TO 14 FEET HEIGHT. 2X6 STUD AT 16" O.C. CAN BE UP TO 20 FEET HEIGHT.
9. SEE ALL PERTINENT INFORMATION IN STRUCTURAL NOTES ON SHEET S1.
10. USE 2X6 OR 4X6 STUD AND 6X HEADER FOR 2X6 WALL. USE 2X4 OR 4X4 STUD AND 4X HEADER FOR 2X4 WALL.

Legend

- — — HORIZONTAL COIL STRAP
- — — HORIZONTAL STRAP
- — — WALL
- — — SHEAR WALL OR SHEATHING
-  SHEAR WALL EFFECTIVE LENGTH



ROOF FRAMING PLAN

REVISIONS



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SYCAMORE RESIDENCE (ADU)

15170 SYCAMORE DRIVE
MORGAN HILL, CA 95037

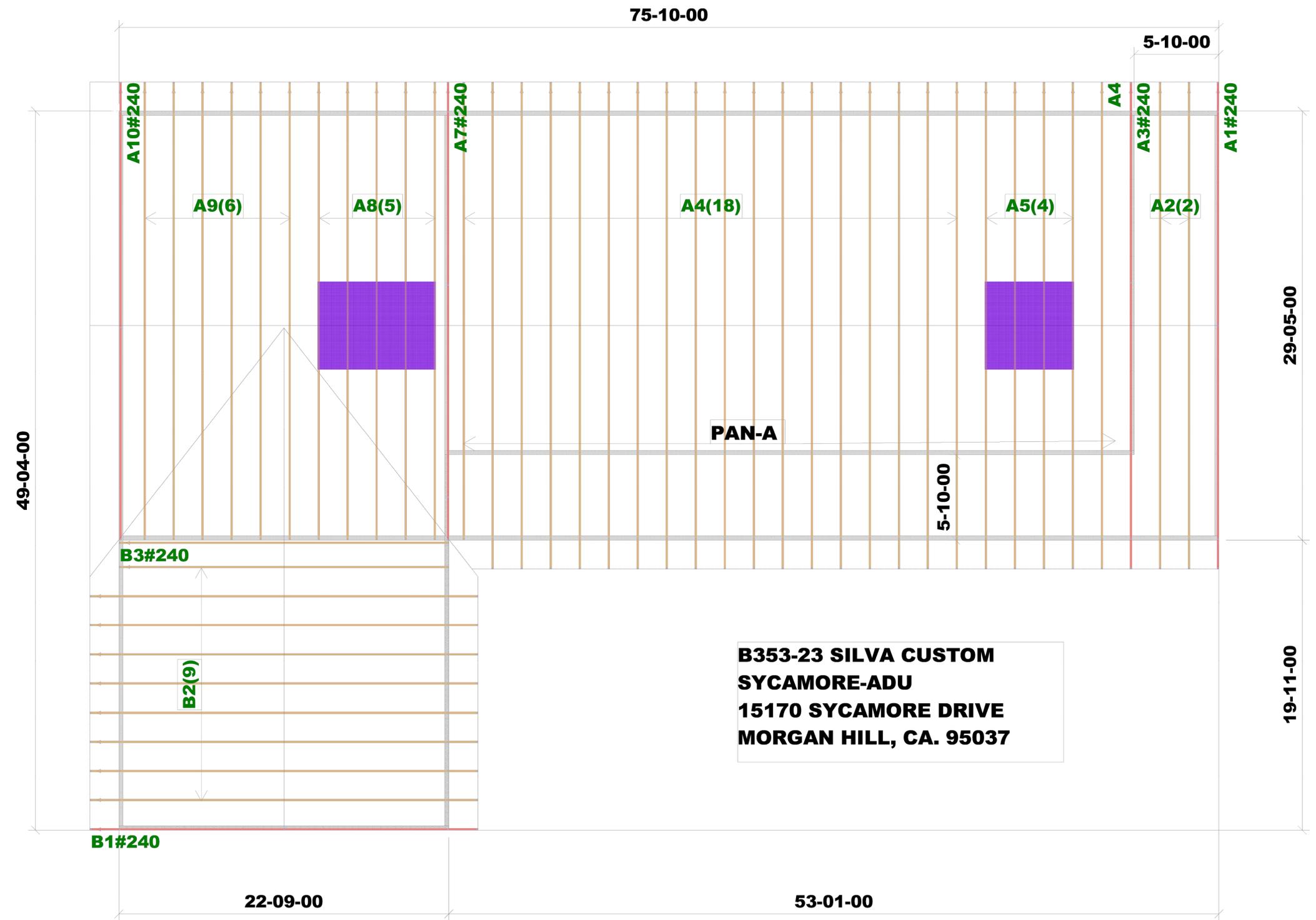
ROOF FRAMING PLAN

DATE	9-12-2023
SCALE	
DRAWN	
APR#	
SHEET	S-5
OF SHEETS	

SYCAMORE
 15170 SYCAMORE DR.
 MORGAN HILL, CA 95037
TRUSS LAYOUT PLAN

DRAWN BY: TIM HENDERSEN
 REVISION:
 DATE: 9/25/2023
 PRINT DATE: 1/22/2024
 SCALE: #####

TR₁



CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
 Project Name: Sycamore Dr ADU & JADU
 Calculation Date/Time: 2023-09-06T09:25:19-07:00
 Calculation Description: Title 24 Analysis
 Input File Name: 0230597 Sycamore Dr ADU & JADU.rbd22x

CF1R-PRF-01E (Page 1 of 13)

GENERAL INFORMATION	
01	Project Name: Sycamore Dr ADU & JADU
02	Run Title: Title 24 Analysis
03	Project Location: 15170 Sycamore Dr
04	City: Morgan Hill
05	Standards Version: 2022
06	Zip code: 95037
07	Software Version: EnergyPro 9.2
08	Climate Zone: 8
09	Front Orientation (deg. Cardinal): 0
10	Building Type: Single Family
11	Number of Dwelling Units: 1
12	Project Scope: Newly Constructed
13	Number of Bedrooms: 2
14	Addition Cond. Floor Area (ft²): 0
15	Number of Stories: 1
16	Existing Cond. Floor Area (ft²): n/a
17	Penetration Average U-Factor: 0.3
18	Total Cond. Floor Area (ft²): 1688
19	Glazing Percentage (%): 14.50%
20	ADU Bedroom Count: 1
21	ADU Conditioned Floor Area (ft²): 1159
22	Fuel Type: All electric
23	Occupancy U: No

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-Approved HERS Provider.
03	This building incorporates one or more Special Features shown below

Registration Number: 223-PO168811A-000-000-000000-0000
 CA Building Energy Efficiency Standards - 2022 Residential Compliance
 Report Version: 2022.0.000
 Schema Version: rev. 20220901

Registration Date/Time: 2023-09-06 09:28:02
 HERS Provider: CaCERTS, Inc.
 Report Generated: 2023-09-06 09:28:31

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
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ENERGY DESIGN RATINGS	Energy Design Ratings			Compliance Margins		
	Source Energy (EDR1)	Efficiency ¹ EDR (EDR2/efficiency)	Total ² LDR (EDR2xUall)	Source Energy (EDR1)	Efficiency ¹ EDR (EDR2/efficiency)	Total ² LDR (EDR2xUall)
Standard Design	32.6	44	38.9			
Proposed Design	29.5	43.9	38.8	3.1	0.1	0.1

RESULT: PASS

Efficiency EDR includes improvements like a better building envelope and more efficient equipment.
 Total EDR includes efficiency and demand response measures such as photovoltaic (PV) system and batteries.
 Building compliance when source energy efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded.

- Standard Design PV Capacity: 2.47 kWdc
- PV System resized to 2.47 kWdc (a factor of 2.468) to achieve "Standard Design PV PV Rating"

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ENERGY USE SUMMARY	Standard Design Source Energy (EDR1) (Btu/ft²-yr)	Standard Design TDV Energy (EDR2) (kWh/ft²-yr)	Proposed Design Source Energy (EDR1) (Btu/ft²-yr)	Proposed Design TDV Energy (EDR2) (kWh/ft²-yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
	Space Heating	2.45	10.94	2.6	20.23	-0.15
Space Cooling	0.58	22.67	0.38	22.03	0.2	0.64
IAQ Ventilation	0.37	3.93	0.37	3.93	0	0
Water Heating	2.55	27.48	1.56	18.71	0.99	8.77
Self Utilization/Flexibility Credit				0		0
Efficiency Compliance Total	5.95	65.02	4.91	64.9	1.04	0.12
Photovoltaics	-1.28	-44.52	-1.28	-44.37		
Battery			0			
Flexibility						
Indoor Lighting	0.73	7.18	0.73	7.18		
Appl. & Cooking	3.1	39.5	3.08	39.29		
Plug Loads	2.66	27.7	2.66	27.7		
Outdoor Lighting	0.19	1.71	0.19	1.71		
TOTAL COMPLIANCE	11.35	96.39	10.29	96.41		

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ENERGY USE INTENSITY		Standard Design (Btu/ft²-yr)	Proposed Design (Btu/ft²-yr)	Compliance Margin (Btu/ft²-yr)	Margin Percentage
Gross EUI ¹		16.97	15.15	1.82	10.72
Net EUI ²		9.12	7.29	1.83	20.07

Notes:
 1. Gross EUI is Energy Use Total (not including PV) / Total Building Area.
 2. Net EUI is Energy Use Total (including PV) / Total Building Area.

REQUIRED PV SYSTEMS											
01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Adjunct (deg)	Tilt Input	Array Angle (deg)	Tilt (x in 12)	Inverter Eff (%)	Annual Solar Access (%)
2.47	NA	Standing (16:17%)	Fixed	none	true	150-170	n/a	n/a	<=7.12	96	98

REQUIRED SPECIAL FEATURES											
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.											
• IAQ Ventilation System: supply outside air inlet, filter, and H/ERV coxes accessible per RACM Reference Manual											
• Insulation below roof deck											
• Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater, specific brand/model, or equivalent, must be installed											

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HERS FEATURE SUMMARY
 The following is a summary of the features that must be field verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CDRs and CFIRs are required to be completed in the HERS Registry.

- Indoor air quality ventilation
- Kitchen range hood
- Minimum airflow
- Verified SEER/SEER2
- Fan Efficiency Meter (FEM)
- Verified HSPF
- Verified heat pump rated heating capacity
- Duct leakage testing

BUILDING - FEATURES INFORMATION						
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Sycamore Dr ADU & JADU	1688	1	2	2	0	1

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Status
ADU	Conditioned	HVAC System1	1199	9	DHW Sys 1	New
JADU	Conditioned	HVAC System2	489	9	DHW Sys 1	New

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft²)	TIR (deg)
Front Wall	ADU	R-15 Wall	0	Front	231	34	90
Left Wall	ADU	R-15 Wall	90	Left	264	36	90
Rear Wall	ADU	R-15 Wall	180	Back	426	73	90
Right Wall	ADU	R-15 Wall	270	Right	63	16.7	90

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OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft²)	TIR (deg)
Front Wall 2	JADU	R-15 Wall	0	Front	201	24	90
Rear Wall 2	JADU	R-15 Wall	180	Back	202	24	90
Right Wall 2	JADU	R-15 Wall	270	Right	206	38.5	90
Left Interior Surface	JADU+ADU	R-13 Wall	n/a	n/a	206	0	n/a
Roof	ADU	R-38 HP Attic	n/a	n/a	1199	n/a	n/a
Roof 2	JADU	R-38 HP Attic	n/a	n/a	499	n/a	n/a
Raised Floor	ADU	R-19 Floor Crawlspace	n/a	n/a	1199	n/a	n/a
Raised Floor 2	JADU	R-19 Floor Crawlspace	n/a	n/a	499	n/a	n/a

ATTIC							
01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Slope (in 12)	Roof Reflectance	Radiant Barrier	Radiant Barrier	Cool Roof
Attic ADU	Attic Roof/ADU	Ventilated	4	0.7	0.35	No	No
Attic JADU	Attic Roof/ADU	Ventilated	4	0.1	0.85	No	No

PENETRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Height (ft)	Width (ft)	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	
Window 5	Window	Front Wall	Front	0	1	14	0.3	NFRC	0.23	NFRC		Bug Screen	
Door	Window	Front Wall	Front	0	1	20	0.3	NFRC	0.23	NFRC		Bug Screen	
Window 3	Window	Left Wall	Left	90	1	12	0.3	NFRC	0.23	NFRC		Bug Screen	
Window 3	Window	Left Wall	Left	90	1	12	0.3	NFRC	0.23	NFRC		Bug Screen	
Window 4	Window	Left Wall	Left	90	1	12	0.3	NFRC	0.23	NFRC		Bug Screen	

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuity R-value	U-factor	Assembly Layers
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-13 / 2x4 Exterior Finish: All Other Siding

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OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuity R-value	U-factor	Assembly Layers
R-13 Wall	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-13	None / None	0.092	Inside Finish: Gypsum Board Cavity / Frame: R-13 / 2x4 Other Side Finish: Gypsum Board
Attic Roof/ADU	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-19	None / 0	0.059	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/Sheathing/Decking Cavity / Frame: R-13 / 2x4 Around Roof Joists: R-6.0 insul.
Attic Roof/JADU	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-19	None / 0	0.059	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/Sheathing/Decking Cavity / Frame: R-13 / 2x4 Around Roof Joists: R-6.0 insul.
R-19 Floor Crawlspace	Floors Over Crawlspace	Wood Framed Floor	2x6 @ 16 in. O. C.	R-19	None / None	0.049	Floor Surface: Carpeted Floor Deck: Wood Siding/Sheathing/Decking Cavity / Frame: R-19 / 2x6
R-38 HP Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-38	None / None	0.025	Over Ceiling Joists: R-38 insul. Cavity / Frame: R-1 / 2x4 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION				
01	02	03	04	05
Quality Insulation Installation (QI)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50	CFM50
Not Required	Not Required	N/A	n/a	n/a

Registration Number: 223-PO168811A-000-000-000000-0000
 CA Building Energy Efficiency Standards - 2022 Residential Compliance
 Report Version: 2022.0.000
 Schema Version: rev. 20220901

Registration Date/Time: 2023-09-06 09:28:02
 HERS Provider: CaCERTS, Inc.
 Report Generated: 2023-09-06 09:28:31

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
 Project Name: Sycamore Dr ADU & JADU
 Calculation Date/Time: 2023-09-06T09:25:19-07:00
 Calculation Description: Title 24 Analysis
 Input File Name: 0230597 Sycamore Dr ADU & JADU.rbd22x

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WATER HEATING SYSTEMS							
01	02	03	04	05	06	07	08
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	None	n/a

WATER HEATERS - NEEA HEAT PUMP							
01	02	03	04	05	06	07	08
Name	# of Units	Tank Vol. (gal)	NEEA Heat Pump Model	NEEA Heat Pump Brand	Tank Location	Duct Inlet Air Source	Duct Outlet Air Source
DHW Heater 1	1	50	Abeem	PROHSO T2 R137550150 (gal) (JAL3)	Outside	ADU	ADU

WATER HEATING - HERS VERIFICATION						
01	02	03	04	05	06	07
Name	Pipe Insulation	Parallel Piping	Compact Distribution Type	Compact Distribution Type	Recirculation Control	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required

SPACE CONDITIONING SYSTEMS								
01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type
HVAC System1	Heat pump heating cooling	Heat Pump System 1	1	Heat Pump System 1	1	HVAC Fan 1	Air Distribution System 1	Setback
HVAC System2	Heat pump heating cooling	Heat Pump System 2	1	Heat Pump System 2	1	HVAC Fan 2	Air Distribution System 2	Setback

Registration Number: 223-PO168811A-000-000-000000-0000
 CA Building Energy Efficiency Standards - 2022 Residential Compliance
 Report Version: 2022.0.000
 Schema Version: rev. 20220901

Registration Date/Time: 2023-09-06 09:28:02
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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
 Project Name: Sycamore Dr ADU & JADU
 Calculation Date/Time: 2023-09-06T09:25:19-07:00
 Calculation Description: Title 24 Analysis
 Input File Name: 0230597 Sycamore Dr ADU & JADU.rbd22x

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HVAC - HEAT PUMPS												
01	02	03	04	05	06	07	08	09	10	11	12	13
Name	System Type	Number of Units	Efficiency Type	HEHP / HSPF / COP	Cap 67	Cap 17	Efficiency Type	SEER / SEER2	FER / EER / CEER	Zonally Controlled	Compressor Type	HERS Verification
Heat Pump System 1	Central split HP	1	HSPF	10	24000	18720						

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: Sycamore Dr ADU & JADU
Calculation Date/Time: 2023-09-06T09:25:19-07:00
Calculation Description: Title 24 Analysis
Input File Name: 0230597 Sycamore Dr ADU & JADU.rbd2x

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance Documentation is accurate and complete.
Documentation Author Name: Adam Bailey
Signature Date: 2023-09-06 09:29:02
Address: 5770 Winfield Boulevard #15
City/State/Zip: San Jose, CA 95123

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury under the laws of the State of California:
1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the design and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 2 and Part of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications identified on the aforementioned forms not attached with this building permit application.

Responsible Designer Name: Adam Bailey
Signature Date: 2023-09-06 09:29:02
Address: 5770 Winfield Boulevard #15
City/State/Zip: San Jose, CA 95123

Digitally signed by CA CERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

Registration Number: 223-PRF-003111-A-000-000-0000-0000
Registration Date/Time: 2023-09-06 09:29:02
CA Building Energy Efficiency Standards - 2022 Residential Compliance
Report Generated: 2023-09-06 09:29:31

2022 Single-Family Residential Mandatory Requirements Summary

NOTE: Single-family residential buildings subject to the Energy Codes must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information.

- Building Envelope:
§ 110.6(a): Air Leakage. Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283, or AAMA/WMA/CSA 1011.5.2/A440-2011.
§ 110.6(a)(5): Sealing. Fenestration products and exterior doors must have a label meeting the requirements of § 110.11(a).
§ 110.6(b): Field fabricated exterior doors and fenestration products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6.A, 110.6.B, or JAA.5 for exterior doors. They must be caulked and/or weather-stripped.
§ 110.7: Air Leakage. All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather-stripped.
§ 110.8(a): Insulation Certification by Manufacturers. Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(b): Insulation Requirements for Heated Slab Floors. Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(c): Roofing Products Solar Reflectance and Thermal Emittance. The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per § 110.113 when the installation of a cool roof is specified on the CFIR.
§ 110.8(j): Radiant Barrier. When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 110.8(k): Roof Deck, Ceiling and Rafter Roof Insulation. Roof decks in newly constructed attics in climate zones 4 and 8-16 area-weighted average U-factor not exceeding U-1.04. Ceiling and rafter roofs minimum R-22 insulation in wood-frame ceiling or area-weighted average U-factor must not exceed 0.043. Rafter roof alterations minimum R-19 or area-weighted average U-factor of 0.054 or less. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling.
§ 150.0(b): Loose-fill Insulation. Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c): Wall Insulation. Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B.
§ 150.0(d): Raised-floor Insulation. Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.
§ 150.0(e): Slab Edge Insulation. Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm inch, be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(f): Vapor Retarder. In climate zones 1 through 16, the earth floor or unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d).
§ 150.0(g): Vapor Retarder. In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(h): Fenestration Products. Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.45, or area-weighted average U-factor of all fenestration must not exceed 0.45.
Fireplaces, Decorative Gas Appliances, and Gas Log:
§ 110.5(e): Pilot Light. Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)(1): Closable Doors. Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)(2): Combustion Intake. Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.
§ 150.0(e)(3): Flue Damper. Masonry or factory-built fireplaces must have a flue damper with a readily accessible control device.
Space Conditioning, Water Heating, and Plumbing System:
§ 110.0.1-§ 110.3: Certification. Heating, ventilation, and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission.
§ 110.2(a): HVAC Efficiency. Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-L.
Controls for Heat Pumps with Supplementary Electric Resistance Heaters. Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating; and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.
§ 110.2(c): Thermostats. All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.
Insulation. Unvented service water heater storage tanks and solar water-heating backup tanks must have adequate insulation, or tank surface heat loss rating.
§ 110.3(c)(3): Isolation Valves. Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.
§ 110.3(c)(6): Isolation Valves. Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.

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2022 Single-Family Residential Mandatory Requirements Summary

- § 110.5: Pilot Lights. Continuously burning pilot lights are prohibited for natural gas fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters.
§ 150.0(h): Building Cooling and Heating Loads. Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume, the SMACNA Residential Comfort System Installation Standards Manual, or the ACCA Manual J using design conditions specified in § 150.0(j).
§ 150.0(h)(3A): Clearances. Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer.
§ 150.0(h)(3B): Liquid Line Drier. Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(i): Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation. All domestic hot water piping must be insulated as specified in § 609.11 of the California Plumbing Code.
§ 150.0(j): Insulation Protection. Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by § 120.3(b). Insulation exposed to weather must be water resistant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(j)(1): Gas or Propane Water Heating Systems. Systems using gas or propane water heaters to serve individual dwelling units must designate a space at least 2.5 x 2.5 x 7' suitable for the future installation of a heat pump water heater, and meet electrical and plumbing requirements, based on the distance between the designated space and the water heater location; and a condensate drain no more than 2' higher than the base of the water heater.
§ 150.0(j)(3): Solar Water-heating Systems. Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO RST), or by a listing agency that is approved by the executive director.
Ducts and Fans:
§ 110.8(d)(3): Ducts. Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
CMC Compliance. All air-distribution system ducts and plenums must meet CMC §§ 601.0-605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to R-6.0 or higher. Ducts located entirely in conditioned space as confirmed through field verification and diagnostic testing (RAS.1.4.3.8) do not require insulation. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable UL requirements, or aerosol sealant that meets UL 723. The combination of mastic and either mesh or tape must be used to seal openings greater than 1/2". If mastic or tape is used, building cavities, air handler support platforms, and plenums designed or constructed with materials other than sealed sheet metal duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts; ducts installed in these spaces must not be compressed.
§ 150.0(m)(2): Factory-Fabricated Duct Systems. Factory-fabricated duct systems must comply with applicable requirements for duct construction, connectors, and closures, joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive tape tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)(3): Field-Fabricated Duct Systems. Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)(7): Backdraft Damper. Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)(8): Gravity Ventilation Dampers. Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)(9): Protection of Insulation. Insulation must be protected from damage due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be protected by a Class I or Class II vapor retarder (e.g., protected by aluminum, sheet metal, painted canvas, or plastic cover). Cellular foam insulation must be protected as above or painted with a water retardant and radiation-resistant coating.
§ 150.0(m)(10): Porous Inner Core Flex Duct. Porous inner cores of flex ducts must have a non-porous layer or air barrier between the inner core and outer vapor barrier.
§ 150.0(m)(11): Duct System Sealing and Leakage Test. When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with Reference Residential Appendix RA.3.1.
§ 150.0(m)(12): Air Filtration. Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Clean filter pressure drop and labeling must meet the requirements in § 150.0(m)(12). Filters must be accessible for regular service. Filter racks or grilles must use gaskets, sealing, or other means to close gaps around the inserted filters to and prevents air from bypassing the filter.

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2022 Single-Family Residential Mandatory Requirements Summary

- § 150.0(m)(13): Space Conditioning System Airflow Rate and Fan Efficiency. Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficiency ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficiency ≤ 0.52 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA.3.3.
Ventilation and Indoor Air Quality:
§ 150.0(o)(1): Requirements for Ventilation and Indoor Air Quality. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)(1).
§ 150.0(o)(1B): Central Fan Integrated (CFI) Ventilation Systems. Continuous operation of CFI air handlers is not allowed to provide the whole-dwelling unit ventilation airflow required per § 150.0(o)(1C). A motorized damper(s) must be installed on the ventilation duct(s) that prevents air flow through the space conditioning duct system when the damper(s) is closed and controlled per § 150.0(o)(1B)(ii). CFI ventilation systems must have controls that track outdoor air ventilation run time, and either open or close the motorized damper(s) for compliance with § 150.0(o)(1C).
§ 150.0(o)(1C): Whole-Dwelling Unit Mechanical Ventilation for Single-Family Detached and Townhouses. Single-family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow specified in § 150.0(o)(1C)(ii).
§ 150.0(o)(1G): Local Mechanical Exhaust. Kitchens and bathrooms must have local mechanical exhaust; nonenclosed kitchens must have demand-controlled exhaust system meeting requirements of § 150.0(o)(1G)(i) or § 150.0(o)(1G)(ii) and bathrooms can use demand-controlled or continuous exhaust meeting § 150.0(o)(1G)(i)-iv. Airflow must be measured by the installer per § 150.0(o)(1G)(v), and rated for sound per § 150.0(o)(1G)(vi).
§ 150.0(o)(1H)(i): Airflow Measurement and Sound Ratings of Whole-Dwelling Unit Ventilation Systems. The airflow required per § 150.0(o)(1C) must be measured by using a flow hood, flow grid, or other airflow measuring device at the fan's inlet or outlet terminals/grilles per Reference Residential Appendix RA.3.7. Whole-dwelling unit ventilation systems must be rated for sound per ASHRAE 92.2 § 7.2 or less than the minimum airflow rate required by § 150.0(o)(1C).
§ 150.0(o)(2): Field Verification and Diagnostic Testing. Whole-dwelling unit ventilation airflow, vented range hood airflow and sound rating, and HRV and ERV fan efficiency must be verified in accordance with Reference Residential Appendix RA.3.7. Vented range hoods must be verified per Reference Residential Appendix RA.3.7.4.3 to confirm it is rated by HV1 or AHAM to comply with the airflow rates and sound requirements per § 150.0(o)(1G).
Pool and Spa Systems and Equipment:
§ 110.4(a): Certification by Manufacturers. Any pool or spa heating system or equipment must be certified to have all of the following: compliance with the Appliance Efficiency Regulations and listing in MAEDBS; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.
§ 110.4(b)(1): Piping. Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)(2): Covers. Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)(3): Directional Inlets and Time Switches for Pools. Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5: Pilot Light. Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p): Pool Systems and Equipment Installation. Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.
Lighting:
§ 110.9: Lighting Controls and Components. All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.
§ 150.0(q)(1A): Luminaire Efficacy. All installed luminaires must meet the requirements in Table 150.0-A, except lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, and garage door openers; navigation lighting less than 5 watts; and lighting integral to drawers, cabinets, and linen closets with an efficacy of at least 45 lumens per watt.
§ 150.0(q)(1B): Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JAB.
§ 150.0(q)(1C): Recessed Downlight Luminaires in Ceilings. Luminaires recessed into ceilings must not contain screw based sockets, must be airtight, and must be sealed with a gasket or caulk. California Electrical Code § 410.116 must also be met.
§ 150.0(q)(1D): Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JAB elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(q)(1E): Blank Electrical Boxes. The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device shall be no more than the number of bedrooms. These boxes must be served by a dimmer, vacancy sensor control, low voltage wiring, or fan speed control.
§ 150.0(q)(1F): Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(q).

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2022 Single-Family Residential Mandatory Requirements Summary

- § 150.0(q)(1G): Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JAB.
§ 150.0(q)(1H): Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JAB elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(q)(1I): Light Sources in Drawers, Cabinets, and Linen Closets. Light sources internal to drawers, cabinet or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(q)(2A): Interior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(q)(2B): Interior Switches and Controls. Exhaust fans must be controlled separately from lighting systems.
§ 150.0(q)(2A): Accessible Controls. Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned on and off.
§ 150.0(q)(2B): Multiple Controls. Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the dimmer or sensor is installed to comply with § 150.0(q).
§ 150.0(q)(2C): Mandatory Requirements. Lighting controls must comply with the applicable requirements of § 110.9.
§ 150.0(q)(2D): Energy Management Control Systems. An energy management control system (EMCS) may be used to comply with dimming, occupancy, and control requirements if it provides the functionality of the specified control per § 110.9 and the physical controls specified in § 150.0(q)(2A).
§ 150.0(q)(2E): Automatic Shutoff Controls. In bedrooms, garages, laundry rooms, utility rooms and walk-in closets, at least one installed luminaire must be controlled by an occupancy or vacancy sensor providing automatic off functionality. Lighting inside drawers and cabinets with opaque fronts or doors must have controls that turn the light off when the drawer or door is closed.
§ 150.0(q)(2F): Dimmers. Lighting in habitable spaces (e.g., living rooms, dining rooms, kitchens, and bedrooms) must have readily accessible wall-mounted dimming controls that allow the lighting to be manually adjusted up and down. Forward phase cut dimmers controlling LED light sources in these spaces must comply with NEMA SSL 7A.
§ 150.0(q)(2K): Independent controls. Integrated lighting of exhaust fans shall be controlled independently from the fans. Lighting under cabinets or shelves, lighting in display cabinets, and switched outlets must be controlled separately from ceiling-installed lighting.
§ 150.0(q)(3A): Residential Outdoor Lighting. For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must have a manual on/off switch and either a photocontrol and motion sensor or automatic time switch control) or an astronomical time clock. An energy management control system that provides the specified control functionality and meets all applicable requirements may be used to meet these requirements.
§ 150.0(q)(4): Internally illuminated address signs. Internally illuminated address signs must either comply with § 140.8 or consume no more than 5 watts of power.
§ 150.0(q)(5): Residential Garages for Eight or More Vehicles. Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in §§ 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.
Solar Readiness:
§ 110.10(a)(1): Single-Family Residences. Single-family residences located in subdivisions with 10 or more single-family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b)-(e).
§ 110.10(b)(1A): Minimum Solar Zone Area. The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of the code or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single-family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet.
§ 110.10(b)(2): Azimuth. All sections of the solar zone located on steep-sloped roofs must have an azimuth between 90-300° of true north.
§ 110.10(b)(3A): Shading. The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment.
§ 110.10(b)(3B): Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the horizontal distance of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.
§ 110.10(b)(4): Structural Design Loads on Construction Documents. For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.10(c): Interconnection Pathways. The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single-family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.10(d): Documentation. A copy of the construction documents or a comparable document indicating the information from § 110.10(b)-(c) must be provided to the occupant.
§ 110.10(e)(1): Main Electrical Service Panel. The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(e)(2): Main Electrical Service Panel. The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric."
Electric and Energy Storage Ready:

5/6/22

2022 Single-Family Residential Mandatory Requirements Summary

- § 150.0(k): Energy Storage System (ESS) Ready. All single-family residences must meet all of the following: Either ESS-ready interconnection equipment with backed up capacity of 60 amps or more and/or one or more ESS supplied branch circuits, or a dedicated raceway from the main service to a subpanel that supplies the branch circuits in § 150.0(k); at least four branch circuits must be identified and have their source collocated at a single panelboard suitable to be supplied by the ESS, with one circuit supplying the refrigerator, one lighting circuit near the primary exit, and one circuit supplying a sleeping room receptacle outlet; main panelboard must have a minimum busbar rating of 225 amps; sufficient space to allow future installation of a system isolation equipment/transfer switch within 3' of the main panelboard; with raceways installed between the panelboard and the switch location to allow the connection of backup power source.
§ 150.0(l): Heat Pump Space Heater Ready. Systems using gas or propane furnaces to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the furnace with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready"; and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(m): Electric Cooktop Ready. Systems using gas or propane cooktops to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the cooktop with circuit conductors rated at least 50 amps with the blank cover identified as "240V ready"; and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(n): Electric Clothes Dryer Ready. Clothes dryer locations with gas or propane plumbing to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the dryer location with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready"; and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
*Exceptions may apply.

5/6/22

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name: Sycamore Dr ADU & JADU
System Name: HVAC System
Date: 9/6/2023
Floor Area: 1,199
ENGINEERING CHECKS: Heating System, Cooling System, Air System
SYSTEM LOAD: COIL COOLING PEAK, COIL HTG. PEAK
HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)
COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name: Sycamore Dr ADU & JADU
System Name: HVAC System
Date: 9/6/2023
Floor Area: 499
ENGINEERING CHECKS: Heating System, Cooling System, Air System
SYSTEM LOAD: COIL COOLING PEAK, COIL HTG. PEAK
HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)
COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)

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15170 SYCAMORE DR
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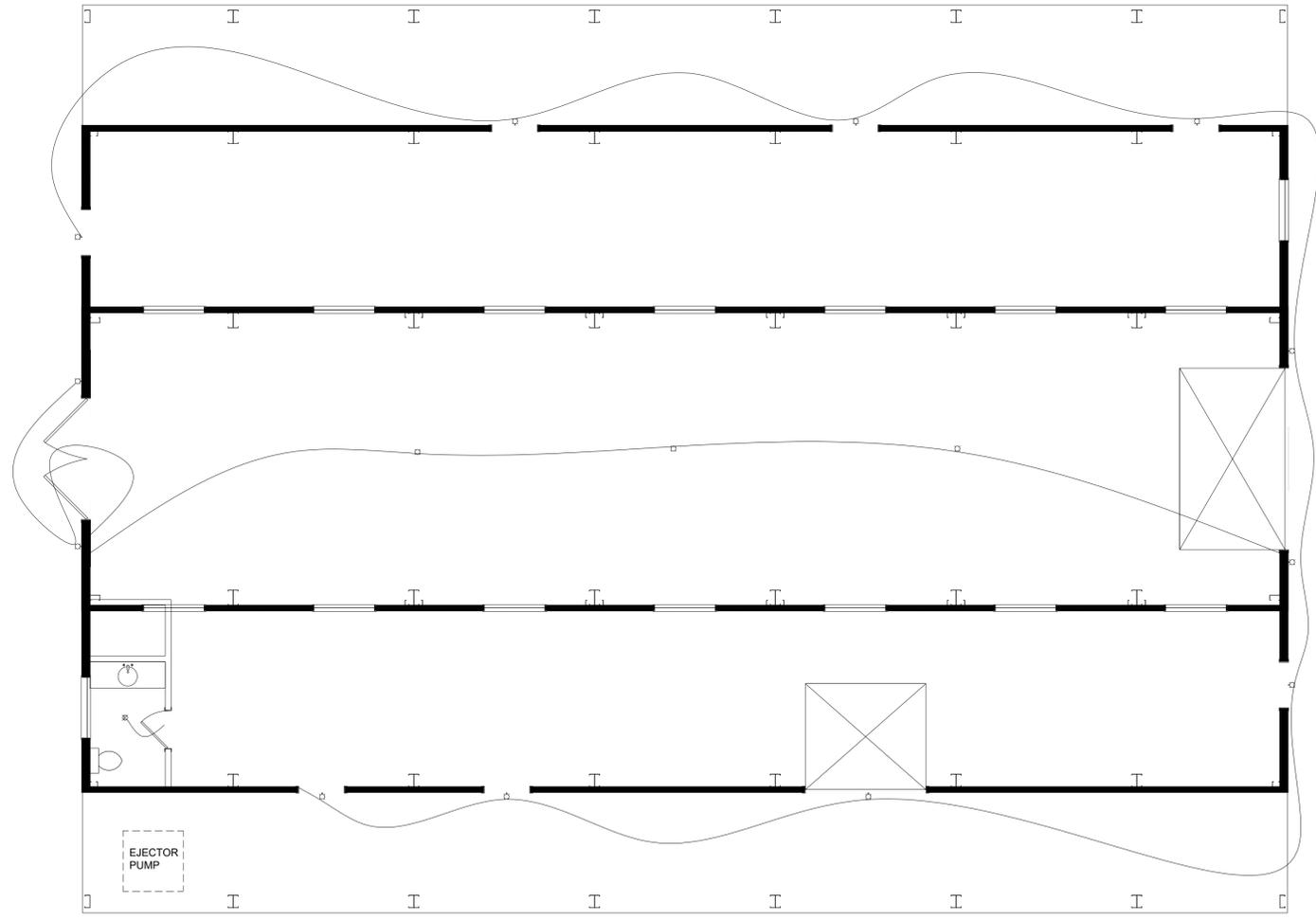
Cal Green Requirements

- 4.303.1 Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with Sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.1.4.
- 4.303.1.1 The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type Toilets.
- 4.303.1.2 The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.
- 4.303.1.3.1 Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.
- 4.303.1.3.2 When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.
- 4.303.1.4.1 The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.
- 4.303.1.4.2 The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.
- 4.303.1.4.3 Metering faucets when installed in residential buildings shall not deliver more than 0.2 gallons per cycle.
- 4.303.1.4.4 The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.
- 4.303.1.4.5 When installed, shall meet the requirements in the California Code of Regulations, Title 20 (Appliance Efficiency Regulations), Sections 1605.1(h)(4) Table H-2, Section 1605.3(h)(4)(A), and Section 1607(d)(7), and shall be equipped with an integral automatic shutoff.
- 4.303.3 Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code.
- 4.406.1 Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.
- 4.408.1 Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.
- 4.503.1 Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.
- 4.504.1 At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of water, dust and debris, which may enter the system.
- 4.504.2 Finish materials shall comply with VOC limits per Table 4.504.2
- 4.504.2.1 Adhesives, sealants and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply: Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products, as specified in Subsection 2 below. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commencing with Section 94507.
- 4.504.2.3 Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.
- 4.504.3 All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350).

- 4.504.3.1 All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350).
- 4.504.3.2 All carpet adhesive shall meet the requirements of Table 4.504.1
- 4.504.4 Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350).
- 4.504.5 Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.) as shown in Table 4.504.5
- 4.506.1 EXHAUST FAN WHICH TERMINATE OUTSIDE THE BUILDING ARE PROVIDED IN EVERY BATHROOM
- 4.507.1 WHOLE HOUSE EXHAUST FANS SHALL HAVE INSULATED LOUVERS OR COVERS WHICH CLOSE WHEN THE FAN IS OFF. COVERS OR LOUVERS SHALL HAVE A MIN. INSULATION VALUE OF R-4.4
- 4.507.2 DUCT SYSTEMS ARE SIZED, DESIGNED, AND EQUIPMENT IS SELECTED USING THE FOLLOWING METHODS:
1 ESTABLISH HEAT LOSS & HEAT GAIN VALUES ACCORDING TO ANSI/ACCA2 MANUAL J 2004 OR EQUIVALENT
2 SIZE DUCT SYSTEMS ACCORDING TO ANSI/ACCA1 MANUAL D 2009 OR EQUIVALENT
3 SELECT HEATING & COOLING EQUIPMENT ACCORDING TO ANSI/ACCL3 MANUAL 8 2004 OR EQUIVALENT
- 4.702.1 INSTALLER TRAINING: HVAC SYSTEM INSTALLERS SHALL BE TRAINED & CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS INCLUDING DUCTS & EQUIPMENT BY A NATIONALLY RECOGNIZED TRAINING OR CERTIFICATION PROGRAM
- 4.702.2 SPECIAL INSPECTORS SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE ENFORCING AGENCY FOR THE TYPE OF INSPECTION OR TASK TO BE PERFORMED
- 4.703.1 DOCUMENTATION USED TO SHOW COMPLIANCE WITH THIS CODE SHALL INCLUDE BUT IS NOT LIMITED TO, CONSTRUCTION DOCUMENTS, PLANS, SPECIFICATIONS, BUILDER OR INSTALLER CERTIFICATION, INSPECTION REPORTS, OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY WHICH DEMONSTRATE SUBSTANTIAL CONFORMANCE. WHEN SPECIFIC DOCUMENTATION FOR SPECIAL INSPECTION IS NECESSARY TO VERIFY COMPLIANCE, THAT METHOD OF COMPLIANCE WILL BE SPECIFIED IN THE APPROPRIATE SECTION OR IDENTIFIED IN THE APPLICATION CHECKLIST

NOTES

- TITLE 24 REQUIREMENTS SHALL SUPERCEDE FRO HOT WATER PIPING
- ELECTRICAL, LIGHTING, & MECHANICAL DEVICES SHOWN ON DRAWINGS INDICATES ARCHITECTURAL DESIGN INTENT ONLY. ELECTRICAL & MECHANICAL SUBCONTRACTORS TO MEET WITH OWNER FOR FINAL APPROVAL &/OR REVISIONS
- EACH KITCHEN IS REQUIRED TO HAVE A 100CFM MIN. EXHAUST FAN DUCTED TO THE OUTSIDE
- AN EXHAUST FAN SHALL BE SIZED PER ASHRAE STD. 62.2 TABLE 4-7 TO PROVIDE CONTINUOUS VENTILATION FOR THE WHOLE DWELLING
- ALL ELECTRICAL FIXTURES & APPLIANCES MAKE & MODELS PER OWNERS SPECIFICATIONS. RECEPTACLE OUTLET LOCATIONS SHALL COMPLY WITH CEC ART 210-52(A). MECHANICAL CONTRACTOR TO INSTALLA COMPLETE & OPERATING HEAT SYSTEM TO MEET ALL APPLICABLE REQUIREMENTS
- MECHANICAL CONTRACTOR SHALL DETERMINE LOCATIONS OF THERMOSTATS & COLD AIR RETURNS
- ALL KITCHEN & BATH LIGHTING FIXTURES SHALL COMPLY WITH CEC REQUIREMENTS. BRANDS & SIZES SHALL COMPLY WITH TITLE 24 CALCS. & CEC REQUIREMENTS. CONTRACTOR SHALL SUPPLY BUILDING INSPECTOR WITH MODEL NUMBERS & SPECIFICATIONS PRIOR TO FINAL INSPECTION
- PROVIDE COMBUSTIBLE AIR FOR FUEL-BURNING EQUIPMENT PER CMC 601
- PROVIDE AC/DC CARBON MONOXIDE DETECTORS CENTRALLY LOCATED IN CORRIDOR OR AREA GIVING ACCESS TO EACH SEPARATE SLEEPING AREA
- PROVIDE AC/DC SMOKE DETECTORS WITHIN EACH SLEEPING ROOM & CENTRALLY LOCATED IN CORRIDOR OR AREA GIVING ACCESS TO EACH SEPARATE SLEEPING AREA. ALL SMOKE DETECTORS TO BE INTERCONNECTED & BE WIRED TO THE HOUSE PRIMARY WIRING AND SHALL ALSO HAVE BATTERY BACKUP TYPICAL.
- ALL DETECTORS SHALL SOUND AN ALARM AUDIBLE IN ALL SLEEPING AREAS OF THE RESIDENCE PER SECT. 310.9.1
- PROVIDE SEPARATE 20AMP CIRCUIT MIN. TWO (2) FOR SMALL KITCHEN APPLIANCES PER CEC 2204(C)
- PROVIDE SEPARATE 30AMP CIRCUIT MIN. ONE (1) FOR LAUNDRY APPLIANCES PER CEC 220-4(C)
- OUTLETS ALONG HOUSE/GARAGE COMMON WALL SHALL COMPLY WITH CBC SECTION 709.7
- ALL RECESSED FIXTURES IN CEILINGS THAT ARE REQUIRED TO BE INSULATED MUST BE I.C. TYPE FIXTURES, & SHALL BE CERTIFIED AIRTIGHT
- ALL VENT TERMINATIONS MUST BE 10' AWAY OR 3' ABOVE ANY OPENING TYPICAL
- BATHROOM ELECTRICAL OUTLETS SHALL BE SUPPLIED BY AT LEAST ONE 20AMP BRANCH CIRCUIT. THE CIRCUITS SHALL HAVE NO OTHER ELECTRICAL OUTLETS PER CEC 210-52(D)
- GENERAL LIGHTING IN KITCHENS & BATHS TO HAVE AN EFFICACY OF NOT LESS THAN 40 LUMENS PER WATT TYPICAL. LIGHTS IN CLOSETS MUST HAVE AN ENCLOSED BULB TYPICAL. LIGHTS OVER SHOWER & TUB MUST CONFORM TO CEC 410-4



CARBON MONOXIDE ALARMS SHALL BE LISTED AS COMPLYING WITH UL 2034 AND MAINTAINED IN ACCORDANCE WITH NFPA 720 AND THE MANUFACTURERS INSTRUCTIONS

SMOKE ALARMS SHALL BE LISTED AS COMPLYING WITH UL AND MAINTAINED IN ACCORDANCE WITH NFPA 72 AND THE MANUFACTURERS INSTRUCTIONS

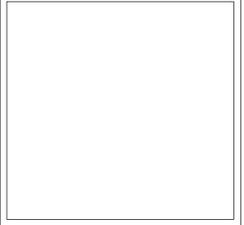
- CARBON MONOXIDE ALARMS SHALL BE LOCATED IN THE FOLLOWING LOCATIONS PER C.R.C. R315:
- A) OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS
 - B) ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS & HABITABLE ATTICS
 - C) WHERE FUEL-FIRED APPLIANCES OR FIREPLACES OCCUR IN THE DWELLING

- SMOKE ALARMS SHALL BE LOCATED IN THE FOLLOWING LOCATIONS PER C.R.C. R314:
- A) IN EACH SLEEPING ROOM
 - B) OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS
 - C) ON EACH ADDITIONAL STORY OF THE DWELLING INCLUDING BASEMENTS & HABITABLE ATTICS
 - D) NOT LESS THAN 3-FT HORIZONTALLY FROM A BATHROOM DOOR THAT HAS A TUB OR SHOWER.

SILVA
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BARN HVAC, ELECTRICAL & PLUMBING



DRAWN BY: TIM HENDERSEN	
REVISION:	REVISION
DATE:	11/9/2023
PRINT DATE:	1/22/2024
SCALE:	3/16" = 1'-0"

MEP1.1

