

PLANS REVIEWED FOR CODE COMPLIANCE

**PLANS REVIEWED SUBJECT** 

TO FIELD INSPECTIONS

Plans shall reflect the scope of the project. Any changes or deviations must be submitted and reviewed by the Building Department prior to inspection

SCAN OR CODE TO SCHEDULE AN

OR CALL 530-274-4343

backflow

and pressure relief device

Dan Dan

# Louis Barre

BADGER LANE REMODEL FOR:

## 120 BADGER LANE GRASS VALLEY, CALIFORNIA APN: 029-241-028

ABBREVIATIONS EQUAL EQUIPMENT RESILIENT TILE ANCHOR BOLT LINEAL FOOT LOCKER REDWOOD AC AC ADH RAINWATER LEADER ACOUSTICAL LIVELOAD EACH WAY ASPHALT CONCRETE LOUYER EXISTING AIR CONDITIONING LIGHTWEIGHT SUPPLY AIR GRILL EXPANSION, EXPOSURE ADHESIVE EXTERIOR SOLID CORE MACHINE ADJACENT, ADJUSTABLE SCHEDULE EDGE NAIL MATERIAL ABOYE FIN FLR STORM DRAIN MAXIMUM **AGGREGATE** MACHINE BOLT ALUMINUM FACE BRICK SQUARE FOOT MEDICINE CABINET ALTERNATE FIBERBOARD SHELVE MECHANICAL ANODIZED FIBERGLASS SHEET ACCESS PANEL MEDIUM FLOOR DRAIN SIMILAR MEMBRANE APPROXIMATE FOUNDATION STEEL JOIST ARCHITECT(URAL) METAL FIRE EXTINGUISHER MEZZANINE F.E. CABINET MANUFACTURER FINISH FLOOR SHEET METAL SCREW BACKERBOARD MANHOLE FIXED GLASS STRUCTURAL PLYWOOD MALLEABLE IRON FIRE HOSE SPECIFICATION BELOW FIRE HOSE CABINET BETWEEN SHELF & ROD(OR POLE) MISCELLANEOUS BUILDING LINE SERVICE SK, STNLESS STL METAL LATH FLASHING BLK MASONRY OPENING BLOCK FLOOR STEEL MOISTURE RESISTANT BLKG BLOCKING METAL THRESHOLD BENCH MARK FACE OF STORAGE MOUNTED BOTTOM OF FACE OF BRICK, BLOCK STRUCT STRUCTURAL MULLION BOTTOM FACE OF CONCRETE SUSPENDED FACE OF FINISH FACE OF MASONRY BRACKET TOILET ACCESSORY FACE OF STUD NATURAL BRONZE TOP & BOTTOM NOT IN CONTRACT BACKSPLASH TACKBOARD FBGL REINF PANEL BUILT-UP ROOF TELEPHONE TEMPERATURE FULL SCALE NTS NOT TO SCALE ₽W BOTH WAYS TEMPERED GLASS FOOT, FEET THOLD THRESHOLD FOOTING OVER COURSE TONGUE & GROOVE T&G FURRING CABINET THICK(NESS) FURNANCE 0C 0D ON CENTER CB COLUMN BASE TOILET FUTURE OUTSIDE DIAMETER CEMENT TOP OF FIELD NAIL OVERHANG CHAMFER TOC TOD TOP OF CURB OR CONC OPENING CBD CHALK BOARD TOP OF DECK GAUGE OPPOSITE CJCONTROL JOINT GALVANIZED TOP OF JOIST CENTERLINE TOP OF PAYEMENT GYPSUM BOARD PARTICLEBOARD CLG CEILING TOP OF SLAB GENERAL CONTRACTOR CLST PRECAST CONCRETE CLOSET TOP OF WALL GLAZED CMU GCMU PORTLAND CEM PLAS TREATED GRADE CM CONST MANAGER TERRAZZO GLASS PERFORATED CMU MASONRY BLOCK TYPICAL GOVERNMENT PREFABRICATED CLEANOUT GALYANIZED STEEL COL PREFINISHED COLUMN UNDERCUT GYPSUM FORMED JOINT FILLER CONC CONCRETE UNDERWRITERS LAB PROPERTY LINE CONSTRUCTION HORIZONTAL PLASTIC LAMINATE UNLESS OTHERWISE NOTED CONTINUOUS HANDICAP PLASTER CONTR CONTRACTOR HOSE BIBB PRESSED METAL CARPET HOLLOWCORE PNL PANEL CNSK COUNTERSINK VARIABLE HDBD HARDBOARD POINT CERAMIC TILE VINYL ASBESTOS TILE HARDWARE HOWR POLISH CY CUBIC YARD YAPOR BARRIER HOLLOW METAL SQUARE INCH VINYL COMPOSITION TILE HORIZONTAL PREFORMED DTL DETAIL HEIGHT PROPERTY DOUGLAS FIR DF YESTIBULE POINT DRAIN INLET VERTICAL GRAIN HALF FULL SCALE PARTITION DIA DIAMETER VINYL WALL COVERING HEAT RECOVERY UNIT POLY VINYL CHLORIDE DIM DIMENSION DIVIDER INSIDE DIAMETER DL DN DP DS PLYWOOD DEAD LOAD WOOD BASE INCLUDED QUARRY TILE DEEP MOOD INSTALL DOWNSPOUT WINDOW INSULATION RELOCATED DWG DRAWING WIRE GLASS INTERIOR RETURN AIR GRILL DRAWER WATER HEATER INVERT RESILIENT BASE WOOD MOULDING IRON PIPE VEORCED CONC PIPE EXISTING WITHOUT

JOIST

JOINT

LENGTH

LAMINATE

LAVATORY

LAG BOLT

KNOCKDOWN

EACH

EXPANSION BOLT

EXPANSION JOINT

ELEYATION

ENCLOSURE

ELECTRICAL

ELEC DRINK FOUNTAIN

ELEVATOR, ELEVATION

EB

EDF

ELEC

ROOF DRAIN

REFRIGERATER

RESILIENT FLOOR

ROUGH OPENING

RIGHT OF WAY

REINFORCING

REQUIRED

ROOM

WEATHERPROOF

WOOD SCREW

WATER RESISTANT

WELDED WIRE FABRIC

WELDED WIRE MESH

## GENERAL NOTES

SCOPE OF WORK: REMODEL AN EXISTING MULTIFAMILY BUILDING TO ADD A STUDIO UNIT ON THE LOWER FLOOR AND OFFICE SPACE. IN ADDITION, A NEW BEDROOM WILL BE ADDED TO THE UPPER FLOOR. THE UPPER FLOOR WILL BE CLOSED OFF FROM THE EXISTING LOBBY AREA THAT WILL NOW INCLUDE A LAUNDRY AREA. ALL EXTERIOR UPPER FLOOR DECKS WILL BE REMOVED WITH A SMALLER DECK BEING REBUILT OFF OF THE UPPER FLOOR DINING AREA. THE ENTRY AREAS WILL BE UPDATED ALONG WITH THE PARKING AREA TO CURRENT ACCESSIBILITY STANDARDS.

THIS PROJECT SHALL CONFORM TO ALL APPLICABLE CODES INCLUDING:

2022 CALIFORNIA BUILDING CODE 2022 CALIFORNIA RESIDENTIAL CODE 2022 CALIFORNIA MECHANICAL CODE 2022 CALIFORNIA PLUMBING CODE 2022 CALIFORNIA ELECTRICAL CODE

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE 2022 CALIFORNIA FIRE CODE 2022 CALIFORNIA ENERGY CODE

CURRENT CITY OF GRASS VALLEY MUNICIPAL STANDARDS

CONTRACTOR TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK

## DEFERRED SUBMITTALS

NOTE: ALL DEFERRED SUBMITTALS ARE HANDLED AS "DESIGN

DEFERRED SUBMITTALS: NONE

## PROPERTY OWNER

530-265-1625 NEYADA COUNTY 950 MAIDU AVENUE angela.masker@nevadacountyca.gov NEVADA CITY, CA 95959 CONTACT: ANGELA MASKER

### ARCHITECT

GARY A. BURKE, ARCHITECT 530-575-0336 148 CELESTA DRIVE gary@garyaburke.com GRASS VALLEY, CA 95945

### CIVIL ENGINEER

MILLENNIUM PLANNING & ENGINEERING 530-446-6765 471 SUTTON WAY, SUITE 210 michelle@millpe.com GRASS VALLEY, CA 95945 CONTACT: MICHELLE LAYSHOT, P.E.

## STRUCTURAL ENGINEER

JÀCKSON & SANDS ENGINEERING, INC 530-715-7184 1250 EAST AVENUE, #10 sean@jacksonandsandsengineering.com CHICO, CA 95926 CONTACT: SEAN JACKSON

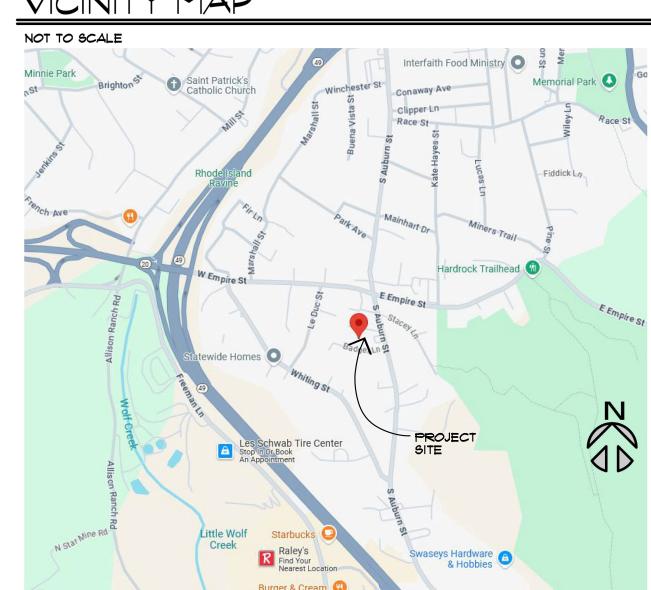
### MECHANICAL ENGINEER

MELAS ENERGY ENGINEERING 530-265-2492 michaelamelasenergy.com 547 UREN STREET # NEVADA CITY, CA 95959 CONTACT: MICHAEL MELAS

### ELECTRICAL ENGINEER

UPLIGHT ELECTRICAL ENGINEERING, INC 916-826-1824 3130 TWITCHELL ISLAND ROAD jpuga@uplightee.com WEST SACRAMENTO, CA 95691 CONTACT: JIM PUGA

## VICINITY MAP



### SITE SUMMARY

NC-FLEX GY CITY ZONING WINDLOAD SEISMIC DESIGN CATAGORY EXPOSURE CLIMATE ZONE GROUND SNOW LOAD TOTAL LOT AREA

### BUILDING SUMMARY

BUILDING TYPE OCCUPANCY R-2 SPRINKLERED NONE OCCUPANCY SEPARATION 1-HOUR BTWN DWELLING UNITS NUMBER OF STORIES ALLOWED HEIGHT ALLOWED FLOOR AREA ALLOWED 9.000 SF PER FLOOR

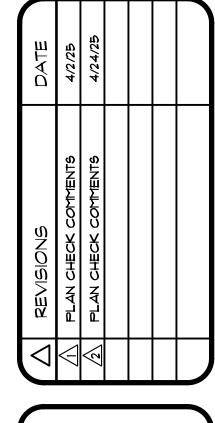
NUMBER OF STORIES PROPOSED EXISTING 2+LOFT HEIGHT PROPOSED EXISTING 34'-4"± AREA OF BUILDING

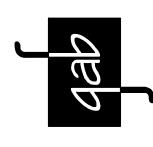
FIRST FLOOR 1,937 SF SECOND FLOOR 1,986 SF 323 SF 4,246 SF TOTAL BUILDING AREA

OCCUPANT LOAD (4,246 SF @ 1:200) = 22

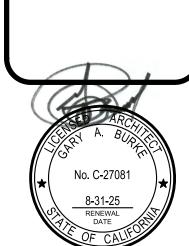
## DRAWING INDEX

TITLE SHEET CIVIL COVER SHEET C2.0 CIVIL NOTES CIVIL GENERAL NOTES C3.0 CIVIL DEMOLITION PLAN C4.0 CIVIL SITE, GRADING, DRAINAGE, AND EROSION CONTROL ARCHITECTURAL GENERAL NOTES WASTE MANAGEMENT FORMS AØ.3 RESIDENTIAL MANDATORY MEASURES AØ.4 RESIDENTIAL MANDATORY MEASUTES FIRST FLOOR DEMOLITION PLAN FIRST FLOOR PLAN FIRST FLOOR REFLECTED CEILING PLAN SECOND FLOOR DEMOLITION PLAN SECOND FLOOR PLAN A2.3 SECOND FLOOR REFLECTED CEILING PLAN LOFT DEMOLITION PLAN A3.1 A3.2 LOFT PLAN EXTERIOR ELEVATIONS A4.1 A4.2 EXTERIOR ELEVATIONS A5.1 INTERIOR ELEVATIONS ARCHITECTURAL DETAILS FOUNDATION/FRAMING PLAN SECTIONS **S**2 **G**3 STRUCTURAL NOTES **S4** STRUCTURAL DETAILS HYAC NOTES AND SPECIFICATIONS FIRST FLOOR HYAC PLANS M2.1 SECOND FLOOR HYAC PLANS M3.1 LOFT HYAC FLOOR PLAN MECHANICAL ENERGY DOCUMENTS T24-1 MECHANICAL ENERGY DOCUMENTS T24-2 PLUMBING NOTES & SPECS/FIRST FLOOR PLUMB DEMO PØ. REMODEL PLUMBING FLOOR PLAN El.Ø ONE-LINE & PANEL SCHEDULES & SYMBOL LIST POWER PLANS E2.Ø E3.Ø LIGHTING PLANS





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## IMPROVEMENT PLANS FOR: COUNTY OF NEVADA GRASS VALLEY, CALIFORNIA

FEBRUARY 2025

#### APPLICANT/OWNER

NEVADA COUNTY - HOUSING AND COMMUNITY SERVICES 950 MAIDU AVENUE NEVADA CITY, CA 95959 (530) 265-1625 CONTRACT: ANGELA MASKER

#### **ADDRESS**

120 BADGER LANE GRASS VALLEY, CA 95945

## APN

029-241-028

#### **ACREAGE**

1.30 ACRES ZONING

NC-FLEX

### PROJECT DESCRIPTION

PROJECT IMPROVEMENTS INCLUDE PARKING LOT IMPROVEMENTS AND ACCESSIBLE PATH OF TRAVEL IMPROVEMENTS.

#### PLANNING/ENGINEERING

MILLENNIUM PLANNING & ENGINEERING 471 SUTTON WAY, SUITE 210 GRASS VALLEY, CALIFORNIA 95945 CONTACT: MICHELLE LAYSHOT, P.E. (530) 446-6765

#### **FIRE**

CITY OF GRASS VALLEY FIRE DEPARTMENT 125 E. MAIN STREET GRASS VALLEY, CALIFORNIA 95945 CONTACT: DARRIN HUTCHINS (530) 274-4382

#### WATER

CITY OF GRASS VALLEY PUBLIC WORKS 125 E. MAIN STREET GRASS VALLEY, CALIFORNIA 95945 CONTACT: CATHARINE DYKES, P.E. (530) 274-4352

### SEWER

CITY OF GRASS VALLEY PUBLIC WORKS 125 E. MAIN STREET GRASS VALLEY, CALIFORNIA 95945 CONTACT: CATHARINE DYKES, P.E. (530) 274-4352

#### STORM DRAINAGE

CITY OF GRASS VALLEY PUBLIC WORKS 125 E. MAIN STREET GRASS VALLEY, CALIFORNIA 95945 CONTACT: CATHARINE DYKES, P.E. (530) 274-4352

#### **ELECTRICAL**

PACIFIC GAS AND ELECTRIC COMPANY 12840 BILL CLARK WAY AUBURN, CA 95602 CONTACT: LEE WELLS (925) 519-6212

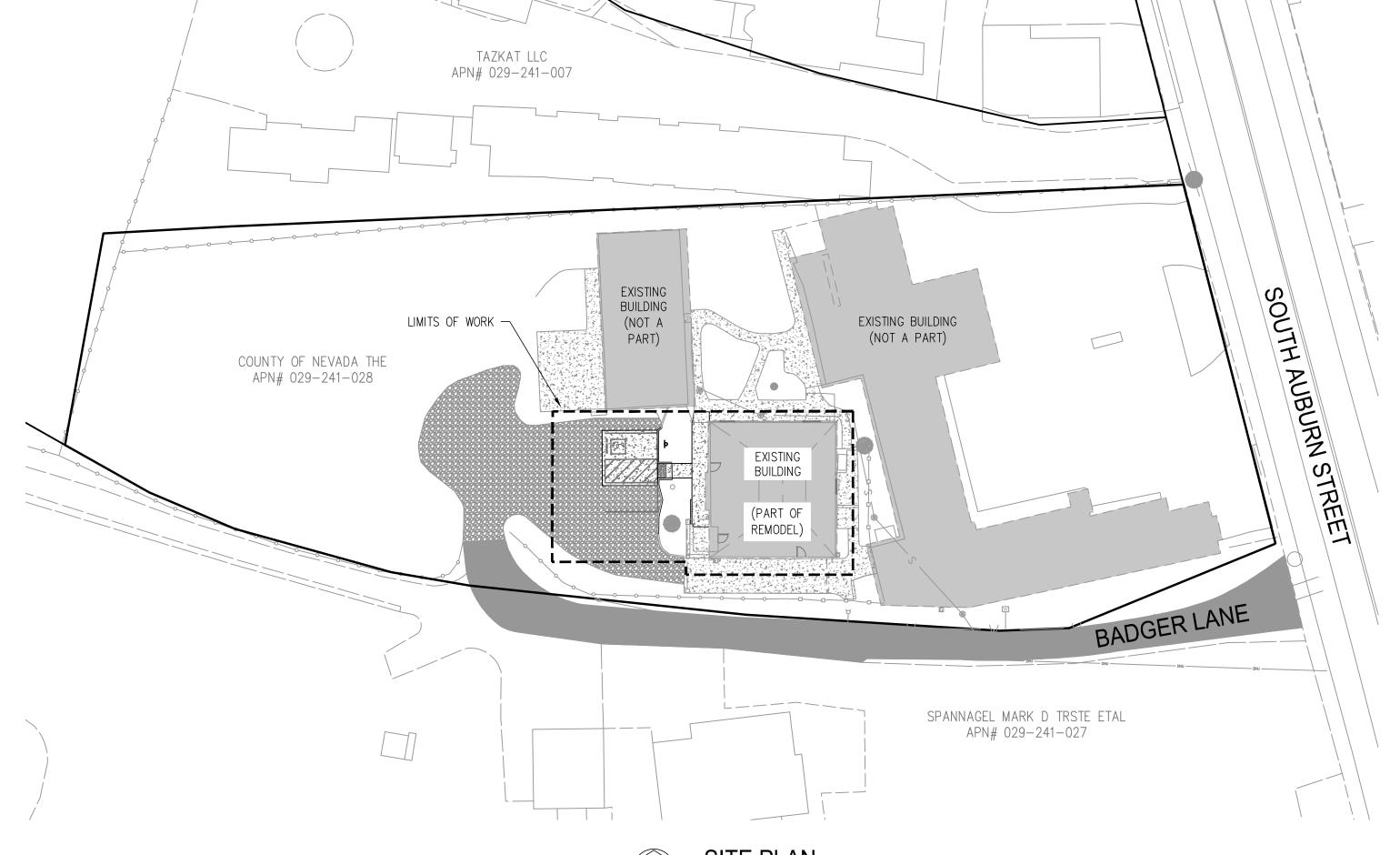
#### AREA OF DISTURBANCE

#### BASIS OF BEARINGS

THE MERIDIAN OF THIS SURVEY IS BASED ON NAD 83 CALIFORNIA STATE PLANE COORDINATE SYSTEM ZONE 2. DISTANCES SHOWN HEREON ARE GROUND DISTANCES IN U.S. SURVEY FEET AND DECIMALS THEREOF.

#### **BENCHMARK**

THE VERTICAL DATUM IS BASED ON NAVD 88 DETERMINED BY A MINIMUM 2 HOUR STATIC GPS OBSERVATION POST PROCESSED USING OPUS.



## SITE PLAN

#### **ABBREVIATIONS**

•			
AC	ASPHALT CONCRETE	I.E.	INVERT ELEVATION
AB	AGGREGATE BASE	INV	INVERT
B.S.L.	BUILDING SETBACK LINE	IRR	IRRIGATION
С	CONCRETE	HDPE	HIGH DENSITY POLYETHYLENE
CATV	CABLE TV	LF	LINEAR FEET
C.A.V.	CLEAN AIR VEHICLE	MAX	MAXIMUM
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM
COMM.	COMMUNICATION BOX	MH	MAN HOLE
CF	CUBIC FEET	Р	PAVEMENT
DET.	DETAIL	P.E.	POLYETHYLENE
DI	DRAIN INLET	P.U.E.	PUBLIC UTILITY EASEMENT
D.I.P.	DUCTILE IRON PIPE	SD	STORM DRAIN
EG	EXISTING GROUND	SDMH	STORM DRAIN MANHOLE
ELEC.	ELECTRICAL	SS	SANITARY SEWER
E.V.	ELECTRIC VEHICLE	SSMH	SANITARY SEWER MANHOLE
EX., (E)	EXISTING	STND.	STANDARD
` '	FINISH FLOOR	TC	TOP OF CURB
FG	FINISH GRADE	TYP.	TYPICAL
FH	FIRE HYDRANT	W	WATER
FL	FLOW LINE	WV	WATER VALVE

#### **DECLARATION OF ENGINEER OF WORK**

I HEREBY DECLARE THAT THE DESIGN OF THE IMPROVEMENTS AS SHOWN ON THESE PLANS COMPLIES WITH PROFESSIONAL ENGINEERING STANDARDS AND PRACTICES. AS THE ENGINEER IN RESPONSIBLE CHARGE OF THE DESIGN OF THESE IMPROVEMENTS, I ASSUME FULL RESPONSIBLE CHARGE OF SUCH DESIGN. I UNDERSTAND AND ACKNOWLEDGE THAT THE PLAN CHECK OF THESE PLANS BY THE CITY OF GRASS VALLEY IS A REVIEW FOR THE LIMITED PURPOSE OF ENSURING THE PLANS COMPLY WITH CITY PROCEDURES AND OTHER APPLICABLE POLICIES AND ORDINANCES. THE PLAN CHECK IS NOT A DETERMINATION OF THE TECHNICAL ADEQUACY OF THE DESIGN OF THE IMPROVEMENTS. SUCH PLAN CHECK DOES NOT RELIEVE ME OF MY RESPONSIBILITY FOR THE DESIGN OF THESE IMPROVEMENTS.

AS ENGINEER OF WORK, I AGREE TO INDEMNIFY AND SAVE THE CITY OF GRASS VALLEY, ITS OFFICERS, AGENTS, AND EMPLOYEES HARMLESS FROM ANY AND ALL LIABILITY, CLAIMS, DAMAGES OR INJURIES TO ANY PERSON OR PROPERTY WHICH MIGHT ARISE FROM THE NEGLIGENT ACTS, ERRORS OR OMISSIONS OF THE ENGINEER OF WORK, MY EMPLOYEES, AGENTS, OR CONSULTANTS.

MICHELLE C. LAYSHOT, P.E. C79918 MILLENNIUM PLANNING & ENGINEERING LICENSE EXPIRES: 9-30-2026

#### PREPARED UNDER THE SUPERVISION OF:

Michelle hayshot

MICHELLE C. LAYSHOT, P.E. C79918 MILLENNIUM PLANNING & ENGINEERING LICENSE EXPIRES: 9-30-2026

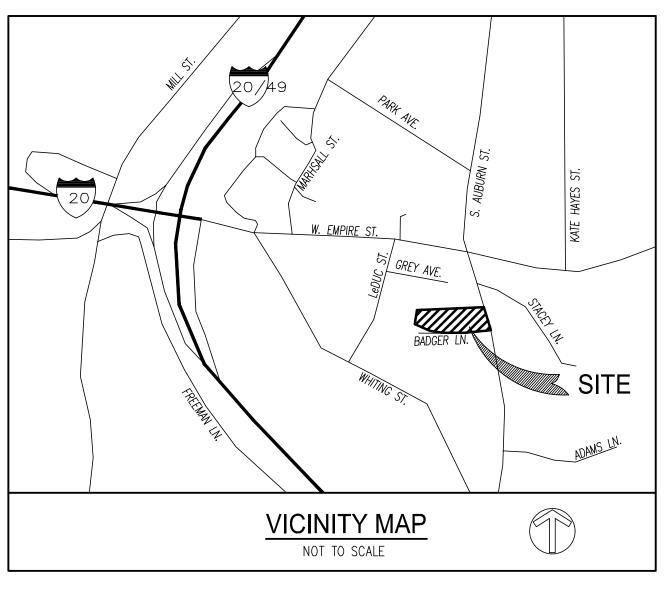
#### CERTIFICATE OF COMPLIANCE

I HEREBY CERTIFY THAT THE GRADES SHOWN ON THESE PLANS AND ACCEPTED BY THE ENGINEERING DIVISION, HAVE BEEN CONSTRUCTED TO WITHIN 1/10TH OF ONE (1) FOOT OF THEIR INDICATED ELEVATION FOR ALL IMPROVEMENTS SHOWN.

PROJECT ENGINEER

PE NUMBER

DATE



SHEET INDEX

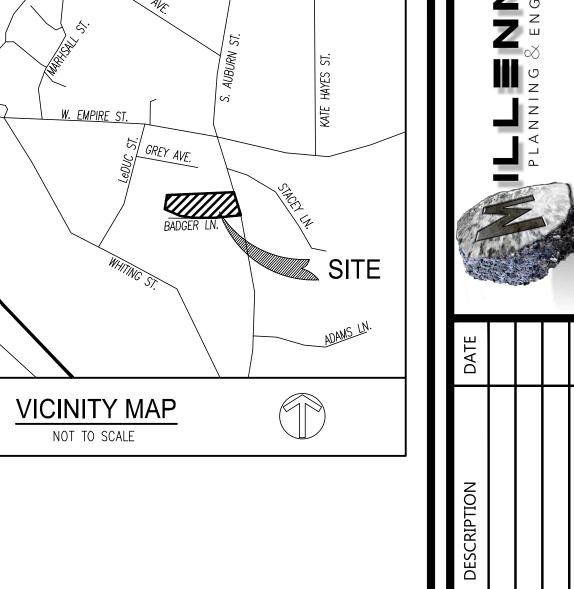
C5.0 SITE, GRADING, DRAINAGE AND EROSION CONTROL PLAN

C1.0 COVER SHEET

C3.0 GENERAL DETAILS

C4.0 DEMOLITION PLAN

C2.0 NOTES



OF



DATE SIGNED: <u>02-24-25</u> DESIGNED BY: DEC

DRAWN BY: DEC

PROJECT ENGINEER: MICHELLE LAYSHOT ACCEPTED BY: CITY ENGINEER RCE NUMBER PROJECT NUMBER -

NUMBER:

SHEET 1 OF 5

ENGINEERING DIVISION CITY OF GRASS VALLEY

GRADING AND IMPROVEMENT PLANS FOR

**COUNTY OF NEVADA** 

120 BADGER LANE

PROJECT NO.: 24-0301 SHEET NUMBER:

City of Grass Valley Builders Copy

160FGRAGGGATISHAQF CHATWEIFITIES, PARLEBEATION HOPPAS LPRIFIRITIES, XT LBESINNY GHOORSTBRORONO BEGINNING CONSTRUCTION

CONTRACTOR SHALL CONTACT

#### CITY OF GRASS VALLEY

- ALL WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE CITY OF GRASS VALLEY CONSTRUCTION STANDARDS, DESIGN STANDARDS, CALTRANS STANDARD SPECIFICATIONS AND PLANS AND THE CALIFORNIA MUTCD. ALL GRADING SHALL CONFORM TO THE GRASS VALLEY DEVELOPMENT CODE, IMPROVEMENT STANDARDS AND THE CURRENT CITY-ADOPTED EDITION OF THE CALIFORNIA BUILDING CODE.
- 2. THE CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXEMPTING LIABILITY ARISING FROM THE NEGLIGENCE OF ENGINEER.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PERMITS, LICENSES AND CERTIFICATES FROM THE APPROPRIATE AGENCIES NECESSARY TO PERFORM THE WORK SHOWN ON THESE PLANS.
- 4. THE CONTRACTOR SHALL NOT BEGIN ANY WORK SHOWN ON THESE PLANS UNTIL THE CITY ENGINEER'S SIGNATURE OF APPROVAL IS AFFIXED HEREON. THERE SHALL BE AN APPROVED SET OF PLANS ON THE JOB DURING ANY CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT THE CITY OF GRASS VALLEY ENGINEERING DIVISION TO SCHEDULE A PRE-CONSTRUCTION MEETING ONE-WEEK PRIOR TO STARTING WORK. THE ENGINEERING DIVISION SHALL NOTIFY THE APPROPRIATE CITY DEPARTMENTS OF THE MEETING. ALL OTHER APPROPRIATE UTILITY REPRESENTATIVES AND SUBCONTRACTORS SHALL BE NOTIFIED BY THE CONTRACTOR AS TO THE DATE AND LOCATION OF THE MEETING.
- CERTIFICATION FROM THE REGISTERED CIVIL ENGINEER, IF ENGINEERED GRADING, OR CALIFORNIA LICENSED CONTRACTOR, IF NOT ENGINEERED GRADING, STATING THAT THE GRADING HAS BEEN COMPLETED PER THE APPROVED PLAN, AND A COMPACTION REPORT FROM THE SOIL ENGINEER FOR FILL AREAS ARE REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED.

#### UTILITY LOCATION:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UNDERGROUND UTILITIES, WHETHER OR NOT THEY ARE SHOWN ON THESE PLANS. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL UNDERGROUND FACILITIES. HOWEVER, THE DESIGN ENGINEER ASSUMES NO LIABILITY FOR THE ACCURACY OR COMPLETENESS OF THE EXISTING FACILITIES SHOWN HEREON OR FOR THE EXISTENCE OF OTHER UNDERGROUND UTILITIES NOT SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL CONTACT U.S.A. AND HAVE UTILITIES MARKED AT LEAST 72 HOURS BEFORE BEGINNING WORK. THE CONTRACTOR IS SOLELY RESPONSIBLE TO PROVIDE ALL LABOR AND EQUIPMENT NECESSARY TO LOCATE EXISTING UNDERGROUND FACILITIES BEYOND THE INFORMATION PROVIDED BY U.S.A. MARKING, WHERE MARKINGS ARE NEAR PROPOSED FOUNDATIONS THE CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES BY POT HOLING PRIOR TO EXCAVATING.
- 3. THE CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR ENSURING THAT RETAINING WALLS DO NOT INTERFERE WITH PROVISION OF UTILITIES.

- TRAFFIC CONTROL SHALL BE PER THE CALIFORNIA MUTCD. AT LEAST ONE LANE IN EACH DIRECTION SHALL REMAIN OPEN TO TRAFFIC UNLESS. OTHERWISE SHOWN ON THE PLANS. TRAFFIC CONTROL HOURS ARE SUBJECT TO LIMITATION BY THE TRAFFIC CONTROL WITH LANE CLOSURES THAT AFFECT TRAFFIC FLOW MAY REQUIRE NIGHT WORK, IF. AS A PART OF TRAFFIC CONTROL MEASURES, A ROADWAY CLOSURE HAS BEEN APPROVED. THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION 72 HOURS IN ADVANCE OF SETTING UP THIS CLOSURE.
- THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A WRITTEN TRAFFIC CONTROL PLAN FOR ANY PROPOSED LANE CLOSURES OR DISTURBANCES TO TRAFFIC WITHIN THE CITY RIGHT OF WAY. THE PLAN SHALL INCLUDE THE DATE AND TIME, DESCRIPTION OF WORK, CONTACT PERSON AND ESTIMATED DATE OF COMPLETION. THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION 72 HOURS IN ADVANCE OF SETTING UP THE TRAFFIC CONTROL
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION SIGNING AS REQUIRED BY THE CALIFORNIA MUTCD TO DELINEATE CONSTRUCTION HAZARDS AT HIS OWN EXPENSE. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, CONES, SIGNS, BARRICADES, FLAGGERS OR OTHER DEVICES NECESSARY TO PROVIDE SAFETY.

#### <u>RESTORATION:</u>

- ALL EXISTING UTILITIES, LANDSCAPING, IRRIGATION SYSTEMS AND IMPROVEMENTS THAT ARE DAMAGED BY THE CONTRACTOR, WHICH ARE NOT DESIGNATED BY THE PLANS OR SPECIFICATIONS TO BE DISTURBED, SHALL BE RESTORED OR REPAIRED TO THE SATISFACTION OF THE CITY ENGINEER AT THE
- THE CONTRACTOR SHALL TAKE EXTREME CARE TO PROTECT EXISTING SITE AND ADJACENT IMPROVEMENTS FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE ALL CRACKED AND OTHERWISE PRE-EXISTING DAMAGED PUBLIC IMPROVEMENTS ALONG THE FRONTAGE OF THE PROJECT SITE AND ANY DAMAGE RESULTING FROM CONSTRUCTION TO CURRENT CITY STANDARDS AND AT THEIR OWN EXPENSE. THE EXTENT OF THE REPAIRS SHALL BE DETERMINED BY THE PUBLIC WORKS INSPECTOR AND SHALL BE COMPLETED PRIOR TO THE CITY ACCEPTANCE OF THE IMPROVEMENTS.

- EXCAVATIONS SHALL BE ADEQUATELY SHORED, BRACED AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS WILL BE FULLY PROTECTED FROM DAMAGE.
- . CONSTRUCTION ACTIVITIES OCCURRING BETWEEN OCTOBER 15 AND APRIL 15 SHALL HAVE EROSION AND SEDIMENT CONTROL MEASURES IN PLACE. THE CONTRACTOR SHALL ENSURE THAT THE CONSTRUCTION SITE IS PREPARED PRIOR TO THE ONSET OF ANY STORM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN WINTERIZATION FACILITIES AT ALL TIMES OR UNTIL THE IMPROVEMENTS ARE FINAL.
- EROSION CONTROL SEEDING SHALL BE APPLIED TO ALL GRADED AND DISTURBED SOILS WITHIN THE WORK AREA PRIOR TO OCTOBER 15 OF ANY GIVEN YEAR WHETHER THE PROJECT IS COMPLETE OR NOT (CONTRACTOR IS TO NOTIFY THE ENGINEERING DIVISION IMMEDIATELY AFTER APPLICATIONS FOR INSPECTION PURPOSES).
- 4. ADJACENT STREET FRONTAGES SHALL BE SWEPT DAILY OR AS NEEDED TO REMOVE SILT WHICH IS EVIDENT FROM CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TIMELY DUST CONTROL OF DISTURBED AREAS AT ALL TIMES, TO THE SATISFACTION OF THE CITY ENGINEER. ALL MATERIAL EXCAVATED, STOCKPILED, GRADED, OR TRANSPORTED OFF-SITE SHALL BE SUFFICIENTLY WATERED, TREATED OR COVERED TO PREVENT DUST FROM CAUSING A PUBLIC NUISANCE OR A VIOLATION OF AN AMBIENT AIR STANDARD.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING CONSTRUCTION VEHICLES LEAVING THE SITE TO PREVENT DUST, SILT AND DIRT FROM BEING RELEASED OR TRACKED OFFSITE.
- 7. ALL AREAS WITH VEHICLE TRAFFIC SHALL BE WATERED OR HAVE A DUST PALLIATIVE APPLIED AS NECESSARY FOR REGULAR STABILIZATION OF DUST
- 8. ALL LAND CLEARING, GRADING EARTH MOVING OR EXCAVATION ACTIVITIES SHALL BE SUSPENDED AS NECESSARY TO PREVENT WINDBLOWN DUST WHEN WINDS ARE EXPECTED TO EXCEED 20 MPH.
- 9. THE CITY SHALL HAVE THE AUTHORITY TO STOP ALL GRADING OPERATIONS, IF, IN OPINION OF THE CITY ENGINEER, INADEQUATE DUST CONTROL MEASURES ARE BEING PRACTICED OR EXCESSIVE WIND CONDITIONS CONTRIBUTE TO FUGITIVE DUST EMISSIONS.
- 10. NO BURNING OF WASTE MATERIAL OR VEGETATION SHALL TAKE PLACE ON SITE.
- 11. THE CONTRACTOR SHALL MEET AND FOLLOW ALL NPDES REQUIREMENTS IN EFFECT AT THE TIME OF CONSTRUCTION.
- 12. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AS SPECIFIED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THIS PROJECT (IF APPLICABLE) OR AS DETERMINED BY THE CITY INSPECTOR. THE SWPPP IS CONSIDERED A DYNAMIC DOCUMENT AND WILL CHANGE AS CONDITIONS WARRANT. PERMANENT EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED AS SHOWN ON THE SWPPP PLAN.

ACCURACY.

- THE CONTRACTOR SHALL RETAIN THE SERVICES OF A QUALIFIED GEOTECHNICAL ENGINEER TO EVALUATE GEOLOGIC AND SOILS CONDITIONS ON THE SITE, PROVIDE CONSTRUCTION AND COMPACTION RECOMMENDATIONS SUBJECT TO CITY APPROVAL, INSPECT THE CONTRACTOR'S GRADING OPERATION AND CERTIFY THE CONTRACTOR'S COMPLIANCE WITH THE APPROVED RECOMMENDATIONS.
- ALL UNDERGROUND UTILITIES WITHIN EXISTING OR PROPOSED CITY OF GRASS VALLEY EASEMENTS SHALL COMPLY WITH THE CITY STANDARD DETAIL. TRENCH BACKFILL SHALL BE SLURRY CEMENT OR AGGREGATE BASE PROCESSED TO 95% RELATIVE COMPACTION WITH CERTIFIED TESTING IN ACCORDANCE WITH CITY STANDARDS.
- PRIOR TO EXCAVATION OF TRENCHES 5 FEET OR DEEPER, THE CONTRACTOR SHALL SUBMIT TO THE PUBLIC WORKS INSPECTOR A COPY OF THE COMPANY'S CALOSHA PERMIT AND A COPY OF THE COMPANY'S LETTER INFORMING CALOSHA OF THE TIME THE TRENCHING IS COMMENCING AND THE LOCATION OF THE WORK.
- 4. IF GRADING OR OTHER CONSTRUCTION OPERATIONS UNEARTH ARCHEOLOGICAL OR HISTORICAL ARTIFACTS OR RESOURCES, CONSTRUCTION ACTIVITIES SHALL CEASE. THE PLANNING DIVISION SHALL BE NOTIFIED OF THE EXTENT AND LOCATION OF DISCOVERED MATERIALS SO THAT THEY MAY BE RECORDED BY A QUALIFIED ARCHAEOLOGIST. DISPOSITION OF ARTIFACTS SHALL COMPLY WITH STATE AND FEDERAL LAWS. A NOTE OF THIS REQUIREMENT SHALL BE CLEARLY DELINEATED ON THE GRADING AND BUILDING PLANS OF THE PROJECT.
- 5. IF ANY HAZARDOUS WASTE IS ENCOUNTERED DURING THE CONSTRUCTION OF THIS PROJECT, ALL WORK SHALL BE IMMEDIATELY STOPPED AND THE NEVADA COUNTY ENVIRONMENTAL HEALTH DEPARTMENT, THE FIRE DEPARTMENT, THE POLICE DEPARTMENT, AND THE CITY INSPECTOR SHALL BE NOTIFIED IMMEDIATELY. WORK SHALL NOT PROCEED UNTIL CLEARANCE HAS BEEN ISSUED BY ALL OF THESE AGENCIES.
- EARTHWORK QUANTITIES ARE SHOWN FOR GRADING PERMIT PURPOSES ONLY, AND THE CITY OF GRASS VALLEY IS NOT RESPONSIBLE FOR THEIR
- NO TRUCKS MAY TRANSPORT EXCAVATED MATERIAL OFF-SITE UNLESS THE LOADS ARE ADEQUATELY WETTED AND EITHER COVERED WITH TARPS OR LOADED SUCH THAT THE MATERIAL DOES NOT TOUCH THE FRONT, BACK, OR SIDES OF THE CARGO COMPARTMENT AT ANY POINT LESS THAN SIX INCHES TO THE TOP OF THE CARGO COMPARTMENT. ALSO, ALL EXCAVATED MATERIAL MUST BE PROPERLY DISPOSED OF IN ACCORDANCE WITH THE CITY'S STANDARD SPECIFICATIONS.

CONTRACTOR SHALL CONTACT B11 FOR LOCATION OF ALL UTILITIES AT LEAST 72 HOURS PRIOR TO Know what's below. BEGINNING CONSTRUCTION Call before you

- WHERE SOIL OR GEOLOGIC CONDITIONS ENCOUNTERED IN GRADING OPERATIONS ARE DIFFERENT FROM THAT ANTICIPATED IN THE SOIL AND/OR GEOLOGIC INVESTIGATION REPORT. OR WHERE SUCH CONDITIONS WARRANT CHANGES TO THE RECOMMENDATIONS CONTAINED IN THE ORIGINAL SOIL INVESTIGATION, A REVISED SOIL OR GEOLOGIC REPORT SHALL BE SUBMITTED BY THE APPLICANT, FOR APPROVAL BY THE CITY ENGINEER. IT SHALL BE ACCOMPANIED BY AN ENGINEERING AND GEOLOGICAL OPINION AS TO THE SAFETY OF THE SITE FROM HAZARDS OF LAND SLIPPAGE, EROSION, SETTLEMENT, AND SEISMIC ACTIVITY.
- 9. IT IS THE GRADING CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ADEQUATE COMPACTION HAS BEEN ATTAINED ON THE ENTIRE GRADING SITE, INCLUDING FILL AREAS OUTSIDE THE BUILDING PADS AND ON ALL FILL SLOPES.
- 10. EARTHWORK QUANTITIES ARE SHOWN FOR GRADING PERMIT PURPOSES ONLY, AND THE CITY OF GRASS VALLEY IS NOT RESPONSIBLE FOR THEIR ACCURACY.

- THE GRADING PLAN FOR THE PROJECT HAS BEEN DESIGNED FOR NO GRADING TO OCCUR WITHIN THE DRIPLINE OF ANY TREE TO BE PRESERVED UNLESS SPECIFICALLY APPROVED BY THE PLANNING DEPARTMENT AND SHOWN ON THESE PLANS. NO GRADES SHALL BE MODIFIED WITHOUT THE APPROVAL OF THE CIVIL ENGINEER AND THE CITY OF GRASS VALLEY.
- 2. EACH TREE OR GROUP OF TREES TO BE SAVED SHALL BE FENCED IN ACCORDANCE WITH THE "TREE PROTECTION" DETAIL PRIOR TO ANY GRADING OR MOVEMENT OF HEAVY EQUIPMENT.
- 3. NO TRENCHING SHALL OCCUR BENEATH THE DRIPLINE OF ANY TREE TO BE SAVED UNLESS STATED ON THESE PLANS "TRENCHING UNDER THIS TREE IS APPROVED". NO MECHANICAL TRENCHING WHATSOEVER SHALL BE ALLOWED WITHIN THE DRIPLINE OF TREES TO BE PRESERVED.
- 4. THE CONTRACTOR SHALL NOT ALLOW STACKING OF CONSTRUCTION MATERIALS, PARKING OF CONSTRUCTION EQUIPMENT AND VEHICLES, GRADING, TRENCHING, CUTTING OR FILLING WITHIN A TREE DRIPLINE UNLESS OTHERWISE SHOWN ON THESE PLANS.

- SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL REQUEST IN WRITING FROM THE ENGINEER SUCH FURTHER EXPLANATION AS MAY BE NECESSARY.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 3. THE CITY REQUIRES A COMPLETE SET OF AS-BUILT PLANS. THE CONTRACTOR SHALL PROVIDE ANY AS-BUILT CHANGES TO THE DESIGN ENGINEER, ON A CLEAN SET OF PLANS AT JOB COMPLETION.

#### **GENERAL CONSTRUCTION:**

- THE LOCATIONS OF ALL UNDERGROUND FACILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL UNDERGROUND FACILITIES. HOWEVER, THE DESIGN ENGINEER ASSUMES NO LIABILITY FOR THE ACCURACY OF COMPLETENESS OF THE EXISTING FACILITIES SHOWN HEREON OR FOR THE EXISTENCE OF OTHER UNDERGROUND UTILITIES NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING FACILITIES AND IMMEDIATELY NOTIFY THE DESIGN ENGINEER IF ANY SUCH FACILITIES INTERFERE WITH THE CONSTRUCTION OF IMPROVEMENTS. IF SO DIRECTED BY THE DESIGN ENGINEER. THE CONTRACTOR SHALL STOP WORK IMMEDIATELY UNTIL REMEDIAL ACTION CAN BE TAKEN. ANY COST RESULTING FROM THE CONTRACTORS FAILURE TO STOP WORK AS DIRECTED, WILL BE THE RESPONSIBILITY OF THE CONTRACTOR
- 2. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING FACILITIES SUFFICIENT AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF THE LOCATION OF EXISTING
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF EXISTING PUBLIC AND PRIVATE IMPROVEMENTS. ANY DAMAGED IMPROVEMENTS SHALL BE REPLACED BY THE CONTRACTOR TO EQUAL OR BETTER THAN PRE-PROJECT CONDITIONS INCLUDING BUT NOT LIMITED TO ROADWAYS, DRAINAGE STRUCTURES, SIDEWALKS, AND UTILITIES.
- 4. THE DEVELOPER SHALL KEEP ADJOINING PUBLIC STREETS FREE AND CLEAN OF PROJECT DIRT, MUD, MATERIALS, AND DEBRIS DURING THE CONSTRUCTION PERIOD.
- 5. PRIOR TO FINAL PREPARATION OF THE SUBGRADE AND PLACEMENT OF PAVEMENT BASE MATERIALS, ALL UNDERGROUND UTILITIES SHALL BE INSTALLED AND SERVICE CONNECTIONS STUBBED OUT BEHIND THE HARDSCAPE IMPROVEMENT. PUBLIC UTILITIES, CABLE TV, SANITARY SEWERS AND WATER LINES, SHALL BE INSTALLED IN A MANNER WHICH WILL NOT DISTURB THE STREET PAVEMENT, CURB, GUTTER AND SIDEWALK, WHEN FUTURE SERVICE CONNECTIONS OR EXTENSIONS ARE MADE.
- 6. THE CONTRACTOR SHALL COMPLY WITH ALL OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) REQUIREMENTS. 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL CURRENTLY APPLICABLE SAFETY LAWS AND REGULATIONS OF ANY JURISDICTIONAL BODY. FOR INFORMATION CONTACT THE STATE INDUSTRIAL SAFETY DEPT.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL SURVEY MONUMENTS AND MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS DESTROYED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S
- 9. PRIOR TO ANY CORRECTIVE ACTION BY THE CONTRACTOR WHICH IS NECESSARY DUE TO STAKING ERRORS, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER FOR VERIFICATION AND RESTAKING.
- 10. WHEN THE CONTRACTOR'S OPERATIONS TEMPORARILY INTERFERE WITH THE EXISTING FLOW OF SEWAGE, WATER, GAS, ELECTRICITY, TELEPHONE COMMUNICATION, OR THE OPERATION OF ANY OTHER FACILITY, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE AGENCY/UTILITY AT LEAST THREE (3) DAYS PRIOR TO THE INTERFERENCE, AND PROVIDE, OR MAKE ARRANGEMENTS FOR SATISFACTORY BYPASS FACILITIES.
- 11. THE CONTRACTOR SHALL REQUEST PERMISSION TO INTERFERE WITH SAID UTILITIES BY APPLYING TO THE RELATED UTILITY AND SHALL COMPLY WITH THEIR RECOMMENDATIONS AND ORDINANCES IN EACH CASE. SAID BYPASS FACILITIES SHALL BE
- SO CONSTRUCTED AS TO PROVIDE A NON-INTERRUPTIVE SERVICE OF SAID UTILITY.
- 12. IF BYPASS FACILITIES ARE NOT FEASIBLE OR REASONABLE, AS DETERMINED BY THE ENGINEER, THE RESIDENTS AND/OR OWNERS OF ALL PROPERTIES AFFECTED BY A TEMPORARY INTERRUPTION (LESS THAN 8 HOURS) MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE INTERRUPTION BY THE CONTRACTOR.
- 13. ALL INSTALLATIONS SHALL FOLLOW MANUFACTURERS RECOMMENDATIONS AND GUIDELINES UNLESS OTHERWISE NOTED ON THE PLANS. MANUFACTURERS INSTALLATION GUIDELINES SHALL BE ON CONSTRUCTION SITE AT ALL TIMES.
- 14. DURING THE PROGRESS OF THE WORK, THE CONTRACTOR SHALL KEEP THE ENTIRE JOB SITE IN A CLEAN AND ORDERLY CONDITION. EXCESS UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE JOB SITE. SPILLAGE RESULTING FROM CONTRACTOR'S ACTIVITY SHALL BE REMOVED BY THE CONTRACTOR. ALL GUTTERS AND ROADSIDE DITCHES SHALL BE KEPT FREE AND CLEAR FROM OBSTRUCTIONS. ANY DEVIATION FROM THE ABOVE PRACTICE SHALL HAVE PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
- 15. WHEN TRANSPORTING ANY MATERIAL DURING CONSTRUCTION. CARE SHOULD BE TAKEN TO PREVENT MATERIAL FROM BLOWING OR SPILLING ONTO STREETS AND HIGHWAYS. EARTHEN MATERIAL, IF TRANSPORTED, SHALL BE ADEQUATELY SPRAYED. WITH WATER PRIOR TO TRANSPORT ONTO PUBLIC ROADS. VEGETATIVE MATERIAL SHALL BE COVERED OR TARPED PRIOR TO TRANSPORT.
- 16. INERT WASTE SUCH AS CONCRETE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LEGALLY DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
- 17. TOXIC WASTE (PETROLEUM AND OTHER CHEMICAL PRODUCTS), IF ENCOUNTERED, SHALL BE IDENTIFIED, SEPARATED AND DELIVERED TO THE PROPER LANDFILL AREA.
- 18. SHOP DRAWINGS THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AS MAY BE NECESSARY FOR THE PROSECUTION OF THE WORK, AS REQUIRED BY THESE NOTES. THE ENGINEER SHALL PROMPTLY REVIEW ALL SHOP DRAWINGS. THE ENGINEER'S REVIEW OF ANY SHOP DRAWING SHALL NOT RELEASE THE CONTRACTOR FROM RESPONSIBILITY FOR DEVIATIONS FROM THE CONTRACT DOCUMENTS.
- 19. MATERIALS, SERVICES AND FACILITIES MATERIALS AND EQUIPMENT SHALL BE SO STORED AS TO INSURE THE PRESERVATION OF THEIR QUALITY AND FITNESS FOR THE WORK. STORED MATERIALS AND EQUIPMENT TO BE INCORPORATED IN THE WORK SHALL BE LOCATED SO AS TO FACILITATE PROMPT INSPECTION.
- 20. ALL MATERIAL SHALL BE UNLOADED, STORED, LOWERED INTO THE TRENCH AND JOINED, USING SUITABLE TOOLS AND EQUIPMENT AND IN A MANNER THAT WILL PREVENT DAMAGE TO THE MATERIAL, JOINTS, COATING, OR LINING. STORAGE AND HANDLING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 21. DAMAGED MATERIAL WILL BE REJECTED. THE CONTRACTOR SHALL CLEARLY MARK THE REJECTED MATERIAL AND REMOVE IT FROM THE IMMEDIATE CONSTRUCTION AREA. WHEN APPROVED BY THE ENGINEER, DAMAGED MATERIAL MAY BE REPAIRED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION AND USED IN THE CONSTRUCTION. REPLACEMENT OR REPAIR OF REJECTED MATERIAL SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND AT NO EXPENSE TO THE OWNER.
- 22. INSPECTION AND TESTING ALL MATERIALS MAY BE INSPECTED, SAMPLED AND TESTED BY THE CITY (OWNER). THE CONTRACTOR SHALL GIVE SUFFICIENT ADVANCE NOTICE OF PLACING OF ORDER TO PERMIT TESTS TO BE COMPLETED BEFORE THE MATERIALS ARE INCORPORATED IN THE WORK AND HE SHALL AFFORD SUCH FACILITIES AS THE OWNER MAY REQUIRE FOR COLLECTING AND MAKING INSPECTIONS. ALL SAMPLES SHALL BE FURNISHED BY THE CONTRACTOR WITHOUT COST TO THE OWNER. THE OWNER MAY WAVE SAMPLING AND TESTING IF ADEQUATE INFORMATION, PROPERLY CERTIFIED, IS AVAILABLE TO INDICATE THAT MATERIALS COMPLY WITH TERMS OF THE SPECIFICATIONS.
- 23. THE CONTRACTOR SHALL FURNISH THE OWNER WITH EVERY REASONABLE FACILITY FOR ASCERTAINING WHETHER OR NOT THE WORK AS PERFORMED IS IN ACCORDANCE WITH THE REQUIREMENTS AND INTENT OF THE CONTRACT. IF THE OWNER REQUESTS IT, THE CONTRACTOR AT ANY TIME BEFORE ACCEPTANCE OF THE WORK SHALL REMOVE OR UNCOVER SUCH PORTIONS OF THE FINISHED WORK AS MAY BE DIRECTED. AFTER EXAMINATION, THE CONTRACTOR SHALL RESTORE SAID PORTIONS OF THE WORK TO THE STANDARDS REQUIRED BY THE CONTRACT DOCUMENTS AND SPECIFICATIONS.
- 24. WATER AND POLLUTION THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR COMPLIANCE WITH ALL LOCAL, COUNTY, STATE, AND FEDERAL REGULATIONS PERTAINING TO WATER POLLUTION AND SOIL EROSION INCLUDING THE PAYMENT OF ANY FINES OR PENALTIES IMPOSED BY ANY GOVERNMENT AGENCY AS A RESULT OF WORK PERFORMED BY THE CONTRACTOR.
- 25. THE CONTRACTOR SHALL COMPLY WITH ALL AIR POLLUTION CONTROL RULES, REGULATIONS, ORDINANCES AND STATUTES WHICH APPLY TO THE WORK AREA. NORTHERN SIERRA AIR QUALITY MANAGEMENT DISTRICT CAN BE CONTACTED AT TELEPHONE 530-274-9360.
- 26. CONSTRUCTION SAFETY THE CONTRACTOR SHALL FOLLOW CONSTRUCTION PROCEDURES NECESSARY TO PROVIDE A SAFE WORKING CONDITION THROUGH ALL PHASES OF THE PROJECT. SAID PROCEDURES SHALL CONFORM TO THE SAFETY ORDERS, DIVISION OF INDUSTRIAL SAFETY, TITLE 8, CALIFORNIA ADMINISTRATIVE CODE AND ALL OTHER PROVISIONS REQUIRED BY FEDERAL, STATE AND COUNTY LAW OR ORDINANCE.
- 27. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR OUTLINING THE SAFETY PROCEDURES TO BE FOLLOWED BY ITS WORKMEN, ALL SUBCONTRACTORS, AND RELATED TRADES WORKING ON ITS JOBS AND EFFECTIVELY ASSURING COMPLIANCE WITH SUCH PROCEDURES. IT SHALL ALWAYS PROVIDE FOR THE SAFETY OF THE PUBLIC BOTH DAY AND NIGHT WHERE THEY ARE EXPOSED TO ITS CONSTRUCTION OPERATION.
- 28. TOUCHUP AND REPAIR THE CONTRACTOR SHALL TOUCHUP OR REPAIR ALL FINISHED SURFACES ON STRUCTURES, EQUIPMENT, FIXTURES, OR WHATEVER, THAT HAVE BEEN DAMAGED PRIOR TO FINAL ACCEPTANCE. SURFACE ON WHICH SUCH TOUCHUP OR REPAIR CANNOT BE SUCCESSFULLY ACCOMPLISHED SHALL BE COMPLETELY REFINISHED OR IN THE CASE OF HARDWARE AND SIMILAR SMALL ITEMS, THE ITEMS SHALL BE
- 29. CEMENT MATERIALS PORTLAND CEMENT SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR TYPE "II" PORTLAND CEMENT OF THE AMERICAN SOCIETY FOR TESTING MATERIALS. ALL CEMENT SHALL BE OF THE SAME BRAND.
- 30. UNLESS OTHERWISE SPECIFIED HEREIN, CEMENT GROUT OR MORTAR SHALL BE COMPOSED OF ONE PART CEMENT TO TWO PARTS FINE AGGREGATE MIXED WITH WATER IN A MECHANICAL BATCH MIXER TO PRODUCE A PLASTIC WORKABLE MIXTURE.
- 31. STEEL REINFORCEMENT THE CONTRACTOR SHALL FURNISH AND PLACE ALL STEEL REINFORCEMENT OF THE SIZES AND SHAPES AS SHOWN ON THE PLANS OR SPECIFIED HEREIN. MATERIAL AND PLACEMENT SHALL CONFORM TO REQUIREMENTS OF SECTION 52 OF STANDARD SPECIFICATIONS. STEEL SHALL BE A.S.T.M. A615, GRADE 40 UNLESS CALLED OUT OTHERWISE ON THE DRAWINGS.
- 32. FORM AND FORMWORK THE FORMS SHALL BE SMOOTH, MORTARTIGHT, TRUE TO THE REQUIRED LINES AND GRADES, AND OF SUFFICIENT STRENGTH TO SUPPORT THE WEIGHT OF THE FRESH CONCRETE WITHOUT SPRINGING OUT OF SHAPE OR APPRECIABLE DEFLECTION DURING THE PLANING OF THE CONCRETE. ALL EXPOSED SHARP EDGES SHALL BE CHAMFERED WITH TRIANGULAR FILLETS NOT LESS THAT 0.75" BY 0.75",
- UNLESS OTHERWISE SHOWN ON THE PLANS. FORMS PREVIOUSLY USED SHALL BE THOROUGHLY CLEANED OF ALL DIRT, MORTAR AND FOREIGN MATTER BEFORE BEING REUSED. 33. INSERTS — THE CONTRACTOR SHALL, BEFORE PLACING CONCRETE, MAKE PROVISION FOR ALL CORED HOLES, HANGERS, ANCHOR AND OTHER BOLTS, CONDUITS, PIPES, WATER SEALS AND OTHER INSERTS TO BE
- PLACED IN THE CONCRETE. HE SHALL VERIFY THE LOCATIONS AND DETAILS OF ALL SUCH WORK AND SHALL PREVENT THE DISTURBANCE OF SUCH INSERTS DURING THE PLACING OF THE CONCRETE. 34. IF ANY EXISTING FACILITIES ARE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR/DEVELOPER SHALL BE RESPONSIBLE FOR REPAIR AT NO COST TO THE OWNER.
- 35. ANY IMPROVEMENTS CONSTRUCTED IN THE PUBLIC RIGHT-OF-WAY WILL REQUIRE A SEPARATE CONSTRUCTION PERMIT AND INSPECTION FROM THE PUBLIC WORKS DEPARTMENT.
- 36. ALTERNATIVES TO DIESEL GENERATOR SETS (SUCH AS GRID POWER) SHALL BE USED FOR ON-SITE ELECTRICAL NEEDS DURING CONSTRUCTION, UNLESS DEEMED INFEASIBLE BY THE AIR POLLUTION CONTROL OFFICER AND STATED IN WRITING.
- 37. PRIOR TO FINAL PREPARATION OF THE SUBGRADE AND PLACEMENT OF PAVEMENT BASE MATERIALS, ALL UNDERGROUND UTILITIES SHALL BE INSTALLED AND SERVICE CONNECTIONS STUBBED OUT BEHIND THE HARDSCAPE IMPROVEMENT. PUBLIC UTILITIES, CABLE TV, SANITARY SEWERS, AND WATER LINES, SHALL BE INSTALLED IN A MANNER WHICH WILL NOT DISTURB THE STREET PAVEMENT, CURB, GUTTER AND SIDEWALK, WHEN FUTURE SERVICE CONNECTIONS OR EXTENSIONS ARE MADE.
- 38. IF GRADING IS TO TAKE PLACE BETWEEN OCTOBER 15 AND APRIL 15, BOTH TEMPORARY AND PERMANENT EROSION CONTROL PLANS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL ALONG WITH THE GRADING PLAN. PERMANENT EROSION CONTROL MEASURES SHALL INCLUDE TREATMENT ALL GRADED SLOPES WITHIN 60 DAYS OF COMPLETION OF GRADING. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO
- 39. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL REQUEST IN WRITING FROM THE ENGINEER SUCH FURTHER EXPLANATION AS MAY BE NECESSARY.
- 40. FOR ANY PUBLIC WORK, THE CONTRACTOR SHALL COMPLY WITH ALL DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) REQUIREMENTS INCLUDING COMPLYING WITH PREVAILING WAGE REQUIREMENTS.

#### **AIR QUALITY NOTES:**

THE APPLICANT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL ADEQUATE DUST CONTROL MEASURES ARE IMPLEMENTED IN A TIMELY MANNER DURING ALL PHASES OF PROJECT DEVELOPMENT AND CONSTRUCTION.

- PROVISIONS OF THIS ASBESTOS DUST MITIGATION PLAN SHALL APPLY THROUGHOUT GRADING AND CONSTRUCTION ACTIVITIES EXCEPT AS SPECIFIED
- OTHERWISE.
- ALL VISIBLE TRACK-OUT MATERIAL (FROM VEHICLES LEAVING THE WORK SITE) MUST BE REMOVED FROM ALL PUBLIC ROADS AT LEAST ONCE PER DAY USING WET SWEEPING OR A HEPA FILTER EQUIPPED VACUUM DEVICE. REFERENCE: (E)(4)(A)1 OF THE ATCM.
- A GRAVEL PAD DESIGNED AND MAINTAINED TO EFFECTIVELY CLEAN TIRES OF EXITING VEHICLES, A WHEEL WASH SYSTEM, OR A MINIMUM OF FIFTY (50) FEET OF PAVEMENT MUST BE PLACED BETWEEN THE CONSTRUCTION AREA AND ANY PUBLIC ROAD, AND MUST BE UTILIZED BY ALL EXITING VEHICLES (INCLUDING PERSONAL VEHICLES AND DELIVERY TRUCKS) THROUGHOUT THE DURATION OF THE PROJECT. REFERENCE: (E)(4)(A)2 OF THE ATCM.
- ALL ACTIVE STORAGE PILES SHALL BE ADEQUATELY WETTED OR COVERED WITH PLASTIC TO ENSURE THAT NO VISIBLE DUST CROSSES THE PROPERTY BOUNDARY. REFERENCE: (E)(4)(B) OF THE ATCM. POTENTIAL DUST EMISSIONS FROM DISTURBED SURFACE AREAS AND STORAGE PILES THAT WILL REMAIN INACTIVE FOR MORE THAN SEVEN (7) DAYS
- SHALL BE CONTROLLED TO COMPLETELY PREVENT VISIBLE DUST FROM CROSSING THE PROPERTY BOUNDARY BY AT LEAST ONE OF THE FOLLOWING METHODS (PER (E)(4)(C) OF THE ATCM): A. KEEPING THE SURFACE ADEQUATELY WETTED;
- B. APPLYING CHEMICAL DUST SUPPRESSANTS OR CHEMICAL STABILIZERS ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND ALL APPLICABLE REGULATIONS;
- C. COVERING WITH TARP(S) OR VEGETATIVE COVER;

A. PRE-WETTING THE GROUND TO THE DEPTH OF ANTICIPATED CUTS;

- D. INSTALLING WIND BARRIERS OF FIFTY (50) PERCENT POROSITY AROUND THREE (3) SIDES OF ALL STORAGE PILES;
- E. INSTALLING WIND BARRIERS ACROSS OPEN AREAS AND BETWEEN THE PROJECT AND ANY ADJACENT OCCUPIED RESIDENTIAL OR BUSINESS PROPERTY. THE MAXIMUM VEHICLE SPEED ON ALL UNPAVED PARTS OF THE PROJECT AREA MUST BE CLEARLY POSTED AND MUST NOT EXCEED FIFTEEN (15) MILES
- PER HOUR REFERENCE: (E)(4)(D)1 OF THE ATCM. ALL AREAS WHERE VEHICLES DRIVE ON THE SITE SHALL BE WATERED EVERY TWO HOURS OR KEPT ADEQUATELY WETTED TO PREVENT VISIBLE DUST EMISSIONS FROM LEAVING THE PROPERTY BOUNDARY, EXCEPT WHERE A GRAVEL COVER HAS BEEN ESTABLISHED THAT HAS A SILT CONTENT OF LESS
- THAN 5% AND AN ASBESTOS CONTENT OF LESS THAN 0.25% AND IS AT LEAST 3 INCHES THICK. REFERENCE: (E)(4)(D)2 OF THE ATCM. FOR ALL EARTHMOVING ACTIVITIES, AT LEAST ONE OF THE FOLLOWING METHODS OF DUST CONTROL SHALL BE IMPLEMENTED, PER(E)(4)(E) OF THE ATCM:
- B. SUSPENDING GRADING OPERATIONS WHEN VISIBLE DUST EMISSIONS FROM ANY ASPECT OF THE GRADING (INCLUDING TIRES, FANS AND EXHAUST) CROSS THE PROPERTY LINE. TRUCKS USED FOR HAULING MATERIAL OFF-SITE SHALL BE MAINTAINED SUCH THAT NO SPILLAGE CAN OCCUR FROM HOLES OR OTHER OPENINGS.
- REFERENCE: (E)(4)(F)1 OF THE ATCM. 10. ALL LOADS TO BE HAULED OFF—SITE SHALL BE ADEQUATELY WETTED TO PREVENT VISIBLE DUST FROM ESCAPING DURING TRANSPORTATION, PER (E)(4)(F)2 OF THE ATCM, AND SHALL EITHER:
- A. BE COMPLETELY COVERED WITH TARPS; OR B. HAVE AT LEAST SIX (6) INCHES OF FREEBOARD ON THE SIDES OF THE BED OF THE VEHICLE, WITH NO EXCAVATED MATERIAL EXTENDING ABOVE THE
- EDGES OF THE VEHICLE BED AT ANY POINT.
- UPON COMPLETION OF THE PROJECT, DISTURBED SURFACE AREAS SHALL BE STABILIZED, PER (E)(4)(G) OF THE ATCM, USING ONE OR MORE OF THE FOLLOWING METHODS: A. ESTABLISHMENT OF A VEGETATIVE COVER;
- B. PLACEMENT OF AT LEAST THREE (3) INCHES OF MATERIAL HAVING AN ASBESTOS CONTENT OF 0.25% ASBESTOS OR LESS AS MEASURED USING AN APPROVED ASBESTOS BULK TEST METHOD [NOTE THAT A GREATER FILL DEPTH IS APPROPRIATE FOR GRADED PORTIONS OF RESIDENTIAL PARCELS];
- C. PAVING. 12. THE DISTRICT'S APCO MAY REQUIRE BULK SAMPLING AT ANY TIME. IF BULK SAMPLING IS REQUIRED, IT SHALL BE PERFORMED IN ACCORDANCE WITH ARB TEST METHOD 435. WHERE THE METHOD SPECIFIES "SERPENTINE," THIS SHALL APPLY TO GRAVEL, DECOMPOSED ULTRAMAFIC ROCK OR ANY OTHER
- MATERIAL AS SPECIFIED BY THE APCO. 13. NO BURNING OF WASTE MATERIAL OR VEGETATION SHALL TAKE PLACE ON—SITE. ALTERNATIVES TO BURNING INCLUDE CHIPPING, MULCHING OR
- CONVERTING TO BIOMASS. THE PROJECT SHALL BE REQUIRED TO USE LOW VOC PAINTINGS AND COATINGS.

#### **EARTHWORK**

- 1. THE TOPOGRAPHY WAS OBTAINED FROM A FIELD TOPOGRAPHIC SURVEY, RESULTING IN A 1' CONTOUR INTERVAL MAP THAT WAS PROVIDED BY DDGEO ON SEPTEMBER, 2024.
- 2. THE IMPORTATION OF SOIL MATERIAL FROM OFF-SITE SHALL ONLY BE HAULED TO THE PROJECT SITE DURING HOURS SPECIFIED BY THE CITY OF GRASS VALLEY MONDAY THROUGH FRIDAY. THE IMPORTATION OF ACTIVITIES SHALL MEET ALL IDENTIFIED NOISE THRESHOLDS AND DUST CONTROL MEASURES SHALL IMPLEMENTED AT THE PROJECT SITE.
- A MINIMUM OF FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION OF THE INTENT TO BEGIN GRADING OPERATIONS. PRIOR TO NOTIFICATION, ALL GRADE STAKES SHALL BE IN PLACE IDENTIFYING LIMITS OF ALL CUT AND FILL ACTIVITIES. AFTER NOTIFICATION, ENGINEERING STAFF SHALL BE PROVIDED THE OPPORTUNITY TO FIELD REVIEW THE GRADING LIMITS TO ENSURE CONFORMITY WITH THE APPROVED IMPROVEMENT AND GRADING PLANS. IF DIFFERENCES ARE NOTED IN THE FIELD, GRADING ACTIVITIES SHALL BE DELAYED UNTIL THE ISSUES ARE RESOLVED.
- H. BACKFILL TRENCHES SHALL BE COMPACTED TO 90% RELATIVE COMPACTION PER ASTM D-1557 TO WITHIN 12" OF FINISHED GRADE. BACKFILL AT PIPE TRENCHES SHALL BE COMPACTED ON BOTH SIDES OF PIPE IN 6" LIFTS.
- TRENCH BACKFILL PLACED IN LOCATIONS UNDER JURISDICTION OF PUBLIC UTILITIES OR LOCAL PUBLIC WORK AGENCIES SHALL BE PLACED IN ACCORDANCE WITH THE RESPECTIVE AGENCY SPECIFICATIONS, IF SUCH SPECIFICATIONS EXCEED REQUIREMENTS NOTED ABOVE.

. FILL MATERIAL SHALL BE PLACED IN LIFTS NOT EXCEEDING 6 IN. IN COMPACTED THICKNESS, MOISTENED OR DRIED AS NECESSARY TO NEAR OPTIMUM MOISTURE CONTENT

LAYERS) OR SIMILAR APPROVED METHODS. SOME FILL AREAS MAY REQUIRE COMPACTION TO A GREATER DENSITY AS CALLED FOR IN THE CONSTRUCTION DOCUMENTS.

COMPACTED BY AN APPROVED METHOD. FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 (MODIFIED TO 3

0



DATE SIGNED: 02-24-25 DESIGNED BY: DEC

DRAWN BY: DEC

ACCEPTED BY: CITY ENGINEER RCE NUMBE

PROJECT NUMBER -

PROJECT ENGINEER:

SHEET 2 OF 5

ENGINEERING DIVISION

CITY OF GRASS VALLEY

GRADING AND IMPROVEMENT PLANS FOR

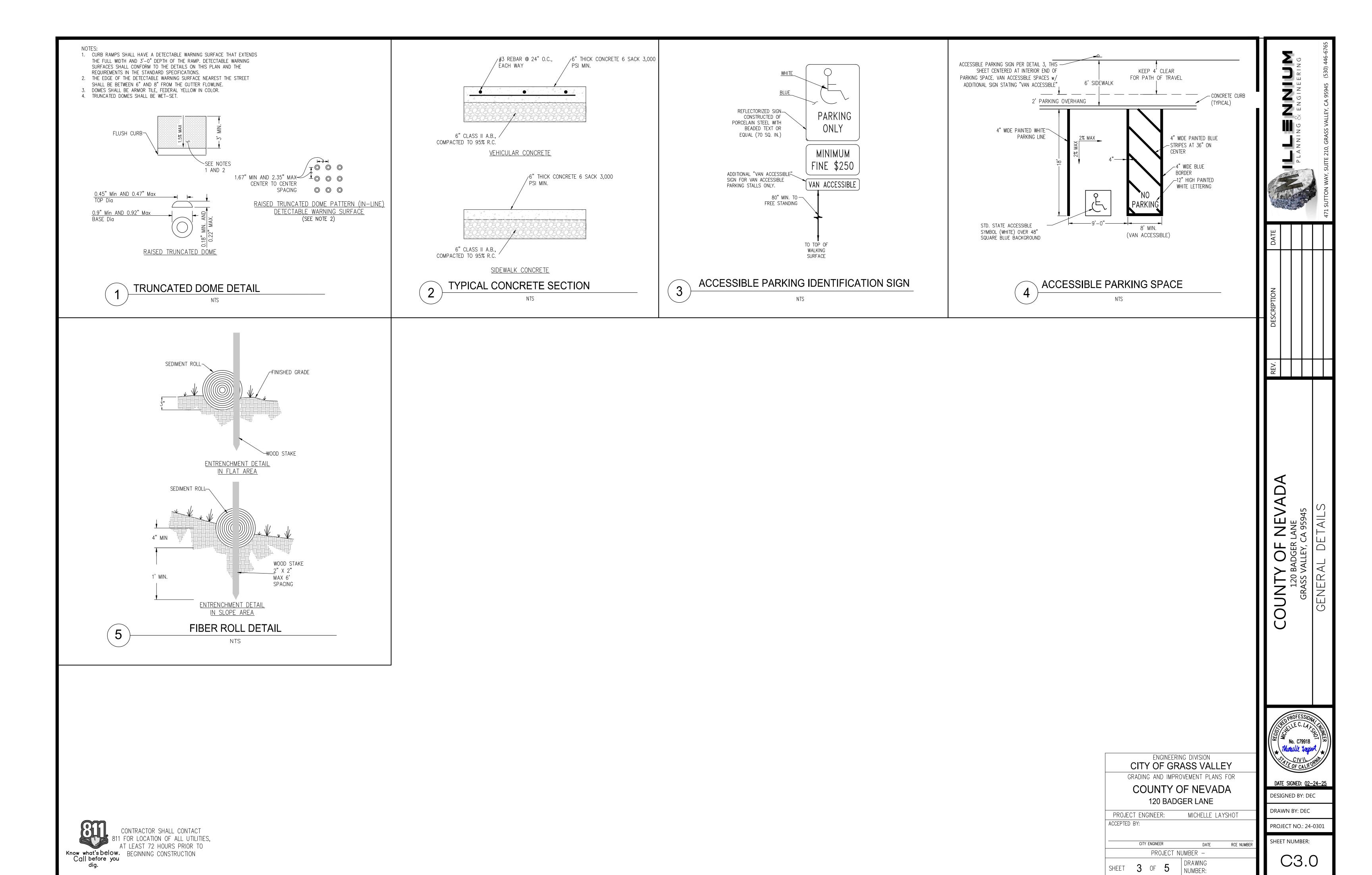
COUNTY OF NEVADA

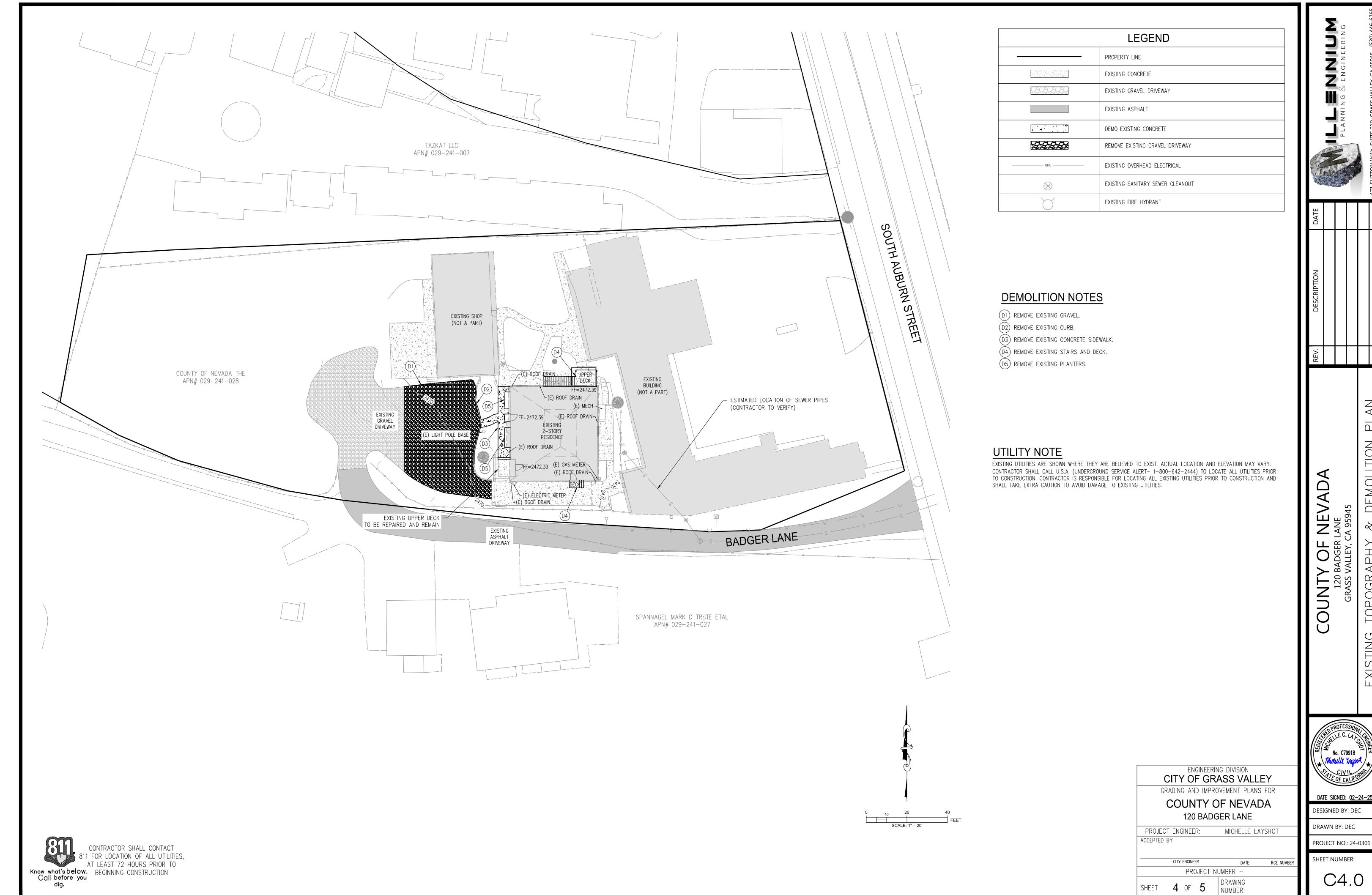
120 BADGER LANE

MICHELLE LAYSHOT

City of Grass Valley Builders Copy

PROJECT NO.: 24-0301 SHEET NUMBER:

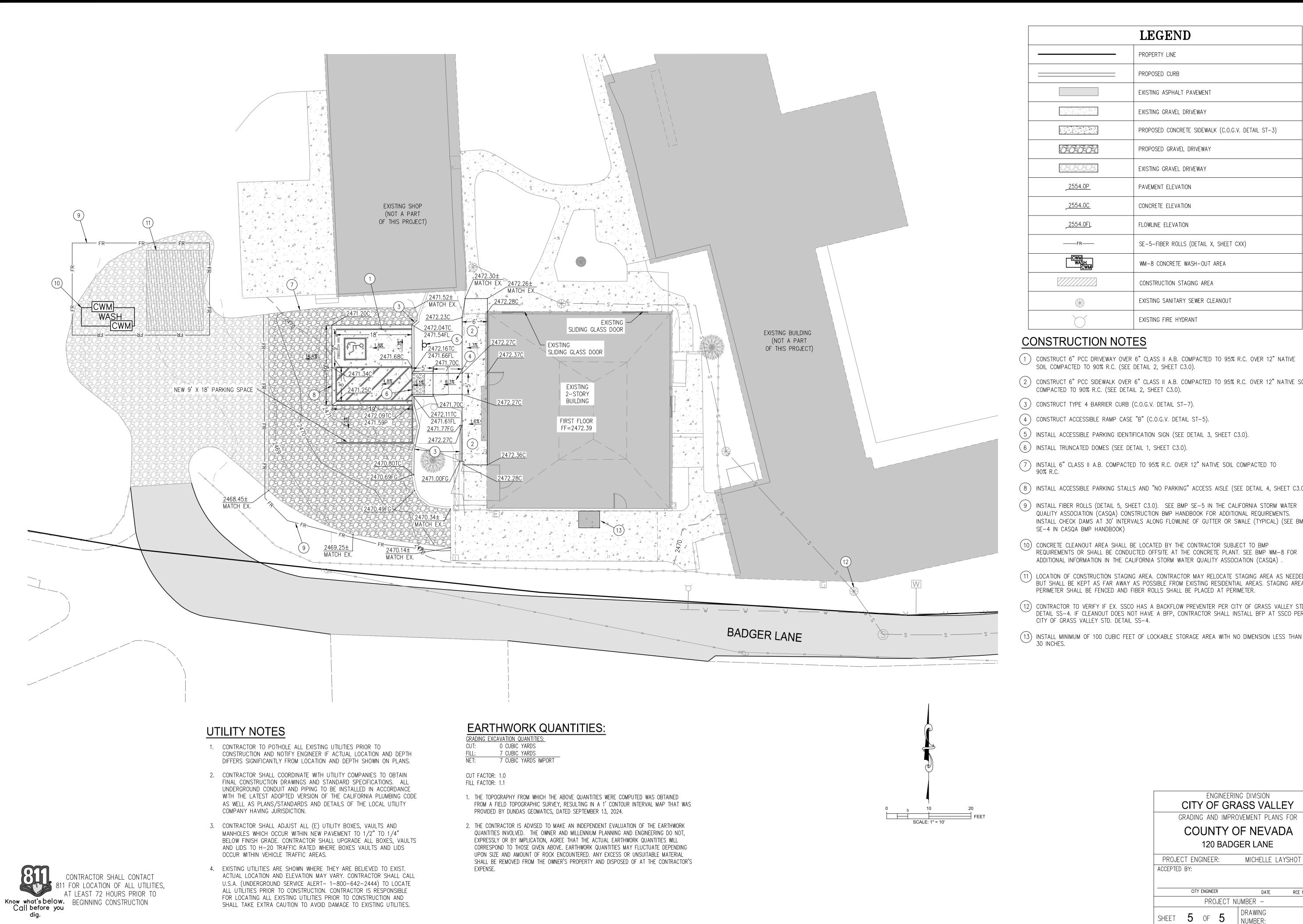




DATE SIGNED: <u>02-24-25</u> DESIGNED BY: DEC

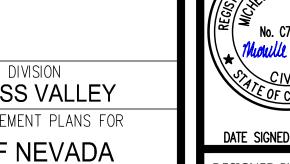
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SHEET NUMBER:





- (1) CONSTRUCT 6" PCC DRIVEWAY OVER 6" CLASS II A.B. COMPACTED TO 95% R.C. OVER 12" NATIVE
- (2) CONSTRUCT 6" PCC SIDEWALK OVER 6" CLASS II A.B. COMPACTED TO 95% R.C. OVER 12" NATIVE SOIL
- 7) INSTALL 6" CLASS II A.B. COMPACTED TO 95% R.C. OVER 12" NATIVE SOIL COMPACTED TO
- (8) INSTALL ACCESSIBLE PARKING STALLS AND "NO PARKING" ACCESS AISLE (SEE DETAIL 4, SHEET C3.0).
- (9) INSTALL FIBER ROLLS (DETAIL 5, SHEET C3.0). SEE BMP SE-5 IN THE CALIFORNIA STORM WATER QUALITY ASSOCIATION (CASQA) CONSTRUCTION BMP HANDBOOK FOR ADDITIONAL REQUIREMENTS. INSTALL CHECK DAMS AT 30' INTERVALS ALONG FLOWLINE OF GUTTER OR SWALE (TYPICAL) (SEE BMP
- (10) CONCRETE CLEANOUT AREA SHALL BE LOCATED BY THE CONTRACTOR SUBJECT TO BMP REQUIREMENTS OR SHALL BE CONDUCTED OFFSITE AT THE CONCRETE PLANT. SEE BMP WM-8 FOR ADDITIONAL INFORMATION IN THE CALIFORNIA STORM WATER QUALITY ASSOCIATION (CASQA).
- (11) LOCATION OF CONSTRUCTION STAGING AREA. CONTRACTOR MAY RELOCATE STAGING AREA AS NEEDED, BUT SHALL BE KEPT AS FAR AWAY AS POSSIBLE FROM EXISTING RESIDENTIAL AREAS. STAGING AREA PERIMETER SHALL BE FENCED AND FIBER ROLLS SHALL BE PLACED AT PERIMETER.
- (12) CONTRACTOR TO VERIFY IF EX. SSCO HAS A BACKFLOW PREVENTER PER CITY OF GRASS VALLEY STD. DETAIL SS-4. IF CLEANOUT DOES NOT HAVE A BFP, CONTRACTOR SHALL INSTALL BFP AT SSCO PER
- 13) INSTALL MINIMUM OF 100 CUBIC FEET OF LOCKABLE STORAGE AREA WITH NO DIMENSION LESS THAN



DATE SIGNED: <u>02-24-25</u> DESIGNED BY: DEC

PROJECT NO.: 24-0301

DRAWN BY: DEC

**DRAINA** 

GRADING,

SHEET NUMBER:

#### AGING-IN-PLACE DESIGN AND FALL PROTECTION

At least one bathroom on the entry level shall be provided with grab bar reinforcement. Reinforcement shall be nominal 2x8 lumber and shall be located between 32 inches and 39.5 inches above the finished floor. Water closet reinforcement shall be installed on both side walls of the fixture, or on the side wall and the back wall. Shower reinforcement shall be continuous where wall framing is provided. Bathtub and combination bathtub/shower reinforcement shall be continuous on each ed of the bathtub and the back wall. Back wall reinforcement for a lower grab bar shall be provided with the bottom edge located no more than 6 inches above the bathtub rim. Information identifying the location of the reinforcement shall be placed in the operations and maintenance manual. (CRC R327.1.1)

Electrical receptacles outlets, switches and controls shall be located not more than 48 inches measured from the top of the outlet box and not less than 15 inches measured from the bottom of the outlet box above the finished floor. (CRC R327.1.2)

Effective July 1st, 2024, at least one bathroom and one bedroom on the entry level shall provide a doorway with a net clear opening of not less than 32 inches measured with the door open at a 90-degree angle. (CRC R327.1.3)

Doorbell buttons shall be installed not more than 48" above the finished floor measured to the top of the button. (CRC R327.1.4)

#### GENERAL

Provide each bedroom, basement, and habitable attics with a minimum of one exterior window with a 44" maximum clear opening height, 5.7 sq. ft. minimum clear openable area (minimum 5.0 sq. ft. at grade floor openings), 24" minimum clear openable height and 20" minimum clear width, or an openable exterior exit door. (CRC R310.2.1 and CRC R310.2.2) Window wells, ladders, and steps shall comply with CRC R310.2.3. Bars, grilles, covers, ands screens shall be releasable or removable from the inside without the use of a key, tool, special knowledge, or force greater than 15lbs to operate the emergency escape and rescue openings. (CRC R310.4.4) Photovoltaic panels & modules shall not be below an emergency escape and rescue opening within 36". (R324.6.3)

Each bathroom containing a bathtub, shower or tub/shower combination shall be mechanically ventilated with Energy Star approved equipment (minimum 50cfm) with an integral humidistat installed. (CRC R303.3.1)

Provide attic cross ventilation: 1/150 of attic area or 1/300 with at least 40% but not more than 50% of vents are a maximum 3 ft. below the ridge or highest space in the attic and the balance is provided in the lower third of the attic space (not limited to eaves or cornice vents). As an alternative in Climate Zone 16 (Truckee region), the net area may be reduced to 1/300 when a Class I or II vapor barrier is installed on the warm-in-winter side of the ceiling. Baffles are required at vents for insulation. Provide minimum of  $\mathbf{1}^{\prime\prime}$  inch of air space between insulation and roof sheathing. (CRC

Enclosed rafter spaces shall have a 1-inch clear cross ventilation. (Properly sized rafters for insulation) (CRC R806.3)

Under floor cross ventilation: minimum 1.0 sq. ft. for each 150 sq. ft. of under floor area. When a class 1 vapor retarder is installed on the ground surface the minimum area of ventilation may be limited to 1sq.ft for each 1,500 square feet of under-floor space. One ventilation opening shall be within three (3) feet of each corner of the building (CRC R408.1). Unvented crawl spaces shall comply with CRC R408.2. Unvented crawl space added option for dehumidification of 70 pints moisture per day per 1,000 sf to requirement for exemption. (R408.3)

Exterior balconies and elevated walking surfaces exposed to water, where structural framing is protected by an impervious moisture barrier require construction documents with manufacturer's installation instructions. (R106.1.5) Must be inspected and approved before concealing barrier. (R109.1.5.3)

Enclosed framing in exterior balconies and elevated walking surfaces exposed to rain, snow or drainage from irrigation shall be provided with cross-ventilation area of at least 1/150. (R317.1.3)

Provide landings and a porch light at all exterior doors. Landings are to be minimum 3 ft deep x width of door. Landings at required egress doors may step down a maximum of 7.75 inches when the door does not swing over the landing and 1.5 inches when door swings onto the landing. Other than required exterior exit doors may have a threshold of 7.75 inches maximum; a landing is not required if a stair with two or fewer risers is located on the exterior side and the door does not swing over the stairway. (CRC R311.3-R311.3.2)

Mezzanines shall not be greater than 1/3 of the story unless fire sprinklers are installed then the area can be ½ of the story. (R325.3)

At least one egress door shall be provided for each dwelling unit, the egress door shall be side hinged with a minimum openable width of 32 inches; the minimum clear openable height shall be 78 inches minimum (other doors shall not be required to comply with these dimensions). Egress doors shall be readily openable from the inside without the use of a key, special knowledge, or effort. (CRC R311.2)

Operable windows more than 72" above finish grade with a clear opening height less than 24" shall have openings not more than 4" apart or needs a compliant guard. (R312.2)

#### **FOUNDATIONS & CONCRETE SLABS**

Slope drainage 6" within the first 10ft. from the foundation wall. If physical obstructions or lot lines prohibit the 10ft distance, a 2-5 percent slope shall be provided to an approved alternative method of diverting the water away from the foundation. Impervious surfaces shall also be sloped a minimum of 2 percent for 10ft away from structures to an approved drainage way. (CRC R401.3)

Footings shall extend at least 12 inches into the undisturbed ground surface. (CRC R403.1.4) Unless erected on solid rock, to protect against frost and freezing, the minimum foundation depth is 18 inches below grade if between 4,000-7,000 foot elevation and 24 inches below grade for 7,000 foot elevation and above. Exception: Interior footings shall be a minimum of 12 inches below grade. (L-V 3.14)

Stepped footings shall be used when slope of footing bottom is greater than 1 in 10 (V: H). Step footing detail shall be shown on building elevations and foundation plan. (CRC R403.1.5)

Concrete slabs: 3 ½" minimum (CRC R506.1). Slabs under living areas and garages shall be reinforced with wire 6" x 6", 10 gauge x 10 gauge welded mesh or equivalent steel reinforcement and 4" thickness of 3/8 minimum gravel under the concrete slab. Separate from soil with a 6 mil polyethylene vapor retarder with joints lapped not less than 6 inches in living areas. A capillary break shall be installed when a vapor retarder is required.

Site excavation and grading shall comply with Chapter V, Article 13 of the Nevada County Land-Use Code.

A minimum 18" x 24" under-floor access, unobstructed by pipes or ducts and within 5' of each under-floor plumbing cleanout and not located under a door to the residence, is required. Provide a solid cover or screen. (CRC 408.4 & CPC 707.9)

Minimum sill bolting: ½" anchor bolts or approved anchors at 6 ft. o.c. maximum for one-story. (CRC R403.1.6) Use anchor bolts at 4 ft. o.c. maximum for three story construction. Embed bolts 7 minimum. The anchor bolts shall be placed in the middle third of the width of the plate. Locate

end bolts not less than 7 bolt diameters, nor more than 12" from ends of sill members. In SDC DO and above: Provide 3"X3"X0.229 plate washers on each bolt at braced or shear wall locations, standard cut washers shall be permitted for anchor bolts not located in braced/shear wall lines. The hole in the plate washer is permitted to be diagonally slotted with a width of up to 3/16" larger than the bolt diameter; the slot length shall not exceed 1 ¾", provided a standard cut washer is placed between the plate washer and the nut. (CRC R403.1.6.1 & R602.11.1)

#### CLEARANCES AND TREATMENT FOR WOOD FRAMING

All joists, girders, ledgers, structural blocking and support posts/column shall be wood of natural resistance to decay or pressure-treated lumber when exposed to the weather. (CRC R317.1(8))

Columns in basements when supported on concrete pier or metal pedestals shall be pressure reated or natural resistance to decay <u>unless</u> the pier/pedestals project 1" above concrete or 6" bove earth  $\overline{ ext{and}}$  the earth is covered by an approved impervious moisture barrier. (CRC R317.1 lacksquare

Columns in enclosed crawl spaces or unexcavated areas located within the periphery of the building shall be pressure treated or natural resistance to decay unless the column is supported by a oncrete pier or metal pedestal of a height 8" or more <u>and</u> the earth is covered by an impervious moisture barrier. (CRC R317.1(9))

Jnder-floor areas with storage, fuel-fired equipment or electric-powered equipment with less than 2x10 solid joists shall be protected on the underside by half-inch sheetrock or a sprinkler

Balconies must be designed for a minimum live load of 60lbs per square foot. (CRC T-R301.5)

Specify post to beam connections. Positive connection shall be provided to ensure against uplift and lateral displacement. (CRC R502.9 & CBC 2304.10.7)

All fasteners used for attachment of siding & into pressure treated lumber shall be of a corrosion

Fire-block in concealed spaces of stud walls/partitions, vertically at ceiling/floor levels, & horizontally at 10ft. intervals. Fire-block at soffits, drop ceilings/similar locations & in concealed spaces at the top/bottom of stair stringers. (CRC R302.11)

Provide approved building paper under the building siding and approved flashing at exterior penings. (CRC R703.2) Specify a minimum of 2 layers of Grade D paper under stucco and 2 layers f 15lb felt (or equivalent) under stone veneer.

Stucco shall have a minimum clearance to earth of 4 inches and 2 inches to paved surfaces with an approved weep screed. (CRC R703.7.2.1) Masonry stone veneer shall be flashed beneath the first course of masonry and provided with weep holes immediately above the flashing. (CRC R703.8.5 and R703.8.6)

Show minimum 22" x 30" access opening to attic (CRC R807); may be required to be 30"x30" to remove the largest piece of mechanical equipment per the California Mechanical Code.

Roof drains/gutters required to be installed per the California Plumbing Code with leaf/debris protection also installed.

Roof construction and coverings shall comply with CRC Chapters 8, 9 and local ordinance. All roofing shall be tested/listed Class A minimum.

Asphalt shingles with sloped roofs 2/12 to <4/12 shall have two layers of underlayment applied per CRC R905.2.2.

#### GARAGE AND CARPORT

Garage shall be separated from the dwelling unit & attic area by ½ inch gypsum board applied to he garage side. Garage beneath habitable rooms shall be separated by not less than 5/8" type X gypsum board. Structure supporting floor/ceiling assemblies used for required separations shall have ½" gypsum board installed minimum. Door openings from the garage to the dwelling shall be solid wood/steel doors or honeycomb steel doors not less than 1 3/8" thick or a 20-minute rated fire door. Doors shall be self-closing & self-latching. No openings directly into a sleeping room from the garage. When the dwelling and garage have fire sprinklers installed per R309.6 and R313, doors into the dwelling unit from the garage only need to be self-closing and selflatching. (CRC R302.5.1 & T-R302.6)

Ducts penetrating the garage to dwelling separation shall be a minimum of 26 gauge with no openings into the garage. (CRC R302.5.2)

Penetrations through the garage to dwelling separation wall (other than ducts as listed above) shall be fire-blocked per CRC section R302.11. item #4.

Garage and carport floor surfaces shall be non-combustible material and slope to drain towards the garage door opening. (CRC R309.1)

Appliances and receptacles installed in garage generating a glow, spark or flame shall be located 18" above floor unless it is listed as flammable vapor ignition resistant. (CMC 305.1) Provide protective post or other impact barrier from vehicles. (CMC 305.1.1)

Appliances in private garages and carports shall be installed with a minimum clearance of 6ft above the floor unless they are protected from vehicular impact. (CBC 406.2.9.3)

#### STAIRWAYS & RAMPS

Stair landings required every 12'7" of vertical rise. (CRC R311.7.3)

Exterior stair stringers must be naturally resistant to decay or pressure treated. (CRC R317.1)

Rise shall be maximum 7.75"; Run shall be 10" minimum; headroom 6'-8" minimum; width 36" minimum, 31.5" between a handrail on one side and 27" with handrails on two sides. Variation between riser heights 3/8" maximum. A nosing not less than .75 inches but not more than 1.25 inches shall be provided on stairways with solid risers where the tread depth is less than 11 inches. The leading edge of treads shall project not more than 1.25 inches beyond the tread below. Open risers are permitted, provided the opening between the treads does not permit the passage of a 4" sphere. (Openings are not limited when the stair has a rise of 30" or less). (CRC

Stairways with 4 or more risers shall have a handrail on one side 34" to 38" above the tread nosing. Circular handrails shall have an outside diameter of 1.25"-2"; if not circular, it shall have a perimeter dimension of 4"-6.25" with a maximum cross-sectional dimension of 2.25". See R311.7.8.3 item# 2 for type II handrails with a parameter over 6.25". A minimum clearance of 1.5" shall be maintained from the wall or other surface. Handrails shall be returned, terminate in newel posts, or safety terminals. (CRC R311.7.8.2)

Guards shall be 42" minimum height (unless acting as a handrail/guard for a stairway; the guard height may be 34"-38" in height), with openings less than 4" inches clear (guards on the open sides of stairs may have 4 3/8" openings). (CRC R312)

Provide landings at the top/bottom of the stairway the width of the stairway. The depth of the anding shall be 36" minimum. (CRC R311.7.6)

Usable spaces underneath enclosed/unenclosed stairways shall be protected by a minimum of gypsum board. (CRC R302.7)

Ramps serving the egress door shall have a slope of not more than 1 unit vertical in 12 units horizontal (8.3-percent slope). All other ramps shall have a maximum slope of f 1 unit vertical in 8 units horizontal (12.5-percent slope). Exception: Where it is technically infeasible to comply because of site constraints, ramps shall have a slope of not more than  $oldsymbol{1}$  unit vertical in  $oldsymbol{8}$  units horizontal (12.5-percent slope) (CRC R311.8.1). Provide 3'X3' landings at the top and bottom of ramps, where doors open onto ramps, and where ramps change directions. (CRC R311.8.2)

Guards are required if deck or floor is over 30" above grade, minimum 42" high, with openings less than 4". (CRC R312) Guardrails shall be designed and detailed for lateral forces according to CRC Table 301.5.

Provide deck lateral load connections at each end of the deck and at deck intersections per CRG R507.9.2. Specify connectors with a minimum allowable stress design capacity of 1,500lbs and install with 24" of the end of the deck. 750lb rated devices are allowed (DTT1Z as example) if

located at 4 points along the deck. Posts/columns shall be retrained at the bottom end to prevent lateral displacement; clearly

Joists, girders, structural blocking and support posts shall be wood of natural resistance to decay or pressure-treated lumber when exposed to the weather. (CRC R317.1(8))

show approved post bases, straps, etc to achieve this per CRC R407.3

Never install electrical panels in closets of bathrooms. Maintain a clearance of 36" inches in front of panels, 30" wide or width of equipment and 6'-6" high for headroom. (CEC 110.26)

Provide a minimum 3 lug intersystem bonding busbar at the main electrical service. (CEC

Provide a four-wire feed (two ungrounded conductors, one grounded conductor and an equipment grounding conductor) to all detached structures.

rovide electrical service load calculations for dwellings over 3,000 sq. ft, services 400 ampere: or greater or as determined by the Plans Examiner

All automatic garage door openers that are installed in a residence shall have a battery backup function that is designed to operate when activated because of an electrical outage. (CBC

concrete-encased electrode (ufer) consisting of 20' of rebar or #4 copper wire placed in the bottom of a footing is required for all new construction. (CEC 250.52(A)(3)) Bond all metal gas and water pipes to ground. All ground clamps shall be accessible and of an approved type. (CEC

All 15/20 ampere receptacles installed per CEC 210.52 including attached and detached garages and accessory buildings shall be listed tamper-resistant receptacles. (CEC 406.12)

All branch circuits supplying 15/20 ampere outlets in family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, kitchens, laundry room or similar rooms/areas shall be protected by a listed combination type arc-fault circuit interrupter. (CEC 210.12)

Provide a minimum of one 20A circuit to be used for the laundry receptacle. (CEC 210.11(C)(2))

Provide a minimum of one 20A circuit for bathroom receptacle outlets. (CEC 210.11(C)(3)

Provide at least 1 outlet in basements, garages, laundry rooms, decks, balconies, porches and within 3' of the outside of each bathroom basin. (CEC 210.52 (D), (F) & (G))

Furnaces installed in attics and crawl spaces shall have an access platform (catwalk in attics), light switch and receptacle in the space. Provide a service receptacle for the furnace. (CEC

All dwellings must have one exterior outlet at the front and the back of the dwelling. (CEC

Provide a minimum of one 20A circuit for attached and detached garage outlets. The circuit shall supply no other receptacle outlet. Exception: Garage circuit may serve readily accessible outdoor receptacle outlets. ((CEC 210.11 (C)(4))

A minimum of 1 receptacle shall be provided <u>for each car space</u>. (210.52(G)(1))

At least one wall switched lighting outlet or fixture shall be installed in every habitable room bathroom, hallways, stairways, attached garages and detached garages with electrical power, equipment spaces (attics, basements, etc). (CEC 210.70).

Kitchens, dining rooms, pantries, breakfast nooks, and similar areas must have a minimum of two 20A circuits. Kitchen, pantry, breakfast nooks, dining rooms, work surfaces and similar areas counter outlets must be installed in every counter space 12" inches or wider, not greater than 4' o.c., within 24" inches of the end of any counter space and not higher than 20" above counter. (CEC 210.52 (C)) A minimum of 1 receptacle is required at each kitchen island as follows: one receptacle is required for first 9 ft<sup>2</sup> two receptacles required from 10 ft<sup>2</sup> – 27 ft<sup>2</sup> three receptacles required for 28 ft<sup>2</sup> – 47 ft<sup>2</sup> and four receptacles required for 48 ft<sup>2</sup> or more. (CEC 210.52(C)(1)) Island counter spaces shall have at least 1 receptacle outlet unless a range top or sink is installed than 2 receptacles may be required. 1 receptacle is required for peninsula counter spaces. Receptacles shall be located behind kitchen sinks if the counter area depth behind the sink is more than 12" for straight counters and 18" for corner installations. (CEC Figure 210.52(C)(1))

Receptacles shall be installed at 12' o.c. maximum in walls starting at 6' maximum from the wall end. Walls longer than two feet shall have a receptacle. Hallway walls longer than 10 ft shall have a receptacle in hallways. (CEC 210.52(A))

Stairways with 6 or more risers shall have wall switch at each floor level at the stair landings.

Receptacles shall not be installed within or directly over a bathtub or shower stall. (CEC 406.9 (C)) Light pendants, ceiling fans, lighting tracks, etc shall not be located within 3ft horizontally and 8ft vertically above a shower and/or bathtub threshold. (CEC 410.10(D))

All lighting/fan fixtures located in wet or damp locations shall be rated for the application. (CEC

GFCI outlets are required: for all kitchen receptacles that are designed to serve countertop surfaces, dishwashers, bathrooms, in under-floor spaces or below grade level, in unfinished basements, crawl space lighting outlets, in exterior outlets, within 6' of a laundry/utility/wet bar sinks, indoor damp locations, mud rooms, finished basements, laundry areas, and in all garage outlets including outlets dedicated to a single device or garage door opener. (CEC 210.8).

Carbon-monoxide alarms shall be installed in dwelling units with fuel-burning appliances or with attached garages (CRC R315):

- Outside of each separate sleeping area in the immediate vicinity of bedrooms
- On every level of a dwelling unit including basements
- Alterations, repairs, or additions exceeding 1,000 dollars (May be battery operated)
- Smoke alarms shall be installed (CRC R314):
- In each room used for sleeping purposes.
- Outside of each separate sleeping area in the immediate vicinity of bedrooms.
- In each story, including basements.
- At the top of stairways between habitable floors where an intervening door or obstruction prevents smoke from reaching the smoke detector.
- this would prevent placement of a smoke detector (R314.3(4)). Alterations, repairs, or additions exceeding 1,000 dollars. (May be battery operated.)
- All smoke and carbon-monoxide alarms shall be hardwired with a battery backup (smoke alarms shall have a 10-year sealed battery). (CRC R314.4 & R315.1.2)

Shall not be installed within 20ft horizontally of cooking appliances and no closer than 3ft

to mechanical registers, ceiling fans and bathroom doors with a bathtub or shower unless

Smoke detectors within 10 feet to 20 feet of the stove shall be ionization type with alarm silencing switch. (CRC R314.3.3)

All 15/20 ampere receptacles in wet locations shall have in-use (bubble) covers installed. All receptacles in wet locations shall also be listed weather-resistant type. (CEC 406.9(B)(1))

#### ENERGY STORAGE SYSTEMS

Energy storage systems shall only be installed in detached garages and accessory structures, attached garages, outdoor not less than 3' from door and windows and enclosed utility closets, basements, storage or utility closets within dwelling units with finished or noncombustible walls and ceiling. (CRC R328.4)

Individual ESS units shall have a maximum rating of 20 kWh. The aggregate rating of the ESS shall not exceed 40 kWh within utility closets, basements and storage or utility spaces, 80 kWh in attached or detached garages or detached accessory structures, 80 kWh on exterior walls and 80 kWh outdoors on the ground. (CRC R328.5)

Rooms and areas within structures in which ESS are installed shall be protected by smoke alarms. A heat detector shall be installed in locations within structures where smoke alarms cannot be installed based on their listing. (CRC R328.7)

ESS installed in locations subject to vehicle damage shall be provided with impact protection.

(CRC R328.8)

Underfloor cleanouts shall not be more than 5' from an underfloor access, access door or trap door. (CPC 707.9)

Kitchen sinks require a cleanout above the floor level of the lowest floor of the building.

ABS piping shall not be exposed to direct sunlight unless protected by water based synthetic latex paints, (CPC 312.13)

PVC piping shall not be exposed to direct sunlight unless protected by water based synthetic latex paint, .04" thick wrap or otherwise protected from UV degradation. (CPC 312.14)

Underground water supply lines shall have a 14 awg blue tracer wire. (CPC 604.10.1)

"wet location" when using the CRC, CBC, and the CEC. (CPC 408.5)

The entire floor space in a room containing a shower without thresholds shall be considered a

Shower compartments, regardless of shape, shall have a minimum finished interior of 1024 square inches (32" by 32") and shall also be capable of encompassing a 30" circle. The required area and dimensions shall be measured at a height equal to the top of the threshold and shall be maintained to a point of not less than 70" above the shower drain outlet. (CPC 408.6) Provide curtain rod or door a minimum of 22" in width (CPC 408.5). Showers and tubs with showers require a non-absorbent surface up to 6′ above the floor. (CRC R307.2) Minimum shower receptor slope is 1/8" per foot. (CPC 408.5)

Show location and size of the water heater on plans. Provide pressure relief valve with drain to outside for water heater. (CPC 504.6) Provide seismic strapping in the upper & lower third of the water heater a minimum of 4" above controls. (CPC 507.2)

Water heaters using gas or propane shall designate a space 2.5 feet by 2.5 feet and 7 feet tall suitable for future installation of a heat pump water heater. Additional features are required.

Domestic hot water lines shall be insulated. Insulation shall be the thickness of the pipe diameter up to 2" in size and minimum 2" thickness for pipes larger than 2" in diameter. (CPC 609.12)

A 3-inch gravity drain shall be provided at the low point of the space, installed which provides 1/4-inch per foot grade and terminate at an exterior point of the building protected from blockage. The opening shall be screened with a corrosion-resistant wire mesh with mesh openings of 1/4-inch in dimension. Lengths of the gravity drains over 10 feet in length shall be first approved by the Building Official. (L-V 8.8)

Water heaters located in attics, ceiling assemblies and raised floor assemblies shall show a water-tight corrosion resistant minimum 1  $\chi''$  deep pan under the water heater with a minimum ¾ inch drain to the exterior of the building. (CPC 507.5)

Water closets shall be located in a space not less than 30" in width (15" on each side) and 24" minimum clearance in front. (CPC 402.5)

Indicate on the plans that the maximum hot water temperature discharging from a bathtub or whirlpool bathtub filler shall not exceed 120 degrees F. (CPC 408.3.2)

Provide anti-siphon valves on all hose bibs. (CPC 603.5.7)

Floor drains shall be provided with a trap primer. (CPC 1007)

Clearly label on the plans the maximum water flow rates per the (CGBSC 4.303.1):

- Urinals: .125gpf
- Kitchen Faucets: 1.8gpm @ 60psi

(California Energy Code 150.0(n))

Lavatory Faucets: 1.2gpm @ 60psi Showerheads: 1.8gpm

Water Closets: 1.28gpf

All newly installed gas fireplaces shall be direct vent and sealed-combustion type. (CMC 912.2)

Any installed wood stove or pellet stove shall meet the U.S. EPA New Source Performance Standard emission limits and shall have a permanent label certifying emission limits.

Top of chimney must extend a minimum of 2 ft. above any part of the building within 10 ft.

Fireplaces shall have closable metal or glass doors, have combustion air intake drawn from the outside and have a readily accessible flue dampener control. Continuous burning pilot lights

Provide combustion air for all gas fired appliances per CMC Chapter 7.

are prohibited. (California Energy Code 150.0(e))

Roof top equipment on roofs with over 4/12 slope shall have a level 30"x30" working platform

Exhaust openings terminating to the outdoors shall be covered with a corrosion resistant screen ¼"-1/2" in opening size (not required for clothes dryers). (CMC 502.1)

Vent dryer to outside of building (not to under-floor area). Vent length shall be 14 ft. maximum. Shall terminate a minimum of 3' from the property line and any opening into the building.

invironmental Air Ducts shall not terminate less than 3' to a property line, 10' to a forced air inlet, 3' to openings into the building and shall not discharge on to a public way. (CMC 502.2.1)

Provide minimum 100 square inches make-up air for clothes dryers installed in closets. (CMC

Heating system is required to maintain 68 degrees at 3 ft. above floor level and 2ft from exter or walls in all habitable rooms. (CRC R303.10)

#### TITLE 24 ENERGY

ovide compliance documentation for mandatory measures to shown throughout the plans. All ducts in conditioned spaces must include R-4.2 insulation. (California Energy Code 150.1(c)9) Minimum heating and cooling filter ratings shall be MRV 13. (California Energy Code 150.0(m)

Isolation water valves required for instantaneous water heaters 6.8kBTU/hr and above. Valves shall be installed on both cold and hot water lines. Each valve will need a hose bib or othe fitting allowing for flushing the water heater when the valves are closed. (California Energy Code 110.3(c)6)

Energy storage system (ESS) ready. At least one of the following shall be provided:

- ESS ready interconnection equipment with a minimum backed-up capacity of 60 amps and a minimum of four ESS-supplied branch circuits, or
- A dedicated raceway from the main service panel to a panelboard (subpanel) that supplies the following branch circuits: refrigerator, lighting circuit near primary egress door, sleeping room receptacle and one additional.

feet of the main panelboard. Raceways shall be installed between the panelboard and the system isolation equipment to allow the connection of backup power source. Heat pump space heater ready. Systems using a gas or propane furnace shall include a dedi cated 240 volt branch circuit with 3 feet of the furnace. The branch circuit shall be rated at 30

| Electric cooktop ready. Systems using a gas or propane cooktop shall include a dedicated 240 volt branch circuit with 3 feet of the cooktop. The branch circuit shall be rated at 50 amps minimum. The main electrical service shall have a reserved space to allow for the installation of a double pole circuit breaker. The reserved space shall be permanently marked as "For

Electrical clothes dryer ready. Systems using a gas or propane dryer shall include a dedicated 240 volt branch circuit with 3 feet of the clothes dryer. The branch circuit shall be rated at 30 amps minimum. The main electrical service shall have a reserved space to allow for the installation of a double pole circuit breaker. The reserved space shall be permanently marked as "For future 240V use". (California Energy Code 150.0(v))

ALL luminaires must be high efficacy. (California Energy Code 150.0(k)1A)

minaries recessed in insulated ceilings must meet five requirements (California Energy Coo

They must be rated for direct insulation contact (IC).

as "For future 240V use". (California Energy Code 150.0(t))

future 240V use". (California Energy Code 150.0(u))

- They must be certified as airtight (AT) construction.
- They must have a sealed gasket or caulking between the housing and ceiling to preven
- flow of heated or cooled air out of living areas and into the ceiling cavity. They may not contain a screw base sockets
- They shall contain a JA8 compliant light source

n bathrooms, garages, **walk-in closet,** laundry rooms, and utility rooms, at least on luminaire in each of these spaces shall be controlled by a vacancy sensor or occupant sensor provided the occupant sensor is initially programmed like a vacancy sensor (manual-on operation). (California Energy Code 150.0(k)2I)

All exterior lighting shall be high efficacy, be controlled by a manual on/off switch and have one

Lighting in habitable spaces, including but not limited to living rooms, dining rooms, kitchens

and bedrooms, shall have readily accessible dimming controls. (California Energy Code 150(k)

of the following controls (the manual switch shall not override the automatic control device) (150.0(k)3A):

Astronomical time clock control turning lights off during the day

Photo-control and motion sensor Photo-control and automatic time switch control

Energy Commission.

All high efficacy light fixtures shall be certified as "high-efficacy" light fixtures by the California

Contractor shall provide the homeowner with a luminaire schedule giving the lamps used in the luminaires installed. (CGBSC 10-103(b))

The number of blank electrical boxes more than 5 feet above the finished floor shall not be

**General notes based on the 2022 California Building** Standard Codes. This is not an all inclusive list of code requirements specific to the project. Reference applicable sheets and specific areas of the plans for locations of fixtures/equipment, structural components, structural design criteria, building finishes and other

greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor, or fan speed control. (California Energy Code 150(k)1B)

Radiant barrier shall be installed, and it shall also be installed on all gable ends per the manufac-

components specific to the project construction.

## WILDLAND URBAN INTERFACE (WUI)

Exterior wall coverings shall be noncombustible, ignition resistant, heavy timber, log wall or fire resistive construction. (CRC R337.7)

Exterior wall coverings shall extend from the foundation to the roof and terminate at 2 inch nominal solid blocking between rafters and overhangs. (CRC R337.7.3.2)

Spaces created between roof coverings and roof decking shall be fire stopped by approved materials or have one layer of minimum 72lb mineral surfaced non-perforated cap sheet complying with

Open/enclosed roof eaves and soffits, exterior porch ceilings, floor projections, under-floor areas

and undersides of appendages to comply with ignition resistant construction requirements. (CRC

Indicate on the plans where valley flashing is installed, the flashing shall be not less than 26awg and installed over not less than one layer of minimum 72lb mineral surfaced non-perforated cap sheet complying with ASTM D 3909 and at least 36 inches wide running the full length. (CRC R337.5.3)

All vents are required to resist building ignition from the intrusion of flame and burning embers through the ventilation openings including crawlspace vents, gable end vents, eave vents, etc. Exception: Ridge vents and vents installed in a sloped roof.

12-7A-2. (CRC R337.8.2) Operable skylights shall be protected by a noncombustible mesh screen 1/8" max openings

Indicate on plans exterior glazing shall have a minimum of one-tempered pane, glass block, have a

fire resistive rating of 20 minutes or be tested to meet performance requirements of SFM Standard

Exterior doors including garage doors shall be noncombustible, ignition resistant material, minimum 1 3/8 inch solid core, minimum 20 minute fire resistive rating or shall be tested to meet the perfor-

mance requirements of SFM Standard 12-7A-1. (CRC R337.8.3)

Garage door perimeter gap maximum 1/8". Metal flashing, jamb and header overlap, and weather stripping meeting section requirements are permitted. (R337.8.4)

The main panelboard shall have a minimum busbar rating of 225 amps. Space shall be re-The walking surface material of decks, porches, balconies and stairs within 10ft of grade level shall served to allow future installation of a system isolation equipment/transfer switch within 3 be ignition resistant material, exterior fire-retardant treated wood or noncombustible material. (CRC R337.9)

Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during conamps minimum. The main electrical service shall have a reserved space to allow for the instruction, one or more of the following measures shall be implemented to prevent flooding of adjastallation of a double pole circuit breaker. The reserved space shall be permanently marked t property, prevent erosion and retain soil runoff on the site (CGBSC 4.106.2):

> Retention basins of sufficient size shall be utilized to retain storm water on site Where storm water is conveyed to a public drainage system, collection point, gutter, or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.

All new residential construction with attached private garages shall have the following for electric vehicle (EV) charging stations (CGBSC 4.106.4):

Install a minimum 1-inch conduit capable of supplying a 208/240V branch circuit to a suitable box location for EV charging. The other end shall terminate to the main service and/or subpan-The main panel and/or subpanel shall be of sufficient size to install a 40-ampere dedicated

Multiple shower heads serving a single shower shall have a combined flow rate of 1.8 gpm or the shower shall be designed to allow only one shower outlet to be in operation at a time. (CGBSC Residential projects with an aggregate landscape area equal to or greater than 500 square feet shall

comply with either a local water efficient landscape ordinance or the current California Department

of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more

stringent. Automatic irrigation system controllers installed at time of final inspection shall have

weather or soil based controllers and/or weather based controllers with rain sensors. Soil moisture

branch circuit. The dedicated overcurrent protection space shall be labeled "EV CAPABLE".

based controllers are not required to have rain sensor input. (CGBSC 4.304) Recycle and/or reuse a minimum of 65 percent of nonhazardous construction and demolition waste. (CGBSC 4.408.2)

At time of final inspection, a building operation and maintenance manual, compact disc, etc shall be provided containing the following: (CGBSC 4.410) Directions that manual shall remain onsite for the life of the building

Operation and maintenance instructions for equipment, appliances, roof/yard drainage, irrigation systems, etc

Information from local utility, water and waste recovery providers

Public transportation and carpool options Material regarding importance of keeping humidity levels between 30-60 percent

Information regarding routine maintenance procedures

State solar energy incentive program information A copy of any required special inspection verifications that were required (if any)

Clearly note on the plans how the project will meet minimum pollutant control requirements for adhesives, sealants, caulks, paints, carpet, resilient flooring systems, etc. (CGBSC 4.504)

Duct openings related to HVAC systems shall be covered with tape, plastic, sheet metal or other

methods to reduce the amount of water, dust and debris which may enter the system. (CGBSC

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No. C-27081

SHEET: GENERAL NOTE

City of Grass Valley Builders Copy

Project Name:							Date:	Page (
Project Location:							Completed By:	i ugc
							Completed by.	
Project Manager:						1		
Vaste Hauler:				Signature:				
	Α		В					
	Ir	nsert v	eight totals into	Notes:				
Waste Material Type	Recycled		Reused		Diverted	Non-Recycled (Disposed)		
sphalt		+		=				
sphalt Shingles		+		=				
Brick (broken)	3	+		=	5			
ardboard		+		=				
Carpet/Carpet Pad		+		=				
Concrete		+		-				
Sypsum Board (Drywall)		+		=				
lasonry		+		=				
letals .		+		=				
allets		+		=				
lastic		+		=				
Vood (engineered)		+						
Vood (solid sawn)		+		=				
Office Waste		+						
Other	2	+		=	ė.			
Other		+		=				
Other		+		=				
Total:		+		=				

Step 2 - Add Column A to Column B and insert total into Column C for total diverted weight.

Step 3 - Add each column down and enter totals in the boxes provided.

If Column C is larger than Column D (on the summary sheet), compliance with 65 percent waste reduction requirement is achieved.

If multiple worksheets are used, transfer column totals from each worksheet to the summary sheet. For additional instructions and information, please see reverse.

Project Name:							Date:	Page of
Project Location:						7	Completed By:	
Project Manager:							155 =	
Waste Hauler:							Signature:	
	Α		В		С	D		
	Insert cub	ic foo	t or cubic yard	totals i	into proper cate	gory below	Notes:	
Waste Material Type	Recycled		Reused		Diverted	Non-Recycled (Disposed)		
Asphalt		+		=				
Asphalt Shingles		+		= 1				
Brick (broken)		+		=				
Cardboard		+		=				
Carpet/Carpet Pad		+		=				
Concrete		+		=				
Gypsum Board (Drywall)		+		=	4			
Masonry		+		=				
Metals		+						
Pallets		+		=				
Plastic		+	.1		ī			
Wood (engineered)		+		=3				
Wood (solid sawn)		+						
Office Waste	Ú.	+			7			
Other		+		===				
Other		+		=	1			
Other		4		- E				

Step 1 - Insert volume totals into Columns A, B, and D where appropriate.

Step 2 - Add Column A to Column B and insert total into Column C for total diverted volume.

Step 3 - Add each column down and enter totals in the boxes provided.

If Column C is larger than Column D (on the summary sheet), compliance with 65 percent waste reduction requirement is achieved.

If multiple worksheets are used, transfer column totals from each worksheet to the summary sheet. For additional instructions and information, please see reverse.

#### Instructions for Weight or Volume Method:

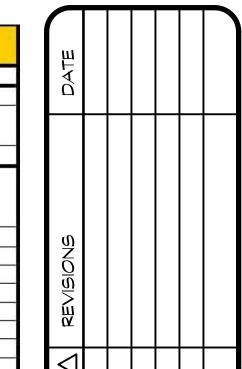
- . Choose which method of construction waste tracking to be used throughout the project. Choose either the Weight Method or the Volume Method, but do not use different methods on the same worksheet.
- . To minimize confusion, use the same unit of measure and do not mix pounds and tons, or Cu. Yds. and Cu. Ft. on the same worksheet. It is easiest to stay with the same unit of measure for the entire project to avoid the need for conversions.
- Enter construction waste materials that are to be recycled under Recycled (Column A).
- . Enter construction waste materials that are to be reused under Reused (Column B).
- Enter construction waste materials that will not get recycled or reused under Non-Recycled/Disposed (Column D).
- Add amounts from Column A to amounts from Column B and enter the total under Diverted (Column C).
- Add amounts in each Column (A, B, C, and D) and enter these sums into Total boxes.
- If the Diverted amount (Column C) is greater than the Non-Recycled/Disposed amount (Column D), compliance with the construction waste reduction requirement of at least 65 percent per Section 4.408.1 has been achieved.
- When more than one worksheet is used, transfer the data onto the Weight or Volume Summary Worksheet at the completion of the project.

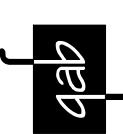
#### Examples of weights and volumes of some typical construction waste materials\*

Material	Range of pounds per cubic yard	Typical pounds per cubic yard	Typical cubic yards per ton		
Asphalt roofing material	250-460	360	5.5		
Asphalt - paving	1300-2200	1750	1.1		
Cardboard	70-135	85	23.5		
Concrete	1300-2200	1750	1.1		
Gypsum Drywall	315-470	400	5		
Metals	220-1940	540	3.7		
Wood	200-540	499	5		

\* Source: Sacramento Regional Solid Waste Authority

Standard Conversions: 1 cubic yard equals 27 cubic feet 1 ton equals 2000 pounds

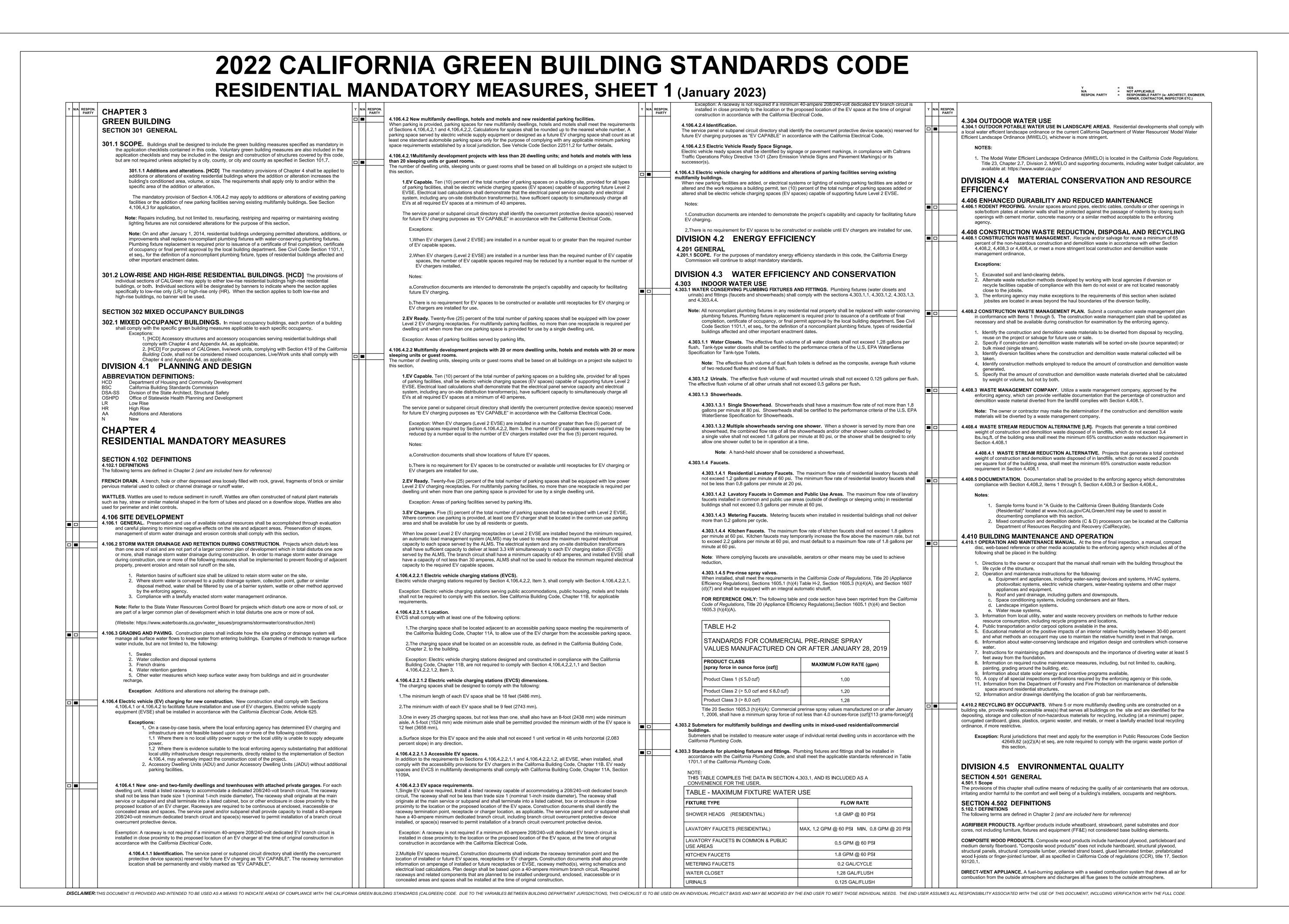


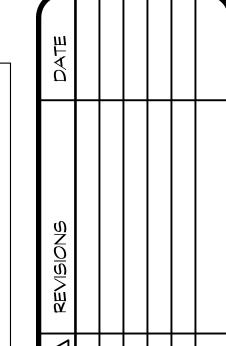




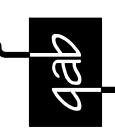
SHEET: WASTE MNGMNT

City of Grass Valley Builders Copy





A. BUKKE, AKCHITEC 148 celesta drive 488 valley, ca 95945



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NEVADA COUNTY

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DATE: 12/6/24

## 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE RESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700

MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood. **PRODUCT-WEIGHTED MIR (PWMIR)**. The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging). Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a).

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to

woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as

**VOC.** A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

#### 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 POLLUTANT CONTROL 4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. 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, sheet metal or other methods acceptable to the enforcing agency

#### to reduce the amount of water, dust or debris which may enter the system.

4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed

4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section. 4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant 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:

- 1. 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 tricloroethylene), except for aerosol products, as specified in Subsection 2 below.
- 2. 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.

**4.504.2.2 Paints and Coatings.** Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat. Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.

4.504.2.3 Aerosol Paints and Coatings. 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

**4.504.2.4 Verification.** Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

Manufacturer's product specification. 2. Field verification of on-site product containers.

(Less Water and Less Exempt Compounds in Grams pe	er Liter)
ARCHITECTURAL APPLICATIONS	VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVE	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED. 2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

TABLE 4.504.2 - SEALANT VOC LIN	MIT
(Less Water and Less Exempt Compounds in Gr	ams per Liter)
SEALANTS	VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NON-POROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

GRAMS OF VOC PER LITER OF COATING, LESS V COMPOUNDS	VATER & LESS EXEMPT
COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS1	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS

ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE. 3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

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DIVISION 4.5 ENVIRONMENTAL QUALITY (continued) **4.504.3 CARPET SYSTEMS.** 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)

See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.1 Carpet cushion. 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)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1. **4.504.4 RESILIENT FLOORING SYSTEMS.** Where resilient flooring is installed , at least 80% 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)

See California Department of Public Health's website for certification programs and testing labs. hhtps://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

**4.504.5 COMPOSITE WOOD PRODUCTS.** Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.). by or before the dates specified in those sections, as shown in Table 4.504.5

4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

- 1. Product certifications and specifications. Chain of custody certifications.
- Product labeled and invoiced as meeting the Composite Wood Products regulation (see
- 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA
- 0121, CSA 0151, CSA 0153 and CSA 0325 standards. 5. Other methods acceptable to the enforcing agency.

#### 4.505 INTERIOR MOISTURE CONTROL **4.505.1 General.** Buildings shall meet or exceed the provisions of the California Building Standards Code.

4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

**4.505.2.1 Capillary break.** A capillary break shall be installed in compliance with at least one of the

- 1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute,
- 2. Other equivalent methods approved by the enforcing agency. 3. A slab design specified by a licensed design professional.
- 4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following:
- 1. Moisture content shall be determined with either a probe-type or contact-type moisture meter. Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
- 2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified. 3. At least three random moisture readings shall be performed on wall and floor framing with documentation
- acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing. Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying

#### 4.506 INDOOR AIR QUALITY AND EXHAUST

recommendations prior to enclosure.

integral (i.e., built-in)

4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the

- 1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. 2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a
- a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of b. A humidity control may be a separate component to the exhaust fan and is not required to be
- 1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or
- tub/shower combination. 2. Lighting integral to bathroom exhaust fans shall comply with the *California Energy Code*. 4.507 ENVIRONMENTAL COMFORT

#### 4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

- 1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods.
- 2. Duct systems are sized according to ANSI/ACCA 1 Manual D 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.
- 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S 2014 (Residential Equipment Selection), or other equivalent design software or methods.
- **Exception:** Use of alternate design temperatures necessary to ensure the system functions are

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUA

**CHAPTER 7** 

**702 QUALIFICATIONS** 

1. State certified apprenticeship programs.

4. Programs sponsored by manufacturing organizations. 5. Other programs acceptable to the enforcing agency.

performance contractors, and home energy auditors.

4. Other programs acceptable to the enforcing agency.

project they are inspecting for compliance with this code.

the appropriate section or identified applicable checklist.

**703 VERIFICATIONS** 

Public utility training programs.

**INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS** 

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or

Examples of acceptable HVAC training and certification programs include but are not limited to the following:

**702.2 SPECIAL INSPECTION [HCD].** When required by the enforcing agency, the owner or the

considered by the enforcing agency when evaluating the qualifications of a special inspector:

project they are inspecting for compliance with this code.

shall be closely related to the primary job function, as determined by the local agency.

1. Certification by a national or regional green building program or standard publisher.

3. Successful completion of a third party apprentice training program in the appropriate trade.

homes in California according to the Home Energy Rating System (HERS).

[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall

this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the

employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with

particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a

recognized state, national or international association, as determined by the local agency. The area of certification

Note: Special inspectors shall be independent entities with no financial interest in the materials or the

**703.1 DOCUMENTATION.** 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

documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in

methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific

responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or

other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be

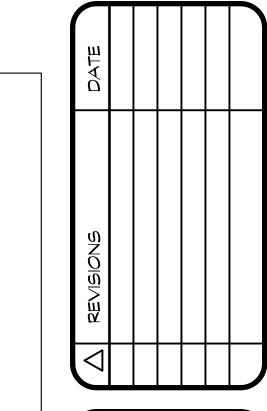
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building

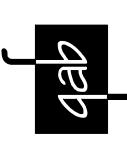
1. Special inspectors shall be independent entities with no financial interest in the materials or the

HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate

certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems.

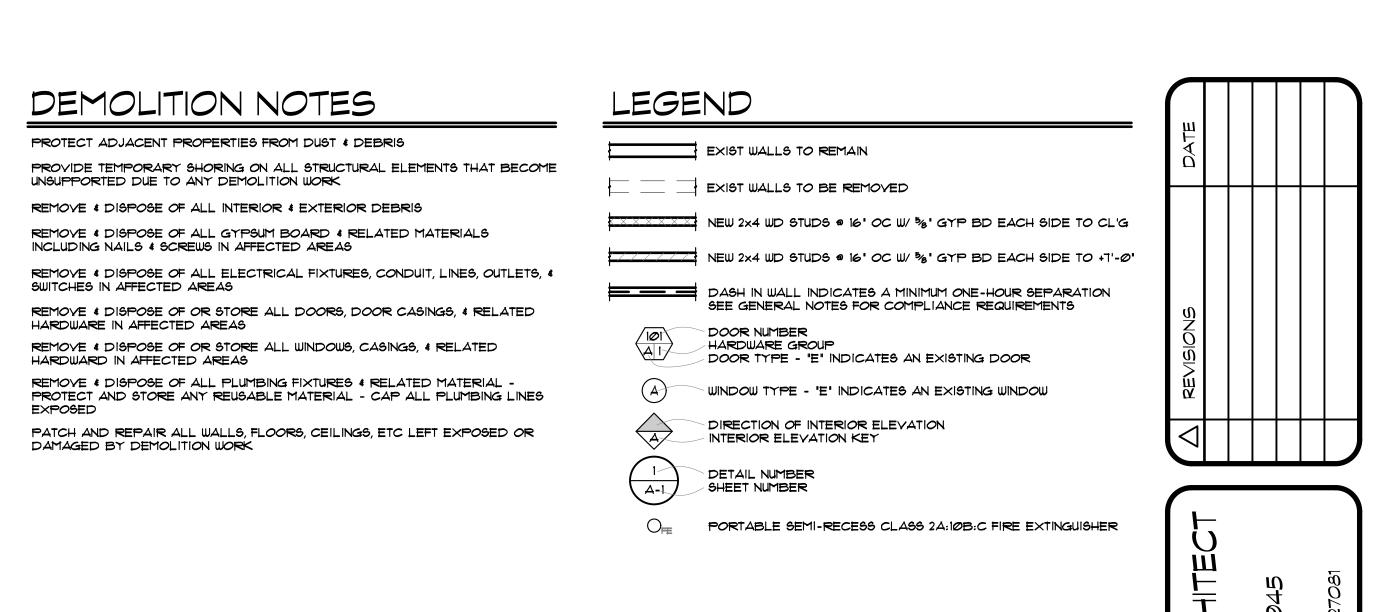
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.

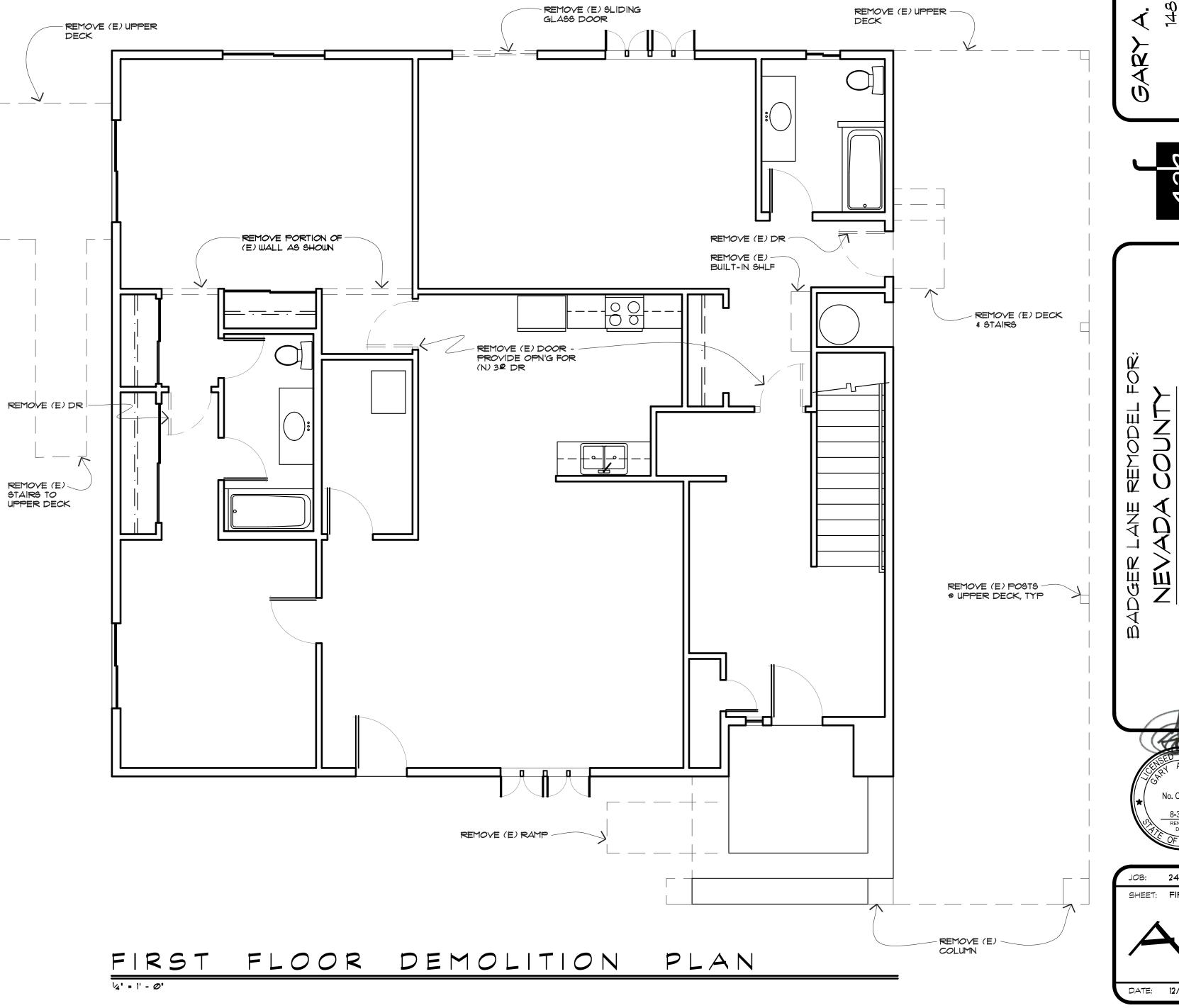






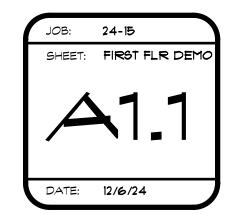
City of Grass Valley Builders Copy



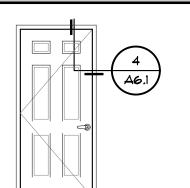


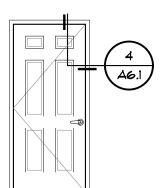


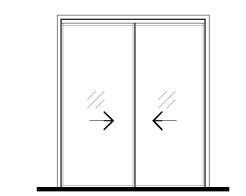




### DOOR & HARDWARE SCHEDULE







3262 6 PANEL PAINT GRADE
SOLID CORE 1-HR WD DR IN WD
BDAME MATCH (E) FRAME - MATCH (E)

FRAME - MATCH (E)

C 6º6º MIRRORED BI-PASS CLOSET DOOR - MATCH (E)

GROUP # - UNIT ENTRY DOORS

TA2714 41/2×41/2 McKINNEY OR EQ 11/2 PR. BUTTS 1 LOCKSET ALX50 "SAT" 619 MKD SCHLAGE LEVER ROCKWOOD 440 LOW DOME QUALITY OR EQ 1 STOP GROUP \*2 - UNIT BEDROOM DOORS

TA2714 41/2×41/2 MCKINNEY OR EQ 11/2 PR. BUTTS 1 LOCKSET ALX40 "SAT" 619 MKD SCHLAGE LEVER ROCKWOOD 440 LOW DOME QUALITY OR EQ

GROUP \*3 - UNIT CLOSET DOORS USE MANUFACTURER'S PROVIDED HARDWARE

ALL THRESHOLDS TO BE 1/2" MAXIMUM AND COMPLY WITH SECTIONS 11B-302 AND 11B-303

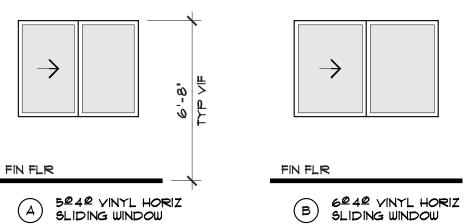
ALL OPERABLE PARTS SHALL BE PLACED 34" MINIMUM AND 44" MAXIMUM ABOVE FINISH FLOOR AND SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST

DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM

THE FORCE FOR PUSHING OR PULLING OPEN THE DOOR SHALL BE 5 POUNDS MAXIMUM

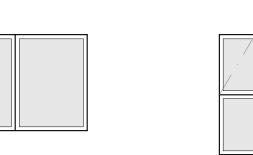
VERIFY ALL DOOR HARDWARE WITH THE NEVADA COUNTY FACILITIES DEPARTMENT PRIOR TO PURCHASING AND

#### WINDOW SCHEDULE





E INDICATES AN EXISTING WINDOW



B 322 VINYL AWNING WINDOW MULLED ABY 322 VINYL FIXED

WINDOW

### ROOM FINISH SCHEDULE

FLOORS

FI EXISTING FLOORING - NO CHANGE F2 MOHAWK LVT - 918 SILVER

WI (E) GYPSUM BOARD - NO CHANGES W2 5/8" GYPSUM BOARD - TEXTURED & PAINTED W/ CREAM PUFF PPG 1078-1

BASES

BI EXISTING BASE - NO CHANGES B2 MOHAWK 4' RUBBER TOPSET -846 GREIGE

CEILING CI (E) CEILING - NO CHANGES C2 (E) GYPSUM BOARD - PAINTED W/ CREAM

1/4" = 1' - 0"

#### MILLWORK

WILSONART PLASTIC LAMINATE 15602 ACORN VELVET ELM

#### **COUNTERTOPS**

WILSONART STANDARD LAMINATE 4883-38

NOTE: PAINT ALL EXISTING INTERIOR WALLS AND GYP BOARD CEILINGS WITH CREAM PUFF

NOTE: VERIFY ALL FINISHES WITH THE NEVADA COUNTY FACILITIES DEPARTMENT PRIOR TO PURCHASING AND INSTALLATION

### GENERAL NOTES

ALL GLAZING FOR THIS PROJECT SHALL BE TEMPERED GLAZING TO MEET BOTH CRC R308.4 & CBC 708A.2.1 W/ A 20 MINUTE LABEL

EXTERIOR DOORS SHALL HAVE A NON-COMBUSTIBLE EXTERIOR SURFACE OR SHALL BE CONSTRUCTED OF SOLID CORE NOT LESS THAN 13% THICK STILES & RAILS, I' THICK RAISED PANELS OR SHALL HAVE A FIRE RESISTIVE RATING OF NOT LESS THAN 20 MINUTES OR SHALL BE TESTED TO MEET THE 20 MINUTES OR PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-1

ALL WALLS TO HAVE R-21 BATT INSULATION - VERIFY ON SHEET T24-1 ALL WINDOWS TO HAVE A 30 U VALUE AND 23 SHGC BY MILGARD OR EQUAL -

VERIFY ON SHEET T24-1

ALL NAILING SHALL COMPLY WITH THE CBC TABLE 2304.102

GUARDRAILS TO BE 42" MINIMUM ABOVE ADJACENT WALKING SURFACE WITH BALUSTERS PLACED SO THAT A 4' DIAMETER SPHERE CANNOT PASS THRU CONFIRM IF THERE IS AN EXISTING CARBON MONOXIDE DETECTOR OUTSIDE OF THE BEDROOMS - PROVIDE (1) AS REQUIRED

ONE-HOUR FIRE RATING SHALL BE ACCOMPLISHED BY ONE OF TWO METHODS: METHOD 1 - 14-12 PROVIDE 2 LAYERS OF 1/2" GYP BOARD, STAGGERED JOINTS - BASE LAYER W/ 5d COOLER OR WALLBOARD NAILS @ 8' OC. FACE LAYER W/ 8d COOLER OR WALLBOARD NAILS @ 8' OC. METHOD 2 - 14-13 PROVIDE I LAYER OF %' TYPE 'X' GYP BOARD W/ 6d COOLER NAILS @ 1" OC - STAGGER JOINTS ON EACH SIDE OF WALL

45'-11" VIF

REFER TO ELECTRICAL PLANS FOR ELECTRICAL PENETRATIONS IN RATED

WALLS AND CEILINGS REFER TO MECHANICAL PLANS FOR MECHANICAL PENETRATIONS & FIRE RATED DAMPERS IN WALLS AND CEILINGS

### LEGEND

EXIST WALLS TO REMAIN

EXIST WALLS TO BE REMOVED

NEW 2x4 WD STUDS @ 16' OC W/ 36' GYP BD EACH SIDE TO CL'G NEW 2x4 WD STUDS @ 16' OC W/ 18' GYP BD EACH SIDE TO +TY-0' DASH IN WALL INDICATES A MINIMUM ONE-HOUR SEPARATION SEE GENERAL NOTES FOR COMPLIANCE REQUIREMENTS

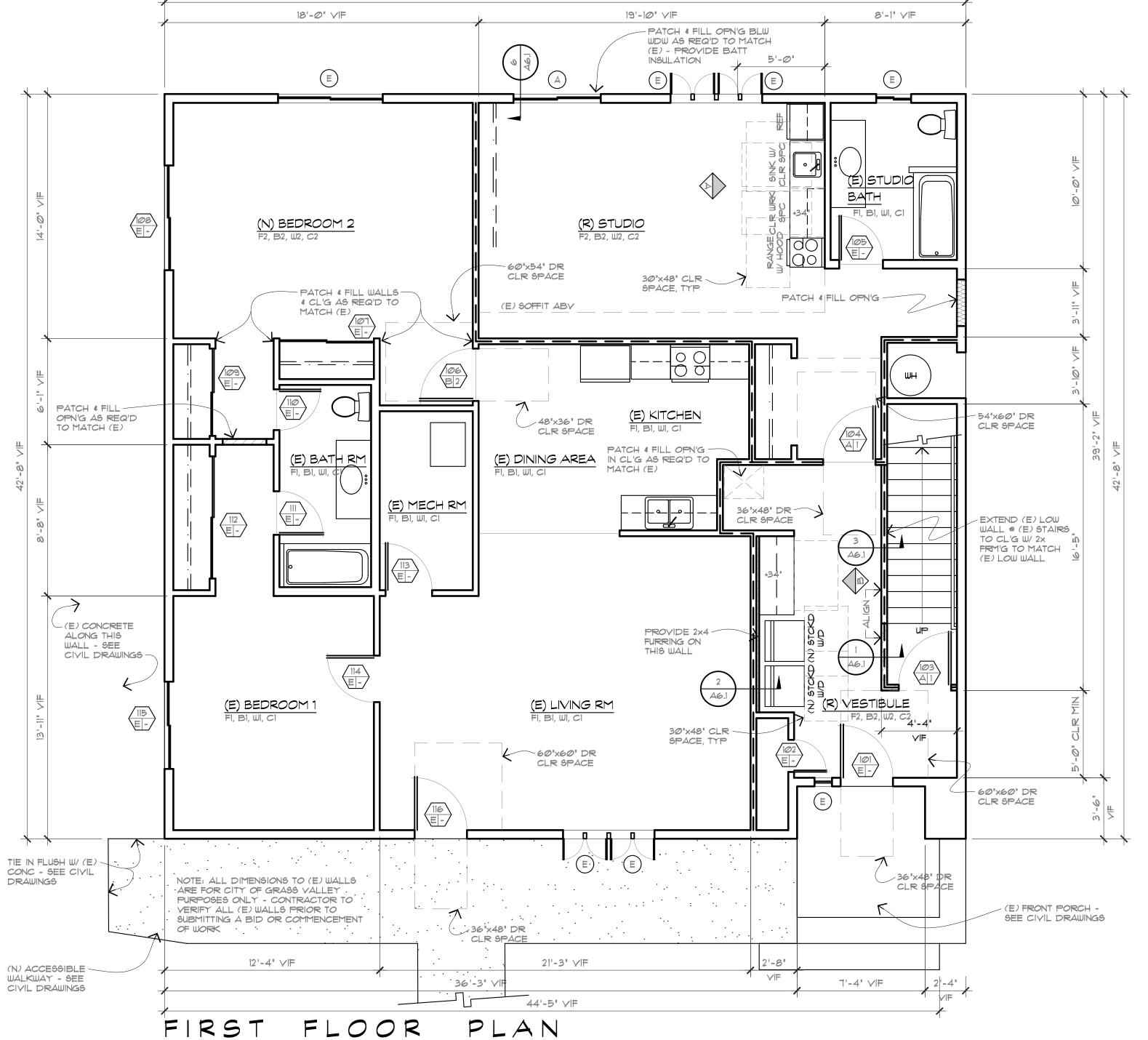
DOOR NUMBER HARDWARE GROUP DOOR TYPE - "E" INDICATES AN EXISTING DOOR

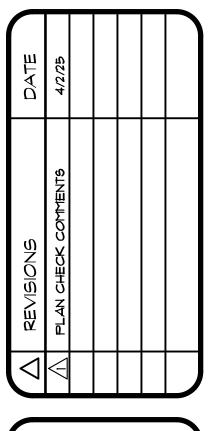
WINDOW TYPE - 'E' INDICATES AN EXISTING WINDOW

DIRECTION OF INTERIOR ELEVATION INTERIOR ELEVATION KEY

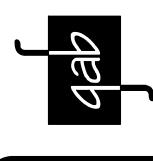
DETAIL NUMBER (A-1) SHEET NUMBER

PORTABLE SEMI-RECESS CLASS 2A:10B:C FIRE EXTINGUISHER



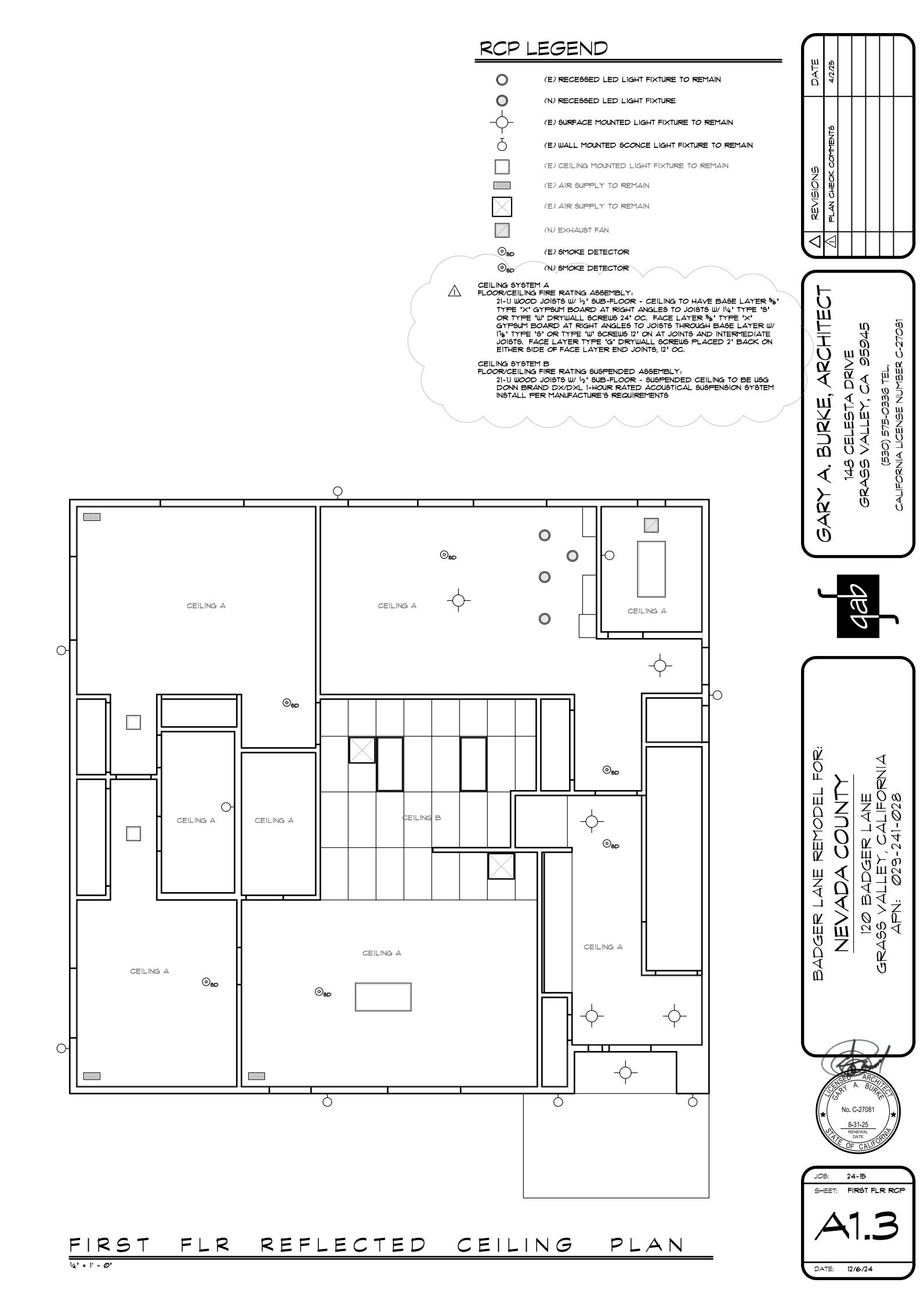


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DATE: 12/6/24



## DEMOLITION NOTES

PROTECT ADJACENT PROPERTIES FROM DUST & DEBRIS

PROVIDE TEMPORARY SHORING ON ALL STRUCTURAL ELEMENTS THAT BECOME UNSUPPORTED DUE TO ANY DEMOLITION WORK

REMOVE & DISPOSE OF ALL INTERIOR & EXTERIOR DEBRIS

REMOVE & DISPOSE OF ALL GYPSUM BOARD & RELATED MATERIALS
INCLUDING NAILS & SCREWS IN AFFECTED AREAS

REMOVE & DISPOSE OF ALL ELECTRICAL FIXTURES, CONDUIT, LINES, OUTLETS, & SWITCHES IN AFFECTED AREAS

REMOVE & DISPOSE OF OR STORE ALL DOORS, DOOR CASINGS, & RELATED HARDWARE IN AFFECTED AREAS

REMOVE & DISPOSE OF OR STORE ALL WINDOWS, CASINGS, & RELATED HARDWARD IN AFFECTED AREAS

REMOVE & DISPOSE OF ALL PLUMBING FIXTURES & RELATED MATERIAL -

PROTECT AND STORE ANY REUSABLE MATERIAL - CAP ALL PLUMBING LINES EXPOSED

PATCH AND REPAIR ALL WALLS, FLOORS, CEILINGS, ETC LEFT EXPOSED OR DAMAGED BY DEMOLITION WORK

### LEGEND

EXIST WALLS TO REMAIN

EXIST WALLS TO BE REMOVED

NEW 2x4 WD STUDS . 16' OC W/ %' GYP BD EACH SIDE TO CL'G

DASH IN WALL INDICATES A MINIMUM ONE-HOUR SEPARATION
SEE GENERAL NOTES FOR COMPLIANCE REQUIREMENTS

DOOR NUMBER
HARDWARE GROUP
DOOR TYPE - "E" IN

HARDWARE GROUP

DOOR TYPE - "E" INDICATES AN EXISTING DOOR

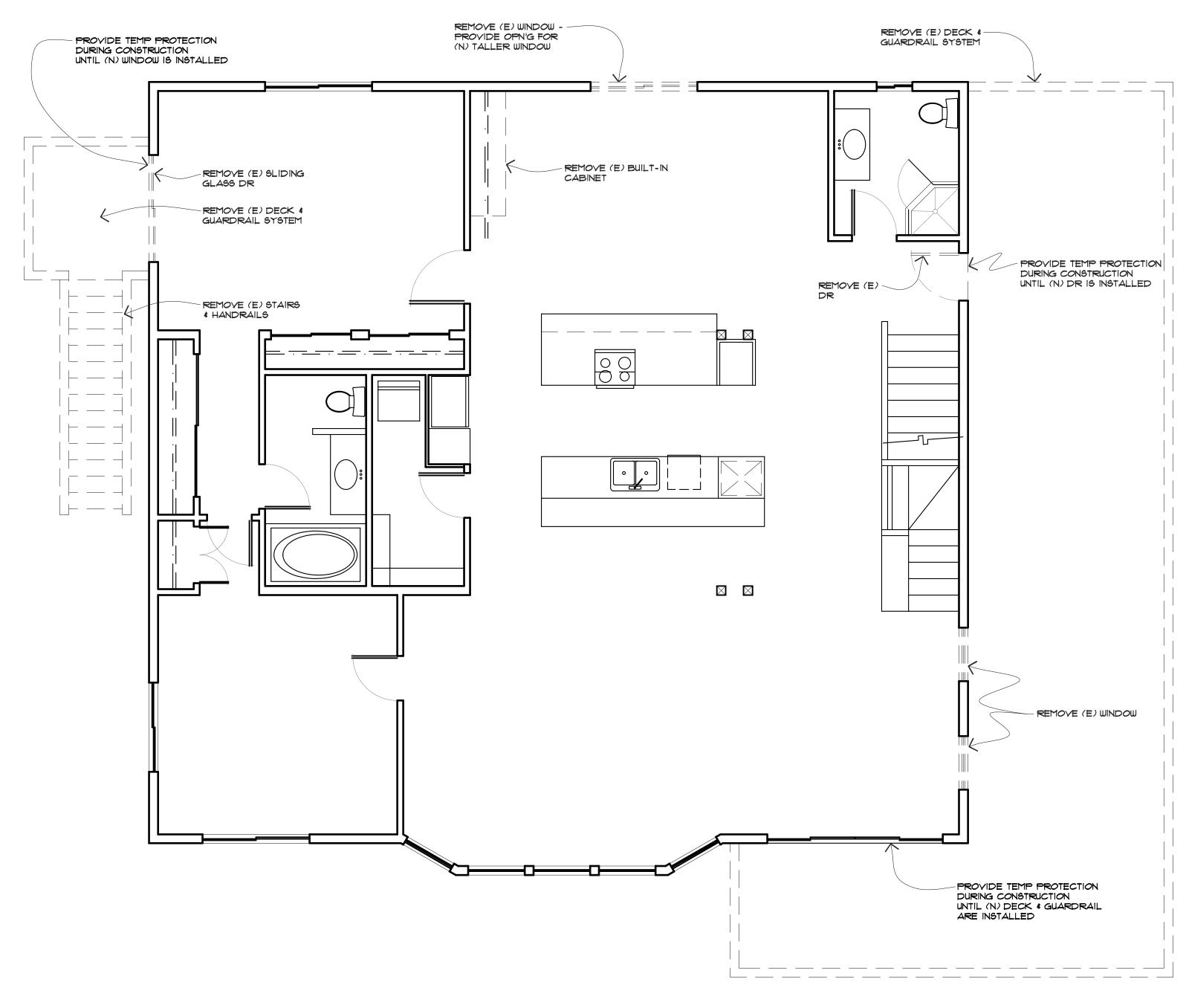
WINDOW TYPE - 'E' INDICATES AN EXISTING WINDOW

DIRECTION OF INTERIOR ELEVATION

INTERIOR ELEVATION KEY

DETAIL NUMBER
SHEET NUMBER

PORTABLE SEMI-RECESS CLASS 2A:10B:C FIRE EXTINGUISHER



SECOND FLOOR DEMOLITION PLAN

City of Grass Valley Builders Copy

REVISIONS
DATE

A 1 A. DUKKE, AKUTII TO 1 148 CELESTA DRIVE GRASS VALLEY, CA 95945 (530) 575-0336 TEL.

*dab* 

BADGER LANE REMODEL FOR:

NEVADA COUNTY

120 BADGER LANE
GRASS VALLEY, CALIFORNIA
ARN. 029-241-028

No. C-27081

8-31-25

RENEWAL DATE

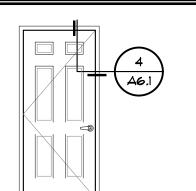
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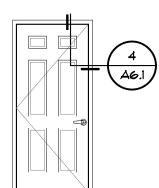
JOB: 24-15

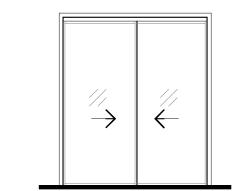
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DATE: 12/6/24

### DOOR & HARDWARE SCHEDULE







3262 6 PANEL PAINT GRADE
SOLID CORE 1-HR WD DR IN WD
BDAME MATCH (E)

BDAME MATCH (E) FRAME - MATCH (E)

FRAME - MATCH (E)

C 6º6º MIRRORED BI-PASS CLOSET DOOR - MATCH (E)

B) 3226 VINYL AWNING

WINDOW

WINDOW MULLED ABY 322 VINYL FIXED

GROUP # - UNIT ENTRY DOORS

TA2714 41/2×41/2 McKINNEY OR EQ 11/2 PR. BUTTS 1 LOCKSET ALX50 "SAT" 619 MKD SCHLAGE LEVER ROCKWOOD 440 LOW DOME QUALITY OR EQ 1 STOP GROUP \*2 - UNIT BEDROOM DOORS

TA2714 41/2×41/2 MCKINNEY OR EQ 11/2 PR. BUTTS ALX40 "SAT" 619 MKD SCHLAGE LEVER ROCKWOOD 440 LOW DOME QUALITY OR EQ 1 LOCKSET

GROUP \*3 - UNIT CLOSET DOORS USE MANUFACTURER'S PROVIDED HARDWARE

ALL THRESHOLDS TO BE 1/2" MAXIMUM AND COMPLY WITH SECTIONS 11B-302 AND 11B-303

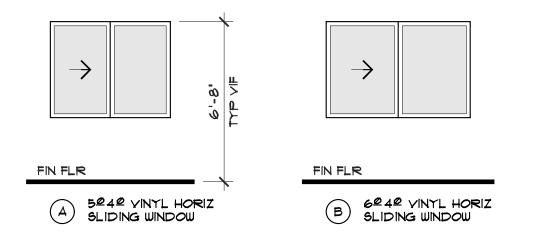
ALL OPERABLE PARTS SHALL BE PLACED 34" MINIMUM AND 44" MAXIMUM ABOVE FINISH FLOOR AND SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST

DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM

THE FORCE FOR PUSHING OR PULLING OPEN THE DOOR SHALL BE 5 POUNDS MAXIMUM

VERIFY ALL DOOR HARDWARE WITH THE NEVADA COUNTY FACILITIES DEPARTMENT PRIOR TO PURCHASING AND

### WINDOW SCHEDULE



E INDICATES AN EXISTING WINDOW

### ROOM FINISH SCHEDULE

FLOORS

F2 MOHAWK LVT - 918 SILVER

FI EXISTING FLOORING - NO CHANGE

CEILING

WI (E) GYPSUM BOARD - NO CHANGES W2 5/8" GYPSUM BOARD - TEXTURED & PAINTED W/ CREAM PUFF PPG 1078-1

BASES BI EXISTING BASE - NO CHANGES B2 MOHAWK 4' RUBBER TOPSET -

CI (E) CEILING - NO CHANGES C2 (E) GYPSUM BOARD - PAINTED W/ CREAM

MILLWORK

846 GREIGE

WILSONART PLASTIC LAMINATE 15602 ACORN VELVET ELM

**COUNTERTOPS** 

WILSONART STANDARD LAMINATE 4883-38

NOTE: PAINT ALL EXISTING INTERIOR WALLS AND GYP BOARD CEILINGS WITH CREAM PUFF

NOTE: VERIFY ALL FINISHES WITH THE NEVADA COUNTY FACILITIES DEPARTMENT PRIOR TO PURCHASING AND INSTALLATION

### GENERAL NOTES

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ALL WALLS TO HAVE R-21 BATT INSULATION - VERIFY ON SHEET T24-1 ALL WINDOWS TO HAVE A 30 U VALUE AND 23 SHGC BY MILGARD OR EQUAL -VERIFY ON SHEET T24-1

ALL NAILING SHALL COMPLY WITH THE CBC TABLE 2304.10.2

GUARDRAILS TO BE 42" MINIMUM ABOVE ADJACENT WALKING SURFACE WITH BALUSTERS PLACED SO THAT A 4' DIAMETER SPHERE CANNOT PASS THRU CONFIRM IF THERE IS AN EXISTING CARBON MONOXIDE DETECTOR OUTSIDE OF THE BEDROOMS - PROVIDE (1) ÀS REQUIRED

ONE-HOUR FIRE RATING SHALL BE ACCOMPLISHED BY ONE OF TWO METHODS: METHOD 1 - 14-12 PROVIDE 2 LAYERS OF 1/2" GYP BOARD, STAGGERED JOINTS - BASE LAYER W/ 5d COOLER OR WALLBOARD NAILS @ 8' OC. FACE LAYER W/ 8d COOLER OR WALLBOARD NAILS @ 8' OC. METHOD 2 - 14-13 PROVIDE I LAYER OF %' TYPE 'X' GYP BOARD W/ 6d COOLER NAILS @ 7" OC - STAGGER JOINTS ON EACH SIDE OF WALL

REFER TO ELECTRICAL PLANS FOR ELECTRICAL PENETRATIONS IN RATED WALLS AND CEILINGS

RATED DAMPERS IN WALLS AND CEILINGS

REFER TO MECHANICAL PLANS FOR MECHANICAL PENETRATIONS & FIRE

#### LEGEND

EXIST WALLS TO REMAIN EXIST WALLS TO BE REMOVED NEW 2x4 WD STUDS @ 16' OC W/ 36' GYP BD EACH SIDE TO CL'G NEW 2x4 WD STUDS @ 16' OC W/ 18' GYP BD EACH SIDE TO +TY-0' DASH IN WALL INDICATES A MINIMUM ONE-HOUR SEPARATION SEE GENERAL NOTES FOR COMPLIANCE REQUIREMENTS

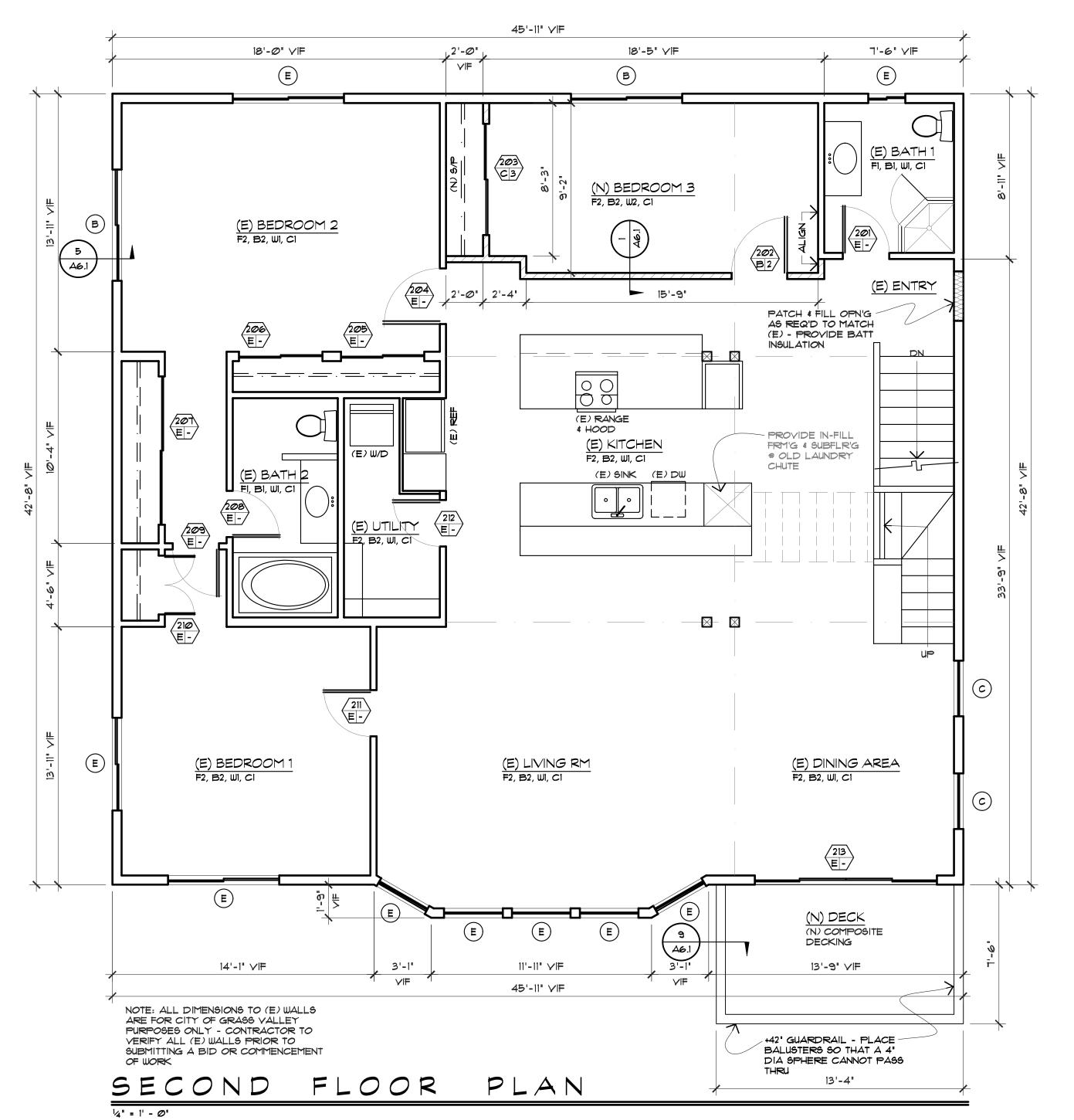
> DOOR NUMBER HARDWARE GROUP DOOR TYPE - "E" INDICATES AN EXISTING DOOR

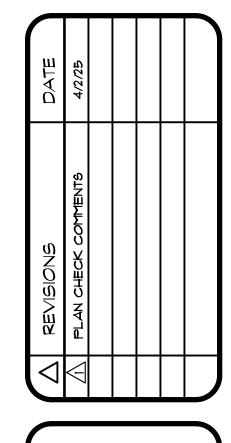
WINDOW TYPE - 'E' INDICATES AN EXISTING WINDOW

DIRECTION OF INTERIOR ELEVATION INTERIOR ELEVATION KEY

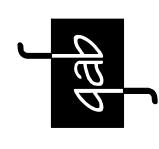
DETAIL NUMBER A-1 SHEET NUMBER

PORTABLE SEMI-RECESS CLASS 2A:10B:C FIRE EXTINGUISHER











JOB: **24-15** 

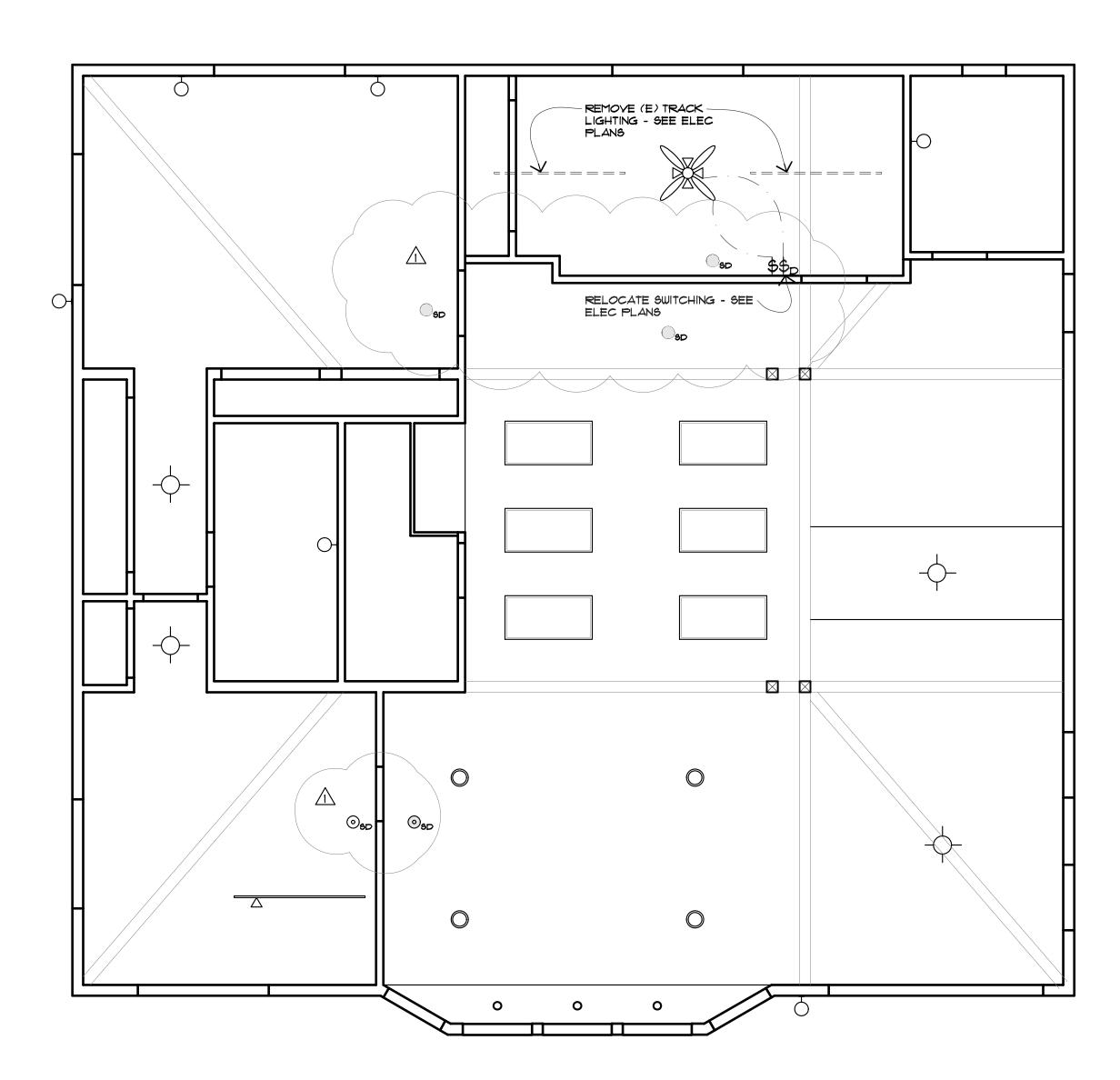
DATE: 12/6/24

SHEET: SECOND FLR F

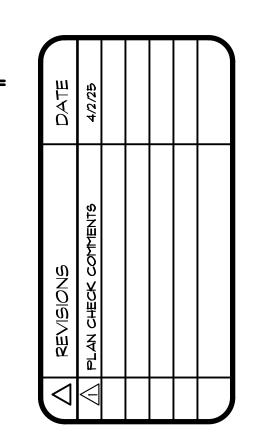
## RCP LEGEND

=		
-		(E) RECESSED LED LIGHT FIXTURE TO REMAIN
		(N) RECESSED LED LIGHT FIXTURE
	<del>-</del> \( \rightarrow \)	(E) SURFACE MOUNTED LIGHT FIXTURE TO REMAIN
	$\bigcirc$	(E) WALL MOUNTED SCONCE LIGHT FIXTURE TO REMAIN
		(E) CEILING MOUNTED LIGHT FIXTURE TO REMAIN
		(E) AIR SUPPLY TO REMAIN
		(E) AIR SUPPLY TO REMAIN
		(N) EXHAUST FAN
	⊙ <sub>s⊅</sub>	(E) SMOKE DETECTOR
	⊙ <sub>5⊅</sub>	(N) SMOKE DETECTOR

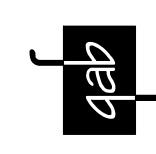
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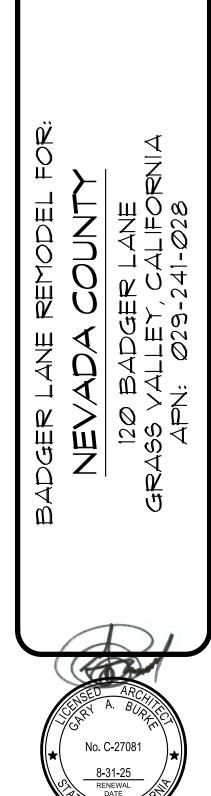


SECOND FLR REFLECTED CEILING PLAN



148 CELESTA DRIVE GRASS VALLEY, CA 95945 (530) 575-0336 TEL. CALIFORNIA LICENSE NUMBER C-27081







PROTECT ADJACENT PROPERTIES FROM DUST & DEBRIS

PROVIDE TEMPORARY SHORING ON ALL STRUCTURAL ELEMENTS THAT BECOME UNSUPPORTED DUE TO ANY DEMOLITION WORK

REMOVE & DISPOSE OF ALL INTERIOR & EXTERIOR DEBRIS REMOVE & DISPOSE OF ALL GYPSUM BOARD & RELATED MATERIALS INCLUDING NAILS & SCREWS IN AFFECTED AREAS

REMOVE & DISPOSE OF ALL ELECTRICAL FIXTURES, CONDUIT, LINES, OUTLETS, & SWITCHES IN AFFECTED AREAS

REMOVE & DISPOSE OF OR STORE ALL DOORS, DOOR CASINGS, & RELATED HARDWARE IN AFFECTED AREAS REMOVE & DISPOSE OF OR STORE ALL WINDOWS, CASINGS, & RELATED HARDWARD IN AFFECTED AREAS

REMOVE & DISPOSE OF ALL PLUMBING FIXTURES & RELATED MATERIAL -PROTECT AND STORE ANY REUSABLE MATERIAL - CAP ALL PLUMBING LINES

PATCH AND REPAIR ALL WALLS, FLOORS, CEILINGS, ETC LEFT EXPOSED OR DAMAGED BY DEMOLITION WORK

### LEGEND

EXIST WALLS TO REMAIN

EXIST WALLS TO BE REMOVED

NEW 2x4 WD STUDS @ 16' OC W/ 1/8' GYP BD EACH SIDE TO CL'G

NEW 2x4 WD STUDS @ 16' OC W/ 1/2" GYP BD EACH SIDE TO +7'-0'

DASH IN WALL INDICATES A MINIMUM ONE-HOUR SEPARATION SEE GENERAL NOTES FOR COMPLIANCE REQUIREMENTS

DOOR NUMBER

SHEET NUMBER

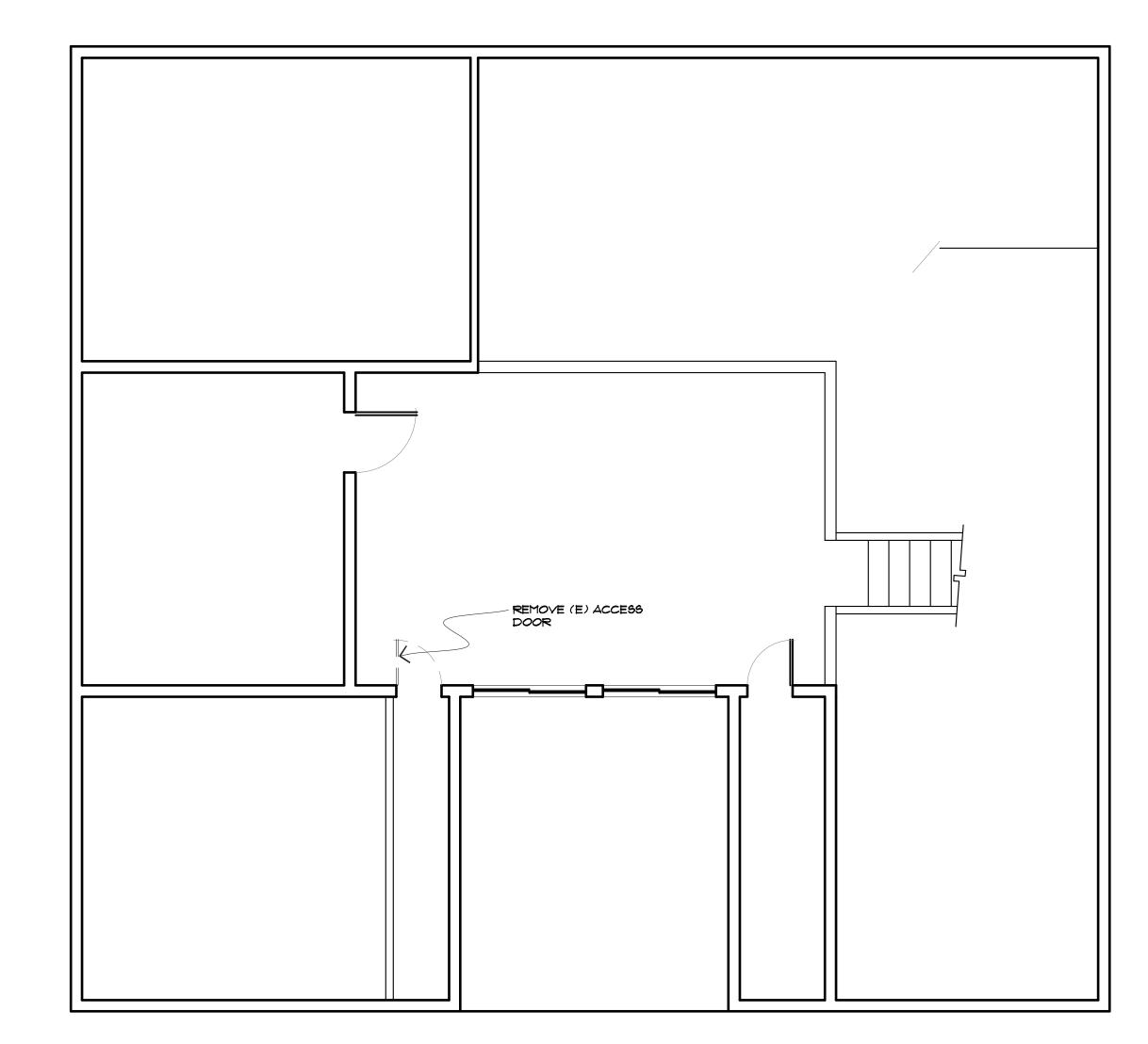
HARDWARE GROUP DOOR TYPE - "E" INDICATES AN EXISTING DOOR

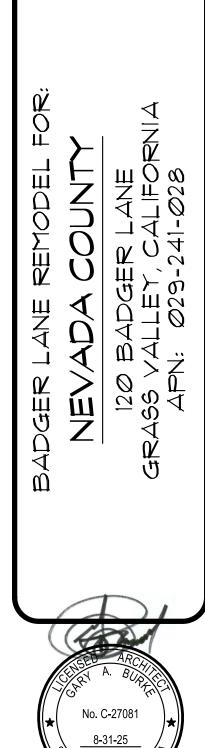
WINDOW TYPE - 'E' INDICATES AN EXISTING WINDOW DIRECTION OF INTERIOR ELEVATION

INTERIOR ELEVATION KEY DETAIL NUMBER

A-1

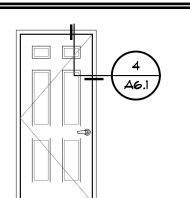
PORTABLE SEMI-RECESS CLASS 2A:10B:C FIRE EXTINGUISHER

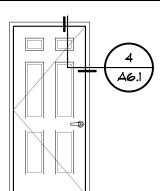


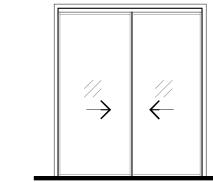


DEMOLITION PLAN

### DOOR & HARDWARE SCHEDULE







3262 6 PANEL PAINT GRADE
SOLID CORE 1-HR WD DR IN WD
BDAME MATCH (E)

BDAME MATCH (E) FRAME - MATCH (E)

FRAME - MATCH (E)

C 6º6º MIRRORED BI-PASS CLOSET DOOR - MATCH (E) CLOSET DOOR - MATCH (E)

GROUP # - UNIT ENTRY DOORS

TA2714 41/2×41/2 McKINNEY OR EQ 11/2 PR. BUTTS 1 LOCKSET ALX50 "SAT" 619 MKD SCHLAGE LEVER ROCKWOOD 440 LOW DOME QUALITY OR EQ 1 STOP GROUP \*2 - UNIT BEDROOM DOORS

TA2714 41/2 X41/2 MCKINNEY OR EQ 11/2 PR. BUTTS 1 LOCKSET ALX40 "SAT" 619 MKD SCHLAGE LEVER ROCKWOOD 440 LOW DOME QUALITY OR EQ

GROUP \*3 - UNIT CLOSET DOORS USE MANUFACTURER'S PROVIDED HARDWARE

ALL THRESHOLDS TO BE 1/2" MAXIMUM AND COMPLY WITH SECTIONS 11B-302 AND 11B-303

ALL OPERABLE PARTS SHALL BE PLACED 34" MINIMUM AND 44" MAXIMUM ABOVE FINISH FLOOR AND SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST

DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM

THE FORCE FOR PUSHING OR PULLING OPEN THE DOOR SHALL BE 5 POUNDS MAXIMUM

VERIFY ALL DOOR HARDWARE WITH THE NEVADA COUNTY FACILITIES DEPARTMENT PRIOR TO PURCHASING AND

### ROOM FINISH SCHEDULE

FLOORS

FI EXISTING FLOORING - NO CHANGE

WI (E) GYPSUM BOARD - NO CHANGES W2 % GYPSUM BOARD - TEXTURED & PAINTED W/ CREAM PUFF PPG 1078-1

<u>BASES</u>

F2 MOHAWK LVT - 918 SILVER

CEILING

BI EXISTING BASE - NO CHANGES B2 MOHAWK 4' RUBBER TOPSET -846 GREIGE

CI (E) CEILING - NO CHANGES C2 (E) GYPSUM BOARD - PAINTED W/ CREAM

MILLWORK

WILSONART PLASTIC LAMINATE 15602 ACORN VELVET ELM

**COUNTERTOPS** 

WILSONART STANDARD LAMINATE 4883-38

NOTE: PAINT ALL EXISTING INTERIOR WALLS AND GYP BOARD CEILINGS WITH CREAM PUFF

NOTE: VERIFY ALL FINISHES WITH THE NEVADA COUNTY FACILITIES DEPARTMENT PRIOR TO PURCHASING AND INSTALLATION

#### GENERAL NOTES

ALL GLAZING FOR THIS PROJECT SHALL BE TEMPERED GLAZING TO MEET BOTH CRC R308.4 & CBC 708A2.1 W/ A 20 MINUTE LABEL

EXTERIOR DOORS SHALL HAVE A NON-COMBUSTIBLE EXTERIOR SURFACE OR SHALL BE CONSTRUCTED OF SOLID CORE NOT LESS THAN 13," THICK STILES & RAILS, I' THICK RAISED PANELS OR SHALL HAVE A FIRE RESISTIVE RATING OF NOT LESS THAN 20 MINUTES OR SHALL BE TESTED TO MEET THE 20 MINUTES OR PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-1

ALL WALLS TO HAVE R-21 BATT INSULATION - VERIFY ON SHEET T24-1 ALL WINDOWS TO HAVE A 30 U VALUE AND 23 SHGC BY MILGARD OR EQUAL -VERIFY ON SHEET T24-1

ALL NAILING SHALL COMPLY WITH THE CBC TABLE 2304.10.2

GUARDRAILS TO BE 42" MINIMUM ABOVE ADJACENT WALKING SURFACE WITH BALUSTERS PLACED SO THAT A 4' DIAMETER SPHERE CANNOT PASS THRU CONFIRM IF THERE IS AN EXISTING CARBON MONOXIDE DETECTOR OUTSIDE OF

THE BEDROOMS - PROVIDE (1) AS REQUIRED ONE-HOUR FIRE RATING SHALL BE ACCOMPLISHED BY ONE OF TWO METHODS: METHOD I - 14-1.2 PROVIDE 2 LAYERS OF  $\frac{1}{2}$  GYP BOARD, STAGGERED JOINTS - BASE LAYER W/ 5d COOLER OR WALLBOARD NAILS @ 8' OC. FACE LAYER W/ 8d COOLER OR WALLBOARD NAILS @ 8' OC.

METHOD 2 - 14-13 PROVIDE I LAYER OF %' TYPE 'X' GYP BOARD W/ 6d COOLER NAILS @ 7" OC - STAGGER JOINTS ON EACH SIDE OF WALL

REFER TO ELECTRICAL PLANS FOR ELECTRICAL PENETRATIONS IN RATED WALLS AND CEILINGS

#### LEGEND

EXIST WALLS TO REMAIN EXIST WALLS TO BE REMOVED

NEW 2x4 WD STUDS @ 16' OC W/ 56' GYP BD EACH SIDE TO CL'G

\_\_\_\_ NEW 2x4 WD STUDS @ 16' OC W/ %' GYP BD EACH SIDE TO +7'-Ø' DASH IN WALL INDICATES A MINIMUM ONE-HOUR SEPARATION

DOOR TYPE - "E" INDICATES AN EXISTING DOOR

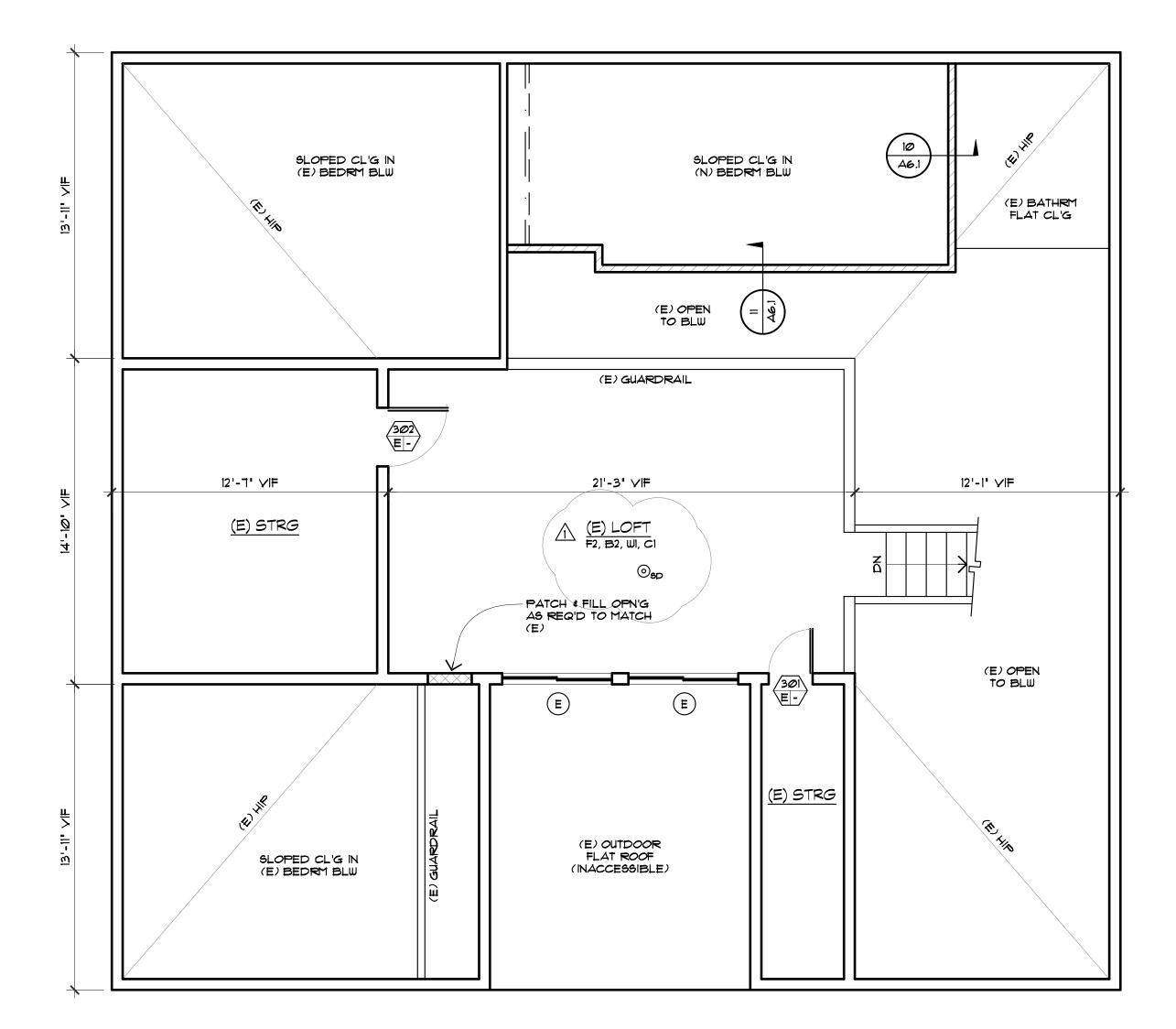
SEE GENERAL NOTES FOR COMPLIANCE REQUIREMENTS DOOR NUMBER HARDWARE GROUP

WINDOW TYPE - 'E' INDICATES AN EXISTING WINDOW

DIRECTION OF INTERIOR ELEVATION INTERIOR ELEVATION KEY

DETAIL NUMBER A-1 SHEET NUMBER

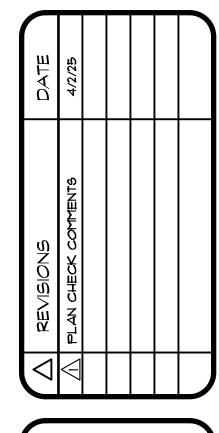
PORTABLE SEMI-RECESS CLASS 2A:10B:C FIRE EXTINGUISHER



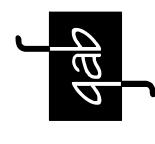
NOTE: ALL DIMENSIONS TO (E) WALLS ARE FOR CITY OF GRASS VALLEY PURPOSES ONLY - CONTRACTOR TO VERIFY ALL (E) WALLS PRIOR TO SUBMITTING A BID OR COMMENCEMENT

LOFT FLOOR PLAN

1/4" = 1' - 0"



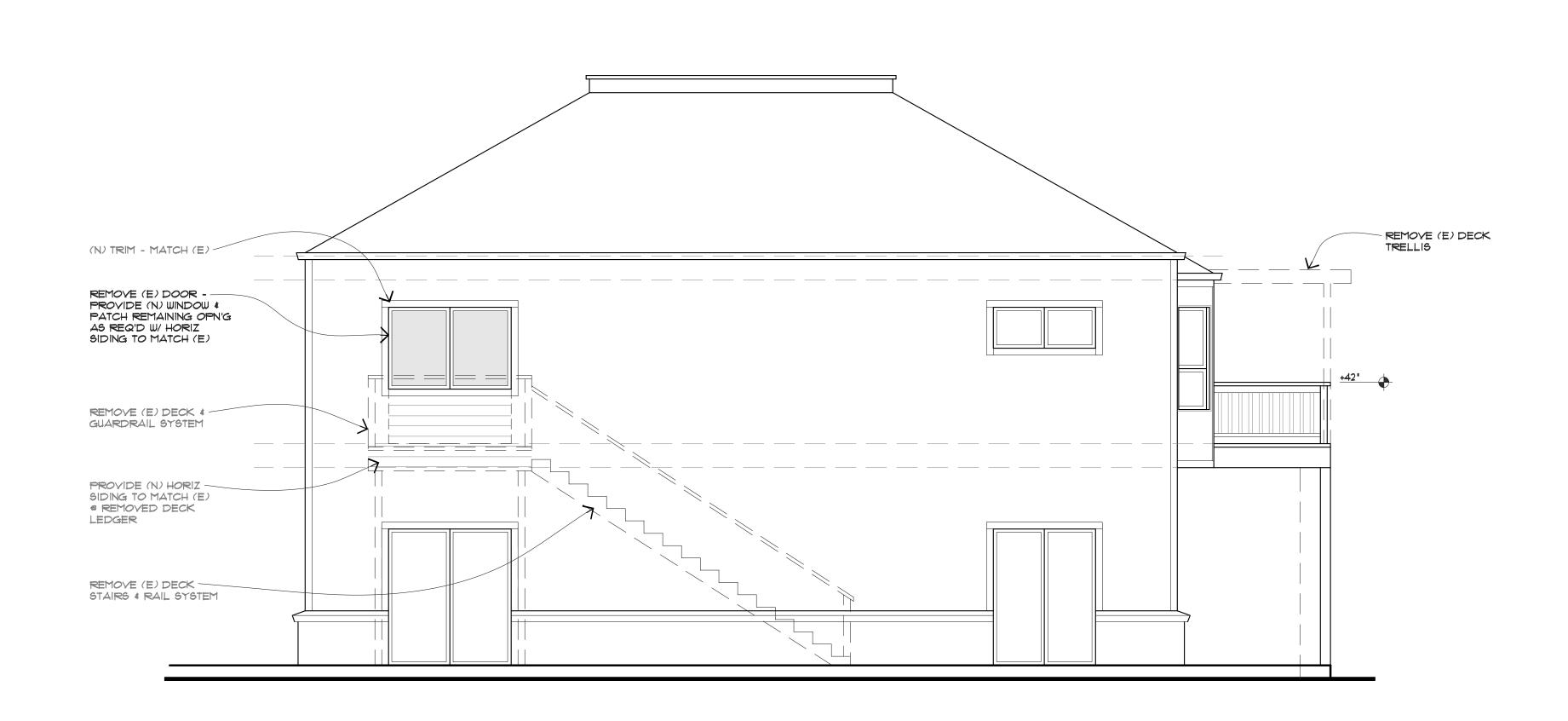
> *0* Ш <u>ए</u>





SHEET: LOFT PLN

DATE: 12/6/24



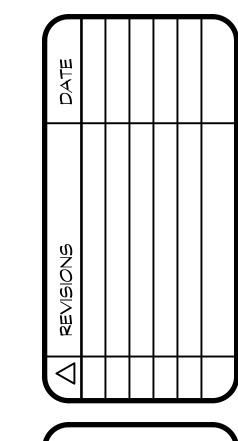
## NORTH ELEVATION | Va' = 1' - 0'



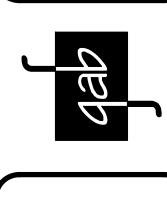
WEST ELEVATION

City of Grass Valley Builders Copy

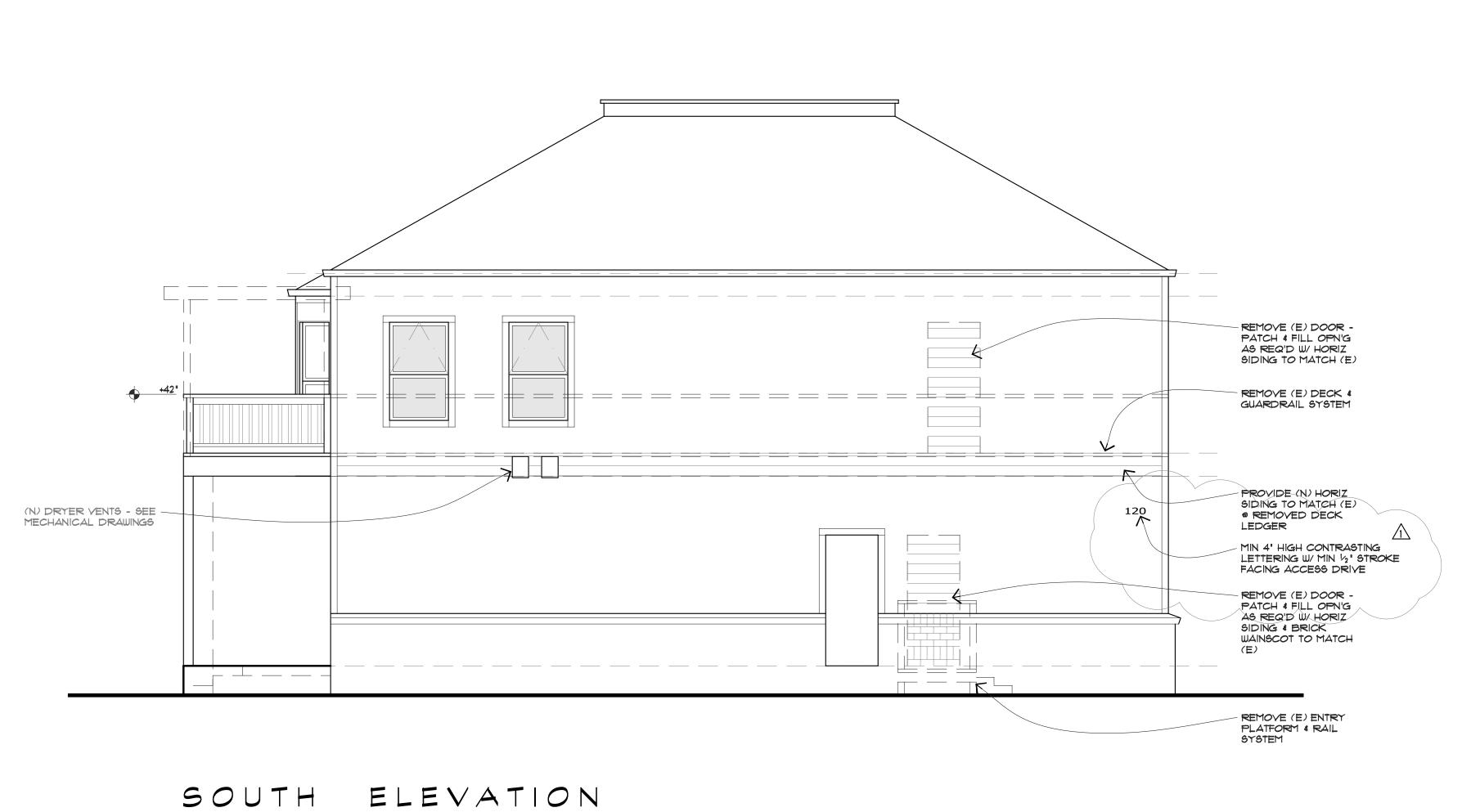
DATE: 12/6/24



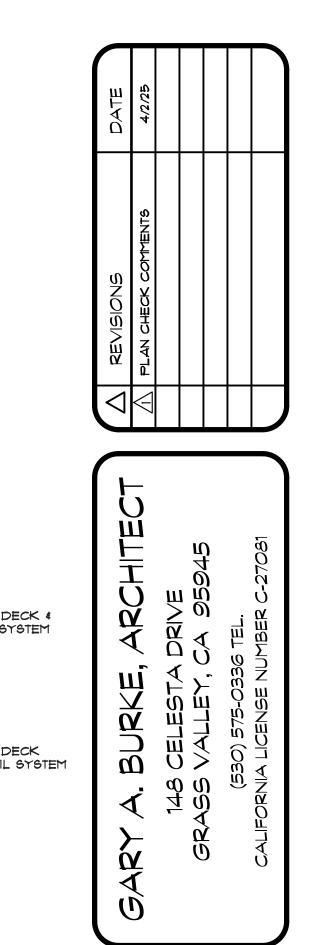
GARY A. BURKE, ARCHITEC 148 CELESTA DRIVE GRASS VALLEY, CA 95945

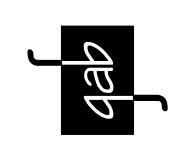




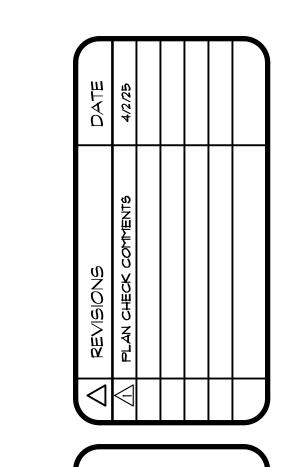


½" = 1' - Ø"

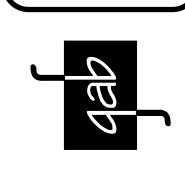




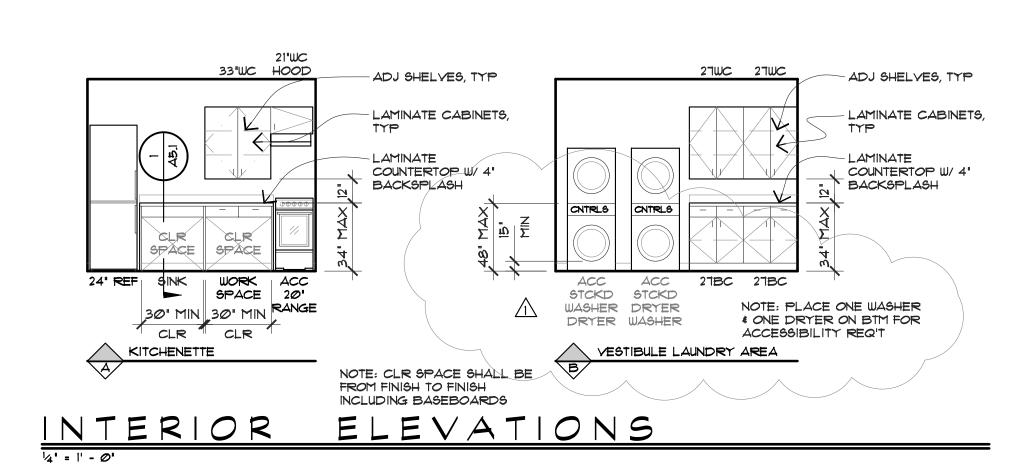


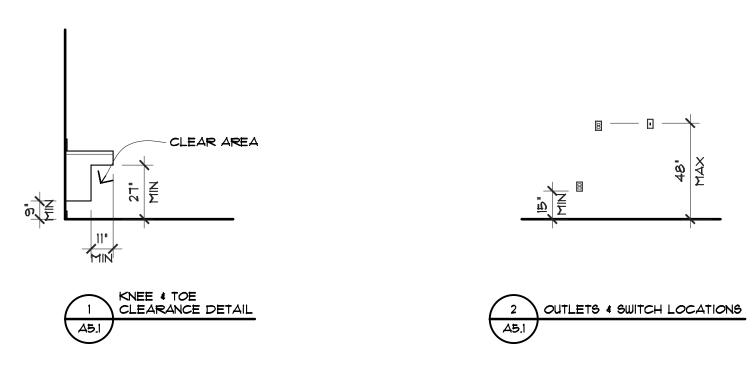


GARY A. BURKE, ARCHITECT 148 CELESTA DRIVE GRASS VALLEY, CA 95945 (530) 575-0336 TEL.

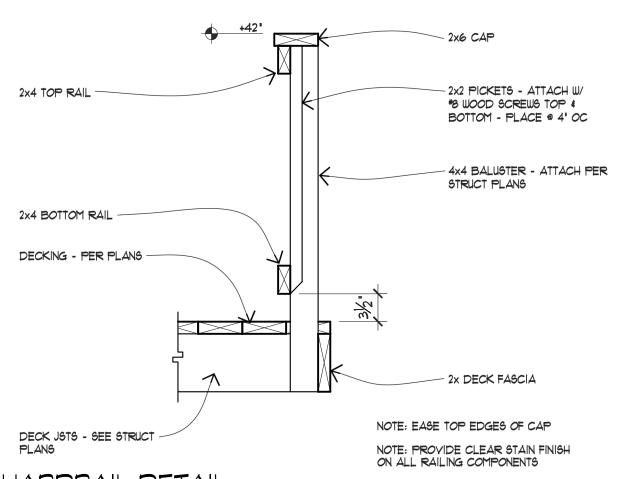


MODEL THOOPEL

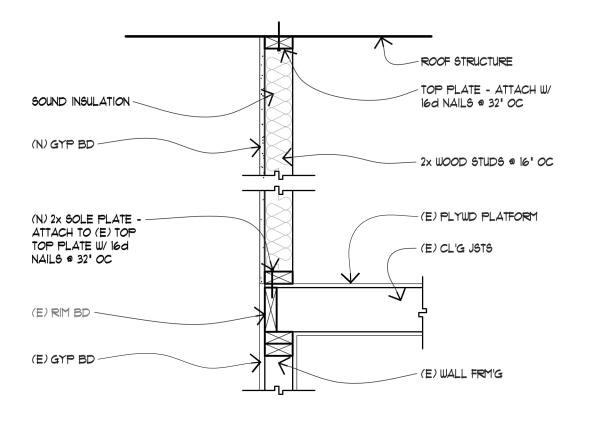




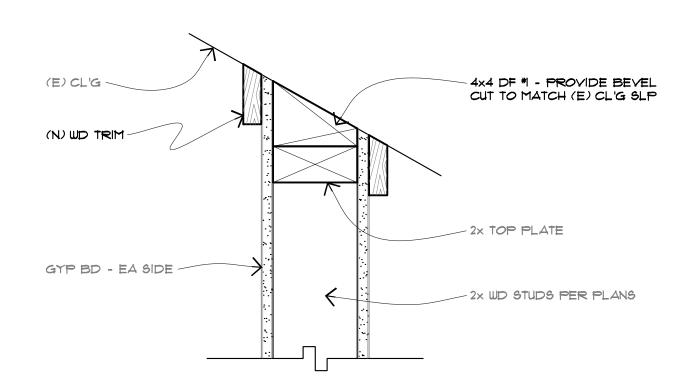
ACCESSIBLE REQUIREMENTS



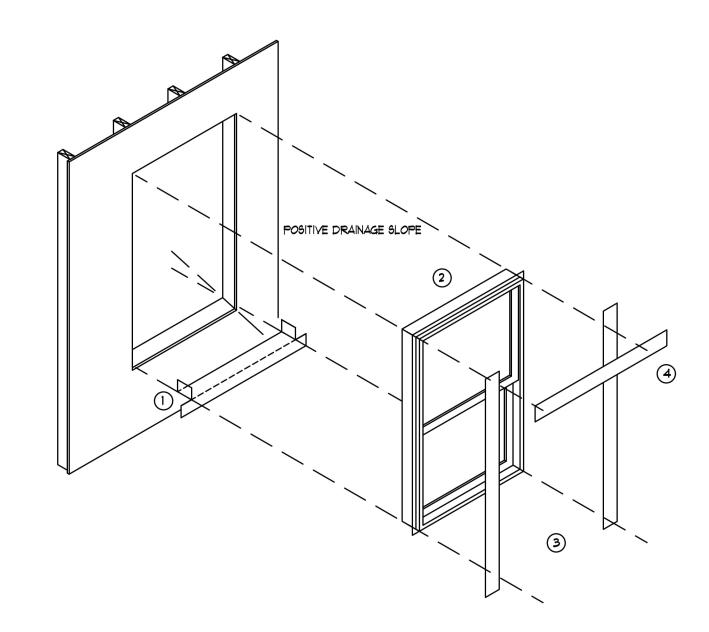
GUARDRAIL DETAIL



WALL EXTENSION @ BATHROOM DETAIL



WALL @ SLOPED CL'G DETAIL



INSTALLATION SEQUENCE FOR STRIP FLASHING MOISTURE / AIR / TERMITE BARRIER TO A FLANGED WINDOW, DOOR, OR FIXTURE:

1. INSTALL MOISTURE / AIR / TERMITE BARRIER TO COVER THE SLOPED SILL / THRESHOLD, 3-INCHES OF THE WALL FACE, AND 3-INCHES OF EACH JAMB. CHECK FOR NO GAPS OR PINHOLES. 2. INSTALL THE WINDOW, DOOR, OR FIXTURE. 3. INSTALL MOISTURE / AIR / TERMITE BARRIER TO COVER THE FLANGE AND WALL ALONG EACH JAMB AND 3-INCHES

ABOVE THE HEAD AND BELOW THE SILL / THRESHOLD.

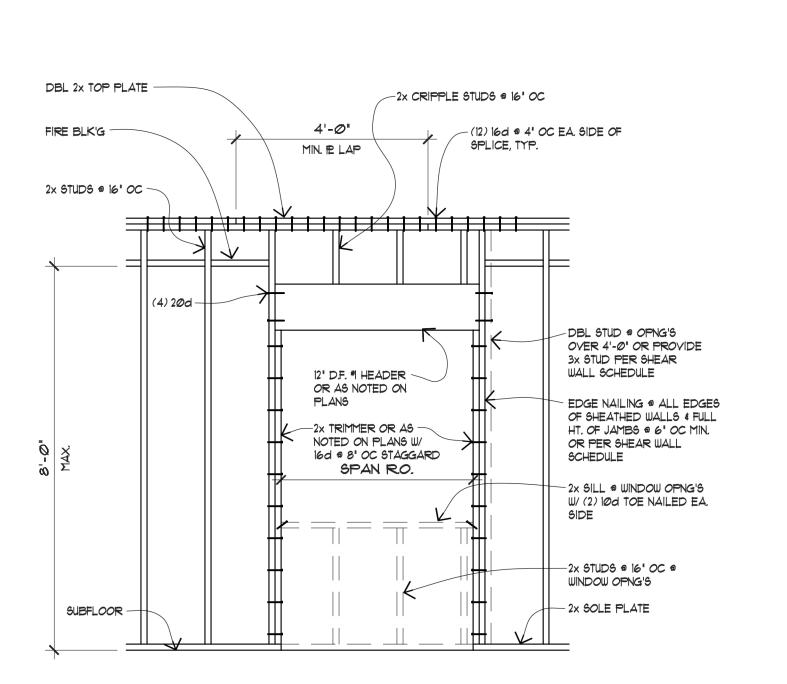
4. INSTALL MOISTURE / AIR / TERMITE BARRIER TO COVER A MINIMUM OF 3-INCHES OF THE WALL FACE AT THE HEAD AND JAMBS. (WHEN A TWF WILL BE INSTALLED AT THE HEAD FOR A MASONRY FINISH, EXTEND THE HEAD WALL FACE FLASHING: COVERAGE TO INTERFACE WITH 2-INCHES OF THE TWF MEMBRANE.)

5. CHECK ALL BARRIER, ESPECIALLY AT CORNERS, FOR NO GAPS OR PINHOLES.

NOTE: THIS ROUGH OPENING WALL IS SHOWN AS FRAME BUT COULD BE MASONRY. THE INSTALLATION SEQUENCE FOR FLASHING IS THE SAME FOR EITHER MATERIAL OF CONSTRUCTION.

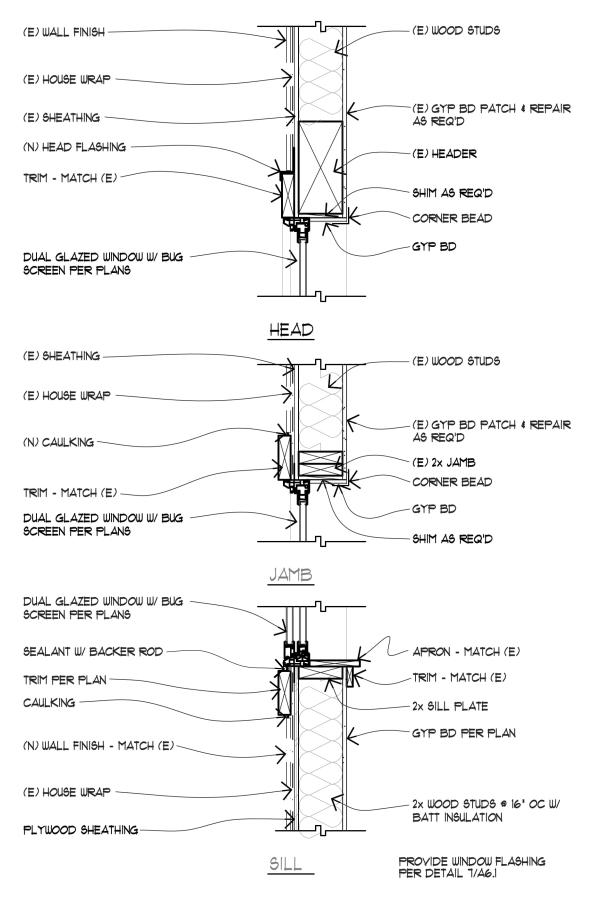
FREE THE SURFACES THAT WILL RECEIVE THE FLASHING FROM IRREGULARITIES THAT WOULD INTERFERE WITH A FLAT INTERFACE WITH THE FLASHING, OR POSE A FLASHING PUNCTURE HAZARD. APPLY A COATING OF WATER-BASED LIQUID ADHESIVE TO CLEAN AND DRY SURFACES THAT WILL BE RECEIVING THE FLASHINGS. BASE SELECTION OF LIQUID ADHESIVE ON SUBSTRATE COMPATIBILITY AND VOC REQUIREMENTS.

WINDOW FLASHING DETAIL

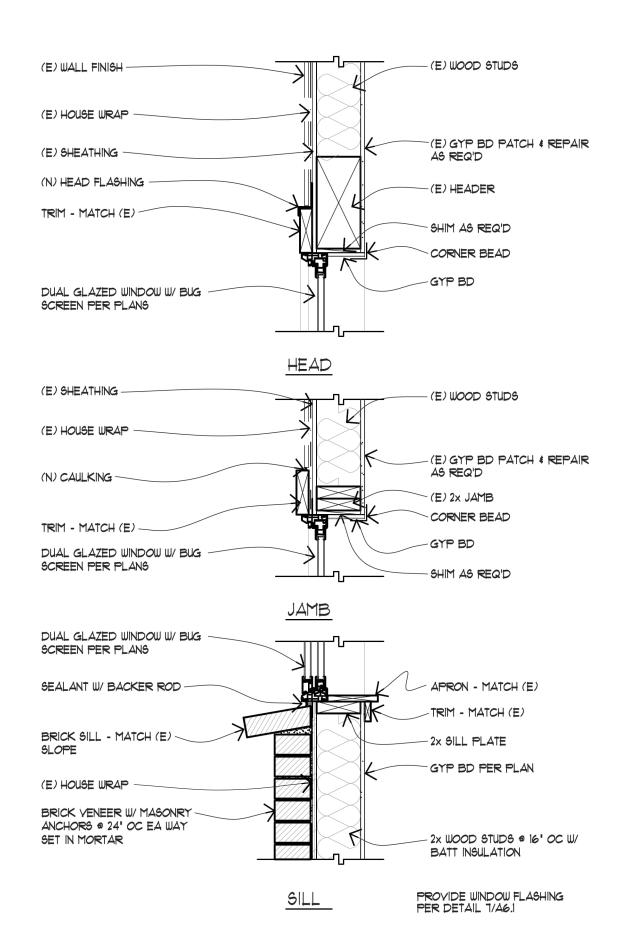


8 TYPICAL WALL FRAMING DETAIL

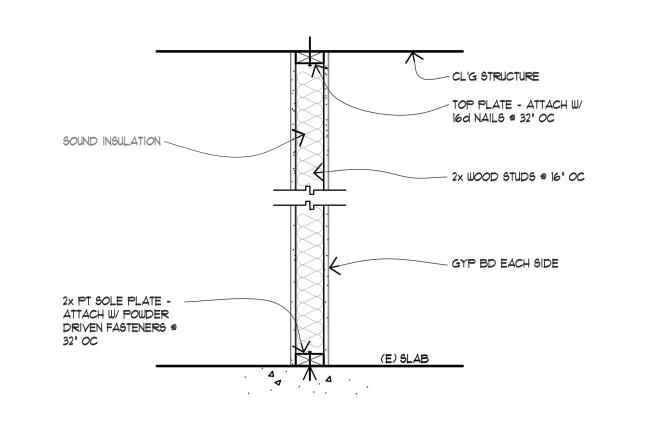
A6.1 1/2' = 1'-0'



WINDOW DETAIL @ HORIZONTAL SIDING

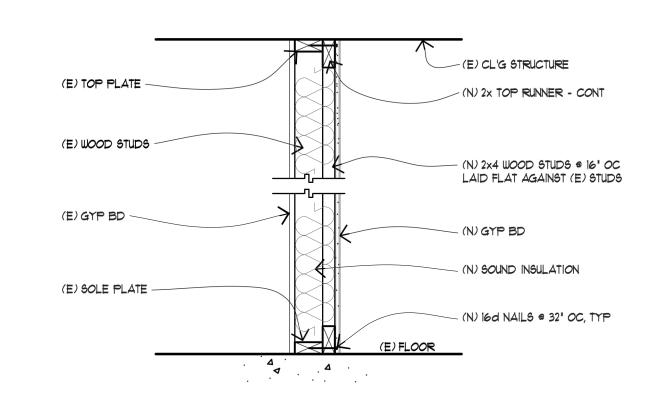


WINDOW DETAIL @ BRICK VENEER

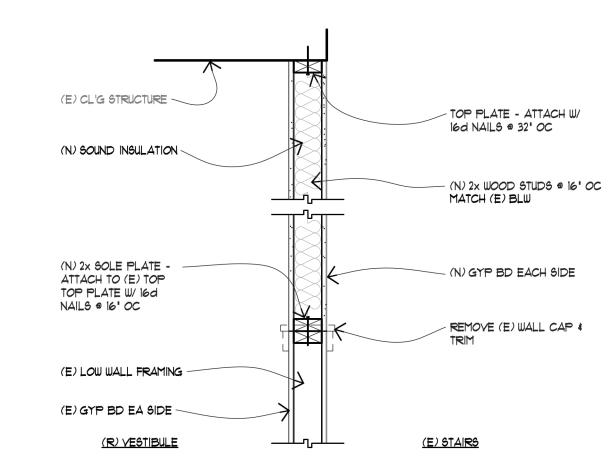


TYPICAL WALL DETAIL

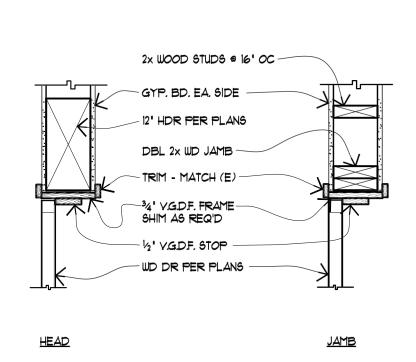
A6.1 1" = 1'-0"



FURRED WALL DETAIL

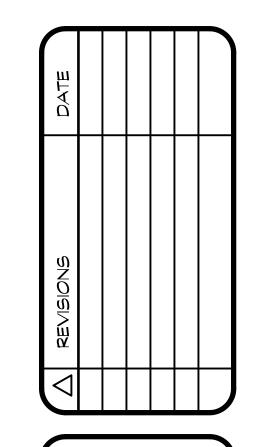


LOW WALL @ STAIRS EXTENSION DETAIL



TYPICAL INTERIOR DOOR DETAIL

4
A6.1) 1" = 1'-0"



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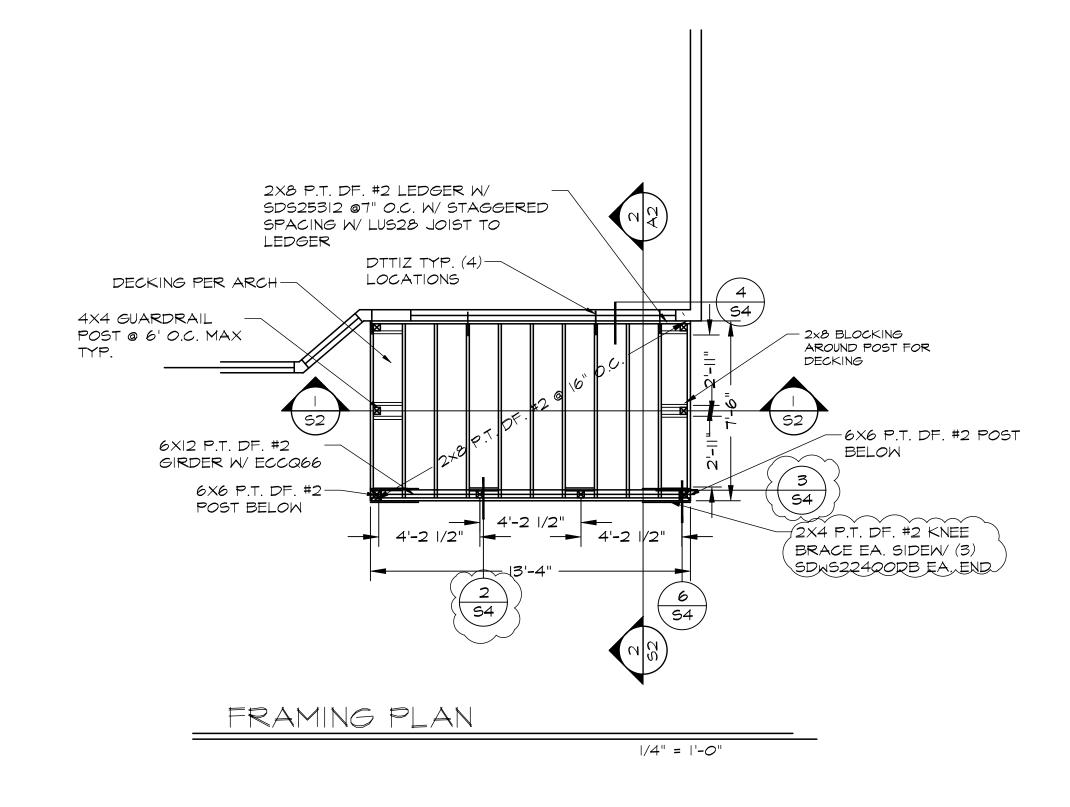


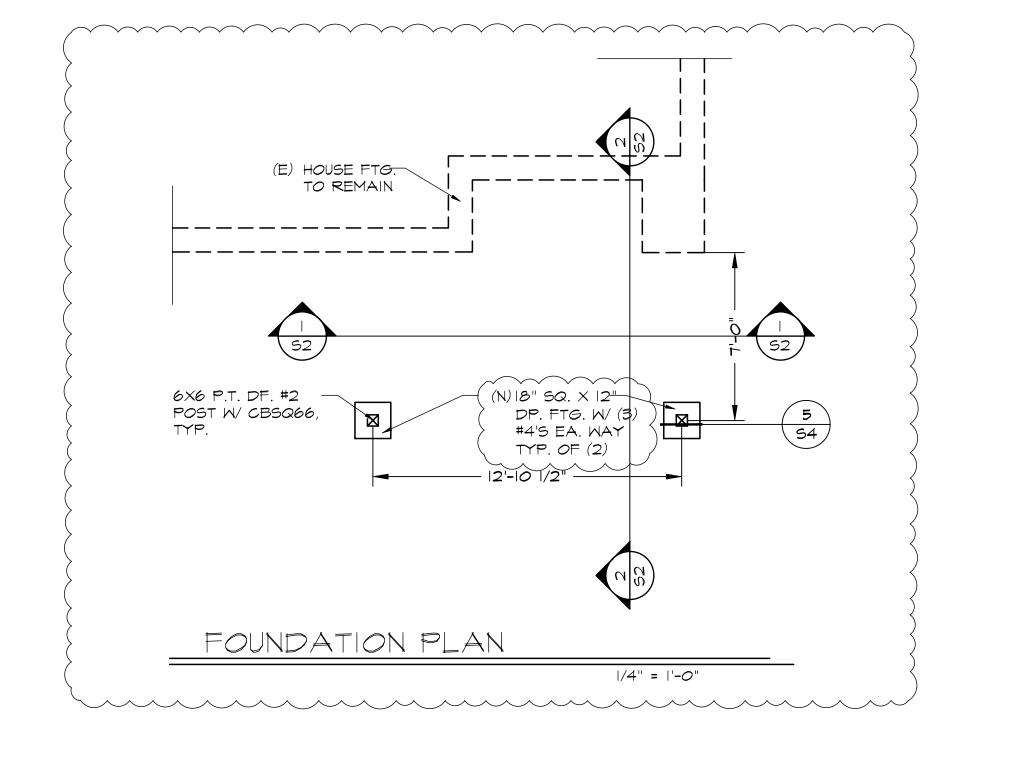


DATE: 12/6/24

#### DECK AND EXPOSED CONSTRUCTION

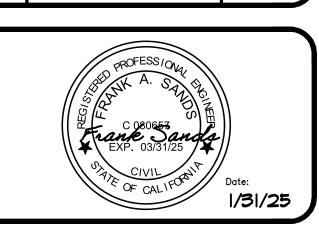
- I. ALL EXPOSED WOOD SHALL BE OF NATURALLY DURABLE WOOD OR WOOD THAT IS PRESERVATIVE TREATED IN ACCORDANCE WITH AWPA UI FOR THE SPECIES, PRODUCT, PRESERVATIVE AND END USE. CRC SECTION R317.I
- 2. POSTS/COLUMNS SHALL BE RETRAINED AT THE BOTTOM END TO PREVENT LATERAL DISPLACEMENT, CLEARLY SHOW APPROVED POST BASES, STRAPS, ETC TO ACHIEVE THIS PER (CRC R407.3)
- 3. ALL HARDWARE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED OR Z-MAX COATED (G-185). ALL FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED (CRC R317.3)
- 4. PROVIDE 2X BLOCKING AT SUPPORTS
- 5. EXTERIOR STAIRS, BALCONIES, DECKS, ETC SHALL BE
  ATTACHED TO THE PRIMARY STRUCTURE WITH LAG
  SCREWS OR EQUIVALENT ATTACHMENT THAT WILL RESIST
  AGAINST WITHDRAWAL AND VERTICAL LATERAL FORCES OR
  SHALL BE DESIGNED TO BE SELF-SUPPORTING (CRC R311.5)
- 6. GUARDS ARE REQUIRED IF DECK OR FLOOR IS OVER 30"
  ABOVE GRADE, MINIMUM 42" HIGH, WITH OPENINGS LESS THAN
  4" (CRC R312). GUARDRAILS SHALL BE DESIGNED AND
  DETAILED FOR LATERAL FORCES ACCORDING TO (CRC
  TABLE 301.5)
- 7. PROVIDE DECK LATERAL LOAD CONNECTIONS AT EACH END OF THE DECK AND AT DECK INTERSECTIONS PER (CRC R507.2.4) CONNECTORS SHALL HAVE A MINIMUM ALLOWABLE STRESS DESIGN CAPACITY OF 1,500LBS AND INSTALL WITH 24" OF THE END OF THE DECK. 750LBS RATED DEVICES ARE ALLOWED (DTTIZ AS EXAMPLE) IF LOCATED EVENLY AT 4 POINTS ALONG THE DECK







No.	Revision/Issue	Date			
1	INITIAL SUBMITTAL:	11/6/24			
2	PCI SUBMITTAL:	1/31/25			

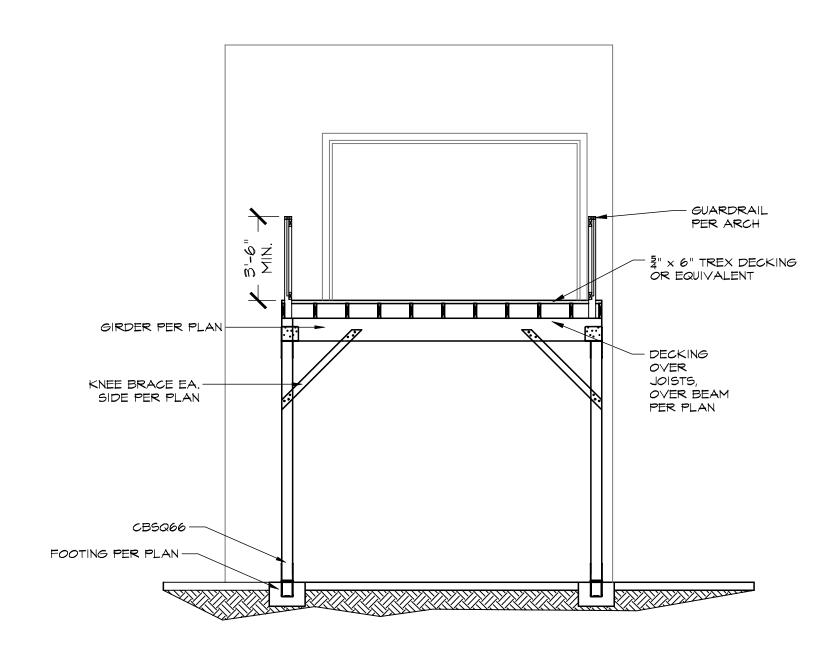


BADGER LN. DECK

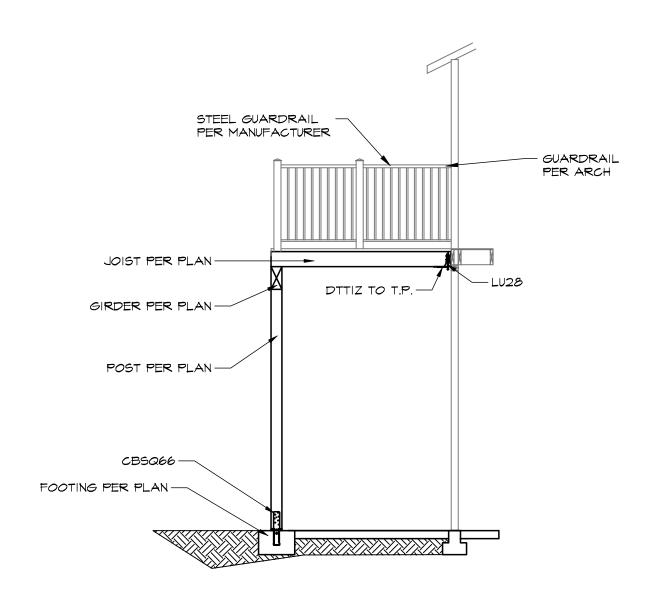
120 BADGER LN. GRASS VALLEY, CA



COHESSION: 130 PSF



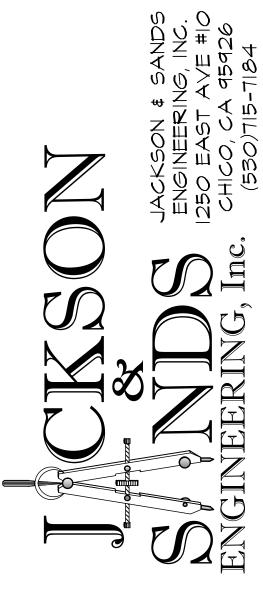
SECTION | 1/4" = 1'-0"



SECTION 2

General Notes

JACKSON AND SANDS
ENGINEERING HAS PROVIDED
THESE PLANS SOLELY FOR THE
USE FOR THE PROJECT SPECIFIED
ON THESE PLANS & DOES NOT
REPRESENT THAT THESE PLANS
ARE SUITABLE FOR ANY OTHER
SITE WHETHER MODIFIED OR NOT.





Revision/Issue

PCI SUBMITTAL:

11/6/24

1/31/25

BADGER LN DECK

120 BADGER LN. GRASS VALLEY, CA

#### EXCAVATION, GRADING AND FILL:

- I. EXCAVATION NEAR FOUNDATION FOR ANY PURPOSE SHALL NOT REDUCE LATERAL SUPPORT FROM ANY FOUNDATION OR ADJACENT FOUNDATION WITHOUT FIRST UNDERPINNING OR PROTECTING THE FOUNDATION AGAINST DETRIMENTAL LATERAL OR VERTICAL MOVEMENT OR BOTH.
- VERTICAL MOVEMENT OR BOTH.

  I.I. WHERE UNDERPINNING IS CHOSEN TO PROVIDE THE PROTECTION OR SUPPORT OF ADJACENT STRUCTURES, THE UNDERPINNING STEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH PROVISIONS OF CURRENT CALIFORNIA BUILDING
- CODE.

  1.2. UNDERPINNING SHALL BE INSTALLED IN A SEQUENTIAL MANNER THAT PROTECTS THE NEIGHBORING STRUCTURE AND THE WORKING CONSTRUCTION SITE. THE ENGINEER OF RECORD SHALL BE NOTIFIED IF THIS CONDITION EXISTS TO ALLOW FOR
- 2. PLACEMENT OF BACKFILL: THE EXCAVATION OUTSIDE THE FOUNDATION SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ORGANIC MATERIAL, CONSTRUCTION DEBRIS, COBBLES AND BOULDERS OR WITH CONTROLLED LOW-STRENGTH MATERIAL (CLSM). THE BACKFILL SHALL BE PLACED IN LIFTS AND COMPACTED IN A MANNER THAT DOES NOT DAMAGE THE FOUNDATION OR THE WATERPROOFING OR DAMPPROOFING MATERIAL.

PREPARATION OF CONSTRUCTION DOCUMENTS

- 3. SITE GRADING: THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN 5% FOR A MINIMUM DISTANCE OF 10 FEET MEASURED PERPENDICULAR TO THE WALL. IF PHYSICAL OBSTRUCTIONS OR LOT LINES PROHIBIT 10 FEET AN APPROVED METHOD OF DRAINAGE AWAY FROM STRUCTURE SHALL BE USED. SWALES USED FOR THIS PURPOSE SHALL BE SLOPED A MINIMUM OF 2% WHERE LOCATED WITHIN 10 FEET OF BUILDING FOUNDATION. IMPERVIOUS SURFACES WITHIN 10 FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MIN. OF 2% AWAY FROM THE BUILDING. 2% SLOPES MAY BE USED WHEN APPROVED BY THE ENGINEER OF RECORD.
- 4. WHERE SHALLOW FOUNDATIONS WILL BEAR ON COMPACTED FILL MATERIAL, THE COMPACTED FILL SHALL COMPLY WITH THE APPROVED GEOTECHNICAL REPORT.
- 4.1. WHERE COMPACTED FILL MATERIAL 12 INCHES IN DEPTH OR LESS NEED NOT COMPLY WITH AN APPROVED REPORT, PROVIDED THE IN-PLACE DRY DENSITY IS NOT LESS THAN 90% OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT DETERMINED IN ACCORDANCE WITH ASTM DI557. THE COMPACTION SHALL BE VERIFIED BY SPECIAL INSPECTION IN ACCORDANCE WITH SECTION 1705.6

#### DAMPPROOFING AND WATERPROOFING:

- WALLS OR PORTIONS THEREOF THAT RETAIN EARTH AND ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE WATERPROOFED AND DAMPPROOFED IN ACCORDANCE WITH THIS SECTION.
- 1.1. VENTILATION FOR CRAWL SPACES SHALL COMPLY WITH CBC SECTION 1203.4

  2. STORY ABOVE GRADE PLANE: WHERE A BASEMENT IS CONSIDERED A STORY ABOVE GRADE PLANE AND THE FINISHED GROUND LEVEL ADJACENT TO THE BASEMENT WALL IS BELOW THE BASEMENT FLOOR ELEVATION FOR 25% OR MORE OF THE PERIMETER, THE FLOOR AND WALLS SHALL BE DAMPPROOFED IN ACCORDANCE WITH THIS SECTION AND A FOUNDATION DRAIN SHALL BE INSTALLED.
- 3. THE FINISHED GROUND LEVEL OF AN UNDER-FLOOR SPACE SUCH AS A CRAWL SPACE SHALL NOT BE LOCATED BELOW THE BOTTOM OF THE FOOTINGS. WHERE THERE IS EVIDENCE THAT THE GROUND WATER TABLE RISES TO WITHIN 6 INCHES OF THE GROUND LEBYEL AT THE OUTSIDE BUILDING PERIMETER, OR THAT THE SURFACE WATER DOES NOT READILY DRAIN FROM THE BUILDING SITE, THE GROUND LEVEL OF THE UNDER-FLOOR SPACE SHALL BE AS HIGH AS THE OUTSIDE FINISHED GROUND LEVEL, UNLESS AN APPROVED DRAINAGE SYSTEM IS PROVIDED.
- 3.1. DAMPPROOFING MATERIALS FOR WALLS SHALL BE INSTALLED ON THE EXTERIOR SURFACE OF THE WALL, AND SHALL EXTEND FROM THE TOP OF THE FOOTING TO ABOVE GROUND LEVEL.
- 3.2. DAMPPROOFING SHALL CONSIST OF A BITUMINOUS MATERIAL, 3 POUNDS PER SQUARE YARD OF ACRYLIC MODIFIED CEMENT, &" COAT OF SURFACE BONDING MORTAR COMPLYING WITH ASTM C887, ANY OF THE MATERIALS PERMITTED FOR WATERPROOFING BY SECTION 1805.3.2 OR OTHER APPROVED METHODS OR MATERIALS.
- 4. WHERE GROUND WATER IS UNCOVERED BY INVESTIGATION OR EXCAVATIONS THE ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY FOR WATERPROOFING
- 5. A DRAIN SHALL BE PLACED AROUND THE PERIMETER OF A FOUNDATION THAT CONSIST OF GRAVEL OR CRUSHED STONE CONTAINING NOT MORE THAN 10% MATERIAL THAT PASSES THROUGH A No. 4 SIEVE. THE DRAIN SHALL EXTEND A MINIMUM OF 12" BEYOND THE OUTSIDE EDGE OF THE FOOTING. THE THICKNESS SHALL BE SUCH THAT THE BOTTOM OF THE DRAIN IS NOT HIGHER THAN THE BOTTOM OF THE BASE UNDER THE FLOOR, AND THE TOP OF THE DRAIN IS NOT LESS THAN 6" ABOUVE THE TOP OF THE FOOTING. THE TOP OF THE DRAIN SHALL BE COVERED WITH AN APPROVED FILTER MEMBRANE MATERIAL. WHERE A DRAIN TILE OR PERFORATED PIPE IS USED, THE INVERT OF THE PIPE OR TILE SHALL NOT BE HIGHER THAN THE FLOOR ELEVATION. THE TOP OF JOINTS OR THE TOP OF PERFORATIONS SHALL BE PROTECTED WITH AN APPROVED FILTER MEMBRANE MATERIAL.
- 6. THE FLOOR BASE AND FOUNDATION PERIMETER DRAIN SHALL DISCHARGE BY GRAVITY OR MECHANICAL MEANS INTO AN APPROVED DRAINAGE SYSTEM THAT COMPLIES WITH THE CPC. WHEN A SITE IS LOCATED IN A WELL-DRAINED GRAVEL OR SAND/ GRAVEL MIXTURE SOILS, A DEDICATED DRAINAGE SYSTEM IS NOT REQUIRED.

#### FOUNDATIONS:

- I. NO FILL OR OTHER SURCHARGE LOADS SHALL BE PLACED ADJACENT TO ANY BUILDING OR STRUCTURE UNLESS SUCH STRUCTURE IS CAPABLE OF WITHSTANDING THE ADDITIONAL LOADS CAUSED BY THE FILL OR SURCHARGE.
- ENGINEER OF RECORD SHALL BE NOTIFIED TO DETERMINE IF ADDITIONAL CONSIDERATION IS REQUIRED TO PREVENT DETRIMENTAL DISTURBANCES OF THE SOIL.

  3. IF EXPANSIVE SOILS ARE DISCOVERED THE ENGINEER OF RECORD SHALL BE NOTIFIED

2. IF VIBRATORY LOADS ARE TO BE PRESENT DURING THE USE OF THE STRUCTURE, THE

- TO PROVIDE ADDITIONAL FOUNDATION DESIGN AND CONSTRUCTION REQUIREMENTS.

  4. BUILDING CLEARANCE FROM ASCENDING SLOPES SHALL IN GENERAL BE SET A SUFFICIENT DISTANCE FROM THE SLOPE TO PROVIDE PROTECTION FROM SLOPE DRAINAGE, EROSION AND SHALLOW FAILURES.
- 5. FOUNDATION SETBACK FROM DESCENDING SLOPE SURFACE SHALL BE FOUNDED IN FIRM MATERIAL WITH AN EMBEDMENT AND SET BACK FROM THE SLOPE SURFACE SUFFICIENT TO PROVIDE VERTICAL AND LATERAL SUPPORT FOR THE FOUNDATION WITHOUT DETRIMENTAL SETTLEMENT.
- 6. FOR FOUNDATIONS SUPPORTING GROUP R OR U OCCUPANCIES OF LIGHT-FRAME CONSTRUCTION, TWO STORIES OR LESS IN HEIGHT, ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 psi 7. CONCRETE FOUNDATIONS ARE PERMITTED TO BE CAST AGAINST THE EARTH WHERE SOIL
- CONDITIONS DO NOT REQUIRE FORMWORK.

  8. SHALLOW FOUNDATIONS SHALL BE BUILT ON UNDISTURBED SOIL, COMPACTED FILL
  MATERIAL OR CLSM. COMPACTED FILL MATERIAL SHALL BE PLACED IN ACCORDANCE
- WITH CBC SECTION 1804.5

  9. THE TOP SURFACE OF FOOTINGS SHALL BE LEVEL. THE BOTTOM SURFACE OF FOOTINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT EXCEEDING 10%. FOOTINGS SHALL BE STEPPED WHERE IT IS NECESSARY TO CHANGE THE ELEVATION OF THE TOP SURFACE OF THE FOOTING OR WHERE THE SURFACE OF THE GROUND SLOPES MORE THAN 10%.
- IO. FOR SINGLE STORIES, THE MIN. DEPTH OF FOOTINGS SHALL BE 12" BELOW UNDISTURBED GROUND SURFACE. THE MIN. WIDTH OF FOOTING SHALL BE 12". FOR TWO STORIES, THE MIN DEPTH OF FOOTINGS SHALL BE 18" BELOW UNDISTURBED GROUND SURFACE AND THE MIN. WIDTH OF THE FOOTING SHALL BE 15".
- II. ALL LOAD BEARING WALLS SHALL BE PLACED ON CONTINUOUS CONCRETE FOOTINGS BONDED INTEGRALLY WITH THE EXTERIOR WALL FOOTINGS.
- 12. MIN. SLAB THICKNESS SHALL BE 4". A 6-MIL POLYETHYLENE VAPOR RETARDER WITH JOINTS LAPPED NOT LESS THAN 6" SHALL BE PLACED BETWEEN THE BASE COURSE AND THE CONCRETE FLOOR SLAB. A VAPOR RETARDER IS NOT REQUIRED FOR DETACHED STRUCTURES ACCESSORY TO OCCUPANCIES IN GROUP R-3, SUCH AS GARAGES, UTILITY

BUILDINGS OR OTHER UNHEATED FACILITIES.

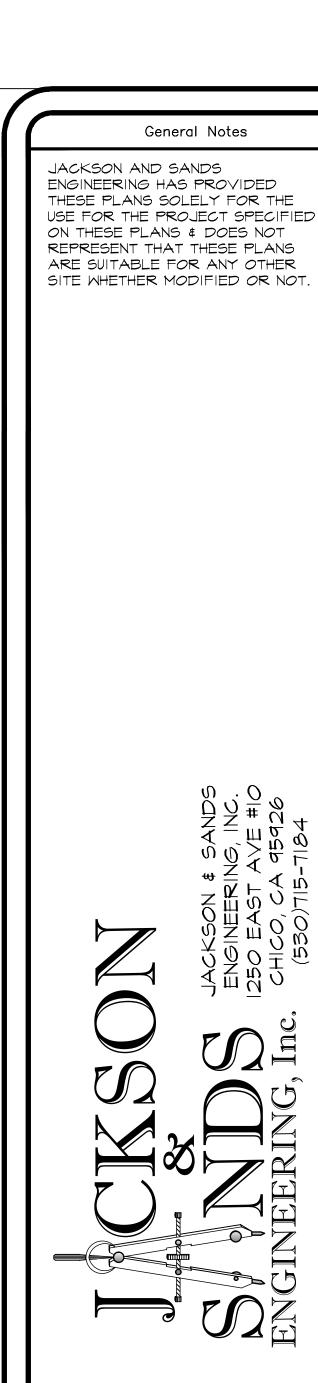
#### <u>GENERAL NOTES:</u>

- I. ALL CONSTRUCTION SHALL COMPLY WITH THE CURRENTLY ACCEPTED EDITION OF THE CALIFORNIA BUILDING CODE (CBC) AND CBC STANDARDS.
- 2. IF CONDITIONS ARISE OUTSIDE THE SCOPE OF THESE PLANS, THE ENGINEER OF RECORD SHALL BE NOTIFIED.
- 3. ALL CONCRETE SHALL HAVE A MIN. STRENGTH OF 2,500 PSI (28 DAY)
- 4. REINFORCEMENT BAR SHALL BE GRADE 40 FOR BARS #4 AND SMALLER AND GRADE 60 FOR BARS #5 AND LARGER
- 5. BOTTOM HORIZONTAL REINFORCING BAR PLACED IN THE FOOTING SHALL BE 3" CLEAR OF BOTTOM OF FOOTING. TOP HORIZONTAL REINFORCING BAR PLACED IN THE FOOTING
- SHALL BE 2" CLEAR OF THE TOP OF THE FOOTING

  6. FASTENING CONNECTIONS TO FOLLOW CRC TABLE 602.3(1)

#### DECK AND EXPOSED CONSTRUCTION

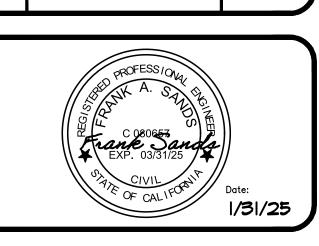
- I. ALL EXPOSED WOOD SHALL BE OF NATURALLY DURABLE WOOD OR WOOD THAT IS PRESERVATIVE TREATED IN ACCORDANCE WITH AWPA UI FOR THE SPECIES, PRODUCT, PRESERVATIVE AND END USE. CRC SECTION R317.1
- 2. POSTS/COLUMNS SHALL BE RETRAINED AT THE BOTTOM END TO PREVENT LATERAL DISPLACEMENT, CLEARLY SHOW APPROVED POST BASES, STRAPS, ETC TO ACHIEVE THIS PER (CRC R407.3)
- 3. ALL HARDWARE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED OR Z-MAX COATED (G-185). ALL FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED (CRC R317.3)
- 4. PROVIDE 2X BLOCKING AT SUPPORTS
- 5. EXTERIOR STAIRS, BALCONIES, DECKS, ETC SHALL BE ATTACHED TO THE PRIMARY STRUCTURE WITH LAG SCREWS OR EQUIVALENT ATTACHMENT THAT WILL RESIST AGAINST WITHDRAWAL AND VERTICAL LATERAL FORCES OR SHALL BE DESIGNED TO BE SELF-SUPPORTING (CRC R311.5)
- 6. GUARDS ARE REQUIRED IF DECK OR FLOOR IS OVER 30"
  ABOVE GRADE, MINIMUM 42" HIGH, WITH OPENINGS LESS THAN
  4" (CRC R312). GUARDRAILS SHALL BE DESIGNED AND
  DETAILED FOR LATERAL FORCES ACCORDING TO (CRC
  TABLE 301.5)
- 7. PROVIDE DECK LATERAL LOAD CONNECTIONS AT EACH END OF THE DECK AND AT DECK INTERSECTIONS PER (CRC R507.2.4) CONNECTORS SHALL HAVE A MINIMUM ALLOWABLE STRESS DESIGN CAPACITY OF 1,500LBS AND INSTALL WITH 24" OF THE END OF THE DECK. 750LBS RATED DEVICES ARE ALLOWED (DTTIZ AS EXAMPLE) IF LOCATED EVENLY AT 4 POINTS ALONG THE DECK



No. Revision/Issue Date

1 INITIAL SUBMITTAL: 11/6/24

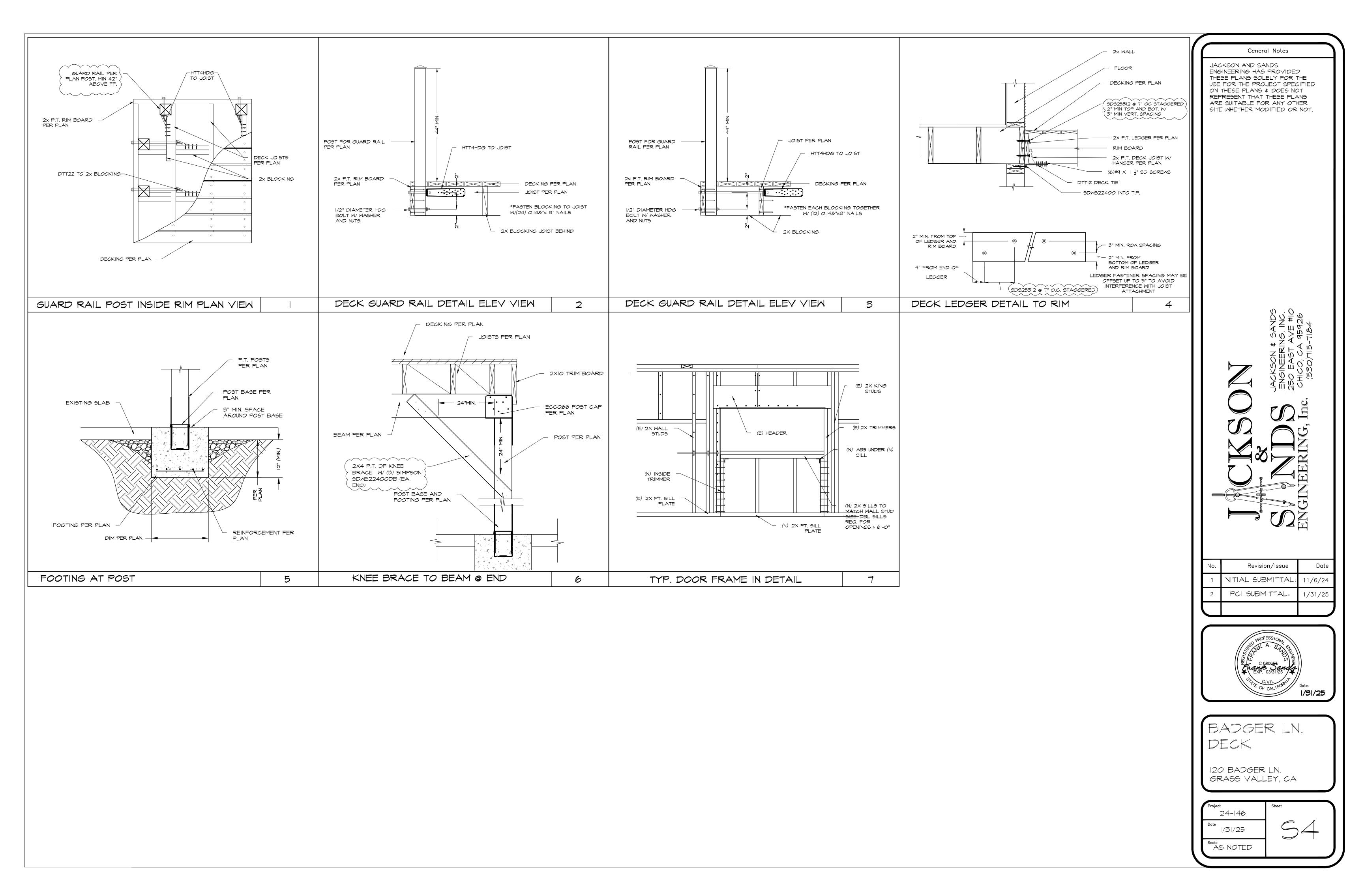
2 PCI SUBMITTAL: 1/31/25

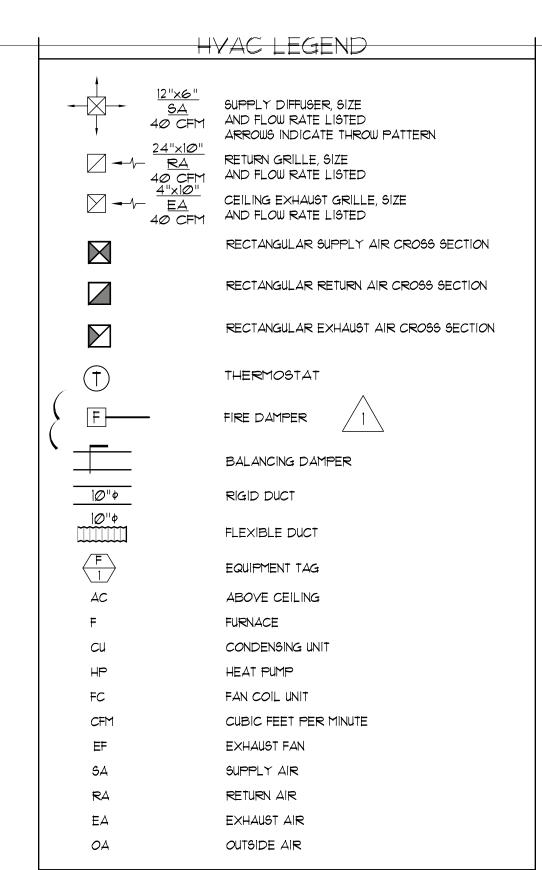


BADGER LN. DECK

120 BADGER LN. GRASS VALLEY, CA

 53





#### HVAC NOTES

 SCOPE OF WORK
 REPLACE EXISTING FURNACE AND CONDENSING UNIT SERVING THE FIRST FLOOR.

RELOCATE FURNACE SERVING THE SECOND FLOOR TO THE SECOND FLOOR AS INDICATED.

PROVIDE ALL NEW DUCTING FOR FURNACE SERVING THE SECOND FLOOR.
 REUSE EXISTING DUCTING FOR THE FIRST FLOOR.

ADD FIRE DAMPERS TO DIFFUSERS AND GRILLES PENETRATING FIRST FLOOR CEILING AND RECONFIGURE AS NOTED.

 INSTALL NEW DUCTLESS MINI-SPLIT FOR THE FIRST FLOOR STUDIO.

INSTALL NEW EXHAUST FANS FOR FIRST FLOOR BATHROOMS AND INCLUDE CEILING RADIATION DAMPERS AS NOTED.

 ANY DISCREPANCIES BETWEEN THE PLANS AND EXISTING CONDITIONS DISCOVERED DURING DEMOLITION SHALL BE BROUGHT TO THE ARCHITECT AND ENGINEER'S ATTENTION TO REVISE THE

PLANS AS NECESSARY.

2. FURNISH AND INSTALL ALL MATERIALS AND PERFORM ALL LABOR NECESSARY FOR A COMPLETE INSTALLATION OF HYAC WORK INDICATED ON THE DRAWINGS. ALSO, PROVIDE ANY INCIDENTAL WORK NOT SHOWN OR SPECIFIED, WHICH CAN REASONABLY BE INFERRED OR TAKEN AS BELONGING TO THE WORK AND NECESSARY

TO PROVIDE THE COMPLETE SYSTEM.

3. IT IS THE INSTALLING CONTRACTOR'S RESPONSIBILITY TO ASSURE ALL MECHANICAL SYSTEMS FUNCTION PROPERLY, SAFELY, AND MEET ALL LOCAL, STATE AND REGIONAL CODES.

4. ALL WORK SHALL CONFORM TO THE ACCEPTED STANDARDS OF THE TRADE. THE ENGINEER IS TO BE NOTIFIED IF ANY SUBSTITUTIONS ARE SEEN TO BE NECESSARY.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF EQUIPMENT INDICATED TO BE REMOVED, UNLESS OTHERWISE INSTRUCTED BY THE OWNER. EXISTING REFRIGERANT SHALL BE RECLAIMED AND PROPERLY DISPOSED OF IN ACCORDANCE WITH THE 1990 CLEAN AIR ACT AMENDMENT.

6. THE CONTRACTOR SHALL PARTICIPATE IN BID WALK-THRU AND SHALL FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS. BIDS SHALL BE ADJUSTED TO ACCOMMODATE ANY EXISTING CONDITIONS WHICH ARE NOT SHOWN ON PLANS AND ARE VISIBLE DURING WALK-THRU. ANY AND ALL DEVIATIONS FROM PLANS SHALL BE BROUGHT TO THE ARCHITECTS' ATTENTION.

1. <u>CONTROLS - GENERAL</u>

A.ROOM THERMOSTATS SHALL BE PROGRAMMABLE WITH 5-1-1 DAY

B.PROGRAMMING AND 24-HOUR HEATING AND COOLING SETBACK

CAPABILITY.

C.THERMOSTATS SHALL BE INSTALLED WHERE INDICATED ON PLANS,

48 INCHES ABOVE FINISHED FLOOR LEVEL.

D.INSTALL THERMOSTATS IN CENTRALLY LOCATED AREAS AT 48"
ABOVE FLOOR LEVEL OUT OF DIRECT SUN AND DRAFTS WHERE
INDICATED ON THE MECHANICAL PLANS.

E.ALL LOW VOLTAGE WIRING FOR CONTROLS AND SENSORS IS THE RESPONSIBILITY OF THE MECHANICAL/HVAC CONTRACTOR. ALL CONDUIT PULLS (AND LOW VOLTAGE WIRING INSTALLATION) IS TO BE COORDINATED WITH ELECTRICAL CONTRACTOR DURING CONSTRUCTION.

8. AIR DIFFUSERS AND RETURN/EXHAUST GRILLES SHALL BE SHOEMAKER, OR EQUAL. PROPOSED MODEL NUMBERS FOR DIFFERENT APPLICATIONS ARE AS FOLLOWS:

APPLICATION MODEL # REMARKS

CEILING SUPPLY 945 ADJUSTABLE BLADE 3 OR 4-WAY THROW SIDEWALL SUPPLY 951 STEEL BLADE ADJUSTABLE DIFFUSER GYPSUM CEILING 645 FG2 ALUMINUM LATTICE FILTER GRILLE FILTERED RETURN FG2 STAMP FACED FILTER GRILLE

PROVIDE 2" MERY-13 FILTER

9. LOCATIONS OF DIFFUSERS AND GRILLES ON PLANS ARE APPROXIMATE AND MAY HAVE TO BE RELOCATED TO AVOID OBSTACLES, SUCH AS LIGHT FIXTURES AND SPRINKLERS.

10. FIRE DAMPERS

 HORIZONTAL DUCT: POTTORF® FD-125R SINGLE ROUND DAMPER WITH POINT OF ORIGIN CONTROL. 1-1/2 HR. RATED.

CEILING RADIATION DAMPER: POTTORF® CFD-15LP WITH BUTTERFLY STYLE BLADES. PROVIDE INTEGRAL SLEEVE. 3 HR. RATED.
 DAMPERS SHALL BE UL LISTED AND LISTED BY THE CALIFORNIA STATE FIRE MARSHALL.

II. PROVIDE CAM-FARR, 2 INCH DEEP, MERV-13 FILTERS IN RETURN AIR PLENUM OF AIR HANDLERS.

12. FLUES AND COMBUSTION INLETS FOR FURNACES SHALL TERMINATE A MINIMUM OF THREE (3) FEET ABOVE ANY FRESH AIR INLET WITHIN TEN (10) FEET.

13. SLOPE ALL CONDENSATE LINES AT 1/4" PER FOOT. CONDENSATE OUTLETS SHALL TERMINATE INDIRECTLY TO APPROVED PLUMBING FIXTURE OR A MINIMUM OF 6 INCHES ABOVE GROUND LEVEL. CONDENSATE LINES SHALL BE 3/4" SCHEDULE 40 PVC UNLESS OTHERWISE NOTED.

14. DUCT MATERIAL AND SEALING:

1814, OR UL181B.

A.DUCTING IN CONCEALED LOCATION SHALL BE GALVANIZED SHEET METAL. PRE-INSULATED FLEX DUCT MAY BE USED AS LEADERS (5' MAX.) TO AND FROM AIR TERMINALS, PER CMC 603.4.1. DUCT SHALL BE MANUFACTURED IN ACCORDANCE WITH CHAPT. 6 OF THE 2022 CMC AND SMACNA GUIDELINES.

B.PRE-INSULATED FLEX DUCT SHALL HAVE AN R-VALUE = 8.0.

C.FACTORY-FABRICATED DUCT SYSTEMS SHALL COMPLY WITH ULISI.

D.METAL TO METAL JOINTS SHALL BE SEALED WITH MASTIC SEALANT

TO PROVIDE AIRTIGHT PROTECTION PRIOR TO INSULATION. APPLY

SEALANT ACCORDING TO MANUFACTURER'S RECOMMENDATION.

E.INNER LINING OF FLEX DUCTING SHALL BE SECURELY FASTENED WITH

A PANDUIT STRAP. THE EXTERIOR LINING (INSULATION) SHALL BE SECURELY TAPED TO THE SHEET METAL FITTING.

F. WHERE TURNS AND/OR TRANSITIONS EXCEED 45 DEGREES USE SHEET METAL FITTINGS AND ELBOWS. PROVIDE SHEET METAL

SLEEVES FOR ALL SPLICES.

G.DUCTING EXPOSED TO EXTERIOR SHALL BE 22 GAGE (MIN)

H.CORRUGATED ALUMINUM FLEX DUCT SHALL NOT BE ALLOWED.

I. ALL TAPES AND MASTIC SEALANTS SHALL COMPLY WITH ULISI, UL

15. INCREASE DUCT SIZES GRADUALLY, NOT EXCEEDING 15 DEGREES DIVERGENCE WHEREVER POSSIBLE. DIVERGENCE UPSTREAM OF EQUIPMENT SHALL NOT EXCEED 20 DEGREES: CONVERGENCE DOWNSTREAM SHALL NOT EXCEED 30 DEGREES.

16. SUPPORTS AND HANGERS FOR DUCTING SHALL BE IN ACCORDANCE WITH THE 2022 UNIFORM MECHANICAL CODE AND IN ACCORDANCE WITH SMACNA HYAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE. DUCTS SHALL BE SUPPORTED AT EACH CHANGE OF DIRECTION. SUPPORTS AND 8' INTERVALS (MIN.).

IT. WRAP ALL UNLINED CONCEALED SUPPLY AND RETURN DUCTS WITH O.C. FIBERGLASS DUCT WRAP OR JM MICROLITE, 2" THICK AND 1" PER CUBIC FOOT DENSITY. WRAP INSULATION ENTIRELY AROUND DUCT AND WIRE SECURELY IN PLACE WITH #16 WIRE 12" O.C. ON EACH SIDE OF STANDING SEAM AND OVER INSULATION JOINT, LAP ALL INSULATION JOINTS 3" MIN. INSULATE DUCTS TIGHT AGAINST OTHER WORK BEFORE HANGING IN PLACE.

18. DUCTS SHALL BE LINED WITH I" INTERIOR LINING WHERE INDICATED ON PLANS AND IN NO CASE LESS THAN 5 FEET OF AIR MOVING DEVICE.

DUCT LINING SHALL BE 1" OWENS CORNING QUIETR®, OR EQUAL.

MATERIAL HAS A 'K' OF 0.23 (BTU/HR-FT-°F), 0.7 NRC SOUND

ABSORPTION COEFFICIENT.

19. PER CALGREEN SECTION 5.504.3. AT TIME OF ROUGH INSTALLATION OR DURING STORAGE AT THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HVAC SYSTEM, ALL DUCTING AND RELATED AIR DISTRIBUTION COMPONENTS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST OR DEBRIS WHICH MAY COLLECT IN THE SYSTEM.

20. AIR DISTRIBUTION SYSTEM SHALL BE BALANCED WITH AN APPROVED AND CALIBRATED AIR FLOW MEASURING DEVICE IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH BY THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). PROVIDE INDICATED AIR FLOW RATES (WITHIN ±5%). PROVIDE OWNER WITH COMPLETE AIR

BALANCE REPORT.

21. <u>DUCT SYSTEM LEAKAGE TEST</u>

 PROVIDE DUCT TESTS FOR BOTH FIRST FLOOR AND SECOND FLOOR SYSTEMS.

 DUCTS SHALL BE PRESSURIZED TO 25 PASCAL AND THE AIR LEAKAGE SHALL NOT EXCEED 10% OF FAN FLOW. IN THE EVENT THAT 10% DUCT LEAKAGE IS NOT ACHIEVABLE, THE DUCTS SYSTEM SHALL BE PRESSURIZED WITH THEATRICAL FOG AND ALL ACCESSIBLE LEAKS SHALL BE SEALED.

 FINAL TEST SHALL BE PERFORMED BY INDEPENDENT CERTIFIED HERS.

22.NO DUCTED OR NON-DUCTED AIR MOVING DEVICE SHALL TERMINATE IN ATTIC.

23.INSULATE CONDENSATE LINE WITH ARMSTRONG® 1/2" WALL THICKNESS "DG TUBO-SLIT". COND=0.29 (BTU-IN/HR-°F) AT 15°F IN ACCORDANCE WITH ASTM C 177 OR C 518 WITH THIRD PARTY TESTING SUPERVISION. WHERE PIPING 1S EXPOSED TO WEATHER PROVIDE PVC JACKETING AROUND INSULATION.

	HVAC EQUIPMENT SCHEDULE																
			COOLING		HEATING			FAN			E	ELECT.					
SYMBOL	AREA SERVED	TOTAL (BTU/HR)	SENSIBLE (BTU/HR)	COIL EDB/EWB (°F)	HIGH INPUT/OUTPUT (BTU/HR)	DB (°F)	CFM	S.P. (WC)	O.A. (CFM) (MIN)	VOLTAGE	MCA	COMP. LRA	FUSE/MOCP	MFGR & MODEL NO.	WEIGHT (LBS)	EFFICIENCY	REMARKS
F	FIRST FLOOR				60,000 /58,000		1,020	0.70		115 V. 1 PHASE	7.1		15	CARRIER # 59SP6A060-V17-14	132	AFUE = 95	CONDENSING FURNACE MOUNTED IN UPFLOW POSITION ECM BLOWER MOTOR H=35", D=29-1/2',W=17-1/2"
CU	FIRST FLOOR	31,460	22,470	80/63						208/230 V. 1 PHASE	24.2	117	40	CARRIER # 24SCA430N	139	SEER2 = 14.0 EER2 =12.0	GROUND MOUNT CONDENSING UNIT FOR DUAL FUEL APPLICATION SOUND LEVEL 78 dBA W=28-1/4", D=28-1/4", H=39-1/4"
DX 1	FIRST FLOOR	PERFORMANCI	CARRIER # CVPMA3117XMC  COPMA3117XMC  COPMA311XMC  COPMA3117XMC  COPMA3117XMC  COPMA3117XMC  COPMA3117XMC  COPMA3117XMC  COPMA3117XMC  COPMA311XMC  COPMA311XM											PRESS.DROP = 0.27 IN.WC AT 1600 CFM			
FC 2	STUDIO	12,000	8,500	80/65	14,000	47	453	0.36		(1)	0.80		(1)	FUJITSU # ASUH12LPAS	22		INDOOR HEAT PUMP WALL UNIT DIMENSIONS: H=10-5/8", W=32-13/16", D=8-3/4" FAN SET AT HIGH SPEED 43dBA
HP 2	STUDIO	12,000	8,500	80/65	14,000	47				208/230 V. 1 PHASE	9.7		15	FUJITSU # AOUH12LPAS1	68	HSPF2 = 10.5 SEER2 = 20.0 EER2 = 11.0	SINGLE ZONE GROUND MOUNTED OUTDOOR HEAT PUMP DIMENSIONS: H=21-5/16", W=31-7/16", D=11-7/16" AHRI# 206909901

							EXH	IAUST FA	N SCH	EDULE		
			COOLING		FAN			ELECT.				
SYMBOL	QTY.	AREA SERVED	DESCRIPTION	CFM	S.P. (WC)	RPM	VOLTAGE	ВНР	WATTS	MFGR & MODEL NO.	WEIGHT (LBS)	SONES REMARKS
EF-1	1	STUDIO BATH	CEILING CABINET FAN	80	0.25		115 V. 1 PHASE		6.2	PANASONIC WHISPERGREEN® SELECT™ FV-0511VKS2	11.9	AIRFLOW INDICATED IS SETTING FOR "BOOST" AIRFLOW. PROVIDE CONDENSATION SENSOR ACCESSORY #FVCSVK1 EXHAUST FAN SHALL HAVE 4" DUCT CONNECTION FAN HAS 3 SETTINGS: 50, 80, OR 110 CFM SET FAN FOR <b>30 CFM CONTINUOUS</b> , SEPARATE SWITCH SHALL ENERGIZE FAN TO HIGH SPEED. INSTALL FLEXDAMPER®, #PC-RD05C5, CEILING RADIATION DAMPER
EF-2	1	(E) FIRST FLOOR BATH	CEILING CABINET FAN	80	0.25		115 V. 1 PHASE		6.2	PANASONIC WHISPERGREEN® SELECT™ FV-0511VKS2	11.9	AIRFLOW INDICATED IS SETTING FOR "BOOST" AIRFLOW. PROVIDE CONDENSATION SENSOR ACCESSORY #FVCSVK1 EXHAUST FAN SHALL HAVE 4" DUCT CONNECTION FAN HAS 3 SETTINGS: 50, 80, OR 110 CFM SEPARATE SWITCH SHALL ENERGIZE FAN . INSTALL FLEXDAMPER®, #PC-RD05C5, CEILING RADIATION DAMPER
DEF-1	2	LAUNDRY	DRYER BOOSTER EXHAUST FAN	136	0.60		120 V. 1 PHASE		92	FANTECH EXTERIOR-MOUNT RVF 4XL	10	N/A UNIT SHALL BE ENERGIZED BY FANTECH DB10 PRESSURE SWITCH

NOTES:

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1. ELECTRICAL FOR INDOOR UNITS, FC-#, WILL BE PROVIDED BY OUTDOOR UNIT HP-#.

(1) INSTALL/MOUNT EXHAUST FANS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

- USE STEEL OR ALUMINUM DUCT RATED FOR DRYER USE. DO NOT USE FLEXIBLE DUCT.

- DRYER DUCTS IN UNCONDITIONED SPACE SHALL BE INSULATED.

(2) THE CONTINUOUS FLOW RATE OF EXHAUST FAN EF-1 IS 30 CFM. THIS MEETS THE REQUIRED VENTILATION ACCORDING TO ASHRAE STANDARD 62.2.

FLR. AREA x .03 + (7.5 x (# 0F BEDROOMS +1)); 493 x .03 + (7.5 x 1) = 22.3 CFM

(3) FIELD LOCATE DUCT TERMINATIONS FOR EXHAUST FANS. THEY SHALL NOT TERMINATE IN ATTIC OR WITHIN 3 FEET OF OPERABLE DOOR OR WINDOW.

(4) DRYER VENTING:

ENGINEERING

ENERGY & MECHANICAL CONSULTANTS
541 UREN STREET
NEVADA CITY, CA 95959
PHONE (530) 265-2492



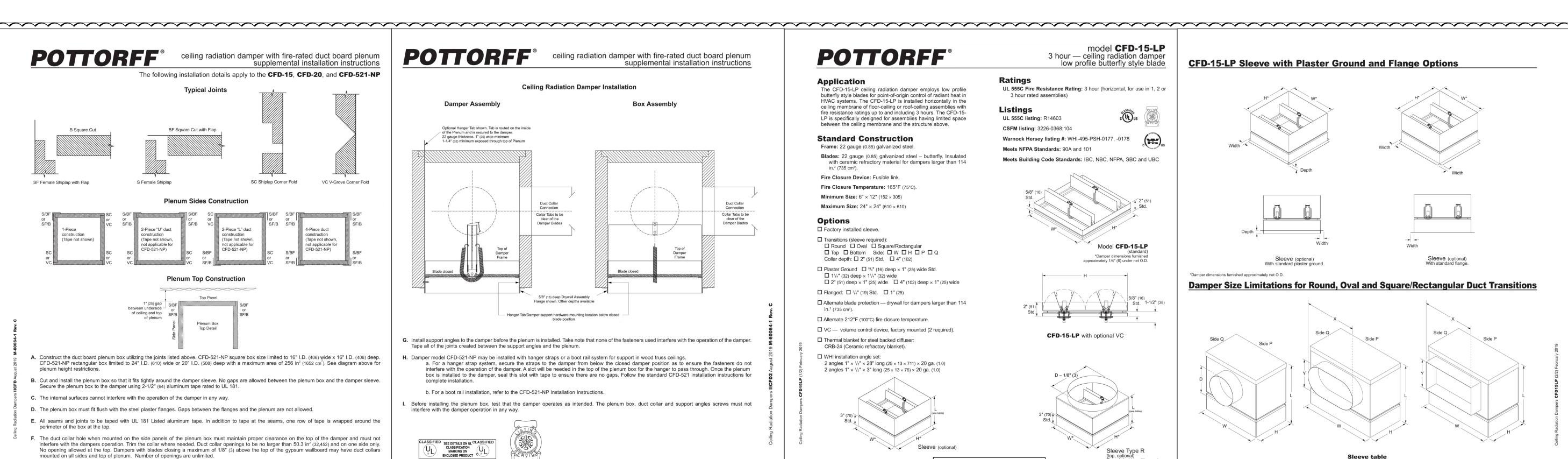
FAX (530) 265-2273

ADGER LANE
RASS VALLEY, CA
VAC NOTES AND SPECIFICATIONS

BADGER

| Plot Date: | 3/26/2025 | Job # | 24-359 | Scale | Date 1st Issued | 10-31-2024 | Signature | Signatu

Sheet Number

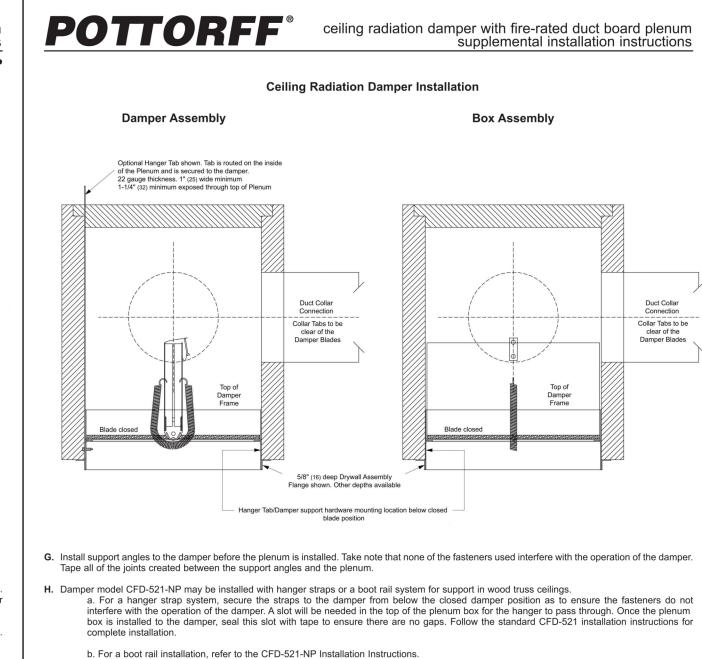


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CLASSIFIED SEE DETAILS ON UL CLASSIFIED

Information is subject to change without notice or obligation

POTTORFF® 5101 Blue Mound Road, Fort Worth, Texas 76106



Before installing the plenum box, test that the damper operates as intended. The plenum box, duct collar and support angles screws must not

1. Use only UL 181 Listed fiberglass duct board. Thickness of the board may vary from 1" (25) to 2" (51). Minimum density is 4pcf and minimum

3. Install Ceiling Radiation Damper/Plenum Box assemblies according to Pottorff installation instructions for the damper type being installed. Refer to

NOTE: Dimensions in parentheses ( ) are millimeters

www.pottorff.com

PC-RD05C5

. Use only UL 181 Listed aluminum tape, 2-1/2" (64) wide minimum, for sealing all joints and support angles.

**Specification Submittal Data** 

UL Fire Resistance Directory for details on floor/ceiling and roof/ceiling designs.

FlexDamper™

POTTORFF® 5101 Blue Mound Road, Fort Worth, Texas 76106

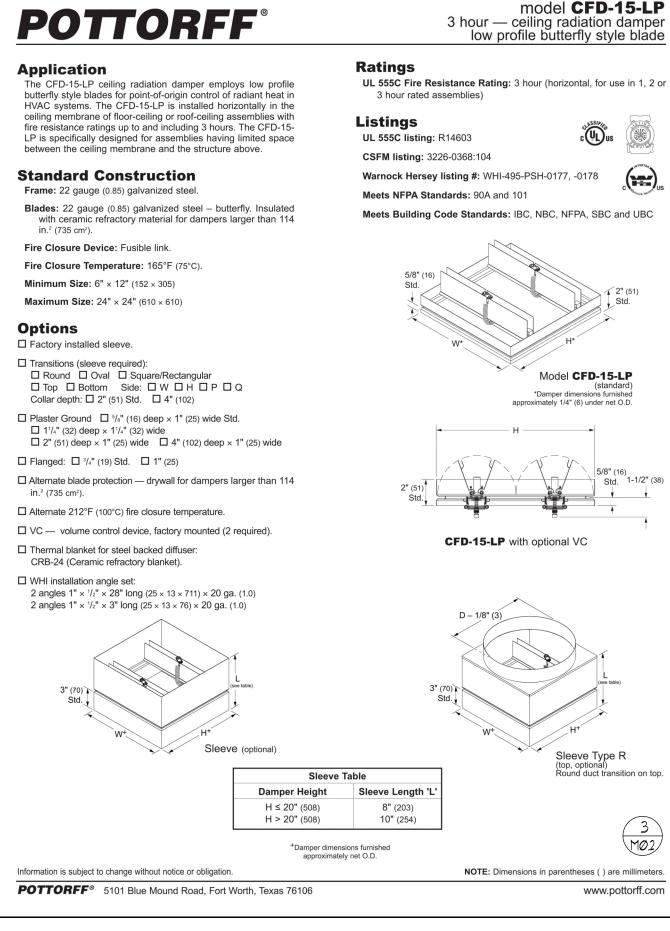
interfere with the damper operation in any way.

Information is subject to change without notice or obligation

R-value of 4.3

NOTE: Dimensions in parentheses ( ) are millimeters.

www.pottorff.com



The FD-125R fire damper employs a single round blade for

systems. This unique damper comes standard with mounting plates for interface to round or square openings in masonry,

point-of-origin control of fire in static and dynamic HVAC

metal stud, or wood stud assemblies and is ideal for all round duct applications. The FD-125R is qualified to 2000 fpm (10.2 m/s) and 4 in. wg. (1.0 kPa) and may be installed in vertical walls

or partitions, or horizontally in floors or assemblies with fire

Sleeve/Frame: Integral 16" x 20 gauge (406 x 1.0) galvanized

Retaining Plates: Dual sided system suitable for round or

**Axles:** <sup>1</sup>/<sub>2</sub>" (13) diameter plated steel, D<8" (203), <sup>3</sup>/<sub>4</sub>" (19), D≥8"

**Blade:** 14 gauge (2.0) equivalent galvanized steel — round.

resistance ratings up to 2 hours.

steel with reinforcing beads.

square penetrations.

Linkage: In the air-stream.

Bearings: Bronze oilite, sleeve-type.

Fire Closure Temperature: 165°F (75°C).

☐ Duct access door factory mounted to sleeve/frame.

nformation is subject to change without notice or obligation.

Fire Closure Device: Fusible link.

Minimum Size: 8" Ø (203 Ø)

Maximum Size: 24" Ø (610 Ø)

☐ Alternate sleeve/frame length:

☐ Alternate fire closure temperature

☐ Type - 304 stainless steel construction.

□ 20" (508) □ 24" (610)

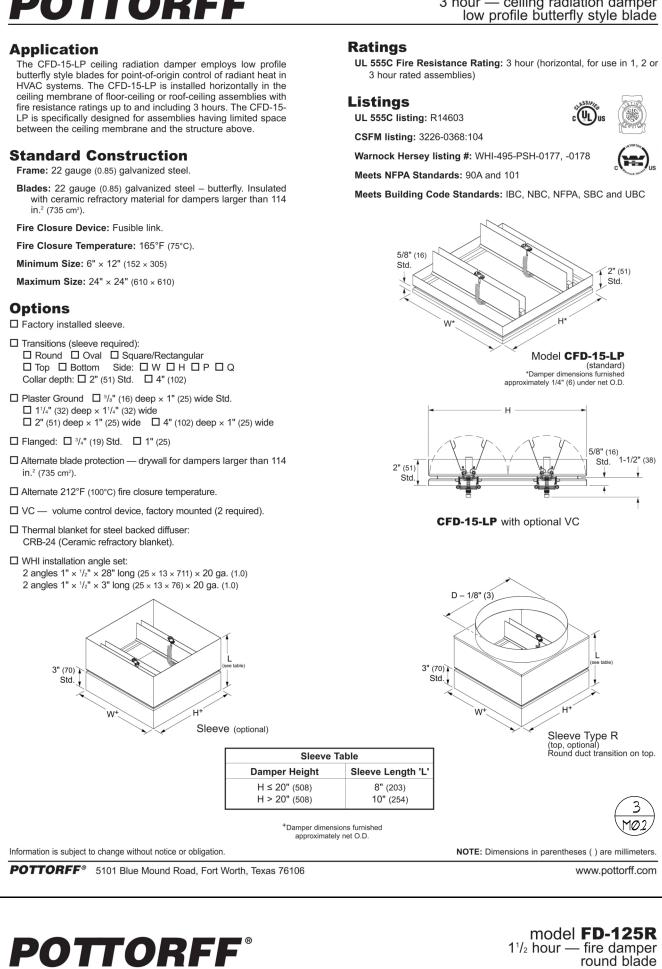
☐ Single-sided mounting plate.

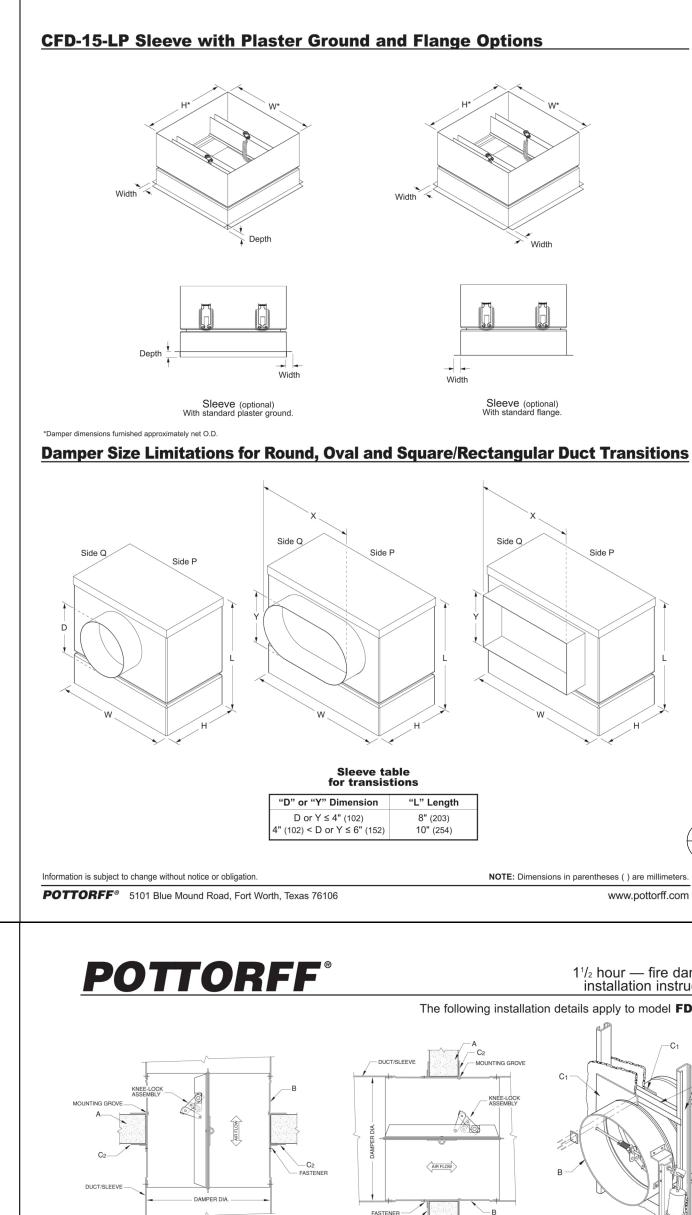
☐ 212°F (100°C)

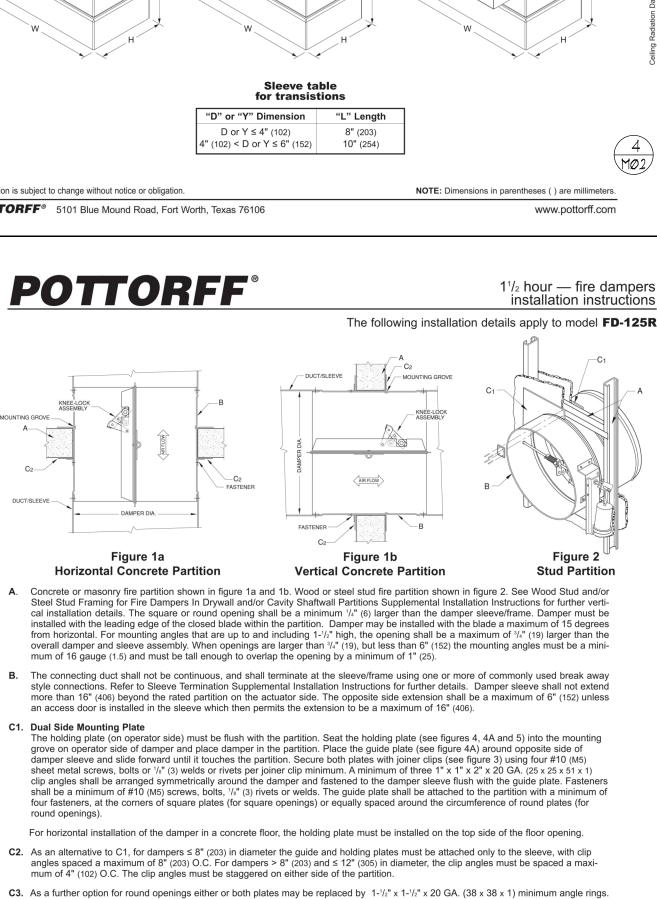
☐ Manual locking quadrant.

**Options** 

Standard Construction







The ring shall be fastened to the damper sleeve and not the partition at 8" (203) on center maximum with a minimum of 3 fasteners using

Single side mounting plates can be used for vertical masonry or steel stud partitions. The mounting plate must be 20 GA. (1) minimum,

the clamping brackets must be 2" x 1" x ½" x 14 GA. (51 x 25 x 13 x 2) minimum, and the clamping bolt shall be a ¼" - 20 x 3" (M6 x 76) bolt minimum. Each clamping bracket must be secured to the mounting plate with a minimum of two ¾,6" (5) diameter rivets or welds.

mounting plate must be positioned with the retaining bolt and nut facing AWAY from the wall. The mounting plate may be placed into the mounting groove or placed around the damper sleeve/frame. See Sheet 2 for mounting plate hole diameters. Tighten

clamping bolt to ensure the mounting plate is secured to the damper. The mounting plate must be fastened to the partition at all four

corners and for dampers D≥ 12" (25) the mounting plate must be fastened 1" (25) from the center of each side using a minimum of #10 (M5) screws, concrete anchors, 1/8" (3) rivets or welds. Fasteners must be a minimum of 1/4" (6) from the edge of the plate and must

Underwriter's Laboratories file #R11767

and conforms to NFPA 90A and NFPA 92A.

The product is also listed by CSFM file # 3225-0368:112 and 3230-0368:113

City of New York listing

# MEA 295-98-E

The mounting plate hinges on a 3/16" (5) minimum diameter rivet. The mounting plate can be installed on either side of the partition. The

#10 (M5) sheet metal screws, bolts, masonry anchors, 1/8" (3) diameter rivets of welds.

C4. Single Side Mounting Plate

Model - FD-125R

engage the steel stud by 1/2" (13) minimum.

For Use in Dynamic or Static Systems. 1-1/2 Hour Rated.

Information is subject to change without notice or obligation

**POTTORFF** 5101 Blue Mound Road, Fort Worth, Texas 76106

Vertical or horizontal mounting

Galvanized Steel construction.



ENERGY & MECHANICAL CONSULTANTS

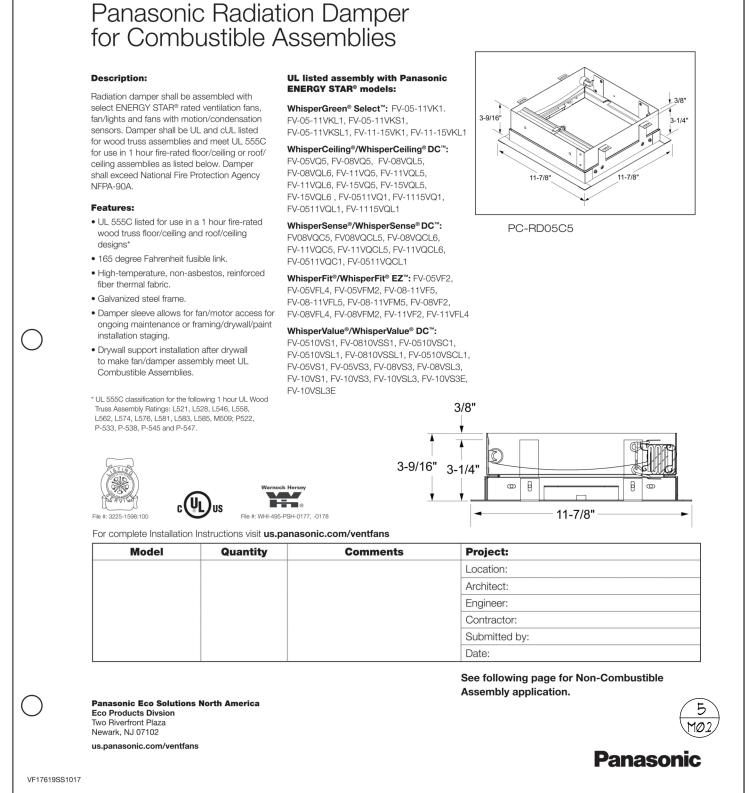
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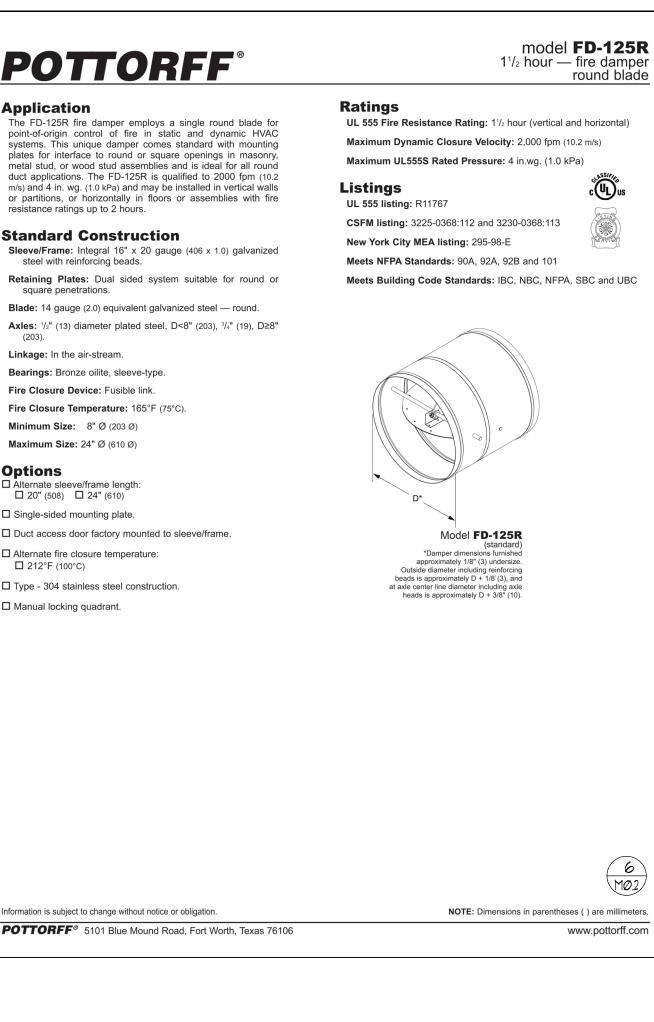
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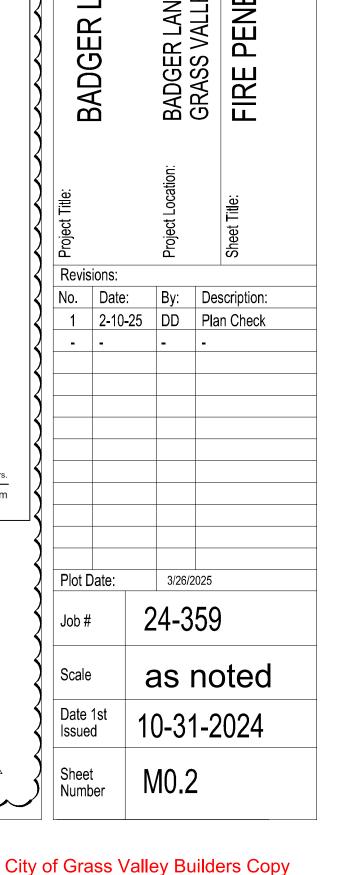
PHONE (530) 265-2492

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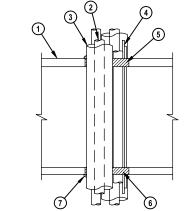




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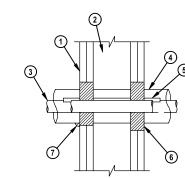
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- (I) WOOD FLOOR ASSEMBLY (I HR FIRE RATED SHOWN).
- 2) PENETRATING METALLIC ITEM TO BE ONE OF THE FOLLOWING: A. MAX. 34" & STEEL PIPE B. MAX. 34"4 COPPER PIPE
- 3 NOMINAL 34" THICK AB/PVC PIPE INSULATION ON ONE OR MORE METALLIC PIPES
- 4 MAXIMUM 4-PAIR NO. 18 AWG THERMOSTAT CABLE WITH PVC JACKET, MAX. QUANTITY =2
- 5 MINIMUM 34" DEPTH HILTI CP-606 FLEXIBLE FIRESTOP SEALANT, OR EQUAL
- 6 MINIMUM 5/8" DEPTH HILTI CP-606 FLEXIBLE FIRESTOP SEALANT, OR EQUAL
- $\bigcirc$  MINIMUM  $\frac{1}{2}$ " BEAD HILTI CP-606 FLEXIBLE FIRESTOP SEALANT (OR EQUAL) APPLIED AT POINT OF CONTACT

NOTES: 1. MAXIMUM DIA. OF OPENING = 4" 2. ANNULAR SPACE = Ø" MIN., I" MAX.

HVAC LINE SET THROUGH I HR FLOOR ASSEMBLY SCALE: NONE



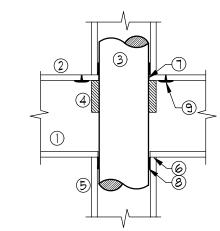
- () GYPSUM WALL ASSEMBLY (2-HOUR FIRE-RATING)
- 2) STEEL STUDS TO BE MINIMUM 31/4" WIDE, WOOD STUDS NOMINAL 2"x4"
- 3 MAX, 1"\$ COPPER PIPE (MAX, QUANTITY =2)

- 4 NOMINAL 3/4" THICK AB/PVC PIPE INSULATION ON ONE OR MORE METAL PIPE OR TUBING
- (5) MAXIMUM 4-PAIR NO. 18 AWG THERMOSTAT CABLE WITH PVC JACKET, MAX. QUANTITY =2
- 6 MINIMUM 14" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT, OR EQUAL
- $\bigcirc$  MINIMUM  $\frac{1}{2}$ " BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT (OR EQUAL) APPLIED AT POINT OF CONTACT

1. MAXIMUM DIA. OF OPENING =  $4\frac{1}{2}$ " 2. ANNULAR SPACE = Ø" MIN., 14" MAX. 3. ANNULAR SPACE BETWEEN PENETRANTS = 0"

HVAC LINE SET THROUGH 1 or 2 HR WALL ASSEMBLY UL # FC8Ø47

SCALE: NONE



- ① WOOD FLOOR ASSEMBLY (1 HR FIRE RATED SHOWN)
- 2 LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE. 3 PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
- A. MAX. 3"¢ ABS 4 HILTI CP 643 FIRESTOP COLLAR
- 5 GYPSUM WALL ASSEMBLY (1 HR SHOWN)
- 6 TOP PLATE

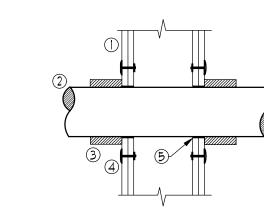
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- MINUMUM 34" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT, OR EQUAL,
- MINUMUM  $\frac{1}{2}$  DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP
- SEALANT, OR EQUAL, FLUSH WITH BOTTOM SURFACE OF TOP PLATE. 9 WOOD SCREWS WITH WASHERS TO FASTEN EACH MOUNTING TAB

1. ANNULAR SPACE = 0" MIN., 1/4" MAX.

PLASTIC PIPE THROUGH I OR 2 HR FLOOR ASSEMBLY

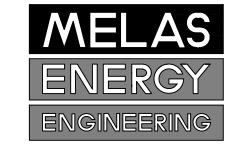
SCALE: NONE



- (1) GYPSUM WALL ASSEMBLY (1 OR 2 HR FIRE RATING) (2 HR SHOWN) SEE ARCHITECTURAL WALL DETAIL.
- 2 PENETRATING ITEM TO BE ONE OF THE FOLLOWING: A. MAX. 6"¢ ABS
- (3) HILTI CP642 FIRESTOP COLLAR
- (4) FASTEN EACH MOUNTING TAB TO WALL ASSEMBLY WITH HILTI 1/4" TOGGLER BOLT.
- ⑤ PROVIDE 1/4" DEPTH HILTI FS-ONE FIRESTOP SEALANT, OR EQUAL, IN ANNULAR SPACE AROUND PIPE.

1. ANNULAR SPACE = 0" MIN., 1/4" MAX.

PLASTIC PIPE THROUGH 1 OR 2 HR WALL ASSEMBLY UL # WL2Ø78 SCALE: NONE



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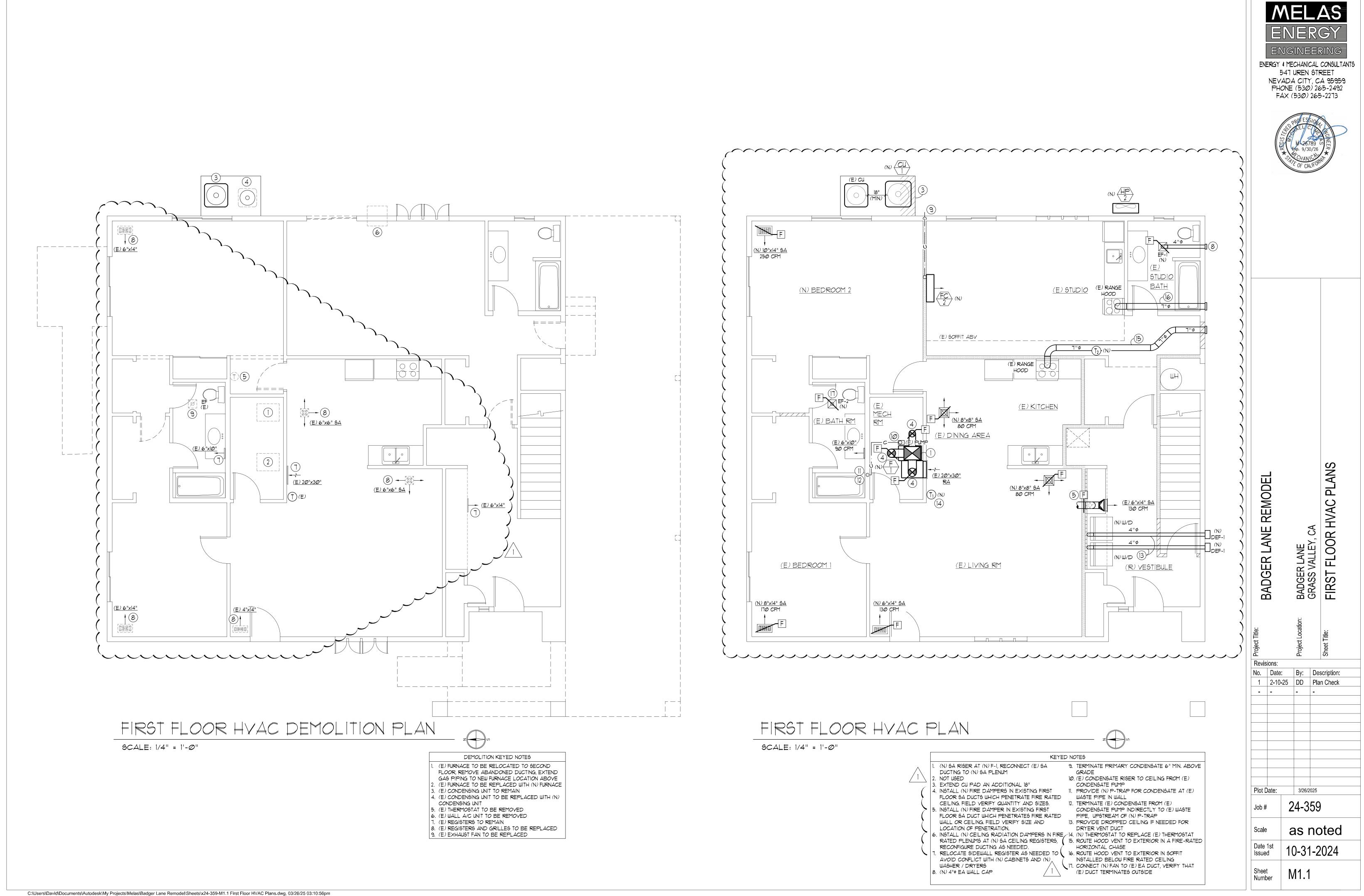
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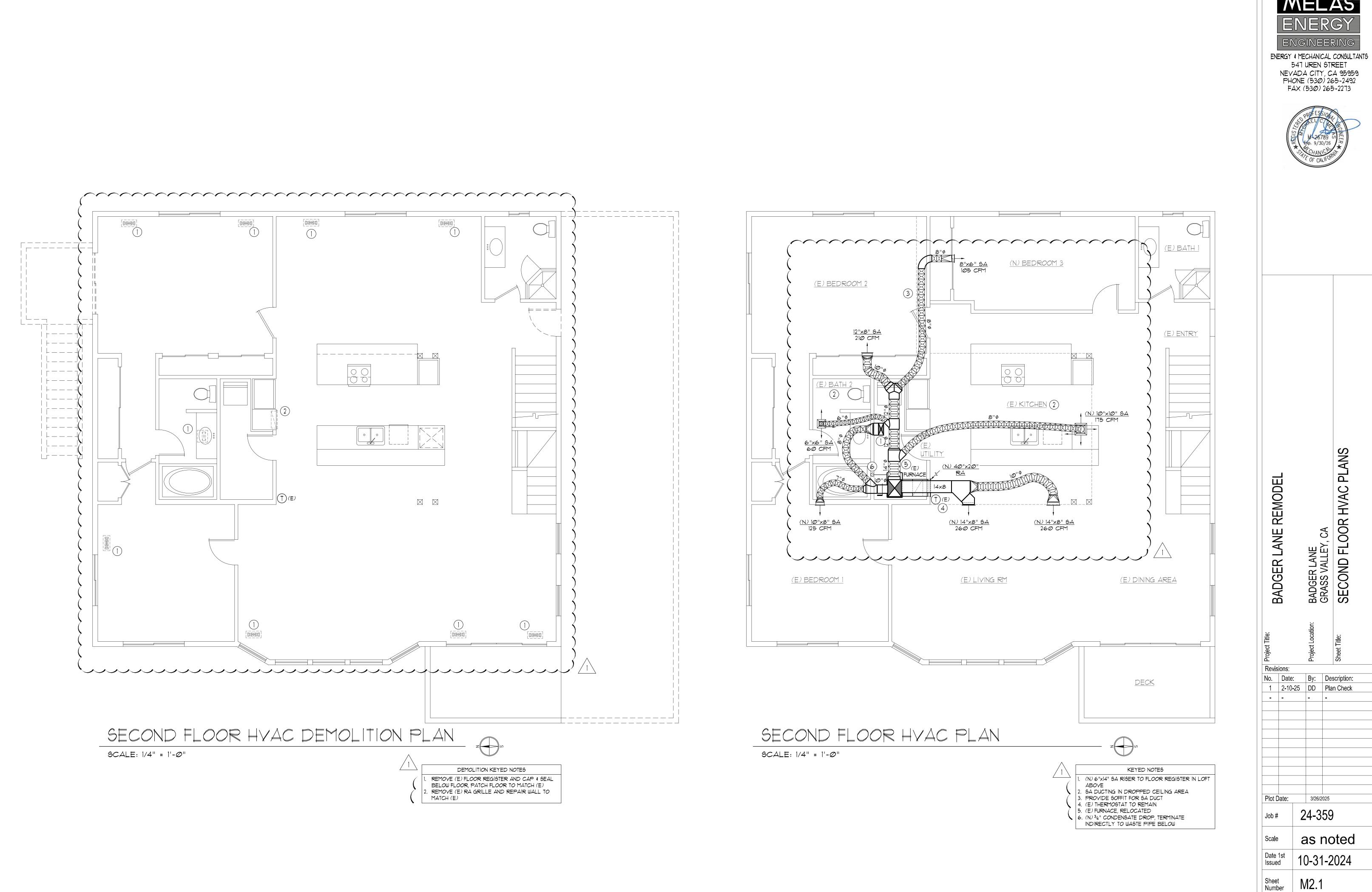
PENETRATION DETAILS BADGER LANE GRASS VALLEY,

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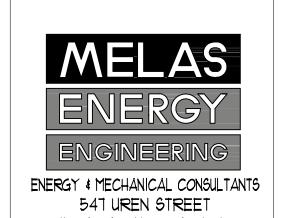
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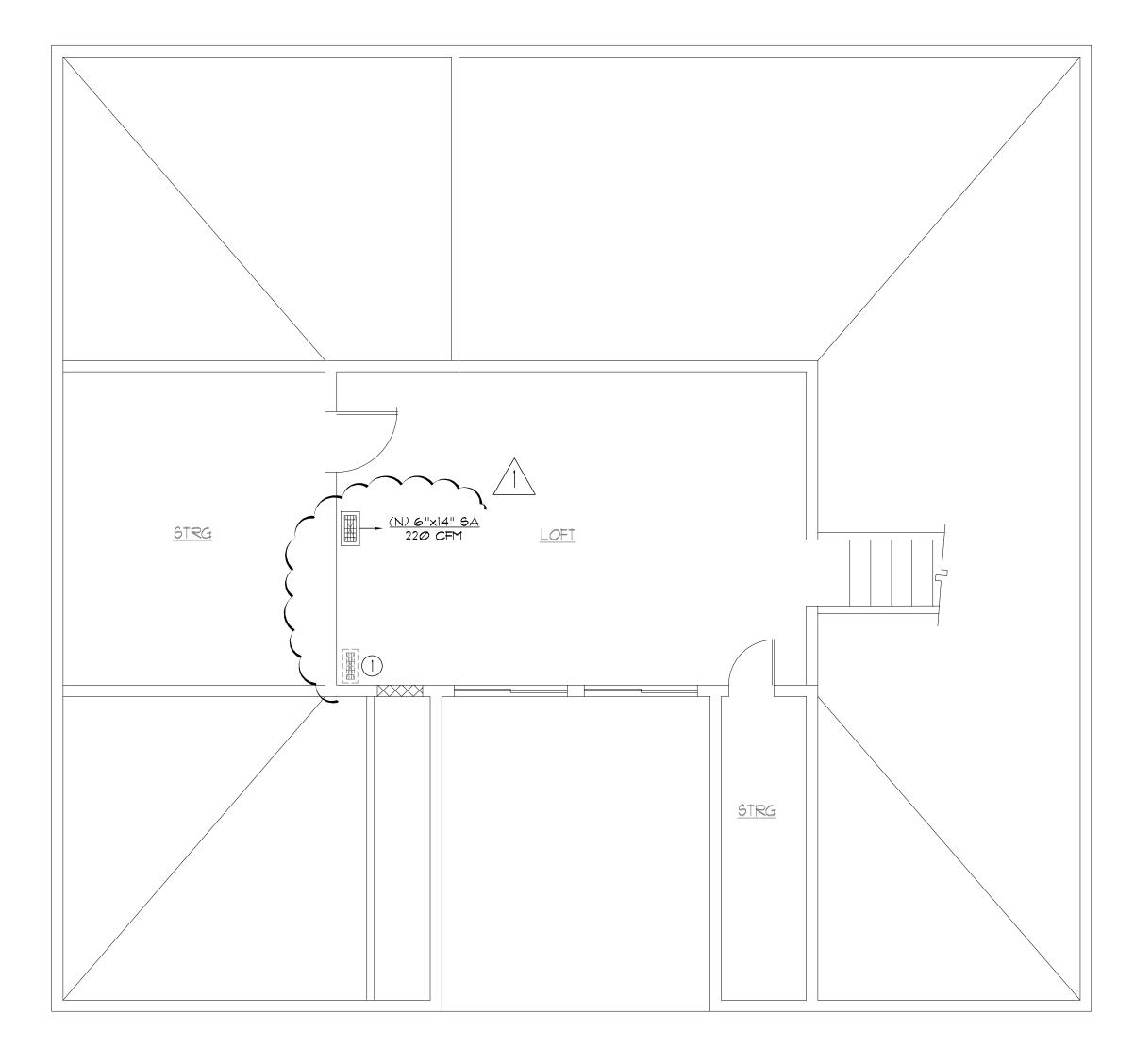


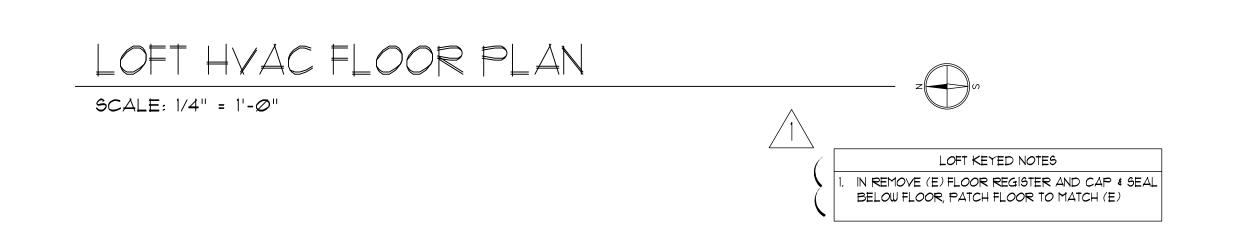


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#### PLUMBING SYMBOLS AND LEGEND ABOVE CEILING BELOW FLOOR BELOW SLAB BG BELOW GROUND IN WALL SURFACE MOUNT VENT RISER VTR VENT THRU ROOF WD,R WASTE DROP, RISER WATER HEATER (SEE SCHEDULE) CWR,D COLD WATER RISER DROP HWR,D HOT WATER RISER, DROP WCO, GCO WALL CLEANOUT, GRADE CLEANOUT P.O.C. POINT OF CONNECTION CLEANOUT COLD WATER PIPING \_\_\_\_\_ cw HOT WATER PIPING SANITARY WASTE PIPING VENT PIPING ----- V

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### PIPE MATERIAL SCHEDULE

SANITARY WASTE & VENTING MATERIALS (A) DRAINAGE WASTE AND VENT PIPING SHALL BE SCHEDULE 40 ABS DWY, NO HUB CAST IRON OR OTHER APPROVED MATERIAL HAVING A SMOOTH AND UNIFORM BORE, FITTINGS SHALL BE MADE OF SIMILAR MATERIAL.

EXCEPTION: 1) NO HUB CAST IRON SHALL BE USED WHERE SLOPE OF WASTE LINE IS LEGG THAN 1/4 IN PER FOOT, OR WHERE WASTE PIPING IS ROUTED

BETWEEN FLOORS OR RISERS IN WALLS. 2) NO HUB CAST IRON SHALL BE USED FOR BUILDINGS WITH THREE (3) OR MORE STORIES.

(A) VENT PIPING SHALL EXTEND 12 INCHES ABOVE THE ROOF (MIN.) AND SHALL BE FLASHED WITH GALVANIZED ROOF JACKS AND RUBBER, WATERPROOF, VENT COLLARS. THE MINIMUM VENT SIZE AT VENT EXTENSION THROUGH ROOF SHALL BE 3" (MIN.) TO PREVENT FROST/SNOW CLOSURE. THE CHANGE IN DIAMETER SHALL BE MADE INSIDE THE BUILDING AT LEAST ONE (1) FOOT BELOW THE ROOF. VENTS SHALL BE PLACED ADJACENT TO UPPER RIDGE OF ROOF AND SHALL BE PROTECTED BY "MURPHY SPLITTER" OR METAL FORMED CRICKET APPROVED BY ADMINISTRATIVE AUTHORITY.

POTABLE WATER PIPING

(A) WATER PIPE AND FITTINGS SHALL BE TYPE L COPPER, ASTM B88. COPPER PIPING SHALL BE JOINED WITH VIEGA® PRESS FITTING. ALL MATERIAL USED WITHIN THE WATER SUPPLY SYSTEM, EXCEPT VALVES AND SIMILAR DEVICES, SHALL BE OF SIMILAR MATERIAL, EXCEPT WHERE OTHERWISE APPROVED BY THE ADMINISTRATIVE AUTHORITY.

(B) ALL PIPING 2" AND SMALLER MAY BE NON-BARRIER PEX TUBING BY UPONOR®, VIEGA®, OR EQUAL. PEX TUBING SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM \$816-08 AND F817, FITTINGS SHALL BE ZERO LEAD FITTINGS MEETING THE REQUIREMENTS OF ASTM FISØ7. PEX PIPING SHALL MEET THE REQUIREMENTS OF SECTION 604.1.2 OF THE 2016 CPC. POTABLE PEX PIPING PLACED IN SOIL SHALL BE SLEEVED WITH IN ACCORDANCE WITH TABLE 604.1 (FOOTNOTE 2). THE FOLLOWING

ARE EXCEPTIONS TO THE USE OF PEX PIPING: (1) PIPING WITHIN 18 INCHES OF WATER HEATER SHALL BE TYPE L

(2) DOMESTIC HOT WATER SUPPLY AND RETURN PIPING ABOVE GRADE SHALL TYPE L COPPER.

(A) SCHEDULE 40 BLACK STEEL PIPE, ASTM A53, SCHEDULE 40 BLACK, WITH MALLEABLE IRON OR FORGED STEEL FITTINGS, SCREWED (THROUGH 2"). PROVIDE GAS COCK, DIRT LEG AND UNION AT EACH CONNECTION. GAS PIPING SHALL NOT BE BURIED BELOW SLAB UNLESS SPECIFICALLY INDICATED ON PLANS AND MEETING THE REQUIREMENTS OF CPC SECTION 1211.1.6.

#### PLUMBING NOTES

. <u>SCOPE OF WORK</u>

• REPLACE EXISTING WATER HEATER WITH NEW WATER HEATER AS INDICATED ON PLANS. · CONTRACTOR SHALL SCOPE EXISTING WASTE SYSTEM TO VERIFY

THE LOCATION AND SIZE IS AS INDICATED ON PLANS. VERIFY INVERT ELEVATION AS WELL. • FIELD VERIFY PIPING CONFIGURATION. ANY ALTERATION FROM WHAT

IS INDICATED ON PLANS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION. • REMOVE EXISTING PIPING NOT SHOWN TO BE REUSED ON PLANS. • SAWCUT EXISTING SLAB FOR NEW WASTE PIPING AS INDICATED ON

PLANS. PATCH TO MATCH EXISTING. • ALL NEW AND EXISTING PIPE PENETRATIONS OF THE FLOOR-CEILING ASSEMBLY BETWEEN THE FIRST AND SECOND FLOOR, AS WELL AS PENETRATIONS OF THE WALLS BETWEEN THE FIRST FLOOR APARTMENT AND THE STUDIO / VESTIBULE, SHALL BE SEALED WITH FIRE CAULKING AND COLLARS ACCORDING TO DETAILS SHOWN ON

2. ALL WATER AND WASTE PLUMBING INSTALLATION WORK AND ALL PLUMBING MATERIALS SHALL BE IN ACCORDANCE WITH THE 2022 CALIFORNIA PLUMBING CODE.

3.IT IS THE INSTALLING CONTRACTORS' RESPONSIBILITY TO ASSURE ALL MECHANICAL SYSTEMS FUNCTION PROPERLY, SAFELY, AND MEET ALL LOCAL, STATE AND REGIONAL CODES.

4.ALL WORK SHALL CONFORM TO THE ACCEPTED STANDARDS OF THE TRADE. THE ENGINEER IS TO BE NOTIFIED IF ANY SUBSTITUTIONS ARE SEEN TO BE NECESSARY

5.HOT AND COLD-WATER PIPE SIZING IS BASED ON TABLE 610.4 OF THE 2022 CPC FOR A SUPPLY PRESSURE RANGE OF 46-60 PSI. 6.PLUMBING FIXTURES NOT SPECIFIED ON PLANS SHALL BE SELECTED

REPRESENTATIVE FOR APPROVAL. 7. PROVIDE SHUTOFF VALVES OR STOPS AT EACH CONNECTION. AT GAS CONNECTIONS, PROVIDE GAS COCK, DIRT LEG, UNION AND FLEX CONNECTION.

BY INSTALLING SUB-CONTRACTOR AND SUBMITTED TO OWNER'S

8.CONTRACTOR SHALL PARTICIPATE IN BID WALK-THRU AND SHALL FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS. BIDS SHALL BE ADJUSTED TO ACCOMMODATE ANY EXISTING CONDITIONS WHICH ARE NOT SHOWN ON PLANS AND ARE VISIBLE DURING WALK-THRU. ANY AND ALL DEVIATIONS FROM PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.

9. CONTRACTOR SHALL VERIFY SITE DIMENSIONS. NO CHANGE ORDERS WILL BE ALLOWED FOR CONDITIONS WHICH COULD BE VERIFIED BEFORE CONSTRUCTION.

10. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES, NO CHANGE ORDERS WILL BE ALLOWED FOR ITEMS THAT COULD HAVE BEEN COORDINATED IN THE FIELD.

II. PLUMBING FIXTURES SHALL MEET 2022 CPC AND CAL-GREEN CODES. MAXIMUM FLOW RATES SHALL BE AS FOLLOWS:

• LAVATORIES (RESIDENTIAL) 1.2 GPM

 SHOWERS 1.8 GPM • WATER CLOSETS 1.28 GPF

12.FURNISH AND INSTALL ALL MATERIALS AND PERFORM ALL LABOR NECESSARY FOR A COMPLETE INSTALLATION OF PLUMBING WORK INDICATED ON THE DRAWINGS. PROVIDE ANY INCIDENTAL WORK NOT SHOWN OR SPECIFIED, WHICH CAN REASONABLY BE INFERRED OR TAKEN AS BELONGING TO THE WORK AND NECESSARY TO PROVIDE THE COMPLETE SYSTEM.

13. PROVIDE ALL NECESSARY PLUMBING CONNECTIONS TO EQUIPMENT FURNISHED UNDER OTHER DIVISIONS OR SECTION OR BY OWNERS.

PROVIDE SHUTOFF YALVES OR STOPS AT EACH CONNECTION. 14. PIPING IS TO BE FIELD LOCATED IN SUCH A WAY AS TO AVOID

OBSTACLES, MEET CALIFORNIA PLUMBING CODE (CPC) REQUIREMENTS AND ALLOW SERVICE CLEARANCE TO AREAS AND EQUIPMENT THAT MAY REQUIRE SERVICING.

15. ALL HORIZONTAL WASTE / VENT PIPES SHALL HAVE A MINIMUM SLOPE OF 1/4" PER FOOT. IF EXISTING INVERT ELEVATION DOES NOT FOR 1/4" PER FOOT, 1/8" PER FOOT WILL BE ALLOWED WITH THE WASTE PIPING UPSIZED.

16. HORIZONTAL VENT PIPE SHALL BE SO GRADED AND CONNECTED AS TO DRIP BACK BY GRAVITY TO THE DRAINPIPE IT SERVES PER 2022 CPC 905.2. VENT PIPE SHALL TERMINATE A MINIMUM OF 10 FEET

17.INSULATE ALL POTABLE HOT WATER SUPPLY & RETURN PIPING WITH K-FLEX 3/1" WALL THICKNESS INSUL-TUBE® OR EQUAL. CONDUCTIVITY = 0.29 (BTU-IN/HR-°F) AT 75°F IN NON-CONDITIONED

SPACE, IN ACCORDANCE WITH ASTM CITT OR C518. 18. FOR EXACT LOCATION OF PLUMBING FIXTURES AND MOUNTING HEIGHTS, SEE ARCHITECTURAL ELEVATIONS.

19. PIPING SHALL BE SUPPORTED AND BRACED IN ACCORDANCE WITH CHAPTER 3 OF THE 2022 CPC WITH SUPERSTRUT HANGERS, OR EQUAL. PROVIDE ISOLATORS AT ALL HANGERS WHERE PIPING IS NOT INSULATED.

20.TRAP PRIMERS SHALL BE PROVIDED FOR ALL FLOOR DRAINS. 21.CLEANOUTS IN FIRE RATED WALLS SHALL HAVE BOTH METAL BODY AND COVER CONSISTENT WITH PIPE MATERIAL SCHEDULE.

22. PLUMBING VENTS SHALL BE AT LEAST 10' FROM OR 3' ABOVE ANY DOOR, OPENABLE WINDOW, MECHANICAL AIR INTAKE, OR OTHER INLETS INTO THE BUILDING PER CPC 906.2.

23. DISINFECTION OF WATER SYSTEM

FROM FRESH AIR INTAKE.

• PRIOR TO FINAL INSPECTION, CLEAN AND DISINFECT DOMESTIC HOT AND COLD-WATER PIPING CONNECTED TO DOMESTIC WATER MAINS. • PIPING SHALL BE STERILIZED WITH A MIXTURE OF 2 POUNDS CHLORINATED LIME TO EACH 1,000 GALLONS OF WATER (50 PPM

OF AVAILABLE CHLORINE). • RETAIN THE MIXTURE IN PIPES 24 HOURS AND FLUSH IT THOROUGHLY WITH POTABLE WATER PRIOR TO PLACING IT IN SERVICE.

• PERFORM ALL WORK PER AWWA STANDARD PROCEDURES FOR DISINFECTING WATER MAINS AND AS REQUIRED BY LOCAL BUILDING AND HEALTH DEPARTMENT CODES.

24. TESTING OF PIPING

(A) ALL PIPING SHALL TESTED AT COMPLETION OF ROUGH-IN. TEST IN ACCORDANCE WITH THE FOLLOWING SCHEDULE TO SHOW NO LOSS IN PRESSURE OR VISIBLE LEAKS AFTER A MINIMUM DURATION OF FOUR (4) HOURS AT THE TEST PRESSURE INDICATED.

(B) ISOLATE FROM THE SYSTEM ALL EQUIPMENT WHICH MAY BE DAMAGED BY TEST PRESSURE. TEST SCHEDULE AS FOLLOWS:

SYSTEM TESTED TEST PRESSURE PSIG ALL SOIL, WASTE, DRAIN FILL WITH WATER TO TOP OF WATER AND VENT PIPING WITHIN HIGHEST JOINT IN SYSTEM! BUILDINGS.

ALLOW TO STAND 2 HOURS OR LONGER AS DIRECTED BY INSPECTOR.

<u>TEST WITH</u>

WATER

ALL HOT TEMPERED AND 150 PSIG COLD PIPING.

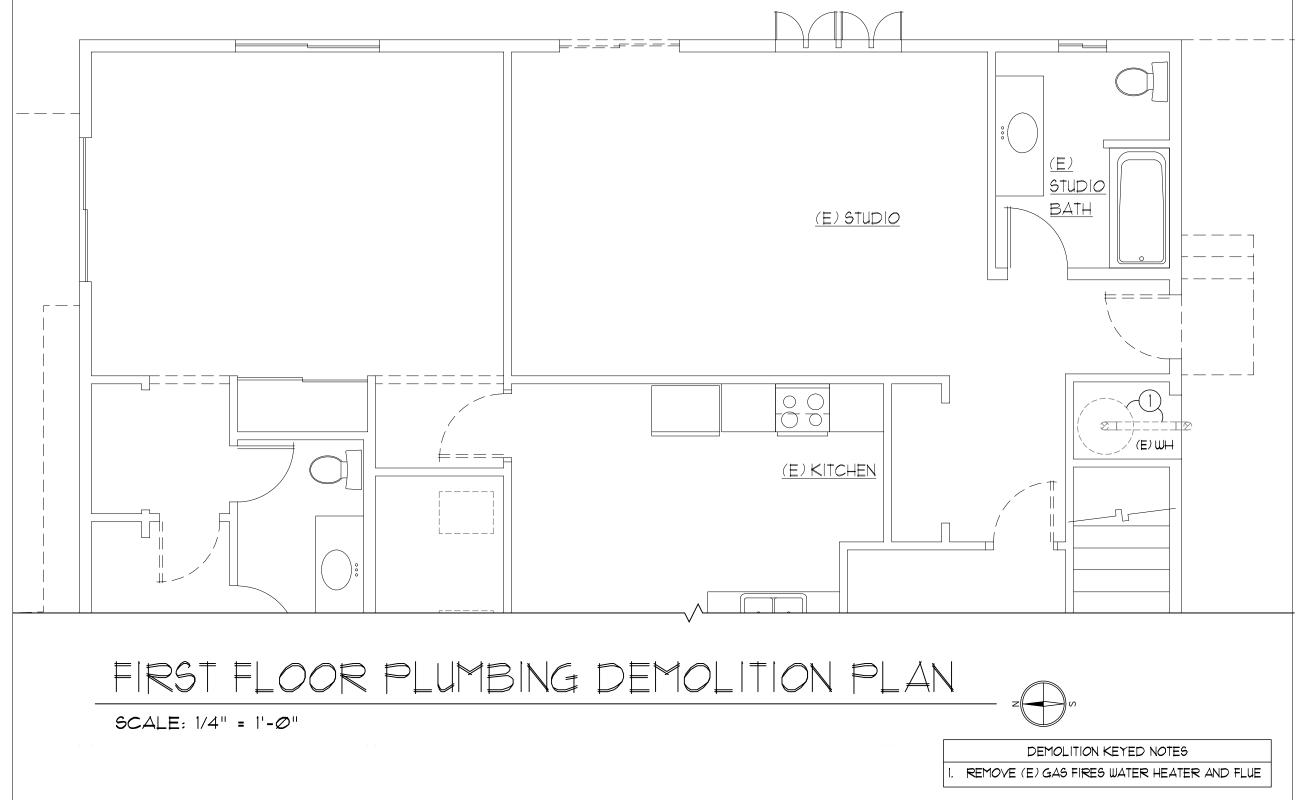
THERMOMETER — BALL VALVE 3" PVC INTAKE GAS COCK-EXPANSION TANK **\$ UNION** T&P VALVE, DRAIN TO EXTERIOR --UNION, TYP. 3" PVC EXHAUST -PER CODE CONDENSATE, DRAIN TO EXTERIOR EXPANSION TANK:

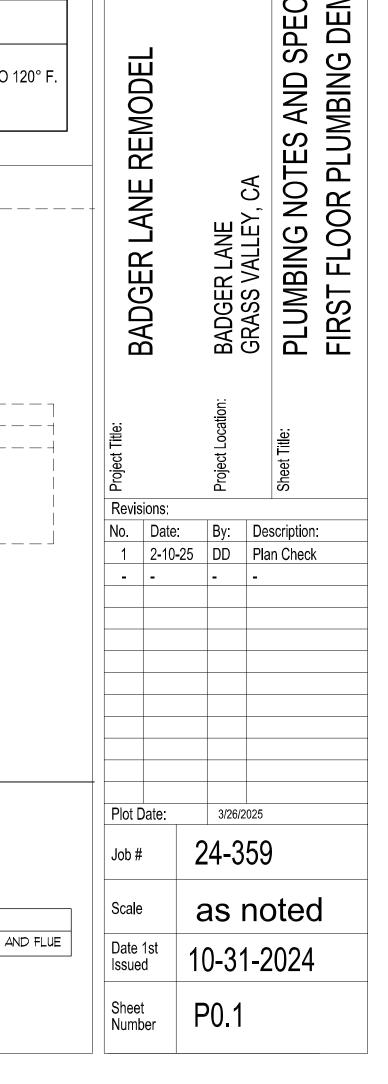
EXPANSION TANK SHALL BE WILKING MODEL # WXT-18, OR EQUAL. TANK

VOL.=4.75 GALLONS, MAX WORKING PRESS.=150PSIG.

## PLUMBING EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	MFGR. & MODEL No.	SPECIFICATIONS	ACCESSORIES
(N) WH-1	POWER VENT	TRITON COMMERCIAL SERIES GHE75SU-100	75 GALLON POWER VENT WATER HEATER, INPUT = 100,000 BTU/H, RECOVERY = 194 GPH AT 60° RISE, H = 62.25", DIAM. =26.25", 3" PVC VENT, 96% THERMAL EFFICIENCY 110 V, 7.5A, OP. WT. = 909 #	1. TERMINATE T&P IN FLOOR SINK 2. SET HOT WATER SUPPLY TEMPERATURE TO 120° F.





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