ADDENDUM 04 – MADISON ES – 2 STORY CR BLDG

Addendum No:	03	**Issue Date:**	01/15/2025
Project:	Madison Elementary School – 2 Story Classroom Building	**To Drawings + Specifications dated**	12/06/2024
School District:	**Madera Unified School District**		
Prepared By:	PBK Architects, Inc. 7790 N Palm Avenue Fresno, California 93711		
PBK Project No:	230278		
DSA App No:	02-122191		

NOTICE TO PROPOSERS

A. The following changes, omissions, and/or additions to the Project Manual and/or Drawings shall apply to proposals made for and to the execution of the various parts of the work affected thereby, and all other conditions shall remain the same.

B. Careful note of the Addendum shall be taken by all parties of interest so that the proper allowances may be made in strict accordance with the Addendum, and that all trades shall be fully advised in the performance of the work which will be required of them.

C. Bidder shall acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

D. In case of conflict between Drawings, Project Manual, and this Addendum, this Addendum shall govern.

GENERAL ITEMS

4.1 Refer to **Bid No 121224-D Madison ES: New Two Story Classroom Building – Front End Documents,** revise as follows:

- Add the "Order of Precedence" language to the Bid No 121224-D Madison ES: New Two Story Classroom Building – Front End Documents as follows:

Order of Precedence

Interpretations. The Contract Documents are intended to be fully cooperative and to be complementary. If Contractor observes that any documents are in conflict, the Contractor shall promptly notify the District Representative in writing by submission of a Request for Information. The Request for Information procedure may not be used to request any changes which shall be adjusted as provided in the Contract Documents for changes in work. In case of conflicts between the Contract Documents, the order of precedence shall be as follows:

1. Change Orders or Work Change Directives
2. Addenda
3. Special Provisions (or Special Conditions)
4. Technical Specifications

5. Plans (Contract Drawings)
6. Contract
7. General Conditions
8. Project Listings
9. Notice Inviting Bids
10. Contractor's Bid Forms
11. Standard Plans
12. Reference Documents

With reference to the Drawings, the order of precedence shall be as follows:

1. Figures govern over scaled dimensions
2. Detail drawings govern over general drawings
3. Addenda or Change Order drawings govern over Contract Drawings
4. Contract Drawings govern over Standard Drawings
5. Contract Drawings govern over Shop Drawings

Conflicts in Contract Documents. Notwithstanding the orders of precedence established above, in the event of conflicts, the higher standard shall always apply.

4.2 Refer to **Pre Bid RFI Log,** revise as follows:

- Add the Pre Bid RFI Log (dated January 15, 2025) in its entirety (16 pages)

SPECIFICATIONS

4.3 Refer to Specification Section **05 50 00 Metal Fabrications,** revise as follows:

- Add Specification Section 05 50 00 Metal Fabrications in its entirety (9 pages)

4.4 Refer to Specification Section **09 51 00 Acoustical Ceiling Panels,** revise as follows:

- Replace Specification Section 09 51 00 Acoustical Ceiling Panels in its entirety (9 pages)
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4.5 Refer to Specification Section **09 65 13.13 Resilient Base,** revise as follows:

- Add Specification Section 09 65 13.13 Resilient Base in its entirety (3 pages)

DRAWINGS

ARCHITECTURAL

4.6 Refer to Sheet **A2.1 – Door and Window Schedule,** revise as follows:

- Revised Door Schedule items. Refer to sheet 4.1 – Door and Window Schedule (1 Page).
- Revised Door Types legend with dimensions and new type F. Refer to sheet 4.2 – Door and Window Schedule (1 Page).

4.7 Refer to Sheet **A1.1 – First Floor Plan,** revise as follows:

- Added door tag 211I. Refer to sheet 4.3 – First Floor Plan (1 Page).
- Added door tag 211M. Refer to sheet 4.4 – First Floor Plan (1 Page).

4.8 Refer to Sheet **A1.2 – Second Floor Plan,** revise as follows:

- Added door tag 211N. Refer to sheet 4.5 – Second Floor Plan (1 Page).

4.9 Refer to Sheet **A7.1 – Interior Elevations,** revise as follows:

- Revised interior elevation 15 for 104 CTE CLASSROOM. Refer to sheet 4.6 – Interior Elevations (1 Page).

4.10 Refer to Sheet **A7.2 – Interior Elevations,** revise as follows:

- Revised interior elevation 19 for 105 VAPA CLASSROOM. Refer to sheet 4.7 – Interior Elevations (1 Page).

4.11 Refer to Sheet **A7.4 – Interior Elevations,** revise as follows:

- Revised interior elevation 19 for 205 CLASSROOM. Refer to sheet 4.8 – Interior Elevations (1 Page).
- Revised interior elevation 23 for 206 VAPA CLASSROOM. Refer to sheet 4.9 – Interior Elevations (1 Page).

CIVIL

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4.12 Refer to Sheet **CS2.1 – Demolition Plan,** revise as follows:

- Added removal of vegetation at fire access pad.
- Replace sheet with attached CS2.1 – Demolition Plan (1 pages)

4.13 Refer to Sheet **CS3.1 – Site Plan,** revise as follows:

- Added control points for walks on the south side of the west Building X.
- Added heavy duty concrete fire access pad.
- Replace sheet with attached CS3.1 – Site Plan (1 pages)

4.14 Refer to Sheet **CS4.1 – Horizontal Control Plan,** revise as follows:

- Added control points for walks on the south side of the west Building X. on project.
- Added control points for heavy duty concrete fire access pad.
- Revised median along Santa Cruz Street.
- Replace sheet with attached CS4.1 – Horizontal Control Plan (1 pages)

4.15 Refer to Sheet **CS5.1 – Grading Plan,** revise as follows:

- Revised various grades around the site.
- Changed a portion of the storm drainage pipe to 12”.
- Added a roof drain leader to the north side of the northeast Building X.
- Replace sheet with attached CS5.1 – Grading Plan (1 pages)

LANDSCAPE

4.16 Refer to Sheet **LS1.1 – Irrigation Plan,** revise as follows:

- Tree bubbler and turf rotor location was revised due to concrete improvements to the northeast of project area.
- GPM for Valve C-7 was revised.
- Proposed 4” irrigation mainline type was revise to PVC Class 200 SDR 21, gasketed pipe.
- Drip operation indicator was added for valve C-13 and N-2.
- Drip area in planter was revised along south side of west building due to site updates.
- Two (2) drip flush valves in tree planter were removed south of west building.
- One (1) drip flush valve was removed in parking lot planter to the west.
- Drip operation indicator was added to legend.
- Replace sheet with attached LS1.1 – Irrigation Plan (1 pages)

4.17 Refer to Sheet **LS1.2 – Irrigation Details,** revise as follows:

- Detail G was revised to show 1-1/2” and smaller gate valves.
- Replace sheet with attached LS1.2 – Irrigation Details (1 pages)

4.18 Refer to Sheet **LS2.1 – Planting Plan,** revise as follows:

- Tree (Ulmus parvifolia ‘Dynasty’) was relocated due to the concrete improvements to the northeast.
- Turf repair was revised along the concrete improvements to the northeast of project area..
- Planting area was revised along south side of west building due to site updates.
- Root control barrier was added along the electrical line, adjacent to the tree (Quercus lobata), located in
- parking lot planter, to the west.

- Tree form type was revised for Cercidium x 'Desert Museum'.
- Detail reference was revised for 48" box Cerdium x 'Desert Museum'.
- Detail reference was revised for 48" box Quercus lobata.
- Detail reference was revised for 48" box Ulmus parvifolia 'Dynasty'..
- Quantity was revised for Hesperaloe parviflora 'Brakelights'.
- Quantity was revised for Hesperaloe parviflora 'Yellow'.
- Quantity was revised for Festuca glauca 'Elijah Blue'.
- Quantity was revised for wood mulch.
- Quantity was revised for 'Celebration' Bermudagrass.
- Added new Tree Guying detail (detail B) for 48" box trees.
- Replace sheet with attached LS2.1 – Planting Plan (1 pages)

ELECTRICAL

4.19 Refer to Sheet **E1.1 – Electrical 1st Floor Power Plan,** revise as follows:

- Replace sheet with attached E1.1 – Electrical 1st Floor Power Plan (1 pages)

4.20 Refer to Sheet **E1.2 – Electrical 2nd Floor Power Plan,** revise as follows:

- Replace sheet with attached E1.1 – Electrical 2nd Floor Power Plan (1 pages)

4.21 Refer to Sheet **E2.2 – Electrical 2nd Floor Lighting Plan,** revise as follows:

- Replace sheet with attached E2.2 – Electrical 2nd Floor Lighting Plan (1 pages)

4.22 Refer to Sheet **E6.1 – Electrical Panel Schedules,** revise as follows:

- Replace sheet with attached E6.1 – Electrical Panel Schedules (1 pages)

4.23 Refer to Sheet **EX1.1 – Electrical Details,** revise as follows:

- Replace sheet with attached EX1.1 – Electrical Details (1 pages)

END OF ADDENDUM 04

Madison New 2-Story Classroom Building: Bid No. 121224-D

Pre-Bid RFI Log

Colu	Question	Response	Submitted by
1	As per the Note on sheet M3.1 please provide a copy of the following documents, in order to provide a complete & competitive bid: 1.) Copy of approved equipment submittals 2.) Copy of approved Trane proposal 3.) Copy of the purchase order	Please see attached equipment submittal and equipment proposal. Addendum 03	Boone
2	Regarding the Madison ES two-story bid, please confirm if the building will be modular or site-built.	The new building will be site built not modular.	Silver Creek
3	Attached is Section 01 57 15 Integrated Pest Management. Is a Integrated Pest Management really required for this project? This is a new building and not a remodel of an existing building. I have searched the Central Valley and could not find anyone interested in bidding for this work nor anyone or firm that is IPM Star Certified. Is this requirement just for the new construction or the entire site during construction for the full 365 calendar days?	No integrated pest management will be required for this project.	Ardent
4	RFI: Please clarify the wall tile selection (manufacturer/size/style) as per below plans: Enlarged Floor Plan A1.3 in rooms #113, 120 & 121 Enlarged Floor Plan A1.4 in rooms #210 & 211	Room 120 & 121 - Wall Tile - Daltile - 6"x18" - Color Wheel Linear - Matte Biscuit K775 Room 210 & 211 - Wall Tile - Daltile - 6"x18" - Color Wheel Linear - Matte Biscuit K775 Room #113 is removed from plan.	Better Enterprises
5	RFI-2: Please clarify the the below Tile selections (collection;style;size confirmation) In reference to the Color Schedule, A2.3: TL-2 Datile; 6"x12"; Color: K775 Matte Biscuit - Is this Colorwheel Linear or Classic?* *Please note: the size 6"x12" is not available in either style - Please confirm size. TL-3 Datile; 6"x12" Cove Base; Color: K775 Matte Biscuit - Is this Colorwheel Linear or Classic?* *Please note: the size 6"x12" Cove is not available in either style - Please confirm size.	TL-1: Crossville - 12"x12" - Argent - Clean Slate (field/floor tile) TL-2: Daltile - 6"x18" - Color Wheel Linear - Matte Biscuit K775 (wall tile) TL-3: Daltile - 6"x6" - Collor Wheel Classic - Matte Biscuit K775 (cove base tile) TL-4: Daltile - 4"x12" - Color Wheel Linear - Matte Biscuit K775 (wall tile)	Better Enterprises

6	Section: 102800-Toilet Accessories Issue: 1) The following items are shown & not specified. Please provide manufacturer & model #'s for pricing: Soap Dipsenser(TA-1) Paper Towel Dispenser(TA-4) Issue: 2) Model #T22 for the Royce Rolls Ringer(TA-3) is no longer a valid item number. Please provide a different model number.	Response 1) Soap dispensers and paper towel dispensers shall be owner furnished contractor installed (OFCI). Response 2) Toilet paper dispensier is also OFCI	Ardent/ Seals Construction/ AMG/ Fortune Ratliff
7	There appears to be a conflict between sheets ES.1 and FA1.0 for the routing of low voltage site conduits to the new two-story building. Sheet ES.1 shows the fire alarm and signal pathways routed from the north whereas sheet FA1.0 shows the fire alarm pathway routed from the south and the signal pathway routed from the west. Please clarify which route is correct.	Refer to low voltage path in ES.1 routing in the north	Industrial Electrical
8	On sheet A2.1, the Type D storefront door size is listed on the door schedule, however the overall dimensions of the frame with transom and side lites is not shown. Our storefront supplier is not able to provide a quote/take-off without this information. Please advise if this information is listed elsewhere as they are not able to locate it.	Door, sidelite and transom opening is 5'-0" by 9'-0". Clarification issues in Addendum 04	San Joaquin Glass
9	RFI 1: Detail 9/AX5.8 shows the 3" pipe welded to the HSS3x1 post. Please confirm cap plate requirement and weld the for HSS3x1 post.	Top post to wrap around the shape of the 3" pipe for clean continous weld. No cap plate	The KYA Group
10	RFI 2: Detail 1/AX5.7 notes Stainless Steel rail mounts. Detail 11/AX5.7 notes Stainless Steel grab rails for Stair #1. Please confirm if detail 4/A1.6 is stair 1. Please confirm if any grab rails are Stainless Steel.	Stainless steel grab rails not in project. disregard details for SS grab rails	The KYA Group

11	RFI 3: Detail 16/AX5.8 shows the connections for the Woven wire. Per specs the mesh needs to have 18ga U edging. Please confirm requirement of U edging with the 2” bar. Also please confirm weld from ¾” bar to HSS3x1. Details show continuous weld. At least one side of this flat bar will need to be installed after all elements are galvanized. To minimize post galvanizing welds, please accept stitch welds for the flat bar to HSS3x1.	18 ga U edging is required per detail and specs. Stitch weld will be acceptable 1" weld at 6" OC	The KYA Group
12	RFI4: : Detail 16/AX5.8 shows the connections for the Woven wire. Please confirm the 2” flat bar is supposed to be ¾” thick. The bar scales to 3/8”.	Flat bar is 3/8" thick.	The KYA Group
13	RFI 5: Specs for rails 05 50 00 1.4B Calls for the submittal to have a stamped engineer for shop drawings. It would appear these are fully designed. Please confirm requirement of engineer stamp on rail shop drawings.	Engineer stamp not required	The KYA Group

14	1) Please confirm builder's risk insurance need to provided for this project? 2) If builder's risk is required, do we need to include earthquake and flood coverage?	Yes, they are required to have Builders Risk, Below is the language in the Bid Docs.that speaks to earthquake and floods.I thought I would send this information in case you want to include it in the Addendum. 11.1.6.1 Course-of-Construction Insurance Requirements Unless provided by Owner at Owner's sole discretion, Contractor, during the progress of the Work and until final acceptance of the Work by Owner upon Completion of the entire Contract, shall maintain Builder's Risk/Course-of-Construction insurance satisfactory to the Owner, issued on a completed value basis on all insurable Work included under the Contract Documents. This insurance shall insure against all risks, including but not limited to the following perils: Vandalism, theft, malicious mischief, fire, sprinkler leakage, civil authority, sonic boom, explosion, collapse, flood including tidal wave (however, for projects not solely funded through revenue bonds, Contractor is only required to provide insurance for damages caused by a tidal wave up to 5% of the Contract Sum [except as provided in Section 11.1.6.2, below; see Public Contract Code §7105(a)]), earthquake (however, for projects not solely funded through revenue bonds, Contractor is only required to provide insurance for damages caused by a large earthquake [i.e., one above 3.5 magnitude on the Richter Scale] up to 5% of the Contract Sum [except as provided in Section 11.1.6.3, below; see Public Contract Code §7105(a)]), wind, hail, lightning, smoke, riot or civil commotion, debris removal (including demolition) and reasonable compensation for the Architect's services and expenses required as a result of such insured loss. This insurance shall provide coverage in an amount not less than the full cost to repair, replace or reconstruct the Work. Such insurance shall include the Owner, the Architect, and any other person or entity with an insurable interest in the Work as an additional named insured.	AMG
15	There is not a Division 28 Safety and Security specification in the documents but the plans show intrusion alarm devices on sheets T1.1 & T1.2 Technology 1st and 2nd Floor Plans. Question: Is an intrusion alarm detection system part of this project?	The district will contract separately with their own intrusion alarm vendor. The contract shall include pathways for all devices shown.	Access Systems/ AMG

16	Plans sheet T2.2 MDF/IDF Enlarged Floor Plans Enlarged plan keyed notes #11 Security Panels Question: Is an access control system part of this project? Question: What is the District's basis of design for the security system?	The district will contract separately with their own intrusion alarm vendor. The contract shall include pathways for all devices shown.	AMG
17	Since this is a DSA project are there any permits that the contractor will be required to pay for and pull?	Offsite work with the City of Madera and encroachment permits will need to be provided by contractor	
18	I see the requirement for the Storm Water Discharge permit, is there a Designed SWPPP Plan?	SWPPP included in Addedum 03	
19	Can you confirm if the DVBE requirement is only a Good Faith effort of 3%?	Yes	
20	I noticed the $5M/$10M General Liability Limits, are the subcontractors required to carry the same? Most Subcontractors do not carry that high of limits typically.	No, that is for the General Contractors	
21	Can you confirm if submitting the CARB compliance documents at bid time is required? We will not know who the low subcontractors are until bid submission and would have to ask for everyone's CRC's?	No-that can be submitted prior to the start of work	
22	Does the General Contractor need to sign document 00900 E.O. N-6-22 compliance with economic sanctions?	Yes, this is just an acknowledgement	
23	The door schedule on plan page A2.1 is missing some information. 1. There are no door types 48, 58, 74, & 76 listed in the door type detail but they are listed in the door type column on the door schedule. Please provide details for these door types. 2. Door/frame materials and head, jamb, & threshold details are missing from openings 104D, 105D, 122B, 211I, 211M, & 211N. These openings are also missing hardware groups.	Door schedule has been updated in Addendum 04 to clarify the missing hardware groups, door types, and details.	Seals Construction
24	The wall legend on plan pages A1.1 & A1.2 show most of the walls as fire rated. The door schedule on plan page A2.1 does not show any fire rated openings. Please confirm if any door openings need to be fire rated. If fire ratings are required the hardware groups will need to be revised as well.	In type VA construcution, the openings are **not required** to be fire rated as there are no occupancy seperations. The fire rating in the walls is to protect the primary strucutre of the building	Seals Construction
25	Openings 211I, 211M, & 211N are not listed on the floor plans on plan pages A1.1 & A1.2. Please advise as to where these openings are on the floor plans.	Location of missing door tags clarified on Addendum no 04	Seals Construction

26	The mechanical equipment schedule on sheet M3.1 shows (x4) Greenheck exhaust fans that are not shown anywhere else on the mechanical plan sheets. Please advise if these do not need to be provided.	Schedule removed from M3.1. Clarified in Addendum 03	Strategic Mechanical
27	First and second floor, floor finish legend Sealed Concrete SC U.O.N. Are the concrete walks, stair treads and landings to be Sealed Concrete or Pedestrian Traffic Coated? Please Clarify Specifications 07 18 13; Drawings A2.4 & A2.6	Pedistrian traffic coating is use on all exterior balconies and stairs. sealed concrete used in interiors only	Ardent
28	For the MBarC Shade Structures: 1) No Gutters/RWL shown in plans. Are gutters required or not? 2) Please specify finishes for columns and beams (field painted, galv or both.) 3) Please specify finishes for framing and hardware. 3) Decking and trim are factory finished baked enamel in standard architectural colors. Color sheet attached.	1. Gutters are required 2. Galvanized 3. Galvanized 4. Decking and trim to be selected from standard color chart	Ardent
29	1) What material should we use for the countertops? 2) What material should we use for the cabinets?	Countertops (plastic laminate) - PL-2 - Formica - Citadel Warp Cabinets (plastic laminate) - PL-1 - Wilsonart - Fawn Cypress	Fortune Ratliff

30	1) Are the temporary relocatable classrooms owner furnished and set by owner and or owner direct contractor? Please Clarify 2) Are the foundation wood pads furnished and installed by the owner and or owner direct contractor? Please Clarify 3) Are the ramps landings and railing owner furnished and set by owner and or owner direct contractor? Please Clarify 4) Are the foundation skirts and the ramp/landing skirts, owner furnished and set by owner and or owner direct contractor? Please Clarify 5) What condition are the relocatable classrooms, will they require any patching, repairs or modifications, (Painting, Flooring, Walls, Wall Finishes, Ceilings, Doors, Door Hardware, Lighting, Data, HVAC Systems, ETC.)? Please Clarify	1. Mobile Modular is already contracted to set and deliver the portables through a separate contract. Contractor responsible for scheduling the delivery date with district. 2. Wood foundations to be provided by Mobile Modular through seperate contract with the district. 3. Mobile Modular to provide and install ramps and railings through seperate contract with the district. However, contractor is responsible for the transition from the metal ramp to existing walkway/pot of travel. 4. Foundation skirts with vents to be provided by Mobile Modular through seperate contract with the district. 5. Portables are in good condition	Ardent

31	1. In Sheet A2.3 (Finish Schedule), Carpet Tile CPT-2 (Walk off Carpet) is indicated. However, it is not shown anywhere in the Finish Plan. Could you please confirm whether we are using this product in the project or not? If yes please confirm the location of the same. 2. In Sheet A2.3, the floor tile TL1 manufacturer is listed as Crossville, while the specification document 093000 indicates Marazzi as the manufacturer. Could you please confirm which manufacturer should be used for TL1? 3. TL1 (12"x12") is available as12”x12” field tile and also in mosaic format (12”x12” sheet). Could you please confirm which one we should use from the above? 4. As per Sheets A1.3 and A1.4, Staff Restrooms 116, 119, 209, and Boys Restroom 121 are shown with wall tile finishes, while Girls Restrooms 120, 210, and Boys Restroom 211 are shown with fiber-reinforced panel (FRP) finishes; confirm if this means that only 4 out of the 7 restrooms will have wall tile finishes 5. As per sheet A2.3 Color Schedule, Tiles TL1 and TL2 are mentioned as Daltile, but no specific style is provided. Additionally, the 6"x12" size is not available for Daltile. Could you please confirm the correct size and style for TL1 and TL2? 6. Could you please confirm whether Schluter trims are acceptable in the tile outer edges, or tile trims are specifically required for this project? 7. Could you please confirm if there is any flooring work required under the cabinet?	1. Will not be using CPT-2 (walk off carpet). 2. TL-1 manufacturer is Crossville. 3. TL-1 is a 12"x12" field tile. 4. Girls Restrooms 120, 210, and Boys Restroom 211 will all have tile as well. 5. The following tiles will be used: TL-1 - 12"x12" - Clean Slate - Argent - Crossville TL-2 - 6"x18" - Matte Biscuit K775 - Color Wheel Linear - Daltile TL-3 - 6"x6" cove base - Matte Biscuit K775 - Color Wheel Classic - Daltile TL-4 - 4"x12" - Matte Biscuit K755 - Color Wheel Linear - Daltile 6. Schluter trims are acceptable. 7. The only required flooring work is under any sink cabinets.	Ardent / Michael Surface Solutions / Fortune-Ratliff General Contractors, Inc / Seals

32	1)Plan sheet X1.5 Decorative Metal Fence and Gate Legend #18 indicates security keypad card reader. Could not find any reference in electrical plans or signal plans to the locations. Are there to be keypads and card readers on gates? 2)Plan sheet E0.0 Lighting Fixtures Legend, electrical plans sheets E2.1 and E2.2 show exit emergency lights. Fixture schedule on plan sheet E6.1 does not list an exit emergency light. Will a specification be offered for this fixture? 3)Plan sheet E101: Will any of the receptacles in offices and conference room be required to be occupancy controlled? 4)Plan sheets E1 and E2 show power receptacles. Symbol list for power devices and symbols do not indicate the use of Tamper Resistant receptacles. Will there be an indication of receptacles that are to be of Tamper Resistance type? 6)Electrical specification 260500 / Part 2 / Products / A. / B. / C. indicates to provide allowances: Are we to have separate pricing for each of these allowances or is it to be lump sum? 6a) Question for (B.): (B.) Indicates to provide (25) additional 20A 1-pole 277V lighting circuits. 1)Panel H1 as drawn, does not have breaker space to accommodate this requirement. Are we to include an additional 480V 3-phase 4-wire distribution panel to archive this requirement?	1. No card reader or keypad on gates 2. Use the following fixture for the exit sign: Lithonia #TLE-1-R-ELN 3. Yes, controlled receptacles will be required to comply with CA T24 energy code. 4.All classroom and student accessible spaces will receive tamper resistant receptacles. 6. a)Lump sum is adequate for the allowance. b) Lighting is fed from panel L1 at 120V. Provide allowance at 120V for panel L1 rather than 277V at panel H1.	AMG
33	The finish schedule and the interior elevations do not match. Some pages show FRP and some show tile. Please confirm if restrooms 116, 119, 120, 121, 209, 210, & 211 are to receive wall tile.	All restrooms to receive wall tile per finish schedule	Fortune Ratliff
34	Interior elevations 15/A7.1, 19/A7.2, 19/A7.4, & 23/A7.4 depict a gypsum board finish adjacent to the glazing. Exterior elevations and floor plans show this space to be glazing. Please confirm the gypsum board finish depicted adjacent to the glazing on elevations 15/A7.1, 19/A7.2, 19/A7.4, & 23/A7.4 is to be glazing.	Interior elevations have been updated in Addendum No 04	Fortune Ratliff

35	The door schedule shows a detail for Type A overhead doors, however, there do not appear to be any overhead doors on this project. Please advise.	Overhead doors are not included in this project, please remove from your scope	Fortune Ratliff

36	1. Will the project start approximately February 11, 2024 or February 11, 2025? 2. Please provide documents list of precedence for bidding purposes. 3. Project name on drawing plans is not match with project manual ("Madison Elementary School – 2 Story Classroom Building" compare with "James Madison Elementary School New Classroom Building". Please verify. 4. Please provide soil report for this project. 5. Provide the existing plant species, variety and size to repair at existing landscape will be damages by the new construction per note #19/LS2.2. 6. Please provide application rate of best paks 20-10-5 for 48"B tree. Per specs section 2.3.A/329000. 7. There is conflict of application rate for compost between plans & spec. Spec 3.4/329000 shown 6 cubic yards per 1,000 SQFT, but planting note #13/LS2.1 shown 4 cubic yards per 1,000 SQFT. Please verify. 8. Will the tree 48"B be installed with 2"x10" lodgepole pine stake & flexible vinyl tree tie per detail A/LS2.2? 9. What is the water source? Potable or reclaim? 10. Per irrigation legend on sheet LS1.1 shown minimum 3" cover. However, specs 3.2-C.7.G/328400 shown 4" minimum cover over in-line emitter of main distribution tubing. Please clarify. 11. Per irrigation legend LS1.1 shown Hunter note 200. However, note J/ LS1.1 is Hunter note 400. Please clarify. 12. Please confirm existing irrigation controller is used with 2 wire system or conventional system. 13. If two wire system. Please provide the decoder number of decoder for new remote-control valve. 14. Please confirm that imported topsoil shall be required for this project or not. If required, please provide specification for imported topsoil required. 15. Please confirm that there are PLA requirements for	1. Refer to Notice to Bidders for approximate start and completion dates for the project. 2. Order of Precedence will be issued in Addendum No 04 3. Both projects are the same, DSA No 02-122191 is on project manual and drawings therfore project is the same 4. Geotech report was provided in Addendum 02 5. As per note, plants to be repaired/replaced is contingent of any damage/removal by construction operations. 6. 40 Paks for 48" Box trees 7.Six (6) cubic yards 8. 48" Box trees will be installed by tree guying w/ anchors. See Addendum #4 (01/15/25) plan revisions for new detail. 9. Potable - City of Madera 10. Use 4" minimum cover 11. Hunter Node 200. See addendum 04 12. Conventional 13. N/A 14. Import topsoil requirement would be based on the grading plan, and the amount of cut/fill required. Any new planted area created for the project would require a minimum 18" topsoil depth from finish grade (329000). 15. There is not PLA governing this project.	Marina Co

37	1. Is Contractor responsible for delivering and setting portables? 2. Does site construction trailer require a private rest room per specification section 2.2 01 50 00-3?	1. Mobile Modular is already contracted to set and deliver the portables through a separate contract Contractor responsible for scheduling the delivery date with district. 2. Exterior portable restroom will suffice	Fourtune Ratliff
38	1. On Addendum #1 Temporary Relocatable Classrooms, Sheet AS.0, Demo Site Plan. Legend only shows (E) Turf to be removed. On Bid set for 2 Story Classroom Buildings, Sheet LS1.1 at grid lines M,N/ 13-15 shows existing irrigation valve(s) & existing 4" irrigation lateral to remain & used along with a utility box to remain. Due to Addendum #1's Building "Y"'s location & new site scope, is there additional demo or relocation of, tree(s) *attached pic, irrigation, utilities at Building "Y" location. Please advise.	1. Keynote 02.D02 and 02.H51 address the demolition and relocation of the irrigations lines and valves. No relocation or demoltion of trees is planned	Fourtune Ratliff

39	1. Please specify manufacturer and model of soap dispensers (TA-1) and paper towel dispensers (TA-4). 2. Royce Rolls Ringer Model T22 for TA-3 is not a valid item number. What manufacturer and model should be provided in its place. 3. Where will contractors be able to establish a staging area on site? 4. Is water and power available on site for contractor's use during construction? If so, will the contractor be responsible for any fees, and where will the connection points be located? 5. In Sheet A2.3 (Finish Schedule), Carpet Tile CPT-2 (Walk off Carpet) is indicated. However, it is not shown anywhere in the Finish Plan. Could you please confirm whether we are using this product in the project or not? If yes please confirm the location if the same. 6. In Sheet A2.3, the floor tile TL1 manufacturer is listed as Crossville, while the specification document 093000 indicates Marazzi as the manufacturer. Could you please confirm which manufacturer should be used for TL1? 7. TL1 (12"x12") is available as12"x12" field tile and also in mosaic format (12"x12" sheet). Could you please confirm which one we should use from the above? 8. As per Sheets A1.3 and A1.4, Staff Restrooms 116, 119, 209, and Boys Restroom 121 are shown with wall tile finishes, while Girls Restrooms 120, 210, and Boys Restroom 211 are shown with fiber-reinforced panel (FRP) finishes; confirm if this means that only 4 out of the 7 restrooms will have wall tile finishes. 9. As per sheet A2.3 Color Schedule, Tiles TL1 and TL2 are mentioned as Daltile, but no specific style is provided. Additionally, the 6"x12" size is not available for Daltile. Could you please confirm the correct size and style for TL1 and TL2? 10. Could you please confirm whether Schluter trims are acceptable in the tile outer edges, or tile trims are specifically required for this project? 11. Could you please confirm if there is any flooring work required under the cabinet?	1. Soap dispenser and paper towel dispenser are OFCI 2. Toilet paper dispensier is OFCI 3. District to confirm at kick off meeting after project is awarded 4. Contractor will need to obtain water from the city of Madera via a metered hydrant connection. Based on the location of the connection point, accessing power from the site is questionable. Contractor should plan to supply their own power. 5. Walk off carpet will not be used. 6.TL-1 manufacturer is Crossville. 7. TL-1 is a field tile (12"x12") 8. Girls Restrooms 120,210, and Boys Restroom 211 will all have tile as well. 9.The following tiles will be used: TL-1 - 12"x12" - Clean Slate - Argent - Crossville TL-2 - 6"x18" - Matte Biscuit K775 - Color Wheel Linear - Daltile TL-3 - 6"x6" (cove base) - Matte Biscuit K775 - Color Wheel Classic - Daltile TL-4 - 4"x12" - Matte Biscuit K775 - Color Wheel Linear - Daltile 10. Schluter trims are acceptable.	BMY

40	The storfront system call for an impact resistant system. This is very uncommon especially with how small the opeings are. Is this the correct spec? Please confirm.	Storefront system is to remain as specficed	Ardent
41	Drawing Submission Requirements- Per the provided Specs, Section 3.11.2.2, Copies Required, physical print outs are being requested for Submittals. Please confirm if electronic submittals/drawings will be acceptable in lieu of (1) sepia and (5) prints.	Electronic is acceptable for submitals. physcal will be required for as-builts in close outs	Swinerton
42	Proposal Documents-Document 00440 -A. Project Listings - please confirm what type / location of projects you are looking for.	List projects of similar size and type, include location.	Swinerton
43	Proposal Documents-Document 00440 -B. List of Completed Project - Last Three Years - please confirm the type / location of projects you are looking for.	List projects of similar size and type, include location.	Swinerton
44	Temp Facilities-Please confirm if Temp Facilities is Owner Furnish/GC Install or GC Furnish/GC Install.	Temp facilities: GC furnished GC installed	Swinerton
45	Signage-Please advise on the quantity of the following signage quantity for the Fire Riser Sign, Room Capacity Sign, and Elevator Control Sign. Please Provide a signage Schedule with the designated quantities.	Provide one (1) fire riser sign, (2) elevator control signs. room capacity sign only required for VAPA Classroom and CTE Classroom	Swinerton
46	Signage-Please advise on the size or type of the following, tactile exit sign, room ID sign, boys restroom wall sign, girl restroom wall sign, and staff restroom wall Sign.	5x7 typical	Swinerton
47	Signage-Please reference sheet Ax1.1 Detail 5. Please advise on the size and depth for the cast aluminum letters for the Monument Sign.	Size is called out on detail 5/AX1.1 (16" and 8").	Swinerton
48	Tile-Please Reference Sheet A2.3 Finish Schedule. Room 120 Girls Restroom shows TL/GB on the North, East, South wall. However, the elevation on Sheet A1.3 shows FRP in the Girl Restroom. Similar issue with restroom 121, 210 and 211. Please advise on the desired material for the restroom.	Restrooms to have tile per finish schedule	Swinerton
49	Milwork & Casework-Please reference Sheet A2.3 Color schedule. The schedule shows two types of plastic laminate (PL-1 Wilsonart and PL-2 Formica).Please advise on the following. Please confirm all countertops will be Plam Material. Please confirm the desried material for the countertops and casework.	Countertops (plastic laminate) - PL-2 - Formica - Citadel Warp Cabinets (plastic laminate) - PL-1 - Wilsonart - Fawn Cypress	Swinerton
50	Signage-Please advise if substitutions will be acceptable if the product is of equal value. Will alternate signage manufacturers be acceptable.	Please refer to specification 01 25 00 SUBSTITUTION PROCEDEURES & FORM and fill out form	Swinerton

51	Shade Structure & Paint-Please reference Sheet AS.1 and Spec 10 71 13.43 2.2 Sun Screens. The spec 2.2 Sun Screens has a designation of shopped finish. Please advise if the shade structure will be field painted.	Shade louvers are not field painted	Swinerton
52	Adendum 3 - SWPPP-Please reference Adendum 3. Please advise if the QSP servise is required by the GC or will be by the Owner.	QSP services will be the responsibility of the contractor.	Swinerton
53	Milwork & Casework-Please advise if all casework is to receive locks.	Yes, all casework should receive locks.	Swinerton
54	Flooring-In Sheet A2.3 (Finish Schedule), Carpet Tile CPT-2 (Walk off Carpet) is indicated. However, it is not shown anywhere in the Finish Plan. Could you please confirm whether we are using this product in the project or not? If yes please confirm the location of the same.	Walk off carpet will not be used.	Swinerton
55	In Sheet A2.3, the floor tile TL1 manufacturer is listed as Crossville, while the specification document 093000 indicates Marazzi as the manufacturer. Could you please confirm which manufacturer should be used for TL1?	TL-1 manufacturer is Crossville.	Swinerton
56	TL1 (12"x12") is available as 12”x12” field tile and also in mosaic format (12”x12” sheet). Could you please confirm which one we should use from the above?	TL-1 is a field tile (12"x12")	Swinerton
57	Tile-As per Sheets A1.3 and A1.4, Staff Restrooms 116, 119, 209, and Boys Restroom 121 are shown with wall tile finishes, while Girls Restrooms 120, 210, and Boys Restroom 211 are shown with fiber-reinforced panel (FRP) finishes; confirm if this means that only 4 out of the 7 restrooms will have wall tile finishes	Restrooms to have tile per finish schedule	Swinerton
58	Tile-As per Sheet A2.3 Color Schedule, Tiles TL1 and L2 are mentioned as Daltile, but no specific style is provided. Additionally, the 6”x12” size is not available for Daltile. Could you please confirm the correct size and style for TL1 and TL2?	The following tiles will be used: TL-1 - 12"x12" - Clean Slate - Argent - Crossville TL-2 - 6"x18" - Matte Biscuit K775 - Color Wheel Linear - Daltile TL-3 - 6"x6" (cove base) - Matte Biscuit K775 - Color Wheel Classic - Daltile TL-4 - 4"x12" - Matte Biscuit K775 - Color Wheel Linear - Daltile	Swinerton
59	Flooring-Please confirm whether Schluter trim are acceptable in the tile outer edges, or tile trims are specifically required for this project.	Schluter trims are acceptable.	Swinerton
60	Flooring-Please confirm if there is any flooring work required under the cabinets.	The only required flooring work is under any sink cabinets.	Swinerton

61	Coiling Door-Please reference Spec 08 33 13. Please advise on the location of the coiling door detail and location on the floor plan.	No coiling doors in project, please remove from your scope of work	Swinerton
62	Specification sections 09 51 00 refers to ACT-3 ceiling tiles, which misses on A3.1 and A3.2 ceiling finish legends. Please confirm that ACT-3 is not used in this project or update RCP drawings	ACT -3 is kitchen zone and is required for snackbar. Spec advises locations for ACT-1, ACT-2, and ACT-3	Ceiling Experts
63	In regards to the Color Schedule in A2.3: Cpt. 2 is noted, but not identified in the First Floor Plan A2.3 or Second Floor Plan A2.4. Please clarify.	Walk off carpet will not be used.	Better Enterprises
64	On Addendum #1 Temporary Relocatable Classrooms, Sheet AS.0, Demo Site Plan. Legend only shows (E) Turf to be removed. On Bid set for 2 Story Classroom Buildings, Sheet LS1.1 at grid lines M,N/ 13-15 shows existing irrigation valve(s) & existing 4" irrigation lateral to remain & used along with a utility box to remain. Due to Addendum #1's Building "Y""s location & new site scope, is there additional demo or relocation of, tree(s) *attached pic, irrigation, utilities at Building "Y" location. Please advise.	1. Keynote 02.D02 and 02.H51 address the demolition and relocation of the irrigations lines and valves. No relocation or demoltion of trees is planned	Fortune Ratliff

SECTION 05 50 00 METAL FABRICATIONS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements including but not limited to:
1. Metal ladders.
2. Pipe, downspout guards.
3. Handrails and brackets.
4. Mechanical Curbs.
5. Accessories necessary for a coordinated and complete installation.

B. Related Sections:
1. Section 03 30 00: Cast in Place Concrete.
2. Section 05 12 00: Structural Steel Framing.
3. Section 05 12 13: Architecturally-Exposed Structural Steel Framing.
4. Section 05 40 00: Cold-Formed Steel Framing.
5. Section 09 21 16: Gypsum Board Assemblies.
6. Section 09 24 00: Cement Plastering.
7. Section 09 90 00: Painting and Coating.

1.3 PERFORMANCE REQUIREMENTS

A. Structural Performance of Ladders: Provide ladders and landings capable of withstanding the effects of loads and stresses within limits and under conditions specified in ANSI A14.3.

B. Thermal Movements:
1. Provide exterior metal fabrications that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss:
a. Temperature change (range): 120 degrees F (67 degrees C), ambient; 180 degrees F (100 degrees C), material surfaces.

1.4 SUBMITTALS

A. Product Data: Submit data for miscellaneous metal fabrications and paint, coatings, and grout accessories.

B. Shop Drawings:
1. Submit shop drawings detailing the fabrication and erection of each metal fabrication indicated. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items:
a. For installed products indicated to comply with design loads, include structural analysis data, for information only, signed and sealed by the qualified professional engineer responsible for their preparation.

C. Welding Certificates.

D. Paint Compatibility Certificates: Submit manufacturers of topcoats applied over shop primers, certifying that shop primers are compatible with topcoats.

1.5 QUALITY ASSURANCE

A. Regulatory Requirements:
   1. Building Code - comply with applicable provisions of the CBC 2022 California Building Code (CCR Title 24, Part 2, as adopted and amended by DSA):
      a. CBC Section 11B-504 where applicable.
   2. Welding - qualify procedures and personnel according to the following:
      a. AWS D1.1/D1.1M Structural Welding Code – Steel.
      b. AWS D1.2/D1.2M Structural Welding Code - Aluminum.
      c. AWS D1.3/D1.3M Structural Welding Code - Sheet Steel.
      d. AWS D1.6/D1.6M Structural Welding Code - Stainless Steel.
      e. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification.

B. Fabricator/Installer Qualifications: A firm experienced in producing metal fabrications similar to those indicated for this Project for a minimum of five (5) years, with a record of successful in-service performance, with sufficient production capacity to produce required units without causing delay in the work.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store metal fabrications in a dry, well ventilated, weathertight place. Deliver and handle to prevent any type of damage to the fabricated work.

PART 2 PRODUCTS

2.1 MATERIALS

A. Metal Surfaces: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

B. Steel Plates, Shapes, and Bars: ASTM A36/A36M.

C. Stainless Steel Sheet, Strip, and Plate: ASTM A240/A240M or ASTM A666, Type 304.

D. Stainless Steel Bars and Shapes: ASTM A276, Type 304.

E. Rolled Steel Floor Plate: ASTM A786/A786M, rolled from plate complying with ASTM A36/A36M or ASTM A283/A283M, Grade C or D.

F. Rolled Stainless Steel Floor Plate: ASTM A793.

G. Abrasive Surface Floor Plate:
   1. Steel plate with abrasive granules rolled into surface or with abrasive material metallically bonded to steel:
      a. Manufacturers are subject to compliance with requirements; provide products by one of the following:
         1) IKG Industries, a division of Harsco Corporation.
         2) SlipNOT Metal Safety Flooring; W.S. Molnar Company.

H. Steel Tubing: ASTM A500/A500M, cold formed steel tubing.

I. Steel Pipe: ASTM A53/A53M, Standard Weight (Schedule 40) unless otherwise indicated.

J. Zinc Coated Steel Wire Rope - ASTM A741:
1. Wire rope fittings: Hot dip galvanized steel connectors with capability to sustain, without failure, a load equal to minimum breaking strength of wire rope with which they are used.

K. Aluminum Plate and Sheet: ASTM B209, Alloy 6061-T6.

L. Aluminum Extrusions: ASTM B221, Alloy 6063-T6.

M. Aluminum Alloy Rolled Tread Plate: ASTM B632/B632M, Alloy 6061-T6.

N. Aluminum Castings: ASTM B26/B26M, Alloy 443.0-F.

O. Fasteners:
1. Unless otherwise indicated, provide Type 304 stainless steel fasteners for exterior use and zinc plated fasteners with coating complying with ASTM B633 or ASTM F1941, Class Fe/Zn 5, at exterior walls. Select fasteners for type, grade, and class required:
   a. Provide stainless steel fasteners for fastening stainless steel.
   b. Steel bolts and nuts: Regular hexagon head bolts, ASTM A307, Grade A with hex nuts, ASTM A563 and, where indicated, flat washers.
   c. Steel bolts and nuts: Regular hexagon head bolts, ASTM A325, Type 3 with hex nuts, ASTM A 563, Grade C3 and, where indicated, flat washers.
   d. Stainless steel bolts and nuts: Regular hexagon head annealed stainless steel bolts, ASTM F593 with hex nuts, ASTM F594 and, where indicated, flat washers; alloy.
   e. Anchor bolts - ASTM F1554, Grade 36, of dimensions indicated; with nuts, ASTM A563 and, where indicated, flat washers:
      1) Hot dip galvanize or provide mechanically deposited, zinc coating where item being fastened is indicated to be galvanized.
   f. Anchors: Anchors capable of sustaining, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed when installed in concrete, as determined by testing according to ASTM E488/E488M, conducted by a qualified independent testing agency.
   g. Post installed anchors - per Drawings:
      1) Material for interior locations: Carbon steel components zinc plated to comply with ASTM B633 or ASTM F1941, Class Fe/Zn 5, unless otherwise indicated.
      2) Material for exterior locations and where stainless steel is indicated: ASTM F593, and nuts, ASTM F594.
   h. Cast-in-place anchors in concrete: Either threaded type or wedge type unless otherwise indicated; galvanized ferrous castings, either ASTM A47/A47M malleable iron or ASTM A27/A27M cast steel. Provide bolts, washers, and shims as needed, all hot dip galvanized per ASTM F2329.

P. Miscellaneous Materials:
1. Shop primer for ferrous metal: Universal primer, organic zinc rich primer, complying with SSPC-Paint 20 and compatible with topcoat. Provide 10-99 (red) or 10-09 (gray) by Tnemec Company.
2. Universal shop primer: Fast curing, lead and chromate free, universal modified alkyd primer and compatible with topcoat. Use primer containing pigments that make it easily distinguishable from zinc rich primer.
3. Water based primer: Emulsion type, anticorrosive primer for mildly corrosive environments that is resistant to flash rusting when applied to cleaned steel and

compatible with topcoat.

4. Shop primer for galvanized steel: Primer formulated for exterior use over zinc coated metal and compatible with finish paint systems indicated.
5. Galvanizing repair paint: High zinc dust content paint for regalvanizing welds in steel, complying with SSPC-Paint 20. Provide Tneme-Zinc 90-97 by Tnemec Company.
6. Bituminous paint: Cold applied asphalt emulsion complying with SSPC-Paint 12, containing no asbestos fibers, or cold applied asphalt emulsion complying with ASTM D1187.
7. Non-shrink, nonmetallic grout: Factory packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C1107/C1107M. Provide grout specifically recommended by manufacturer for interior and exterior applications.
8. Concrete materials and properties: Composed of ASTM C150 Type I Portland cement, ASTM C33 sand and coarse aggregates and potable water to produce a low slump mix suitable for placement. Grade coarse aggregate from 1/8 inch with at least 95 percent passing a 3/8-inch sieve and not more than ten percent (10%) passing a No. 8 sieve. Fill shall be proportioned to provide a minimum 28-day compressive strength of 3,000 psi (20 MPa).

2.2 FABRICATION

A. Shop Assembly:
   1. Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation:
      a. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch (1 mm) unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
      b. Form bent metal corners to smallest radius possible without causing grain separation or otherwise impairing work.
      c. Form exposed work with accurate angles and surfaces and straight edges.
      d. Weld corners and seams continuously to comply with the following:
         1) Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
         2) Obtain fusion without undercut or overlap.
         3) Remove welding flux immediately.
         4) At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
      e. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Where exposed fasteners are required, use Phillips flat head (countersunk) fasteners unless otherwise indicated. Locate joints where least conspicuous.
      f. Fabricate seams and other connections that are exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.
      g. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.
      h. Provide for anchorage of type indicated, coordinate with supporting structure. Space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.
      i. Where units are indicated to be cast into concrete or built into masonry, equip with integrally welded steel strap anchors, 1/8 inch by 1-1/2 inches (3.2 mm by 38 mm), with a minimum six-inch (150 mm) embedment and two-inch (50 mm) hook, not less than eight inches (200 mm) from ends and corners of units and 24 inches (600 mm) o.c., unless otherwise indicated.
      j. Galvanize miscellaneous framing and supports at exterior locations; prime paint

miscellaneous framing and supports at interior locations.

B. Miscellaneous Framing and Supports:
1. Provide steel framing and supports necessary to complete the work and that are not a part of the structural framework, including, but not limited to, framing and supports for overhead lobby door frames, sliding doors, countertop and vanities, ceiling hung toilet compartments, tube framing for partial height walls, and mechanical and electrical equipment:
k. Fabricate units from steel shapes, plates, and bars of welded construction unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction. Cut, drill, and tap units to receive hardware, hangers, and similar items:
1) Fabricate units from slotted channel framing where indicated.
2) Furnish inserts for units installed after concrete is placed.

C. Shelf Angles:
1. Fabricate shelf angles from steel angles of sizes indicated and for attachment to concrete framing. Provide horizontally slotted holes to receive 3/4-inch (19 mm) bolts, spaced not more than six inches (150 mm) from ends and 24 inches (600 mm) o.c., unless otherwise indicated:
a. Provide mitered and welded units at corners.
b. Provide open joints in shelf angles at expansion and control joints. Make open joint approximately two inches (50 mm) larger than expansion or control joint.
c. For cavity walls, provide vertical channel brackets to support angles from backup masonry and concrete.
d. Galvanize and prime shelf angles located in exterior walls.
e. Prime shelf angles located in exterior walls with zinc rich primer.
f. Furnish wedge type concrete inserts, complete with fasteners, to attach shelf angles to cast-in-place concrete.

2.3 LADDERS

A. Ladders - Comply with ANSI A14.3. For elevator pit ladders, comply with ASME A17.1/CSA B44:
1. Steel ladders:
a. Space siderails 18 inches (457 mm) apart unless otherwise indicated.
b. Siderails: Continuous, 1/2 inch by 2-1/2-inch (12.7 mm by 64 mm) steel flat bars, with eased edges.
c. Rungs:
1) 3/4-inch (19 mm) diameter steel bars.
2) Fit rungs in centerline of siderails; plug weld and grind smooth on outer rail faces.
3) Provide nonslip surfaces on top of each rung, either by coating rung with aluminum oxide granules set in epoxy resin adhesive or by using a type of manufactured rung filled with aluminum oxide grout.
4) Provide nonslip surfaces on top of each rung by coating with abrasive material metallically bonded to rung:
5) Manufacturers are subject to compliance with requirements; provide products by one of the following:
a) Harsco Industrial IKG, a division of Harsco Corporation.
b) SlipNOT Metal Safety Flooring; W.S. Molnar Company.
d. Provide platforms as indicated fabricated from welded or pressure locked steel bar grating, supported by steel angles. Limit openings in gratings to no more than 1/2 inch (12 mm) in least dimension.
e. Support each ladder at top and bottom and not more than 60 inches (1500 mm) o.c. with welded or bolted steel brackets.

f. Galvanize ladders, including brackets and fasteners.

2.4 MISCELLANEOUS STEEL TRIM

A. Miscellaneous Steel Trim:
1. Unless otherwise indicated, fabricate units from structural steel shapes, plates, and bars of profiles shown with continuously welded joints and smooth exposed edges. Miter corners and use concealed field splices where possible:
a. Provide cutouts, fittings, and anchorages as needed to coordinate assembly and installation with other work:
1) Provide with integrally welded steel strap anchors for embedding in concrete or masonry construction, spaced not more than six inches (150 mm) from each end, six inches (150 mm) from corners, and 24 inches (600 mm) o.c.
2) Galvanize miscellaneous steel trim.

2.5 PIPE, DOWNSPOUT GUARDS

A. Downspouts:

B. Downspout Guards:
1. Fabricate pipe, downspout guards from 3/8 inch (9.5 mm) thick by 12 inch (300 mm) wide steel plate, bent to fit flat against the wall or column at both ends and to fit around pipe with two inch (50 mm) clearance between pipe and pipe guard. Drill each end for two (2) 3/4-inch (19 mm) anchor bolts.
2. Galvanize and prime pipe, downspout guards.

2.6 FABRICATION TOLERANCES

A. Squareness: 1/8 inch (3mm) maximum difference in diagonal measurements.

B. Maximum Offset Between Faces: 1/16 inch (1.5mm).

C. Maximum Misalignment of Adjacent Members: 1/16 inch (1.5mm).

D. Maximum Bow: 1/8 inch (3mm) in 48 inches (1.2m).

E. Maximum Deviation From Plane: 1/16 inch (1.5mm) in 48 inches (1.2m).

2.7 FINISHES

A. Finish metal fabrications after assembly.

B. Finish exposed surfaces to remove tool and die marks and stretch lines, and to blend into surrounding surface.

2.8 STEEL AND IRON FINISHES

A. Galvanizing:
1. Hot dip galvanize items as indicated to comply with ASTM A153/A153M for steel and iron hardware and with ASTM A123/A123M for other steel and iron products:
a. Do not quench or apply post galvanizing treatments that might interfere with paint adhesion.

B. Preparation for Shop Priming Galvanized Items: After galvanizing, thoroughly clean railings of grease, dirt, oil, flux, and other foreign matter, and treat with metallic phosphate process.

C. Shop prime iron and steel items not indicated to be galvanized unless they are to be embedded in concrete, sprayed-on fireproofing, or masonry, or unless otherwise indicated.

D. Preparation for Shop Priming:
   1. Prepare surfaces to comply with requirements indicated below:
      a. Exterior items: SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
      b. Items indicated to receive zinc-rich primer: SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
      c. Items indicated to receive primers specified in Section 09 96 00: High-Performance Coatings: SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
      d. Other items: SSPC-SP 3, "Power Tool Cleaning."

E. Shop Priming:
   1. Apply shop primer to comply with SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting:
      a. Stripe paint corners, crevices, bolts, welds, and sharp edges.

F. Stainless Steel Finishes:
   1. Remove tool and die marks and stretch lines, or blend into finish:
      a. Grind and polish surfaces to produce uniform, directionally textured, polished finish indicated, free of cross scratches. Run grain with long dimension of each piece.
      b. Bright, directional polish: No. 4 finish.
      c. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.

2.9 EXPANDED METAL GRATINGS

A. Provide expanded metal gratings in material, finish, style, size, thickness, weight, and type indicated or, if not indicated, as recommended by manufacturer for indicated applications and as needed to support indicated loads. Manufacturer - Indiana Grating Inc. 212 W. Douglas St, Martinsville IN 46151. Grates to comply with CBC 11B-404, for accessible route of travel:
   1. Material: Steel
   2. Steel finish: Galvanized.
   3. Style designation: Light Duty Welded Steel Grating, see Drawings for details.

2.10 PERFORATED METAL

A. Properties:
   1. Hole Type, Size: Round, ½” Diameter
   2. Primary Material: Aluminum, Alloy 3003-H14
   3. Alloy Grade: Cold Rolled
   4. Material Finish: Powder Coated, AAMA 2604 Rating
   5. Gauge: ¼” Thick
   6. Hole Pattern: ½” Round om 11/16” Staggered Centers
   7. Holle Arrangement: 60º Staggered Centers
   8. Percent Open Area: 48%
   9. Weight: .78 Lbs/sqft
   10. Sheet Size: 48”x120”

B. Accessories: U-Edging, Aluminum, 18 Gauge, Type 403 (1/16” Opening x 1” Width)

PART 3 EXECUTION

3.1 COORDINATION

A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.

B. Coordinate installation of metal fabrications that are anchored to or that receive other work. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

3.2 FIELD CONDITIONS

A. Field Measurements:
   1. Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication:
      a. Established dimensions: Where field measurements cannot be made without delaying the work, establish dimensions and proceed with fabricating metal fabrications without field measurements. Coordinate wall and other contiguous construction to ensure that actual dimensions correspond to established dimensions.
      b. Provide allowance for trimming and fitting at site.

3.3 INSTALLATION, GENERAL

A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation, with edges and surfaces level, plumb, true, and free of rack, and measured from established lines and levels.

B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot dip galvanized after fabrication and are for bolted or screwed field connections.

C. Field Welding:
   1. Comply with the following requirements:
      a. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
      b. Obtain fusion without undercut or overlap.
      c. Remove welding flux immediately.
      d. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

D. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag screws, wood screws, and other connectors.

E. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.

F. Corrosion Protection:
   1. Coat concealed surfaces of aluminum that come into contact with grout, concrete, masonry, wood, or dissimilar metals with the following:
      a. Cast aluminum: Heavy coat of bituminous paint.

b. Extruded aluminum: Two (2) coats of clear lacquer.

3.4 INSTALLING MISCELLANEOUS FRAMING AND SUPPORTS

A. Install framing and supports to comply with requirements of items being supported, including manufacturers' written instructions and requirements indicated on shop drawings.

B. Anchor supports for overhead doors securely to, and rigidly brace from, building structure.

3.5 ERECTION TOLERANCES

A. Maximum Variation from Plumb: 1/4 inch (6mm) per story, noncumulative.

B. Maximum Offset from True Alignment: 1/4 inch (6mm).

C. Maximum Out of Position: 1/4 inch (6mm).

3.6 ADJUSTING AND CLEANING

A. Touchup Painting:
1. Immediately after erection, clean field welds, bolted connections, and abraded areas. Paint uncoated and abraded areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop painted surfaces:
   a. Apply by brush or spray to provide a minimum 2.0 mil (0.05 mm) dry film thickness.

B. Touchup Painting: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint are specified in Section 09 90 00: Painting and Coating.

C. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A780/A780M.

END OF SECTION

SECTION 09 51 00 ACOUSTICAL CEILING PANELS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements including but not limited to:
   1. Acoustical panels.
   2. Concealed and exposed suspension systems for ceilings.
   3. Ceiling panel for food service area.
   4. Accessories necessary for a complete installation.

1.3 SUBMITTALS

A. Product Data: Technical data for each product including installation instructions.

B. Samples:
   1. Acoustic Panel: Set of 6-inch (150 mm) square samples of each type, color, pattern, and texture.
   2. Exposed Suspension System Members, Moldings, and Trim: Set of 12-inch (300 mm) long samples of each type, finish, and color.

C. Coordination Drawings:
   1. Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:
      a. Suspended ceiling components.
      b. Structural members to which suspension systems will be attached.
      c. Size and location of initial access modules for acoustical panels.
      d. Items penetrating finished ceiling including but not limited to the following:
         1) Lighting fixtures.
         2) Air outlets and inlets.
         3) Speakers.
         4) Sprinklers.
         5) Access panels.
      e. Perimeter moldings.

D. Maintenance Data: Manufacturer data for finishes for inclusion in maintenance manuals.

E. Submit one copy of ICC-ES Reports.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements:
   1. Building Code:
      a. Comply with applicable requirements of the CBC for interior finishes:
         1) DSA Interpretation of Regulations – IR 25-2 Metal Suspension Systems for Lay-in Panel Ceilings.
         2) CBC - 2022 California Building Code.
         3) Chapter 19, 2022 California Building Code.

4) Chapter 23, 2022 California Building Code.
5) Acoustical Panel Standard: ASTM E1264 and designated by type, form, pattern, acoustical rating, and light reflectance:
a) Mounting Method for Measuring NRC: Plenum mounting in which face of test specimen is 15-3/4 inches (400 mm) away from test surface according to ASTM E795.

2. Surface Burning Characteristics:
a. Ceiling panels with surface burning characteristics complying with CBC and ASTM E1264 for Class A materials determined by testing identical products in accordance with ASTM E84:
1) Flame Spread Index: 25 or less.
2) Smoke Developed Index: 450 or less.

3. Seismic Performance: Acoustical ceiling shall withstand the effects of earthquake motions determined according to ASCE 7.
4. Fire Resistance Ratings: Comply with ASTM E119; testing by qualified testing agency. Identify products with appropriate markings of applicable testing agency. Indicate design designations from UL *Fire Resistance Directory* or from the listings of another qualified testing agency.

B. Source Limitations:
1. Acoustical Ceiling Panel: Obtain each type through one source from a single manufacturer.
2. Suspension System: Obtain each type through one source from a single manufacturer.

C. Comply with applicable regulations regarding toxic and hazardous materials:
1. Coating Based Antimicrobial Treatment: Provide acoustical panels with face and back surfaces coated with antimicrobial treatment; and showing no mold or mildew growth when tested in accordance with ASTM D3273.
2. Panel Based Antimicrobial Treatment: Provide acoustical panels manufactured with antimicrobial treatment in the panels.

D. Pre-installation Conference: Conduct conference at site.

1.5 WARRANTY

A. Standard Ceiling Panels: Warrant ceiling panels to be free from sagging, warping, shrinking, buckling, or delaminating as a result of manufacturing defects for a period of one (1) year from the date of Substantial Completion.

B. Sag Resistant Ceiling Panels: warrant products to be free from sagging, warping, shrinking, buckling, or delaminating as a result of manufacturing defects for a period of ten (10) years from the date of Substantial Completion.

C. Standard Suspension System: Suspension systems shall be warranted to be free from defects in material or factory workmanship and shall not incur 50 percent red rust as defined by ASTM B117 test procedures for a period of ten (10) years from the date of Substantial Completion.

D. Suspension system / ceiling panels: Provide manufacturers standard 15-year warranty for suspension systems when used in combination with same manufacturers sag resistant ceiling panels. Ceiling panels to be free from sagging, warping, shrinking, buckling, or delaminating as a result of manufacturing defects. Suspension systems shall not incur 50 percent red rust as defined by ASTM B117 test during the period of the warranty, extra materials.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver acoustical panels, suspension system components, and accessories to site in original, unopened packages and store in a fully enclosed, conditioned space protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.

B. Before installing acoustical panels, allow panels to attain room temperature and a stabilized moisture content.

C. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

PART 2 PRODUCTS

2.1 MATERIALS

A. Manufacturers are subject to compliance with requirements; provide ceiling panels and grid systems by one of the following:
   1. Acoustical Ceiling Panel System:
      a. Armstrong World Industries, Inc. (Basis of Design), or approved equivalent.
   2. Acoustical Sealant for Exposed and Concealed Joints:
      a. Pecora Corporation; AC-20 FTR Acoustical and Insulation Sealant.
   3. Acoustical Sealant for Concealed Joints:
      a. Pecora Corporation; AIS-919.

B. Acoustical Panel Colors and Patterns:
   1. Match appearance characteristics indicated for each product type:
      a. Where appearance characteristics of acoustical panels are indicated by referencing pattern designations in ASTM E1264 and not manufacturers' proprietary product designations, provide products selected by Architect that comply with requirements indicated for type, pattern, color, light reflectance, acoustical performance, edge detail, and size.

2.2 METAL SUSPENSION SYSTEM

A. Metal Suspension System:
   1. Direct hung metal suspension systems of types, structural classifications, and finishes indicated complying with applicable requirements in ASTM C635/C635M:
      a. High Humidity Finish:
         1) Comply with ASTM C635/C635M requirements for Coating Classification for Severe Environment Performance where high humidity finishes are indicated.
      b. Attachment Devices - Size for five times the design load indicated in ASTM C635/C635M, Table 1 Direct Hung, unless otherwise indicated. Comply with seismic design requirements:
         1) Anchors in Concrete: Anchors of type and material indicated below, with holes or loops for attaching hangers of type indicated and with capability to sustain, without failure, a load equal to five times that imposed by ceiling construction, as determined by testing according to ASTM E488 or ASTM E1512 as applicable, conducted by a qualified testing and inspecting agency:
            a) Type: Cast in place, post installed expansion or post installed bonded anchors.
            b) Corrosion Protection: Carbon steel components zinc plated to comply with ASTM B633, Class Fe/Zn 5 (0.005 mm) for Class SC 1 service condition.

c) Corrosion Protection: Stainless steel components complying with ASTM F593 and ASTM F594, Group 1 Alloy 304 or 316 for bolts; Alloy 304 or 316 for anchor.
d) Corrosion Protection: Components fabricated from nickel copper alloy rods complying with ASTM B164 for UNS No. N04400 alloy.

2) Power Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion resistant materials, with clips or other accessory devices for attaching hangers of type indicated and with capability to sustain, without failure, a load equal to 10 times that imposed by ceiling construction, as determined by testing according to ASTM E1190, conducted by a qualified testing and inspecting agency.

2. Hanger Wires, Braces, and Ties:
   a. Zinc Coated, Carbon Steel Wire: ASTM A641/A641M, Class 1 zinc coating, soft temper.
   b. Stainless Steel Wire: ASTM A580/A580M, Type 304, nonmagnetic.
   c. Nickel Copper Alloy Wire: ASTM B164, nickel copper alloy UNS No. N04400.
   d. Size: Select wire diameter so its stress at three times hanger design load (ASTM C635/C635M, Table 1 Direct Hung) will be less than yield stress of wire, but provide not less than 0.106 inch (2.69 mm) diameter wire.
3. Hanger Rods and Flat Hangers: Mild steel, zinc coated or protected with rust inhibitive paint.
4. Angle Hangers: Angles with legs not less than 7/8 inch (22 mm) wide; formed with 0.04 inch (1 mm) thick, galvanized steel sheet complying with ASTM A653/A653M, G90 (Z275) coating designation; with bolted connections and 5/16 inch (8 mm) diameter bolts.
5. Hold Down Clips: Provide hold down clips spaced 24 inches (610 mm) o.c. on all cross tees in areas with exterior opening larger than 48” x 96”.
6. Impact Clips: Provide impact clip system designed to absorb impact forces against acoustical panels in Gymnasiums.
7. Aluminum cap for use over steel grid in kitchen areas or where shown on drawings or required.
8. Fasteners at Steel Framing and Metal Deck:
   1) Steel Framing:
      a) Shot-in Anchors.
   2) Metal Deck or Metal Deck without Structural Concrete:
      a) Self-tapping Screws.
   3) Metal Deck or Metal Deck with Structural Concrete or Concrete:
      a) Shot-in Anchors (hanger wire only).
      Drilled-in Anchors.

B. Metal Suspension Systems:
   1. Wide Face, Steel Capped, Double Web, Steel Suspension System:
      a. Main and cross runners roll formed from cold rolled steel sheet; prepainted, electrolytically zinc coated, or hot dip galvanized according to ASTM A653/A653M, not less than G30 (Z90) coating designation; with prefinished 15/16 inch (24 mm) wide metal caps on flanges:
         1) Structural Classification: Heavy duty system.
         2) Face Design: Flat, flush.
         3) Cap Finish: Color selected by Architect.
   2. Narrow Face, Steel Capped, Double Web, Steel Suspension System:
      a. Main and cross runners roll formed from cold rolled steel sheet; prepainted, electrolytically zinc coated, or hot dip galvanized according to ASTM A653/A653M, not less than G30 (Z90) coating designation; with prefinished, cold rolled, 9/16 inch (15 mm) wide metal caps on flanges:
         1) Structural Classification: Intermediate-duty system.
         2) Face Design: Flat, flush.

3) Cap Finish: Color selected by Architect.

2.3 ACOUSTICAL PANELS

A. Acoustic Panel Type I, ACT-1:
1. Basis of Design Product: **Fine Fissured No. 1755 by Armstrong World Industries.**
2. Classification - Provide panels complying with ASTM E1264 for type, form, and pattern:
   a. Type and Form: Type A, mineral fiber; Form A1.2, Pattern: D
3. Color: White.
4. LR: Not less than 0.85.
5. NRC: Not less than 0.75.
6. CAC: Not less than **35**.
7. Edge/Joint Detail: 15/16" Square Lay in.
8. Thickness: 7/8 inch .
9. Modular Size: 24 by 48 inches (610 by 1220 mm).
10. Broad Spectrum Antimicrobial Fungicide and Bactericide Treatment: Provide acoustical panels treated with antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D3273 and evaluated according to ASTM D3274 or ASTM G21.
11. Typical Location: Primary learning areas and classrooms.

B. Acoustic Panel Type II, ACT-2:
1. Basis of Design Product: **Fine Fissured No. 1754 by Armstrong World Industries.**
2. Classification - Provide panels complying with ASTM E1264 for type, form, and pattern:
   b. Type and Form: Type A, mineral fiber; Form A1.2, Pattern: D
3. Color: White.
4. LR: Not less than 0.85.
5. NRC: Not less than 0.75.
6. CAC: Not less than **35**.
7. Edge/Joint Detail: 15/16" Square Lay in.
8. Thickness: 7/8 inch .
9. Modular Size: 24 by 24 inches (610 by 610 mm).
10. Broad Spectrum Antimicrobial Fungicide and Bactericide Treatment: Provide acoustical panels treated with antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D3273 and evaluated according to ASTM D3274 or ASTM G21Typical Location: Offices, lobby.

C. Acoustic Panel Type III, ACT-3:
1. Basis of Design Product: **Kitchen Zone No. 672 by Armstrong World Industries**.
2. Classification - Provide fire resistance rated panels complying with ASTM E1264 for type, form, and pattern:
   a. Type and Form: Type A, Form A2.2, mineral fiber.
   b. Pattern: G.
   c. Color: White.
3. LR: Not less than 0.89.
4. CAC: Not less than 33.
5. Edge/Joint Detail: Square Lay In.
6. Thickness: 5/8 inch (15 mm).
7. Modular Size: 24 by 48 inches (610 by 1220 mm).
8. Broad Spectrum Antimicrobial Fungicide and Bactericide Treatment: Provide acoustical panels treated with antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D3273 and evaluated according to ASTM D3274 or ASTM G21.

9. Typical Location: Food preparation areas, refer to Drawings.
10. Typical Location: Food preparation areas, refer to Drawings.

2.4 MOLDING, TRIM AND ACCESSORIES

A. Shadow Molding: Where an acoustical lay in ceiling abuts a gypsum board ceiling in the same plane, provide a "W" shaped reveal or "shadow" molding similar to Armstrong Shadow Molding No. 7873.

B. Light Fixture Protection:
1. Manufacturer: Thermafiber Light Protection Kit by Owens Corning or Type 5/8 or 3/4 P(S) by Armstrong World Industries.
2. Fire Resistance Rating: Same as ceiling assembly rating.
3. Locations: At fixtures reinstalled in fire rated ceiling assemblies.

C. Roll Formed, Sheet Metal Edge Moldings and Trim:
1. Type and profile for standard moldings for edges and penetrations that comply with seismic design requirements; formed from sheet metal of same material, finish, and color used for exposed flanges of suspension system runners:
   a. Provide edge moldings that fit acoustical panel edge details and suspension systems indicated and that match width and configuration of exposed runners unless otherwise indicated.
   b. For lay in panels with reveal edge details, provide stepped edge molding that forms reveal of same depth and width as that formed between edge of panel and flange at exposed suspension member.
   c. For circular penetrations of ceiling, provide edge moldings fabricated to diameter required to fit penetration exactly.

D. Extruded Aluminum Edge Moldings and Trim:
1. Where indicated, provide extruded aluminum edge moldings and trim of profile indicated or referenced by manufacturer's designations, including splice plates, corner pieces, and attachment and other clips, complying with seismic design requirements and the following:
   a. Aluminum Alloy: Alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than the strength and durability properties of aluminum extrusions complying with ASTM B221 for Alloy and Temper 6063-T5.
   b. Clear Anodic Finish: AAMA 611, AA-M12C22A31, Class II, 0.010 mm or thicker.
   c. Baked Enamel or Powder Coat Finish: Minimum dry film thickness of 1.5 mils (0.04 mm). Comply with ASTM C635/C635M and coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

E. Acoustical Sealant:
1. Comply with ASTM C834 and effective in reducing airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E90:
   a. Exposed and Concealed Joints: Non-sag, paintable, non-staining latex sealant.
   b. Concealed Joints: Nondrying, nonhardening, non-skinning, non-staining, gunnable, synthetic rubber sealant.

PART 3 EXECUTION

3.1 PROJECT CONDITIONS

A. Environmental Limitations:

1. Do not install acoustical panel ceilings until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use:
   a. Pressurized Plenums: Operate ventilation system for not less than 48 hours before beginning acoustical panel ceiling installation.

3.2 EXTRA MATERIALS

A. Furnish extra materials matching products installed and packaged with protective covering for storage and identified with labels describing contents:
   1. Acoustical Ceiling Panels: Full size panels equal to 2 percent of quantity installed.
   2. Suspension System Components: Quantity of each exposed component equal to 2 percent of quantity installed.
   3. Hold Down Clips: Equal to 2 percent of quantity installed.
   4. Impact Clips: Equal to 2 percent of quantity installed.

3.3 EXAMINATION

A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut for compliance with requirements specified that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.

B. Examine acoustical panels before installation. Reject acoustical panels that are wet, moisture damaged, or mold damaged.

C. Proceed with installation after correcting unsatisfactory conditions.

3.4 PREPARATION

A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less than half width panels at borders and comply with layout shown on reflected ceiling plans.

3.5 INSTALLATION

A. Install acoustical panel ceilings to comply with ASTM C636/C636M and seismic design requirements indicated, according to manufacturer's written instructions and CISCA *Ceiling Systems Handbook*:
   1. Fire Rated Assembly: Install fire-rated ceiling systems according to tested fire rated design.

B. Suspend ceiling hangers from building's structural members and as follows:
   1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
   2. Splay Wire where required and, if permitted with fire resistance rated ceilings, to miss obstructions; offset resulting horizontal forces by bracing, counter splaying, or other equally effective means.
   3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
   4. Secure Hanger Wire to ceiling-suspension members and to supports above with a minimum of three tight turns. Connect Hanger Wire directly either to structures or to

inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.

5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
6. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast in place hanger inserts, post installed mechanical or adhesive anchors, or power actuated fasteners that extend through forms into concrete and Steel Decking.
7. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
8. Space hangers not more than 48 inches (1200 mm) o.c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches (200 mm) from ends of each member.
9. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.

C. Secure Splay Wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for Wire Hangers, and Splay Wires. Fasten bracing wires into Concrete filled Steel Decking with cast in place or post installed anchors.

D. Panel Accessibility: Install panels downward accessible by disengaging hinge support rail on one side of panel from the T Bar Flange or optional A Mount rail flange without the use of tools, for access without removal of panel from the ceiling.

E. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels:
1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
2. Screw attach moldings to substrate at intervals not more than 16 inches (400 mm) o.c. and not more than 3 inches (75 mm) from ends, leveling with ceiling suspension system to a tolerance of 1/8 inch in 12 feet (3.2 mm in 3.6 m). Miter corners accurately and connect securely.
3. Do not use exposed fasteners, including pop rivets, on moldings and trim.

F. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.

G. Install acoustical panels with undamaged edges and fit accurately into suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit:
1. Arrange directionally patterned acoustical panels with pattern running in one direction parallel to long axis of space.
2. For square edged panels, install panels with edges fully hidden from view by flanges of suspension system runners and moldings.
3. For reveal edged panels on suspension system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
4. For reveal edged panels on suspension system members with box shaped flanges, install panels with reveal surfaces in firm contact with suspension system surfaces and panel faces flush with bottom face of runners.
5. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical

panel manufacturer.

6. Install hold-down clips in areas indicated, in areas with exterior opening larger than 48” x 96”, where required by authorities having jurisdiction, and for fire resistance ratings; space as recommended by panel manufacturer's written instructions unless otherwise indicated.
7. Install clean room gasket system in areas indicated, sealing each panel and fixture as recommended by panel manufacturer's written instructions.
8. Protect lighting fixtures and air ducts to comply with requirements indicated for fire resistance rated assembly.

3.6 FIRE RATING SCHEDULE

A. Refer to UL Assemblies Drawings for Fire Rating requirements of ceiling materials at rated floor and roof assemblies.

3.7 FIELD QUALITY CONTROL

A. Special Inspections:
   1. Engage a qualified special inspector to perform the following special inspections:
      a. Compliance of seismic design.

B. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections and prepare test reports.

C. Perform the following tests and inspections of completed installations of acoustical panel ceiling hangers and anchors and fasteners in successive stages. Do not proceed with installations of acoustical panel ceiling hangers for the next area until test results for previously completed installations show compliance with requirements:
   1. Extent of Each Test Area:
      a. When installation of ceiling suspension systems on each floor has reached 20 percent completion but no panels have been installed:
         1) Within each test area, testing agency will select one of every 10 power-actuated fasteners and post installed anchors used to attach hangers to concrete and will test them for 200 lbf (890 N) of tension; it will also select one of every two post installed anchors used to attach bracing wires to concrete and will test them for 440 lbf (1957 N) of tension.
         2) When testing discovers fasteners and anchors that do not comply with requirements, testing agency will test those anchors not previously tested until 20 pass consecutively and then will resume initial testing frequency.

D. Acoustical panel ceiling hangers and anchors and fasteners will be considered defective if they do not pass tests and inspections.

E. Prepare test and inspection reports.

3.8 CLEANING

A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 09 51 00

SECTION 09 65 13.13 RESILIENT BASE

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements including but not limited to:
1. Rubber base.
2. Accessories necessary for a complete installation.

B. Related Sections:
1. Section 09 21 16: Gypsum Board Assemblies.
2. Section 09 65 23: Luxury Vinyl Tile Flooring.
3. Section 09 68 00: Carpeting.

1.3 SUBMITTALS

A. Product Data: Technical data for each type of product including manufacturer’s installation instructions.

B. Samples: Sample of Base Selected or Color Chart if none selected.

C. Maintenance Data: Submit for inclusion in maintenance manuals.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Entity having minimum 5 years documented experience who employs workers competent in techniques required by manufacturer for floor tile installation and seaming method indicated.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store base and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 degrees F (10 degrees C) or more than 85 degrees F (29 degrees C). Store floor tiles on flat surfaces.

PART 2 PRODUCTS

2.1 MATERIALS

A. Product by: **Roppe Corporation** or Architect approved equivalent..

B. Rubber Base - ASTM F1861:
1. Material: Rubber, vulcanized, Type TS, Group I, Styles A and B.
2. Manufacturing Method: Group I (solid, homogeneous).
3. Style: Topset cove; minimum 100 foot coil, cut to length required.
4. Minimum Thickness: 0.125 inch (3.2 mm).
5. Color: Charcoal.

6. Height: 4 inches, unless otherwise indicated on drawings.
7. Outside Corners: Job formed.
8. Inside Corners: Job formed.
9. 4’ long lengths, not rolled goods.

C. Adhesives: Water resistant type recommended by floor tile and adhesive manufacturers to suit floor tile and substrate conditions indicated.

PART 3 EXECUTION

3.1 FIELD CONDITIONS

A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 degrees F (21 degrees C) or more than 85 degrees F (29 degrees C), in spaces to receive floor tile during the following time periods:
1. 48 hours before installation.
2. During installation.
3. 48 hours after installation.

B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 degrees F (13 degrees C) or more than 95 degrees F (35 degrees C).

C. Close spaces to traffic for 48 hours after installation.

3.2 EXAMINATION

A. Examine substrates for compliance with requirements for maximum moisture content and other conditions affecting performance of the work:
1. Verify that finishes of substrates comply with tolerances and other requirements specified for other work and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor tile.

B. Proceed with installation after correcting unsatisfactory conditions. Installation of resilient flooring and accessories indicates acceptance of surfaces and conditions.

3.3 PREPARATION

A. Immediately before installation, sweep clean substrates to be covered by resilient base.

3.4 INSTALLATION

A. Comply with manufacturer's written instructions for installing flooring. Scribe and cut flooring to butt neatly and tightly to vertical surfaces, permanent fixtures, and built in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Extend flooring into toe spaces, door reveals, closets, and similar openings.

B. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on flooring as marked on substrates. Use chalk or other nonpermanent marking device.

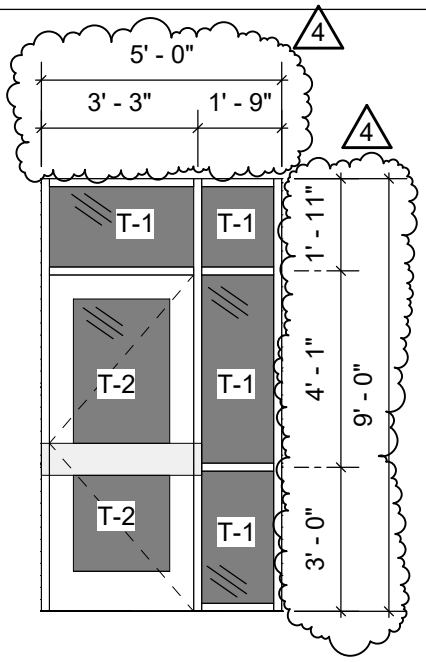
C. Resilient Base:
1. Comply with manufacturer's written instructions for installing resilient base. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required:

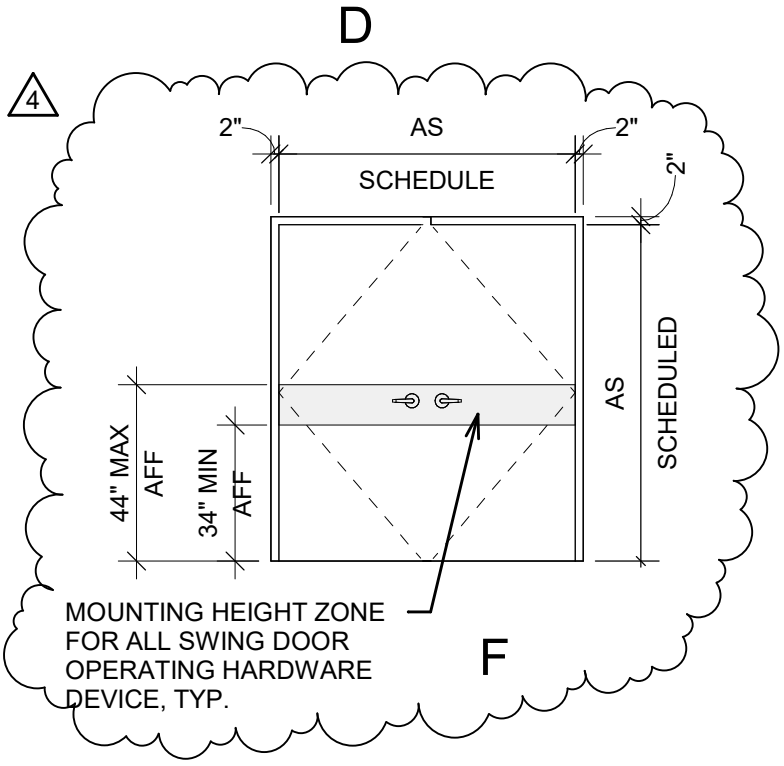
I. Install resilient base in lengths as long as practical without gaps at seams and with tops of adjacent pieces aligned.

Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
Do not stretch resilient base during installation.
On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material.
Preformed Corners: Install preformed corners before installing straight pieces.
Job Formed Corners:

1) Outside Corners: Use straight pieces of maximum lengths possible and form with returns not less than 3 inches (76 mm) in length.
2) Form without producing discoloration (whitening) at bends.
3) Inside Corners: Use straight pieces of maximum lengths possible and form with returns not less than 3 inches (76 mm) in length:
   a) Miter or cope corners to minimize open joints.

END OF SECTION 09 65 13.13





1 DOOR TYPES

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

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CLIENT: MADERA UNIFIED SCHOOL DISTRICT		PROJECT NUMBER: 230278	DATE: 01/15/25
PROJECT: MADISON ELEMENTARY SCHOOL - 2 STORY CLASSROOM BUILDING		DSA APPLICATION NUMBER: 02-122191	SCALE:
SHEET DESCRIPTION: DOOR AND WINDOW SCHEDULE		REFERENCE SHEET NUMBER: A2.1	SHEET NUMBER: 4.1
DRAWN BY: Author			

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DOOR SCHEDULE

DOOR NO.	DOOR TYPE	DOOR SIZE		DOOR			FRAME		GLASS	LOUVER	FIRE RATING	DETAILS (SEE SHEET AX3.1)			HARDWARE	REMARKS
		WIDTH	HEIGHT	THICKNESS	CONSTRUCTION	FINISH	CONSTRUCTION	FINISH	TYPE			HEAD	JAMB	THRESHOLD		
101A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	01	
102A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	01	
103A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	01	
104A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	01	
104D	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP			-	4/AX3.1	3/AX3.1	2/AX3.1	01	DETAILS SIM
105A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	01	
105D	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP			-	4/AX3.1	3/AX3.1	2/AX3.1	01	DETAILS SIM
106A	D	3' - 0"	7' - 0"	0' - 1 3/4"	AL	AL	AL	AL	T-1	-	-	12/AX3.1	12/AX3.1	11/AX3.1	01A	
106B	D	3' - 0"	7' - 0"		AL	AL	AL	AL	T-1			12/AX3.1	12/AX3.1	11/AX3.1	01	
107A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	6/AX3.1	6AX3.1	5/AX3.1	03	
107B	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	03	
108A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	03	
109A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	03	
110A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	02	
111A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	03	
112A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	6/AX3.1	6AX3.1	5/AX3.1	04	
114A	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	YES	-	4/AX3.1	3/AX3.1	2/AX3.1	01	
115A	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	YES	-	4/AX3.1	3/AX3.1	2/AX3.1	02	
116A	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	YES	-	4/AX3.1	3/AX3.1	2/AX3.1	05	
117A	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	YES	-	4/AX3.1	3/AX3.1	2/AX3.1	02	
119A	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	YES	-	4/AX3.1	3/AX3.1	2/AX3.1	05	
120A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	06	
121A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	06	
122A	B	3' - 10"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-		4/AX3.1	3/AX3.1	2/AX3.1	02	
122B	B	3' - 10"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP				4/AX3.1	3/AX3.1	2/AX3.1	02	
123A	F	6' - 6"	6' - 8"	0' - 2"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	02	
123B	B	3' - 0"	6' - 8"	0' - 1 3/4"	HM	SGP	HM	HM	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	02	
201A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	8/AX3.1	7/AX3.1	2/AX3.1	01	
202A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	8/AX3.1	7/AX3.1	2/AX3.1	01	
203A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	8/AX3.1	7/AX3.1	2/AX3.1	01	
204A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	01	
205A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	01	
206A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	4/AX3.1	3/AX3.1	2/AX3.1	01	
207A	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	YES	-	4/AX3.1	3/AX3.1	2/AX3.1	02	
207B	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	YES	-	4/AX3.1	3/AX3.1	2/AX3.1	02	
208A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	YES	-	4/AX3.1	3/AX3.1	2/AX3.1	03	
209A	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	YES	-	8/AX3.1	7/AX3.1	2/AX3.1	05	
210A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	8/AX3.1	7/AX3.1	2/AX3.1	06	
211A	B	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	8/AX3.1	7/AX3.1	2/AX3.1	06	
211I		8' - 0"	7' - 0"		OM	SGP	OM	SGP				A/X1.5	A/X1.5	A/X1.5	PER DETAIL	
211M	B	1' - 10"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP				4/AX3.1	3/AX3.1	2/AX3.1	04	
211N	B	1' - 10"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP				4/AX3.1	3/AX3.1	2/AX3.1	04	
212A	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	SGP	HM	SGP	-	-	-	6/AX3.1	6AX3.1	5/AX3.1	04	

DATE 01/14/25
PROJECT NUMBER 230278
DSA APPLICATION NUMBER 02-122191
SCALE
REFERENCE SHEET NUMBER A2.1
SHEET NUMBER 4.2

CLIENT MADERA UNIFIED SCHOOL DISTRICT
PROJECT MADISON ELEMENTARY SCHOOL - 2 STORY CLASSROOM BUILDING
SHEET DESCRIPTION DOOR AND WINDOW SCHEDULE
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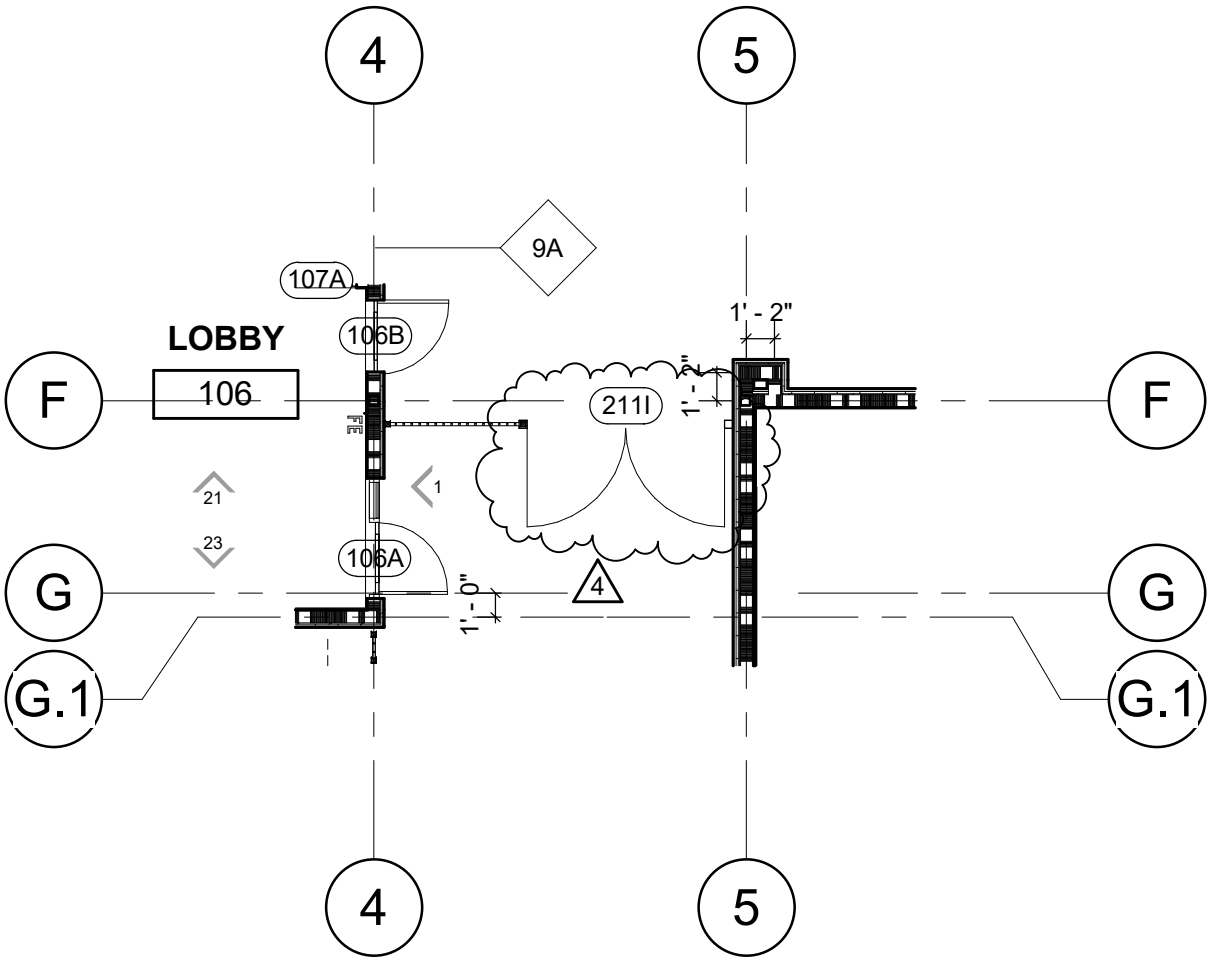

1 FLOOR PLAN

SCALE: 1/8" = 1'-0"

N

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PROJECT: MADISON ELEMENTARY SCHOOL - 2 STORY CLASSROOM BUILDING		DSA APPLICATION NUMBER: 02-122191	SCALE:
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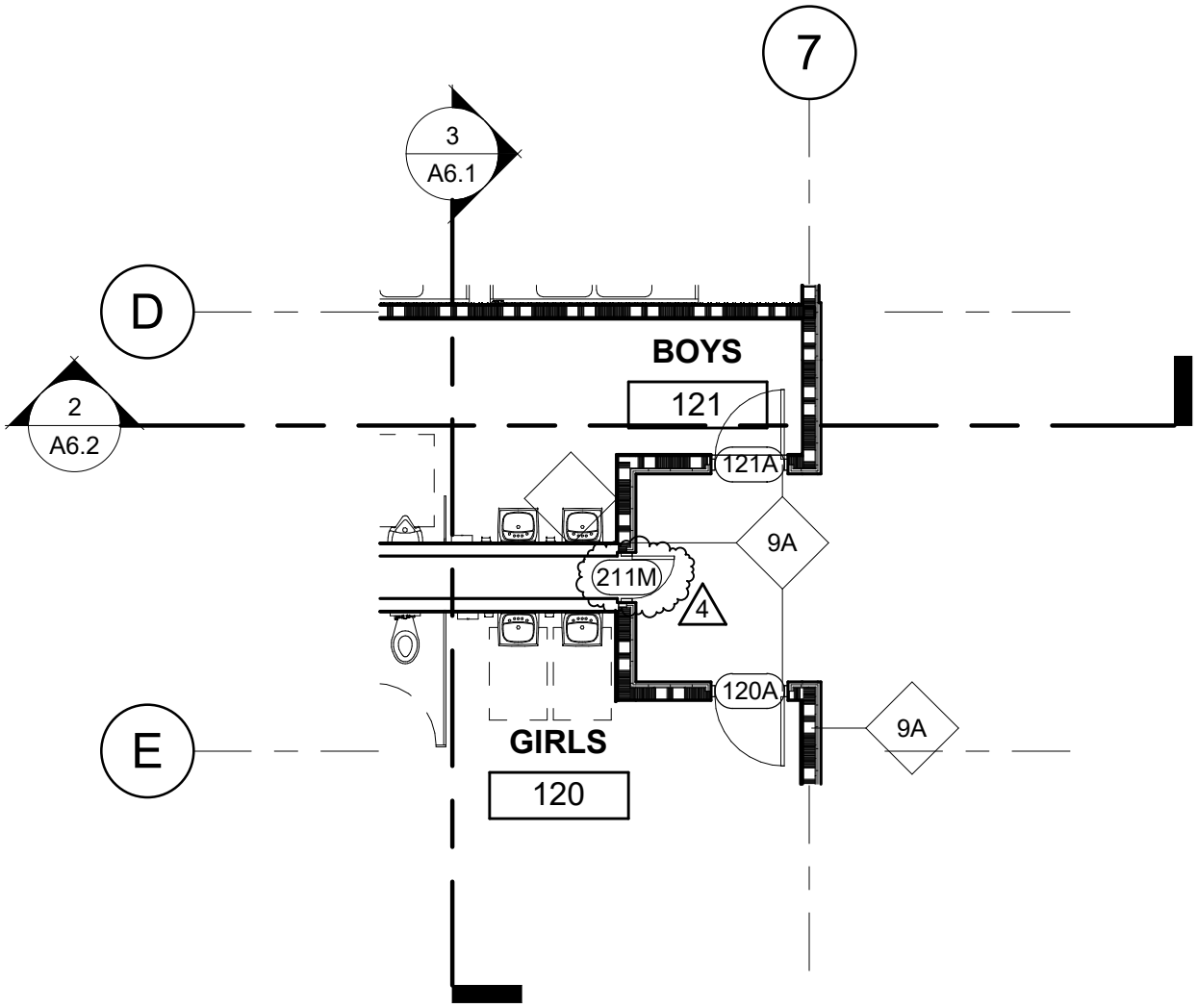

1 FLOOR PLAN

SCALE: 1/8" = 1'-0"

N

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PROJECT: MADISON ELEMENTARY SCHOOL - 2 STORY CLASSROOM BUILDING		DSA APPLICATION NUMBER: 02-122191	SCALE:
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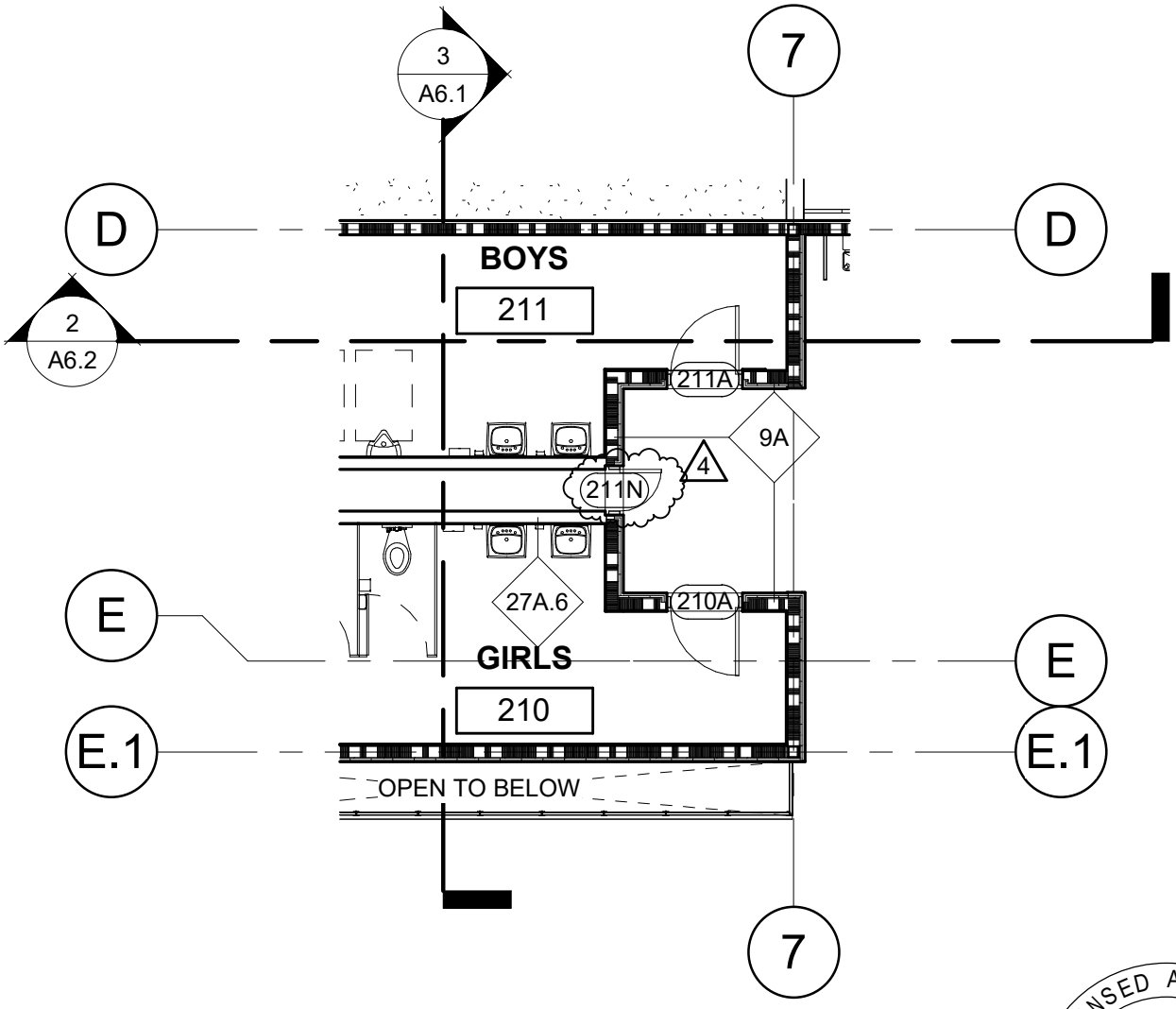

1 FLOOR PLAN

SCALE: 1/8" = 1'-0"

N

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PROJECT: MADISON ELEMENTARY SCHOOL - 2 STORY CLASSROOM BUILDING		DSA APPLICATION NUMBER: 02-122191	SCALE:
SHEET DESCRIPTION: SECOND FLOOR PLAN		REFERENCE SHEET NUMBER: A1.2	SHEET NUMBER: 4.5
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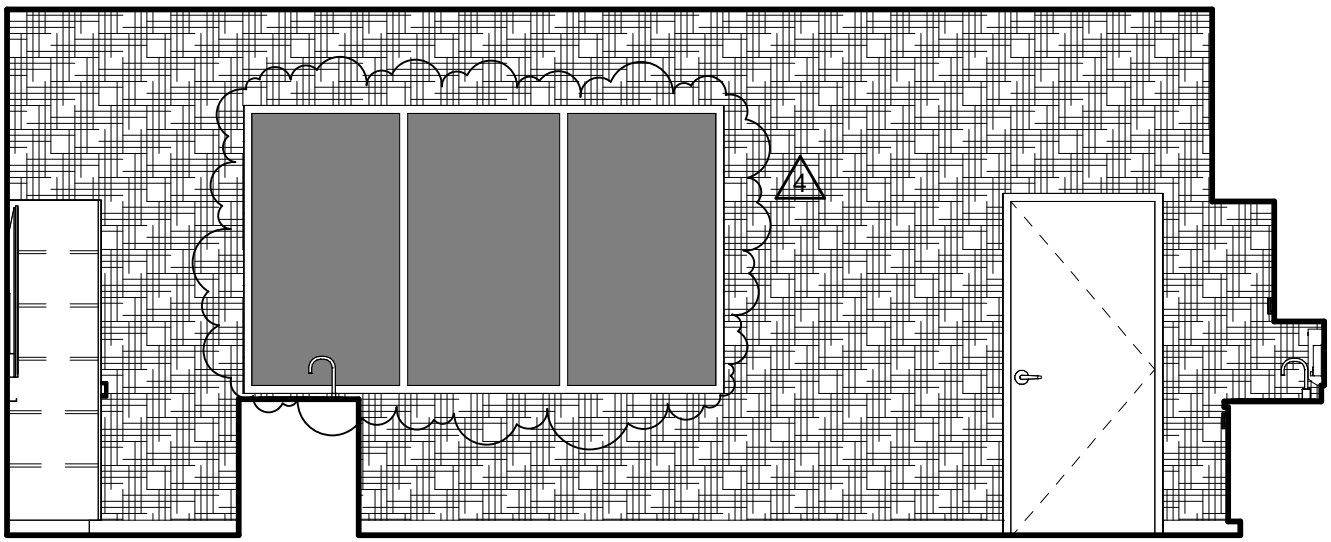

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PROJECT: MADISON ELEMENTARY SCHOOL - 2 STORY CLASSROOM BUILDING		DSA APPLICATION NUMBER: 02-122191	SCALE:
SHEET DESCRIPTION: INTERIOR ELEVATIONS		REFERENCE SHEET NUMBER: A7.1	SHEET NUMBER: 4.6
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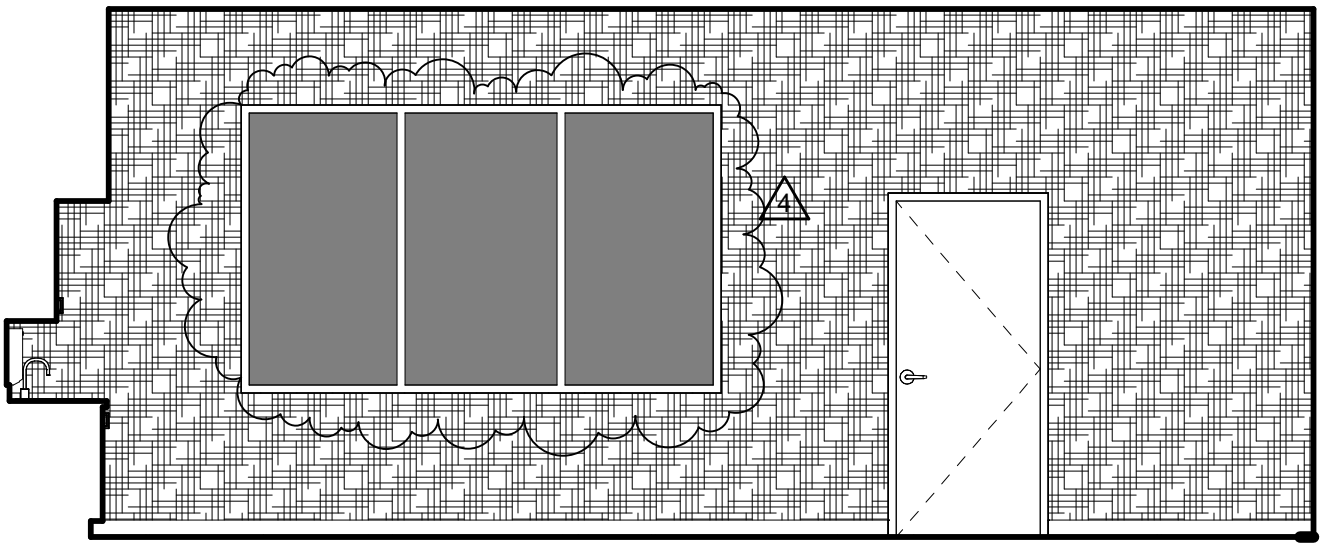

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PROJECT: MADISON ELEMENTARY SCHOOL - 2 STORY CLASSROOM BUILDING		DSA APPLICATION NUMBER: 02-122191	SCALE:
SHEET DESCRIPTION: INTERIOR ELEVATIONS		REFERENCE SHEET NUMBER: A7.2	SHEET NUMBER: 4.7
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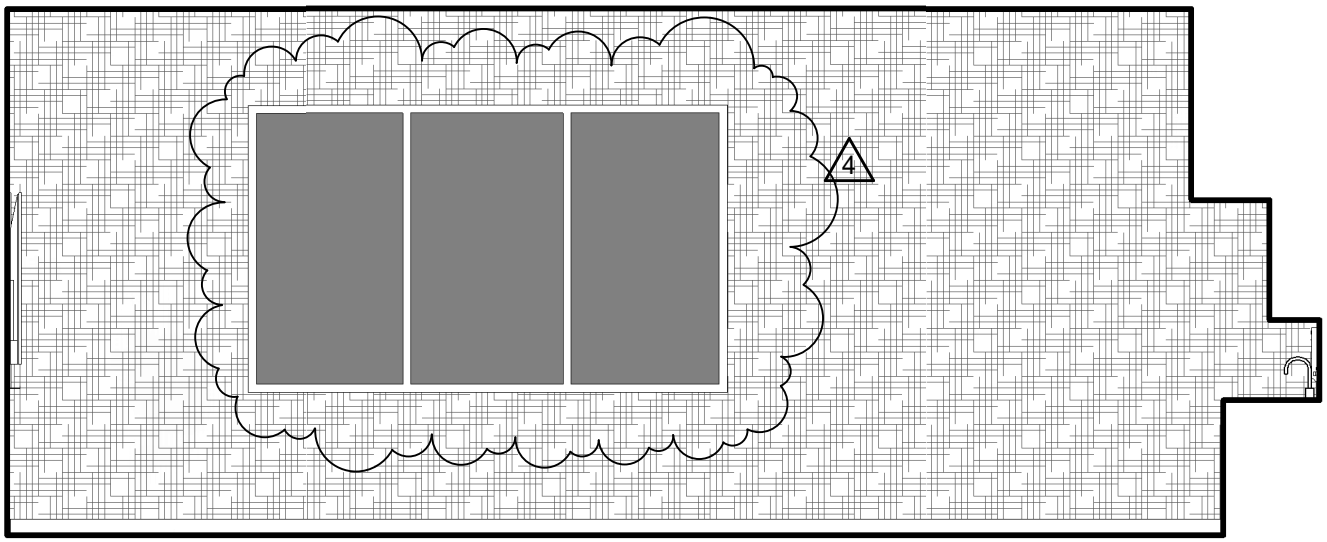

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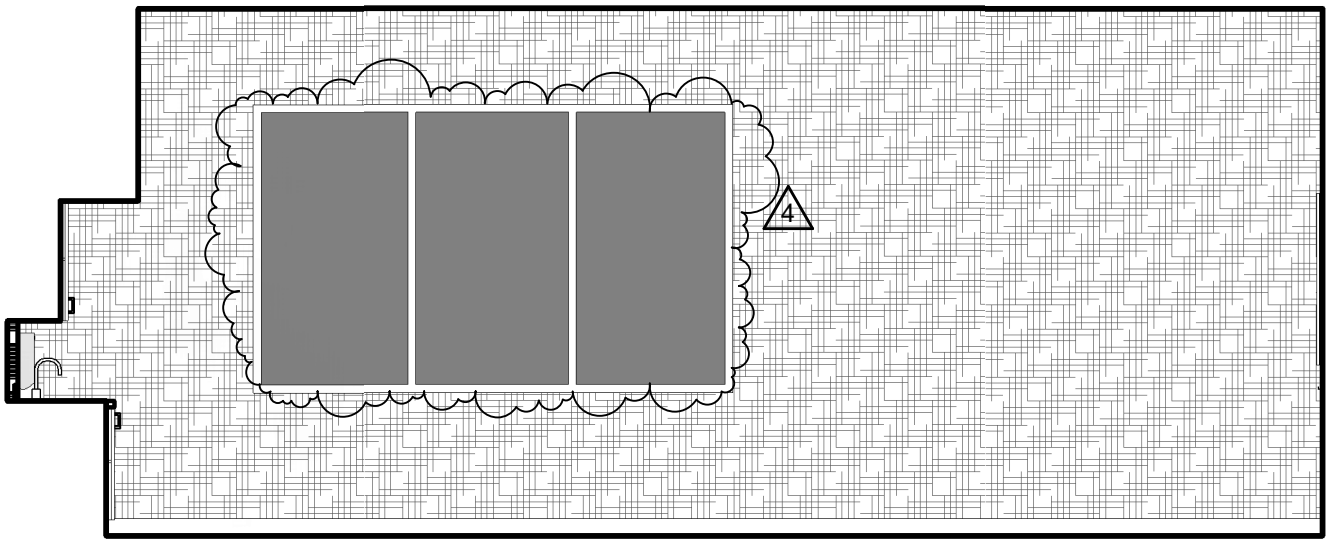

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SHEET DESCRIPTION: INTERIOR ELEVATIONS		REFERENCE SHEET NUMBER: A7.4	SHEET NUMBER: 4.9
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GENERAL NOTES

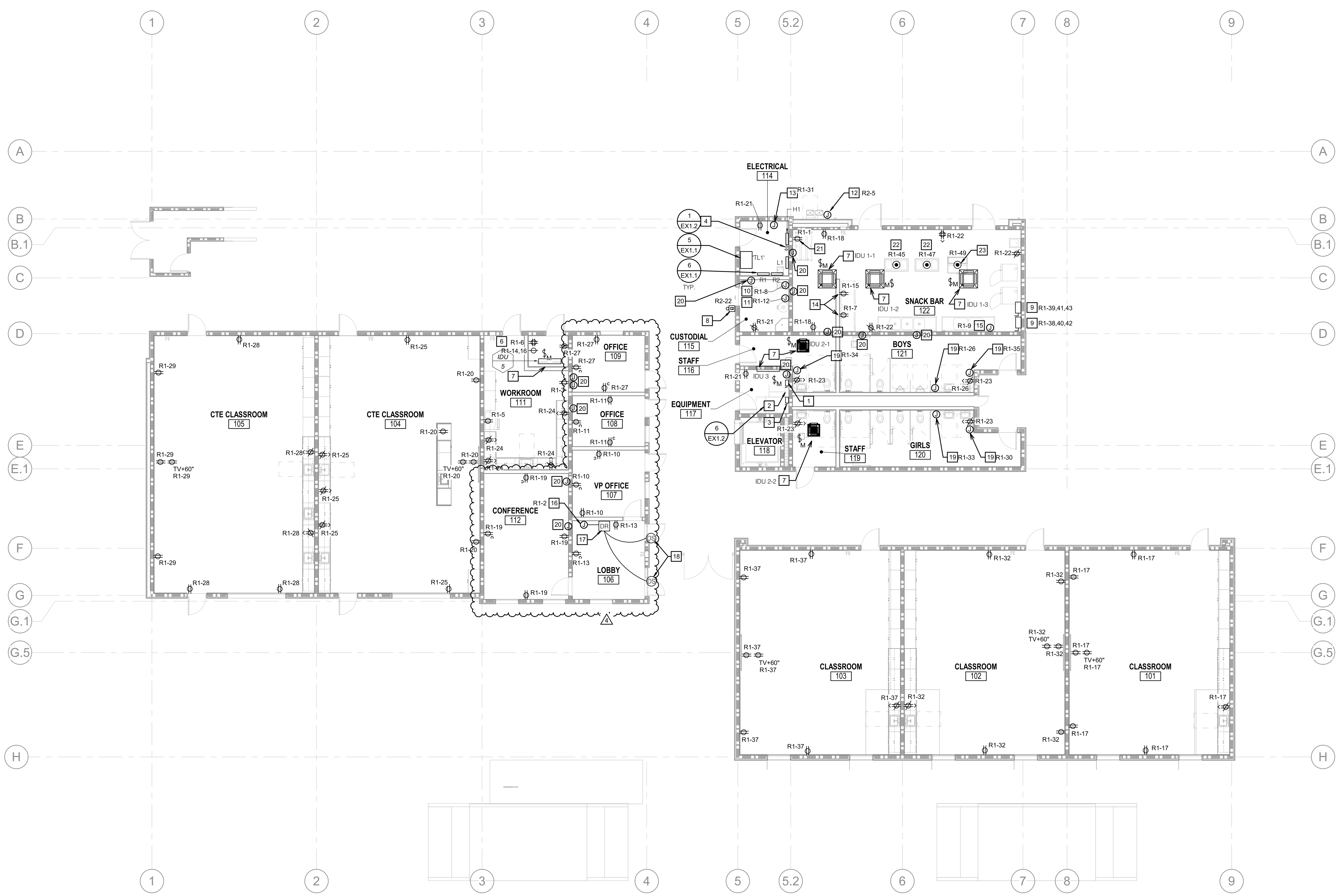
1. PROVIDE TAMPER RESISTANT RECEPTACLES IN CLASSROOMS AND ANY OTHER STUDENT ACCESSIBLE SPACE.

LEGEND - WALLS

FIRE RATED WALLS, REFER TO SHEET AX2.1 FOR ASSEMBLIES

NON RATED WALLS, REFER TO SHEET AX2.1 FOR ASSEMBLIES

SEE DETAIL 01/FA3.0 FOR FIRE RATED WALL PENETRATIONS.



1 ELECTRICAL 1ST FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

KEY NOTES

1. PROVIDE 30A, SINGLE POLE DISCONNECT SWITCHES WITH A 20A FUSE FOR ELEVATOR CAB LIGHT(S) AND CONTROLLER. COORDINATE CLEARANCE AROUND DISCONNECTS SWITCH PER NEC. 620-72 WITH ELEVATOR INSTALLER. ELECTRICAL CONECTION FROM SWITCH TO ELEVATOR CAB BY ELEVATOR INSTALLER. INSTALL LOCAL DISCONNECT WIH PADLOCK ACCESSORY FOR HANDLE PER NEC 620-53.
2. ELEVATOR AUTOMATIC SHUTDOWN SWITCH. PROVIDE PER SPECIFICATION 26 09 14. MAKE ALL CONNECTIONS TO ELEVATOR CONTROLLER AS REQUIRED BY ELEVATOR MANUFACTURER. VERIFY ELEVATOR EQUIPMENT LOCATIONS WITH ELEVATOR SUPPLIER BEFORE ELECTRICAL ROUGH-IN. COORDINATE FUSE SIZE, DISCONNNECT SWITCH SIZE, CIRCUIT BREAKER SIZE, CONDCUTOR SIZE AND CONDUIT SIZE FOR ELEVATOR WITH ELEVATOR SUPPLIER AND PER SUPPLIER'S RECOMMENDATION(S) PRIOR TO SUBMITTING ELECTRICAL EQUIPMENT. CONNECTION FROM DISCONNECT SWITCH TO ELEVATOR CONTROLLER BY DIVISON 26. COORDINATE LOCATION OF CONTROLLER WITH ELEVATOR INSTALLER IN FIELD.
3. PROVIDE RECEPTACLE AND SWITCH FOR SUMP PUMP IN ELEVATOR PIT ALL IN NEMA 4 ENCLOSURERS, COORDINATE LOCATOIN OF RECEPTACLE AND SWITCH WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
4. PROVIDE GROUNDING BUS BAR.
5. NOT USED.
6. PROVIDE DEDICATED QUADPLEX NEMA 5-20 RECEPTACLE AND A DEDICATED NEMA L6-30 RECEPTACLE FOR IDF. COORDINATE LOCATION AND MOUNTING HEIGHT WITH TECHNOLOGY CONTRACTOR PRIOR TO INSTALLATION.
7. IDU POWERED BY CORRESPONDING ODU ON ROOF. SEE MECHANICAL EQUIPMENT SCHEDULE 'M.31'. PROVIDE RACEWAY, FEEDERS AND CONNECTIONS TO UNIT. PROVIDE 2-POLE, 20A MOTOR RATED MANUAL TOGGLE SWITCH AT UNIT LOCATION.
8. PROVIDE 120V POWER TO FIRE SPRINKLER BELL.
9. PROVIDE POWER TO OVEN, 'RATIONAL AG iCombi Pro 20-1/1 E'. COORIDNATE FINAL LOCATION BEFORE INSTALLATION.
10. PROVIDE 120V POWER TO CIRCULATION PUMP. COORDINATE FINAL LOCATION WITH PLUMBING CONTRACTOR PRIOR TO INSTALLATION.
11. PROVIDE 120V POWER TO WATER HEATER. COORDINATE FINAL LOCATION WITH PLUMBING CONTRACTOR PRIOR TO INSTALLATION.
12. PROVIDE 120V POWER TO WATER FOUNTAIN.
13. PROVIDE 120V POWER TO FAPS.
14. PROVIDE 120V POWER TO FREEZER UNITS.
15. PROVIDE 120V POWER TO TRAP PRIMER.
16. PROVIDE 'RIB' TR50VA009 MULTI-TAP 24VAC, 50VA TRANSFORMER FOR LOW VOLTAGE POWER TO ELECTRONIC DOOR REALEASE BUTTON. PROVIDE LOW VOLTAGE CONDUCTORS AND TERMINATIONS TO DOOR RELEASE AND ELECTRONIC DOOR STRIKES AT LOBBY ENTRANCE DOORS.
17. PROVIDE 'SCHLAGE' DOOR RELEASE BUTTON, MODEL #660PB/660PB-DP. VERIFY MOUNTING ELEVATION WITH DISTRICT PRIOR TO INSTALLATION.
18. PROVIDE 'VON DUPRIN' ELECTRONIC DOOR STRIKE, MODEL #6300. COORDINATE INSTALLATION OF DEVICE WITH DOOR INSTALLER. VERIFY CORRECT CORRESPONDING DOOR AND HARDWARE PRIOR TO INSTALLATION.
19. PROVIDE CONNECTION FOR HAND DRYER.
20. PROVIDED 120V POWER TO FIRE SMOKE DAMPER. USE CIRCUIT 'R1-4' FOR DAMPERS ON FIRST FLOOR. COORDINATE FIINAL LOCATION OF FIRE SMOKE DAMPER WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
21. PROVIDE POWER TO MILK COOLER UNIT.
22. PROVIDE POWER TO 'DUKE' HOT/COLD/FREEZE UNIT.
23. PROVIDE POWER TO 'HYDRA KOOL' REFRIGERATOR UNIT.

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MADISON ELEMENTARY SCHOOL - 2 STORY CLASSROOM BUILDING

109 Stadium Rd, Madera, CA 93637

DSA SUBMITTAL

PROFESSIONAL SEAL

PROJECT NUMBER
230278

DATE
11/7/2024

DSA APPLICATION NO.

FILE NO.
20-30

PTN NO.
65243-157

DRAWN BY
Author

REVISIONS

#	DESCRIPTION	DATE
2	Addendum 4	01/15/2025

DSA SUBMITTAL

ELECTRICAL 1ST FLOOR POWER PLAN

E1.1

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GENERAL NOTES

1. PROVIDE TAMPER RESISTANT RECEPTACLES IN CLASSROOMS AND ANY OTHER STUDENT ACCESSIBLE SPACE.

LEGEND - WALLS

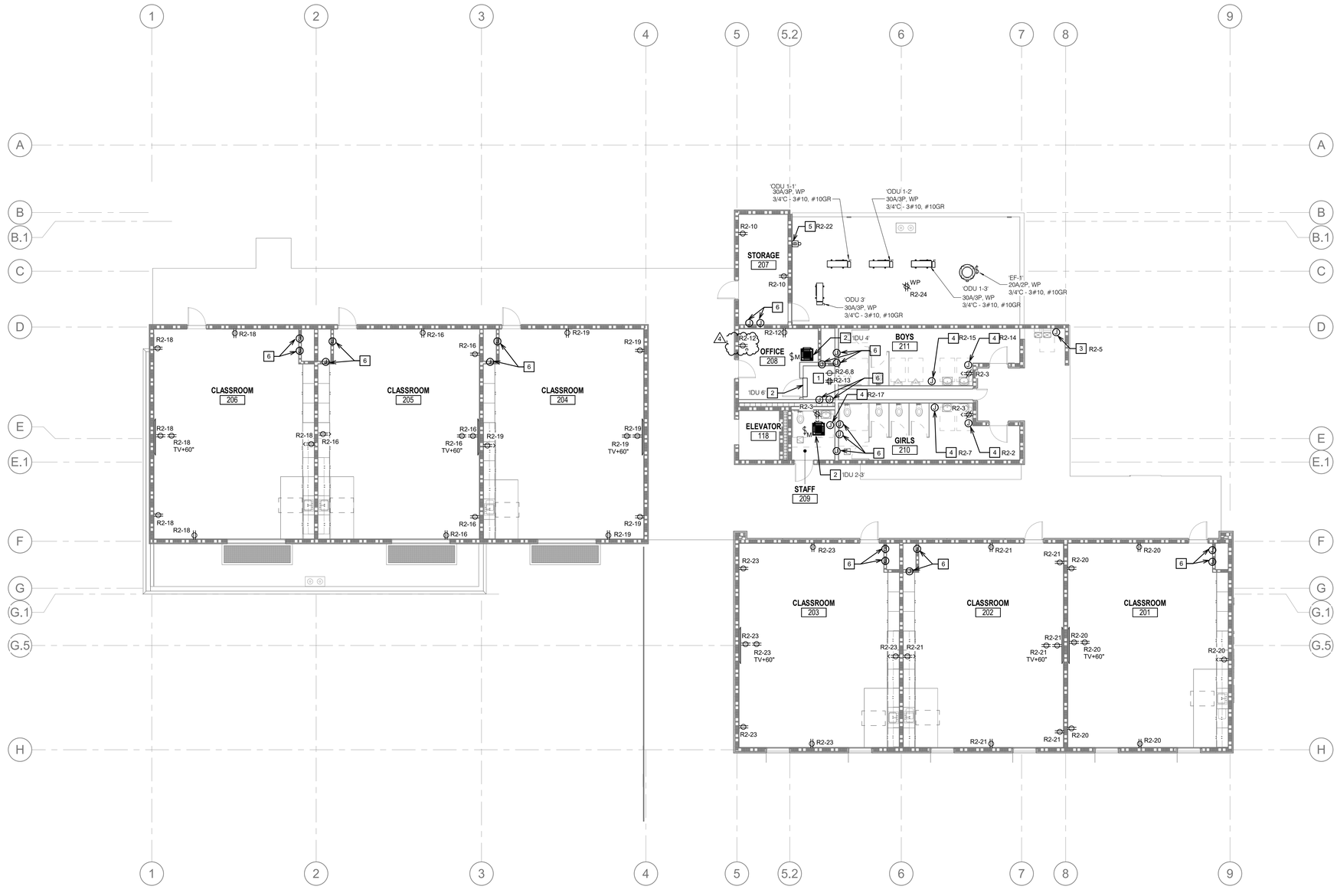
FIRE RATED WALLS, REFER TO SHEET AX2.1 FOR ASSEMBLIES

NON RATED WALLS, REFER TO SHEET AX2.1 FOR ASSEMBLIES

SEE DETAIL 01/FA3.0 FOR FIRE RATED WALL PENETRATIONS.

KEY NOTES

1. PROVIDE DEDICATED QUADPLEX NEMA 5-20 RECEPTACLE AND A DEDICATED NEMA L6-30 RECEPTACLE FOR IDF. COORDINATE LOCATION AND MOUNTING HEIGHT WITH TECHNOLOGY CONTRACTOR PRIOR TO INSTALLATION.
2. IDU POWERED BY CORRESPONDING ODU ON ROOF. SEE MECHANICAL EQUIPMENT SCHEDULE 'M.31'. PROVIDE RACEWAY, FEEDERS AND CONNECTIONS TO UNIT. PROVIDE 2-POLE, 20A MOTOR RATED MANUAL TOGGLE SWITCH AT UNIT LOCATION.
3. PROVIDE 120V POWER TO DRINKING FOUNTAIN.
4. PROVIDE CONNECTION FOR HAND DRYER.
5. PROVIDE 120V POWER TO FIRE SPRINKLER BELL.
6. PROVIDED 120V POWER TO FIRE SMOKE DAMPER. CONNECT TO CIRCUIT 'R2-4' FOR DAMPERS ON SECOND FLOOR. COORDINATE FIINAL LOCATION OF FIRE SMOKE DAMPER WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.



1 ELECTRICAL 2ND FLOOR POWER PLAN

SCALE: 1/8" = 1'-0"

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MADISON ELEMENTARY SCHOOL - 2 STORY CLASSROOM BUILDING

109 Stadium Rd, Madera, CA 93637

DSA SUBMITTAL

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER ANTHONY V. MATA ELECTRICAL STATE OF CALIFORNIA Exp. 6-30-25

PROJECT NUMBER 230278

DATE 11/7/2024

DSA APPLICATION NO.

FILE NO. 20-30

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ELECTRICAL 2ND FLOOR POWER PLAN

E1.2

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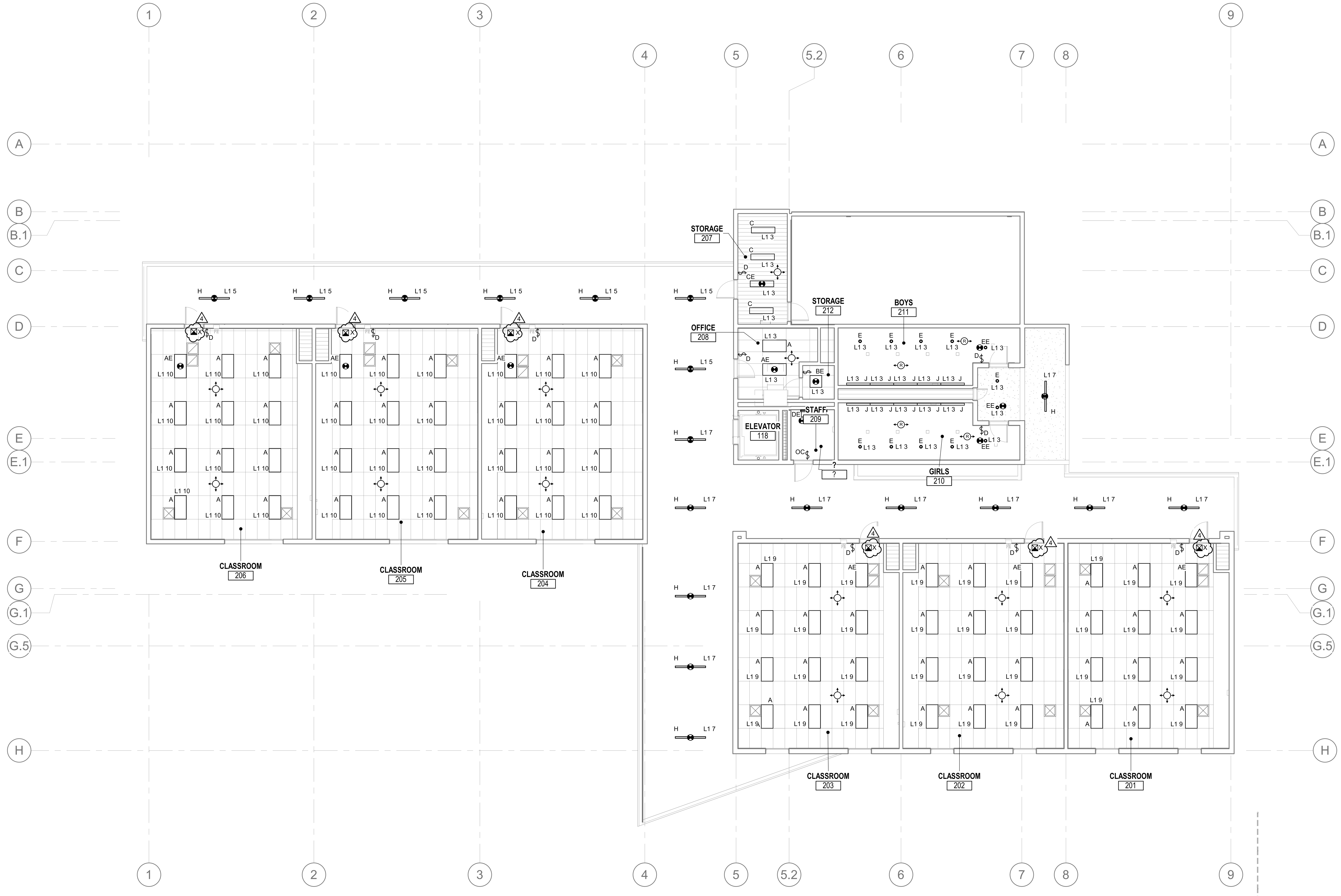
GENERAL NOTES

1. REFER TO ARCHITECT'S REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF LIGHTING FIXTURES.
2. SEE DETAILS 07/EX1.1 AND 09/EX1.1 FOR FIXTURE MOUNTING.
3. REFER TO SHEET 'E1.2' FOR LOCATIONS OF FIRE RATED WALLS AND ASSEMBLIES.
4. SEE DETAIL 01/FA3.0 FOR FIRE RATED WALL PENETRATIONS.



1 ELECTRICAL 2ND FLOOR LIGHTING PLAN
SCALE: 1/8" = 1'-0"

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ELECTRICAL 2ND FLOOR LIGHTING PLAN

E2.2

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Branch Panel: R1

Location: ELECTRICAL 114 | Supply From: L1 | Mounting: SURFACE | Enclosure: NEMA 1
Volts: 120/208 Wye | Phases: 3 | Wires: 4
A.I.C. Rating: 10,000 | Mains Type: MLO | Mains Rating: 400 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	MILK COOLER - SNACK BAR	20 A	1	180 VA	250 VA					1	20 A	LOBBY DOOR BUZZER	2
3	COPIER RM 111	20 A	1			180 VA	300 VA			1	20 A	* FIRE SMOKE DAMPERS - 1ST FLOOR	4
5	REFRIG RM 111	20 A	1					180 VA	360 VA	1	20 A	QUAD RECEP IDF 110	6
7	FREEZER	20 A	1	1152...	1250...					1	20 A	'CP-1'	8
9	TRAP PRIMER	20 A	1			500 VA	540 VA			1	20 A	RECEPS RM 107	10
11	RECEPS RM 108	20 A	1					540 VA	1000...	1	20 A	'WH-1'	12
13	RECEPS RM 106	20 A	1	360 VA	500 VA					2	20 A	SPECIALTY RECEP IDF 110	14
15	FREEZER	20 A	1			1152...	500 VA						16
17	RECEPS RM 101	20 A	1					1260...	360 VA	1	20 A	RECEPS RM SNACK BAR	18
19	RECEPS RM 112	20 A	1	720 VA	900 VA					1	20 A	RECEPS RM 104	20
21	RECEPS RM 114/115	20 A	1			540 VA	720 VA			1	20 A	RECEPS RM SNACK BAR	22
23	RESTRM RECEPS 1ST FLOOR	20 A	1					720 VA	720 VA	1	20 A	RECEPS RM 111	24
25	RECEPS RM 104	20 A	1	900 VA	1000...					1	20 A	HAND DRYER - 1ST FLOOR	26
27	RECEPS RM 109	20 A	1			720 VA	900 VA			1	20 A	RECEPS RM 105	28
29	RECEPS RM 105	20 A	1					720 VA	1000...	1	20 A	HAND DRYER - 1ST FLOOR	30
31	* FACP	20 A	1	1000...	1260...					1	20 A	RECEPS RM 102	32
33	HAND DRYER - 1ST FLOOR	20 A	1			1000...	1000...			1	20 A	HAND DRYER - 1ST FLOOR	34
35	HAND DRYER - 1ST FLOOR	20 A	1					1000...					36
37	RECEPS RM 103	20 A	1	1260...	1136...								38
39						1136...	1136...			3	125 A	'RATIONAL' OVEN	40
41	'RATIONAL' OVEN	125 A	3					1136...	1136...				42
43				1136...									44
45	'DUKE' HOT/COLD/FREEZE UNIT - SNACK BAR	20 A	1			360 VA							46
47	'DUKE' HOT/COLD/FREEZE UNIT - SNACK BAR	20 A	1					360 VA					48
49	'HYDRA KOOL' COOLER	20 A	1	360 VA									50
51													52
53													54
55													56
57													58
59													60
61													62
63													64
65													66
			Total Load:	33825 VA		31145 VA		30953 VA					
			Total Amps:	282 A		260 A		258 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	68200 VA	100.00%	68200 VA		
Other	10380 VA	100.00%	10380 VA	Total Conn. Load:	95924 VA
Receptacle	17344 VA	78.83%	13672 VA	Total Est. Demand:	92252 VA
				Total Conn. Current:	266 A
				Total Est. Demand Current:	256 A

Notes:
* PROVIDE RED HANDLE BREAKER AND LOCK-ON CLIP.

Branch Panel: H1

Location: ELECTRICAL 114 | Supply From: | Mounting: SURFACE | Enclosure: NEMA 1
Volts: 480/277 Wye | Phases: 3 | Wires: 4
A.I.C. Rating: 25,000 | Mains Type: MCB | Mains Rating: 350 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1				2633...	2633...								2
3	HP 1-1	30 A	3			2633...	2633...			3	30 A	HP 1-4	4
5								2633...	2633...				6
7				2633...	2633...								8
9	HP 1-2	30 A	3			2633...	2633...			3	30 A	HP 1-5	10
11								2633...	2633...				12
13				2633...	2633...								14
15	HP 1-3	30 A	3			2633...	2633...			3	30 A	HP 2-5	16
17								2633...	2633...				18
19				2633...	2633...								20
21	HP 2-1	20 A	3			2633...	2633...			3	30 A	HP 1-6	22
23								2633...	2633...				24
25				2633...	2633...								26
27	HP 2-2	30 A	3			2633...	2633...			3	30 A	HP 2-6	28
29								2633...	2633...				30
31				2633...	6239...								32
33	HP 2-3	30 A	3			2633...	6224...			3	250 A	'TL1'	34
35								2633...	5804...				36
37				2633...	--					1	--	SPACE	38
39	HP 2-4	30 A	3			2633...	--			1	--	SPACE	40
41								2633...	--	1	--	SPACE	42
			Total Load:	93988 VA		93839 VA		89639 VA					
			Total Amps:	342 A		341 A		324 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	9425 VA	100.00%	9425 VA		
Motor	218986 VA	100.00%	218986 VA	Total Conn. Load:	277466 VA
Other	17216 VA	100.00%	17216 VA	Total Est. Demand:	268164 VA
Power	3240 VA	100.00%	3240 VA	Total Conn. Current:	334 A
Receptacle	28604 VA	67.48%	19302 VA	Total Est. Demand Current:	323 A

Notes:

Branch Panel: R2

Location: ELECTRICAL 114 | Supply From: L1 | Mounting: SURFACE | Enclosure: NEMA 1
Volts: 120/208 Wye | Phases: 3 | Wires: 4
A.I.C. Rating: 10,000 | Mains Type: MLO | Mains Rating: 225 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EF 1	20 A	1	516 VA	1000...					1	20 A	HAND DRYER - 2nd FLOOR	2
3	RESTRM RECEPS 2ND FLOOR	20 A	1			540 VA	550 VA			1	20 A	* FIRE SMOKE DAMPERS - 2ND FLOOR	4
5	WATER FOUNTAIN 2nd FLOOR	20 A	1					750 VA	500 VA	2	20 A	SPECIALTY RECEP IDF 212	6
7	HAND DRYER - 2nd FLOOR	20 A	1	1000...	500 VA								8
9	ERV-1	20 A	2			1898...	360 VA			1	20 A	RECEPS RM 207	10
11								1898...	360 VA	1	20 A	RECEPS RM 208	12
13	QUAD RECEP IDF 212	20 A	1	360 VA	1000...					1	20 A	HAND DRYER - 2nd FLOOR	14
15	HAND DRYER - 2nd FLOOR	20 A	1			1000...	1260...			1	20 A	RECEPS RM 205	16
17	HAND DRYER - 2nd FLOOR	20 A	1					1000...	1260...	1	20 A	RECEPS RM 206	18
19	RECEPS RM 204	20 A	1	1260...	1260...					1	20 A	RECEPS RM 201	20
21	RECEPS RM 202	20 A	1			1260...	20 VA			1	20 A	* FIRE SPRINKLER BELL	22
23	RECEPS RM 203	20 A	1					1260...	1080...	1	20 A	ROOFTOP RECEPS	24
25				1201...	167 VA								26
27	ODU 4	20 A	3			1201...	167 VA			3	30 A	ODU 1-1	28
29								1201...	167 VA				30
31				2615...	1321...								32
33	ODU 3	25 A	3			2615...	1321...			3	30 A	ODU 5	34
35								2615...	1321...				36
37				3002...	2615...								38
39	ODU 1-2	30 A	3			3002...	2615...			3	30 A	ODU-6	40
41								3002...	2615...				42
43				3482...	3002...								44
45	ODU 2	40 A	3			3482...	3002...			3	30 A	ODU 1-3	46
47								3482...	3002...				48
49													50
51													52
53													54
55													56
57													58
59													60
61													62
63													64
65													66
			Total Load:	24301 VA		24293 VA		25513 VA					
			Total Amps:	203 A		202 A		213 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	56010 VA	100.00%	56010 VA		
Other	6836 VA	100.00%	6836 VA	Total Conn. Load:	74106 VA
Receptacle	11260 VA	94.40%	10630 VA	Total Est. Demand:	73476 VA
				Total Conn. Current:	206 A
				Total Est. Demand Current:	204 A

Notes:
* PROVIDE RED HANDLE BREAKER AND LOCK-ON CLIP.

Branch Panel: L1

Location: ELECTRICAL 114 | Supply From: TRANSFORMER | Mounting: SURFACE | Enclosure: NEMA 1
Volts: 120/208 Wye | Phases: 3 | Wires: 4
A.I.C. Rating: 22,000 | Mains Type: MLO | Mains Rating: 600 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LIGHTS - ELECT/CUST, STAFF RESTRMS	20 A	1	483 VA	1000...					1	20 A	LIGHTS - OFFICES/CONFERANCE - 1ST FLOOR	2
3	LIGHTS - 2ND FLOOR OFFICES/RESTROOMS	20 A	1			1050...	1597...			1	20 A	LIGHTS - EXTERIOR LIGHITNG - 1ST FLOOR	4
5	LIGHTS - EXTERIOR LIGHITNG - 2ND FLOOR	20 A	1					840 VA	980 VA	1	20 A	LIGHTS - SNACK BAR, BOYS/GIRLS RESTRMS	6
7	LIGHTS - EXTERIOR LIGHITNG - 2ND FLOOR	20 A	1	1320...	1476...					1	20 A	LIGHTS - CLASSRM 101-103	8
9	LIGHTS - CLASSRM 201 - 203	20 A	1			1476...	1476...			1	20 A	LIGHTS - CLASSRM 204 - 206	10
11	LIGHTS - CLASSRM 104, 105	20 A	1					984 VA	2430...				12
13				3382...	2429...					3	225 A	'R2'	14
15	'R1'	400 A	3			3114...	2551...						16
17								3095...					18
19													20
21													22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
			Total Load:	62396 VA		62247 VA		58047 VA					
			Total Amps:	525 A		524 A		484 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	9425 VA	100.00%	9425 VA		
Motor	124210 VA	100.00%	124210 VA	Total Conn. Load:	182690 VA
Other	17216 VA	100.00%	17216 VA	Total Est. Demand:	173388 VA
Power	3240 VA	100.00%	3240 VA	Total Conn. Current:	507 A
Receptacle	28604 VA	67.48%	19302 VA	Total Est. Demand Current:	481 A

Notes:

LIGHTING FIXTURE SCHEDULE

Type Mark	Description	Manufacturer	Model	Mounting Type	VOLTAGE	Wattage	LED INFORMATION	Initial Color Temperature
A	2X4 TROFFER	LITHONIA	2AVL4 40LHE MDR EZ1 LP840	RECESSED	120V	41 W	4000LM, 80CRI	4000 K
AE	2X4 TROFFER	LITHONIA	2AVL4 40LHE MDR EZ1 LP840 E10WLCP	RECESSED	120V	41 W	4000LM, 80CRI	4000 K
B	2X2 TROFFER	LITHONIA	2AVL2 40LSE MDR EZ1 LP840	RECESSED	120V	48 W	4000LM, 80CRI	4000 K
BE	2X2 TROFFER	LITHONIA	2AVL2 40LSE MDR EZ1 LP840 E10WLCP	RECESSED	120V	48 W	4000LM, 80CRI	4000 K
C	1X 4 CEILING MOUNT	LITHONIA	LBL4 6500LM 40K NODIM MVOLT	SURFACE	120V	50 W	6500LM,80CRI	4000 K
CE	1X 4 CEILING MOUNT	LITHONIA	LBL4 6500LM 40K NODIM MVOLT E10WLCP	SURFACE	120V	50 W	6500LM,80CRI	4000 K
D	4FT LED STRIPLIGHT	LITHONIA	BLWP4 40L ADP EZ1 LP840	SURFACE	120V	35 W	4000LM, 80CRI	4000 K
DE	4FT LED STRIPLIGHT	LITHONIA	BLWP4 40L ADP EZ1 LP840 E10WLCP	SURFACE	120V	35 W	4000LM, 80CRI	4000 K
E	4IN DOWNLIGHT	LITHONIA	LDN4 40LM 40K ALO2 WR TRW LS MVOLT UGZ	RECESSED	120V	25 W	4000LM, 80CRI	4000 K
EE	4IN DOWNLIGHT	LITHONIA	LDN4 40LM 40K ALO2 WR TRW LS MVOLT UGZ E10WCP	RECESSED	120V	25 W	4000LM, 80CRI	4000 K
F	WALL PACK FIXTURE	LITHONIA	WDGE2 LED P2 40K 80CRI T2M MVOLT SRM PE E20WC DDBXD	SURFACE	<varies>	19 W	<varies>	4000 K
H	3in Recessed Linear	Pinnacle Architectural Lighting	EV3 WET 40 5 IND FLF U FSD 1 FSBST W	RECESSED	120V	22 W	4000LM, 70CRI	4000 K
J	LINEAR STRIP LIGHT	MARK LIGHTING	SL4L-4-FLP-80CRI-40K-400LMF-MVOLT	SURFACE	120V	12 W	<varies>	3000 K
X	EXIT LIGHT	LITHONIA	TLE-1-R-ELN	SURFACE	120/277			

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MADISON ELEMENTARY SCHOOL -
2 STORY CLASSROOM BUILDING

109 Stadium Rd, Madera, CA 93637

DSA SUBMITTAL

TOGETHER WE RISE — MADERA UNIFIED SCHOOL DISTRICT

PROFESSIONAL SEAL
REGISTERED PROFESSIONAL ENGINEER — GREGORY A. NOTLING — No. E14689 — Exp. 6-30-25 — ELECTRICAL — STATE OF CALIFORNIA

PROJECT NUMBER
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ELECTRICAL PANEL SCHEDULES

E6.1

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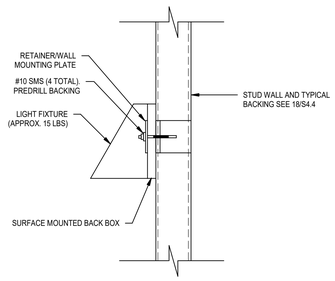
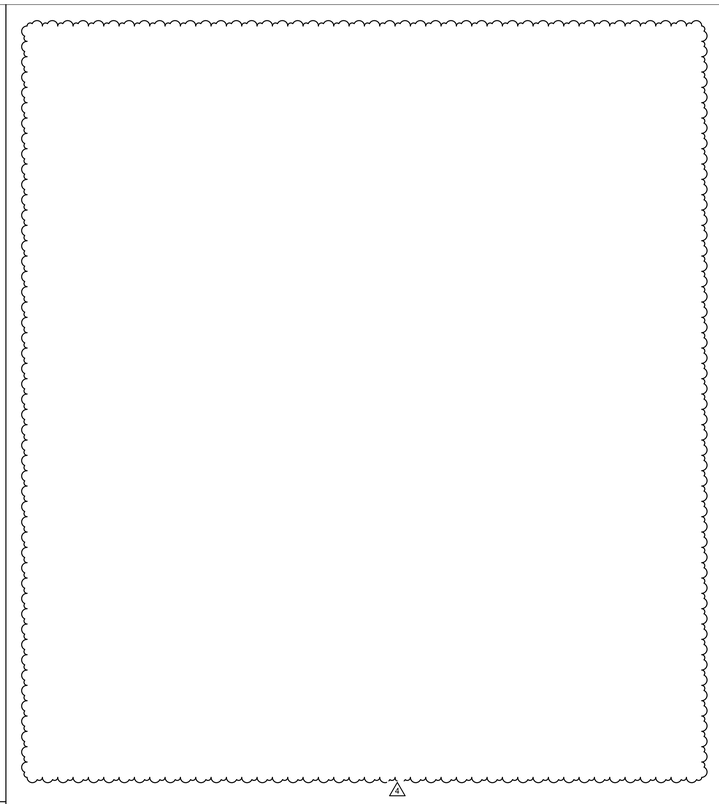
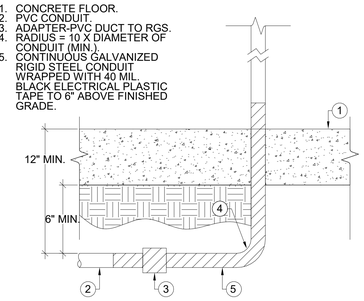


7 WALL MOUNTED FIXTURE DETAIL
NOT TO SCALE

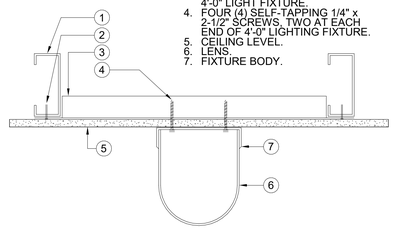


1. CONCRETE FLOOR.
2. PVC CONDUIT.
3. ADAPTER-PVC DUCT TO RGS.
4. RADIUS = 10 X DIAMETER OF CONDUIT (MIN.).
5. CONTINUOUS GALVANIZED RIGID STEEL CONDUIT WRAPPED WITH 40 MIL. BLACK ELECTRICAL PLASTIC TAPE TO 6" ABOVE FINISHED GRADE.



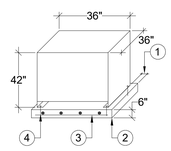
1 CONDUIT RISER DETAIL
NOT TO SCALE

1. METAL CEILING JOIST (TYP.).
2. FOUR (4) #12 SELF-TAPPING SCREWS, TYP. AT EACH END.
3. FLANGE CUT #6000S137-53 STEEL STUD BLOCKING, TWO PER EACH 4'-0" LIGHT FIXTURE.
4. FOUR (4) SELF-TAPPING 1/4" x 2-1/2" SCREWS, TWO AT EACH END OF 4'-0" LIGHTING FIXTURE.
5. CEILING LEVEL.
6. LENS.
7. FIXTURE BODY.



8 SURFACE MOUNTED FIXTURE ON HARD CEILING
NOT TO SCALE

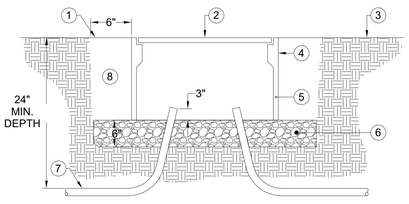
1. MIN. 6" FROM CENTER LINE OF ANCHOR BOLTS TO EDGE OF PAD.
2. 6" HOUSEKEEPING PAD BY ELEC. CONTRACTOR.
3. #4 @ 16" ON CENTER EACH WAY.
4. ½" DIAMETER HILTI KB-TZ2 ANCHORS WITH 3-1/4" EFFECTIVE EMBEDMENT PER ICC ESR-4266. PROVIDE (4) ANCHORS TOTAL.



GENERAL NOTES:
1. REFER TO NOTES ON PLAN FOR GROUNDING AND BONDING OF TRANSFORMER.
2. MAXIMUM WEIGHT: 1000 LBS

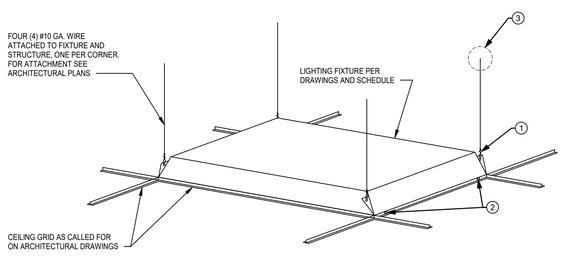
5 TRANSFORMER MOUNTING DETAIL 2
NOT TO SCALE

1. SET BOX FLUSH WITH FINISHED GRADE. WHERE EXISTING SURFACE IMPROVEMENTS (CONCRETE, PAVEMENT, LANDSCAPING, TURF, ETC.) HAVE BEEN REMOVED OR DISTURBED. REPAIR OR REPLACE TO MATCH SURROUNDING CONDITIONS.
2. TRAFFIC RATED COVER WHERE APPLICABLE, NON-TRAFFIC RATED REINFORCED CONCRETE COVER OTHERWISE. COVER MARKED OR INSCRIBED WITH INTENDED USE.
3. FINISHED GRADE.
4. REINFORCED CONCRETE PULLBOX. QTY AND SIZE AS SHOWN ON PLANS.
5. PROVIDE BOX EXTENSION RINGS AS REQUIRED.
6. CRUSHED GRAVEL DRAIN BASE BEDDING.
7. TYPICAL UNDERGROUND CONDUIT PER PLANS. DEPTH MIN. 24", SEE TYPICAL TRENCH DETAIL.
8. EXCAVATE A MINIMUM WIDTH EQUAL TO THE DIMENSIONS OF THE BOX PULS 6" ON ALL SIDES. BACKFILL WITH ROCK-FREE NATIVE SOIL AT 90% COMPACTION.

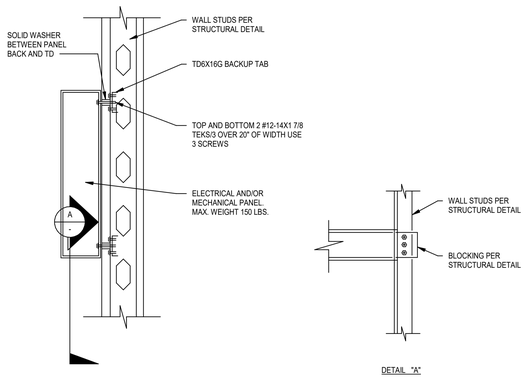


2 UNDERGROUND PULLBOX DETAIL
NOT TO SCALE

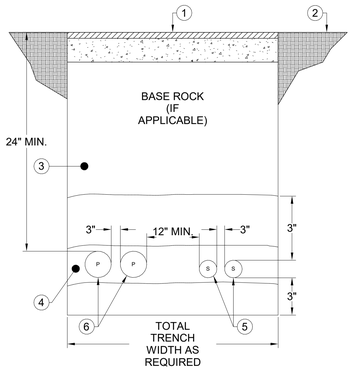
KEY NOTES:
1. ATTACH WIRE TO FIXTURE PER 6/AX6.1.
2. ATTACH GRID TO FIXTURE @ EACH CORNER AS PER 6/AX6.1.
3. ATTACH HANGER WIRES TO STRUCTURE AS PER 25/AX6.1 AND 27/AX6.1.



9 RECESSED FIXTURE IN LAY-IN GRID DETAIL
NOT TO SCALE



6 SURFACE MOUNTED PANEL/CABINET STEEL FRAMING DETAIL
NOT TO SCALE



1. SAWCUT AND REMOVE CONCRETE OR PAVING WHERE APPLICABLE. WHERE EXISTING SURFACE IMPROVEMENTS (CONCRETE, PAVING, LANDSCAPING, TURF, ETC.) HAVE BEEN REMOVED OR DISTURBED, REPAIR OR REPLACE TO MATCH SURROUNDING CONDITIONS.
2. FINISHED GRADE.
3. ROCK FREE NATIVE BACKFILL, 90% COMPACTION.
4. #4 MINIMUM SALT-FREE SAND.
5. S = SIGNAL (INCLUDES TELECOM, CATV, FIRE ALARM, SECURITY OR SIMILAR CABLING, QTY, AND SIZE AS SHOWN ON PLANS.
6. P = POWER (THIS DETAIL APPLIES TO CONDUITS CARRYING 600V OR BELOW CONDUCTORS. HIGHER VOLTAGE HAS DIFFERENT REQUIREMENTS. QTY, AND SIZE AS SHOWN ON PLANS

3 TRENCH DETAIL
NOT TO SCALE

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MEP Engineering || Technology

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MADISON ELEMENTARY SCHOOL - 2 STORY CLASSROOM BUILDING

109 Stadium Rd, Madera, CA 93637

DSA SUBMITTAL

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
Exp. 6-30-25
ELECTRICAL
STATE OF CALIFORNIA

PROJECT NUMBER	230278
DATE	11/7/2024
DSA APPLICATION NO.	
FILE NO.	20-30
PTN NO.	65243-157
DRAWN BY	Author

REVISIONS

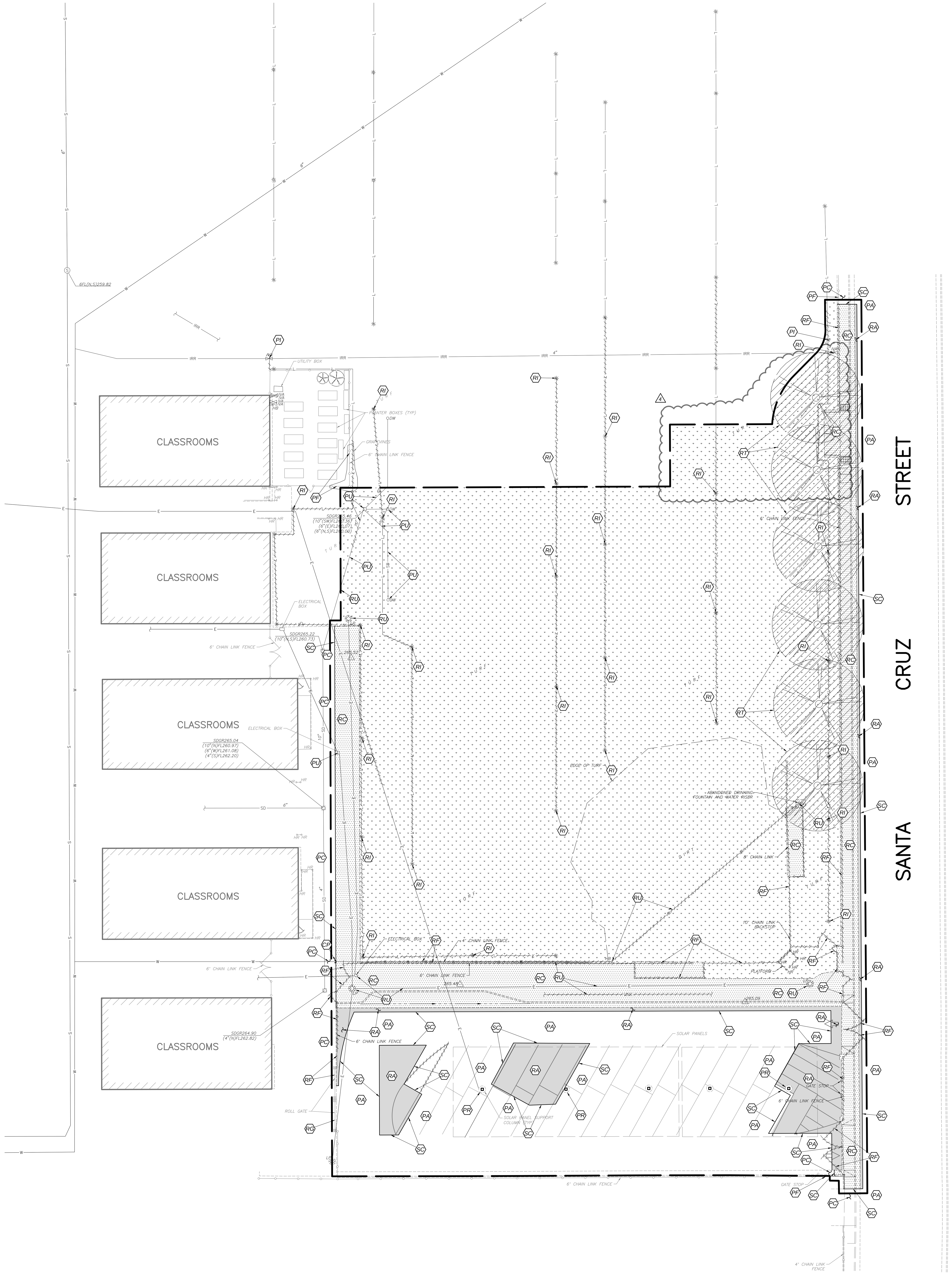
#	DESCRIPTION	DATE
2	Addendum 4	01/15/2025

DSA SUBMITTAL

ELECTRICAL DETAILS

EX1.1

Autodesk Docs://Madera USD_230278_Madison ES/230278 - Madison ES 2 Story Classroom Building_E23.rvt
1/15/2025 11:04:11 AM



DEMOLITION LEGEND:

(dashed line)	REMOVE EXISTING IMPROVEMENTS AS NECESSARY TO CONSTRUCT NEW IMPROVEMENTS SHOWN ON THESE PLANS UNLESS OTHERWISE NOTED ON THE PLAN. THE REMOVAL OF IMPROVEMENTS MUST BE COORDINATED WITH ALL PLAN SHEETS. CONTRACTOR MUST ALSO COORDINATE REMOVAL OF IMPROVEMENTS WITH UTILITY AGENCIES. PROTECT ALL IMPROVEMENTS NOT DESIGNATED FOR REMOVAL. SEE NOTE 1
(hatch)	LIMITS OF VEGETATION REMOVAL. 4" MINIMUM DEPTH
(hatch)	LIMITS OF CONCRETE IMPROVEMENT REMOVAL
(hatch)	LIMITS OF ASPHALTIC CONCRETE IMPROVEMENT REMOVAL
CP	INSTALL WATERTIGHT CAP ON UTILITY
PA	PROTECT ASPHALT CONCRETE PAVEMENT TO REMAIN
PC	PROTECT CONCRETE IMPROVEMENTS TO REMAIN
PF	PROTECT FENCE TO REMAIN
PI	PROTECT IRRIGATION UTILITY TO REMAIN
PR	PROTECT SOLAR CANOPY COLUMN AND CONCRETE BASE TO REMAIN
PU	PROTECT UTILITY TO REMAIN
RA	REMOVE AND LAWFULLY DISPOSE OF ASPHALT CONCRETE PAVEMENT STRUCTURAL SECTION
RC	REMOVE AND LAWFULLY DISPOSE OF CONCRETE IMPROVEMENTS
RF	REMOVE AND LAWFULLY DISPOSE OF CHAIN LINK FENCE FABRIC, POSTS AND FOOTINGS
RG	REMOVE AND LAWFULLY DISPOSE OF ROLL GATE
RI	REMOVE AND SALVAGE IRRIGATION UTILITY, RETURN TO DISTRICT
RT	REMOVE AND LAWFULLY DISPOSE OF TREE AND ROOTS
RU	REMOVE AND LAWFULLY DISPOSE OF UTILITY, SEE NOTE 10
SC	SAWCUT
(symbol)	REMOVE TREE
(line)	LIMIT OF CHAIN LINK FENCE REMOVAL
SD	LIMIT OF STORM DRAIN LINE REMOVAL
W	LIMIT OF WATER LINE REMOVAL
L	LIMIT OF IRRIGATION LATERAL LINE FOR REMOVAL/ABANDONMENT
(line)	LIMIT OF STRIPING REMOVAL

GENERAL DEMOLITION NOTES:

1. THE "LIMIT OF DEMOLITION" SHOWN IS APPROXIMATE AND IS GENERALLY CONSIDERED TO BE THE MINIMUM REMOVAL REQUIREMENTS. CONTRACTOR MUST COORDINATE AS NOTED IN THE LEGEND.
2. CONTRACTOR SHALL LEGALLY DISPOSE OF ALL DEMOLISHED MATERIALS OFF SITE.
3. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITY IMPROVEMENTS NOT SPECIFICALLY DESIGNATED FOR REMOVAL.
4. THE ON-SITE UNDERGROUND UTILITIES SHOWN ON THIS SHEET ARE AT APPROXIMATE LOCATIONS. THE EXTENT, LOCATIONS AND SIZES ARE UNKNOWN. THE CONTRACTOR SHALL POTHOLE TO LOCATE AND VERIFY THE UNDERGROUND UTILITY LINES PRIOR TO REMOVAL.
5. CONTRACTOR TO PROTECT AND PRESERVE IN PLACE ANY FOUND SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE RESET BY A CALIFORNIA LICENSED SURVEYOR AND THE APPROPRIATE PAPERWORK FILED WITH THE CITY OR COUNTY, AT CONTRACTOR'S EXPENSE.
6. ALL HAZARDOUS MATERIALS ENCOUNTERED DURING SITE DEMOLITION SHALL BE REMEDIATED AND DISPOSED OF PER STATE AND EPA REQUIREMENTS.
7. CONTRACTOR SHALL CONTACT AND COORDINATE WITH ALL UTILITY AGENCIES PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION.
8. ANY EXISTING UTILITIES AND/OR IMPROVEMENTS WHICH ARE TO REMAIN, THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE OWNER AND AGENCY HAVING AUTHORITY, AT THE CONTRACTOR'S SOLE EXPENSE.
9. REMOVE EXISTING IMPROVEMENTS AS NECESSARY TO CONSTRUCT NEW IMPROVEMENTS SHOWN ON THESE PLANS.
   a) FOR CONCRETE REMOVAL, REMOVE TO THE NEXT NEAREST TOOLED JOINT OR EXPANSION JOINT OF IMPROVEMENTS DESIGNATED TO REMAIN.
   b) FOR ASPHALTIC PAVEMENT REMOVAL. SAWCUT TO A STRAIGHT, CLEAN EDGE AT LOCATIONS INDICATED ON THE PLANS.
10. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, IRRIGATION, AND ARCHITECTURAL PLANS FOR ADDITIONAL DEMOLITION AND COORDINATION.
11. COMPLIANCE WITH FIRE SAFETY DURING CONSTRUCTION WILL BE ENFORCED.

SCALE: 1"=20'

0 5 20 40
SCALE IN FEET

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MADISON ELEMENTARY SCHOOL
2 STORY CLASSROOM BUILDING

109 Stadium Way
Madera, CA 93637

CD SET

DSA APPL. NO. 02-122191

ENGINEER

10/10/2024
Date Signed:

ARCHITECT

PROJECT NUMBER
230278

DATE
10/11/2024

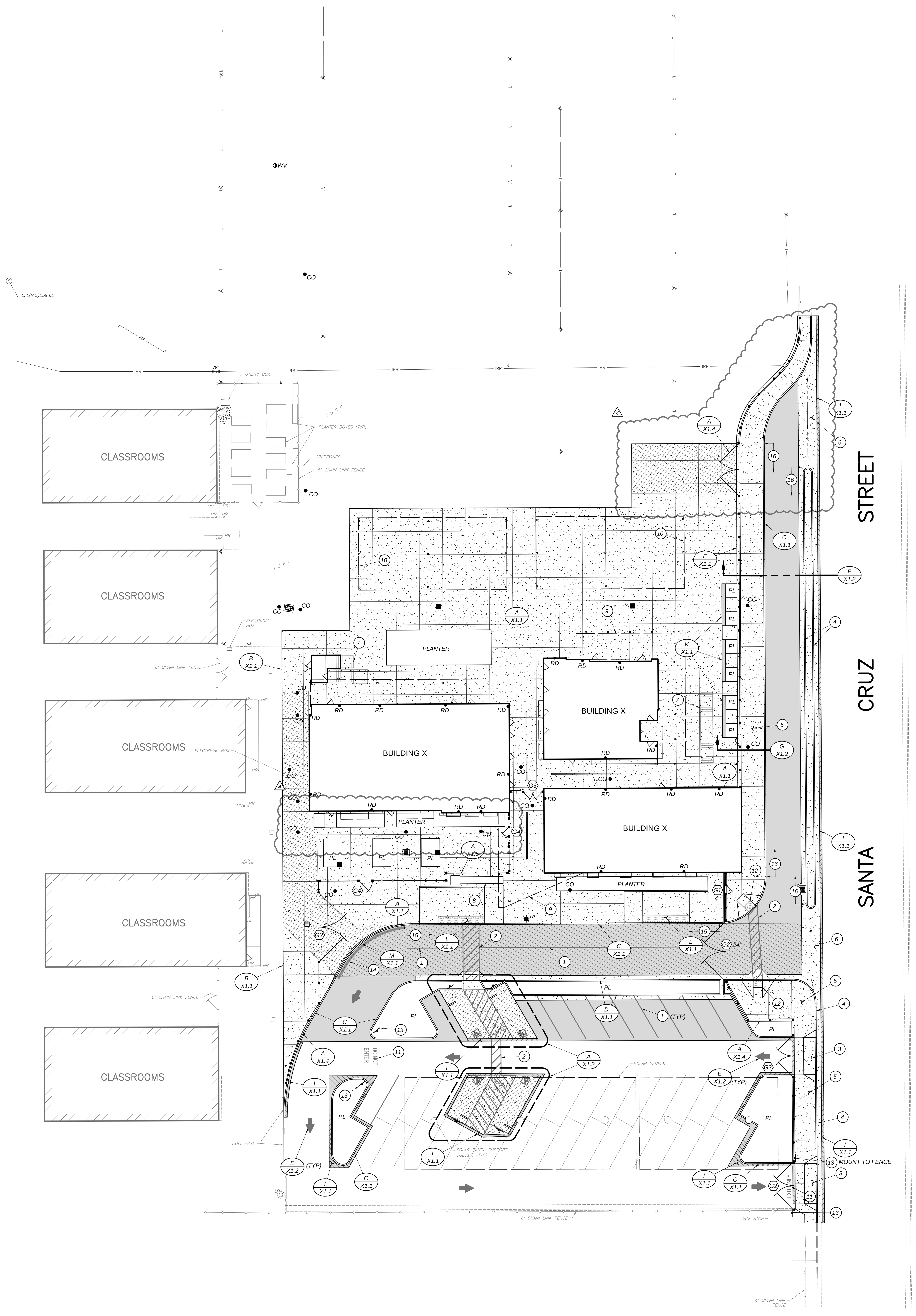
REVISIONS

#	DESCRIPTION	DATE
4	ADDENDUM #4	1/15/25

CONSTRUCTION DOCUMENTS

DEMOLITION PLAN

CS2.1



SITE LEGEND:

(concrete pattern)	LIMITS OF CONCRETE IMPROVEMENTS
(hatched concrete pattern)	LIMITS OF HEAVY DUTY CONCRETE IMPROVEMENTS PER DETAIL [N/X1.1]
(cross-hatch pattern)	LIMITS OF ASPHALT PLUG IMPROVEMENTS PER DETAIL [I/X1.1]
(grey fill)	LIMITS OF REGULAR DUTY ASPHALTIC CONCRETE PAVEMENT STRUCTURAL SECTION PER DETAIL [J/X1.1]
(hatched grey fill)	LIMITS OF HEAVY DUTY ASPHALTIC CONCRETE PAVEMENT STRUCTURAL SECTION PER DETAIL [J/X1.1]
(dot pattern)	DETECTABLE WARNINGS PER DETAIL [G/X1.1]
(grey line)	LIMITS OF PAINTED CURB
PL	PLANTER
☼	SITE LIGHTING - SEE ELECTRICAL PLANS
1	PAINT 4" WIDE WHITE LINE
2	PAINT 4" WIDE WHITE DIAGONAL LINES AT 3' ON-CENTER
3	DRIVE APPROACH PER CITY OF MADERA STD DWG ST-13B
4	CURB AND GUTTER PER CITY OF MADERA STD DWG ST-12
5	SIDEWALK PER CITY OF MADERA STD DWG ST-2
6	VALLEY GUTTER PER CITY OF MADERA STD DWG ST-1
7	STAIRS PER ARCHITECTURAL PLANS
8	MONUMENT SIGN PER ARCHITECTURAL PLANS
9	OVERHANG PER ARCHITECTURAL PLANS
10	SHADE STRUCTURE PER ARCHITECTURAL PLANS
11	PAINT 24" HIGH WHITE LETTERING
12	CURB ACCESS RAMP PER CITY OF MADERA STD DWG ST-16
13	"DO NOT ENTER" SIGN (R5-1) MOUNTED ON POST PER DETAIL [B/X1.2]
14	PAINT TOP AND FACE OF CURB RED WITH 4" HIGH WHITE LETTERING, "NO PARKING - FIRE LANE", AT 30' ON CENTER. WHERE NO CURB EXISTS, PAINT ASPHALT
15	PAINT TOP AND FACE OF CURB GREEN WITH 4" HIGH WHITE LETTERING, "LOADING ZONE", AT XX' ON CENTER. WHERE NO CURB EXISTS, PAINT ASPHALT
16	PAINT TOP AND FACE OF CURB RED WITH 4" HIGH WHITE LETTERING, "NO PARKING ", AT 30' ON CENTER. WHERE NO CURB EXISTS, PAINT ASPHALT

GENERAL SITE NOTES:

1. ALL CONCRETE MOWSTRIPS, RAMPS AND SIDEWALKS SHALL HAVE WEAKENED PLANE JOINTS AT 10 FEET MAXIMUM ON CENTER AND EXPANSION JOINTS AT 30 FEET MAXIMUM ON CENTER PER DETAIL [A/X1.1]
2. INSTALL DOWELED CONNECTION AT JOINT OF NEW CONCRETE TO EXISTING CONCRETE PER DETAIL [B/X1.1]
3. NO CONCRETE MAY BE POURED UNTIL THE FORMS HAVE BEEN REVIEWED AND APPROVED BY THE PROJECT INSPECTOR.
4. ALL BURIED METALLIC OBJECTS SHALL HAVE A PROTECTIVE COATING OR BE WRAPPED WITH APPROVED PROTECTIVE WRAP.
5. ADJUST EXISTING SPRINKLER HEADS AND LATERAL LINES AS REQUIRED BY NEW IMPROVEMENTS, OR AS SHOWN ON THE IRRIGATION PLANS.
6. 2 WORKING DAYS BEFORE COMMENCING EXCAVATION OPERATIONS WITHIN THE STREET RIGHT-OF-WAY AND/OR UTILITY EASEMENTS, ALL EXISTING UNDERGROUND FACILITIES SHALL HAVE BEEN LOCATED BY UNDERGROUND SERVICES ALERT (USA). CALL 1-800-642-2444
7. ANY SURVEY MONUMENTS WITHIN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A PERSON LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA. REPLACEMENT TO BE AT CONTRACTOR'S SOLE EXPENSE.
8. OBTAIN ALL REQUIRED PERMITS AND APPROVALS FROM AGENCY HAVING JURISDICTION FOR WORK WITHIN THE PUBLIC RIGHT OF WAY

GATE SCHEDULE:

GATE ID	REFERENCE DETAIL	GATE FUNCTION	ACCESS	FIRE ACCESS
G1	[A/X1.4]	CHAIN LINK ACCESSIBLE PEDESTRIAN EGRESS GATE	ADA/CBC ACCESSIBLE PANIC HARDWARE, AND LEVER HANDLE	N/A
G2	[A/X1.4]	DOUBLE LEAF CHAIN LINK MAINTENANCE SWING GATE	LOCKABLE FORK LATCH	KNOX BOX MOUNTED TO GATE POST
G3	[A/X1.5]	DOUBLE LEAF DECORATIVE METAL MAINTENANCE SWING GATE	ADA/CBC ACCESSIBLE PANIC HARDWARE, AND LEVER HANDLE	N/A
G4	[A/X1.5]	DECORATIVE METAL ACCESSIBLE PEDESTRIAN EGRESS GATE	ADA/CBC ACCESSIBLE PANIC HARDWARE, AND LEVER HANDLE	N/A

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SCALE IN FEET

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2 STORY CLASSROOM BUILDING

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CD SET

DSA APPL. NO. 02-122191

ENGINEER

REGISTERED PROFESSIONAL ENGINEER
LANE R. BADER
No. 47033
CIVIL
STATE OF CALIFORNIA
10/10/2024
Date Signed:

ARCHITECT

PROJECT NUMBER
230278

DATE
10/11/2024

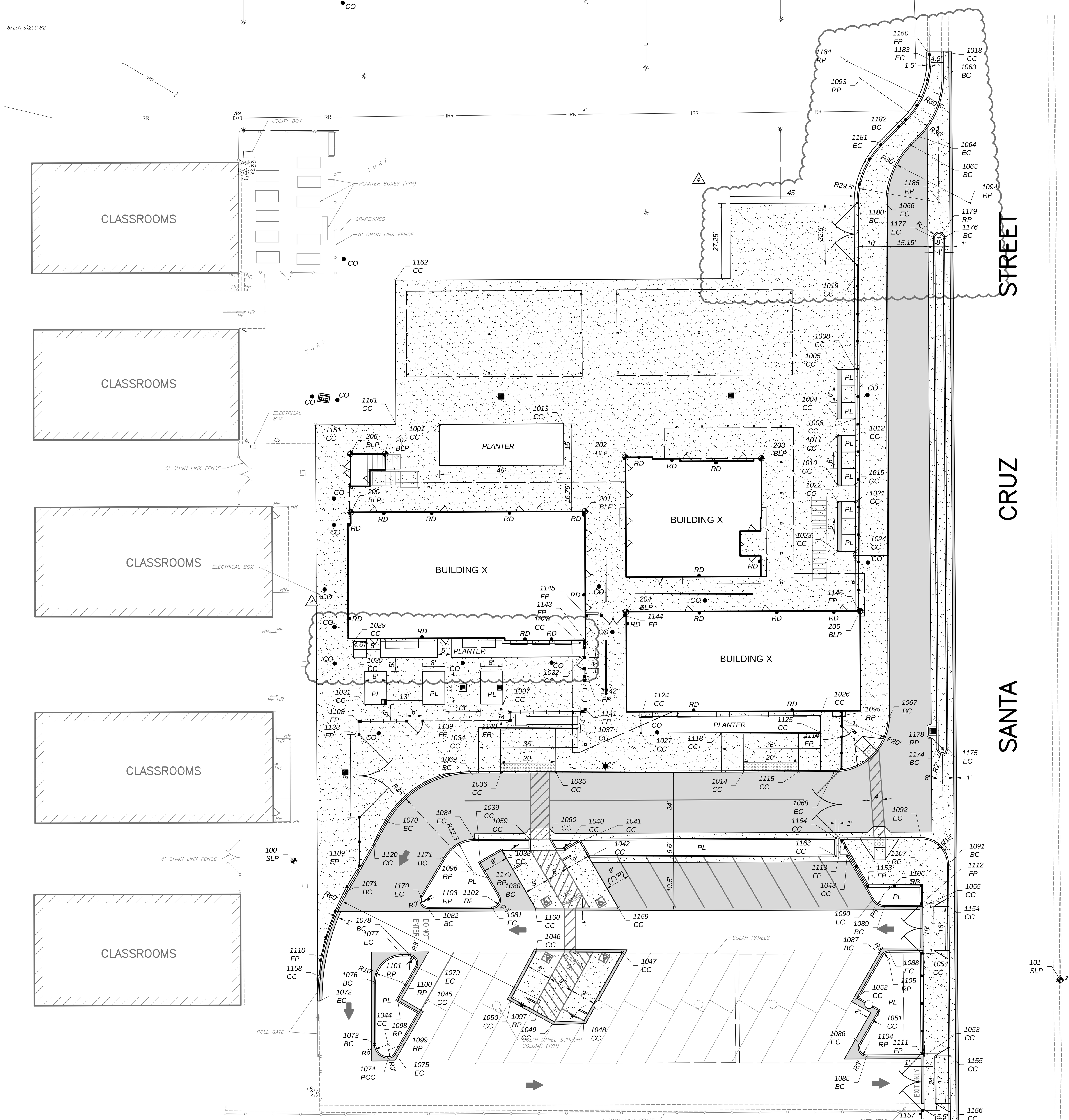
REVISIONS

#	DESCRIPTION	DATE
4	ADDENDUM #4	1/15/25

CONSTRUCTION DOCUMENTS

SITE PLAN

CS3.1



HORIZONTAL CONTROL LEGEND:

1000 LCP	LAYOUT COORDINATE POINT
100 SLP	SITE LAYOUT POINT
200 BLP	BUILDING LAYOUT POINT
BC	BEGIN CURVE
CC	CORNER CONCRETE
EC	END CURVE
FP	FENCE POST
PCC	POINT OF COMPOUND CURVE
RP	RADIUS POINT

GENERAL HORIZONTAL CONTROL NOTES:

1. ALIGNMENT OF THE SITE IS BASED ON AN ASSUMED COORDINATE SYSTEM. SITE LAYOUT POINT 100 IS A CHISELED "X" ON THE CONCRETE LOCATED APPROXIMATELY 23 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE SOUTHERNMOST BLOCK OF PORTABLE CLASSROOMS ADJACENT TO THE SITE.

   SITE LAYOUT POINT 101 IS A CHISELED "X" LOCATED ON THE TOP OF CURB ON THE EAST SIDE OF SANTA CRUZ AVENUE EAST OF THE PARKING LOT ENTRANCE.

2. DIMENSIONS AND POINTS ARE TO CENTER OF FENCE POSTS, FACE OF BUILDINGS, TOP FACE OF CURB, OR EDGE OF CONCRETE, UNLESS SHOWN OTHERWISE.

NORTHING EASTING TABLE

POINT	NORTHING	EASTING	ABV	DESCRIPTION
100	1805031.30	6689171.10	SLP	SITE LAYOUT POINT
101	1804988.19	6689448.72	SLP	SITE LAYOUT POINT
200	1805157.57	6689191.74	BLP	BUILDING LAYOUT POINT
201	1805157.92	6689276.56	BLP	BUILDING LAYOUT POINT
202	1805177.47	6689291.29	BLP	BUILDING LAYOUT POINT
203	1805177.09	6689340.48	BLP	BUILDING LAYOUT POINT
204	1805121.51	6689291.49	BLP	BUILDING LAYOUT POINT
205	1805121.86	6689376.24	BLP	BUILDING LAYOUT POINT
206	1805178.71	6689191.66	BLP	BUILDING LAYOUT POINT
207	1805178.76	6689204.21	BLP	BUILDING LAYOUT POINT
1001	1805189.45	6689223.83	CC	CORNER CONCRETE
1004	1805191.39	6689367.95	CC	CORNER CONCRETE
1005	1805209.39	6689367.88	CC	CORNER CONCRETE
1006	1805191.42	6689374.45	CC	CORNER CONCRETE
1007	1805088.07	6689246.84	CC	CORNER CONCRETE
1008	1805209.42	6689374.38	CC	CORNER CONCRETE
1010	1805167.39	6689368.05	CC	CORNER CONCRETE
1011	1805185.39	6689367.97	CC	CORNER CONCRETE
1012	1805185.42	6689374.47	CC	CORNER CONCRETE
1013	1805189.64	6689268.83	CC	CORNER CONCRETE
1014	1805063.43	6689333.95	CC	CORNER CONCRETE
1015	1805167.42	6689374.55	CC	CORNER CONCRETE
1018	1805324.38	6689406.38	CC	CORNER CONCRETE
1019	1805242.40	6689374.24	CC	CORNER CONCRETE
1021	1805161.42	6689374.57	CC	CORNER CONCRETE
1022	1805161.39	6689368.07	CC	CORNER CONCRETE
1023	1805143.39	6689368.15	CC	CORNER CONCRETE
1024	1805143.42	6689374.65	CC	CORNER CONCRETE
1026	1805083.88	6689361.87	CC	CORNER CONCRETE
1027	1805077.62	6689296.90	CC	CORNER CONCRETE
1028	1805110.18	6689274.75	CC	CORNER CONCRETE
1029	1805110.80	6689192.75	CC	CORNER CONCRETE
1030	1805104.85	6689192.77	CC	CORNER CONCRETE
1031	1805087.86	6689196.84	CC	CORNER CONCRETE
1032	1805105.18	6689274.77	CC	CORNER CONCRETE
1034	1805079.08	6689238.00	CC	CORNER CONCRETE
1035	1805063.16	6689266.06	CC	CORNER CONCRETE
1036	1805063.07	6689246.06	CC	CORNER CONCRETE
1037	1805079.23	6689274.00	CC	CORNER CONCRETE
1038	1805035.08	6689246.44	CC	CORNER CONCRETE
1039	1805030.54	6689238.66	CC	CORNER CONCRETE
1040	1805035.17	6689269.32	CC	CORNER CONCRETE
1041	1805038.28	6689274.66	CC	CORNER CONCRETE
1042	1805032.61	6689277.97	CC	CORNER CONCRETE
1043	1805032.99	6689371.50	CC	CORNER CONCRETE
1044	1804980.81	6689208.78	CC	CORNER CONCRETE
1045	1804976.34	6689216.59	CC	CORNER CONCRETE
1046	1804998.27	6689258.90	CC	CORNER CONCRETE
1047	1804998.07	6689290.16	CC	CORNER CONCRETE
1048	1804973.31	6689276.21	CC	CORNER CONCRETE
1049	1804972.89	6689265.58	CC	CORNER CONCRETE
1050	1804981.54	6689249.88	CC	CORNER CONCRETE
1051	1804977.02	6689382.86	CC	CORNER CONCRETE
1052	1804981.49	6689375.05	CC	CORNER CONCRETE
1053	1804960.57	6689399.32	CC	CORNER CONCRETE
1054	1804998.70	6689399.06	CC	CORNER CONCRETE
1055	1805014.70	6689398.95	CC	CORNER CONCRETE
1059	1805039.12	6689256.81	CC	CORNER CONCRETE
1060	1805039.15	6689263.74	CC	CORNER CONCRETE
1063	1805314.94	6689406.44	BC	BEGIN CURVE
1064	1805293.67	6689397.80	EC	END CURVE
1065	1805290.61	6689394.78	BC	BEGIN CURVE
1066	1805269.41	6689385.63	EC	END CURVE
1067	1805083.65	6689386.89	BC	BEGIN CURVE
1068	1805063.57	6689366.97	EC	END CURVE
1069	1805063.03	6689235.38	BC	BEGIN CURVE
1070	1805045.41	6689205.14	EC	END CURVE
1071	1805020.49	6689190.89	BC	BEGIN CURVE
1072	1804980.46	6689180.33	EC	END CURVE
1073	1804964.77	6689200.32	BC	BEGIN CURVE
1074	1804959.78	6689205.34	PCC	POINT OF COMPOUND CURVE
1075	1804961.29	6689207.98	EC	END CURVE
1076	1804987.24	6689200.26	BC	BEGIN CURVE
1077	1804997.27	6689210.22	EC	END CURVE
1078	1804997.28	6689213.01	BC	BEGIN CURVE
1079	1804992.79	6689215.63	EC	END CURVE
1080	1805018.57	6689245.64	BC	BEGIN CURVE
1081	1805014.06	6689243.06	EC	END CURVE
1082	1805013.97	6689219.80	BC	BEGIN CURVE
1084	1805039.04	6689236.49	EC	END CURVE
1085	1804960.49	6689378.59	BC	BEGIN CURVE
1086	1804964.98	6689375.98	EC	END CURVE
1087	1804997.14	6689384.00	BC	BEGIN CURVE
1088	1804998.65	6689386.59	EC	END CURVE
1089	1805014.64	6689385.08	BC	BEGIN CURVE
1090	1805017.13	6689380.74	EC	END CURVE
1091	1805029.77	6689408.35	BC	BEGIN CURVE
1092	1805039.70	6689398.31	EC	END CURVE
1093	1805314.74	6689376.44	RP	RADIUS POINT
1094	1805269.54	6689416.13	RP	RADIUS POINT
1095	1805083.57	6689366.89	RP	RADIUS POINT
1096	1805028.03	6689235.52	RP	RADIUS POINT
1097	1804980.77	6689260.33	RP	RADIUS POINT
1098	1804964.78	6689205.32	RP	RADIUS POINT
1099	1804962.78	6689205.38	RP	RADIUS POINT
1100	1804987.27	6689210.26	RP	RADIUS POINT
1101	1804994.28	6689213.03	RP	RADIUS POINT
1102	1805017.06	6689243.05	RP	RADIUS POINT
1103	1805016.97	6689219.79	RP	RADIUS POINT
1104	1804963.49	6689378.58	RP	RADIUS POINT
1105	1804995.65	6689386.60	RP	RADIUS POINT
1106	1805019.64	6689385.06	RP	RADIUS POINT
1107	1805029.70	6689398.35	RP	RADIUS POINT
1108	1805081.85	6689194.52	FP	FENCE POST
1109	1805029.38	6689194.93	FP	FENCE POST
1110	1804995.21	6689180.72	FP	FENCE POST
1111	1804961.49	6689398.39	FP	FENCE POST
1112	1805015.75	6689398.45	FP	FENCE POST
1113	1805038.68	6689369.65	FP	FENCE POST
1114	1805076.18	6689369.50	FP	FENCE POST
1115	1805063.52	6689353.95	CC	CORNER CONCRETE
1118	1805077.24	6689325.90	CC	CORNER CONCRETE
1120	1805036.83	6689200.23	CC	CORNER CONCRETE
1124	1805083.62	6689296.87	CC	CORNER CONCRETE
1125	1805077.88	6689361.89	CC	CORNER CONCRETE
1138	1805077.03	6689194.74	FP	FENCE POST
1139	1805081.95	6689217.88	FP	FENCE POST
1140	1805082.08	6689249.48	FP	FENCE POST
1141	1805086.11	6689276.62	FP	FENCE POST
1142	1805100.95	6689276.52	FP	FENCE POST
1143	1805110.45	6689277.18	FP	FENCE POST
1144	1805120.15	6689291.00	FP	FENCE POST
1145	1805120.02	6689277.11	FP	FENCE POST
1146	1805122.26	6689375.74	FP	FENCE POST
1150	1805323.38	6689401.39	FP	FENCE POST
1151	1805189.27	6689178.98	CC	CORNER CONCRETE
1153	1805022.12	6689378.99	FP	FENCE POST
1154	1805014.74	6689408.45	CC	CORNER CONCRETE
1155	1804960.61	6689408.82	CC	CORNER CONCRETE
1156	1804935.08	6689408.99	CC	CORNER CONCRETE
1157	1804941.06	6689399.45	CC	CORNER CONCRETE
1158	1804989.42	6689180.30	CC	CORNER CONCRETE
1159	1805014.25	6689288.67	CC	CORNER CONCRETE
1160	1805014.13	6689258.65	CC	CORNER CONCRETE
1161	1805189.39	6689208.13	CC	CORNER CONCRETE
1162	1805241.72	6689207.91	CC	CORNER CONCRETE
1163	1805032.97	6689367.54	CC	CORNER CONCRETE
1164	1805039.57	6689367.51	CC	CORNER CONCRETE
1170	1805018.50	6689217.21	EC	END CURVE
1171	1805032.93	6689225.80	BC	BEGIN CURVE
1173	1805026.53	6689236.54	RP	RADIUS POINT
1174	1805071.99	6689404.07	BC	BEGIN CURVE
1175	1805072.02	6689408.07	EC	END CURVE
1176	1805257.12	6689406.83	BC	BEGIN CURVE
1177	1805257.09	6689402.83	EC	END CURVE
1178	1805072.01	6689406.07	RP	RADIUS POINT
1179	1805257.11	6689404.83	RP	RADIUS POINT
1180	1805269.66	6689375.63	BC	BEGIN CURVE
1181	1805290.50	6689384.13	EC	END CURVE
1182	1805299.61	6689393.12	BC	BEGIN CURVE
1183	1805321.24	6689401.91	EC	END CURVE
1184	1805321.03	6689371.41	RP	RADIUS POINT
1185	1805269.78	6689405.13	RP	RADIUS POINT

SCALE: 1"=20'

SCALE IN FEET: 0 5 20 40

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2 STORY CLASSROOM BUILDING

109 Stadium Way
Madera, CA 93637

CD SET

DSA APPL. NO. 02-122191

ENGINEER

REGISTERED PROFESSIONAL ENGINEER LANE R. BADER No. 47,053 CIVIL STATE OF CALIFORNIA

10/10/2024
Date Signed:

ARCHITECT

PROJECT NUMBER
230278

DATE
10/11/2024

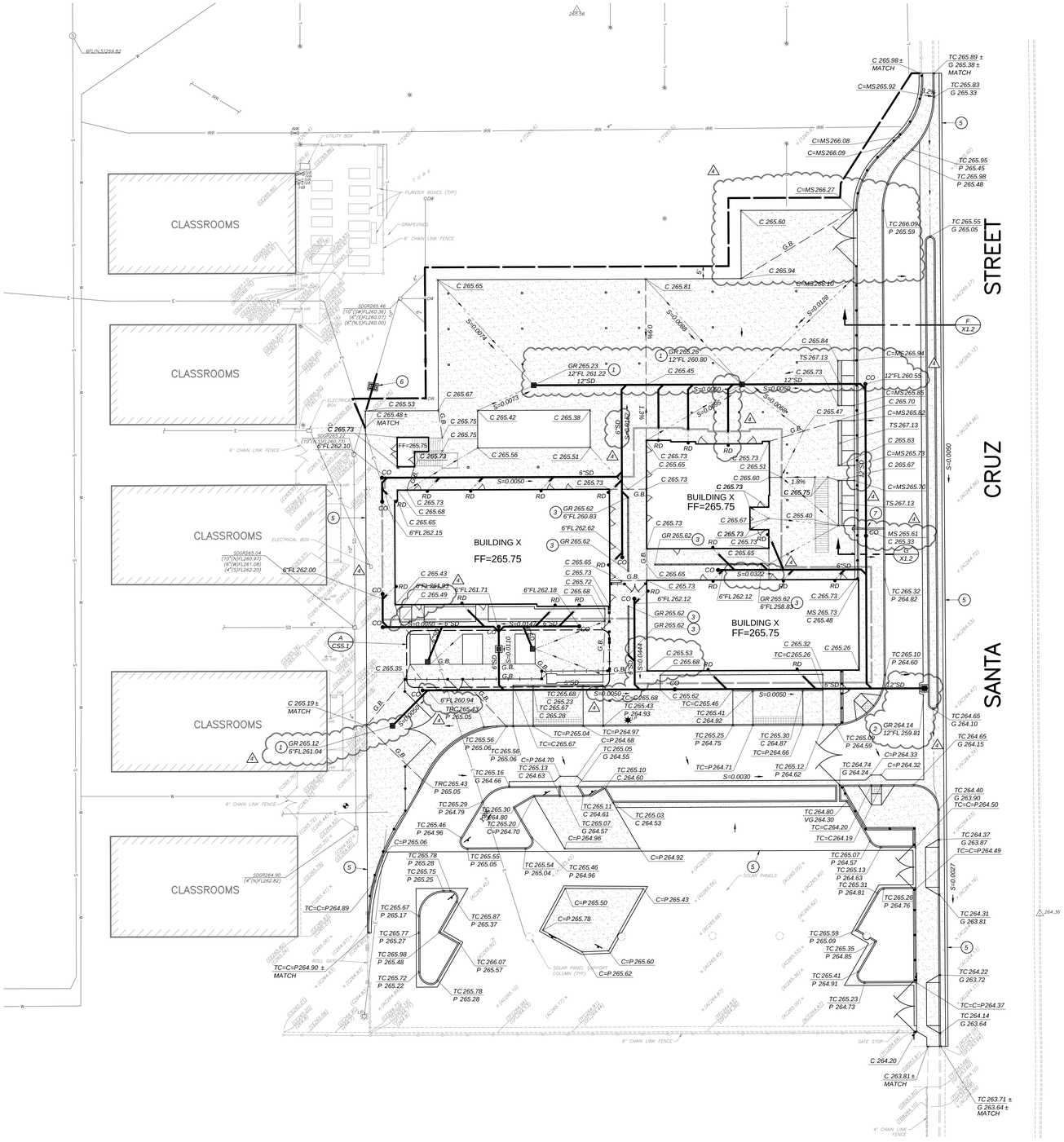
REVISIONS

#	DESCRIPTION	DATE
4	ADDENDUM #4	1/15/25

CONSTRUCTION DOCUMENTS

HORIZONTAL CONTROL PLAN

CS4.1



GRADING AND DRAINAGE LEGEND:

C	CONCRETE
FF	FINISHED FLOOR
FL	FLOWLINE
G	GUTTER
GR	STORM DRAIN GRATE
MS	MOWSTRIP
P	PAVEMENT
TC	TOP OF CURB
TS	TOP OF SEAT WALL
VG	VALLEY GUTTER FLOWLINE
(344.9)	EXISTING ELEVATION
328.78	NEW FINISHED GRADE
→	DIRECTION OF SURFACE DRAINAGE
▬ ▬	BUILDING OVER-EXCAVATION LIMITS; SEE DETAIL [C/X1.3]
G.B.	GRADE BREAK
▬ ▬	LIMITS OF GRADING
S=0.0050 →	PIPE SLOPE AND DIRECTION OF FLOW
→ – – –	SWALE AND DIRECTION OF FLOW
①	P6 STORM DRAIN INLET PER DETAIL [E/X1.3]
②	U23 STORM DRAIN INLET PER DETAIL [F/X1.3]
③	TRENCH DRAIN INLET PER DETAIL [G/X1.3]
④	V12 STORM DRAIN INLET PER DETAIL [H/X1.3]
⑤	MATCH PROPOSE CONCRETE ELEVATION TO EXISTING ELEVATION
⑥	STORM DRAIN REALIGNMENT PER DETAIL [I/X1.3]
⑦	DRAIN TUBE PER DETAIL [J/X1,3]
●CO	SURFACE CLEANOUT PER DETAIL [D/X1.3]
●RD	4" ROOF DRAIN LEADER, SEE PLUMBING PLANS
6"SD	STORM DRAIN PIPELINE; SIZE AS NOTED. TRENCH AND BACKFILL PER DETAIL [A/X1.3]
S=0.0020 →	FLOWLINE SLOPE AND DIRECTION OF FLOW

GENERAL GRADING AND DRAINAGE NOTES:

THE REQUIREMENTS AND INFORMATION SET OUT BELOW ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE AND DO NOT ENCOMPASS ALL PROJECT REQUIREMENTS DESCRIBED BY THE PROJECT PLANS AND SPECIFICATIONS AND/OR APPLICABLE LAWS, REGULATIONS AND/OR BUILDING CODES.

1. CONSTRUCTION OF ALL PROJECT SITE IMPROVEMENTS SUBJECT TO ADA ACCESS COMPLIANCE, INCLUDING ACCESSIBLE PATH OF TRAVEL, CURB RETURNS, PARKING STALL(S) AND UNLOADING AREAS, BARRIER FREE AMENITIES AND/OR OTHER APPLICABLE SITE IMPROVEMENTS SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT, CALIFORNIA TITLE 24, THE CALIFORNIA BUILDING CODE, CURRENT EDITION(S).
2. CONTRACTOR SHALL FIELD VERIFY ALL GRADES AND SLOPES PRIOR TO THE PLACEMENT OF CONCRETE AND/OR PAVEMENT FOR CONFORMANCE WITH ADA ACCESS COMPLIANCE REQUIREMENTS. EXAMPLES OF MINIMUM AND MAXIMUM LIMITS RELATED TO ADA ACCESS COMPLIANCE INCLUDE, BUT ARE NOT LIMITED TO:
    a) ACCESSIBLE PATH OF TRAVEL CROSS-SLOPE SHALL NOT EXCEED 2%
    b) ACCESSIBLE PATH OF TRAVEL LONGITUDINAL SLOPES SHALL NOT EXCEED 5%
    c) RAMP LONGITUDINAL SLOPES SHALL NOT EXCEED 8.33%
    d) ACCESSIBLE WALKS SHALL NOT HAVE LESS THAN 48 INCHES IN UNOBSTRUCTED WIDTH
    e) ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION
    f) LANDINGS AT THE TOP AND BOTTOM OF ACCESSIBLE RAMPS SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION
    g) GUTTERS AND ROAD SURFACES DIRECTLY ADJACENT TO AND WITHIN 2 FEET OF A CURB RAMP SHALL HAVE A COUNTER SLOPE NOT TO EXCEED 5%
3. CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IDENTIFIED BY THE PROFESSIONAL ENGINEERING SEAL AND SIGNATURE ON THESE PLANS, OF ANY SITE CONDITION(S) AND/OR DESIGN INFORMATION THAT PREVENTS THE CONTRACTOR FROM COMPLYING WITH THE LAWS, REGULATIONS AND/OR BUILDING CODES GOVERNING ADA ACCESS COMPLIANCE.
4. GROUND SLOPES AWAY FROM BUILDING PADS IN LANDSCAPED OR DIRT AREAS SHALL BE NO LESS THAN 5% FOR AT LEAST TEN (10) FEET, OR AS OTHERWISE NOTED ON THE PLANS.
5. DRAINAGE SHALL NOT BE ALLOWED ONTO ADJACENT PROPERTY.
6. ALL FILL MATERIAL USED TO SUPPORT THE FOUNDATIONS OF ANY BUILDING OR STRUCTURE SHALL BE PLACED UNDER THE DIRECTION OF A LICENSED GEOTECHNICAL ENGINEER, AND IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS. A SOILS COMPACTION REPORT SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AS REQUIRED BY THE PROJECT SPECIFICATIONS.
7. THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES AS REQUIRED BY THE PROJECT SPECIFICATIONS, AND BY GOVERNING PUBLIC AGENCIES.
8. THE CONTRACTOR SHALL IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE PROJECT SPECIFICATIONS AND THE STATE WATER RESOURCES CONTROL BOARD'S CONSTRUCTION GENERAL PERMIT. IMPLEMENT BEST MANAGEMENT PRACTICES WITHIN PUBLIC RIGHT OF WAY PER LOCAL JURISDICTION REQUIREMENTS.
9. AS A FIRST ORDER OF WORK, THE CONTRACTOR SHALL POT HOLE THE EXISTING UTILITY LINES AT THE POINT OF CONNECTION TO VERIFY THE LOCATION, SIZE, PIPE MATERIAL AND ELEVATION SO THAT THE ENGINEER CAN MAKE ELEVATION AND/OR ALIGNMENT ADJUSTMENTS IF NECESSARY. SHOULD POT HOLING DISCOVER ANY DISCREPANCIES, CONTACT THE ENGINEER AND OBTAIN WRITTEN DIRECTION BEFORE PROCEEDING.
10. ADJUST UTILITY LIDS WITHIN NEW CONSTRUCTION AREA TO FINISHED GRADE PER DETAIL [B/X1.3]. REPLACE ALL BROKEN LIDS WITH NEW. PROVIDE TRAFFIC RATED LIDS WITHIN VEHICLE LOADING AREAS.
11. WATER TEST PAVEMENT WITHIN NEW IMPROVEMENT AREA. REPLACE PAVEMENT WHERE BIRD BATHS OCCUR AFTER TEST AS DIRECTED BY THE INSPECTOR OR ENGINEER.
12. MINIMUM SLOPE ON IMPERVIOUS SURFACES PERPENDICULAR TO ADJACENT STRUCTURE(S), WITHIN ADA PATH, SHALL BE 1% MINIMUM AND 2% MAXIMUM. WHERE DOOR AND GATE LANDINGS OCCUR THE CROSS SLOPE SHALL BE 2% MAXIMUM IN ALL DIRECTIONS

A
CS5.1
ENLARGED VIEW
SCALE: 1"=10'

SCALE: 1"=20'
SCALE IN FEET

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CD SET

DSA APPL. NO. 02-122191

ENGINEER

LANE R. BADER
No. 47033
10/10/2024
Date Signed:

ARCHITECT

PROJECT NUMBER
230278

DATE
10/11/2024

REVISIONS

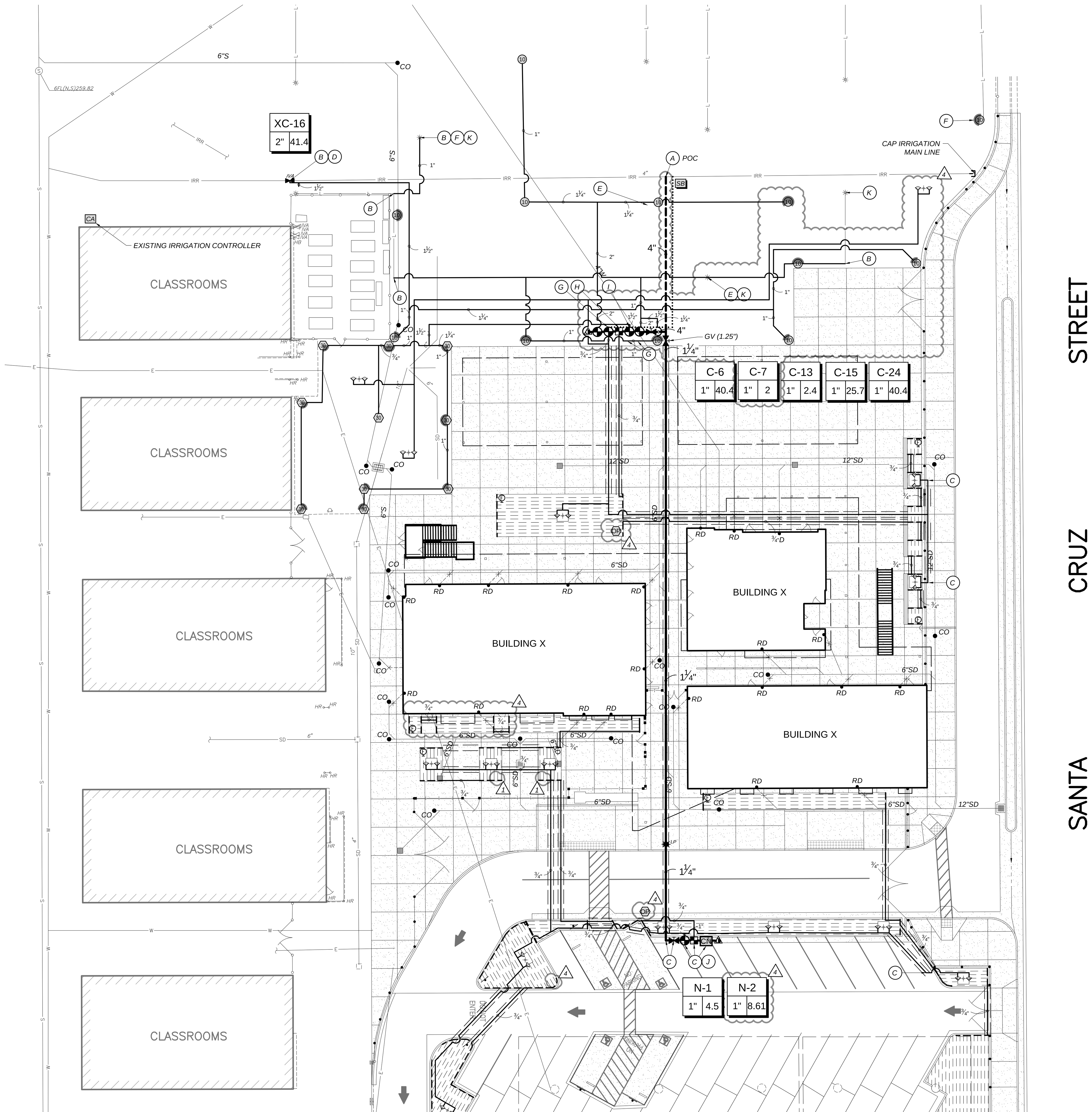
#	DESCRIPTION	DATE
4	ADDENDUM #4	1/15/25

CONSTRUCTION DOCUMENTS

GRADING PLAN

CS5.1

Drawing: P:\223-0299\Site\ProductionDrawings\223299_GR01.dwg; CS4.1 - ----
Plot by: sduncan Jan 15, 2025 - 1:32pm



POINT OF CONNECTION

WATER SERVICE SIZE/MAX FLOW: 4" / CONTRACTOR SHALL VERIFY

WATER METER SIZE/75% MAX FLOW: CONTRACTOR SHALL VERIFY

MAXIMUM STATION FLOW: 40.4 GPM

IRRIGATION BACKFLOW SIZE: CONTRACTOR SHALL VERIFY

IRRIGATION WATER SOURCE: CONTRACTOR SHALL VERIFY

MINIMUM EXISTING MINIMUM STATIC PRESSURE H/L: CONTRACTOR SHALL VERIFY. SEE IRRIGATION GENERAL NOTE #3

MINIMUM OPERATING PRESSURE: 15 PSI BUBBLER; 14.5 PSI DRIP; 35 PSI ROTORS

IRRIGATION SYSTEM OBSERVATION LOG

ITEM NO.	WORK ITEM DESCRIPTION	REVIEWED & ACCEPTED BY OWNER'S REP OR LAND ARCH: PRINT NAME	SIGNATURE	DATE
IR-1	EXISTING SYSTEM OPERATION & PRESSURE CHECK			
IR-2	PIPING/WIRE SLEEVES UNDER PAVEMENT			
IR-3	MAIN LINE INSTALLATION & PRESSURE TEST			
IR-4	VALVE INSTALLATIONS			
IR-5	IRRIGATION COVERAGE PRIOR TO PLANTING			
IR-6	CONTROL EQUIPMENT INSTALLATION	N/A	N/A	
IR-7	BOOSTER PUMP INSTALLATION & START-UP (MANUF.)	N/A	N/A	
IR-8	FINAL SYSTEM OPERATION REVIEW			

NOTE: THE ORIGINAL VERSION OF THIS LOG SHALL BE MAINTAINED ON THE AS-BUILT RECORD DRAWING SET.
WORK ITEMS MAY NOT BE REVIEWED IF PRIOR WORK ITEMS HAVE NOT BEEN ACCEPTED.

IRRIGATION LEGEND:

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	ARC	PSI	GPM	RADIUS	DETAIL
(bubbler)	HUNTER RZWS-10-CV 25 10IN. LONG RZWS WITH INSTALLED .25 GPM OR .50 GPM BUBBLER OPTIONS, CHECK VALVE,AND 1/2IN. SWING JOINT FOR CONNECTION TO 1/2IN. PIPE	360	30	0.25	3'	L/LS1.2

SYMBOL	MANUFACTURER/MODEL	PSI	GPM	RADIUS	DETAIL
(rotor)	EXISTING TURF ROTOR 10	50	10.1	51'	J/LS1.2
30	HUNTER I-20-04-PRB-MPR 30	45		30'	J/LS1.2
10	HUNTER I-25-04 10	50	10.1	51'	J/LS1.2

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	DETAIL
	DRIP CONTROL VALVE HUNTER ICZ-101-40-LF. DRIP CONTROL ZONE KIT. 1IN. ICV GLOBE VALVE WITH 1IN. HY100 FILTER SYSTEM. PRESSURE REGULATION: 25 PSI. FLOW RANGE: .5 GPM - 15 GPM. 150 MESH STAINLESS STEEL SCREEN.	A/LS1.3
F	FLUSH VALVE ASSEMBLY	D/LS1.3
OP	DRIP OPERATION INDICATOR HUNTER ECO-ID	E/LS1.3
	AREA TO RECEIVE DRIPLINE NETAFIM TLCV-04-18 TECHLINE PRESSURE COMPENSATING 17MM LANDSCAPE DRIPLINE WITH CHECK VALVE. 0.4 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. MINIMUM 3" COVER	C/LS1.3

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	DETAIL
	EXISTING REMOTE CONTROL VALVE IRRITROL 100 SERIES	
	TORO P220-26-0 GLOBE ELECTRIC, PLASTIC IN-LINE REMOTE CONTROL VALVE. STANDARD SOLENOID. GLOBE BODY STYLE.	I/LS1.2
	QUICK COUPLER HUNTER HQ-44LRC	H/LS1.2
	GATE VALVE NIBCO F-619-RW-SON CAST IRON RESILIENT WEDGE GATE VALVE W/ 2" OPERATING NUT SIZE EQUAL TO MAINLINE.	G/LS1.2
CN	HUNTER NODE-200 2-STATION CONTROLLER, OUTDOOR, BATTERY POWERED. PROVIDE DC LATCHING SOLENOID ON NODE CONTROLLED VALVES.	
	CAP IRRIGATION LINE	
CA	EXISTING CONTROLLER (RAINMASTER SENTAR II) CONTROLLER ON NORTH END OF EXISTING PORTABLE BUILDING (SEE PLANS FOR LOCATION). 23/24 STATIONS USED	
SB	SPLICE BOX	M/LS1.2
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40, BELL END, SOLVENT WELD, SIZE AS NOTED	C/LS1.2
	IRRIGATION MAINLINE: PVC SCHEDULE 40, BELL END, SOLVENT WELD, SIZE AS NOTED	A/LS1.2
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21 GASKETED	A/LS1.2
	PIPE SLEEVE: PVC SCHEDULE 40 TWICE PIPE SIZE	D/LS1.2
	CONTROL WIRE SLEEVE	D/LS1.2
	DRIPLINE MANIFOLD: PVC SCHEDULE 40	B/LS1.3
	CONTROL WIRE PLUS ONE (1) COMMON WIRE	E/LS1.2

\# VALVE NUMBER
\#" VALVE SIZE
\# VALVE FLOW (GPM)

- PROPOSED TREE, SEE PLANTING PLAN ON SHEET LS2.1 FOR VARIETY AND SIZE
- (A) CONNECT NEW MAIN LINE TO EXISTING MAIN LINE. CONTRACTOR SHALL VERIFY EXISTING IRRIGATION MAINLINE LOCATION.
- (B) CONNECT NEW LATERAL LINE TO EXISTING LATERAL LINE
- (C) PIPE SHOWN OUTSIDE OF PLANTER FOR CLARITY. INSTALL PIPE WITHIN PLANTER. SEE GENERAL IRRIGATION NOTE #8
- (D) CONNECT EXISTING VALVES SCHEDULED TO REMAIN OPERATIONAL TO NEW MAIN LINE. PROVIDE NEW CONTROL WIRE AS NEEDED
- (E) PROTECT HEADS FOR NEW HARDSCAPE. ADJUST HEADS/NOZZLES FOR NEW IMPROVEMENTS. SEE GENERAL IRRIGATION NOTE #17
- (F) CONNECT NEW IRRIGATION HEAD TO EXISTING LATERAL LINE.
- (G) CONNECT NEW IRRIGATION VALVE TO NEW IRRIGATION MAINLINE. INTERCEPT EXISTING CONTROL WIRE FOR VALVE STATION 7 AND CONNECT TO NEW IRRIGATION VALVE. CONTRACTOR SHALL VERIFY EXISTING LOCATION OF VALVE STATION 7.
- (H) CONNECT NEW IRRIGATION VALVE TO NEW IRRIGATION MAINLINE. INTERCEPT EXISTING CONTROL WIRE FOR VALVE STATION 13 AND CONNECT TO NEW IRRIGATION VALVE. CONTRACTOR SHALL VERIFY EXISTING LOCATION OF VALVE STATION 13.
- (I) CONNECT NEW IRRIGATION VALVE TO NEW IRRIGATION MAINLINE. INTERCEPT EXISTING CONTROL WIRE FOR VALVE STATION 15 AND CONNECT TO NEW IRRIGATION VALVE. CONTRACTOR SHALL VERIFY EXISTING LOCATION OF VALVE STATION 15.
- (J) CONNECT NEW IRRIGATION VALVES TO HUNTER NODE 400. PROVIDE DC LATCHING SOLENOID
- (K) ADJUST HEAD TO HALF RADIUS

CONTRACTOR SPECIAL IRRIGATION NOTES:

1. THE CONTRACTOR SHALL PERFORM AN OPERATIONAL ASSESSMENT OF THE EXISTING IRRIGATION SYSTEM WITHIN THE AREA OF WORK WITH THE OWNER'S REPRESENTATIVE PRIOR TO THE START OF CONSTRUCTION OPERATIONS.
2. THE CONTRACTOR SHALL ENSURE THAT ALL EXISTING PLANTING SCHEDULED TO REMAIN SHALL CONTINUE TO BE IRRIGATED THROUGHOUT THE COURSE OF CONSTRUCTION OPERATIONS. ANY DAMAGE TO THE EXISTING IRRIGATION SYSTEM THAT IMPACTS EXISTING PLANTING TO REMAIN SHALL BE IMMEDIATELY REPAIRED TO THE OWNER'S SATISFACTION.
3. PRIOR TO THE START OF ANY SHRUB, GROUND COVER, AND/OR TURFGRASS PLANTING, AN OPERATIONAL REVIEW OF THE IRRIGATION SYSTEM SHALL BE PERFORMED FOR PROPER COVERAGE AND SOIL MOISTURE DEPTH BY THE OWNER'S REPRESENTATIVE. ALL CORRECTIONS AND/OR ADJUSTMENTS SHALL BE COMPLETED AND VERIFIED BY THE OWNER'S REPRESENTATIVE BEFORE GROUND LEVEL PLANTING MAY COMMENCE.
4. THE ORIGINAL IRRIGATION SYSTEM OBSERVATION LOG SHALL BE MAINTAINED ON THE AS-BUILT RECORD DRAWING SET.
5. THE AS-BUILT RECORD DRAWING SET AND OTHER CLOSE-OUT ITEMS SHALL BE SUBMITTED AND ACCEPTED PRIOR TO THE SCHEDULING OF A FINAL ACCEPTANCE REVIEW.
6. UNLESS NOTED OTHERWISE, SALVAGE AND RETURN TO THE OWNER ALL IRRIGATION VALVES, HEADS AND OTHER EQUIPMENT COMPONENTS REMOVED AS PART OF THE WORK. SALVAGED COMPONENTS SHALL BE CLEAN AND IN WORKING CONDITION UNLESS NOTED AS NON-OPERATIONAL DURING THE OPERATIONAL ASSESSMENT.

WATER CONSERVATION COMPLIANCE STATEMENT:

I HAVE COMPLIED WITH THE CRITERIA OF THE LANDSCAPE WATER CONSERVATION ORDINANCE AND GUIDELINES, AND HAVE APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.

DAVID W. BRILEY, RLA 2787

IRRIGATION SYSTEM BID ALLOWANCE:

CONTRACTOR SHALL INCLUDE A BID ALLOWANCE IN THE AMOUNT OF $1,000 FOR THE REPLACEMENT OF EXISTING OR THE INSTALLATION OF NEW SPRINKLER HEADS, VALVES, PIPING AND OTHER EQUIPMENT AND ACCESSORIES NECESSARY FOR THE PROPER OPERATION OF THE EXISTING SYSTEM WHERE NOT SPECIFICALLY SHOWN ON THE DRAWINGS FOR REPLACEMENT OR NEW INSTALLATION.

SEE SHEET LS1.2-LS1.3 FOR IRRIGATION NOTES AND DETAILS

SEE SHEET LS1.3 FOR MWELO CALCS

SCALE: 1"=20'
0 5 20 40 SCALE IN FEET

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ENGINEER

ARCHITECT

PROJECT NUMBER 230278
DATE 10/11/2024

REVISIONS

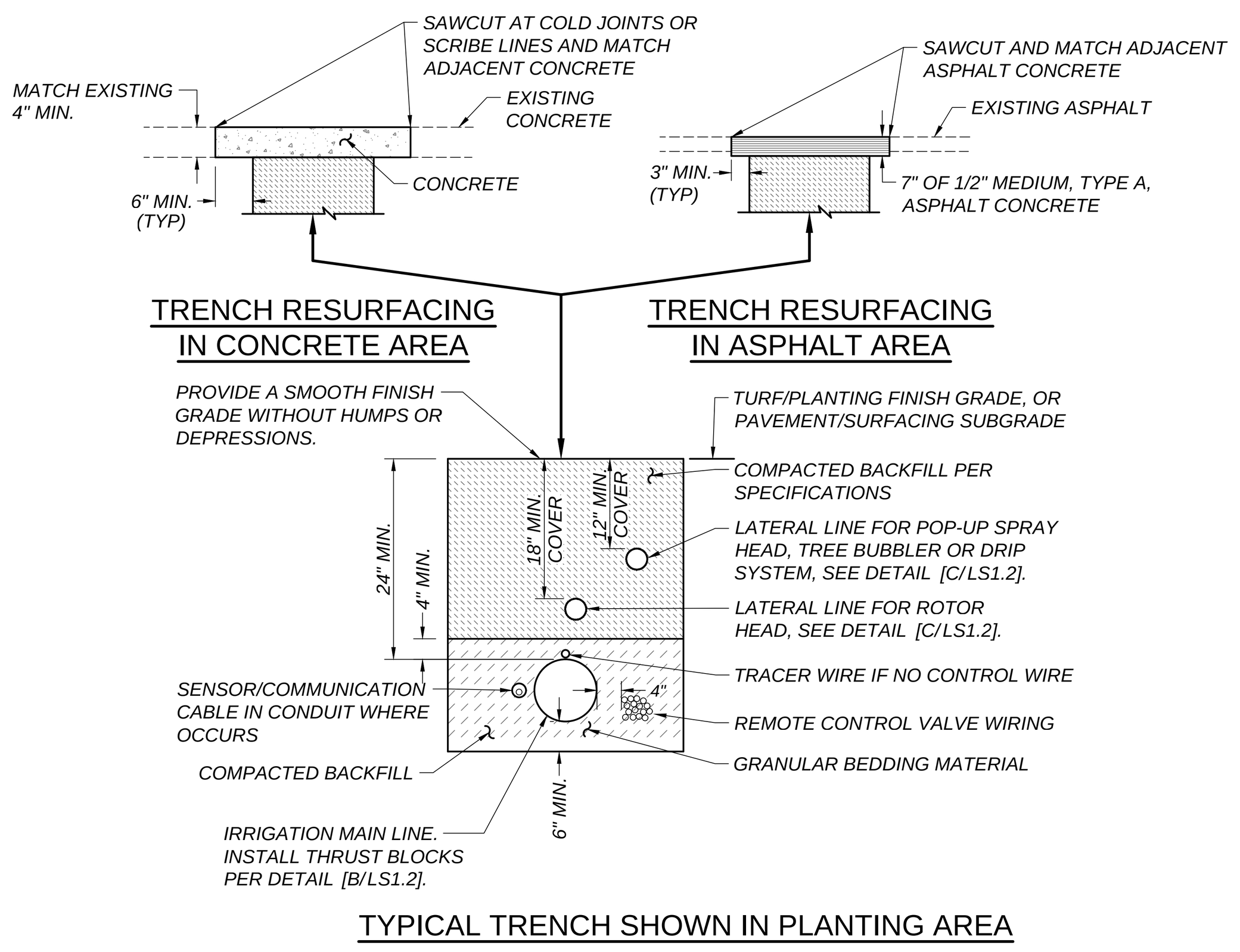
#	DESCRIPTION	DATE
4	ADDENDUM #4	1/15/25

CONSTRUCTION DOCUMENTS

IRRIGATION PLAN

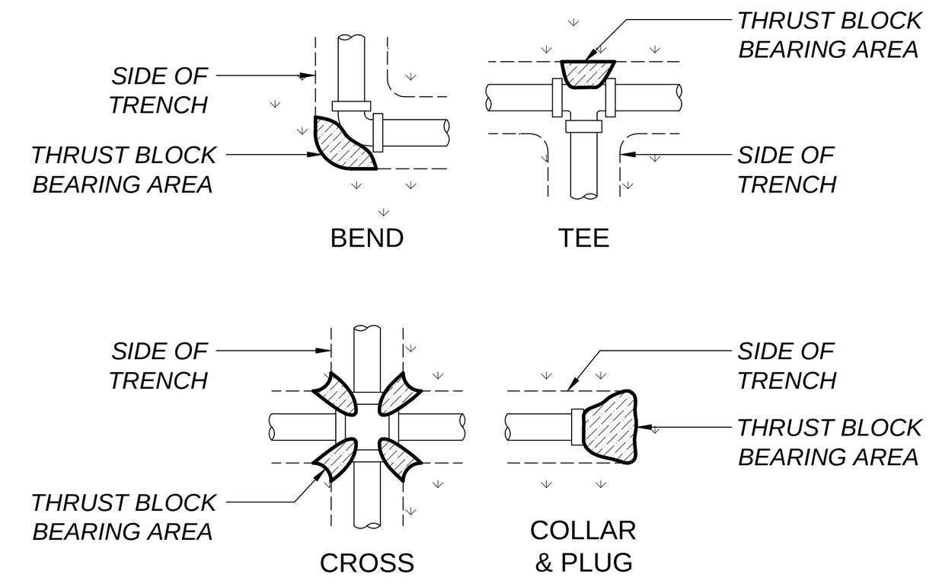
LS1.1

Drawing: P:\223-0299\Site\productiondrawings\223299_IR01.dwg; LS1.1 - ---- Plot by: gbautista Jan 15, 2025 - 12:35pm



A / LS1.2 — IRRIGATION TRENCH BACKFILL

NOT TO SCALE



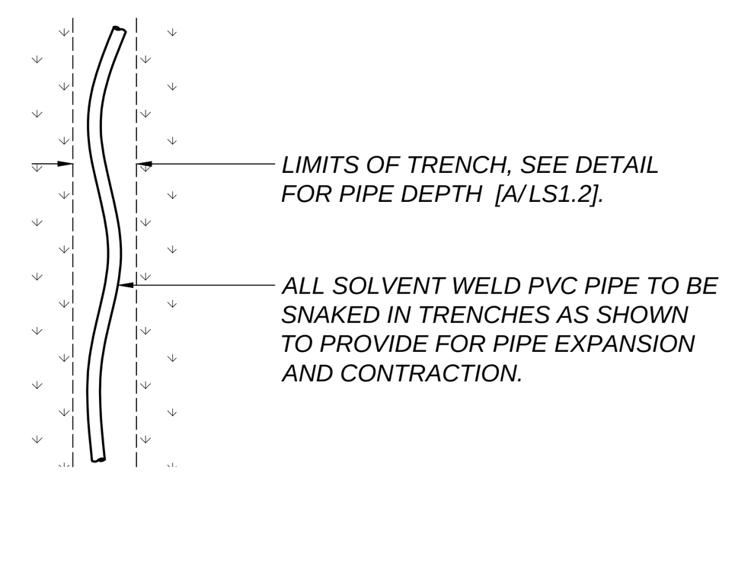
NOTE: CONCRETE PER SPECIFICATIONS. THRUST BLOCKS NOT REQUIRED WITH LESS THAN 2" MAIN LINE

TABLE OF BEARING AREAS REQUIRED (IN SQUARE FEET)

PIPE DIAMETER	* 4"	6"	8"	10"	12"
CROSS, TEE, 90° BEND, PLUG, FIRE HYDRANT	1	3	5	8	11
45° BEND	1	2	3	4	6
22-1/2° BEND	0.5	1	2	2	3
11-1/4° BEND	0	0	1	1	2
GATE VALVE (IN-LINE)	0	1	2.5	4	9

B / LS1.2 — CONCRETE THRUST BLOCKS

NOT TO SCALE



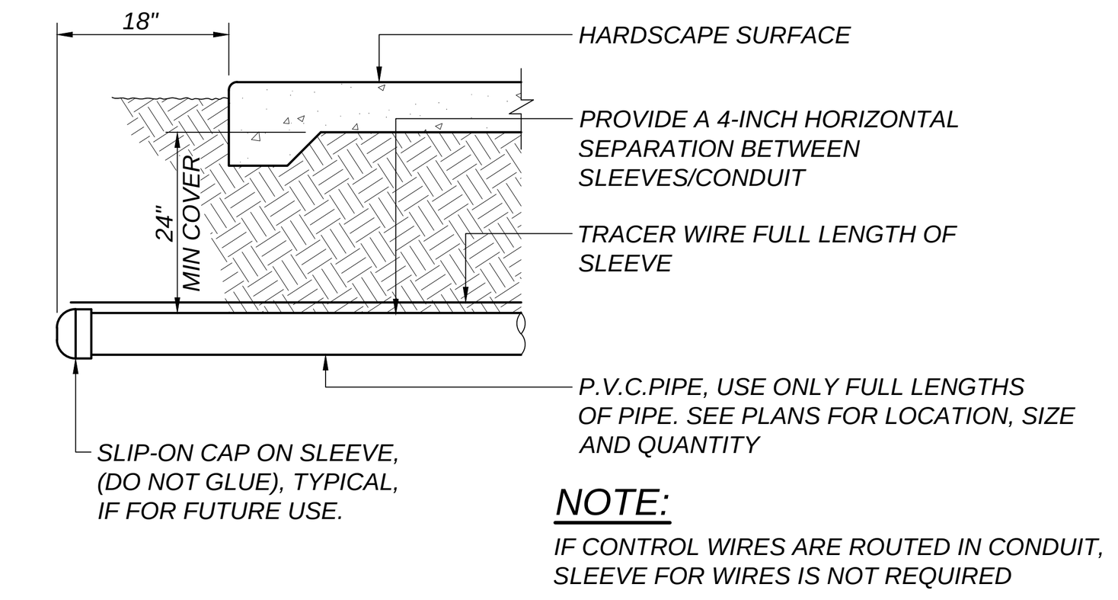
C / LS1.2 — SOLVENT WELD PIPE

NOT TO SCALE

CONDUIT/SLEEVE FOR CONTROL WIRE

CONDUIT/SLEEVE SIZE	QTY. 14 GA. WIRE
1"	8 OR LESS
1-1/4"	15
1-1/2"	20
2"	32
2-1/2"	45
3"	70
4"	120

NOTE: SLEEVE FOR PIPE IS 2X THE PIPE DIAMETER

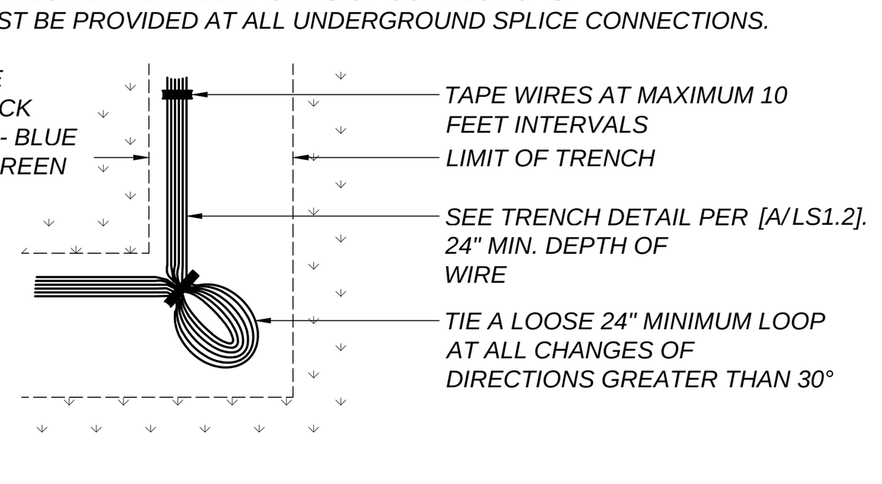


NOTE:
IF CONTROL WIRES ARE ROUTED IN CONDUIT, SLEEVE FOR WIRES IS NOT REQUIRED

D / LS1.2 — IRRIGATION SLEEVE/CONDUIT

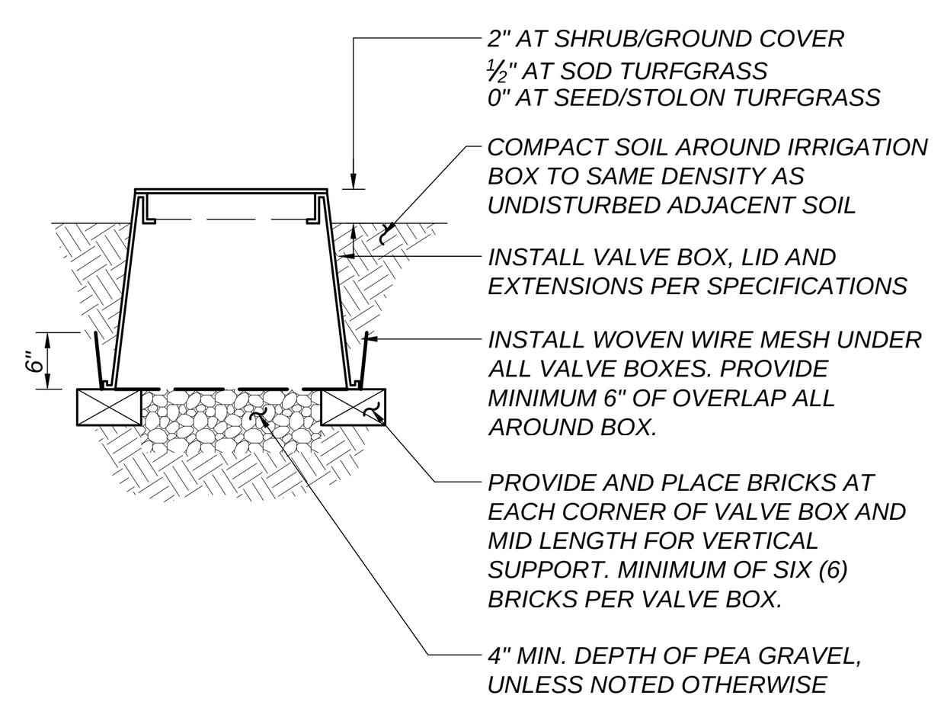
NOT TO SCALE

NOTES:
1. WIRES UNDER PAVEMENT OR WALKS SHALL BE INSTALLED WITHIN A CONDUIT WHICH HAS BEEN PLACED BY BORING, JACKING OR DRILLING. CONDUIT TO BE PVC SCH 40 TYPE II PIPE. WIRES SHALL NOT BE TAPED TOGETHER INSIDE THE CONDUIT.
2. NO SPLICES ARE ALLOWED BETWEEN POINTS OF CONNECTIONS.
3. A VALVE BOX MUST BE PROVIDED AT ALL UNDERGROUND SPLICE CONNECTIONS.
4. HOT - RED
COMMON - WHITE
SPARE HOT - BLACK
SPARE COMMON - BLUE
TRACER WIRE - GREEN



E / LS1.2 — IRRIGATION WIRE

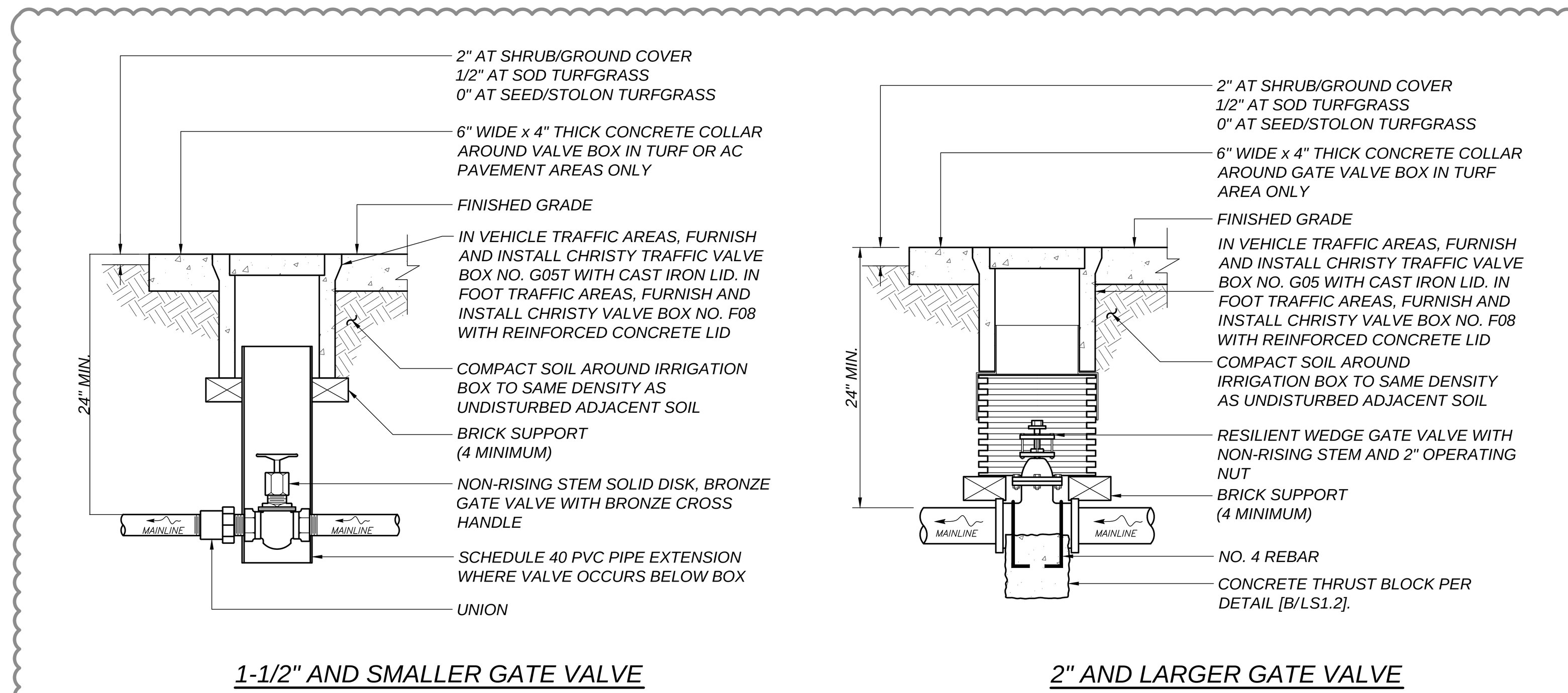
NOT TO SCALE



NOTE:
PROVIDE A TRAFFIC RATED CONCRETE BOX AND LID FOR ANY BOX LOCATED IN HARDSCAPE PAVEMENT AND SET FLUSH TO FINISHED SURFACE. PROVIDE A 6"X6" CONCRETE COLLAR AROUND THE BOX IF LOCATED IN ASPHALTIC CONCRETE.

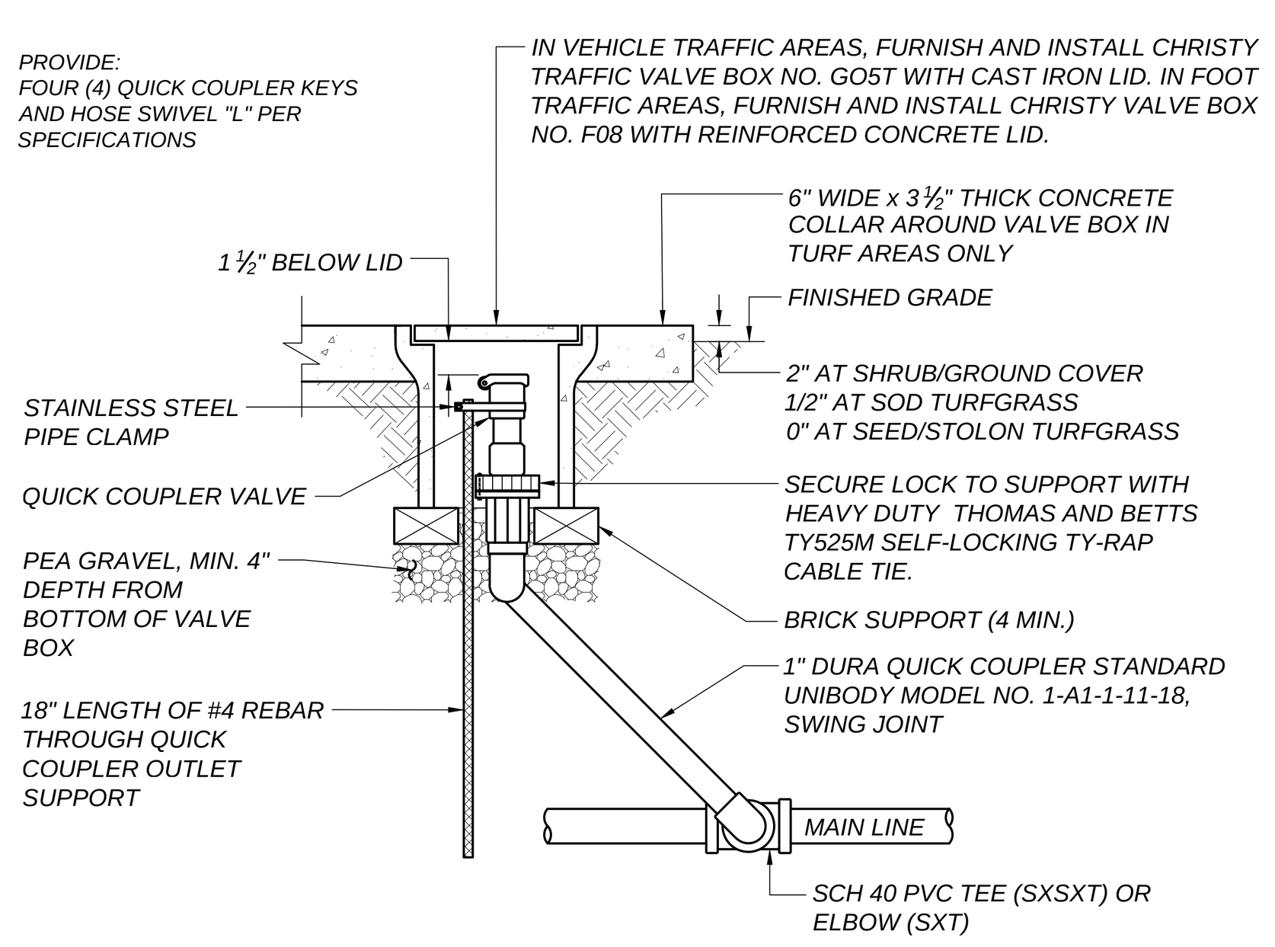
F / LS1.2 — IRRIGATION VALVE BOX

NOT TO SCALE



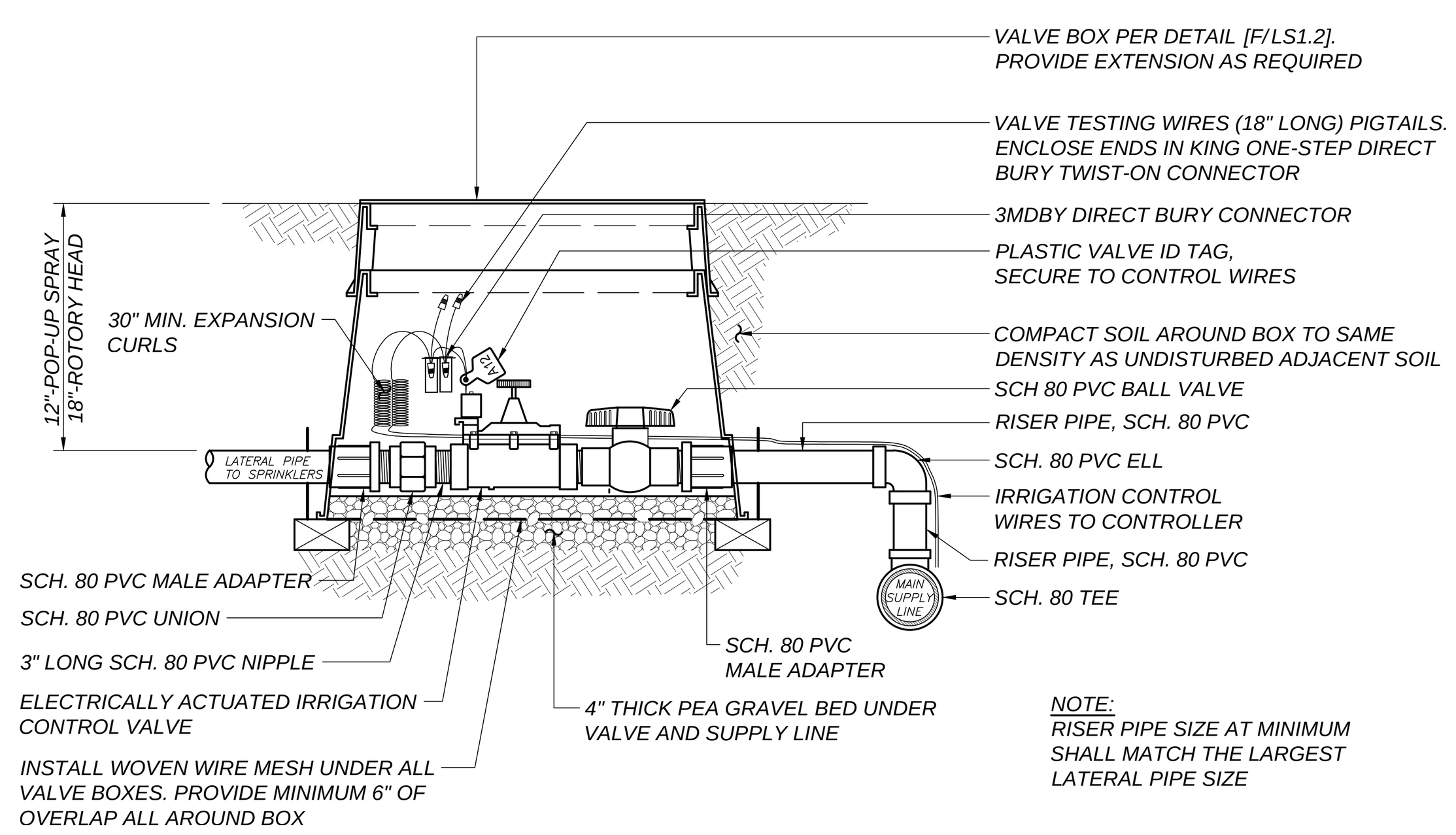
G / LS1.2 — GATE VALVE

NOT TO SCALE



H / LS1.2 — QUICK COUPLER VALVE

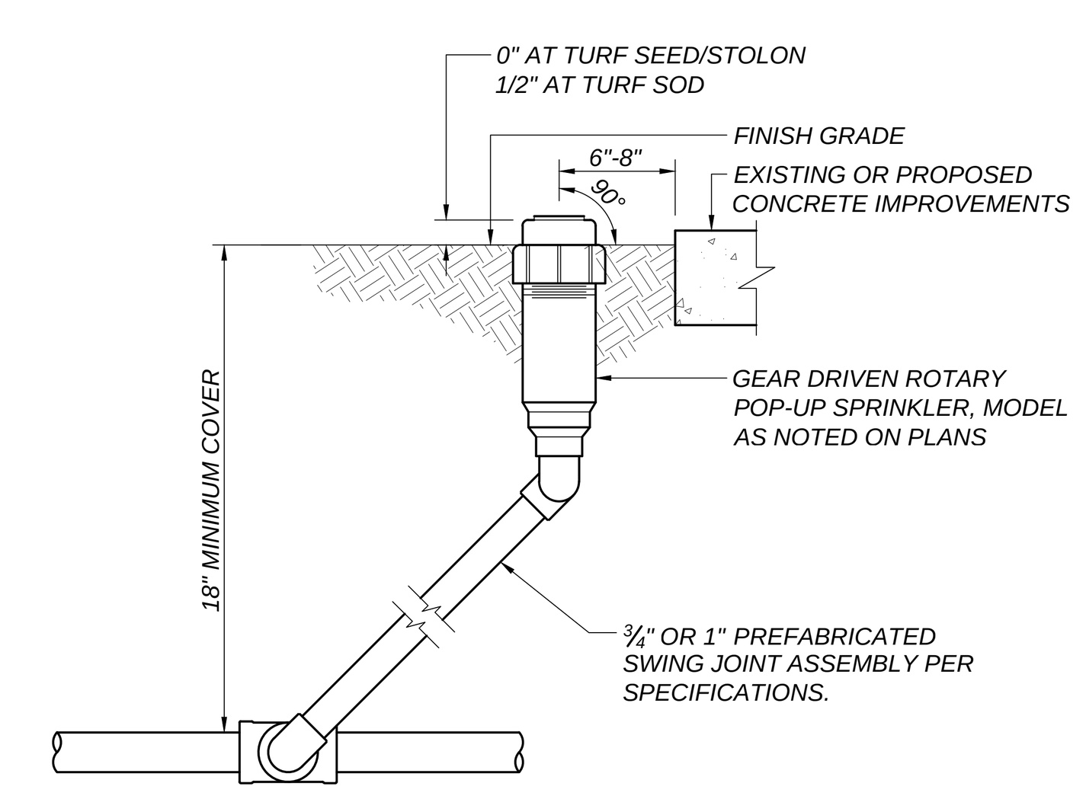
NOT TO SCALE



NOTE:
RISER PIPE SIZE AT MINIMUM SHALL MATCH THE LARGEST LATERAL PIPE SIZE

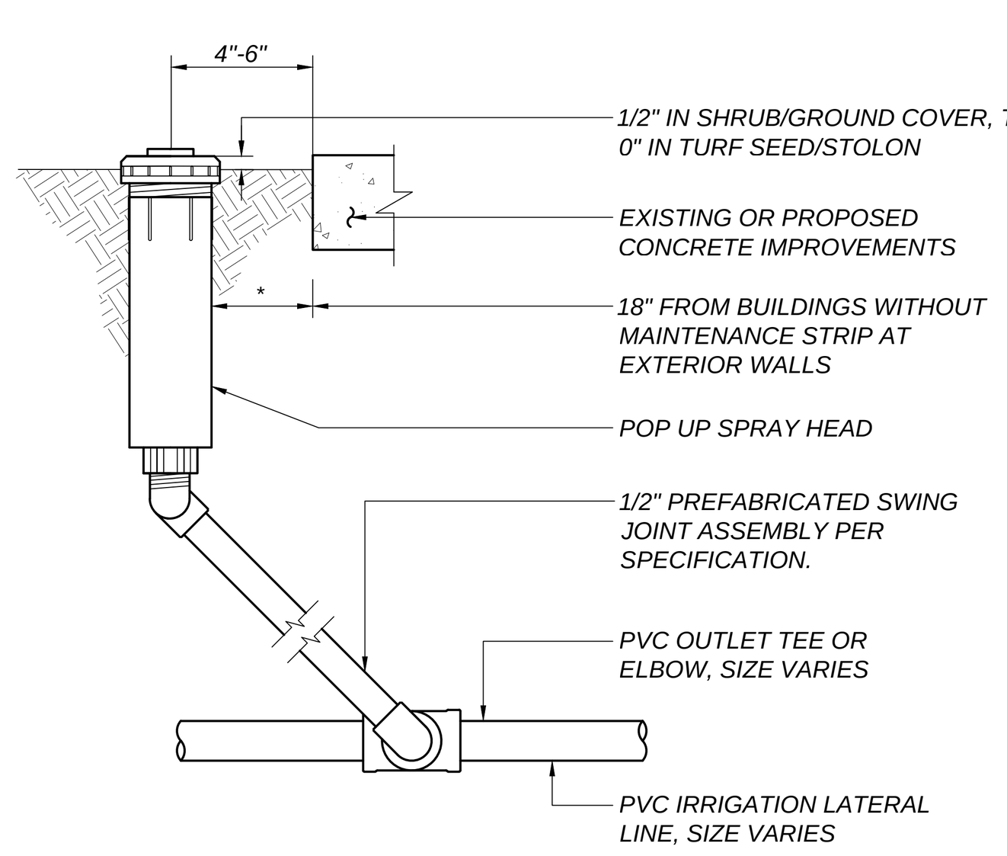
I / LS1.2 — REMOTE CONTROL VALVE WITH BALL VALVE - GLOBE

NOT TO SCALE



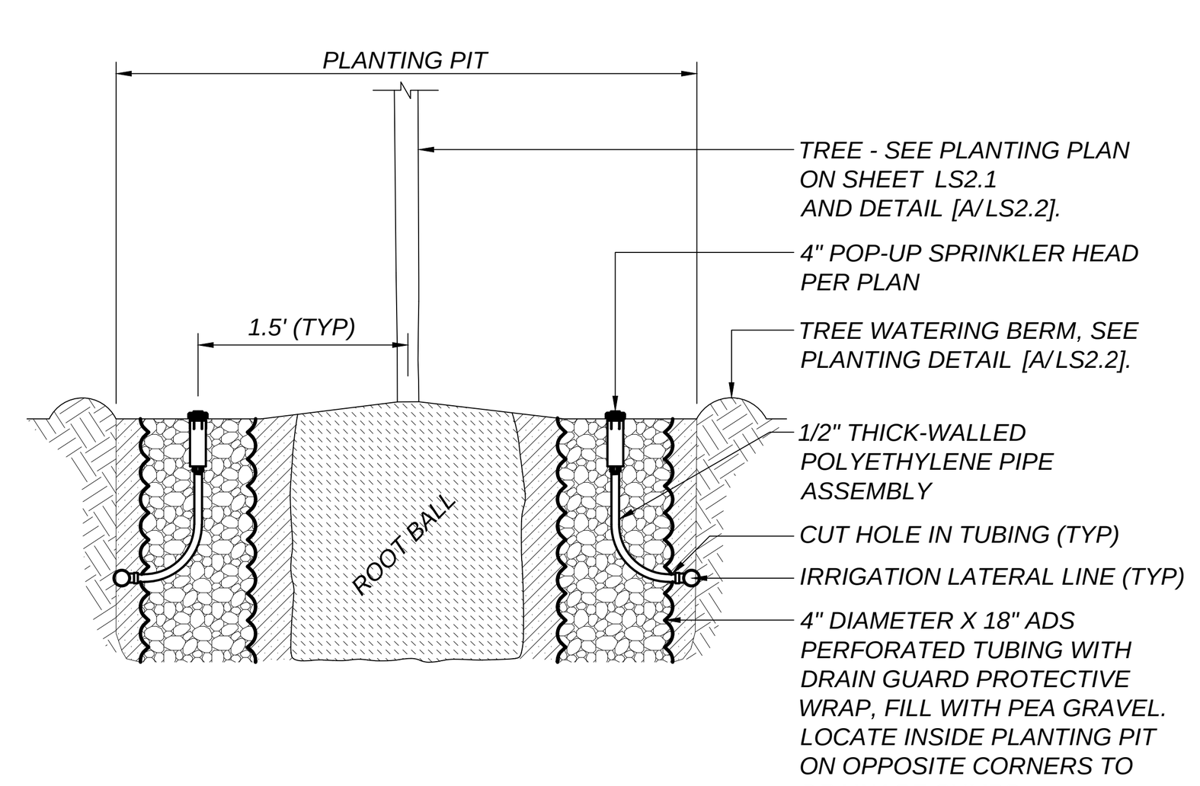
J / LS1.2 — POP-UP ROTOR

NOT TO SCALE



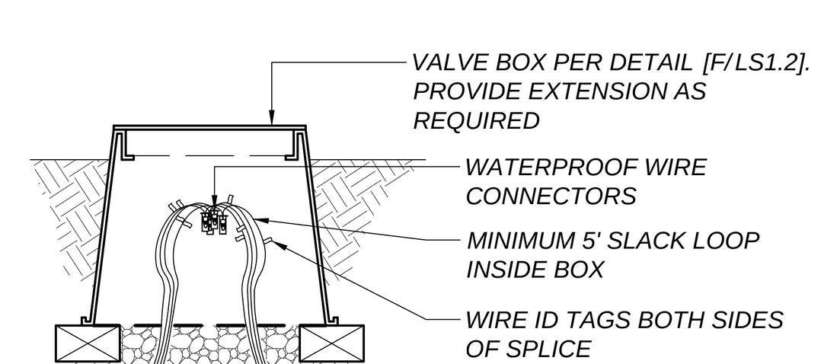
K / LS1.2 — POP-UP SPRAY

NOT TO SCALE



L / LS1.2 — TREE BUBBLERS

NOT TO SCALE



M / LS1.2 — SPLICEBOX

NOT TO SCALE

SEE SHEET LS1.2-LS1.3 FOR IRRIGATION NOTES AND DETAILS

SEE SHEET LS1.3 FOR MWELO CALCS

GENERAL IRRIGATION NOTES:

1. ALL ITEMS IN THE LEGEND ARE TO BE FURNISHED AND INSTALLED, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT, MATERIALS OR PROCESSES SPECIFIED BY NAME. NO SUBSTITUTION WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN ENGINEER. (ALL MATERIAL REQUIRED SHALL BE NEW AND OF THE BEST QUALITY AVAILABLE)
2. THE DESIGN ENGINEER RESERVES THE RIGHT TO REJECT ANY MATERIAL OR WORK WHICH DOES NOT CONFORM TO THE CONTRACT PLANS AND SPECIFICATIONS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE DESIGN ENGINEER.
3. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL VERIFY THE EXISTING SYSTEM COMPONENTS' LOCATION, SIZES AND ROUTING FOR BACKFLOW PREVENTERS, CONTROLLERS, MAIN AND LATERAL PIPING, VALVES, SPRINKLER HEADS AND CONTROL WIRE; AND SHALL CONFIRM THEIR OPERATIONAL STATUS IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL ALSO VERIFY THE AVAILABLE STATIC PRESSURE AT THE POINT-OF-CONNECTION. FAILURE TO NOTIFY THE OWNER'S REPRESENTATIVE BEFORE STARTING WORK OF ANY DEVIATION FROM THE INFORMATION SHOWN ON THE CONTRACT DOCUMENTS, OR NECESSARY REPAIRS TO THE EXISTING SYSTEM, SHALL MAKE THE CONTRACTOR RESPONSIBLE TO PROVIDE, AT HIS OWN EXPENSE, ANY CORRECTIVE WORK OR COMPONENTS NECESSARY FOR A FULLY FUNCTIONAL SYSTEM WITH FULL COVERAGE.
4. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND KEEP ANY EXISTING IRRIGATION SYSTEM SCHEDULED TO REMAIN OPERATIONAL AT ALL TIMES DURING THE COURSE OF THIS WORK. THE CONTRACTOR SHALL REPLACE ANY PLANTS DEAD OR DISTRESSED DUE TO THE INTERRUPTION OF EXISTING IRRIGATION SCHEDULES AND SHALL PERFORM ALL WORK NECESSARY TO MAINTAIN THE EXISTING SYSTEM'S OPERATIONAL.
5. THE CONTRACTOR IS RESPONSIBLE TO LOCATE AND PROTECT ALL EXISTING UTILITIES. UTILITIES SHOWN ARE FOR THE CONTRACTOR'S AWARENESS AND NO SURVEY HAS BEEN COMPLETE TO VERIFY THE ACCURACY OF THE UTILITIES SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO REPAIR ANY DAMAGED UTILITIES CAUSED BY CONSTRUCTION ACTIVITIES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL DIMENSIONS SHOWN AND TO ADJUST SAID DIMENSIONS TO FIT SITE CONDITIONS AND ACTUAL EQUIPMENT INSTALLED.
7. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION FACILITIES AS INDICATED ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS MIGHT NOT HAVE BEEN CONSIDERED IN THE DESIGN. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.
8. THE IRRIGATION PLAN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND HEADS SHALL BE LOCATED IN PLANTING AREAS WHENEVER POSSIBLE.
9. THE CONTRACTOR SHALL PROVIDE ADEQUATE SAFETY MEASURES TO WARN AND PROTECT THE PUBLIC, OTHER SITE CONTRACTORS AND HIS WORKERS FROM POSSIBLE INJURY DUE TO HIS CONSTRUCTION EQUIPMENT AND OPERATIONS.
10. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, ETC. WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL HIS WORK, AND PLAN HIS WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO INSTALL THE PROPOSED FACILITIES AND ACCOMMODATE THE SITE CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE DONE TO PROVIDE A COMPLETE AND OPERATIONAL IRRIGATION SYSTEM. ALL WORK TO BE DONE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, LOCAL CODES AND ORDINANCES.
11. VALVES SHALL BE LOCATED IN SHRUB/GROUND COVER AREAS INSTEAD OF IN TURFGRASS AREAS WHENEVER POSSIBLE. VALVES IN ATHLETIC SPORTS FIELDS SHALL BE LOCATED OUTSIDE OF THE FIELD-OF-PLAY TO THE GREATEST EXTENT POSSIBLE.
12. THE CONTRACTOR SHALL REPLACE ANY EXISTING PLANTS SCHEDULED TO REMAIN (SEE LANDSCAPE PLANS) THAT ARE DAMAGED BY THIS WORK WITH NEW PLANTS OF THE SAME SPECIES/VARIETY AND SIZE AS THE ORIGINAL.
13. ANY EXISTING TURFGRASS REMOVED FOR THIS WORK SHALL BE REPLANTED IF VIABLE, OR NEW SOD OF THE SAME SPECIES/VARIETY INSTALLED. THE UPPER 6 INCHES OF THE COMPACTED TRENCH BACKFILL SHALL BE CONDITIONED PER LANDSCAPE SPECIFICATIONS PRIOR TO SOD INSTALLATION. THE NEW SOD SURFACE SHALL BE FLUSH TO THE ADJACENT TURFGRASS WITHOUT HUMPS OR DEPRESSIONS.
14. INSTALL SLEEVES UNDER ALL ASPHALT/CONCRETE IMPROVEMENTS. SLEEVES SHALL BE PVC SCH. 40 PVC OR SDR 35 AND TWICE THE DIAMETER OF THE PIPE UNLESS OTHERWISE NOTED. CONTROL WIRING SHALL BE SLEEVED IN 2" SCH 40 PVC UNLESS OTHERWISE NOTED. MINIMUM DEPTH OF SLEEVES UNDER ALL ASPHALT/CONCRETE IMPROVEMENTS IS 18" BELOW SUBGRADE OR 24" BELOW FINISHED GRADE, WHICHEVER IS GREATER.
15. CONTRACTOR SHALL SAWCUT TO EXISTING JOINTS. REMOVE AND REPLACE SURFACING (CONCRETE, ASPHALT) AS NECESSARY TO INSTALL THE IRRIGATION SYSTEM.
16. THE CONTRACTOR SHALL PROVIDE AND KEEP AN UP-TO-DATE "RECORD DRAWING" SHOWING ALL CHANGES TO THE ORIGINAL DRAWINGS AND EXACT LOCATIONS OF THE FACILITIES INSTALLED. BEFORE FINAL INSPECTION, THE CONTRACTOR SHALL FURNISH MARKED "RECORD DRAWINGS" TO THE INSPECTOR.
17. THE CONTRACTOR SHALL PROVIDE ADJUSTMENT OF NOZZLE ARC AND RADIUS, INCLUDING ANY ALTERNATE NOZZLE TYPES, NECESSARY TO PROVIDE COMPLETE COVERAGE, TO SUIT ACTUAL SITE CONDITIONS, AND TO MINIMIZE OVERSPRAY ONTO HARDSCAPE, PAVEMENT AND/OR STRUCTURES.
18. CONCRETE ANCHORS OR THRUST BLOCKS SHALL BE PROVIDED ON ALL MAIN LINE PIPING. THEY ARE TO BE LOCATED AT ALL ABRUPT CHANGES IN PIPELINE GRADE, CHANGES IN HORIZONTAL ALIGNMENT, REDUCTION IN PIPE SIZES, END OF LINE AND IN-LINE VALVES TO ABSORB ANY AXIAL THRUST OF THE PIPE. THE PIPE MANUFACTURER'S RECOMMENDATIONS FOR THRUST CONTROL SHALL BE FOLLOWED. THRUST BLOCKS MUST BE FORMED AGAINST UNDISTURBED EARTH.
19. ALL MAIN LINE AND LATERAL LINE PIPES UNDER PAVEMENT SHALL BE PRESSURE TESTED WITH THE VALVES INSTALLED. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT NEEDED. IF ANY LEAKS DEVELOP, THE REPAIRS ARE TO BE MADE AND THE TEST REPEATED UNTIL THE SYSTEM IS PROVEN WATERTIGHT. THE CONTRACTOR IS TO CENTER LOAD THE PIPE AND LEAVE ALL JOINTS EXPOSED FOR INSPECTION. THE PRESSURE TEST SHALL BE OBSERVED AND APPROVED BY THE OWNER'S REPRESENTATIVE. WHEN THE PIPE IS PROVEN WATERTIGHT AND ONLY THEN MAY THE LINE BE BACKFILLED.
20. WIRED CONNECTIONS BETWEEN THE CONTROLLER AND REMOTE CONTROL VALVES SHALL BE MADE WITH ONE CONTINUOUS DIRECT BURIAL WIRE RUN. A VALVE BOX MUST BE PROVIDED AT THE CONTRACTOR'S EXPENSE AT ALL UNDERGROUND SPLICES.
21. ONLY TEFLON TAPE OR AN APPROVED TEFLON PASTE MAY BE USED AS THE SEALING MATERIAL TO MAKE ALL THREADED CONNECTIONS. A MINIMUM OF TWO (2) WRAPS IN THE DIRECTION OF THE THREADS TO BE USED FOR TAPE. NO OTHER PIPE JOINT MATERIAL WILL BE ALLOWED WITHOUT THE WRITTEN AUTHORIZATION FROM THE DESIGN ENGINEER.
22. THE CONTRACTOR SHALL PROVIDE TWO (2) INDIVIDUALLY BOUND SETS OF OPERATION AND MAINTENANCE MANUALS. THE MANUAL SHALL CONTAIN THE FOLLOWING INFORMATION:
    - A. CONTRACTOR'S ADDRESS AND PHONE NUMBER.
    - B. DURATION OF GUARANTEE PERIOD (ONE YEAR AFTER FINAL ACCEPTANCE).
    - C. NAMES, ADDRESSES AND PHONE NUMBERS OF LOCAL MANUFACTURER REPRESENTATIVES.
    - D. COMPLETE SET OF MANUFACTURER'S LITERATURE AND SPECIFICATIONS.
    - E. COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL MAJOR EQUIPMENT.
    - F. ISSUE A "CERTIFICATE OF CONSTRUCTION COMPLIANCE" WHICH STATES THAT ALL WORK DONE AND MATERIALS AND EQUIPMENT USED ARE IN CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS AND ALL AUTHORIZED REVISIONS.
    - G. INITIAL ELECTRICAL DATA ON EACH VALVE:
        - (1) OHMMS READING FOR EACH VALVE TAKEN AT THE CONTROLLER.
        - (2) VOLTAGE READING FOR EACH VALVE TAKEN BOTH AT THE CONTROLLER AND AT THE VALVE.
23. THE CONTRACTOR SHALL PROVIDE TWO SETS OF CONTROLLER CHARTS. THE CHARTS TO BE A REDUCED DRAWING OF THE ACTUAL PLANS. THE CHARTS SHALL BE COLORED WITH A DIFFERENT COLOR FOR EACH IRRIGATION CIRCUIT. THE CHARTS SHALL BE COVERED IN A WATERTIGHT ENVELOPE.
24. IRRIGATION LINE TRENCHING AND PIPE INSTALLATION LOCATED WITHIN THE CANOPY DRIP LINE OF EXISTING TREES SHALL BE PERFORMED BY HAND OR BY AIR SPADE WITHOUT CUTTING OR DAMAGING EXISTING ROOTS GREATER THAN ONE INCH IN DIAMETER. SEE EXISTING LANDSCAPE PROTECTION SECTION FOR ADDITIONAL REQUIREMENTS.
25. REPLACE ALL DAMAGED EXISTING VALVE BOXES AND/OR LIDS WITHIN THE AREA OF WORK. ADJUST THE ELEVATION OF ALL EXISTING VALVE BOXES WITHIN THE AREA OF WORK TO FINISH GRADE AS NECESSARY TO COMPLY WITH THE VALVE BOX DETAIL.

PBK

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MADISON ELEMENTARY SCHOOL
2 STORY CLASSROOM BUILDING

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Madera, CA 93637

CD SET

DSA APPL. NO. 02-122191

ENGINEER

ARCHITECT

PROJECT NUMBER
230278

DATE
10/11/2024

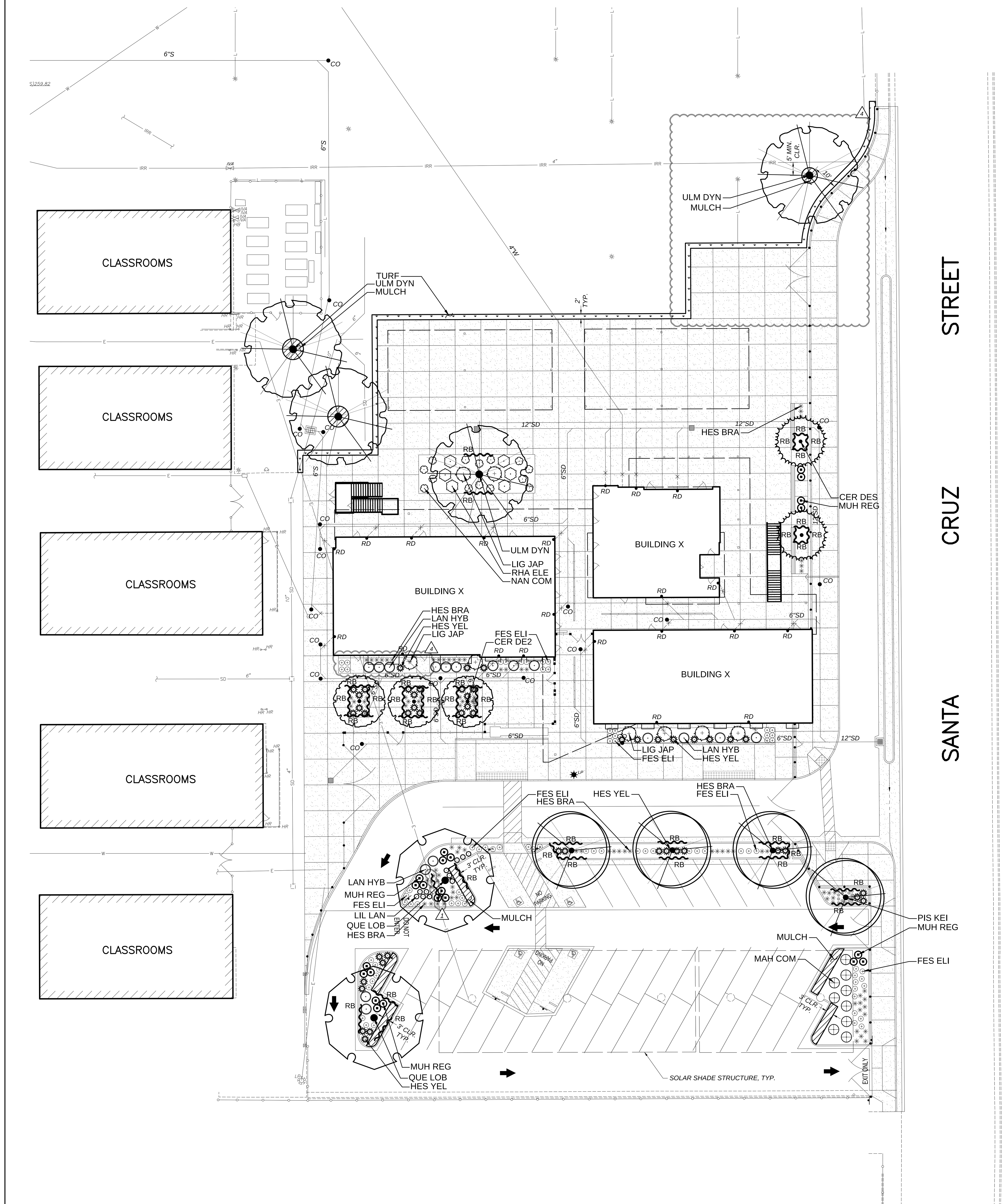
REVISIONS

#	DESCRIPTION	DATE
4	ADDENDUM #4	1/15/25

CONSTRUCTION DOCUMENTS

IRRIGATION DETAILS

LS1.2



PLANT LEGEND:

MIXED PLANTING AREA: 4,214 SF — *SUNSET ZONE: 9*

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	WATER USE	QTY	DETAIL	REMARKS
TREES							
	CER DES	CERCIDIUM X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24"BOX	L	2	A/LS2.2	STANDARD FORM DECIDUOUS TREE 20' H X 20' W
	CER DE2	CERCIDIUM X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	48"BOX	L	3	B/LS2.2	STANDARD FORM DECIDUOUS TREE 20' H X 20' W
	PIS KEI	PISTACIA CHINENSIS `KEITH DAVEY` KEITH DAVEY CHINESE PISTACHE	24" BOX	L	4	A/LS2.2	STANDARD DECIDUOUS 30' H X 30' W
	QUE LOB	QUERCUS LOBATA VALLEY OAK	48"BOX	L	2	B/LS2.2	STANDARD FORM DECIDUOUS 60-100' H X 50' W
	ULM DYN	ULMUS PARVIFOLIA `DYNASTY` DYNASTY LACEBARK ELM	48"BOX	M	4	B/LS2.2	STANDARD FORM EVERGREEN 40-60` H X 40-60' W

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	WATER USE	QTY	DETAIL	REMARKS
SHRUBS							
	HES BRA	HESPERALOE PARVIFLORA `BRAKELIGHTS` BRAKELIGHTS RED YUCCA	1 GAL	L	93	C/LS2.2	EVERGREEN FULL SUN 2' H X 2' W
	HES YEL	HESPERALOE PARVIFLORA `YELLOW` YELLOW YUCCA	5 GAL	L	48	C/LS2.2	EVERGREEN FULL SUN 3' H X 3' W
	LAN HYB	LANTANA X `NEW GOLD` NEW GOLD LANTANA	5 GAL	L	17	C/LS2.2	EVERGREEN FULL SUN 1'-2' H X 3'-4' W
	LIG JAP	LIGUSTRUM JAPONICUM JAPANESE PRIVET	5 GAL	L	8	C/LS2.2	EVERGREEN PART TO FULL SUN 8'-15' H X 6'-10' W
	LIL LAN	LILIUM LANCIFOLIUM TIGER LILY	5 GAL	L	11	C/LS2.2	PERENNIAL FULL SUN 2'-5' H X 1'-2' W
	MAH COM	MAHONIA AQUIFOLIUM 'COMPACTA' COMPACT OREGON GRAPE	5 GAL	M	9	C/LS2.2	EVERGREEN FULL TO PARTIAL SHADE 2-3' H X 3-4' W
	NAN COM	NANDINA DOMESTICA `COMPACTA` DWARF HEAVENLY BAMBOO	5 GAL	M	14	C/LS2.2	EVERGREEN FULL SUN 3-4' H X 2-3' W
	RHA ELE	RHAPHIOLEPIS INDICA `ELEANOR TABOR` ELEANOR TABOR INDIAN HAWTHORN	5 GAL	M	6	C/LS2.2	EVERGREEN FULL TO PART SUN 3' H X 4' W
GRASSES							
	FES ELI	FESTUCA GLAUCA `ELIJAH BLUE` BLUE FESCUE	5 GAL	L	89	C/LS2.2	SEMI-EVERGREEN FULL SUN 1' H X 1' W
	MUH REG	MUHLENBERGIA CAPILLARIS `REGAL MIST` PINK MUHLY	1 GAL	L	22	C/LS2.2	PERENNIAL FULL TO PARTIAL SUN 3` H X 3` W

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	WATER USE	QTY	DETAIL	REMARKS
MULCH	MULCH	WOOD MULCH WALK-ON BARK TYPE	N/A	N/A	399 SF	F/LS2.2	MIN. 3" COMPRESSED DEPTH IN ADDITION TO MIXED PLANTING AREA
TURF	TURF	`CELEBRATION` BERMUDAGRASS	SOD	M	695 SF	D/LS2.2	
	RB	ROOT BARRIER UB24-2				D/LS2.2	24 INCH DEEP ROOT BARRIER PANELS. INSTALL PER MANUFACTURE'S SPECIFICATIONS.

LANDSCAPE SHADE CALCULATIONS

SHADING PER CALGREEN 5.106.12

SITE SHADING - LANDSCAPE & HARDSCAPE	QUANTITY PROPOSED (SF)	PERCENT REQUIRED	SHADE AREA REQUIRED (SF)
LANDSCAPED AREA (EXCLUDING SPECIAL USE & PARKING LANDSCAPE AREAS)	2,005	20	401
UNCOVERED HARDSCAPE AREA (EXCLUDING PARKING HARDSCAPE AREAS)	16,559	20	3,312
TOTAL SITE SHADE REQUIRED			3,713
PROVIDED SHADE TREES	**PROVIDED SHADE AREA**	**NO. TREES**	
VERY LARGE (40' dia.= 1256 SF)	3,768	3	
LARGE (35' dia.= 962 SF)	0	0	
MEDIUM (30' dia.= 707 SF)	0	0	
SMALL (20' dia.= 314 SF)	1,570	5	
TOTALS	5,338	8	
OVER (UNDER) LANDSCAPE & HARDSCAPE SHADE REQUIREMENT			**1,625**

PARKING LOT SHADING	QUANTITY PROPOSED (SF)	PERCENT REQUIRED	SHADE AREA REQUIRED (SF)
(EXCLUDE COVERED SOLAR/SHADE CANOPY AREAS)			
PARKING LOT STALLS & AISLES	6,318	50	3,159
PARKING LOT LANDSCAPE	2,209	20	442
PARKING LOT HARDSCAPE	5,394	20	1,079
TOTAL PARKING SHADE REQUIRED			4,680
PROVIDED SHADE TREES - PARKING LOT AREA	**PROVIDED SHADE AREA**	**NO. TREES**	
VERY LARGE (40' dia.= 1256 SF)	2,512	2	
LARGE (35' dia.= 962 SF)	3,848	4	
MEDIUM (30' dia.= 707 SF)	0	0	
SMALL (20' dia.= 314 SF)	0	0	
TOTALS	6,360	6	
OVER (UNDER) PARKING LOT SHADE REQUIREMENT			**1,680**

CONTRACTOR SPECIAL PLANTING NOTES:

1. AN ASSESSMENT AND VALUATION OF ONSITE EXISTING TREES SCHEDULED TO REMAIN IN THE AREA OF WORK SHALL BE PERFORMED BY THE CONTRACTOR'S ARBORIST PRIOR TO THE START OF CONSTRUCTION OPERATIONS PER THE 'EXISTING LANDSCAPE PROTECTION' SPECIFICATION.
2. THE CONTRACTOR SHALL RIP, CONDITION AND TILL THE ENTIRE EXTENT OF ALL PLANTING AREAS RECEIVING NEW PLANTS PER THE PLANTING NOTES AND 'LANDSCAPE PLANTING' SPECIFICATIONS.
3. ALL EXISTING MIXED PLANTING AREAS RECEIVING NEW WOOD MULCH SHALL BE MANUALLY TILLED TO A MINIMUM DEPTH OF 4 INCHES, CLODS BROKEN UP TO A MAXIMUM 1 INCH DIAMETER, FINISH GRADED TO 2 INCHES BELOW ADJACENT SURFACES AND UTILITY/IRRIGATION BOXES WITHIN 12 INCHES OF THE HARDSCAPE EDGE, AND A PRE-EMERGENT HERBICIDE APPLIED PRIOR TO WOOD MULCH INSTALLATION. PROTECT EXISTING PLANTING DURING WOOD MULCH PREPARATION AND INSTALLATION.
4. THE ORIGINAL PLANTING OBSERVATION LOG SHALL BE MAINTAINED ON THE AS-BUILT RECORD DRAWING SET.
5. THE AS-BUILT RECORD DRAWING SET AND MAINTENANCE MANUAL SHALL BE SUBMITTED AND ACCEPTED PRIOR TO THE SCHEDULING OF A FINAL ACCEPTANCE REVIEW.

LANDSCAPE PLANTING BID ALLOWANCE:

CONTRACTOR SHALL INCLUDE A BID ALLOWANCE IN THE AMOUNT OF $1,000 FOR THE REMOVAL AND REPLACEMENT OF EXISTING PLANTS/TURFGRASS AND/OR THE INSTALLATION OF NEW PLANTS/TURFGRASS WHERE NOT SPECIFICALLY SHOWN ON THE DRAWINGS FOR REPLACEMENT OR INSTALLATION.

WATER CONSERVATION COMPLIANCE STATEMENT:

I HAVE COMPLIED WITH THE CRITERIA OF THE LANDSCAPE WATER CONSERVATION ORDINANCE AND GUIDELINES, AND HAVE APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE PLANTING DESIGN PLAN.

DAVID W. BRILEY, RLA 2787

LANDSCAPE PLANTING OBSERVATION LOG

ITEM NO.	WORK ITEM DESCRIPTION	REVIEWED & ACCEPTED BY OWNER'S REP OR LAND ARCH: PRINT NAME	SIGNATURE	DATE
PL-1	REPORT & PROTECTION OF EXISTING TREES			
PL-2	RIPPING OF PLANTING AREAS			
PL-3	SOIL CONDITIONING & TILLAGE DEPTH			
PL-4	IRRIGATION COVERAGE PRIOR TO PLANTING			
PL-5	FINISH GRADING PRIOR TO PLANTING			
PL-6	TREES - INITIAL QUALITY & LAYOUT			
PL-7	PLANTS - INITIAL QUALITY & LAYOUT			
PL-8	GRANULAR PRE-EMERGENT HERBICIDE IN MULCHED AREAS			
PL-9	WOOD MULCH DEPTH			

NOTES: THE ORIGINAL VERSION OF THIS LOG SHALL BE MAINTAINED ON THE AS-BUILT RECORD DRAWING SET.
WORK ITEMS MAY NOT BE REVIEWED IF PRIOR WORK ITEMS HAVE NOT BEEN ACCEPTED.

SEE SHEET LS2.2 FOR PLANTING NOTES AND DETAILS

SCALE: 1"=20'
0 5 20 40
SCALE IN FEET

811 Know what's below. Call before you dig.

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MADISON ELEMENTARY SCHOOL
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CD SET

DSA APPL. NO. 02-122191

ENGINEER

ARCHITECT

PROJECT NUMBER 230278

DATE 10/11/2024

REVISIONS

#	DESCRIPTION	DATE
4	ADDENDUM #4	1/15/25

CONSTRUCTION DOCUMENTS

PLANTING PLAN

LS2.1

Plot by: gbautista Jan 15, 2025 - 12:35pm