EXHIBIT B DLR Architects Addendum 02



DLR Group inc.

a California corporation

700 South Flower Street, 22^{nd} Floor Los Angeles, CA 90017

October 9, 2024

ADDENDUM 02

Pre-Bid Revision for Contractors' Incorporation into:

Rosemead Adult Education and Transition Center

El Monte Union High School District

DSA Application No: 03-122743
File No. 19-H10
DLR Group Project No.: 75-20223-02

Prepared By: DLR Group

700 South Flower Street, 22nd Floor

Los Angeles, CA 90017

(213) 800-9400

NOTICE TO BIDDERS:

The following revisions are being made to the Bidding Documents to the above referenced project:

Pre-Bid Requests for Information

The following pre-bid requests for information were received. The responses are incorporated into this Addendum via the answer directly below the RFI.

RFI 34	The finish schedule on A12.1 lists resilient flooring types RF-3 and RF-7. These flooring types were not
	found in spec section 096519 - Resilient Tile or in spec section 096520 - Rubber Flooring. Please clarify.
Answer	Spec sections have been revised to include RF-3 and RF-7.

RFI 35...... The finish schedule on A12.1 indicates the manufacturer for flooring type RF-4 is Mondo. Spec section 096520 - Rubber Flooring paragraph 2.4A indicates the manufacturer is Nora. Please clarify which manufacturer is required.

Answer.....Spec section has been revised to Mondo.

RFI 36......The finish schedule on A12.1, under 126200 - Upholstery, there are two UPH-5 tags. One has a manufacturer listed while the other does not. Please provide this manufacturer. Also, UPH-5 is only found at one location on the drawings, detail 3C/A11.12 at a built-in banquet seat. Do both of these UPH-5 tags apply to the project?

Answer......Disregard the duplicated UPH-5 with missing spec on finish schedule. Refer to the UPH-5 Justin David - Treadway Spec.

RFI 37...... The finish schedule on A12.1, under 097200 - Wallcoverings, there is a GW-1 tag for green wall / preserved moss. This material was not found in spec section 097200 - Wallcoverings. Please provide a spec section for this scope.

Answer.....Added to spec section 10 80 00.

RFI 38...... The finish schedule on A12.1, under 097200 - Wallcoverings, there are tags for AWP-1 and AWP-2 which are indicated to be wood paneling. Please note that, other than this finish schedule, these tags were

	not found on any drawings and they are not identified in any spec section. Please clarify if these two
	finishes apply to the project. If they do please provide a spec section.
Answer	Disregard AWP-1 and AWP-2, these are indicated as NOT IN USE on A12.1
	The finish schedule on A12.1, under 097200 - Wallcoverings, tag WC-5 is a vinyl wallcovering and the manufacturer is Momentum. Please provide a spec section for this finish as spec sections 097200 - Wall Coverings and 097216 - Custom Digital Wall Covering do not list Momentum as an approved manufacturer.
Answer	Contractor to provide basis of design product as indicated in Finish Schedule.
	The finish schedule on A12.1, under 097723 - Fabric Wrapped Panels, tag AC-10 Acoustical / Tackboard is listed. This tag is not identified in spec section 097723. Please clarifySpec section 09 77 23 revised to include AC-1 through AC-10.
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	The finish schedule on A12.1, under 097217 - FRP, tag FRP-1 indicates a smooth finish. But, spec section 097217 - Fiberglass Reinforced Plastic Panels paragraph 2.2A indicates a pebble finish. Please clarify which finish is required.
Answer	Spec section has been revised to be smooth.
	Drawing A13.A shows two corner guards (CG-1) in room A-101A. Please confirm no other corner guards are required in any rooms or corridors of the building.
Answer	Impact resistant panel and corner guards to be provided up to 4' high throughout building.
	Please provide a spec section for quartz countertops identified on finish schedule A12.1 as QZ-1 and QZ-2. Spec section 123551.16 - Solid Surfacing Countertops only identifies coutertop type SS-1 solid surfacing.
Answer	QZ-1 and QZ-2 are indicated in spec section 12 36 61.19.
RFI 44	The finish schedule on A12.1, tab GR-1 is for a perforated metal panel. The manufacturer listed is Moz Designs. This paneling is to go on an exterior guardrail shown on 2/A4.2 and an interior guardrail shown on 3B/A11.12. Spec section 057000 - Decorative Metal applies to laser cut metal panels for railings but the manufacturer listed in the spec is Morin. Please clarify which manufacturer is required for these guardrails.
Answer	Manufacturer Basis of Design to be Morin per spec section 05 70 00. See updated A12.2.
	Regarding the finish schedule on A12.2, tag ACP-4 is listed as 'not in use'. Please note that this finish is called out on details 2A & 2B/A11.12. Please clarify.
Answer	ACP-4 to remain NOT IN USE. ACP-2 to be used in this location.
RFI 46	Please confirm the large existing aluminum storefront shown on 3/A4.2 will not require any new roller window shades.
Answer	No window shades are required at the large existing aluminum storefront shown on 3/A4.2.
	Regarding the finish schedule on A12.2, tag SP-1 indicates a resin material as manufactured by 3Form. Please provide a spec section for this material. Added to spec section 10 80 00.
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RFI 48	Regarding the finish schedule on A12.2, appliance HD-1, Hood, is indicated to be manufactured by Wolf and the model is VC48S. However, spec section 113100 - Residential Appliances paragraph 2.5 indicates this hood is to be a Futuro 48" Positano Island Range Hood IS48. Please clarify which

manufacturer and model is correct.

AnswerHD-1 to be Wolf VC48S. See revised spec section 11 31 00.
RFI 49 On Drawing A13.A, there is an exercise zone in the Courtyard that shows a swing. Please confirm the swing is not part of the scope of work for this project.
AnswerThe swing is not part of the scope of work.
RFI 50
AnswerWC-6 is not required and has been revised to NOT IN USE on A12.1.
RFI 51 Drawings A1.2 and A1.3 are calling for smartboards in numerous rooms. Spec section 101100 - Visua Display Units does not have any information on smartboards such as the manufacturer or model. Can a revised spec be provided that includes this information?
AnswerSmart Boards and TV basis of design specifications are indicated on A12.2. These items will be Owne Furnished and Contractor Installed.
RFI 52Regarding the finish schedule on A12.2, tag T-7 is a backsplash wall tile. This finish was not found or any plans. Please clarify where this finish applies to the project.
AnswerT-7 is not required and has been revised to NOT IN USE. See revised finish schedule.
RFI 53 Please clarify where spec section 10 14 16 – Plaques applies to the project. Answer
RFI 54Spec section 129300 - Site Furnishings, paragraph 2.3 indicates a basketball hoop, tetherball pole and baseball backstop. Please confirm this equipment is not required for this project. AnswerThese items are not required for this project. See revised 12 93 00.
RFI 55Please confirm builder's risk insurance need to include flood and earthquake coverage. AnswerNo flood. Include earthquake in your proposal as an additional option.
RFI 56 Drawing G0.1, has a rendering of the project that appears to show signage on the greenscreen at the entrance to the courtyard. The signage spells 'El Monte Union High School District'. This particular signage is not called out anywhere on the plans. Please clarify if it is required and please provide details for this signage if it is.
AnswerThis signage is not required.
RFI 57 On drawings A1.2C and A1.3C, there is a signage legend that has sign types ER (Exit Route), NSS (No Smoking), FACP (Fire Alarm Control Panel), E (Exit), ES - D (Exit Stair Down), and FSR (Fire Sprinkle Room). Please note that signage detail drawing A10.01 has no details for any of these signs. Please
provide these details. AnswerER, E, and FACP signs are detailed on A10.01. ES-D detail has been added to A10.00. FSR has been added to A10.01. NSS is not required for this project.
RFI 58Please clarify if there is a distinction between the cut vinyl Pro 65 sign at detail 42/A10.01 and the ISA sign at detail 25/A10.01. Also, please clarify how many of each of these signs are required.
AnswerA65 [Detail 42/A10.01] and ISA [Detail 25/A10.01] are required at building entrances as indicated in revised A1.2C.

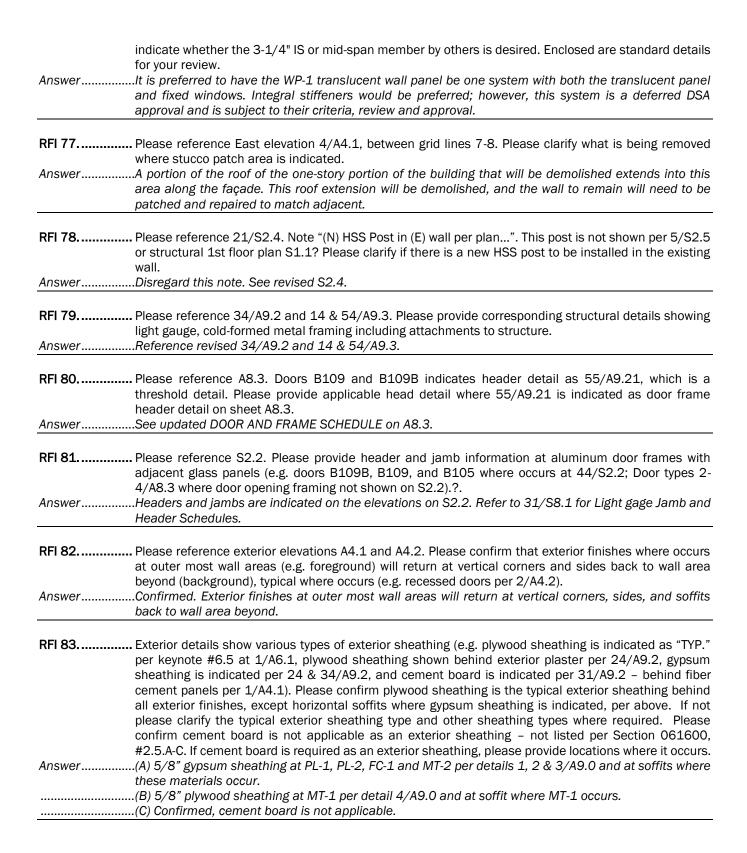
RFI 59...... Detail 12/A10.01 is a No Combustible Material Sign. This sign was not found anywhere in the plans.

Please clarify if any are required and where they are to be placed in the building.

AnswerThis signage is not required.
RFI 60
RFI 61 Detail 35/A0.3 has a 'Gate to Remain Locked' sign. Please clarify how many of these signs are required and where they are to be installed.
AnswerTwo signs per 35/A0.3 are required. Final location to be determined by Owner. See updated G2.1.
RFI 62 Detail 45/A10.02 indicates a smoke curtain rail at the elevator. Please clarify if smoke curtains are required. If they are, please provide a spec section and details. Answer
Answer
RFI 63 Drawing A1.2 shows that Machine Room B-106's width and Machine Room B-111's depth will have to increase to 6'-0" to meet the code-required clearances around the equipment. Will this change will be made via addendum?
AnswerThe manufacturer has indicated that the room dimensions of B-106 and B-111 are sufficient.
RFI 64 The project specifications specify a holeless elevator. As such the drawings need to be revised to accommodate this type of elevator
4'-0" pit depth. Even if the hoist beam were to be removed and a 5'-0" pit depth was applied, the minimum overhead would be dropped to 14'-4". This would still not work as the measurement from the top floor landing to the roof (nearest obstruction) is 13'-8". Due to this, I wanted to provide an alternative.
-If a 6'-0" pit depth was applied instead of 4'-0", then the minimum required overhead would be 13'-4". With the hoist beam removed, this minimum overhead is achievable.
B). For Elevator B-110A, the minimum overhead clear requirement will be 13'-4" based on 13'-0" travel and 4'-0" pit depth. While the hoist beam would also need to be removed, the ledge on the roof is the main issue. Currently, due to that ledge being in the hoistway the overhead is only 12'-1". See attached for a snip from drawing sheet A2.1 for reference.
-If possible, we recommend removal of the ledge or moving the hoistway forward from the ledge. If done, the measurement from the top floor landing to the roof increases to 14'-0". The minimum overhead can be achieved at this point.
AnswerA) For Elevator B-107, the pit depth has been revised to -6'-0". B) For Elevator B-110A, the beam at roof level has been shifted out of the required shaft dimensions. See revised A2.1 and S1.1.
RFI 65 Detail 2A/A2.2 shows an elevation view of room A-101. Letters spelling 'The Kitchen' are on top of a shelf. A detail through these letters (31/A14.8) is spelling 'Farm'. Please clarify if the letters 'Farm' are used anywhere in the project.
AnswerLettering to be 'THE KITCHEN' per 2A/A2.2. FARM is not used.
RFI 66 Keynote 5.20/A1.4 seems to be incomplete. Please clarify the intent of this keynote. See attached drawing.
AnswerKeynote 5.20/A1.4 was revised through Addendum 01.
RFI 67 Detail 2C/A11.12 shows an 85" smart monitor and is called out in several locations. We do not see a specification/basis of design for this product. Please provide a specification for this item. See attached drawing.
AnswerSmart Boards basis of design specification is indicated on A12.2. These items will be Owner Furnished and Contractor Installed.

RFI 68 Sheet A1.2 calls out an "Overhead Mounted Hoist System." There is no information on this system in the plans or specifications. Please provide a specification for this system. See attached drawing.			
AnswerReference 1 & 5/A14.0. Details indicated Likorall patient lift system. Refer to spec section 11 73 00.			
RFI 69 115200-Projector mounting detail-Please provide the m throw projector that is called out in section 115200.			
AnswerProjectors are not applicable to this project. Spec section	on 11 52 00 to be omitted.		
RFI 70	I AV system with ceiling speakers, AV controller		
Installed. Spec section 11 52 00 has been omitted.	tems will be owner runnished and contractor		
RFI 71Per plans-Classroom AV system-IF classrooms are to inte E2.5 and E2.6, then would an Extron wall vault AV syste AnswerAV controls will be Owner Furnished and Contractor Inst	m be acceptable?		
7.110.1101			
RFI 72Per plans-Flat panel display-Detail 51/A14.8 is showing is unclear where this is intended for as the AV spec se floor plans E2.5 and E2.6 do not show any display location displays for this project.	ction 115200 only calls out for projectors and ons. Please clarify the locations of the flat panel		
AnswerLocation of Smart Boards and TVs indicated on A1.2 and Contractor Installed.	nd A1.3. These items will be Owner Furnished		
RFI 73			
RFI 74 We have reviewed the drawings and specifications for show that the existing elevator is to be replaced with a existing elevator is a Montgomery hydraulic elevator. The than the existing hoistway. Additionally, the pit depth Drawings do not show that any modifications are goin questions we have are: Can the existing elevator be replaced. The manufacturer has indicated that the specified KON to accommodate the existing shaft dimensions and a 4 dimension	KONE machine room less elevator (MRL). The ne space requirements for the MRL are greater should be 5'-0" instead of the existing 4'-0". In the laced with a hydraulic elevator? JE Monospace 500 EB flex product is designed.		
RFI 75. We have reviewed the drawings and specifications for show that the existing elevator is to be replaced with a existing elevator is a Montgomery hydraulic elevator. The than the existing hoistway. Additionally, the pit depth Drawings do not show that any modifications are goin questions we have are: Can the existing hydraulic elevator. No, the Owner would like to replace the existing elevator.	KONE machine room less elevator (MRL). The ne space requirements for the MRL are greater should be 5'-0" instead of the existing 4'-0". In the space made to accommodate the MRL. The stor be modernized in lieu of replacement?		
RFI 76 Window Type GG + HH: Is it preferred that the lower sector be factory unitized to include both the translucent pane be delivered to the site for quick installation, saving both AAMA/ANSI Performance Class: PI-AW60, PO-AW70, an criteria provided for the project, the unitized system at stiffener battens or a mid-span member by others (can opening with (2) fixed sash (using a 2-3/4" panel system.	el and fixed windows? Pre-assembled units can h time and money. The standard windows meet d F-AW80. To meet the specific design loading Opening GG (only) would require 3-1/4 integral be located above the windows) to span the 13'		

opening with (2) fixed sash (using a 2-3/4" panel system). If a factory unitized system is desired, please



	Please reference 1st floor plan, A1.2 and 2nd floor plan, A1.3. Some wall type tags are blank (e.g. Classroom B-109 wall along grid line 8.1, RR B-103A wall along grid line 10, perimeter walls at elevators B-107 and B-110A – both floors, interior chase wall between RR's A-107 and A-108). Please provide wall type information at blank wall tags. Please provide wall type information at Classroom B-101 interior partial height wall shown per 5/A6.3. Please provide typical wall type at un-tagged walls where occurs at both existing building area and new building additionSee updated A1.2 and A1.3. Refer to General Architectural Note 'C' and revised REMODEL PLAN LEGEND.
RFI 85	Section 054000 Cold-Formed Metal Framing, #1.4.B calls for shop drawings. However, the cold-formed metal framing is not listed as a deferred submittal on sheet G1.1. Typically, we cannot deviate from approved DSA drawings. Please confirm if shop drawings by a professional engineer are required or if we are to follow the current DSA approved drawings without shop drawings. If shop drawings are required, please clarify if they are required for both exterior framing and interior non-load bearing framing.
Answer	Per DSA approved drawing S0.2, Submittal section, note 1; product data and shop drawings are required for cold formed steel. This will include all exterior framing, interior soffits and special interior walls designed to support the weight of equipment per detail 51/S8.4. Typical interior wall framing does not need to be included in shop drawing submittals. Shop drawings to be completed by a professional engineer. Additional developments based on submittal review might be requested at the discretion of the SEOR.
	Please reference A1.4. Please provide missing description for keynote #5.20Keynote 5.20/A1.4 was revised through Addendum 01.
RFI 87 <i>Answer</i>	Will on-site, no cost, parking be provided for subcontractors?Yes.
	I've noted that the overall contract time is 547 calendar days (approximately 18 months) and tentative overall start date is mid-late November, 2024. Is there any more specific schedule information available? Will there be a gap in each subcontractor's schedule when comparing their work in the existing building area vs. the new building addition?Please revert to Article 2 – Time of Completion for schedule submission. No there are no scope gaps.
	Please reference A1.2, General Architectural Note #G. Control joints not found shown on drawings. Please provide locations, and applicable detail, where required at new exterior plaster areas. Please also confirm if any are required at gypsum board. If so, please provide locations, and applicable detail, where required at gypsum board. Typical control joint at plaster detail added in 9/A9.0. Control joints to be provided as indicated in applicable space sections.
RFI 90	Please provide detail at structural horizontal drift joint (+10'-0") where occurs at new walls with exterior plaster. Please confirm this is the only structural expansion joint that occurs within the exterior plaster areas. Please confirm the metal stud framing can be continuous at flashing shown at +7'-0" per 2/A6.4 ('L' flashing, with drip edge, installed over exterior, outer face of continuous exterior sheathing only)Reference drift joint as detailed on 36/S8.1. See new nested track details 10 & 11/A9.0. Metal stud framing to be continuous at flashing shown at +7'-0" per 2/A6.4. Refer to FC to PL transition detail 7/A9.0.

RFI 91...... Please reference A1.2, General Architectural Note #F. Detail 11/S0.8 not found - please provide

metal backing, where required, occurs at metal stud walls. Otherwise, please clarify.

applicable detail (s). Please confirm if wood blocking, where required, occurs at wood stud walls and

Answer	AnswerSee revised GENERAL ARCHITECTURAL NOTE #F on A1.2. Confirmed, wood blocking to be provide wood stud walls and metal backing to be provided at metal stud walls.		
	Please provide typical detail where gypsum board will be directly attached to exposed CMU wallsReference revised 1/A8.2. Gypsum board will be attached to CMU with either metal stud or hat channels.		
RFI 93			
RFI 94	where indicated in the plans and specifications. Please confirm the texture at all new exterior plaster is to be smooth per Pl-1 and Pl-2 description/A4.1. Please confirm all existing plaster is to remain and be painted only as noted, except for patching at new balcony tie-in per 2/A4.2 and new doors where shown. Please confirm door A118B is new (at existing		
Answer	wall) – there is conflicting information on the door schedule/A8.3 (details indicated vs. comments)Texture at all new exterior plaster to be per revised description on A4.1 & A4.2 as issued in Addendum O1. All existing plaster to remain is to be painted per GENERAL ARCHITECTURAL ELEVATION NOTES on A4.1 & A4.2. Existing finishes to be patched and repaired per GENERAL ARCHITECTURAL ELEVATION NOTES on A4.1 & A4.2. Door A118B is new reference revised DOOR AND FRAME SCHEDULE as issued in Addendum O1.		
	Please confirm builder's risk insurance need to include flood and earthquake coverage. Refer to Pre-Bid RFI #55.		
	Sheet A11.2, Enlarged Restroom Plans and Elevations, detail 5E indicates tile base only at this elevation, whereas similar elevations (1A, and 2B) show a tile wainscot. Similarly, 2C/A11.3 indicates tile base only at the door wall, whereas similar elevations (1C, 2D, and 3D) show a tile wainscot. Please advise if the tile base only elevations should be a tile wainscot for consistency with similar elevations5E/A11.2 and 2C/A11.3 revised to have 3 full tiles, at 3' high.		
	Sheet A11.3, Enlarged Restroom Plans and Elevations, detail 3A (floor plan), Restroom B-104A indicates P-9 at north and partial west wall. Detail 3C, north wall elevation, shows tile. Please advise if the north wall should be similar to detail 3D, west wall elevation (at door - 3'0" high tile wainscot). P-9 accent paint apply to non-wet wall, align with top of tile and door height. Refer to elevations 3D/A11.3 and 3C/A11.3.		
	At restrooms with cabinets (example, 5F/A11.2 and 1A/A11.2), is tile required behind the cabinets?Tile is not required behind built-in millwork. refer to tall cabinet details on A14.5.		
	E0.4 SLD has no Feeder Schedule. Please provide the scheduleFeeder schedule provided on E0.4.		
	Sheet A12.2, Finish Schedule, Tag MTB-1 indicates Schluter Dilex-AHKA metal cove base, however detail 53/A14.9 shows a porcelain tile cove base. Additionally, the Restroom General Notes on sheet A11.1, item J, references T-6B, which one would assume as tile base, but is not listed on the Finish Schedule. Please advise which base is to be usedDisregard T-6B on sheet A11.1 item J. Omit tile base. Detail 53/A14.9 revised as shown. All wall base to be MTB-1 at restroom throughout.		

RFI 101 Sheet A12.2, Finish Schedule, Tag T-7 is called out for the Transition Center Skill Lab, Servery, however it is not found on the finish plan (A13.A), or the Enlarged Floor Plan and Elevations (A2.2). Where, or is, T-7 used?
AnswerT-7 is not used.
RFI 102Sheet A11.8, Detail 3C (elevation), does the brick (BR-1) get wrapped on the backside of the wall (hallway side)?
AnswerBR-1 will wrap around the wall, to the sides and on the hallway side, refer to finish plan A13.A.
RFI 103
RFI 104
RFI 105
RFI 106
RFI 107 Sheet A12.2, Finish Schedule, Tag T-7 is called out for the Transition Center Skill Lab, Servery, however it is not found on the finish plan (A13.A), or the Enlarged Floor Plan and Elevations (A2.2). Where, or is, T-7 used?
AnswerPlease refer to Pre-Bid RFI 101.
RFI 108Sheet A11.8, Detail 3C (elevation), does the brick (BR-1) get wrapped on the backside of the wall (hallway side)?
AnswerPlease refer to Pre-Bid RFI 102.
RFI 109 Please provide a geotechnical report for the project. AnswerRefer to Addendum 01. The geotechnical report was issued as a part of Addendum 01.
RFI 110Please provide an asbestos abatement report for the project. AnswerNo abatement report to be provided based on Abatement samples were tested and results were negative.
RFI 111Please provide slab on grade subbase material and depth requirements. AnswerRefer to 54/S3.1 and the Geotechnical Report provided as a part of Addendum 01.

RFI 112......Typical concrete detail 11/S3.2 shows the slab on grade thickening directly over the foundations. Please

advise if thickened slab on grade is required at foundations deepened over 18" from finish floor.

Answer	Refer to section cut as detailed in 34/S3.4. For foundations other than the elevator pit, refer to the pertinent section cut.
RFI 113	Please confirm it is acceptable to use Rugasol (Sika Rugasol S) for amplitude in lieu of mechanical roughening.
Answer	Product does not have any ESR or IAPMO to back the effectiveness of produced roughness. Therefore, it is not acceptable for structural applications.
	The foundation schedule on structural sheet S1.1 does not include the footing width. Please provide the width requirements for the shearwall SWF & moment frame MF continuous footing widthsSee revised S1.1 for footing dimensions.
Allower	occ revised 01.1 for footing difficusions.
	be factory unitized to include both the translucent panel and fixed windows? Pre-assembled units can be delivered to the site for quick installation, saving both time and money. The standard windows meet AAMA/ANSI Performance Class: PI-AW60, PO-AW70, and F-AW80. To meet the specific design loading criteria provided for the project, the unitized system at Opening GG (only) would require 3-1/4 integral stiffener battens or a mid-span member by others (can be located above the windows) to span the 13' opening with (2) fixed sash (using a 2-3/4" panel system). If a factory unitized system is desired, please indicate whether the 3-1/4" IS or mid-span member by others is desired. Enclosed are standard details for your review.
Answer	Please refer to Pre-Bid RFI 76.
	Elevation 3/A4.1 shows PL-1 & PL-2 on each contiguous section of plaster on the existing building to be painted. Other elevations showing the existing building have sections of existing plaster without PL-1 or PL-2. Please clarify if only those marked sections are to be painted, or if all existing plaster should be painted. See attached drawing for referenceAll existing plaster should be painted to match PL-1 or PL-2. See General Notes on A4.1, A4.2.
	Sheet A8.4 shows vertical sunshades with detail 24/A9.2 Detail is not a sun shade and does not fit to any location shown to take sun shades. Will the correct detail be provided so the bidders know what the sun shades are?
Answer	A detail for sunshades has been added to A9.26.
RFI 118	On sheet A4.1 elevation 3, there is a window with a missing tag. What window is this? See attached drawing for reference.
Answer	Window tag at 2 nd floor window between grid line 9.3 and 9.1 was updated to DD through Addendum 01.
	Sheet A8.4 shows details all over the page that don't fit the locations noted and can't be used for the windows Will the Architect review the attached sheet and look up each blue highlighted detail and correct them with details that work for the locations shown? Page can't be bid correctly with information currently on sheet provide the correct detail for the sun shadesSee revised A8.4. A detail for sunshades has been added to A9.26.
RFI 120	Please advise what steel falls under the "Delegated Design" as identified in the steel specs 05 12 00 - 2, 1.6, D.
Answer	None for this project. Connections have already been designed and detailed according to the governing building code requirements.

RFI 121	Sheet A4.1 elevation 4 shows detail 24/9.2 which does not fit in called out location. Please advise what goes here.
Answer	Detail reference has been updated. Reference revised A4.1.
RFI 122	Regarding ACP-3 (Arktura Soft Grid / Flux) product: Please clarify dimension of the Typical cloud. Det. 43/A14.3, for Typical cloud, shows a size 5'-9" x 6'-1". However, when measured from det.21/A14.3,
Answer	it appears to be 5'-9" x 5'-1" (see screenshots below). ACP-3 dimensions are 5'-9" (module boundary) and 6'-1" (module extents). Refer to manufacturer product specifications.
RFI 123	It is difficult to determine how many clouds are needed on Level 2 (see detail 23/A14.3). Please clarify the number of Typical Clouds (5'-9" x 5'-1") that need to be installed in the Open Collab #B-200, Level 2?
Answer	Cluster of (8) standard modules.
	Specifications show an Informacast headend, Atlas speakers and Cisco POE switch. However, the symbol list on sheet EO.2 shows Algo speakers. Please clarify what system equipment and licences are to be provided? Are the headend, licences, and Cisco switch Owner Furnished?
Answer	This equipment will be Owner Furnished and Contractor Installed.
RFI 125	Specifications call out Aerohive Networks or equivalent fully compatible equipment. Aerohive has been acquired by Extreme Networks. Please clarify the wireless system is OFE or provide updated specifications for the WAPs?
Answer	The WAPs will be Owner Furnished and Contractor Installed.
RFI 126	An emergency responder communication enhancement system (ERCES) is not shown in plans and spec's, but is code required. Please verify there is an existing system or that this scope is to be provided for this project.
Answer	An ERCCS system is not a part of the scope of work.
RFI 127	Specifications call for a Bosch CCTV system and section 3.4.E.1. (27 10 01 - 47 OF 60) says "refer to drawings for camera locations." The Drawings do not show cameras. Please provide camera drawings or a detailed BOD to follow.
Answer	The cameras will be Owner Furnished and Contractor Installed.
RFI 128	Drawing sheet E3.0 shows the IDS system riser diagram and the floor plans show the devices. Please provide specifications for the intrusion detection system that is to be provided.
Answer	Specification for system provided in specification section 28 16 00.
	Door hardware section 2.11Electronic Access Control Locksets and Exit Device Trim states to "see Division 28". Section 3.7 Door Hardware Schedule shows AD-400 electronic locksets to be provided, installed, and commissioned by the Security Contractor (Div 28). These locksets are called out for hardware sets 01,02,03,07,08,09,29 yet the door schedule on sheet A8.3 does not show all of these hardware sets on doors that are existing. Please provide Division 28 specifications for the access control system that is to be provided.
Answer	Reference updated DOOR AND FRAME SCHEDULE on A8.3 and Access Control specification section 28 10 00 as provided in Addendum 01.

A. PROJECT MANUAL - Narrative of Changes

1. SECTION 00 01 10 - TABLE OF CONTENTS

- A. ADDED new specification section 09 96 23 under Division 09 Finishes.
- B. OMITTED specification section 11 52 00 under Division 11 Equipment.
- C. ADDED new specification section 12 36 61.19 under Division 12 Furnishings.
- D. ADDED new specification section 28 16 00 under Division 28 Electronic Safety and Security.
- E. REPLACED entirely specification section 28 31 00 under Division 28 Electronic Safety and Security.

2. SECTION 08 41 13 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

- A. Revised Section 1.3.
- B. Added Custom Sun Shades, Section 2.4.

3. SECTION 09 29 00 - GYPSUM BOARD

- A. Omits Texture Finishes.
- B. Added Information of Gypsum Board Finish Levels, Section 3.6, D.

4. SECTION 09 30 13 - CERAMIC TILING

A. Revised Tile Products, Section 2.3.

5. SECTION 09 65 19 - RESILIENT TILE FLOORING

A. Revised Products, Section 2.2, 2.3.

6. SECTION 09 65 20 - RUBBER FLOORING

A. Revised Products, Section 2.3, 2.4, 2.5.

7. SECTION 09 72 00 - WALL COVERINGS

A. Revised Products, Section 2.2.

8. SECTION 09 72 17 - FIBERGLASS REINFORCED PLASTIC PANELS

A. Revised Products, Section 2.2.

9. SECTION 09 77 23 - FABRIC-WRAPPED PANELS

A. Revised Fabric-Wrapped Wall Panels, Section 2.3.

10. SECTION 09 96 23 - GRAFFITI RESISTANT COATINGS

A. ADDED new specification section.

11. SECTION 10 21 13.19 - PLASTIC TOILET COMPARTMENTS

A. Revised Materials, Section 2.4.

12. SECTION 10 26 00 - WALL AND DOOR PROTECTION

- A. Revised Summary, Section 1.2.
- B. Revised Action Submittals, Section 1.3.
- C. Added Abuse Resistant Wall Coverings, Section 2.4.
- D. Revise Execution, Sections 3.1, 3.3.

13. SECTION 10 80 00 - MISCELLANOUS SPECIALTIES

- A. Added Section 2.1, B.
- B. Added Section 2.1, C...

14. SECTION 11 31 00 - RESIDENTIAL APPLIANCES

- A. Added Section 1.1, B.
- B. Revised HD-1, Section 2.5,A.

15. SECTION 12 36 61.19 - QUARTZ AGGLOMERATE COUNTERTOPS

A. ADDED new specification section.

16. SECTION 12 48 13 - ENTRANCE FLOOR MATS

A. Revised Resilient Tile Entrance Mats, Section 2.2.

17. SECTION 12 93 00 - SITE FURNISHINGS

- A. Omit Indoor Bicycle Racks.
- B. Omit Sports Equipment.

18. SECTION 28 16 00 - INTRUSION DETECTION SYSTEM

A. ADDED new specification section.

19. SECTION 28 31 00 - ANALOG ADDRESSABLE FIRE ALARM SYSTEM

A. REPLACED entire specification section in its entirety.

B. DRAWINGS - Narrative of Changes

1. SHEET G2.1 - OVERALL SITE PLAN

A. Added Note 32.25.

2. CITY OF ROSEMEAD OFF-SITE STREET IMPROVEMENT PLANS ARE HEREBY ADDED TO THE CONSTRUCTION DOCUMENTS

- A. NEW SHEET ADDED NEWBY AVENUE TITLE SHEET, Sheet 1 of 3
- B. NEW SHEET ADDED NEWBY AVENYE WATER AND FIRE WATER IMPROVEMENT PLAN, Sheet 2 of 3
- C. NEW SHEET ADDED NEWBY AVENUE STANDARD DRAWINGS, Sheet 3 of 3

3. SHEET A1.2 - FIRST FLOOR PLAN

- A. Added Note O, P, Q on GENERAL ARCHITECTURAL NOTES.
- B. Revised Note F on GENERAL ARCHITECTURAL NOTES.
- C. Updated REMODEL PLAN LEGEND.
- D. Wall type tags updated/added for various walls.
- E. Added detail reference 11/A9.3 at ELEV B-110A.

4. SHEET A1.2C - FIRST FLOOR SIGNAGE PLAN

- A. Added A65, RCS, ER and EEM signs in various locations.
- B. Update to SIGNAGE LEGEND and SIGNAGE NOTES.

5. SHEET A1.3 - SECOND FLOOR PLAN

- A. Added Note O, P, Q on GENERAL ARCHITECTURAL NOTES.
- B. Revised Note F on GENERAL ARCHITECTURAL NOTES.

- C. Updated REMODEL PLAN LEGEND.
- D. Wall type tags updated/added for various walls.
- E. Added detail reference 11/A9.3 at ELEV B-110A.
- F. Edge of casework adjusted.

6. SHEET A1.3C - SECOND FLOOR SIGNAGE PLAN

- A. Added RCS, FSR, ER, ES-D, EEM and EEM-S sign in various locations.
- B. Update to SIGNAGE LEGEND and SIGNAGE NOTES.

7. SHEET A2.1 - ENLARGED ELEVATOR PLANS & SECTION

- A. Revised pit and overhead depth at ELEV-107 in 52/A2.1.
- B. Revised beam location and overhead clearance at ELEV-B110A, omit detail reference in 53/A2.1.

8. SHEET A2.2 - ENLARGED FLOOR PLAN AND ELEVATIONS - KITCHEN & SERVERY

A. Added NOTE at KITCHEN EQUIPMENT SCHEDULE.

9. SHEET A3.2 - FIRST FLOOR REFLECTED CEILING PLAN

A. Added KEYNOTE 11.01 to rooms B-109 and B-109A.

10. SHEET A4.1 - EXTERIOR ELEVATIONS

- A. Revised 4/A4.1 to update detail reference at section indicated between grid lines 8.1 and 8.6.
- B. Added PL-1 and PL-2 tags to 4/A4.1.
- C. Added detail references in at nested track locations.
- D. Added GENERAL ARCHITECTURAL ELEVATION NOTES.

11. SHEET A4.2 - EXTERIOR ELEVATIONS

- A. Added GENERAL ARCHITECTURAL ELEVATION NOTES.
- B. Added detail references at nested track locations.

12. SHEET A6.1 - WALL SECTIONS

A. Updated 4/A6.1.

13. SHEET A8.2 - WALL TYPES - WOOD AND CMU

A. Updated 1/A8.2.

14. SHEET A8.3 - DOOR & FRAME TYPE & SCHEDULE

A. Updated HEAD DETAIL references for various doors.

15. SHEET A8.4 - WINDOW TYPES & SCHEDULE

- A. Updated detail references for various windows.
- B. Omit vertical sunshades at HH.

16. SHEET A9.0 - EXTERIOR DETAILS & WALL TYPES

A. Added detail 7, 9, 10 & 11/A9.0.

17. SHEET A9.2 - EXTERIOR DETAILS

A. Revised detail 34/A9.2.

18. SHEET A9.3 - EXTERIOR DETAILS

B. Revised details 14 & 54/A9.3.

19. SHEET A9.26 - STOREFRONT WINDOW DETAIL

A. Added details 33, 42, 43, 46, 52 and 53/ A9.26.

20. SHEET A10.00 - SIGNAGE DETAILS

A. NEW SHEET ADDED with Emergency Evacuation Map and Exit Stair Down details.

21. SHEET A10.01 - SIGNAGE DETAILS

A. Revised detail 36/A10.01 to include FSR sign information.

22. SHEET A10.02 - ELEVATOR CAB DETAILS

- A. Revised 45/A10.02 to remove reference to smoke curtain.
- B. Finish tag update from PL-11 to PL-14. PL-11 assigned to high impact resistance laminate typical, refer to finish schedule A12.2.

23. SHEET A11.2 - ENLARGED RESTROOM PLANS AND ELEVATIONS

- A. Updated to have 3 tiles base for consistency.
- B. Revise Note J.

24. SHEET A11.3 - ENLARGED RESTROOM PLANS AND ELEVATIONS

- A. Updated to have 3 tiles base for consistency.
- B. Revise Note J.

25. SHEET A11.8 - INTERIOR ELEVATIONS - TRANS. CTR LEVEL 1

A. Updated interior elevations to provide PL-11, PL-12, PL-13 (impact resistant wall panel) throughout.

26. SHEET A11.9 - INTERIOR ELEVATIONS - TRANS. CTR LEVEL 1 - CLASSRM, HEALTH OFFICE, STAFF LOUNGE

A. Updated interior elevations to provide PL-11, PL-12, PL-13 (impact resistant wall panel) throughout.

27. SHEET A11.10 - INTERIOR ELEVATIONS - TRANS. CTR. TYP. CLASSROOMS, SKILL LAB

- A. Updated interior elevations to provide PL-11, PL-12, PL-13 (impact resistant wall panel) throughout.
- B. Omit suspended hood at various elevations.

28. SHEET A11.11 - INTERIOR ELEVATIONS - TRANS. CTR. TYP. - CLASSROOMS, IEP, PRINT/WORK RM.

A. Updated interior elevations to provide PL-11, PL-12, PL-13 (impact resistant wall panel) throughout.

29. SHEET A11.12 - INTERIOR ELEVATIONS - ADULE ED. BDLG

A. Updated interior elevations to provide PL-11, PL-12, PL-13 (impact resistant wall panel) throughout.

30. SHEET A12.1 - FINISH SCHEDULES

- A. Updated tags, spec section numbers, products, and comments for clarification.
- B. Added note J to ROOM FINISH SCHEDULE GENERAL NOTES.

31. SHEET A12.2 - FINISH SCHEDULES

- A. Updated tags, spec section numbers, products, and comments for clarification.
- B. Added note J to ROOM FINISH SCHEDULE GENERAL NOTES.
- C. Added EQUIPMENT SPECIFIC NOTES.

32. SHEET A14.6 - CASEWORK DETAILS

A. Provide clarity on custom millwork, isometric view added with updated millwork.

33. SHEET A14.9 - MISC. DETAILS

A. Metal cove base detail provided for clarity.

34. SHEET S1.1 - LEVEL 1 STRUCTURAL PLAN

- A. Dimensions included for foundation width.
- B. Elevator pit TOC modified to -6'-0".

35. SHEET S1.3 - ROOF STRUCTURAL PLAN

A. Relocation of elevator beam to align with the beam on the second floor.

36. SHEET S2.4 - ENLARGED CANOPY PLANS

A. Note indicated an HSS on (E) building eliminated.

37. SHEET S3.2 - TYPICAL CONCRETE DETAILS & FOUNDATION SCHEDULES

A. Modification of 55/S3.2.

38. SHEET S3.3 - CONCRETE SECTIONS

A. Modification of 51/S3.3, elevator pit plan view.

39. SHEET S3.4 - CONCRETE SECTIONS

A. Modification of elevator pit section cuts.

40. SHEET S3.6 - DETAILS

A. Modification of elevator pit section cut 56/S3.6.

41. SHEET MO.2 - MECHANICAL SCHEDULES

- A. Revised remarks on AC schedule
- B. Revised building location for EF-7 on exhaust fan schedule.
- C. Revised remarks for EF-7 on exhaust fan schedule.

42. SHEET MD2.1 - MECHANICAL DEMOLITION PLAN - LEVEL 1

- A. Demo additional existing ductwork.
- B. Added POD.

43. SHEET MD2.2 - MECHANICAL DEMOLITION PLAN - LEVEL 2

- A. Removed demo for exhaust air duct to remain existing.
- B. Added POD.

44. SHEET M2.1 - MECHANICAL PLAN - LEVEL 1

- A. Adjusted ductwork sizes.
- B. Adjusted ductwork routing for classroom B-101 and B-103.
- C. Revised refrigerant pipe to show both suction and liquid lines.
- D. Adjusted ZD-1-4 to have additional space.
- E. Added thermostats in missing locations.
- F. Adjusted thermostat location for ZD-1-3.
- G. Adjusted some existing ductwork to show as new.
- H. Added missing tags.
- I. Added POC to missing locations.
- J. Added sheet note.

45. SHEET M2.2 - MECHANICAL PLAN - LEVEL 2

A. Adjusted ductwork sizes.

- B. Revised refrigerant pipe to show both suction and liquid lines.
- C. Added thermostats in missing locations.
- D. Removed POC at some locations and adjusted new ductwork to show as existing.
- E. Added missing ductwork size tags.
- F. Added EAD UTR to designated EF.
- G. Adjusted ductwork connections to zone dampers.
- H. Added sheet note 1.
- I. Added missing volume dampers.
- J. Adjusted volume damper's locations.
- K. Revised duct routing for EF-5.
- L. Revised existing duct drops sizes.
- M. Added POC for new diffuser.
- N. Added BD-1 and BD-2.
- O. Added additional ductwork.
- P. Revised duct work.
- Q. Added lining for portions of main duct for AC-1.

46. SHEET M3.1 - MECHANICAL ROOF PLAN

- A. Revised refrigerant pipe to show both suction and liquid lines.
- B. Renamed split system tags to match schedule.
- C. Added sheet note 1.
- D. Adjusted EF-5 location to be 10' away from OSA intake.

47. SHEET PO.2 - PLUMBING SCHEDULES AND DETAILS

- A. Revised Expansion Tank Schedule.
- B. Revised Circulating Pump Schedule.

48. SHEET P2.1 - PLUMBING PLAN - LEVEL 1

- A. Revised Sheet Notes #3-6.
- B. Added Sheet Note #11.
- C. Added Condensate (CD) pipe routing and sizing from FC @ Elev Rm B106.
- D. Revised pipe routing at Restrooms A110 & A111.
- E. Added cold water piping @ Staff Lounge A106.
- F. Added sheet notes, pipe sizing and point of connection (POC) for clarity of scope.

49. SHEET P2.2 - PLUMBING PLAN - LEVEL 2

- A. Revised Sheet Notes #3-4.
- B. Added Sheet Note #11
- C. Revised pipe routing at Restrooms A209 & A210.
- D. Added sheet notes and pipe sizing for clarity of scope.

50. SHEET E0.2 - ELECTRICAL SYMBOLS LIST AND ABBREVIATIONS

A. Added symbol for vape sensor.

51. SHEET E0.3 - LIGHTING FIXTURE SCHEDULE AND NOTES

A. Added fixture type "V/5".

52. SHEET EO.4 - SINGLE LINE DIAGRAM

A. Added feeder schedules for "DBHB" and "DBLB".

53. SHEET E2.1 - LIGHTING PLAN - LEVEL 1

A. Added light fixtures in the courtyard.

54. SHEET E2.2 - LIGHTING PLAN - LEVEL 2

A. Added light fixtures in Space B-200-18, Classroom B-208, and Classroom B-209.

55. SHEET E2.3 - POWER PLAN - LEVEL 1

A. Added receptacles in the courtyard. Added power for by-pass damper. Added sheet note 20.

56. SHEET E2.4 - POWER PLAN - LEVEL 2

A. Added power for by-pass dampers. Added sheet note 13.

57. SHEET E2.5 - COMMUNICATION PLAN - LEVEL 1

- A. Added Sheet Note 1. Added infrastructure for video intercom.
- B. Added additional locations for speakers, cameras, wireless access points, vape sensors, and a card reader.

58. SHEET E2.6 - COMMUNICATION PLAN - LEVEL 2

A. Added additional locations for speakers, cameras, wireless access points, and vape sensors.

59. SHEET E3.0 - COMMUNICATION SYSTEMS RISER DIAGRAM

- B. Added On detail 1, added cameras and vape sensors. Adjusted quantity of cables for wireless access points. Adjusted colors for cabling.
- C. On detail 3, revised requirement for new security system panel. Revised note 5.

INCLUDED ATTACHMENTS:

Drawings: G2.1;

CITY OF ROSEMEAD IMPROVEMENT PLANS, sheets 1 through 3;

A1.2, A1.2C, A1.3, A1.3C, A2.1, A2.2, A3.2, A4.1, A4.2, A6.1, A8.2, A8.3, A8.4, A9.0, A9.2, A9.3, A9.26, A10.00, A10.01, A10.02, A11.2, A11.3, A11.8, A11.9, A11.10, A11.11, A11.12, A12.1, A12.2, A14.6, A14.9;

\$1.1, \$1.3, \$2.4, \$3.2, \$3.3, \$3.4, \$3.6;

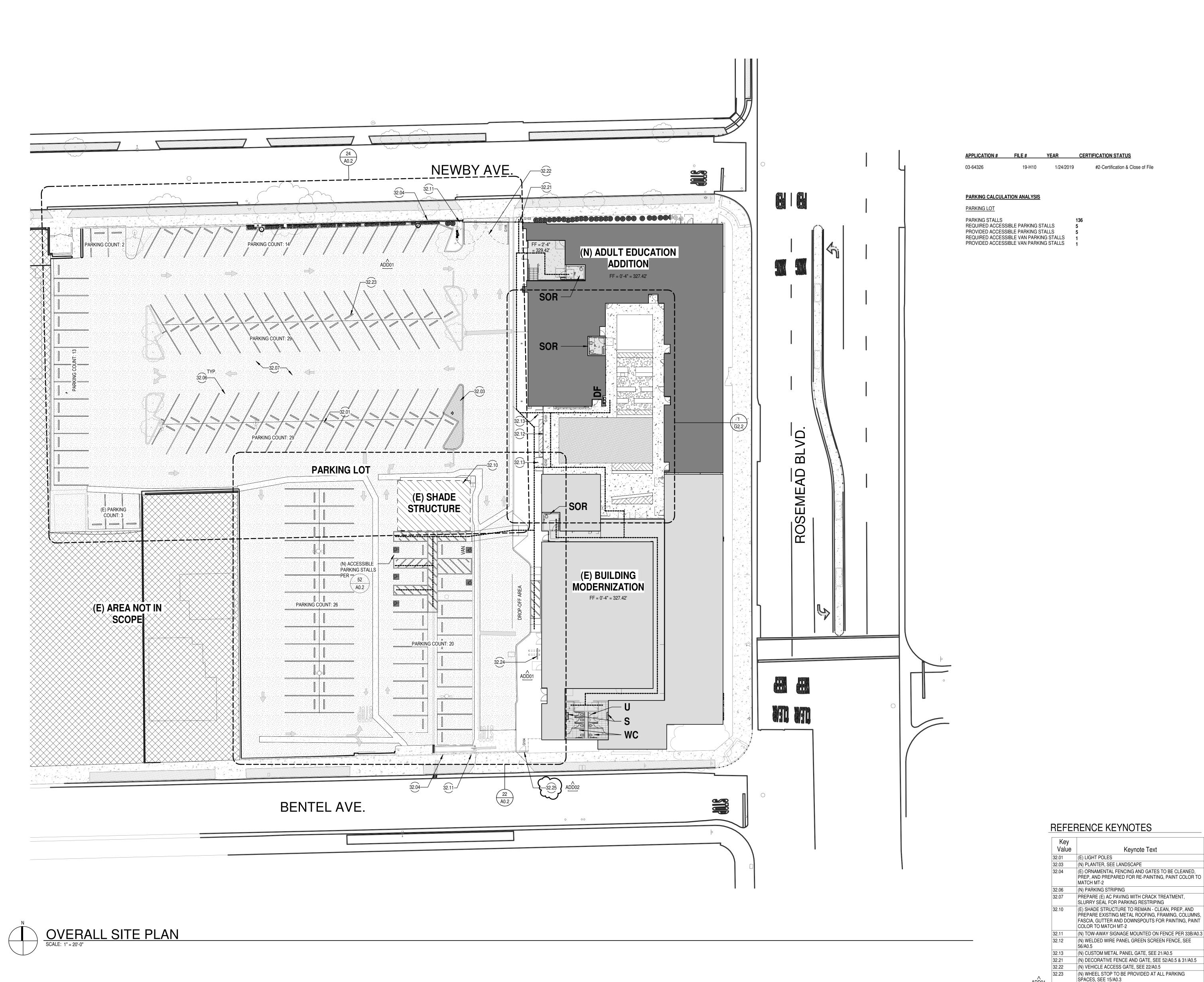
M0.2, MD2.1, MD2.2, M2.1, M2.2, M3.1;

P0.2, P2.1, P2.2;

E0.2, E0.3, E0.4, E2.1, E2.2, E2.3, E2.4, E2.5, E2.6, E3.0

Specification Sections: 00 01 10, 08 41 13, 09 29 00, 09 30 13, 09 65 19, 09 65, 20, 09 72 00, 09 72 17, 09 77 23, 09 96 23, 10 21 13.19, 10 26 00, 10 80 00, 11 31 00, 12 36 61.19, 12 48 13, 12 93 00, 28 16 00, 28, 31 00

**** END OF ADDENDUM 02 ****



GENERAL NOTES - SITE PLAN:

1. AT NEW UTILITY TRENCHES, CONTRACTOR TO SCAN WITH GROUND PENETRATING RADAR ALONG THE PROPOSED AND/OR POT HOLE TO DETERMINE IF ANY EXISTING UTILITIES ARE IN THE WAY OF THE NEW UTILITY ROUTE. CONTRACTOR IS WHOLLY RESPONSIBLE FOR DAMAGE TO EXISTING

UNDERGROUND UTILITES AND RESULTING DAMAGE. 2. AT NEW PAVING, CONTRACTOR TO PROTECT IN PLACE EXISTING UTILITY MANHOLES, BOXES, CLEANOUTS, OR CATCH BASINS THAT ARE TO REMAIN. RAISE OR LOWER THE UTILITIES TO BE FLUSH WITH THE NEW PAVING SURFACE. 3. CAP AND RELOCATE EXISTING IRRIGATION LINES AS REQUIRED FOR SCOPE OF WORK. TURF AND OTHER PLANTING MUST BE PROTECTED AND RETURNED TO ITS

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE

ORIGINAL CONDITION OR REPLACED.

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ddition/

THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE

NONCOMPLIANT 1) HAVE BEEN IDENTIFIED AND 2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT PRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

PATH OF TRAVEL STATEMENT:

PATH OF TRAVEL (P.O.T.) AS INDICATED, IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAXIMUM SLOPE EXCEPT LEVEL CHANGES THAT DO NOT EXCEED 1/4" VERTICAL AS PER CBC 11B-302 AND 11B-303. PATH OF TRAVEL SURFACE SHALL BE STABLE, FIRM, AND SLIP RESISTANT AND OPENINGS IN SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" IN DIAMETER AND SHALL COMPLY WITH (CBC 11B-302). CROSS-SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48 (2%) AND SLOPE IN THE DIRECTION OF TRAVEL SHALL NOT BE STEEPER THAN 1:20 (5%) UNLESS OTHERWISE INDICATED. (CBC

PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTION TO 80" MINIMUM. PROTRUDING OBJECTS WITH LEADING EDGES MORE THAN 27" AND NOT HORIZONTALLY AS PER

PATH OF TRAVEL SHALL MAINTAIN CLEAR WIDTHS AS PER CBC

THE PRIMARY ACCESSIBLE PATH OF TRAVEL SHALL INCLUDE CBC

1. A PRIMARY ENTRANCE TO THE BUILDING OR FACILITY 2. TOILET AND BATHING FACILITIES SERVING THE AREA 3. DRINKING FOUNTAINS SERVING THE AREA

AS INDICATED THE PATH OF TRAVEL SHALL PROVIDE GENERAL ACCESSIBILITY AND MAY CONSIST OF A COMBINATION OF THE FOLLOWING CODE COMPLIANT, ACCESSIBLE ELEMENTS:

1. ENTRANCE, EXITS 2. CURB RAMPS WITH FLUSH TRANSITIONS TO BOTTOM

3. EXTERIOR STAIRWAYS 4. EXTERIOR PEDESTRIAN RAMPS

5. WALKWAYS SURFACES, INCLUDING SLOPES, ABRUPT

CHANGES IN LEVEL, AND GRATES

SITE LEGEND

PROPOSED (N) BUILDING (E) SHADE STRUCTURE

(E) FENCE, CLEAN, PREP, PAINT TO MATCH MT-2

CONCRETE PAVING LAWN / GRASS

ASPHALT PAVING CONCRETE PAVING

LAWN / GRASS / LANDSCAPE FIRE HYDRANT

LEGEND - ACCESSIBLE PATH OF TRAVEL

ACCESSIBLE PATH OF TRAVEL

AS ACCESSIBLE SEATING POSITION (WC)

WC ACCESSIBLE WATER CLOSET

AMBULATORY STALL

U ACCESSIBLE URINAL

ADD01 32.24 (N) 5 LOOP, 7 BIKE CAPACITY ROUND TUBE WAVE BIKE

RACK BLACK POWDER COAT FINISH, SEE 15/A10.4
PROVIDE (2) SIGNS PER 35/A0.3 MOUNTED TO

ACCESSIBLE SINK

SOR SINGLE OCCUPANCY RESTROOM (INCLUDES ACCESSIBLE WC, SINK)

DF DRINKING FOUNTAIN (HI-LO)

G2.1

OVERALL SITE

DSA APPLICATION NO: 03-122743

DLR PROJECT NO: 75-20223-02

10/07/2024

DSA FILE NO: 19-H10

SUBMITTAL TITLE

PLAN

ISSUE DATE: 02/15/2024

IMPROVEMENT NOTES

THE STRUCTURAL SECTIONS SHOWN ON THESE PLANS ARE BASED ON R-VALUE TESTS OR MINIMUM STRUCTURAL STANDARDS REQUIRED BY THE CITY, WHICHEVER IS GREATER. ACTUAL STRUCTURAL SECTIONS WILL BE DETERMINED AFTER THE "R" VALUE TEST HAS BEEN CONDUCTED BY A QUALIFIED GEOTECHNICAL ENGINEER ON THE PREPARED SUB_BASE MATERIAL. THE "R" VALUE TEST AND RECOMMENDED ENGINEERED STRUCTURAL SECTION MUST BE APPROVED BY THE PUBLIC WORKS DIRECTOR PRIOR TO THE INSTALLATION OF BASE AND PAVING MATERIALS. STRUCTURAL SECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH CHAPTER 600 OF THE CALTRANS HIGHWAY DESIGN MANUAL. STRUCTURAL SECTIONS SHALL BE NOTED ON THE "AS_BUILT" DRAWINGS.

THIS NOTE WILL NOT APPLY TO THOSE AREAS WHERE GRADING IS MINIMAL AND "R" VALUES CAN BE OBTAINED PRIOR TO PLAN APPROVAL. ALL EXISTING STREETS SHALL BE CORE TESTED TO DETERMINE THE EXISTING STRUCTURAL SECTION AND TO DETERMINE THE EXTENT OF OVERLAY OR RECONSTRUCTION NECESSARY TO ACHIEVE THE REQUIRED "R" VALUES, TESTS SHALL BE PERFORMED AT LOCATIONS APPROVED BY THE PUBLIC WORKS DIRECTOR.

- 2. ALL ELECTRICAL, TELEPHONE AND CABLE TELEVISION UTILITIES SHALL BE CONSTRUCTED/CONVERTED TO UNDERGROUND. THE RELOCATION AND/OR UNDERGROUNDING OF EXISTING AND NEW UTILITIES SHALL BE DONE BY THE DEVELOPER OF THE PROPERTY AT NO COST TO THE CITY.
- ALL UNDERGROUND UTILITIES AND LATERALS SHALL BE INSTALLED BEFORE CONSTRUCTION OF THE CURB AND GUTTER OR SURFACING OF STREETS.
- 4. A PERMIT SHALL BE OBTAINED FROM THE CITY OF ROSEMEAD FOR ANY EXCAVATION AND/OR CONSTRUCTION WITHIN THE PROPOSED PROJECT AND PUBLIC RIGHT-OF-WAY.
- CONTRACTOR SHALL NOTIFY THE ASSIGNED CITY OF ROSEMEAD PUBLIC WORKS INSPECTOR 48-HOURS PRIOR TO THE BEGINNING OF ANY GRADING/CONSTRUCTION.
- PRECISE LOCATIONS/ELEVATIONS OF THE EXISTING UNDERGROUND UTILITIES ARE NOT KNOWN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAKING SUFFICIENT EXPLORATIONS TO LOCATE ALL UTILITIES AND SUBSTRUCTURES WHETHER SHOWN ON THE PLANS OR NOT AND TO PROTECT THEM FROM ANY POSSIBLE DAMAGE PRIOR TO AND DURING CONSTRUCTION. THE EXPENSE OF REPAIR OR REPLACEMENT OF SAID UTILITIES AND SUBSTRUCTURES SHALL BE BORNE BY THE CONTRACTOR. CONTRACTOR SHALL NOTIFY THE ENGINEER—OF—WORK OF ANY POTENTIAL CONFLICTS SUFFICIENTLY IN TIME FOR CONSTRUCTION CHANGES TO BE MADE AND
- THE CONTRACTOR SHALL CONTACT THE UNDERGROUND SERVICE ALERT AT 811 AT LEAST 48 HOURS PRIOR TO EXCAVATING TO VERIFY THE LOCATIONS OF UNDERGROUND FACILITIES OF THE FOLLOWING UTILITIES:

SPECTRUM (CHARTER COMMUNICATIONS), COMMUNICATIONS COMPANY AT&T, TELECOMMUNICATIONS COMPANY SOUTHERN CALIFORNIA EDISON, ELECTRIC COMPANY CALIFORNIA AMERICAN WATER, WATER DISTRICT SOUTHERN CALIFORNIA GAS COMPANY, GAS COMPANY

A DIG ALERT IDENTIFICATION NUMBER MUST BE ISSUED BEFORE A "PERMIT TO EXCAVATE" IS VALID PER GOVERNMENT CODE SECTION 4216/4217.

- 8. AN AS-BUILT DRAWING SHALL BE SUBMITTED FOR ALL PUBLIC IMPROVEMENTS PRIOR TO ACCEPTANCE OF SAID IMPROVEMENTS.
- THE ENGINEER—OF—WORK SHALL BE NOTIFIED WHEN CONSTRUCTION COMMENCES.
- 10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION/GRADING OF SLOPES. PADS. STREET GRADES AND INFRASTRUCTURE IMPROVEMENTS ACCORDING TO THESE PLANS. THE ENGINEER-OF-WORK SHALL BE CONTACTED WHEN CHANGES OR ADDITIONS MADE DURING THE PROGRESS OF CONSTRUCTION OR IF THERE IS A MISUNDERSTANDING OF THESE PLANS OR FIELD STAKES AND AN INTERPRETATION IS NEEDED. CERTIFICATION FROM THE REGISTERED CIVIL ENGINEER STATING THAT THE GRADING HAS BEEN COMPLETED PER THE APPROVED PLAN. AND THE COMPACTION REPORT FROM THE GEOTECHNICAL ENGINEER ON ANY REQUIRED FILL AREAS SHALL BE PROVIDED PRIOR TO BUILDING PERMITS BEING ISSUED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ANY MONUMENTATION AND/OR BENCHMARKS. ANY MONUMENTATION AND/OR BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SUCH LICENSED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE LAND SURVEYOR'S ACT.
- 12. ALL EXISTING FEATURES AND STRUCTURES IN CONFLICT WITH THESE PLANS SHALL BE
- RELOCATED OR REMOVED AT THE DEVELOPER'S EXPENSE. 13. MINIMUM 90% COMPACTION IS REQUIRED IN ALL ON-SITE FILL AREAS WITH A MINIMUM OF 95%
- COMPACTION SIX INCHES (6") BELOW FINISHED SUBGRADE IN A PUBLIC STREET. 14. ALL PUBLIC IMPROVEMENTS SHOWN ON THESE IMPROVEMENT PLANS SHALL BE CONSTRUCTED TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR PRIOR TO OCCUPANCY OF ANY
- 15. ALL OPERATIONS CONDUCTED ON THE PREMISES. INCLUDING THE WARMING UP. REPAIR. ARRIVAL, DEPARTURE OR RUNNING OF ANY EQUIPMENT SHALL BE LIMITED TO THE HOURS OF 7:00 A.M. TO 4:30 P.M., MONDAY THROUGH FRIDAY. NO WORK SHALL BE PERFORMED ON THE PREMISES ON SATURDAY, SUNDAY OR HOLIDAYS.
- 16. NO PRIVATE IRRIGATION MAINS OR CONTROL VALVES SHALL BE PLACED WITHIN THE PUBLIC RIGHT_OF_WAY.
- 17. CURB RAMPS SHALL BE INSTALLED AT ALL CURB RETURNS PER TITLE 24. PART 2. STATE CHAPTER 71, SITE DEVELOPMENT REQUIREMENTS FOR HANDICAPPED ACCESSIBILITY, SECTION 7103, CURB RAMPS, OF THE CALIFORNIA BUILDING CODE.
- 18. ALL TRENCH EXCAVATION AND BACKFILL IN THE PUBLIC RIGHT_OF_WAY SHALL CONFORM TO THE REQUIREMENTS OF THE CITY'S STREET EXCAVATION ORDINANCE NO. 2003-1196 SUBJECT TO APPROVAL FROM THE PUBLIC WORKS INSPECTOR.
- 19. THESE PLANS HAVE BEEN EXAMINED BY THE CITY'S ENGINEERING DIVISION TO INSURE COMPLIANCE WITH GENERAL ENGINEERING STANDARDS AND THE CITY'S DESIGN STANDARDS AND
- 20. THE ENGINEER-OF-WORK SHALL BEAR THE SOLE RESPONSIBILITY OF THE MATHEMATICAL DATA AND ACCURACY OF DESIGN SHOWN HEREON.
- 21. IF THE IMPROVEMENTS SHOWN ON THIS PLAN HAVE NOT BEEN CONSTRUCTED AND ACCEPTED BY THE CITY WITHIN TWO (2) YEARS OF THE DATE OF PLAN APPROVAL BY THE CITY ENGINEER, THESE PLANS WILL BE SUBJECT TO REVIEW BY THE CITY'S ENGINEERING DIVISION FOR CONFORMANCE WITH CURRENT CITY STANDARDS, POLICIES AND/OR ADDITIONAL REQUIREMENTS.
- 22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, RELOCATION OR REPLACEMENT OF ALL STRIPING, SIGNING OR TRAFFIC DETECTOR LOOPS AS REQUIRED BY THE PUBLIC WORKS DIRECTOR.
- 23. STREET SIGNING AND STRIPING ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE

AT LEAST TWO DAYS

ROSEMEAD FIRE DEPARTMENT

Fire Marshal

Approved Fire Hydrant Flow

DIAL TOLL FREE 811

BEFORE YOU DIG UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

NAME HERE

R.C.E. NO.

DISTRICT ENGINEER

(Signature) License No.: Printed Name CALIFORNIA AMERICAN WATER DISTRICT CITY APPROVED CHANGES ENGINEER OF WORK No. Description App'd By Date Name: MICHAEL SCHWEITZER C.E.: 59658 _exp: 12-31-25 EXP. _

CONT. IMPROVEMENT NOTES

- SUBJECT TO CITY OF ROSEMEAD PUBLIC WORKS DEPARTMENT APPROVAL 24. DUST CONTROL MEASURES, SUCH AS THE PERIODIC WETTING DOWN OF THE BARE AND EXPOSED AREAS, SHALL BE USED AT ALL TIMES DURING CONSTRUCTION TO THE SATISFACTION OF THE PUBLIC WORKS AND/OR BUILDING INSPECTORS.
- 25. THE CONTRACTOR IS ADVISED THAT HE IS RESPONSIBLE FOR MAINTAINING THE ADJOINING PUBLIC STREETS AND RIGHT-OF-WAYS IN A CLEAN AND DUST FREE CONDITION WITHIN THE LIMITATION OF THE CITY MUNICIPAL CODE SECTION 14.15.030 "ILLICIT DISCHARGES PROHIBITED." THIS SECTION OF THE CODE PROHIBITS THE "WASHING DOWN" OF A STREET INTO A PUBLIC STORM DRAIN. THE CONTINUOUS USE OF STREET SWEEPING MACHINES MAY BE ADVISABLE.
- 26. THE ENGINEER-OF-WORK IS NOT RESPONSIBLE FOR GRADING OPERATIONS OR GRADING DONE. THE CONTRACTOR IS SOLELY RESPONSIBLE.
- 27. A PERMIT MUST BE OBTAINED FROM THE ROSEMEAD FIRE DEPARTMENT PRIOR TO ANY BLASTING. CITY PERMITS ARE REQUIRED PRIOR TO ANY CONSTRUCTION, EXCAVATION, STORAGE OF MATERIALS OR ANY OTHER ENCROACHMENTS.
- 28. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUALLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNITY AND HOLD THE OWNER, THE ENGINEER AND THE CITY HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER, ENGINEER OR CITY.
- 29. EROSION CONTROL, INCLUDING RIP-RAP, INTERIM SLOPE PROTECTION, SANDBAGS OR OTHER EROSION CONTROL MEASURES SHALL BE PROVIDED AS NECESSARY TO CONTROL SEDIMENT AND SILT FROM THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL FACILITIES THROUGHOUT THE DEVELOPMENT OF THE PROJECT.
- 30. A TRAFFIC CONTROL PLAN, INCLUDING THE LAYOUT OF CONSTRUCTION WARNING AND DETOUR SIGNS, SHALL BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT FOR APPROVAL A MINIMUM OF 14 DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. TRAFFIC CONTROL SHALL BE IMPLEMENTED BEFORE ANY WORK IS STARTED.

GENERAL NOTES:

CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OF ALL DAMAGES INCURRED AS A DIRECT RESULT OF CONSTRUCTION ACTIVITIES. PRIOR TO THE FINAL ACCEPTANCE AND APPROVAL OF IMPROVEMENTS SHOWN ON THESE PLANS ALL REPAIR AND REHABILITATION WILL BE DONE TO FACILITIES DISRUPTED BY CONSTRUCTION ACTIVITIES. ALL REPAIR WILL BE IN CONFORMANCE TO THE CITY OF ROSEMEAD STANDARDS.

CITY OF ROSEMEAD BACKFILL REQUIREMENTS

BACKFILL WITHIN THE ULTIMATE RIGHT OF WAY (ROW) AREAS:

TO BE PER SAN MARCOS STREET EXCAVATION ORDINANCE. THE BACKFILL MATERIAL MAY CONSIST OF MATERIAL FROM THE EXCAVATION THAT IS FREE OF STONES OR LUMPS EXCEEDING TWO (2) INCHES AND IS FREE OF VEGETATIVE OR OTHER UNSATISFACTORY MATTER. THE BACKFILL SHALL BE BROUGHT UP UNIFORMLY AND SHALL BE COMPACTED TO NINETY-FIVE (95) PERCENT OF RELATIVE DENSITY. THE BACKFILL SHALL MATCH THE EXISTING OR PROPOSED PROFILE GRADE. AS DETERMINED BY THE DIRECTOR. WHEN THE MATERIAL FROM EXCAVATION IS UNSUITABLE FOR USE AS BACKFILL. IT SHALL BE DISPOSED OF AND REPLACED WITH MATERIALS MEETING THE ABOVE REQUIREMENTS OF A.1. FXCESS MATERIAL SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE.

TOPOGRAPHY

THE EXISTING TOPOGRAPHY AS SHOWN ON THESE PLANS IS BASED ON AN AERIAL TOPO PROVIDED BY THE CLIENT. SUPPLEMENTAL SURVEY WAS PERFORMED BY SWS ENGINEERING. INC. 1635 LAKE SAN MARCOS DR., SUITE 200

SAN MARCOS, CA 92078 CONVENTIONAL SURVEY DATA COLLECTED 5/11/22

DRONE FLOWN PHOTOGRAMMETRY ON 5/11/22 AND LEICA 3D LASER SCANNER POINT CLOUD ON 5/11/22

GEOTECHNICAL ENGINEER CERTIFICATE

THESE PLANS HAVE BEEN REVIEWED BY THE UNDERSIGNED RELATIVE TO GEOTECHNICAL ASPECTS OF THE PLANS AND HAVE BEEN FOUND TO BE IN CONFORMANCE WITH INTENTIONS OF THE FINDINGS AND RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT BY MTGL. INC (GE 2649) DATED JUNE 15, 2022 AND REVISED NOVEMBER 17, 2022.

ISAAC CHUN P.E., G.E. 2649 EXP. 12/31/25

BASIS OF BEARING

THE CALIFORNIA SPATIAL REFERENCE SYSTEM (CSRS) ZONE 5, EPOCH 2017.50, AS DETERMINED LOCALY BY G.P.S. MEASUREMENTS TAKEN ON 05/11/22 FROM CONTINOUSLY OPERATING REFERENCE STATIONS (RHCL) AND (GVRS) OF THE CALIFORNIA REAL TIME NETWORK. N 68°29'29" W

MATERIALS ON SITE

- PRIOR TO DELIVERY OF COMBUSTIBLE BUILDING CONSTRUCTION MATERIALS TO THE PROJECT SITE; THE FOLLOWING CONDITIONS SHALL BE COMPLETED TO SATISFACTION OF THE FIRE DEPARTMENT:
- FIRE HYDRANTS SHALL BE INSTALLED, APPROVED, AND USABLE. 2. FIRE LANE OR ACCESS ROADS SHALL BE IN PLACE AND PROVIDE A PERMANENT ALL WEATHER SURFACE FOR EMERGENCY VEHICLES THAT SUPPORT WEIGHT OF FIRE APPARATUS (75,000 LBS).

SITE ADDRESS AND ASSESSOR PARCEL NUMBERS

4105 ROSEMEAD BLVD. ROSEMEAD. CA 91770 ASSESSOR PARCEL NO: 2181010500

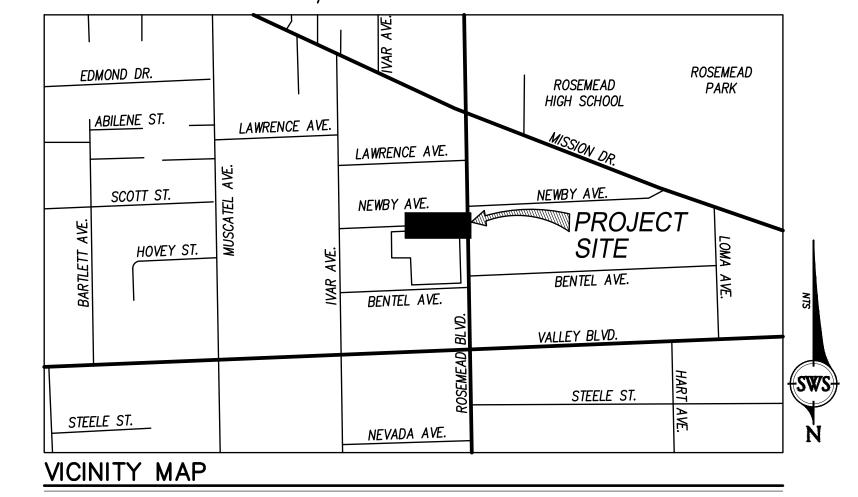
OWNER

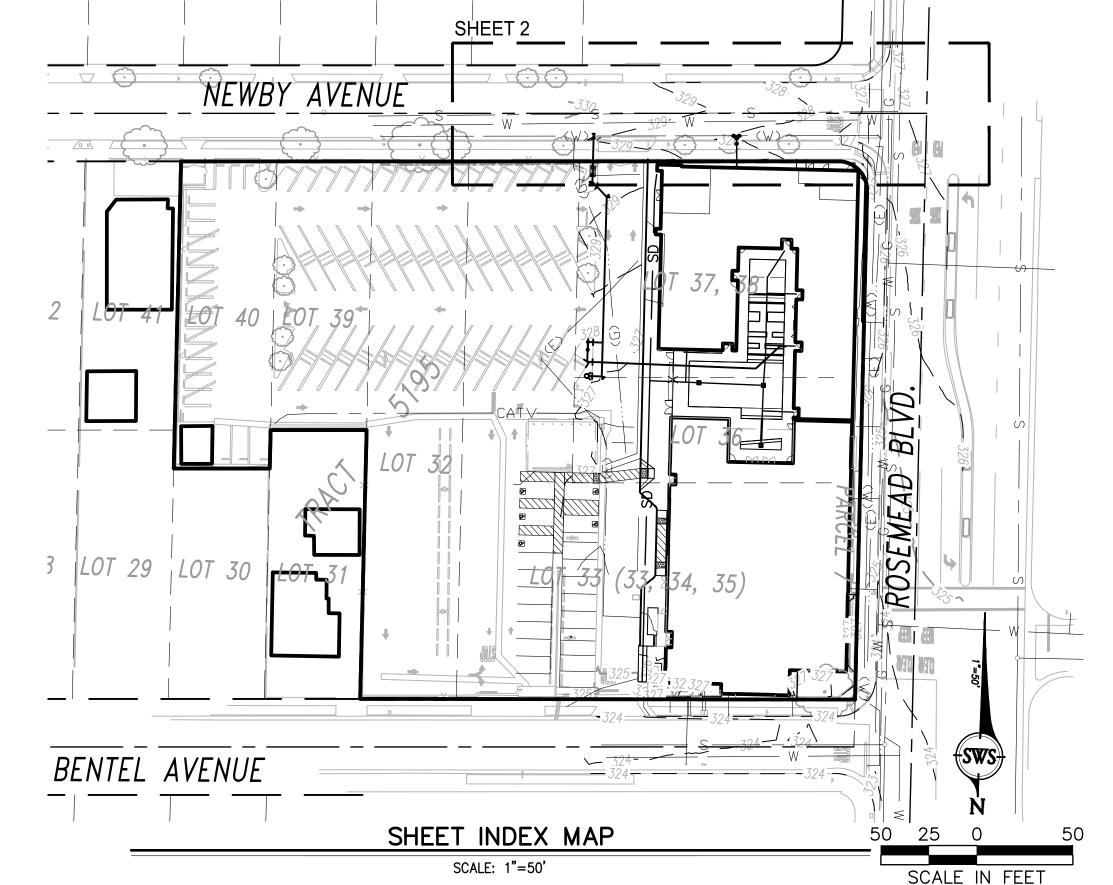
AS-BUILT CERTIFICATE

EL MONTE HIGH SCHOOL DISTRICT 3537 JOHNSON AVENUE ROSEMEAD, CA 91731 (626) 444-9005 PHONE:

CITY OF ROSEMEAD

IMPROVEMENT PLANS FOR NEWBY AVENUE, ROSEMEAD ADULT SCHOOL





DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT. THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE. AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN MARCOS IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME AS ENGINEER OF WORK OF MY RESPONSIBILITIES FOR THE PROJECT DESIGN.

MICHAEL D. SCHWEITZER RCE 59658 EXP. 12-31-2025

AMAL SEDRAK, City Engineer

Date:

Name, Title

R.C.E.:_____

Date: _

exp.: ___/__/202_

INSPECTED AND RECOMMENDED FOR ACCEPTANCE 1635 Lake San Marcos Drive, Suite 200 ENGINEERING INC San Marcos, CA 92078 P: 760-744-0011 GABRIEL RAMIREZ, Public Works Inspector SAN DIEGO - NASHVILLE - PHOENIX - ORLANDO DATE: Jan 16, 24 6:03pm by:Karen.Harper RECOMMENDED FOR APPROVAL APPROVED FOR CONSTRUCTION

_exp.: ___/__/202__

OUND BM G5409 LA CO TAG IN N CB 1FT W/O BCR@ NW OR VALLEY BLVD & ROSEMEAD BLVD (@ E ÉND C. B.) OS ANGELES COUNTY PER THE CITY OF ARCADIA/ROSEMEAD QUAD CONTROL BENCHMARCKS BOOK SHEET 2013 ADJUSTMENT/BASELINE NAVD 88 DATUM FOOT

Elev.: 320.146 (BM G5409 LA CO TAG) Datum: NAVD 88

GRAPHIC SCALE

No. 59658 되는

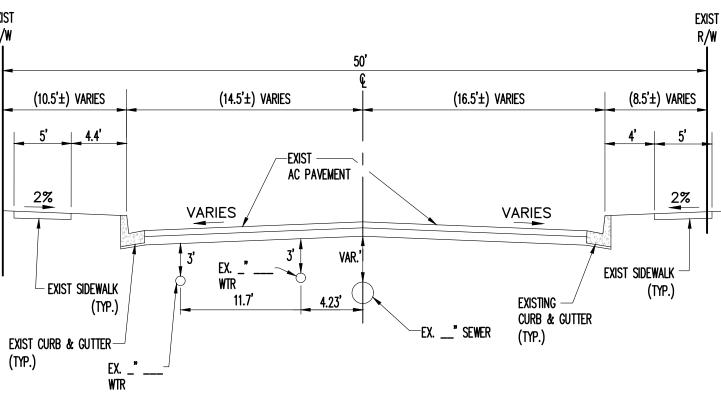
→ Exp.12-31-2025 7

WORK TO BE DONE

- THE IMPROVEMENTS CONSISTS OF THE FOLLOWING WORK TO BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING DOCUMENTS:
- 1) LOS ANGELES AREA REGIONAL STANDARD DRAWINGS
- 2015 STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREEN BOOK")
- CITY OF ROSEMEADSUPPLEMENT TO THE 2015 GREENBOOK ("STANDARD SPECIAL PROVISIONS") CITY OF ROSEMEAD GRADING AND EXCAVATION ORDINANCE
- STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARDS PLANS STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS
- STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL TO MUTCD
- 2023 CALIFORNIA AMERICAN WATER STANDARD DRAWINGS
- 8) 2023 CALIFORNIA AMERICAN WATER STANDARD SPECIFICATIONS

LEGEND

ITEM	STD DWG	SYMBOL
PROPERTY LINE		——-P—
AC PAVING (4" AC/8" CL 2 BASE)		
REMOVE EXISTING PAVEMENT (REPLACE WITH 4" AC/ 8"CL 2 BASE)		
PAVEMENT RESURFACING (GRIND & OVERLAY)		
PROPOSED CURB AND GUTTER		
PROPOSED CONCRETE SIDEWALK		
PROPOSED DRIVEWAY APPROACH		
PROPOSED PED. RAMP		\bigcap
UTILITY TRENCH		
EXISTING CURB AND GUTTER		
EXISITNG BERM		
EXISTING WALL		
EXISTING FENCE		
EXISTING PED. RAMP		\bigwedge
EXISITNG STREET LIGHT		¤
EXISTING WATER		———— (W) ————
EXISTING FIRE HYDRANT		<u></u>
EXISITNG SEWER		———— (S) ————
EXISTING GAS		———— G ———
EXISTING ELECTRICAL		———(E)———



NEWBY AVENUE CROSS-SECTION Α NOT TO SCALE

SHEET INDEX

SHEET NO. DESCRIPTION TITLE SHEET

WATER AND FIRE WATER IMPROVEMENT PLAN DETAILS

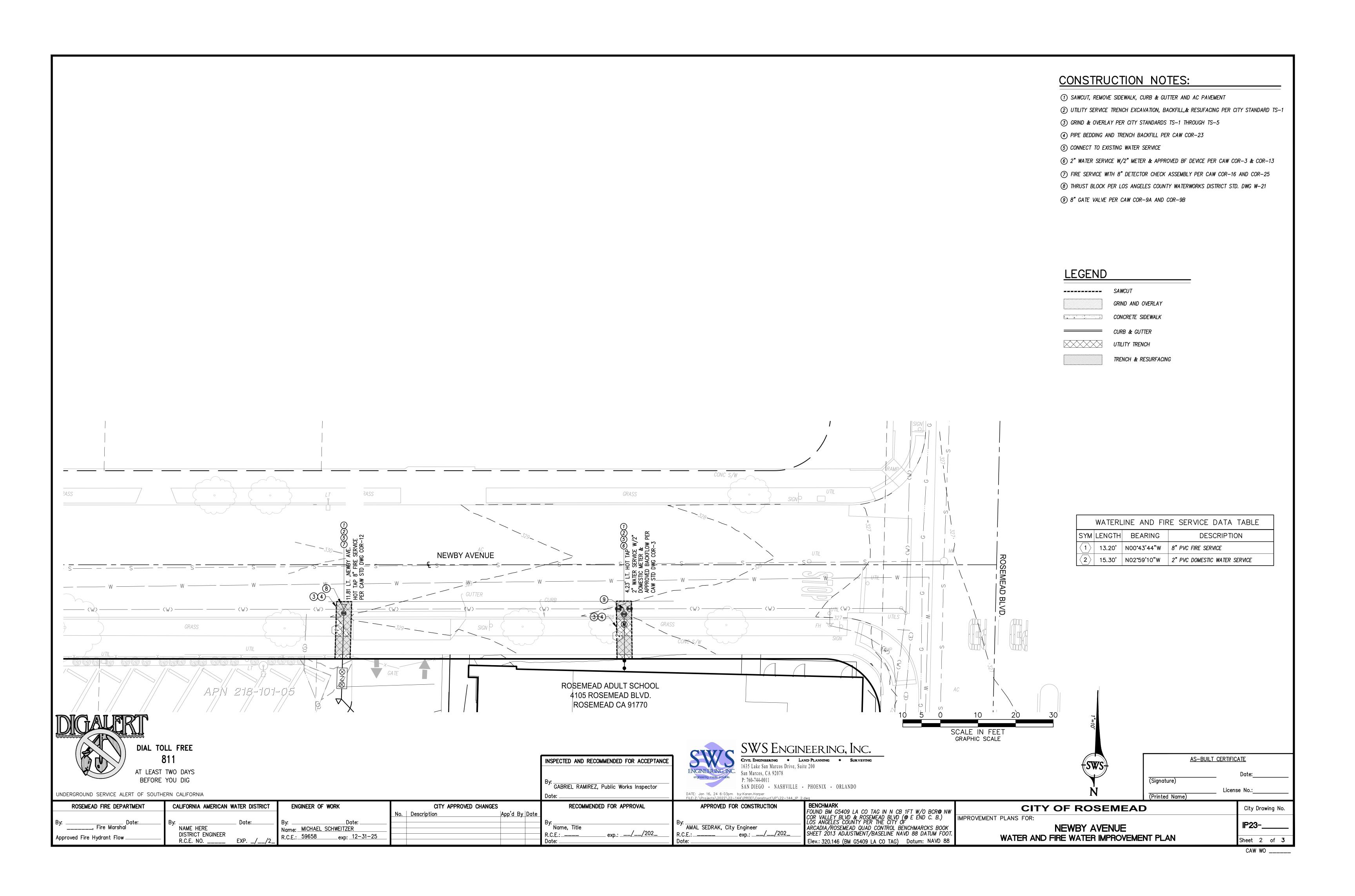
ENGINEER OF WORK AS-BUILT CERTIFICATE

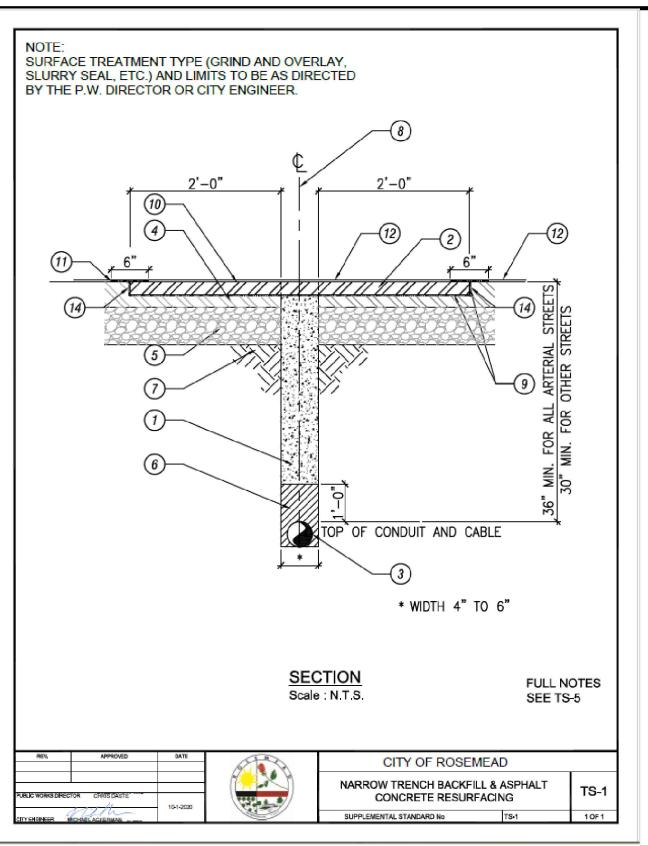
AS THE ENGINEER OF WORK. I HEREBY CERTIFY THAT. TO THE BEST OF MY KNOWLEDGE AND BELIEF. THE IMPROVEMENTS SHOWN ON THIS SET OF CONSTRUCTION PLANS. SHEET 1 THROUGH SHEET 10, HAVE BEEN INSTALLED AND CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THESE AS-BUILT PLANS, INCLUDING ALL APPROPRIATE STANDARDS AND ANY DISCRETIONARY APPROVAL(S) FOR THE PROJECT.

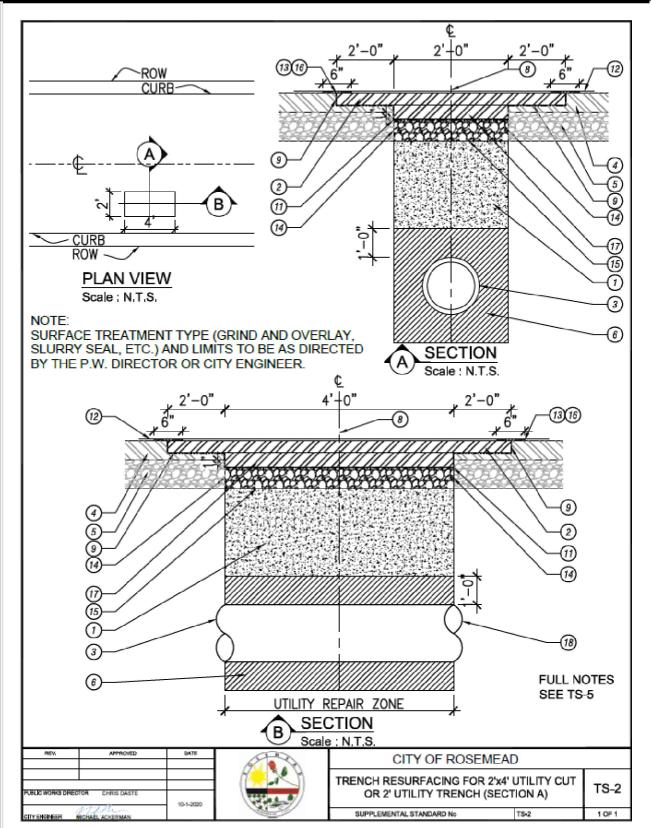
MICHAEL SCHWEITZER RCE 59658 EXP. 12/31/25

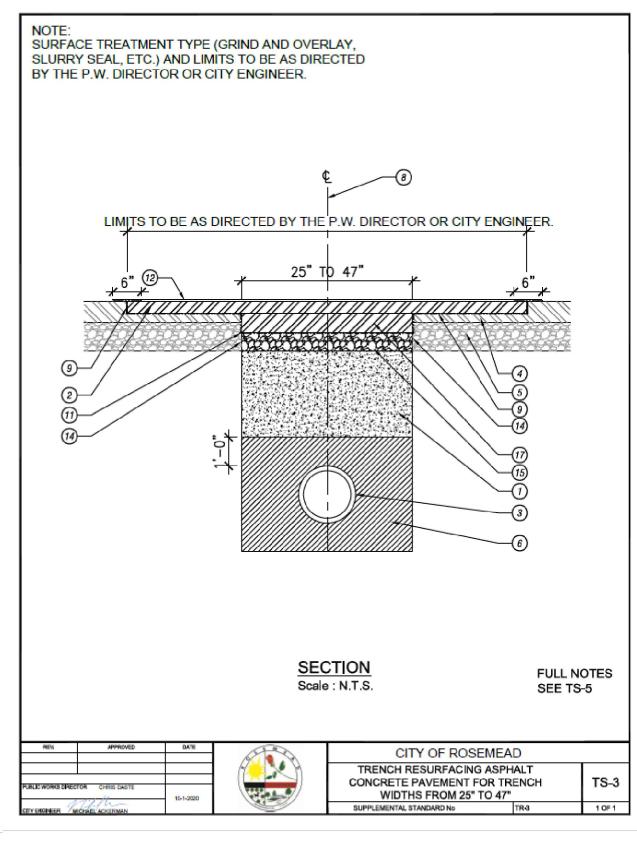
CITY OF ROSEMEAD City Drawing No IMPROVEMENT PLANS FOR: IP23-___ NEWBY AVENUE TITLE SHEET

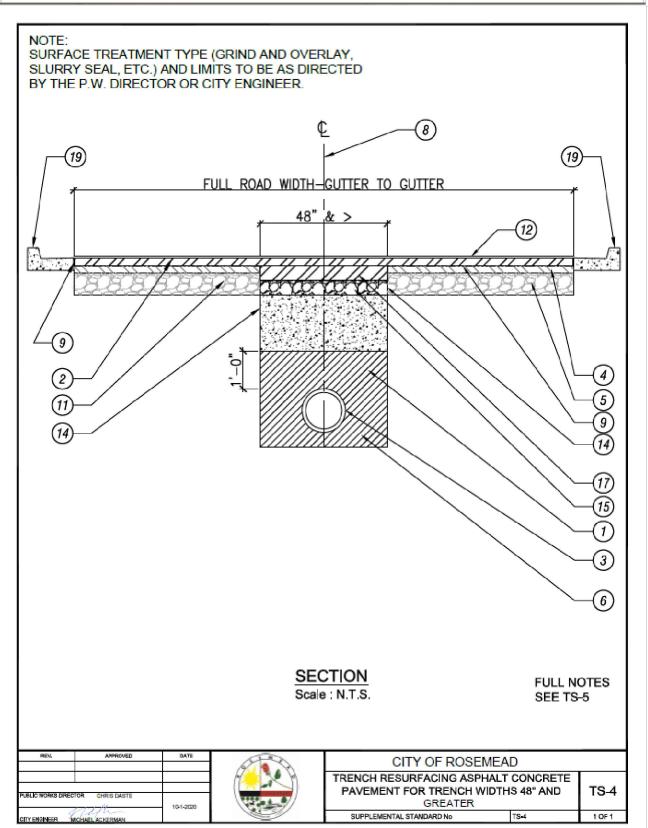
Sheet 1 of **3** CAW WO ____

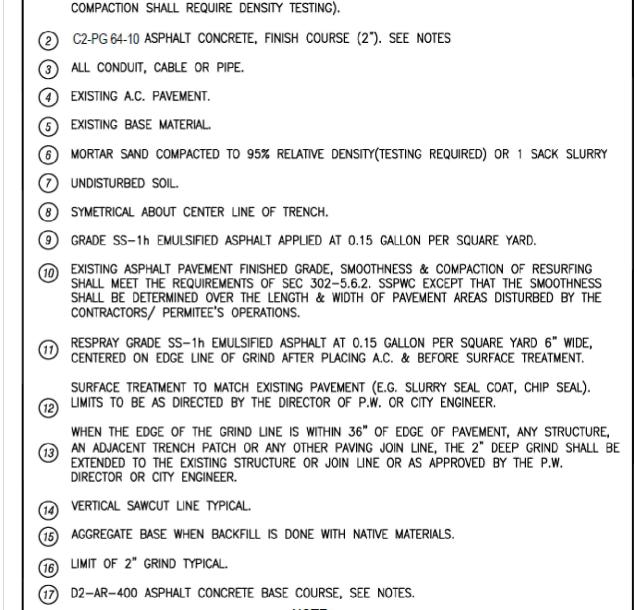












(T. 1.2)

SURFACE TREATMENT TYPE (GRIND AND OVERLAY,

BY THE P.W. DIRECTOR OR CITY ENGINEER.

SLURRY SEAL, ETC.) AND LIMITS TO BE AS DIRECTED

CITY OF ROSEMEAD

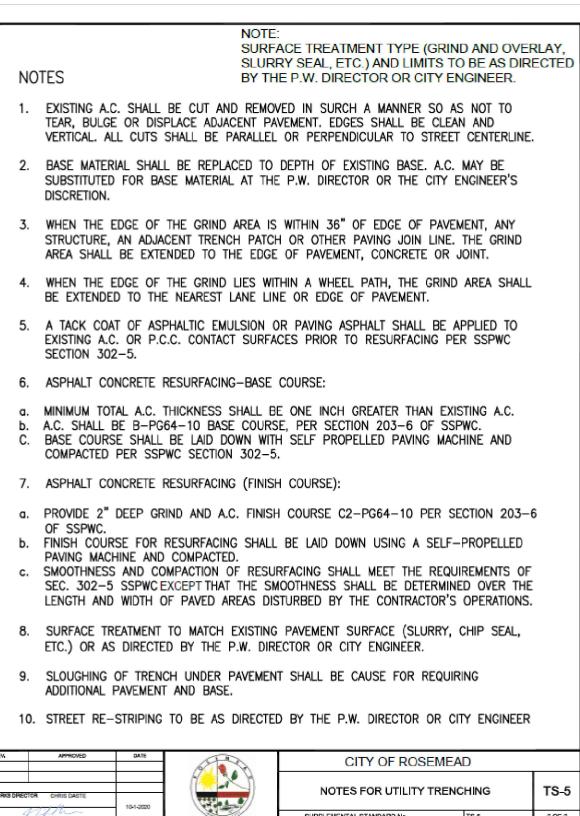
NOTES FOR UTILITY TRENCHING

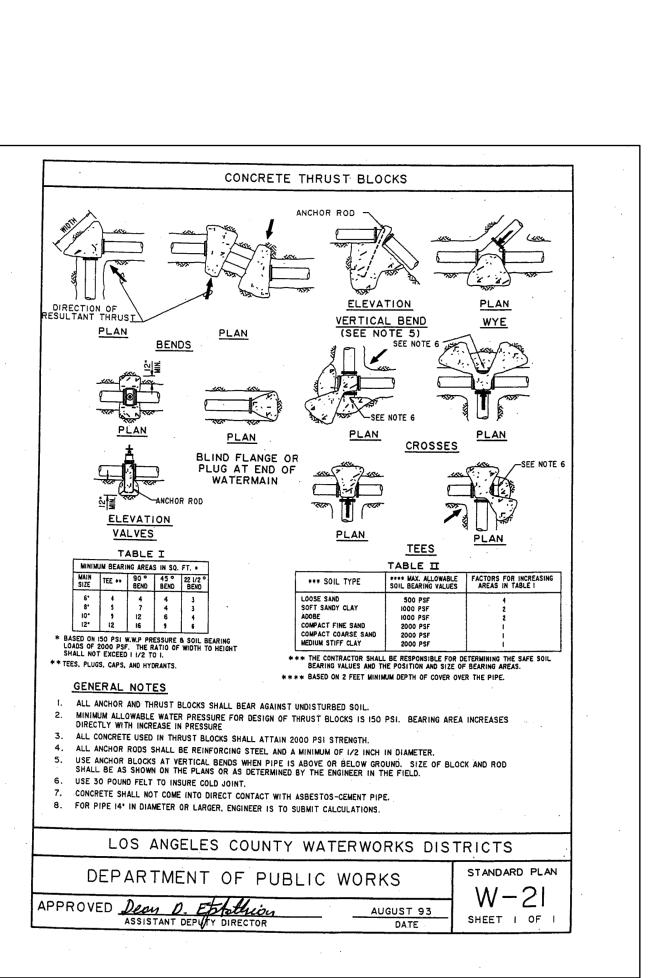
TS-5

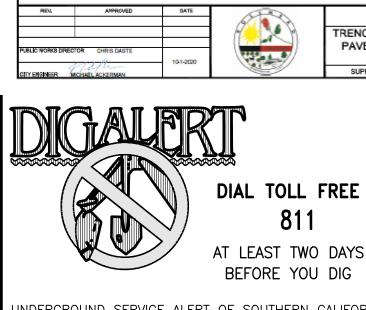
BACKFILL, MAXIMUM 8" SLUMP SLURRY BACKFILL TO SURFACE, FOLLOW WITH 12" WIDE BY 2"

DEEP GRIND AND RESURFACING, ALLOW MIN. 72 HOURS CURE BEFORE GRINDING. OR AS

APPROVED BY THE P.W. DIRECTOR OR CITY ENGINEER, (NATIVE SOIL BACKFILL TO 95%



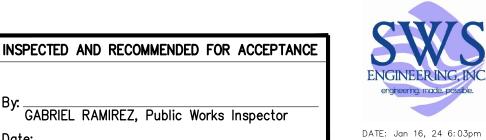




L	UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA				GABRIEL RAMIF
Γ	ROSEMEAD FIRE DEPARTMENT	CALIFORNIA AMERICAN WATER DISTRICT	ENGINEER OF WORK	CITY APPROVED CHANGES	RECOMM
	By: Date: , Fire Marshal Approved Fire Hydrant Flow	By: Date: NAME HERE DISTRICT ENGINEER R.C.E. NO EXP//2_	By:Date: Name: MICHAEL SCHWEITZER R.C.E.: 59658 exp: 12-31-25	No. Description App'd By Date	By: Name, Title R.C.E.: Date:
		· · ·			<u> </u>

(18) EXISTING UTILITY PIPE

(19) EXISTING CURB AND GUTTER



SWS Engineering, Inc. Civil Engineering

Land Planning

Surveying 1635 Lake San Marcos Drive, Suite 200 San Marcos, CA 92078

P: 760-744-0011 SAN DIEGO - NASHVILLE - PHOENIX - ORLANDO DATE: Jan 16, 24 6:03pm by:Karen.Harper

RECOMMENDED FOR APPROVAL APPROVED FOR CONSTRUCTION AMAL SEDRAK, City Engineer _ exp.: ___/__/202__ __exp.: ___/__/202_ Date: _

TOUND BM G5409 LA CO TAG IN N CB 1FT W/O BCR@ NW COR VALLEY BLVD & ROSEMEAD BLVD (@ E END C. B.) LOS ANGELES COUNTY PER THE CITY OF ARCADIA/ROSEMEAD QUAD CONTROL BENCHMARCKS BOOK SHEET 2013 ADJUSTMENT/BASELINE NAVD 88 DATUM FOOT Elev.: 320.146 (BM G5409 LA CO TAG) Datum: NAVD 88

AS-BUILT CERTIFICATE (Signature) License No.: (Printed Name)

CITY OF ROSEMEAD City Drawing No. IMPROVEMENT PLANS FOR: IP23-___ NEWBY AVENUE STANDARD DRAWINGS Sheet 3 of 3

GENERAL UTILITY NOTES:

SET BY CALIFORNIA AMERICAN WATER.

STANDARD DRAWINGS:

COR-1 THRU COR-28

STANDARD SPECIFICATIONS:

CALIFORNIA AMERICAN WATER.

1. ALL WATER FACILITIES WITHIN THE PUBLIC RIGHT OF WAY SHALL BE INSTALLED BY

3. THE CONTRACTOR SHALL INSTALL ALL WATER FACILITIES WITHIN PRIVATE PROPERTY ACCORDING TO CALIFORNIA AMERICAN WATER STANDARDS AND UNDER CALIFORNIA AMERICAN WATER SUPERVISION WITH THE EXCEPTION OF WATER METERS WHICH SHALL BE

4. WITHIN PRIVATE PROPERTY IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADAPT THE

SERVICE CONNECTION IF THE SERVICE SIZE IS DIFFERENT THAN THE METER SIZE.

STANDARDS AND UNDER CALIFORNIA AMERICAN WATER SUPERVISION.

1. CALIFORNIA AMERICAN WATER STANDARD SPECIFICATIONS, DATED APRIL, 2023.

1. CALIFORNIA AMERICAN WATER STANDARD DRAWINGS, DATED APRIL, 2023,

2. DISINFECTION OF WATER FACILITIES, SUCH AS FIRE SERVICES OR PRIVATE WATER MAINS, SHALL BE PERFORMED BY THE CONTRACTOR ACCORDING TO CALIFORNIA AMERICAN WATER

GENERAL ARCHITECTURAL NOTES

A. GENERAL NOTES APPLY TO ALL SHEETS B. DIMENSIONS ARE ACTUAL AND ARE TO FACE OF STUDS, FACE OF CONCRETE WALLS, FACE OF CMU WALLS, CENTERLINE OF FRAMES OR CENTERLINE OF COLUMNS, UNLESS NOTED OTHERWISE. C. WALL TYPES SHALL BE DESIGNATED ON FLOOR PLANS THUS SEE SHEET A8.0-A8.2; A9.0 FOR WALL TYPES. CONTRACTOR TO COORDINATE AND VERIFY WALL TYPE. CONTRACTOR TO PROVIDE ADDITIONAL LAYER OF GYP. BOARD AS REQUIRED TO ALIGN WALL FINISHES. ALL INTERIOR PARTITIONS ARE WALL TYPE W6A (AT THE EXISTING BUILDING AND W1A AT THE NEW CONSTRUCTION UNLESS NOTED OTHERWISE.

D. INTERIOR STUD WALLS SHALL EXTEND TO UNDERSIDE OF FLOOR OR ROOF DECK ABOVE UNLESS NOTED OTHERWISE. SEE REFLECTED CEILING PLAN NOTES. E. WALLS OF FIRE-RESISTANCE-RATED CONSTRUCTION SHALL EXTEND TO UNDERSIDE OF FLOOR OR ROOF DECK ABOVE. F. FURNISH AND INSTALL FIRE-RETARDANT-TREATED WOOD BLOCKING OR METAL BACKING PLATE IN ALL PARTITIONS FOR PROPER

ANCHORAGE OF WALL ATTACHED ITEMS; I.E. TOILET ACCESSORIES, TOILET PARTITIONS, CASEWORK, MILLWORK, WALL-MOUNTED FIXTURES, MARKERBOARDS, TACKBOARDS, DOOR STOPS, AUDIO VISUAL BRACKETS, ETC. SEE DETAIL

(54 / S6.2 FOR BLOCKING AT WOOD STUD WALLS & 51 / S8.4 FOR BACKING AT METAL STUD WALLS.)

G. GYPSUM BOARD AND PLASTER SURFACES SHALL BE ISOLATED WITH CONTROL JOINTS WERE INDICATED ON DRAWINGS AND/OR AS DESCRIBED IN THE SPECIFICATIONS.

H. PROVIDE AN AUTOMATIC FIRE ALARM SYSTEM THROUGOUT INCLUDING WALL MOUNTED HORN/STROBE DEVICES. EXISTING EXTERIOR AND INTERIOR WALLS ARE 2X WOOD FRAMED WALLS WITH STUDS AT 16" O.C. PROVIDE CEMENT BACKER-BOARD IN RESTROOMS WHERE WALL TILES OCCUR.

K. DOOR JAMB TO BE 4" FROM ADJACENT STUD WALL U.N.O.

L. AREAS WITH FLOOR DRAIN(S) SHALL HAVE 2% MAX SLOPE IN ALL DIRECTIONS M. WHERE GYP BOARD AND INTERIOR WALL INSULATION WAS REMOVED, REPLACEMENT INSULATION AND GYP BOARD TO BE PROVIDED. N. WHERE A NEW WALL IS IN LINE WITH AN EXISTING WALL, PROVIDE ADDITIONAL GYP BOARD LAYER AS NEEDED FOR FLUSH FINISH WALL.

PROVIDE ONE 30"X30" PLAQUE PER 10 14 16. LOCATION AND CONTENT TBD WITH OWNER.

P. ALL CONDUIT AND PIPING TO BE CONCEALED IN WALL. NO EXPOSED CONDUIT AND PIPING. Q. WHERE DIFFERENT WALL TYPES OCCUR IN THE SAME PLANE, FINISHES ARE TO ALIGN ON BOTH SIDES OF WALL. PROVIDE ADDITIONAL LAYER OF SHEATHING AS NEEDED TO ALIGN FINISHES.

REFERENCE KEYNOTES

Keynote Text PROVIDE NEW PLUMBING FIXTURES, TOILET PARTITIONS, TOILET ACCESSORIES, FINISHES, LIGHT FIXTURES

REMODEL PLAN LEGEND

NEW GYP BD SIDE

EXISTING WALL TO REMAIN EXISTING WALL FRAMING TO REMAIN, INSTALL NEW WALL INSULATION (BATT SOUND INSULATION AT INTERIOR WALLS ONLY) NEW GYP BD, AND NEW FINISHES AS INDICATED ON A13.A AND A13.B

EXISTING 1-HR RATED ASSEMBLY

SEE INTERIOR ELEVATIONS A11 SERIES

AND COASEWORK DETAILS A14.5 - A14.6

NEW STUD WALL, NON RATED, SEE A8.0-A8.1 NEW 1-HR RATED ASSEMBLY, SEE 1/A8.1 FOR W5 AND 2/A8.0 FOR W2

CMU SHEAR WALL, SEE WALL TYPE WF1/2 & WHC AND ADD02 STRUCTURAL DRAWINGS S1.1 & S1.2 ALL CMU WALLS TO BE WHC UNLESS NOTED OTHERWISE
NEW CASEWORK / MILLWORK

NEW DOOR SEE SCHEDULE SHEET A8.3 FIRE EXTINGUISHERS, SEE DETAIL41 / A14.9 WALL TYPE SYMBOL, SEE FLOOR PLAN AND SEE SCHEDULE SHEET A8.0 - A8.2; A9.0

STOREFRONT / WINDOW ID SEE SCHEDULE SHEET A8.4 EXISTING GUARDRAIL TO BE PAINTED

EXISTING DOOR TO REMAIN

SEE SCHEDULE SHEET A8.3

DSA APPLICATION NO: 03-122743

FIRST FLOOR

10/07/2024

DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02

SUBMITTAL TITLE

PLAN

ISSUE DATE: 02/15/2024

CONSTRUCTION
DOCUMENTS



CONSTRUCTION
DOCUMENTS

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-01 ISSUE DATE: 02/15/2024 SUBMITTAL TITLE 2 ADD02

FIRST FLOOR SIGNAGE **PLAN**

RR-M RESTROOM WALL - MENS ACCESSIBLE

RR-R RESTROOM WALL - ALL-GENDER ACCESSIBLE

RDSR RESTROOM DOOR - ALL-GENDER

FSR FIRE SPRINKLER RISER ROOM

SID STAIR FLOOR IDENTIFICATION SIGN

ES ELEVATOR SIGNAGE, SEE 14/A10.02

ACCESSIBLE

ES-D EXIT STAIR - DOWN

E EXIT

RD-M RESTROOM DOOR - MENS ACCESSIBLE

RD-W RESTROOM DOOR - WOMENS ACCESSIBLE

RR-W RESTROOM WALL - WOMENS ACCESSIBLE

A1.2C

SIGNAGE NOTES

2. 18"X18" SIGNAGE CLEAR FLOOR SPACE

1. SEE DETAILS ON SHEET A10.00 & A10.01 ADD02 FOR SIGNAGE INFORMATION

ALS ASSISTIVE LISTENING EDS-R / EDS-L DIRECTIONAL SIGN TO ELEVATOR RDS-R / RDS-L DIRECTIONAL SIGN TO ACCESSIBLE RESTROOM DS TO ACCESSIBLE PATH OF TRAVEL

ER EXIT ROUTE

ERD EXIT RAMP DOWN ISA INTERNATIONAL SYMBOL OF ACCESSIBILITY

A65 PROP 65 WARNING SIGN, SEE 42/A10.01

RCS OCCUPANT LOAD SIGN

RID ROOM IDENTIFICATION

FACP FIRE ALARM CONTROL PANEL SIGN

ADD02 EEM / EEM-S EMERGENCY EVACUATION MAP, SEE 1/A10.00

GENERAL ARCHITECTURAL NOTES

A. GENERAL NOTES APPLY TO ALL SHEETS

- B. DIMENSIONS ARE ACTUAL AND ARE TO FACE OF STUDS, FACE OF CONCRETE WALLS, FACE OF CMU WALLS, CENTERLINE OF FRAMES OR CENTERLINE OF COLUMNS, UNLESS NOTED OTHERWISE. C. WALL TYPES SHALL BE DESIGNATED ON FLOOR PLANS THUS SEE SHEET A8.0-A8.2; A9.0 FOR WALL TYPES. CONTRACTOR TO COORDINATE AND VERIFY WALL TYPE. CONTRACTOR TO PROVIDE ADDITIONAL LAYER OF GYP. BOARD AS REQUIRED TO ALIGN WALL
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- E. WALLS OF FIRE-RESISTANCE-RATED CONSTRUCTION SHALL EXTEND TO UNDERSIDE OF FLOOR OR ROOF DECK ABOVE. F. FURNISH AND INSTALL FIRE-RETARDANT-TREATED WOOD BLOCKING OR METAL BACKING PLATE IN ALL PARTITIONS FOR PROPER ANCHORAGE OF WALL ATTACHED ITEMS; I.E. TOILET ACCESSORIES, TOILET PARTITIONS, CASEWORK, MILLWORK, WALL-MOUNTED
- FIXTURES, MARKERBOARDS, TACKBOARDS, DOOR STOPS, AUDIO VISUAL BRACKETS, ETC. SEE DETAIL

 (547 \$6.2 FOR BLOCKING AT WOOD STUD WALLS & 517 \$8.4 FOR BACKING AT METAL STUD WALLS)

 3. GYPSUM BOARD AND PLASTER SURFACES SHALL BE ISOLATED WITH CONTROL JOINTS WERE INDICATED ON DRAWINGS AND/OR AS DESCRIBED IN THE SPECIFICATIONS.
- H. PROVIDE AN AUTOMATIC FIRE ALARM SYSTEM THROUGOUT INCLUDING WALL MOUNTED HORN/STROBE DEVICES. I. EXISTING EXTERIOR AND INTERIOR WALLS ARE 2X WOOD FRAMED WALLS WITH STUDS AT 16" O.C. J. PROVIDE CEMENT BACKER-BOARD IN RESTROOMS WHERE WALL TILES OCCUR.
- K. DOOR JAMB TO BE 4" FROM ADJACENT STUD WALL U.N.O.
- L. AREAS WITH FLOOR DRAIN(S) SHALL HAVE 2% MAX SLOPE IN ALL DIRECTIONS
 M. WHERE GYP BOARD AND INTERIOR WALL INSULATION WAS REMOVED, REPLACEMENT INSULATION AND GYP BOARD TO BE PROVIDED.

WHERE A NEW WALL IS IN LINE WITH AN EXISTING WALL, PROVIDE ADDITIONAL GYP BOARD LAYER AS NEEDED FOR FLUSH FINISH WALL.

ADDO2
O. PROVIDE ONE 30"X30" PLAQUE PER 10 14 16. LOCATION AND CONTENT TBD WITH OWNER.

P. ALL CONDUIT AND PIPING TO BE CONCEALED IN WALL. NO EXPOSED CONDUIT AND PIPING.

WHERE DIFFERENT WALL TYPES OCCUR IN THE SAME PLANE, FINISHES ARE TO ALIGN ON BOTH SIDES OF WALL. PROVIDE ADDITIONAL

LAYER OF SHEATHING AS NEEDED TO ALIGN EMISSION. LAYER OF SHEATHING AS NEEDED TO ALIGN FINISHES.

REFERENCE KEYNOTES

Ke _j Valu	
2.23	(E) CURTAIN WALL TO REMAIN, PROTECT IN PLACE
9.21	CLEAN EXISTING GUARDRAIL, SAND SMOOTH AND PREP F PAINT, ADD PRIMER AND FINISH COATS, PAINT P-15, SEMI-GLOSS FINISH
11.03	RW ROGERS NON-BELTED EXPRESS, GC FURNISHED OWN

PROVIDE NEW PLUMBING FIXTURES, TOILET PARTITIONS, TOILET ACCESSORIES, FINISHES, LIGHT FIXTURES

REMODEL PLAN LEGEND

		EXISTING WA
FOR	NEW GYP BD SIDE	EXISTING WA NEW WALL IN AT INTERIOR FINISHES AS
NER 		EXISTING 1-H

WALL TO REMAIN VALL FRAMING TO REMAIN, INSTALL INSULATION (BATT SOUND INSULATION R WALLS ONLY) NEW GYP BD, AND NEW S INDICATED ON A13.A AND A13.B

1-HR RATED ASSEMBLY

NEW STUD WALL, NON RATED, SEE A8.0-A8.1

AND COASEWORK DETAILS A14.5 - A14.6

NEW 1-HR RATED ASSEMBLY, SEE 1/A8.1 FOR W5 AND 2/A8.0 FOR W2

CMU SHEAR WALL, SEE WALL TYPE WF1/2 & WHC AND

ADD02 STRUCTURAL DRAWINGS S1.1 & S1.2 ALL CMU WALLS TO BE WHC UNLESS NOTED OTHERWISE
NEW CASEWORK / MILLWORK SEE INTERIOR ELEVATIONS A11 SERIES

EXISTING DOOR TO REMAIN SEE SCHEDULE SHEET A8.3 **NEW DOOR**

SEE SCHEDULE SHEET A8.3 FIRE EXTINGUISHERS, SEE DETAIL41 / A14.9 WALL TYPE SYMBOL, SEE FLOOR PLAN

AND SEE SCHEDULE SHEET A8.0 - A8.2; A9.0 STOREFRONT / WINDOW ID SEE SCHEDULE SHEET A8.4

EXISTING GUARDRAIL TO BE PAINTED

10/07/2024 SECOND **FLOOR PLAN**

DSA APPLICATION NO: 03-122743

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DSA FILE NO: 19-H10

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CONSTRUCTION DOCUMENTS

SIGNAGE NOTES

1. SEE DETAILS ON SHEET A10.00 & A10.01 ADD02 FOR SIGNAGE INFORMATION 2. 18"X18" SIGNAGE CLEAR FLOOR SPACE

ALS ASSISTIVE LISTENING

EDS-R / EDS-L DIRECTIONAL SIGN TO ELEVATOR RDS-R / RDS-L DIRECTIONAL SIGN TO ACCESSIBLE RESTROOM

DS TO ACCESSIBLE PATH OF TRAVEL

ER EXIT ROUTE

ERD EXIT RAMP DOWN

ISA INTERNATIONAL SYMBOL OF ACCESSIBILITY

A65 PROP 65 WARNING SIGN, SEE 42/A10.01

RCS OCCUPANT LOAD SIGN

RID ROOM IDENTIFICATION

FACP FIRE ALARM CONTROL PANEL SIGN

ADD02 EEM / EEM-S EMERGENCY EVACUATION MAP, SEE 1/A10.00

RR-M RESTROOM WALL - MENS ACCESSIBLE RR-W RESTROOM WALL - WOMENS ACCESSIBLE

RR-R RESTROOM WALL - ALL-GENDER ACCESSIBLE RD-M RESTROOM DOOR - MENS ACCESSIBLE

RD-W RESTROOM DOOR - WOMENS ACCESSIBLE RDSR RESTROOM DOOR - ALL-GENDER ACCESSIBLE

E EXIT ES-D EXIT STAIR - DOWN

SID STAIR FLOOR IDENTIFICATION SIGN

ES ELEVATOR SIGNAGE, SEE 14/A10.02

FSR FIRE SPRINKLER RISER ROOM

A1.3C

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10

DLR PROJECT NO: 75-20223-01 ISSUE DATE: 02/15/2024

SUBMITTAL TITLE

SECOND

SIGNAGE

FLOOR

PLAN

2 ADD02

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

CONSTRUCTION
DOCUMENTS

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DSA APPLICATION NO: 03-122743
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ISSUE DATE: 02/15/2024
SUBMITTAL TITLE

2 | ADD02 | 10/07/203

ENLARGED ELEVATOR PLANS & SECTION

A2.1

FRP-1

PL-1

ENLARGED FLOOR PLAN ELEVATIONS -KITCHEN & **SERVERY**

TRANS CTR KITCHEN & SERVERY A-101 - WEST 2

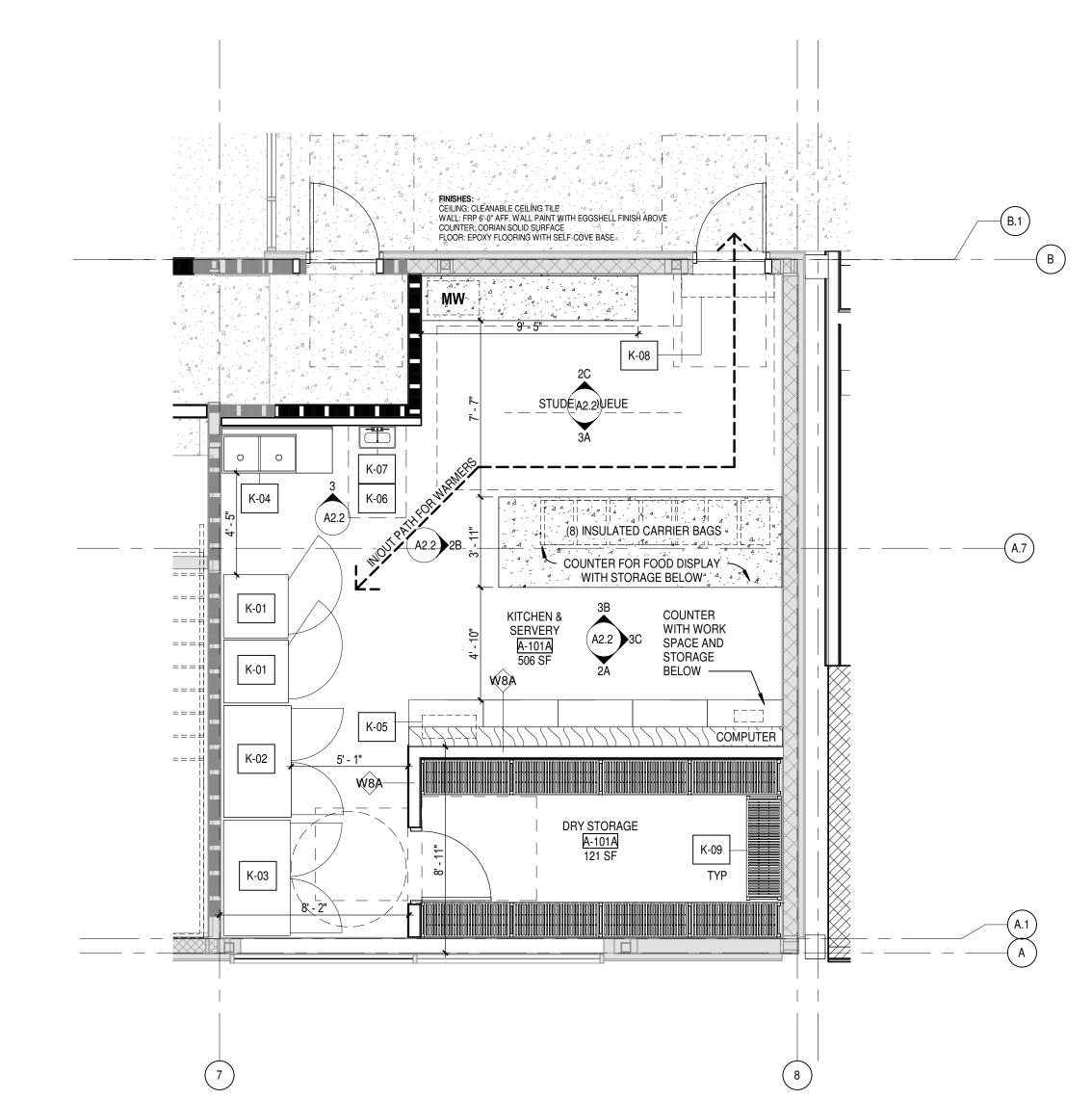
SCALE: 1/4" = 1'-0" TRANS CTR KITCHEN & SERVERY A-101 - NORTH 1

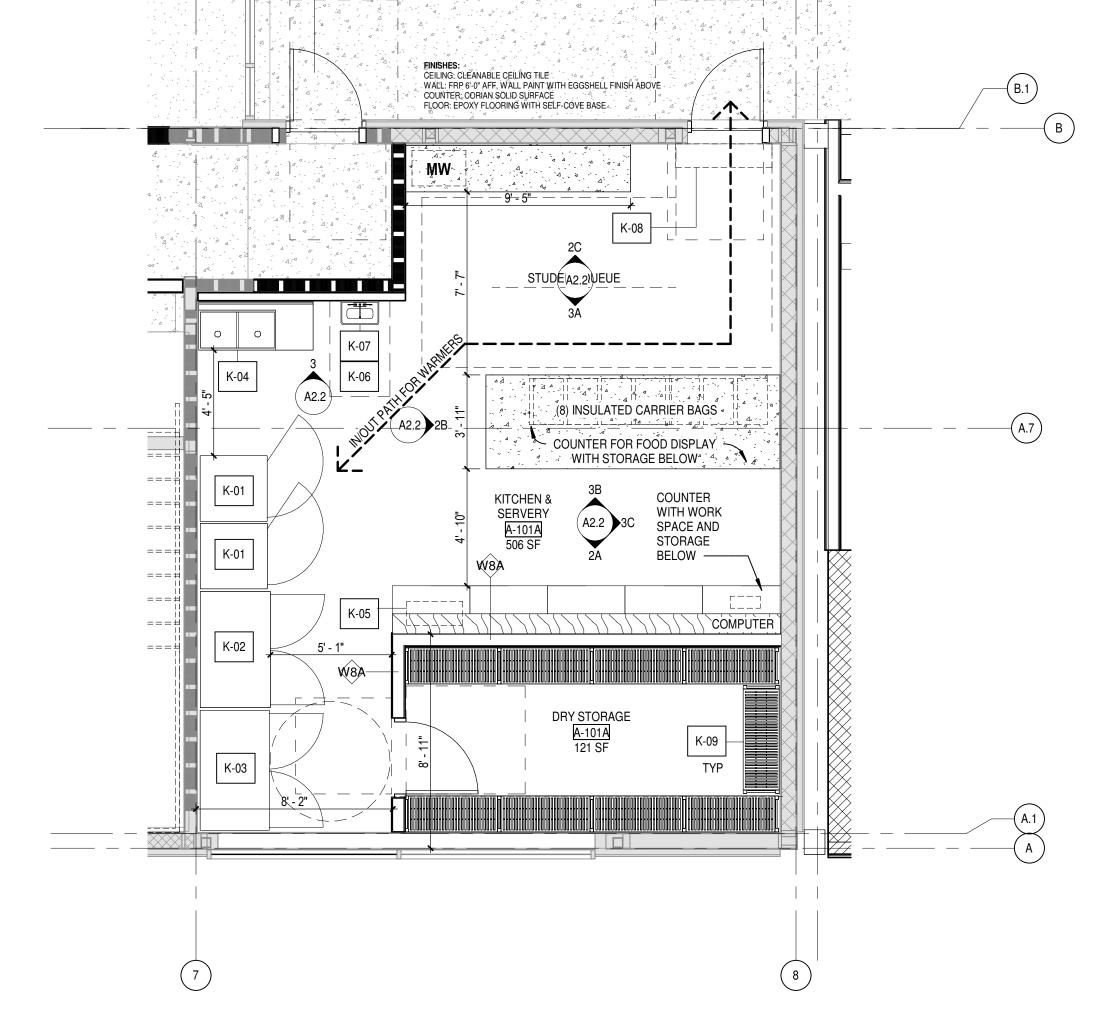
A2.2 SCALE: 1/4" = 1'-0" TRANS CTR KITCHEN & SERVERY A-101 - EAST 2

SCALE: 1/4" = 1'-0" P-1 T-8 FRP-1 TYP 46 TYP TRANS CTR KITCHEN & SERVERY A-101 - NORTH 2

SCALE: 1/4" = 1'-0" TRANS CTR KITCHEN & SERVERY A-101 - EAST

A2.2 SCALE: 1/4" = 1'-0"







TEM# QTY	DESCRIPTION	MANUFACTURER	MODEL#	HEIGHT	WEIGHT	PLUMBING	ELECTRICAL	ANCHORA	IGE NOTES
<-01 2	HUMIDIFIED HEATED HOLDING TRANSPORT CABINET	FWE	UHS-12	69.5	350	N/A	120 VOLTS, 11 AMPS, SINGLE PHASE	N/A	
(-02 1	REACH-IN REFRIGERATOR - TWO SECTION	TRAULSEN	AHT232WUT-FHS	83.25	550	N/A	115/60/1	XX	WIDE WIDTH, S/S EXTERIOR AND ANODIZED ALUMINUM INTERIOR, (SELF-CONTAINED), PROVIDE WITH CASTERS
K-03 1	REACH-IN FREEZER - TWO SECTION	TRAULSEN	ALT232WUT-FHS	83.25	625	N/A	115/60/1	XX	S/S EXTERIOR AND ANODIZED ALUMINUM INTERIOR (SELF-CONTAINED), PROVIDE WITH CASTERS
<-04 1	2PB-1DB PRO-BOWLTWO COMPARTMENT SINKS 16 GA	JOHN BOOS	2PB18-1D18	35 1/4"	270	XX	N/A	XX	12" DEEP
K-05 1	MEDIUM DUTY COMMERCIAL MICROWAVE OVEN	SHARP	R21LCFS	12.17	37	N/A	120V, 60HZ, 1.6KW, 14A	N/A	
K-06 1	WALL MOUNT HAND SINK W/ SOAP, TOWEL DISPENSER	EAGLE GROUP	HSAP-14-ADA-FW	24"	65 LBS	2" DW			
K-07 1	HAND SINK FAUCET SPLASH MOUNTED	T&S	B-1146-04	11"	4.5 LBS	1/2" CW, 1/2" HW			
<-08 1	AIR CURTAIN	MARS	TBD						
<-09 1	DRY STORAGE SHELVING UNIT	CAMBRO	CAMSHELVING	64" HIGH					



KITCHEN SINK -

TRANS CTR KITCHEN & SERVERY A-101 - WEST SINK

A2.2 SCALE: 1/4" = 1'-0"

2C TRANS CTR KITCHEN & SERVERY A-101 - WEST 1
A2.2 SCALE: 1/4" = 1'-0"

REFLECTED CEILING PLAN **GENERAL NOTES**

- A. REFLECTED CEILING PLAN GENERAL NOTES APPLY TO ALL REFLECTED CEILING PLAN SHEETS. B. ALL CEILING GRIDS/PANELS SHALL BE CENTERED IN EACH ROOM UNLESS NOTED OTHERWISE.
- . CEILING HEIGHTS ARE NOTED ON THE REFLECTED CEILING PLANS ARE MEASURED FROM FINISH FLOOR OF THE ROOM. ALL ELECTRICAL FIXTURES, SPEAKERS, SMOKE AND THERMAL DETECTORS, MECHANICAL GRILLES, SPRINKLER HEADS, AND OTHER CEILING MOUNTED DEVICES, SHALL BE CENTERED BETWEEN CEILING GRIDS UNLESS NOTED
- OTHERWISE. SPRINKLER HEADS SHALL BE WITHIN A 3-INCH RADIUS CENTERED BETWEEN CEILING GRIDS. IN ACOUSTICAL CEILING PANELS WITH SCORE IN THE CENTER, CENTER DEVICES REFERENCE IN NOTE D IN ONE HALF OF THE TILE. DO NOT LOCATE ON THE SCORE. FOR APC WITH MULTIPLE SCORED PATTERNS, COORDINATE
- PROVIDE SUSPENSION SYSTEM AROUND ELECTRICAL FIXTURES, MECHANICAL GRILLES, DIFFUSERS, AND OTHER CEILING MOUNTED DEVICES, AT ACOUSTICAL PANEL CEILINGS. G. ALL DIMENSIONS ON REFLECTED CEILING PLANS ARE ACTUAL AND ARE TO THE FOLLOWING UNLESS NOTED OTHERWISE:
- a. FACE OF FINISHED WALL b. FACE OF FINISHED BULKHEADS c. CENTERLINE OF COLUMNS
- d. CENTERLINE OF TEES . IN AREAS WITH EXPOSED STRUCTURE CEILINGS, COORDINATE EXACT LOCATIONS OF MECHANICAL GRILLES, DIFFUSERS, DUCTWORK AND ELECTRICAL FIXTURES WITH EACH REPRESENTATIVE SUBCONTRACTOR.
 ALL WALLS EXTEND TO UNDERSIDE OF DECK EXCEPT THOSE SHOWN SHADED IN WHICH GYPSUM BOARD OR MASONRY EXTENDS MIN 4 INCHES ABOVE FINISHED CEILING. ALL METAL STUDS EXTEND TO UNDERSIDE OF FLOOR OR
- PAINT ALL EXPOSED SURFACES, EXPOSED MECHANICAL EQUIPMENT, STRUCTURAL MEMBERS, ELECTRICAL CONDUIT WIRING AND SUPPORT: P-1. . ALL CEILING ARE NEW WORKS, U.O.N.
- .. CENTER CEILING TILE OR GRID IN THE ROOMS, U.O.N. M. ALL NEW GYPSUM BOARD CEILINGS IN THE EXISTING BUILDING ARE TO BE FRAMED WITH WOOD PER 56/S6.2. ALL NEW GYPSUM BOARD CEILINGS ON THE NEW CONSTRUCTION SIDE TO BE FRAMED WITH METAL PER 41/S8.3. ADD01

REFERENCE KEYNOTES

Keynote Text FRAMED GYP. BOARD CEILING, SEE AND SPECS SECTION 09 SUSPENDED ACT CEILING, SEE AND SPECS SECTION 09 51 13 FRAMED GYP. BOARD SOFFIT, SEE 36/A14.2 ACOUSTICAL CEILING CLOUD SYSTEM, SEE A14.3 FOR CEILING REMOVE AND REPLACE DAMAGED TILES WITH ACP-1; PATCH AND REPAIR AS REQUIRED FOR FIRE ALARM & SPRINKLER. OVERHEAD MOUNTED HOIST TRANSVERSE SYSTEM; SEE

1/A14.0 & 5/A14.0 FOR DETAILS RANGE HOOD LOCATION, SEE 21/A10.44 LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS PENDANT LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS

GYPSUM BOARD CEILING (GB-1), PAINTED P-1 U.N.O. MINIMAL CEILING SCOPE; PATCH AND REPAIR AS REQUIRED EXPOSED STRUCTURAL DECK, PAINTED PT-1 U.N.O. EXPOSED STRUCTURAL, DUCTS, CONDUIT, PIPES, PAINTED PT-1 U.N.O.

> DENOTES CEILING TYPE AND HEIGHT OPEN TO STRUCTURE, HEIGHT VARIES

> > 1. SEE INTERIOR FINISH SCHEDULE ON SHEET A12.1 AND A12.2 FOR CEILING TYPE SPECIFICATIONS.

2. SEE ELECTRICAL DRAWINGS FOR LIGHT FIXTURE SCHEDULE SHEET E0.3

REFLECTED CEILING PLAN LEGEND

ACOUSTIC CEILING TILE IN

SUSPENDED GRID (2X2)

ACOUSTIC CEILING TILE IN

SUSPENDED GRID (2X4)

SMOKE DETECTOR PANEL TO CONTAIN NO ACOUSTIC LIGHTING FIXTURE MECHANICAL SUPPLY GRILLE

WIRING WITH

DISTRICT AND

EXIT SIGN

MANUFACTURER

MECHANICAL RETURN GRILLE

MECHANICAL EXHAUST GRILLE

ACCESS PANEL, SEE 14 / A14.2

FA STROBE CEILING SPEAKER. COORDINATE REQUIREMENTS AND

WINDOW SHADE WALL MOUNT NO POCKET, SEE DETAIL WINDOW SHADE WALL MOUNT WITH RECESSED POCKET AT ACOUSTI CEILING PANEL, SEE DETAIL WINDOW SHADE WALL MOUNT WITH RECESSED POCKET AT A14.2 GYP.BD. CEILING, SEE DETAIL

WINDOW SHADE DETAIL

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DSA APPLICATION NO: 03-122743

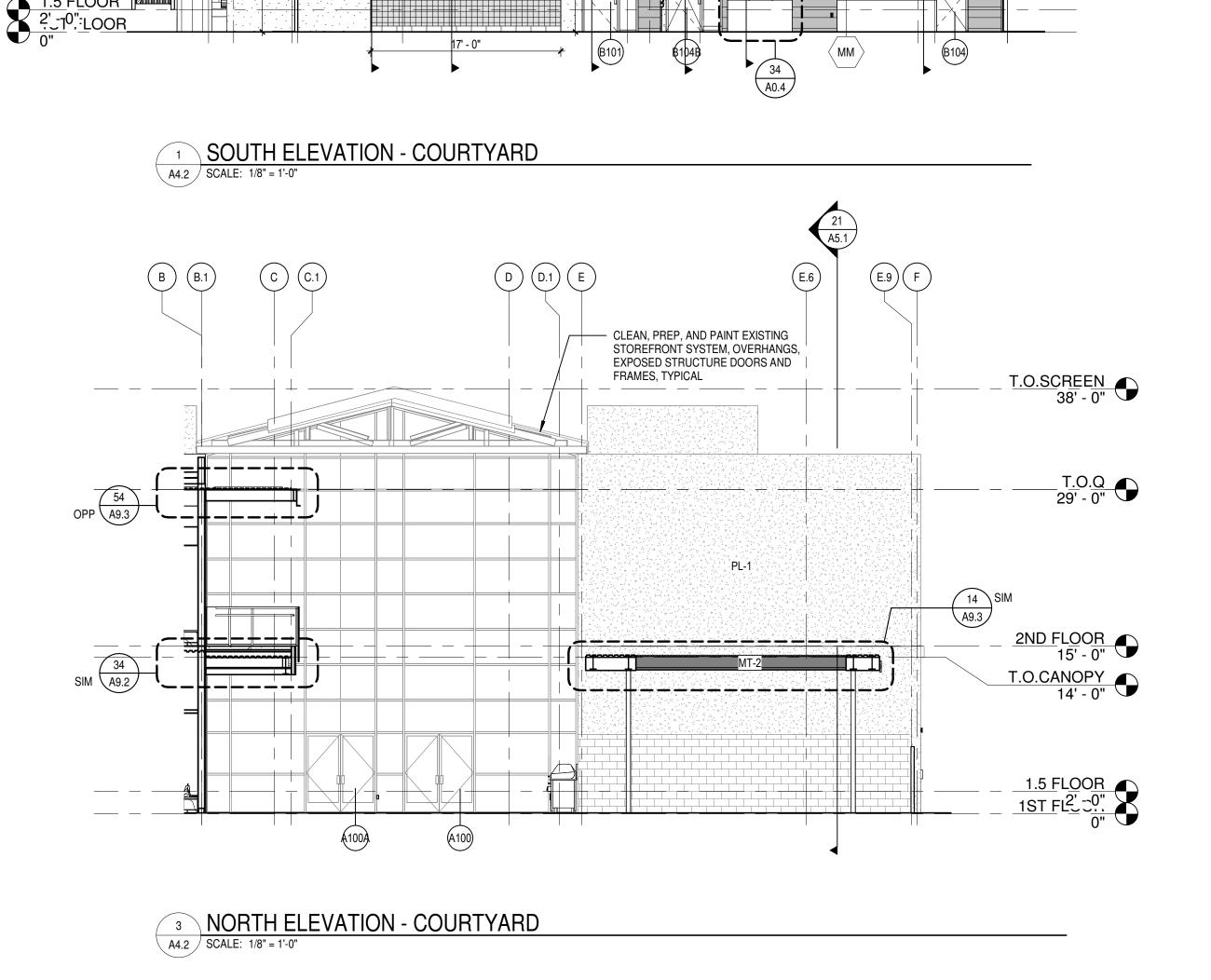
CEILING PLAN

ddition/Modernization

CONSTRUCTION
DOCUMENTS

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 02/15/2024 SUBMITTAL TITLE 10/07/2024

EXTERIOR ELEVATIONS



MT-3

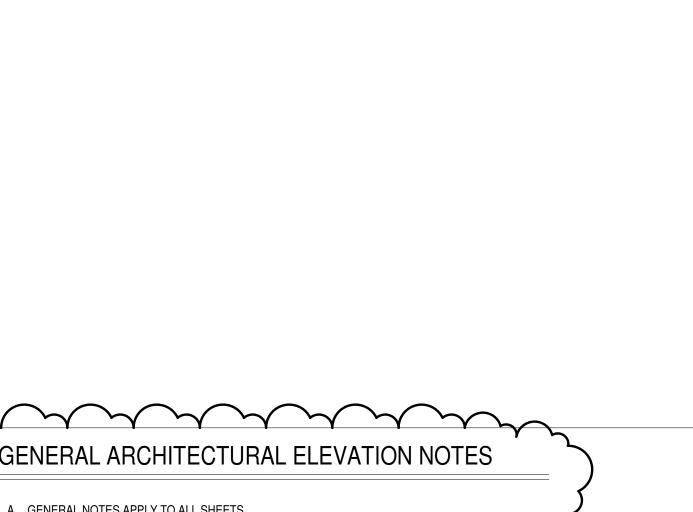
GREEN PLANT WALL
SPEC 32 94 50

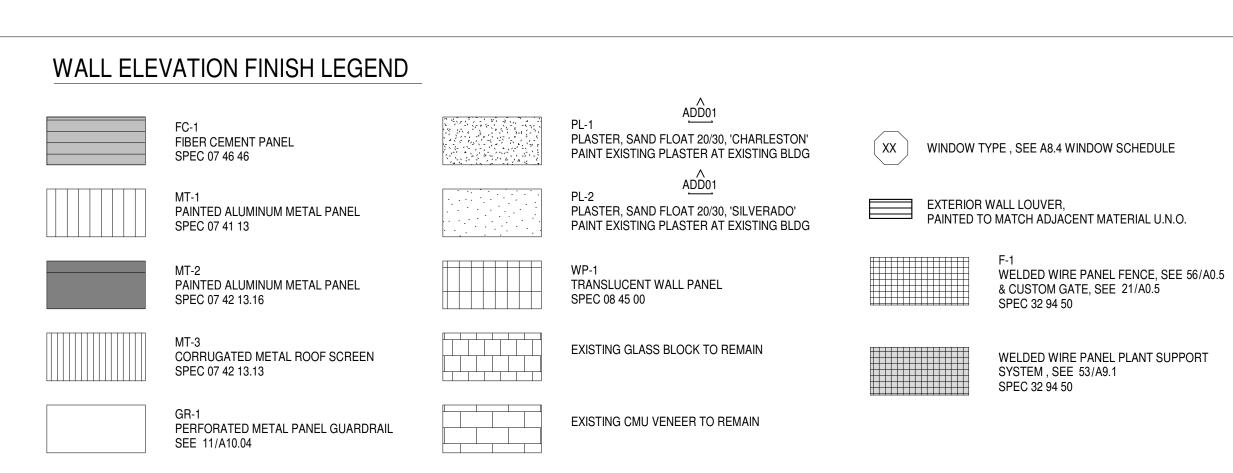
T.O.RIDGE 40' - 1"

T.O.SCREEN
38' - 0"
T.O.P
32' - 1"
T.O.Q
29' - 0"

2ND FLOOR 15' - 0"

T.O.CANOPY 14' - 0"





A. GENERAL ARCHITECTURAL ELEVATION NOTES

A. GENERAL NOTES APPLY TO ALL SHEETS
B. ALL EXISTING PLASTER TO REMAIN TO BE CLEANED, PREPPED & PAINTED TO MATCH PL-1 OR PL-2.
C. ALL EXISTING MASONRY VENEER TO REMAIN TO BE CLEANED, PREPPED, AND PAINTED.
D. EXISTING FINISHES WHERE DAMAGED OR REQUIRED TO BE REMOVED FOR SCOPE OF WORK ARE TO BE PATCHED AND REPLACED WITH NEW FINISHES TO MATCH EXISTING.
E. PROVIDE ANTI-GRAFFITI COATING AT NEW AND EXISTING EXTERIOR FINISHES. SEE 09 96 23.

Education and Addition/Modernization

Adult

Rosemead

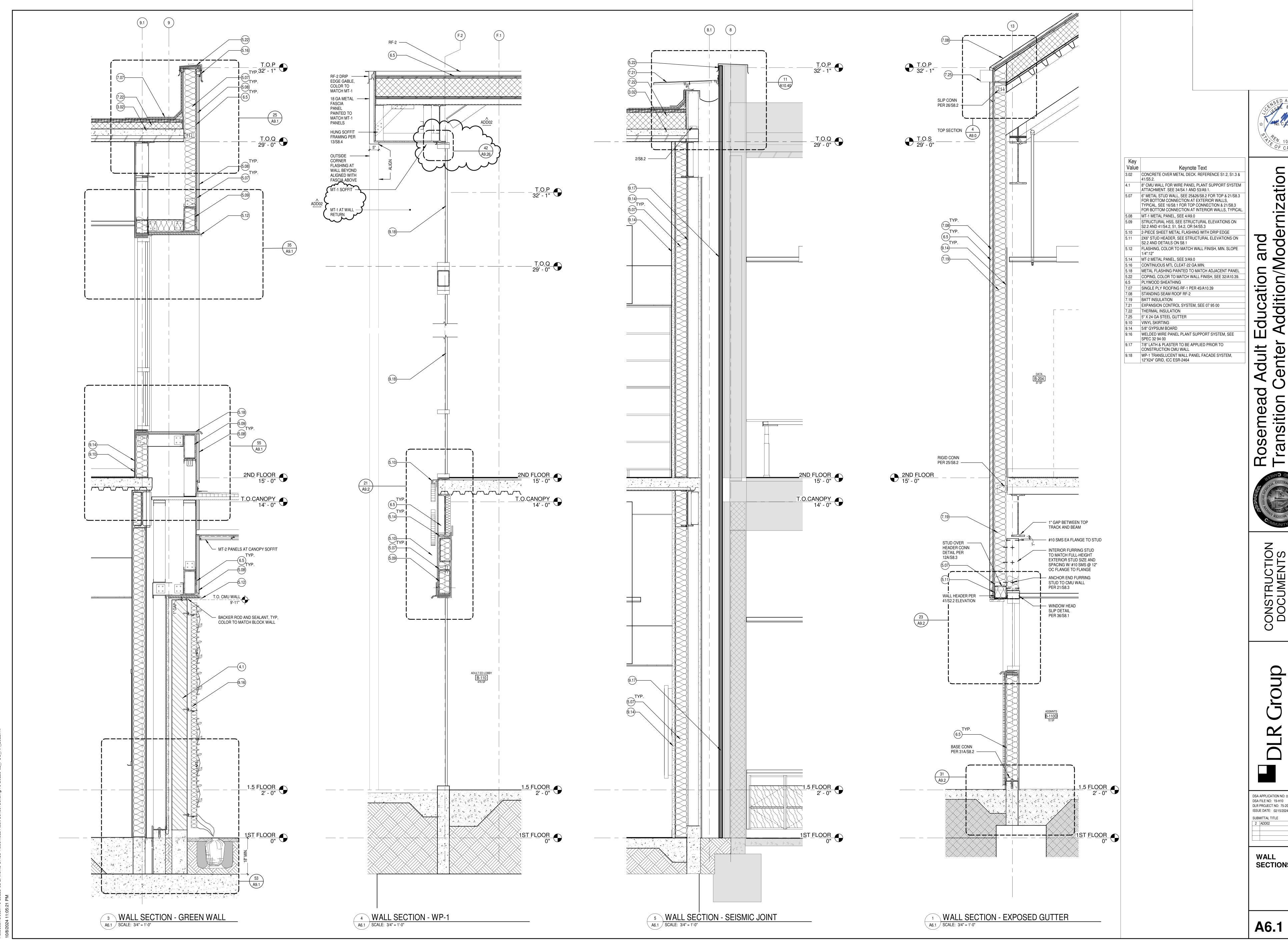
Transition Center Add El Monte Union High School District 4105 ROSEMEAD BLVD, ROSEMEAD, CA 91770

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1 | ADD01 | 09/26/2024
2 | ADD02 | 10/07/2024

EXTERIOR ELEVATIONS

A4.2



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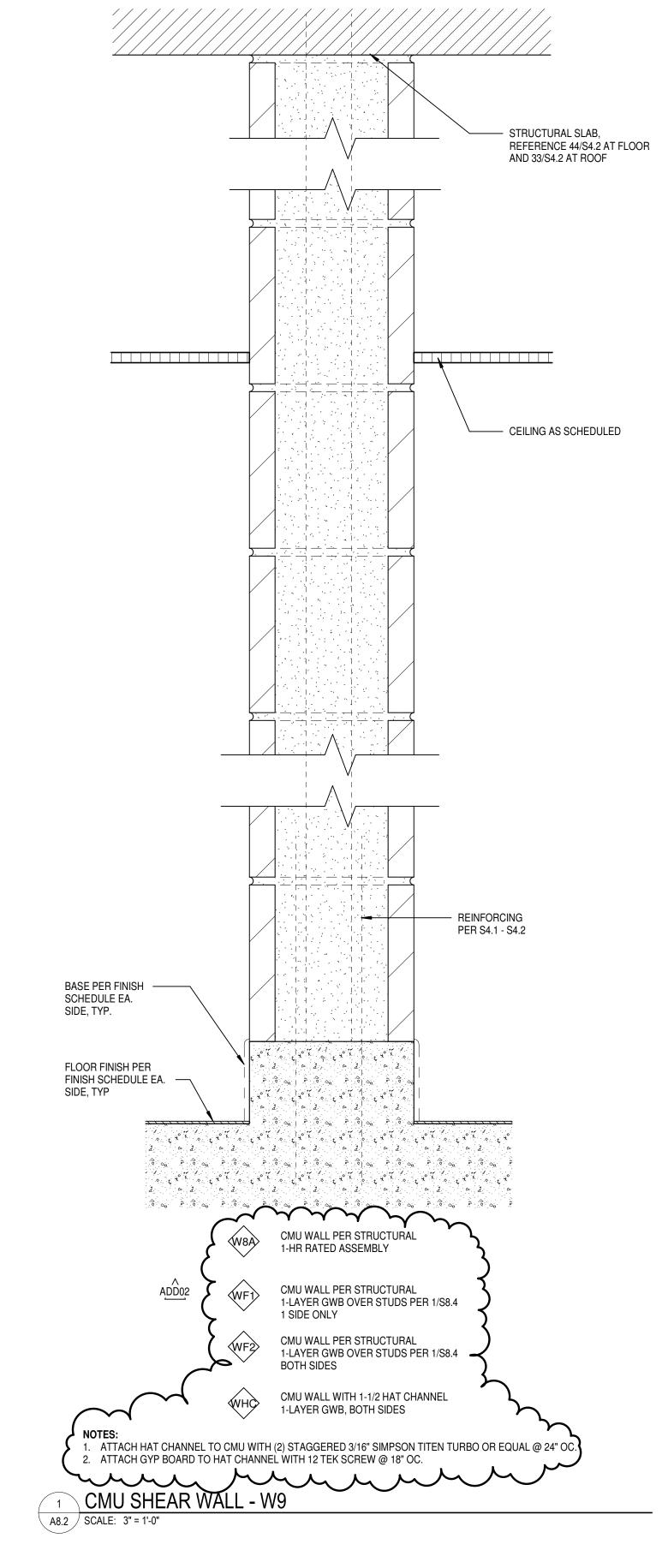
Addition/N

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 02/15/2024

SECTIONS

WALL TYPES -WOOD AND CMU

A8.2



PARTITION TYPES DESCRIPTIONS

DDD WALL TYPE TAG

FOR INTERIOR METAL STUD SCHEDULE - SEE 22/S8.3 FOR INTERIOR WOOD STUD SCHEDULE - SEE 13/S6.2

DOOR AND FRAME SCHEDULE **GENERAL NOTES**

- A. ALL EXTERIOR HOLLOW METAL FRAMES SHALL BE FILLED WITH
- B. ALL INTERIOR HOLLOW METAL FRAMES SET IN MASONRY AND CONCRETE WALLS SHALL BE GROUTED SOLID. . ALL HOLLOW METAL FRAMES SET IN METAL STUD WALLS SHALL BE FILLED WITH MINERAL WOOL BLANKET INSULATION.
- ALL EXTERIOR FRAMES SHALL BE INSTALLED WITH 1/4" SHIM AND SEALANT AROUND PERIMETER OF FRAME. . MASONRY LINTELS AND STEEL LINTELS ARE SHOWN ON
- STRUCTURAL DRAWINGS. F. GLASS TYPES FOR DOORS ARE INDICATED IN THE DOOR
- GLAZING COLUMN OF THE DOOR AND FRAME SCHEDULE. GLASS TYPES FOR FRAMES ARE INDICATED ON THE FRAME FOR COILING DOORS, GRILLES AND SECTIONAL DOORS, WIDTH
- SCHEDULE REPRESENT FINISHED OPENING SIZE. CONTRACTOR TO COORDINATE EXACT SIZE OF DOOR WITH FRAME MANUFACTURER SHALL COORDINATE LOCATIONS OF
- ALL CONCEALED CONDUIT AND J-BOXES REQUIRED FOR SECURITY SYSTEM HARDWARE PRIOR TO MANUFACTURING O HOLLOW METAL FRAMES AND COORDINATE WITH SECURITY HARDWARE AND DEVICES. PROVIDE HEAD RECEIVERS AT ALUMINUM STOREFRONTS AND
- SEE SPECIFICATIONS HARDWARE SECTION FOR HARDWARE SETS NOTED IN DOOR AND FRAME SCHEDULE. K. ALL ALUMINUM DOORS AND FRAMES TO BE 'CHARCOAL'
- ALL EXTERIOR HM DOORS AND FRAMES TO PAINTED TO MAT ALUMINUM DOORS AND FRAMES.
- M. ALL OTHER DOORS TO BE PAINTED P-17. ALL OTHER DOOR FRAMES TO BE PAINTED P-16. U.N.O. REFER TO FINISH
- N. GATE HARDWARE TO BE BLACK OR DARK BRONZE, TYPICAL

DOOR PANEL TYPE DESCRIPTIONS

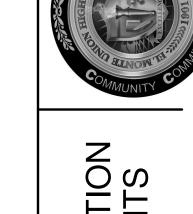
- HALF LITE GLASS & LOUVERED LOUVERED (BOTTOM)
- LOUVERED (TOP & BÓTTOM) N NARROW LITE GLASS NL NARROW LITE GLASS & LOUVERED
- TL LOUVERED (TOP) VISION LITE GLASS (10" SQUARE)

GLAZING TYPE DESCRIPTIONS

- CLEAR FLOAT GLASS CLEAR INSULATING GLASS
- CTIG CLEAR TEMPERED INSULATING GLASS
- LAMINATED GLASS PATTERN GLASS
- PATTERN INSULATING GLASS
- SPANDREL GLASS
- TINTED FLOAT GLASS TEMPERED GLASS
- TINTED INSULATING GLASS
- TINTED TEMPERED FLOAT GLASS TINTED TEMPERED INSULATING GLASS POLISHED WIRE GLASS

SCHEDULE COMMENTS LEGEND

CR PROVIDE CARD READER ACCESS CONTROL,



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DOOR & FRAME TYPE & **SCHEDULE**

A8.3

STOREFRONT / CURTAIN WALL GENERAL NOTES

- NEW STOREFRONT AND CURTAIN WALLS TO HAVE 70% PVDF PERMAFLUOR PAINT FINISH IN 'CHARCOAL' OR EQUAL, BOD KAWNEER, TYPICAL
 * CLEAN EXISTING WINDOWS FREE OF DEBRIS, SAND SMOOTH AND PREP FOR PAINT, ADD PRIMER AND FINISH COATS, COLOR TO MATCH NEW STOREFRONT/ CURTAIN WALL
- 3. GLAZING TO BE 1" THICK ASSEMBLY, TEMPERED INSULATED GLASS, CATEGORY II, VITRO SOLARBAN 72 (2) ACUITY +
- ACUITY, TYPICAL
- 4. ALL STOREFRONT AND CURTAIN WALL MULLIONS ARE 2"x6"
 UNLESS OTHERWISE NOTED.

 5. ALL VERTICAL AND HORIZONTAL SUNSHADES ARE 18" U.N.O.

VERTICAL OR HORIZONTAL SUNSHADE AT MULLION, SEE 46 7 A9.26 ADD02 TYPICAL MULLION

TRANSLUCENT WALL PANEL

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WINDOW TYPES & SCHEDULES

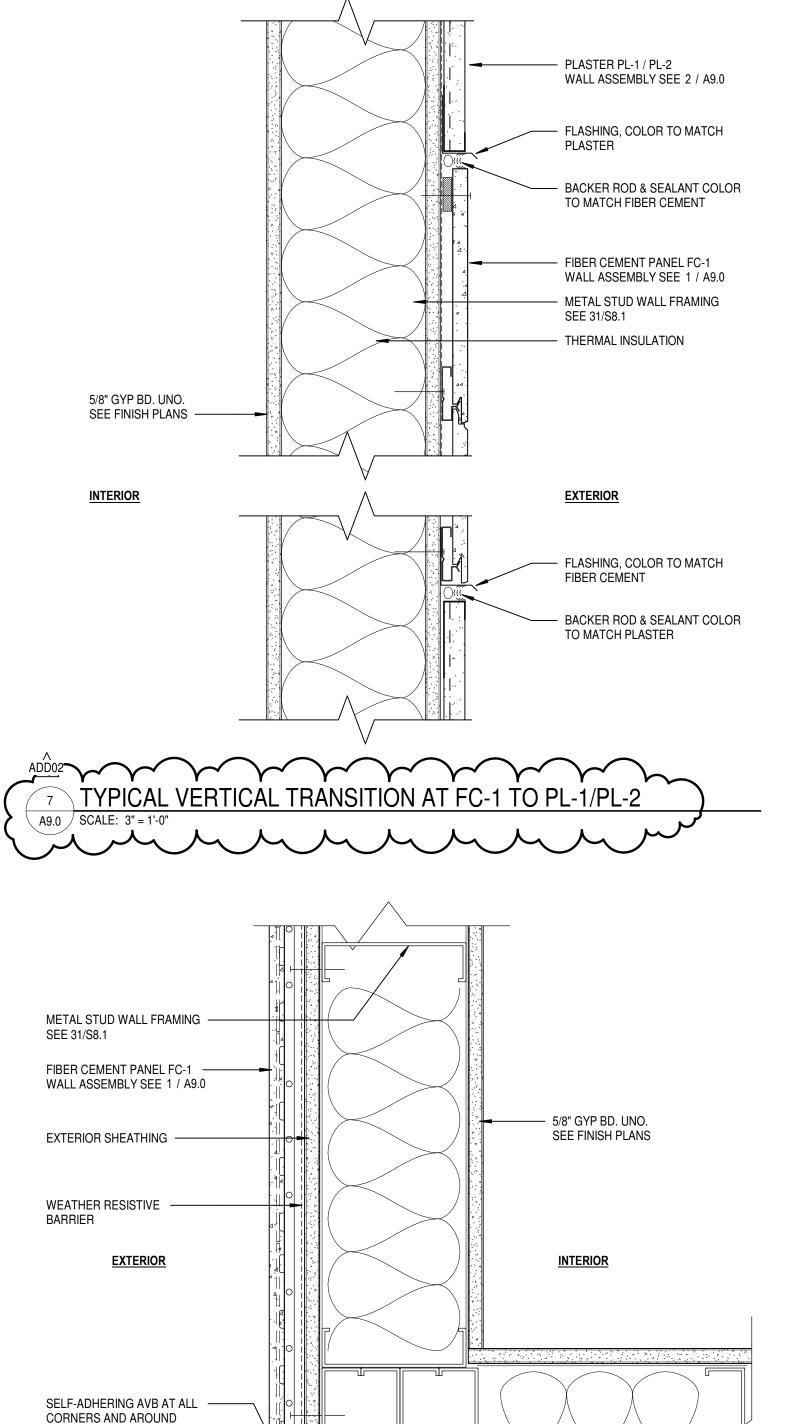
A8.4



WALL TYPE TAG

FOR INTERIOR METAL STUD SCHEDULE - SEE 22/S8.3

FOR INTERIOR WOOD STUD SCHEDULE - SEE 13/S6.2



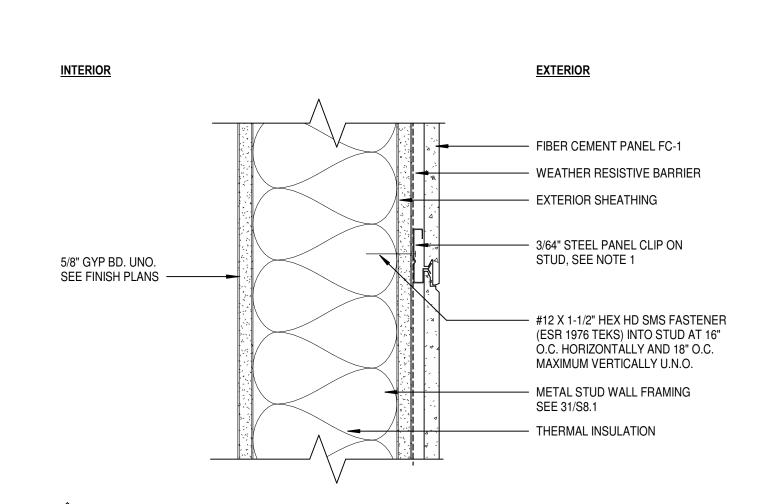


OPENINGS, TYP

CORNER CLIP —

FACTORY OUTSIDE CORNER ———

SEALANT JOINT OVER DOUBLE FLANGE —— SEALANT BACKER, COLOR TO MATCH PANEL



6" MTL STUD FRAMING, FC-1 ON EXTERIOR SIDE; SEE EXTERIOR ELEVATIONS

1. 13/64" STEEL PANEL CLIPS TO BE NICHIHA AWP CLIPS JEL778 AND JEL 788. CLIPS TO HAVE MIN. YIELD STRENGTH: 27,5000 PSI AND MIN. TENSILE STRENGTH: 50,000 PSI, TYPICAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. 2. 3/64" STEEL STARTER TRACK TO BE NICHIHA ULTIMATE HORIZONTAL STARTER TRACK FA700. TRACK TO HAVE MIN. YIELD STRENGTH: 27,500 PSI AND MIN TENSILE STRENGTH: 50,000 PSI, TYPICAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. 3. NICHIHA ARCHITECTURAL WALL PANELS (AWP) PER CCRR-0299 4. PANEL WEIGHT 3.9 LBS PER SQ. FT.

5. PANEL COLOR TO BE 'SPRUCE' FC-1 - FIBER CEMENT PANEL WALL ASSEMBLY A9.0 SCALE: 3" = 1'-0"

EXTERIOR

DETAILS &

WALL TYPES

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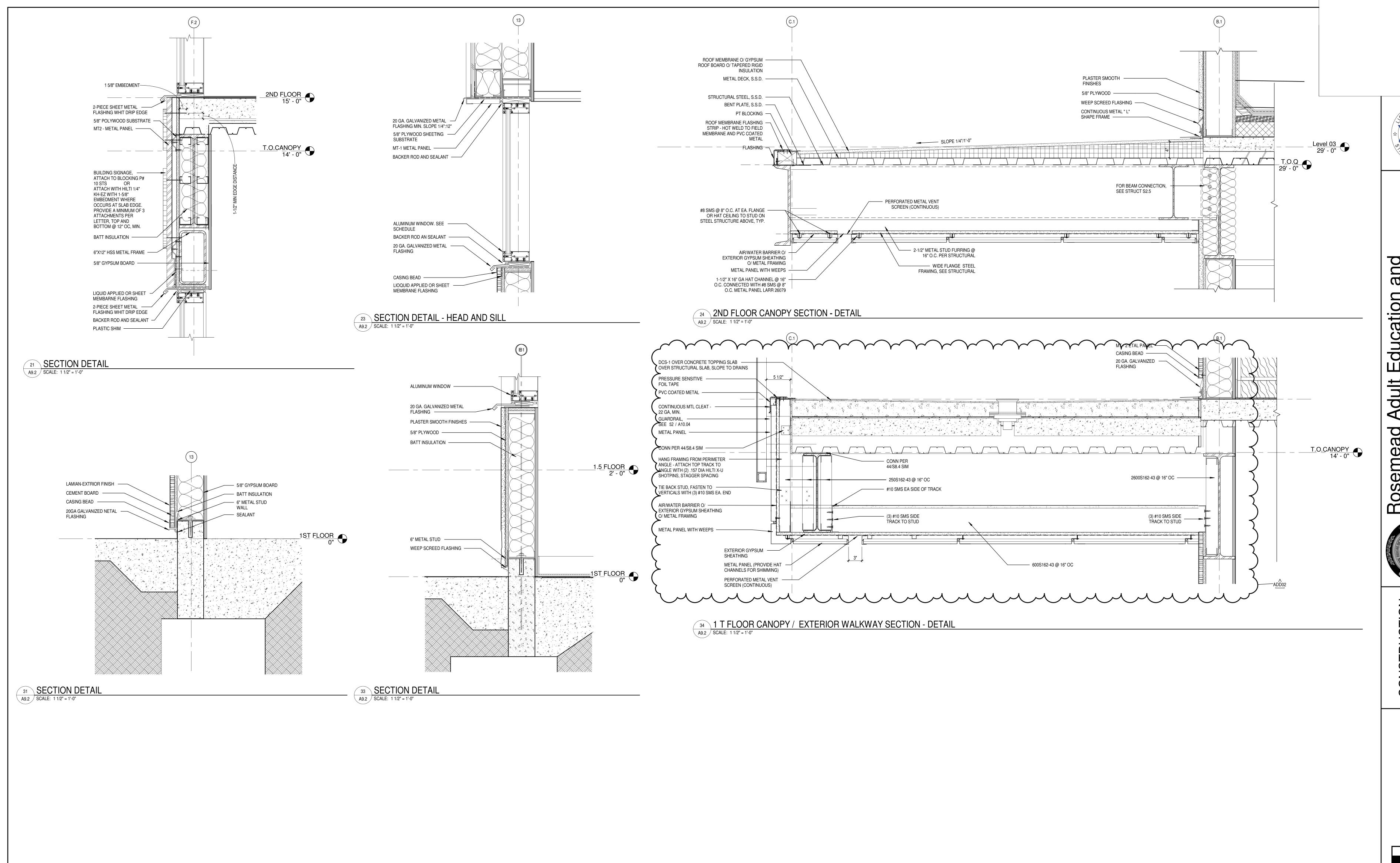
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A9.0



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EXTERIOR DETAILS

A9.2

rnization ddition/Mode

CONSTRUCTION
DOCUMENTS

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 02/15/2024 SUBMITTAL TITLE

EXTERIOR

DSA FILE NO: 19-H10
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ISSUE DATE: 02/15/2024
SUBMITTAL TITLE

2 ADD02 1

SIGNAGE DETAILS

A10.00

EXIT STAIR DOWN

ES-D

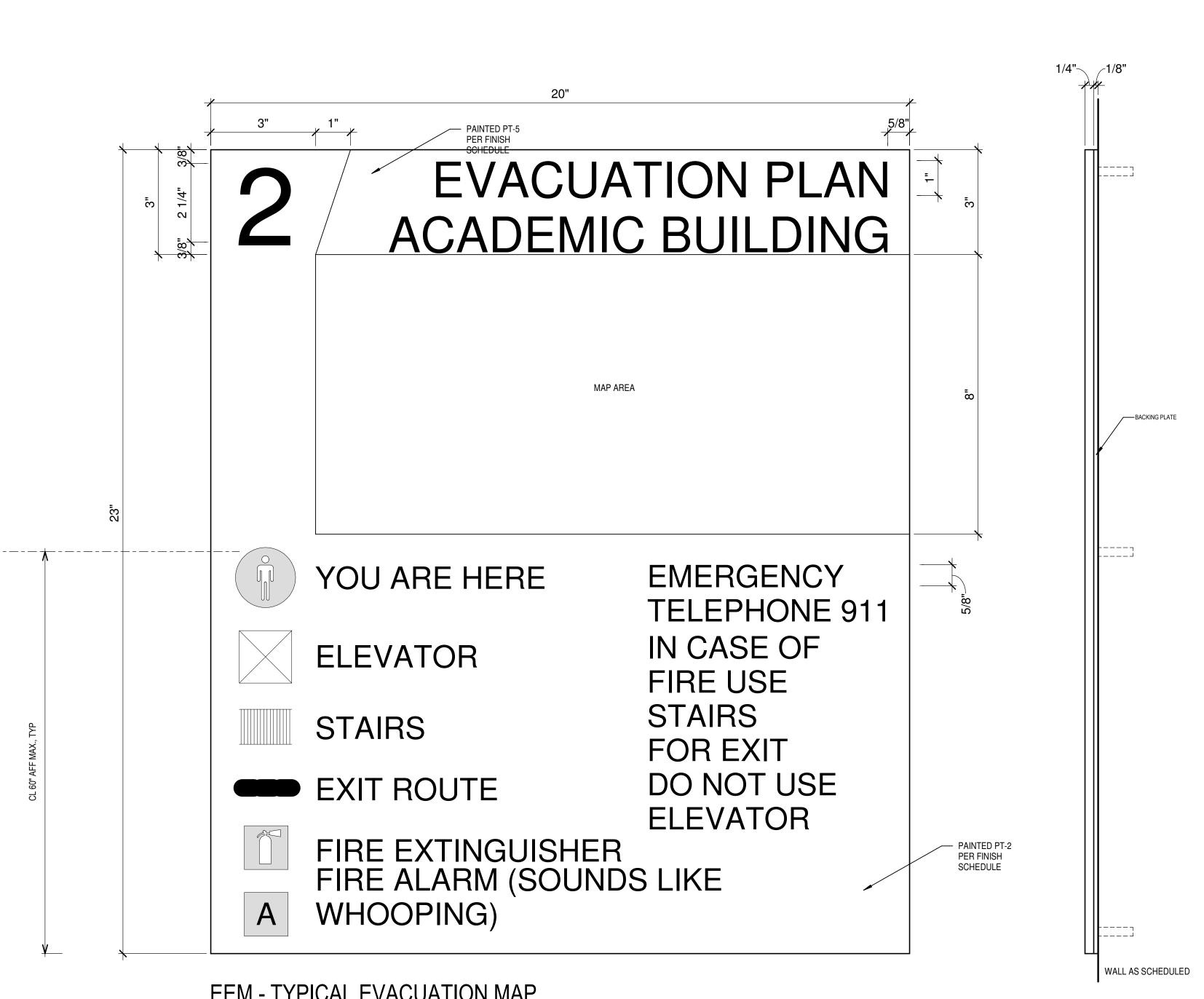
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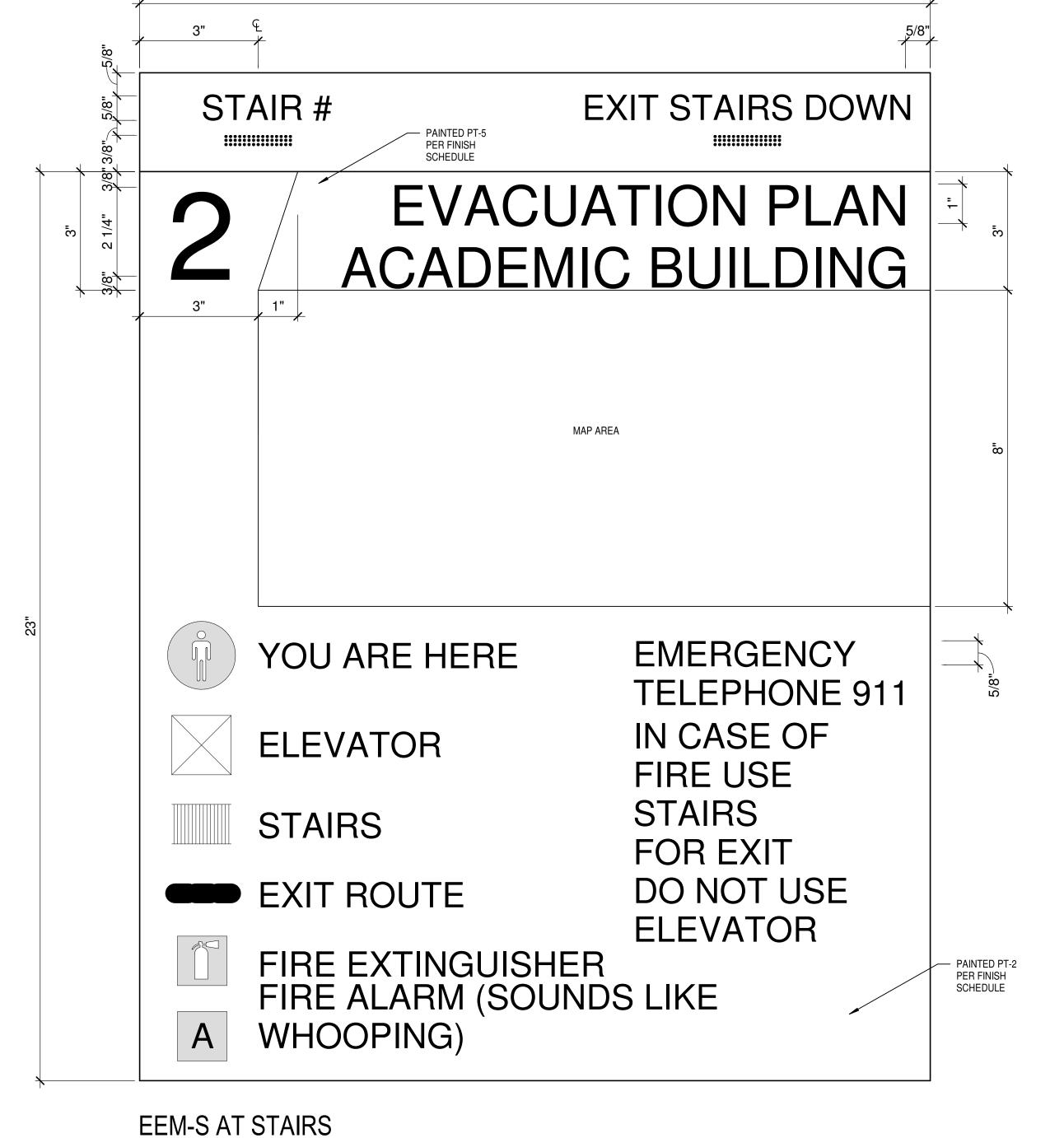
1. PROVIDE 14" THICK ACRYLIC PAINTED WITH CONTRASTING LETTERING SECURED WITH ADHESIVE OVER 18" THICK BACKING PLATE MOUNTED TO THE WALL WITH COUNTERSUNK SCREWS

2 EXIT STAIR DOWN

A10.00 SCALE: 3" = 1'-0"

WALL AS SCHEDULED





EEM - TYPICAL EVACUATION MAP EEM-E - AT ELEVATOR

1. 1/4" THICK ACRYLIC WITH 1/32" RAISED TACTILE LETTERS AND GRADE II CALIFORNIA BRAILLE AS REQUIRED.
2. WHEN MOUNTED TO WALL, PROVIDE 1/8" BACKING PLATE AND (4) #10 COUNTERSUNK SELF-DRILLING SCREWS 2" CLR FROM EDGES OF S
3. WHEN MOUNTED TO GLASS, USE ADHESIVE ONLY.
4. TYPESTYLE: ARIAL
6. SCHOOL TO PROVIDE ADDRESS AND VERIFY ALARM SOUNDS AND LIGHTS.

5/8" CAP HEIGHT LETTERING AS REQUIRED ON ALL TEXT.

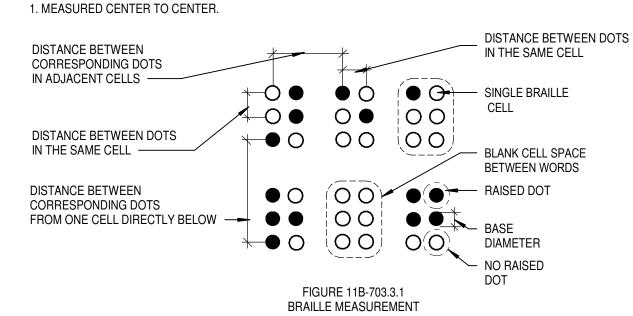
1 EMERGENCY EVACUATION MAP

RAISED CHARACTERS, BRAILLE, AND PICTORIAL SYMBOLS SIGNS

- CHARACTER TYPE: CHARACTERS ON SIGNS SHALL BE RAISED 1/32 INCH (0.794 mm) MINIMUM AND SHALL BE SANS SERIF UPPERCASE CHARACTERS, AND SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGLY DECORATIVE OR OF OTHER UNUSUAL FORM, ACCOMPANIED BY CONTRACTED (GRADE 2) BRAILLE (SEE NOTE 6 BELOW) (PROVIDE TYPESTYLE: ARIAL).
- . CHARACTER HEIGHT: CHARACTER HEIGHT MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8 INCH (15.9 mm) MINIMUM AND 2 INCHES (51 mm) MAXIMUM BASED ON THE HEIGHT OF THE UPPER
- PICTOGRAMS: PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6 INCHES (152 mm) CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.
- PICTOGRAMS AND THEIR FIELD SHALL HAVE A NON-GLARE FINISH, PICTOGRAMS SHALL CONTRAST WITH THEIR FIELD WITH EITHER A LIGHT PICTOGRAM ONA DARK FIELD OR A DARK PICTOGRAM ON A LIGHT FIELD. PICTOGRAMS SHALLHAVE TEXT DESCRIPTIORS LOCATED DIRECTLY BELOW THE PICTOGRAM FIELD.
- . CHARACTER PLACEMENT: CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT RAISED CHARACTERS WITHIN A MESSAGE, EXCLUDING WORD SPACES. WHERE CHARACTERS HAVE RECTANGULAR CROSS SECTIONS SPACING BETWEEN INDIVIDUAL CHARACTERS SHALL BE 1/8 INCH (3.2 mm) MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM WHERE CHARACTERS HAVE OTHER CROSS SECTIONS, SPACING BETWEEN INDIVIDUL RAISED CHARACTERS SHALL BE 1/16 INCH (1.6 mm) MINIMUM AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM AT THE BASE OF THE CROSS SECTIONS, AND 1/8 INCH (3.2 mm) MINIMUM AND 4 TIMES THE RAISED CHARACTERS STROKE WIDTH MAXIMUM AT THE TOP OF THE CROSS SECTIONS. CHARACTERS SHALL BE SEPARATED FROM THE RAISED BORDERS AND DECORATIVE ELEMENTS 3/8 INCH (9.5 mm) MINIMUM.
- LINE SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF RAISED CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE RAISED CHARACTER HEIGHT. FORMAT OF TEXT SHALL BE IN A HORIZONTAL FORM.
- TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES (1219 mm) MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST BRAILLE CELLS AND 60 INCHES (1524 mm) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS.
- WHERE TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE ACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18 INCHES (457 mm) MINIMUM BY 18 INCHES (457 mm) MINIMUM, CENTERED ON THE TACTILE CHARACTERS. IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSSITION AND 45 DEGREE OPEN POSITION. WHERE PERMANENT IDENTIFICATION SIGNAGE IS PROVIDED FOR ROOMS AND SPACES THEY SHALL BE LOCATED ON THE APPROACH SIDE OF THE DOOR AS ONE ENTERS THE ROOM OR SPCE SIGNS THT IDENTIFYEXITS SHALL BE LOCATED ON THE APPROACH SIDE OF THE DOORS AS ONE EXITS THE ROOM OR
- . CHARACTER PROPORTIONS: RAISED CHARACTERS ON SIGNS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPER CASE LETTER "O" IS 60 PERCENT MINIMUM ND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I". STROKE THICKNESS OF THE UPPERCSE LETTER "I" SHALL BE 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.
- 6. **BRAILLE:**
- BRAILLE DOTS SHALL HAVE ADOMED OR ROUNDED SHAPE AND SHALL COMPLY WITH TABLE 11B-703.3.1. THE INDICATION OF AN UPPERCASE LETTER OR LETTERS SHALL ONLY BE USED BEFORE THE FIRST WORD OF SENTENCES, PROPER NOUNS AND NAMES, INDIVIDUAL LETTERS OF THE ALPHBET, INITIALS, AND ACRONYMS.
- BRAILLE SHALL BE POSITIONED BELOW THE CORRESPONDING TEXT IN A HORIZONTAL FORMAT. FLUSH LEFT OR CENTERED. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8 INCH (9.5 mm) MINIMUM FROM AND 1/2 INCH (12.7 mm) MAXIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8 INCH (9.5 mm) MINIMUM FROM RAISED BORDERS AND DECORATIVE ELEMENTS. EXCEPTION: BRAILLE PROVIDED ON ELEVATOR CAR CONTROLLS SHALL BE SEPARATED 3/16 INCH (4.8 mm) MINIMUM AND SHALL BE LOCATED EITHER DIRECTLY BELOW THE CORRESPONDING RAISED CHARACTERS OR

TABLE 11B-703.3.1

MEASUREMENT RANGE	MINIMUM IN INCHES MAXIMUM IN INCHES
DOT BASE DIAMETER	0.059 (1.5 mm) to 0.063 (1.6 mm)
DISTANCE BETWEEN TWO DOTS IN THE SMALL CELL 1	0.100 (2.5 mm)
DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS 1	0.300 (7.6 mm)
DOT HEIGHT	0.025 (0.6 mm) to 0.037 (0.9 mm)
DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW 1	0.395 (10 mm) to 0.400 (10.2 mm)



- **VISUAL CHARACTERS**
- FINISH AND CONTRAST: CHARACTERS AND THEIR BACKGROUND SHALL HAVE NON-GLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.
- LETTER "O" IS 60 PERCENT MINIMUM AND 110 PERCENT MAIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I". STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 10 PERCENT MINIMUM AND 20 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.

. PROPORTIONS: CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE

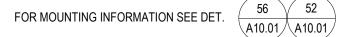
- CHARACTERS SHALL BE UPPERCASE AND LOWERCASE OR A COMBINATION OF BOTH. CHARACTERS SHALL BE CONVENTIONAL IN FORM. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSAL FORM.
- . CHARACTER HEIGHT: MINIMUM CHARACTER HEIGHT SHALL COMPLY WITH TABLE 11B-703.5.5. VIEWING DISTANCE SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CHARACTER AND AN OBSTRUCTION PREVENTING FURTHER APPROACH TOWARDS TO SIGN. CHARACTER HEIGHT SHALL BE BASED ON UPPERCASE
- EXCEPTION: W CHARACTERS SHALL BE 10 PERCENT ANDHERE PROVIDED, FLOOR PLANS PROVIDING EMERGENCY PROCEDURES INFORMTION IN ACCORDANCE WITH TITLE 19 SHALL NOT BE EQUIRED TO COMPLY. CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT CHARACTERS

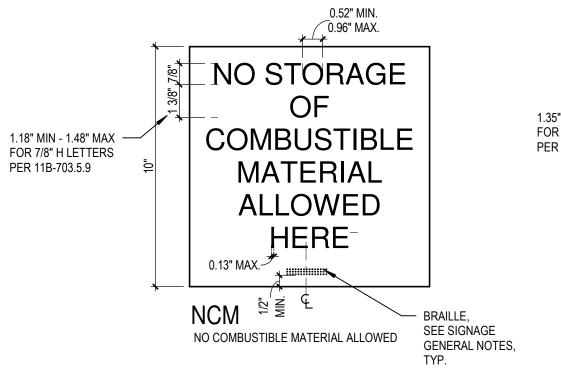
EXCLUDING WORD SPACES. SPACING BETWEEN INDIVIDUAL CHARACTERS SHALL BE 10 PERCENT MINIMUM AND

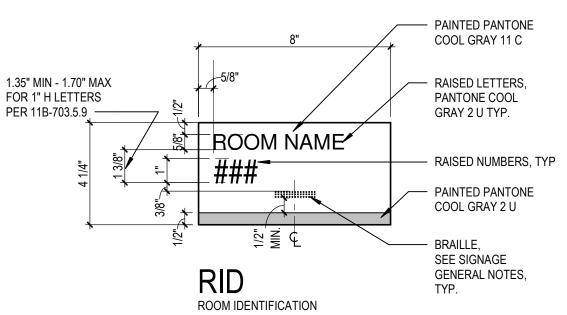
35 PERCENT MAXIMUM OF CHARACTER HEIGHT. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF CHARACTERS WITH A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE CHARACTER HEIGHT. TEXT SHALL BE ON A HORIZONTAL TABLE 11B-703.5.5

	VISUAL CHARACTER HEIG	нт
HEIGHT TO FINISH FOOR OR GROUND FROM BASELINE OF CHARACTER	HORIZONTALVIEWING DISTANCE	MINIMUM CHARACTER HEIGHT
	LESS THAN 72 INCHES	5/8 INCH (15.9 mm)

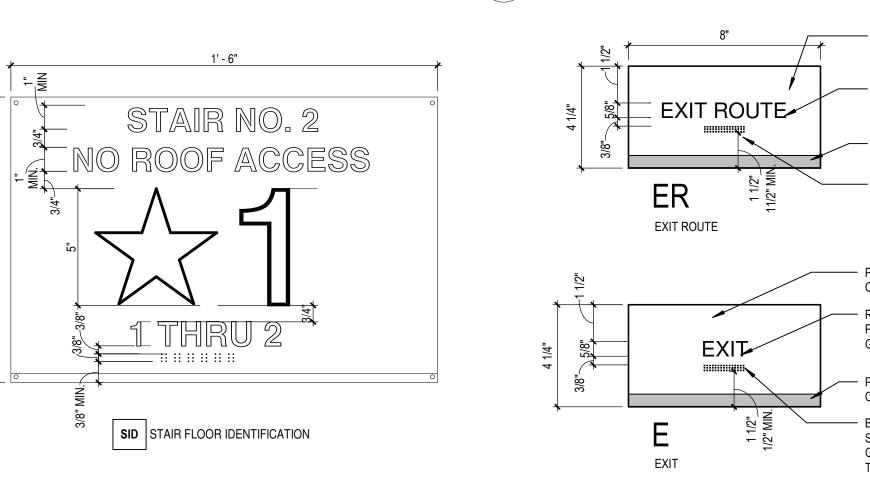
HEIGHT TO FINISH FOOR OR GROUND FROM BASELINE OF CHARACTER	HORIZONTALVIEWING DISTANCE	MINIMUM CHARACTER HEIGHT
40 INCHES (1016 mm) TO LESS	LESS THAN 72 INCHES (1829 mm)	5/8 INCH (15.9 mm)
THAN OR EQUAL TO 70 INCHES (1778 mm)	72 INCHES (1829 mm) AND GRATER	5/8 INCH (15.9 mm) PLUS 1/8 INCH (3.2 mm PER FOOT (305 mm) OF VIEWING DISTANCE ABOVE 72 INCHES (1829 mm)
GRATER THAN 70 INCHES (1778 mm)	LESS THAN 180 INCHES (4572 mm)	2 INCHes (51 mm)
TO LESS THAN OR EQUAL TO 120 INCHES (3048 mm)	180 INCHES (4572 mm) AND GRATER	2 INCHES (51 mm) PLUS 1/8 INCH (3.2 mm PER FOOT (305 mm) OF VIEWING DISTANCE ABOVE 180 INCHES (4572 mm)
CDATED THAN 100 INCHES (2040 mm)	LESS THAN 21 FEET (6401 mm)	3 INCHES (76 mm)
GRATER THAN 120 INCHES (3048 mm)	21 FEET (6401 mm) AND GRATER	3 INCHES (76 mm) PLUS 1/8 INCH (3.2 mm PER FOOT (305 mm) OF VIEWING DISTANCE ABOVE 21 FEET (6401 mm)







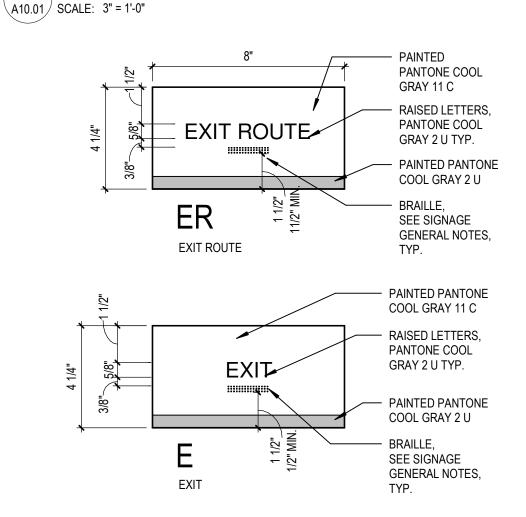
NO COMBUSTIBLE MATERIAL SIGNAGE $\sqrt{A}10.01 / SCALE: 3'' = 1'-0''$

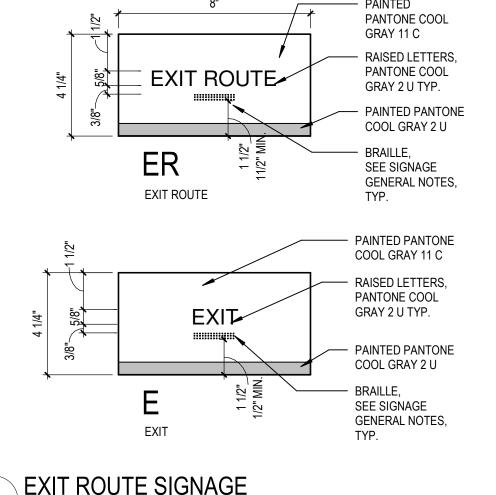


WHITE 3M VINYL DIE CUT SYMBOLS AND TEXT

ADJACENT TO ENTRANCE DOORS

STAIR FLOOR IDENTIFICATION





EXIT ROUTE SIGNAGE

1. SEE SIGNAGE GENERAL NOTES FOR ADDITIONAL INFORMATION

2. FOR MOUNTING INFORMATION SEE DET.

ROOM IDENTIFICATION



1. THE COLOR OF THE TRIANGLE SYMBOL SHALL CONTRAST WITH THE COLOR OF THE DOOR OR SURFACE ON WHICH THE TRIANGLE SYMBOL IS MOUNTED, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND. THE COLOR OF THE CIRCLE SYMBOL SHALL CONTRAST WITH THE COLOR OF THE DOOR OR SURFACE ON WHICH THE CIRCLE SYMBOL IS MOUNTED, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND.

1. 1/4" THICK ACRYLIC WITH 1/32" RAISED TACTILE LETTERS AND GRADE II CALIFORNIA BRAILLE AS REQUIRED. WHEN MOUNTED TO WALL, PROVIDE 1/8" BACKING PLATE AND (4) #10 COUNTERSUNK SELF-DRILLING SCREWS 2" CLR FROM EDGES OF SIGN.

- EDGES SHALL BE RADIUSED 1/16" MIN OR

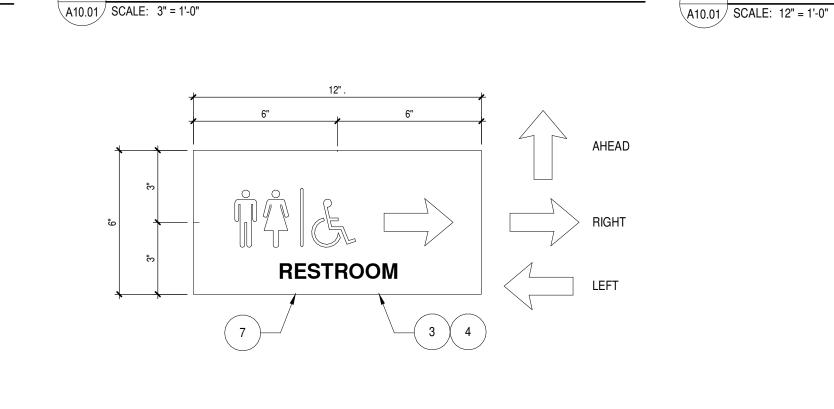
CHAMFERED 1/8" MAX

TYPESTYLE: ARIAL SIGNES EDGES TO BE EASED OR ROUNDED AT 1/16" MIN. OR CHAMFERED AT 1/8" MAX

PAINTED

PANTONE

COOL GRAY 4 U -



ASSISTIVE-LISTENING

MAXIMUM

METAL STUD WALL

AND BLOCKING OR

A10.01 SCALE: 1 1/2" = 1'-0"

HSS PER

STRUCTURAL

AVAILABLE

OFFICE

AT ADMINISTRATIVE

ASSISTIVE - LISTENING SYSTEM

MAXIMUM OCCUPANCY LOAD

0.84" MIN - 1.06" MAX

FOR 5/8" H LETTERS

0.67" MIN - 0.85" MAX

FOR 1/2" H LETTERS

PER 11B-703.5.9 ———

1.35" MIN - 1.70" MAX

ASSISTIVE LISTENING SYSTEM

LANGE MAXIMUM OCCUPANCY SIGNAGE

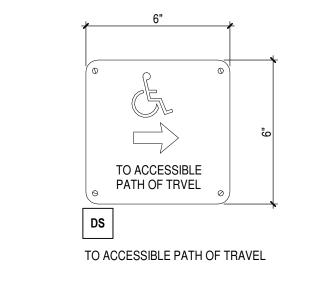
24 ELEV DIRECTIONAL SIGNAGE 'EDS'

FOR 1" H LETTERS

PER 11B-703.5.9 —

A10.01 SCALE: 3" = 1'-0"

PER 11B-703.5.9 —



NOTE: PROVIDE A MINIMUM OF 3 ATTACHMENTS PER LETTER

15 EXT. BUILDING SIGNAGE MOUNTING

6" (N.T.S.)

INTERNATIONAL SIGN

25 INTERNATIONAL SIGN OF ACCESSIBILITY

OF ACCESSIBILITY

WALL AS SCHEDULED

- SPACER AS NEEDED

SEALANT AS

REQUIRED

OUT LETTERS

- #10 COUNTERSUNK SELF

FASTENER LOCATIONS.

- 2" THICK INDIVIDUAL CUT

#10 COUNTERSUNK SELF-

TAPPING SSCREWS @ 12"

O.C. PROVIDE BACKING AT

FASTENER LOCATIONS.

- NO EXPOSED FASTENERS,

MECHANICALLY OR WELDED

LETTERS ATTACHED

TAPPING SSCREWS @ 12"

O.C. PROVIDE BACKING AT



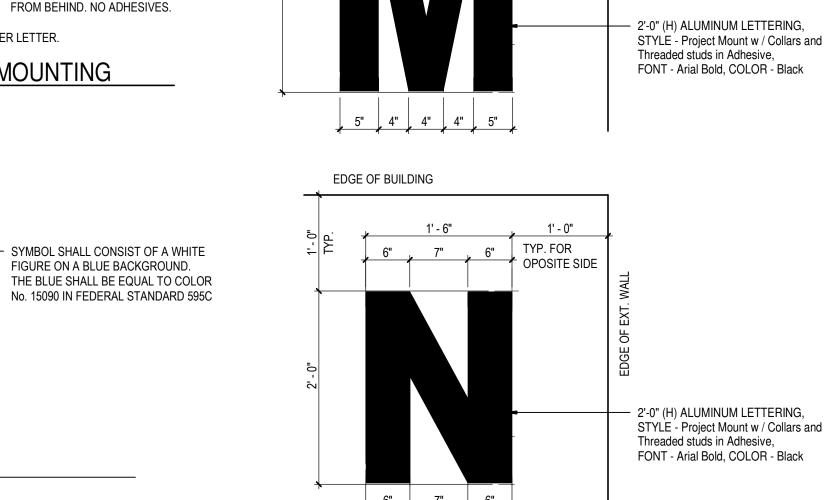
VERTICIES SHALL BE RADIUSED 1/8"-1/4"

DOOR AS

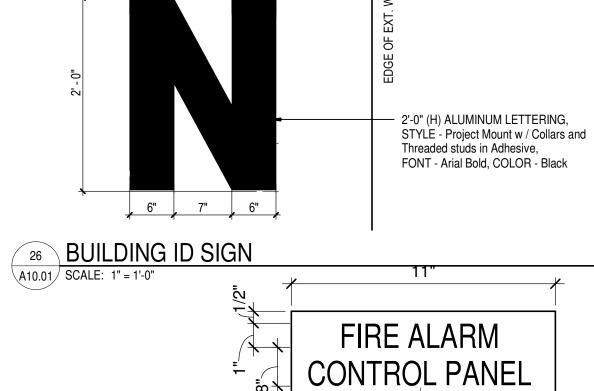
- PAINTED

GRAY 2 U

PANTONE COOL

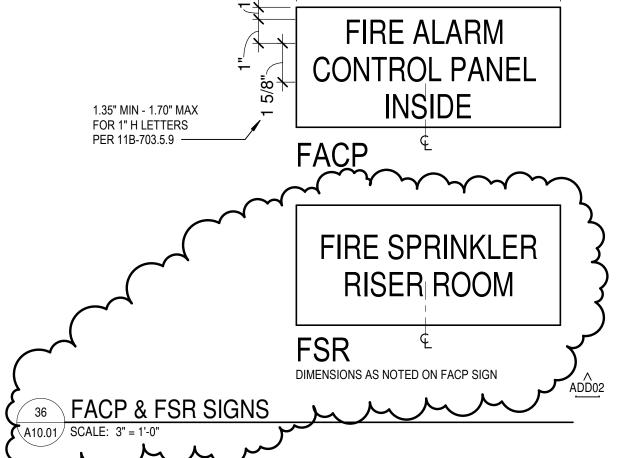


EDGE OF BUILDING



TYP. FOR

→ OPOSITE SIDE



atio

Addition/Mo

ation

n

0

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 02/15/2024 SUBMITTAL TITLE

SIGNAGE DETAILS

REFER TO DET. FOR MOUNTING HEIGHT

42 ACCESSIBILITY AT ENTRANCE AND PROP 65 WARNING A10.01 SCALE: 3" = 1'-0"

Smoking is NOT permitted in this building.

Tobacco smoke is known to the State of

This building contains detectable

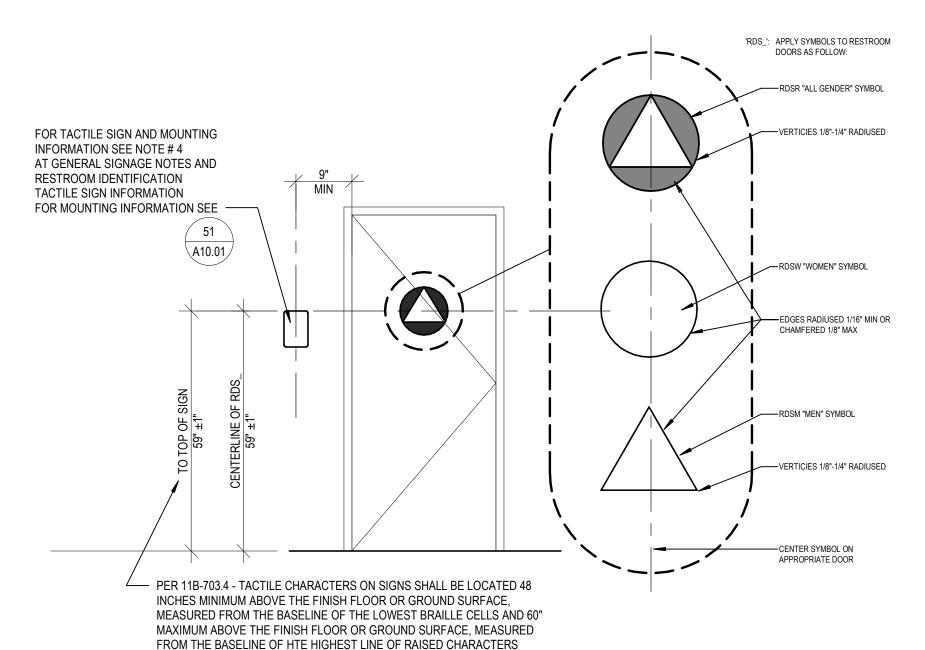
amounts of chemicals known to the

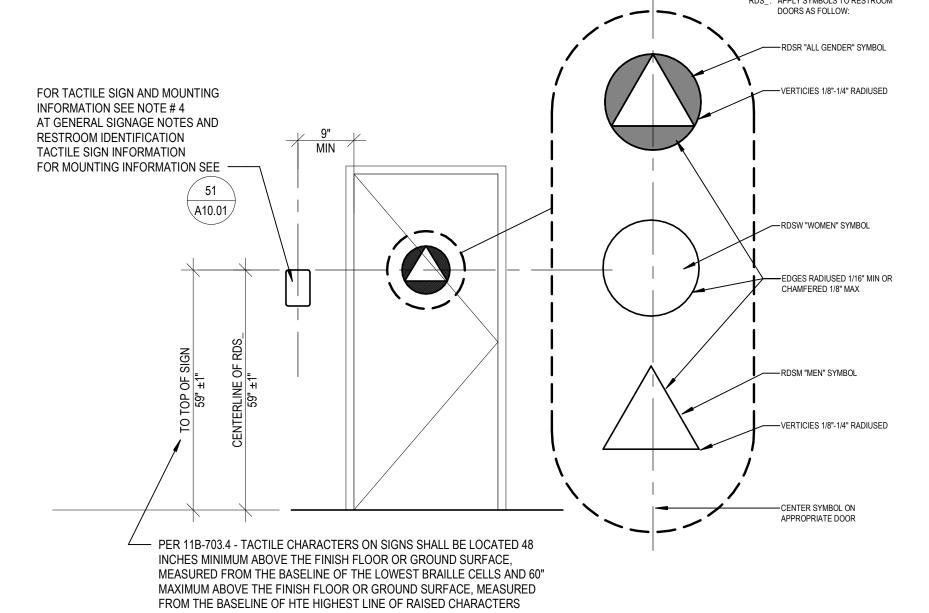
defects or other reproductive harm.

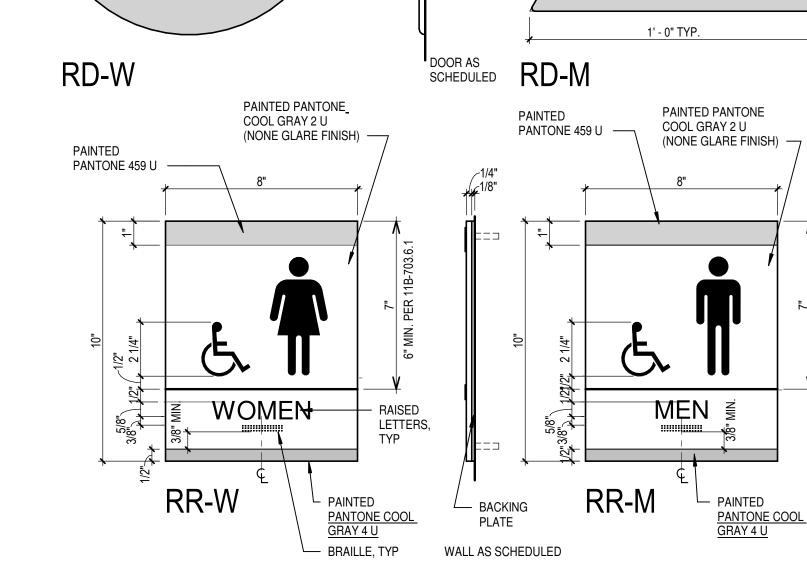
State of California to cause cancer, birth

other reproductive harm.

California to cause cancer, birth defects or

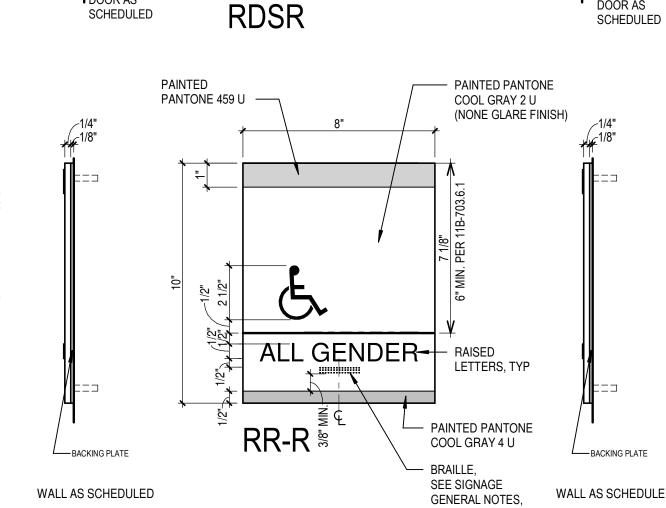


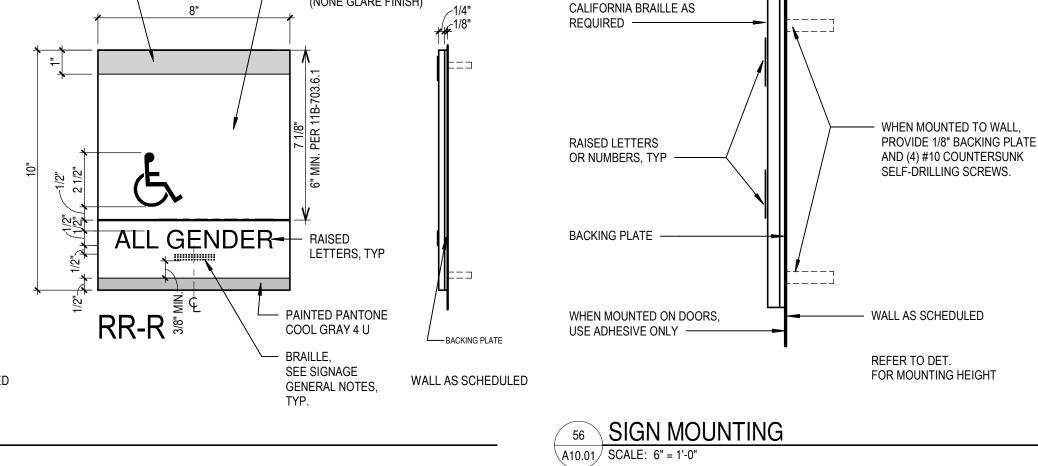




RESTROOM IDENTIFICATION

SCALE: 3" = 1'-0"





- EDGES SHALL BE RADIUSED 1/16" MIN OR

PANTONE COOL

PANTONE COOL

GRAY 4 U

DOOR AS

1/4" THICK ACRYLIC WITH

1/32" RAISED TACTILE

LETTERS AND GRADE II

CHAMFERED 1/8" MAX

TYPICAL ROOM OR TOILET ROOM SIGNAGE MOUNTING HEIGHTS

SIGNAGE GENERAL NOTES

A10.01

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

- B. COORDINATE WITH ELEVATOR MANUFACTURER'S SHOP DRAWINGS FOR HOISTWAY OPENING AND SILL REQUIREMENTS NOT SHOWN ON THIS SHEET.
- C. REFER TO SHEET A6.6.1 FOR ADDITIONAL NOTES
- D. REFER TO SHEET A9.1.1a/ A.9.1.1b FOR FINISH INFORMATION
- E ELEVATORS TO COMPLY WITH 2019 CBC 11B-407 & ASME A17.1

○ SHEET KEYNOTES

Education and Addition/Modernization

Adult



CONSTRUCTION

Group

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 02/15/2024 SUBMITTAL TITLE

ELEVATOR CAB DETAILS

A10.02

HEAVY DUTY SHOWER CURTAIN ROD WITH CONCEALED MOUNTING B-207x36

NAPKIN/TAMPON VENDOR, FREE VEND OPERATION

BOBRICK

B-207X36

B-3706C

STAINLESS STEEL

STAINLESS STEEL, SATIN FINISH

36"L X 1"DIA

13-7/8" W x 27-7/8" H

RESTROOM

SHARED RESTROOM

TRANS CTR ENLARGED RR RCP TYP. - A-123A

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

CR-1

SNV-1

A. ACCESSIBLE URINAL SHALL PROVIDE CLEAR FLOOR SPACE PER SECTION 11B-605.3

C. ACCESSIBLE LAVATORIES AND SINKS SHALL PROVIDE CLEAR SPACE PER SECTION

D. ACCESSIBLE TOILET ROOMS SHALL PROVIDE A TURNING SPACE OF 60 INCHES IN

E. ACCESSIBLE DRINKING FOUNTAINS SHALL PROVIDE CLEAR FLOOR SPACE PER

F. ACCESSIBLE TOILET PARTITIONS SHALL COMPLY WITH SECTION 11B-604.8.1

G. EXPOSED PIPES AND SURFACES UNDER LAVATORIES AND SINKS SHALL BE

B. ACCESSIBLE WATER CLOSETS SHALL PROVIDE CLEAR SPACE PER SECTION

DIAMETER PER SECTION 11B-304.3.1

INSULATED PER SECTION 11B-606.5

SECTION 11B-602.2

CURTAIN ROD

SANITARY NAPKIN DISPENSER

ddition/Modernization

Transition Center Addition/Model
El Monte Union High School District

NSTRUCTION OCUMENTS

DLR Group
hitecture Engineering Planning Interiors

DSA APPLICATION NO: 03-122743
DSA FILE NO: 19-H10
DLR PROJECT NO: 75-20223-02
ISSUE DATE: 02/15/2024

SUBMITTAL TITLE

1 ADD01 09/26/2024
2 ADD02 10/07/2024

ENLARGED RESTROOM PLANS AND ELEVATIONS

10' - 1"

TRANS CTR ENLARGED RR PLAN TYP. - A-123A

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

SHARED RESTROOM

13-7/8" W x 27-7/8" H

CONSTRUCTION
DOCUMENTS

ddition/Modernization

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 02/15/2024 SUBMITTAL TITLE

> **ENLARGED RESTROOM**

PLANS AND ELEVATIONS

	TAG	ITEM	MANUFACTURER	COLLECTION	MODEL	FINISH OR COLOR	SIZE	LOCATION
	L-1	SINGLE RESTROOM SINK	DURAVIT	VERO FURNITURE WASHBASIN	#0454500000	WHITE	19 5/8" x 18 1/2"	RESTROOM
	L-1/L-2	FAUCET	KOHLER	TOUCHLESS	K-103C36-SANA	POLISHED CHROME		CLASSROOM, SKILL LAB
	L-2	DUO RESTROOM SINK	DURAVIT	VERO WASHBASIN GROUND	#0454120026	WHITE	47 1/4" x 18 1/2"	RESTROOM
	S-1	UNDER-MOUNT SINGLE BOWL KITCHEN SINK	KOHLER	RIVERBY	K-5479-5U	WHITE	25" x 22" x 5-7/8"	MED FRAGILE CLASSROOM, SKILL LAB
	S-2	UNDER-MOUNT CERAMIC BASIN	KOHLER	VERTICYL RECTANGLE	K-2882	WHITE	19 13/16" x 15 5/8"	LACTATION ROOM
	S-1/S-2	PULLDOWN KITCHEN FAUCET	MOEN	MOTIONSENSE	7565E SERIES	STAINLESS STEEL	SPOUT HEIGHT 15.70 "	CLASSROOM
	MR-1	MIRROR	BOBRICK	MIRROR WITH STAINLES STEEL CHANNEL FRAME B-165 SERIES	B-165 2436	STAINLES STEEL	24"x36"	RESTROOM
	MR-2	MIRROR	BOBRICK	MIRROR WITH STAINLES STEEL CHANNEL FRAME B-165 SERIES	B-165 4836	STAINLES STEEL	48"x36"	RESTROOM
	SH-1	SHOWER ENCLOSURE WITH SHOWER SEAT	QAUATIC	16036TRCOL 60x36	AC003692	WHITE ACRYLX	60"x36"x78.75"	RESTROOM
	TP-1	TOILET PARTITION	BOBRICK	DURALINE SERIES – CGL	CLASS A 1180	FIELD ELM 7999SC-60SC	STANDARD, 58"H, 12" FLOOR CLEARANCE	RESTROOM
	TP-2	URINAL SCREEN - WALL HUNG	BOBRICK	1185 SERIES WALL - HUNG SCREEN		WILLSON ART - FIELD ELM 7999SC-60SC	48"	RESTROOM
	BCS-1	CHANGING STATION	KOALA KARE	KB310-SSWM HORIZONTAL STAINLESS STEEL SURFACE MOUNTED	KB3000-AHL		75 5/16"L x 40 9/32"D x 60 15/32"H WHEN FULLY OPENED	RESTROOM
	WC-1	WATER CLOSET	PER PLUMBING DRAWING	3				RESTROOM
	UR-1	URINAL	PER PLUMBING DRAWING	3				RESTROOM
	GB-1	36" GRAB BAR	BOBRICK	1 1/4" DIA STAINLESS STEEL GRAB BAR WITH SNAP FLANGE	B-5806X36	STAINLESS STEEL SATIN	36"	RESTROOM
	GB-2	42" GRAB BAR	BOBRICK	1 1/4" DIA STAINLESS STEEL GRAB BAR WITH SNAP FLANGE	B-5806X42	STAINLESS STEEL SATIN	42"	RESTROOM
	HD-1	HAND DRYER	DYSON	LOW VOLTAGE AIRBLADE V HU02	307174-01	SPRAYED NIKEL	15 1/2" X 9 1/4" X 4" D	RESTROOM
	SD-1	SOAP DISPENSER - COUNTER	BRADLEY	LAVATORY-MOUNTED SOAP DISPENSER	6334	CHROME PLATED BRASS	3 1/2" SPOUT	RESTROOM
	SD-2	SOAP DISPENSER - WALL	BOBRICK	AUTOMATIC WALL MOUNTED SOAP DISPENSER	B-2012	SATIN	9 9/16" X 4 3/16" X 4 7/32"	RESTROOM
	RH-1	ROBE HOOK	BOBRICK	SURPACE MOUNTED DOUBLE ROBE HOOK	B-6727	STAINLESS STEEL	4"X 2 5/26" D	RESTROOM
	TTD-1 (ADA WOMEN)	TOILET PAPER/SEAT COVER/ SANITARY NAPKIN DISPOSAL	BOBRICK	RECESSED TOILET SEAT COVER DISPENSER, SANITARY NAPKIN DISPOSAL, AND TOILET TISSUE DISPENSER B-3574	B-3574	STAINLESS STEEL	17 3/16"W X 30 5/8"H X 3 15/16"D	RESTROOM
	TTD-2 (ADA MEN)	TOILET PAPER/SEAT COVER/ SANITARY NAPKIN DISPOSAL	BOBRICK	RECESSED TOILET SEAT COVER AND TOILET TISSUE DISPENSER B-3474	B-3474	STAINLESS STEEL	17 3/16"W X 30 5/8"H X 3 15/16"D	RESTROOM
	TTD-3 (WOMEN)	TOILET PAPER/SEAT COVER/ SANITARY NAPKIN DISPOSAL	BOBRICK	PARTITION-MOUNTED SEAT-COVER DISPENSER, SANITARY NAPKIN DISPOSAL, TOILET TISSUE DISPENSER B-357	B-3574	STAINLESS STEEL	17 3/16"W X 30 5/8"H X 3 15/16"D	RESTROOM
	TTD-4 (MEN)	TOILET PAPER/SEAT COVER	BOBRICK	SURFACQE-MOUNTED SEAT-COVER AND TOILET TISSUE DISPENSER B-3479	B-3479	STAINLESS STEEL		RESTROOM
_	WR-1	PAPER TOWEL DISPENSER AND WASTE RECEPTACLE	BOBRICK	RECESSED CONVERTIBLE PAPER TOWEL DISPENSER AND WASTE RECEPTACLE B-3944	B-3944	STAINLESS STEEL		RESTROOM
A V	BCS-1	ADULT CHANGING STATION	KOALA KARE	KB3000-AHL ADULT CHANGING STATION	KB3000-AHL	STAINLESS STEEL	75 5/16" L x 40 9/32" D x 60 15/32" H	RESTROOM
₽ A <u>DD0</u> 1	BN-1	BENCH	HOLLMAN	OSLO BENCH ADA		MAPLE BUTCHER BLOCK SEAT, BRUSHED STAINLESS STEEL LEGS	20"W X 48"L X 18"H	RESTROOM
4. /	SHC-1	SHOWER CURTAIN	INPRO	SUPER BIO STAT VINYL PRIVACY CURTAIN		WHITE	72.5"W	RESTROOM
[CR-1	CURTAIN ROD	BOBRICK	HEAVY DUTY SHOWER CURTAIN ROD WITH CONCEALED MOUNTING B-207x36	B-207X36	STAINLESS STEEL	36"L X 1"DIA	RESTROOM

NAPKIN/TAMPON VENDOR, FREE VEND OPERATION

STAINLESS STEEL, SATIN FINISH

SNV-1

SANITARY NAPKIN DISPENSER

TRANS CTR ENLARGED RR RCP - ENLARGED RR B-104A, B-105A SCALE: 1/4" = 1'-0"

A. REPLACE EXISTING TILE AND GROUT ON TILED WALLS AND FLOORS WITH NEW TILE AND GROUT IN LOCATIONS THAT ARE DAMAGED BY RELOCATED RESTROOM FIXTURES. MATCH EXISTING TILE

- B. ALL DIMENSIONS FOR ACCESS COMPLIANCES ARE TO THE FACE OF FINISH, U.N.O.
- C. REFERENCE SHEET CP2.1 FOR TYPICAL FIXTURE MOUNTING HEIGHTS.
- D. PROVIDE PIPE INSULATION UNDER ALL LAVATORIES.
- F. REFER TO SHEET A12.1 & A12.2 FOR INTERIOR FINISH SCHEDULE.
- G. WHERE NEW FLOOR MOUNTED PLUMBING FIXTURES, EXISTING SLAB ON GRADE TO BE SAW CUT AND REMOVED AS REQUIRED TO INSTALL NEW PLUMBING SUPPLY AND DRAIN AS REQUIRED

RESTROOM GENERAL NOTES

- E. REFER TO SHEET A11.1 & A11.2 FOR NEW RESTROOM FIXTURE AND ACCESSORY SCHEDULE.
- H. FIXTURES IN BUILDINGS A,B,C,E, & G TO REMAIN UNLESS OTHERWISE NOTED. FIXTURES WITH KEYNOTES ARE TO BE RELOCATED TO MEET ADA REQUIREMENTS.

A. ACCESSIBLE URINAL SHALL PROVIDE CLEAR FLOOR SPACE PER SECTION 11B-605.3 B. ACCESSIBLE WATER CLOSETS SHALL PROVIDE CLEAR SPACE PER SECTION

SECTION 11B-602.2

GENERAL NOTES FOR ACCESSIBILITY

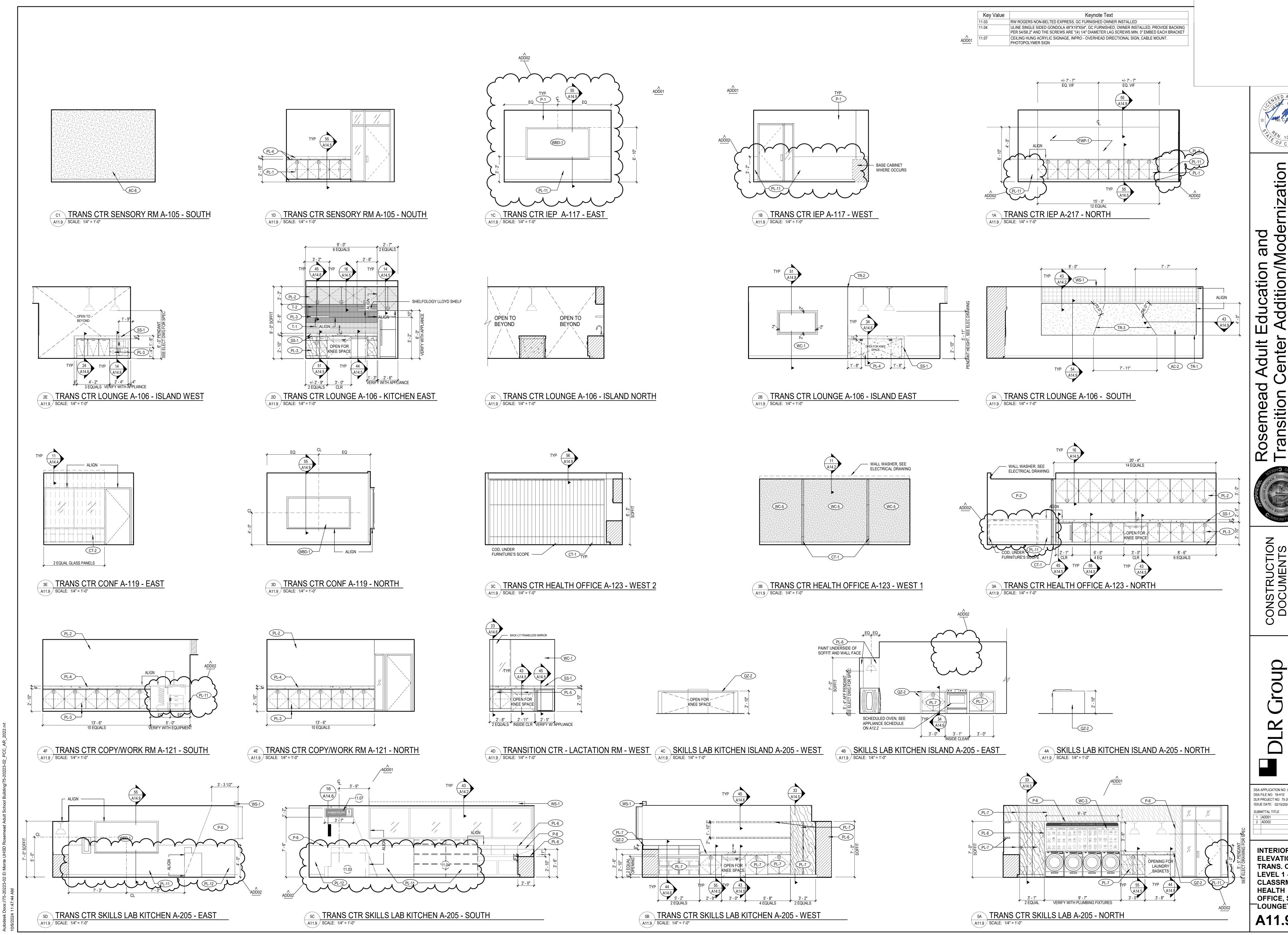
- C. ACCESSIBLE LAVATORIES AND SINKS SHALL PROVIDE CLEAR SPACE PER SECTION
- D. ACCESSIBLE TOILET ROOMS SHALL PROVIDE A TURNING SPACE OF 60 INCHES IN DIAMETER PER SECTION 11B-304.3.1 E. ACCESSIBLE DRINKING FOUNTAINS SHALL PROVIDE CLEAR FLOOR SPACE PER
- F. ACCESSIBLE TOILET PARTITIONS SHALL COMPLY WITH SECTION 11B-604.8.1 G. EXPOSED PIPES AND SURFACES UNDER LAVATORIES AND SINKS SHALL BE INSULATED PER SECTION 11B-606.5

ddition/Modernization ducation

CONSTRUCTION
DOCUMENTS

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 02/15/2024 SUBMITTAL TITLE

INTERIOR ELEVATIONS -TRANS. CTR. LEVEL 1

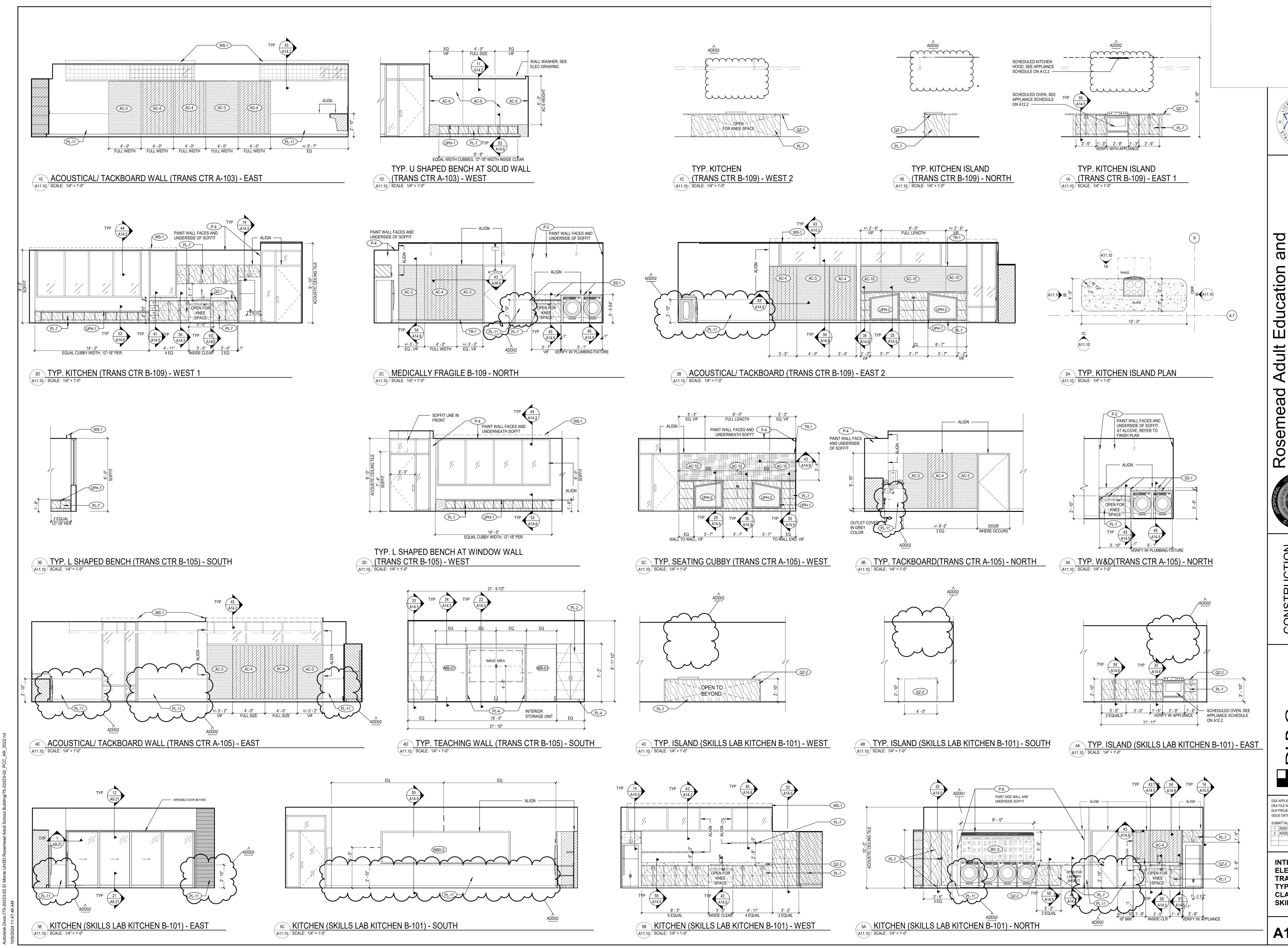


CONSTRUCTION
DOCUMENTS

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 02/15/2024

INTERIOR

ELEVATIONS -TRANS. CTR. LEVEL 1 -CLASSRM, HEALTH OFFICE, STAFF LOUNGÉ -



ddition/Modernization

CONSTRUCTION
DOCUMENTS

Group

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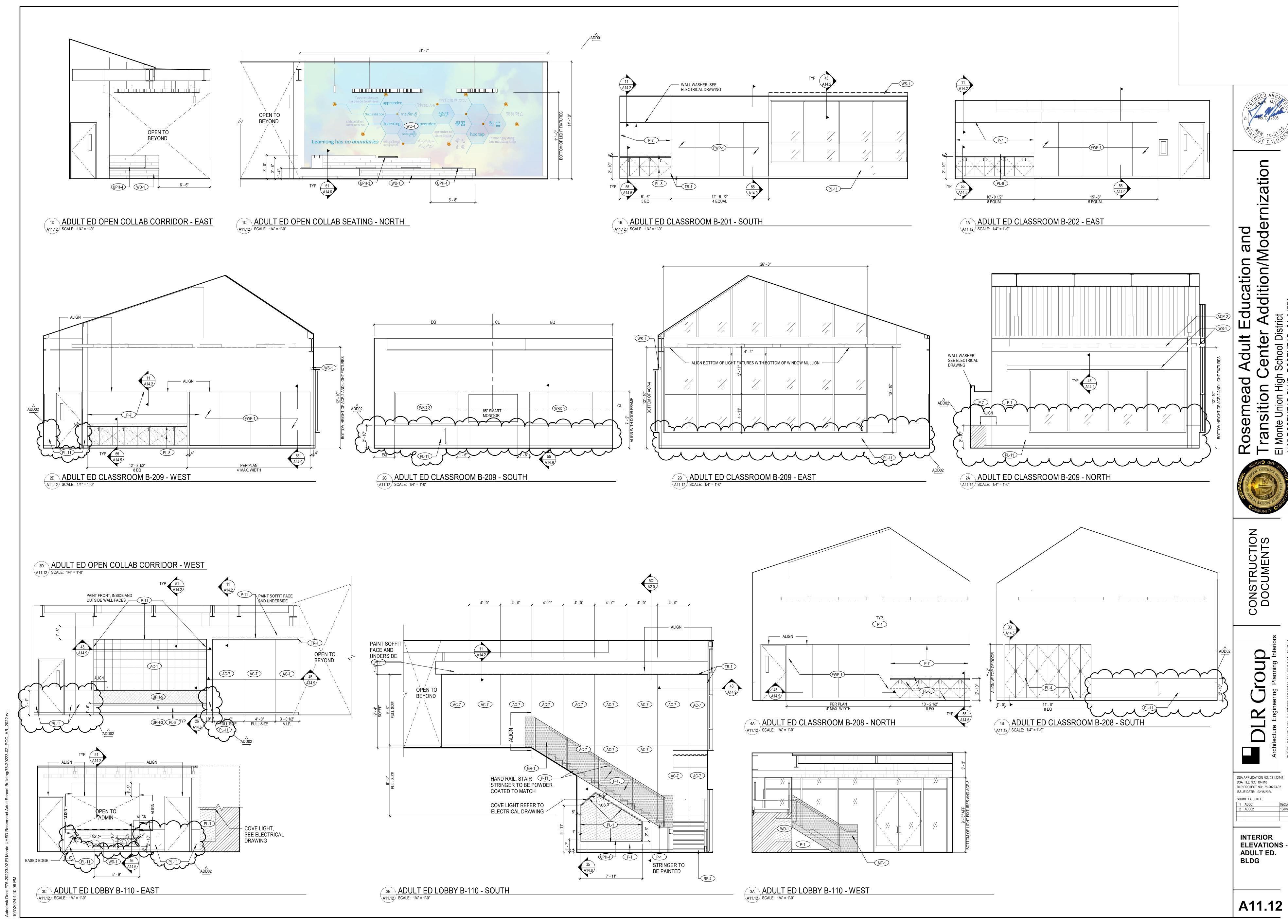
INTERIOR ELEVATIONS -TRANS. CTR. CLASSROOMS, SKILL LAB

ddition/Modernization

CONSTRUCTION
DOCUMENTS

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 02/15/2024

INTERIOR **ELEVATIONS** -TRANS. CTR. TYP. CLASSROOMS, PRINT/WORK





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ROOM FINISH SCHEDULE **GENERAL NOTES**

. SEE SPECIFICATION FOR PAINTING OF ITEMS NOT NOTED IN TH ROOM FINISH SCHEDULE OR FINISH PLANS. . EXPOSED CONCRETE FLOORS NOT SHOWN TO RECEIVE A FINISH SHALL RECEIVE LIQUID FLOOR TREATMENT OR CURING AND SEALING COMPOUND UNLESS NOTED OTHERWISE. SEE

SPEC SECTION 033000. ALL GYPSUM WALLBOARD BULKHEADS SHALL BE PAINTED P-1 UNLESS NOTED OTHERWISE. . SEE REFLECTED CEILING PLANS FOR CEILING MATERIAL AND

E. CEILING HEIGHTS, AS NOTED ON THE REFLECTED CEILING PLANS, ARE MEASURED FROM FINISH FLOOR OF THE ROOM. . CONTRACTOR SHALL FURNISH AND INSTALL WALL BASE

AROUND CASEWORK AND MILLWORK. . WHERE FLOOR FINISH CHANGES FROM ONE ROOM TO ANOTHER, SET JOINT OF THE MATERIALS AT THE CENTER OF THE COMMUNICATING DOOR. H. SEE SHEET A14.9 FOR TYPICAL TACKWALL DETAILS.

ADD WALL PROTECTION, PL-11 AT 4'-0" THROUGHOUT, U.O.N **ROOM FINISH SCHEDULE**

SPECIFIC NOTES

FLOOR NOTES:

F 1. DEPRESS CONCRETE SLAB 1-1/2 INCHES FOR CERAMIC/QUARRY TILE AND SETTING BED. F2. DEPRESS CONCRETE SLAB 2-1/2 INCHES FOR WOOD ATHLETIC

FLOORING. VERIFY RECESS DEPTH WITH WOOD FLOOR MANUFACTURER. F3. DEPRESS CONCRETE SLAB 3/8 INCH FOR EPOXY TERRAZZO FLOORING. VERIFY DEPTH WITH MANUFACTURER.

F4. DEPRESS CONCRETE SLAB 3/8 INCH FOR RECESS FLOOR MAT AND FRAME. VERIFY RECESS DEPTH WITH MANUFACTURER. F5. SEE SHEET XX.X FOR FLOOR PATTERN.

F6. SEE SHEET XX.X FOR CERAMIC TILE FLOOR PATTERN. F7. THIN-SET CERAMIC TILE FLOORS.

WALL NOTES:

W1. SEE SHEET XX.X FOR CERAMIC TILE WALL ELEVATIONS. W2. CERAMIC TILE WAINSCOT TO X'-X" ABOVE FINISH FLOOR. W3. PAINT THE JANITOR'S CLOSET WALLS BUT NOT INSIDE THE

CHASE AREA. W4. PAINT GYMNASIUM WALLS HP-? TO X'-X" AFF WITH P-? ABOVE W5. PAINT EXPOSED STEEL COLUMNS P-?. W6. REFER TO SHEET A12.XX FOR WALL ELEVATIONS INDICATING

WALL FINISH AND AWP PATTERNS. W7. PROVIDE PLYWOOD BACKBOARD WHERE INDICATED ON SPECIAL SYSTEMS PLANS. PLYWOOD TO BE 4'X8', 3/4" THICK, INTERIOR-GRADE, FIRE-RETARDANT-TREATED AND PAINTED P-X. MOUNT 4" A.F.F.

CEILING NOTES:

C1. SEE REFLECTED CEILING PLANS FOR CEILING ACCENT PAINT COLORS AND LOCATIONS. C2. PAINT EXPOSED STEEL DECK P-?. C3. PAINT EXPOSED STRUCTURE P-?.

MISCELLANEOUS ITEMS:

M1. PAINT HANDRAILS P-?. M2. PAINT MISCELLANEOUS STEEL AT STAIR (STRINGERS, HANDRAILS, STEEL PANS, ETC.) P-?.

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El Monte Union High S
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CONSTRUCTION

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FINISH

SCHEDULES

A12.1

ROOM FINISH SCHEDULE

SEE SPECIFICATION FOR PAINTING OF ITEMS NOT NOTED IN THE ROOM FINISH SCHEDULE OR FINISH PLANS. EXPOSED CONCRETE FLOORS NOT SHOWN TO RECEIVE A FINISH SHALL RECEIVE LIQUID FLOOR TREATMENT OR CURING AND SEALING COMPOUND UNLESS NOTED OTHERWISE. SEE SPEC SECTION 033000. . ALL GYPSUM WALLBOARD BULKHEADS SHALL BE PAINTED P-1 UNLESS NOTED OTHERWISE.

. CEILING HEIGHTS, AS NOTED ON THE REFLECTED CEILING PLANS, ARE MEASURED FROM FINISH FLOOR OF THE ROOM. CONTRACTOR SHALL FURNISH AND INSTALL WALL BASE AROUND CASEWORK AND MILLWORK. WHERE FLOOR FINISH CHANGES FROM ONE ROOM TO

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THE COMMUNICATING DOOR. . SEE SHEET **A14.9** FOR TYPICAL TACKWALL DETAILS.

- F1. DEPRESS CONCRETE SLAB 1-1/2 INCHES FOR CERAMIC/QUARRY TILE AND SETTING BED.
- F2. DEPRESS CONCRETE SLAB 2-1/2 INCHES FOR WOOD ATHLETIC FLOORING. VERIFY RECESS DEPTH WITH WOOD FLOOR
- F3. DEPRESS CONCRETE SLAB 3/8 INCH FOR EPOXY TERRAZZO
- FLOORING. VERIFY DEPTH WITH MANUFACTURER. F4. DEPRESS CONCRETE SLAB 3/8 INCH FOR RECESS FLOOR MAT AND FRAME. VERIFY RECESS DEPTH WITH MANUFACTURER.
- F5. SEE SHEET XX.X FOR FLOOR PATTERN. F6. SEE SHEET XX.X FOR CERAMIC TILE FLOOR PATTERN.
- W1. SEE SHEET XX.X FOR CERAMIC TILE WALL ELEVATIONS.
- W2. CERAMIC TILE WAINSCOT TO X'-X" ABOVE FINISH FLOOR. W3. PAINT THE JANITOR'S CLOSET WALLS BUT NOT INSIDE THE
- CHASE AREA.
- W4. PAINT GYMNASIUM WALLS HP-? TO X'-X" AFF WITH P-? ABOVE W5. PAINT EXPOSED STEEL COLUMNS P-?.
- WALL FINISH AND AWP PATTERNS. W7. PROVIDE PLYWOOD BACKBOARD WHERE INDICATED ON
- SPECIAL SYSTEMS PLANS. PLYWOOD TO BE 4'X8', 3/4" THICK, INTERIOR-GRADE, FIRE-RETARDANT-TREATED AND PAINTED P X. MOUNT 4" A.F.F.
- C1. SEE REFLECTED CEILING PLANS FOR CEILING ACCENT PAINT COLORS AND LOCATIONS. C2. PAINT EXPOSED STEEL DECK P-?.
- C3. PAINT EXPOSED STRUCTURE P-?.
- M1. PAINT HANDRAILS P-?. M2. PAINT MISCELLANEOUS STEEL AT STAIR (STRINGERS,

BACKING TO BE PROVIDED FOR ALL WALL MOUNTED EQUIPMENT, REFER TO 54/S6.2 FOR BLOCKING A WOOD STUD WALLS & 51/S8.4 FOR BLOCKING AT METAL STUD

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FINISH SCHEDULES

A12.2

UNDER COUNTER FRIDGE ULINE

ELECTRIC FIREPLACE

SLIDE-IN ELECTRIC OVEN KENMORE

U-ADA24S-13B

MANUFACTURER

* PROVIDE HARDWIRED WALL SWITCH CONTROL FOR HD-1 ON ISLAND, TYPICAL.

MODERN FLAMES LFV2-60/15

42533 DWWF58CT

4.3 CU FRONT LOAD WASHER

NOVO TOUCH LK8630i

CDE8630 - 86" Display

7.4 CU FRONT LOAD ELECTRIC DRYER

VC48S - 48" CEILING-MOUNTED HOOD SS

LACTATION

SKILL LAB, MED-FRAGILE.

LOCATION

TRAN CTR RECEPTION LOUNGE

CLASSROOMS AND SKILL LAB

CLASSROOMS AND SKILL LAB

OWNER

OWNER

CLASSROOMS

STAFF LOUNGE

24"W x 23 1/4"D x 32"H

SPECIALITY

EQUIPMENT

77 1/4"W x 15"H

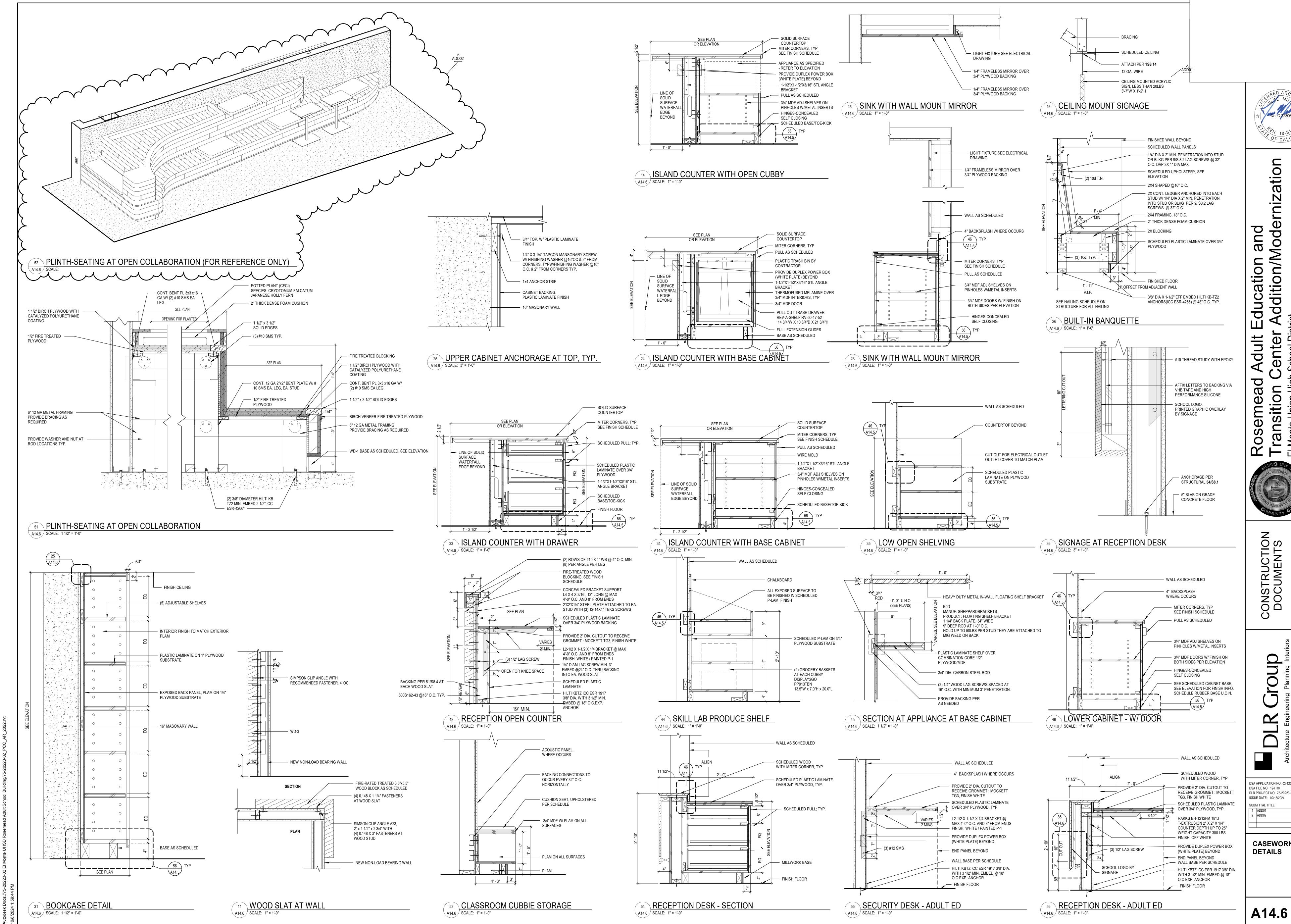
H38-5/8" x W27" x D31 9/16" WHITE

H38-1/8" x W27" x D30 5/8" WHITE

FINISH OR COLOR

BLACK

47 1/4"W x 12 1/4"H x 21"D INLINE BLOWER REMOTE CONTROL SKLL LAB



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CONSTRUCTION

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CASEWORK

MISC. DETAILS

CURTAIN TRACK AT GYP.BD SOFFIT

HANGING STUD CONN. TO FRAMING

- HANGER WIRES, SEE DETAIL 1/S6.14

FOR CONNECTION TO STRUCTURE

BLOCKING OR WOOD JOIST

ABOVE. SEE DETAIL 56/S6.2

FOR FRAMING CONNECTIONS

PER 51/S6.2

—— ACOUSTICAL CEILING

2X FRAMING, SEE DETAIL 56D/ S6.2
 FOR SIZES AND FASTENER INFORMATION

CURTAIN TRACK PROVIDED BY MANUFACTURER

- FINISHED FACE OF WALL BEYOND

- SOLID CURTAIN (FLAME RETARDANT POLYESTER FABRIC)

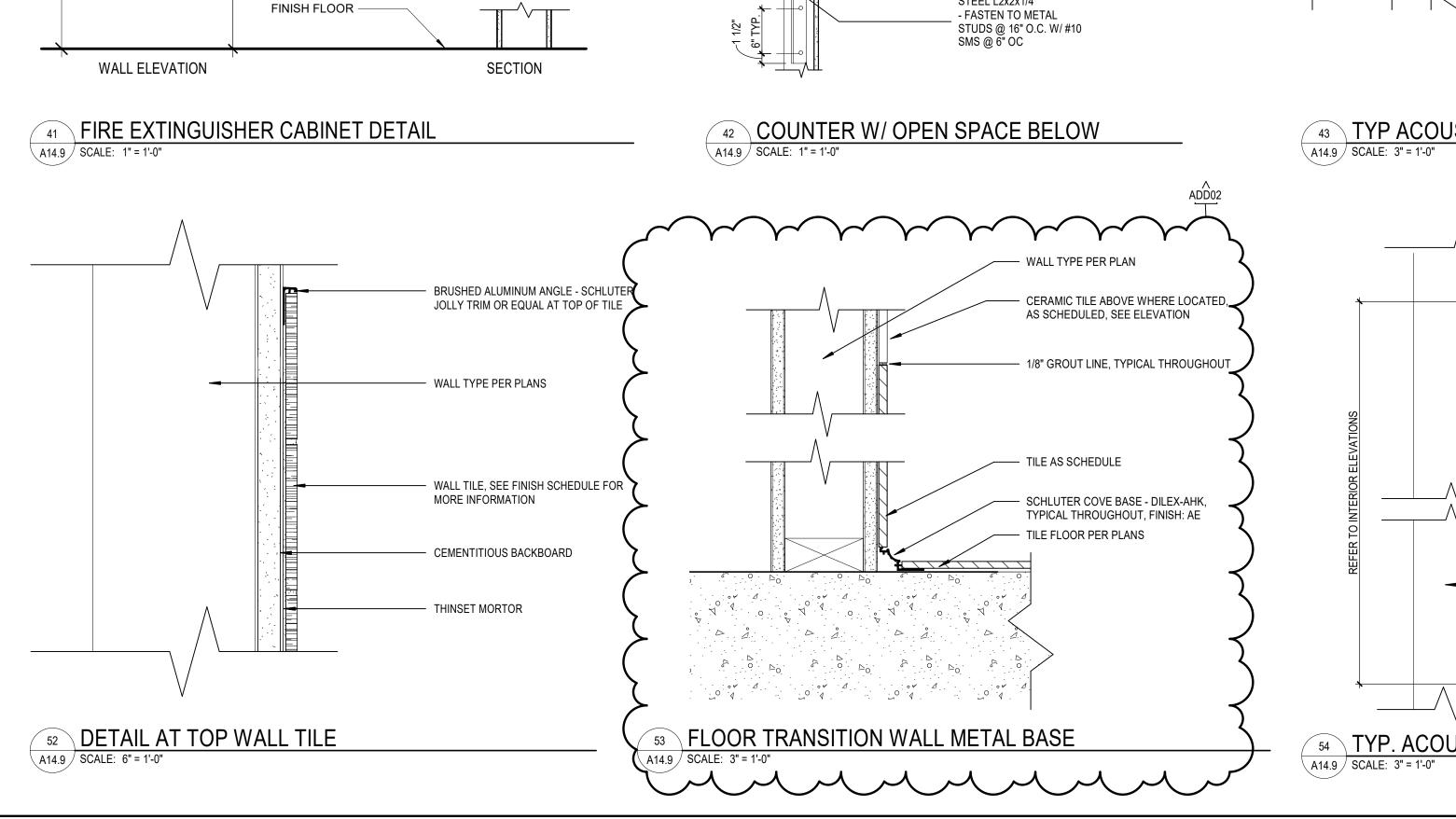
— CORNER BEAD

SEE RCP
CEILING HEIGHT

TOGGLE WING

OPEN NET CLEAR

WHERE OCCURS.



- FIRE EXTINGUISHER AND CABINET, PER PLAN

- FIRE EXTINGUISHER HANDLE

- (2) # 10 FLAT HEAT SMS PER

LINE ALL SURFACE @ RECESS W/ 5/8" GYPSUM

BOARD (AT RATED WALLS ONLY) -

JÁMB FOR METAL CONSTRUCTION OR

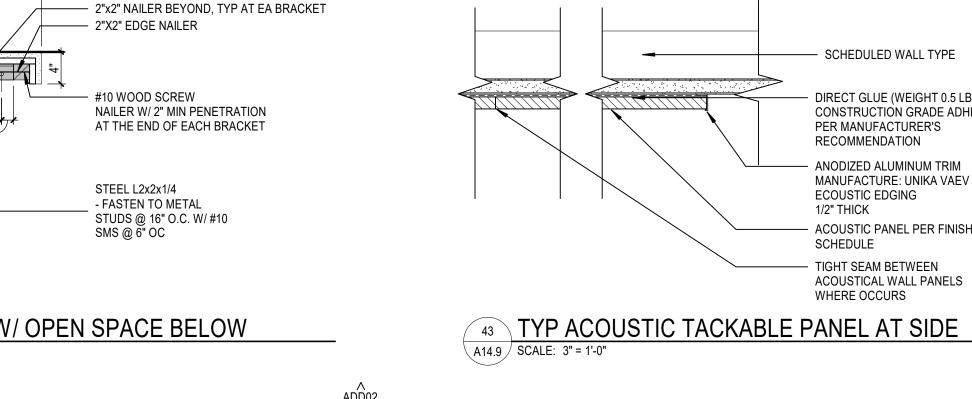
(2) #10 WOOD AT WOOD CONSTRUCTION

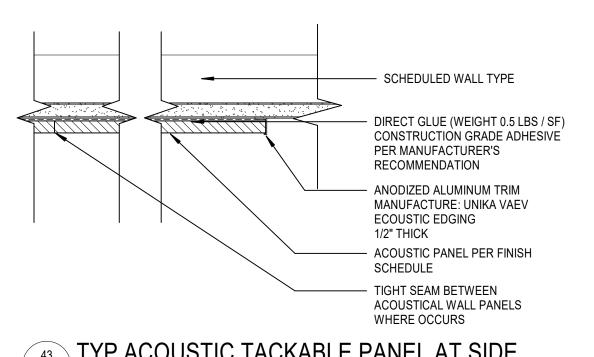
BUBBLE PROJECTION, WHERE OCCURS —

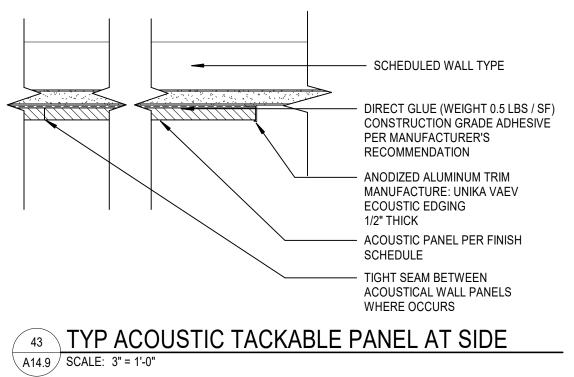
METAL BLOCKING ALL (4)

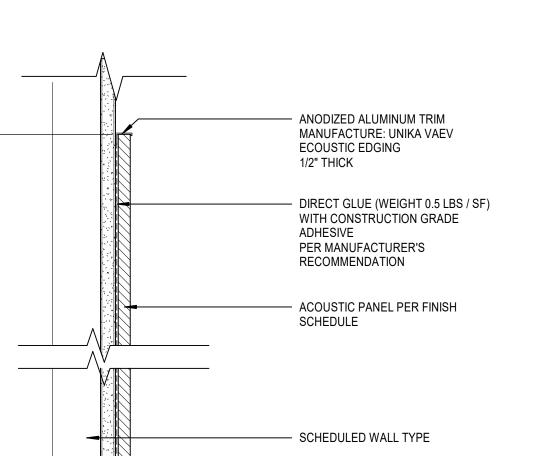
WALL PER WALL TYPE -

SIDES









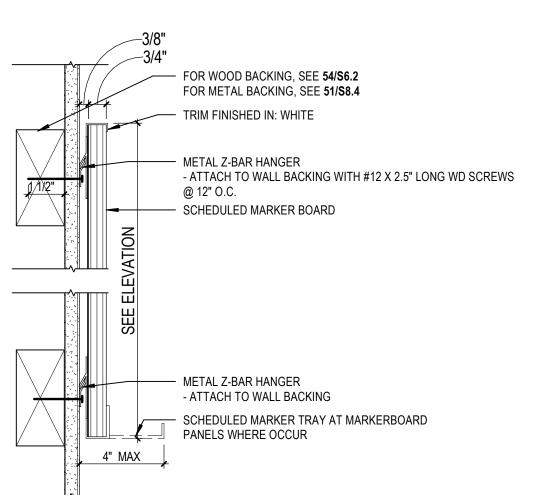
ANODIZED ALUMINUM TRIM

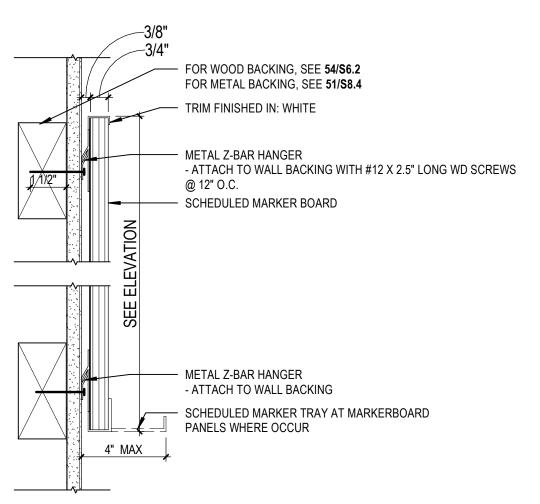
ECOUSTIC EDGING

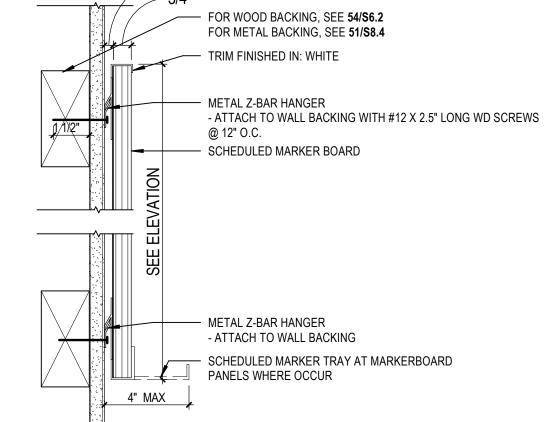
1/2" THICK

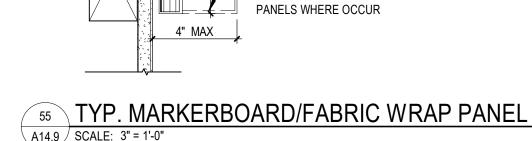
TYP. ACOUSTIC TACKABLE PANEL SECTION

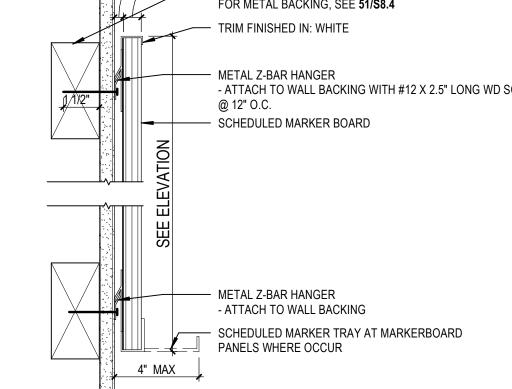
MANUFACTURE: UNIKA VAEV













A14.9 SCALE: 3" = 1'-0"

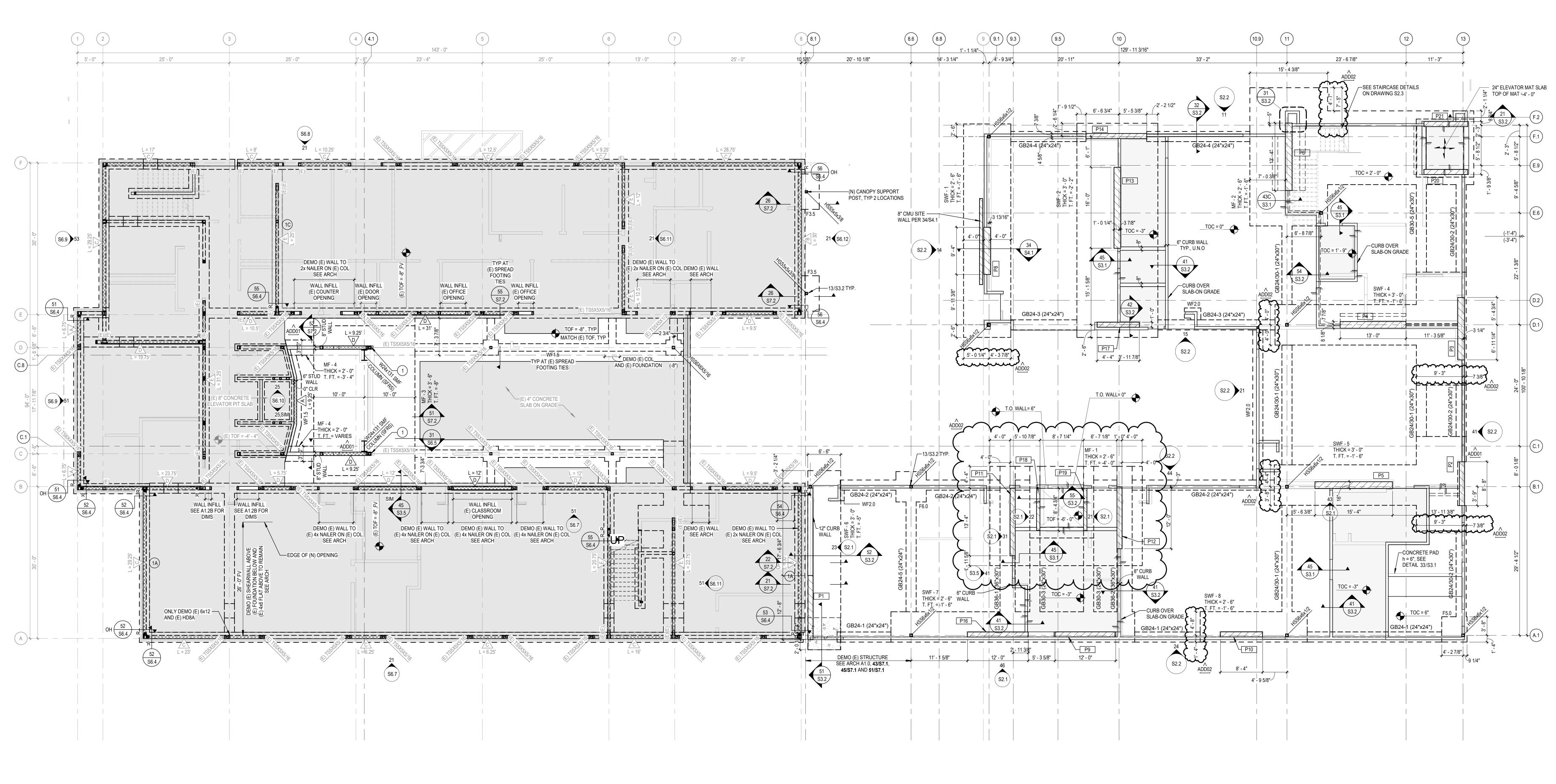
A14.9 SCALE: 3" = 1'-0"

——___

A14.9

PL TO PL CORNER

— 2"x2" NAILER BEYOND, TYP AT EA BRACKET



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LEVEL 1 **STRUCTURAL PLAN**

S1.1

E FOUNDATION PLAN, LEVEL 01
SCALE: 1/8" = 1'-0"

NEW BUILD TOP OF SLAB ELEVATIONS ARE BASED ON A FLOOR DATUM OF 0'-0", TYPICAL UNO ON PLAN AS INDICATED BY ELEVATION SYMBOL (± X'-XX") NEW BUILD SLAB ON GRADE IS 5" THICK AND REINFORCED WITH #4 @ 16" OC EA DIRECTION, PLACED AT MID SLAB DEPTH UNO ON PLAN. SEE TYPICAL SLAB ON GRADE DETAILS **54/S3.1** FOR MORE INFORMATION. TOP OF INTERIOR/EXTERIOR FOOTING ELEVATION = -1'-6", TYP UNO ON PLAN.

SEE DRAWING \$3.3, \$3.4- AND \$3.5 FOR FOUNDATION REINFORCEMENT DETAILS. SEE **S3.1** - **S3.2**, **S4.1** - **S4.2**, **S5.1** - **S5.5** AND **S6.1** - **S6.3** FOR TYPICAL DETAILS. CONTRACTOR TO FIELD VERIFY EXISTING ELEVATIONS AND NOTIFY SEOR IN WRITING OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH WORK. SEE GEOTECHNICAL REPORT FOR ALL SITE AND SUBGRADE PREPARATION. A. EXCAVATION SEE DETAIL 51/S.02

C. FOOTINGS SEE DETAIL 51/S.02 D. SOG SEE DETAIL 54/S3.1 SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL INFORMATION NOT SHOWN. SLOPES, OPENINGS, DRAINS, TRENCHES AND SLAB EDGE LOCATIONS.

SLABS, EXTERIOR SITE WALLS, ETC. SEE 53/S3.2 FOR ALL SLAB ON GRADE PATCHWORK.

EXISTING FOUNDATION KEYNOTES (1) DEMO (E) WOOD POST FTG, (E) POST TO REMAIN. SHORE BEAMS AT EA SIDE OF (E) POST ABV. PROVIDE (N) COLUMN BASE CONN AT (N) FTG BELOW

ISOLATED COLUMN FOOTING BLW SOG (GREY FILL INDICATES EXISTING) SWF-## <---- FOOTING TYPE MARK THICK = 2'-0" <---- EXAMPLE TOP OF FOOTING THICKNESS T.FT. = 100'-8" <---- EXAMPLE TOP OF FOOTING ELEVATION -FOOTING/GRADE BEAM TYPE MARK —WALL FOOTING BLW SOG W#.#/GB## V (GREY FILL INDICATES EXISTING)

—EXAMPLE TOP OF FOOTING

FOOTING STEP LOCATION

ELEVATION STEPS

FOUNDATION SYMBOLS

FULLY GROUTED CMU (CONCRETE MASONRY UNIT) WALL. THICKNESS SHALL BE 12" UNO ON PLAN 12/S4.1 INDICATES WALL BELOW BEARING WALL/BEARING WALL INFILL/EXTERIOR WALL INFILL

NEW (N) BEARING SHEAR WALL OR BEARING SHEAR WALL INFILL SEE ELEVATION AND 41/26.1

WALL INFILL. SEE ELEVATION AND 41/S6.1 EXISTING (E) BEARING SHEAR WALL OR EXTERIOR SHEAR WALL, FV. SEE ELEVATION AND 41/S6.1 EXISTING (E) BEARING WALL/EXTERIOR WALL NEW SHEAR WALL ON CURRENT LEVEL L=x'-x" ── MINIMUM LENGTH OF WALL. SEE 41/S6.1

EXISTING SHEAR WALL ON CURRENT LEVEL

L=x'-x" — MINIMUM LENGTH OF WALL. SEE 41/S6.1

•— (R) POST INSTALLED RETROFIT HOLD DOWN. SEE 21/S6.1 AND ELEVATIONS ON SHEETS S6.7 - S6.12 •— (E) EXISTING HOLD DOWN, FV. SEE 21/S6.1 AND ELEVATIONS ON SHEETS S6.7 - S6.12 INDICATES CMU SHEAR WALL SEE 52/S2.1

SWF - 1 2' - 6" 31/S3.3 SWF - 2 3' - 0" -2' - 2" 32/S3.3 SWF - 4 3' - 0" | -1' - 6" 34/S3.3 SWF - 5 3' - 0" -1' - 6" 21/S3.4 3' - 0" -5" SWF - 6 43/S3.4 SWF - 7 2' - 6" | -1' - 6" 41/S3.4 SWF - 8 2' - 6" -1' - 6" 31/S3.4 MF - 1 2' - 6" -4' - 0" 51/S3.3 2' - 6" -1' - 6" 54/S3.3 MF - 3 3' - 6" -8" 31/S6.5

FOUNDATION SCHEDULE

THICKNESS TOP OF FOOTING 56/S3.5 2' - 0" 2' - 0" 11/S3.6 2' - 0" 56/S3.5 GB24-4 2' - 0" 11/S3.5 2' - 0" GB24-5 56/S3.5 2' - 6" GB24/30-2 2' - 0" 21/S3.5 2' - 6" GB30-1 2' - 0" 31/S3.5 GB30-3 2' - 6" 2' - 0" 43/S3.5 2' - 6" 2' - 0" 43/S3.5 GB36-1 2' - 6" 51/S3.5 2' - 0" VARIES 2' - 6" GB36-2 3' - 0" 41/S3.5 MF - 4 33/S6.4

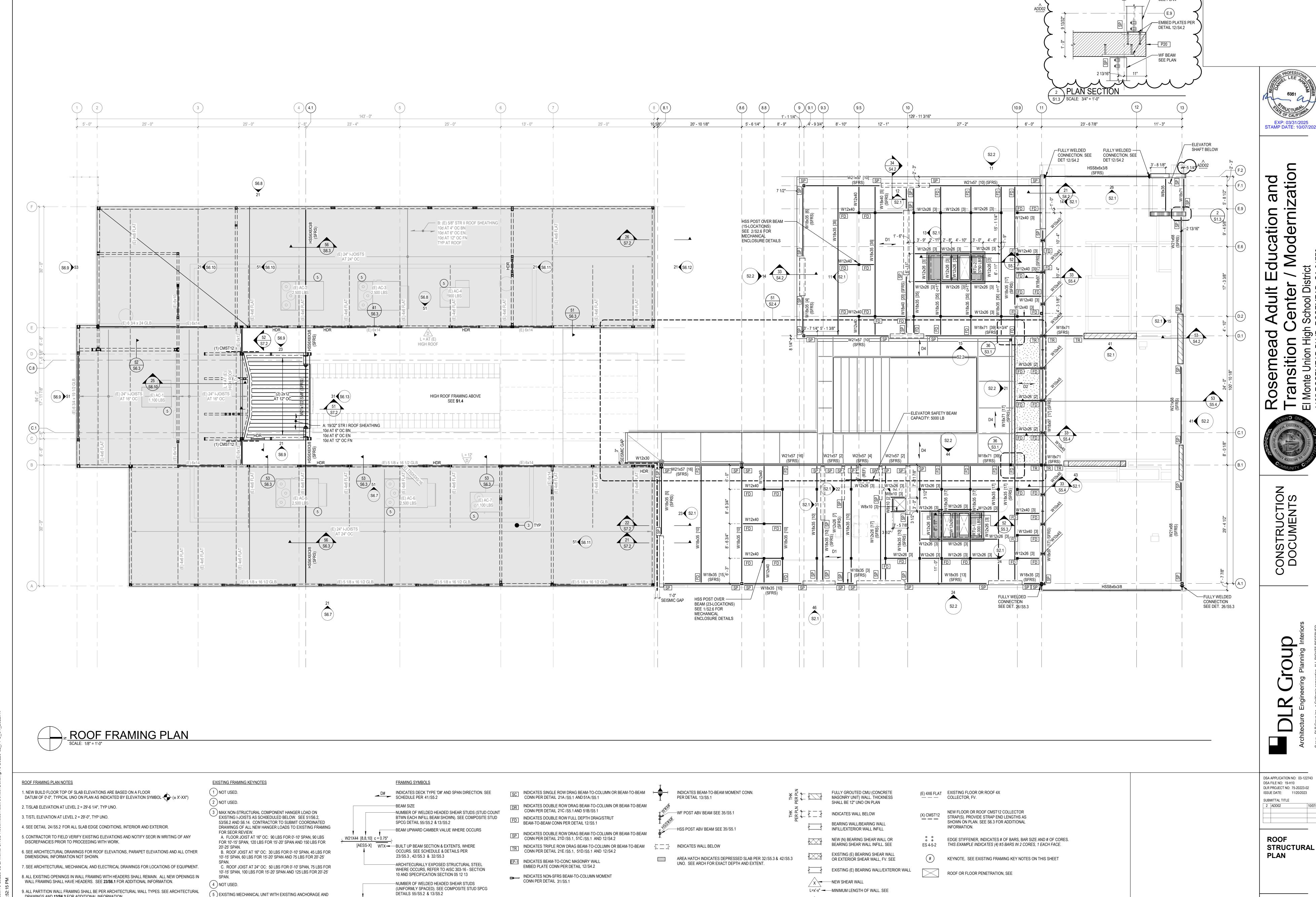
GRADE BEAM SCHEDULE

FOUNDATION PLAN NOTES

ADDITIONAL INFORMATION.

B. BACKFILL SEE DETAIL 51/S.02

SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR ALL SLAB ON GRADE DEPRESSIONS, 0. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR ALL EXTERIOR PAVEMENT, EXTERIOR SEE PLUMBING DRAWINGS FOR ALL EXISTING SLAB ON GRADE SAWCUT LOCATIONS. 2. ALL EXISTING OPENINGS IN WALL FRAMING WITH HEADERS SHALL REMAIN. ALL NEW OPENINGS IN WALL FRAMING SHALL HAVE HEADERS. SEE 23/S6.1 FOR



X EXISTING SHEAR WALL

L=x'-x" — MINIMUM LENGTH OF WALL. SEE

DRAWINGS AND **13/S6.2** FOR ADDITIONAL INFORMATION.

ROOF PENETRATIONS TO REMAIN UNALTERED.

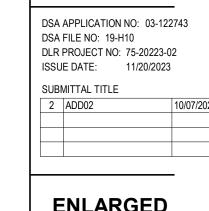
W21X44 [30] SFRS FRAME MEMBER DESIGNATED AS PART OF BLDG SEISMIC

FORCE RESISTING SYSTEM (SFRS)

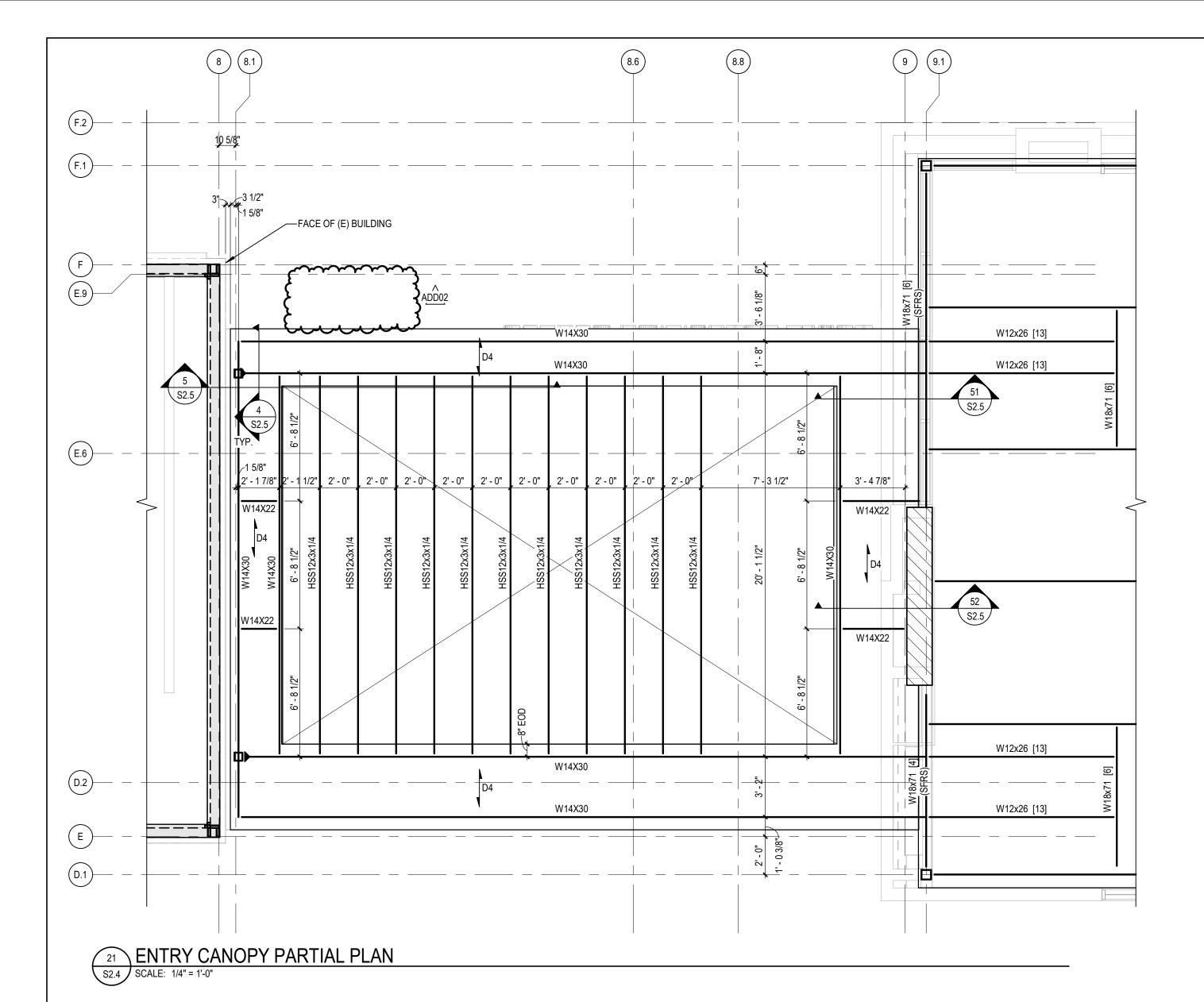
ENLARGED CANOPY PLANS

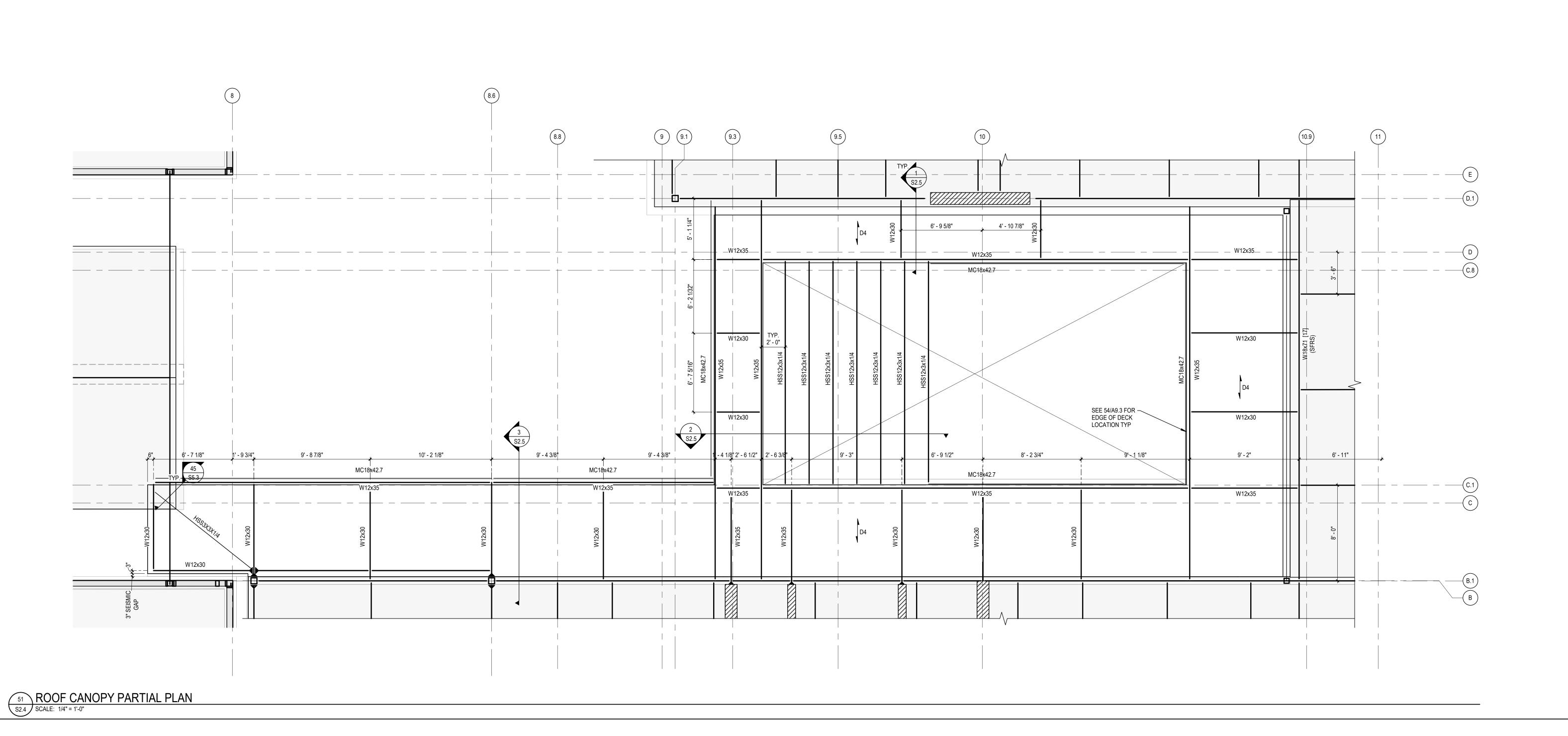


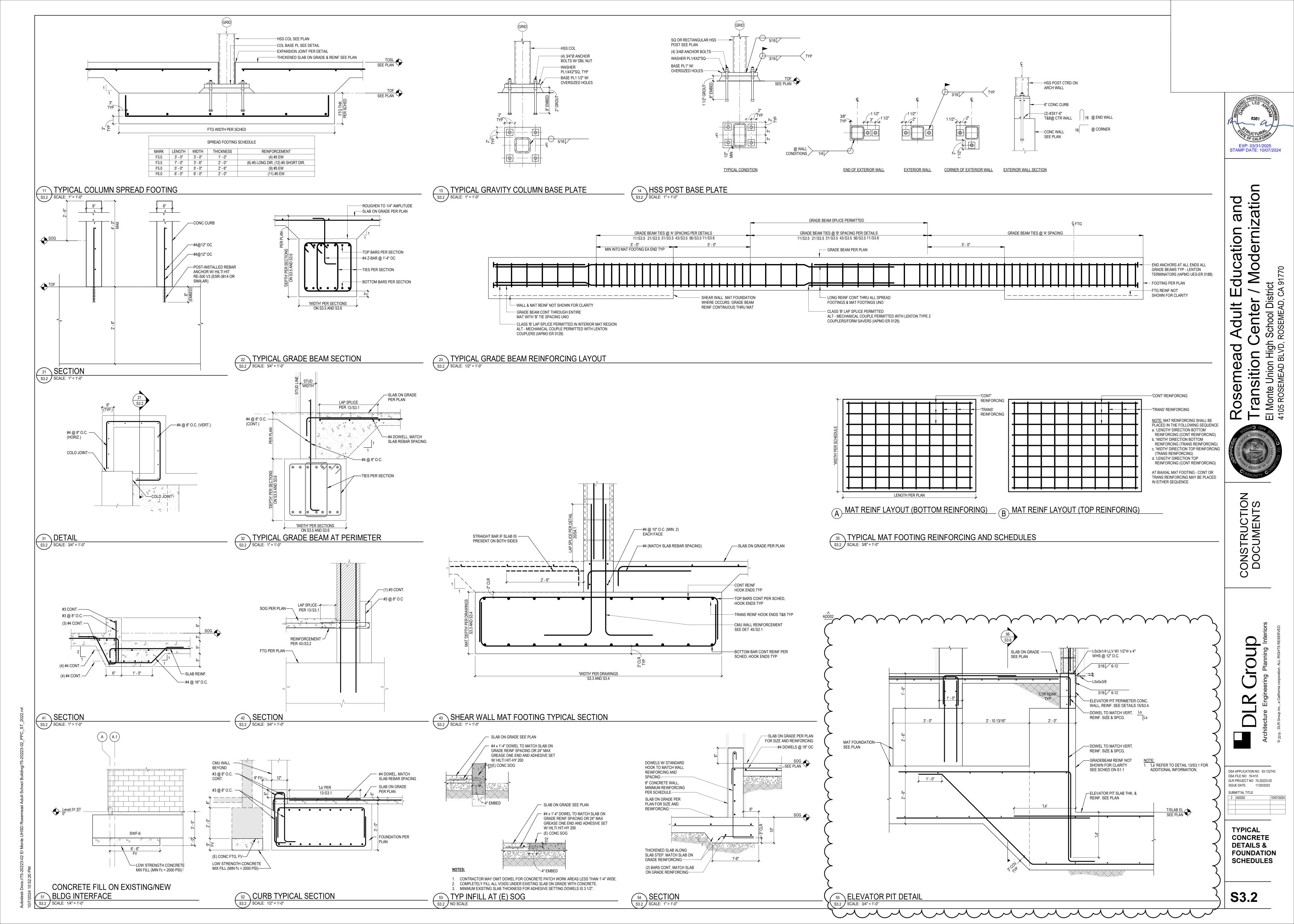


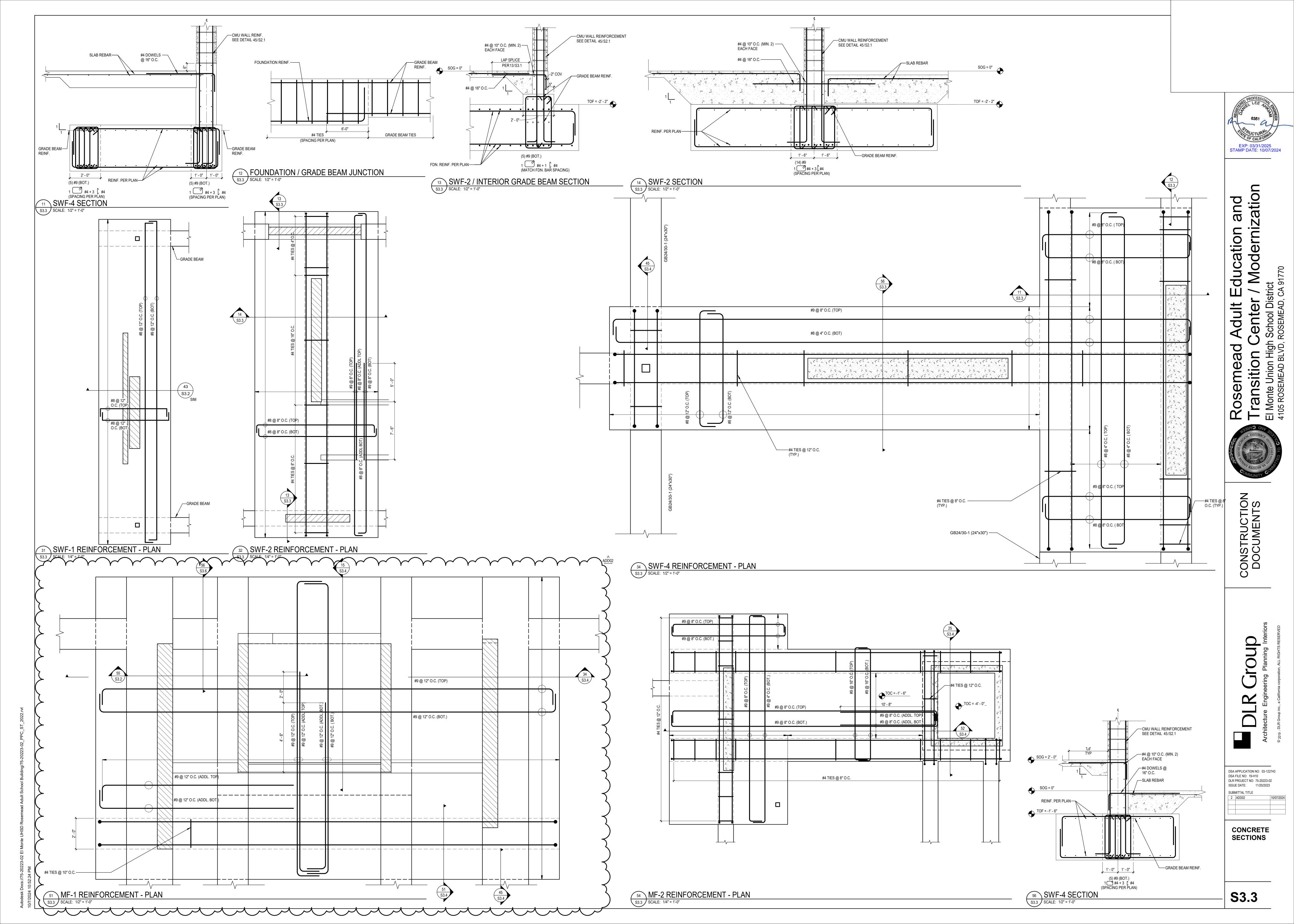


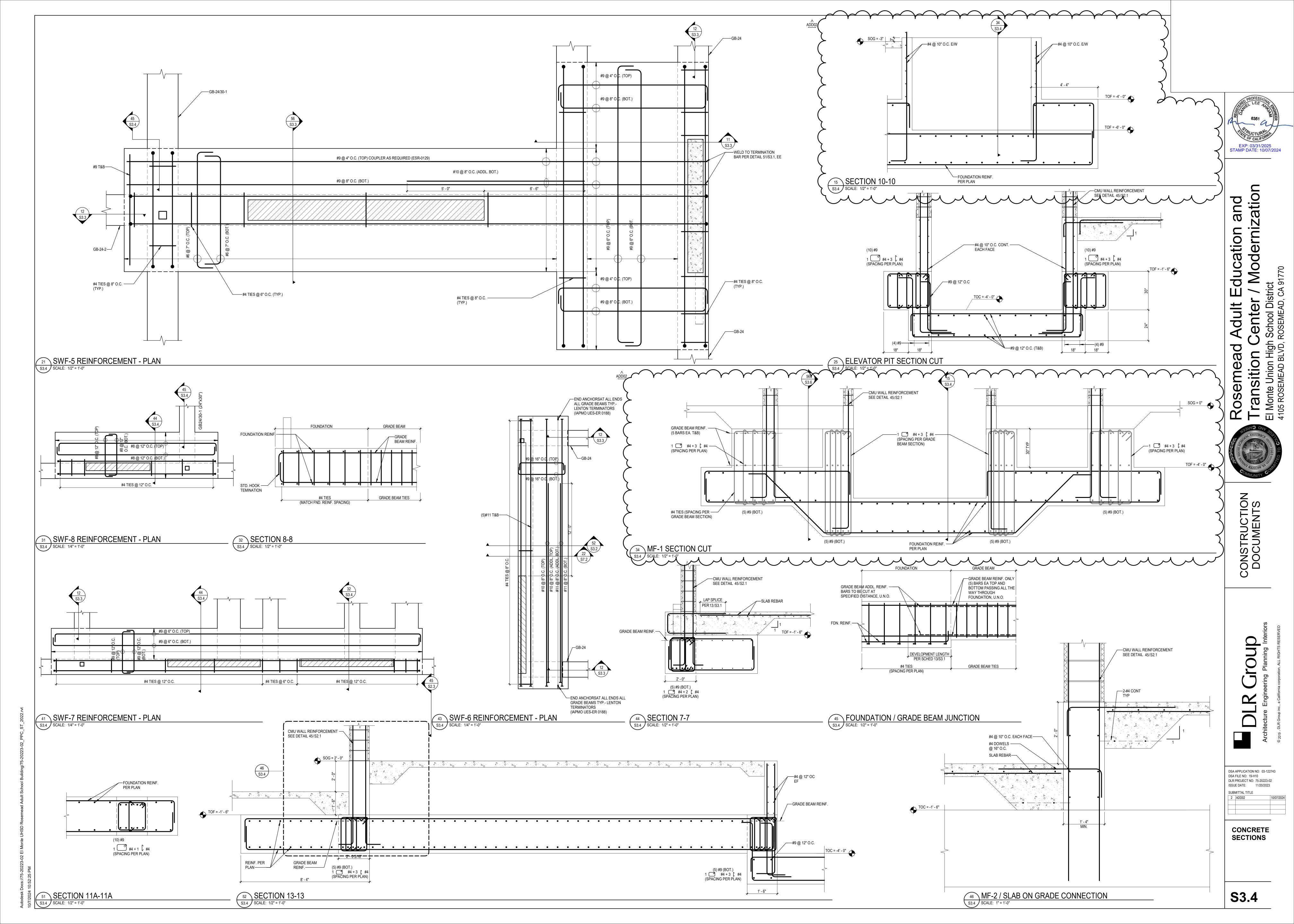


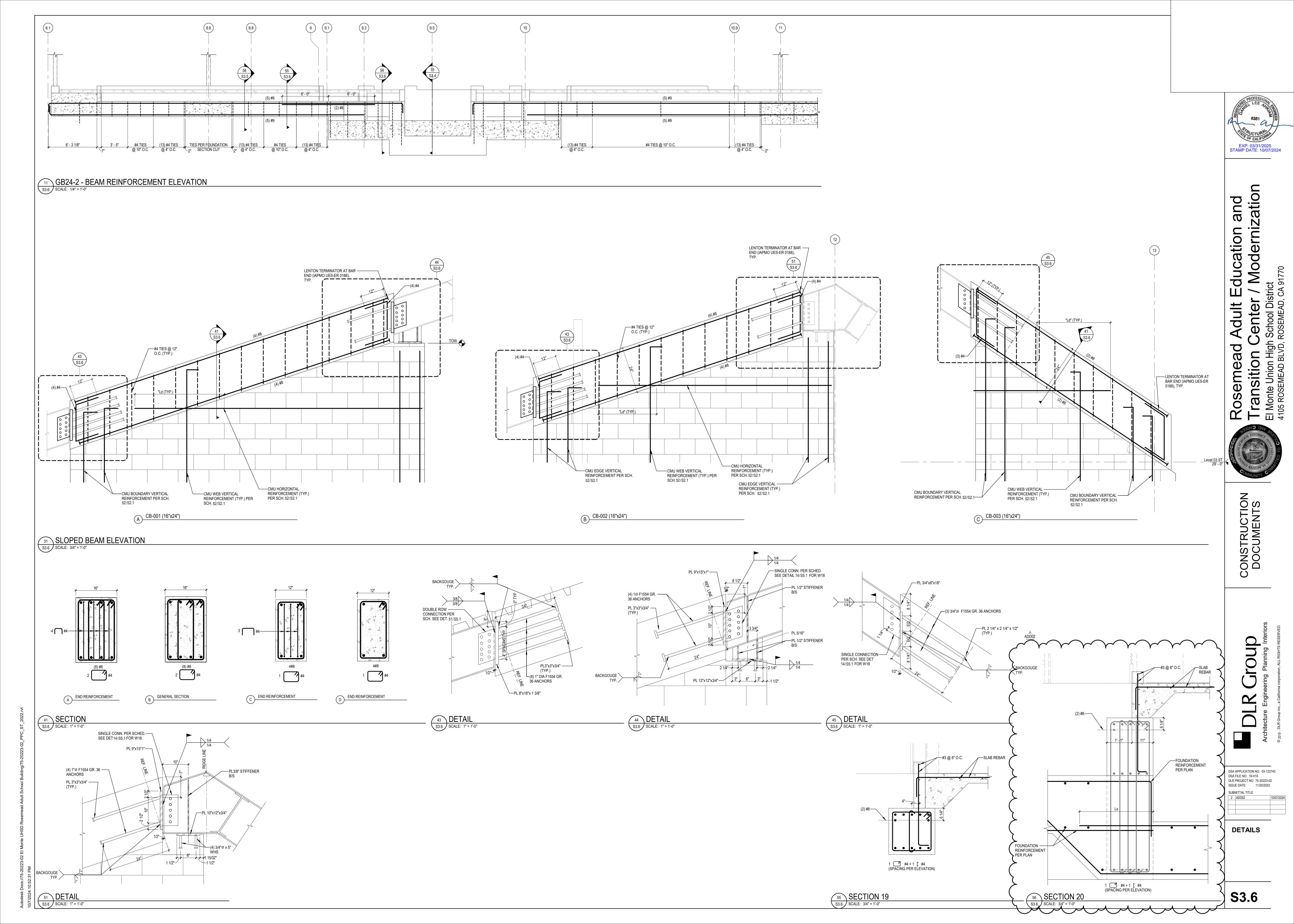












MECHANICAL

SCHEDULES

M0.2

	AIR CONDITIONING UNIT SCHEDULE																							
CVAA MED MODEL ADE		ADEA OFFICE	COOLIN	G (MBH)	SEER	HEATING(MBH)		MBH)			ESP	OSA		ELEC1	ΓRICAL	POWER EXHAUST ELECTRICAL		RICAL	** OPER.	DEMARKS	BLDG.	ANCHOR		
SYM.	MFR./MODEL	AREA SERVED	SENSIBLE	TOTAL	EER	INPUT	OUTPUT	AFUE %	CFM	FAN BHP	(INCHES) (W.G.)	MIN.	MCA	МОСР	VOLTAGE/PHASE	SYM.	HP	FLA	MCA	VOLTAGE/PHASE	WT. (LBS.)	REMARKS	LOCATION	REF
AC 1	CARRIER 48FCDM24	1ST FLOOR	184.89	256.07	10.0	176 220	142 178	81	8000	4.53	1.25	2225 8000	45.6	50	460	PE 1	4	10.5	13.1	460 3	4000	COMPLETE WITH ISOLATION ROOF CURB, MODULATING POWER EXHAUST, ECONOMIZER, DCV, ULTRA LOW NOX. CONNECT TO EMS. PROVIDE WITH MERV 13 FILTER. INTERLOCK W/ EF-1 & EF-3. PROVIDE W/ FLUE DEFLECTOR	ROOF	1 M0.3
$\left\langle \begin{array}{c} AC \\ 2 \end{array} \right\rangle$	CARRIER 48FCDM28	2ND FLOOR	220.47	295.97	9.8	176 220	142 178	81	10000	5.12	1.00	2500	52.5	60	460 3	PE 2	6	14.3	17.9	460 3	3750	COMPLETE WITH ISOLATION ROOF CURB, MODULATING POWER EXHAUST, ECONOMIZER, DCV, ULTRA LOW NOX, CONNECT TO EMS. PROVIDE WITH MERV 13 FILTER. INTERLOCK W/ EF-2. PROVIDE W/ FLUE DEFLECTOR	ROOF	1 M0.3
	FULLY AUTOMATIC FIRE ALARM SYSTEM SHALL SHUT DOWN EQUIPMENT IN ACCORDANCE WITH CMC 608. REFER TO SHEET E3.1 * SCHEDULED WEIGHT INCLUDES ALL ACCESSORIES.																							

		SPLIT SYSTEM SCHEDULE																			
	SYM.	MFR./MODEL	AREA SERVED	COOL	ING	HEATI	ING	Е	LECTRICAL	OPER.	SYM.	MFR./MODEL	CFM	OSA ELECTRICAL OPER.		997				REMARKS	BLDG. ANCHOR
	OTIVI.	WII TX./WOBLE	ANLAGLINED	MBH	SEER	MBH	HSPF	MCA	VOLTAGE/PHASE	WT. (LBS.)	O T IVI.	WII TO, INIODEL	OI W	CFM	MCA	VOLTAGE/PHASE	WT. (LBS.)	KLIWAKKO	LOCATION REF		
igl	HP 1	CARRIER 38MARBQ24AA3	ELEVATOR ROOM B106	24	21.5	24	12	25	208	150	FC 1	CARRIER 40MAHBQ24XA3	610	-	-	208	50	PROVIDE WITH CONDENSATE PUMP, THERMOSTAT, 24V INTERFACE KIT. LOCKOUT HEATING.	1ST FLOOR 8 MO.3		
\vdash	HP 2	CARRIER 38MARBQ24AA3	ELEVATOR ROOM B111	24	21.5	24	12	25	208	150	FC 2	CARRIER 40MAHBQ24XA3	610	-	-	208	50	PROVIDE WITH CONDENSATE PUMP, THERMOSTAT, 24V INTERFACE KIT. LOCKOUT HEATING.	1ST FLOOR 8 M0.3		
$\left[\leftarrow \right]$	HP 3	CARRIER 38MARBQ24AA3	DATA ROOM B112	24	21.5	24	12	25	208	150	FC 3	CARRIER 40MAHBQ24XA3	610	-	-	208	50	PROVIDE WITH CONDENSATE PUMP, THERMOSTAT, 24V INTERFACE KIT. LOCKOUT HEATING.	1ST FLOOR 8 M0.3		
<u> </u>	HP 4	CARRIER 38MARBQ24AA3	DATA ROOM B204	24	21.5	24	12	25	208	150	FC 4	CARRIER 40MAHBQ24XA3	610	-	-	208	50	PROVIDE WITH CONDENSATE PUMP, THERMOSTAT, 24V INTERFACE KIT. LOCKOUT HEATING.	2ND FLOOR 8 MO.3		

	EXHAUST FAN SCHEDULE												
SYM.	MFR./MODEL	TYPE	CFM	ESP INCHES	RPM	SONES	WATT	ELE HP	CTRICAL VOLTAGE/PHASE	OPER. WT. (LBS.)	REMARKS	BLDG. LOCATION	ANCHORAGE DETAIL
(EF)	GREENHECK CUE 090	ROOF	550	0.25	1615	7.7	-	1/10	120	60	COMPLETE WITH PITCHED ROOF CURB, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK WITH AC-1.	ROOF	3 M0.3
EF 2	GREENHECK CUE 090	ROOF	610	0.50	1565	7.5	-	1/10	120 1	60	COMPLETE WITH PITCHED ROOF CURB, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK WITH AC-2	ROOF	3 M0.3
EF 3	GREENHECK CUE 099	ROOF	710	0.65	1496	8.4	-	1/4	120	65	COMPLETE WITH PITCHED ROOF CURB, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK WITH AC-1.	ROOF	3 M0.3
EF 4	GREENHECK LB-14-5	ROOF	1540	0.75	1200	9.6	-	1/2	120	95	COMPLETE WITH PITCHED ROOF CURB, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK WITH BAS.	ROOF	3 M0.3
EF 5	GREENHECK GB-098-6	ROOF	350	0.50	1215	6.1	-	1/6	120	60	COMPLETE WITH PITCHED ROOF CURB, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK W/(E) AC UNIT.	ROOF	3 M0.3
EF 6	GREENHECK SP AP 0511	CEILING	100	0.125	880	0.7	12	ı	120	15	COMPLETE W/ PITCHED ROOF CURB AND CAP, BACKDRAFT DAMPER & BIRD SCREEN, INTERLOCK W/ LIGHT SW.	JANITOR ADDQ2	
EF 7	GREENHECK SQ-120-VG	INLINE	400	0.125	552	1.1	-	1/2	120	75 (COMPLETE W/ ISOLATION HANGER KIT, BACKDRAFT DAMPER & WALL LOUVER. INTERLOCK W/ LINE VOLTAGE T'STAT.		9
EF 8	GREENHECK SP AP 0511	CEILING	100	0.125	880	0.7	12	-	120	15	COMPLETE W/ WALL CAP, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK W/ LIGHT SW.	RR 103A	
EF 9	GREENHECK SP AP 0511	CEILING	100	0.125	880	0.7	12	-	120	15	COMPLETE W/ WALL CAP, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK W/ LIGHT SW.	RR 104A	

EXH	HAUST FAN SCHEDULE											
SONES	WATT	ELE:	CTRICAL VOLTAGE/PHASE	OPER. WT. (LBS.)	REMARKS	BLDG. LOCATION	ANCHORAGE DETAIL					
7.7	-	1/10	120	60	COMPLETE WITH PITCHED ROOF CURB, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK WITH AC-1.	ROOF	3 M0.3					
7.5	-	1/10	120 1	60	COMPLETE WITH PITCHED ROOF CURB, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK WITH AC-2	ROOF	3 M0.3					
8.4	-	1/4	120	65	COMPLETE WITH PITCHED ROOF CURB, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK WITH AC-1.	ROOF	3 M0.3					
9.6	-	1/2	120	95	COMPLETE WITH PITCHED ROOF CURB, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK WITH BAS.	ROOF	3 M0.3					
6.1	-	1/6	120	60	COMPLETE WITH PITCHED ROOF CURB, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK W/(E) AC UNIT.	ROOF	3 M0.3					
0.7	12	•	120	15	COMPLETE W/ PITCHED ROOF CURB AND CAP, BACKDRAFT DAMPER & BIRD SCREEN, INTERLOCK W/ LIGHT SW.	JANITOR ADDQ2						
1.1	-	1/2	120	75	COMPLETE W/ ISOLATION HANGER KIT, BACKDRAFT DAMPER & WALL LOUVER. INTERLOCK W/ LINE VOLTAGE T'STAT.	ELECTRICAL	9 M0.3 (SIM)					
0.7	12	-	120	15	CÒMPLETE W/ WALL CAP, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK W/ LIGHT SW.	RR 103A						
0.7	12	-	120	15	COMPLETE W/ WALL CAP, BACKDRAFT DAMPER & BIRD SCREEN. INTERLOCK W/ LIGHT SW.	RR 104A						

DESIGN	CONDITION	S				
		IND	OOR		OUTDOOR	
LOCATION	ELEVATION	HEATING	COOLING	HEATING	COO	LING
		DB °F	DB °F	DB °F	DB °F	WB °F
ROSEMEAD, CA	271	70	74	31	97	70

SYM.	CFM	MAX. P.D. INCHES	MAX. NC	NECK SIZE	MFR./	MODEL	REMARKS				
CD-1	50-200	0.10	30	6"	KRUEGE	ER #PLQ*	SQUARE PLAQUE DIFFUSER, STEEL CONSTRUCTION, WHITE POWDER COAT FINISH.				
	201-350	0.10	30	8"							
	351-500	0.10	30	10"							
	501-700	0.10	30	12"							
	701-900	0.10	30	14"							
	901-1,000	0.10	30	15"	•	•	•				
CD-2	0-150	0.05	30	6"			PERFORATED FACE WITHOUT ANY PATTERN DEFLECTOR, STEEL CONSTRUCTION, WHITE POWDER COAT FINISH.				
	151-300	0.05	30	8"							
	301-450	0.05	30	10"							
	451-650	0.05	30	12"							
	651-900	0.05	30	14"	•		•				
RD-1	151-275	0.10	30	8"	KRUEG	ER #RM2	FOUR-CONE ROUND CEILING DIFFUSER STEEL CONSTRUCTION, WHITE POWDER COAT FINISH.				
	276-400	0.10	30	10"							
	401-600	0.10	30	12"							
	601-800	0.10	30	14"							
	801-1000	0.10	30	16"	·						
RG-1/ EG-1/	50-250	0.10	30	8"x8"	KRUEG	ER #S80	LOUVERED FACE, 3/4" BLADE SPACING, STEEL CONSTRUCTION, WHITE POWDER COAT FINISH. 35° DEFLECTION UNLESS NOTED ON PLANS.				
TG-1	251-375	0.10	30	10"x10"							
	376-550	0.10	30	12"x12"							
	551-700	0.10	30	14"x14"							
	701-950	0.10	30	16"x16"							
	951-1400	0.10	30	18"x18"							
	1401-1750	0.10	30	20"x20"			•				
SWR-1/ SWE-1	SEE PLANS	0.10	30	SEE PLANS	KRUEG	ER #S80	LOUVERED FACE, 3/4" BLADE SPACING, STEEL CONSTRUCTION, WHITE POWDER COAT FINISH. 35° DEFLECTION UNLESS NOTED ON PLANS.				
LD-1	125-200	0.10	30	8"			2'-0" LINEAR DIFFUSER COMPLETE WITH PLENUM, ALUMINUM CONSTRUCTION, WH POWDER COAT FINISH.				
SDGE-1	1500	0.10	30	36"x12"	KRUEGE	R #5DMGR	RETURN DUCT GRILLE PERFORATED FACE, ALUMINUM CONSTRUCTION, WHITE POWDER COAT FINISH.				

- NOTE: CEILING DIFFUSER THROWS SHALL BE 4-WAY UNLESS OTHERWISE NOTED. • PROVIDE REMOTE MOTOR OPERATED DAMPER AT HARD CEILINGS AND LOCATIONS WHERE DAMPER IS LOCATED ABOVE
- ARCHITECTURAL CLOUDS.
- ALL AIR DISTRIBUTION DEVICES TO HAVE CONCEALED MOUNTING OPTION.
 FOR 1, 2, OR 3-WAY PATTERN, INSTALL QUADRANT BLANKS. • PROVIDE FILLER PANEL FOR AIR DISTRIBUTION INSTALLED IN LAY-IN CEILINGS.

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ZONE DAMPER SCHEDULE

1000

1000

1000

1600

1750

1400

1400

1200

1200

1600

1600

1600

2850

2850

1040

620

1100

620

1000

1690

8000

5700

3760

2690

AREA SERVED

B101

B103

B110

B110B, B110D

B104

B105

B109, B109A

B201

B202

B110 (LEVEL 2)

B208

B209

B210

B214

A103

A104

A205

A205-214

A106

A105-114

A201-202

A101-101A

BY PASS

BY PASS

BY PASS

BY PASS

BY PASS

SYM. MFR./MODEL

CARRIER

35JN

CARRIER 35JN

CARRIER 35JN

CARRIER

35JN

CARRIER 35JN

CARRIER 35JN

CARRIER

35JN

CARRIER

35JN

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35JN

CARRIER

35JN

CARRIER

CARRIER

CARRIER

SR 502

CARRIER

BD CARRIER SR 502

SR 502

SR 502

SR 502

A/C UNIT

AC-1

AC-1

AC-1

AC-1

AC-1

AC-1

AC-1

AC-2

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SIZE

14

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14

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10

16

16

16

16

10

10

10

24x16

24x16

26x18

24x16

38x16

26x16

38x16

20x14

500

500

100

500

800

850

700

700

600

600

800

800

800

1425

1425

1040

310

550

310

500

2500

4000

2850

1880

1345

MINIMUM MAXIMUM ELECTRICAL OPER.
CFM CFM VOLT/PHASE WT. (LBS.)

120V

REMARKS

COMPLETE W/120V/24V TRANSFORMER

MECHANICAL DEMOLITION PLAN - LEVEL 1

MECHANICAL PLAN - LEVEL

M2.1

6"Ø TO WALL LOUVER FROM HOOD 4" DRYER VENT -TO WALL CAP

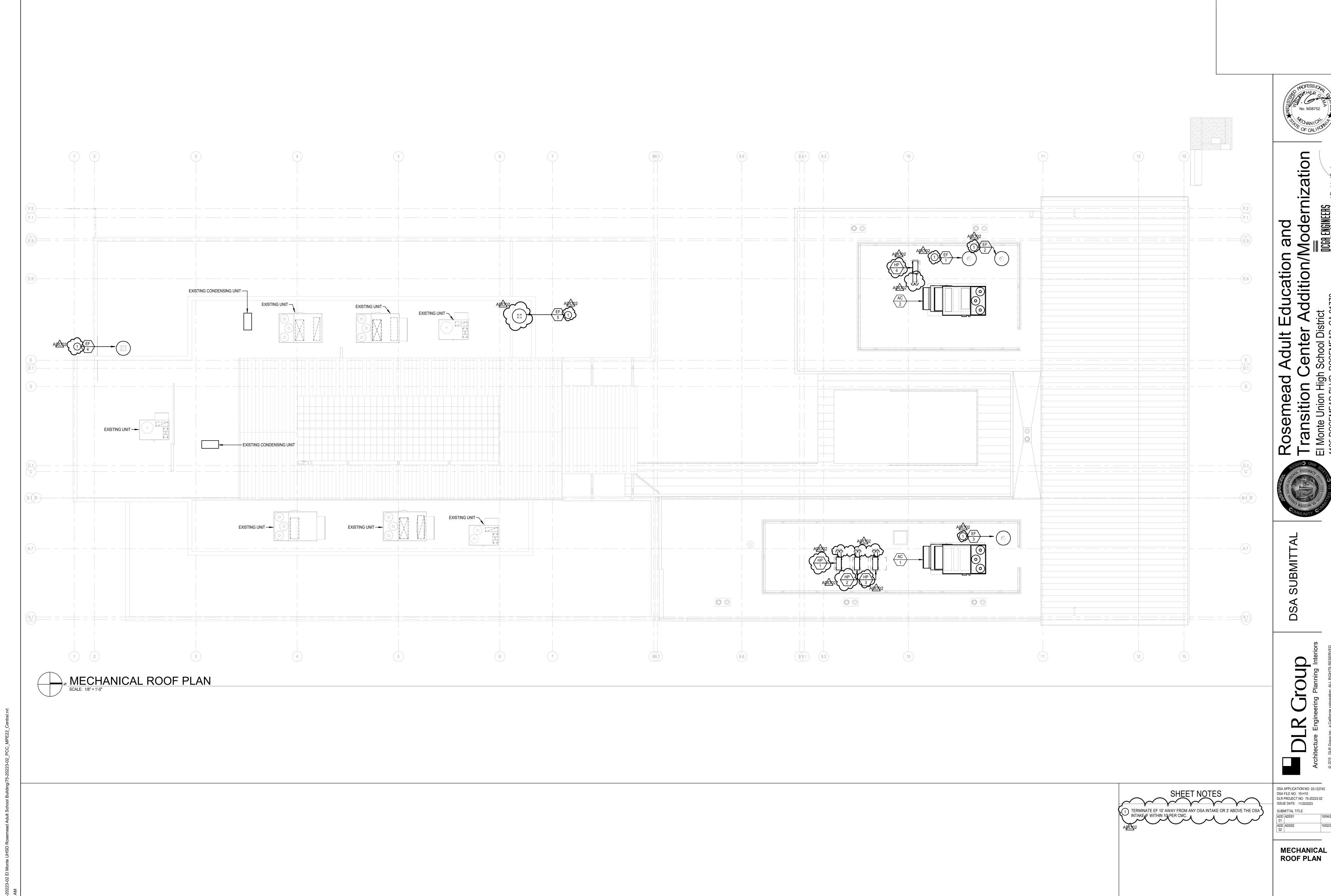


MECHANICAL PLAN - LEVEL

M2.2

— PAINT EXPOSED
DUCTWORK. REFER TO
DIVISION 9 FOR
REQUIREMENTS.





M3.1

SYSTEM PRESURE:	8"-11" W

SYSTEM PRESURE:	8"-11" W(
BASED ON CPC 2019 TABLE	1215.2(1)

NATURAL GAS LOADS - NEW BLDG.											
SPACE HEATING WATER HEATING KITCHEN OTHER TOTAL											
EXISTING	-	-	-	-	-						
PROPOSED	440	150	0	-	590						
TOTAL	440	150	0	-	590						
TOTAL DEVELOPED LENGTH: BUILDING CDC: 450 FT											
SYSTEM PRESURE:	8"-11" WC										

BASED ON CPC 2019 TABLE 1215.2(1)

166.5 FU = 84 GPM = 2" @ 3.0 FPS

FLUSH VALVE

FT/SEC

DOMESTIC WATER LOADS
EXISTING BUILDING

	EXISTING BUILD	ING	
QUANTITY	FIXTURE	F.U.	TOTAL F.U.
20	WATER CLOSET	5	100
4	URINAL	4	16
12	LAVATORY	1	12
12	SINK	2	24
2	DRINKING FOUNTAIN	0.5	2
2	SERVICE SINK	3	6
5	HOSE BIBB	2.5/1	6.5
	TOTAL		166.5

DOMESTIC WATER LOADS NEW BUILDING												
QUANTITY	FIXTURE	F.U.	TOTAL F.U.									
14	WATER CLOSET	5	70									
6	URINAL	4	24									
10	LAVATORY	1	10									
8	SINK	2	16									
4	DRINKING FOUNTAIN	0.5	2									
0	SERVICE SINK	3	0									
6	HOSE BIBB	2.5/1	7.5									

TOTAL

129.5

1132

8.0

638

129.5 FU = 76 GPM = 2" @ 3.0 FPS

		W	ATER PI	PE SIZIN	IG SCHE	DULE			
PIPE SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
GPM	2	4.5	10	17.5	27	57	88	150	230
FLUSH TANK FU		5	13	25	47	160	312	638	1173

			-
PIPE SIZING BASED ON 3	3.0 PSI/100' AND M	AX. VELOCITY OF	8 FEET PER SECON

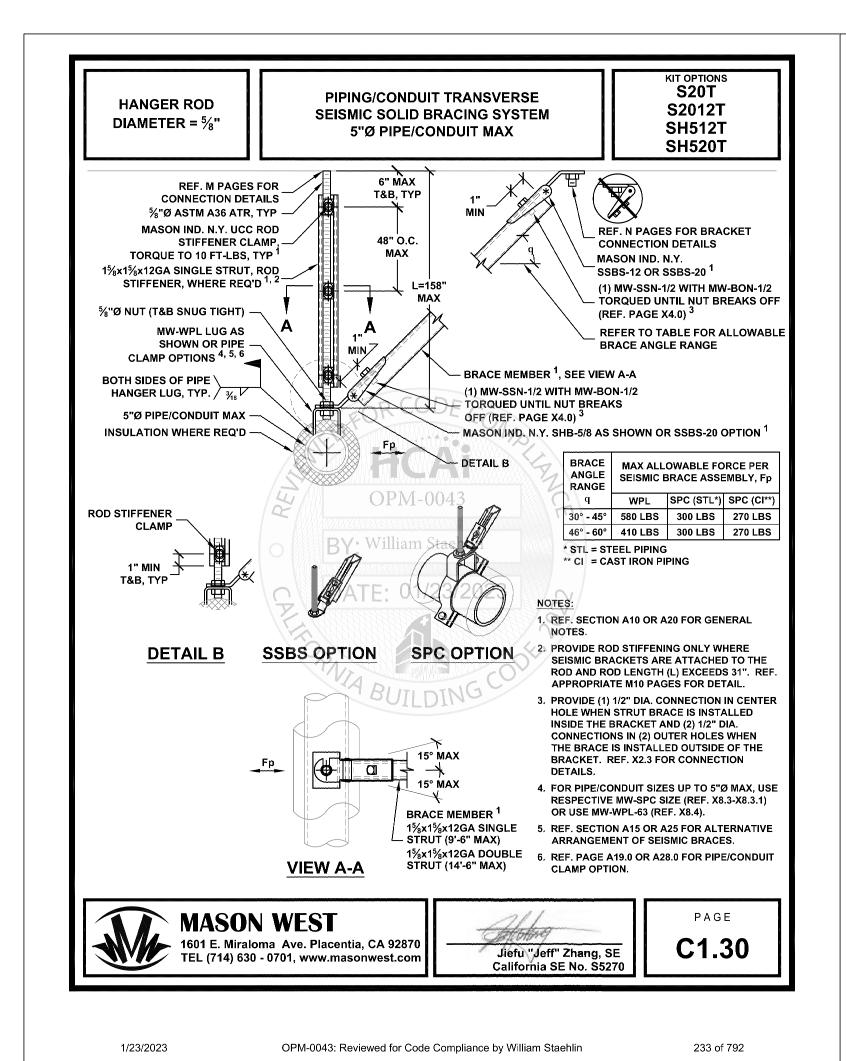
	GAS FIRED WATER HEATER SCHEDULE														
		MFR./	STOP	RECOV.	TANK	SIZE	TE	MP	GAS	CON	TROL CIR	CUIT	FLUE	OPER.	
SYMBOL	LOCATION	MODEL No.	(GAL.)	(GPH.)	WIDTH (IN)	HGT. (IN)	IN (F°)	OUT (F°)	INPUT (CFH)	KW	V	PH	DIAM. (IN)	WEIGHT (LBS)	REMARKS
GWH 1	SPACE ZZ	AO SMITH #BTH-120	50	143	27.75	55.5	60	120	120	ı	120	1	(2)4"	960	FURNISH WITH CONCENTRIC VENT KIT. ULTRA LOW NOX REFER TO DETAIL 6/P0.3
GWH 2	STORAGE B-110D	AO SMITH #BTH-150	100	297	27.75	76.0	60	120	150	-	120	1	(2)4"	1356	FURNISH WITH CONCENTRIC VENT KIT. ULTRA LOW NOX REFER TO DETAIL 7/P0.3

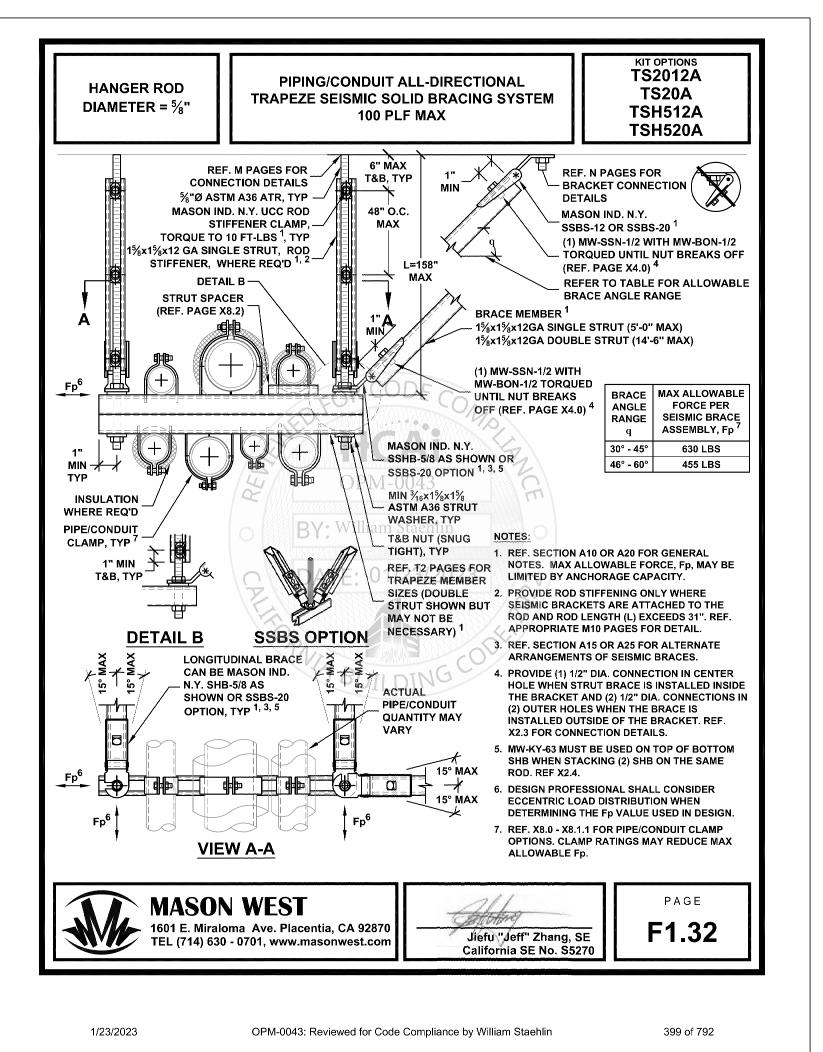
	EXPANSION TANK SCHEDULE													
SYM.	LOCATION	MFR/MODEL	TANK VOLUME (GALLONS)	ACCEPTANCE VOLUME GALLONS	CHARGING PRESSURE (PSIG)	SYSTEM CONNECTION SIZE (NPT)	OPER. WT. (LBS.)	REMARKS						
ET 1	SPACE ZZ	AMTROL THERM X-TROL ST-5C	2.1	.9	50	3/4"	22.50	175 PSI ASME CONSTRUCTION SIZED FOR UP TO 50 GALLON STORAGE TANK. REFER TO DETAIL 6/P0.3						
ET 2	STORAGE B-110D	THERM-X-TROL ST-12-C	6.4	3.2	55	A<u>D</u>DQ2 3/4"	50	175 PSI ASME CONSTRUCTION SIZED FOR 81 TO 100 GALLON STORAGE TANK. REFER TO DETAIL 7/P0.3						

			С	IRC	JLA ⁻	ΓΙΝΟ	PU	MP :	SCH	EDL	JLE	
SYMBOL	LOCATION	MFR./ MODEL No.	TYPE	GPM	HEAD (FT.)	RPM	WATTS	ELECTRIC VOLT	CAL DATA PHASE		OPER. WEIGHT (LBS)	REMARKS
CP 1	STORAGE B-110D	BELL & GOSSET NBF-18S	INLINE	3	10	3300	92	120	1	60	9	ALL BRONZE CONSTRUCTION, COMPLETE WITH AQUASTAT AND TIME CLOCK. REFER TO DETAIL 6 & 7/P0.3
		ADDQ2		•								

	EQUIPMENT SCHEDULE												
SYMBOL	SYMBOL EQUIPMENT MFR./ MODEL No. HP RPM VOLTS PHASE CAP. GPM WEIGHT (LBS) REMARKS												
GD 1	GARBAGE DISPOSER	IN-SINK ERATOR BADGER 1	1/3	1725	120	1Ø	-	-	15				

<u> </u>			RO	UGH-IN-SIZ	ĽΕ		FIXTUF	RE UNIT	
MARK	FIXTURE	TRAP	S/W	V	CW	HW	WASTE	WATER	DESCRIPTION/REMARKS
<u>WC-1</u>	WATER CLOSET	INT	4"	2"	1 1/2"	-	4	5	AMERICAN STANDARD MODEL NO. 3451.001 "FLOWISE", FLOOR MTD, VITREOUS CHIN ELONGATED BOWL, SIPHON JET WITH SLOAN ROYAL MANUAL OPERATED 1.28 GFP I ADA COMPLIANT FLUSH VALVE AND OLSONITE #95 OPEN FRONT SEAT.
<u>WC-2</u>	WATER CLOSET (ACC)	INT	4"	2"	1 1/2"	-	4	5	AMERICAN STANDARD MODEL NO. 3461.001 "FLOWISE", FLOOR MTD, VITREOUS CHIN ELONGATED BOWL, SIPHON JET WITH SLOAN ROYAL MANUAL OPERATED 1.28 GFP I ADA COMPLIANT FLUSH VALVE AND OLSONITE #95 OPEN FRONT SEAT.
<u>WC-3</u>	WATER CLOSET (ACC)	INT	4"	2"	1 1/2"	-	4	5	AMERICAN STANDARD MODEL #3351.101 "AFWALL", WALL MOUNTED, VITREOUS CHIN ELONGATED BOWL, SYPHON JET WITH SLOAN ROYAL MANUAL OPERATED 1.28 GFP ADA COMPLIANT FLUSH VALVE AND OLSONITE #95 OPEN FLUSH VALVE.
<u>UR-1</u>	URINAL	INT.	2"	1 1/2"	1 1/2"	-	2	4	AMERICAN STANDARD #6590.001 "WASHBROOK FLOWISE", WALL HUNG, VITREOUS CHINA, ELONGATED RIM, WASHOUT FLUSH ACTION, SLOAN ROYAL #186-0.125 MANU, OPERATED 0.125GPF. JR. SMITH #0637 SERIES CARRIER WITH STEEL UPRIGHTS.
<u>UR-2</u>	URINAL (ACC)	INT.	2"	1 1/2"	1 1/2"	-	2	4	SAME AS <u>UR-1</u> . SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT.
<u>L-1</u>	LAVATORY (ACC)	1 1/2"	2"	1 1/2"	3/4"	-	1	1	DURAVIT VERO WASHBASIN FURNITURE #0454500000 VITREOUS CHINA BOWL WITH WALL HANGER, KOHLER #K-103C36 TOUCHLESS SENSOR OPERATED FAUCET, K-134 SINGLE AC ADAPTOR, COMPLETE WITH 0.35 GPM VANDAL PROOF NON-AERATING OUTLET AND #K-99799 THERMOSTATIC TEMPERING VALVE.
<u>L-2</u>	LAVATORY (ACC)	1 1/2"	2"	1 1/2"	3/4"	3/4"	1	1	DURAVIT VERO WASHBASIN GROUND #0454100026 VITREOUS CHINA BOWL WITH WA HANGER, KOHLER #K-103C36 TOUCHLESS SENSOR OPERATED FAUCET, K-13481 MULTIPLE AC ADAPTOR, COMPLETE WITH 0.35 GPM VANDAL PROOF NON-AERATING OUTLET AND #K-99799 THERMOSTATIC TEMPERING VALVE.
<u>S-1</u>	SINK (ACC)	1 1/2"	2"	1 1/2"	3/4"	3/4"	2	2	KOHLER #K-5479 "RIVERBY" ENAMELED CAST IRON UNDERMOUNT SINGLE BOWL SIN COMPLETE WITH MOEN #7565EW SERIES ALIGN MOTIONSENSE WAVE SINGLE HAND HIGH ARC PULLDOWN KITCHEN FAUCET, 1.5 GPM FLOW, VANDAL PROOF NON-AERATING OUTLET AND #K-9979 THE PROOF TO SERVICE
<u>S-2</u>	SINK (ACC)	1 1/2"	2"	1 1/2"	3/4"	3/4"	2	2	KOHLER #K-2882 "VERTICYL" ENAMELED CAST IRON UNDERMOUNT SINGLE BOWL SI COMPLETE WITH MOEN #7565EW SERIES ALIGN MOTIONSENSE WAVE SINGLE HAND HIGH ARC PULLDOWN KITCHEN FAUCET, 1.5 GPM FLOW, VANDAL PROOF NON-AERATING OUTLET AND #K-99799 THERMOSTATIC TEMPERING VALVE.
<u>S-3</u>	SINK	1 1/2"	2"	1 1/2"	3/4"	-	2	2	JOHN BOOS #2PB-1DP18, 16 GAUGE 2 COMPARTMENT SINK WITH DRAIN BOARD WITH T&S BRASS #S-0231, SWIVEL FAUCET, 8" WALL MOUNTED MIXING FAUCET WITH 12" SWING NOZZLE WITH STREAM REGULATOR OUTLET.
<u>S-4</u>	SINK (ACC)	1 1/2"	2"	1 1/2"	3/4"	-	2	2	EAGLE GROUP #HSAP-14-ADA-FW, 16 GAUGE TYPE 304 STAINLESS STEEL HAND SINI T&S BRASS #B-1164-04, SWIVEL GOOSENECK FAUCET, 4" WALL MOUNTED MIXING SWING NOZZLE WITH STREAM REGULATOR OUTLET.
<u>DF-1</u>	DRINKING FOUNTAIN (ACC)	1 1/2"	2"	1 1/2"	3/4"	-	.5	.15	MURDOCK #A172108-UG-BF12, BARRIER-FREE, UNIVERSAL BI-LEVEL, WALL MOUNTE WATER COOLER AND BOTTLE FILLING STATION. PROVIDE WITH STAINLESS STEEL BUBBLERS, BOTTLE FILLER WITH SENSOR OPERATION. PROVIDE IN SATIN STAINLES STEEL FINISH.
<u>HB-1</u>	HOSE BIBB	-	-	-	3/4"	-	-	1	ACORN #8126 STANDPIPE, ROUGH CHROME PLATED, COMPLETE WITH LOOSE-KEY HANDLE AND VACUUM BREAKER.
<u>HB-2</u>	HOSE BIBB	-	-	-	3/4"	-	-	-	ACORN #8104 WALL HYDRANT, RECESSED ALUMINUM BOX WITH BUIT IN DRIP LIP, WALL FLANGE, DOOR WITH RECESSED CAM LOCK, OPERABLE BE REMOVABLE WHEEL HANDLE WITH VACUUM BREAKER.
<u>FD-1</u>	FLOOR DRAIN	2"	2"	1 1/2"	1/2"	-	-	1	JR SMITH #2005Y-A, HUBLESS CAST IRON BODY, 5"ROUND BRASS GRATE WITH VAND PROOF SCREWS, P-TRAP AND TRAP PRIMER CONNECTION. (1/4" MAX GRATE OPENINGS IN ALL DIRECTIONS.)
<u>TP-1</u>	TRAP PRIMER	-	-	-	-	-	-	-	J.R. SMITH, BRONZE CONSTRUCTION WITH SHUT-OFF VALVE BEHIND ACCESS PANEI 125 PSIG (860 KPA) MINIMUM.3 PSI PRESSURE DROP ACTIVATION. (SIZED PER MANUFACTURERS RECOMMENDATIONS)
WHA-1	WATER HAMMER ARRESTOR	-	-	-	1/2"	-	-	-	J.R. SMITH "HYDROTROL" 5000 SERIES, BEHIND ACCESS PANEL, 3 PSI ACTIVATION. (SIZE IN ACCORDANCE WITH PDI STANDARDS)
CWC-1	COLD WATER CONNECTION	-	-	-	1/2"	-	-	-	GUY GRAY #BIM875, 18 GAUGE FACEPLATE, HOT DIPPED GALVANIZED STEEL WITH COMPRESSION ANGLE VALVE.
CWB-1	CLOTHES WASHER BOX	-	2"	1 1/2"	1/2"	1/2"	-	-	GUY GRAY MODEL #FRM12S, RECESSED METAL OUTLET BOX. COMPLETE WITH CHROME QUARTER-TURN VALVE WITH LEVER HANDLE. UL LISTED.
<u>RD-1</u>	ROOF DRAIN	-	-	-	-	-	-	-	J.R. SMITH #1010-Y-RCU, CAST IRON BODY AND CAST IRON DOME STRAINER WITH BOTTOM OUTLET.
<u>OD-1</u>	OVERFLOW DRAIN	-	-	-	-	-	-	-	J.R. SMITH #1080-Y-RCU, CAST IRON BODY AND CAST IRON DOME STRAINER WITH BOTTOM OUTLET AND 2" HIGH WATER DAM.
<u>AD-1</u>	AREA DRAIN	-	2"	-	-	-	-	-	JR SMITH #2005Y-A, HUBLESS CAST IRON BODY, 5"ROUND BRASS GRATE WITH VAND PROOF SCREWS. (1/4" MAX GRATE OPENINGS IN ALL DIRECTIONS.)
<u>RD-2</u>	ROOF DRAIN	-	-	-	-	-	-	-	J.R. SMITH #1310-Y-RCU, CAST IRON BODY AND CAST IRON DOME STRAINER WITH BOTTOM OUTLET.
<u>OD-2</u>	OVERFLOW DRAIN	-	-	-	-	<u>-</u>	-	-	J.R. SMITH #1310-Y-RCU, CAST IRON BODY AND CAST IRON DOME STRAINER WITH BOTTOM OUTLET AND 2" HIGH WATER DAM.
<u>SS-1</u>	SERVICE SINK	3"	3"	2"	3/4"	3/4"	3	3	AMERICAN STANDARD #7741.000 ENAMEL ON CAST IRON, FLOOR MTD, CHICAG #897-CP WITH ATMOSPHERIC VACUUM BREAKER, PAIL HOOK, WALL BRACE AND MALE HOSE THREADED OUTLET.
<u>FS-2</u>	FLOOR SINK	3"	3"	2"	<u>-</u>	-	<u>-</u>	<u>-</u>	JR SMITH #3140Y-C-12, 12.5"x12.5"x6", HUBLESS ACID RESISTANT ENAMELED CAST IRON RECEPTOR WITH REMOVABLE BOTTOM STRAINER, HALF GRATE, TRAP PRIMER CONNECTION AND P-TRAP.
			I		I	I			ADA ACCESSIBLE SHOWER, FOR SH-1 SPECIFICATIONS/DESCRIPTION REFER







Addition/Modernization

District

Consulting Mechanical and Electrical/Engineers Transition Center Addition El Monte Union High School District 4105 ROSEMEAD BLVD, ROSEMEAD, CA 91770 Adult Rosen

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 SUBMITTAL TITLE

PLUMBING SCHEDULES AND DETAILS

DCGA #21092

1 1/2"CW DOWN IN WALL TO 1 1/2"CW HEADER WITH SOV BEHIND ACCESS **PLUMBING** PLAN - LEVEL

PANEL.

7 TP-1 AND WHA-1 BEHIND ACCESS PANEL.

ADD02 8 1/2"CW CONTINUE DOWN TO BELOW FLOOR TO FD-1. 9 INSTALL NEW FIXTURE AND CONNECT TO EXISTING UTILITIES IN WALL, BELOW GRADE/FLOOR AND/OR ABOVE CEILING AS REQUIRED FOR FULLY

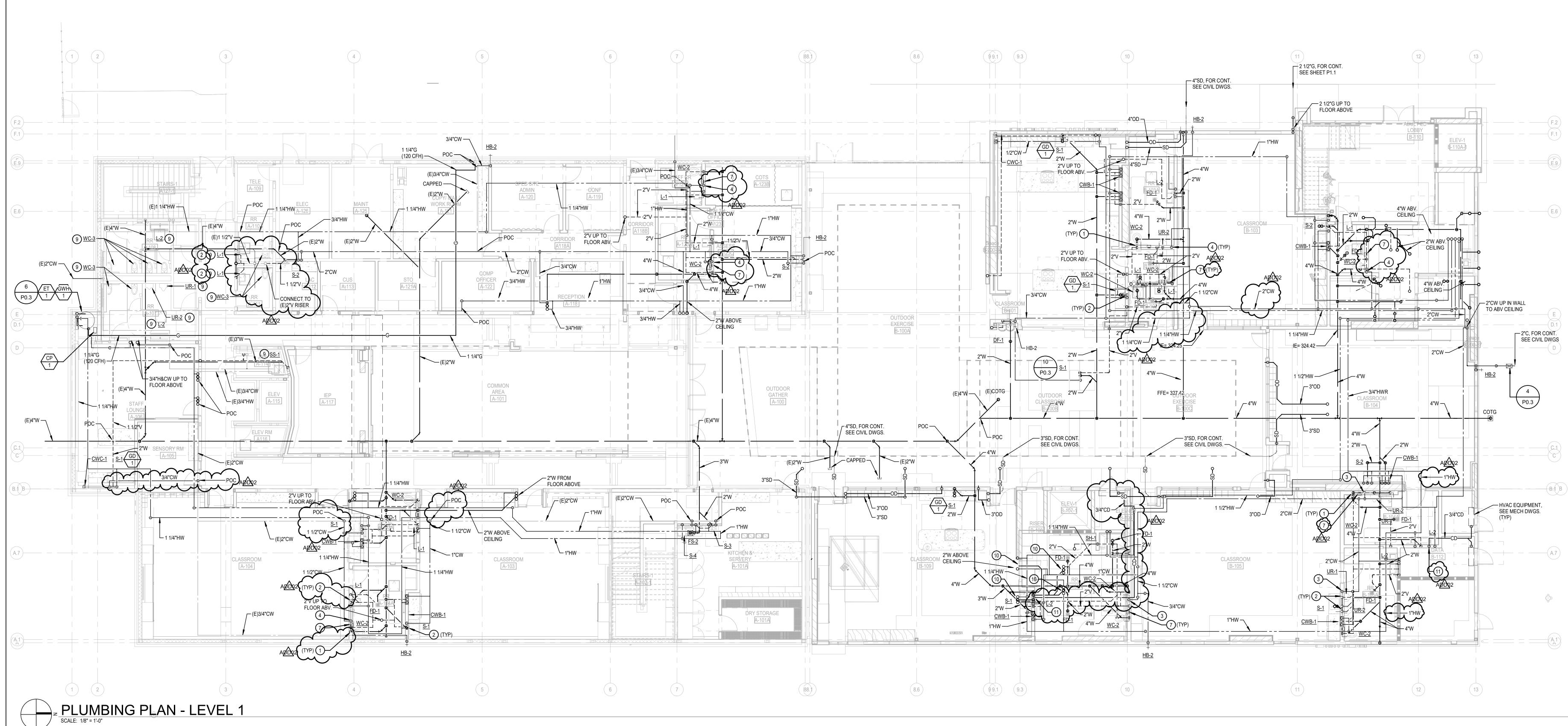
FUNCTIONING FIXCTURE/SYSTEM.

SHEET NOTES

5 1"CW DOWN IN WALL TO 1"CW HEADER WITH SOV BEHIND ACCESS PANEL

(6) 3/4"CW DOWN IN WALL TO 3/4"CW HEADER WITH SOV BEHIND ACCESS

1 4"W DOWN AND 2"V UP.



P2.1

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 11/20/2023 SUBMITTAL TITLE 2"CW DOWN IN WALL TO 2"CW HEADER WITH SOV BEHIND ACCESS PANEL 4 1 1/2"CW DOWN IN WALL TO 1 1/2"CW HEADER WITH SOV BEHIND ACCESS

PLUMBING

PLAN - LEVEL

9 2"W DOWN TO FLOOR BELOW, 1 1/2"V UP, AND 3/4"H&CW UP FROM FLOOR BELOW TO FIXTURE. 10) 2"W AND 1 1/2"V IN WALL, CONNECT TO EXISTING WASTE AND VENT UTILITIES FROM ADJACENT FIXTURE (S) IN WALL.

(11) 1/2"CW CONTINUE DOWN TO BELOW FLOOR TO FD-1.

1 4"W DOWN AND 2"V UP.

6 TP-1 AND WHA-1 BEHIND ACCESS PANEL.

7 INSTALL NEW FIXTURE AND CONNECT TO EXISTING UTILITIES IN WALL, BELOW GRADE/FLOOR AND/OR ABOVE CEILING AS REQUIRED FOR FULLY FUNCTIONING FIXCTURE/SYSTEM.

8 2"W DOWN TO FLOOR BELOW, 1 1/2"V UP, AND 3/4"H&CW UP FROM FLOOR BELOW TO APPLIANCE UTILITY BOX.

P2.2

ELECTRICAL SYMBOLS LIST **ABBREVIATIONS**

ELEC	TRICAL ABBREVIATIONS				ELECTRICAL SYMBOLS LIST		
AF	AMPERE FUSE RATING	(E) ⊕ =	EQUIPMENT WITH "E" ADJACENT IS EXISTING TO REMAIN.		DIGITAL ROOM CONTROLLER/POWER PACK WITH 0-10 VOLT		SINGLE PHASE FRACTIONAL OR INTEGRAL HORSEPOWER
AFF AIC	ABOVE FINISHED FLOOR AMPS INTERRUPTED CAPACITY RATING (RMS SYMMETRICAL MINIMUM)	(E) ⊕	EXISTING EQUIPMENT WITH "R" ADJACENT IS TO BE COMPLETELY DISCONNECTED AND REMOVED.	RL a	DIMMING AND CAT5 CABLE CONNECTIONS. REFER TO DETAIL #3/E0-4.3 FOR MANUFACTURERS AND MODEL NUMBERS. LOWER CASE LETTER ADJACENT INDICATES LIGHT FIXTURES		SURFACE NON-METAL RACEWAY FOR COMMUNICATIONS (AND POWER WHERE CALLED FOR ON DRAWINGS). WIREMOLD 5400 SERIES, WITH
AM AMP, A APPR	AMMETER AMPERES APPROVED	(RR)	EXISTING EQUIPMENT WITH "RR" ADJACENT IS TO BE DISCONNECTED, REMOVED AND RELOCATED TO NEW LOCATION		CONTROLLED. DIGITAL PHOTOCELL. REFER TO DETAIL #3/E0-4.3 FOR	-WM-	ALL OFFSETS, ANCHORING ATTACHMENTS, ENDCAPS, ETC. AS REQUIRED FOR A COMPLETE INSTALLATION. SOLID SQUARE INDICATES WIREMOLD DROP FROM CEILING.
AS AT AUTO	AMPERE SWITCH RATING AMPERE TRIP RATING OR BREAKER AUTOMATIC	(ER) O	AND RECONNECTED AS REQUIRED. RELOCATED EQUIPMENT SHOWN IN NEW LOCATION.	PC a1	MANUFACTURER AND MODEL NUMBER. LOWER CASE LETTER ADJACENT INDICATES LIGHT FIXTURES CONTROLLED. NUMERAL ADJACENT INDICATES DAYLITE ZONE CONTROL.	 —PM —	SURFACE MOUNTED NON-METAL PLUGMOLD RACEWAY WITH 20 AMP GROUNDING DUPLEX ISOLATED GROUND RECEPTACLES AT 12" ON
ATS AWG BRD, BD	AUTOMATIC TRANSFER SWITCH AMERICAN WIRE GAUGE BOARD	—E—	EXISTING CONDUIT RUN TO REMAIN. EXISTING CONDUCTORS TO REMAIN UNLESS NOTED OTHERWISE ON DRAWINGS.		DIGITAL RECEPTACLE ROOM CONTROLLER WITH 20 AMP RATED RELAY AND CAT5 CABLE CONNECTIONS. REFER TO DETAIL		CENTER. (2 CKT. TYPE - HUBBELL #PT206212) WIRE BASKET CABLE SUPPORT SYSTEM "B-LINE" #WB424 (MOUNTED
BFC BKR C.	BELOW FINISHED CEILING BREAKER CONDUIT	—ЕА—	EXISTING CONDUIT RUN TO BE ABANDONED. REMOVE CONDUCTORS AND CAP ENDS OF CONDUIT.	PL A-1	#3/E0-4.3 FOR MANUFACTURER AND MODEL NUMBERS. CIRCUIT ADJACENT SYMBOL INDICATES CIRCUIT TO BE CONTROLLED.	— wв —	IN CEILING SPACE). INCLUDING ALL MOUNTING HARDWARE, CLAMPS, SUPPORTS, OFFSETS, ETC. SUBMIT COMPLETE INSTALLATION SHOP DRAWINGS FOR REVIEW PRIOR TO CONSTRUCTION.
CAB CAT CC	CABINET CATEGORY CENTER TO CENTER	—EX—	EXISTING CONDUIT RUN TO BE REWIRED. REFER TO PLANS FOR WIRING REQUIREMENTS.	k3 Sa	SWITCH. LOWER CASE LETTER AT BOTTOM INDICATES OUTLETS CONTROLLED. CAPITAL SUPERSCRIPT INDICATES SWITCH TYPE. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O.		DOOR CONTACT SWITCH FOR SECURITY SYSTEM ACCESS POINT. FLUSH MOUNTED IN DOOR JAMB.
cd CHLOR CKT	CANDELA CHLORINE, CHLORINATION CIRCUIT	—R—	EXISTING CONDUIT AND WIRE RUN TO BE COMPLETELY DISCONNECTED AND REMOVED BACK TO LAST REMAINING OUTLET		NO SUPERSCRIPT - SINGLE POLE SWITCH 2 - DOUBLE POLE	Ø*	SECURITY SYSTEM MOTION SENSOR MOUNTED AT +96".
CMH C.O. COMPT	COMMUNICATION MANHOLE CONDUIT ONLY COMPARTMENT		OR DEVICE. "X" INDICATES APPROXIMATE POINT OF INTERCEPTION OF		3 - THREE WAY 4 - FOUR WAY I - ILLUMINATED HANDLE	K	DIGITAL KEY PAD ARM/DISARM FOR SECURITY SYSTEM. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O.
COMPR CPB CPT	COMPRESSOR COMMUNICATION PULLBOX CONTROL POWER TRANSFORMER	−R -X -E−	EXISTING CONDUIT RUN. CONDUIT TO BE REMOVED AT "R" SIDE OF "X". REMOVE ALL CONDUCTORS PRIOR TO CUTTING CONDUIT. EXACT LOCATION OF ALL CONDUITS SHALL BE FIELD VERIFIED.		K - KEYED SWITCH LC - LOCKABLE COVER M - MANUAL MOTOR STARTER	CR	ACCESS CONTROL CARD READER STATION MOUNTED AT +46". SECURITY SYSTEM CONDUIT. 3/4" CONDUIT MINIMUM WITH
CR CSFM CT	CONTROL RELAY (MAGNETICALLY HELD U.N.O.) CALIFORNIA STATE FIRE MARSHALL CURRENT TRANSFORMER		CONDUIT RUN CONCEALED IN WALLS OR UNDER FLOORS.		WITH THERMAL OVERLOAD PROTECTION MC - MOMENTARY CONTACT	—	WIRING. IP PUBLIC ADDRESS SPEAKER (ALGO #8188-IC) PROVIDE & INSTALL CAT 6
CU D.C.A. DISC.	COPPER DETECTOR CHECK ASSEMBLY DISCONNECT		CONDUIT RUN EXPOSED. CONDUIT RUN UNDERGROUND.		P - PILOT LIGHT PR - PRESS TYPE TP - THREE POSITION	S	RJ-45 JACK & CABLE. CEILING MOUNTED FLUSH WITH SURFACE
DISTR DWG ELEV	DISTRIBUTION DRAWING ELEVATION		CONDUIT STUBBED OUT AND CAPPED. PULL LINE IN PLACE.		T - TIMER-0-4 HR ROTARY WITH HOLD-ON FEATURE L - LOCKABLE POSITION TOGGLE	SH SH	IP PUBLIC ADDRESS SPEAKER (ALGO #8180S-IC) PROVIDE & INSTALL CAT 6 RJ-45 JACK & CABLE AT +96" U.N.O. ROUTE 3/4"C. INTO ACCESSIBLE CEILING SPACE. WALL MOUNTED FLUSH WITH SURFACE
EMERG, EM ENCL EQPT	EMERGENCY ENCLOSURE EQUIPMENT		CROSS LINES ON CONDUIT RUNS INDICATE NUMBER OF #12		SWITCH	©⊲	IP WEATHERPROOF PUBLIC ADDRESS SPEAKER (ALGO #8186S-IC). PROVIDE & INSTALL CAT 6 RJ-45 JACK
EXH E FAA	EXHAUST EXISTING FIRE ALARM ANNUNCIATOR		CURRENT CARRYING CONDUCTORS CONTAINED THEREIN. TWO #12 AND MINIMUM OF ONE #12 GROUND WIRE ARE INDICATED WHEN CROSS LINES ARE NOT SHOWN. NUMERALS ADJACENT TO		POLE MOUNTED PARKING LOT LIGHTING FIXTURE, SINGLE POLE MOUNTED PARKING LOT LIGHTING FIXTURE, DOUBLE		& CABLE AT +96" U.N.O. ROUTE 3/4"C. INTO ACCESSIBLE CEILING SPACE. WALL MOUNTED
FDR FF FG	FEEDER FINISHED FLOOR FINISHED GRADE		CROSS LINES ON CONDUIT RUNS INDICATE SIZE OF CONDUCTORS IN LIEU OF #12. ALL CONDUITS SHALL CONTAIN ONE GROUND WIRE SIZED PER C.E.C. TABLE 250.122. BUT NOT SMALLER THAN	(MS-1	FEEDER DESIGNATION. SEE SINGLE LINE DIAGRAM, FEEDER SCHEDULES AND ELECTRICAL SITE PLAN.		WALL MOUNTED COMBINATION IP CLOCK/PUBLIC ADDRESS SPEAKER (ALGO #8190S-IC). PROVIDE & INSTALL CAT 6 RJ-45 JACK & CABLE AT +96"
FS FLEX FLUOR	FLOW SWITCH FLEXIBLE FLUORESCENT		#12. WHERE ISOLATED GROUND RECEPTACLES ARE INDICATED, PROVIDE ADDITIONAL #12 GROUND WIRE IN CONDUIT RUNS, CONNECTED FROM ISOLATED GROUND BUS IN PANEL TO DEVICE.		DUPLEX GROUNDING TYPE RECEPTACLE, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O.		U.N.O. ROUTE 3/4"C. INTO ACCESSIBLE CEILING SPACE.
FOC FUT FUP	FIBER OPTIC CABLE FUTURE FUSE, CPT PRIMARY	B-1,3 —	CONDUIT HOMERUN TO PANELBOARD. LETTER AND NUMERALS INDICATE ELECTRICAL PANEL AND CIRCUIT NUMBER.	⊕	"C" ADJACENT SYMBOL INDICATES DEVICE MOUNTED ON CEILING TYPICAL UNLESS NOTED OTHERWISE. "IG" ADJACENT INDICATES ISOLATED GROUND TYPE RECEPTACLE.	—s—	PUBLIC ADDRESS SYSTEM CONDUIT. 3/4" CONDUIT MINIMUM WITH WIRING.
FUS GND, GRD HH	FUSE, CPT SECONDARY GROUND HAND HOLE	_	SURFACE MOUNTED BRANCH CIRCUIT PANELBOARD.		DUPLEX GROUND FAULT INTERRUPTING TYPE RECEPTACLE, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE. MOUNT PER DETAIL #1 ON	VGA	COMBINATION SVGA OUTLET AND (2) RCA JACK OUTLETS. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O.
HOA HTR HZ	HAND-OFF-AUTOMATIC HEATER HERTZ	PNL	RECESSED BRANCH CIRCUIT PANELBOARD. PANEL DESIGNATION.	₽	E0-0.1 U.N.O. "WP" ADJACENT INDICATES METAL COVERED PAD- LOCKABLE WEATHERPROOF COVER. "WPL" ADJACENT INDICATES RECESSED METAL HINGED WEATHERPROOF LOCKING COVER	—VGA—	1"C. WITH (1) SVGA-VIDEO CABLE AND (2) 22GA. TSP AUDIO CABLE.
IDF ICPB INC	INTERMEDIATE DISTRIBUTION FRAME INTERCEPT COMMUNICATION PULLBOX INCANDESCENT		SURFACE MOUNTED COMMUNICATION TERMINAL CABINET. REFER TO DRAWINGS AND SPECIFICATIONS.		EQUAL TO LEGRAND-PASS & SEYMOUR #4600 SERIES & ALL MOUNTING HARDWARE.	(WALL MOUNTED BATTERY POWERED ATOMIC RADIO CONTROLLED CLOCK (PRIMEX#14155). MOUNT AT +96" U.N.O. PROVIDE 4S BOX AND 3/4"C. STUBBED UP INTO CEILING SPACE.
IND INSTR IPPB	INDICATION INSTRUMENT INTERCEPT POWER PULLBOX		RECESSED COMMUNICATION TERMINAL CABINET. REFER TO DRAWINGS AND SPECIFICATIONS.	#	DUPLEX GROUNDING TYPE CONTROLLED RECEPTACLE, 20AMP, 125 VOLT, 2 POLE, 3 WIRE. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O. RECEPTACLE SHALL HAVE PERMANENT IDENTIFICATION.	—с—	CLOCK SYSTEM CONDUIT. 3/4" CONDUIT MINIMUM WITH WIRING.
ISC J.B. K	SHORT CIRCUIT CURRENT JUNCTION BOX THOUSAND (KILO)	0	JUNCTION BOX IN ACCESSIBLE CEILING SPACE OR FLUSH IN WALL WITH BLANK COVER PLATE TO MATCH DEVICE PLATES.	Φ	FLUSH FLOOR MOUNTED DUPLEX GROUNDING TYPE RECEPTACLE, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE IN SPECIAL FLOOR BOX.	\blacksquare	TELEPHONE OUTLET AND HANDSET WITH RJ-45 JACK. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O. "W" ADJACENT INDICATES WALL MOUNTED AT SWITCH HEIGHT PER DETAIL #1 ON E0-0.1 U.N.O. PROVIDE 1"CONDUIT
KV KW KVA	KILOVOLTS KILOWATTS KILOVOLT AMPERES	J	JUNCTION BOX FLUSH FLOOR MOUNTED.	Φ	PEDESTAL TYPE FLOOR MOUNTED DUPLEX GROUNDING TYPE RECEPTACLE, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE.		MINIMUM STUBBED UP INTO CEILING SPACE. TELEPHONE OUTLET AND HANDSET WITH RJ-45 JACK. MOUNT ABOVE
KVAR KWH KWHD	KILOVOLT AMPERES REACTIVE KILOWATT HOURS KILOWATT HOUR DEMAND METER	① 	JUNCTION BOX PEDESTAL TYPE FLOOR MOUNTED. THREE PHASE FRACTIONAL OR INTEGRAL HORSEPOWER	}	DUPLEX GROUNDING TYPE RECEPTACLE, 20 AMP, 125 VOLT 2 POLE, 3 WIRE, MOUNT ABOVE COUNTER PER DETAIL #1 ON	1	COUNTER PER DETAIL #1 ON E0-0.1 U.N.O. VOICE SYSTEM CONDUIT RUN. NUMERAL ADJACENT TO "T" INDICATES
LCP LOS LS	LIGHTING CONTROL PANEL PUSH BUTTON WITH "LOCK-OUT-STOP" LIMIT SWITCH	, M	MOTOR. NUMERAL IN PLACE OF "M" INDICATES HORSEPOWER. (SINGLE LINE DIAGRAM ONLY).	\	E0-0.1 U.N.O.	—т1—	QUANTITY OF 4 PAIR UTP CAT.6 CABLES IN RUN. PROVIDE 1" CONDUIT FOR 1-8 PAIRS OF CABLE AND 1 1/2" CONDUIT FOR 9-16 PAIRS OF CABLE.
LT, LTS LTG MA	LIGHT, LIGHTS LIGHTING MILLIAMPS	100A 3P	MOLDED CASE CIRCUIT BREAKER AND NUMBER OF POLES AS INDICATED. "A" INDICATES TRIP RATING. SUBSCRIPT INDICATES TYPE.	B	DUPLEX GROUND FAULT INTERRUPTING TYPE RECEPTACLE, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE. MOUNT ABOVE COUNTER PER DETAIL #1 ON E0-0.1 U.N.O.		DATA OUTLET WITH CAT 6 RATED RJ-45 JACK. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O. NUMERAL ADJACENT TO OUTLET INDICATES
MAN MAG MAX	MANUAL MAGNETIC MAXIMUM		NO SUBSCRIPT THERMAL MAGNETIC NA NON-AUTOMATIC	⊕	TWO DUPLEX GROUNDING TYPE RECEPTACLES IN 4S BOX, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE. MOUNT PER DETAIL #1 ON	4	QUANTITY OF RJ-45 JACKS. PROVIDE 1"CONDUIT MINIMUM STUBBED UP INTO CEILING SPACE.
MCB MCC MCM	MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER THOUSAND CIRCULAR MILS	,	MO MAGNETIC ONLY CL CURRENT LIMITING SS SOLID STATE		E0-0.1 U.N.O. TWO DUPLEX GROUND FAULT INTERRUPTING TYPE RECEPTACLES	∢	DATA OUTLET WITH CAT 6 RATED RJ-45 JACK. MOUNT ABOVE COUNTER PER DETAIL #1 ON E0-0.1 U.N.O.
MCP MDF MH	MOTOR CIRCUIT PROTECTOR MAIN DISTRIBUTION FRAME MANHOLE	100AS 3P H	FUSED SWITCH. "AS" INDICATES AMPERE SWITCH RATING, "AF" INDICATES AMPERE FUSE RATING, NUMBER OF	# *	IN 3-GANG BOX WITH 2-GANG RING AND PLATE. 20A., 125 VOLT 2 POLE, 3 WIRE. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O.	•	DATA OUTLET WITH CAT 6 RATED RJ-45 JACK. MOUNT IN SPECIAL FLUSH FLOOR BOX. NUMERAL ADJACENT TO OUTLET INDICATES
MS MIN MOV	MANUAL MOTOR STARTER MINUTES, MINIMUM MOTOR OPERATED VALVE, METAL OXIDE VARISTER		POLES AS INDICATED.	⊕ 	TWO 20 AMP DUPLEX RECEPTACLES IN SPECIAL FLOOR BOX. DUPLEX GROUNDING TYPE RECEPTACLE, 20 AMP, 125 VOLT,		OF RJ-45 JACKS. DATA SYSTEM CONDUIT RUN. NUMERAL ADJACENT TO "D" INDICATES
MT, MTD, MTG N.A.P. NO, NOS	MOUNT, MOUNTED, MOUNTING NEUTRALIZATION ALARM PANEL NUMBER, NUMBERS		ENCLOSED VOLTAGE TRANSFORMER PER SPEC'S. COPPER WOUND, DRY TYPE, U.N.O.	←	2 POLE, 3 WIRE, SPLIT WIRED WITH LOWER OUTLET SWITCHED. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O.	—D1—	QUANTITY OF 4 PAIR UTP CAT.6 CABLES IN RUN. PROVIDE 1" CONDUIT FOR 1-8 PAIRS OF CABLE AND 1 1/2" CONDUIT FOR 9-16 PAIRS OF CABLE.
NP NTS OC	NAMEPLATE NOT TO SCALE ON CENTER	=		•	DUPLEX GROUNDING TYPE USB CHARGING RECEPTACLE, 20 AMP 125 VOLT, 2 POLE, 3 WIRE. EQUIPPED WITH (2) TYPE-A USB PORTS. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O.		COMBINATION VOICE/DATA OUTLET WITH (2) CAT.6 RATED RJ-45 JACKS. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O. PROVIDE A 4S DEEP BOX WITH
OFOI OL PB	OWNER FURNISHED OWNER INSTALLED OVERLOAD PULLBOX	∑—(M)	UTILITY METER SOCKET, WITH C.T.'S, CLIPS, ETC., PER SERVING UTILITY COMPANY.	•	WEATHERPROOF RECESSED POWER FLOOR BOX.		2 GANG RING AND PLATE. PROVIDE 1"C. MINIMUM STUBBED UP INTO CEILING SPACE.
PIV PMH PNL	POST INDICATOR VALVE POWER MANHOLE PANEL	GF	GROUND, "GRD", "GND". BREAKER EQUIPPED WITH THE GROUND FAULT PROTECTION	^⊗ _L	SPECIAL PURPOSE OUTLET MOUNTED IN FLUSH WALL BOX. LETTER INDICATES TYPE. "L" ADJACENT INDICATES TWIST LOCK TYPE	4	COMBINATION VOICE/DATA OUTLET WITH (2) CAT.6 RATED RJ-45 JACKS. MOUNT ABOVE COUNTER PER DETAIL #1 ON E0-0.1 U.N.O.
PNLBD POS PPB	PANELBOARD POSITION POWER PULLBOX	GFI	"GROUND FAULT INTERRUPTER"		A - NEMA TYPE 10-30R (250 VOLT, 1 PHASE, 30 AMP)	•	COMBINATION VOICE/DATA OUTLET WITH (2) CAT.6 RATED RJ-45 JACKS. FLUSH MOUNT IN SPECIAL FLOOR BOX.
PRI PS PT	PRIMARY PRESSURE SWITCH POTENTIAL TRANSFORMER	O _{1a}	CEILING LIGHT FIXTURE AND OUTLET, LED. LOWER CASE LETTER INDICATES CONTROLLING SWITCH, NUMERAL INDICATES CIRCUIT. SHADED CIRCLE INDICATES FIXTURE WITH 90-MINUTE MINIMUM		B - NEMA TYPE 5-50R (125 VOLT, 1 PHASE, 50 AMP) C - NEMA TYPE 6-20R (250 VOLT, 1 PHASE, 20	—тр—	VOICE/DATA SYSTEM CONDUIT RUN. NUMERAL ADJACENT TO "TD" INDICATES QUANTITY OF 4 PAIR UTP CAT.6 CABLES IN RUN. PROVIDE 1" CONDUIT FOR 1-8 PAIRS OF CABLE AND 1 1/2" CONDUIT FOR 9-16
PVC PW PWR	POLYVINYL CHLORIDE PART WINDING POWER		EMERGENCY POWER PROVISIONS. LED LIGHT FIXTURE OUTLET. LOWER CASE LETTER INDICATES		AMP) D - NEMA TYPE 6-30R (250 VOLT, 1 PHASE, 30 AMP)		PAIRS OF CABLE. MICROPHONE JACK. MOUNT PER DETAIL #1 ON E0-0.1 U.N.O.
REC RECPTS REQD	RECEPTACLE RECEPTACLES REQUIRED	1a	CONTROLLING SWITCH, NUMERAL INDICATES CIRCUIT. SHADED CIRCLE INDICATES FIXTURE WITH 90-MINUTE MINIMUM EMERGENCY POWER PROVISIONS.		E - NEMA TYPE 6-50R (250 VOLT, 1 PHASE, 50 AMP) F - NEMA TYPE 11-20R (250 VOLT, 3 PHASE, 20	MC M	PROVIDE A 4S DEEP BOX WITH SINGLE GANG RING. MICROPHONE JACK MOUNTED IN SPECIAL FLUSH FLOOR BOX
SA SCH SEC	STATUS ANNUNCIATOR SCHEDULE SECONDS, SECONDARY		LED STRIP FIXTURE. LOWER CASE LETTER INDICATES CONTROLLING SWITCH. NUMERAL INDICATES CIRCUIT.		AMP) G - NEMA TYPE 11-20R (250 VOLT, 3 PHASE, 20 AMP) AMP)	—ss—	MULTI-USE SOUND SYSTEM CONDUIT RUN. 3/4" CONDUIT MINIMUM WITH CABLING.
SECT SEL SW SEQ	SECTION SELECTOR SWITCH SEQUENCE	1a ⊢●	SHADED CIRCLE INDICATES FIXTURE WITH 90-MINUTE MINIMUM EMERGENCY POWER PROVISIONS.		H - NEMA TYPE 11-50R (250 VOLT, 3 PHASE, 50 AMP) J - NEMA TYPE 14-20R (125/250 VOLT, 1 PHASE,	cs	AUDIO/VIDEO CONTROL STATION MOUNTED AT +48". PROVIDE EXTRA DEEP 2 GANG BOX AND 1 1/4"C.O. STUBBED UP INTO CEILING SPACE.
SHLD SHT SIG	SHIELDED SHEET SIGNAL START CONTACTOR CON	O _ 1a	BRACKET OR WALL MOUNTED SURFACE OR RECESSED LIGHT FIXTURE AND OUTLET, LED. LOWER CASE LETTER INDICATES CONTROLLING SWITCH, NUMERAL INDICATES CIRCUIT. SHADED		 J - NEMA TYPE 14-20R (125/250 VOLT, 1 PHASE, 20 AMP) K - NEMA TYPE 14-30R (125/250 VOLT, 1 PHASE, 30 AMP) 	\(\sigma\)	RECESSED SPEAKER BACKBOX FOR AUDIO/VISUAL SYSTEM WITH HANGING WIRE HARDWARE. PROVIDE MINIMUM OF 2 HANGER WIRES
SM SPECS SP HTR	START CONTACTOR COIL SPECIFICATIONS SPACE HEATER SHUNT TRIP		CIRCLE INDICATES FIXTURE WITH 90-MINUTE MINIMUM EMERGENCY POWER PROVISIONS.		M - NEMA TYPE 14-50R (125/250 VOLT, 1 PHASE, 50 AMP)	AVS	CONNECTED TO STRUCTURE. DIGITAL WALL MOUNT AUDIO/VIDEO SWITCHER.
ST STA STD	SHUNT TRIP STATION STANDARD STEEL	⊗↑	ILLUMINATED EXIT LIGHT FIXTURE. SIDE, BACK, CEILING, OR PENDANT MOUNTED, SINGLE OR DOUBLE FACED AS NOTED BY SHADED ARC. WITH OR WITHOUT DIRECTIONAL ARROW AS NOTED	100AS □-	NON-FUSED DISCONNECT SWITCH. "AS" INDICATES SWITCH AMPERE RATING UNLESS NOTED OTHERWISE ON DRAWINGS.	[AV] _T	AUDIO/VIDEO OUTLET WITH (1) RJ-45 JACK, (2) HDMI AND (1) 3.5 MINI-STEREO JACKS/CONNECTORS. PROVIDE EXTRA DEEP 2 GANG BOX AND 1 1/4"C.
STL STR SV SW	STEEL STARTER SOLENOID VALVE SWITCH	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ON THE DRAWINGS. EXIT SIGN SHALL NOT BE USED AS JUNCTION BOX OR "THROUGH-WIRE". PROVIDE WITH 90-MINUTE MINIMUM EMERGENCY POWER PROVISION.	臣	FUSED DISCONNECT SWITCH. "AS" INDICATES SWITCH AMPERE RATING. "AF" INDICATES FUSE AMPERE RATING.]T	STUBBED UP INTO CEILING SPACE. "T" ADJACENT INDICATES TEACHER STATION LOCATION.
SW SYS TACH	SWITCH SYSTEM TACHOMETER TIME DELAY ON DE-ENERGIZATION	L.	LOW LEVEL EXIT LIGHT FIXTURE, WALL MOUNTED WITH OR WITHOUT DIRECTIONAL ARROW AS NOTED ON THE DRAWINGS.	VED II	MAGNETIC MOTOR STARTER. ROMAN NUMERAL INDICATES NEMA STARTER SIZE. ADDITIONAL SUBSCRIPTS INDICATE STARTER TYPE AND SIZE. (TYPICAL FOR ALL MACNETIC STARTER SYMBOLS)	WAP	CEILING MOUNTED WIRELESS ACCESS POINT. ROUTE MINIMUM 3/4"C. WITH (2) CAT 6 RATED CABLES TO BUILDING MDF/IDF.
TDOD TDOE TEMP TERM	TIME DELAY ON DE-ENERGIZATION TIME DELAY ON ENERGIZATION TEMPERATURE TERMINAL	⊗ ↑	WITHOUT DIRECTIONAL ARROW AS NOTED ON THE DRAWINGS. BOTTOM OF FIXTURE AT +10" ABOVE FINISHED FLOOR AND WITHIN FOUR INCHES OF DOOR FRAME WHERE APPLICABLE. PROVIDE WITH 90-MINUTE MINIMUM EMERGENCY POWER PROVISION.	VFD II	TYPE AND SIZE. (TYPICAL FOR ALL MAGNETIC STARTER SYMBOLS.) NO SUBSCRIPT - FULL VOLTAGE, NON REVERSING		CLOSED CIRCUIT TELEVISION SYSTEM CAMERA OUTLET BOX AND BLANK COVER PLATE. ROUTE 1"C. FROM OUTLET BOX TO BUILDING
THERM TR TS	TERMINAL THERMOSTAT TIME DELAY RELAY TAMPER SWITCH		LIGHTING FIXTURE IDENTIFICATION SYMBOL. LETTER INDICATES		PR - PRIMARY RESISTOR REDUCED VOLTAGE AT - AUTOTRANSFORMER REDUCED		MDF/IDF. MOUNT OUTLET BOX AT 10'-6" U.N.O. HATCH INDICATES PRIMARY SIDELIT DAYLIT ZONE.
TSP TSTAT TYP.	TAMPER SWITCH TWISTED SHIELDED PAIR THERMOSTAT TYPICAL	0 16	FIXTURE TYPE. NUMERALS IN LOWER HALF OF HEXAGON INDICATE FIXTURE WATTAGE (INCLUDING BALLAST WHERE APPLICABLE). NUMERAL OUTSIDE TOP OF HEXAGON INDICATES		VOLTAGE WD - WYE-DELTA REDUCED VOLTAGE PW - PART WINDING REDUCED VOLTAGE		HATCH INDICATES SECONDARY SIDELIT DAYLIT ZONE.
U.N.O. UGPS UTP	UNLESS NOTED OTHERWISE UNDERGROUND PULL SECTION UNSHIELDED TWISTED PAIR	72 +12'-0"	NUMBER OF FIXTURES USED FOR LOAD CALCULATIONS. NUMERAL OUTSIDE BOTTOM OF HEXAGON INDICATES MOUNTING HEIGHT FROM FLOOR TO BOTTOM OF FIXTURE. OMISSION OF MOUNTING		SS - SOLID STATE REDUCED VOLTAGE REV - REVERSING TYPE 2S - TWO SPEED		FIRE RATED "POKE-THRU" FLOOR MOUNTED DEVICES WITH COMBINATION POWER/DATA OUTLETS. PROVIDE WITH (2) DUPLEX GROUNDING TYPE RECEPTACLES,
VFD V V	VARIABLE FREQUENCY DRIVE VOLTS VOLTMETER	₹ 7	HEIGHT INDICATES CEILING MOUNTING. WALL MOUNTED DUAL HEAD EMERGENCY LIGHTING FIXTURE		2W - TWO WINDINGS CH - CONSTANT HORSEPOWER CT - CONSTANT TORQUE		20 AMP, 125 VOLT, 2 POLE, 3 WIRE. EQUAL TO LEGRAND WIREMOLD "EVOLUTION SERIES 6". ALIDIO//IDEO OLITLET WITH (1) R.I-45 JACK (2) HDMLAND (1) 3.5
VM VS W WHM	VOLTMETER VOLTMETER SWITCH WATTS WATT HOUR METER		UNIT WITH 90-MINUTE MINIMUM EMERGENCY POWER PROVISION. DIGITAL WALL SWITCH WITH "ON/OFF" AND DIMMING CAPABILITY.		VT - VARIABLE TORQUE VFD - VARIABLE FREQUENCY DRIVE	AVP	AUDIO/VIDEO OUTLET WITH (1) RJ-45 JACK, (2) HDMI AND (1) 3.5 MINI-STEREO JACKS/CONNECTORS.
WP WPL	WATT HOUR METER WEATHERPROOF WEATHERPROOF LOCKING TRANSFORMER	D _a ⁴	REFER TO DETAIL #3/E0-4.3 FOR MANUFACTURERS AND MODEL NUMBERS. NUMERAL ADJACENT INDICATES QUANTITY OF BUTTONS. LOWER CASE LETTER AT BOTTOM INDICATES FIXTURES	⊠ H	COMBINATION MAGNETIC MOTOR STARTER AND NON-FUSED DISCONNECT SWITCH. TYPE AS INDICATED ABOVE.	vs	CEILING MOUNTED VAPE SENSOR. PROVIDE & INSTALL CAT 6 RJ-45 JACK ROUTE 3/4"C. INTO ACCESSIBLE CEILING
XFMR XMTR	TRANSFORMER TRANSMITTER	_	CONTROLLED. MOUNT AT +48" PER DETAIL #1/E0-0.1. WALL MOUNTED PASSIVE INFRARED OCCUPANCY SENSOR.	F II	COMBINATION MAGNETIC MOTOR STARTER AND FUSED DISCONNECT SWITCH. TYPE AS INDICATED ABOVE.		AØDQ2
		S	MOUNT AT +48". WATTSTOPPER #DW-200 OR APPROVED EQUAL. INFRARED/ULTRASONIC DUAL TECHNOLOGY TYPE OCCUPANCY		COMBINATION MAGNETIC MOTOR STARTER AND CIRCUIT BREAKER. TYPE AS INDICATED ABOVE.		
		os	SENSOR COMPLETE WITH ALL POWER SUPPLIES, RELAY PACKS AND CONNECTIONS. REFER TO DETAIL #3/E0-4.3 FOR MANUFACTURER AND MODEL NUMBER.		COMBINATION MAGNETIC MOTOR STARTER AND MOTOR CIRCUIT PROTECTOR. TYPE AS INDICATED ABOVE.		
			WATER ACTORES AND WIODEL NOWBER.				FOR FIRE ALARM LEGEND SEE SHEET E3.1

DCGA #21092

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ACCEPTANCE TESTING

MANDATORY ACCEPTANCE TESTING PER TITLE 24, PART 6 SECTION 130.4 SHALL BE AS FOLLOWS:

LIGHTING FIXTURE SCHEDULE

LUMENS MINIMUM

LUMENS MINIMUM

NOTED ON DRAWINGS

SHOP DRAWINGS.

SHOP DRAWINGS.

NOTED ON DRAWINGS.

NOTED ON DRAWINGS.

INTERIOR ELEVATIONS.

NTERIOR ELEVATIONS.

AND WHITE AT WHITE CEILINGS.

PROVIDE EMERGENCY BATTERY PACK WHER

TYPE "I1/11": SIMILAR TO TYPE "I" EXCEPT 2' IN

TYPE "J": CONTRACTOR SHALL COORDINATE

TYPE "K": CONTRACTOR SHALL COORDINATE

PROVIDE EMERGENCY BATTERY PACK WHERE

DRAWINGS PRIOR TO ORDERING. PROVIDE

ELESCOPING END CAPS AS REQUIRED FOR A

MOUNTING HEIGHTS WITH ARCHITECTURAL

TYPE "L":PROVIDE INSTALLATION SHOP

OMPLETE FINISHED INSTALLATION.

COMPLETE FINISHED INSTALLATION.

COMPLETE FINISHED INSTALLATION.

SHOP DRAWINGS.

TED ON DRAWINGS.

NOTED ON DRAWINGS.

NOTED ON DRAWINGS.

NOTED ON DRAWINGS.

TYPE "M":PROVIDE INSTALLATION SHOP

DRAWINGS PRIOR TO ORDERING. PROVIDE

DRAWINGS PRIOR TO ORDERING. PROVIDE

TYPE "O": CONTRACTOR SHALL FIELD VERIFY

ROW LENGTHS AND PROVIDE INSTALLATION

PROVIDE EMERGENCY BATTERY PACK WHERE

PROVIDE EMERGENCY BATTERY PACK WHERE | CORONET

PROVIDE EMERGENCY BATTERY PACK WHERE | GOTHAM

ROVIDE EMERGENCY BATTERY PACK WHERE

MOUNTING HEIGHTS WITH ARCHITECTURAL

LENGTH AND 1500 LUMENS MINIMUM

NOTED ON DRAWINGS.

REMARKS

PROVIDE EMERGENCY BATTERY PACK WHERE

PROVIDE EMERGENCY BATTERY PACK WHERE

TYPE "C": CONTRACTOR SHALL FIELD VERIFY

PROVIDE EMERGENCY BATTERY PACK WHERE

TYPE "D": CONTRACTOR SHALL FIELD VERIFY

ROW LENGTHS AND PROVIDE INSTALLATION

ROW LENGTHS AND PROVIDE INSTALLATION

TYPE "A1/29": SIMILAR TO TYPE "A" EXCEPT 3500 FLUXWERX

TYPE "B1/23": SIMILAR TO TYPE "A" EXCEPT 3000 LITHONIA

ROVIDE EMERGENCY BATTERY PACK WHERE | USAI LIGHTING

PROVIDE BLACK FIXTURES AT BLACK CEILINGS USAI LIGHTING

PROVIDE EMERGENCY BATTERY PACK WHERE | EQUAL BY CAMMAN #P1009 OR

TELESCOPING END CAPS AS REQUIRED FOR A EQUAL BY ALUZ #A1 OR IGUZZINI

TELESCOPING END CAPS AS REQUIRED FOR A EQUAL BY ALUZ #A8 OR IGUZZINI

MANUFACTURER & NO.

#NB2-24-D-40-F2-M

-WHTCY-WCRD

CORONET LIGHTING

#UCEL-12-30K-SWR-WH

LITHONIA LIGHTING

EUREKA LIGHTING

| EUREKA LIGHTING

MVOLT-ZT

LUMINII LIGHTING

MUUTO LIGHTING

MUUTO LIGHTING

EQUAL BY

LIGMAN LIGHTING

HYDREL LIGHTING

EQUA BY LIGMAN LIGHTING

EQUAL BY CAMMAN #P1009 OR

#K45M-XX-72HO-41K-F-CB-SA-X-X

#KM-XX-DW52SO-22K30K-F-FC-WH-X-X

EQUAL BY NULITE #RW4 OR

#BS101LED-4HT-LO-WT50-120-277V

#AMBIT 15.75"-11WLED-DUSTY GREEN

#UNFOLD 12.75"-11WLED-YELLOW

EQUAL BY LOUIS POULSEN OR PEACHTREE

EQUAL BY LOUIS POULSEN OR PEACHTREE

#UTA-31872-29W-AS-W40-06-120/277-DIM

#EVO6-40-20-AR-MWD-LSS-MVOLT-GZ10 EQUAL BY PRESCOLITE, CREE, COOPER

#HSL13-6INCH-LED-40K-MVOLT-L-MIN5-BB-XX

EQUAL BY LUMINIS, ELCAST, KUZCO

#CRD1WM-6\1-NA-ED\2-35-MED-UNV-DR-W-6-NA

#TB4WDILED-400-400-80-40-SO-SO-S(L)-AP-UNV-DP

EQUAL BY METALUX #4VT3 OR VISIONEERING

EQUAL BY SPI #AIP12095 OR

PROVIDE EMERGENCY BATTERY PACK WHERE | EQUAL BY FOCAL POINT #FSM1 OR FINELITE

EQUAL BY NULITE #BRM2 OR

#2BLT4-40L-ADSM-MVOLT-EZ1-LP840

MARK ARCHITECTURAL LIGHTING

MARK ARCHITECTURAL LIGHTING

EQUAL BY METALUX #24ID OR HE WILLIAM

#S1LID-LLP-X-8-90CRI-40K-400LMF-DBW-I90CRI-

-I40K-I400LMF-BW-MIN1-SCT-MVOLT-X-ZT-X-RDCY

EQUAL BY FOCAL POINT #FSM1BS OR FINELITE

#B3RDL-20X3-40KH-65-S-WH-NC1-UNV-D22

#RING-3-40-LOW-UNV-DB-W-AC-SD-STD

#CMRD8-20X3-40KH-65-S-X-PJ1A-UNV-D22

EQUAL BY FOCAL POINT #FLCY3 OR PATHWAY

EQAUL BY DAYOLITE #TSLL OR VISIONEERING

#CLXLED-L48-3000LM-SEF-FDL-MVOLT-GZ10-40K-

#4820DI-24-LEDC1-40-80-277-CV-AC-X-BLKE-BLKE-

#4820DI-36-LEDC1-40-80-277-CV-AC-X-BLKE-BLKE-

#SPRLED-LOP-XX-RLP-FL-80-40K-400LMF-MIN1-

EQUAL BY NEO-RAY #S124DRP OR FINELITE

EQUAL BY METALUX #4SN OR VISIONEERING

EQUAL BY FOCAL POINT #FLC3D OR PATHWAY

#S1LI-LOP-X-TG-90CRI-40K-400LMF-DBW-MIN1-SCT

LAMP(S)

LUMEN

4000K

4000

3180

LUMEN

MILIMILM

4000K

1480

LUMEN

MINIMUM

1950

LUMEN

MINIMUM

4000K

3250

LUMEN

MINIMUM

LED

4000K

LUMEN

MINIMUM

3000K

LUMEN

MILIMILM

4000K

3000

3470

LUMEN

4000K

8400

LUMEN

MINIMIM

4000K

4000K

4000K

3200

4000K

2700K

1500

LUMEN

MINIMIM

2700K

1500

LUMEN

MINIMUM

LED

3500K

2400

4000K

4000K

LUMEN

OUTPUT

LUMEN

LUMEN

LUMEN

LUMEN

FINISH

WHITE

ENAMEL

BAKED

WHITE

COLOR AS

SELECTED

ARCHITECT

WHITE

WHITE

WHITE

BAKED

WHITE

ENAMEL

BLACK

WHITE

SILVER

DUSTY

GREEN

YELLOW

COLOR

ARCHITECT

COLOR

ARCHITECT

RECESSED LINEAR COVE LED FIXTURE WITH 3/4" | SILVER | LED | TYPE "N":PROVIDE INSTALLATION SHOP

DESCRIPTION

LINEAR ANIDOLIC OPTICS AND FULLY ENCLOSED

DIRECT/INDIRECT APPEARANCE, TRANSLUCENT

DIRECT/INDIRECT LED FIXTURE WITH EXTRUDED

ALUMINUM HOUSING AND ACRYLIC LENS. AIR

RECESSED MOUNTED CONTINUOUS ROW DIRECT

3.5" ROUND TRIMLESS LED DOWNLIGHT WITH

SEMI-SPECULAR LOWER REFLECTOR, 1950

PENDENT MOUNTED 3' ROUND DIRECT LED

FIXTURE WITH EXTRUDED ALUMINUM HOUSING

3.5" PENDANT MOUNTED LED CYLINDER WITH

LUMEN MIN. OUTPUT. 65° BEAM ANGLE. MOUNT

SEMI-SPECULAR LOWER REFLECTOR. 1950

SURFACE MOUNTED UNDER CABINET LIGHT

SURFACE MOUNTED 4' LONG LED FIXTURE WITH

DIRECT/INDIRECT LED FIXTURE WITH EXTRUDED

DIRECT/INDIRECT LED FIXTURE WITH EXTRUDED

PERIMETER SLOT WALL WASH LED FIXTURE WITH

RECESSED LINEAR COVE LED FIXTURE WITH 3/4"

WIDE BODY AND FROSTED ACRYLIC DIFFUSER.

PROVIDE WITH 0-10V DIMMING POWER SUPPLY.

WIDE BODY AND FROSTED ACRYLIC DIFFUSER.

PROVIDE WITH 0-10V DIMMING POWER SUPPLY

DIRECT/INDIRECT LED FIXTURE WITH EXTRUDED

SURFACE MOUNTED VAPOR TIGHT LED FIXTURE

WITH POLYCARBONATE HOUSING AND SILICONE

GASKET LENS. MINIMUM 6000 LUMEN OUTPUT.

15.75" PENDANT MOUNTED LED FIXTURE WITH

12.75" PENDANT MOUNTED LED FIXTURE WITH

YELLOW EXTERIOR SHADE AND 11W DIMMABLE

WALL MOUNTED 6'-0" LONG DIRECT LED FIXTURE

SURFACE MOUNTED SQUARE LED LIGHT FIXTURE

EXTRUDED ALUMINUM HOUSING 0.125 THICK

GLASS LENS. MOUNT AT +9'-0" TO THE TOP OF

SEMI-SPECULAR LOWER REFLECTOR AND CLEAR

ANGLE.

TRIM. 2500 LUMEN MIN. OUTPUT. 67° BEAM

RECESSED MOUNTED VANDAL RESISTANT

HOUSING, DOUBLE GASKETED DOOR FRAME,

AND INDIRECT OPTICAL SYSTEM. IP 65 RATED.

LED FIXTURE WITH DIE-CAST ALUMINUM

"ROUND LED DOWNLIGHT WITH

WITH EXTRUDED ALUMINUM HOUSING AND

ALUMINUM LAMP SHADE, WHITE INTERIOR,

DUSTY GREEN EXTERIOR SHADE AND 11W

SILICONE LAMP SHADE, WHITE INTERIOR,

ED LAMP. MOUNT AT +6'-0".

ACRYLIC LENS.

FIXTURE.

36 /

29 /

DIMMABLE LED LAMP. MOUNT AT +6'-6".

AND DYNAMIC WHITE CONTROLS

WALL MOUNTED CONTINUOUS ROW

ALUMINUM HOUSING AND ACRYLIC LENS.

ALUMINUM HOUSING AND ACRYLIC LENS. AIR

I" WIDE SOFFIT AND FROSTED ACRYLIC

ALUMINUM HOUSING AND ACRYLIC LENS. AIR

HEAVY GAUGE COLD ROLLED STEEL HOUSING

FIXTURE WITH 1" DEEP PROFILE AND LED

PENDENT MOUNTED 24" HEXAGON

PENDENT MOUNTED 36" HEXAGON

AND FROSTED ACRYLIC LENS. AIR CRAFT CABLE

LUMEN MIN. OUTPUT. 65° BEAM ANGLE.

LED FIXTURE WITH EXTRUDED ALUMINUM

ACRYLIC LENS AND FULLY ENCLOSED LIGHT

PENDENT MOUNTED CONTINUOUS ROW

2'x4' LED RECESSED TROFFER WITH 2 SIDED

LIGHT SOURCE COMPARTMENT.

SOURCE COMPARTMENT.

CRAFT CABLE MOUNT.

MOUNT. MOUNT AT 8'-0"

AND ACRYLIC LENS.

CRAFT CABLE MOUNT.

CRAFT CABLE MOUNT.

DIFFUSER. 277V.

AT +10'-6"

HOUSING AND ACRYLIC LENS.

2'x4' LED RECESSED TROFFER WITH

CERTIFIED LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN (CLCATT). THE CLCATT SHALL PERFORM ALL LIGHTING CONTROL INSTALLATION CERTIFICATION AS REQUIRED BY TITLE 24, PART 6 SECTION 130.4 (a) AND 130.4 (b). THIS SHALL INCLUDE, BUT NOT LIMITED TO, FILLING OUT, SIGNING AND SUBMITTING ALL REQUIRED DOCUMENTATION,

PRIOR TO INSTALLATION.

LIGHTING CONTROL SYSTEM SEQUENCE OF OPERATIONS

REFER TO LIGHTING PLANS FOR QUANTITY AND LOCATION OF ALL LIGHTING CONTROL COMPONENTS AND LIGHT FIXTURES; IDENTIFICATION OF LIGHT FIXTURE AND DEVICE SWITCH LEG IDENTIFICATION. REFER TO THE LIGHTING CONTROL WIRING DIAGRAMS FOR ADDITIONAL INFORMATION. LIGHTING CONTROLS SHALL BE INSTALLED IN COMPLIANCE WITH 2019

OFFICE/WORKROOMS/RECEPTION AREAS/LIBRARIES (GENERAL LIGHTING) - ROOM OCCUPANCY SENSOR(S) SHALL TURN LIGHT FIXTURES OFF WHEN ROOM HAS BEEN UNOCCUPIED FOR 20 MINUTES. LIGHT FIXTURES SHALL BE TURNED ON TO 50 PERCENT WHEN ROOM BECOMES OCCUPIED. WHEN LIGHT FIXTURES ARE TURNED ON AT WALL SWITCH, THEY SHALL BE SET OR COME ON TO FULL BRIGHTNESS OR PRESET FOOT CANDLE LEVELS.

WALL DIMMERS SHALL BE USED FOR MANUAL CONTROL OF LIGHT FIXTURES AND SHALL BE EQUIPPED WITH AN ON/OFF

LIGHT FIXTURES WHICH ARE REQUIRED TO HAVE AUTOMATIC "DAYLIGHTING" CONTROLS SHALL ALSO BE CONTROLLED WITH A PHOTOCELL IN ADDITION TO OCCUPANCY SENSORS AND WALL DIMMERS. THE PHOTOCELL SHALL MEASURE THE AMOUNT OF DAYLIGHT ENTERING THE SPACE AND REDUCE THE LIGHT OUTPUT OF THE LIGHT FIXTURES TO MAINTAIN THE DESIGNED FOOT CANDLE LEVELS IN THE ROOM. WALL DIMMERS SHALL ALLOW THE LIGHT FIXTURES TO DIM LOWER THAN THE LIGHT BEING MEASURED IN THE ROOM, BUT NOT HIGHER.

WHERE CONTROLLED RECEPTACLES ARE SHOWN, THEY SHALL BE CONTROLLED BY THE ROOM OCCUPANCY SENSOR AND LIGHTING CONTROL SYSTEM. OCCUPANCY SENSOR SETTINGS USED FOR CONTROLLING LIGHT FIXTURES SHALL BE USED FOR CONTROLLING THE RECEPTACLES.

WHEN ROOM HAS BEEN UNOCCUPIED FOR 20 MINUTES. LIGHT FIXTURES SHALL BE TURNED ON TO 50 PERCENT WHEN ROOM BECOMES OCCUPIED. WHEN LIGHT FIXTURES ARE TURNED ON AT WALL SWITCH, THEY SHALL BE SET OR COME ON TO FULL BRIGHTNESS OR PRESET FOOT CANDLE LEVELS.

LIGHTING SCENE. ACTIVATION OF A SPECIFIC BUTTON SHALL AUTOMATICALLY RECALL THE LIGHTING SCENE. "ON/OFF" AND MANUAL DIMMING CONTROL FUNCTIONS SHALL OVERRIDE PRESET SCENES. REFER TO LIGHTING CONTROL WIRING DIAGRAMS FOR SCENE SETTINGS AND SWITCH BUTTON IDENTIFICATION WHERE REQUIRED.

WITH A PHOTOCELL IN ADDITION TO OCCUPANCY SENSORS AND WALL DIMMERS. THE PHOTOCELL SHALL MEASURE THE AMOUNT OF DAYLIGHT ENTERING THE SPACE AND REDUCE THE LIGHT OUTPUT OF THE LIGHT FIXTURES TO MAINTAIN THE DESIGNED FOOT CANDLE LEVELS IN THE ROOM. WALL DIMMERS SHALL ALLOW THE LIGHT FIXTURES TO DIM LOWER THAN THE LIGHT BEING MEASURED IN THE ROOM, BUT NOT HIGHER.

CORRIDORS - CORRIDOR OCCUPANCY SENSORS SHALL REDUCE THE LIGHTING POWER BY 50% WHEN CORRIDOR HAS BEEN UNOCCUPIED FOR 5 MINUTES. LIGHT FIXTURES SHALL BE COMPLETELY TURNED OFF WHEN SPACE HAS BEEN UNOCCUPIED FOR 20 MINUTES. LIGHT FIXTURES SHALL BE AUTOMATICALLY TURNED ON WHEN SPACE IS OCCUPIED. WHEN LIGHT

RESTROOMS - ROOM OCCUPANCY SENSOR(S) SHALL TURN LIGHT FIXTURES OFF WHEN ROOM HAS BEEN UNOCCUPIED FOR 15 MINUTES. LIGHT FIXTURES SHALL BE AUTOMATICALLY TURNED ON WHEN ROOM BECOMES OCCUPIED. WHEN LIGHT

WALL SWITCHES SHALL BE USED FOR MANUAL "ON/OFF" CONTROL OF LIGHT FIXTURES.

EQUIPPED WITH AN "ON/OFF" SWITCH.

UNOCCUPIED FOR 15 MINUTES. LIGHT FIXTURES SHALL BE MANUALLY TURNED ON WHEN ROOM IS OCCUPIED. WHEN LIGHT FIXTURES ARE TURNED ON, THEY SHALL BE SET TO FULL BRIGHTNESS OR PRESET FOOT CANDLE LEVELS.

WALL SWITCHES SHALL BE USED FOR MANUAL "ON/OFF" CONTROL OF LIGHT FIXTURES.

EQUIPPED WITH AN "ON/OFF" SWITCH.

LIBRARY STACK AISLE - OCCUPANCY SENSORS CONTROLLING LIGHT FIXTURES ILLUMINATING BOOK STACK AISLES MATCHING THE REQUIREMENTS OF CEC 131(C),6,B SHALL REDUCE THE LIGHTING POWER BY 50% WHEN THE BOOK STACK AISLE IS UNOCCUPIED FOR 5 MINUTES. LIGHT FIXTURES SHALL BE COMPLETELY TURNED OFF WHEN BOOK STACK AISLES HAVE BEEN UNOCCUPIED FOR 20 MINUTES. LIGHT FIXTURES SHALL AUTOMATICALLY COME ON WHEN BOOK STACK AISLES ARE OCCUPIED. WHEN LIGHT FIXTURES ARE TURNED ON, THEY SHALL BE SET TO FULL BRIGHTNESS OR PRESET FOOT

LIGHTING LEVELS (FOOTCANDLES) WILL BE DESIGNED IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY (IES) GUIDELINES. THE FOLLOWING LIGHTING LEVELS WILL BE PROVIDED:

<u>AREA</u>	MAINTAINED LIGHTING LEVEL AT THE WORK PLANE
OFFICES	40-50
LOBBY	20-30
CORRIDORS	10-20
STORAGE/JANITOR'S ROOM	10-20
TOILETS	20-30
ELECTRICAL/MECHANICAL ROOMS	20-30
COMMUNICATIONS EQUIPMENT ROOMS	50-70
CLASSROOMS	40-50
KITCHENS	40-50
GYMNASIUM	50-100
LIBRARY	40-50

THE CONTRACTOR SHALL PROVIDE THE ACCEPTANCE TESTING AGENT. THE ACCEPTANCE TESTING AGENT SHALL BE A

THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE LIGHTING CONTROL SYSTEMS WITH THE CLCATT

CALIFORNIA ENERGY CODE (CEC) SECTION 130.1 MINIMUM.

CLASSROOMS/MULTI-PURPOSE ROOMS/GYMNASIUMS - ROOM OCCUPANCY SENSOR(S) SHALL TURN LIGHT FIXTURES OFF

WALL DIMMERS SHALL BE USED FOR MANUAL CONTROL OF LIGHT FIXTURES AND SHALL BE EQUIPPED WITH AN ON/OFF SWITCH. WHERE MULTI-BUTTON SWITCH(S)/DIMMER(S) ARE USED, EACH BUTTON SHALL BE PROGRAMMED FOR A SPECIFIC

LIGHT FIXTURES WHICH ARE REQUIRED TO HAVE AUTOMATIC "DAYLIGHTING" CONTROLS SHALL ALSO BE CONTROLLED

FIXTURES ARE TURNED ON, THEY SHALL BE SET TO FULL BRIGHTNESS OR PRESET FOOT CANDLE LEVELS.

WALL SWITCHES SHALL BE USED FOR MANUAL "ON/OFF" CONTROL OF LIGHT FIXTURES.

FIXTURES ARE TURNED ON, THEY SHALL BE SET TO FULL BRIGHTNESS OR PRESET FOOT CANDLE LEVELS.

WHERE SHOWN ON PLANS, WALL DIMMERS SHALL BE USED FOR MANUAL CONTROL OF LIGHT FIXTURES AND SHALL BE

STORAGE ROOMS - ROOM OCCUPANCY WALL SENSOR(S) SHALL TURN LIGHT FIXTURES OFF WHEN ROOM HAS BEEN

WHERE SHOWN ON PLANS, WALL DIMMERS SHALL BE USED FOR MANUAL CONTROL OF LIGHT FIXTURES AND SHALL BE

CANDLE LEVELS.

<u>AREA</u>	MAINTAINED LIGHTING LEVEL AT THE WORK PLANE
OFFICES	40-50
LOBBY	20-30
CORRIDORS	10-20
STORAGE/JANITOR'S ROOM	10-20
TOILETS	20-30
ELECTRICAL/MECHANICAL ROOMS	20-30
COMMUNICATIONS EQUIPMENT ROOMS	50-70
CLASSROOMS	40-50
KITCHENS	40-50
GYMNASIUM	50-100
LIBRARY	40-50

LIGHTING FIXTURE NOTES

- EXIT SIGNS WITH THROUGH WIRING SHALL BE EQUIPPED WITH A SEPARATE JUNCTION BOX FOR TERMINATION OF CONDUITS. FURNISH A SEPARATE BOX FOR EACH CIRCUIT.
- CONTRACTOR SHALL VERIFY ALL MOUNTING REQUIREMENTS FOR ALL RECESSED LIGHTING FIXTURES, PRIOR TO SHOP DRAWINGS SUBMITTALS. IT IS THE CONTRACTORS RESPONSIBILITY TO SECURE THE MOUNTING HARDWARE THAT IS
- COMPATIBLE WITH THE CEILING AND THE CONFIGURATION OF THE LIGHTING LAYOUT FOR LIGHTING FIXTURE VOLTAGE RATINGS, THE CONTRACTOR IS RESPONSIBLE TO
- VERIFY FIXTURE AND DRIVER VOLTAGES WITH BRANCH CIRCUIT WIRING.
- LENSES OF ALL LED LIGHTING FIXTURES SHALL NOT BE LESS THAN 0.125" THICK, EQUAL TO KSH-K12 WHERE APPLICABLE.
- FOR FIXTURES RECESSED INTO NON-COMBUSTIBLE CEILINGS, PROVIDE YOKE MOUNTED OUTLET BOXES, ACCESSIBLE FROM INSIDE FIXTURE.
- FIXTURES SHALL BE U.L. LISTED FOR INTENDED LOCATION.

APPROVED BY THE PROJECT MANAGER.

8. FINISH OF FIXTURES SHALL BE AS SELECTED BY ARCHITECT.

. LAMP COLOR FOR LED FIXTURES SHALL BE 4000°K U.N.O.

- . LIGHTING FIXTURES IN MECHANICAL SPACES ARE SHOWN IN THEIR APPROXIMATE LOCATION ONLY. DO NOT INSTALL LIGHT OUTLETS FOR FIXTURES UNTIL MECHANICAL PIPING AND DUCTWORK ARE INSTALLED: THEN LIGHTING FIXTURES SHALL BE INSTALLED IN LOCATIONS BEST SUITED FOR EQUIPMENT ARRANGEMENT AND AS
- 0. THE CONTRACTOR SHALL VERIFY ALL WINDOW HEIGHTS AND DAYLIT ZONES PRIOR TO INSTALLATION OF LIGHTING CONTROLS.
- ALL LED LIGHT FIXTURES SHALL BE TESTED TO LM-79 AND LM-80 IES STANDARDS.

SUSPENDED ACOUSTICAL CEILINGS: FLUSH OR RECESSED LIGHT FIXTURES WEIGHING LESS THAN 56 POUNDS MAY

BE SUPPORTED DIRECTLY ON THE RUNNERS OF A HEAVY DUTY GRID SYSTEM. IN ADDITION, THEY SHALL HAVE A MINIMUM OF TWO 12 GAUGE SLACK SAFETY WIRES ATTACHED TO THE FIXTURE AT DIAGONAL CORNERS AND ANCHORED TO THE STRUCTURE ABOVE. ALL 4 FOOT BY 4 FOOT LIGHT FIXTURES SHALL HAVE SLACK SAFETY WIRES AT EACH CORNER. ALL FLUSH OR RECESSED LIGHT FIXTURES WEIGHING 56 POUNDS OR MORE SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN 4 TAUT 12 GAUGE WIRES EACH ATTACHED TO THE FIXTURE AND TO THE STRUCTURE ABOVE. REGARDLESS OF THE TYPE OF CEILING GRID SYSTEM USED. THE 4 TAUT 12 GAUGE WIRES INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE SHALL BE CAPABLE OF SUPPORTING 4 TIMES THE WEIGHT OF THE UNIT.

SURFACE MOUNTED FIXTURES:

SUPPORT SURFACE MOUNTED LIGHT FIXTURES BY AT LEAST TWO POSITIVE DEVICES WHICH SURROUND THE CEILING RUNNER AND WHICH ARE EACH SUPPORTED FROM THE STRUCTURE ABOVE BY A 12 GAUGE WIRE. SPRING CLIPS OR CLAMPS THAT CONNECT ONLY TO THE RUNNER ARE NOT ACCEPTABLE. PROVIDE ADDITIONAL SUPPORTS WHEN LIGHT FIXTURES ARE EIGHT FEET OR

SUSPENDED DRYWALL CEILINGS: ALL RECESSED OR DROP-IN LIGHT FIXTURES SHALL BE SUPPORTED DIRECTLY BY MAIN RUNNERS OR BY SUPPLEMENTAL FRAMING WHICH IS SUPPORTED BY MAIN RUNNERS. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE CEILING CONTRACTOR TO PROVIDE APPROPRIATE FRAMING AND LOCATION FOR FIXTURES. SURFACE MOUNTED FIXTURES SHALL BE ATTACHED TO A MAIN RUNNER WITH A POSITIVE CLAMPING DEVICE MADE OF MATERIAL WITH A MINIMUM OF 14 GAUGE. ROTATIONAL SPRING CATCHES SHALL NOT BE ALLOWED.

PENDANT MOUNTED FIXTURES:

DCGA #21092

PENDANT MOUNTED FIXTURES SHALL BE SUPPORTED BY A WIRE OR (SAFETY) CABLE PASSING THROUGH EACH PENDANT HANGER AND CAPABLE OF SUPPORTING 4 TIMES THE WEIGHT OF THE FIXTURE. WHERE PENDANT MOUNTED FIXTURES ARE INSTALLED ON A GRID CEILING OR WHERE THE FIXTURE WEIGHS 50 POUNDS OR MORE, THE WIRE OR CABLE PASSING THROUGH THE PENDANT HANGER SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE.

PENDANT MOUNTED FIXTURES SHALL BE SUPPLIED WITH SWIVEL HANGERS AND SHALL BE CAPABLE OF SWINGING 45 DEGREES IN ANY DIRECTION FROM PLUMB WITHOUT OBSTRUCTION. FIXTURES SHALL HAVE STEMS WHICH ARE ONE PIECE WITHOUT COUPLING AND ARE TO HAVE THE SAME FINISH AS THE FIXTURE AND SWIVEL HANGER CANOPY. INDUSTRIAL TYPE FLUORESCENT FIXTURES INSTALLED IN AREAS OR ROOMS WITH EXPOSED STRUCTURE (NO CEILING) MAY BE CHAIN HUNG IN LIEU OF PROVIDING A STEM AND CANOPY. WHERE FIXTURES CAN NOT SWING UNOBSTRUCTED 45 DEGREES IN ANY DIRECTION, ADDITIONAL GUY WIRES OR SOLID BRACING IS REQUIRED. THE CONTRACTOR SHALL SUBMIT THE METHOD OF BRACING TO THE ARCHITECT FOR APPROVAL PRIOR TO



ation





SCE HIGH DEMAND (X - X) = 0.0 KW 0 KW @ 80% PF = 0.0 KVA REMOVED LOAD = <0.0 KVA> **NEW LOAD** = 0.0 KVA TOTAL LOAD = 0.0 KVA TOTAL LOAD @ 125% = 0.0 KVA

= 0.0AMPERES 0.0KVA @ 480V 3Ø

LOAD SUMMARY "MSB"

EXISTING 1200A PANEL IS ADEQUATE.

--(E)(2)3"C. PULL 4#350MCM AND 1#1 GND. VD% = 0.0%←(2)4"C. 4#350MCM AND 1#1 GND. ___________ (E)DIST. PNL. "DSB1" 600 AMP BUS 208Y/120V, 3Ø 4W 200AS 125AF 100AS 100AF 100AS 100AF MCB 100A 400A 3P

150KVA, 3Ø,

└人人人丿 TRANSFORMER "T", 480V.

γ γ γ γ γ PRIMARY, 208Y/120 VOLT SECONDARY

(E)100% RATED 1200A BUS

600A

3P

(E)ELEVATOR

VD% = 0.0%DISTRIBUTION PANELBOARD "DBHB" 480/277V. 3Ø 4W. 600AMP. COPPER BUS 42,000 A.I.C. 100A) S 225A 100A 100A 225A SPACE **ELEVATOR ELEVATOR** 2HB1 150KVA TRANSFORMER "TR-B" 480V. 3Ø,3W 208/120V. 3Ø,4W

> DISTRIBUTION PANELBOARD "DBLB" 208/120V. 3Ø 4W. 600AMP. COPPER BUS 25,000 A.I.C. 225A SPACE 1LB3 2LB2 2LB1 1LB2

DIST. BOARD:	DBHB	LOAD SUMMA	ARY & FEE	EDER SCHI	EDULE	VOLTAGE:		480/277V,3P	,4W		
BRANCH:	NORMAL					MIN. BUS:		600 AMPS			
ENCLOSURE:	NEMA-1				*	* MCB TRIP:		600 AMPS			
AIC RATING:	42,000 AIC S	YM, MINIMUM									
FEEDER NUMBER	FEEDER	_	NO. OF	CONDUIT	CONDUCTORS	GROUND	CONNECTED	LOAD	FEEDER	VOLTAGE	REMARKS
	FROM	ТО	SETS	(INCHES)	(AWG)	(AWG)	AMPS	KVA	LENGTH*	DROP	
DBHB-1	DBHB	1HB1	1	1 1/2"	4 #1	8	1.68	1.40	20	0.00%	
DBHB-2	DBHB	2HB1	1	4"	4 # 600MCM	2	135.24	112.44	120	0.14%	
DBHB-3	DBHB	TR-B/DBLB	1	3"	3 # 4/0	4	170.73	141.94	20	0.08%	
DBHB-4	DBHB	ELEVATOR	1	1 1/2"	4 # 1	8	34.04	28.30	50	0.09%	
DBHB-5	DBHB	ELEVATOR	1	1 1/2"	4 # 1	8	34.04	28.30	75	0.14%	
DBHB-6	DBHB										
DBHB-7	DBHB										
DBHB-8	DBHB										
DBHB-9	DBHB										
DBHB-10	DBHB										
DBHB-11	DBHB										
DBHB-12	DBHB										
DBHB-13	DBHB										
DBHB-14	DBHB										
DBHB-15	DBHB										
	* FEEDER LENGT	TH IN FEET IS IND	ICATED FOI	R VOLTAGE [OROP		375.74	312.38	SUBTOT	AL	

DIST. BOARD:	DBLB	LOAD SUMM	ARY & FE	EDER SCH	EDULE	VOLTAGE:		208/120V,3P	,4W		
BRANCH:	NORMAL					MIN. BUS:		600 AMPS			
ENCLOSURE:	NEMA-1					** MCB TRIP:		600 AMPS			
AIC RATING:	42,000 AIC S	YM, MINIMUM									
FEEDER NUMBER	FEEDER	·	NO. OF	CONDUIT	CONDUCTORS	GROUND	CONNECTE	D LOAD	FEEDER	VOLTAGE	REMARKS
	FROM	то	SETS	(INCHES)	(AWG)	(AWG)	AMPS	KVA	LENGTH*	DROP	
DBLB-1	DBLB	1LB1	1	2 1/2"	4 # 4/0	4	100.75	36.30	30	0.16%	
DBLB-2	DBLB	1LB2	1	2 1/2"	4 # 4/0	4	133.26	48.01	45	0.32%	
DBLB-3	DBLB	1LB3	1	1 1/2"	4 # 1	8	14.49	5.22	45	0.08%	
DBLB-4	DBLB	2LB1	1	2 1/2"	4 # 4/0	4	80.86	29.13	125	0.53%	
DBLB-5	DBLB	2LB2	1	1 1/2"	4 # 1	8	64.64	23.29	125	1.01%	
DBLB-6	DBLB										
DBLB-7	DBLB										
DBLB-8	DBLB										
DBLB-9	DBLB										
DBLB-10	DBLB										
DBLB-11	DBLB										
DBLB-12	DBLB										
DBLB-13	DBLB										
DBLB-14	DBLB										
DBLB-15	DBLB										
	* FEEDER LENG	TH IN FEET IS IND	ICATED FOI	R VOLTAGE [ROP	•	394.00	141.94	SUBTOTA	 AL	
	CALCULATION	ONLY AND SHALL	NOT BE US	SED FOR QUA	ANTITY TAKEOFFS.				25% OF I	_ARGEST MC	TOR
*		RCUIT BREAKER) = MAIN LUG			394.00	141.94	TOTAL L	OAD	

ALL WORK, EQUIPMENT, ETC. IS NEW UNLESS SPECIFICALLY NOTED AS EXISTING.

1> PROVIDE NEW BREAKER SIZE AS INDICATED (TO MATCH EXISTING AIC RATING)

CONNECT USING APPROVED GROUNDING CLAMPS.

- (2) INSTALL 1 INCH CONDUIT WITH #4/0 GROUNDING ELECTRODE CONDUCTOR TO UFER GROUND SYSTEM CABLE. UFER GROUND SYSTEM SHALL BE 40 FEET OF #4/0 BARE
- (3) INSTALL 1 INCH CONDUIT-ONE #4/0 TO ACCESSIBLE COLD WATER AND GAS MAIN LINES. CONNECT TO BLACK STEEL GAS LINE ON SECONDARY SIDE OF METER AT SERVICE ENTRY INTO BUILDING. CONNECT TO WATER MAIN AT BACKFLOW PREVENTER AT SERVICE ENTRY TO BUILDING. REFER TO PLUMBING DRAWINGS FOR LOCATIONS.
- 4 FURNISH GROUND BUS IN EACH TRANSFORMER. CONNECT PRIMARY FEEDER EQUIPMENT GROUNDING CONDUCTORS, SECONDARY NEUTRAL, SECONDARY FEEDER EQUIPMENT GROUNDING CONDUCTOR, GROUNDING ELECTRODE CONDUCTOR, AND TRANSFORMER FRAME TO GROUND BUS. CONNECT GROUND BUS TO BUILDING STEEL OR CENTRAL GROUND POINT AS APPLICABLE. CONNECTIONS TO BUILDING STEEL SHALL BE WITH EXOTHERMIC WELDS. TYPICAL ALL TRANSFORMERS.
- 5 FURNISH GROUND BUS IN EACH BRANCH CIRCUIT PANEL, ALL PANELS 480/277 VOLT ✓ AND 208/120 VOLT, SHALL HAVE THE FEEDER EQUIPMENT GROUNDING CONDUCTOR CONNECTED TO GROUND BUS. FURNISH EQUIPMENT GROUNDING CONDUCTOR IN EVERY FEEDER AND BRANCH CIRCUIT, RUN TO LAST OUTLET AND CONNECT TO BUS. CONDUIT GROUND IS NOT ACCEPTABLE AS A SUBSTITUTE. TYPICAL ALL PANELS, SWITCHBOARDS, DISTRIBUTION PANELBOARDS, AND SWITCHGEAR.
- CONNECT TO BUILDING STEEL OR CENTRAL GROUND POINT AS APPLICABLE. SEE TRANSFORMER GROUND SIZING TABLE ON THIS SHEET FOR GROUNDING ELECTRODE CONDUCTOR AND CABLE SIZE.
- 7 PROVIDE PANELBOARD WITH A METER COMPLETE WITH ALL SENSORS & HARDWARE WITH THE FOLLOWING MINIMUM CAPABILITIES PER 2016 CALIFORNIA ENERGY CODE 130.5(a) AND TABLE 130.5-A: INSTANTANEOUS KW AND TRACKING KWH FOR A USER
- 8 PANELBOARDS SHALL BE PROVIDED WITH BRANCH METERING CAPABILITIES AND ALL REQUIRED ACCESSORIES.
- 9 CONTINUOUS COPPER GROUND BUS, CENTRAL GROUND POINT FOR PROJECT. ALL GROUND CONDUCTORS SHALL ORIGINATE AT THIS BUS. NO OTHER GROUND POINTS SHALL BE USED.
- ALL CIRCUIT BREAKERS SHALL BE FULLY RATED; NO SERIES RATED CIRCUIT BREAKERS ALLOWED, TYPICAL.
- PROVIDE SHUNT-TRIP CIRCUIT BREAKER AND CONNECT TO BUILDING FIRE ALARM SYSTEM TO DISCONNECT POWER PRIOR TO THE FLOW OF FIRE SPRINKLER WATER PER NFPA 72-21.4 & ASME 17.1.
- (12) EXTEND 3/4" CONDUIT & WIRING TO FIRE ALARM CONTROL PANEL.

TRANSF	FORMER GROUND SIZING TABLE	
	208/120 VC	DLT
KVA	AWG (CU)	CONDUIT SIZE
30 AND LESS	8	3/4"
45	4	3/4"
75	2	3/4"
112.5	1/0	1"
150-225	2/0	1"
300-500	4/0	1"





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Addition/Moderniz

District ducation Adult nead ition

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02

SINGLE LINE DIAGRAM

#259000-021432

(E)1200A UGPS

WITH LANDING

LUGS

(E)(2)4"C.O. PER UTILITY — →

CO. REQUIREMENTS.

1200 AMP, 480Y/277., 3Ø, 4W

BRACE FOR 42K A.I.C.

(E) PA

Jodernization

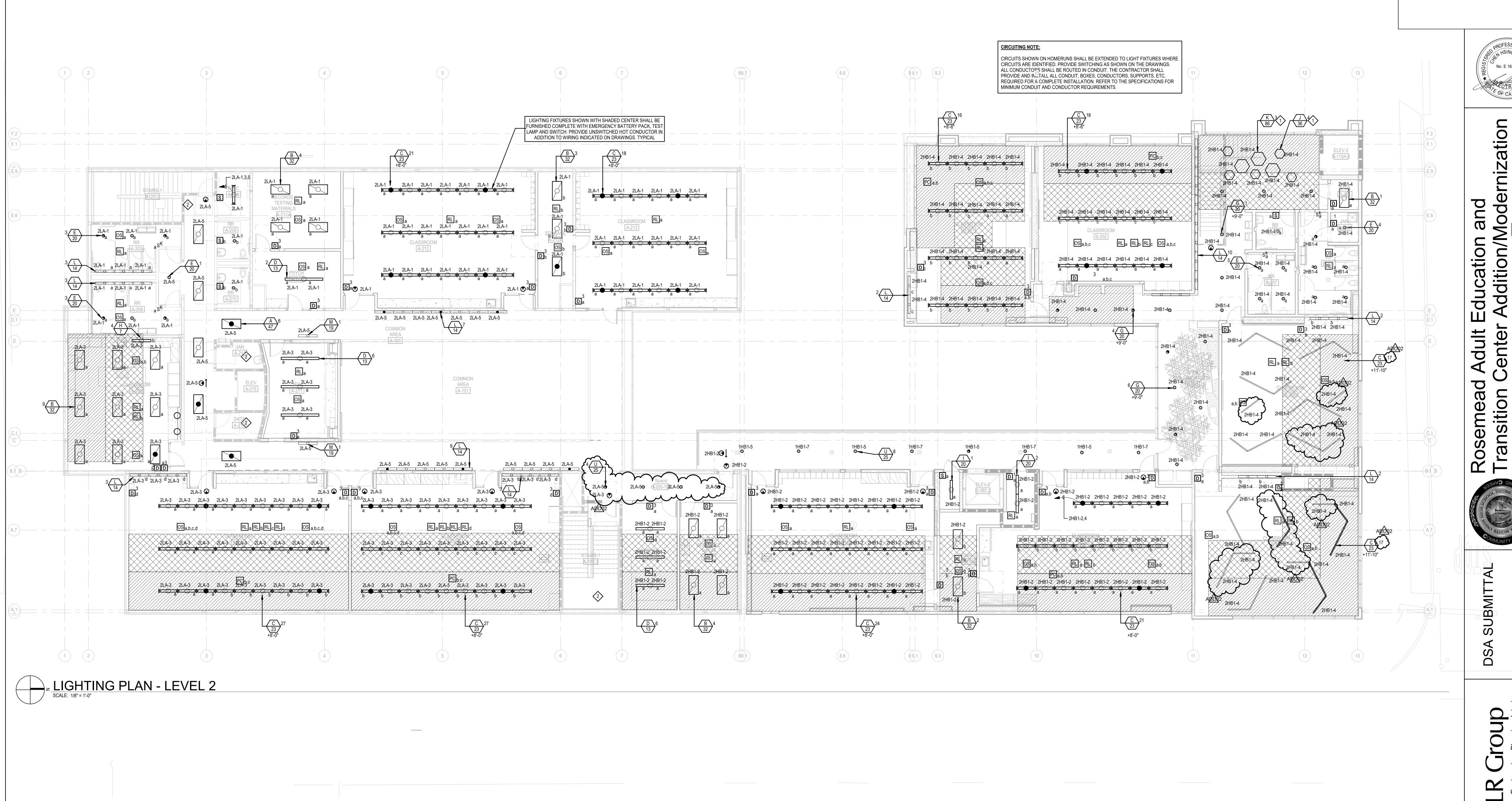
DSA APPLICATION NO: 03-122743 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 11/20/2023 SUBMITTAL TITLE ADD ADD02

LIGHTING PLAN - LEVEL

MAKE CONNECTION TO EXISTING LIGHTING FIXTURES.

E2.1

SHEET NOTES PROVIDE LCD LIGHTING CONTROL TOUCH SCREEN WITH ON/OFF, DIMMING AND DYNAMIC WHITE COLOR CONTROL. TOUCH SCREEN SHALL BE FRESCO #FCS-7TSN-DBL OR APPROVED EQUAL. REFER TO DETAIL SHEET A11.8 FOR FIXTURE MOUNTING HEIGHT.



DCGA ENGINEERS Consulting Mechanical al

DSA APPLICATION NO: 03-122743 DSA FILE NO: 19-H10 DLR PROJECT NO: 75-20223-02 ISSUE DATE: 11/20/2023 SUBMITTAL TITLE

ADD ADD02

SHEET NOTES

1 REFER TO DETAIL SHEET A11.8 FOR FIXTURE MOUNTING HEIGHT.

2 MAKE CONNECTION TO EXISTING LIGHTING FIXTURES.

LIGHTING PLAN - LEVEL

E2.2

POWER PLAN -

LEVEL 1

FAN COIL SHALL BE POWERED VIA CORRESPONDING HEAT PUMP. ROUTE 3/4"C. WITH 2#10 AND 1#10 GROUND UP TO HEAT PUMP. 18 MAKE CONNECTION TO ELECTRIC HAND DRYER PER MANUFACTURERS DETAIL #1/A2.1.

REQUIREMENTS.

9 REACH-IN TWO SECTION REFRIGERATOR. VERIFY EXACT LOCATION WITH THE ARCHITECT PRIOR TO INSTALLATION. VERIFY ELECTRICAL REQUIREMENTS WITH DETAIL #1/A2.1.

SHEET NOTES

for roll-in freezer. Verify exact location with the architect prior to installation. Verify electrical requirements with

FOR REFRIGERATOR. VERIFY EXACT LOCATION WITH THE ARCHITECT PRIOR TO INSTALLATION. FOR COPIER. VERIFY EXACT LOCATION WITH THE ARCHITECT PRIOR TO INSTALLATION.

FOR MICROWAVE. VERIFY EXACT LOCATION WITH THE ARCHITECT PRIOR TO INSTALLATION. MAKE CONNECTION TO MOTORIZED CHANING TABLE. PER MANUFACTURERS REQUIREMENTS.

FOR COFFEE MAKER. VERIFY EXACT LOCATION WITH THE ARCHITECT PRIOR TO INSTALLATION. FOR DISHWASHSER. VERIFY EXACT LOCATION WITH THE ARCHITECT PRIOR TO INSTALLATION. 6 FOR RANGE. VERIFY EXACT LOCATION WITH THE ARCHITECT PRIOR TO INSTALLATION. MAKE CONNECTION TO HOIST SYSTEM PER MANUFACTURERS REQUIREMENTS. ALL CONDUIT AND WIRING SHALL BE CONCEALED AT AIR CURTAIN. INSTALL LIMIT SWITCH IN DOOR FRAME. DISCONNECT SWITCH SHALL BE FLUSH MOUNTED AT +7'-6" ADJACENT DOOR.

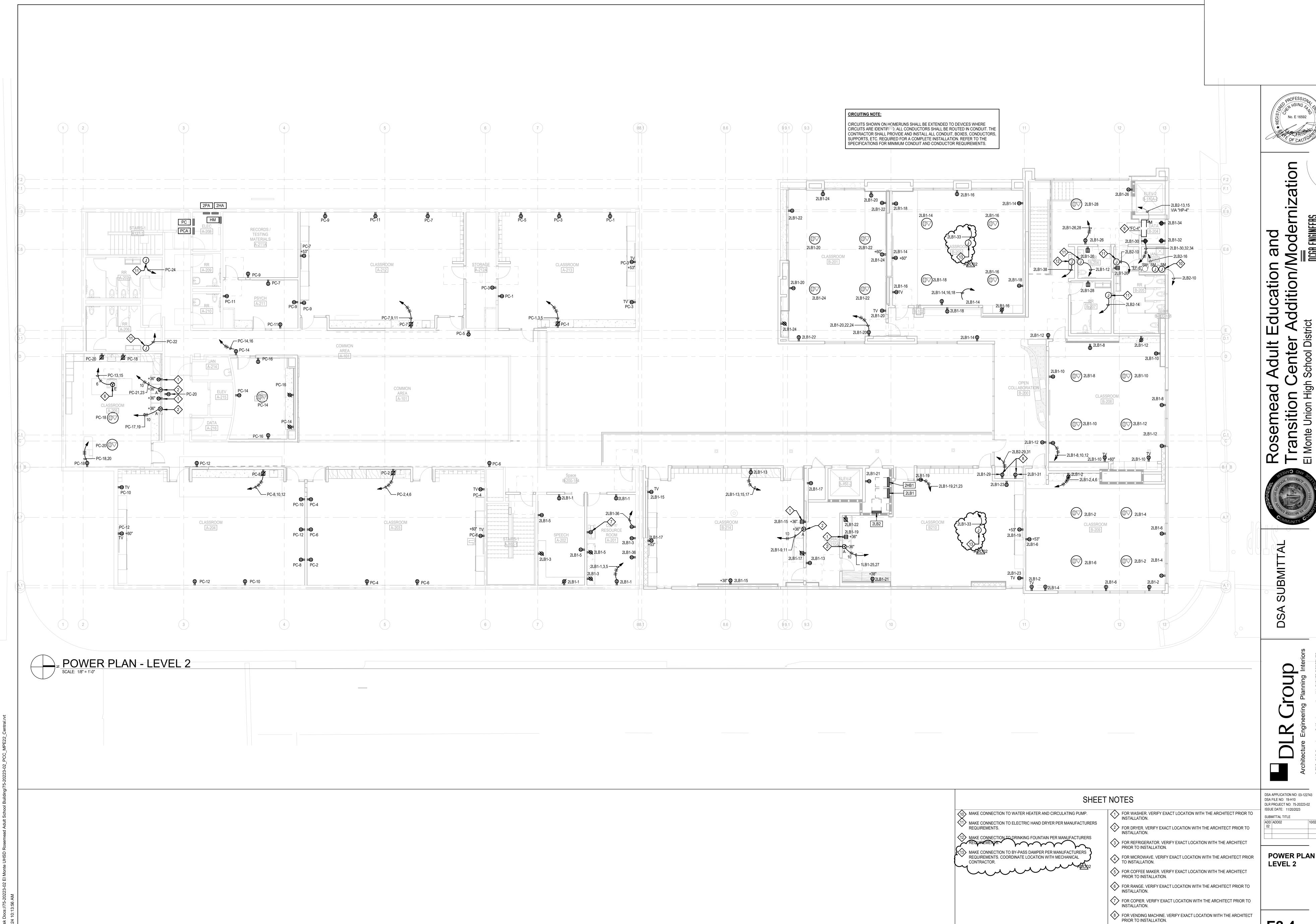
EXTEND (2) DEDICATED 120V. CIRCUITS TO ELEVATOR CONTROLLER VIA LOCKABLE TOGGLE SWITCH. 16 1"C., 2#6 & 1#10 GND.

FOR HUMIDIFIED HEATED HOLDING TRANSPORT CABINET. VERIFY EXACT LOCATION WITH THE ARCHITECT PRIOR TO INSTALLATION. VERIFY ELECTRICAL REQUIREMENTS WITH DETAIL #1/A2.1.

INSTALLATION. INSTALL AT +36" A.F.F.

for washer. Verify exact location with the architect prior to

FOR DRYER. VERIFY EXACT LOCATION WITH THE ARCHITECT PRIOR TO INSTALLATION. INSTALL AT +36" A.F.F.



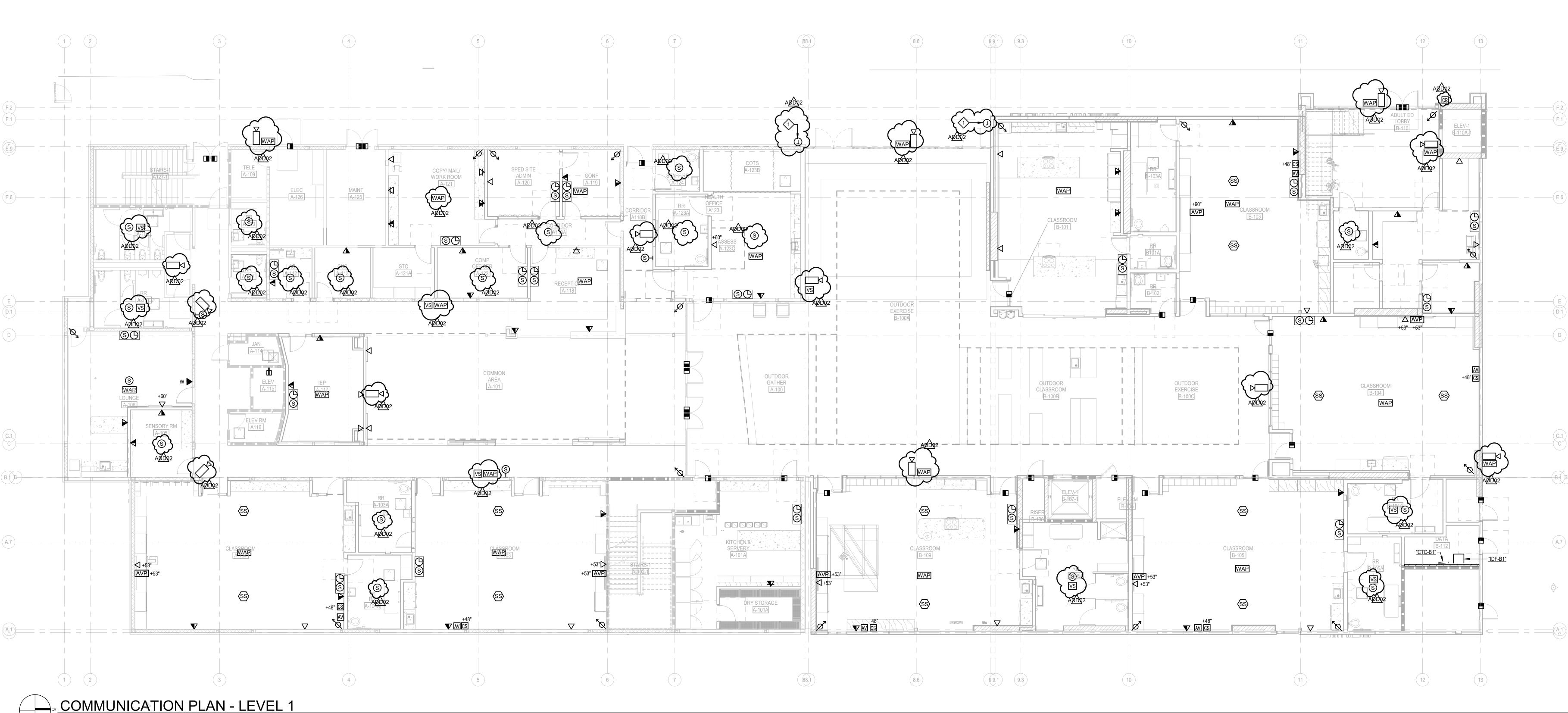
POWER PLAN -

FAN COIL SHALL BE POWERED VIA CORRESPONDING HEAT PUMP. ROUTE 3/4"C. WITH 2#10 AND 1#10 GROUND UP TO HEAT PUMP.

A COMPLETE WILLIAMS #PPA-T55 WITH #MIC100 MICROPHONE SHALL BE FURNISHED TO MEET THE ADA REQUIREMENTS FOR HARD-OF-HEARING. FURNISH #PPA-R37N RECEIVERS IN NUMBER EQUAL TO 4% OF THE SEATING OR MINIMUM OF 2, 1 WHICH WILL NEED TO BE HEARING AID COMPATIBLE. (1) COMPLETE SYSTEM SHALL BE PROVIDED FOR ALL CLASSROOMS AND CONFERENCE ROOMS.

COMMUNICATION **PLAN - LEVEL**

E2.5

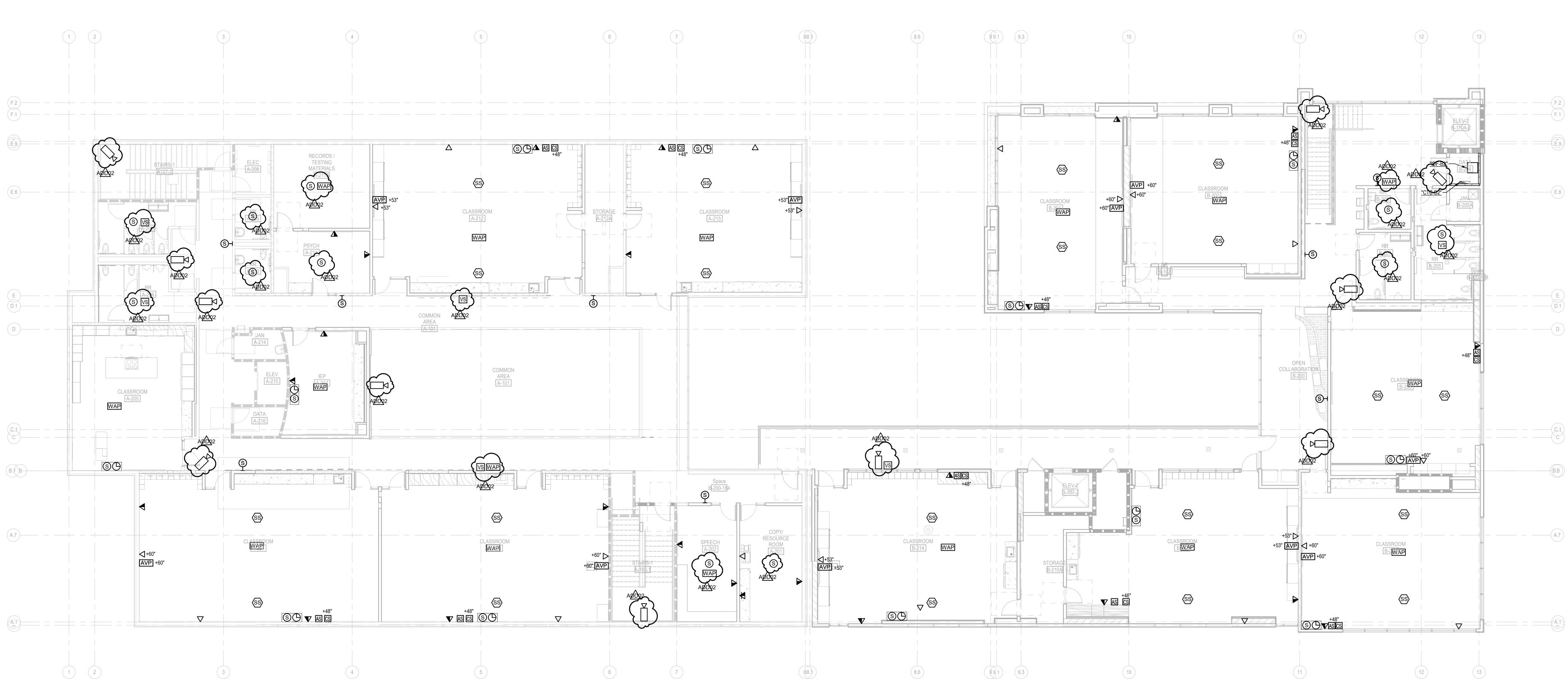


COMMUNICATION PLAN - LEVEL 1

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

COMMUNICATION **PLAN - LEVEL**

E2.6

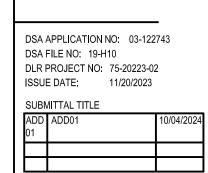


ECOMMUNICATION PLAN - LEVEL 2

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

PORTABLE ASSISTIVE LISTENING SYSTEMS

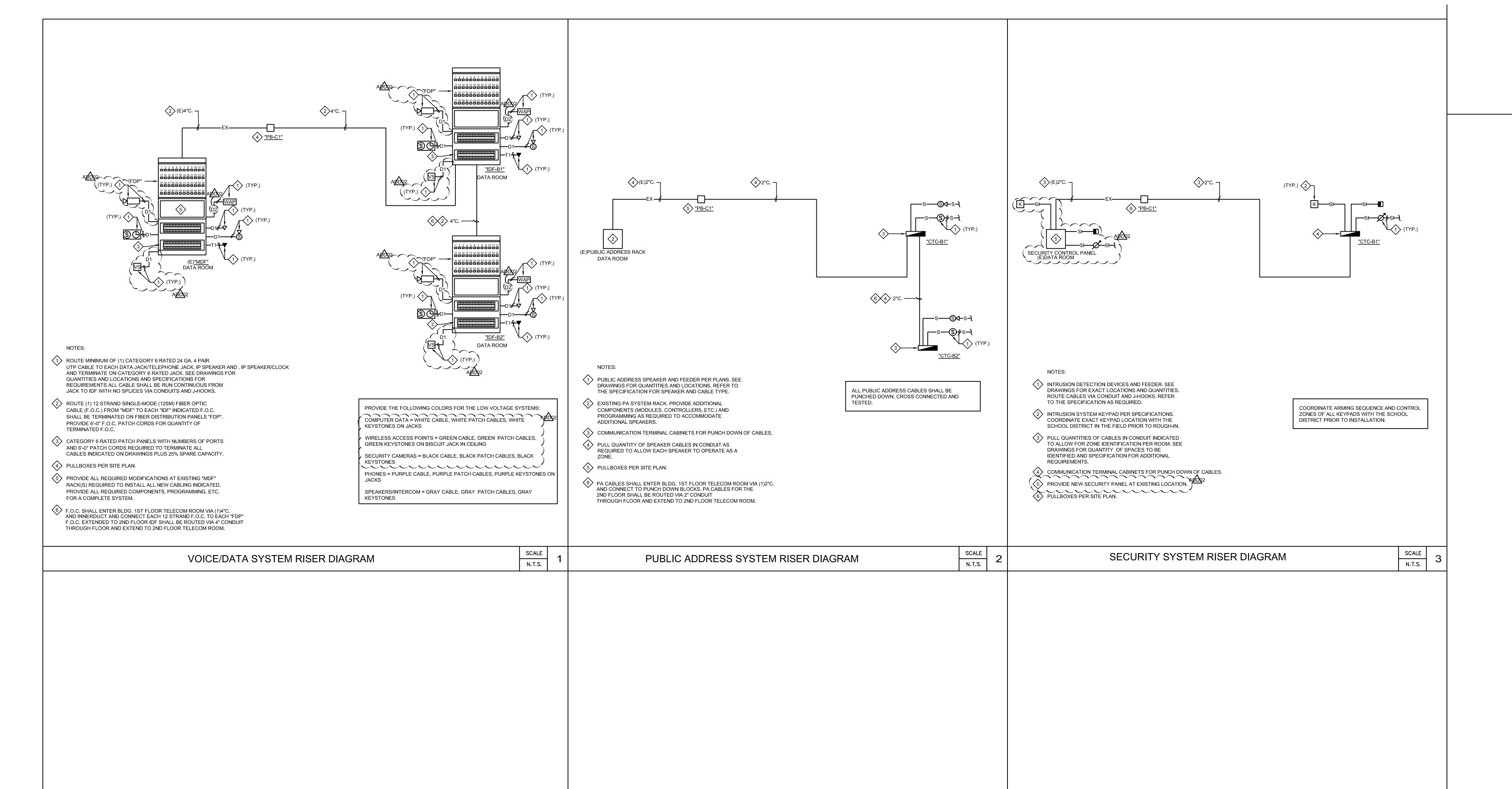
A COMPLETE WILLIAMS #PPA-T55 WITH #MIC100 MICROPHONE SHALL BE FURNISHED TO MEET THE ADA REQUIREMENTS FOR HARD-OF-HEARING. FURNISH #PPA-R37N RECEIVERS IN NUMBER EQUAL TO 4% OF THE SEATING OR MINIMUM OF 2, 1 WHICH WILL NEED TO BE HEARING AID COMPATIBLE. (1) COMPLETE SYSTEM SHALL BE PROVIDED FOR ALL CLASSROOMS AND CONFERENCE ROOMS.



COMMUNICATION SYSTEMS RISER **DIAGRAMS**

E3.0

SCALE 6





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SCALE N.T.S.

SCALE N.T.S.

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Resilient Base and Accessories

Rosemead Adult Education and Transition Center Addition/Modernization		DLR Group Project No. 75-20223-02
El Monte Union High School District Rosemead, California		Addendum 02, 10/08/2024
		, , , , , , , , , , , , , , , , , , , ,
09 65 19	Resilient Tile Flooring	
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21 13 13 Wet Pipe Sprinkler System

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APPENDIX

Appendix 01 GEOTECHNICAL INVESTIGATION – Rosemead Adult Center Expansion, dated November 17, 2022 ADD 01

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PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Exterior and interior storefront framing.
 - 2. Storefront framing for punched openings
 - 3. Exterior and interior manual-swing entrance doors and door-frame units.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: For aluminum-framed entrances and storefronts. Include plans, elevations, sections, full-size details, and attachments to other work.
 - 1. Include details of provisions for assembly expansion and contraction and for draining moisture occurring within the assembly to the exterior.
 - 2. Include full-size isometric details of each vertical-to-horizontal intersection of aluminum-framed entrances and storefronts, showing the following:
 - a. Joinery, including concealed welds.
 - b. Anchorage.
 - c. Expansion provisions.
 - d. Glazing.
 - e. Flashing and drainage.
 - f. Sunshades. ADD 02
 - 3. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.
- C. Entrance Door Hardware Schedule: Prepared by or under supervision of supplier, detailing fabrication and assembly of entrance door hardware, as well as procedures and diagrams. Coordinate final entrance door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of entrance door hardware.
- D. Delegated-Design Submittal: For aluminum-framed entrances and storefronts indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and field testing agency.
- B. Energy Performance Certificates: For aluminum-framed entrances and storefronts, accessories, and components, from manufacturer.
 - 1. Basis for Certification: NFRC-certified energy performance values for each aluminum-framed entrance and storefront.
- C. Product Test Reports: For aluminum-framed entrances and storefronts, for tests performed by manufacturer and witnessed by a qualified testing agency.
- D. Field quality-control reports.
- E. Sample Warranties: For special warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For aluminum-framed entrances and storefronts to include in maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
- B. Testing Agency Qualifications: Qualified according to ASTM E 699 for testing indicated.
- C. Product Options: Information on Drawings and in Specifications establishes requirements for aesthetic effects and performance characteristics of assemblies. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction.
 - 1. Do not change intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If changes are proposed, submit comprehensive explanatory data to Architect for review.

1.7 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of aluminum-framed entrances and storefronts that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including, but not limited to, excessive deflection.
 - b. Noise or vibration created by wind and thermal and structural movements.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - d. Water penetration through fixed glazing and framing areas.

- e. Failure of operating components.
- 2. Warranty Period: Two years from date of Substantial Completion.
- B. Special Finish Warranty: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General Performance: Comply with performance requirements specified, as determined by testing of aluminum-framed entrances and storefronts representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.
 - 1. Aluminum-framed entrances and storefronts shall withstand movements of supporting structure including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
 - 2. Failure also includes the following:
 - a. Thermal stresses transferring to building structure.
 - b. Glass breakage.
 - c. Noise or vibration created by wind and thermal and structural movements.
 - d. Loosening or weakening of fasteners, attachments, and other components.
 - e. Failure of operating units.
- B. Structural Design: Comply with DSA IR 24-2.
- C. Structural: Test according to ASTM E 330 as follows:
 - 1. When tested at positive and negative wind-load design pressures, assemblies do not evidence deflection exceeding specified limits.
 - 2. When tested at 150 percent of positive and negative wind-load design pressures, assemblies, including anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
 - 3. Test Durations: As required by design wind velocity, but not less than 10 seconds.
- D. Air Infiltration: Test according to ASTM E 283 for infiltration as follows:
 - 1. Fixed Framing and Glass Area:

a. Maximum air leakage of 0.06 cfm/sq. ft. at a static-air-pressure differential of 6.24 lbf/sq. ft..

2. Entrance Doors:

- a. Pair of Doors: Maximum air leakage of 1.0 cfm/sq. ft. at a static-air-pressure differential of 1.57 lbf/sq. ft..
- b. Single Doors: Maximum air leakage of 0.5 cfm/sq. ft. at a static-air-pressure differential of 1.57 lbf/sq. ft..
- E. Water Penetration under Static Pressure: Test according to ASTM E 331 as follows:
 - 1. No evidence of water penetration through fixed glazing and framing areas when tested according to a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 10 lbf/sq. ft..
- F. Seismic Performance: Aluminum-framed entrances and storefronts shall withstand the effects of earthquake motions determined according to ASCE/SEI 7 and California Building Code.
 - Seismic Drift Causing Glass Fallout: Complying with criteria for passing based on building occupancy type when tested according to AAMA 501.6 at design displacement and 1.5 times the design displacement.
- G. Energy Performance: Certify and label energy performance according to NFRC as follows:
 - 1. Thermal Transmittance (U-factor): Fixed glazing and framing areas shall have U-factor of not more than 0.60 Btu/sq. ft. x h x deg F as determined according to NFRC 100.
 - 2. Condensation Resistance: Fixed glazing and framing areas shall have an NFRC-certified condensation resistance rating of no less than 59 as determined according to NFRC 500.
- H. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes:
 - 1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.
 - 2. Thermal Cycling: No buckling; stress on glass; sealant failure; excess stress on framing, anchors, and fasteners; or reduction of performance when tested according to AAMA 501.5.
 - a. High Exterior Ambient-Air Temperature: That which produces an exterior metal-surface temperature of 180 deg F.
 - b. Low Exterior Ambient-Air Temperature: 0 deg F.
 - c. Interior Ambient-Air Temperature: 75 deg F.

2.2 MANUFACTURERS

- A. Source Limitations: Obtain all components of aluminum-framed entrance and storefront system, including framing spandrel panels and accessories, from single manufacturer.
- B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - 1. Arcadia, Inc.
 - 2. EFCO Corporation.

3. Kawneer North America, an Arconic company.

2.3 FRAMING

- A. Basis-of-Design: Arcadia AFG451T Series, 2" x 4-1/2" Thermally broken; offset glazed system, screw spline, shear block, compensating stick or punched opening fabrication for 1" glass.
- B. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.
 - 1. Construction:
 - a. Exterior: Thermally broken.
 - b. Interior: Nonthermal.
 - 2. Glazing System: Retained mechanically with gaskets on four sides.
 - 3. Glazing Plane: Front.
 - 4. Finish: High performance organic finish.
 - 5. Fabrication Method: Field-fabricated stick system.
- C. Backer Plates: Manufacturer's standard, continuous backer plates for framing members, if not integral, where framing abuts adjacent construction.
- D. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.

E. Materials:

- 1. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
 - a. Sheet and Plate: ASTM B 209.
 - b. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.
 - c. Extruded Structural Pipe and Tubes: ASTM B 429/B 429M.
 - d. Structural Profiles: ASTM B 308/B 308M.
- 2. Steel Reinforcement: Manufacturer's standard zinc-rich, corrosion-resistant primer complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pretreatment. Select surface preparation methods according to recommendations in SSPC-SP COM, and prepare surfaces according to applicable SSPC standard.
 - a. Structural Shapes, Plates, and Bars: ASTM A 36/A 36M.
 - b. Cold-Rolled Sheet and Strip: ASTM A 1008/A 1008M.
 - c. Hot-Rolled Sheet and Strip: ASTM A 1011/A 1011M.

2.4 CUSTOM SUN SHADES ADD 02

- A. Basis of Design: Arcadia Brise Soleil Design Series, BSD011.
 - 1. Sunshades to be one system with Aluminum Storefront System.
 - 2. Size: As Indicated on Drawings
 - 3. Color: As Selected by Architect from Manufacturer's full range.

2.5 ENTRANCE DOOR SYSTEMS

- A. Entrance Doors: Manufacturer's standard glazed entrance doors for manual-swing operation.
 - 1. Basis-of-Design: Arcadia WS512HD Heavy Duty Door, or approved equal.
 - 2. Door Construction: 1-3/4-inch overall thickness, with minimum 0.125-inch- thick, extruded-aluminum tubular rail and stile members. Mechanically fasten corners with reinforcing brackets that are deeply penetrated and fillet welded or that incorporate concealed tie rods.
 - 3. Door Design: Wide Stile; 5-inch nominal width. Provide 100inch bottom rail for ADA compliance.
 - 4. Glazing Stops and Gaskets: Square, snap-on, extruded-aluminum stops and preformed gaskets.
 - a. Provide nonremovable glazing stops on outside of door.

2.6 ENTRANCE DOOR HARDWARE

A. Entrance Door Hardware: Hardware not specified in this Section is specified in Section 08 71 00 "Door Hardware."

2.7 GLAZING

- A. Glazing: Comply with Section 08 80 00 "Glazing."
- B. Glazing Gaskets: Manufacturer's standard sealed-corner pressure-glazing system of black, resilient elastomeric glazing gaskets, setting blocks, and shims or spacers.
- C. Glazing Sealants: As recommended by manufacturer.
 - 1. Sealant shall have a VOC content of 250 g/L or less.

2.8 ACCESSORIES

- A. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials.
 - 1. Use self-locking devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.
 - 2. Reinforce members as required to receive fastener threads.
 - 3. Use exposed fasteners with countersunk Phillips screw heads, finished to match framing system.
- B. Anchors: Three-way adjustable anchors with minimum adjustment of 1 inch that accommodate fabrication and installation tolerances in material and finish compatible with adjoining materials and recommended by manufacturer.

- 1. Concrete and Masonry Inserts: Hot-dip galvanized cast-iron, malleable-iron, or steel inserts complying with ASTM A 123/A 123M or ASTM A 153/A 153M requirements.
- C. Concealed Flashing: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding flashing compatible with adjacent materials.
- D. Bituminous Paint: Cold-applied asphalt-mastic paint complying with SSPC-Paint 12 requirements except containing no asbestos, formulated for 30-mil thickness per coat.

2.9 FABRICATION

- A. Form or extrude aluminum shapes before finishing.
- B. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.
- C. Fabricate components that, when assembled, have the following characteristics:
 - 1. Profiles that are sharp, straight, and free of defects or deformations.
 - 2. Accurately fitted joints with ends coped or mitered.
 - 3. Physical and thermal isolation of glazing from framing members.
 - 4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
 - 5. Provisions for field replacement of glazing from interior for vision glass and exterior for spandrel glazing or metal panels.
 - 6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- D. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.
- E. Entrance Door Frames: Reinforce as required to support loads imposed by door operation and for installing entrance door hardware.
 - 1. At exterior doors, provide compression weather stripping at fixed stops.
 - 2. At interior doors, provide silencers at stops to prevent metal-to-metal contact. Install three silencers on strike jamb of single-door frames and two silencers on head of frames for pairs of doors.
- F. Entrance Doors: Reinforce doors as required for installing entrance door hardware.
 - 1. At pairs of exterior doors, provide sliding-type weather stripping retained in adjustable strip and mortised into door edge.
 - 2. At exterior doors, provide weather sweeps applied to door bottoms.
- G. Entrance Door Hardware Installation: Factory install entrance door hardware to the greatest extent possible. Cut, drill, and tap for factory-installed entrance door hardware before applying finishes.
- H. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

2.10 ALUMINUM FINISHES

- A. High-Performance Organic Finish: Two-coat fluoropolymer finish complying with AAMA 2604 and containing not less than 70percentPVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 1. Color and Gloss: As selected by Architect from manufacturer's full range.

2.11 SOURCE QUALITY CONTROL

A. Structural Sealant: Perform quality-control procedures complying with ASTM C 1401 recommendations including, but not limited to, assembly material qualification procedures, sealant testing, and assembly fabrication reviews and checks.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Prepare surfaces that are in contact with structural sealant according to sealant manufacturer's written instructions to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming surfaces.

3.3 INSTALLATION

A. General:

- 1. Comply with manufacturer's written instructions.
- 2. Do not install damaged components.
- 3. Fit joints to produce hairline joints free of burrs and distortion.
- 4. Rigidly secure nonmovement joints.
- 5. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
- 6. Seal perimeter and other joints watertight unless otherwise indicated.

B. Metal Protection:

- 1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with materials recommended by manufacturer for this purpose or by installing nonconductive spacers.
- 2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.

- C. Set continuous sill members and flashing in full sealant bed as specified in Section 07 9200 "Joint Sealants" to produce weathertight installation.
- D. Install components plumb and true in alignment with established lines and grades.
- E. Install operable units level and plumb, securely anchored, and without distortion. Adjust weather-stripping contact and hardware movement to produce proper operation.
- F. Install glazing as specified in Section 08 8000 "Glazing."
- G. Install weatherseal sealant according to Section 07 9200 "Joint Sealants" and according to sealant manufacturer's written instructions to produce weatherproof joints. Install joint filler behind sealant as recommended by sealant manufacturer.
- H. Entrance Doors: Install doors to produce smooth operation and tight fit at contact points.
 - 1. Exterior Doors: Install to produce weathertight enclosure and tight fit at weather stripping.
 - 2. Field-Installed Entrance Door Hardware: Install surface-mounted entrance door hardware according to entrance door hardware manufacturers' written instructions using concealed fasteners to greatest extent possible.

3.4 ERECTION TOLERANCES

- A. Erection Tolerances: Install aluminum-framed entrances and storefronts to comply with the following maximum tolerances:
 - 1. Plumb: 1/8 inch in 10 feet: 1/4 inch in 40 feet.
 - 2. Level: 1/8 inch in 20 feet: 1/4 inch in 40 feet.
 - 3. Alignment:
 - a. Where surfaces abut in line or are separated by reveal or protruding element up to 1/2 inch wide, limit offset from true alignment to 1/16 inch.
 - b. Where surfaces are separated by reveal or protruding element from 1/2 to 1 inch wide, limit offset from true alignment to 1/8 inch.
 - c. Where surfaces are separated by reveal or protruding element of 1 inch wide or more, limit offset from true alignment to 1/4 inch.
 - 4. Location: Limit variation from plane to 1/8 inch in 12 feet; 1/2 inch over total length.

3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Field Quality-Control Testing: Perform the following test on representative areas of aluminum-framed entrances and storefronts.
 - 1. Water-Spray Test: Before installation of interior finishes has begun, areas designated by Architect shall be tested according to AAMA 501.2 and shall not evidence water penetration.
 - a. Perform a minimum of two tests in areas as directed by Architect.

- b. Perform tests in each test area as directed by Architect. Perform at least three tests, prior to 10, 35, and 70 percent completion.
- C. Aluminum-framed entrances and storefronts will be considered defective if they do not pass tests and inspections.
- D. Prepare test and inspection reports.

3.6 MAINTENANCE SERVICE

- A. Entrance Door Hardware:
 - 1. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of entrance door hardware.

END OF SECTION 08 4113

SECTION 09 29 00 - GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Interior gypsum board.
 - 2. Tile backing panels.
 - Texture finishes.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For the following products:
 - 1. Trim Accessories: Full-size Sample in 12-inch-long length for each trim accessory indicated.
 - 2. Textured Finishes: Manufacturer's standard size for each textured finish indicated and on same backing indicated for Work.

1.4 DELIVERY, STORAGE AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.5 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet, or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.

2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E119 by an independent testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E90 and classified according to ASTM E413 by an independent testing agency.

2.2 GYPSUM BOARD, GENERAL

A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.3 INTERIOR GYPSUM BOARD

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Georgia-Pacific Gypsum LLC.
 - 2. National Gypsum Company.
 - 3. USG Corporation.
 - 4. Approved equal.
- B. Gypsum Wallboard: ASTM C1396/C1396M.
 - 1. Thickness: As indicated.
 - 2. Long Edges: Tapered.
- C. Gypsum Board, Type X: ASTM C1396/C1396M.
 - 1. Thickness: 5/8 inch.
 - 2. Long Edges: Tapered.
- D. Abuse-Resistant Gypsum Board: ASTM C1396/C1396M gypsum board, tested according to ASTM C1629/C1629M.
 - 1. Core: 5/8-inch, Type X.
 - 2. Surface Abrasion: ASTM C1629/C1629M, meets or exceeds Level 3 requirements.
 - 3. Indentation: ASTM C1629/C1629M, meets or exceeds Level 1 requirements.
 - 4. Soft-Body Impact: ASTM C1629/C1629M, meets or exceeds Level 1 requirements.
 - 5. Long Edges: Tapered.
 - 6. Mold Resistance: ASTM D3273, score of 10 as rated according to ASTM D3274.

- E. Mold-Resistant Gypsum Board: ASTM C1396/C1396M. With moisture- and mold-resistant core and paper surfaces.
 - 1. Core: As indicated.
 - 2. Long Edges: Tapered.
 - 3. Mold Resistance: ASTM D3273, score of 10 as rated according to ASTM D3274.

2.4 TILE BACKING PANELS

- A. Cementitious Backer Units: ANSI A118.9 and ASTM C1288 or ASTM C1325, with manufacturer's standard edges.
 - 1. Thickness: As indicated.
 - 2. Mold Resistance: ASTM D3273, score of 10 as rated according to ASTM D3274.

2.5 TRIM ACCESSORIES

- A. Interior Trim: ASTM C1047.
 - 1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized-steel sheet.
 - 2. Shapes:
 - a. Cornerbead.
 - b. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - c. Expansion (control) joint.
- B. Aluminum Trim: Extruded accessories of profiles and dimensions indicated.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Fry Reglet Corp.
 - b. Gordon, Inc.
 - c. Pittcon Industries.
 - 2. Aluminum: Alloy and temper with not less than the strength and durability properties of ASTM B221, Alloy 6063-T5.
 - 3. Finish: Corrosion-resistant primer compatible with joint compound and finish materials specified.

2.6 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C475/C475M.
- B. Joint Tape:
 - 1. Interior Gypsum Board: Paper.
 - 2. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.

- 3. Tile Backing Panels: As recommended by panel manufacturer.
- C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.
 - 1. Prefilling: At open joints and damaged surface areas, use setting-type taping compound.
 - 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
 - a. Use setting-type compound for installing paper-faced metal trim accessories.
 - 3. Fill Coat: For second coat, use setting-type, sandable topping compound.
 - 4. Finish Coat: For third coat, use setting-type, sandable topping compound.
- D. Joint Compound for Tile Backing Panels:
 - 1. Cementitious Backer Units: As recommended by backer unit manufacturer.

2.7 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.
- B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.
 - 1. Adhesives shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- C. Steel Drill Screws: ASTM C1002 unless otherwise indicated.
 - 1. Use screws complying with ASTM C954 for fastening panels to steel members from 0.033 to 0.112 inch thick.
 - 2. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.
- D. Sound-Attenuation Blankets: ASTM C665, Type I (blankets without membrane facing) produced by combining thermosetting resins with mineral fibers manufactured from glass, slag wool, or rock wool.
 - 1. Fire-Resistance-Rated Assemblies: Comply with mineral-fiber requirements of assembly.
- E. Thermal Insulation: As specified in Section 07 21 00 "Thermal Insulation."
- F. Vapor Retarder: As specified in Section 07 26 00 "Vapor Retarders."

2.8 TEXTURE FINISHES

- A. Primer: As recommended by textured finish manufacturer.
- B. Non-Aggregate Finish: Premixed, vinyl texture finish for spray application.

a. Texture: Orange peel.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and support framing, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
 - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
 - 2. Fit gypsum panels around ducts, pipes, and conduits.
 - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch-wide joints to install sealant.
- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch-wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

- I. Wood Framing: Install gypsum panels over wood framing, with floating internal corner construction. Do not attach gypsum panels across the flat grain of wide-dimension lumber, including floor joists and headers. Float gypsum panels over these members or provide control joints to counteract wood shrinkage.
- J. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C919 and with manufacturer's written instructions for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.
- K. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

3.3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
 - 1. Wallboard Type: As indicated on Drawings.
 - 2. Type X: As indicated on Drawings and where required for fire-resistance-rated assembly.
 - 3. Abuse-Resistant Type: High traffic interior corridors and as indicated on Drawings.
 - 4. Mold-Resistant Type: Wet areas not scheduled to receive wall tiles.

B. Single-Layer Application:

- 1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
- 2. On partitions/walls, apply gypsum panels vertically (parallel to framing) unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
 - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
 - b. At stairwells and other high walls, install panels horizontally unless otherwise indicated or required by fire-resistance-rated assembly.
- 3. On Z-shaped furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
- 4. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

C. Multilayer Application:

- On ceilings, apply gypsum board indicated for base layers before applying base layers on walls/partitions; apply face layers in same sequence. Apply base layers at right angles to framing members and offset face-layer joints one framing member, 16 inches minimum, from parallel base-layer joints, unless otherwise indicated or required by fire-resistancerated assembly.
- 2. On partitions/walls, apply gypsum board indicated for base layers and face layers vertically (parallel to framing) with joints of base layers located over stud or furring member and face-layer joints offset at least one stud or furring member with base-layer joints unless otherwise indicated or required by fire-resistance-rated assembly. Stagger joints on opposite sides of partitions.

- 3. On Z-shaped furring members, apply base layer vertically (parallel to framing) and face layer either vertically (parallel to framing) or horizontally (perpendicular to framing) with vertical joints offset at least one furring member. Locate edge joints of base layer over furring members.
- 4. Fastening Methods: Fasten base layers and face layers separately to supports with screws.
- D. Laminating to Substrate: Where gypsum panels are indicated as directly adhered to a substrate (other than studs, joists, furring members, or base layer of gypsum board), comply with gypsum board manufacturer's written instructions and temporarily brace or fasten gypsum panels until fastening adhesive has set.

3.4 APPLYING TILE BACKING PANELS

- A. Cementitious Backer Units: ANSI A108.11, at locations indicated to receive tile.
- B. Where tile backing panels abut other types of panels in same plane, shim surfaces to produce a uniform plane across panel surfaces.

3.5 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints according to ASTM C840 and in specific locations approved by Architect for visual effect.
- C. Interior Trim: Install in the following locations:
 - 1. Cornerbead: Use at outside corners unless otherwise indicated.
 - 2. LC-Bead: Use at exposed panel edges.
- D. Aluminum Trim: Install in locations indicated on Drawings.

3.6 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C840:
 - 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.

- 2. Level 2: Panels that are substrate for tile.
 - a. Embed tape at all joints and interior angles in joint compound.
 - Apply one separate coat of joint compound over all joints, angles, fastener heads, and accessories.
 - c. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable.
- 3. Level 3: Gypsum board designated to receive rigid FRP or solid paneling.
 - a. Embed tape at all joints and interior angles in joint compound.
 - Apply two separate coats of joint compound over all joints, angles, fastener heads, and accessories.
 - c. All joint compound shall be smooth and free of tool marks and ridges.
 - d. Apply uniform coat of approved primer over entire surface with roller.
- 4. Level 4: Smooth Finish: Gypsum board surfaces receiving eggshell, semi-gloss or gloss level paint finish.
 - a. Embed tape at all joints and interior angles in joint compound.
 - Apply three separate coats of joint compound over all joints, angles, fastener heads, and accessories. Apply uniform coat of approved primer over entire surface with roller.
 - c. Surface shall be smooth and free of tool marks and ridges.
 - d. Primer and its application to surfaces are specified in Section 09 91 23 "Interior Painting".
- 5. Level 5: Gypsum board designated to receive vinyl wall covering or walltalker.
 - a. Embed tape at all joints and interior angles in joint compound.
 - b. Apply three separate coats of joint compound over all joints, angles, fastener heads, and accessories.
 - c. Surface shall be smooth and free of tool marks and ridges.
 - d. Apply uniform coat of approved primer over entire surface with roller.
- E. Glass-Mat Faced Panels: Finish according to manufacturer's written instructions.
- F. Cementitious Backer Units: Finish according to manufacturer's written instructions.

3.7 APPLYING TEXTURE FINISHES

- A. Surface Preparation and Primer: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes. Apply primer to surfaces that are clean, dry, and smooth.
- B. Texture Finish Application: Mix and apply finish using powered spray equipment, to produce a uniform texture free of starved spots or other evidence of thin application or of application patterns.
- C. Prevent texture finishes from coming into contact with surfaces not indicated to receive texture finish by covering them with masking agents, polyethylene film, or other means. If, despite these precautions, texture finishes contact these surfaces, immediately remove droppings and overspray to prevent damage according to texture-finish manufacturer's written instructions.

3.8 PROTECTION

A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.

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- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet, or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 09 29 00

SECTION 09 30 13 - CERAMIC TILING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

- Ceramic mosaic tile.
- 2. Glazed wall and floor tile.
- Stone thresholds.
- 4. Waterproof membrane for thin-set applications.
- 5. Crack isolation membrane.
- Metal edge strips.

B. Related Requirements:

- 1. Section 07 92 00 "Joint Sealants" for sealing of expansion, contraction, control, and isolation joints in tile surfaces.
- 2. Section 09 29 00 "Gypsum Board" for cementitious backer units.

1.3 DEFINITIONS

- A. General: Definitions in the ANSI A108 series of tile installation standards and in ANSI A137.1 apply to Work of this Section unless otherwise specified.
- B. ANSI A108 Series: ANSI A108.01, ANSI A108.02, ANSI A108.1A, ANSI A108.1B, ANSI A108.1C, ANSI A108.4, ANSI A108.5, ANSI A108.6, ANSI A108.8, ANSI A108.9, ANSI A108.10, ANSI A108.11, ANSI A108.12, ANSI A108.13, ANSI A108.14, ANSI A108.15, ANSI A108.16, and ANSI A108.17, which are contained in its "Specifications for Installation of Ceramic Tile."
- C. Face Size: Actual tile size, excluding spacer lugs.
- D. Module Size: Actual tile size plus joint width indicated.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site Insert location.
 - 1. Review requirements in ANSI A108.01 for substrates and for preparation by other trades.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Show locations of each type of tile and tile pattern. Show widths, details, and locations of expansion, contraction, control, and isolation joints in tile substrates and finished tile surfaces.
- C. Samples for Verification:
 - 1. Full-size units of each type and composition of tile and for each color and finish required.
 - 2. Full-size units of each type of trim and accessory for each color and finish required.
 - 3. Stone thresholds in 6-inch lengths.
 - 4. Metal edge strips in 6-inch lengths.
 - 5. Grout in color(s) selected by the architect in minimum 3-inch lengths.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match and are from same production runs as products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Tile and Trim Units: Furnish quantity of full-size units equal to 3 percent of amount installed for each type, composition, color, pattern, and size indicated.
 - 2. Grout: Furnish quantity of grout equal to 3 percent of amount installed for each type, composition, and color indicated.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications:
 - 1. Installer is a Five-Star member of the National Tile Contractors Association or a Trowel of Excellence member of the Tile Contractors' Association of America.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements in ANSI A137.1 for labeling tile packages.
- B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.
- C. Store aggregates where grading and other required characteristics can be maintained, and contamination can be avoided.
- D. Store liquid materials in unopened containers and protected from freezing.

1.9 FIELD CONDITIONS

A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.

1.10 PERFROMANCE REQUIREMENTS

- A. Comply with California Building Code, Section 11B-302.1.
 - 1. Tiles shall be stable, firm and slip resistant.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations for Tile: Obtain tile of each type and color or finish from single source or producer.
- B. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from single manufacturer and each aggregate from single source or producer.

2.2 PRODUCTS, GENERAL

- A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.
 - 1. Provide tile complying with Standard grade requirements unless otherwise indicated.
- B. ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI A108.02, ANSI standards referenced in other Part 2 articles, ANSI standards referenced by TCNA installation methods specified in tile installation schedules, and other requirements specified.
- C. Factory Blending: For tile exhibiting color variations within ranges, blend tile in factory and package so tile units taken from one package show same range in colors as those taken from other packages and match approved Samples.
- D. Mounting: For factory-mounted tile, provide back- or edge-mounted tile assemblies as standard with manufacturer unless otherwise indicated.
 - 1. Where tile is indicated for installation in wet areas, do not use back- or edge-mounted tile assemblies unless tile manufacturer specifies in writing that this type of mounting is suitable for installation indicated and has a record of successful in-service performance.

2.3 TILE PRODUCTS

A. Ceramic Tile Type [T-6, T-9]: Ceramic Floor Tile.

- 1. Basis-of-Design: As indicated on the drawings.
- 2. Composition: Porcelain.
- 3. Certification: Porcelain tile certified by the Porcelain Tile Certification Agency.
- 4. Module Size: As indicated on the drawings.
- 5. Thickness: 7/16 inch.
- 6. Face: Plain with cushion edges.
- 7. Dynamic Coefficient of Friction: Not less than 0.42.
- 8. Tile Color and Pattern: As indicated on the drawings.
- 9. Grout Color: As indicated on the drawings.
- 10. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile. Provide shapes as indicated on drawings.
- B. Ceramic Tile Type [T-1 thru T-5, T-7 thru T-8]: Porcelain wall tile.
 - 1. Basis-of-Design: As indicated on the drawings.
 - 2. Type: through body porcelain.
 - 3. Module Size: As indicated on the drawings.
 - 4. Tile Color and Pattern: As indicated on the drawings.
 - 5. Grout Color: As selected by Architect from manufacturer's full range.
 - 6. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile. Provide shapes as indicated on drawings.

C. Brick Tile Type [BR-1]: Modular Brick Tile by Brick-It

- 1. Basis-of-Design: As indicated on the drawings.
- Type: through body porcelain.
- 3. Module Size: As indicated on the drawings.
- 4. Tile Color and Pattern: As indicated on the drawings.
- 5. Grout Color: As selected by Architect from manufacturer's full range.
- 6. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile. Provide shapes as indicated on drawings.

2.4 THRESHOLDS

- A. General: Fabricate to sizes and profiles indicated or required to provide transition between adjacent floor finishes.
 - 1. Bevel edges at 1:2 slope, with lower edge of bevel aligned with or up to 1/16 inch above adjacent floor surface. Finish bevel to match top surface of threshold. Limit height of threshold to 1/2 inch or less above adjacent floor surface.
- B. Marble Thresholds: ASTM C503/C503M, with a minimum abrasion resistance of 10 according to ASTM C1353 or ASTM C241/C241M and with honed finish.
 - 1. Description: As indicated on the drawings.

2.5 WATERPROOF MEMBRANE

A. General: Manufacturer's standard product that complies with ANSI A118.10 and is recommended by the manufacturer for the application indicated. Include reinforcement and accessories recommended by manufacturer.

2.6 CRACK ISOLATION MEMBRANE

A. General: Manufacturer's standard product that complies with ANSI A118.12 for standard performance and is recommended by the manufacturer for the application indicated. Include reinforcement and accessories recommended by manufacturer.

2.7 SETTING MATERIALS

- A. Modified Dry-Set Mortar (Thinset): ANSI A118.4.
 - 1. For wall applications, provide mortar that complies with requirements for nonsagging mortar in addition to the other requirements in ANSI A118.4.
- B. Medium-Bed, Modified Dry-Set Mortar: Comply with requirements in ANSI A118.4. Provide product that is approved by manufacturer for application thickness of 5/8 inch.

2.8 GROUT MATERIALS

- A. Sand-Portland Cement Grout: ANSI A108.10, consisting of white or gray cement and white or colored aggregate as required to produce color indicated.
- B. High-Performance Tile Grout: ANSI A118.7.
 - 1. Polymer Type: Ethylene vinyl acetate or acrylic additive, in dry, redispersible form, prepackaged with other dry ingredients.
 - 2. Polymer Type: Acrylic resin or styrene-butadiene rubber in liquid-latex form for addition to prepackaged dry-grout mix.
- C. Water-Cleanable Epoxy Grout: ANSI A118.3, with a VOC content of 65 g/L or less.
 - 1. Provide product capable of withstanding continuous and intermittent exposure to temperatures of up to 140 and 212 deg F, respectively, and certified by manufacturer for intended use.

2.9 MISCELLANEOUS MATERIALS

- A. Trowelable Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.
- B. Vapor-Retarder Membrane: Polyethylene sheeting, ASTM D4397, 4.0 mils thick.

- C. Metal Edge Strips: Cove and edge profiles as indicated on drawings, height to match tile and setting-bed thickness, metallic or combination of metal and PVC or neoprene base, designed specifically for tiling applications; anodized aluminum exposed-edge material.
- D. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers.

2.10 MIXING MORTARS AND GROUT

- A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions.
- B. Add materials, water, and additives in accurate proportions.
- C. Obtain and use type of mixing equipment, mixer speeds, mixing containers, mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
 - 1. Verify that substrates for setting tile are firm; dry; clean; free of coatings that are incompatible with tile-setting materials, including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.
 - 2. Verify that concrete substrates for tile floors installed with thin set mortar comply with surface finish requirements in ANSI A108.01 for installations indicated.
 - a. Verify that surfaces that received a steel trowel finish have been mechanically scarified.
 - b. Verify that protrusions, bumps, and ridges have been removed by sanding or grinding.
 - 3. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed.
 - 4. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Fill cracks, holes, and depressions in concrete substrates for tile floors installed with thin set mortar with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.
- B. Where indicated, prepare substrates to receive waterproof membrane by applying a reinforced mortar bed that complies with ANSI A108.1A and is sloped 1/4 inch per foot toward drains.
- C. Blending: For tile exhibiting color variations, verify that tile has been factory blended and packaged so tile units taken from one package show same range of colors as those taken from other packages and match approved Samples. If not, factory blended, either return to manufacturer or blend tiles at Project site before installing.

3.3 INSTALLATION OF CERAMIC TILE

- A. Comply with TCNA's "Handbook for Ceramic, Glass, and Stone Tile Installation" for TCNA installation methods specified in tile installation schedules. Comply with parts of the ANSI A108 series "Specifications for Installation of Ceramic Tile" that are referenced in TCNA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.
 - 1. For the following installations, follow procedures in the ANSI A108 series of tile installation standards for providing 95 percent mortar coverage:
 - a. Exterior tile floors.
 - b. Tile floors in wet areas.
 - c. Tile floors consisting of tiles 8 by 8 inches or larger.
 - d. Tile floors consisting of rib-backed tiles.
- B. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- C. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.
- D. Provide manufacturer's standard trim shapes where necessary to eliminate exposed tile edges.
- E. Where accent tile differs in thickness from field tile, vary setting-bed thickness so that tiles are flush.
- F. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work and center tile fields in both directions in each space or on each wall area. Lay out tile work to minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.
 - 1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.

- 2. Where adjoining tiles on floor, base, walls, or trim are specified or indicated to be same size, align joints.
- 3. Where tiles are specified or indicated to be whole integer multiples of adjoining tiles on floor, base, walls, or trim, align joints unless otherwise indicated.
- G. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:
 - 1. Ceramic Mosaic Tile: 1/16 inch.
 - 2. Quarry Tile: 1/4 inch.
 - 3. Glazed Wall Tile: 1/16 inch.
- H. Lay out tile wainscots to dimensions indicated or to next full tile beyond dimensions indicated.
- I. Expansion Joints: Provide expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, where indicated. Form joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.
 - Where joints occur in concrete substrates, locate joints in tile surfaces directly above them.
- J. Stone Thresholds: Install stone thresholds in same type of setting bed as adjacent floor unless otherwise indicated.
 - 1. At locations where mortar bed (thickset) would otherwise be exposed above adjacent floor finishes, set thresholds in modified dry-set mortar (thin set).
 - 2. Do not extend waterproof membrane or crack isolation membrane under thresholds set in modified dry-set mortar. Fill joints between such thresholds and adjoining tile set on waterproof membrane or crack isolation membrane with elastomeric sealant.
- K. Metal Edge Strips: Install at any location where tile edges end not at wall joints or where tile has exposed edges.

3.4 INSTALLATION OF WATERPROOF MEMBRANE

- A. Install waterproof membrane to comply with ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness that is bonded securely to substrate.
- B. Allow waterproof membrane to cure and verify by testing that it is watertight before installing tile or setting materials over it.

3.5 INSTALLATION OF CRACK ISOLATION MEMBRANE

- A. Install crack isolation membrane to comply with ANSI A108.17 and manufacturer's written instructions to produce membrane of uniform thickness that is bonded securely to substrate.
- B. Allow crack isolation membrane to cure before installing tile or setting materials over it.

3.6 ADJUSTING AND CLEANING

- A. Remove and replace tile that is damaged or that does not match adjoining tile. Provide new matching units, installed as specified and in a manner to eliminate evidence of replacement.
- B. Cleaning: On completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.
 - 1. Remove grout residue from tile as soon as possible.
 - 2. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions but no sooner than 10 days after installation. Use only cleaners recommended by tile and grout manufacturers and only after determining that cleaners are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.

3.7 PROTECTION

- A. Protect installed tile work with Kraft paper or other heavy covering during construction period to prevent staining, damage, and wear. If recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile walls and floors.
- B. Prohibit foot and wheel traffic from tiled floors for at least seven days after grouting is completed.
- C. Before final inspection, remove protective coverings and rinse neutral protective cleaner from tile surfaces.

3.8 INTERIOR CERAMIC TILE INSTALLATION SCHEDULE

- A. Interior Floor Installations, Concrete Subfloor:
 - 1. Ceramic Tile Installation: TCNA F125-Full; thin set mortar on crack isolation membrane.
 - a. Ceramic Tile Type: See finish schedule in drawings.
 - b. Thin set Mortar: Medium-bed, modified dry-set mortar.
 - c. Grout: Water-cleanable epoxy grout.
- B. Interior Wall Installations, Wood Studs or Furring:
 - 1. Ceramic Tile Installation: TCNA W244C or TCNA W244F; thin set mortar on cementitious backer units or fiber-cement backer board over vapor-retarder membrane.
 - a. Ceramic Tile Type: See finish schedule in drawings.
 - b. Thin set Mortar: Modified dry-set mortar.
 - c. Grout: High-performance unsanded grout, unless indicated otherwise.

END OF SECTION 09 30 13

SECTION 09 65 19 - RESILIENT TILE FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Solid vinyl floor tile.
- B. Related Requirements:
 - 1. Section 09 05 61.13 "Moisture vapor Emissions Control".

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For each type of resilient floor tile.
 - 1. Include floor tile layouts, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.
 - 2. Show details of special patterns.
- C. Samples: Full-size units of each color, texture, and pattern of floor tile required.
- D. Product Schedule: For floor tile. Use same designations indicated on Drawings.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of floor tile to include in maintenance manuals.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Floor Tile: Furnish one box for every 50 boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are competent in techniques required by manufacturer for floor tile installation and seaming method indicated.
 - 1. Engage an installer who employs workers for this Project who are trained or certified by floor tile manufacturer for installation techniques required.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store floor tile and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F. Store floor tiles on flat surfaces.

1.8 FIELD CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive floor tile during the following periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 48 hours after installation.
- B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Close spaces to traffic during floor tile installation.
- D. Close spaces to traffic for 48 hours after floor tile installation.
- E. Install floor tile after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Comply with California Building Code, Section 11B-302.1.
 - 1. Resilient flooring shall be stable, firm and slip resistant.
- B. Fire-Test-Response Characteristics: For resilient floor tile, as determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

2.2 LUXURY VINYL FLOOR TILE (RF-5 and RF-6)

A. Basis-of-Design: As indicated on drawings.

RESILIENT TILE FLOORING

- B. Tile Standard: ASTM F 1700.
 - 1. Class: Class III, Printed Film Vinyl Tile.
- C. Thickness: 5mm.
- D. Size: 9 in x 36 in, unless noted otherwise.
- E. Colors and Patterns: As indicated on drawings.

2.3 LUXURY VINYL FLOOR TILE (RF-3)

- A. Basis-of-Design: As indicated on drawings.
- B. Tile Standard: ASTM F 1700.
 - 1. Class: Class III, Printed Film Vinyl Tile.
- C. Thickness: 0.197 in.
- D. Size: 36 in x 36 in, unless noted otherwise.
- E. Colors and Patterns: As indicated on drawings.

2.4 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland-cement-based or blended hydraulic-cement-based formulation provided or approved by floor tile manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by floor tile and adhesive manufacturers to suit floor tile and substrate conditions indicated.
 - 1. Adhesives shall have a VOC content of 50 g/L or less.
- C. Floor Polish: Provide protective, liquid floor-polish products recommended by floor tile manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, 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 in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor tile.

RESILIENT TILE FLOORING

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to floor tile manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by floor tile manufacturer. Do not use solvents.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by floor tile manufacturer. Proceed with installation only after substrate alkalinity falls within range on pH scale recommended by manufacturer in writing, but not less than 5 or more than 9 ph.
 - 4. Moisture Testing: Perform tests so that each test area does not exceed 1000 sq. ft. and perform no fewer than three tests in each installation area and with test areas evenly spaced in installation areas.
 - a. Anhydrous Calcium Chloride Test: ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb. of water/1000 sq. ft. in 24 hours.
 - b. Relative Humidity Test: Using in-situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum 75 percent relative humidity level measurement.
- C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
- D. Do not install floor tiles until materials are the same temperature as space where they are to be installed.
 - 1. At least 48 hours in advance of installation, move resilient floor tile and installation materials into spaces where they will be installed.
- E. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient floor tile.

3.3 FLOOR TILE INSTALLATION

- A. Comply with manufacturer's written instructions for installing floor tile.
- B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.
- C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.

RESILIENT TILE FLOORING

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- D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.
- E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.
- F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent marking device.
- G. Install floor tiles on covers for telephone and electrical ducts, building expansion-joint covers, and similar items in installation areas. Maintain overall continuity of color and pattern between pieces of tile installed on covers and adjoining tiles. Tightly adhere tile edges to substrates that abut covers and to cover perimeters.
- H. Adhere floor tiles to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protecting floor tile.
- B. Perform the following operations immediately after completing floor tile installation:
 - 1. Remove adhesive and other blemishes from surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.
- C. Protect floor tile from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Floor Polish: Remove soil, adhesive, and blemishes from floor tile surfaces before applying liquid floor polish.
- E. Cover floor tile until Substantial Completion.

END OF SECTION 09 65 19

SECTION 09 65 20 - RUBBER FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Proved Rubber sheet flooring in areas designated on the drawings.
- B. Section Includes:
 - 1. Rubber floor sheet.
 - 2. Resilient stair treads (one-piece nosing, tread and riser).
- C. Related Requirements:
 - 1. Section 03 30 00 "Cast-In-Place Concrete"

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For each type of floor sheet. Include floor layouts, edges, columns, doorways, enclosing partitions, built in furniture, cabinets, and cutouts.
 - Show details of special patterns.
- C. Samples for Verification: Full size units of each color and pattern of floor sheet required.
 - For heat welding bead, manufacturer's standard size Samples, but not less than 9 inches long, of each color required.
- D. Welded Seam Samples: For seamless-installation technique indicated and for each flooring product, color, and pattern required; with seam running lengthwise and in center of 6 x 9 inch Sample applied to a rigid backing and prepared by Installer for this Project.
- E. Qualification Data: For Installer.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of floor sheet to include in maintenance manuals.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Provide resilient flooring manufactured by a firm with a minimum of 10 years' experience with resilient flooring of type equivalent to those specified.
 - 1. Manufacturer's quality management system must have ISO 9001:2000 approval.
 - 2. Provide resilient flooring products and accessories from one manufacturer to ensure compatibility.
 - 3. Manufacturer shall be capable of providing technical training and technical field service representation.

- B. Installer Qualifications: Acceptable to manufacturer of resilient flooring or INSTALL (International Standards & Training Alliance) resilient certified for the requirements of the project with a minimum of 4 years' experience with resilient flooring of type equivalent to those specified.
 - 1. It is recommended to have a minimum of one installer per working party with the ability to provide proof of current credentials at request.
 - 2. Has obtained and maintained current credentials from manufacturer's training program.
 - 3. Installers shall be able to exhibit proficient skills with flash cove detailing, both hot and cold-welding techniques, adhesives, specialty adhesive systems and seam cutting.
 - 4. The installing parties shall provide a submittal of their skills in the form of mock-ups of the specified material. These mock-ups will be accepted as proof of their skills and benchmarking for the proposed project.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in labeled packages. Store and handle in strict compliance with manufacturer's recommendations. Protect from damage due to weather, excessive temperatures, and construction operations.
- B. Deliver materials sufficiently in advance of installation to condition materials to the required temperature for 48-hours prior to installation.

1.7 FIELD CONDITIONS

- A. The General Contractor or Construction Manager shall be responsible for ensuring all site conditions meet the requirements of the Manufacturer, as referenced herein at parts 3.2 and 3.3.
- B. Concrete subfloors, on or below grade, must be installed over a permanent effective vapor retarder, respecting current versions of the standard practice ASTM E1643 and the standard ASTM E1745. The vapor retarder must be placed directly underneath the concrete slab, above the granular fill, as per Manufacturer's instructions. The vapor retarder must have a perm rating of 0.1 or less and must have a minimum thickness of 10 mil (0.010in).
- C. The installation area must be fully enclosed, weather tight, and climate controlled between 63°F and 75°F and 40% to 60% ambient relative humidity (RH) for at least 48 hours prior, during and 72 hours after installation (do not use gas fueled blowers). Dew point must be avoided. The substrate must be at least 5°F above dew point to be considered acceptable.
- D. Installation of the resilient flooring to be carried out no sooner than the specified curing time of concrete subfloor (normal density concrete curing time is approximately 28 days for development of design strength). Refer to current version of ASTM F710.
- E. The subfloor surface must be free of any paint, wax, oil, grease, sealer, curing compound, solvent or any other contaminants that may inhibit bond. All contaminants must be removed from the surface via mechanical abatement. Use of abatement chemicals is not recommended.
- F. Concrete to have smooth, dense finish, and be highly compacted with a tolerance of 1/8" in a 10ft radius (3.2mm in 3.05m radius). Floor Flatness (FF) and Floor Levelness (FL) numbers are not recognized.
- G. Moisture and alkalinity tests must be performed on all concrete substrates, under in-service conditions. It is recommended to turn on the HVAC unit prior to performing moisture testing, in order to ensure stable testing conditions and accurate results. The concrete's surface pH should be between 7 and 10. Relative humidity of the concrete slab must not exceed 85%, in accordance with ASTM F2170 (in situ probes). Moisture vapor emissions from the concrete slab must not exceed the tolerance of the adhesive specified, in accordance with ASTM F1869

(anhydrous calcium chloride).

H. Installation of rubber flooring will not commence until the building is enclosed and all other trades have completed their work. It is the General Contractor or Construction Manager's responsibility to maintain a secure and clean working area before, during and after the installation of the resilient flooring.

1.8 WARRANTY

A. Provide manufacturer's standard limited warranty for wear, defect, bond, and conductivity.

PART 2 - PRODUCTS

2.1 REGULATORY REQUIREMENTS

- B. Comply with California Building Code, Section 11B-302.1.
 - 1. Resilient flooring shall be stable, firm and slip resistant.

2.2 PERFORMANCE REQUIREMENTS

- C. Fire-Test-Response Characteristics: For resilient tile flooring, as determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

2.3 RUBBER SHEET FLOORING [RF-1 and RF-2]:

- A. Products: Subject to compliance with requirements, provide the following:
 - 1. Shaw (basis of Design)
 - 2. Or Equal
- B. Product Name: TRS2 TRUE Medi-Flex Sheet

Product Type: Rubber
 Overall Thickness: 2mm
 Size: 6.56'x65"
 Construction Type: Homogeneous
 Installation Method: Glue Down

6. Classification: ASTM F1859 – Rubber Sheet, Type 1

7. Hardness: ASTM D2240 – Shore A >85

8. Smoke Density: ASTM E 662 <450

9. Resistance to Chemicals: ASTM F 925 – Exceeds

10. Adhesive: Mohawk Ad-777 Adhesive – Regular Traffic, AD-590 Epoxy

Heavy Rolling Loads

2.4 RUBBER SHEET FLOORING [RF-4]:

- C. Products: Subject to compliance with requirements, provide the following:
 - 1. Mondo (basis of Design)
 - 2. Or Equal
- D. Product Name: Massetto

Product Type: Rubber
 Overall Thickness: 3mm

Colors: Refer to finish schedule.
 Size: 6'2" wide x 32'9" long.

5. Surface Texture: Smooth

6. Surface Treatment: factory applied low gloss surface treatment, cured by

ultraviolet processing.

2.5 RESILIENT STAIRTREADS (ONE-PIECE NOSING, TREAD AND RISER) [RF-7]:

- A. Products: Subject to compliance with requirements, provide the following:
 - Roppe (Basis of Design)
 - Or Approved Equal.
- B. Product Name: rubber stair tread and risers.
 - 1. ASTM Specification: ASTM F2169 Standard Specification for Resilient Stair Treads
 Type TS, Class 2, can be Group 1 and/or 2 and Grade 2
 - 2. Limited Wear Warranty: 10 years
 - 3. Material: nora vulcanized rubber compound 926 with environmentally compatible color pigments that are free of toxic heavy metals like lead, cadmium, or mercury
 - 4. Composition: Homogeneous
 - 5. Color: Refer to finish schedule.
 - 6. Surface: Round pastille and smooth
 - 7. Back of Stair Tread: Double-sanded smooth
 - 8. Material Dimensions (ASTM F2169):
 - Length: as required.
 - b. Depth: as required.
 - Flammability (E648/NFPA 253): ≥ 0.45 watts/sq. cm for Class 1 is required NBSIR 75 950. 1.1
 - 10. Smoke Density (ASTM E662/NFPA 258): < 450 is required NBS, 380 (flaming) and 230 (non-flaming)
 - 11. Burn Resistance: Resistant to cigarette and solder burns
 - 12. Slip Resistance (ASTM D2047): ≥ 0.5 is required Static coefficient of friction, Neolite dry 0.85, Neolite wet 0.76
 - Bacteria Resistance (ASTM E2180/ASTM G21): Resistant to bacteria, fungi, and microorganism activity
 - Indoor Air Quality: Greenguard Gold Certified for low VOC Emissions in compliance with CDPH 01350
 - 15. Oil & Grease Resistance (EN/ISO 26987): Yes
 - 16. Static Generation (AATCC 134): < 2000 Volts at 20% RH
 - 17. Cleaning: Cleaned and maintained effectively using water, nora pads and a suitable cleaning machine, without the use of any factory and/or field-applied coatings. Also, without using any chemicals that may be hazardous or containing any teratogenic, mutagenic or any other ingredients known to be carcinogenic. Refer to nora Maintenance Guidelines for product specific details.
 - 18. Shine: Higher shine achieved by buffing without any artificial topical applied coatings.
 - 19. Stain Removal: Samples of the product must be provided for stain removal testing by the owner. Sample size must be 24 inches by 24 inches, pre-cleaned by manufacture per published recommendations. Samples must have no coatings, sealers, floor finish or other manually or mechanically applied finish on the surface of the product. Stain testing must consist of application of common healthcare related disinfectants and chemicals to include, but not limited to, Betadine, Methylene Blue, Silver Nitrate, and alcohol-based hand sanitizer. Duration of test period must be no less than one week. Removal of

chemicals must be in accordance with manufacturers published cleaning and maintenance recommendations.

20. Substrate Preparation: Per ASTM F710 and the nora Installation Instructions

2.6 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by floor tile manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by floor tile and adhesive manufacturers to suit floor tile and substrate conditions indicated.
- C. Seamless-Installation Accessories:
 - 1. Heat-Welding Bead: Manufacturer's solid-strand product for heat welding seams.
 - Color: Match floor tile
 - 2. Chemical-Bonding Compound: Manufacturer's product for chemically bonding seams.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Coordinate requirements specified in other Sections for substrate construction and tolerances to ensure that they are appropriate for floor tile.
- B. Ensure that concrete subfloors, on or below grade, are installed over a permanent effective vapor retarder, respecting current versions of the standard practice ASTM E1643 and the standard specification ASTM E1745. The vapor retarder must be placed directly underneath the concrete slab, above the granular fill, as per Manufacturer's instructions. The vapor retarder must have a perm rating of 0.1 or less and must have a minimum thickness of 10 mil (0.010in).
- C. Installation of the rubber flooring to be carried out no sooner than the specified curing time of concrete subfloor (normal density concrete curing time is approximately 28 days for development of design strength). Refer to current version of ASTM F710.
- D. Ensure that no concrete sealers or curing compounds have been applied to or mixed into the concrete.
- E. Subfloor surface must be free of any paint, wax, oil, grease, sealer, curing compound, solvent or any other contaminants that may inhibit bond. All contaminants must be removed from the surface via mechanical abatement. Use of abatement chemicals is not recommended.
- F. Confirm concrete has smooth, dense finish, and is highly compacted with a tolerance of 1/8" in a 10ft radius (3.2mm in 3.05m radius). Floor Flatness (FF) and Floor Levelness (FL) numbers are not recognized.
- G. Moisture and alkalinity tests must be performed on all concrete substrates, under in-service conditions. It is recommended to turn on the HVAC unit prior to performing moisture testing, in order to ensure stable testing conditions and accurate results. The concrete's surface pH should be between 7 and 10. Relative humidity of the concrete slab must not exceed 85%, in accordance with ASTM F2170 (in situ probes). Moisture vapor emissions from the concrete slab must not exceed the tolerance of the adhesive specified, in accordance with ASTM F1869 (anhydrous calcium chloride).
- H. Maintain a stable room and subfloor temperature within the recommended range of 65oF to 86oF (18oC to 30oC), 48 hours prior to installation, during the installation, and 48 hours after the installation. Recommended ambient humidity control level is between 35 to 55%.
- I. Installation of rubber flooring will not commence until the building is enclosed and all other

trades have completed their work. Ensure a secure and clean working area before, during and after the installation of the resilient flooring.

3.2 PREPARATION

- A. Prepare substrates according to floor tile manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by floor tile manufacturer. Do not use solvents.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by floor tile manufacturer. Proceed with installation only after substrate alkalinity falls within range on pH scale recommended by manufacturer in writing, but not less than 5 or more than 10 pH.
 - 4. Moisture Testing: Proceed with installation only after substrates pass testing according to floor tile manufacturer's written recommendations, but not less stringent than the following:
 - a. Perform anhydrous calcium chloride test according to ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
 - b. Perform relative humidity test using in situ probes according to ASTM F 2170. Proceed with installation only after substrates have a 75 percent relative humidity level.
- C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
- D. Do not install floor tiles until they are the same temperature as the space where they are to be installed.
 - 1. At least 48 hours in advance of installation, move resilient floor tile and installation materials into spaces where they will be installed.
 - 2. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient floor tile

3.3 FLOOR SHEET INSTALLATION

- A. Comply with manufacturer's written instructions for installing floor tile.
- B. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.
- C. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.
- D. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.
- E. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent marking device.
- F. Seamless Installation: Provide seamless installation per manufacturer's written instructions.

3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protecting floor sheet.
- B. Perform the following operations immediately after completing floor sheet installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp mop surfaces to remove marks and soil.
- C. Protect floor sheet from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Joint Sealant: Apply sealant to resilient floor sheet perimeter and around columns, at door frames, and at other joints and penetrations.
- E. Cover floor until Substantial Completion.

END OF SECTION 09 65 20

SECTION 09 72 00 - WALL COVERINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Vinyl wall covering.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include data on physical characteristics, durability, fade resistance, and fire-test-response characteristics.
- B. Shop Drawings: Show location and extent of each wall-covering type. Indicate pattern placement, seams and termination points.
- C. Samples: For each type of wall covering and for each color, pattern, texture, and finish specified, full width by 36-inch-long in size.
- D. Product Schedule: For wall coverings.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For testing agency.
- B. Product Test Reports: For each wall covering, for tests performed by a qualified testing agency.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For wall coverings to include in maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Wall-Covering Materials: For each type, color, texture, and finish, full width by length to equal to 5 percent of amount installed.

1.7 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install wall coverings until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work above ceilings is complete, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at levels intended for occupants after Project completion during the remainder of the construction period.
- B. Lighting: Do not install wall covering until lighting that matches conditions intended for occupants after Project completion is provided on the surfaces to receive wall covering.
- C. Ventilation: Provide continuous ventilation during installation and for not less than the time recommended by wall-covering manufacturer for full drying or curing.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Wall materials shall comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
- B. Fire-Test-Response Characteristics: As determined by testing identical wall coverings applied with identical adhesives to substrates according to test method indicated below by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

2.2 VINYL WALL COVERING (WC-1 and WC-5) ADD-02

- A. Basis-of-Design Products: As indicated in Interior Finish Schedule, or approved equal.
- B. Colors, Textures, and Patterns: As indicated.
- C. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Flame-Spread Index: Class A (25 or less).
 - 2. Smoke-Developed Index: 450 or less.

2.3 ACCESSORIES

- A. Adhesive: Mildew-resistant, nonstaining adhesive, for use with specific wall covering and substrate application indicated and as recommended in writing by wall-covering manufacturer.
 - 1. Adhesives shall have a VOC content of 50 g/L or less.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for levelness, wall plumbness, maximum moisture content, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions for surface preparation.
- B. Clean substrates of substances that could impair bond of wall covering, including dirt, oil, grease, mold, mildew, and incompatible primers.
- C. Prepare substrates to achieve a smooth, dry, clean, structurally sound surface free of flaking, unsound coatings, cracks, and defects.
 - 1. Moisture Content: Maximum of 5 percent on new plaster, concrete, and concrete masonry units when tested with an electronic moisture meter.
 - 2. Gypsum Board: Prime with primer as recommended in writing by primer/sealer manufacturer and wall-covering manufacturer.
 - a. Provide level 5 finish on gypsum board substrate for custom printed vinyl wallcovering.
 - 3. Painted Surfaces: Treat areas susceptible to pigment bleeding.
- D. Check painted surfaces for pigment bleeding. Sand gloss, semigloss, and eggshell finish with fine sandpaper.
- E. Remove hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.
- F. Acclimatize wall-covering materials by removing them from packaging in the installation areas not less than 24 hours before installation.

3.3 WALL-COVERING INSTALLATION

- A. Comply with wall-covering manufacturers' written installation instructions applicable to products and applications indicated.
- B. Cut wall-covering strips in roll number sequence. Change the roll numbers at partition breaks and corners.
- C. Install strips in same order as cut from roll.

- 1. For solid-color, even-texture, or random-match wall coverings, reverse every other strip.
- D. Install wall covering without lifted or curling edges and without visible shrinkage.
- E. Install seams vertical and plumb at least 6 inches from outside corners and 3 inches from inside corners unless a change of pattern or color exists at corner. Horizontal seams are not permitted.
- F. Trim edges and seams for color uniformity, pattern match, and tight closure. Butt seams without overlaps or gaps between strips.
- G. Fully bond wall covering to substrate. Remove air bubbles, wrinkles, blisters, and other defects.

3.4 CLEANING

- A. Remove excess adhesive at seams, perimeter edges, and adjacent surfaces.
- B. Use cleaning methods recommended in writing by wall-covering manufacturer.
- C. Replace strips that cannot be cleaned.
- D. Reinstall hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.

END OF SECTION 09 72 00

SECTION 09 72 17 - FIBERGLASS REINFORCED PLASTIC PANELS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Fiberglass Reinforced Plastic Wall Panels.
 - 2. Components and moldings.
 - Sealants

1.3 REFERENCE STANDARDS

- A. Conform to reference standards by date of issue current on date of Contract Documents.
- B. USDA United States Department of Agriculture.
- C. ASME E84 Surface Burning Characteristics of Building Materials.
- D. AQMD, Local Regulations.

1.4 ACTION SUBMITTALS

- A. Product data.
- B. Manufacturer's current recommended method of installation.
- C. Three (3) sets of samples of panels and molding illustrating color, texture, thickness and physical characteristics.
- D. Certification of USDA approval for use of material in food handling facilities.

1.5 QUALITY ASSURANCE

- A. Product Manufacturer: Company specializing in manufacturing products specified herein with minimum ten years' experience.
- B. Applicator: Company specializing in installation of specified products with minimum five years' experience.
- C. Flame spread classification requirements

FIBERGLASS REINFORCED PLASTIC PANELS

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1. ASTM E84, Class I/A flame spread less than 25, smoke density less than 450.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the project site with manufacturer's labels intact and legible.
- B. Handle materials with care to prevent damage.
- C. Deliver materials bearing USDA accepted label and required classification numbers.
- D. Store materials under cover, stacked flat, off floor.
- E. Stack panels so that long lengths are not over short lengths.

1.7 FIELD CONDITIONS

- A. Maintain temperature range between 55 degrees F. to 70 degrees F. for 24 hours before, during and after gypsum wallboard and joint treatment applications.
- B. Provide ventilation during and following sealing of joints.
- C. Adhesives shall conform to AQMD, Local Regulations.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products of the following manufacturers form the basis for design and quality intended.
 - 1. Marlite Inc., Dover, OH.
 - 2. Kemlite/Crane Co., Joliet, IL.
 - 3. Nudo Products, Inc., Springfield, IL.
 - 4. Glasteel, Division of Stabilit America, Inc., Collierville, TN.
 - 5. Parkland Plastics, Middlebury, IN.
- B. Or equal as approved in accordance with Division 01, General Requirements for substitutions.

2.2 MATERIALS

- A. MARLITE FRP PANELS; Class A, 3/32-inch-thick, interior liner panels, chemical, stain, odor, moisture and impact resistant. Panels shall not support mold or mildew. Surface: Smooth (ADD-02)
- B. Colors and Materials: Smooth S100G White.

2.3 ACCESSORIES

- A. Moldings: Aluminum Designs and thickness shall match panels. Provide at all edges, divider joints, interior corners and exterior corners.
- B. Sealant: MS250 clear, one-part silicone, conforming to requirements of Section 07 92 00.
- C. Adhesive: C375 neoprene based or C551 latex based construction adhesive, VOC Compliant.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces are ready to receive the work of this section.
- B. Verify that gypsum board substrate has been taped and sanded, all joints.
- C. Beginning of installation means installer accepts existing surfaces.

3.2 INSTALLATION

- A. Install panels plumb, level and with all vertical joints on bearing.
- B. Verify location and install all trim required. Install all trim and sealant in accordance with the manufacturer's recommendations.

3.3 CLEANING AND PROTECTION

A. Do not allow the accumulation of debris, immediately remove spilled or splashed material and all trace of residues.

END OF SECTION 09 72 17

SECTION 09 77 23 - FABRIC-WRAPPED PANELS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes shop-fabricated, fabric-wrapped wall panels.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show fabrication and installation details for acoustical / tackable wall panels, including plans, elevations, sections, details, and attachments to other Work.
- C. Samples for Verification: 8 by-11 inch units of each type of acoustical / tackable wall panel indicated; in sets for each color, texture, and pattern specified for facing materials, showing the full range of variations expected in these characteristics. Include samples of installation devices and accessories.
- D. Product Certificates: Signed by manufacturers of acoustical wall panels certifying that products furnished comply with requirements.
- E. Maintenance Data: For acoustical wall panels and facings to include in maintenance manuals specified in Division 01.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials from same production run that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Fabric: For each fabric, color, and pattern installed, provide length equal to 10 percent of amount installed, but no fewer than 10 sq. yd., full width of bolt.
 - 2. Mounting Devices: Full-size units equal to 5 percent of amount installed, but no fewer than five devices, including unopened adhesives.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing acoustical / tackable wall panels similar to those indicated for this Project and with a record of successful in-service performance.
- B. Source Limitations for Acoustical Wall Panels: Obtain acoustical wall panels from one source with resources to provide products of consistent quality in appearance and physical properties.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Comply with fabric and panel manufacturers' written instructions for minimum and maximum temperature and humidity requirements for shipment, storage, and handling.
- B. Deliver materials and panels in unopened bundles and store in a temperature-controlled dry place with adequate air circulation.

1.7 FIELD CONDITIONS

- A. Environmental Limitations: Do not install panels until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work at and above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Lighting: Do not install panels until a lighting level of not less than 50 fc is provided on surfaces to receive the panels.
- C. Air-Quality Limitations: Protect panels from exposure to airborne odors such as tobacco smoke, and install panels under conditions free from odor contamination of ambient air.
- D. Field Measurements: Verify panel locations and actual dimensions of openings and penetrations by field measurements before fabrication, and indicate them on Shop Drawings.

1.8 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace panels and components that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Fabric sagging, distorting, or releasing from panel edge.
 - b. Warping of core.
 - 2. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain fabric-wrapped wall panels from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Fire-Test-Response Characteristics: Panels shall comply with "Surface-Burning Characteristics" or "Fire Growth Contribution" or both, as determined by testing identical products by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
 - 1. Surface-Burning Characteristics: Comply with ASTM E 84 or UL 723; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - a. Flame-Spread Index: 25 or less.
 - b. Smoke-Developed Index: 450 or less.
 - 2. Fire Growth Contribution: Comply with acceptance criteria of local code and authorities having jurisdiction when tested according to NFPA 265 Method B Protocol or NFPA 286.

2.3 FABRIC-WRAPPED WALL PANELS

- A. Fabric-Wrapped Acoustical Wall Panel (AC-5 thru AC-7): Manufacturer's standard construction with facing material stretched over core.
 - 1. Basis-of-Design Product: As indicated in Interior Finish Schedule or approved equal.
 - 2. Panel Shape: Flat.
 - 3. Core Materials: 100% PET
 - 4. Edge Construction: Chemically hardened core.
 - 5. Reveals between Panels: As indicated.
 - 6. Facing Material: As indicated.
 - 7. Nominal Thickness: 1/2" as indicated.
 - 8. Panel Size and layout: As indicated.
- B. Fabric-Wrapped Tackable Wall Panel (FWP-1): Manufacturer's standard construction with facing material stretched over core.
 - 1. Basis-of-Design Product: As indicated in Interior Finish Schedule or approved equal.
 - 2. Panel Shape: Flat.
 - Core Materials: Mineral-fiber board
 - 4. Edge Construction: Chemically hardened core.
 - Corner Detail in Elevation: As indicated.
 - 6. Reveals between Panels: As indicated.
 - 7. Facing Material: As indicated.
 - 8. Nominal Thickness: 1" as indicated.
 - 9. Panel Size and layout: As indicated.

- C. Acoustical Tackable Wall Panel (AC-1 thru AC-4; and AC-8 thru AC-10):
 - 1. Basis-of-Design Product: As indicated in Interior Finish Schedule or approved equal.
 - 2. Panel Shape: Flat.
 - 3. Core Materials: Mineral-fiber board
 - 4. Edge Construction: Chemically hardened core.
 - 5. Corner Detail in Elevation: As indicated.
 - 6. Reveals between Panels: As indicated.
 - 7. Facing Material: As indicated.
 - 8. Nominal Thickness: 1/2" as indicated.
 - 9. Panel Size and layout: As indicated.
- D. Rigid Urethane Foam Board (HDU-1):
 - Basis-of-Design Product: As indicated in Interior Finish Schedule or approved equal.
 - 2. Panel Shape: Flat.
 - 3. Core Materials: Closed-cell
 - 4. Corner Detail in Elevation: As indicated.
 - 5. Reveals between Panels: As indicated.
 - 6. Facing Material: As indicated.
 - 7. Nominal Thickness: 3" as indicated.
 - 8. Panel Size and layout: As indicated.

2.4 MATERIALS

- A. Core Materials: Manufacturer's standard.
 - 1. Glass-Fiber Board: ASTM C 612; of type standard with manufacturer; nominal density of 6 to 7 lb/cu. ft., unfaced, and dimensionally stable, molded rigid board; and with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.
 - 2. Mineral-Fiber Board: Maximum flame-spread and smoke-developed indexes of 25 and 10, respectively.
- B. Facing Material: Fabric from same dye lot; color and pattern as indicated.
- C. Mounting Devices: Concealed on back of panel, recommended by manufacturer to support weight of panel, and as follows:
 - Metal Clips or Bar Hangers: Manufacturer's standard two-part metal "Z" clips, with one part of each clip mechanically attached to back of panel and the other part to substrate, designed to permit unit removal.

2.5 FABRICATION

- A. Standard Construction: Use manufacturer's standard construction unless otherwise indicated; with facing material applied to face, edges, and back border of dimensionally stable core; and with rigid edges to reinforce panel perimeter against warpage and damage.
- B. Edge Hardening: For glass-fiber board cores, chemically harden core edges and areas of core where mounting devices are attached.

- C. Facing Material: Apply fabric fully covering visible surfaces of panel; with material stretched straight, on the grain, tight, square, and free from puckers, ripples, wrinkles, sags, blisters, seams, adhesive, or other visible distortions or foreign matter.
 - 1. Square Corners: Tailor corners.
 - 2. Radius and Other Nonsquare Corners: Attach material so there are no seams or gathering of material.
 - 3. Fabrics with Directional or Repeating Patterns or Directional Weave: Mark fabric top and attach fabric in same direction so pattern or weave matches in adjacent panels.
- D. Dimensional Tolerances of Finished Panels: Plus or minus 1/16 inch for the following:
 - 1. Thickness.
 - 2. Edge straightness.
 - 3. Overall length and width.
 - 4. Squareness from corner to corner.
 - 5. Chords, radii, and diameters.
- E. Back Mounting Accessories: Manufacturer's standard or recommended accessories for securely mounting panels, of type and size indicated, to substrates provided.
- F. Sound Absorption Performance: Provide acoustical / tackable wall panels with minimum noise reduction coefficients of NRC 0.85, as determined by testing per ASTM C 423 for mounting type specified under individual product requirements. The fabric used to wrap the panel should not compromise the acoustical performance.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine fabric, fabricated panels, substrates, areas, and conditions for compliance with requirements, installation tolerances, and other conditions affecting panel performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install panels in locations indicated. Unless otherwise indicated, install panels with vertical surfaces and edges plumb, top edges level and in alignment with other panels, faces flush, and scribed to fit adjoining work accurately at borders and at penetrations.
- B. Comply with manufacturer's written instructions for installation of panels using type of mounting devices indicated. Mount panels securely to supporting substrate.
- C. Align fabric pattern and grain with adjacent panels and as indicated on Drawings.

3.3 INSTALLATION TOLERANCES

- A. Install acoustical wall panels in locations indicated with vertical surfaces and edges plumb, top edges level and in alignment with other panels, and scribed to fit adjoining work accurately at borders and at penetrations. Comply with panel manufacturer's written instructions for installation of panels using type of mounting accessories indicated or, if not indicated, as recommended by manufacturer.
- B. Variation from Plumb and Level: Plus or minus 1/16 inch in 48 inches, noncumulative.
- C. Variation of Joint Width: Not more than 1/16 inch wide from reveal line in 48 inches, noncumulative.

3.4 CLEANING

- A. Clip loose threads; remove pills and extraneous materials.
- B. Clean panels on completion of installation to remove dust and other foreign materials according to manufacturer's written instructions.
- C. Remove surplus materials, rubbish, and debris resulting from acoustical wall panel installation, on completion of the Work, and leave areas of installation in a neat and clean condition.

3.5 PROTECTION

- A. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure acoustical wall panels are without damage or deterioration at time of Substantial Completion.
- B. Replace panels that cannot be cleaned and repaired, in a manner approved by Architect, before time of Substantial Completion.

END OF SECTION 097723

SECTION 09 96 23 - GRAFFITI RESISTANT COATINGS ADD 02

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Permanent anti-graffiti coating system for bricks.
- B. Related Sections:

Section 04 22 00 – Concrete Unit Masonry: Substrate for application of Anti-Graffiti Coating. Section 09 90 00 – Painting: Primer for masonry stain and elastomeric applications, if applicable.

1.2 QUALITY ASSURANCE

- A. Contractor Qualifications: Installer shall be a firm with not less than three years of successful experience in application of coatings of type required on substrates similar to those of this project. The firm shall be approved by the manufacturer of the coating for installation of their product.
- B. Manufacturer's representative shall inspect substrate conditions including alkalinity and moisture content. Obtain written approval from representative before proceeding with work.
- C. Meets ASTM-D7089 with Cleanability at least Level 2.
- D. Meets ASTM-D6578 with Cleanability at least Level 9.

1.3 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Instructions: Provide instructions bearing manufacturer's name, coating type, and recommended installation procedures. Provide methods and material instruction for graffiti removal. Include adhesive-backed graffiti removal instruction label suitable for application to interior surface.
- C. Submit proof of purchase (Invoice of materials purchased) and proof of delivery of coating materials.
- D. Manufacturer's Warranty: Submit one copy of manufacturer's warranty for specified materials.
- E. Field Sample: Apply graffiti resistant coating to field mock-up sample representing exterior wall surface to be coated. Apply coating system over a minimum 3 ft x 3 ft test area and test removal of applied spray paint in presence of Construction Manager for approval using removal methods recommended by the manufacturer.

1.4 EXTRA MATERIALS

- A. Furnish the following to building owner upon completion of the Project.
 - 1. Provide four containers of removal products as recommended by the manufacturer accompanied by removal instructions.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Section 01 60 00 Product Requirements: Transport, handle, store, and protect products.
- B. Paint orders to the manufacturer or supplier shall identify the store number, location, and address of project. Contractor shall require a record keeping account be established and maintained by the paint supplier which records graffiti resistant paint type, brand, and quantity purchased, for the specific project.
- C. Deliver coating materials in sealed original labeled containers, bearing manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and/or reducing.
- D. Store materials at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F in ventilated area and as required by manufacturer's instructions.
- E. Prevent fire hazards and spontaneous combustion.

1.6 WARRANTY

A. Provide manufacturers written warranty guaranteeing effective graffiti removal for not less than 10 years and warrant that treated surfaces can be effectively and repeatedly cleaned of graffiti without damage or loss of effectiveness of the graffiti resistant coating. Manufacturer shall, for the duration of the warranty period, guarantee replacement of product where graffiti removal has shown to be ineffective.

1.7 PROJECT CONDITIONS

A. Environmental Requirements: Follow manufacturer's recommendations for temperature range in which coating may be applied.

PART 2 - PRODUCTS

2.1 GRAFFITI RESISTANT COATING

A. Graffiti resistant coating shall be a clear, non-sacrificial graffiti resistant coating which provides protection for exterior vertical surfaces from permanent graffiti staining and damage caused by spray paint and marking pens. Coating shall be suitable for application to painted and unpainted surfaces including masonry, concrete, metals, and EIFS. Product shall be of type such that recoating with the underlying paint is possible without removal of the graffiti resistant coating. Product shall be a coating that dries clear, non-yellowing, with a low luster.

1. Manufacturer:

- a. VandlGuard IsoFree Aliphatic 2K Non-Sacrificial Graffiti Coating (1 Coat at 3-4 wet mils, clear matte finish coat) by Rainguard International, Newport Beach, CA 888-765-7070.
- B. Micro-Seal Water Repellant (One Coat) by Rainguard International, Newport Beach, CA 888-765-7070. (For first coat on unpainted wood and masonry surfaces): As specified in Section 07 19 00.
- C. Graffiti Remover: VandlClean Super graffiti remover by Rainguard International, Newport Beach, CA 888-765-7070.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify all surfaces are ready to receive coating in accordance with manufacturer's printed requirements. Beginning of installation indicates acceptance of substrate.
- B. Unpainted Concrete and Masonry: Verify water repellant has been applied in accordance with Section 07 19 00 to new or non-painted concrete and masonry surfaces prior to the application of the anti-graffiti coating.

3.2 PREPARATION

- A. Surface shall be free of dirt, dust, contaminants such as curing compounds, hardeners, bond breakers, and form release. Allow painted surfaces to cure properly. Do not water blast painted surfaces. Assure surfaces are clean and dry.
- B. Sandblast to remove any prior coatings and clear coats on areas that are scheduled to receive the coating.
- C. Mask or otherwise protect adjacent surfaces not scheduled to receive coating. If applied on unscheduled surfaces such as glass, remove immediately, by approved method.
- D. Protect landscaping, property, and vehicles from over spray and drift.

3.3 APPLICATION

- A. Apply coating in accordance with manufacturer's published instructions.
- B. Application Rate: Apply each coat at the manufacturers published application rate.

3.4 SURFACES TO BE COATED

- A. Apply graffiti resistant coating to all exterior exposed building surfaces visible from the ground level..

 Apply coating to brick and mortar. Exclude horizontal surfaces subject to wheel or foot traffic.
- B. Apply to exterior non-building vertical surfaces including solid or semi-solid fencing, segmental block or concrete panel retaining walls, and masonry screening as applicable.
- C. On building surfaces, apply coating system to first definitive continuous horizontal demarcation including change in paint color or surface material but not less than 12 feet above finish grade. Apply to full height of exterior overhead or coiling door surfaces. Apply to top of building if no definitive continuous horizontal demarcation lines exist. Exclude wall and door surfaces behind fenced enclosures such as Garden Center, Battery Storage, or Compressor House Enclosure.

3.5 MAINTENANCE

A. Deliver cleaning products to Store Manager for storage and subsequent use for graffiti removal. Apply cleaning instructions label to interior wall location as directed by the Construction Manager.

3.6 FIELD QUALITY CONTROL:

A. Verify application rate by periodic on-site inspection and calculation of area covered compared to consumption of coating material used. Document inspections showing total area covered and number and volume of coating containers used.

END OF SECTION

SECTION 10 21 13.19 - PLASTIC TOILET COMPARTMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Solid-plastic toilet compartments configured as toilet enclosures and urinal screens.
- B. Related Requirements:
 - 1. Section 10 28 00 "Toilet, Bath, and Laundry Accessories" for toilet tissue dispensers, grab bars, purse shelves, and similar accessories mounted on toilet compartments.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for toilet compartments.
- B. Shop Drawings: For toilet compartments.
 - 1. Include plans, elevations, sections, details, and attachment details.
 - 2. Show locations of cutouts for compartment-mounted toilet accessories.
 - 3. Show locations of centerlines of toilet fixtures.
 - 4. Show locations of floor drains.
 - 5. Show overhead support or bracing locations.
- C. Samples for Verification: For the following products, in manufacturer's standard sizes unless otherwise indicated:
 - 1. Each type of material, color, and finish required for toilet compartments, prepared on 6-inch-square Samples of same thickness and material indicated for Work.
 - 2. Each type of hardware and accessory.
- D. Product Schedule: For toilet compartments, prepared by or under the supervision of supplier, detailing location and selected colors for toilet compartment material.

1.4 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of toilet compartment.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For toilet compartments to include in maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents and source.
 - 1. Door Hinges: One hinge(s) with associated fasteners.
 - 2. Latch and Keeper: One latch(es) and keeper(s) with associated fasteners.
 - 3. Door Bumper: One bumper(s) with associated fasteners.
 - 4. Door Pull: One door pull(s) with associated fasteners.
 - 5. Fasteners: Ten fasteners of each size and type.

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of toilet fixtures, walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Flame-Spread Index: 25 or less.
 - 2. Smoke-Developed Index: 450 or less.
- B. Regulatory Requirements: Comply with applicable provisions in the California Building Code for toilet compartments designated as accessible.
 - 1. Wheelchair accessible compartment shall comply with Section 11B-604.8.1.
 - 2. Door and door hardware for accessible compartments shall be self-closing and shall comply with CBC Section 11B-404 except that if the approach is to the latch side of an ambulatory compartment door, clearance between the door side of the compartment and any obstruction shall be 44" minimum. CBC Figure 11b-604.8.2.
 - 3. A door pull complying with CBC Section 11B-404.2.7 shall be placed on both sides of the door near the latch.
 - 4. Toe clearance for at least one side portion of a wheelchair accessible compartment shall comply with CBC Section and Figure 11B-604.8.1.4. It shall be 9 inches high minimum above the finish floor and 6 inches deep minimum beyond the compartment side face of the partition, exclusive of partition support members. It shall be 12 inches high minimum

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above the finish floor for children's use. Partition components at toe clearance shall be smooth without sharp edges or abrasive surfaces. Toe clearance at the side partition is not required in a compartment greater than 66 inches wide.

2.2 SOLID-PLASTIC TOILET COMPARTMENTS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - 1. Accurate Partitions Corp.; ASI Group
 - 2. Bobrick, Duraline Series (basis of Design)
 - 3. Bradley Corporation.
 - 4. Marlite.
 - 5. Scranton Products.
- B. Toilet-Enclosure Style: Overhead braced.
- C. Urinal-Screen Style: Wall hung.
- D. Door, Panel, and Pilaster Construction: Solid, high-density polyethylene (HDPE) panel material, not less than 1 inch thick, seamless, with eased edges, no-sightline system, and with homogenous color and pattern throughout thickness of material. Partitions to be fabricated from polymer resins compounded under high pressure, forming a single component which is waterproof, nonabsorbent and has a self-lubricating surface that resists marks from pens, pencils, markers and other writing instruments. All plastic components shall be covered with a protective plastic coating.
 - Heat-Sink Strip: Manufacturer's standard continuous, extruded-aluminum or stainlesssteel strip fastened to exposed bottom edges of solid-plastic components to hinder malicious combustion.
 - 2. Doors and panels to be 55 inch high and mounted 14 inches above finished floor
 - 3. Color and Pattern: Black Paisley
- E. Pilaster Shoes and Sleeves (Caps): Manufacturer's standard design; 3 inch high polymer shoe with stainless steel tamper resistant torx head sex bolt.
 - 1. Polymer Color and Pattern: As selected by Architect from manufacturer's full range.
- F. Brackets (Fittings):
 - 1. Full-Height (Continuous) Type: Manufacturer's standard design; satin stainless steel.

2.3 HARDWARE AND ACCESSORIES

- A. Hardware and Accessories: Manufacturer's heavy-duty operating hardware and accessories.
 - 1. Hinges: heavy-duty extruded aluminum wrap-around hinges through-bolted to pilasters and doors with stainless steel tamper resistant Torx head sex bolts.
 - 2. Latch and Keeper: Manufacturer's heavy-duty surface-mounted cast-stainless-steel latch unit designed to resist damage due to slamming, with combination rubber-faced door strike and keeper, and with provision for emergency access. Provide units that comply

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- with regulatory requirements for accessibility at compartments designated as accessible. Mount with through-bolts.
- 3. Coat Hook: Manufacturer's heavy-duty combination cast-stainless-steel hook and rubber-tipped bumper, sized to prevent in-swinging door from hitting compartment-mounted accessories. Mount with through-bolts.
- 4. Door Bumper: Manufacturer's heavy-duty rubber-tipped cast-stainless-steel bumper at out-swinging doors. Mount with through-bolts.
- 5. Door Pull: Manufacturer's heavy-duty cast-stainless-steel pull at out-swinging doors that complies with regulatory requirements for accessibility. Provide units on both sides of doors at compartments designated as accessible. Mount with through-bolts.
- B. Overhead Bracing: Heavy-duty extruded aluminum (6463 T5 alloy) with anti-grip design. The head rail is to have a clear anodized finish. Fasten to head rail bracket with stainless steel tamper resistant torx head sex bolts and fasten to the pilasters with stainless steel tamper resistant torx head screws.
- C. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of stainless steel, finished to match the items they are securing, with theft-resistant-type heads. Provide sex-type bolts for through-bolt applications. For concealed anchors, use stainless-steel, hot-dip galvanized-steel, or other rust-resistant, protective-coated steel compatible with related materials.

2.4 MATERIALS

- A. Aluminum Castings: ASTM B 26/B 26M.
- B. Aluminum Extrusions: ASTM B 221.
- C. Stainless-Steel Sheet: ASTM A 666, Type 304, stretcher-leveled standard of flatness.
- D. Stainless-Steel Castings: ASTM A 743/A 743M.
- E. Colors: Refer to finish schedule.

2.5 FABRICATION

- A. Fabrication, General: Fabricate toilet compartment components to sizes indicated. Coordinate requirements and provide cutouts for through-partition toilet accessories where required for attachment of toilet accessories.
- B. Overhead-Braced Units: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters to suit floor conditions. Provide shoes at pilasters to conceal supports and leveling mechanism.
- C. Door Size and Swings: Unless otherwise indicated, provide 24-inch- wide, in-swinging doors for standard toilet compartments and 36-inch- wide, out-swinging doors with a minimum 32-inch- wide, clear opening for compartments designated as accessible.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for fastening, support, alignment, operating clearances, and other conditions affecting performance of the Work.
 - 1. Confirm location and adequacy of blocking and supports required for installation.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.
 - 1. Maximum Clearances:
 - a. Pilasters and Panels: 1/2 inch.
 - b. Panels and Walls: 1 inch.
 - 2. Full-Height (Continuous) Brackets: Secure panels to walls and to pilasters with full-height brackets.
 - a. Locate bracket fasteners so holes for wall anchors occur in masonry or tile joints.
 - b. Align brackets at pilasters with brackets at walls.
- B. Overhead-Braced Units: Secure pilasters to floor and level, plumb, and tighten. Set pilasters with anchors penetrating not less than 1-3/4 inches into structural floor unless otherwise indicated in manufacturer's written instructions. Secure continuous head rail to each pilaster with no fewer than two fasteners. Hang doors to align tops of doors with tops of panels, and adjust so tops of doors are parallel with overhead brace when doors are in closed position.
- C. Urinal Screens: Attach with anchoring devices to suit supporting structure. Set units level and plumb, rigid, and secured to resist lateral impact.

3.3 ADJUSTING

A. Hardware Adjustment: Adjust and lubricate hardware according to hardware manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors to return doors to fully closed position.

END OF SECTION 10 21 13.19

SECTION 10 26 00 - WALL AND DOOR PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Corner guards.
 - Abuse resistant wall coverings.
- B. Locations:
 - 1. At all 90-degree corners and at all exposed gyp bd in hallways, classrooms and student spaces.
- C. Related Requirements:
 - 1. Section 087100 "Door Hardware" for metal protective trim units, according to BHMA A156.6, used for armor, kick, mop, and push plates.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, impact strength, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: For each type of wall and door protection showing locations and extent.
 - 1. Include plans, elevations, sections, and attachment details.
- C. Samples for Verification: For each type of exposed finish on the following products, prepared on Samples of size indicated below:
 - 1. Corner Guards: 12 inches long. Include example top caps.
 - 2. Abuse Resistant Wall Covering: 6 by 6 inches.
- D. Sample Warranty: For special warranty.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each type of wall and door protection product to include in maintenance manuals.
 - Include recommended methods and frequency of maintenance for maintaining best condition of plastic covers under anticipated traffic and use conditions. Include precautions against using cleaning materials and methods that may be detrimental to finishes and performance.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store door protection in original undamaged packages and containers inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.
 - 1. Maintain room temperature within storage area at not less than 70 deg F during the period plastic materials are stored.
 - 2. Keep plastic materials out of direct sunlight.

1.6 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of door-protection units that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including detachment of components from each other or from the substrates, delamination, and permanent deformation beyond normal use.
 - b. Deterioration of metals, metal finishes, plastics, and other materials beyond normal use.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain wall- and door-protection products from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Surface Burning Characteristics: Comply with ASTM E 84 or UL 723; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Flame-Spread Index: 25 or less.
 - 2. Smoke-Developed Index: 450 or less.

WALL AND DOOR PROTECTION

2.3 CORNER GUARDS

- A. Surface-Mounted, Metal Corner Guards: Fabricated as one piece from formed or extruded metal with formed edges; with 90- or 135-degree turn to match wall condition.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Construction Specialties, Inc.
 - b. Fry Reglet (basis of design).
 - c. Korogard Wall Protection Systems; a division of RJF International Corporation.
 - 2. Material: Stainless-steel sheet, Type 304.
 - a. Thickness: Minimum 0.0625 inch, unless indicated otherwise on drawings.
 - b. Finish: Directional satin, No. 4. Refer to finish schedule.
 - 3. Wing Size: As indicated on drawings.
 - 4. Corner Radius: 1/8 inch.
 - 5. Mounting: Adhesive; unless fastener mounting is indicated on drawings.

2.4 ABUSE RESISTANT WALL COVERINGS

- A. Abuse-Resistant Sheet Wall Covering. Fabricated from semirigid, plastic sheet wall-covering material.
 - Size: As indicated.
 - 2. Sheet Thickness: 0.040"
 - 3. Color and Texture: As selected by Architect Refer to finish schedule.
 - Height: As indicated
 - Trim and Joint Moldings: Extruded rigid plastic that matches wall-covering color.
 - Mounting: Adhesive.

2.5 MATERIALS

- A. Plastic Materials: Chemical- and stain-resistant, high-impact-resistant plastic with integral color throughout; extruded and sheet material as required, thickness as indicated.
- B. Fasteners: Aluminum, nonmagnetic stainless-steel, or other noncorrosive metal screws, bolts, and other fasteners compatible with items being fastened. Use security-type fasteners where exposed to view.
- C. Adhesive: As recommended by protection product manufacturer.
 - 1. Verify adhesives have a VOC content of 70 g/L or less.
 - Verify adhesive complies with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

2.6 FABRICATION

- A. Fabricate door protection according to requirements indicated for design, performance, dimensions, and member sizes, including thicknesses of components.
- B. Factory Assembly: Assemble components in factory to greatest extent possible to minimize field assembly. Disassemble only as necessary for shipping and handling.
- C. Quality: Fabricate components with uniformly tight seams and joints and with exposed edges rolled. Provide surfaces free of wrinkles, chips, dents, uneven coloration, and other imperfections. Fabricate members and fittings to produce flush, smooth, and rigid hairline joints.

2.7 FINISHES

- A. Protect finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and wall areas, with Installer present, for compliance with requirements for installation tolerances, fire rating, and other conditions affecting performance of the Work.
- B. Examine walls to which wall and door protection will be attached for blocking, grounds, and other solid backing that have been installed in the locations required for secure attachment of support fasteners.
 - 1. For wall and door protection attached with adhesive, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Complete finishing operations, including painting, before installing wall and door protection.
- B. Before installation, clean substrate to remove dust, debris, and loose particles.

3.3 INSTALLATION

A. Installation Quality: Install wall and door protection according to manufacturer's written instructions, level, plumb, and true to line without distortions. Do not use materials with chips, cracks, voids, stains, or other defects that might be visible in the finished Work.

WALL AND DOOR PROTECTION

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Rosemead Adult Education and Transition Center Addition/Modernization El Monte Union High School District Rosemead, California

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- B. Mounting Heights: Install wall and door protection in locations and at mounting heights indicated on Drawings.
- C. Accessories: Provide splices, mounting hardware, anchors, trim, joint moldings, and other accessories required for a complete installation.
- D. Abuse-Resistant Wall Covering: Install top and edge moldings, corners, and divider bars as required for a complete installation.

3.4 CLEANING

- A. Immediately after completion of installation, clean plastic covers and accessories using a standard ammonia-based household cleaning agent.
- B. Remove excess adhesive using methods and materials recommended in writing by manufacturer.

END OF SECTION 10 26 00

SECTION 10 80 00 - MISCELLANEOUS SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

 Miscellaneous specialty items applicable to Work and not specified under individual technical sections.

1.2 ACTION SUBMITTALS

- A. Shop drawings and product data for all components, hardware and accessories under provisions of Division 01, General Requirements. Show construction and fabrications details, procedures, layout and erection diagrams, anchorages and pertinent information for specified specialty item.
- B. Manufacturer's installation instructions and maintenance recommendations under provisions of Division 01, General Requirements.
- C. Samples sufficiently sized to illustrate clearly all sizes, available colors, materials, patterns and finishes.

1.3 FIELD CONDITIONS

A. Verify site conditions. Obtain accurate dimensions of openings, levels, locations and arrangements of embedded and concealed anchorages. Report discrepancies between drawings and field dimensions to Architect before commencing work.

PART 2 - PRODUCTS

2.1 SPECIALTY ITEMS

A. LOCK BOX - INDIVIDUAL SECURITY LOCKER

- 1. Heavy Duty 3200 Knox-Box surface-mounted. Furnish separate boxes for fire and sheriff's departments at each location shown. Confirm installation locations with local authorities prior to installation.
- 2. Capacity: 10 keys and access cards.
- 3. Finish: Polyester powder coat, dark bronze.
- 4. Manufacturer: The Knox Co., Newport Beach, CA, or equal.

B. RESIN (SP-1) ADD 02

- Manufacturer: 3Form
- Model: LID 1062807, Varia

MISCELLANEOUS SPECIALTIES

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- Thickness: 3/8"
 Finish: Patent
- 5. Color: Garden (G31)
- 6. Size: 4'x10' cut to custom shapes

C. GREEN WALL / PRESERVED MOSS ADD 02

- Manufacturer: SuperMoss
- Model: Reindeer Moss.
- 3. Color: 60% basil, 20% apple, 20% forest

PART 3 - EXECUTION

3.1 INSTALLATION OF JOINT SEALANTS

- A. Install with wall and floor anchors per manufacturer's recommendations.
- B. Provide electrical and mechanical connections to building systems. Wire internal connections when part of unit's functionality.
- C. Install equipment specialties according to manufacturer's recommended procedures.

END OF SECTION 10 80 00

SECTION 11 31 00 - RESIDENTIAL AND SKILLS LAB APPLIANCES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

- 1. Cooking appliances.
- 2. Kitchen exhaust ventilation.
- 3. Refrigeration appliances.
- 4. Electric Fireplace.
- 5. Washer and Dryers.
- 6. Cash Register
- 7. Shelving at Skills Lab
- 8. Woven baskets
- B. All items in this section to be Contractor Furnished and Contractor Installed.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Sustainable Design Submittals:
 - 1. Product Data: For indicated products, indicating compliance with requirements for ENERGY STAR product labeling.
- C. Samples: For each exposed product and for each color and texture specified.

1.3 INFORMATIONAL SUBMITTALS

- A. Product certificates.
- B. Field quality-control reports.
- C. Sample warranties.

1.4 CLOSEOUT SUBMITTALS

A. Operation and maintenance data.

1.5 WARRANTY

- A. Special Warranties: Manufacturer agrees to repair or replace residential appliances or components that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: minimum two year from date of Substantial Completion.

- B. Refrigerator/Freezer, Sealed System: Full warranty, including parts and labor, for on-site service on the product.
 - 1. Warranty Period for Sealed Refrigeration System: Five years from date of Substantial Completion.
 - 2. Warranty Period for Other Components: One year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Electrical Appliances: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Accessibility: Where residential appliances are indicated to comply with accessibility requirements, comply with applicable provisions in the DOJ's 2010 ADA Standards for Accessible Design and CBC 2019.
- 2.2 SCHEDULE OF APPLIANCES Refer to Drawings for Additional Information:

2.3 MICROWAVE

- A. Microwave MW-1:
 - Basis-of-Design: Kenmore 22-80333
 Power Requirements: 1000 watts
 - 3. Material: Stainless Steel
 - 4. Capacity:
 - a. Microwave: 1.7 cu.ft.

2.4 OVENS

- A. Slide-in Electric Oven OV-1:
 - 1. Basis-of-Design: Kenmore 42533 DWWF58CT
 - 2. Mounting: Slide-In
 - 3. Capacity:
 - a. Oven: 4.6 cu.ft.
 - 4. Material: Stainless steel.
 - 5. Controls shall be within 48 inches from finished floor to comply with accessibility requirements.

2.5 KITCHEN EXHAUST VENTILATION

- A. Overhead Exhaust Hood HD-1:
 - 1. Basis of Design: Wolf VC48S ADD 02

- 2. Mounting: 48" Ceiling Mounted Hood
- 3. Provide inline blower remote control.
- 4. Provide hardwired wall switch control for HD-1 on island within 48" from finished floor to comply with accessibility requirements.

2.6 UNDER COUNTER FRIDGE

A. Under Counter Fridge UF:

- 1. Basis-of-Design: Uline U-ADA24RS-13B ADA Series
- 2. Material: Stainless Steel.
- 3. Electrical: 115V / 60Hz
- 4. Weight: 123 lbs.

2.7 UNDER COUNTER DISHWASHER

A. Under Counter Dishwasher DW-1:

- 1. Basis-of-Design: Asko DB 16631S
- 2. Material: Stainless Steel
- 3. Electrical: 120V, 60 Hz, 15 Amps
- 4. ADA Compliant
- 5. Energy Star Rated

2.8 REFRIGERATOR/FREEZERS

A. Refrigerator/Freezer RF-1: Bottom-Freezer Refrigerator

- 1. Basis-of-Design: Kenmore Elite 79023
- 2. Type: Freestanding.
- 3. Height and Side Reach accessibility Compliant.
- 4. Storage Capacity: 22.1 cu. ft.
- 5. General Features:
 - a. Interior light in refrigeration compartment.
 - b. Automatic defrost.
 - c. Interior light in freezer compartment.
 - d. Automatic icemaker and storage bin.
 - e. Adjustable interior storage.
- 6. Front Panel(s): Stainless steel.

2.9 ELECTRIC FIREPLACE

A. Electric Fireplace FR-1:

- 1. Basis-of-Design: Modern Flames Landscape Fullview 2 Series LFV2-60/15
- 2. Dimensions: 77 1/4"W x 15"H
- 3. Electrical: 120V, 60 Hz, 1,530 W

2.10 WASHER AND DRYER

A. Washer WA-1:

- 1. Basis-of-Design: Whirlpool 4.3 CU Front Load Washer WFW560CH
- 2. Material: White
- 3. Dimensions: H38-5/8" x W27" x D31 9/16"
- 4. Electrical: 120V
- 5. ADA Compliant
- 6. Energy Star Rated

B. Dryer DR-1:

- 1. Basis-of-Design: Whirlpool 7.4 CU Front Load Electric Dryer WED5620H
- 2. Material: White
- 3. Dimensions: H38-1/8" x W27" x D30 5/8"
- 4. Electrical: 240V, 60 Hz, 5400 W
- 5. ADA Compliant
- 6. Energy Star Rated

2.11 CHECKOUT COUNTERS

- A. Basis-of-Design: RW Rogers Company Non-Belted Express
 - 1. Colors: As selected from MFR full range
 - 2. Size: Per MFR.

2.12 GROCERY STORE SHELVING UNIT

- A. Basis-of-Design: Allen Display CS-I-KIT-ZZ-WST4-1654-Peg Starter Wall Shelving Unit
 - 1. Size: 48" Long x 54" High x 19" Deep
 - 2. Shelves: 3
 - 3. Construction: Steel
 - 4. 7" High black kick plate
 - 5. Perforated pegboard back panels, color will match shelving frame
 - 6. Color: As selected by Architect

2.13 WOVEN BASKETS

- A. Tiered Wicker Basket with Tapered Design:
 - 1. Basis-of-Design: Displays2go PP913TBN
 - 2. Size: 13.5" x 7.0" x 20.0"
 - Color: Brown
 - 4. Material: Polypropylene
 - 5. Tapered Design, Dishwasher Safe, Plastic Construction
 - 6. Location: Skills Lab

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PART 3 - EXECUTION

3.1 INSTALLATION

- A. Freestanding Equipment: Place units in final locations after finishes have been completed in each area. Verify that clearances are adequate to properly operate equipment.
- B. Range Anti-Tip Device: Install at each range according to manufacturer's written instructions.

3.2 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections with the assistance of a factory-authorized service representative:
 - 1. Perform visual, mechanical, and electrical inspection and testing for each appliance according to manufacturers' written recommendations. Certify compliance with each manufacturer's appliance-performance parameters.
 - 2. Leak Test: After installation, test for leaks. Repair leaks and retest until no leaks exist.
 - 3. Operational Test: After installation, start units to confirm proper operation.
 - 4. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and components.
- B. An appliance will be considered defective if it does not pass tests and inspections.
- C. Prepare test and inspection reports.

END OF SECTION 11 31 00

SECTION 12 36 61.19 - QUARTZ AGGLOMERATE COUNTERTOPS ADD-02

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Quartz material countertops.
 - 2. Quartz material backsplashes.
 - 3. Quartz material end splashes.
- B. Related Requirements:
 - 1. Section 22 40 00 "Plumbing Fixtures" for sinks and plumbing fittings.
 - 2. Section 06 41 16 "Plastic Laminate Faced Architectural Cabinets".

1.3 ACTION SUBMITTALS

- A. Product Data: For countertop materials.
- B. Shop Drawings: For countertops. Show materials, finishes, edge and backsplash profiles, methods of joining, and cutouts for plumbing fixtures.
 - 1. Show locations and details of joints.
 - 2. Show direction of directional pattern, if any.
- C. Samples for Verification: For the following products:
 - 1. Countertop material, 6 inches square.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For Quartz material countertops to include in maintenance manuals. Include Product Data for care products used or recommended by Installer and names, addresses, and telephone numbers of local sources for products.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate countertops like that required for this Project, and whose products have a record of successful in-service performance.
- B. Installer Qualifications: Fabricator of countertops.

1.6 FIELD CONDITIONS

A. Field Measurements: Verify dimensions of countertops by field measurements after base cabinets are installed but before countertop fabrication is complete.

1.7 COORDINATION

A. Coordinate locations of utilities that will penetrate countertops or backsplashes.

PART 2 - PRODUCTS

2.1 QUARTZ COUNTERTOP MATERIALS

- A. Quartz Material: Solid sheets consisting of quartz aggregates bound together with a matrix of polymers, resins, and pigment and complying with ISFA 3-01.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by, but not limited to, one of the following:
 - a. Avonite Surfaces.
 - b. Caeserstone International.
 - c. E. I. du Pont de Nemours and Company.
 - d. Formica Corporation.
 - e. Wilsonart LLC.
 - 2. Type: Provide Standard type unless Special Purpose type is indicated.
 - 3. Colors and Patterns: As indicated on Finish Schedule and drawings for QZ-1 and QZ-2.

2.2 COUNTERTOP FABRICATION

- A. Fabricate countertops according to Quartz material manufacturer's written instructions and to the AWI/AWMAC/WI's "Architectural Woodwork Standards."
 - 1. Grade: Custom.

B. Configuration:

- 1. Front: Straight, slightly eased at top; unless otherwise indicated.
- 2. Backsplash: Straight, slightly eased at corner; unless otherwise indicated.
- 3. End Splash: Matching backsplash.

QUARTZ AGGLOMERATE COUNTERTOPS

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- C. Countertops: Thickness as indicated on drawings, or if not indicated, 1/2-inch-thick minimum, Quartz agglomerate material with front edge built up with same material.
- D. Backsplashes: 1/2-inch-thick, Quartz agglomerate material.
- E. Fabricate tops with shop-applied edges and backsplashes unless otherwise indicated. Comply with Quartz agglomerate material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.
 - 1. Fabricate with loose backsplashes for field assembly.
 - 2. Install integral sink bowls in countertops in the shop.
- F. Joints: Fabricate countertops without joints.
- G. Cutouts and Holes:
 - 1. Undercounter Plumbing Fixtures: Make cutouts for fixtures in shop using template or pattern furnished by fixture manufacturer. Form cutouts to smooth, even curves.
 - a. Provide vertical edges, slightly eased at juncture of cutout edges with top and bottom surfaces of countertop and projecting 3/16 inch into fixture opening.
 - b. Provide vertical edges, rounded to 3/8-inch radius at juncture of cutout edges with top surface of countertop, slightly eased at bottom, and projecting 3/16 inch into fixture opening.
 - c. Provide 3/4-inch full bullnose edges projecting 3/8 inch into fixture opening.
 - 2. Counter-Mounted Plumbing Fixtures: Prepare countertops in shop for field cutting openings for counter-mounted fixtures. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.
 - 3. Fittings: Drill countertops in shop for plumbing fittings, undercounter soap dispensers, and similar items.

2.3 INSTALLATION MATERIALS

- A. Adhesive: Product recommended by Quartz material manufacturer.
 - 1. Adhesives shall have a VOC content of 70 g/L or less.
- B. Sealant for Countertops: Comply with applicable requirements in Section 07 92 00 "Joint Sealants."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates to receive Quartz agglomerate material countertops and conditions under which countertops will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of countertops.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

QUARTZ AGGLOMERATE COUNTERTOPS

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3.2 INSTALLATION

- A. Install countertops level to a tolerance of 1/8 inch in 8 feet, 1/4 inch maximum. Do not exceed 1/64-inch difference between planes of adjacent units.
- B. Fasten countertops by screwing through corner blocks of base units into underside of countertop. Predrill holes for screws as recommended by manufacturer. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.
- C. Fasten sub tops to cabinets by screwing through sub tops into corner blocks of base cabinets. Shim as needed to align sub tops in a level plane.
- D. Secure countertops to sub tops with adhesive according to Quartz material manufacturer's written instructions. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.
- E. Install backsplashes and end splashes by adhering to wall and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears.
- F. Install aprons to backing and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears. Fasten by screwing through backing. Predrill holes for screws as recommended by manufacturer.
- G. Complete cutouts not finished in shop. Mask areas of countertops adjacent to cutouts to prevent damage while cutting. Make cutouts to accurately fit items to be installed, and at right angles to finished surfaces unless beveling is required for clearance. Ease edges slightly to prevent snipping.
 - 1. Seal edges of cutouts in particleboard sub tops by saturating with varnish.
- H. Apply sealant to gaps at walls; comply with Section 07 92 00 "Joint Sealants."

END OF SECTION 12 36 61.19

SECTION 12 48 13 - ENTRANCE FLOOR MATS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - Resilient-tile entrance mats.

1.3 COORDINATION

A. Coordinate size and location of recesses in concrete to receive floor mats and frames.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For the floor mat in manufacturer's standard sizes:

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For floor mats and frames to include in maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Resilient-Tile Entrance Mats: Full-size tile units equal to 2 percent of amount installed, but no fewer than 10 units.

PART 2 - PRODUCTS

2.1 ENTRANCE FLOOR MATS, GENERAL

A. Accessibility Standard: Comply with applicable provisions in California Building Code.

ENTRANCE FLOOR MATS

- Comply with California Building Code, Section 11B-302.2. B.
 - 1. Carpet shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. It shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture.
 - 2. Exposed edges shall be fastened to floor surfaces and shall have trim on the entire length. Carpet edge shall comply with CBC, Section 11B-303.

2.2 RESILIENT-TILE ENTRANCE MATS (WOM-01)

- Basis-of-Design: Shaw Welcome II Tile. Α.
- Carpet-Type Tiles: 100% solution-dyed polypropylene or polyester fiber with synthetic backing B. with nonraveling edges.
 - 1. Colors, Textures, and Patterns: As indicated on drawings, or if not indicated, Sterling
 - 2. Tile Size: Single Door 4.5'x4.5' minimum, Double Door 7.5'x9'.0 minimum

C. Performance:

1. Slip resistance Minimum static coefficient of friction of 0.6

2. Methenamine Pill Test Passes (DOCFF-1-70) 3. Radiant Panel Class I (ASTM E-648)

4. **NBS Smoke** Less than 450 (ASTM-E-662)

5. Electrostatic propensity Less than 3.5 kV (AATCC-134)

PART 3 - EXECUTION

3.1 **EXAMINATION**

- Examine substrates and floor conditions for compliance with requirements for location, sizes, A. and other conditions affecting installation of floor mats and frames.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

Install surface-type units to comply with manufacturer's written instructions, coordinate with A. entrance locations and traffic patterns.

3.3 PROTECTION

A. Protect installed units after installation. Maintain protection until construction traffic has ended and Project is near Substantial Completion.

END OF SECTION 12 48 13

ENTRANCE FLOOR MATS

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SECTION 12 93 00 - SITE FURNISHINGS

PART 1 - GENERAL

- 1.1 SUMMARY
 - A. Section Includes:
 - 1. Bicycle racks.
 - Sport Equipment.
- 1.2 ACTION SUBMITTALS
 - A. Product Data: For each type of product.
 - B. Samples: For each exposed product and for each color and texture specified.
- 1.3 CLOSEOUT SUBMITTALS
 - A. Maintenance data.

PART 2 - PRODUCTS

- 2.1 OUTDOOR BICYCLE RACKS
 - A. Basis-of-Design: 509-2043 Round Rack as manufactured by The Park Catalog.
 - B. Bicycle Rack Construction:
 - 1. Frame: Steel.
 - a. 1.5 inch schedule 40 pipe (1.9 inch O.D.)
 - 2. Style: Round rack.
 - a. Overall Height: 35 inches.
 - b. Overall Width: 40 inches.
 - c. Capacity: Designed to accommodate no fewer than two bicycles.
 - 3. Installation Method: Surface flange anchored at finished grade to substrate indicated.
 - C. Steel Finish: Powder coated.
 - 1. Color: As selected by Architect from manufacturer's full range.

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2.2 INDOOR BICYCLE RACKS – NOT USED

- A. Basis-of-Design: Classic Rack as manufactured by SteadyRack.
- B. Bicycle Rack Construction:
 - Wall mounted folding rack with 180 degrees swivel. Constructed from steel and UV treated plastic.
 - 2. Installation Method: wall mount.
- C. Finish: manufacturer's standard.

2.3 SPORT EQUIPMENT – NOT USED

A. Sports Equipment:

1. Outdoor Basketball Backstop and Hoop

Mfr: Patterson-Williams or approved equal.

Rep: Dave Bang & Associates

Tel: (800) 669-2585

Adjustable 4.5" post, backboard and cable net assembly:

Post Style: Straight;

Backboard: Metal with Target & Perimeter graphics

Basketball Rim: Extra Heavy-Duty Double Rim

Basketball Net: Cable Net

Color: Galvanized or District approved equal

2. Outdoor Tetherball Post and Ball

Mfr: Patterson-Williams or approved equal.

Rep: Dave Bang & Associates

Tel: (800) 669-2585

Adjustable 10' high post, with plated chain and swivel snap

Model No. 2221-10-23/8" Tetherball post w/ball Color: Galvanized or District approved equal

3. Baseball Backstop Hooded Regulation Series

Mfr: Patterson-Williams or approved equal.

Rep: Dave Bang & Associates

Tel: (800) 669-2585

12'-0" high chain link backstop Galvanized posts and mesh

2.4 MATERIALS

- A. Steel and Iron: Free of surface blemishes and complying with the following:
 - 1. Plates, Shapes, and Bars: ASTM A 36/A 36M.
 - 2. Steel Pipe: Standard-weight steel pipe complying with ASTM A 53/A 53M, or electric-resistance-welded pipe complying with ASTM A 135/A 135M.
 - 3. Tubing: Cold-formed steel tubing complying with ASTM A 500/A 500M.
- B. Plastic: Color impregnated, color and UV-light stabilized, and mold resistant.
- C. Anchors, Fasteners, Fittings, and Hardware: Manufacturer's standard, corrosion-resistant-coated or noncorrodible materials; commercial quality, tamperproof, vandal and theft resistant.
- D. Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107/C 1107M; recommended in writing by manufacturer, for exterior applications.
- E. Galvanizing: Where indicated for steel and iron components, provide the following protective zinc coating applied to components after fabrication:
 - 1. Zinc-Coated Tubing: External, zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. of zinc after welding, a chromate conversion coating, and a clear, polymer film. Internal, same as external or consisting of 81 percent zinc pigmented coating, not less than 0.3 mil thick.
 - 2. Hot-Dip Galvanizing: According to ASTM A 123/A 123M, ASTM A 153/A 153M, or ASTM A 924/A 924M.

2.5 FABRICATION

- A. Metal Components: Form to required shapes and sizes with true, consistent curves, lines, and angles. Separate metals from dissimilar materials to prevent electrolytic action.
- B. Welded Connections: Weld connections continuously. Weld solid members with full-length, full-penetration welds and hollow members with full-circumference welds. At exposed connections, finish surfaces smooth and blended, so no roughness or unevenness shows after finishing and welded surface matches contours of adjoining surfaces.
- C. Pipes and Tubes: Form simple and compound curves by bending members in jigs to produce uniform curvature for each repetitive configuration required; maintain cylindrical cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of handrail and railing components.
- D. Factory Assembly: Factory assemble components to greatest extent possible to minimize field assembly. Clearly mark units for assembly in the field.

2.6 STEEL AND GALVANIZED-STEEL FINISHES

A. Powder-Coat Finish: Manufacturer's standard polyester, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.

PART 3 - EXECUTION

3.1 LAYOUT OF SPORT EQUIPMENT

- A. Layout: Layout play equipment, safety surface, and site furnishings according to the locations shown on the drawings.
- B. Adjustments: The District Representative reserves the right to make adjustments in the locations of play equipment, safety surface, and site furnishings without additional cost to the City.
- C. Final Layout: Notify the District Representative to approve the final layout of furnishings prior to installation.

3.2 INSTALLATION

- A. Comply with manufacturer's written installation instructions unless more stringent requirements are indicated. Complete field assembly of site furnishings where required.
- B. Unless otherwise indicated, install site furnishings after landscaping and paving have been completed.
- C. Install site furnishings level, plumb, true, and securely anchored at locations indicated on Drawings.

3.3 INSPECTIONS

A. All play equipment shall be inspected by a Playground Safety Inspector with a valid certification from the National Playground Safety Institute (NPSI) for compliance in accordance with ASTM F 1487-98 and the USCPSC Handbook for Public Playground Safety. Contractor to provide a signed documentation of compliance certification.

3.4 PROTECTION

A. Protect play equipment, safety surface, and site furnishings during the construction period to prevent damage and wear.

3.5 REPLACEMENT

A. Replace all defective or damaged play equipment, safety surface, and site furnishings prior to acceptance.

END OF SECTION 12 93 00

SECTION 281600 - INTRUSION DETECTION SYSTEM ADD 02

PART 1- GENERAL

1.1 SCOPE

- A. The work under this section includes all labor, materials, equipment, and accessories required to furnish and install additions to the existing Intrusion Detection System as indicated on the drawings and as specified herein.
- B. This specification document provides the requirements for the installation, programming, and configuration of a complete DMP panel. This system shall include, but not be limited to:
 - 1. Control panel
 - 2. System cabanet
 - 3. Power supply
 - 4. Annunciator/keypad bus
 - 5. Batteries
 - 6. Wiring
 - 7. Conduit
 - 8. Asociated peripheral devices
 - 9. Other relevant components and accessories required to furnish and install a complete and operational addressable reporting Intrusion Detection System.
- C. The Contractor shall furnish all labor, materials, appliances, tools, equipment, facilities transportation and services necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Section, complete as shown on the applicable Contract Drawings and/or specified herein.
- D. Any material and/or equipment necessary for the proper operation of the system, which is not specified or described herein, shall be deemed part of this Specification.
- E. The Addressable Intrusion Detection System specified herein shall be connected to a UL Listed Central Station monitoring company.
 - Contractor shall coordinate with the District/Owner or his representative to obtain two telephone lines for code required offsite monitoring.
- F. Contractor shall offer intrusion detection system inspection and maintenance contract.

1.2 QUALIFICATIONS

A. Equipment

- 1. This specification is based on the equipment of manufacturer who has been approved by the District/Owner and the Manufacturer herein named shall be considered as meeting the requirements of this specification.
- 2. The equipment manufacturer shall be a United States manufacturer, who has been regularly engaged in the manufacture of intrusion detection systems for at least thirty (30) years.
- 3. Equipment provided for this project shall be the product of DMP. No substitutions shall be approved.

- 4. It is the Contractor's responsibility to meet the entire intent of these specifications. Deviations from the specified items shall be at the risk of the Contractor until the date of final acceptance by the Architect, Engineer and the District/Owner's representative. All costs for removal, relocation or replacement of a substituted item shall be at the risk of the Electrical Contractor.
- 5. All equipment shall conform to applicable codes and ordinances.
- 6. All equipment shall bear the label of a Nationally Recognized Testing Laboratory (NRTL) such as Intertek Testing Services NA, Inc. (ITSNA formerly ETL) or Underwriters Laboratories Inc. (UL) and be listed by their re-examination service.

B. System Supplier/Installer

- 1. The system shall be provided and installed by the Manufacturer's Authorized Distributor who is trained and certified by the Manufacturer in the proper installation, programming, service and maintenance of the system.
 - a. For the local Factory Authorized installation company please contact DMP at (417) 831-9362
 - b. The System Supplier/Installer shall submit qualification documentation with his sealed bid. The qualification documentation in the sealed bid package shall include the following:
 - 1) The System Supplier/Installer shall provide proof of current status as the Manufacturer's Authorized Distributor.
 - 2) The System Supplier/Installer shall provide proof that a minimum of four (4) technicians have attended and completed all requirements and received certification from the manufacturer's installation and service school.
 - 3) System Supplier/Installer shall provide a list of twenty (20) completed projects of equal scope, with associated District/Owner's Representative contact names and telephone numbers.
 - 4) The System Supplier/Installer shall hold a valid State of California Contractor's License, C-10.
 - 5) The System Supplier/Installer shall hold a valid State of California Alarm Company Operator License, ACO.
- 2. The System Supplier/Installer shall show satisfactory evidence, upon request, that he maintains a fully equipped service organization capable of furnishing adequate inspection, service and maintenance of the system. The System Supplier/Installer shall maintain at his facility the necessary spare parts in the proper proportion as recommended by the manufacturer to maintain and service the equipment being supplied.
- 3. The System Supplier/Installer shall be prepared to offer a service contract for the maintenance of the system beyond the warranty period.
- 4. The System Supplier/Installer shall be an established intrusion detection systems contractor that has and currently maintains a locally run (within 50 miles of the job site) and operated business for at least twenty (20) years.
- 5. The System Supplier/Installer shall employ a minimum of seven (7) DMP Securityfactory trained technicians and a 24 hour emergency service department.
- 6. The System Supplier/Installer shall designate one person to act as the project manager having total responsibility for communications and project technical integrity. This project manager shall have a minimum of three (3) years experience as a supervisor and installer of the systems specified herein.

1.3 RELATED SPECIFICATIONS

- A. The conditions of the General Contract (General, Supplementary, and other Conditions) and the Division 1 General Requirements specifications are hereby made a part of this Section.
 - 1. Section: 260000-Electrical
 - 2. Section: 270000 Communications
 - 3. Section: 280000 Electronic Safety and Security

B. RELATED WORK BY OTHERS

1. Reference Part 3, sub-section 3.01 of this specification.

1.4 APPLICABLE CODES & STANDARDS

- A. 2022 Building Standards Administrative Code, Part 1, Title 24, California Code of Regulations
- B. 2022 California Building Code (CBC) Part 2, Title 24, California Code of Regulations (2012 International Building Code, Volumes 1 & 2 with 2013 California Amendments)
- C. 2022 California Electrical Code (CEC) Part 3, Title 24, California Code of Regulations
- D. 2022 California Fire Code (CFC) Part 9, Title 24, California Code of Regulations
- E. NFPA Standards
 - 1. The intrusion detection system shall comply with the applicable provisions of the following current National Fire Protection Association (NFPA) standards:
 - a. NFPA 110, Standard for Emergency and Standby Power Systems
 - b. NFPA 111, Standard on Stored Electrical Energy Emergency and Standby Power Systems
 - c. NFPA 780, Standard for the Installation of Lightning Protection Systems
- F. ADA Americans with Disabilities Act
- G. CAC California Administrative Code, Title 24
- H. U.L. Standards
 - 1. The system shall comply with the applicable provisions of the following U.L. Standards:
 - a. UL 294, Standard for Access Control Systems Units
 - b. UL 609, Standard for Local Burglar Alarm Units and Systems
 - c. UL 634, Standard for Connectors and Switches for Use with Burglar-Alarm Systems
 - d. UL 636, Standard for Holdup Alarm Units and Systems
 - e. UL 639 Standard for Safety for Intrusion-Detection Units
 - f. UL 681, Standard for the Installation and Classification of Burglar and Holdup Alarm Systems
 - g. UL 1076, Standard for Proprietary Burglar Alarm Units and Systems
 - h. UL 1610, Standard for Central Station Burglar Alarm Units
 - i. UL 1635, Standard for Digital Alarm Communicator System Units

j. UL 2044, Standard for Commercial Closed Circuit Television Equipment

1.5 SUBSTITUTIONS

A. The Intrusion Detection System shall be Digital Monitoring Products (DMP) or approved equal

1.6 SUBMITTALS

- A. Within thirty-five (35) calendar days after the date of the award of the contract, the Contractor shall submit to the Architect for review, eight (8) copies of a complete Submittal Package. The Submittal Package shall consist of the following sections, with each section separated with index tabs.
 - 1. Title Page
 - a. Project Title
 - b. Project address
 - c. Architect's name and address
 - d. Contractor's name and address
 - 2. Index of Submittal Contents
 - a. Each Section of the Submittal Package shall be numbered chronologically and shall be summarized in the Index.
 - Certifications
 - a. Index of Certification Section Contents
 - b. Valid State of California Contractors License
 - c. Manufacturer's Certifications
 - 1) Authorized Distributor
 - 2) Factory Trained Technician
 - 4. Project List
 - a. A substantial list (minimum of 20) of completed projects equal in scope to that specified herein.
 - 1) Contact information shall be made available upon request.
 - 5. Product Data
 - a. Index of Equipment Data Sheets
 - b. Manufacturer's Data Sheets including cable types
 - c. Applicable Listings and Approvals

PART 2-PRODUCTS

2.1 GENERAL

A. Manufacturers

- The manufacturer shall have at least thirty-five (35) years of experience in the role of security control manufacturing, and a proven track record of forward and backward compatibility for a minimum of twenty (25) years for its product's auxiliary devices, including system keypads, annunciation devices, zone expansion modules, and addressable detection devices
- 2. The manufacturer must also manufacture receiving equipment that is compatible with standard dial-up telephone lines, network, and cellular network monitoring equipment that is compatible with a LAN, WAN, and the Internet. The receiving equipment shall be capable of receiving all status and alarm messages generated by the system. The receiving equipment shall be capable of updating the panel operating program and the system date and time.
- 3. Commercial Intrusion detection Control Panel equipment manufacturer shall be:

Digital Monitoring Products, Incorporated (DMP) 2500 N. Partnership Boulevard, Springfield, MO 65803 Telephone (417) 831-9362 FAX (417) 831-1325

2.2 GENERAL COMPONENT REQUIREMENTS

A. Component Enclosure

Housings; power supply enclosures, terminal cabinets, control units, and other component housings, collectively referred to as enclosures shall be so formed and assembled as to be sturdy and rigid. If sheet steel is used in the fabrication of enclosures, it shall be not less than an 18 gauge door with a 20 gauge box frame. Where exposed pins, the hinges shall be of the tight pin type or the ends of hinge pins shall be tack welded to prevent ready removal. Doors having a latch edge length of less than 24 inches shall be provided with a single lock. Where the hinged door latch edge is 24 inches or more in length, doors shall be provided with three-point latching device with lock; or alternatively with two locks, one located near each end. For SCIF and High Security applications an attack proof enclosure with proper tampers listed for use with the XR150/XR350/XR550 with Network and Encryption shall be used.

B. Electronic Components

- 1. All system electronic components shall be solid-state type, mounted on printed circuit boards. Light duty relays and similar switching devices shall be solid-state type or electromechanical.
- 2. The panel shall have an over current notification LED that lights when devices connected to the Keypad Bus and Loop Expansion LX-Bus(es) draw more current than the panel is rated for. When the over current LED lights, the Loop Expansion LX-Bus(es) and Keypad bus are shut down.

C. Control Unit

1. A battery test shall be automatically performed to test the integrity of the standby battery. The test shall disconnect the standby battery from the charging circuit and place a load on the battery. This test shall be performed no more than every 180 seconds.

- 2. The control unit shall be capable of operating and supervising notification appliance devices as well as addressable initiating detection devices and an integrated supervised dual line digital communicator.
- 3. Control unit must be "Flash ROM" updatable, and program must be held in non-volatile RAM. The panel shall be able to function while the update is in process.
- 4. Control unit shall be capable of operating using an optional built in Encrypted Alarm Router for SCIF (Sensitive Compartmented Information Facility) application that is certified by NIST (National Institute of Standards and Technology) for 128-bit or 256-bit AES (Advanced Encryption Standard) Encryption communications.
- 5. The optional built-in Encrypted Alarm Router shall be capable of compliance with ICD 705 Chapter 7 Intrusion Detection Systems (IDS) and UL 2050 standards.

D. Remote Annunciators

- 1. The system shall support a maximum of sixteen (16) supervised remote annunciators with the identical capabilities, functions and display layout. Operation of the remote annunciators shall be limited to authorized users by the use of a code or key.
- 2. The remote annunciators shall be capable of operating at a maximum wiring distance of 15,000 feet from the control unit on unshielded, non-twisted cable.

E. Control Designations

Controls shall be provided to ensure ease of operation of all specified characteristics. Where applicable, clockwise rotation of controls shall result in an increasing function; controls, switches, visual signals and indicating devices, input and output connectors, terminals and test points shall be clearly marked or labeled on the hardware to permit quick identification of intended use and location.

F. Test Function

- The system shall include a provision that permits testing from any alphanumeric keypad.
 The test shall include standby battery, alarm bell or siren, and communication to the central station.
- 2. The system shall include a provision for an automatic, hourly, daily, weekly, thirty (30) day, or up to sixty (60) day communication link test from the control panel installation site to the central station.
- 3. The system shall include a provision for displaying the internal system power and wiring conditions. Internal monitors shall include the bell circuit, AC power, battery voltage level, charging voltage, panel box tamper, phone trouble line 1, phone trouble line 2, transmit trouble, and network trouble.

G. Power Supplies

- Power supplies for the control unit shall operate from 120 Vac, supplied at the respective protected areas. Standby batteries shall be supplied to power the system in the event of a utility power failure. Batteries shall be sized to provide 105% capacity for eight hours. Standby batteries shall be sealed lead-acid. Power supplies shall be all Solid State.
- 2. Controls shall be designed to maintain full battery charge when alternating current is available. Batteries shall be recharged to 85% capacity within 24 hours from battery use. The system shall be automatically transferred to battery power upon loss of alternating current power and return to alternating current power upon restoration. Intrusion alarms shall not be initiated during switch over; a signal shall be initiated upon failure of battery or alternating current power.

- Approved power supplies shall meet or exceed the following power supply model specifications:
 - a. UL Listed DMP 505-12: 12Vdc 5 Amp with transformer and enclosure.

H. Software

- 1. The system shall interface with computer software with the capability to fully program the panel by connecting to the panel through:
 - a. Direct cable connection interface card
 - b. Reveiver phone line connection
 - c. Standard phone line connection
 - d. Ethernet network connection
 - e. Network connection across the Internet
 - f. Cellular network connection using the 263C or 263H Cellular Communicators
- 2. Power supplies for the control unit shall operate from 120 Vac, supplied at the respective protected areas. Standby batteries shall be supplied to power the system in the event of a utility power failure. Batteries shall be sized to provide 105% capacity for eight hours. Standby batteries shall be sealed lead-acid. Power supplies shall be all Solid State.
- 3. Controls shall be designed to maintain full battery charge when alternating current is available. Batteries shall be recharged to 85% capacity within 24 hours from battery use. The system shall be automatically transferred to battery power upon loss of alternating current power and return to alternating current power upon restoration. Intrusion alarms shall not be initiated during switch over; a signal shall be initiated upon failure of battery or alternating current power.
- 4. Approved power supplies shall meet or exceed the following power supply model specifications:

Excel spreadsheet (*.xls	Text (*.txt)
Rich Text (*.rtf)	Comma-separated (*.csv)
Windows Metafile (*.wmf)	HTML document (*.htm)
QuickReport (*.qrp)	

5. The system shall interface with computer software capable of printing custom, filtered reports including:

All Events	Door Access Granted	
Zone Action	Door Access Denied	
Arming/Disarming	Opening/Closing Schedule Changes	
Area Late to Close	System Monitors	
User Code Changes	System Events	

I. Reporting Dashboard:

- 1. The software shall have interactive graphics for instant feedback on system activity.
- 2. The software shall be able to choose a number of charts for functions such as Access Granted /Denied at a particular access point or an entire facility to get a snapshot of activities within any defined time period.
- 3. Shall have ability to filter through user, activity, or event data to narrow results and show precisely the information needed.

- 4. Shall have the ability to view reports from within the application, or saved and exported to PDF, HTML, XLS, CSV, or XML format for distribution.
- 5. E. Shall automate custom reports to generate and distribute each day at desired times.

J. Control Panel Capability

- 1. The basic control panel shall provide:
 - a. Expansion to a total of at least 10,000 user codes with 99 user profile definitions.
 - b. Temporary user codes that can be entered with a finite date and specific time to expire.
 - c. Sixteen (16) independent door/keypad addresses, each with four zones on XR550 and XR350, with eight (8) on the XR150.
 - d. A total door access granted event buffer of at least 10,000 events
 - e. Anti- passback access control selectable by area and user.
 - f. A total of at least 99 programmable Schedules for output relay schedules, area schedules, door schedules, holiday schedules, and user profiles. The same schedule may be assigned to more than one area, door, or output, making them reusable. There shall be at least two schedules per user profile with up to four profiles per user. Up to 8 Schedules per user, per door, per area, and per output.
 - g. Eight Areas (8) individual reporting areas XR150, Sixteen (16) individual reporting areas XR350, and Thirty-two (32) individual reporting areas XR550.
 - h. Built-in bell and telephone line supervision.
- 2. The networked control panel shall provide the entire above plus:
 - a. All of the above features plus.
 - b. Require two-man access code or credentials. Require two user code entries to disarm and/or allow door access to this area.
 - c. Support programming to require the same or different access code entered within a programmed delay time of 1 to 15 minutes after disarming before activating a silent ambush alarm.
 - d. Early Morning Ambush. Must disarm a second time with in a programmed period of time or an early morning ambush silent alarm is sent.
 - e. Bank Safe & Vault features. Schedules set for this area and the time of day cannot be changed while the area is armed.
- 3. The XR550 encrypted control panel shall provide the entre above plus:
 - a. All of the basic and network features listed plus.
 - b. Built-in Encrypted Alarm Router.
 - Certified operation that meets NIST (National Institute of Standards and Technology) standards for 128-bit and 256-bit AES (Advanced Encryption Standard) Encryption.
 - d. Certified that encrypted panel is capable of meeting ICD 705 Chapter 7 Intrusion Detection Systems (IDS) Standard.
 - e. Certification that encrypted panel is capable of meeting UL 2050 standards.
 - f. Card plus Pin for High security card access is provided by the Card Plus Pin feature that requires both a card read and a PIN (4-6 digit user ID) entry for arming/disarming and access by area. This Card Plus Pin operation complies with the ICD 705 requirement for dual id authentication and operates with a DMP Prox Keypad and a HID ProxPro reader with the keypad connected to a DMP Wiegand Interface module.

- g. Panic Test allows the panic zone test verification and failure results to be sent to the central station receiver.
- h. Passphrase of 8-16 characters to validate encryption between the XR550 with Encryption and the Central Station Receiver.

2.3 FUNCTIONAL DESCRIPTIONS

A. System Description

- The system areas and zones shall be programmable, and the system shall store, log, display, and transmit specific custom designations for system areas, zones, and user names
- 2. To ensure continued, one-call support, the system shall be constructed of sensing components provided directly by the system manufacturer, such as power supplies, motion detectors, door and window position switches, glass break detectors, or other sensing devices that the manufacturer offers.
- 3. The system controller, user interfaces, zone input devices, relay output devices, and the system signal receiving equipment shall be engineered, manufactured, assembled, and must be distributed from a location within the United States of America.
- 4. The system shall support user interaction by way of a keypad, web browser, system software, key switch, or radio frequency wireless control, Text messaging, or Smart Phone Application using integrated or auxiliary devices provided by the system manufacturer.
- 5. The system shall support controller zone input connections, system keypads, system zone expansion modules, and wireless zone input modules, and must support zone input connections by way of at least two competitive products. The system shall offer a seamless integrated compatibility with hard-wire and/or wireless zone expansion equipment for at least 500 wireless zones and/or a maximum of 574 hardwired zones.
- 6. The system shall be capable of offering up to five zone expansion buses, each of which can support the connection of up to 15,000 feet of four-wire cable. Zone expansion and keypad data buses that exceed 2,500 feet of cable must include splitter/repeater modules to boost data voltage and maintain data integrity.
- 7. The system shall provide a seamless capability to provide up to 506 addressable relays, which can be located at any connection location upon a zone expansion bus.
- 8. System relay outputs shall have the capability of being triggered as a result of a command from the user interface, changes in system status, changes in zone status, or by a programmable schedule.
- 9. System relay output states shall be programmable for momentary, maintained, pulsed, or must follow the state of an associated system zone input.
- 10. The system shall be completely programmable either locally from a keypad or remotely through a standard dial-up, and network connections by way of a LAN, WAN, and/or by way of the Internet, cellular communications paths.
- 11. The control unit shall be completely programmable remotely using remote annunciators, and/or using upload/download software that communicates using SDLC 300 baud, 2400 baud, or IP Addressed data network. On-site programming from a personal computer shall also be permitted.
- 12. The control unit shall be equipped with an anti-reversing circuit breaker to prevent damage due to accidental reversal of battery leads.

B. Input/Output Capacity

1. This system shall be capable of monitoring a maximum of 574 individual zones and controlling a maximum of 506 output relays.

- 2. The control panel shall have, as an integral part of the assembly, 2 SPDT Form C relays rated at 1 Amp at 30 Vdc and four open collector 12 Vdc outputs rated at 50mA each. It shall also have the capacity of a maximum of 125 output expander modules with 500 switched ground, open collector outputs, 50mA maximum and 506 auxiliary relays (Form C rated at 1.0 Amp at 30 Vdc).
- 3. The panel shall also provide 99 programmable output profiles for schedules, and include an integral bell alarm circuit providing at least 1.5 Amps of steady, pulsed, or temporal bell output. Output type shall be programmable by zone type. Relays and voltage outputs shall be capable of being independently programmed to turn on and/or off at selected times each day

C. User/Authorization Level Capacity

The system shall be capable of operation by 10,000 unique Personal Identification Number (PIN) codes with each code having one (1) of ninety-nine (99) custom user profiles. This allows for limitation of certain functions to authorized users. The operation of all keypads shall be limited to authorized users.

D. Keypads

- 1. The system shall support a maximum of sixteen (16) keypads on XR550/XR350 Series or eight (8) keypads on XR150 Series with alphanumeric display. Each keypad shall be capable of arming and disarming any system area based on a pass code or Proximity key authorization. The keypad alphanumeric display shall provide complete prompt messages during all stages of operation and system programming and display all relevant operating and test data.
- Communication between the control panel and all keypads and zone expanders shall be multiplexed over a non-shielded multi-conductor cable, as recommended by the manufacturer. This cable shall also provide the power to all keypads, zone expanders, output expanders, and other power consuming detection devices.
- 3. If at any time a keypad does not detect polling; the alphanumeric display shall indicate "SYSTEM TROUBLE". If at any time two devices are programmed for the same address, the alphanumeric keypad shall display "4 WIRE BUS TROUBLE". If at any time a keypad detects polling but not for its particular address, the alphanumeric display shall indicate "NON POLLED ADDR". The system shall display all system troubles at selected keypads with distinct alphanumeric messages.
- 4. The keypad shall include self-test diagnostics enabling the installer to test all keypad functions: display test, key test, zone test, LED test, relay test, tone test, and address test.
- 5. The keypad shall provide an easy-to-read English text display. The text shall exactly match the text seen in all software reports, keypad displays, and central station reports.
- 6. The keypad user interface shall be a simple-to-use, menu-driven help system that is completely user friendly.
- 7. The control panel shall support a keypad interface accessible on the World Wide Web in a browser window. The web-accessible keypad interface shall provide at least five (5) programmable hyperlinks for camera access or other use.

E. Zone Configuration

1. A minimum of 4 Class B ungrounded zones shall be available at each keypad or zone expander on the system. The system shall have the capacity for a maximum of sixteen (16) keypads and a maximum of 125 four (4) zone expanders or 500 single zone expanders on the XR550. It shall also have the capacity of a maximum of 125 supervised relay output expanders. The XR350 shall have the capacity for a maximum of sixteen (16) keypads and a maximum of 125 four (4) zone expanders. It shall also have the

capacity of a maximum of 75 supervised relay output expanders. The XR150 shall have the capacity for a maximum of eight (8) keypads and a maximum of 25 four (4) zone expanders It shall also have the capacity of a maximum of 25 supervised relay output expanders. All Class B zones shall be 2-wire, 22 AWG minimum, supervised by an end-of-line (EOL) device and shall be able to detect open and short conditions in excess of 500ms duration.

- 2. Each zone shall function in any of the following configurations: Night, Day, Exit, Fire, Supervisory, Emergency, Panic, Auxiliary 1, Auxiliary 2, Fire Verification, Cross Zone, Priority, and Key Switch Arming.
- 3. The digital SLCs and the annunciator/keypad bus shall be able to operate at a maximum wiring distance of 2500 feet from the control panel on unshielded, non-twisted cable. This distance may be extended to a total of 15,000 feet when bus repeater modules are installed
- 4. Each zone shall function in any of the following configurations:

Night	Supervisory	Auxiliary 1	Cross-Zone
Day	Emergency	Auxiliary 2	Priority
Exit	Panic		Arming

F. Communication

- 1. The system shall be capable of signaling to as many as 8 remote monitoring station receivers. Seven (7) of the eight (8) paths shall be capable of being assigned as either a "primary" or "backup" path. In such a manner the system shall have multiple primary paths to multiple remote monitoring stations as well as multiple backup paths to multiple monitoring stations.
- 2. The system shall employ Adaptive Technology that allows a Backup communication path programmed for Network or Cellular to automatically ADAPT to the faster check-in rate of the Primary path should the Primary path become unavailable. This creates a seamless transition for communication.
- 3. The system shall be capable of dialing up to (2) remote monitoring station receivers, four telephone numbers of 32 digits each using two separate switched telephone network lines such that if two unsuccessful attempts are made on the first line to the first number, the system shall make two attempts on first line to the second number. If these two attempts are unsuccessful, the system shall make two further attempts on the first line of the first number. After the tenth unsuccessful attempt, dialing shall stop and the alphanumeric keypad shall display trouble. Should another event occur that requires a report to be transmitted, the dialing sequence shall be repeated. The system shall have a programmable option to dial a second set of telephone numbers after the first ten attempts using the same sequence.
- 4. The system shall be capable of communication using the IBM Synchronous Data Link Control format, and at least one other standard industry format.
- 5. The system shall be capable of supporting Network communication with digital dialer backup, existing Ethernet data networks, satellite communication, fiber optic networks, local area networks, wide area networks, cellular communication, and retail data networks.

G. Network Communication

 The control panel shall be capable of asynchronous network communication with a retry time between 2 and 240 minutes and a fail time of 2 and 240 minutes. If communication is unsuccessful the control panel shall be capable of attempting backup communication through any of the available communication methods to the same receiver or a backup receiver.

- 2. The control panel shall employee adaptive communication technology. Adaptive Technology allows a Backup communication path programmed to use Network or Cellular to automatically ADAPT to the faster check-in rate of the Primary path should the Primary path become unavailable, creating a seamless transition for communication of messages. Select Adapt when programming the Checkin option. This allows a system to be fully supervised even if a path fails, while also keeping wireless charges low when the network is good.
- 3. Network communication between the control panel and the receiver shall be in a proprietary communication format.
- 4. The control panel shall be capable of supporting Dynamic Host Communication Protocol (DHCP) Internet Protocol (IP) addressing.
- 5. Underwriters Laboratories (UL) shall list network communication by the control panel for Standard or Encrypted Line Security.
- 6. The control panel shall be capable of two-way network communication using standard Ethernet 10/100 BaseT in a LAN, WAN, or Internet configuration.
- 7. The control panel shall be capable of communication by means of a 128-bit or 256-bit AES (Advanced Encryption Standard) Encryption process certified by NIST (National Institute of Standards and Technology) to an SCS-1R receiver with an SCS-104 line card or SCS-VR (SCS-VR currently supports 128-bit encryption only).
- 8. The control panel shall be capable of meeting ICD 705 Chapter 7 Intrusion Detection Systems (IDS) and UL 2050 standards.
- 9. The control panel shall be capable of sending text messaging to up to three Cellular Phone Numbers using cellular communications.
- 10. The control panel shall be capable of sending the following SMS messages:

Zone Alarms by Zone Name	AC Power Trouble and Restoral
Zone Troubles by Zone Name	System Low Battery
Zone Bypass by User	Ambush
Arming (Closings) by User	Abort, Cancel and Alarm Verified by User
Disarming (Openings) by User	Check-in by user
Late to Close	

H. Cellular Communications

- 1. The control panel shall have the capability to communicate with a plug-in cellular HSPA+ communicator model number 263H or CDMA communicator model number 263C that shall plug into the control panel J24 connector which shall supply full data communication and power to the 263H or 263C cellular communicator. The cellular communicator shall be capable of communicating full panel alarm and auxiliary messages to the DMP SCS-1R Central Station or SCS-VR Receiver as well as SMS text messaging to a PC, PDA, or Cellular telephone.
- 2. The control panel shall be capable of sending the following SMS messages

Zone Alarms by Zone Name	AC Power Trouble and Restoral	
Zone Troubles by Zone Name	System Low Battery	
Zone Bypass by User	Ambush	
Arming (Closings) by User	Abort, Cancel and Alarm Verified by User	
Disarming (Openings) by User	Check-in by user	
Late to Close		

I. TCP/IP Network Trapping

- 1. The control panel shall be capable of having communication set to Network operation. When a trap is set in Remote Link, the software shall be capable of sending a panel trap message with the panel account number to the SCS-104 installed in an SCS-1R receiver.
- 2. The receiver SCS-104 shall store the trap and monitor the panel for the next message. When the panel sends its next message, the receiver SCS-104 shall then send a message to the panel to contact Remote Link at the IP address contained in the original trap message.
- 3. The trap message shall be stored in the receiver SCS-104 for up to four hours. If the trap message is not sent to the panel within the four-hour window, the panel trap message shall be discarded and a new trap message must be sent from Remote Link.
- 4. The user shall be able to view the trap status in the receiver SCS-104 in Remote Link using the Trap Query function.

2.4 BURGLARY CONTROL SPECIFICATIONS

A. Burglary Standards

The Burglary system shall be listed as a Power Limited Device and be listed under the standards below. Each system shall be supplied with complete details on all installation criteria necessary to meet all of the listings.

Burglary Listings
UL 1076 Proprietary Burglar
UL 1610 Central Station Burglar Alarm Units
UL 1635 Digital Burglar Alarm Communicator System Units

B. Area System Mode

- 1. The system user shall be capable of selectively arming and disarming any one or more of 32 areas within the intrusion detection system based on the user PIN code and/or keypad used. Each of the 574 zones shall be able to be assigned to any of the 32 available areas. The system shall be capable of having up to a thirty-two (32) character length name programmed for each area.
- 2. The system user shall be capable of assigning an opening and closing schedule to all areas or to each of the 32 areas separately. Each area shall be able to arm or disarm automatically by a schedule. The system shall have the capacity for common areas that automatically disarm when any other area disarms and that automatically arm when all others areas arm.
- 3. The networked system shall have the ability to comply with Bank Safe & Vault application. The networked system shall also have the ability to use a two-man rule for disarming or allowing door access to an area. The system shall have the ability to operate a Common Area application.
- 4. The Encrypted system shall have the feature of Card Plus Pin by area High security card access is provided by the Card Plus Pin feature that requires both a card read and a PIN (4-6 digit user ID) entry for arming/disarming and access by area. This Card Plus Pin operation complies with the ICPG 705 requirement for dual id authentication and operates with a DMP Prox Keypad and a HID ProxPro reader with the keypad connected to a DMP Wiegand Interface module.

C. All/Perimeter Mode

The system shall be capable of being configured into the All/Perimeter configuration to enable the selective arming of both the interior and perimeter when armed "All" or arming just the perimeter devices if arming "Perimeter".

D. Zones

The system shall have a minimum of eight (8) grounded burglary zones available from the control panel, and two floating ground powered zones for two wire type compatible smoke detectors. The system shall have the ability to expand using the panel's keypad bus for up to sixty-four additional zones. The system shall also have five built-in zone expansion bus (LX500 – LX900) for an additional 500 zones of expansion. The system shall have the ability to integrate up to 500 wireless zones for a total of 574 zones overall.

E. Burglary Equipment

Burglary detection equipment shall communicate to the system by way of the control panel loop expansion bus or 900MHz bi-directional spread spectrum receiver. The detection equipment shall have a three (3) year warranty and meet or exceed features offered in the products listed in Section 11.0 of this document.

2.5 COMPLIED DETECTION EQUIPMENT LISTING

A. Power Supplies and Transformers

Power supply and transformer shall maintain system operation. The batteries shall be checked and replaced every three to five years. The equipment shall have a three (3) year warranty as stated in the current DMP Product Catalog and meet or exceed features offered in the following products:

- 1. Power Supply DMP Model 505-12, 115 Vac, 12 Vdc
- 2. Power Supply DMP Model 505-12LX, 115 Vac, 12 Vdc
- 3. Power Supply DMP Model 505-12L, 12 Vdc
- 4. Transformer DMP Model 327, 16.5 Vac 50 VA, Plug-in
- 5. Transformer DMP Model 322, 16.5 Vac 56 VA, Wire-in
- 6. Transformer DMP Model 323, 16.5 Vac 56 VA, Wire-in
- 7. Transformer DMP Model 324, 16.5 Vac 100 VA, Wire-in
- 8. Transformer DMP Model 324P, 16.5 Vac 100 VA, Wire-in

B. Cellular Communications Equipment

Cellular Communications equipment shall plug directly into the XR150/XR350/XR550 PCB J24 connector and shall be supervised by the XR150/XR350/XR550 control panel. The Cellular Communications Equipment shall be of a low current draw and powered directly by the XR150/XR350/XR550 Control Communicator.

The Cellular Communicator shall communicate in the SDLC Serial 3 Format for communications directly to a SCS-1R or SCS-VR DMP Central Station Receiver. The equipment shall have a three (3) year warranty as stated in the current DMP Product Catalog and meet or exceed features offered in the following products:

- 1. 263H Digital HSPA+ Digital Cellular Communicator
- 2. 263C CDMA Digital Cellular Communicator
- 3. 380-400 Level 400 SIM Card (263H only)
- 4. 381-2 18" Coax Cable

- 5. 381-12 12' Coax Extension
- 6. 381-25 25' Coax Extension
- 7. 383 Rubber Duck Antenna
- 8. 386 Wall Mount Antenna Bracket
- 9. 387-1 3DB Fiberglass Antenna w/Bracket
- 10. 387-3 3DB MEG Antenna
- 11. 387-4 SMA to N Cable, 4ft
- 12. 387-25 SMA to N Cable, 25ft
- 13. 387-50 SMA to N Cable, 50ft
- C. Hard-wired detection equipment shall communicate to the system by way of the control panel loop expansion bus. The equipment shall have a three (3) year warranty as stated in the current DMP Product Catalog and meet or exceed features offered in the following products:
 - 1. Motion Detector DMP Model 6155LX (wall mount with built-in zone expander)
 - 2. Motion Detector DMP Model AP669 (ceiling mount 360' requires DMP zone expander)
 - 3. Glass Break Detector DMP Model 5845LX (includes built-in zone expander)
 - 4. Door Contact DMP Model SD70 (concealed applications requires DMP zone expander)
 - 5. Bus Splitter/Repeater Module DMP Model 710
 - 6. Door Contact DMP Model SM20WG (surface applications requires DMP zone expander)
 - 7. Output Expansion Module DMP Model 716
 - 8. Graphic Annunciator Module DMP Model 717

PART 3- EXECUTION

3.1 DIVISION OF WORK

- A. While all work included under this specification is the complete responsibility of the contractor, the division of actual work listed following shall occur.
 - 1. All conduits with pull cords, all electrical pull boxes, grounding rods, all outlet boxes, terminal cabinets, backboards, etc., which form part of the rough-in work shall be provided and installed completely by the Division 16 Contractor. Coordinate as necessary for proper installation.
 - 2. The balance of the system, including installation of initiating devices, notification appliances and equipment, making all connections, etc., shall be performed by the System Supplier/Installer.
 - 3. All 120VAC power conductors and conduits associated with power circuits to all low voltage system equipment locations shall be provided and installed by the Division 16 Contractor.
 - An insulated stranded copper ground wire shall be provided from each control unit to the building grounding system, in compliance with CEC Article 250, by the Division 16 Contractor.
 - 5. Labeling of pullboxes and terminal cabinets shall be provided and installed by the Division 16 Contractor.

3.2 INSTALLATION

A. All work shall be completed in strict accordance with all applicable codes and ordinances, by a qualified Manufacturer's Authorized Distributor.

B. Cable/Wire

- All cable/wire for the system specified herein shall be new, unless otherwise noted on plans.
- System cable/wire and equipment installation shall be in accordance with good engineering practices as established by the California Electrical Code (CEC). Wiring shall meet all applicable electrical codes. All cable/wire shall test free from all grounds and shorts.
- 3. All cable/wire shall be labeled at all points of termination. All labeling shall be based on the room numbers as provided by the District/Owner or his representative.
- 4. Protection and dressing of cables:
 - a. Cables mounted on backboards and within equipment racks, etc., shall be grouped and securely attached to the backboard or enclosure in horizontal and vertical bundles in a neat workmanlike manner using Thomas & Betts "Ty-Rap", Panduit cable mounts and Allen-Tel cable management or equal. Edge protection material ("cat-track") shall be installed on edges of holes, lips of ducts or any other point where cables or harnesses cross metallic edge.

5. Shielding:

a. Cable shielding shall be connected to common ground at the main control unit terminal board and shall be free from ground at any other point within the system. Cable shields shall be terminated in same manner as conductors.

6. Underground cables

a. Any cable/wire pulled through manholes or pullboxes located below grade, shall be continuous with no splices. The cable/wire shall be intact with no cuts in the protective outer jacket.

3.3 SYSTEM START-UP

A. All start-up programming and system commissioning shall be performed by a manufacturer's trained and certified technician.

3.4 SYSTEM VERIFICATION

- A. Subsequent to system start-up the system installer shall perform a pre-test to verify that the following features are functioning properly.
 - 1. All notification appliances
 - 2. All initiation devices
 - 3. All control modules
 - 4. All monitor modules
 - 5. Communication link to monitoring service

3.5 ACCEPTANCE TESTING

A. The system installer shall, in the presence of the Inspector of Record (IOR), perform 100% testing as noted in System Verification above.

3.6 IN SERVICE TRAINING

A. The Contractor shall instruct personnel designated by the District/Owner in the proper use, basic care and maintenance of the system beyond the warranty period. Contractor shall provide up to eight hours of in-service training with this system.

3.7 FACTORY TRAINING & CERTIFICATION

- A. The manufacturer shall provide factory certified training to two (2) technicians from the District/Owner. These technicians shall be trained and certified as manufacturers certified technicians capable of performing any work on the system after the installation of the system.
- B. All cost for training including travel, lodging, meals and per diem shall be included in the System Supplier/Installer's bid for this project.

3.8 CONTRACT CLOSE-OUT DOCUMENTATION

- A. Contractor shall provide the following:
 - 1. One reproducible hard copy of project record drawings.
 - 2. One copy of manufacturer's maintenance and operation manuals.
 - 3. One copy of system warranty

3.9 WARRANTY

A. The Contractor shall warrant the equipment to be new and free from defects in material and workmanship, and will, within one year from the date of installation, repair or replace any equipment found to be defective. This warranty shall not apply to any equipment that has been subject to misuse, abuse, negligence or unauthorized modification.

3.10 MANUFACTURER'S FIELD SERVICES

- A. The contractor shall, at the District/Owner's request, make available a service contract offering continuing factory authorized service of this system upon expiration of the initial warranty period.
- B. The system manufacturer shall maintain engineering and service departments capable of rendering advice regarding installation and final adjustment of the system.

END OF SECTION 281600

SECTION 28 31 00 - ANALOG ADDRESSABLE FIRE ALARM SYSTEM WITH INTEGRAL EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM ADD 02

PART 1 - GENERAL

1.1 SCOPE

The contractor shall furnish and install a Silent Knight Farenhyt Series IFP-2000ECS 24VDC analog addressable fire alarm system with integral Emergency Voice/Alarm Communication System, IDP protocol addressable initiation devices and System Sensor two-wire synchronized notification devices. This system is the Board of Education approved District Standard for Fire Alarm Systems. The Fire Alarm System shall be UL 864, 9th edition compliant and California State Fire Marshal listed.

- A. By submission of a Prime Bid for this project, the Prime Bidder assumes complete and total responsibility for himself and his subcontractors' compliance with this specification in its entirety. If found to be not in compliance with any part of this specification, the Prime Bidder shall bear any burden, financial or otherwise, required to complete the work of this specification to the total satisfaction of El Monte Unified School District.
 - 1. The Fire Alarm System shall be furnished and installed by a Silent Knight Select Farenhyt Engineered Systems Distributor in good standing at the time of the bid. Upon demand by the owner or his representative, the Prime Contractor shall provide proof that he or his listed subcontractor was a Silent Knight Select Farenhyt Engineered Systems Distributor at the time of the bid. Failure to produce said proof shall render the Prime Contractor's bid non-responsive and shall be considered grounds for immediate disqualification of his prime bid.
 - For the purposes of this bid, Prime Bidders shall include the Fire Alarm Contractor on their List of Subcontractors that is submitted with their bid, regardless of subcontractor tier. Failure to list the Fire Alarm Contractor shall render the Prime Bidder in non-compliance with this specification and shall render his bid non-responsive and shall be considered grounds for immediate disqualification of his prime bid.
 - b) The Silent Knight Select Farenhyt Engineered Systems Distributor shall furnish all labor, materials, appliances, cabling, tools, equipment, facilities, transportation and services necessary for and incidental to the performance of all operations in connection with furnishing, delivery and installation of all equipment, cabling, programming, configuration, testing and training required by this Section, complete as indicated in the applicable Contract Drawings and/or specified herein.
 - Systems furnished and/or installed by contractors who are not Silent Knight Select Farenhyt Engineered Systems Distributor shall be considered in noncompliance with this specification and subject to replacement at the expense of the Prime Contractor.
- B. This specification provides the requirements for the installation, programming, configuration, testing and maintenance of a complete analog addressable fire alarm system. This system shall include, but shall not be limited to:
 - 1. Main Fire Alarm Control Panel (FACP)

- a) Network Nodes (on network systems only)
 - 1) Network Interface Module
 - 2) Fiber optic or copper network connection circuits
- b) System cabinet
- c) Power supply
- 2. Digital Signaling Line Circuits (SLC)
- 3. Notification Appliance Circuits (NAC)
- 4. RS-485 Serial Communication Bus (S-bus)
- 5. Voice Communication Bus (V-bus, on systems with voice evacuation only)
- 6. Annunciators both integral and remote
- Batteries
- 8. Wiring
- 9. Conduit
- 10. Associated peripheral devices and modules
- 11. Other relevant components and accessories required to furnish and install a complete and operational fully automatic, addressable reporting Life Safety System.
- C. The fire alarm system shall be capable of providing, at a minimum, the following:
 - 1. Fire Alarm Control Panel (FACP)
 - a) Integral Digital Alarm Communications Transmitter (DACT).
 - b) Network Interface capability via copper and/or fiber optic network.
 - 2. Analog addressable initiation devices
 - 3. Analog addressable monitor and/or control modules
 - 4. Notification appliances
 - a) Compatible with combination horn/strobe two-wire synchronized circuit.
 - 5. Notification Appliance Circuit (NAC) remote power supply
 - a) RPS-1000 Remote Power Supply shall provide the capability of housing the 5815XL SLC Expander for remote SLC generation.
 - b) Combination horn/strobe two-wire circuit.
 - c) Built-in synchronization capabilities
 - 6. Integral Voice Evacuation capability
 - 7. Firefighter Telephone capability
- D. Any material and/or equipment necessary for the proper operation of the system, which is not specified or described herein, shall be deemed part of this Specification.
- E. The Analog Addressable Fire Alarm System specified herein shall be connected to a UL Listed Central Station Monitoring Company via UL and California State Fire Marshal listed radio transmitter.
 - 1. Radio Transmitter for Central Station Monitoring shall be AES Intellinet provided by Allen Alarms.

F. Contractor shall offer code required fire alarm system inspection and maintenance contract.

1.2 QUALIFICATIONS

A. Equipment

- 1. This specification is based on the equipment of manufacturer(s) who have been approved by the Owner and the Manufacturer(s) herein named shall be considered as meeting the requirements of this specification.
- 2. The equipment manufacturer shall be a United States manufacturer, who has been regularly engaged in the manufacture of fire alarm systems for at least twenty-five (25) years.
- 3. The Board of Education approved District Standard for Fire Alarm Systems is Silent Knight Farenhyt IFP-2000 (IFP-2000ECS for voice evacuation systems).
 - a) Equipment provided for this project shall be the product of Silent Knight Farenhyt by Honeywell. No substitutions shall be approved.
 - 1) Contact Silent Knight West Coast Regional Sales Manager Charlie Gallardo (763) 493-6400 for a list of Silent Knight Select Farenhyt Engineered Systems Distributors for the Southern California Area.
- 4. It is the Contractor's responsibility to meet the entire intent of these specifications. Deviations from the specified items shall be at the risk of the Contractor until the date of final acceptance by the Architect of Record, Engineer of Record and the Owner's representative. All costs for removal, relocation or replacement of a substituted item shall be at the risk of the Prime Contractor.
- 5. All equipment shall conform to currently adopted applicable codes and ordinances.
- 6. All equipment shall be California State Fire Marshal (CSFM) listed.
- 7. All equipment shall bear the label of a Nationally Recognized Testing Laboratory (NRTL) such as Intertek Testing Services NA, Inc. (ITSNA formerly ETL) or Underwriters Laboratories Inc. (UL) and be listed by their re-examination service.

B. System Supplier/Installer

- 1. The system shall be furnished and installed by a Silent Knight Select Farenhyt Engineered Systems Distributor who is trained and certified by the Manufacturer in the proper installation, programming, configuration, testing, service and maintenance of the systems specified herein.
- 2. Subsequent to a successful bid and upon request of the Owner the System Supplier/Installer shall submit a qualification documentation package which shall include the following:
 - a) Evidence of current status as a Silent Knight Select Farenhyt Engineered Systems Distributor.
 - b) Certificate indicating that the contractor employs a minimum of four (4) Farenhyt PHD Certified Technicians.
 - c) Certificates indicating that a minimum of four (4) technicians have attended and completed all requirements of the IFP-2000 training course.
 - d) A list of twenty (20) completed projects of equal scope, with associated Owners Representative contact names and telephone numbers.
 - e) Evidence of current State of California Contractor's License, C-10.

- f) Evidence of current State of California Alarm Company Operator License, ACO.
- g) Per California law all individuals involved in the installation of the fire alarm system shall hold a valid State of California, Division of Apprenticeship Standards (DAS), Fire/Life Safety Technician Certification.
 - 1) Evidence of DAS certification shall be provided immediately upon request at the project site.
- h) The System Supplier/Installer shall show satisfactory evidence, upon request, that he maintains a fully equipped service organization capable of furnishing adequate inspection, service and maintenance of the system.
- i) The System Supplier/Installer shall maintain at his facility the necessary spare parts in the proper proportion as recommended by the manufacturer to maintain and service the equipment being supplied.
- j) The System Supplier/Installer shall be prepared to offer a service contract for the maintenance of the system beyond the warranty period.
- k) The System Supplier/Installer shall provide proof that they maintain a complete service and maintenance center within 50 miles of the project address. A complete service center shall include replacement parts in stock in the quantities deemed sufficient by the owner or its representatives.

1.3 RELATED SPECIFICATIONS

- A. The conditions of the General Contract (General, Supplementary, and other Conditions) and the Division 1 General Requirements specifications are hereby made a part of this Section.
 - 1. Section 26 01 00 Basic Electrical Requirements
 - 2. Section 26 01 11 Conduit
 - 3. Section 26 01 30 Boxes
 - 4. Section 26 01 60 Cabinets and Enclosures
 - 5. Section 26 05 32 Identification for Electrical Systems

1.4 RELATED WORK BY OTHERS

A. Reference Part 3, sub-section 3.01 of this specification.

1.5 RELATED DOCUMENTS

A. In the event of a conflict between this specification and the construction drawings this specification shall take precedence.

1.6 APPLICABLE CODES & STANDARDS

- A. The Fire Alarm System shall comply with the currently adopted versions of the following:
 - 1. Building Standards Administrative Code, Part 1, Title 24, California Code of Regulations
 - 2. California Building Code (CBC) Part 2, Title 24, California Code of Regulations (International Building Code, with California Amendments)

- 3. California Electrical Code (CEC) Part 3, Title 24, California Code of Regulations (National Electrical Code with California Amendments)
- 4. California Mechanical Code (CFC) Part 4, Title 24, California Code of Regulations (Uniform Mechanical Code with California Amendments)
- 5. California Fire Code (CFC) Part 9, Title 24, California Code of Regulations (International Fire Code with California Amendments)

B. NFPA Standards

- 1. The fire alarm system shall comply with the applicable provisions of the following current National Fire Protection Association (NFPA) standards:
 - a) NFPA 12 Carbon Dioxide Extinguishing Systems
 - b) NFPA 12A Halon 1301 Fire Extinguishing Systems
 - c) NFPA 13 Installation of Sprinkler Systems
 - d) NFPA 15 Water Spray Fixed Systems
 - e) NFPA 16 Foam-Water Sprinkler Systems
 - f) NFPA 17 Dry Chemical Extinguishing Systems
 - g) NFPA 17A Wet Chemical Extinguishing Systems
 - h) NFPA 72, National Fire Alarm and Signaling Code:
 - 1) Central Station Fire Alarm Systems
 - 2) Local Fire Alarm Systems
 - 3) Auxiliary Fire Alarm Systems
 - 4) Remote Station Fire Alarm Systems
 - 5) Proprietary Fire Alarm Systems
 - i) NFPA 90A, Installation of Air Conditioning and Ventilating Systems
 - j) NFPA 101, Life Safety Code Safety to Life from Fire in Buildings and Structures
 - k) NFPA 750 Water Mist Fire Protection Systems
 - NFPA 2001 Clean Agent Fire Extinguishing Systems
- C. ADA Americans with Disabilities Act
- D. CAC California Administrative Code, Title 24
- E. U.L. Standards
 - 1. The system shall comply with the applicable provisions of the following U.L. Standards and Classifications:
 - a) UL 38, Manual Signaling Boxes for Fire Alarm Systems
 - b) UL 268, Smoke Detectors for Fire Alarm Systems
 - c) UL 268A, Smoke Detectors for Duct Applications
 - d) UL 346, Waterflow Indicators for Fire Protective Signaling Systems
 - e) UL 464, Audible Signal Appliances
 - f) UL 521, Heat Detectors for Fire Protective Signaling Systems
 - g) UL 864, Control Units and Accessories for Fire Alarm Systems
 - h) UL 1480, Speakers for Fire Alarm Use
 - i) UL 1481, Power Supplies for Fire Protective Signaling Systems

- j) UL 1635, Digital Alarm Communicator System Units
- k) UL 1638, Visual Signaling Appliances
- I) UL 1971, Signaling Devices for the Hearing Impaired
- m) UOJZ, Control Units, System
- n) SYZV, Control Units, Releasing Device
- o) UOXX, Control Unit Accessories, System
- p) SYSW, Accessories, Releasing Device Service

1.7 SUBSTITUTIONS

A. Silent Knight is the Board of Education Approved District Standard for Fire Alarm Systems. No substitutions shall be approved.

1.8 SUBMITTALS

- A. Within thirty-five (35) calendar days after the date of the award of the contract, the Contractor shall submit to the Architect for review, eight (8) copies of a complete Submittal Package. The Submittal Package shall consist of the following sections, with each section separated with index tabs.
 - 1. Title Page
 - a) Project Title
 - b) Owner's name
 - c) Architect's name
 - d) Electrical Engineer's name
 - e) Contractor's name
 - 2. Index of Submittal Contents
 - Each Section of the Submittal Package shall be numbered chronologically and shall be summarized in the Index.
 - Certifications
 - a) Index of Certification Section Contents
 - b) Valid State of California Contractors License
 - c) Manufacturer's Certifications
 - 1) Silent Knight Select Farenhyt Engineered Systems Distributor
 - 2) Silent Knight Farenhyt PHD Certified Technician
 - 3) Factory Trained Technician (IFP-2000)
 - d) California DAS, Fire/Life Safety Technician Certifications
 - 4. Project List
 - a) A substantial list (minimum of 20) of completed projects equal in scope to that specified herein.
 - 1) Contact information shall be made available upon request.

Product Data

- a) Index of Equipment Data Sheets
- b) Manufacturer's Data Sheets including cable types
- c) Applicable Listings and Approvals

PART 2- PRODUCTS

2.1 SYSTEM REQUIREMENTS

A. Basic Performance and Capabilities

- 1. System shall be fully programmable and configurable on site to accommodate system expansions and facilitate changes in operation.
- 2. All software programs shall be stored in non-volatile programmable memory within the FACP.
 - a) Loss of primary and secondary power shall not erase the instructions stored in the memory.
 - b) System programming shall be password protected.
- 3. Alarm, supervisory and trouble signals from analog addressable devices shall be encoded onto NFPA Class B signaling line circuits (SLC).
- 4. Initiation device circuits (IDC) shall be wired NFPA Class B.
- 5. Notification appliance circuits shall be wired NFPA Class B.
- 6. A single ground or open on any system SLC, IDC or NAC shall not cause a system malfunction, loss of operating power or the ability to report an alarm.
- 7. Alarm signals arriving at the main FACP shall not be lost due to a power failure.
- 8. Per NFPA 72, the system shall be provided with sufficient battery capacity to operate the entire system upon loss of 120 VAC power in a normal supervisory mode for a period of twenty four (24) hours with fifteen (15) minutes of alarm indication at the end of this period.
- 9. The system shall automatically transfer to the standby batteries upon power failure. All battery charging and recharging operations shall be automatic. Batteries, once discharged, shall recharge at a rate that complies with NFPA 72 section 10.6.10.3.

B. System Functional Operation

- 1. The actuation of any approved alarm initiating device shall automatically initiate the following functions:
 - a) Alarm LED on the FACP shall flash.
 - b) Local audible piezo electronic signal in the FACP shall sound.
 - c) The alarm condition description, including the type of point and the location within the protected premises, shall be displayed on the LCD display at the FACP and any remote annunciator(s).
 - d) System shall transmit the condition to a UL Listed Central Station Monitoring Facility. Supervising station shall be approved per CFC section 907.6.5.3 (2013).
 - e) Printing and history storage equipment shall log the information associated with the condition, including the time and date of the alarm occurrence.

- f) System output programs configured via control-by-event (CBE) programming to be activated by the particular point in alarm shall be executed, and the associated system output (alarm notification appliances and relays) shall be activated on either local outputs or points located on other network nodes.
- 2. The actuation of any approved supervisory alarm initiating device shall automatically initiate the following functions:
 - a) Supervisory LED on the FACP shall flash.
 - b) Local audible piezo electronic signal in the FACP shall sound.
 - c) The supervisory condition description, including the type of point and the location within the protected premises, shall be displayed on the LCD display at the FACP and any remote annunciator(s).
 - d) System shall transmit the condition to a UL Listed Central Station Monitoring Facility. Supervising station shall be approved per CFC section 907.6.5.3 (2013).
 - e) Printing and history storage equipment shall log the information associated with the condition, including the time and date of the supervisory alarm occurrence.
 - f) System output programs configured via control-by-event (CBE) programming to be activated by the particular point in supervisory alarm shall be executed, and the associated system outputs (relays) shall be activated on either local outputs or points located on other network nodes.
- 3. Whenever a trouble condition is detected and reported the FACP shall automatically initiate the following functions:
 - a) Trouble LED on the FACP shall flash.
 - b) Local audible piezo electronic signal in the FACP shall sound.
 - c) The trouble condition description, including the type of point and the location within the protected premises, shall be displayed on the LCD display at the FACP and any remote annunciator(s).
 - d) System shall transmit the condition to a UL Listed Central Station Monitoring Facility. Supervising station shall be approved per CFC section 907.6.5.3 (2013).
 - e) Printing and history storage equipment shall log the information associated with the condition, including the time and date of the trouble condition occurrence.
 - f) System output programs configured via control-by-event (CBE) programming to be activated by the particular point in trouble condition shall be executed, and the associated system outputs (relays) shall be activated on either local outputs or points located on other network nodes.

C. Test Functions

- 1. A "Lamp Test" or "Indicator Test mode shall be a standard feature of the FACP and shall test all LED's and the LCD display on the main FACP and remote annunciators.
- 2. A "Walk Test" mode shall be a standard feature of the FACP.
 - a) The Walk Test feature shall function so that each alarm input tested shall operate the associated notification appliance for two seconds. The FACP will then automatically reset and confirm normal device operation.
 - b) The event memory shall contain the information on the point tested, the zone tripped, the zone restore and the individual point's return to normal.

- 3. A "Fire Drill mode shall allow the manual testing of the Fire Alarm System notification circuits. The Fire Drill shall be capable of being initiated at the main annunciator, remote annunciators and via a remote contact input.
- 4. "Bypass Mode" shall allow for any point or NAC circuit to be bypassed without affecting the operation of the total Fire Alarm System.

D. Remote Monitoring Connection

- 1. The fire alarm system shall be connected via Digital Alarm Communicator Transmitter (DACT) and an NFPA 72, Chapter 26 compliant transmission channel(s) to a UL Listed Central Station Monitoring Company.
 - a) The fire alarm control panel shall provide an integral Digital Alarm Communicator Transmitter (DACT) for signaling to a UL Listed Central Station Monitoring Company.
 - 1) The fire alarm system shall transmit alarm, supervisory alarm and trouble signals with the alarms having priority over the trouble signal.

2.2 SYSTEM COMPONENTS

- A. Fire Alarm Control Panel (FACP)
 - 1. The FACP shall be a Silent Knight Farenhyt IFP-2000 or IFP-2000ECS
 - a) The basic control panel shall provide:
 - 9 amp power supply expandable to 45 amps via bus connected expander modules
 - Network Interface Module (only required if this system is to be a part of a network)
 - (a) The network interface module shall be a Silent Knight Farenhyt IFP-RPT-FO-KIT Network Repeater KIT for fiber optic or unshielded twisted pair cable connections.
 - (1) 16AWG unshielded twisted pair FPL (SLC) cable shall be used for copper wiring network connections up to a maximum distance of 3000 feet.
 - (2) 6-strand, 62.5/125 micron multimode fiber optic cable with ST connectors shall be used for fiber optic cable connections.
 - (i) Installers of fiber optic cable shall be certified by the manufacturer of the cable and connectivity used.
 - (ii) Fiber optic cable shall be tested utilizing and industry standardized method.
 - (iii) Provide fiber optic patch cables as required for a complete and operable system.
 - 3) One (1) Signaling Line Circuit (SLC) capable of supporting 159 addressable detectors and 159 addressable modules

- (a) Additional SLC's may be added via expander modules to a maximum of 636 addressable points per panel, 10,176 addressable points per network
- 4) Eight (8) programmable "Flexputs"
 - (a) Programmable Flexput Circuits shall be capable of being programmed as supervised reverse polarity notification appliance circuits, supervised auxiliary power circuits (continuous or resettable), door holder power or as input circuits in Class A or Class B configuration to support dry contact devices or compatible two-wire smoke detectors
- 5) 160 character LCD annunciator
 - (a) Capability of supervising 8 additional remote annunciators
- 6) Integral UL listed Digital Alarm Communicator Transmitter (DACT)
- 7) Ability to automatically test smoke detectors in compliance with NFPA Standards to ensure that they are within listed sensitivity parameters
- 8) Compensation for accumulation of contaminants that affect detector sensitivity
- 9) Day/night sensitivity adjustments
- 10) Maintenance alert feature (differentiated from trouble condition)
- 11) Detector sensitivity selection
- 12) Over-current Protection
 - (a) All low-voltage circuits shall be protected by microprocessor controlled power limiting or have a self-restoring polyswitch.
- 13) Ground Fault Detection
 - (a) The ground fault detector shall operate the general trouble devices as specified but shall not cause an alarm to be sounded.
 - (b) Ground fault shall not interfere with the normal operation of the system, such as alarm or trouble conditions.
- 14) Auto-programming mode (Jumpstart)
 - (a) Jumpstart feature shall automatically enroll all properly connected devices into a functional system within 60 seconds of power up of the panel
- 15) Ability to upgrade the core operating software on site or over the telephone
- 16) RS-485 Serial Communication Bus (S-bus). Systems that do not communicate with Intelligent Modules via RS-485 Serial Communication Bus shall not be deemed equal and shall not be acceptable for this project.
 - (a) S-bus shall be of Class A or Class B configuration with a total bus length of 6000 feet.

- 2. The FACP shall be capable of operating and supervising notification appliance devices as well as addressable initiating detection devices and an integrated supervised dual line digital communicator.
- B. Fire Alarm Control Panel with integral Emergency Voice/Alarm Communication System.
 - 1. The Voice Evacuation Control Panel shall be Silent Knight Farenhyt IFP-2000ECS.
 - a) The IFP-2000ECS shall be the FACP on all systems where Networking is not required (Small elementary schools and middle schools) for compliance with CFC required Emergency Voice/Alarm Communication in K -12 schools.
 - b) Remote Voice Evacuation Amplifiers shall be:
 - 1) Silent Knight Farenhyt ECS-50W
 - 2) Silent Knight Farenhyt ECS-DUAL50W
 - 3) Silent Knight Farenhyt ECS-125W.

C. Network Nodes

- 1. Network Nodes, if required, shall be Silent Knight Farenhyt IFP-2000 or IFP-2000ECS.
 - All Network systems shall have at least one (1) IFP-2000ECS node for compliance with CFC required Emergency Voice/Alarm Communication in K -12 schools.
 - b) All Network Nodes shall have the capability of being connected with either copper cable or fiber optic cable.

D. Remote Annunciator

- 1. The remote annunciator shall be Silent Knight Farenhyt RA-2000
 - a) The remote annunciator shall have 160 character LCD display and 5 LED's for general alarm, supervisory, systems trouble, system silence and system power.
 - b) The remote annunciator shall have the same control and display layout as the integrated annunciator at the FACP.
 - c) The remote annunciator shall have the same functionality and operation as the integrated annunciator at the FACP.
 - d) The remote annunciator shall have twenty (20) levels of user codes to limit access to the system to authorized individuals.
 - e) The remote annunciators shall be capable of operating at a maximum wiring distance of 6,000 feet from the control unit on unshielded, non-twisted cable.
 - f) The system shall support a maximum of eight (8) remote annunciators.
- E. The Serial/Parallel Interface Gateway Module shall be Silent Knight Farenhyt 5824
 - 1. The 5824 shall be connected to the S-bus and provide serial and parallel ports for connection to peripheral devices.

F. Remote Power Supply

1. The Intelligent Remote Power Supply shall be Silent Knight Farenhyt RPS-1000 or Silent Knight 5496.

- a) The Intelligent Remote Power Supply shall be connected to the FACP via S-bus.
 - 1) The RPS-1000 shall have the capability of accommodating all IFP-2000 addon modules including the 5815XL SLC Expander.
 - 2) The RPS-1000 shall have 6 amps of output power, six flexput circuits rated at 3 amps each and two form C relay circuits rated at 2.5 amps at 24VDC.
 - 3) The 5496 shall have 6 amps of output power, 4 output circuits that may be programmed as NAC or Auxiliary Power.
- b) The Intelligent Remote Power Supply shall act as a bus repeater allowing connection of additional S-bus devices to a maximum wiring distance of 6,000 feet from the power supply.
- c) The Intelligent Remote Power Supply shall have on-board synchronization for System Sensor NAC devices.
 - Horns and strobes shall be synchronized on the same two-wire NAC circuit.

G. Signaling Line Circuit (SLC) Devices

- 1. Each SLC shall be capable to accommodating 159 addressable detectors and 159 addressable modules.
- 2. Provide SLC devices as indicated on the construction drawings. All devices shall be listed for compatibility with the IFP-2000 FACP.
 - a) SLC Isolation Module shall be Silent Knight IDP-ISO.
 - b) Ceiling mounted smoke detector shall be Silent Knight IDP-Photo.
 - c) Ceiling mounted fixed temperature heat detector shall be Silent Knight IDP-Heat-HT
 - d) Attic mounted heat detector shall be Silent Knight IDP-Heat-HT or System Sensor 5602 with IDP-Minimon Monitor Module.
 - e) Outdoor elevator lobby device shall be Weatherproof Conventional Heat Detector Thermotech #302-AW-135 with IDP-Minimon Monitor Module.
 - f) Addressable Relay Module shall be Silent Knight IDP-Relay.
 - g) Addressable Input Module shall be Silent Knight IDP-Monitor.
 - h) Addressable Mini Input Module shall be Silent Knight IDP-Minimon.
 - i) Addressable Beam Detector shall be Silent Knight IDP-Beam-T
 - j) Addressable Manual Pull Station shall be Silent Knight IDP-Pull-DA.
 - k) Addressable Duct Mounted Smoke Detector shall be Silent Knight IDP-PhotoR with DNR Housing and Sampling Tubes.
 - 1) Where allowed by code, addressable relay modules shall be utilized for code required HVAC unit shut down in lieu of duct mounted smoke detectors.
 - 2) Where allowed by code, addressable relay modules in conjunction with linevoltage isolation relays shall be utilized to control Fire/Smoke Damper power circuits, in lieu of duct mounted smoke detectors.

H. Notification Appliance Circuit (NAC) Devices

 NAC devices shall be the product of System Sensor. All devices shall be listed for compatibility with the IFP-2000 FACP.

- Wall mount multi-candela horn/strobe shall be System Sensor P2R, two-wire, red in color.
- b) Ceiling mount multi-candela horn/strobe shall be System Sensor PC2W, two-wire, white in color.
- c) Wall mounted multi-candela strobe shall be System Sensor SR, red in color.
- d) Ceiling mount multi-candela strobe shall be System Sensor SCW, white in color.
- e) Exterior weatherproof horn shall be System Sensor HRK, red in color.
- f) Wall mount multi-candela speaker/strobe shall be System Sensor SPSR, four-wire, red in color. (For use in voice evacuation applications only)
- g) Ceiling mount multi-candela speaker/strobe shall be System Sensor SPSCW, four-wire, white in color. (For use in voice evacuation applications only)
- h) Exterior weatherproof speaker shall be System Sensor SPRK-R, red in color. (For use in voice evacuation applications only)

I. Line-Voltage Isolation Relay

- Line-Voltage Isolation Relay shall be System Sensor PR-1, Air Products PAM-1, MR101C or RIC-1.
 - a) All relays shall be California State Fire Marshal (CSFM) listed.

J. System Wire/Cable

1. All Fire Alarm System Wire and Cable shall be installed in conduit, unless noted otherwise.

a) Interior

- 1) SLC cable shall be #16AWG, 2-conductor, unshielded, FPL, red jacket by Falcon Fine Wire #450216R, or equal.
 - (a) SLC cable shall be California State Fire Marshal (CSFM) listed.
- 2) NAC Wire shall be #12 AWG THHN/THWN, stranded color red and black.
- 3) S-bus cable shall be #16AWG, 4-conductor, unshielded, FPL, red or black jacket by Falcon Fine Wire #450416R, or equal.
 - (a) S-Bus cable shall be California State Fire Marshal (CSFM) listed.
- 4) Speaker cable shall be #18AWG, 2-conductor, shielded, FPL, red jacket by Falcon Fine Wire #460218R, or equal.
 - (a) Speaker cable shall be California State Fire Marshal (CSFM) listed.
- 5) Network Fiber Optic Cable shall be 6-strand 62.5/125 micron multimode Indoor/Outdoor OCC DX006DWLS9KR, or equal, with ST connectors.

b) Exterior

- 1) SLC cable shall be #16AWG, 2-conductor, unshielded, FPL, water-blocked, black jacket by Falcon Fine Wire #400216H2O, or equal.
 - (a) SLC cable shall be California State Fire Marshal (CSFM) listed.
- 2) NAC Wire shall be #12 AWG THHN/THWN, stranded color red and black.
- 3) S-bus cable shall be #16AWG, 4-conductor, unshielded, FPL, water-blocked, black jacket by Falcon Fine Wire #400416H2O, or equal.
 - (a) S-Bus cable shall be California State Fire Marshal (CSFM) listed.
- 4) Speaker cable shall be #18AWG, 2-conductor, shielded, FPL, water-blocked, black jacket by Falcon Fine Wire #410218H2O, or equal.
 - (a) Speaker cable shall be California State Fire Marshal (CSFM) listed.

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- 5) V-Bus cable shall be #18AWG, 2-conductor, shielded, FPL, water-blocked, black jacket by Falcon Fine Wire #410218H2O, or equal.
 - (a) Speaker cable shall be California State Fire Marshal (CSFM) listed.
- 6) Network Fiber Optic Cable shall be 6-strand 62.5/125 micron multimode Indoor/Outdoor OCC #DX006DWLS9KR, or equal, with ST connectors.

PART 3- EXECUTION

3.1 DIVISION OF WORK

- A. While all work included under this specification is the complete responsibility of the Electrical Contractor, the division of actual work listed following shall occur.
 - 1. All conduits with pull cords, all electrical pull boxes, grounding rods, all outlet boxes, terminal cabinets, backboards, etc., which form part of the rough-in work shall be provided and installed completely by the Electrical Contractor. Coordinate as necessary for proper installation.
 - a) Equipment specific boxes provided by the system manufacturer shall be provided by System Supplier/Installer and installed by the Electrical Contractor.
 - 2. The balance of the system, including installation of initiating devices, notification appliances and equipment, making all connections, etc., shall be performed by the System Supplier/Installer.
 - 3. All 120VAC power conductors and conduits associated with power circuits to all fire alarm system equipment locations shall be provided and installed by the Electrical Contractor.
 - 4. An insulated stranded copper ground wire shall be provided from each control unit to the building grounding system, in compliance with CEC Article 250, by the Electrical Contractor.
 - 5. Labeling of pullboxes and terminal cabinets shall be provided and installed by the Electrical Contractor.
 - 6. HVAC Unit Shut-down
 - a) Conduit for code required HVAC unit shut-down shall be provided and installed by the Electrical Contractor.
 - b) Conductors for code required HVAC unit shut-down shall be provided, installed and terminated by the Mechanical Contractor.
 - c) Addressable Relay Modules for code required HVAC unit shut-down shall be provided and installed by the Fire Alarm System Supplier/Installer.

3.2 INSTALLATION

A. All work shall be completed in strict accordance with all applicable codes and ordinances, by a Silent Knight Select Farenhyt Engineered Systems Distributor.

B. Cable/Wire

- 1. All cable/wire for the system specified herein shall be new, unless otherwise noted on plans.
- System cable/wire and equipment installation shall be in accordance with good engineering practices as established by the California Electrical Code (CEC). Wiring shall meet all applicable electrical codes. All cable/wire shall test free from all grounds and shorts.
 - a) All cable/wire shall be continuous between terminals with no splices.

- 3. All cable/wire shall be labeled at all points of termination. All labeling shall be based on the room numbers as provided by the District/Owner or his representative.
- 4. Underground cables
 - a) Any cable/wire pulled through manholes or pullboxes located below grade, shall be continuous between terminals with no splices underground. The cable/wire shall be intact with no cuts in the protective outer jacket.
 - b) All cable/wire in underground vaults/boxes shall be neatly dressed with service loops attached to the sides of the vault/box. Cable/wire shall not come in contact with the ground.

3.3 SYSTEM START-UP

A. All start-up programming and system commissioning shall be performed by a manufacturer's trained and certified technician currently employed by the System Supplier/Installer.

3.4 SYSTEM VERIFICATION

- A. Subsequent to system start-up the system installer shall perform a 100% system pre-test to verify that the following features are functioning properly.
 - 1. All notification appliances
 - 2. All initiation devices
 - 3. All control modules
 - 4. All monitor modules
 - Communication link to monitoring service

3.5 ACCEPTANCE TESTING

A. The system installer shall, in the presence of the Inspector of Record (IOR), perform 100% testing as noted in System Verification above.

3.6 IN SERVICE TRAINING

A. The Contractor shall instruct personnel designated by the District/Owner in the proper use, basic care and maintenance of the system beyond the warranty period. Contractor shall provide up to eight hours of in-service training with this system.

3.7 FACTORY TRAINING & CERTIFICATION

A. When requested by Owner, provide Factory Training for a maximum of two District Technicians.

3.8 RECORD DRAWINGS AND CLOSE-OUT DOCUMENTATION

A. System supplier/installer shall periodically update the General Contractor's master set of record drawings kept on site.

- B. Contractor shall provide the following at close-out.
 - 1. Three (3) hard copies of manufacturer's maintenance and operation manuals.
 - 2. Three (3) wet signed copies of system warranty.

3.9 WARRANTY

A. The Contractor shall warrant the equipment and/or materials to be new and free from defects in material and workmanship, and will, within three (3) years from the date of final acceptance, repair or replace any equipment and/or materials found to be defective. This warranty shall not apply to any equipment or materials that have been subject to misuse, abuse, negligence or modification by owner or contractors other than the original installer that provided this warranty.

END OF SECTION 28 31 00