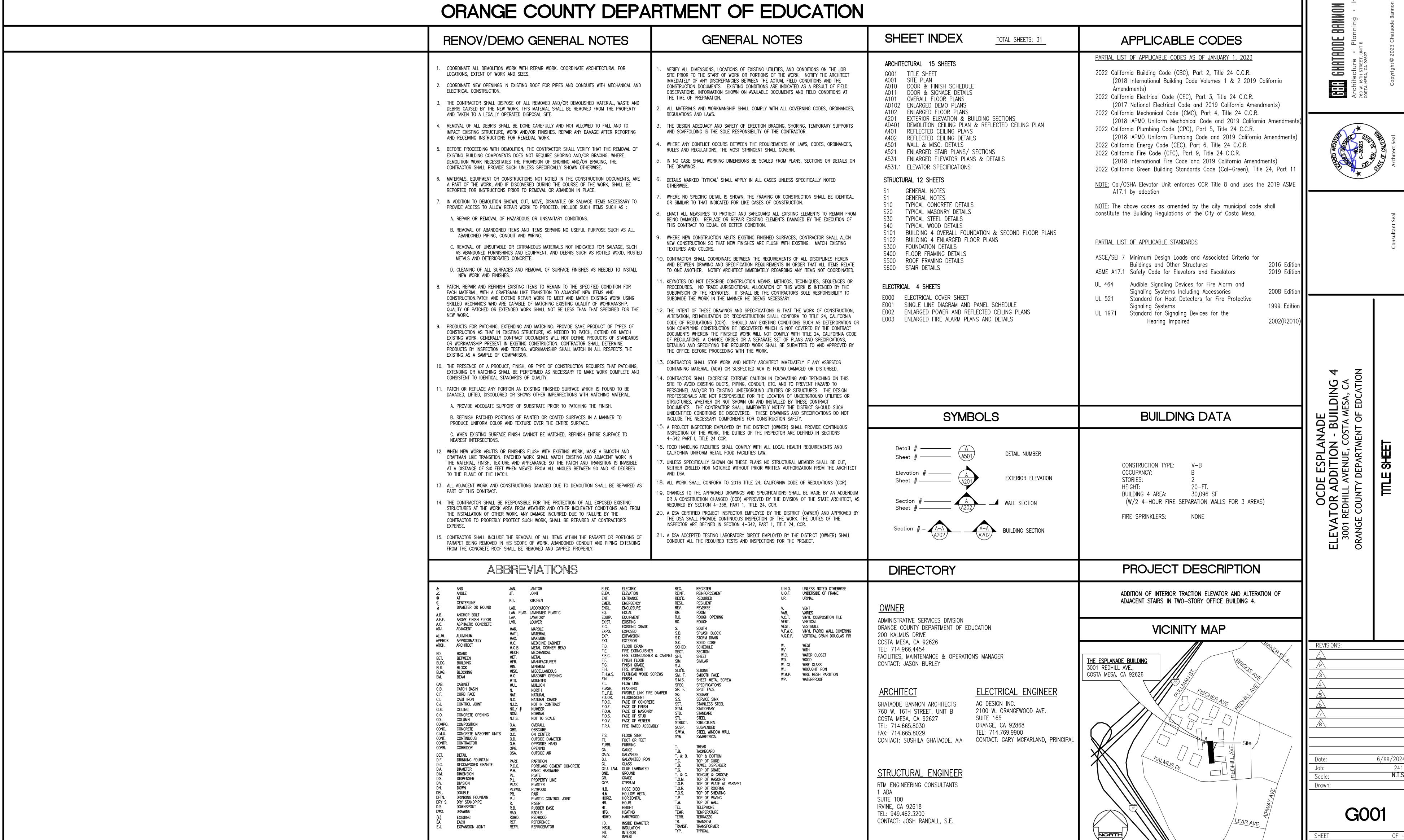
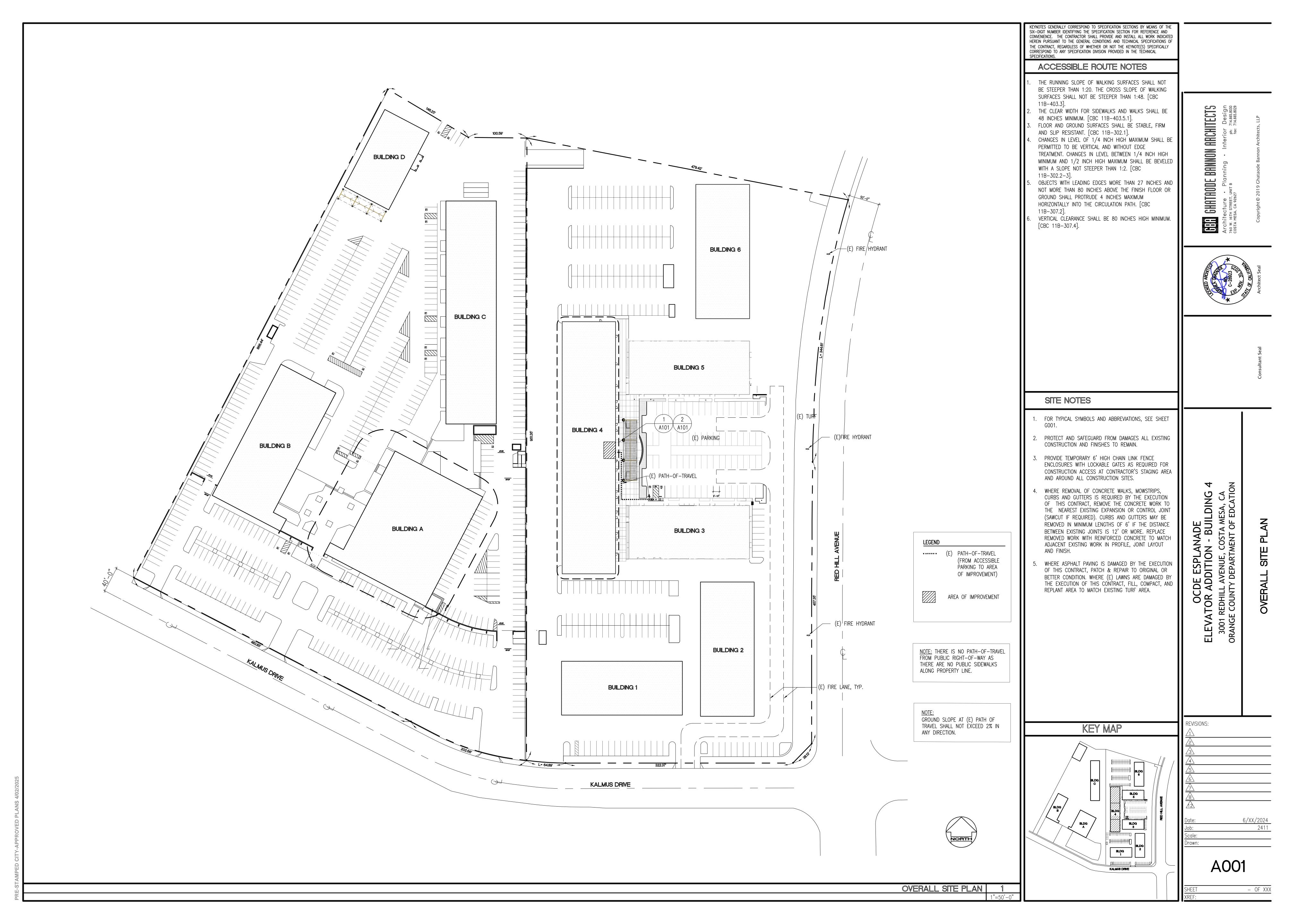
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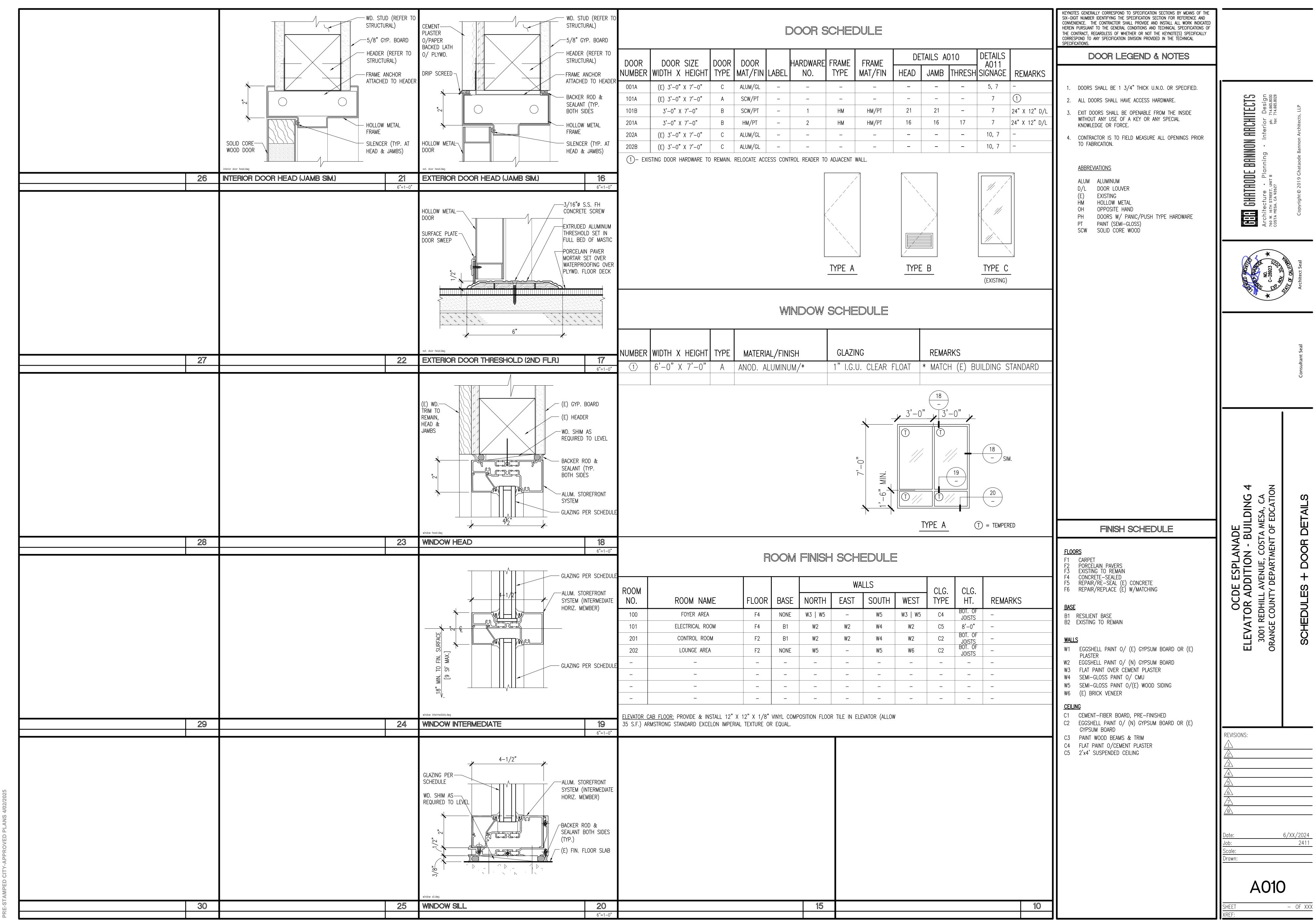
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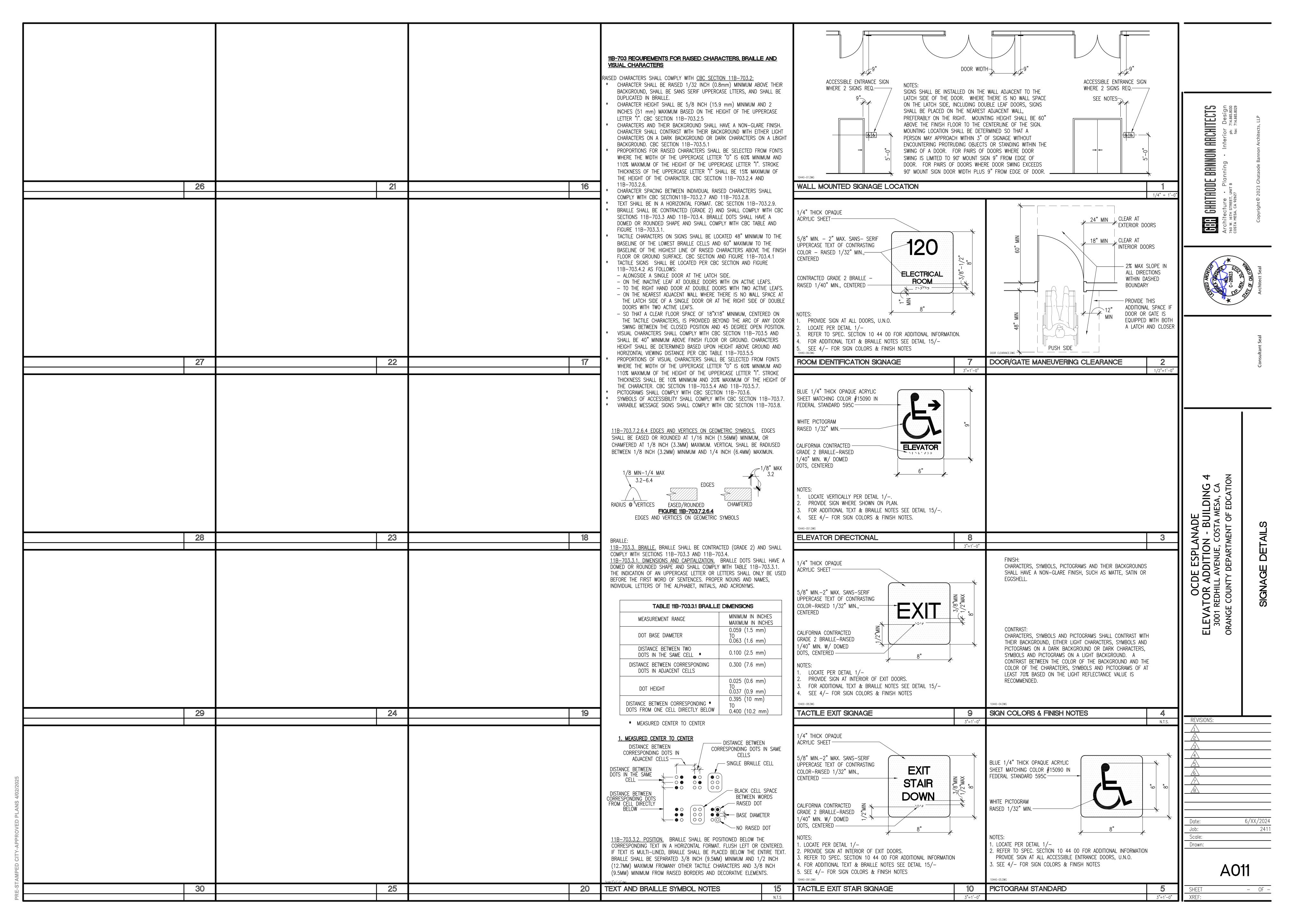
3001 REDHILL AVENUE, COSTA MESA, CA 92626 ORANGE COUNTY DEPARTMENT OF EDUCATION

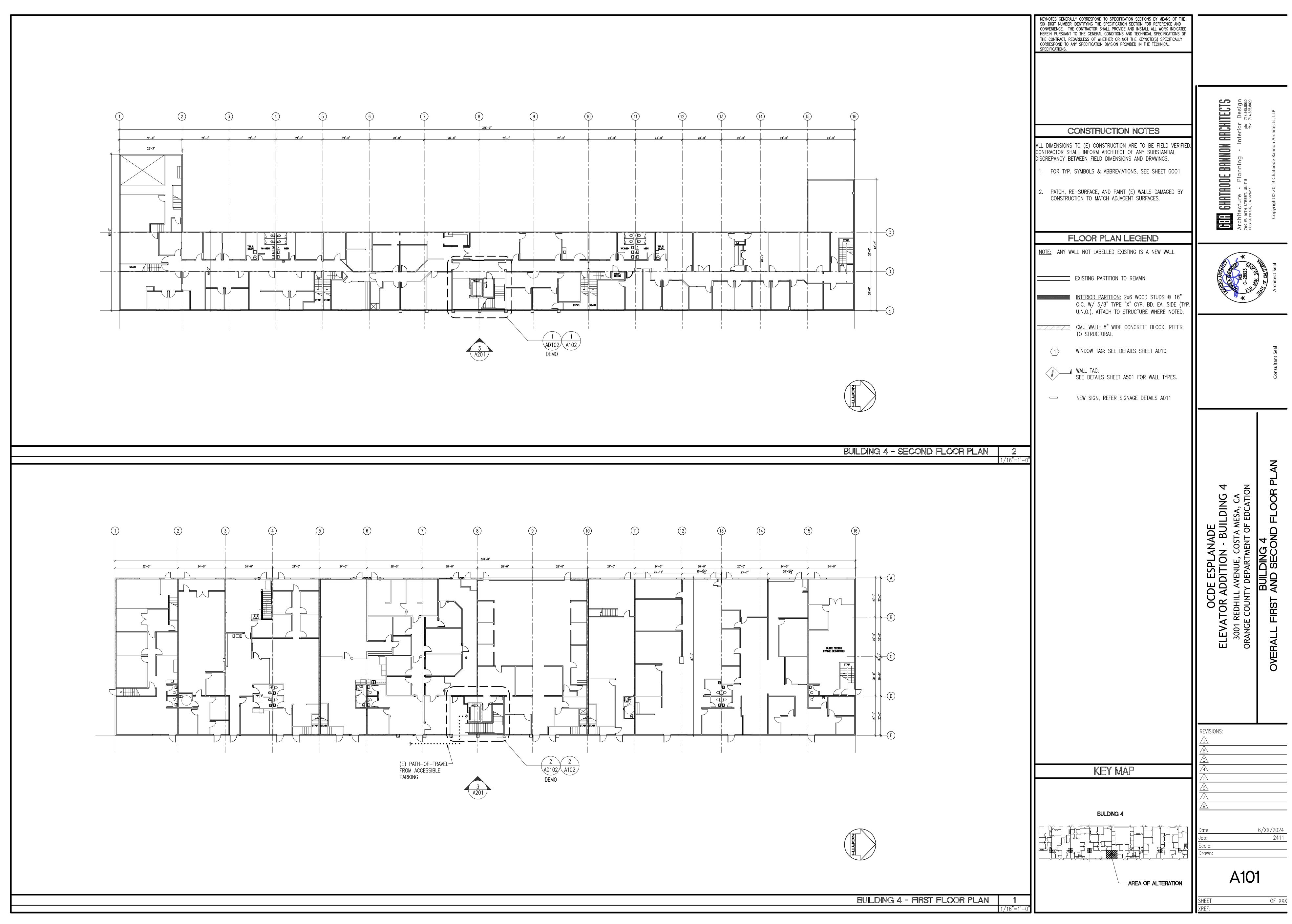


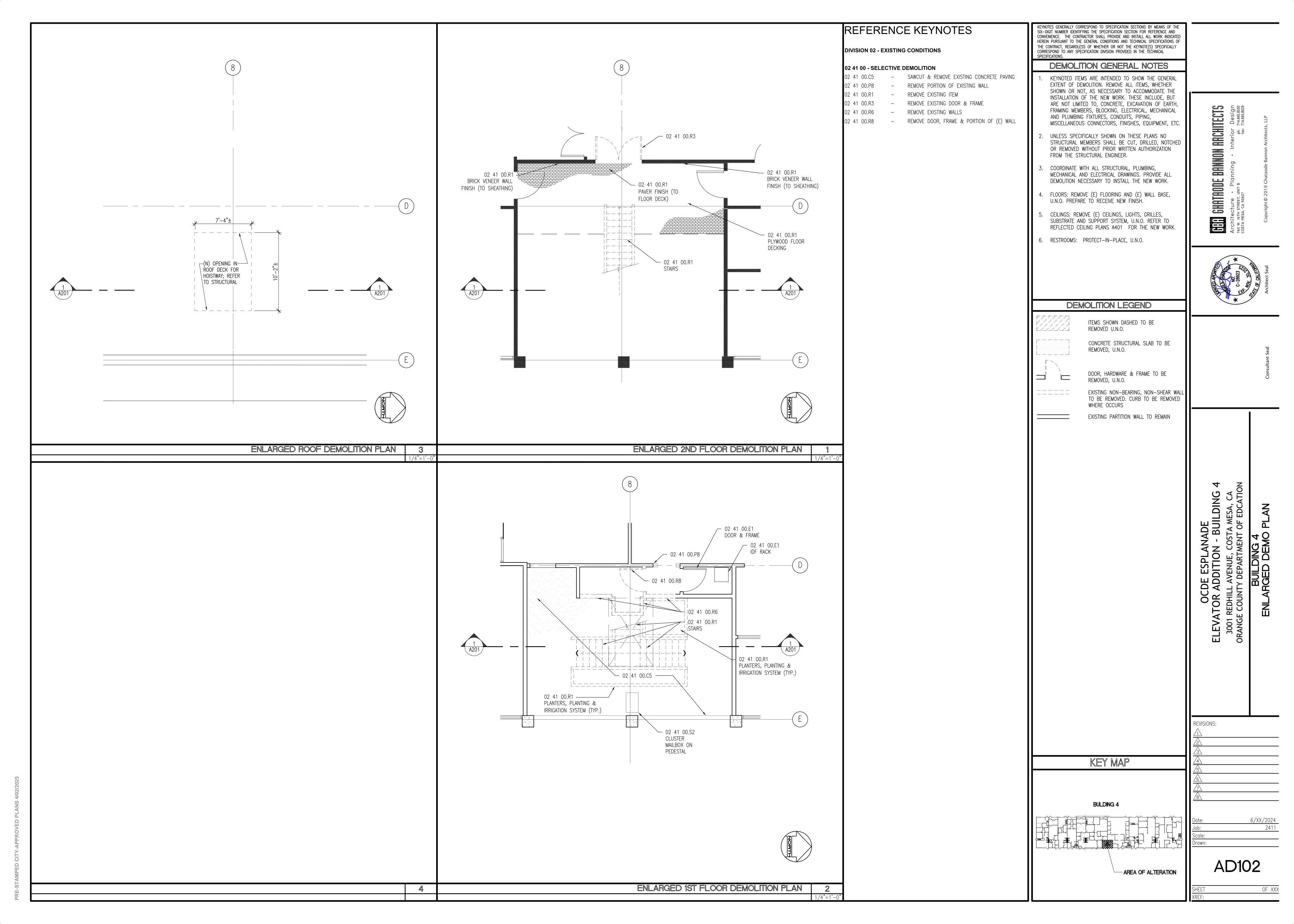
Interior Design

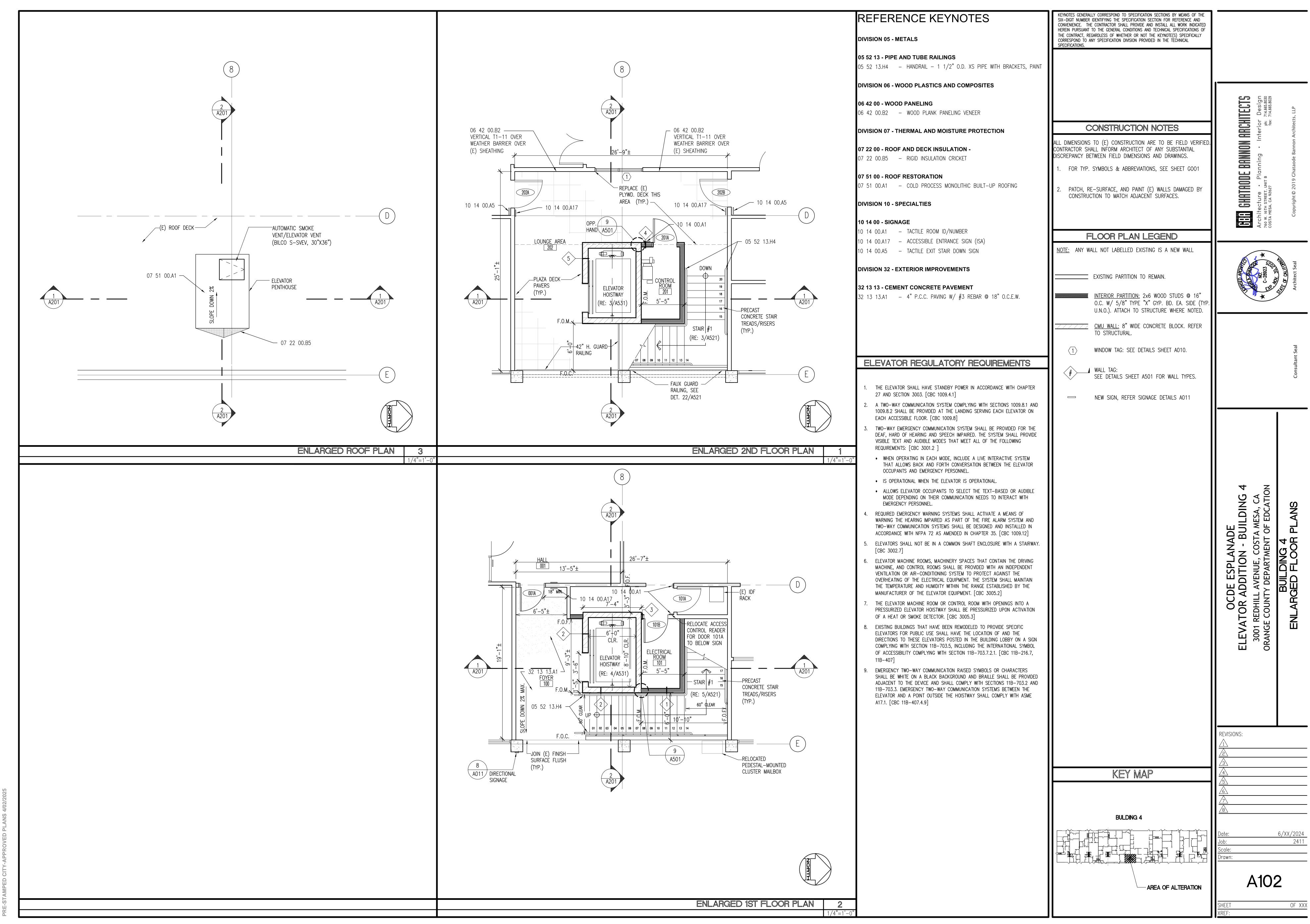


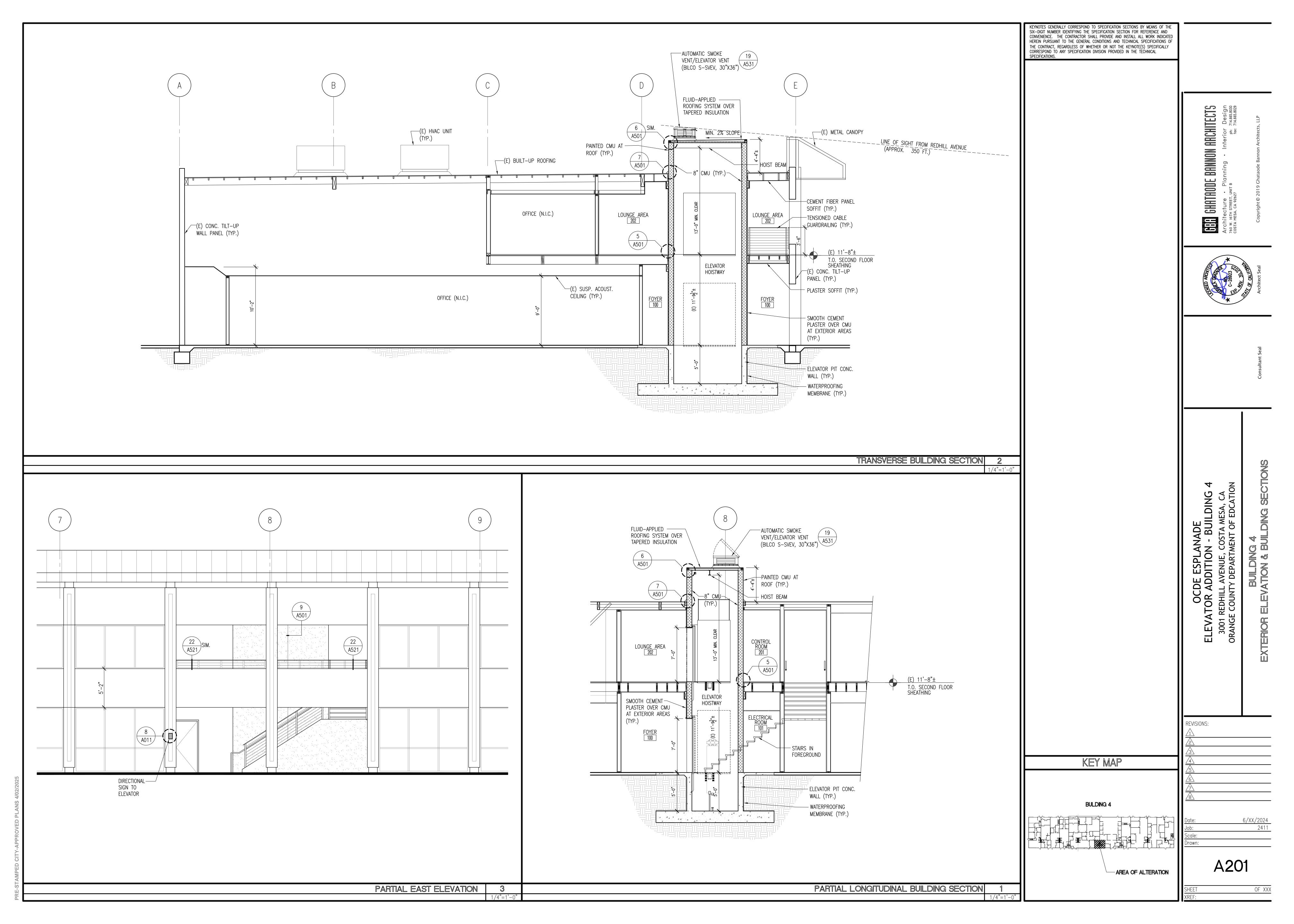


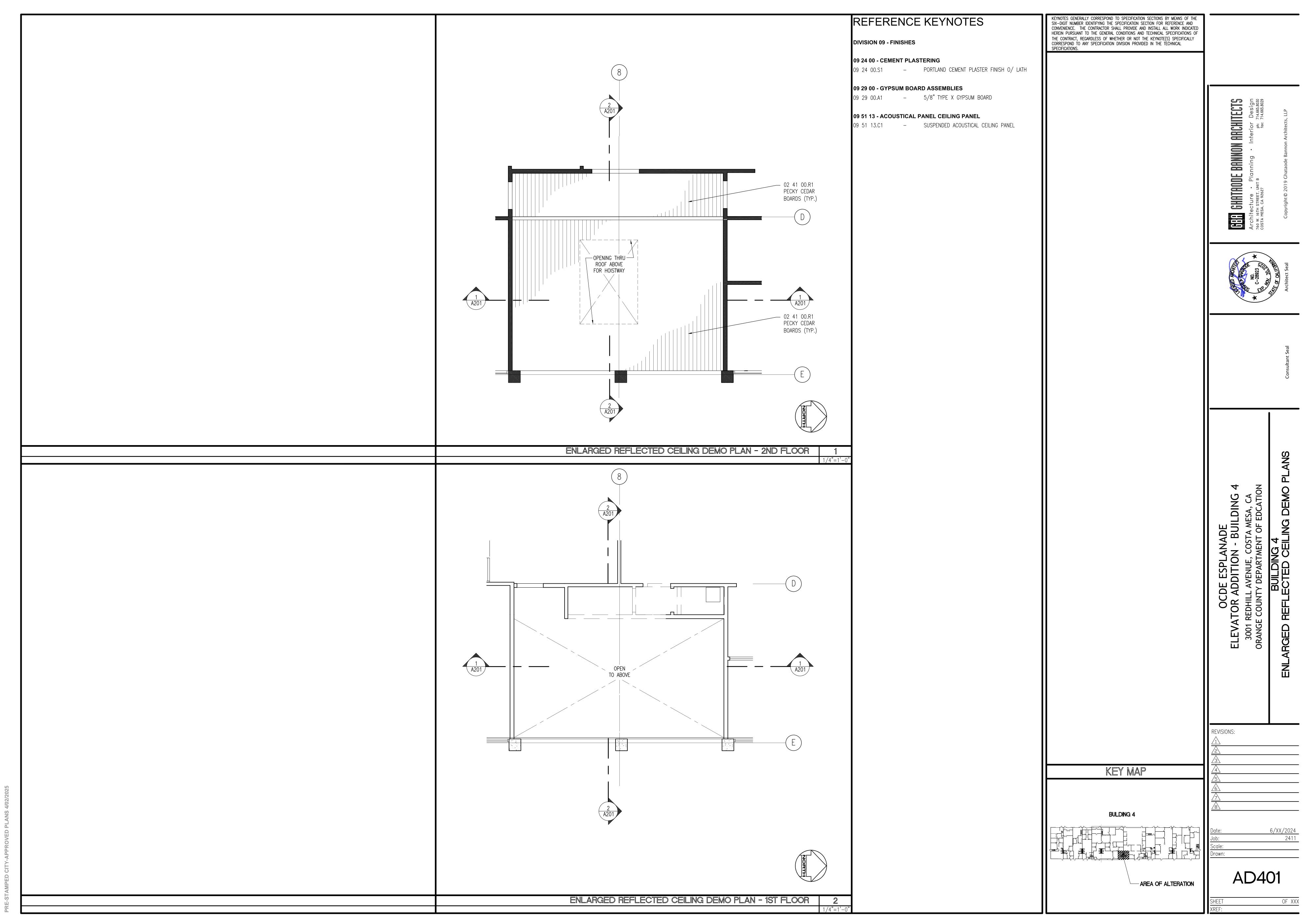


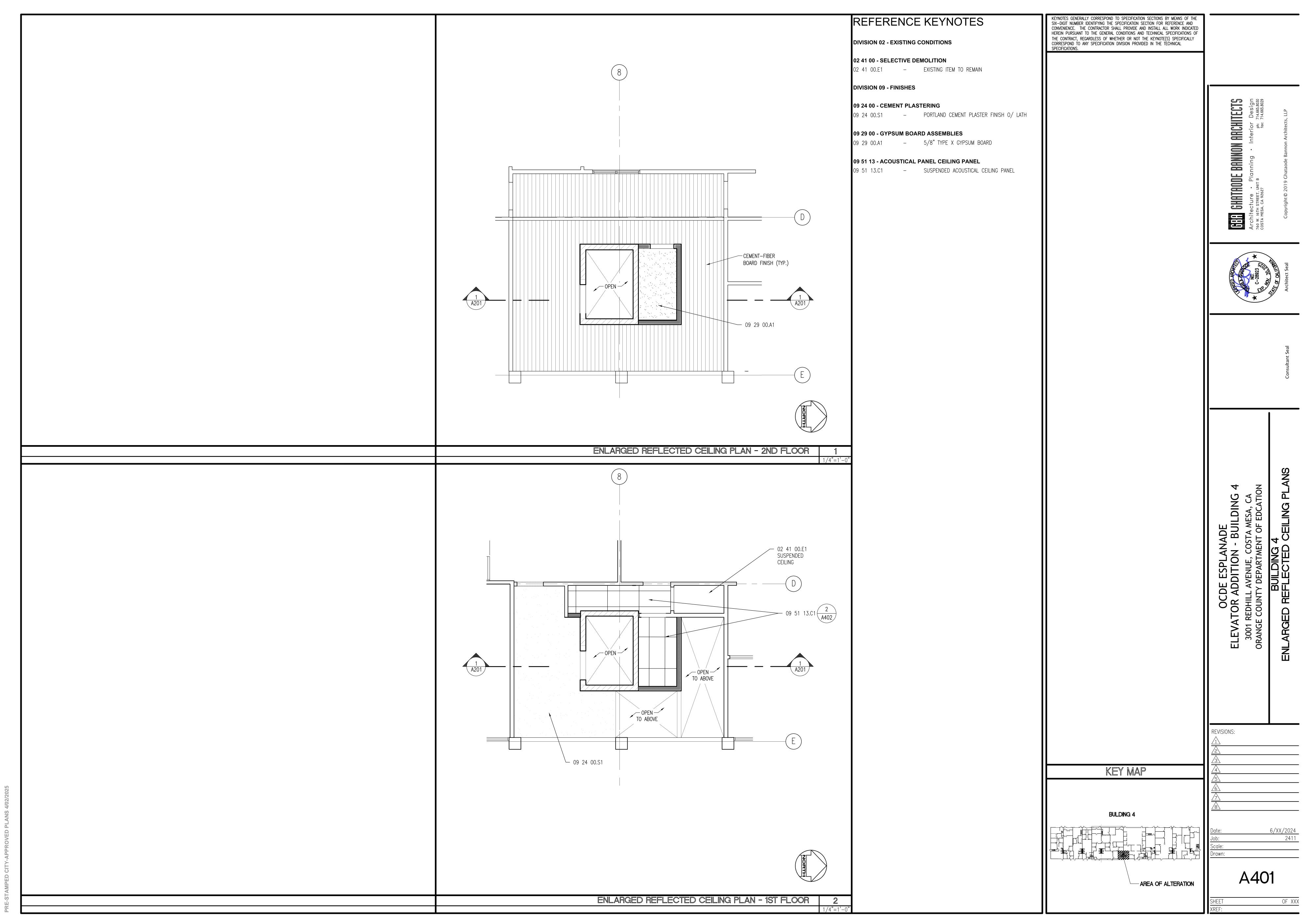


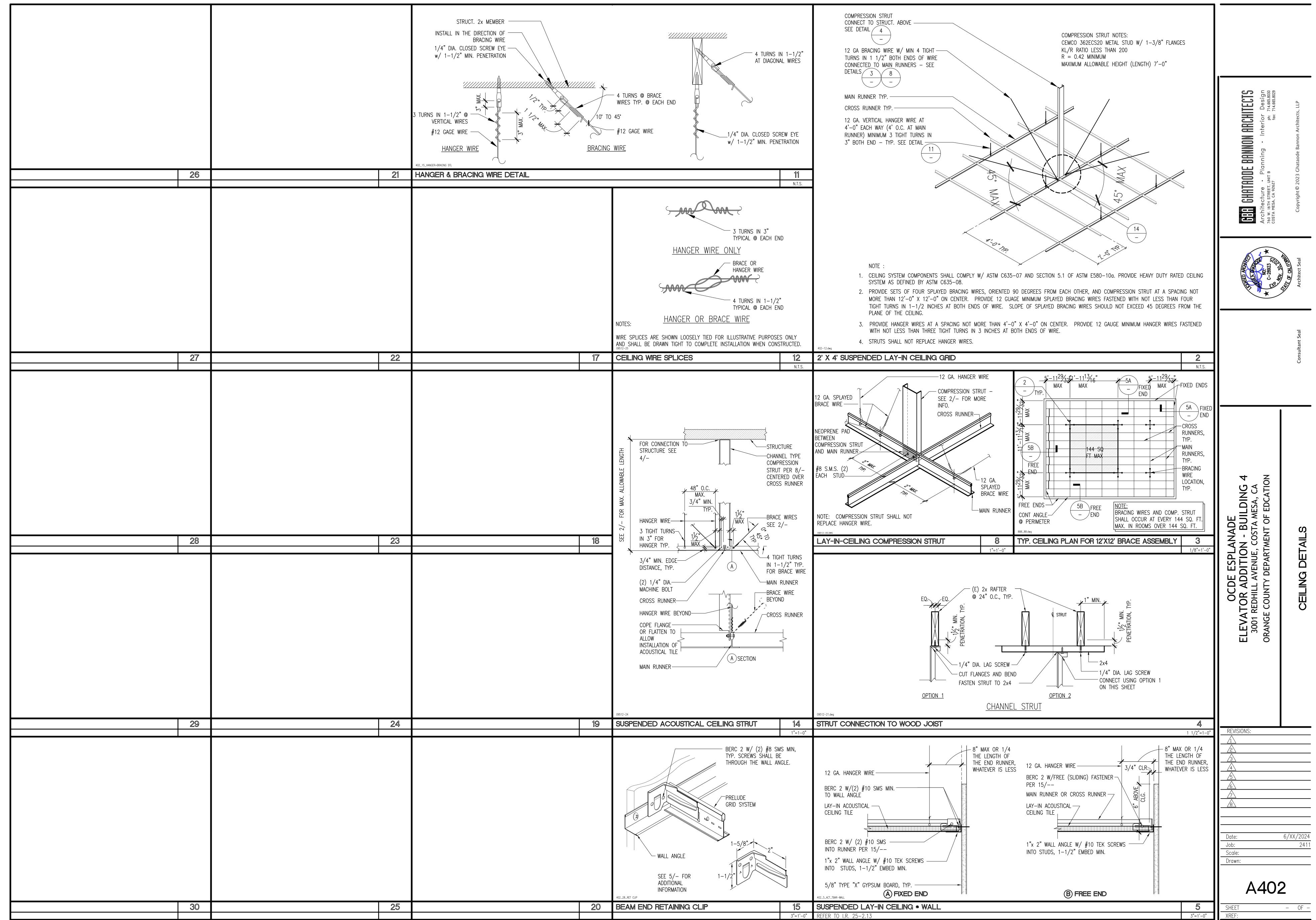


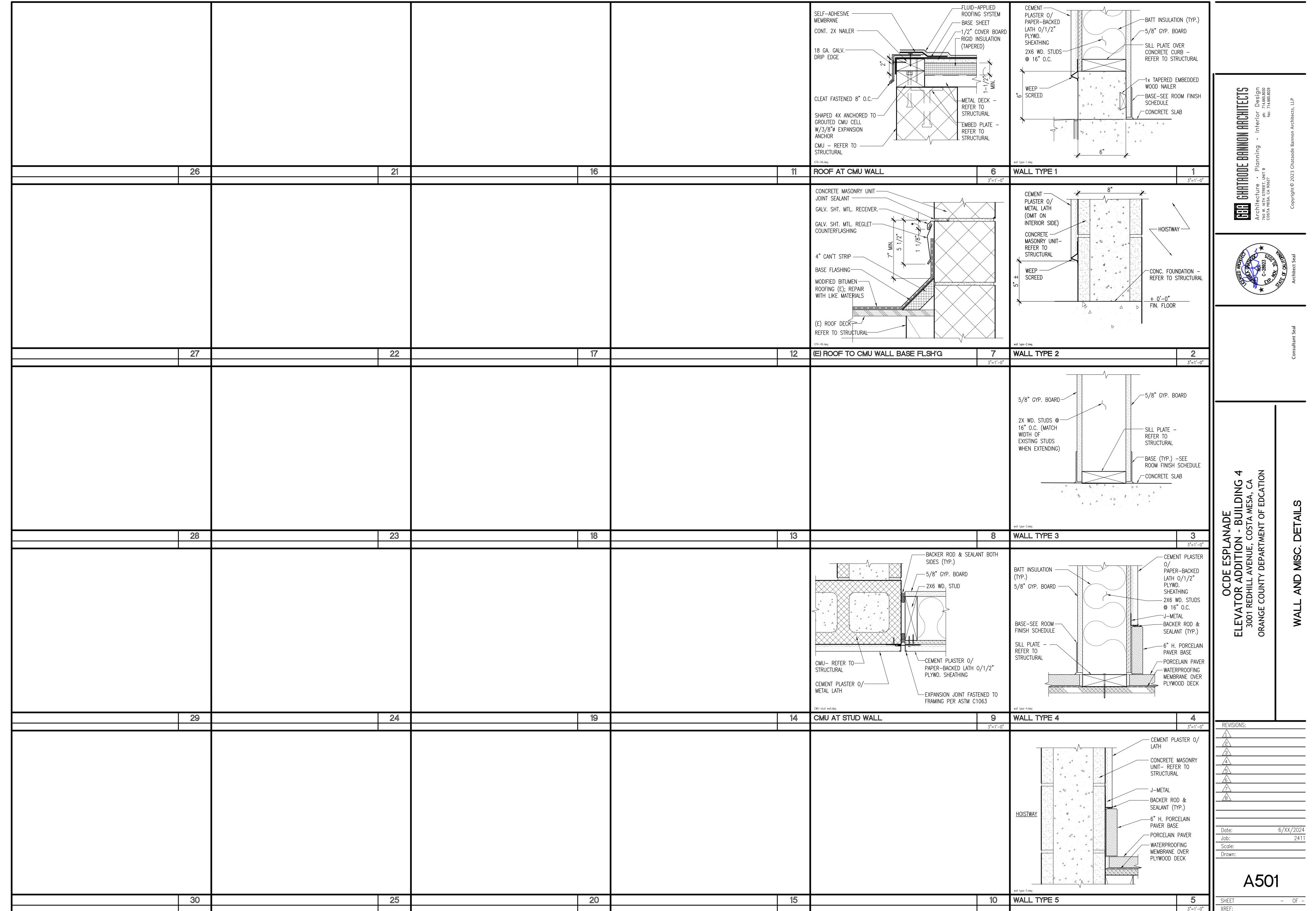


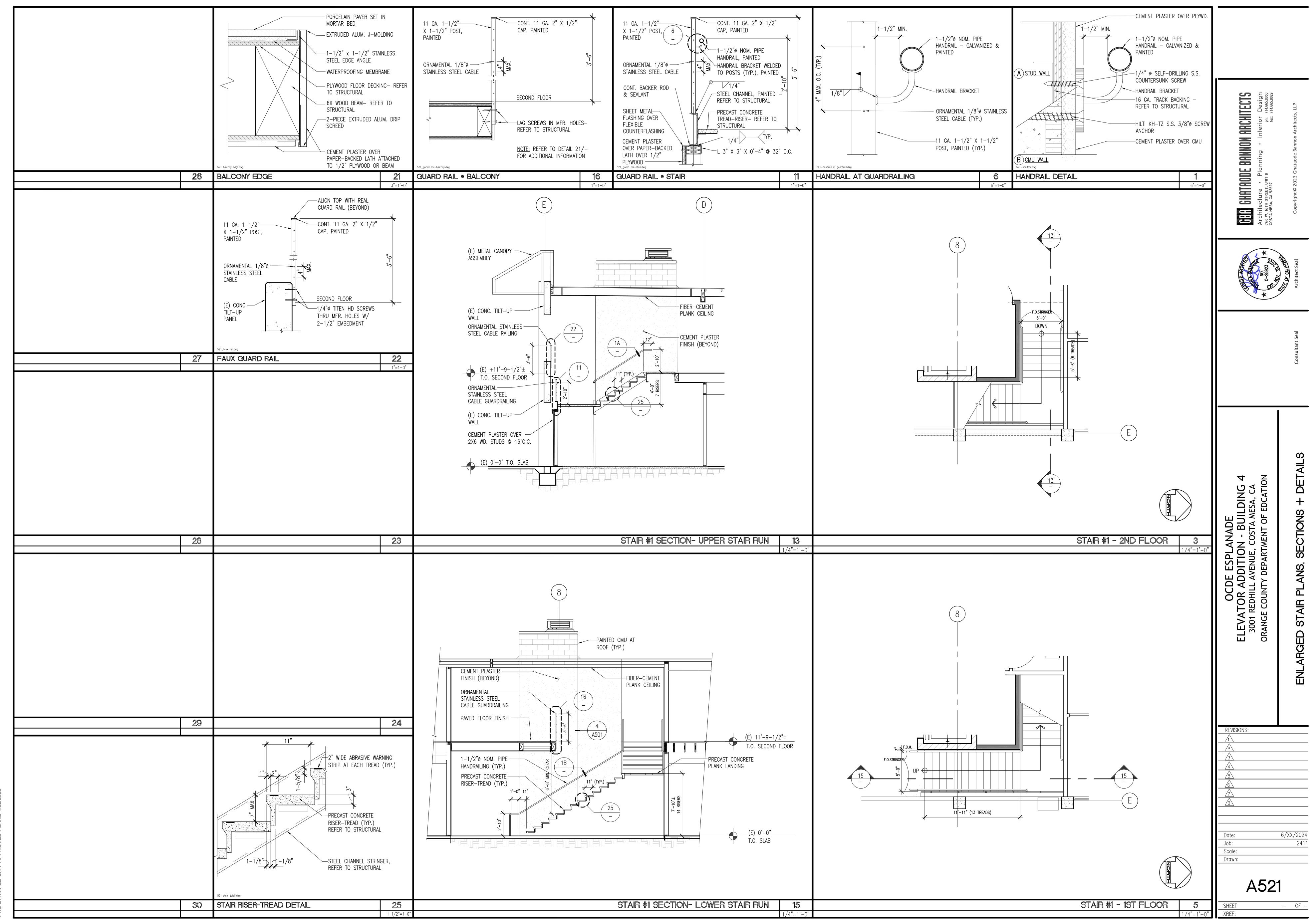


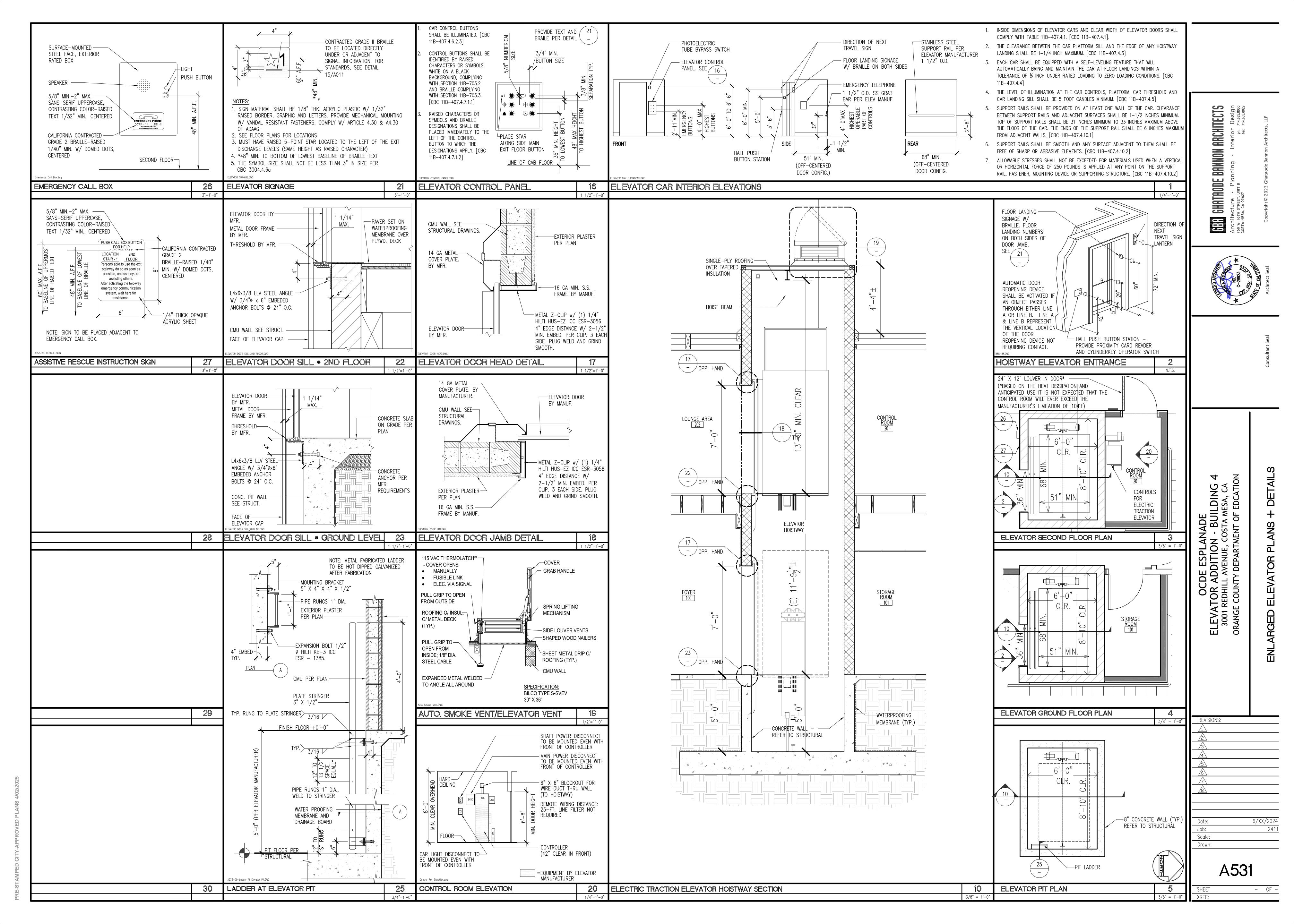












1.1 SUMMARY A. SECTION INCLUDES: ELECTRIC TRACTION ELEVATORS.

B. PRODUCTS SUPPLIED BUT NOT INSTALLED UNDER THIS SECTION:

1. HOIST BEAM

2. PIT LADDER

3. INSERTS MOUNTED IN BLOCK WALLS FOR RAIL ATTACHMENTS

C. WORK SUPPLIED UNDER OTHER SECTIONS:

1. TEMPORARY LIGHTING, INCLUDING TEMPORARY LIGHTING IN HOISTWAY FOR MACHINE SPACE WITH SWITCH LOCATED IN HOISTWAY ON THE STRIKE JAMB SIDE OF TOP LANDING DOOR.

2. MAIN LINE DISCONNECTS FOR EACH ELEVATOR.

3. ONE FUSED THREE PHASE PERMANENT POWER IN BUILDING ELECTRICAL DISTRIBUTION ROOM

4. HOISTWAY VENTILATION SHALL BE IN ACCORDANCE WITH LOCAL AND NATIONAL BUILDING CODE REQUIREMENTS.

5. GUIDE RAIL SUPPORT SHALL BE STRUCTURALLY ADEQUATE TO EXTEND FROM PIT FLOOR TO TOP OF HOISTWAY, WITH SPANS IN ACCORDANCE WITH REQUIREMENTS

OF AUTHORITY HAVING JURISDICTION AND FINAL LAYOUTS. 6, REMOVABLE BARRICADES AT ALL HOISTWAY OPENINGS, IN COMPLIANCE WITH OSHA

29 CFR 1926.502 IN ADDITION TO ANY LOCAL CODE REQUIREMENTS. 7. LIFELINE ATTACHMENTS CAPABLE OF WITHSTANDING 5000 LB. LOAD IN ACCORDANCE WITH OSHA 29 CFR 1926.502. PROVIDE A MINIMUM OF 2 AT THE TOP, IN FRONT OF EACH HOISTWAY.

8. PIT LIGHTING: FIXTURE WITH SWITCH AND GUARDS. PROVIDE ILLUMINATION LEVEL EQUAL TO OR GREATER THAN THAT REQUIRED BY ASME A17.1/CSA B44 2000, OR APPLICABLE VERSION.

9. CONTROL SPACE LIGHTING WITH SWITCH. COORDINATE SWITCH WITH LIGHTING FOR MACHINE SPACE AS ALLOWABLE BY CODE.

D. RELATED SECTIONS:

1. SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

2. SECTION 04 20 00 - CONCRETE MASONRY UNIT 3. SECTION 05 50 00 - METAL FABRICATIONS

4. SECTION 07 13 26 - SELF-ADHERING SHEET WATERPROOFING

5. SECTION 26 01 00 - GENERAL ELECTRICAL REQUIREMENTS

6. SECTION 31 22 00 - GRADING

E. INDUSTRY AND GOVERNMENT STANDARDS:

1. ICC/ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

2. ADAAG - ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES

3. ANSI/NFPA 70, NATIONAL ELECTRICAL CODE 4. ANSI/NFPA 80, STANDARD FOR FIRE DOORS AND FIRE WINDOWS

5. ASME/ANSI A17.1, SAFETY CODE FOR ELEVATORS AND ESCALATORS.

6. CBC, CALIFORNIA BUILDING CODE.

7. CEC, CALIFORNIA ELECTRICAL CODE.

8. CFC, CALIFORNIA FIRE CODE

1.2 DESCRIPTION OF ELEVATOR

A. BASIS OF DESIGN: KONE, INC. (WWW.KONE.COM).

B. ELEVATOR EQUIPMENT: MONOSPACE® 300 GEARLESS TRACTION ELEVATOR

C. EQUIPMENT CONTROL: KCM831

D. DRIVE: NON REGENERATIVE

E. QUANTITY OF ELEVATORS: 1 ELEVATOR

F. LANDINGS: 2

G. OPENINGS: 2 FRONT OPENINGS, 0 BACK OPENINGS

H. MAIN POWER SUPPLY: 208 V VOLTS + 5%, THREE-PHASE I. OPERATION: SIMPLEX

J. MACHINE LOCATION: INSIDE THE HOISTWAY MOUNTED ON CAR GUIDE RAIL

K. CONTROL SPACE LOCATION: INTEGRATED CONTROL

L. ELEVATOR EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF SEISMIC ZONE:

M. EMERGENCY POWER PROVISION: EMERGENCY BATTERY DRIVE

N. MAINTENANCE SERVICE PERIOD: 12 MONTHS

1.3 PERFORMANCE REQUIREMENTS

A. CAR PERFORMANCE

1. CAR SPEED ± 5% OF CONTRACT SPEED UNDER ANY LOADING CONDITION OR DIRECTION OF TRAVEL.

2. CAR CAPACITY: SAFELY LOWER, STOP AND HOLD (PER CODE) UP TO 125% OF RATED

B. SYSTEM PERFORMANCE

1. VERTICAL VIBRATION (MAXIMUM): ISO 18738/ISO 8041 SYSTEM PK-PK 15 MG

2. HORIZONTAL VIBRATION (MAXIMUM): ISO 18738/ISO 8041 SYSTEM PK-PK 12 MG 3. JERK RATE (MAXIMUM): 1 M/S³

4. ACCELERATION (MAXIMUM): 0.4 M/S²

5. IN CAR NOISE: 55 DB(A) MAXIMUM 6. LEVELING ACCURACY: ±0.2 INCHES

7 STARTS PER HOUR (MAXIMUM): 180

1.4 SUBMITTALS

A. COMPLY WITH SECTION 01 30 00 - SUBMITTALS.

B. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT LITERATURE FOR EACH

PROPOSED SYSTEM. 1. CAB DESIGN, DIMENSIONS AND LAYOUT.

2. LAYOUT, FINISHES, AND ACCESSORIES AND AVAILABLE OPTIONS.

3. CONTROLS, SIGNALS AND OPERATING SYSTEM.

4. COLOR SELECTION CHARTS FOR CAB AND ENTRANCES.

C. SHOP DRAWINGS: 1. CLEARANCES AND TRAVEL OF CAR.

2. CLEAR INSIDE HOISTWAY AND PIT DIMENSIONS.

3. LOCATION AND LAYOUT OF EQUIPMENT AND SIGNALS. 4. CAR, GUIDE RAILS, BUFFERS AND OTHER COMPONENTS IN HOISTWAY

5. MAXIMUM RAIL BRACKET SPACING. 6. MAXIMUM LOADS IMPOSED ON BUILDING STRUCTURE.

7. HOIST BEAM REQUIREMENTS.

LOCATION AND SIZES OF ACCESS DOORS.

OR MONITORING EQUIPMENT INSTALLED.

9. LOCATION AND DETAILS OF HOISTWAY DOOR AND FRAMES.

10. ELECTRICAL CHARACTERISTICS AND CONNECTION REQUIREMENTS.

D. OPERATION AND MAINTENANCE DATA:

1. PROVIDE MANUFACTURER'S STANDARD MAINTENANCE AND OPERATION MANUAL.

E. DIAGNOSTIC TOOLS

1. PRIOR TO SEEKING FINAL ACCEPTANCE OF THE COMPLETED PROJECT AS SPECIFIED BY THE CONTRACT DOCUMENTS, THE ELEVATOR CONTRACTOR SHALL DELIVER TO THE OWNER ANY SPECIALIZED TOOL(S) THAT MAY BE REQUIRED TO PERFORM DIAGNOSTIC EVALUATIONS. ADJUSTMENTS. AND/OR PARAMETRIC SOFTWARE CHANGES AND/OR TEST AND INSPECTIONS ON ANY PIECE OF CONTROL

2. THIS SHALL INCLUDE ANY SPECIALIZED TOOL(S) REQUIRED FOR MONITORING. INSPECTION AND/OR MAINTENANCE WHERE THE MEANS OF SUSPENSION OTHER

THAN CONVENTIONAL WIRE ROPES ARE FURNISHED AND INSTALLED BY THE ELEVATOR CONTRACTOR. ANY AND ALL SUCH TOOL(S) SHALL BECOME PROPERTY OF THE OWNER. ANY DIAGNOSTIC TOOL PROVIDED TO THE OWNER BY THE ELEVATOR CONTRACTOR SHALL BE CONFIGURED TO PERFORM ALL LEVELS OF DIAGNOSTICS, SYSTEMS ADJUSTMENT AND PARAMETRIC SOFTWARE CHANGES WHICH ARE AVAILABLE TO THE ELEVATOR CONTRACTOR.

3. IN THOSE CASES WHERE DIAGNOSTIC TOOLS PROVIDED TO THE OWNER REQUIRE PERIODIC RECALIBRATION/OR RE-INITIATION. THE ELEVATOR CONTRACTOR SHALL PERFORM SUCH TASKS AT NO ADDITIONAL COST TO THE OWNER FOR A PERIOD EQUAL TO THE TERM OF THE MAINTENANCE AGREEMENT FROM THE DATE OF FINAL ACCEPTANCE OF THE COMPETED PROJECT DURING THOSE INTERVALS IN WHICH THE OWNER MIGHT FIND IT NECESSARY TO SURRENDER A DIAGNOSTIC TOOL FOR RE-CALIBRATION, RE-INITIATION, OR REPAIR, THE ELEVATOR CONTRACTOR SHALL PROVIDE A TEMPORARY REPLACEMENT FOR THE TOOL AT NO ADDITIONAL COST TO

4. THE ELEVATOR CONTRACTOR SHALL DELIVER PRINTED INSTRUCTIONS TO THE OWNER FOR THE PROPER USE OF ANY TOOL THAT MAY BE NECESSARY TO PERFORM DIAGNOSTIC EVALUATIONS, SYSTEM ADJUSTMENT, AND/OR PARAMETRIC SOFTWARE CHANGES ON ANY UNIT OF MICROPROCESSOR-BASED ELEVATOR CONTROL EQUIPMENT AND MEANS OF SUSPENSION OTHER THAN STANDARD ELEVATOR STEEL CABLES FURNISHED AND INSTALL BY THE ELEVATOR

CONTRACTOR. 5. ACCOMPANYING THE PRINTED INSTRUCTIONS SHALL BE ANY AND ALL ACCESS CODES. PASSWORD. OR OTHER PROPRIETARY INFORMATION THAT IS NECESSARY TO INTERFACE WITH THE MICROPROCESSOR-CONTROL EQUIPMENT.

1.5 QUALITY ASSURANCE

A. MANUFACTURER: MINIMUM OF FIFTEEN YEARS' EXPERIENCE IN THE FABRICATION, INSTALLATION AND SERVICE OF ELEVATORS OF THE TYPE AND PERFORMANCE OF THE SPECIFIED. THE MANUFACTURER SHALL HAVE A DOCUMENTED QUALITY ASSURANCE

B. INSTALLER: THE EQUIPMENT MANUFACTURER SHALL INSTALL THE ELEVATOR.

C.INSPECTION AND TESTING: IN ACCORDANCE WITH REQUIREMENTS OF LOCAL JURISDICTION, OBTAIN REQUIRED PERMITS, INSPECTIONS AND TESTS.

1.6 DELIVERY, STORAGE AND HANDLING

A.IF THE CONSTRUCTION SITE IS NOT PREPARED TO RECEIVE THE ELEVATOR EQUIPMENT AT THE AGREED SHIP DATE. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF STORAGE AT AN APPROVED FACILITY. ADDITIONAL LABOR COSTS FOR DOUBLE HANDLING WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

B. DELIVERED ELEVATOR MATERIALS SHALL BE STORED IN A PROTECTED ENVIRONMENT IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. A MINIMUM STORAGE AREA OF 10 FEET BY 20 FEET IS REQUIRED ADJACENT TO THE HOISTWAY.

A. PROVIDE MANUFACTURER WARRANTY FOR A PERIOD OF ONE YEAR. THE WARRANTY PERIOD IS TO BEGIN UPON FINAL ACCEPTANCE OF THE CONTRACT. WARRANTY COVERS DEFECTS IN MATERIALS AND WORKMANSHIP. DAMAGE DUE TO ORDINARY USE, VANDALISM, IMPROPER OR INSUFFICIENT MAINTENANCE, MISUSE, OR NEGLECT DO NOT CONSTITUTE DEFECTIVE MATERIAL OR WORKMANSHIP.

1.8 MAINTENANCE SERVICE

A. THE ELEVATOR MANUFACTURER SHALL PROVIDE MAINTENANCE SERVICE CONSISTING OF REGULAR EXAMINATIONS AND ADJUSTMENTS OF THE ELEVATOR EQUIPMENT FOR A PERIOD OF 12 MONTHS AFTER DATE OF FINAL ACCEPTANCE

1. PREDICTIVE MAINTENANCE SHALL BE INCLUDED FOR THE FULL MAINTENANCE PERIOD. THIS SERVICE MUST BE CAPABLE OF USING AI-BASED ANALYTICS TO IDENTIFY POTENTIAL EQUIPMENT ISSUES AND NOTIFYING THE ELEVATOR PROVIDER VIA AN INTERNET CONNECTION.

2. REPLACEMENT PARTS SHALL BE PRODUCED BY THE ORIGINAL EQUIPMENT MANUFACTURER.

B. MAINTENANCE SERVICE TO BE PERFORMED DURING REGULAR WORKING HOURS OF REGULAR WORKING DAYS AND SHALL INCLUDE EMERGENCY CALL BACK SERVICE DURING REGULAR WORKING HOURS.

C.MAINTENANCE SERVICE SHALL NOT INCLUDE ADJUSTMENTS, REPAIRS OR REPLACEMENT OF PARTS DUE TO NEGLIGENCE, MISUSE, ABUSE OR ACCIDENTS.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A.PROVIDE AC GEARLESS MACHINE ROOM-LESS ELEVATOR SYSTEMS SUBJECT TO COMPLIANCE WITH THE DESIGN AND PERFORMANCE REQUIREMENTS OF THIS SPECIFICATION. ELEVATOR MANUFACTURERS MAY INCLUDE BUT ARE NOT LIMITED TO ONE OF THE FOLLOWING:

1. BASIS OF DESIGN: MONOSPACE® 300 TRACTION ELEVATORS BY KONE, INC. (WWW.KONE.COM). 2. OTHER ACCEPTABLE MACHINE ROOM-LESS PRODUCTS: MANUFACTURER WITH

MINIMUM 15 YEARS' EXPERIENCE IN MANUFACTURING, INSTALLING, AND SERVICING ELEVATORS OF THE TYPE REQUIRED FOR THE PROJECT.

2.2 EQUIPMENT: CONTROL COMPONENTS AND CONTROL SPACE

A. CONTROLLER: PROVIDE MICROCOMPUTER-BASED CONTROL SYSTEM TO PERFORM ALL FUNCTIONS.

1. ALL HIGH VOLTAGE (110V OR ABOVE) CONTACT POINTS INSIDE THE CONTROLLER CABINET SHALL BE PROTECTED FROM ACCIDENTAL CONTACT IN A SITUATION WHERE THE CONTROLLER DOORS ARE OPEN.

2. CONTROLLER SHALL BE SEPARATED INTO TWO DISTINCT HALVES; MOTOR DRIVE SIDE AND CONTROL SIDE. HIGH VOLTAGE MOTOR POWER CONDUCTORS SHALL BE ROUTED AND PHYSICALLY SEGREGATED FROM THE REST OF THE CONTROLLER.

3. PROVIDE A SERIAL CARDRACK AND MAIN CPU BOARD CONTAINING A NON-ERASABLE EPROM AND OPERATING SYSTEM FIRMWARE. 4. VARIABLE FIELD PARAMETERS AND ADJUSTMENTS SHALL BE CONTAINED IN A NON-

VOLATILE MEMORY MODULE. B. DRIVE: PROVIDE VARIABLE VOLTAGE VARIABLE FREQUENCY AC DRIVE SYSTEM TO DEVELOP HIGH STARTING TORQUE WITH LOW STARTING CURRENT.

C. CONTROLLER LOCATION: LOCATE CONTROLLER(S) IN THE FRONT WALL INTEGRATED WITH THE TOP LANDING ENTRANCE FRAME. MACHINE SIDE OF THE ELEVATOR. ONE NON-FUSED THREE PHASE PERMANENT POWER IN HOIST WAY AT TOP LANDING. A SEPARATE CONTROL SPACE SHOULD NOT BE REQUIRED.

2.3 EQUIPMENT: HOISTWAY COMPONENTS

A. MACHINE: AC GEARLESS MACHINE, WITH PERMANENT MAGNET SYNCHRONOUS MOTOR. DIRECT CURRENT ELECTRO-MECHANICAL DISC BRAKES AND INTEGRAL TRACTION DRIVE SHEAVE, MOUNTED TO THE CAR GUIDE RAIL AT THE TOP OF THE

B. GOVERNOR: FRICTION TYPE OVER-SPEED GOVERNOR RATED FOR THE DUTY OF THE **ELEVATOR SPECIFIED.**

C.BUFFERS, CAR AND COUNTERWEIGHT: POLYURETHANE BUFFER.

D. HOISTWAY OPERATING DEVICES:

1. EMERGENCY STOP SWITCH IN THE PIT

2. TERMINAL STOPPING SWITCHES.

3. EMERGENCY STOP SWITCH ON THE MACHINE

E. POSITIONING SYSTEM: SYSTEM CONSISTING OF MAGNETS AND PROXIMITY SWITCHES. F. GUIDE RAILS AND ATTACHMENTS: STEEL RAILS WITH BRACKETS AND FASTENERS.

2.4 EQUIPMENT: HOISTWAY ENTRANCES

A. HOISTWAY ENTRANCES

1. SILLS: EXTRUDED ALUMINUM. 2. DOORS: HOLLOW METAL CONSTRUCTION WITH VERTICAL INTERNAL CHANNEL REINFORCEMENTS.

3. FIRE RATING: ENTRANCE AND DOORS SHALL BE UL FIRE-RATED FOR 1-1/2 HOUR.

4. ENTRANCE FINISH: BRUSHED STAINLESS STEEL.

5. ENTRANCE MARKINGS JAMB PLATES: PROVIDE STANDARD ENTRANCE JAMB TACTILE MARKINGS ON BOTH JAMBS, AT ALL FLOORS. PLATE MOUNTING: REFER TO MANUFACTURER DRAWINGS.

2.5 EQUIPMENT: CAR COMPONENTS

1. CAR FRAME: PROVIDE CAR FRAME WITH ADEQUATE BRACING TO SUPPORT THE

PLATFORM AND CAR ENCLOSURE. 2. CAR SAFETIES: DEVICE WILL BE PROVIDED AND MOUNTED UNDER THE CAR PLATFORM, SECURELY BOLTED TO THE CAR FRAME. THE SAFETY WILL BE ACTUATED BY A CENTRIFUGAL GOVERNOR MOUNTED AT THE TOP OF THE HOISTWAY. THE SAFETY IS DESIGNED TO OPERATE IN CASE THE CAR ATTAINS EXCESSIVELY DESCENDING SPEED.

3. PLATFORM: PLATFORM SHALL BE ALL STEEL CONSTRUCTION.

4. CAR GUIDES: PROVIDE GUIDE-SHOES MOUNTED TO TOP AND BOTTOM OF BOTH CAR AND COUNTERWEIGHT FRAME. EACH GUIDE-SHOE ASSEMBLY SHALL BE ARRANGED TO MAINTAIN CONSTANT CONTACT ON THE RAIL SURFACES. PROVIDE RETAINERS IN AREAS WITH SEISMIC DESIGN REQUIREMENTS.

5. CAR WALL FINISH: a. SIDE WALLS: 304 BRUSHED STAINLESS STEEL (4SS)

b. REAR WALL: 441 BRUSHED STAINLESS STEEL (4SS) c. CAR FRONT, DOOR AND SKIRTING: BRUSHED STAINLESS STEEL

d. CEILING: ROUND, LED SPOTLIGHTS e. HANDRAILS: BRUSHED STAINLESS STEEL

f. RAILS TO BE LOCATED ON OF CAR ENCLOSURE. 6. SILLS: ALUMINUM EXTRUDED.

B. FLOORING: BY OTHERS. (NOT TO EXCEED 3LB/S.F.. AND 1/2" FINISHED DEPTH.)

C.EMERGENCY CAR SIGNALS 1. EMERGENCY SIREN: SIREN MOUNTED ON TOP OF CAB THAT IS ACTIVATED WHEN THE ALARM BUTTON IN THE CAR OPERATING PANEL IS ENGAGED. SIREN SHALL

HAVE RATED SOUND PRESSURE LEVEL OF 80 DB(A) AT A DISTANCE OF THREE FEET FROM DEVICE. SIREN SHALL RESPOND WITH A DELAY OF NOT MORE THAN ONE SECOND AFTER ACTIVATION OF ALARM BUTTON. 2. EMERGENCY CAR LIGHTING: PROVIDE EMERGENCY POWER UNIT EMPLOYING A 12-

ILLUMINATE THE ELEVATOR CAR AND PROVIDE CURRENT TO THE ALARM BELL IN THE EVENT OF BUILDING POWER FAILURE. 3. EMERGENCY EXIT CONTACT: AN ELECTRICAL CONTACT SHALL BE PROVIDED ON THE

VOLT SEALED RECHARGEABLE BATTERY AND TOTALLY STATIC CIRCUITS SHALL

CAR-TOP EXIT. D. VENTILATION: MANUFACTURER'S STANDARD CAB FAN.

2.6 EQUIPMENT: SIGNAL DEVICES AND FIXTURES

A. CAR OPERATING PANEL: PROVIDE CAR OPERATING PANEL WITH ALL PUSH BUTTONS, KEY SWITCHES, AND MESSAGE INDICATORS FOR ELEVATOR OPERATION. FIXTURE FINISH TO BE BRUSHED STAINLESS STEEL

1. MAIN FLUSH MOUNTED CAR OPERATING PANEL SHALL CONTAIN A BANK OF ROUND, MECHANICAL, ILLUMINATED BUTTONS MARKED TO CORRESPOND TO LANDINGS SERVED. EMERGENCY CALL BUTTON. DOOR OPEN BUTTON. DOOR CLOSE BUTTON. AND KEY SWITCHES FOR LIGHTS. INSPECTION, AND EXHAUST FAN, BUTTONS HAVE AMBER DOT MATRIX ILLUMINATION (HALO). ALL BUTTONS TO HAVE RAISED TEXT AND BRAILLE MARKING ON LEFT HAND SIDE. THE CAR OPERATING DISPLAY PANEL SHALL BE AMBER DOT MATRIX. ALL TEXTS, WHEN ILLUMINATED, SHALL BE AMBER DOT MATRIX, THE CAR OPERATING PANEL SHALL HAVE A BRUSHED STAINLESS STEEL

2. ADDITIONAL FEATURES OF CAR OPERATING PANEL SHALL INCLUDE: a. CAR POSITION INDICATOR WITHIN OPERATING PANEL BRUSHED STAINLESS STEEL

b. ELEVATOR DATA PLATE MARKED WITH ELEVATOR CAPACITY AND CAR NUMBER ON CAR TOP.

c. HELP BUTTONS WITH RAISED MARKINGS

d. IN CAR STOP SWITCH PER LOCAL CODE.

e. CALL CANCEL BUTTON. B.HALL FIXTURES: HALL FIXTURES SHALL BE PROVIDED WITH NECESSARY PUSH BUTTONS AND KEY SWITCHES FOR ELEVATOR OPERATION. HALL FIXTURES SHALL HAVE A BRUSHED STAINLESS STEEL FINISH.

a, HALL FIXTURES SHALL FEATURE ROUND, MECHANICAL, BUTTONS IN APPLIED MOUNT FACE FRAME. HALL FIXTURES SHALL CORRESPOND TO OPTIONS AVAILABLE FROM THAT LANDING, BUTTONS SHALL BE IN A VERTICALLY MOUNTED

C.CAR LANTERN AND CHIME: A DIRECTIONAL LANTERN VISIBLE FROM THE CORRIDOR SHALL BE PROVIDED IN THE CAR ENTRANCE. WHEN THE CAR STOPS AND THE DOORS ARE OPENING, THE LANTERN SHALL INDICATE THE DIRECTION IN WHICH THE CAR IS TO TRAVEL, AND A CHIME WILL SOUND. THE CHIME WILL SOUND ONCE FOR UP AND TWICE FOR DOWN. THE CAR RIDING LANTERN FACE PLATE SHALL HAVE A BRUSHED

STAINLESS STEEL FINISH. 2.7 EQUIPMENT: ELEVATOR OPERATION AND CONTROLLER

A. ELEVATOR OPERATION 1. SIMPLEX COLLECTIVE OPERATION: USING A MICROPROCESSOR-BASED CONTROLLER, OPERATION SHALL BE AUTOMATIC BY MEANS OF THE CAR AND HALL BUTTONS. IF ALL CALLS IN THE SYSTEM HAVE BEEN ANSWERED, THE CAR SHALL

PARK AT THE LAST LANDING SERVED. 2. ZONED CAR PARKING.

3. RELATIVE SYSTEM RESPONSE DISPATCHING. B. STANDARD OPERATING FEATURES TO INCLUDE:

1. FULL COLLECTIVE OPERATION

2. FAN AND LIGHT CONTROL. LOAD WEIGHING BYPASS.

4. ASCENDING CAR UNCONTROLLED MOVEMENT PROTECTION

5. TOP OF CAR INSPECTION STATION. C. ADDITIONAL OPERATING FEATURES TO INCLUDE:

D. ELEVATOR CONTROL SYSTEM FOR INSPECTIONS AND EMERGENCY

1. PROVIDE DEVICES WITHIN CONTROLLER TO RUN THE ELEVATOR IN INSPECTION OPERATION. 2. PROVIDE DEVICES ON CAR TOP TO RUN THE ELEVATOR IN INSPECTION OPERATION.

3. PROVIDE WITHIN CONTROLLER AN EMERGENCY STOP SWITCH TO DISCONNECT POWER FROM THE BRAKE AND PREVENTS MOTOR FROM RUNNING. 4. PROVIDE THE MEANS FROM THE CONTROLLER TO MECHANICALLY LIFT AND

CONTROL THE ELEVATOR BRAKE TO SAFELY BRING CAR TO NEAREST AVAILABLE LANDING WHEN POWER IS INTERRUPTED. 5. PROVIDE THE MEANS FROM THE CONTROLLER TO RESET THE GOVERNOR OVER

SPEED SWITCH AND ALSO TRIP THE GOVERNOR. 6. PROVIDE THE MEANS FROM THE CONTROLLER TO RESET THE EMERGENCY BRAKE WHEN SET BECAUSE OF AN UNINTENDED CAR MOVEMENT OR ASCENDING CAR

7. PROVIDE THE MEANS FOR THE CONTROL TO RESET ELEVATOR EARTHQUAKE

OVER SPEED.

2.8 EQUIPMENT: DOOR OPERATOR AND CONTROL A. DOOR OPERATOR: A CLOSED LOOP PERMANENT MAGNET VVVF HIGH-PERFORMANCE DOOR OPERATOR SHALL BE PROVIDED TO OPEN AND CLOSE THE CAR AND HOISTWAY DOORS SIMULTANEOUSLY, DOOR MOVEMENT SHALL BE CUSHIONED AT BOTH LIMITS OF TRAVEL. ELECTRO-MECHANICAL INTERLOCK SHALL BE PROVIDED AT EACH HOISTWAY ENTRANCE TO PREVENT OPERATION OF THE ELEVATOR UNLESS ALL DOORS ARE CLOSED AND LOCKED. AN ELECTRIC CONTACT SHALL BE PROVIDED ON THE CAR AT EACH CAR ENTRANCE TO PREVENT THE OPERATION OF THE ELEVATOR UNLESS THE CAR DOOR IS CLOSED.

B. THE DOOR OPERATOR SHALL BE ARRANGED SO THAT, IN CASE OF INTERRUPTION OR FAILURE OF ELECTRIC POWER. THE DOORS CAN BE READILY OPENED BY HAND FROM WITHIN THE CAR. IN ACCORDANCE WITH APPLICABLE CODE, EMERGENCY DEVICES AND KEYS FOR OPENING DOORS FROM THE LANDING SHALL BE PROVIDED AS

REQUIRED BY LOCAL CODE.

C.DOORS SHALL OPEN AUTOMATICALLY WHEN THE CAR HAS ARRIVED AT OR IS LEVELING AT THE RESPECTIVE LANDINGS. DOORS SHALL CLOSE AFTER A PREDETERMINED TIME INTERVAL OR IMMEDIATELY UPON PRESSING OF A CAR BUTTON. A DOOR OPEN BUTTON SHALL BE PROVIDED IN THE CAR. MOMENTARY PRESSING OF THIS BUTTON SHALL REOPEN THE DOORS AND RESET THE TIME

D.DOOR HANGERS AND TRACKS SHALL BE PROVIDED FOR EACH CAR AND HOISTWAY DOOR. TRACKS SHALL BE CONTOURED TO MATCH THE HANGER SHEAVES. THE HANGERS SHALL BE DESIGNED FOR POWER OPERATION WITH PROVISIONS FOR VERTICAL AND LATERAL ADJUSTMENT. HANGER SHEAVES SHALL HAVE POLYURETHANE TIRES AND PRE-LUBRICATED SEALED-FOR-LIFE BEARINGS.

E. ELECTRONIC DOOR SAFETY DEVICE. THE ELEVATOR CAR SHALL BE EQUIPPED WITH AN ELECTRONIC PROTECTIVE DEVICE EXTENDING THE FULL HEIGHT OF THE CAR. WHEN ACTIVATED, THIS SENSOR SHALL PREVENT THE DOORS FROM CLOSING OR CAUSE THEM TO STOP AND REOPEN IF THEY ARE IN THE PROCESS OF CLOSING. THE DOORS SHALL REMAIN OPEN AS LONG AS THE FLOW OF TRAFFIC CONTINUES AND SHALL CLOSE SHORTLY AFTER THE LAST PERSON PASSES THROUGH THE DOOR

PART 3 - EXECUTION

3.1 EXAMINATION

F. FIELD MEASURE AND EXAMINE SUBSTRATES, SUPPORTS, AND OTHER CONDITIONS UNDER WHICH ELEVATOR WORK IS TO BE PERFORMED.

G.DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS ARE

H.PRIOR TO START OF WORK, VERIFY HOISTWAY IS IN ACCORDANCE WITH SHOP DRAWINGS. DIMENSIONAL TOLERANCE OF HOISTWAY FROM SHOP DRAWINGS: -0 INCHES +2 INCHES. DO NOT BEGIN WORK OF THIS SECTION UNTIL DIMENSIONS ARE WITHIN TOLERANCES.

I. PRIOR TO START OF WORK, VERIFY PROJECTIONS GREATER THAN TWO INCHES (FOUR INCHES IF ASME A17.1/CSA B44 2000 APPLIES) MUST BE BEVELED NOT LESS THAN 75 DEGREES FROM HORIZONTAL. J. PRIOR TO START OF WORK, VERIFY LANDINGS HAVE BEEN PREPARED FOR ENTRANCE

SILL INSTALLATION. TRADITIONAL SILL ANGLE OR CONCRETE SILL SUPPORT SHALL NOT BE REQUIRED. K.PRIOR TO START OF WORK, VERIFY ELEVATOR PIT HAS BEEN CONSTRUCTED IN ACCORDANCE WITH REQUIREMENTS, IS DRY AND REINFORCED TO SUSTAIN VERTICAL FORCES, AS INDICATED IN APPROVED SUBMITTAL. VERIFY THAT SUMPS OR SUMP

L. PRIOR TO START OF WORK, VERIFY CONTROL SPACE HAS BEEN CONSTRUCTED IN ACCORDANCE WITH REQUIREMENTS, WITH ACCESS COORDINATED WITH ELEVATOR SHOP DRAWINGS, INCLUDING SLEEVES AND PENETRATIONS.

PUMPS LOCATED WITHIN PIT WILL NOT INTERFERE WITH INSTALLED ELEVATOR

M. VERIFY INSTALLATION OF GFCI PROTECTED 20-AMP IN PIT AND ADJACENT TO EACH SIGNAL CONTROL CABINET IN CONTROL SPACE.

A, COORDINATE INSTALLATION OF ANCHORS, BEARING PLATES, BRACKETS AND OTHER RELATED ACCESSORIES

A.INSTALL EQUIPMENT. GUIDES. CONTROLS. CAR AND ACCESSORIES IN ACCORDANCE WITH MANUFACTURER INSTALLATION METHODS AND RECOMMENDED PRACTICES. B. PROPERLY LOCATE GUIDE RAILS AND RELATED SUPPORTS AT LOCATIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPROVED SHOP DRAWINGS. ANCHOR TO BUILDING STRUCTURE USING ISOLATION SYSTEM TO MINIMIZE

TRANSMISSION OF VIBRATION TO STRUCTURE. C. ALL HOISTWAY FRAMES SHALL BE SECURELY FASTENED TO FIXING ANGLES MOUNTED IN THE HOISTWAY. COORDINATE INSTALLATION OF SILLS AND FRAMES WITH OTHER

D.LUBRICATE OPERATING SYSTEM COMPONENTS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. E.PERFORM FINAL ADJUSTMENTS. AND NECESSARY SERVICE PRIOR TO FINAL

3.4 CONSTRUCTION

ACCEPTANCE.

LANDINGS.

3.2 PREPARATION

3.3 INSTALLATION

A.INTERFACE WITH OTHER WORK:

1. GUIDE RAIL BRACKETS ATTACHED TO STEEL SHALL BE INSTALLED PRIOR TO APPLICATION OF FIREPROOFING.

2. COORDINATE CONSTRUCTION OF ENTRANCE WALLS WITH INSTALLATION OF DOOR

FRAMES AND SILLS. MAINTAIN FRONT WALL OPENING UNTIL ELEVATOR EQUIPMENT HAS BEEN INSTALLED. 3. ENSURE ADEQUATE SUPPORT FOR ENTRANCE ATTACHMENT POINTS AT ALL

4. COORDINATE WALL OPENINGS FOR HALL PUSH BUTTONS, SIGNAL FIXTURES AND SLEEVES. EACH ELEVATOR REQUIRES SLEEVES WITHIN THE HOISTWAY WALL. 5. COORDINATE EMERGENCY POWER TRANSFER SWITCH AND POWER CHANGE PENDING SIGNALS AS REQUIRED FOR TERMINATION AT THE PRIMARY ELEVATOR

6. COORDINATE INTERFACE OF ELEVATORS AND FIRE ALARM SYSTEM. 7. COORDINATE INTERFACE OF DEDICATED TELEPHONE LINE.

SIGNAL CONTROL CABINET IN EACH GROUP.

AUTHORITY HAVING JURISDICTION.

3.5 TESTING AND INSPECTIONS A.PERFORM RECOMMENDED AND REQUIRED TESTING IN ACCORDANCE WITH

B. OBTAIN REQUIRED PERMITS AND PROVIDE ORIGINALS TO OWNER'S REPRESENTATIVE.

A.PRIOR TO FINAL ACCEPTANCE, INSTRUCT OWNER'S REPRESENTATIVE ON THE

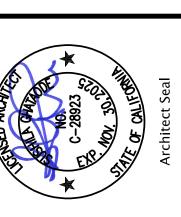
PROPER FUNCTION AND REQUIRED DAILY MAINTENANCE OF ELEVATORS, INSTRUCT PERSONNEL ON EMERGENCY PROCEDURES.

END OF SECTION 14 21 00

3.6 DEMONSTRATION

3

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REVISIONS:

2411 Scale: Drawn:

6/XX/2024

LIST OF ABBREVIATIONS (CONT'D) ROUGH OPENING R.O. SCHED. **SCHEDULE** SECTION SELECT SEPARATION SEISMIC FORCE-RESISTING SYSTEM SHEATHING SHEET SHEET METAL SHEET METAL SCREWS SIMILAR SIMPSON **SPACING** SPECS. **SPECIFICATION** SQUARE STGR. STAGGER STAINLESS STEEL STANDARD PIPE COLUMN STANDARD **STIFFENER** STIRR. STIRRUP **STRUCTURAL STRUCT** SYMMETRICAL TAPERED STEEL GIRDER K OR KIP 1,000 POUNDS THROUGH TOE NAIL TONGUE AND GROOVE TOP AND BOTTOM TOP OF FOOTING TOP OF LEDGER

TOP OF WALL

VERIFY IN FIELD

WELDED WIRE FABRIC

TOTAL LOAD

TUBE STEEL

TYPICAL

VERTICAL

WITH

WITHOUT

WOOD-I-JOIST

WOOD SCREW

WORK POINT

WOOD

TOP OF STEEL OR TOP OF SHEATHING

UNLESS NOTED OTHERWISE

GENERAL

T.O.W.

U.N.O.

VERT.

- 1. THESE STRUCTURAL DRAWINGS AND SPECIFICATIONS, INCLUDING ANY ADDENDA (COLLECTIVELY "THE PLANS") INCORPORATE ALL LEGAL AND INDUSTRY REQUIREMENTS AND STANDARDS INCLUDING WITHOUT LIMITATION THE FOLLOWING:
- CALIFORNIA BUILDING CODE, 2022 EDITION.
- CALIFORNIA EXISTING BUILDING CODE, 2022 EDITION.
- OTHER REGULATING AGENCIES WHICH MAY HAVE AUTHORITY OVER ANY PORTION OF THE WORK. INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND
- THE FUNCTIONALITY STANDARDS SET FORTH IN TITLE 7 OF THE CALIFORNIA CIVIL CODE (THE "RIGHT TO REPAIR ACT").
- THE MANUFACTURER'S REQUIREMENTS OR RECOMMENDATIONS FOR ANY INCORPORATED PRODUCTS.
- 2. THE PLANS REPRESENT ONLY THE FINISHED STRUCTURE, AND THEY ARE NOT INTENDED TO INDICATE OR REQUIRE ANY CONSTRUCTION MEANS. METHODS. TECHNIQUES, SEQUENCES OR PROCEDURES. IN PARTICULAR AND WITHOUT LIMITATION, THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR ANY AND ALL EXCAVATION, DEMOLITION, SHORING AND ERECTION PROCEDURES AND FOR ANY AND ALL SAFETY PROGRAMS AND PRECAUTIONS.
- 3. IN USING THE PLANS FOR BIDDING OR CONSTRUCTION PURPOSES, THE CONTRACTOR IS REQUIRED TO REVIEW ALL OF THE PROJECT'S CONSTRUCTION DOCUMENTS AS A WHOLE IN ORDER TO IDENTIFY ALL REQUIREMENTS THAT DIRECTLY OR INDIRECTLY AFFECT ITS PORTION OF THE STRUCTURAL WORK, EVEN REQUIREMENTS LOCATED IN SECTIONS DESIGNATED AS APPLICABLE TO OTHER TRADES. IN CASE OF CONFLICTS, THE CONTRACTOR SHALL EITHER OBTAIN DIRECTION FROM AN APPROPRIATE OWNER REPRESENTATIVE OR OTHERWISE APPLY THE MORE STRINGENT REQUIREMENT.
- 4. IN INTERPRETATING THE PLANS, THE FOLLOWING GENERAL RULES APPLY:
- WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS. SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES
- AND TYPICAL DETAILS. WORK NOT PARTICULARLY SHOWN OR SPECIFIED SHALL BE THE SAME AS
- SIMILAR PARTS THAT ARE SHOWN OR SPECIFIED. SCALED DIMENSIONS AND GRAPHICALLY SHOWN LOCATIONS ARE TO BE
- CONSIDERED ONLY APPROXIMATE.

5. IN IMPLEMENTING THE PLANS, THE FOLLOWING GENERAL RULES APPLY:

OTHERWISE PROCEEDING.

 BECAUSE THE PLANS ARE INTENDED TO SET FORTH THE REQUIREMENTS FOR CONSTRUCTION IN ONLY AN INDUSTRY-STANDARD LEVEL OF QUALITY AND DETAIL, AND THEREFORE ARE INTENDED TO BE SUPPLEMENTED BY APPROPRIATE REQUESTS FOR CLARIFICATION AND INFORMATION, ERRORS AND OMISSIONS ARE TO BE EXPECTED AND ANTICIPATED; AND THE CONTRACTOR IS REQUIRED TO CAREFULLY REVIEW THE PLANS FOR ERRORS AND OMISSIONS AND TO BRING THESE ERRORS AND OMISSIONS TO THE ATTENTION OF AN APPROPRIATE OWNER REPRESENTATIVE IN A TIMELY MANNER AND ASSUMES

THE RISK OF THE CONSEQUENCES OF FAILING TO DO SO BEFORE BIDDING OR

- THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION, AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES.
- 6. SUBMITTALS WILL BE REVIEWED BY THE STRUCTURAL ENGINEER, IF AT ALL, ONLY PURSUANT TO THE INDUSTRY-STANDARD PROTOCOL SET FORTH IN AIA DOCUMENT A201, AND IN NO EVENT WILL THE SUBMITTAL REVIEW PROCESS RELIEVE OR LESSEN THE SUBMITTING CONTRACTOR'S RESPONSIBILITY FOR AN INAPPROPRIATE SUBMITTAL.
- 7. IN NO EVENT WILL ANY SITE VISITS BY THE STRUCTURAL ENGINEER CONCERN CONSTRUCTION MEANS AND METHODS OR CONSTRUCTION SAFETY. AND ALL SUCH MATTERS SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 8. COPIES OF THE PLANS PROVIDED IN ANY ELECTRONIC FORM ARE SUBJECT TO THE SAME PROVISIONS AS THE OTHER INSTRUMENTS OF SERVICE PREPARED BY OR ON BEHALF OF STRUCTURAL ENGINEER FOR THE PROJECT, INCLUDING WITHOUT LIMITATION THE ENGINEER'S COMMON LAW, STATUTORY OR OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. A RECIPIENT IS GRANTED AT MOST A TRANSFERABLE NONEXCLUSIVE LICENSE TO REUSE THE PLANS SOLELY FOR PROJECT PURPOSES; AND NO RECIPIENT IS AUTHORIZED TO USE OR TO ALLOW THE USE OF ALL OR ANY PORTION OF THESE PLANS FOR ANY OTHER PURPOSE, AND ANY USE FOR ANY OTHER PURPOSE WOULD CONSTITUTE ACTIONABLE PLAGIARISM. STRUCTURAL ENGINEER PROVIDES DOCUMENTS IN AN ELECTRONIC FORM ONLY IN ITS STANDARD FORMATS AND CONVENTIONS AND WITH NO GUARANTEE OF COMPATIBILITY WITH ANY RECIPIENT'S SOFTWARE OR HARDWARE, AND ANY USE WITH OR CONVERSION TO OTHER FORMATS OR CONVENTIONS, OR THE USE WITH ANY PARTICULAR SOFTWARE OR HARDWARE, IS AT THE RECIPIENT'S SOLE RISK.

PROJECT DESIGN CRITERIA

1. BASIC DESIGN LIVE LOADS:

20 PSF (REDUCIBLE)

2. WIND LOADS

RISK CATEGORY: II EXPOSURE CATEGORY: (BASIC DESIGN WIND SPEED (3-SECOND GUST), V = 92 MPH VELOCITY PRESSURE EXPOSURE COEFFICIENT, $K_Z = 0.85 (0-15 \text{ FT})$ TOPOGRAPHIC FACTOR, $K_{Zt} = 1.0$ WIND DIRECTIONALITY FACTOR, $K_1 = 0.85$ GROUND ELEVATION FACTOR, Ke = 1.00 GUST EFFECT FACTOR, G = 0.85

A. MWFRS - DIRECTIONAL PROCEDURE (ASCE 7-16, CH. 27 PART 1) $q_z = 0.00256 K_z K_{zt} K_d Ke V^2 = 16.7 PSF$

 $P = qGC_P - q_i(GC_{Pi})$

EXTERNAL PRESSURE COEFFICIENT, $C_P = [FIG. 27.4-1 THRU]$ INTERNAL PRESSURE COEFFICIENT, (GCPi) = TABLE 26.13-1

B. COMPONENTS & CLADDING (ASCE 7-16, CH. 30) $q_h = 0.00256 K_Z K_{Zt} K_d V_{ULT}^2 = 16.7 PSF$

EXTERNAL PRESSURE COEFFICIENT, $(G_{CP}) = [FIG. 30.3-1]$ THRU INTERNAL PRESSURE COEFFICIENT, (GCPi) = TABLE 26.13-1

3. EARTHQUAKE LOADS

SEISMIC DESIGN CRITERIA

 $P = q_h [(GC_P) - (GC_{Pi})]$

 $S_S = 1.299$ $S_1 = 0.465$ SITE CLASS: D (DEFAULT) $F_{V} = 1.84$ $S_{DS} = 1.039$

 $S_{D1} = 0.853^{(1)}$

RĬŠK CATEGORY: SEISMIC DESIGN CATEGORY: [ALLOWABLE DRIFT LIMIT = 1%

(1) S_{D1} INCREASED PER ASCE 7 11.4.8 EXCEPTION

SEISMIC DESIGN REQUIREMENTS

DESIGN BASE SHEAR $V = C_S W$ $C_S = S_{DS}/(R/I_e)$ $C_S = 0.044S_{DS}l_e > 0.01$ BUT SHALL NOT BE LESS THAN BUT NEED NOT EXCEED $C_S = S_{D1}/[T(R/l_e)]$

DIMENSIONS

- 1. DIMENSIONS SHALL BE DEFINED TO INCLUDE BOTH HORIZONTAL DIMENSIONS AND VERTICAL DIMENSIONS (ELEVATIONS).
- WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS.
- 3. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT NOTED ON STRUCTURAL DRAWINGS.
- 4. SEE ARCHITECTURAL AND/OR CIVIL DRAWINGS FOR FINISH FLOOR ELEVATIONS.
- 5. SEE ARCHITECTURAL DRAWINGS FOR ALL TOP OF SHEATHING AND/OR ROOF
- 6. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES.

SUBMITTALS

- 1. SUBMITTALS, INCLUDING SHOP DRAWINGS AND CONCRETE MIX DESIGNS, REQUIRED BY THE SPECIFICATIONS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THE ITEMS.
- 2. A SCHEDULE FOR SUBMITTAL OF SHOP DRAWINGS SHALL BE PREPARED BY THE GENERAL CONTRACTOR AND REVIEWED BY THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO THE START OF FABRICATION. THE SCHEDULE SHALL PROPORTION THE QUANTITY OF SHOP DRAWINGS TO BE REVIEWED IN EACH SUBMITTAL TO ALLOW SUFFICIENT TIME, AS DEEMED REASONABLE IN THE PROFESSIONAL JUDGEMENT OF THE ARCHITECT AND STRUCTURAL ENGINEER, TO PERMIT ADEQUATE REVIEW.
- 3. SHOP DRAWINGS SHALL INDICATE THE DATE OR REVISION OF DRAWING(S) FROM WHICH THE DRAWINGS WERE PREPARED. SUBMITTALS THAT DO NOT IDENTIFY THE LATEST DATE OR REVISION OF DRAWING(S) WILL BE RETURNED WITHOUT REVIEW. ONLY SHOP DRAWINGS THAT ARE COMPLETE WILL BE ACCEPTED FOR
- 4. IF, AFTER REVIEW, THE SHOP DRAWINGS MUST BE REVISED AND RESUBMITTED, THE SHOP DRAWINGS SHALL IDENTIFY EACH REVISION AND/OR ADDITION BY
- CLOUDING OR OTHER MEANS TO ASSURE PROPER REVIEW. 5. SUBMITTALS WILL NOT BE ACCEPTED DIRECTLY FROM SUBCONTRACTORS. SUBMITTALS WILL BE ACCEPTED FROM THE GENERAL CONTRACTOR ONLY AFTER BEING REVIEWED AND SIGNED BY THE GENERAL CONTRACTOR. INDICATING COMPLIANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS. SUBMITTALS NOT COMPLYING WITH THE REQUIREMENTS NOTED ABOVE OR IN THE SPECIFICATIONS WILL BE RETURNED WITHOUT REVIEW.

EXISTING CONDITIONS

- 1. ALL INFORMATION SHOWN ON THE PLANS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE FROM PLANS SUPPLIED BY THE OWNER, BUT WITHOUT GUARANTEE OF ACCURACY.
- 2. WHERE ACTUAL CONDITIONS ARE NOT IN ACCORDANCE WITH THE INFORMATION PRESENTED, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY. NO MODIFICATIONS OF THE PLANS FOR NEW CONSTRUCTION SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.

EXISTING UNDERGROUND UTILITIES

- 1. THE ARCHITECT AND ENGINEERS ARE NOT RESPONSIBLE FOR THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES WHETHER OR NOT SHOWN ON THE DRAWINGS. THE LOCATION OF ANY EXISTING UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS. IF ANY, IS APPROXIMATE. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THE SITE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT SHOULD ANY SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES WHICH MAY RESULT FROM HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ALL EXISTING UNDERGROUND UTILITIES.

DEMOLITION

- 1. ALL DEMOLITION SHALL BE CARRIED ON IN SUCH A WAY AS NOT TO DAMAGE EXISTING ELEMENTS, WHICH ARE TO REMAIN IN THE FINISHED STRUCTURE.
- 2. ALL ELEMENTS OF THE STRUCTURE, WHICH ARE TO REMAIN, AND WHICH ARE DAMAGED DURING DEMOLITION WORK SHALL BE REPLACED AT NO ADDITIONAL COST. EXISTING ELEMENTS SHALL BE PROTECTED TO THE FULLEST EXTENT POSSIBLE, IN ORDER TO MITIGATE DAMAGE.
- 3. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ALL EXISTING ELEMENTS THAT ARE NECESSARY FOR THE INSTALLATION OF ALL NEW WORK.
- 4. DO NOT CORE OR CUT NEW OPENINGS IN EXISTING CONCRETE OR MASONRY WITHOUT SPECIFIC APPROVAL OF THE STRUCUTRAL ENGINEER. SUBMIT DIMENSIONED LAYOUT OF ALL PROPOSED NEW OPENINGS TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO CORING OR CUTTING OPENINGS. CONTRACTOR, AT HIS OWN EXPENSE, SHALL USE NON-DESTRUCTIVE METHODS TO LOCATE EXISTING REINFORCING. EXISTING REINFORCING SHALL NOT BE CUT WITHOUT SPECIFIC APPROVAL OF THE STRUCTURAL ENGINEER.

FOUNDATION

- 1. ALL PORTIONS OF WORK PERTAINING TO EXCAVATIONS, FOUNDATIONS AND RETAINING WALLS SHALL CONFORM TO TITLE 24, PART 2, CHAPTER 18.
- 2. THE FOUNDATION DESIGN IS BASED ON THE PRESUMPTIVE LOAD BEARING VALUES IN TABLE 1806.2 OF THE CBC.
- 3. AN ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF WAS USED FOR DESIGN. BOTTOM OF FOOTINGS SHALL BE 12 INCHES MINIMUM BELOW LOWEST ADJACENT FINAL GRADE AND BEAR ON APPROVED NATURAL GRADE OR COMPACTED FILL.
- 4. SEE SPECIFICATIONS FOR EARTHWORK OPERATIONS
- 5. THE CONTRACTOR SHALL PROVIDE FOR DE-WATERING OF EXCAVATIONS FROM EITHER SURFACE WATER, GROUND WATER OR SEEPAGE.
- 6. THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, APPROVALS, PERMITS, INSTALLATION AND MONITORING OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN TEMPORARY EXCAVATIONS.
- 7. EXCAVATIONS FOR FOOTINGS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE AND REINFORCING. THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER WHEN EXCAVATIONS ARE READY FOR INSPECTION. THE GEOTECHNICAL ENGINEER SHALL SUBMIT A LETTER OF COMPLIANCE TO THE OWNER.
- 8. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING WALLS BEFORE CONCRETE HAS ATTAINED FULL DESIGN STRENGTH. THE CONTRACTOR SHALL BRACE OR PROTECT ALL BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL DESIGN STRENGTH. THE CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS AND INSTALLATION AND REMOVAL OF SUCH BRACING.
- 9. FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS, TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. FLOODING WILL NOT BE PERMITTED.
- 10. ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION, SHALL BE REMOVED.
- 11. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT SHOULD ANY BURIED STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC., BE FOUND.

CONCRETE

- . ALL PORTIONS OF WORK PERTAINING TO CONCRETE CONSTRUCTION SHALL CONFORM TO TITLE 24, PART 2, CHAPTER 19.
- 2. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY. MIX DESIGNS SHALL CONFORM TO ACI 318, SEC. 26.4, CBC SEC.1903 AND 1904A. MIX DESIGNS SHALL INCORPORATE THE FOLLOWING CRITERIA:
- MINIMUM OF 5 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE. MAXIMUM OF 7 SACKS OF CEMENT PER YARD OF CONCRETE.
- MAXIMUM WATER/CEMENT RATIO (BY WEIGHT) OF CONCRETE IN CONTACT WITH SOIL SHALL BE 0.45.
- MAXIMUM SLUMP SHALL NOT EXCEED 3" ± 1" FOR FOOTINGS, SLABS ON GRADE, AND MASS CONCRETE; AND 4" ± 1" FOR OTHER CONCRETE. SLUMP LIMITATIONS NOTED SHALL APPLY TO CONCRETE MIX PRIOR TO THE ADDITION OF ANY WATER-REDUCING ADMIXTURES OR SUPER-PLASTICIZERS. MAXIMUM SLUMP MAY BE INCREASED TO 5 +/- 1" FOR MIX INCLUDING WATER-REDUCING ADMIXTURES OR SUPER-PLASTICIZERS.
- CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CHLORIDE(S) SHALL NOT BE
- 3. SCHEDULE OF STRUCTURAL CONCRETE 28 DAY MINIMUM STRENGTHS AND TYPES:
- FOOTINGS, CAISSONS, GRADE BEAMS 145 PCF, f'c = 4000 PSI
- SLABS ON GRADE
- 145 PCF, f'c = 4000 PSI ELSEWHERE UNLESS NOTED 145 PCF, f'c = 4000 PSI
- 4. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE II. CEMENT USED FOR CONCRETE IN CONTACT WITH SOIL SHALL CONFORM TO ASTM C-150, TYPE
- 5. AGGREGATE FOR NORMALWEIGHT CONCRETE SHALL CONFORM TO ASTM C-33. COMBINED AGGREGATE GRADATION OF 3/2" MAXIMUM (PEA GRAVEL) SHALL NOT BE
- 6. AGGREGATE FOR LIGHTWEIGHT CONCRETE SHALL CONFORM TO ASTM C-330. THE COURSE AGGREGATE SIZE SHALL NOT EXCEED 3/4" AND THE ABSOLUTE VOLUME OF COARSE AGGREGATE SHALL NOT EXCEED 9.0 CUBIC FEET PER CUBIC YARD OF CONCRETE
- 7. READY MIXED CONCRETE SHALL CONFORM TO ASTM C-94.

8. PLACEMENT OF CONCRETE SHALL CONFORM TO ACI 304. CLEAN AND ROUGHEN TO

- 9. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING CONCRETE.
- 10. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. CORING IN CONCRETE IS NOT PERMITTED EXCEPT AS SHOWN. NOTIFY THE STRUCTURAL ENGINEER, IN ADVANCE, OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- 11. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR
- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3" CONCRETE EXPOSED TO EARTH OR WEATHER:
- #6 THROUGH #18 BARS #5 BARS, W31 OR D31 WIRE, AND SMALLER CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS, JOISTS:
- #14 AND #18 BARS #11 BAR AND SMALLER BEAMS, COLUMNS: PRIMARY REINFORCEMENT STIRRUPS, TIES, SPIRALS
- 12. CONDUITS OR PIPES SHALL NOT BE EMBEDDED WITHIN A SLAB, WALL, BEAM, OR COLUMN, UNLESS SPECIFICALLY DETAILED.
- 13. CONDUITS OR PIPES SHALL NOT BE EMBEDDED WITHIN CONCRETE FILL OVER METAL DECK.

14. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ALL MOLDS, GROOVES,

- REVEALS, ORNAMENTS AND GROUNDS TO BE CAST IN CONCRETE. 15. DRYPACK WHERE NOTED ON DRAWINGS SHALL CONSIST OF 1 PART PORTLAND CEMENT AND 21/2 PARTS OF FINE AGGREGATE CONFORMING TO ASTM C-33 WITH
- ENOUGH WATER TO FORM A BALL WHEN SQUEEZED IN THE HAND. THE SPACE BETWEEN TWO SURFACES REQUIRING DRYPACK SHALL BE PACKED WITH THE DRYPACK MATERIAL BY TAMPING OR RAMMING WITH A BAR OR ROD UNTIL THE VOIDS ARE COMPLETELY FILLED.
- 16. NON-SHRINK GROUT WHERE NOTED ON DRAWINGS SHALL BE A PRE-MIXED COMPOUND CONSISTING OF NON-METALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICIZING ADDITIVES, CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 8,000 PSI AT 28 DAYS. WHERE APPLICATION THICKNESS EXCEEDS MANUFACTURER'S LIMITATIONS, EXTEND WITH 3/2" (GRAVEL) AGGREGATE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

REINFORCING STEEL

PERFORMED BY CERTIFIED WELDERS.

- 1. ALL PORTIONS OF WORK PERTAINING TO FABRICATION AND PLACEMENT OF REINFORCING STEEL SHALL CONFORM TO TITLE 24, PART 2, CHAPTER 19.
- 2. REINFORCING BARS SHALL CONFORM TO ASTM A-615 GRADE 60, EXCEPT #3 BARS MAY BE GRADE 40. REINFORCING BARS THAT ARE TO BE WELDED SHALL CONFORM
- TO ASTM A-706, GRADE 60. WELDING OF REINFORCEMENT SHALL BE WITH LOW HYDROGEN ELECTRODES AND SHALL CONFORM TO STRUCTURAL WELDING CODE - REINFORCING STEEL, AWS D1.4, BY THE AMERICAN WELDING SOCIETY AND CBC SEC. 1903A.8. WELDING RODS USED

FOR THE WELDING OF REINFORCING SHALL BE E80XX. ALL WELDING SHALL BE

- 4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD. ALL #5 OR LARGER REINFORCING BARS SHALL NOT BE RE-BENT.
- 5. FUSION WELDED REINFORCING STEEL ASSEMBLIES SHALL CONFORM TO SEC. 1903.8. TIES/STIRRUP BARS IN FUSION WELDED ASSEMBLIES SHALL CONFORM TO ASTM A-706, AND LONGITUDINAL HOLDING WIRES SHALL CONFORM TO ASTM-1064. CONTRACTOR AT HIS OPTION MAY USE FUSION WELDED REINFORCING STEEL ASSEMBLIES AT LOCATIONS APPROVED BY DSA. CONTRACTOR SHALL PROVIDE DRAWINGS SUITABLE FOR SUBMITTAL AND APPROVAL BY DSA SHOWING PROPOSED LOCATIONS AND DETAILS NOT ALREADY DETAILED ON DSA APPROVED DRAWINGS. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR ANY AND ALL DELAYS RELATED TO APPROVAL AND USE OF FUSION WELDED REINFORCING STEEL ASSEMBLIES.
- 6. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-1064, AND SHALL BE LAPPED 1½ SPACES AND 12" MINIMUM.
- 7. DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME GRADE, SIZE, SPACING AND NUMBER AS THE VERTICAL REINFORCEMENT, RESPECTIVELY.
- 8. REINFORCING SPLICES SHALL BE MADE AS INDICATED ON THE DRAWINGS.
- 9. ALL VERTICAL REINFORCING SHALL BE CONTINUOUS BETWEEN TWO DIAPHRAGM LEVELS, UNLESS NOTED OTHERWISE.

WOOD

- ALL PORTIONS OF WORK PERTAINING TO WOOD CONSTRUCTION SHALL CONFORM TO TITLE 24, PART 2, CHAPTER 23, INCLUDING ADDITIONAL REQUIREMENTS AND EXCEPTIONS, AS APPLICABLE.
- 2. LUMBER SHALL BE GRADED IN ACCORDANCE WITH THE STANDARD GRADING RULES NO. 17 OF THE WEST COAST LUMBER INSPECTION BUREAU, OR THE STANDARD GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION.
- 3. DIMENSION LUMBER SHALL BE DOUGLAS FIR-LARCH, NO. 1 AND BETTER GRADE, UNLESS NOTED OTHERWISE. TIMBERS SHALL BE DOUGLAS FIR LARCH, NO. 1 GRADE, UNLESS NOTED OTHERWISE. MOISTURE CONTENT AT TIME OF INSTALLATION SHALL BE 19% OR LESS
- 4. DESIGN VALUES FOR DOUGLAS FIR-LARCH, NO. 1 AND BETTER PER NDS SUPPLEMENT TABLE 4A:
- Fb = 1200 PSI Ft = 800 PSIFv = 180 PSI $Fc_{\perp} = 625 PSI$ $E_{min} = 660 \text{ KSI}$ G = 0.50Fc = 1550 PSIE = 1800 KSI
- 5. ALL PLYWOOD SHALL BE STRUCTURAL 1 AND COMPLY WITH PRODUCT STANDARD PS-1. SPAN RATING SHALL BE $\frac{24}{1}$ MINIMUM. USE PLYWOOD NAILS SAME GAUGE AS COMMON WIRE NAILS WITH LENGTHS AT LEAST EQUAL TO PLYWOOD THICKNESS PLUS REQUIRED PENETRATION IN ACCORDANCE WITH CBC SECTIONS 2306.2 (AWC SDPWS TABLE 4.2A) OR 2306.3 (AWC SDPWS TABLE 4.3A), AS APPLICABLE.
- 6. EXPOSED MEMBERS SHALL BE SELECT STRUCTURAL GRADE, FREE OF HEART CENTER (WHERE SIZE PERMITS), AND SELECTED FOR APPEARANCE AND STRAIGHTNESS.
- DIAMETER THAN NOMINAL SIZE OF BOLT USED. RETIGHTEN ALL NUTS PRIOR TO

8. STANDARD CUT WASHERS SHALL BE USED UNDER BOLT HEADS AND NUTS AGAINST

7. BOLT HOLES SHALL BE A MINIMUM OF $\frac{1}{2}$ TO A MAXIMUM OF $\frac{1}{6}$ LARGER

- WOOD. USE HEAVY PLATE OR MALLEABLE IRON WASHERS WHERE NOTED. 9. DO NOT BORE OR NOTCH MEMBERS, EXCEPT WHERE SHOWN IN DETAILS. OBTAIN ENFORCEMENT AGENCY AND STRUCTURAL ENGINEER'S APPROVAL FOR ANY HOLES
- OR NOTCHES NOT DETAILED. 10. METAL CONNECTORS FOR WOOD CONSTRUCTION SHALL BE SIMPSON "STRONG-TIE", KC METALS, OR APPROVED EQUAL, UNLESS NOTED OTHERWISE. PRODUCT CALLOUT ON PLANS REFERS TO SIMPSON "STRONG TIE" MODEL NUMBER AND KC METALS PRODUCT REFERENCE NUMBER. FILL ALL ROUND AND TRIANGLE HOLES WITH THE SPECIFIED NAILS. APPROVED EQUALS MAY ONLY BE USED WITH PRIOR APPROVAL FROM ENFORCEMENT AGENCY AND THE STRUCTURAL ENGINEER.
- 11. ALL SILL PLATES WHICH REST ON FOUNDATION OR SLAB ON GRADE SHALL BE PRESERVATIVE-TREATED IN ACCORDANCE WITH CBC SEC. 2303.1.9. AND SHALL BEAR THE QUALITY MARK OF AN APPROVED INSPECTION AGENCY THAT MAINTAINS CONTINUING SUPERVISION, TESTING AND INSPECTION OVER THE QUALITY OF PRESERVATIVE-TREATED WOOD. CUTS AND HOLES SHALL BE RETREATED.
- 12. JOISTS MORE THAN 8-INCH DEPTH SHALL BE CONTINUOUSLY BRIDGED BY SOLID BLOCKING, 2 INCHES THICK AND THE FULL DEPTH OF THE JOIST, SPACED AT 8 FEET ON CENTER.
- USING COMMON WIRE NAILS. PREDRILL ALL NAILS 20D AND LARGER AND WHERE REQUIRED TO PREVENT SPLITTING. 14. FASTENERS & CONNECTORS, INCLUDING BOLTS NUTS AND WASHERS, IN CONTACT

13. ALL NAILING SHALL CONFORM TO CBC TABLE 2304.10.2 - FASTENING SCHEDULE,

- WITH PRESERVATIVE—TREATED WOOD SHALL BE OF HOT—DIPPED ZINC—COATED GALVANIZED STEEL IN ACCORDANCE WITH CBC SECTION 2304.10.6.1. 15. LAG SCREWS SHALL HAVE LEAD HOLES BORED BEFORE INSTALLING. HOLE
- DIAMETERS SHALL BE AS FOLLOWS: A. SHANK PORTION SAME DIAMETER AND LENGTH OF SHANK.

AS THREADED PORTION.

0.40 TO 0.70 DIAMETER OF SHANK AND SAME LENGTH

MACHINE APPLIED NAILING

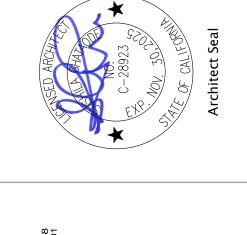
B. THREADED PORTION

THE USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOB SITE DEMONSTRATION AND THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE ENFORCEMENT AGENCY. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. IF NAILHEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER, OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY AND SHALL BE DISCONTINUED.

STRUCTURAL OBSERVATION

- THE OWNER SHALL EMPLOY RTM CONSULTING ENGINEERS (RTM), OR OTHER ENGINEER DESIGNATED BY RTM. TO PERFORM STRUCTURAL OBSERVATION AS DEFINED IN CALIFORNIA BUILDING CODE, SECTION 1704.6. OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER'S REPRESENTATIVE. SPECIAL INSPECTOR, CONTRACTOR AND THE BUILDING OFFICIAL. THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFYING ANY REPORTED DEFICIENCIES THAT, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.
- 2. AS DEFINED IN CALIFORNIA BUILDING CODE CHAPTER 2, STRUCTURAL OBSERVATION MEANS "THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM BY A REGISTERED DESIGN PROFESSIONAL FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS".

ARCHITECTS BANNON HATAODE 3 GBA





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CONCRETE BLOCK MASONRY (f'm = 2,000 PSI)

- 1. ALL PORTIONS OF WORK PERTAINING TO CONCRETE BLOCK MASONRY CONSTRUCTION SHALL CONFORM TO THE CALIFORNIA BUILDING CODE, CHAPTER 21.
- 2. THE STRENGTH OF CONCRETE BLOCK MASONRY CONSTRUCTION SHALL BE DETERMINED BY THE UNIT STRENGTH METHOD IN ACCORDANCE WITH ARTICLES 1.4B.2b, 1.5B.1 & 1.5B.2.
- 3. THE STRENGTH OF CONCRETE BLOCK MASONRY CONSTRUCTION SHALL BE DETERMINED BY PRISM TESTING IN ACCORDANCE WITH TMS 602 ARTICLES 1.4B.2b,
- 4. CONCRETE BLOCKS SHALL BE HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS CONFORMING TO ASTM C-90, MEDIUM WEIGHT UNITS, NET COMPRESSIVE STRENGTH
- OF 2,000 PSI. USE OPEN END UNITS AT VERTICAL REINFORCING. 5. CEMENT SHALL BE AS SPECIFIED FOR CONCRETE.
- 6. MORTAR SHALL CONFORM TO ASTM C-270 FOR TYPE S MORTAR. MORTAR SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.
- 7. GROUT SHALL CONFORM TO ARTICLE 2.2 OF TMS 602/ACI 5301/ASCE 6, FOR COARSE GROUT. USE SUFFICIENT WATER FOR GROUT TO FLOW INTO ALL CELLS WITHOUT SEGREGATION. SIKA GROUT AID ADMIXTURE, OR APPROVED EQUAL, SHALL BE USED. GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.
- 8. PROVIDE A MINIMUM ONE BAR DIAMETER OF GROUT BETWEEN MAIN REINFORCING AND MASONRY UNITS. PROVIDE A MINIMUM OF 1" OF GROUT AROUND ALL BOLTS EMBEDDED IN MASONRY.
- 9. CELLS SHALL BE IN VERTICAL ALIGNMENT. DOWELS IN FOOTINGS SHALL BE SET TO ALIGN WITH CORES CONTAINING VERTICAL REINFORCING.
- 10. ALL REINFORCING BARS, ANCHOR BOLTS, STEEL PLATES, AND OTHER CMU INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING GROUT, TO PREVENT MOVEMENT DURING GROUT PLACEMENT AND CONSOLIDATION WITH MECHANICAL VIBRATOR DIRECTLY ADJACENT.
- 11. ALL CELLS IN CONCRETE BLOCKS SHALL BE SOLIDLY FILLED WITH GROUT.
- 12. LOW-LIFT GROUTED CONSTRUCTION SHALL CONFORM TO TMS 602 ARTICLE 3.5D. MAXIMUM GROUT POUR HEIGHT FOR LOW-LIFT CONSTRUCTION SHALL BE 4 FEET.
- 13. HIGH-LIFT GROUTED CONSTRUCTION SHALL CONFORM TO TMS 602 ARTICLE 3.5D. MAXIMUM GROUT POUR HEIGHT SHALL NOT EXCEED 12 FEET. PROVIDE CLEANOUT OPENINGS AND ADEQUATE PROVISIONS TO PREVENT FACE SHELL DAMAGE (BLOW-OUT) AT THE BOTTOM OF EACH POUR OF GROUT.
- 14. GROUT POURS SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION AND RECONSOLIDATED AFTER EXCESS MOISTURE HAS BEEN ABSORBED, BUT BEFORE WORKABILITY IS LOST.
- 15. HORIZONTAL REINFORCING SHALL BE PLACED IN BOND BEAM UNITS.
- 16. REFER TO ARCHITECTURAL DRAWINGS FOR SURFACE TEXTURE, HEIGHT OF MASONRY UNITS, LAYING PATTERN AND JOINT TYPE. USE RUNNING BOND PATTERN, UNLESS NOTED OTHERWISE.
- 17. NO PIPES OR DUCTS SHALL BE PLACED IN MASONRY CONSTRUCTION UNLESS SPECIFICALLY NOTED OR DETAILED.
- 18. ELECTRICAL CONDUIT MAY BE ROUTED IN MASONRY WALLS AS FOLLOWS:
- A. MAXIMUM SIZE AND QUANTITY OF CONDUIT PER CELL (EXCEPT AT JUNCTION BOXES) SHALL BE AS FOLLOWS: FOR 8" BLOCK, ONE-1" DIAMETER OR TWO $-\frac{3}{4}$ " DIAMETER: FOR 12" BLOCK. TWO – 1" DIAMETER OR FOUR $-\frac{3}{4}$ " DIAMETÈR. MULTIPLE CONDUITS SHALL BE BUNDLED TOGETHER.
- B. CONDUIT SHALL NOT BE PLACED IN A MASONRY CELL CONTAINING
- C. CONDUIT SHALL NOT BE PLACED IN A PILASTER.
- D. CONDUIT SHALL BE PLACED AT THE CENTERLINE OF THE WALL.
- 16. ALL STRUCTURAL MASONRY WORK SHALL BE CONTINUOUSLY INSPECTED DURING LAYING AND GROUTING BY A SPECIAL INSPECTOR SPECIFICALLY APPROVED BY THE ENFORCEMENT AGENCY FOR THAT PURPOSE.

STEEL DECKING

- 1. SEE STRUCTURAL STEEL AND MISCELLANEOUS METAL NOTES FOR ADDITIONAL INFORMATION.
- 2. STEEL DECKING SHALL BE OF THE TYPE AND GAUGE AS NOTED ON THE DRAWINGS. DECKING AND ALL ACCESSORIES SHALL BE GALVANIZED AND SHALL CONFORM TO ASTM A-653 SS, GRADE 50 MINIMUM. GALVANIZING SHALL CONFORM TO COATING DESIGNATION G90, UNLESS NOTED OTHERWISE.
- 3. STEEL DECKING TO RECEIVE CONCRETE FILL SHALL BE COMPOSITE TYPE, DEFORMED TO PROVIDE MECHANICAL BOND WITH THE CONCRETE, UNLESS NOTED
- 4. STEEL DECKING TO RECEIVE CONCRETE FILL SHALL HAVE BUILT-IN VENTS. UNITS SHALL HAVE SLOTTED AND VENTED WEBS WITH A MINIMUM 1.5% UNIFORMLY DISTRIBUTED OPEN AREA.
- 5. DECK UNITS SHALL BE CONTINUOUS OVER TWO OR MORE SPANS. PROVIDE SHORING AS REQUIRED BY MANUFACTURER'S CURRENT EVALUATION REPORT FOR NUMBER AND LENGTHS OF SPANS, AND AS REQUIRED BY MANUFACTURER TO SUIT JOB CONDITIONS.
- 6. MINIMUM BEARING OF DECKING ON SUPPORTS SHALL BE 2 INCHES. SHEETS SHALL BE ATTACHED TO ALL SUPPORTING STEEL MEMBERS (INCLUDING MEMBERS PARALLEL TO DECK UNDER UP-FLUTES) BY WELDING AS INDICATED ON DRAWINGS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ADD METAL PLATE TO MATCH DECK THICKNESS, AS REQUIRED TO FACILITATE WELDING WHERE DECK DOWN FLUTES DO NOT LAND ON PARALLEL SUPPORTING MEMBERS. UPON COMPLETION OF ERECTION, ALL WELDS SHALL BE TOUCHED UP, DE-SLAGED, CLEANED AND PRIMED WITH A ZINC RICH PRIMER.
- 7. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL DRAWINGS, ETC., FOR SIZE AND LOCATION OF REQUIRED OPENINGS.
- 8. PROVIDE CLOSURE PLATES AT ALL DECK EDGES. INCLUDING CLOSURES AT COLUMNS, AND SHAFT OPENINGS OR DUCT PENETRATIONS. STEEL DECKING SUBCONTRACTOR SHALL SUPPLY ALL CLOSURES AND ALL SUPPORT FRAMING WHERE NECESSARY FOR SUCH OPENINGS.
- 9. STEEL DECKING SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. SHOP DRAWINGS SHALL INDICATE LOCATION, GAUGE AND SIZE OF EACH PIECE OF DECKING. SHOP DRAWINGS SHALL ALSO SHOW ALL CLOSURE CONDITIONS, WELDS TO SUPPORTS AND SIDE LAP DETAILS.
- 10. STEEL DECKING SHOP DRAWINGS SHALL INDICATE SHEAR STUD CONNECTOR DETAILS AND STUD LAYOUT FOR EACH BEAM.
- 11. SHEAR STUDS SHALL BE WELDED THROUGH ONLY ONE THICKNESS OF DECK USING APPROVED WELDING METHODS. DECK SHALL BE PREPUNCHED WHERE MORE THAN ONE LAYER OF DECKING OCCURS AT A STUD LOCATION.
- 12. WELDING OF STEEL DECKING SHALL BE IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE - SHEET STEEL, AWS D1.3 BY THE AMERICAN WELDING SOCIETY.

STRUCTURAL STEEL AND MISCELLANEOUS METAL

- 1. ALL PORTIONS OF WORK PERTAINING TO STRUCTURAL STEEL CONSTRUCTION SHALL CONFORM TO THE CALIFORNIA BUILDING CODE, CHAPTER 22.
- 2. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-992, UNLESS NOTED
- 3. ROUND HOLLOW STRUCTURAL SECTION (HSS) SHALL CONFORM TO ASTM A-500, GRADE C (Fy=46 KSI).
- 4. SQUARE AND RECTANGULAR HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO ASTM A-500, GRADE C (Fy=50 KSI).
- 5. PIPE SECTIONS SHALL CONFORM TO ASTM A53 GRADE B (Fy=35 KSI).
- 6. CHANNELS, ANGLES AND PLATES SHALL CONFORM TO ASTM A-36, UNLESS NOTED
- 7. ALL BOLTS SHALL CONFORM TO THE FOLLOWING, UNLESS NOTED OTHERWISE:
- ANCHOR BOLTS IN MASONRY: ASTM A-307 ANCHOR RODS IN CONCRETE: ASTM F1554, GRADE 36
- TYPICAL STEEL CONNECTIONS: ASTM A325N OR ASTM A490 (NON-SLIP-CRITICAL)
- MOMENT AND DRAG CONNECTIONS: ASTM A325SC, ASTM A490SC, ASTM F1852 OR ASTM F2280 (SLIP-CRITICAL) MISCELLANEOUS CONNECTIONS NOT NOTED OTHERWISE: ASTM A-307
- 8. HIGH STRENGTH BOLTS SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE:
- JOINT ASSEMBLIES USING HIGH-STRENGTH BOLTS SHALL BE IN ACCORDANCE

WITH SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS,

 NUTS SHALL CONFORM TO ASTM A-563, AND WASHERS SHALL CONFORM TO ASTM F-436.

BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS.

- PAINT SHALL NOT BE PERMITTED ON CONTACT SURFACES UNLESS NOTED OTHERWISE. CONTACT SURFACES OF BOLTED PARTS SHALL BE DESCALED AND FREE OF DIRT, OIL, BURRS, PITS, AND OTHER DEFECTS WHICH PREVENT SOLID
- SEATING OF PARTS. SLIP-CRITICAL JOINT ASSEMBLIES SHALL BE FULLY PRE-TENSIONED BY TURN-OF-NUT TIGHTENING, CALIBRATED WRENCH TIGHTENING OR BY DIRECT TENSION INDICATOR TIGHTENING (ASTM F959).
- 9. STRUCTURAL STEEL IN SFRS LINES SHALL BE CONNECTED IN SLIP-CRITICAL JOINTS COMPLYING WITH AISC 341-16, SECTION D.2.2, CLASS A FAYING SURFACE.
- 10. ANCHOR BOLTS SHALL BE HEX HEADED. BENT BAR ANCHORS SHALL NOT BE
- 11. BOLT HOLES SHALL BE $\frac{1}{16}$ LARGER IN DIAMETER THAN NOMINAL SIZE OF BOLT USED, UNLESS NOTED OTHERWISE. BOLT HOLES AT COLUMN BASEPLATES MAY BE $\frac{3}{6}$ " MAXIMUM LARGER IN DIAMETER THAN NOMINAL SIZE OF ANCHOR BOLT USED, UNLESS NOTED OTHERWISE.
- 12. STRUCTURAL STEEL SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- 13. ALL WELDING SHALL CONFORM TO THE STRUCTURAL WELDING CODE STEEL. AWS D1.1 AND STRUCTURAL WELDING CODE SEISMIC SUPPLEMENT AWS D1.8. BY THE AMERICAN WELDING SOCIETY. WELDING RODS SHALL BE E70XX.
- 14. ALL WELDING IN SFRS LINES SHALL COMPLY WITH AWS D1.8 AND AISC 341-16 SECTION A3.4A.
- 15. THE FILLER METAL FOR ALL WELDING SHALL HAVE A NOTCH TOUGHNESS OF NOT LESS THAN 20 FT-LBS AT 0 DEGREES F. AS MEASURED BY A STANDARD CHARPY V-NOTCH TEST, ASTM E23, IN ACCORDANCE WITH THE APPLICABLE FILLER METAL SPECIFICATION REFERENCED IN AWS D1.1 AND SEISMIC SUPPLEMENT AWS
- 16. ALL DEMAND CRITICAL WELDS SHALL HAVE A NOTCH TOUGHNESS OF NOT LESS THAN 40 FT-LBS AT 70 DEGREES F. AS MEASURED BY STANDARD CHARPY V-NOTCH TEST, ASTM E23, IN ACCORDANCE WITH THE APPLICABLE FILLER METAL SPECIFICATION REFERENCED IN AWS D1.1 AND SEISMIC SUPPLEMENT AWS D1.8.
- 17. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.
- 18. ALL WELDS NOT SPECIFIED SHALL BE CONTINUOUS FILLET WELDS. SIZE OF WELDS SHALL BE BASED ON AWS D1.1 AND AISC 360-16 SECTION J2.2b FOR THICKER PART JOINED.
- 19. WRITTEN WELDING PROCEDURE SPECIFICATIONS (WPS) PER THE RECOMMENDATIONS OF THE AMERICAN WELDING SOCIETY (AWS) SHALL BE DEVELOPED BY THE FABRICATOR/ERECTOR AND SUBMITTED FOR REVIEW TO THE ENGINEER PRIOR TO ANY WELDING OF THE STRUCTURAL STEEL. THE WELDING PROCEDURES SHALL INCLUDE ALL THE WELDED JOINTS AND CONFIGURATIONS TO BE USED ON THE PROJECT-ONLY WPS WHICH ARE RELEVANT TO THIS PROJECT SHALL BE SUBMITTED. ALL WELDED JOINTS SHALL BE PREQUALIFIED PER AWS OR BE QUALIFIED BY TEST PER AWS. A PROCEDURE QUALIFICATION RECORD (PQR) SHALL BE INCLUDED WITH THE WPS IF THE WELDING PROCDURE OR JOINT IS QUALIFIED BY TESTING. THE ELECTRODE MANUFACTURER AND THE PROJECT/TRADE NAME SHALL BE INDENTIFIED IN THE WPS IN ADDITION TO THE AWS ELECTRODE CLASSIFICATION NAME. A COPY OF THE ELECTRODE MANUFACTURER'S TECHNICAL DATA SHEETS WITH THE RECOMMENDED WELDING PARAMETERS SHALL BE SUBMITTED WITH THE WPS.
- 20. DO NOT PAINT STRUCTURAL STEEL SURFACES THAT ARE TO RECEIVE SPRAY-APPLIED FIREPROOFING OR TO BE ENCASED IN CONCRETE OR MASONRY.
- 21. ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL ITEMS, INCLUDING CONNECTORS, EXPOSED TO THE WEATHER SHALL BE HOT-DIPPED GALVANIZED, AFTER FABRICATION. PROTECT FIELD WELDS EXPOSED TO WEATHER VIA PRIME AND PAINT OR BRUSH/COLD GALVANIZING.
- 22. FOR ALL STRUCTURAL STEEL THAT IS TO REMAIN EXPOSED AND VISIBLE PER THE ARCHITECTURAL DRAWINGS, CONTRACTOR SHALL GRIND SMOOTH ALL EXPOSED WELDS AND SHALL COMPLY WITH THE SPECIFICATIONS FOR (AESS) ARCHITECTURALLY EXPOSED STRUCTURAL STEEL FOUND ON THE AISC CODE OF STANDARD PRACTICE.
- 23. STRUCTURAL STEEL SHALL BE DELIVERED TO THE JOB SITE FREE OF EXCESSIVE RUST, MILL SCALE, GREASE, ETC.
- 24. OPENINGS SHALL NOT BE PLACED IN STEEL MEMBERS UNLESS SPECIFICALLY DETAILED.
- 25. THE CONTRACTOR SHALL IDENTIFY ALL PROTECTED ZONE SURFACES USING SUITABLE NON-DESTRUCTIVE MEANS (SUCH AS YELLOW PAINT). TEMPORARY METHODS SUCH AS DUCT TAPE IS NOT ALLOWED.
- ONCE THE STEEL DECKING IS IN PLACE, THE CONTRACTOR SHALL USE SUITABLE NON-DESTRUCTIVE AND PERMANENT MEANS TO IDENTIFY THE PROTECTED ZONES PRIOR TO THE INSTALLATION OF SHEAR STUDS AND DECK ATTACHMENTS.
- AFTER SPRAYED ON FIRE—RESISTIVE MATERIAL HAS BEEN APPLIED, THE CONTRACTOR SHALL USE SUITABLE NON-DESTRUCTIVE AND PERMANENT MEANS TO IDENTIFY THE PROTECTED ZONES FOR OTHER DISCIPLINES TO PRECLUDE UNAUTHORIZED ATTACHMENTS.

STRUCTURAL TESTS AND INSPECTIONS

- 1. IN ADDITION TO THE REQUIRED INSPECTIONS, THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS WHO SHALL PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED BELOW.
- 2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- 3. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
- 4. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL. THE STRUCTURAL ENGINEER, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE STRUCTURAL ENGINEER AND TO THE ENFORCEMENT AGENCY.
- 5. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION, WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
- 6. SPECIAL INSPECTIONS SHALL NOT BE REQUIRED WHEN THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED BY THE ENFORCEMENT AGENCY TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION.
- 7. THE FOLLOWING TYPES OF WORK SHALL BE INSPECTED BY A SPECIAL INSPECTOR: STEEL CONSTRUCTION (SEE SECTION 1705.2 FOR ADDITIONAL INFORMATION)

MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS: IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN APPROVED CONSTRUCTION DOCUMENTS MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED

INSPECTION OF HIGH-STRENGTH BOLTING

INSPECTION OF WELDING STRUCTURAL STEEL REINFORCING STEEL

VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS SHEAR REINFORCEMENT OTHER REINFORCING STEEL

INSPECTION OF STEEL FRAME JOINTS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS

CONCRETE CONSTRUCTION (SEE SECTION 1705.3 AND TABLE 1705.3 FOR ADDITIONAL INFORMATION) INSPECTION OF REINFORCING STEEL PLACEMENT

INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED VERIFYING USE OF REQUIRED MIX DESIGN

AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF CONCRETE

INSPECT CONCRETE PLACEMENT FOR PROPER TECHNIQUES

INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES

INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE

MEMBER BEING FORMED MASONRY CONSTRUCTION - LEVEL A (OCCUPANCY CATEGORIES I, II & III)

(SEE SECTION 1705.4 FOR ADDITIONAL INFORMATION) AS MASONRY CONSTRUCTION BEGINS. THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE: PROPORTIONS OF SITE-PREPARED MORTAR

THE INSPECTION PROGRAM SHALL VERIFY: SIZE AND LOCATION OF STRUCTURAL ELEMENTS TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION SPECIFIED SIZE, GRAND AND TYPE OF REINFORCING WELDING OF REINFORCING BARS PROTECTION OF MASONRY DURING COLD WEATHER OR HOT WEATHER

PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE

COMPLIANCE: GROUT SPACE IS CLEAN PLACEMENT OF REINFORCEMENT AND CONNECTORS

THAT SITE HAS BEEN PREPARED PROPERLY

CONSTRUCTION OF MORTAR JOINTS

PRISMS SHALL BE OBSERVED

LOCATION OF REINFORCEMENT AND CONNECTORS

CONSTRUCTION OF MORTAR JOINTS

GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR

COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED

(SEE SECTION 1705.6 AND TABLE 1705.6 FOR ADDITIONAL INFORMATION) VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY

VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS

VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY

POST-INSTALLED ANCHORS

- 1. ACCEPTABLE EQUIVALENT MANUFACTURERS OF POST-INSTALLED EXPANSION ANCHORS AND SCREW ANCHORS SHALL BE HILTI INC., SIMPSON STRONG-TIE
- COMPANY INC., OR DEWALT, UNO. 2. TESTS FOR POST-INSTALLED ANCHORS IN HARDENED CONCRETE SHALL CONFORM
- TO TITLE 24, PART 2, CHAPTER 19, SECTION 1910.5.
- 3. POST-INSTALLED ANCHOR INSTALLATION SHALL BE INSPECTED BY A SPECIAL INSPECTOR SPECIFICALLY APPROVED BY THE ENFORCEMENT AGENCY FOR THAT
- 4. POST-INSTALLED ANCHOR TESTING SHALL BE DONE IN THE PRESENCE OF THE

5. TEST QUANTITY OF POST-INSTALLED ANCHORS AS NOTED BELOW: <u>APPLICATION</u> <u>QUANTITY</u>

10% OF BOLTS SILL PLATES STRUCTURAL 100% OF BOLTS NON-STRUCTURAL (EQUIP. ANCHORAGE, ETC.) 50% OF BOLTS

RESUME INITIAL TESTING FREQUENCY. 7. TORQUE TESTING SHALL BE APPLIED BY CALIBRATED WRENCH. TENSION TESTING (WHERE INDICATED) SHALL BE APPLIED BY HYDRAULIC JACK OR CALIBRATED

6. IF ANY ANCHOR FAILS TESTING, TEST ALL ANCHORS OF THE SAME CATEGORY NOT

PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN

- 8. THE FOLLOWING CRITERIA SHALL APPLY FOR THE ACCEPTANCE OF INSTALLED
- A. TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE ATTAINED WITHIN ONE-HALF (房) TURN OF THE NUT. SLEEVE ANCHORS ¾ INCH DIAMETER OR LESS MUST ATTAIN THE SPECIFIED TEST TORQUE WITHIN ONE-QUARTER (1/4) TURN OF THE NUT. AND THREADED ANCHORS MUST ATTAIN THE SPECIFIED TEST TORQUE WITHIN ONE-QUARTER (1/4) TURN OF THE SCREW AFTER INITIAL SEATING OF THE SCREW HEAD.
- B. HYDRAULIC RAM METHOD: (FOR TENSION TESTING WHERE INDICATED) ANCHORS SHALL MAINTAIN THE TENSION TEST LOAD FOR A MINIMUM OF 15 SECONDS AND SHALL EXHIBIT NO DISCERNABLE MOVEMENT DURING THE TENSION TEST. (AN EXAMPLE OF DISCERNABLE MOVEMENT WOULD BE LOOSENING OF THE WASHER UNDER THE NUT).
- 9. TEST LOADS (1)(2)(3)

PROJECT INSPECTOR.

SPRING LOADING DEVICE.

POST-INSTALLED ANCHORS:

1	ORQUE TEST VALUES NORMAL WEIG	– EXPANSION ANCHORS HT CONCRETE	5
ANCHOR DIAMETER (INCH)	ANCHOR DEPTH (INCHES)	REQ'D. ANCHOR DEPTH (INCHES NOMINAL)	TORQUE (FT-LBF
3⁄8	2	21/2	30
1/	2	21/2	50
1/2	31/4	33/4	50
5%	31/4	33/4	40
78	4	4½	40
3⁄4	33/4	4½	110
74	43/4	51/2	110

- (1) TEST VALUES ARE BASED ON KWIK BOLT TZ2 (KB-TZ2) EXPANSION ANCHORS BY HILTI, INC. (ICC EVALUATION REPORT NUMBER ESR-4266).
- (2) TEST VALUES ARE BASED ON CARBON STEEL ANCHORS.
- (3) VERIFY TORQUE VALUES WITH MANUFACTURER FOR SIMPSON STRONG-BOLT 2 (ICC ESR-3037) OR DEWALT POWER-STUD+SD2 (ICC ESR-2502)

1		— EXPANSION ANCHORS LLED CMU	5
ANCHOR DIAMETER (INCH)	ANCHOR DEPTH (INCHES)	REQ'D. ANCHOR DEPTH (INCHES NOMINAL)	TORQUE (FT-LBF)
3/8	21/2	3	15
1/2	2	21/2	25
/2	31/4	33/4	25
5/8	23/4	31/4	35
% 8	4	4½	35
3⁄4	31/4	4	50
74	43/4	5½	50

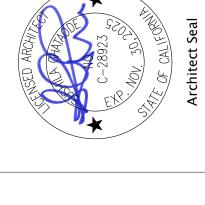
- (1) TEST VALUES ARE BASED ON KWIK BOLT TZ2 (KB-TZ2) EXPANSION ANCHORS BY HILTI, INC. (ICC EVALUATION REPORT NUMBER ESR-4561).
- (2) TEST VALUES ARE BASED ON CARBON STEEL ANCHORS.
- (3) ACCETABLE EQUIVALENT ANCHORS SHALL HAVE ICC OR IAPMO APPROVAL FOR 2021 IBC IN CRACKED GROUT FILLED CMU.

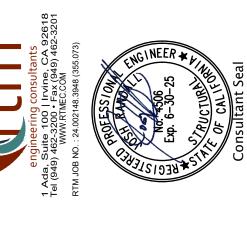
TORQUE TEST VALUES — SCREW ANCHORS NORMAL WEIGHT CONCRETE				
ANCHOR DIAMETER (INCH)	ANCHOR DEPTH (INCHES NOMINAL)	TORQUE (FT-LBF)		
1/	1 ⁵ / ₈ "	24		
<i>y</i> ₄	2 ½"	24		
3/	23/4	50		
%	31/2	50		
1/	3¾	65		
1/2	41/2	65		
5/	41/2	100		
5/8	6	100		
3/	6	150		
3⁄4	6 ³ ⁄ ₄	150		

- (1) TEST VALUES ARE BASED ON TITEN HD SCREW ANCHORS BY SIMPSON STRONG-TIE. (ICC EVALUATION REPORT NUMBER ESR-2713).
- (2) VERIFY TORQUE VALUES WITH MANUFACTURER FOR HILTI KWIK HUS-EZ SCREW ANCHORS (ICC ESR-3027) OR DEWALT SCREW-BOLT+SCREW ANCHOR (ICC ESR-3889)

RCHITECT BANNON GHATRODE







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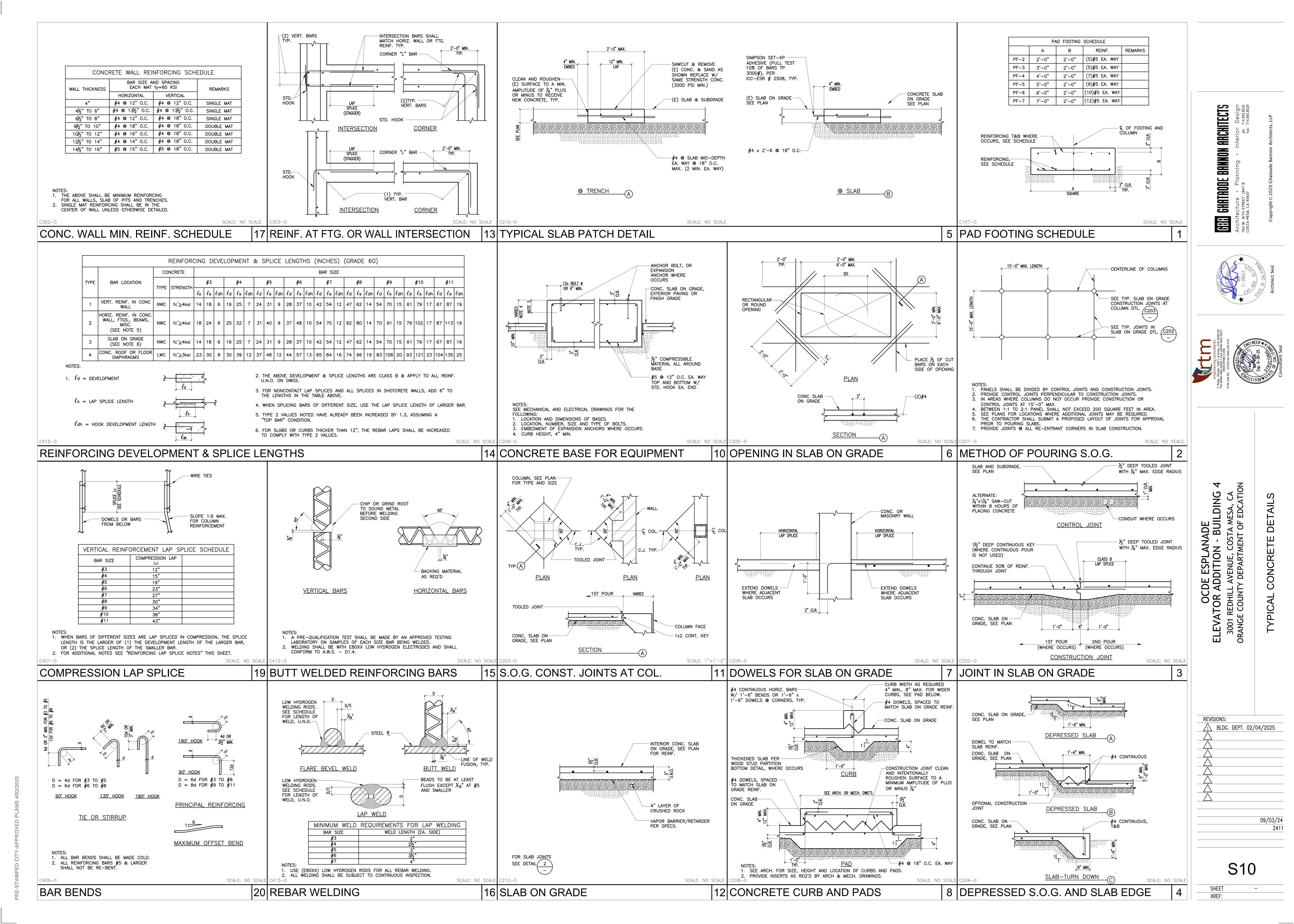
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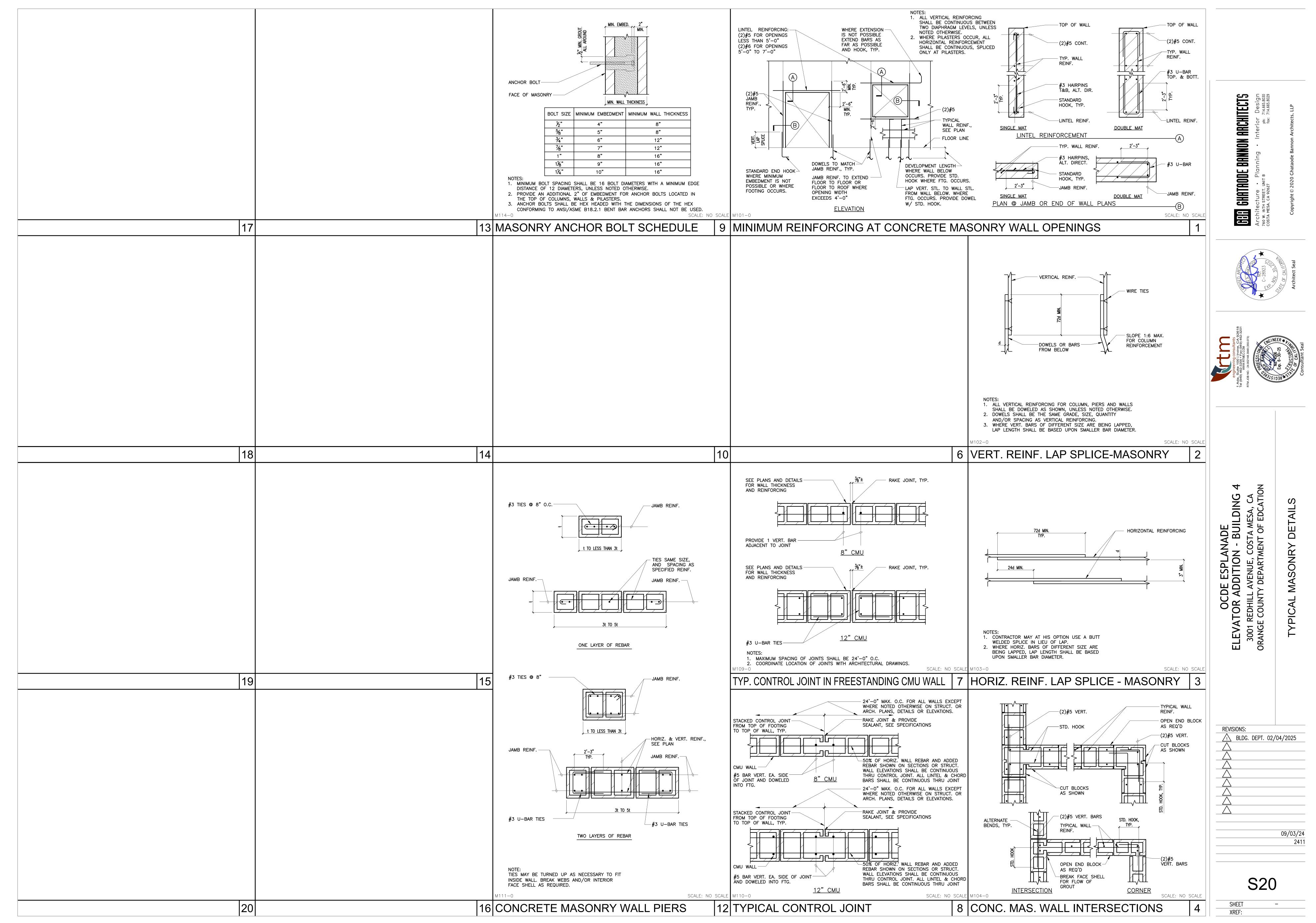
Z H

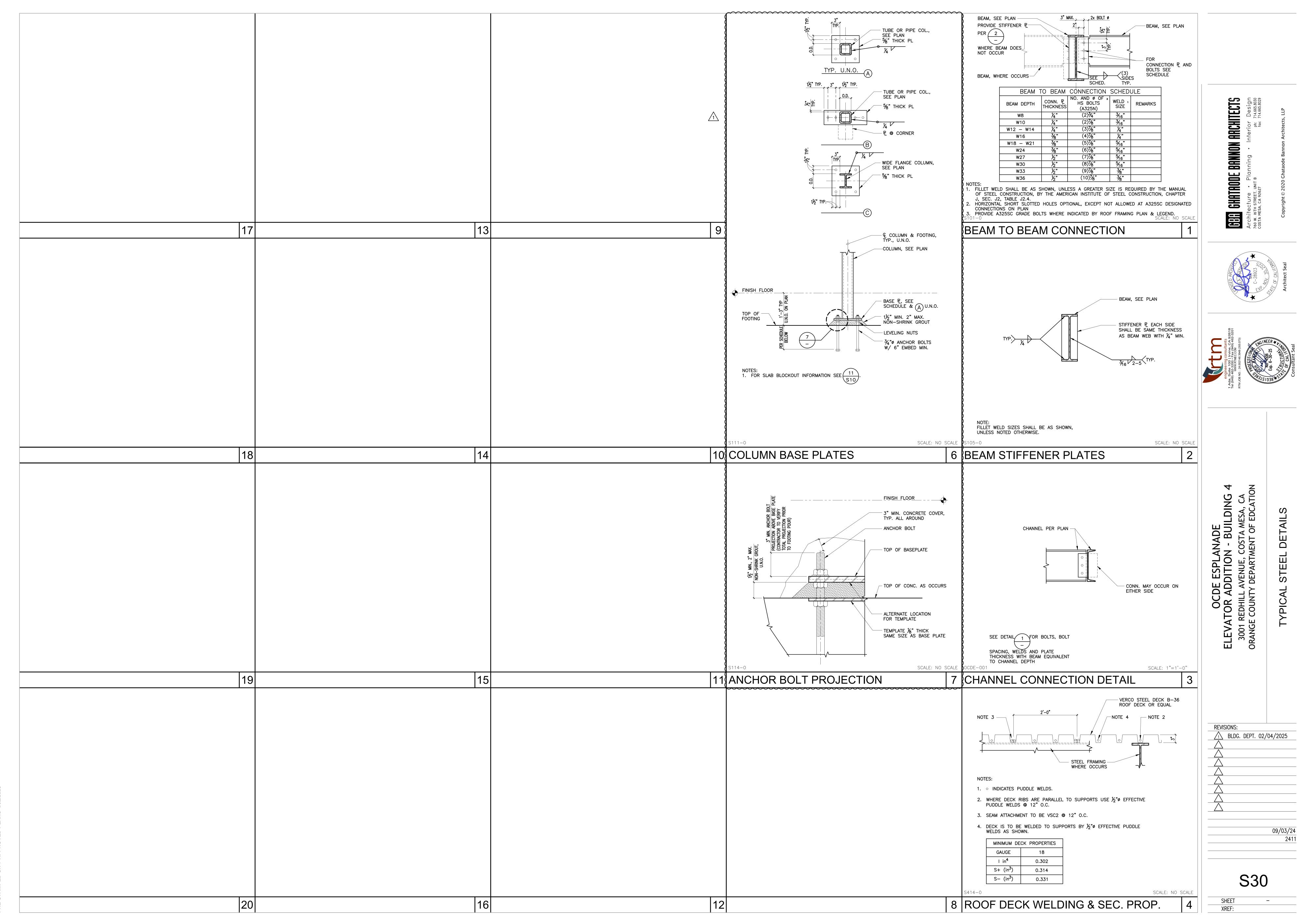
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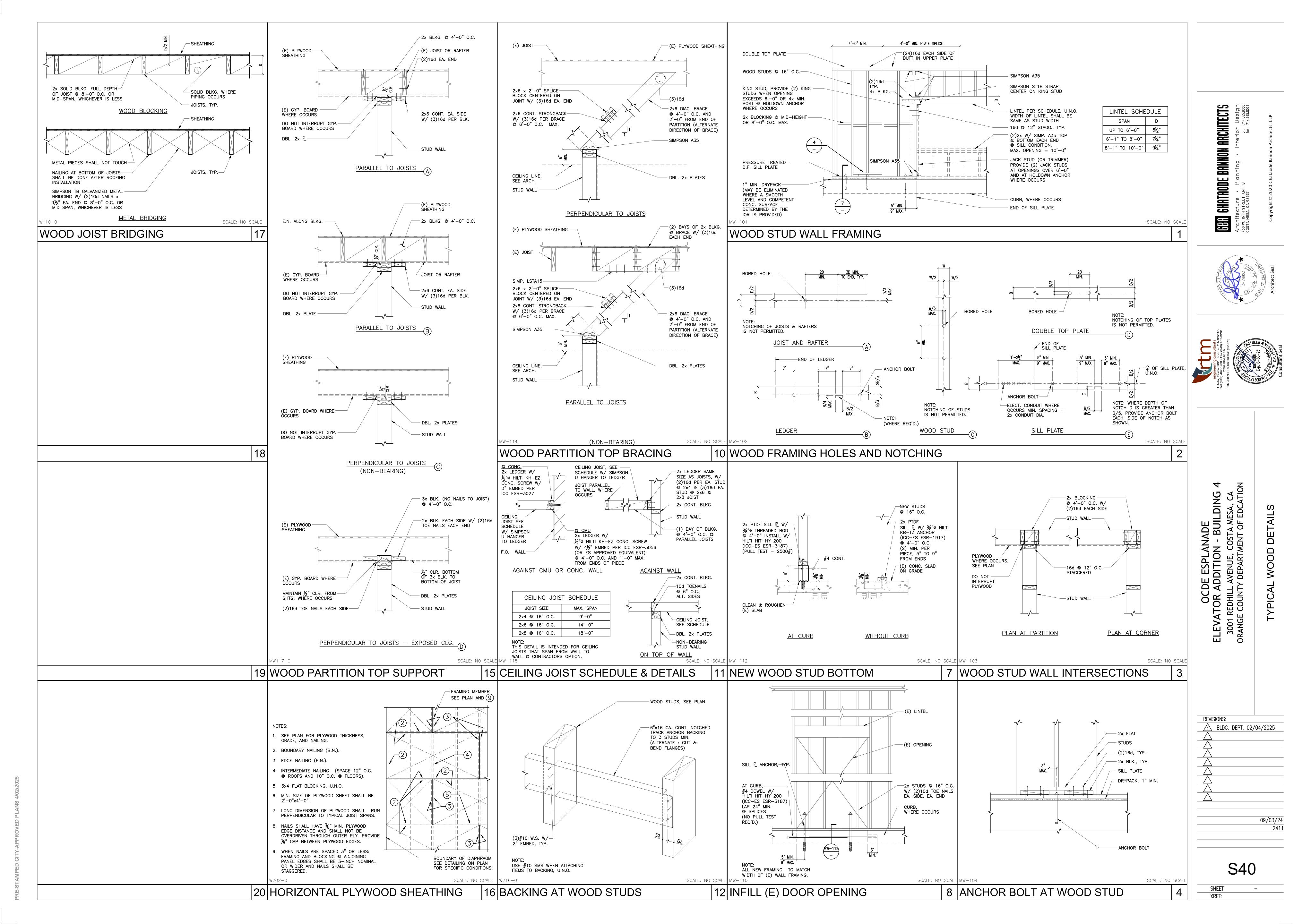
REVISIONS: BLDG. DEPT. 02/04/2025

09/03/24











KEY MAP

BULDING 4

AREA OF ALTERATION

REVISIONS:

A BLDG. DEPT. 02/04/2025

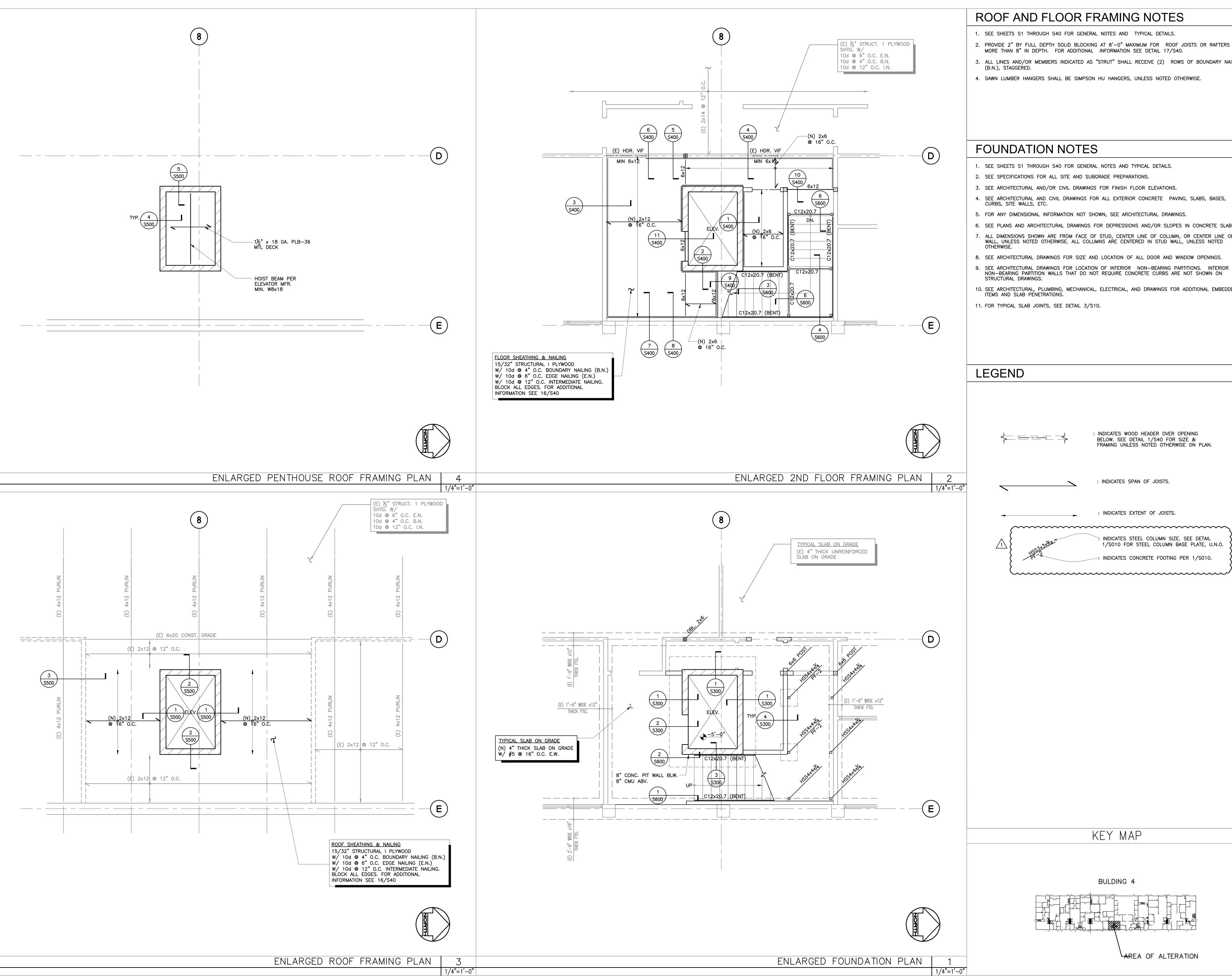
GFF GHATAODE BANNON ARCHITECTS
Architecture · Planning · Interior Design
760 W. 16TH STREET, UNIT B
60STA MESA, CA 92627
fax: 714.665.8029

09/03/24 2411

S101

BUILDING 4 FIRST FLOOR PLAN 1
1/16"=1'-0"

SHEET XREF:

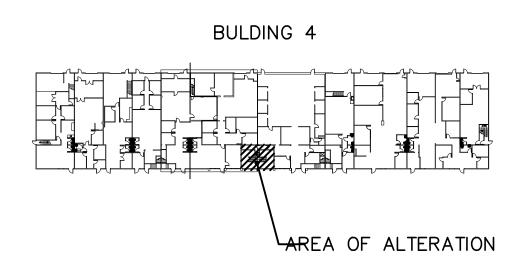


ROOF AND FLOOR FRAMING NOTES

- 1. SEE SHEETS S1 THROUGH S40 FOR GENERAL NOTES AND TYPICAL DETAILS.
- 2. PROVIDE 2" BY FULL DEPTH SOLID BLOCKING AT 8'-0" MAXIMUM FOR ROOF JOISTS OR RAFTERS
- 3. ALL LINES AND/OR MEMBERS INDICATED AS "STRUT" SHALL RECEIVE (2) ROWS OF BOUNDARY NAILING
- 4. SAWN LUMBER HANGERS SHALL BE SIMPSON HU HANGERS, UNLESS NOTED OTHERWISE.
- 1. SEE SHEETS S1 THROUGH S40 FOR GENERAL NOTES AND TYPICAL DETAILS.
- 2. SEE SPECIFICATIONS FOR ALL SITE AND SUBGRADE PREPARATIONS.
- 3. SEE ARCHITECTURAL AND/OR CIVIL DRAWINGS FOR FINISH FLOOR ELEVATIONS.
- 4. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR ALL EXTERIOR CONCRETE PAVING, SLABS, BASES,
- 5. FOR ANY DIMENSIONAL INFORMATION NOT SHOWN, SEE ARCHITECTURAL DRAWINGS.
- 6. SEE PLANS AND ARCHITECTURAL DRAWINGS FOR DEPRESSIONS AND/OR SLOPES IN CONCRETE SLABS.
- 7. ALL DIMENSIONS SHOWN ARE FROM FACE OF STUD, CENTER LINE OF COLUMN, OR CENTER LINE OF WALL, UNLESS NOTED OTHERWISE. ALL COLUMNS ARE CENTERED IN STUD WALL, UNLESS NOTED
- 8. SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS.
- 10. SEE ARCHITECTURAL, PLUMBING, MECHANICAL, ELECTRICAL, AND DRAWINGS FOR ADDITIONAL EMBEDDED

: INDICATES WOOD HEADER OVER OPENING BELOW. SEE DETAIL 1/S40 FOR SIZE & FRAMING UNLESS NOTED OTHERWISE ON PLAN. INDICATES SPAN OF JOISTS.

INDICATES EXTENT OF JOISTS. INDICATES STEEL COLUMN SIZE. SEE DETAIL 1/S010 FOR STEEL COLUMN BASE PLATE, U.N.O. INDICATES CONCRETE FOOTING PER 1/S010.



ARCHITECTS BANON **GHATRODE** 689



OCDE ESPLANADE TOR ADDITION - BUILDING

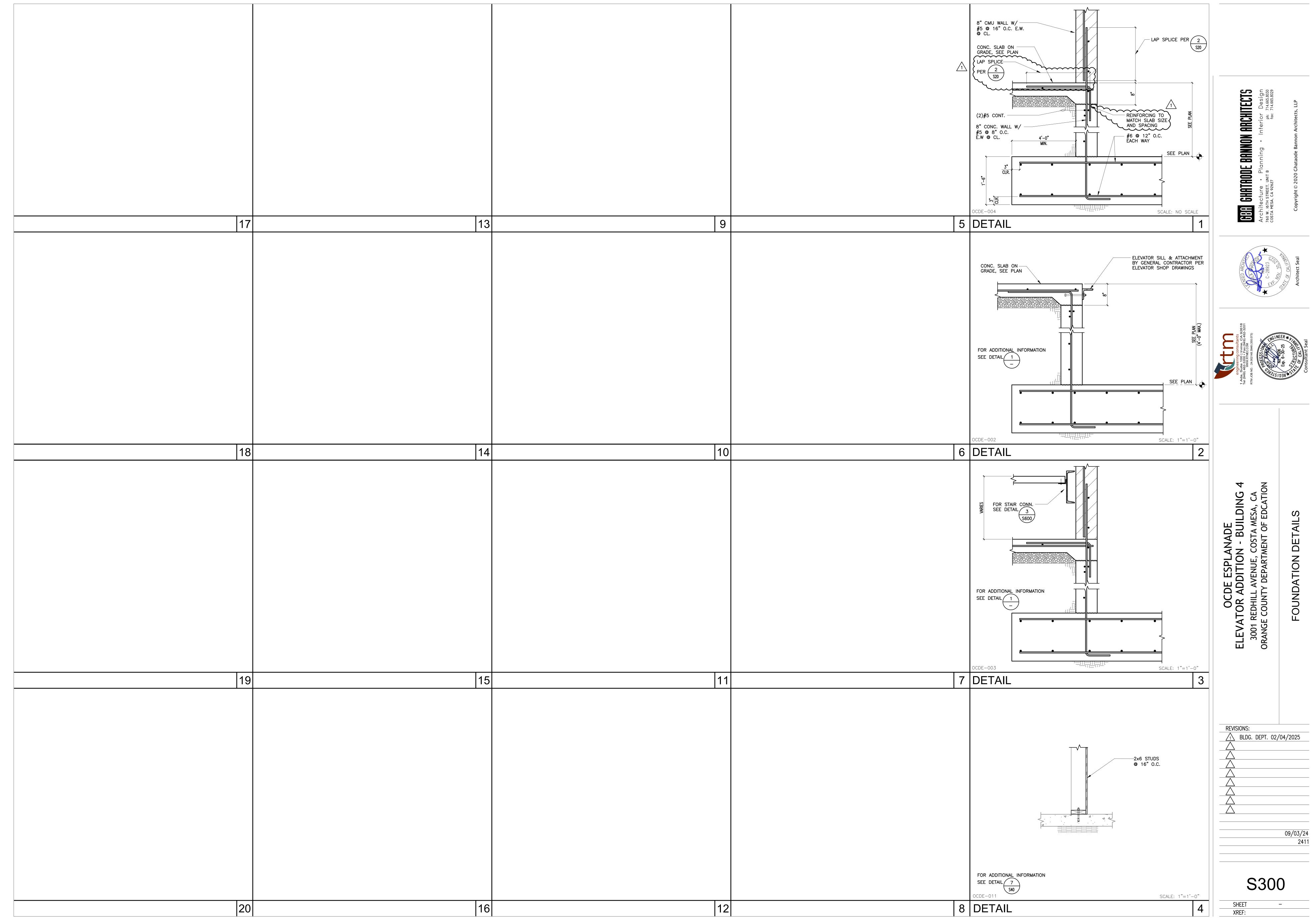
REVISIONS: 1 BLDG. DEPT. 02/04/2025

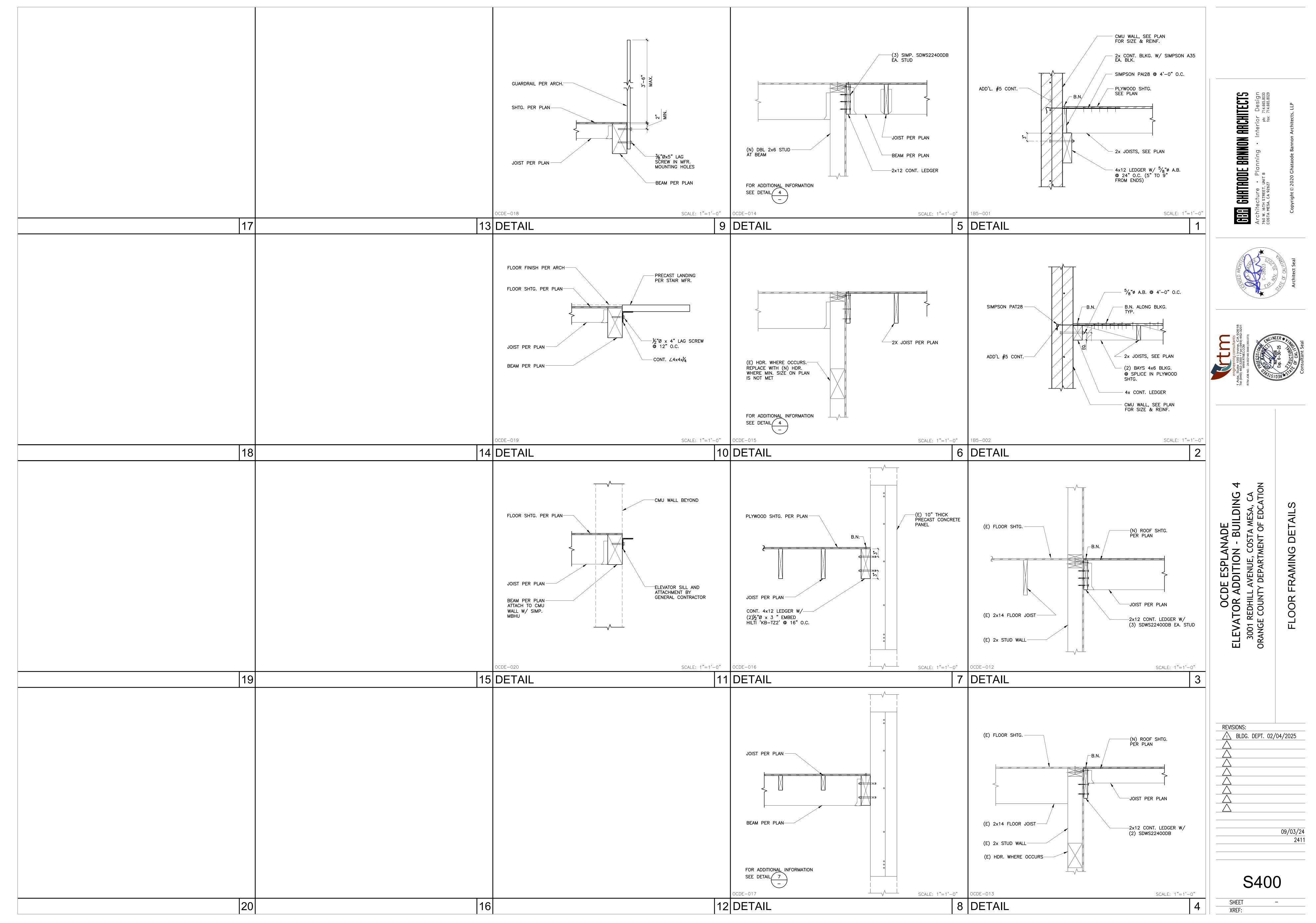
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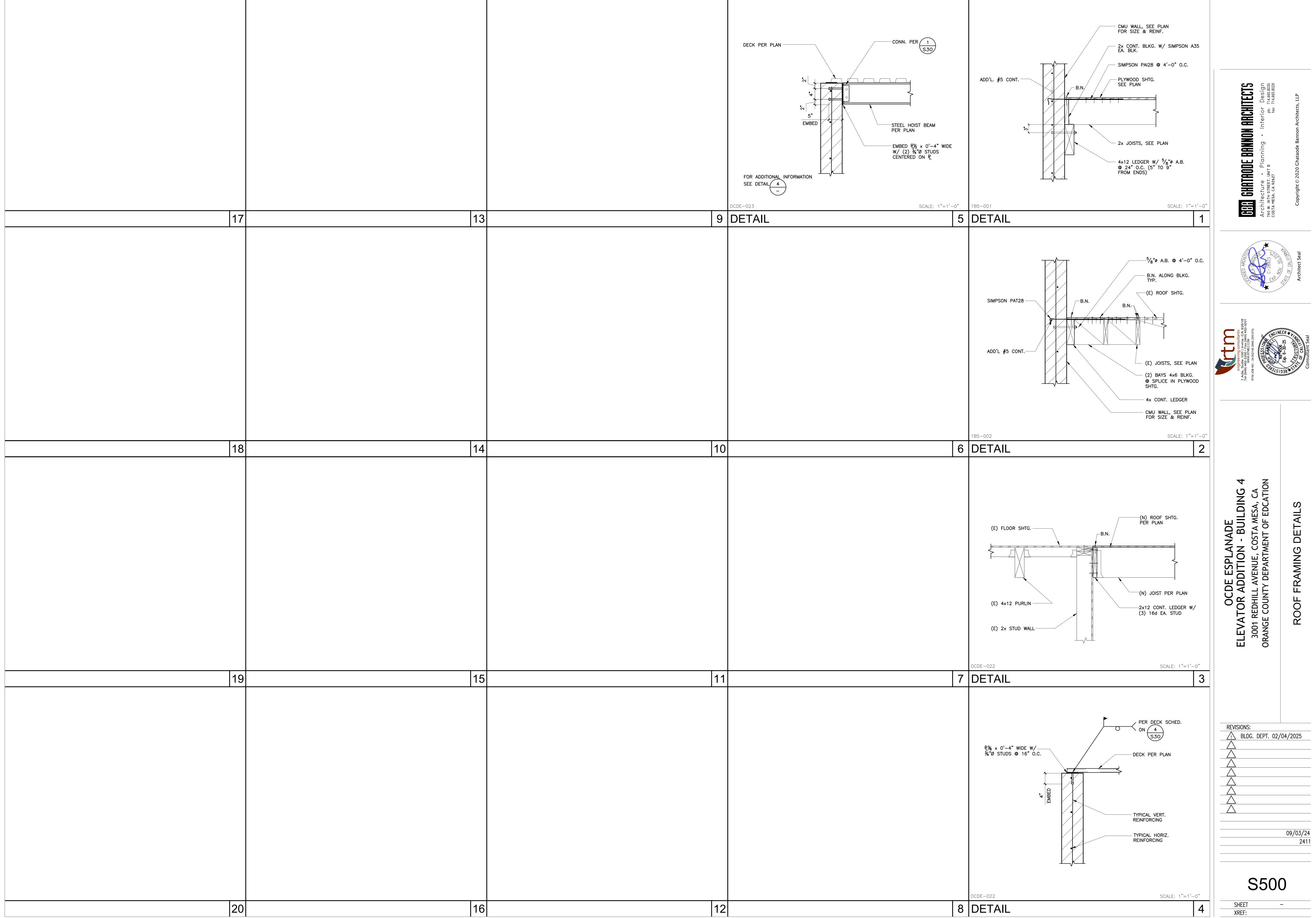
S102

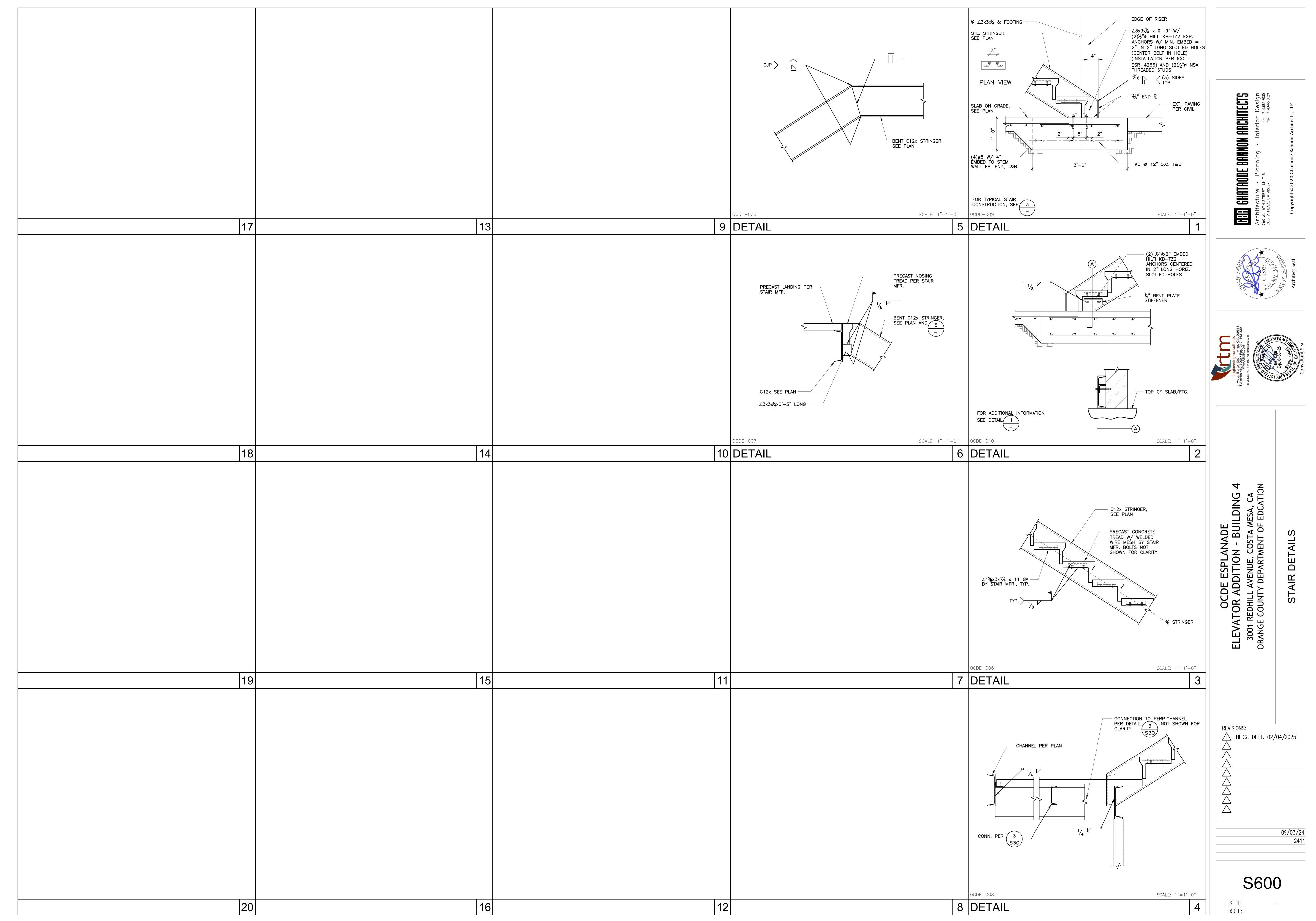
SHEET

XREF:



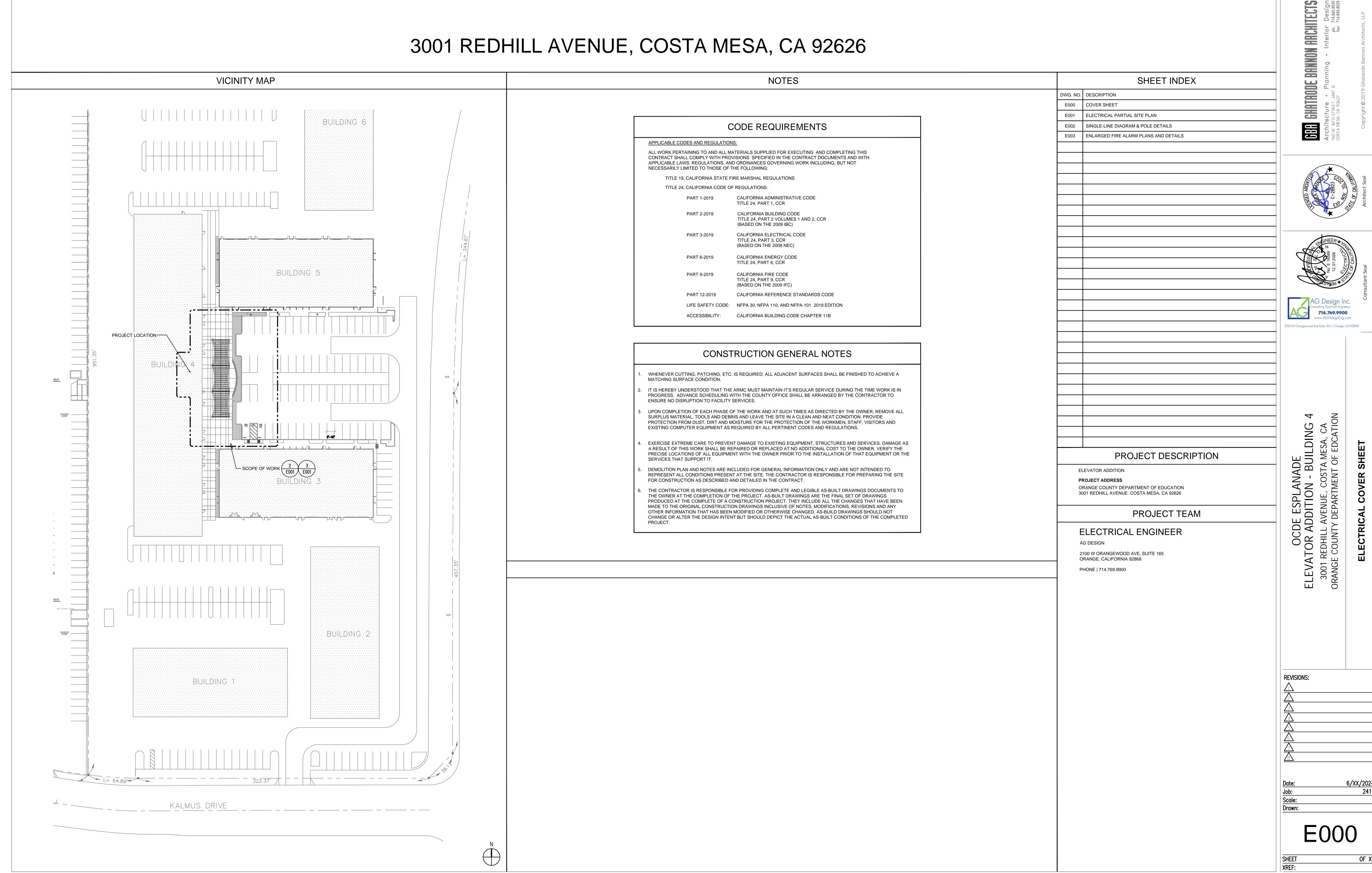






ORANGE COUNTY DEPARTMENT OF EDUCATION ELEVATOR ADDITION

3001 REDHILL AVENUE, COSTA MESA, CA 92626



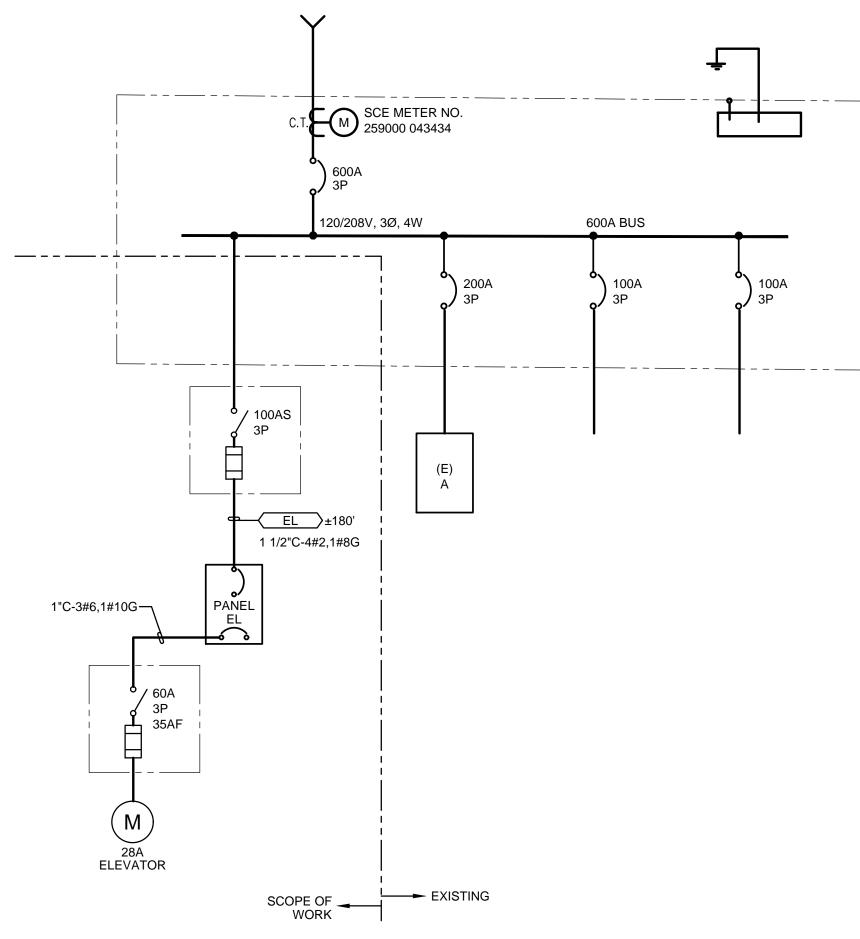


(E) SWITCHGEAR

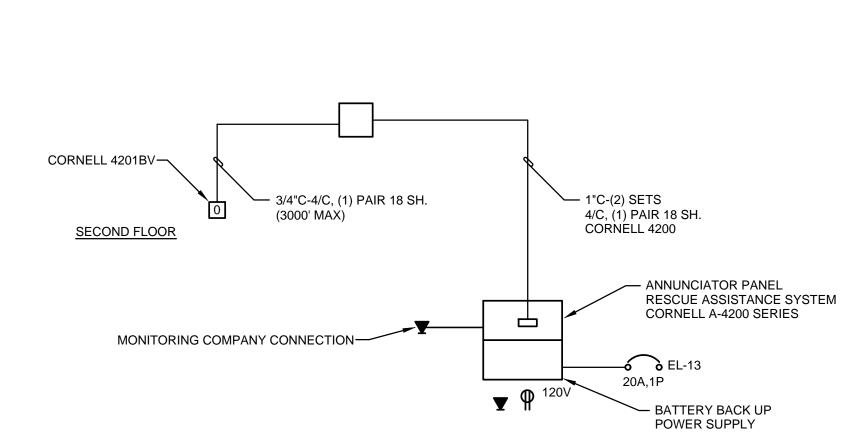
NOT TO SCALE

DESCRIPTION
DESCRIPTION
DESCRIPTION
TACLE .
GHTS
ROOM LIGHT
OR LIGHTING
OR (LM) = (N/A

★ PROVIDE LOCK-ON DEVICE TC - PROVIDE 24-HOUR 7-DAY TIMECLOCK



SINGLE-LINE DIAGRAM - BUILDING 4 NOT TO SCALE

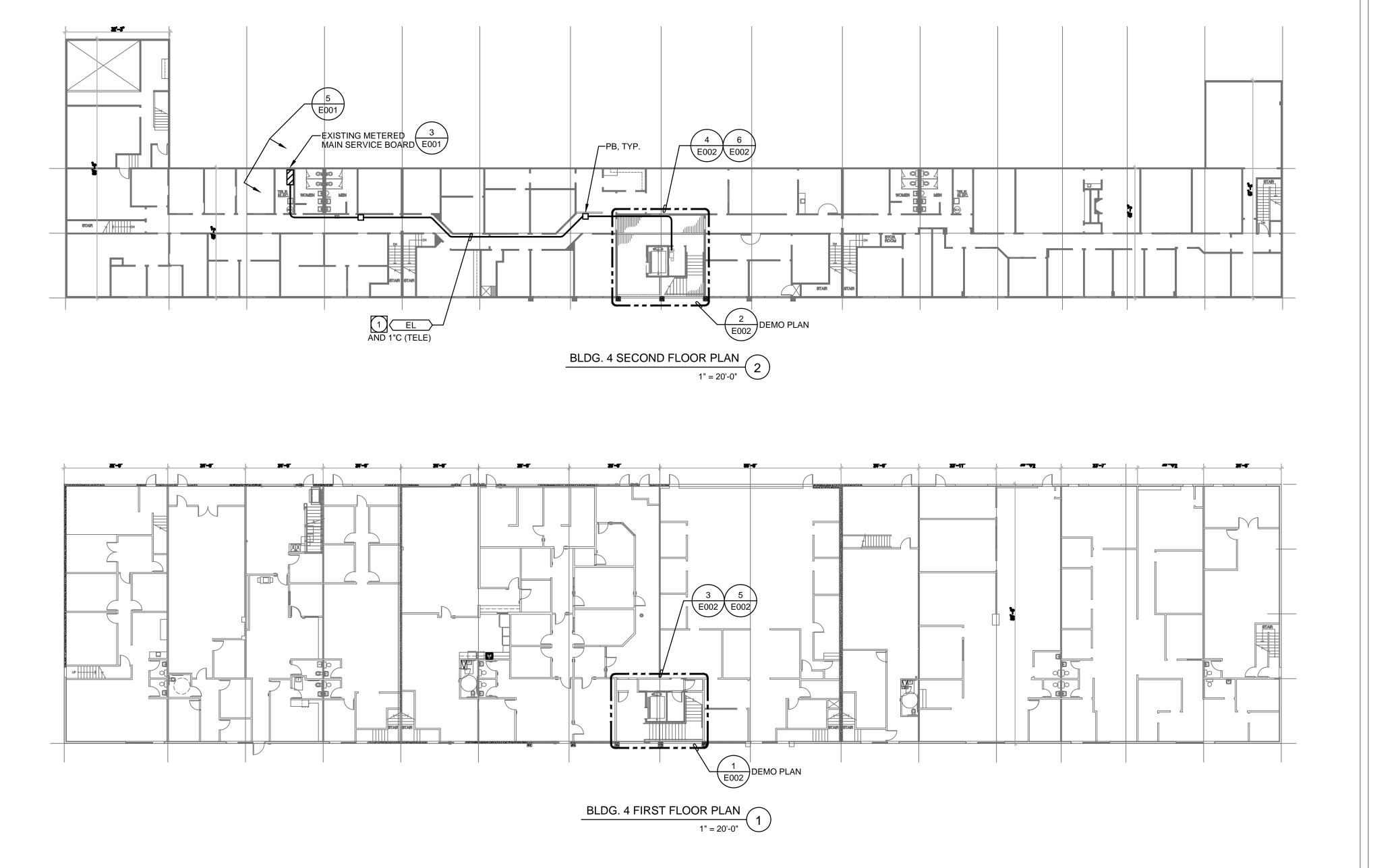


TWO-WAY COMMUNICATION SYSTEM REQUIREMENTS:

PROVIDE A TWO-WAY COMMUNICATION SYSTEM WITH BOTH AUDIBLE AND VISIBLE SIGNAL AT THE ELEVATOR LANDING ON EACH ACCESSIBLE FLOOR THAT IS ONE OR MORE STORIES ABOVE OR BELOW THE STORY OF EXIT DISCHARGE PER CBC SECTION 1009.8.

PROVIDE POSTED LOCATIONS OF THE WRITTEN DIRECTIONS FOR THE USE OF THE TWO-WAY COMMUNICATION SYSTEM AND THE INSTRUCTIONS FOR SUMMONING ASSISTANCE VIA SUCH SYSTEM AND WRITTEN IDENTIFICATION OF THE SPECIFIC STORY, FLOOR LOCATION AND BUILDING ADDRESS OR OTHER BUILDING IDENTIFIER PER CBC SECTION 1009.2.

BLOCK DIAGRAM - 2-WAY COMMUNICATION NOT TO SCALE

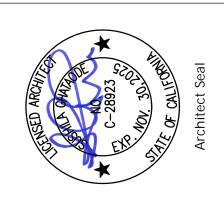


KEYNOTES GENERALLY CORRESPOND TO SPECIFICATION SECTIONS BY MEANS OF THE SIX-DIGIT NUMBER IDENTIFYING THE SPECIFICATION SECTION FOR REFERENCE AND CONVENIENCE. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL WORK INDICATED HEREIN PURSUANT TO THE GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS OF THE CONTRACT, REGARDLESS OF WHETHER OR NOT THE KEYNOTE(S) SPECIFICALLY CORRESPOND TO ANY SPECIFICATION DIVISION PROVIDED IN THE TECHNICAL SPECIFICATIONS.

PLAN NOTE:

MOUNT ABOVE CEILING.

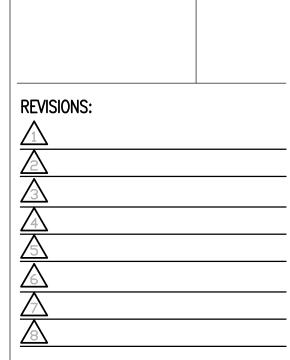
GHATRODE BANNON ARCHITECTS



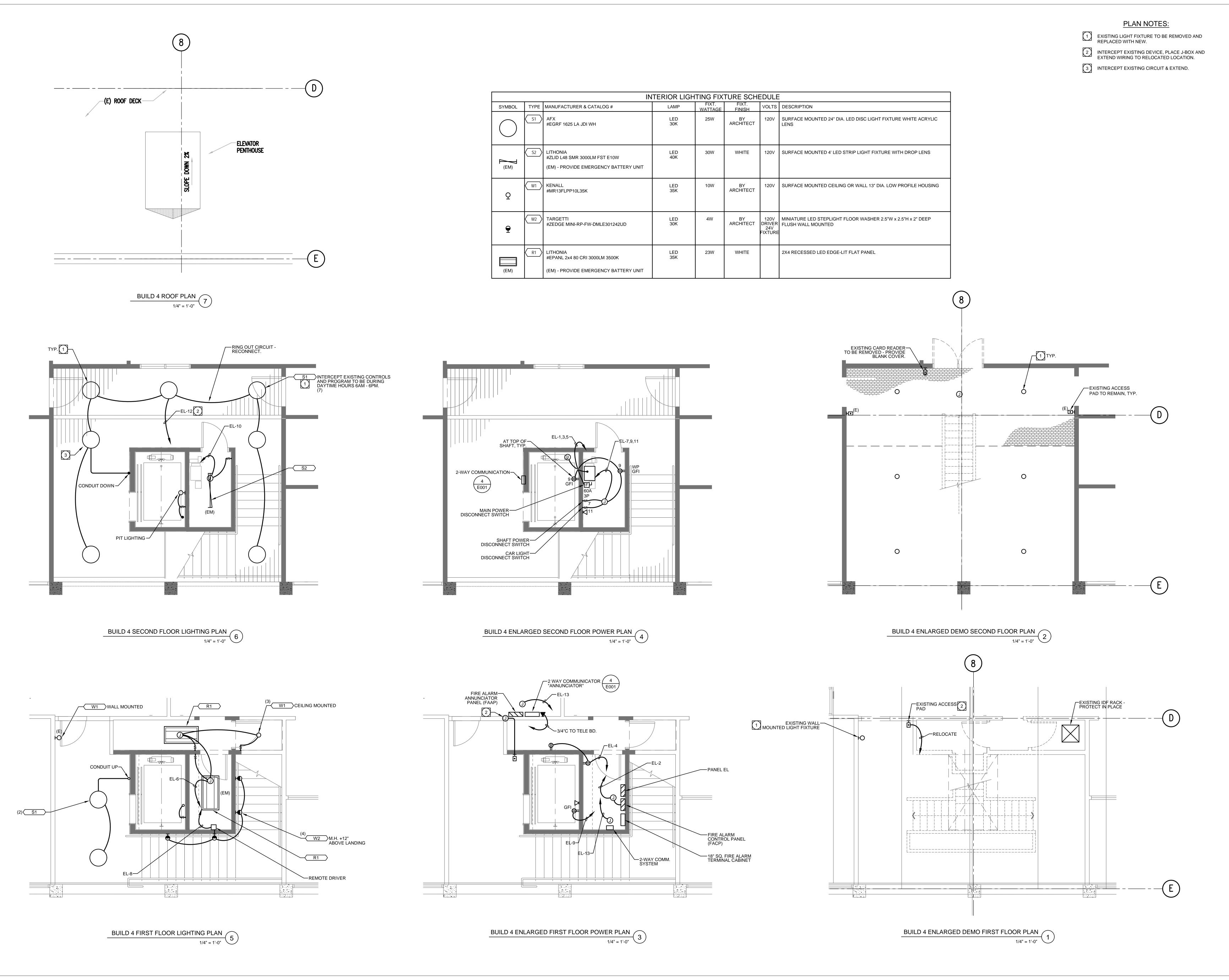




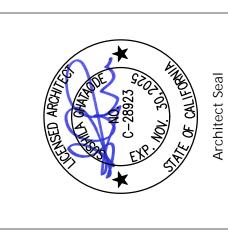
OCDE ESPLANADE
ELEVATOR ADDITION - BUILDING 4
3001 REDHILL AVENUE, COSTA MESA, CA
ORANGE COUNTY DEPARTMENT OF EDCATION

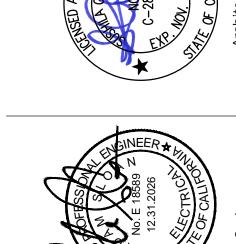


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GBR GHATRODE BANNON ARCHITECTS







REVISIONS:

E002

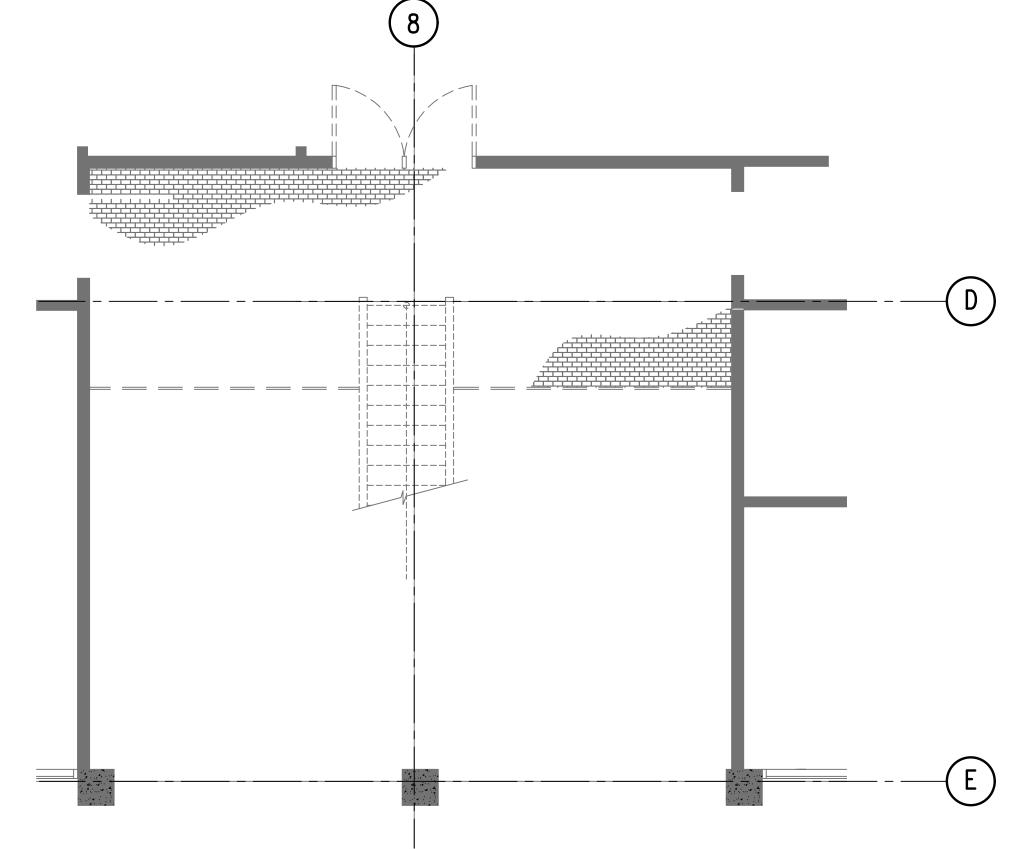
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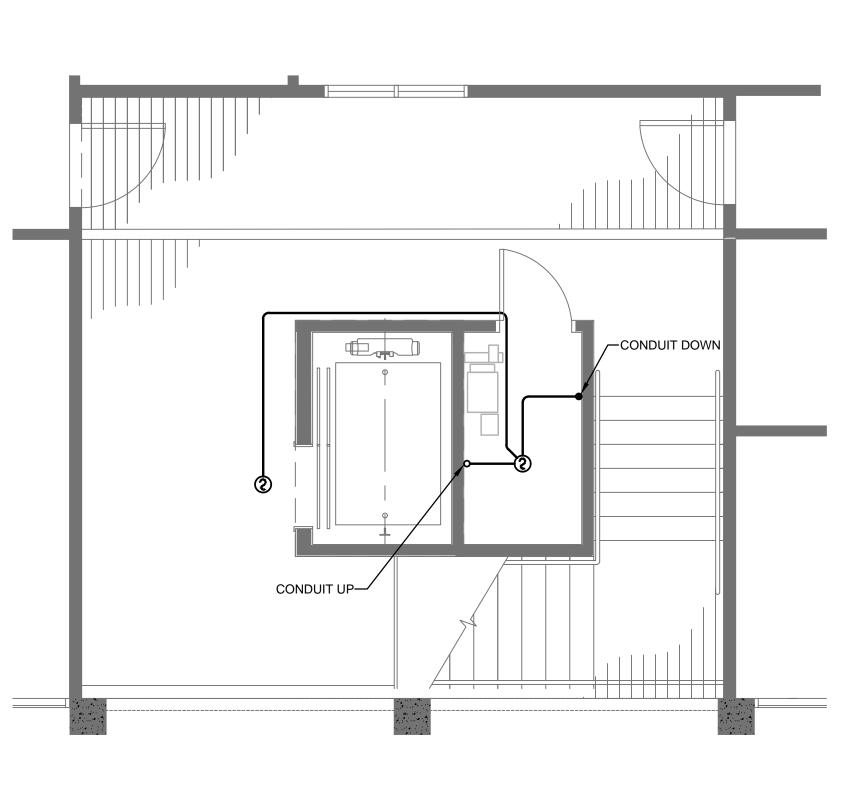
SYMBOL LEGEND WITH CSFM LISTING NUMBERS						
QTY.	SYMBOL	DESCRIPTION	PART#	BACKBOX	MANUFACTURER	CSFM LISTING
,	FACP	FIRE ALARM CONTROL PANEL	6808	PROVIDED	SILENT KNIGHT -	7165-0559:0502 -
-	FAA	FIRE ALARM LCD ANNUNCIATOR	5860	PROVIDED	SILENT KNIGHT	7165-0559:0502
-	FAC	CELLULAR COMMUNICATOR	TG-7FS	PROVIDED	TELGUARD	7300-1402:0109
-	②	PHOTO SMOKE DETECTOR STANDARD DETECTOR BASE	SK-PHOTO B300-6 BASE	4 "S" DEEP W/ 3"O" RING	SILENT KNIGHT SILENT KNIGHT	7272-0559:0149 7300-1653:0109
-	R	FIRE ALARM RELAY	SK-RELAY	4 "S" DEEP W/ 3"O" RING	SILENT KNIGHT	7272-0559:0149

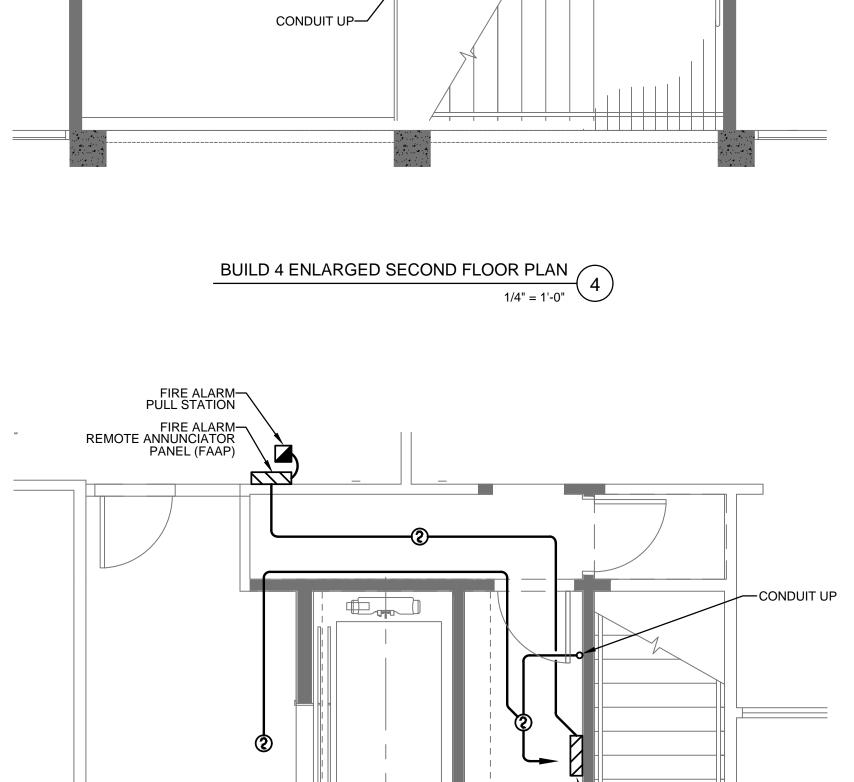
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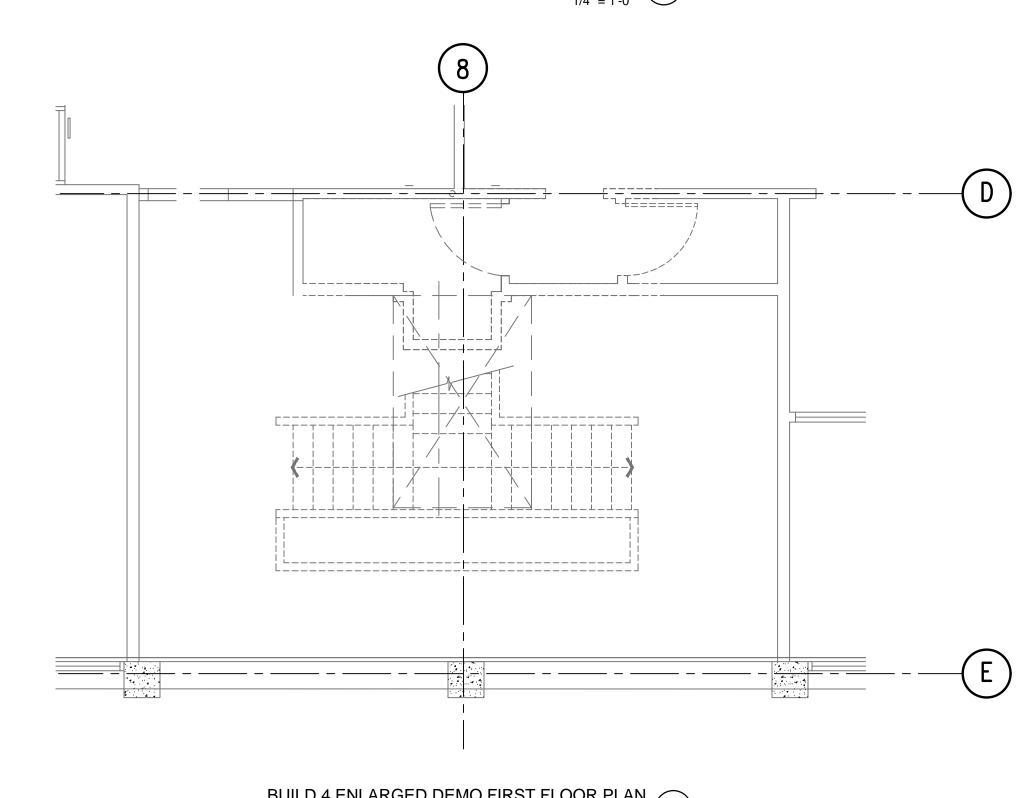
PROVIDE (1)20A/1P CIRCUIT BREAKER WITH RED INDICATOR HANDLE AND LOCK ON DEVICE CIRCUIT BREAKER SHALL MATCH ALL BUILDING PANEL CHARACTERISTICS.

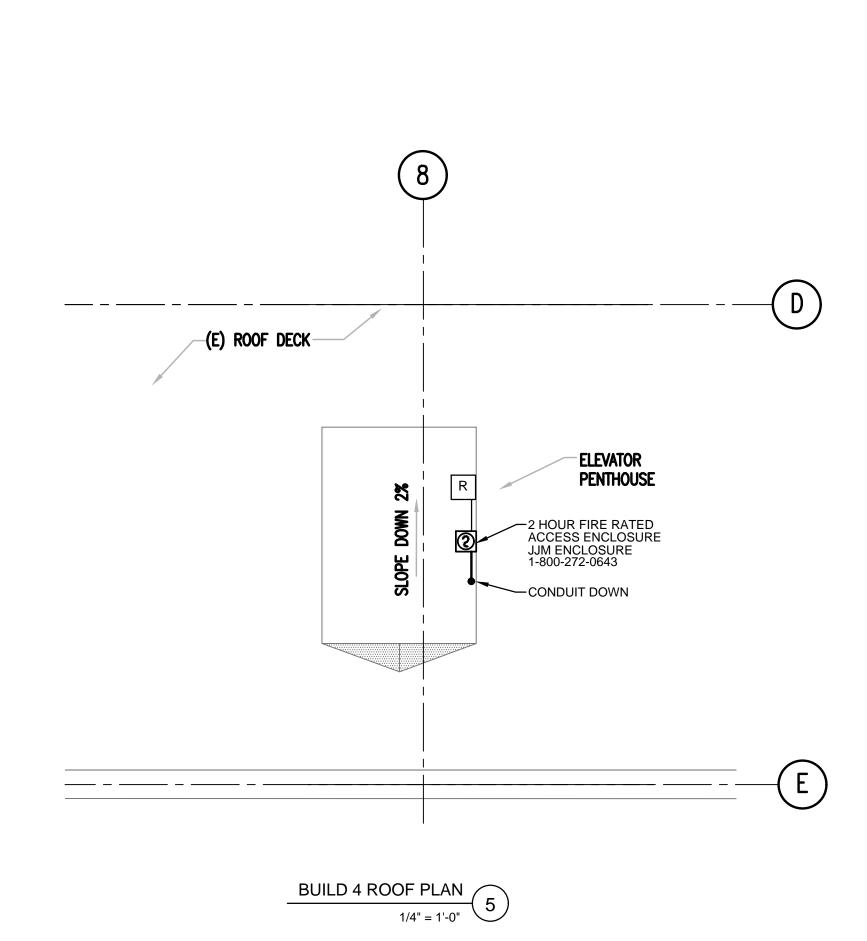
GBA GHATAODE BANNON ARCHITECTS











FIRE ALARM BLOCK DIAGRAM

1/4" = 1'-0"

② ELEVATOR SHAFT

1st FLOOR

__MONITORING

LOCK ON—
DEVICE

