ADDENDUM NO. 2 **Date: January 18, 2021**

PROJECT:	**Dry Creek New Classroom Building & Administration Building Modernization**
DISTRICT	CLOVIS UNIFIED SCHOOL DISTRICT
PROJECT LOCATION:	1273 NORTH ARMSTRONG
	CLOVIS, CA 93619
DSA APP. NO.:	**02-118109**
FILE. NO.:	**19-34**

John H. Smith

Project Architect

This Addendum forms a part of the Contract Documents. It modifies the original Project Manual and Drawings, as well as any Addendum previously issued, as noted below. Bidders are required to acknowledge receipt of this Addendum in the space provided in the proposal form. Failure to acknowledge receipt of each addendum may subject bidder to disqualification.

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CONTRACT DOCUMENTS

Item No. 2-01 Revise Notice to Contractors as follows;

DVBE Declaration of Good Faith Efforts and any related DVBE documents to be included with sealed bid and delivered to Clovis USD Purchasing, 1450 Herndon Avenue, Clovis, CA 93611 on or before the bid day / time deadline listed in the Notice to Contractors. NO paperwork is to be submitted to Construction Services. All Bids and DVBE paperwork to be sealed and filed at Clovis USD Purchasing1450 Herndon Avenue, Clovis, CA 93611 on or before the bid day / time deadline listed in the Notice to contractors.

Due to COVID, bids will not be opened in public. Bid Tabulation and sub-contractor information will be posted on website 24-48 hours after bid opening.

Item No. 2-02 Pre-bid RFI Log with Responses. This log replaces that issued in Addendum #1. The attached Pre-bid RFI Log in this Addendum #2 is revised with additional RFI's, additional RFI responses and revised RFI responses from that in the log issued in Addendum #1.

Item No. 2-03 Revised Summary of Work, attached.

Item No. 2-04 All Irrigation water filters shall be "Orival", Org Series – Automatic Self Cleaning Water Irrigation Filter. Refer to attached Cutsheets.

SPECIFICATIONS

Item No. 2-05 Added Specifications Sections:

32 84 00 Irrigation System
32 90 00 Landscape Planting

Item No. 2-06 Replaced Specifications Sections:

10 28 13 Toilet Accessories
08 80 00 Glazing

DRAWINGS

CIVIL

Item No. 2-07 Refer to sheet C2.0. Omit the following demo keynotes west of Building G and Building H; omit "RC", omit "RS", omit "SC". These keynotes are associated with the existing covered walkway canopy. This covered walkway canopy will remain.

Item No. 2-08 The contractor shall provide play equipment relocation in accordance with attached Addendum Drawing AD2-C01 and the following provisions:

1. The contractor shall comply with all the requirements of the project specifications and General Conditions.

2. Only contractors that have at least three (3) years of experience with the installation and/or re-location of play equipment shall complete this work.

3. Prior to the start of any work in and around the existing play equipment, the contractor shall coordinate an on-site meeting with the contractor, the project Architect, and the Owner's representative to inspect the existing play equipment for existing damage and defects.
4. The contractor shall be responsible for compiling all existing damage and/or defects into a report (including photographic evidence) for submittal to and review by the project Architect and the Owner's representative. In addition to documentation of existing damages, the report shall include a written, step-by-step methodology for the completion of the work, including allowance for storage of the equipment until such time that it will be re-installed. No work on the existing play equipment shall commence until the report and methodology for work has been reviewed by the project Architect and the Owner's representative, with no exceptions taken.

5. During the course of the work, the contractor shall be responsible for maintaining the existing equipment in a good state of repair, equal to the state of repair of the equipment prior to work commencing; the contractor shall be responsible for any and all damage to the equipment that occurs during the course of construction, including replacement or rehabilitation of all damaged equipment to the Owner's satisfaction.

6. The contractor shall carefully excavate and remove the concrete footings from the existing posts prior to re-location. The contractor shall be responsible for new concrete footings as described on the second page of this Scope of Work Requirements. Upon exposing the existing play equipment footings, the contractor shall document the size of the existing footings and request site verification by the project Architect, the Owner's representative, or the project Inspector.

7. If the exposed footings are larger than the footing sizes presented in this document, the contractor shall re-install the equipment with footings to match the existing, and the extra-over concrete material required to achieve the larger footings will issued to the Owner as a Change Order.

8. If the exposed footings are smaller than the footing sizes presented in this document, the contractor shall re-install the equipment with footings to match the existing, and the reduction of concrete material required to achieve the smaller footings will issued to the Owner as a Credit (negative Change Order).

ARCHITECTURAL

Item No. 2-09 Refer to attached Addendum Drawing AD2-A01. This drawing modifies Interior Elevation #3 of Sheet AA7.10 and Finish Schedule on Sheet AA2.00 as shown clouded on this Addendum Drawing.

Item No. 2-10 Refer to attached Addendum Drawing AD2-A02. This drawing is adding a decorative sign at Building A as shown clouded on Exterior Elevation #4 of Sheet AA5.10 and Reflected Ceiling Plan #2 of Sheet AA3.10.

Item No. 2-11 Refer to attached Addendum Drawing AD2-A03. Provide Concrete Pedestal Detail for Safe as shown on this Addendum Drawing.

Item No. 2-12 Refer to attached Addendum Drawing AD2-A04. This drawing replaces Sheet AA8.10 and modifies the interior elevations as shown clouded.

Item No. 2-13 Refer to attached Addendum Drawing AD2-A05. This drawing replaces Sheet AA8.11 and modifies the interior elevations as shown clouded.

Item No. 2-14 Refer to attached Addendum Drawing AD2-A06. This drawing replaces Sheet AM8.10 and modifies the interior elevations as shown clouded.

Item No. 2-15 Refer to attached Addendum Drawing AD2-A07. This drawing replaces Sheet AM5.10.

Item No. 2-16 Refer to Wall Section 1-AA6.20. Rigid Insulation is not required at under Metal Roof Panels at Building A.

Item No. 2-17 Refer to Wall Section 3-AM6.20 and Wall Section 4-AM6.20. Provide 1” rigid insulation under Metal Roof Panels. Provide 1” rigid insulation under all Metal Roof Panels at Building M.

Item No. 2-18 Refer to Building Section 7-AA6.10. Revise keynote 10.18 to read ”Existing Bell to be Owner Furnished Contractor Installed.” The district will furnish the existing bell located on site. Contractor shall install the existing bell at Bldg M per details provided in Addendum #1.

Item No. 2-19 Refer to Floor Plan 2-AA2.00 and Floor Plan 2-AA2.10. Provide 4'x6' Walk off Carpet, Carpet type C3, at opening A109B.

Item No. 2-20 Refer to sheet AA2.00, Finish Schedule, Sheet Carpeting. Carpet Type 1 and Carpet Type 2 shall be OFCI.

Item No. 2-21 Refer to sheet AA7.10, Restrooms A106, A107, A108. Each restroom shall have (1) paper towel dispenser, OFCI.

ELECTRICAL

Item No. 2-22 Refer to sheets EA2.10 and EA3.10. Modify as follows: Provide addition receptacle and TV/AV outlets for the wall TV on the East wall per the Architectural Elevations. Use Circuit AR-24.

Item No. 2-23 Refer to sheet EM2.10. Modify as follows: Signal Terminal Cabinet STC-M shall be 36" X 36" x 6"D with hinged door and barrier at 12" for Fire Alarm.

Item No. 2-24 Refer to sheets EA1.10 and EM2.10. Modify as follows: emergency battery Lighting Inverters INV-A and INV-M shall each be Iota # IIS550 HE or approved equal.

FIRE SPRINKLER

Item No. 2-25 Refer to sheet FPM 3.10. All fire sprinkler pipe shall be concealed above finished ceilings.

End

Harris Construction

Date: 1/13/21

CUSD Drycreek ES Mod 2020 - PRE-BID RFI LOG

#	Company	DESCRIPTION	DATE CREATED	ANSWER	DATE ANSWERED
1	HCCI	The large planter walls West of Bldg A how does the transition form the 15" thick wall to the 10" wall work? The 15" wall is roughly finishes roughly 8" Above grade and the 10" wall roughly 18" above grade?	12/4/2020	See Details G&H/X1.0 - Addressed in DSA Approved set. - HCCI	12.29.2020
2	HCCI	We assume there will be a front end document issued to bidders aside from the Div 01 items in the SIM/PBK Specifications? Please provide.	12/4/2020	Received from CUSD 12.16.2020 - Issued w/Bid Docs. - HCCI	12.16.2020
3	HCCI	Please advise as to the status of the Haz-Mat Report?	12/4/2020	Received from SIM/PBK 12.24.2020 - Issued w/Bulletin#1 - HHCI	12.24.2020
4	HCCI	Please advise as to the status of the Soils Report?	12/4/2020	Received from SIM/PBK 12.9.2020 - Issued w/Bid Docs - HCCI	12.9.2020
5	HCCI	Please provide a detail for the transformer pad on the Exterior of Bldg A	12/4/2020	Detail provided see 7/EX.02 - Addressed in DSA Approved set. - HCCI	12.29.2020
6	HCCI	No Arch Site Plan included aside from regulatory plans. We need to make sure we deliniate where (N) and (E) side walks interact. Are there doweling requirements? No detail is provided at sidewalk conditions.	12/4/2020	Dowels are required at junction between old and new sidewalk - see Civil Site Plan for new work - BCF	1/5/2021
7	HCCI	At the seat walls North of Bldg A they appear to be 3' long but this is a scaled dimension, we should probably have a given dimension on these. Additionally Civil drawing have you look at the grading plan to get the height of the Planter/Seatwalls. There is no Top of Wall elevation given for any of these. The detail (J/X1.0) says 24" max but there should be at least one or two elevations.	12/4/2020	On the north side of BLDG A, the seat that are shown will be free-standing benches, not cast-in-place seat walls. Bench shall be QCP Pre Cast Bench- "Ademville #Q1AV78B". Verify with District of colors. ; on the SW corner of the building, the Civil grading plan now includes additional grading information - BCF Pre-cast bench to be provided by general specialties package furnished and installed. -HCCI	1/5/2021
8	HCCI	On Sht SM2.10 GL MA there are 3 "Popouts" Popouts between M1 & M3 and M4 & M5 have footing designations of F2 which is a 1'6" W footing. These appear to be significantly wider and scale to 3'0" W. Should there be additional footing designation or are these to be the F3 designation and be 3'6" W?	12/4/2020	See detail 5/SM6.10. Condition between Grids M3 & M4 is similar (no footing beyond). Footing width is as labeled and measured from the outside face of glazing towards the interior of the slab. The footing is widened to accommodate the concrete sill per the provided dimension. Part of the detail has been cut off and will be reissued in an Addendum. - Parrish-Hansen	1.4.2021
9	HCCI	With regard to the Slab On Grade SM2.10 notes the slab to be 4" thk and goes on to talk about verifying with the Archt'lsor Soils Report. There is no such note at Bldg A. Are they to be the same? Additionally what is to be under the Slab other than the vapor barrier. The details show what appears to be sand but no where does it state. Recommend providing slab section detail for both bldgs that takes into account the recommendations of the Soils Report.	12/4/2020	Refer to DSA approved drawings. See slab note on sheet SA2.10 and SM2.10. Under all new slabs at bldg A & Bldg M, provide vapor barrier, sand, 4" layer of 3/4 aggregate. Provide as recommended is the Soils Report. All aggregate, sand, vapor barrier under the concrete slabs shall be furnished and installed by concrete package. SIM-PBK [Parrish Hansen]	1/18/2021
10	HCCI	There doesn't appear to be a Finish Schedule included in the Set of documents provided. Please advise.	12/7/2020	Sht AA2.00 added - Addressed in DSA Approved set. - HCCI	12.29.2020

#	Company	DESCRIPTION	DATE CREATED	ANSWER	DATE ANSWERED
11	HCCI	On Sht SA2.10 there is a ftg that is unclear. At GL Hfrom the North Edge of the Wall South to GL 2 this is called out as an F1 Ftg. What happens from GL 2 South to where the footing returns back into the existing Ftg? Please Advise.	12/7/2020	It is a new footing poured up against the existing footing to support the new extended slab. New and existing footings shall be doweled together. There is no detail currently for this condition but may have to be issued later if needed. - PARRISH	12.29.2020
12	HCCI	On Sht SA2.10 at the 3 Toilet Rooms there are several Continuous Ftg's shown in this area however nothing shows which ftg these are to be.	12/7/2020	Per the footnote below the Footing Schedule, all footings shall be type F1 unless noted otherwise. - Parrish Hansen	12.29.2020
13	HCCI	On SHt SA2.10 at GL C on the North side of the Bldg there are two 'P1' Ftgs shown with what appears to be a ftg connectiong the two. No information is given for what the connecting footing is to be. There are notes stating that everything is F1 UNO but this doesn't seem correct.	12/7/2020	P1 footings are close enough that they are to be joined. - Parrish Hansen	12.29.2020
14	HCCI	On Sht SA2.10 starting at GL C and moving West there is no footing designation called out from GL C to the next P1 Footing. Please Advise, this appears to be an F1?	12/7/2020	This shall be an F1 footing. - Parrish Hansen	12.29.2020
15	HCCI	On Sht AA2.10 there are two hatches indicating slab removal one is hatched and shaded grey the other is only hatched. In the legend at both of these hatches there is a reference to a sheet AA2.20 however this sheet is not included in the set provided. Please provide.	12/7/2020	Legend revised - Addressed in DSA Approved set. - HCCI	12.29.2020
16	HCCI	Sht A9.11 shows only Storefront Windows several of these window elevations have doors and say "refer to door schedule" the Door schedule shows no storefront doors on HM Doors in HM Frames. Please advise. An example would be windows M4-6 corresponding to door openings M101A, M102A & M103A. All of these openings call for HM Doors and frames	12/9/2020	See upcoming Addendum #1 with the updated Door Schedule. - SIM-PBK	PA 1/8/2021
17	HCCI	There is no door shown on the interior elevation AA7.10 for room A107 & A108.	12/9/2020	Doors added - Addressed in DSA Approved set. - HCCI	12.29.2020
18	HCCI	No Specifications are included for Metal Panels noted in Detail 1/AM6.23, please provide.	12/10/2020	For Metal Roof Panels, refer to DSA Approved Plans and Specifications. Refer to Specification Section 07 41 13. Omit the phrase "Addednum No. 6" in the footer of this specification section. This specification section is part of the original DSA Approved Specifications and was not issued via an Addendum. For the soffit in this detail 1/AM6.23, the soffit panels shall be Composite Panels per Specification section 07 42 43. - SIM-PBK	1/18/2021
19	HCCI	Please confirm it is the intent of the documents for the entire roof at Bldg A to be removed and replaced. It is recommended to replace the entire roof so as to not run into color match issues or warranty issues later on.	12/10/2020	Revised Roof Demo Plan issued - Addressed in DSA Approved set. - HCCI	12.29.2020
20	HCCI	Please advise if a SWPPP will be required for this project. It is HCCI anticipation that one will be required. If this is the case who is creating the Plan. We would assume the district would have the plan created and HCCI would scope the BMP install into the Bid Packages and Maintainence and Inspections would be a reimbursable item?	12/16/2020	Yes, a SWPPP will be required for the project; CUSD will provide the SWPPP and file the Notice of Intent (NOI) with the State Water Board; Contractor shall be responsible for all QSP inspections, reporting, BMP installation and management. CUSD will provide the completed SWPPP document and NOI to HCCI and will complete the Annual Reports; the design team will issue a specification for SWPPP requirements as a bidding addendum. - BCF	12.29.2020

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21	HCCI	Will earlier hours be allowed during the summer months. Normal work hours are 7am-3:30pm. In the summer time these hours typically change to 6am-2:30pm in order to avoid the extreme heat in the summer months	12/16/2020	Hours of work shall from 7am-3:30pm, should exceptions to this need to be made for certain specific situations such as concrete pours, HCCI should be notified 7 days in advance with HCCI and CUSD having the sole discretion on whether the accommodation can be made. Time and cost impacts will not be allowed if HCCI and CUSD are unable to accommodate a request. -HCCI	1/14/2021
22	HCCI	Is there a specific form that needs to be issued with the bid documents for Substitutions? If so please provide.	12/16/2020	Form provided, see Spec. Section 01 25 00 - Addressed in DSA Approved set. - HCCI	12.29.2020
23	HCCI	Please confirm the district will be removing all Furniture and Equipment from the Admin Bldg prior to Demo. Also confirm that there are no "salvage" items that need to be returned to the district. One such itme would be the Basketball Goals at the South end of the Basketball courts. This portion of the court is Demo and replace do the Goals get saved and reinstalled or replaced.	12/16/2020	Salvage items that are to be returned to CUSD is called out in the Summary of Work in the various Bid Packages issued in the Addenda. HCCI	1/13/2021
24	HCCI	Please confirm there are no Deffered Approval items with DSA anticipated on the project. There are none listed in the drawings.	12/16/2020	Revised Cover Sheet indicates storefront - Addressed in DSA Approved set.	12.29.2020
25	HCCI	Please advise as to the scope of the OFCI items? In the past Carpet has been OFCI, is this the case for this project?	12/16/2020	OFCI items that are to be provided by CUSD are called out in the Summary of Work in the various Bid Packages issued in the Addenda - HCCI	1/13/2021
26	HCCI	Be advised there is no specification section for Storefront or Curtainwall Systems	12/22/2020	See Addendum #1 for specs. -SIM-PBK	1/13/2021
27	HCCI	Be advised there is no specification section for Window Shades	12/22/2020	See Addendum #1 for specs. -SIM-PBK	1/13/2021
28	HCCI	Is the district going to be installing there own permanent lock cores? In the past it is our understanding that the construction cores will come installed in the dorrhardware when it is installed. The permanent cores will be turned over to the CUSD key shop and keyed the way needed and then CUSD will come and swap out the construction cores for the permanent ones. Please confimr this is correct or advise of the correct procedure.	12/22/2020	All hardware is to be furnished and installed with construction cores. Permanent cores are to be turned over to the district for keying and installation. This is to be the process for all Site Gate Hardware, Storefront Hardware and Door Hardware. All hardware to be provided and installed as required by the General Specialties package." -HCCI	1/18/2021
29	HCCI	Wall Talkers are called for on the Interior Elevation of the Classroom Bldg. But there is no Specification section provided for this material or a ny other Markerboard type device. Please advise	12/22/2020	See Addendum #1 for specs. -SIM-PBK	1/13/2021
30	HCCI	Specification Section 10 28 13 Toilet Accessories appears to be a generis Specification. There is a list of approximately 22 items several different versions of the same thing, please advise which of these items are to be utilized and where. There is a keynote legend on the plan sheets but the keynotes themselves are not shown to be installed anywhere. Additionally if the restrooms in Bldg A are to have Electric hand dryers there is no power shown on the Electrical drawings to support this.	12/22/2020	Refer to replaced Toilet Accessories specification via Addenum#2. - SIM-PBK	1/15/2021

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31	HCCI	Are there any concrete flatness or levelness requirements? None are listed in the current concrete or flooring specifications. If there are wo performs this test the contractor under the supervisin of the IOR or will the testing lab do it?	12/22/2020	The cast in place concrete floor slab shall be poured with Floor Flatness and Floor Levelness as follows: Floor Flatness shall be 40 Overall and 28 Local. Floor Levelness shall be 30 Overall and 22 Local. Contractor shall be responsible for flatness and levelness verification thru a certified testing entity - SIM-PBK Concrete levlings and flatness testing to be provided by concrete package. All testing to be observed by IOR - HCCI	1/15/2021
32	HCCI	Thin Brick Specification 042113.13 2.8A references a section 072726 Fluid Appied Membrane Air Barriers. This Specification section does not exist in the current documents. Please advise.	12/22/2020	Specification verbiage modified - Addressed in DSA Approved set. - HCCI	12.29.2020
33	HCCI	Please advise as to where Specification section 071900 would apply is it Sealer that is applied to the Thin Brick? If this is the case does it apply anywhere else?	12/22/2020	Refer to Pre-bid RFI#34 for scope of waterproofing at concrete planter walls. Refer to Pre-Bid RFI#38 for scope of sealer coating at brick wall finishes. - SIM-PBK	1/14/2021
34	HCCI	Is there any Waterproofing to occur at the inside of the concrete planter walls?	12/22/2020	Yes, the waterproofing on all of the inside sufraces of the concete planter walls shall have waterproofing. The waterproffing shall be "WR Meadows', Mel-Rol-LM or Mel-Rol Peel & Stick or equal. Provide primer. Provide Protection Course PC-2 coverbaord over either selected membrane system. - SIM-PBK This waterproofing to be furnished and installed by concrete package. -HCCI	1/14/2021
35	Resource Environmental Inc	Resource is planning on bidding the above-referenced multi-prime project. We'll be bidding on package DC-01 demolition and abatement. In addition to the required licenses, C-21 & C-22 or C-21 with ASB & HAZ, we also hold an A and B license. Could you clarify on the prequalification requirements? Will we be required to prequalify with this district because we hold the A and B license, or are we exempt from that prequalification requirement because we'll be utilizing C-21, C22, ASB, HAZ to complete our scope of work?	12/23/2020	Licenses shall remain how noted on the Notice to Contractors. - HCCI	1/14/2021
36	Saleh Painting	The interior elevations on building M (plan page AM8.10) show Walltalkers Projectable Magrite. Please confirm the exact loacations of the Magrite. Please confirm that Magrite is what they want (with the magnetic qualities) which is more costly than the regular Walltalkers. Please supply a specification as well and types of trim and trays (if any) that are required.	12/29/2020	See Addendum #1 for specs. -SIM-PBK	1/13/2021
37	Saleh Painting	The interior elevations on building M (plan page AM8.10) show TAC-WALL C250. Please confirm exact locations of the TAC-WALL, trims required, and a specification for the product.	12/29/2020	Refer to revised drawings via Addenda.	1/15/2021
38	Saleh Painting	The Painting and Coating Specification section 09 90 00, Part 4 Schedules, talks about graffiti resistant coatings, although no products are specified. Please clarify if graffiti coatings are required and, if so, where they are to be applied on the building(s).	12/29/2020	Yes, provide non-sacrificial anti-graffitti coatings to the new exterior brick wall finish. - SIM-PBK Anti Graffiti coating to be provided by General Specialities package. -HCCI	1/14/2021

#	Company	DESCRIPTION	DATE CREATED	ANSWER	DATE ANSWERED
39	Saleh Painting	Please confirm that the Specification Section included in the documents is what is to be isued on the project. CUSD typically has a standard specification for Polished Concrete across all distirct project and it is different from the Spec. currently in the documents.	12/29/2020	Refer to spec section 03 35 43 in the DSA approved set for the required Polished Concrete Floor Finishing spec. The footer of this spec reads Clovis Unified Standard Specification 12/04/18. - SIM-PBK	1/13/2021
40	DMS Drywall	DMS Drywall is bidding on the DC-06 LATH/PLASTER/DRYWALL scope. On the bid package it notes that you require a C9 and C35 to bid this project. If we get our 'B' license prequalified with the district are we able to bid this bid package with our B License?	12/29/2020	Licenses shall remain how noted on the Notice to Contractors. - HCCI	1/14/2021
41	HCCI	Specification section 032000 part 1.5D requests a 10% allowance of the total reinforcing steel tonnage be added to the reinforcing contractors package. Please confirm this will not be required.	1/4/2021	This subject allowance shall not be included in the base bid. SIM-PBK	1/13/2021
42	HCCI	DSA Approved Specifications do not include Specifications for Landscaping or Irrigation	1/5/2021	Lanscape and Irrigation specifications are provide in addendum. -SIM-PBK	1/15/2021
43	HCCI	Sheet C2.0 contains keynote B1 through B10 at Bldg A. There is no legend provided for what these keynotes stand for. Please provide.	1/5/2021	Keynotes B1 through B10 reference boulders around the Admin Building (bldg A) that need to be salvaged and re-installed. The Planting plans have corresponding keynote references for the locations where those salvaged boulders will be installed. - BCF	1/15/2021
44	HCCI	Landscape and Irrigation Drawings indicate bidders are to carry $1k allowances within their bids for both landscape and irigation scopes of work. Please confirm these allowances are not to be carried in the Base bid for the project.	1/5/2021	This subject allowance shall not be included in the base bid. SIM-PBK	1/13/2021
45	HCCI	Finish Schedule Sht AA2.00 indicates a Specification section 064100 for Casework. This specification section is not currently included in the bid documents please provide.	1/5/2021	See Spec section 06 41 00 In the DSA approved dwgs. -SIM-PBK	1/13/2021
46	HCCI	Finish Schedule Sht AA2.00 indicates Specification section 066119 Quartz Surfacing Fabrications. This specification section is not included in the specifications. Please provide.	1/5/2021	See Addendum #1 for specs. -SIM-PBK	1/13/2021
47	HCCI	Finish Schedule Sht AA2.00 indicates Specification section 093013 Ceramic Tile, this specification section is not included in the specs. Please provide.	1/5/2021	See Addendum #1 for specs. -SIM-PBK	1/13/2021
48	HCCI	Finish Schedule Sht AA2.00 indicates Specification section 095427 - Specialty Ceilings. This appears to refer to the Wood Ceilings, should this reference actually be 095126. Please Advise.	1/5/2021	Yes, See Addendum #1 for Speciality Ceilings specs. -SIM-PBK	1/13/2021
49	HCCI	Reference is made on Interior Elevation Sheets to the Carpet on the project being an OFCI item Please confirm and advise of extent of items being provided. Is glue and rubber base OFCI as well and if so does this apply to carpeted areas only?	1/5/2021	Glue and Rubber Base is CFCI. -SIM-PBK	1/13/2021

#	Company	DESCRIPTION	DATE CREATED	ANSWER	DATE ANSWERED
50	HCCI	Finish Schedule Sht AA2.00 indicates Specification section 097217 - Fiber Reinforced Plastic Panels. Should this in fact reference section 097720, which is included in the specifications. Please Advise.	1/5/2021	Refer to spec section 09 77 20. - SIM-PBK	1/8/2021
51	HCCI	Drawings do not indicate extent of Canopy removal at the existing MPR per G0.02. Please provide extent of Demo as well as details for repair of Fascia and sheet metal drip edge as required.	1/5/2021	See Addendum #1 for Canopy Details. -SIM-PBK	1/13/2021
52	HCCI	1/AA6.21 is detailed as Storefront however note 8.01 notes the frame as HM please advise which is correct.	1/5/2021	This opening is storefront per the window schedule. Disregard keynote 8.01 at 1/AA6.2. - SIM-PBK	1/15/2021
53	HCCI	On Sht AM2.10, Bldg M Classrooms show projector mounts. Rm M106 does not show a Projector Mount. Please confirm this room should not have a Projector Mount.	1/5/2021	All (6) classrooms and the Collaboration Room M108 shall receive projector provisions as shown on sheet EM3.10. - SIM-PBK	1/18/2021
54	HCCI	Please provide a Specification Section for Metal Fascia. Example would be 2/AM2.16 and similar.	1/5/2021	Refer to addendum #1 for clarification of Bldg M facia. - SIM-PBK	1/15/2021
55	HCCI	PLease clarify Wall Talker areas noted on AM8.10 and all other areas to have wall talkers. Certain interior elevations are labeled for Wall Talkers however no limis for the material are shown. Also a Specification section for this material was not included in the DSA Approved documents.	1/5/2021	See Addendum #1 for subject specs. -SIM-PBK	1/13/2021
56	HCCI	Specification Section 081416 is included in Documents. Please advise where these occur it appears all doors are HM.	1/5/2021	Disregard specification section 08 14 16. Also refer to Addendum #1 for revised Door schedule. - SIM-PBK	1/15/2021
57	HCCI	Interior Windows at Bldg M at Classroom Entries are calld out as Storefront per the details. This will present a problem should the frame be damaged over the course of the life of the Bldg. The Aluminum Storefront cannot be easily repaired. Can these be changed to HM Frames, if damaged these can be repaired more easily.	1/5/2021	No. -SIM-PBK	1/13/2021
58	HCCI	No Exterior Bldg Signage is shown at either the (N) Classroom bldg or the existing Admin. Please confirm this is correct. All exterior signage to be provided by Cencal specialities package furnished and installed. -HCCI	1/5/2021	Refer to Addendum for added Sign at Admin Building. There is no exterior signage at the (N) classrom building. - SIM-PBK All exterior signage to be provided by General specialities package furnished and installed. -HCCI	1/15/2021
59	HCCI	Sht 12/SA6.12 references a Pre-Cast Bell PLease advise if this bell is to be provided as part of the project. If so please provide a Specification and details for mounting.	1/5/2021	Bell shall be existing, Owner Furnished Contractor installed as indicated in Addendum #2. See Addendum #1 for mounting details. - SIM-PBK	1/15/2021
60	HCCI	There appears to be several architectural details showing Galv Sht metal and Aluminum Storefront touching. This presents a problem given the dissimilar metals, please advise.	1/5/2021	All flashing at Aluminum Storefront windows shall be aluminum. - SIM-PBK All aluminum flashing associated with storefront to be furnished and installed by General Spec. Package. -HCCI	1/13/2021
61	HCCI	Keynote 19 on E0.3talsk about removing and pulling back wires at the existing covered walkway. Please confirm this work is not to be included in the base bid.	1/5/2021	This work is not in the base bid scope. -SIM-PBK	1/13/2021
62	HCCI	DSA Approved drawings include sheet FPA3.10 which appears to indicate the need for Fire Sprinklers at Bldg A. Hpwever there are no plans showing sprinklers and FPA3.10 appears to indicate a Design/Build system at this building. Is this the intent? Please Advise.	1/5/2021	Omit sheet FPA3.10 and FPA6.10. There are no fire sprinkler provisions nor scope at Building A.	1/15/2021

SIM-PBK ADDENDUM #2 JANUARY 18, 2021

#	Company	DESCRIPTION	DATE CREATED	ANSWER	DATE ANSWERED
63	HCCI	Please adivse if Termite treatment will be required at the (N) Ftgs and Slabs. If so, please provide specification as none is curently included in the documents.	1/5/2021	Yes. Provide soil sterilization at new footings and new slab. See Addendum #1 for subject specs. -SIM-PBK All soil sterilization to be provided by concrete package. -HCCI	1/13/2021
64	Wild Electric	After walking the job we have noticed a few discrepancies on the drawings. The location of the existing Distribution Board MS-1 shown on drawing E0.2 is incorrect (see attached drawing). Drawing E0.2 sheet note 19 states to provide a 4" conduit with 4- #500 KCMIL & 1- #1/0 GND for secondary power for the temporary Administration Portable Building. Please provide footage for the bid. Single Line Diagram drawing EX.02 shows the existing MSB feeding New Panel MD, drawing E0.2 shows the New Panel at the New Classroom M as being Panel HM ? Drawing EX.02 also says the 3" conduits that are feeding the Relocated Panels BP and PB are New & Extended. Is your intentions to tie onto existing 3" conduits and extend ? Please Clarify.	1/5/2021	Delete all work for providing new power to the temporary Administration Portable Building. The unused Panel 'PB' and the transformer to be delivered to the District after removal. -HCCI	1/13/2021
65	J Boone Mechanical	Please provide duct dimensions for thefollowing locations: 1) HCC-2 & HC-7 - exposed ducts of roof, 2) HC-7 - Return air above ceiling to grilles, 3) HC4,5&6 - Return air from drops to outlets.	1/5/2021	Duct size callouts added to plans.-LEG	1/11/2021
66	HCCI	Civil Drawings and detail K/X1.0 indicate that a new Flagpole is to be installed near the Admin Bldg. The detail does not have any information about Manufacturer, Model, Accessories, Etc…that will be required. Please provide a specification for the Flagpole.	1/5/2021	See Flagpole specifications in Addendum. -SIM-PBK	1/15/2021
67	HCCI	Detail 1/AM6.21 keynote 5.06 calls for Aluminum Outrigger Louver Systems. These occur on the three Classroom windows on the South side of the Bldg. The keynote description gives a maunfacturer but no other information (Colors, Installation Requirements, Accessories, etc...) please provide the appropriate specification. Additionally the detail noted above simply shows this item floating next to the window, there is no attachment shown. Please provide the appropriate attachment detail. Structural drawings simply direct back to the Architectural drawings.	1/5/2021	Refer to DSA approved plans and specs. Keynote 5.06 states manufacturer of aluminum outrigger system with additional information of this window accessory. Sheet AM3.10 also states this info in the legend for this outrigger system. In addition to this info on the plans, the outriggers shall be finished to match the alumin storefron window system. - SIM-PBK	1/15/2021
68	J Boone Mechanical	On the originall MM2.10 & MM3.10 sheets EF-1A through 1F & EF-3 were shown on the plans and listed on the Exhaust Fan Schedule. However, Bull#01 (DSA Approved Drawings) MM2.10 & MM3.10 sheets are fans are not shown. Please clarify if the above mentioned exhaust fans are deleted from the project.	1/7/2021	Correct - those exhaust fans are deleted from the project. -LEG	1/11/21
69	San Joaquin Glass	Floor Plans, Exterior Elevations, & all doors on door schedule except one indicate doors and frames are HM. The A10.80 details that are referenced call for Aluminum Storefront.	1/11/2021	See Addendum #1 for revised Door Schedule. -SIM-PBK	1/13/2021
70	San Joaquin Glass	Door A112B is indicated to be AL. Please provide specifications.	1/11/2021	See Addendum #1 for Specs 08 41 13 - Aluminum-Framed Entrances and Storefronts. -SIM-PBK	1/13/2021
71	San Joaquin Glass	Door Schedule lists all 01 Door Types to have CT panel glass. Please clarify.	1/11/2021	Disregard the CT indicated in the "Door Schedule" issued in the DSA approved plans and issued via Addednum #1. Provide CT where applicable as indicated on the "Door Types" on 1-A9.10 issued in Adendum #1. - SIM-PBK	1/15/2021
72	San Joaquin Glass	Window schedule glazing legend #2 states all exterior glazing is to be single pane. All 10.80 details show single pane. Spec. 088000 Glazing Schedule only lists 1" insulated glass. Please clarify.	1/11/2021	All exterior glazing shall be 1" insulated glass. - SIM-PBK	1/15/2021

#	Company	DESCRIPTION	DATE CREATED	ANSWER	DATE ANSWERED
73	San Joaquin Glass	Spec. 088000 Glazing Schedule lists GL1 & SP glass types. Please indicate where these glass types are to be used.	1/11/2021	There is no GL1 & SP glass types. Refer to replaced specification section 08 80 00 Glazing via Addednum #2. - SIM-PBK	1/18/2021
74	San Joaquin Glass	Spec. 088000 glas type GL 1 indicates tinted. Sec 2.2A indicates clear. Please clarifiy	1/11/2021	There is no GL1 glass type. Refer to replaced specification section 08 80 00 Glazing via Addednum #2. All exterior glazing shall be 1" insulated glass, tinted and interior glazing shall single pane and be clear. - SIM-PBK	1/18/2021
75	San Joaquin Glass	Spec. 088000 glass type SP indicates VE1 (Clear) glass. Sec2.1G lists 7 different glass tints. Please clarify.	1/11/2021	There is no SP glass types. Refer to replaced specification section 08 80 00 Glazing via Addednum #2. All exterior glazing shall be 1" insulated glass, tinted and interior glazing shall be clear. - SIM-PBK	1/18/2021
76	HCCI	Please provide specifications for Chainlink Fencing and Gates as well as Ornamental Fencing and Gates.	1/12/2021	Ornamental fencing shall be Ameristar Montage II "Genesis" style fencing - see note 1 in detail [A/X3.0]; all products and installation associated with this product shall conform to the manufacturer's recommendations or the details on the civil sheets, whichever is more stringent; chain link specs will be provided -BCF	1/13/2021
77	HCCI	Will Fire Treated Plywood be required on the wall of the (N) Data Rooms if so please indicate where.	1/12/2021	No. Fire treated plywood is not required at these rooms. - SIM-PBK	1/15/2021
78	HCCI	Please provide footing details for relocation of Play Equipment	1/12/2021	Refer to Addendem #2 for Play Equipment Scope of Work Requirements. -SIM-PBK	1/17/2021
79	HCCI	Civil Drawings include a detail for Stabilized DG no Specification included and none is indicated on the documents. Please provide location for installation if needed. (Detail E/X1.0)	1/12/2021	There is a small area of stabilized DG to be installed on the west side of Bldg A, adjust to the back-of-walk on Armstrong - see sheet C3.0; stabilized DG spec will be provided -BCF All stablilized DG to be furnished and installed by Landscaping package. -HCCI	1/18/2021
80	HCCI	Civil Drawings show a detai for a Parking Accessibilty Sign. Drawings do not indicate where this sign occurs. Please Advise.	1/12/2021	This question seems to be refering to Detail [G/X2.0] for the Entry Accessible sign - this sign should be installed at the accessible gate at the southwest corner of the Admin Building (building A) - see detail [I/X1.0 for specific location] -BCF	1/13/2021
81	HCCI	Civil Drawings included detail E/X3.0, please advise as to where this detail occurs. Drawings only show Details C&D/X3.0 occuring adjacent to the exisiting portables.	1/12/2021	Detail E/X3.0 is no longer required - reference Details C and D on sheet X3.0 for construction of concrete walk, vents, and vent surrounds for the existing portable building south of the new Classroom building. - BCF	1/13/2021
82	HCCI	Please advise if there there are any electrical requirements at the (N) Pump Filter Assembly shown on the Landscape drawings. Per keynote E on Sheet L1.1 there appears to be 120VAC needed.	1/12/2021	Yes, the flush valve will require a 120V electrical supply to supply 0.5A load - supply this from the local sub-panel in the well yard; contractor to field-verify -BCF Electrical for pump filter to be furnished and installed by Electrical package -HCCI	1/18/2021
83	HCCI	Please provide status of Drawings associated with PG&E replacement of the existing gas meter to be removed and replaced by PG&E. Documents state "Contractor is to arrange for installation and pay all costs." No application # for this work has been provided in order to begin researching pricing of required fees and scheduling. Please provide.	1/12/2021	Architect / Engineer submitted aplication to PG&E. PG&E will be repsonsible for installation.Contractor is responsible for coordination. District will be responsible for the PG&E fees. - SIM-PBK	1/15/2021
84	HCI Systems	Please clarify where the existing audio signal is coming from as the 3-ASU-4 will not have one. (Reference EA.06)	1/13/2021	There is no existing ASU. The ASU is new per the Fire Alarm Symbol List. -Hardin-Davidson	1/14/2021

#	Company	DESCRIPTION	DATE CREATED	ANSWER	DATE ANSWERED
85	HCI Systems	Please clarify if there is an existing fiber network	1/13/2021	No. - Hardin-Davidson	1/15/2021
86	HCI Systems	Please clarify the existing head-end equipment in Bldg D (existing FACP). Please clarify if there is a battery in the existing cabinet.	1/13/2021	The FACP is to be relocated including the batteries. - Hardin-Davidson	1/14/2021
87	Wild Electric	In Drawing EM2.10 STC-M. Could not find what this is in the drawings or notes, please clarify	1/13/2021	The Terminal Cabinet STC-M shall be 36” x 36” x 6” deep with hinged doors and barrier for Fire Alarm at 12”- Hardin-Davidson	1/14/2021
88	Wild Electric	In drawing EA1.10 it shows an Inverter-A and Drawing EM1.10 shows Inverter-M. Is there a manufacturing or model number for these inverters? Please Clarify.	1/13/2021	Both inverters shall be Iota IIS550 HE or approved equal. - Hardin-Davidson	1/14/2021
89	Wild Electric	In Drawing EA1.10 it shows Inverter-A but there is no Lighting Control Panel. Is there going to be a lighting control panel needed for Bldg A? Inverter-A also is not shown in the Panel AR Schedule. Which Panel is Inverter-A terminating into? Please Clarify.	1/13/2021	The exterior lighting is controlled via lighting relays in Storage Room A111 ceiling space. - Hardin-Davidson	1/14/2021
90	Wild Electric	In Drawing EM2.10 it shows CPM-1,3 outlet and CPM-5,7 outlet for UPS. Will the contractor be responsible for supplying UPS or will the school district supply the UPS? Please clarify.	1/13/2021	The data rack UPS’s are supplied by the Contractor per the specifications. - Hardin-Davidson	1/14/2021
91	Graham Prewett	Regarding the metal soffit/fascia panels in multiple areas such as page AM6.23 keynote 7.19 and 7.20 indicate the panels as Sheet Metal Fascia and Soffit panels, the profile of the panel appears to be an Aluminum Composite panel per the joint and profile, however there is no spec section listed for these panels. please provide a specification and product for the soffit/fascia panels. Please confirm that the metal soffit panels are in bid package DC-05 Roofing, Metal Panels/Fascia & Sheet Metal.	1/13/2021	See Addendum #1 for Composite Panels specs. -SIM-PBk	1/13/2021
92	Karsyn	Please provide Wall-Talker details	1/13/2021	See Specs section 09 72 16 - Dry Erase Wallcoverings, and see upcoming addendum for locations. -SIM-PBK	1/13/2021
	END				

SUMMARY OF WORK

PART 1 - GENERAL

1.01 SUMMARY

A. General: Construction of the BASE BID work for **Clovis Unified School District Drycreek Elementary School Classroom Addition & Admin Modernization Project in Clovis, CA**. The BASE BID work is defined as all material, labor, equipment and services necessary to do all work shown on the drawings and called for in the Specifications**.**

General Summary of the Project
The following information applies to all Prime Contractors and shall be reviewed carefully for inclusion in each bid. Following are critical logistics related to the Project:

1. Abatement work is included in this contract.
2. Addition of a Single Story Classroom Building, Administration Modernization, Site work, Low Voltage, Fire Alarm and EMS upgrades.
3. Work for the project will be performed during the hours of 7:00 a.m. to 3:30 p.m.
4. Submittals and material procurement shall begin immediately upon award or letter of intent from the District.
5. Material procurement is critical and shall be diligently pursued to meet the contract schedule.
6. Contractors shall review the project and schedule completely prior to bidding the work.
7. Substitutions must be noted in each bid with all costs for the specified product included in the bid and the substitution cost noted separately
8. Coordination of work during the preconstruction period is equally as critical to resolving all issues prior to the start of work. Prime Contractors shall review the project, coordinate and question any issues to allow resolution prior to the start of work.
9. Contractors shall include all necessary overtime costs in their base bid to complete the project as shown on the contract bid schedule. No additional money will be paid for overtime work.

In addition to the Bid Package Summary of Work provided by the CM for each trade, the following will apply and become a part of the contract with each respective Prime Contract.

Storm Water Pollution Prevention Plan
All contractors shall follow BMP's.

Contract
Please be advised that all successful bidders will be required to enter into a Prime Contract agreement with Clovis Unified School District.

Alternates
Additive Alternates for the work are as follows. Please provide a base bid for the project then list all additive alternates:

1. None

Contractor Badging
All crews working onsite for Prime Contractors or their subcontractors are required to checkout and wear a CUSD contractor badge while onsite. Badges should be checked out at the beginning of each day and returned at the end of each day. Should a badge not be returned the associated Prime Contractor will be billed $100 per badge not returned.

Crew Sizes
All Prime Contractors shall review the schedule and confirm that they can crew the project accordingly prior to submitting a bid. Include with each bid minimum and maximum crew sizes projected for the project.

Schedule
The Prime Contractors will be required to provide a schedule and crew sizing showing how the work will be accomplished within the given time frame. **Prime Contractors will not be allowed to take the Administration Bldg offline (Turn off Water, Sewer, Power, Low Voltage Systems, etc…) during the school year. However, infrastructure work, investigation and any other that can be done at the (E) Admin. Without disrupting operations can be completed prior to the end of the school year. All activities taking place prior to the end of the school year pertaining to the Admin Bldg or outside the construction areas of either Bldg. must be coordinated and cleared by HCCI and CUSD (BUL3).**

Site Logistics, Work and Coordination (applies to each Prime Contractor):

1. The district will remove and replace all furnishings and equipment. Provide layout of areas needed to complete your scope of work prior to the project beginning to allow for coordination with CM and The District.
2. Review and verify all existing conditions report any conflicts to the CM.
3. Provide all necessary temporary power distribution from services provided @ the building by the Electrical Package**.**
4. All subcontractors will provide their own temporary lighting. Electrical Package will provide ingress and egress lighting and string lights in corridors only.
5. All contractors shall attend coordination meetings and provide coordination drawings for underground and above ceiling work for work related to this Prime Contract and for coordination of utilities, openings and other areas that require interface between trades. Coordinate all drawings with the drawings of this Prime Contract. Note conflicts and provide potential solutions to the architect for review. Coordination and drawing approval must occur prior to excavation (and/or) overhead work. Contractor shall attend a pre-installation meeting prior to the start of its work onsite. All contractors shall be available for pre-installation meetings of other contractors for coordination of related work.
6. Only company vehicles are allowed onsite. No tool drop off or parking by personal vehicles will be allowed. Contractor to make provisions for transport or tool distribution needs.
7. Lunch and breaks shall be at designated areas only. No other areas will be allowed.
8. Protect all work, new and existing, from damage until acceptance by owner.
9. Storage areas will be confined to the areas designated by the CM. Staging areas around the building shall be coordinated with the CM. Storage onsite will be controlled due to limited space available.
10. Furnish all access to roof for own work, this to include any required hoisting of materials and/or Equipment.
11. Work under each contract shall comply with the Storm Water Pollution standards and as set forth in these Contract Documents.
12. All work under each contract shall comply with Air Pollution Control District standards. Provide dust control for own work.
13. **Each contractor will provide required dust control as needed for own work (BUL3).**
14. Provide written request for information through the CM for layout information from related Prime Contractors for all rough-in, embedded items, openings and block-outs, etc.
15. Request and review all associated shop drawings for coordination and layout purposes prior to installation of related materials.
16. Furnish and Install specified and/or approved sealant for own work abutting other, previously

installed, materials.

17. Furnish and install protection of al floors and roofing for own work.
18. Furnish and install all physical layout for own work.
19. There will be one wash out area for all contractors as designated by the CM. Each contractor will be responsible for providing wash out bin.
20. The CM will provide a miscellaneous debris bin for all bid packages except Demolition and Masonry.
21. Secure all ladders, lifts, equipment and tools each evening, no security provided.
22. Provide caution tape and/or barriers for open area work and traffic control.
23. Coordinate all work with mechanical, plumbing and electrical contractors for shut down of services as needed. Written notification must be given to the CM 48 hours prior to all shut down activities.
24. **Prime** Contractor is responsible for all work referenced throughout the project documents related to this bid package's scope of work.
25. All Prime Contractors are to provide a Full-Time Onsite Superintendent at all times while the Prime Contractor has crews onsite. This requirement includes while the Prime Contractor's subcontractors are onsite.
26. Each contractor is to provide all equipment and manpower as necessary to offload all materials required to complete their respective scope of work.
27. Provide complete mockups as required by the specifications which is not integral to the building.
28. If purchasing of material and equipment is required prior to immediate delivery and installation, provide storage as required until material is required to be installed per the contract schedule.
29. **Underground Locating scope of work below is limited to the construction areas shown on the documents. Any work to occur outside of this area will be the responsibility of the Prime Contractor to Pot Hole & Investigate prior to digging (BUL3).**

Underground Locating (for reference only, provided by CM)

Furnish and install all work specifically required throughout the project documents to complete the work of this subcontractor that specifically includes, but is not limited to the following:

Specification Sections
N/A

Refer to additional related specifications sections for work specifically included in this subcontractor noted below.

General Items:
1. See General Notes at beginning of section.
2. Coordinate all underground locating with the CM prior to starting work.

Locating services shall include:
1. Proposed footprint of building(s) plus 5' in each direction.
2. Proposed footprint of site structure(s) plus 5' in each direction. Site structures include items such as fences, gates, flagpoles, bollards, retaining walls, railings, foundations, concrete benches, ramps, etc.
3. Pathways for all proposed underground utilities plus 5' in each direction. This includes electrical conduit, storm drain, sewer, water, gas, fire, irrigation, etc.

Documents:
1. Provide scaled color coded drawing (minimum of 11x17) for all items located.

Installation of FOB Items:
Note. Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this subcontractor
1. None

End of Underground Locating Scope

Survey (for reference only, provided by CM)

Furnish and install all work specifically required throughout the project documents to complete the work of this subcontractor that specifically includes, but is not limited to the following:

Specification Sections
Division 00 – Procurement and Contracting Requirements
Division 01 – General & Supplementary Conditions

Specific Requirements

1. Provide minimum of (2) move-ins for each section of work as listed on the attached Project Schedule.
2. Set Control points complete per plans and specs.
3. Furnish and install all survey monuments as required by the plans and specs.

Coordination:

4. Coordinate elevation of all underground utilities. Attend all coordination meetings with underground utility contractors. Provide a list of all conflicts and potential solutions.
5. Coordinate location of site vaults and boxes to eliminate conflicts with walks, site structures, buildings and other utilities.
6. Coordinate locations of UG utilities to avoid conflict with angle of repose of foundations
7. Coordinate location of utilities to avoid conflicts with trees or other site related items.
8. Confirm concrete walk slopes for ADA compliance and proper flow.
9. Confirm ground slopes away from buildings in landscaped areas min 5% for at least 10'.
10. Confirm proper flow of all sewer and storm drain.
11. Confirm accuracy of (E) grades and benchmarks prior to start of staking.

Earthwork:

12. For each structure, establish a minimum of two permanent horizontal and vertical control points on the site, remote from the building area referenced to data established by survey control points
13. Staking for over excavation of Building pads
14. Staking of building cornersfor building pads for rough grading
15. Certification of site grades
16. Rough and finish grades for all offsite and onsite earthwork and paving

Under Ground Utilities:

17. Staking of all electrical vaults and boxes – orientation, horizontal and vertical points
18. Staking of all storm drain lines (manhole to manhole) and drain inlets (including orientation), drain boxes, sewer lines and cleanouts (100'); domestic water, fire water, gas lines and vaults (as required for excavation and installation horizontal and vertical) at the site.
19. Stake all valve locations.
20. Stake all fire Hydrants and PIV locations.
21. Stake all irrigation sleeves.
22. Stake all lateral tees and POC's at all Buildings for all utilities.
23. Stake all offsite utilities including water, sewer, storm drain, and electrical
24. Stake all Fire Risers (Horizontal and Vertical)

25. Stake all site lighting. Maintain required clearances from other underground utilities. Confirm all light fixtures are minimum 30" from face of curb when located at the head of a parking stall.

Onsite Concrete Work:

26. Provide staking for all onsite concrete work, walks, curbs, gutters, and walls.
27. Provide staking for all fencing.

Buildings:

28. Provide 1 permanent horizontal and vertical control point at each building.
29. Offset staking for building corners to be determined by CM.
30. Provide 10'x10' control grid at building pad.
31. Provide survey for every other building gridline at building pad, reference points and radiuses as required.
32. Provide Certification for building pads.
33. Provide (2) certifications of all anchor bolts for columns at buildings, canopies and similar for elevation, location and orientation. (1) Certification is to be completed prior to placement of concrete and the second is to take place after placement of concrete.
34. Provide two Gridlines North/South direction and one gridline East/West direction per building after SOG placement.

Documents:

1. Cut sheets and reference drawings for all stake items.
2. Certify site grades when site concrete and landscaping is complete.
3. ALL written certifications, cut sheets and reference drawings are to be provided within 48 hours of Survey to HCCI.
4. Provide an As-Grade Survey for Landscape Areas prior to planting.
5. Provide color coded as-built for all site work & utilities in PDF format.

DC-01 DEMOLITION & ABATEMENT

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

Division 00	CUSD General Conditions for CM Projects
Division 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
02 41 19	Selective Demolition
31 11 00	Site Clearing (As Applies to Demolition)
31 22 00	Soil Material (As Applies to Demolition)

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below.

General Items

1. See General Notes at beginning of summary of work specification section for other items.
2. Contractor is responsible for all work referenced throughout the project documents related to this bid package's scope of work.
3. Coordinate all work to provide access to buildings for other trades as scheduled. Coordinate with other activities in the schedule for other trades and confirm the schedule meets the CMBS dates.
4. Furnish and install all layout for own work from survey provided.
5. Coordinate all work with local utilities & utility contractors for shut down of services prior to demo.
6. Obtain all permits required to perform the work, including but not limited to Demolition Permit.
7. Provide all clean up daily and provide off-haul of own debris with bin provided by this bid package.
8. Review Asbestos and lead abatement survey for abatement scope of work.
9. Notify Air Board for demolition and abatement work.

Coordination with Other Trades

1. Review as-builts & underground locator survey & pothole utilities prior to starting work.
2. Dispose of building light fixtures and lamps in accordance with Contract Documents. Electrical Contractor will remove and stockpile for disposal by this package.
3. Coordinate extent of all abatement with CM prior to starting work
4. Coordinate with all other trades for extent of demo prior to starting work.
5. Demo shall include all substrate and fasteners ready for the next trade.
6. Coordinate with all contractors the extent of cutting/capping of utilities and concrete removal.
7. Coordinate extent of plaster removal for new fixtures with General Specialties package
8. AC Unit purges are to be completed by the HVAC Contractor.
9. **CUSD shall be given 72 Hours notice prior to any items being removed from the Building. This is to allow CUSD the opportunity to remove and salvage any desired items (BUL3).**
10. **All CL Fence noted to be removed is to be done so by this contract with the CL Fabric being salvaged back to CUSD.**

Furnish and Install Items

1. Protect from damage all finishes shown to remain throughout demolition activities. Any finishes not to be removed but damaged during Demolition will be replaced by this contract.
2. Protect all irrigation adjacent to demo areas.
3. Provide all demolition/removal of all items noted to be removed as shown on civil, landscape,

architectural, mechanical, plumbing, electrical, and structural, including but not limited to the following:

a. All cut or demo of concrete & asphalt.
b. All demo & removal of debris for: asphalt, concrete, foundations, trees, shrubs & turf, posts, signage, & foundations, fencing, and pole bases.
c. All irrigation, plant, roots and planter material demo shown throughout the documents. Coordinate with landscape contractor. Irrigation to be capped by landscape contractor. Furnish landscape grades in planters to tolerances noted in documents.
d. All salvageable items noted in the contract documents to be reused or turned over to District will be tagged and turned over with an itemized list to the CM.
e. Casework, countertops, backsplashes shown to be removed. Casework contractor to remove these items where shown adjacent to items to remain. Casework contractor also to remove and reinstall casework items shown to be reinstalled.
f. HVAC duct work and equipment, unit ventilators, chillers, boilers, roof mounted units, and Ice tanks will be disconnected and removed by mechanical contractor, items will be staged for off haul by demo contractor.
g. Building Gypsum board and/or Plaster
h. Framed Walls, roofs and Ceilings
i. Ceiling Grid shown to be removed
j. Wall Finishes – Including glue removal
k. Exterior Finishes
l. Doors, Windows, Hardware and Louvers
m. Bldg. Electrical, LV, FA Demo (Safe-Off by Electrical)
n. All plumbing items at the site and buildings, **including septic tanks and leach lines (BUL3).**
o. Flooring where all flooring in the room is removed. Including adhesive removal.
p. Demo grout bed.
q. Ceramic Tile.

4. Items to be removed by others:
   a. Irrigation contractor will cut and cap and remove all heads and devices
   b. Remove and salvage all plumbing fixtures shown to be demolished.
   c. Remove (disconnect and stage) all mechanical units including roof mounted and unit ventilators complete is by mechanical contractor
   d. Remove and store all mechanical items that are to be reinstalled at it later date is by mechanical contractor.
   e. Roofing.
5. Demolition of all concrete shall be from joint to joint. No overcuts allowed.
6. **Provide Sawcut, Break and remove of all concrete at the (E) Slab. This should include all areas to be Demo'd noted on all drawings through all disciplines. Layout of Demo to be provided the respective trades (BUL3).**
7. Demo all toilet accessories as shown, General Specialties package to remove accessories shown to be removed and re-installed.
8. Demo ceilings where walls are to be installed.
9. Demo concrete for plumbing relocation including curb and wall finishes.
10. Provide for proper hazardous material disposal of lamps and ballasts.
11. Remove all electrical equipment and fixtures at the site **(Electrician to Safe-Off and Disconnect)**.
12. Cut & cap of utilities will be by all utility trades. Coordinate prior to demo
13. Demo and removal of a UG Utility Lines shown to removed
14. Demolish and backfill (E) Septic Tank and leach lines per P1.0P
15. Remove all abandoned Underground Utilities within Construction Limits and identified on Underground Locating Map.
16. Backfill and compact all voids left by demolished items.

17. This contract shall provide cleaning services for all adjacent structures to remain of all dust dirt and debris caused by demo activities.
18. Furnish, install and maintain Traffic Control for all work in this bid package.
19. This Contract will be responsible to provide all abatement requirements per the haz-mat report provided by HMS. Coordinate extent of all abatement with the CM prior to starting work. Review the haz-mat report prepared by HMS, Inc. for the scope of work and abatement methodology.
20. Provide daily offhaul of debris from jobsite in accordance with HMS Hazardous Materials Report.
21. **Furnish and install Demo and Backfill of (E) Drywell per N/P10.10 and similar (BUL3).**
22. **Furnish and install shoring required to support roof structure once Demolition is complete. All shoring is to be incompliance with all applicable local, state and federal codes and laws. Additionally shoring plan shall be signed and stamped by a Structural Engineer licensed to do work in the State of CA. Engineered and stamped shoring plan to be provided to HCCI and Design Team prior to Demolition. Shoring to remain in place until structure has been supported and inspected (BUL3).**

FOB Items

1. None.

Provide Information Separate from Bid amount. Include on Bid form.

1. None.

Installation of FOB Items:

Note: Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this Prime Contractor

1. None.

End of Package

DC-02 SITE & BUILDING CONCRETE & REINFORCING

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
03 02 00	Concrete Resurfacing, Repair & Moisture Vapor Mitigation
03 10 00	Concrete Forming & Accessories
03 20 00	Concrete Reinforcing
03 30 00	Cast-in-Place Concrete
03 35 00	Concrete Finishing
03 35 43	Concrete Polishing (As Applies)
07 92 00	Joint Sealants (As Applies)
31 23 00	Trench Excavation & Backfill (As Applies)
32 11 26	Aggregate Base Course
32 13 13	Site Concrete Improvements
32 13 15	Concrete Improvements
32 17 26	Tactile Warning Surfacing

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below.

General Items

1. Contractor is responsible for all work referenced throughout the project documents related to this bid package's scope of work.
2. Any substitution of details or materials must be pre-approved by the Architect, engineers and DSA. All substitution requests must be submitted to the CM prior to bid**.** This contractor is responsible for all costs and time delays required for DSA approval.
3. There will be one wash out area for all contractors as designated by the CM. Each contractor will be responsible for providing wash out bin.
4. Provide all backfill of excavations to original sub-grade for work included in this Prime Contract.
5. Provide all clean up and provide off-haul of own debris from site daily.
6. See General Notes at beginning of summary of work specification section for other items
7. Furnish off-haul of all excavation spoils from site.
8. Provide Dewatering for own work. Dewater block outs for structural steel columns until pour back.
9. All subcontractors will provide their own temporary lighting. Harris Construction will provide ingress and egress lighting and string lights in corridors only.

Coordination with Other Trades –

1. Review and coordinate layout of all block outs in concrete as shown in the contract documents, related shop drawings or written layout provided by other Prime Contractors. Coordinate locations with related Prime Contractors prior to installation.
2. Provide location for reinforcing steel passing through structural steel for structural steel shop drawings, as required.
3. Coordinate dimensions with other related Prime Contractors of all equipment and housekeeping pads. Pad sizes shall be provided by other Prime Contractors and physically laid out and installed by this Prime Contractor.

4. This Prime Contractor will receive all building pads at +/-0.05' and site at +/-0.10' will be responsible for all cut and fill necessary to complete the work of this Prime Contractor.
5. Maintain building slab subgrade moisture content per soils report once building pad is received from the earthwork Prime Contractor.
6. Provide access for other trades through reinforcing steel at building lines.
7. Provide layout drawings for all building slab on grade concrete joints for approval prior to installation of concrete.
8. Provide layout drawings for all site concrete joints for approval prior to installation of concrete.
9. Receive and coordinate written layout from other Prime Contractors for items embedded in, or passing through concrete. All sleeves are to be installed by the utility and or misc. steel / railing Prime Contractors.
10. Coordinate all embedded items in foundations at exterior of building to be installed at a later time i.e. fencing, posts, etc…
11. Coordinate installation of all sleeves for work passing through concrete work with respective Prime Contractors prior to excavation.
12. Coordinate concrete curbs relative to framing prior to pour.
13. Coordinate all work to provide access to buildings for other trades as scheduled. Coordinate with other activities in the schedule for other trades and confirm the schedule meets the CMBS dates.
14. Install and coordinate block-outs at the site concrete to facilitate installation of fine grading by Earthwork Prime Contractor and to protect concrete until fine grading is complete. Complete site concrete block-outs once fine grading is complete. Backfill and fine grade once block-outs have been poured.
15. Irrigation sleeves will be installed by the landscape/irrigation Prime Contractor. Coordinate schedule.
16. Coordinate the location of depressions, block outs, slopes and drains prior to pour, with other trades as required.
17. Coordinate site walks at building plaster. Termination to conform to code.
18. Review as-builts & underground locator survey & pothole utilities prior to starting work.
19. See General Notes at beginning of summary of work specification section for other items.
20. Coordinate with Demolition Prime Contractor for extent of concrete demolition. Concrete will be removed joint to joint by demo contractor. Replace as required for all trades. Existing concrete to be figured at those areas shown on Demo drawings. In addition concrete patch back to be figured at all plumbing & electrical/LV/FA trenches shown to be located in existing slab. All trenches to be patched figure to be 2' wide.
21. Coordinate site walks @ building plaster. Termination to conform to code.
22. Electrical and site utility bid package shall furnish and install all concrete required for installation of thrust blocks, manholes, vaults, boxes, underground structures for work related to their bid package. This bid package shall furnish and install all other concrete shown including aprons mow strips and collars.

Furnish and Install Items

1. Furnish and install all site and building concrete complete including any required reinforcement per plans and specifications. This to include entire SOG profile (Agg. Base, Sand, Vapor Barrier, Concrete, Etc…)as shown on the contract documents. This also to include patch back of concrete sidewalk, curbs, gutters, etc… at all Utility Tie-Ins.
2. Furnish proposed construction joint layout for review and approval by the Architect. Provide all saw cutting, formwork and sealant for same as required per the contract documents
3. Furnish and install all sand as detailed at site concrete. All other fill material shall be furnished and installed by the earthwork subcontractor. Agg. Base under vehicular type sidewalk to be by Earthwork package per the contract documents.
4. Furnish and install all layout for own work from survey provided by the survey contractor. See survey scope of work for reference. This bid package will be responsible for all additional required

layout not performed by the survey contractor. Contractors are responsible for protection of all requested survey. Provide 72 hour notice by submitting a survey request form.

5. Furnish and install surface saw cutting per the contract documents.
6. Furnish proposed construction joint layout for review and approval by the Architect. Provide all saw cutting, formwork and epoxy joint filler for same.
7. Furnish and install all drilling of holes for work performed in this Prime Contract.
8. Furnish and install all expansion joints, sealant and filler complete required by the contract documents.
9. Furnish and install all agg. Base/sand as detailed at building concrete. All other fill material shall be furnished and installed by the earthwork package.
10. Furnish and install any and all backfill of excavations at all stem, retaining, and ramp walls by this Prime Contractor to the required grade.
11. Furnish and install all mow strips including excavation. Backfill will be by the earthwork package.
12. Physically layout and install all block outs, openings, etc… in concrete from written layout provided by other contractors for installation of their work.
13. Furnish & install all concrete equipment/housekeeping pads on site.
14. Furnish and install all concrete for utilities shown on Civil and Architectural Drawings; i.e., collars at Christy inlets, concrete at gate valves, post indicator valves, backflow preventers and **Gas Regulators.**
15. Furnish and install all reinforcing steel for site work and building concrete.
16. Furnish and install all sealant at building to site concrete.
17. Furnish and Install concrete walks damaged or removed for irrigation, electrical and plumbing cut and patch work (see Civil, Architectural, Structural, Plumbing, Mechanical, and Electrical Drawings). Shall be patched back with new concrete to match texture, grade finish, and thickness of existing adjacent concrete walks.
18. Furnish and install all Tactile Warning Surfaces (truncated domes) as called for.
19. Furnish and install all seat walls, curbs, and foundations.
20. Weakened plane joints at walks shall be max 10 feet, expansion joints 20' max spacing per plan. Where not shown refer to specification section 32 13 13.
21. Furnish and install all patch and infill at slab as required.
22. Furnish and install all rebar and doweling into existing concrete including lubrication/epoxy.
23. Furnish and install backfill of all foundations.
24. Patch areas where demo has been performed for utilities.
25. Furnish and install 6" concrete curb at infill framing.
26. Furnish and install under slab vapor barrier
27. Furnish and install topical concrete vapor control barrier (Curranseal or sim product per Specifications) at new slabs only.
28. Furnish and install all expansion joints and sealant complete required by the contract documents in concrete.
29. Furnish and install 3" min. cover with concrete for all structural steel and base plates that extend beyond the building line.
30. Furnish and install all grouting and/or dry pack for structural steel at concrete.
31. Furnish and install cleaning and protection of anchor bolts until turn over to structural steel erection or setting of leveling nuts.
32. Furnish & install all floor prep for floors out of tolerance. Tolerance of concrete placement is to be per the specifications. Any concrete placed that is not within these tolerances will be corrected by this bid package (Up to removal and replacement at the sole discretion of the AOR and CUSD). Where tolerance for flooring material is higher than what is required in Concrete Specification respective flooring contractors will correct as needed.
33. Furnish and install all wood embedded into concrete per the contract documents.
34. Furnish and install slopes to drain at all drains coordinate prior to installation with utility contractor.
35. Provide all concrete coring for furnished and installed handrails.
36. Furnish and install termite control and soil sterilization under all building concrete.

37. All minor depressions for tile and slopes to drain shall be performed by the Concrete Subcontractor
38. Furnish and install treads, landings and nosing's as shown on Civil and Architectural Drawings at site.
39. **Furnish and install all excavation, concrete, reinforcing and expansion material and caulking at concrete curbs/stemwalls adjacent to (E) portables, reference C,D & E/X3.0 (BUL3).**

Provide Information Separate from Bid amount. Include on Bid form.

1. None

FOB Items

1. None

Installation of FOB Items

Note: Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this Prime Contractor

1. Physically layout and install all items embedded in (N) concrete (i.e. anchor bolts, plates, angles, non-bolted tube steel, rails, sleeves, pipe rail, etc.…) as provided FOB jobsite by other Prime Contractors from written layout provided by those Prime Contractors. Install and grout all items installed in sleeves.
2. Install and remove when complete all bolt templates provided by other Prime Contractors.
3. Install all framing sill and hold down bolts as provided FOB by the framing Prime Contractor in new concrete. All layouts will be furnished by the framing Prime Contractor.
4. Install bollards furnished by building steel contractor, including locking hardware complete

End of Package

DC-03 GENERAL SPECIALTIES

Furnish and install any or all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
03 35 43	Polished Concrete Finishing
04 21 13.13	Thin Brick
05 12 00	Structural Steel Framing
05 50 00	Metal Fabrications
06 40 00	Architectural Woodwork
07 19 00	Water Repellants
07 21 00	Thermal Insulation
07 25 00	Weather Barriers (As Applies)
07 72 00	Roof Accessories
07 84 00	Firestopping (As Applies)
07 92 00	Joint Sealants (As Applies)
08 11 13	Hollow Metal Doors & Frames
08 14 16	Flush Wood Doors
08 71 00	Door Hardware
	Aluminum Storefront/Curtainwall (Deferred Approval)
08 80 00	Glazing
	Tiling
09 65 13.13	Resilient Base
09 65 19	Resilient Tile Flooring
09 68 00	Carpeting
09 90 00	Painting & Coating
10 14 00	Graphics & Signage
	Window Shades
10 28 13	Toilet Accessories
10 44 00	Fire Extinguishers and Cabinets
32 31 13	Chain Link Fences & Gates

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below.

General Items

1. Contractor is responsible for all work referenced throughout the project documents related to this bid package's scope of work.
2. Any substitution of details or materials must be pre-approved by the Architect, engineers and DSA. All substitution requests must be submitted to the CM prior to bid. This contractor is responsible for all costs and time delays required for DSA approval.
3. See General Notes at beginning of summary of work specification section for other items.
4. Review Asbestos and lead abatement survey for abatement scope of work.
5. Provide protection of slab and utilities from cranes and equipment.
6. Provide Dewatering for own work.
7. Furnish clean up daily and off-haul of all debris generated by this bid package.

Coordination with Other Trades

1. Provide layout for all items installed by this package requiring backing to Rough Carpentry package. All backing to be physically layed out and written layout provided.
2. Coordinate layout and opening sizes for thin brick cutouts for other trades.
3. Coordinate SF/Window/Door frame finish openings with other trades.
4. Coordinate with wood framing contractor all finished dimensions required to meet ADA.
5. Coordinate ceramic tile installation with mirror locations at toilets.
6. Coordinate locations of window and door frames installed relative to the location of plaster molding adjacent to the frames to insure a water tight system.
7. This contract to coordinate all HM Frames with appropriate wall finishes to achieve needed throat size for frames
8. Submit shop drawings & procure material so as not to delay the scheduled installation of plaster.
9. Provide written request for information through the CM for layout information at least 21 days prior to need, from related bid packages for all for rough-in, drilling, coring, backing, openings and block-outs etc.…
10. Furnish written layout information within 21 days of request for all for embedded items, drilling, coring, backing, openings and block-outs, etc.…to other bid packages. Any work where layout was not provided on initial construction shall be performed by this bid package. This shall be done during the shop drawing period not after submittal for approval. Prime Contractors will mark up shop drawings and return with proper dimensions.
11. Provide coordination drawings for above ceiling work for work related to this bid package. Coordinate all drawings with the drawings of this bid package. Note conflicts and provide potential solutions to the architect for review. Attend all coordination meetings required to coordinate all above ceiling work.
12. Request and receive layout (prior to detailing and fabrication) from other bid packages for all items that require holes, openings, reinforcing or bracing related to this bid package's scope of work including but not limited to, bolt holes for attachment, roof openings, HVAC supports, reinforcing steel, etc.…Allow 21 days for return of dimensions
13. Coordinate with Painting Prime Contractor the application of the cement plaster painting system, and provide written report of the cement plaster pH prior to the painting application.
14. Schedule paint coats so as to allow for completion of work with minimal damage with final coat being installed with majority of work completed. Furnish and install all touch up required
15. Plaster contractor shall coordinate with Painting contractor the application of the cement plaster painting system, this contract to provide a written report of the cement plaster pH prior to the painting application.
16. Coordinate painting/coating with other contractors or control vapors so as to allow for completion of work without cross exposure to other contractors when using paints or coatings that could create a hazard to other workers exposed to vapors.
17. Examine floor substrate for acceptance prior to start of work per specifications.
18. Review details and provide recommendation of best practices for crack control in polished concrete areas.
19. Coordinate cove base transition with framing and structural concrete contractors to ensure flush transition to wall finishes.
20. Due to schedule constraints field measuring should be considered at framing stage in lieu of after all drywall and finishes are complete. Review the schedule to determine necessity relative to fabrication times. If measurement is required at the framing stage, provide measurement to meet the schedule and figure all associated finishes.
21. Coordinate at the jobsite all plumbing and electrical locations during rough-in activities to assure proper fit at time of casework and equipment installation.

22. Coordinate counter support bracket layout to avoid conflict with in-wall rough-in.

Furnish and Install Items

1. Furnish and install all polished concrete finishing complete per the plans and specifications. This contract shall provide floor protection for all polished floors during and after the polishing process. This also to include the application of any stains or colors as noted on the contract documents as it relates to Polished Concrete.
2. Furnish and install all Thin Brick Veneer systems complete per the Plans and Specifications.
3. Furnish and install all special or cut bricks to match details at special corners and ends of walls, including mitered corners.
4. Furnish and install all caulking of joints at Thin Brick including Expansion & Control Joints.
5. Furnish and install saw cutting of Thin Brick for installation of flashing and sealant by others; layout to be provided by other contractors.
6. Provide scaffolding as needed to complete your work.
7. Remove all efflorescence and grout residue from masonry prior to sealing.
8. Clean and seal all thin brick as required by the plans and specifications.
9. Furnish and install all Structural and Misc Steel Fabrications complete per Plans and Specifications. This to include any Steel Item noted to be 10GA and heavier. This is to include but not be limitied to: Columns, Beams, Angles, Plates, Ladders, Counter-top brackets.
10. Physically layout and install all block outs, openings, reinforcing, bracing and holes in steel from requested written layout provided by other contractors.
11. Provide dewatering of all column block-outs as needed to complete your work.
12. Set leveling nuts at anchor bolts to the proper elevation for structural steel installation after one nut has been set to elevation by the concrete contractor. Assume protection of bolts from the concrete contractor.
13. Furnish and install all Architectural Woodwork complete per plans and specifications.
14. Furnish and install all floor anchorage, angles and floor blocking for casework. Backing in wall to be provided by the Framing Contractor from layouts provided by this Contract
15. Furnish and install Mail Slot Casework as noted on AA8.10 and similar.
16. Furnish and install all openings in casework and tops for other trades.
17. Furnish & install cable holes and grommets.
18. Remove all casework items shown to be removed that are adjacent to casework items shown to remain.
19. Furnish and install all counter tops prepared to receive plumbing and electrical. Cutting holes for sinks will be by this contract.
20. Furnish and install casework accessories as noted in specification.
21. Furnish and install shims & wood supports.
22. Furnish and install all Water Repellants complete per plans and specifications.
23. Furnish and install all thermal insulation/Fire Stopping complete per contract documents, roofing and exterior wall rigid insulation by others. **Thermal insulation should be figured at all concealed spaces which do not receive Fire Sprinkler coverage (BUL3).**
24. Furnish and install all acoustical/sound insulation, blankets, per the contract documents fire rated gyp board is provided by gypsum board subcontractor
25. Furnish and Install calcium fiber filler, per contract documents.
26. Furnish and install all insulation draft / fire stops.
27. Furnish and install all labeling/stenciling required at Firer Rated Walls as required.
28. Furnish and install all HM Doors, Frames complete per plans and specifications
29. Furnish and install all door lite frames and trims complete per plans and specifications
30. Furnish and install all Flush Wood Doors complete per plans and specifications
31. Furnish and install all door louver inserts at all hollow metal and wood doors complete per plans and specifications

32. Furnish and install all Hardware at HM, Wood and Storefront/Curtainwall.
33. Hardware to be provided with construction cores installed, permanent cores to be provided to district for keying and installation.
34. Furnish and install bituthene at door and window openings as required.
35. Furnish and install all membrane & window flashings at openings under this scope of work
36. Furnish and install all Storefront, Curtainwall and Glazing systems complete per plans and specifications. This is to include all related flashings, sealant, trims and accessories needed to make for a complete and watertight system.
37. Furnish & install glass at door lites.
38. Furnish and install all glass and glazing shown throughout the contract documents, this to include any required Spandrel, Acoustical and/or Fire Rated Glazing, as required.
39. Furnish, Install, and Remove any scaffolding/equipment required by this scope of work at the interior of the buildings.
40. Furnish and install sealants at all aluminum windows, storefront, curtainwall and or aluminum flashings at interior and exterior.
41. Furnish and install all mirrored glass as called for in the glass specification.
42. This contract to perform water & air testing at storefronts, curtainwalls and windows as called for in the contract documents.
43. Furnish and install all Tiling systems complete including but not limited to ceramic/quarry tile, water barriers and copper flashings, Interior & Exterior as required.
44. Furnish and install floor prep for concrete cracking, saw cut joints and construction joints.
45. Furnish and install Mortar beds as required in the project documents.
46. Furnish and Install sealant for work included in this contract abutting other materials. Sealant shall be furnished and installed by the last contractor to install adjacent materials as scheduled in the CMBS (excluding painting). Unless otherwise noted in the contractors summary of work.
47. Furnish and install floor protection for all finished floors once complete.
48. Test moisture levels of slab on grade meet manufacturer's requirements prior to installation of flooring.
49. Furnish & install all flooring including concrete sealer, polished concrete and Epoxy-Resinous Flooring. This to include but not be limited to all carpet walk-off mats and resilient base & accessories
50. Furnish and install floor leveling to meet manufacturer's requirements.
51. Refer to concrete specifications for tolerances of (N) Slabs. Any slabs found to be within tolerance of concrete specifications but not with Flooring specifications shall be the responsibility of the flooring contractor to correct.
52. Furnish and install flooring patch after demo of flooring.
53. Furnish and install prep of existing floors to receive new materials.
54. Provide floor covering at all knee spaces and areas open to view under casework
55. Furnish and install all prep, primer and painting complete per plans and specs. This to include all areas where ceiling is open to bottom of the roof assembly and is also to include all exposed ductwork, conduit, piping, etc… that is left exposed as well.
56. Furnish and install all interior door / window frame caulking complete.
57. Furnish and install finish as specified for trim, doors, and millwork.
58. Furnish and install all surface preparation and finish of all flashing to be painted.
59. Provide testing for primer adhesion at structural steel to confirm compatibility with paint
60. Furnish and install painting on all exposed piping as called for throughout the contract documents.
61. Furnish and install expansion joint caulking at Site Concrete and Masonry Walls.
62. Furnish and install painting corner to corner or break line at all patches.
63. This contract is to provide paint touch-up for minor trade damage.
64. **Furnish and install all painting at (E) MPR for work associated with the Overhang cutback. This should include painting (N) Fascia and sheetmetal at this location (BUL3).**
65. Furnish and install clear floor sealer per complete per plans & specs.

66. Furnish and install protection of concrete at areas where exposed concrete is the finished product (Polished Concrete, Sealed Concrete, etc...). This to include protection prior to and after floor finishing.
67. Furnish and install all exterior and interior signage shown complete.
68. Furnish and install all access signage on walls and fencing.
69. Furnish and install all building lettering and signage.
70. Furnish and install all Window Shades complete per plans and specifications.
71. Furnish and install all toilet accessories including mirrors. If project requires hand dryers, the hand dryers are to be furnished by this contract and turned over to the Electrician for install.
72. Furnish and install all toilet partitions complete per plans and specifications
73. **Furnish and install (N) Flagpole per K/X1.0, this to include all Concrete Footing, Reinforcement and accessories as noted in the plans and specifications (BUL3).**
74. **Furnish and install all chainlink fencing and gates complete per plans and specifications. This should include all concrete and reinforcing as noted for post footings. Mowstrip to be furnished and installed by others (BUL3).**
75. **Furnish and install all Ornamental Metal Fencing and gates complete per plans and specifications. This to include all concrete and reinforcing as noted for post footings. Mowstrip to be furnished and installed by others. Hardware for Ornamental gates and painting of Ornamental Fencing (A/X3.0) is to be provided by the bid package (BUL3).**
76. **Furnish and install all Quartz Surfacing as noted on AA2.00 reference specifications for further requirements (BUL3)**
77. **Furnish and install all Architectural Wood Trim complete per plans and specifications (Ex. Keynote 6.15 on 1/AA6.20 and Sim.) (BUL3).**
78. **Furnish and install all counter-top support brackets complete. This to include but not be limited to those shown on 9/A10.60 (BUL3).**
79. **Furnish and install Aluminum Breakmetal complete per plans and specifications. This to include but not be limited to that shown on 11/A10.80 and similar (BUL3).**
80. **Furnish and install all Bollards complete per plans and specifications. This should include all associated concrete footings (BUL3).**
81. **Furnish and install all Aluminum Louvers complete per plans and specifications. This to include all mounting, flashings & accessories needed for a complete and functioning system (BUL3).**
82. **Remove and relocate Play Equipment as noted on sheet C3.0. This should include all concrete footings and reinforcement required. This contractor to verify fall zones prior to removal and reinstallation to insure compliance with applicable regulations (BUL3).**
83. **Furnish and install painting of sheetmetal flashing at (E) portables see C,D & E/X3.0 (BUL3).**
84. **Furnish and install Grilles at (E) portable Vents see D/X3.0.**
85. **Furnish and install all sealant as noted above, in addition to the following is a list of specific items (BUL3):**
    - **Furnish and install all sealant at hollow metal frames, interior and exterior.**
    - **Furnish and install sealant at plaster & gyp board to other material transitions.**
    - **Furnish and install sealants from plaster to louver.**
    - **Furnish and install sealant at bottom of all gypsum board.**

Provide Information Separate from Bid Amount, Include on Bid Form

1. None.

FOB Items

1. Furnish FOB jobsite all Anchor Bolts for Structural Steel. This to include all required templates for structural steel bolt setting. Templates are to be made of 1/8" plate and are to have the anchor bolts stuffed in the template prior to being delivered onsite. Bolts should be set within template in such manner as to ensure the proper projection of the bolt out of the footing. Coordinate with Concrete Package to attain proper projection.

2. **Furnish FOB jobsite all 1x1x3/16" angles for embedment in concrete wall at Portable vents see D/X3.0 (BUL3).**

Installation of FOB Items

Note. Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this subcontractor

1. Install all carpet provided by owner, provide any necessary materials required for complete installation. This only applies to carpet, all Walk-Off Mats, Resilient Base and Resilient Tile is to be furnished and installed by this contract see F&I items above.
2. **Install all OFCI Paper Towel and Soap Dispensers (Remainder of Toilet Accessories are to Furnished and Installed by this contract) (BUL3).**
3. **Install all OFCI Safe and Key Box (BUL3)**
4. **Install OFCI Bell Complete per Bid Documents. This bell is being relocated from another school site. This contract shall also include transportation of bell from other CUSD school site. Salvaging of the existing bell from the existing site shall be by CUSD. (ADD2)**

End of Package

DC-04 ROUGH CARPENTRY

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
06 10 00	Rough Carpentry
06 18 00	Glue-Laminated Construction
07 92 00	Joint Sealants

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below.

General Items

1. Contractor is responsible for all work referenced throughout the project documents related to this bid package's scope of work.
2. Any substitution of details or materials must be pre-approved by the Architect, engineers and DSA. All substitution requests must be submitted to the CM prior to bid. This contractor is responsible for all costs and time delays required for DSA approval.
3. Provide protection of slab and utilities from equipment.
4. Provide permits for scaffolding as required.
5. Furnish clean up daily and off-haul of all debris generated by this Prime Contractor.
6. See General Notes at beginning of summary of work specification section for other items.

Coordination with Other Trades

1. Coordinate installation of blocking, backing, etc. for other Prime Contractors from written layout provided. Coordinate concrete curb vs. framing to assure proper alignment.
2. Provide physical layout for backing required for own work.
3. Coordinate locations of window and door frames installed by the General Specialties package, guarantee door and opening sizes, all openings to be square, plumb and level.
4. Provide coordination drawings for above ceiling work for work related to this Prime Contractor. Coordinate all drawings with the drawings of other Prime Contractors. Note conflicts and provide potential solutions to the architect for review. Coordination must take place prior installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.
5. Coordinate with Mechanical and Electrical contractors for location and size of equipment for platforms built by this bid package including all bolts and hardware.
6. Coordinate recessed roof sheathing and blocking for roof drains with plumbing contractor.
7. Provide review and verification of space for ADA requirements prior to framing. Note all discrepancies.
8. Coordinate finish thickness with ceramic tile contractor all rough framing dimensions required to meet ADA.
9. Coordinate access panel locations with other trades.
10. This contractor shall confirm and coordinate all dimensions for wood framing furnished by this package. Procure all related information so as to not to delay installations as scheduled in the project baseline schedule.

Furnish and Install Items

1. Furnish and install all drilling of holes for work performed in this Prime Contract.
2. Physically layout and install all block outs, openings, reinforcing and bracing from written layout provided by other Prime Contractors.
3. Furnish and install all lumber and plywood on the project including in-wall blocking including but not limited to:
    a. all wood plaster screeds, **stops**, grounds, nailers, and stops except those embedded in concrete.
    b. all plywood backboards at electrical and IDF rooms as required
    c. all plywood at transformer and equipment supports
    d. Casework blocking
    e. Signage blocking
    f. Blocking for MEPF Contractors
4. Furnish, install and physically layout all openings, block-outs, backing, blocking, blocking for utility and fixture supports. Coordinate locations with related trades prior to installation of framing.
5. Furnish and install backing for plaster expansion joints and moldings as required for proper installation.
6. Furnish and install all material attached to framing including but not limited to the following:
    a. Furnish and install all braces and angles.
    b. Furnish and install all connection hardware
7. Furnish and install all Framing for architectural access doors shown in the architectural drawings at hard ceilings, soffits and walls other than utility access doors.
8. Provide review and verification of space for ADA requirements prior to framing. Note all discrepancies
9. Furnish and install all wall prep for framing out of tolerance.
10. Furnish and Install all blocking required for all trades.
11. Furnish and install all Simpson hardware complete. Concrete sub to install Simpson hardware installed in new concrete, this package to install in existing concrete**.**
12. Furnish and install protection of door and window openings after demo/abatement
13. Furnish and install all framed mechanical and electrical pads at the roof.
14. Furnish and install all framing complete.
15. **Furnish and install cutback of (E) MPR Overhang per 2/G0.02 (BUL3).**
16. **Furnish and install (N) framing associated with MPR Overhang Cutback. This is to included but not be limited to Fascia, Blocking, etc…as noted in the contract documents (BUL3).**
17. Furnish and install all miscellaneous iron required for framing.
18. Furnish and install temporary shoring as required for new framed openings.
19. Furnish and install blocking for duct supports. Include attachment method for wood nailers to wood I-joists per E.O.R. and I-joist manufacture's recommendations.
20. Furnish and install head of wall framing for 1 hour walls.
21. Furnish and install infill framing.
22. Furnish and install all framing for MEP installed access doors.
23. **Furnish and install all Fire Treated Plywood on walls in IDF Rm's complete per plans and specifications (BUL3).**

FOB Items

1. Furnish FOB jobsite all bolts and hold downs to be embedded in new concrete for installation by the concrete package. Provide written layout.

Provide Information Separate from Bid amount. Include on Bid form.

1. None

Installation of FOB Items

Note: Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this Prime Contractor

1. None

End of Package

DC-05 ROOFING, METAL PANELS/FASCIA & SHEETMETAL FLASHING

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
07 21 00	Thermal Insulation (As Applies)
07 25 00	Weather Barriers
07 31 13	Asphalt Roof Shingles
07 41 13	Metal Roof Panels
07 54 19	PVC Thermoplastic Membrane Roofing
07 62 00	Sheet Metal Flashing and Trim
07 92 00	Joint Sealants

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below.

General Items

1. Contractor is responsible for all work referenced throughout the project documents related to this bid package's scope of work.
2. Any substitution of details or materials must be pre-approved by the Architect, engineers and DSA. All substitution requests must be submitted to the CM prior to bid. This contractor is responsible for all costs and time delays required for DSA approval.
3. Provide protection of slab and utilities from equipment.
4. Provide permits for scaffolding as required.
5. Furnish clean up daily and off-haul of all debris generated by this Prime Contractor.
6. See General Notes at beginning of summary of work specification section for other items.

Coordination with Other Trades

1. Due to schedule constraints field measuring should be considered at framing stage in lieu of after all drywall and finishes are complete. Review the schedule to determine necessity relative to fabrication times. If measurement is required at the framing stage, provide measurement to meet the schedule, coordinate and figure all associated finishes.
2. Coordinate at the jobsite all plumbing and electrical locations during rough-in activities to assure proper fit at time of casework and equipment installation.

Furnish and Install Items

1. Furnish and install roof system complete regardless of material type, including but not limited to all roof insulation, rigid insulation, cover board, crickets, slope system, and roofing system over plywood deck. Glass mat gypsum board to be furnished and installed at parapet and all roof areas by this contract.
2. Furnish and install all walk mats/pads
3. Furnish and install all Sheetmetal Flashing and Trim complete per plans and specifications.
4. Furnish and install all sheet metal flashing associated with mechanical, electrical and plumbing work at the roof, this includes lead flashings/pans as detailed and noted under the sheet metal section.

5. Furnish and install waterproofing at Concrete Planters as required.
6. Furnish and install all sheet metal flashing associated with mechanical, electrical and plumbing work at the roof, this includes lead flashing and pans shown under the sheet metal section
7. Furnish and install tapered insulation at roofing as required.
8. Furnish and install all sealant as required for own work.
9. **Furnish and install roof removal and Patchback as needed at (E) MPR for Overhang cutback (BUL3).**
10. **Furnish and install all sheetmetal and drip edge needed at (E) MPR new fascia and roofing (BUL3).**
11. **Furnish and install all Metal Platform covers at Mechanical Curbs and Platforms per**
12. **Furnish and install Metal Composite panels complete per the Contract documents. This should include any required fasteners, accessories or other items needed for a complete system.(ADD2)**

FOB Items

1. None

Provide Information Separate from Bid amount. Include on Bid form.

1. None

Installation of FOB Items

Note. Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this Prime Contractor

1. Install al roof jacks supplied by other subcontractors.

End of Package

DC-06 LATH/PLASTER, DRYWALL & ACCESS PANELS

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
07 21 00	Thermal Insulation (As Applies)
07 25 00	Weather Barrier
07 84 00	Fire Stopping
07 92 00	Joint Sealants
08 31 13	Access Doors and Frames
09 21 16	Gypsum Board Assemblies
09 24 00	Cement Plastering

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below.

General Items

1. Furnish and install all hangers, supports and bracing necessary for installation of work included in this Contract.
2. Provide permits for scaffolding as required.
3. This contract shall be responsible for all fireproofing patch back as a result of own work.
4. Furnish and install all attachment of all equipment related to this scope of work.
5. Coordinate all work to provide access to buildings for other trades as scheduled. Coordinate with other activities in the schedule for other trades and confirm the schedule meets the CMBS dates.
6. Contractor is responsible for all work referenced throughout the project documents related to this contractor's scope of work.
7. Furnish and install all physical layout for own work except where noted above to provide written layout to others.
8. Provide complete mockups as required by the specifications which is not integral to the building.
9. Furnish and Install sealant for work included in this contract abutting other materials. Sealant shall be furnished and installed by the last contractor to install adjacent materials as scheduled in the CMBS (excluding painting). Unless otherwise noted in the contractors summary of work.
10. There will be one wash out area for contractors as designated by Harris. Each contractor will be responsible for removal from the site of all debris and spoils generated by each contract.
11. See General Notes at beginning of summary of work specification section for other items
12. Furnish and install protection of all roofing when work under this contract requires access on the roofing systems.

Coordination with Other Trades

1. Physically layout and install all block outs, openings, holes, backing, etc…from written layout provided by other contractors for installation of their work.
2. Coordinate with Painting contractor the application of the cement plaster painting system, and provide written report of the cement plaster pH prior to the painting application.
3. Coordinate locations of window and door frames installed by this contract relative to the location of plaster molding adjacent to the frames to insure a good fit. Glass contractor to provide physical

layout to the plaster contractor for the plaster molding should windows not arrive prior to plaster j mold installation.

4. Provide a plaster control and expansion joint layout for architect approval prior to installation
5. Sheet metal contractor shall furnish and install rigid insulation at metal roofing

Furnish and Install Items

86. Furnish and install all Gypsum Board Assemblies complete per plans and specifications.
87. Furnish and install all Cement Plastering complete per plans and specifications.
    a. Furnish and install sealant at all plaster penetrations except aluminum windows
88. Furnish and install all architectural access doors shown in the architectural drawings at hard ceilings and soffits other than utility access doors.
89. Furnish and install all sealant from plaster to hollow metal frames
90. Furnish and install all exterior gypsum board sheathing / rigid foam insulation, water barrier, lath, scratch and brown coats where ceramic tile (as required), lath/plaster and brick veneer is to be installed, interior and exterior.
91. Sheet metal contractor will be installing their own rigid foam insulation, water barrier and support structures. See that sections summary of work for specific items. This contract will install all exterior sheathing on the entire project as detailed.
92. Furnish and install fire rated stopping / assemblies for own work as called for throughout the documents.
93. Furnish, Install, Remove scaffolding for all work included in this trade and also for exterior ceramic tile, brick veneer, all metal panels, skylights / SF windows, per the durations noted on the contract schedule. Each trade using this scaffolding will be required to sign an indemnity agreement.
94. Furnish and install bituthene at all door openings
95. Furnish and install all Penetration Flashing Sheets and water barriers around all items that penetrate the Cement Plaster including but not limited to doorframes, window frames, structural steel, piping etc…
96. Furnish and install all plaster grounds and stops
97. Furnish and install cut and patch of existing walls for backing and infill's and Utilities
98. Furnish and Install plaster patch at new openings and demoed areas
99. Furnish and install plaster and drywall patch where door frames/window frames are to be removed
100. Cut and patch for installation of new countertop support brackets.
101. Furnish and install all plaster and drywall patch complete
102. Furnish and install all cut and patch for wall intersections.
103. All plaster patchwork shall be applied from corner to corner. Patches cannot stop in the middle of the wall. Re-dash.
104. Furnish and install rigid insulation at plaster/thin brick veneer.
105. Furnish and install Gypsum Bd. Finish at Wall talkers to finish level required by manufacturer.

FOB Items

1. None

Provide Information Separate from Bid amount. Include on Bid form.

1. None

Installation of FOB Items

Note. Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this Prime Contractor

1. None

End of Package

DC-07 ACCOUSTICAL, WOOD CEILINGS, TACKBOARD & FRP

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
07 92 00	Joint Sealants
09 51 00	Acoustical Ceiling Panels
09 51 26	Acoustical Wood Ceilings
09 72 16	Vinyl Coated Fabric Wall Coverings
09 72 16.17	Vinyl Coated Fabric Covered Tackable Wall Panels
09 77 20	Fiberglass Reinforced Plastic Paneling

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below

General Items

1. Any substitution of details or materials must be pre-approved by the Architect, engineers and DSA. All substitution requests must be submitted to the CM prior to bid. This contractor is responsible for all costs and time delays required for DSA approval.
2. This contract shall be responsible for all fireproofing patch back as a result of own work.
3. Furnish and install all physical layout for own work except where noted above to provide written layout to others.
4. Provide complete mockups as required by the specifications which is not integral to the building.
5. See General Notes at beginning of summary of work specification section for other items

Coordination with Other Trades

1. Review buildings prior to installation of ceilings to note conflicts with ceiling heights.
2. Review CMBS with CM prior to start of work and advise of issues relating to warranties and bldg. acclimation.
3. Coordinate ceiling height locations with all trades prior to rough in.
4. Coordinate backing requirements for all trades associated with this bid package prior to start of Bldg. framing.

Furnish and Install Items

1. Furnish and install all Acoustical Ceiling Panel Systems complete per plans and specifications. This work is to include any and all accessories required for a complete system.
2. Furnish and install all Acoustical Wood Ceiling Systems complete per plans and specifications. This work is to include any and all accessories required for a complete system.
3. Furnish and install all Vinyl Coated Fabric Wall Coverings complete per plans and specifications. This work is to include any and all accessories required for a complete system.
4. Furnish and install all Vinyl Coated Fabric Covered Tackable Wall Panel systems complete per plans and specifications. This work is to include any and all accessories required for a complete system.
5. Furnish and install all Fiber Reinforced Plastic Paneling complete per plans and specifications. This work is to include any and all accessories required for a complete system.
6. Furnish and install all hangers, supports and bracing necessary for installation of work included in this Prime Contract.
7. Furnish and Install sealant at all locations where tack board meets other materials.

8. Furnish and install tile at electrical & low voltage devices prior to dropping of tile activity. Cut holes in tiles for devices as required.
9. Furnish and install all "hanger wires" and "brace wires" for work in this bid package and light fixtures, cable trays and projector mounts. Electrical contractor will connect to wire to their own work.
10. Furnish and install trapeze supports for acoustical ceiling as required.
11. Furnish and install all perimeter trim and similar as detailed for acoustical ceiling
12. Furnish and install ALL access panels shown on architectural ceilings / walls for work included in this contract.
13. Furnish and install own floor protection after initial floor protection by HCCI (i.e. Tarps, plastic, plywood, etc.).
14. Furnish and install all compression struts.

FOB Items

1. None

Provide Information Separate from Bid amount. Include on Bid form.

1. None

Installation of FOB Items

Note. Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this Prime Contractor

1. None

End of Package

DC-08 FIRE SPRINKLERS

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
07 84 00	Fire Stopping
07 92 00	Joint Sealants
08 31 13	Access Doors and Frames
21 00 00	Fire Sprinkler System

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below.

General Items

1. Any substitution of details or materials must be pre-approved by the Architect, engineers and DSA. All substitution requests must be submitted to the CM prior to bid. This contractor is responsible for all costs and time delays required for DSA approval.
2. Furnish and install all sleeves for work passing through masonry and concrete work. Coordinate with Respective Prime Contractors.
3. Furnish and install all access doors necessary to provide access to work included in this Prime Contract, provide layout to framing contractor.

Coordination with Other Trades –

1. All work/shop drawings will be done and coordinated with all other trades.
2. Coordinate locations of all openings, block-outs, backing, blocking and blocking for utility and fixture supports with related trades prior to installation of framing.
3. Layout above ceiling blocking as required for hangers and supports of own work.
4. Provide location of fire water stub up to the site utility contractor.
5. Coordinate all work to provide access to buildings for other trades as scheduled. Provide a breakout schedule of where and when rough-in operations will be performed in the building that has been coordinated with other activities in the schedule for other trades.
6. Purging and testing of all building fire sprinkler utilities included in this bid contract is the responsibility of this contractor. Coordinate with site utility contractor prior to connection.
7. Coordinate hook up of electrical and low voltage wiring with related contracts
8. Provide dimensions for structural steel and rough carpentry openings with 14 days of NTP.
9. This contract shall be responsible for all fireproofing patch back as a result of own work.

Furnish and Install Items

1. Furnish and install all fire sprinkler systems work complete per plans and specifications.
2. Install all coring or place sleeves for utilities through masonry and concrete.
3. Furnish and install drilling of holes for work performed in this contract.
4. Furnish and install all attic, canopy and building fire sprinklers as required.
5. Any holes through materials to allow installation of utilities not called for in the contract documents shall be installed and reinforced by this contract.
6. Furnish and install drilling of metal for piping and supports.
7. Furnish and install all access doors necessary to provide access to work included within this

contract.

8. Furnish and install all attachment of all equipment related to this scope of work.
9. Furnish and install all hangers, supports, and bracing necessary for installation of work included in this contract.
10. Furnish and install fire stopping and fire caulking related to this scope of work.
11. Furnish and install fire sprinkler system from 6"above finished floor for a complete system.
12. Furnish and install all exposed materials in a consistent and aesthetic manner.
13. Furnish a complete set of as-builts, documenting all changes made during installation and submit immediately upon completion of work for DSA Approval, if required.
14. **Furnish and install all signage associated with the Fire Sprinkler system complete per plans and specifications (BUL3).**

FOB Items

1. None

Provide Information Separate from Bid amount. Include on Bid form.

1. None

Installation of FOB Items

Note. Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this Prime Contractor

1. None

End of Package

DC-09 PLUMBING & SITE UTILITIES

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
07 84 00	Fire Stopping
07 92 00	Joint Sealants
08 31 13	Access Doors and Frames
22 00 00	Plumbing
31 22 00	Soil Material (As Applies)
31 23 00	Trench Excavation & Backfill (As Applies)
33 12 00	Water Utilities
33 30 00	Site Sewer Systems
33 40 00	Storm Drainage

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below.

General Items

1. Any substitution of details or materials must be pre-approved by the Architect, engineers and DSA. All substitution requests must be submitted to the CM prior to bid. This contractor is responsible for all costs and time delays required for DSA approval.
2. Furnish and install all sleeves for work passing through masonry and concrete work. Coordinate with Respective Prime Contractors.
3. Furnish and install all access doors necessary to provide access to work included in this Prime Contract, provide layout to framing contractor.
4. Furnish off-haul of all excavation spoils from site, generated by the contract.
5. Furnish and install all attachment of all equipment related to this scope of work.
6. There will be one wash out area for each Prime Contractor as designated by the HCCI. Each Prime Contractor will be responsible for removal from the site of all debris and spoils generated by each Prime Contractor.
7. Provide all backfill of excavations to original subgrade for work included in this Prime Contract.
8. Provide early startup / use of plumbing equipment as required by HCCI / Owner for construction or building systems testing of buildings prior to final acceptance, which will not initiate the warranty period until the filing notice of completion.
9. See General Notes at beginning of summary of work specification section for other items
10. Review Asbestos and lead abatement survey for abatement scope of work

Coordination with Other Trades –

1. Provide coordination drawings for underground and above ceiling work for work related to this Prime Contract. Coordinate all drawings with the drawings of this subcontractor. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to excavation and/or installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.
2. Provide dimensions and physical layout. Coordinate with framing contractor for framed openings and backing.

3. Any holes through materials to allow installation of utilities not called for in the contract documents shall be installed and reinforced by this Prime Contractor.
4. Coordinate locations of all openings, block-outs, backing, blocking and blocking for utility and fixture supports with related trades prior to installation of framing.
5. Layout above ceiling blocking as required for hangers and supports of own work.
6. Coordinate all work to provide access to buildings for other trades as scheduled. Provide a breakout schedule of where and when piping operations will be performed that has been coordinated with other activities in the schedule for other trades.
7. Building Plumbing Prime Contractor shall install and make physical connections to site utilities.
8. Cleaning and purging of all building plumbing utilities included in this Prime Contract is the responsibility of this Prime Contractor.
9. Coordinate routing of plumbing to miss foundations.
10. Coordinate the location of depressions, block outs, slopes and drains with the drawings prior to pour.
11. Housekeeping and equipment pads will be furnished and installed by the concrete subcontractor. Provide dimensions and layout for pads.
12. Coordinate alignment of all utilities between plumbing and civil drawings prior to excavation
13. Review as-builts and underground locator survey and pothole prior to starting work.
14. At conflicts with site utilities, electrical duct banks/conduits are to have the lower elevations.
15. Under slab rough-in should be figured for use of laser screed relating to holding stub ups below grade with appropriate markers.
16. **This contract shall be responsible for sawcutting, breaking and removing any concrete, asphalt or other site finish as needed to complete their work. This contractor shall also be responsible for the patch back as needed of theses finishes. All finishes being removed and replaced shall be removed and replaced from joint to joint with no over cuts in sawcutting allowed. (BUL3).**
17. **Coordinate with PG&E for installation of (N) Gas Meter as noted on the plans. Immediately make CM of any schedule problems as it relates to PG&E's work (BUL3).**

Furnish and Install Items

1. This contractor to perform all capping of plumbing systems on items shown to be removed prior to demolition.
2. Furnish and install Site and Building Plumbing Systems complete per plans and specifications.
3. Furnish and install all Water (Fire & Domestic), Site Sewer & Storm Drainage Utilities complete per plans and specifications.
4. Furnish and install all Backflow Preventers, PIV's, Fire Hydrants complete per plans and specifcations.
5. Furnish and install all drilling of holes for work performed in this Prime Contract.
6. Furnish and install physical layout for all deepened foundations at utilities prior to excavation by the concrete Prime Contractor.
7. Furnish and install all sleeves in foundations prior to the installation of concrete and reinforcing steel. Coordinate location with other related Prime Contractors prior to excavation.
8. Furnish and install all excavation for own work and re-compact.
9. Furnish and install all backfill of excavations to original subgrade for work included in this Prime Contract. Certify grades have been returned to original grade when work is complete.
10. Furnish and install all concrete required for installation of thrust blocks, manholes, vaults, boxes, underground structures, for work related to this Prime Contract.
11. Furnish and install all site and building plumbing utilities
12. Furnish and install all condensate drain piping required throughout the Contract Documents.
13. Furnish and install all flues associated with own work.
14. Furnish and install water tight closures at all gang and individual pipe penetration through exterior walls.
15. Furnish and install water heater strapping and platforms complete including steel.

16. Furnish and install all hangers, supports and bracing necessary for installation of work included in this Prime Contract.
17. Furnish and install drilling of wood and metal as needed for pipes and supports.
18. Provide testing of floor drains at completion of project.
19. Furnish and install disinfection of all building and site plumbing in relation to this subcontract. Coordinate a disinfection plan with other Prime Contractors to assure a clean system at acceptance.
20. Furnish and install all rough-in for all equipment of other Prime Contractors as required by the related specification sections and drawings. Connect to equipment.
21. Furnish and install all required utilities for Owner Furnished Equipment., capped and ready for connection. Make connection when installed.
22. Furnish and install all signage required for this scope of work.
23. Furnish & install all drinking fountains and associated backing. Modify backing and plumbing as required. This includes removal of existing drinking fountains.
24. Furnish & install clean outs shown on plumbing drawings.
25. Furnish & install roof and over flow drains complete including sealant.
26. Furnish and install fire stopping related to this scope of work.
27. Raise all utilities to grade in paving areas once paving is complete. Provide all patch back as necessary.
28. Test existing piping prior to new connection to confirm proper operation
29. Furnish and Install all plumbing shown on the Plumbing plans.
30. Furnish and install own floor protection after initial floor protection by HCCI (i.e. Tarps, plastic, plywood, etc.).
31. Adjust all utility boxes to new grades.
32. Cut and cap all plumbing at site. Disconnect and reconnect all plumbing utilities for equipment.
33. Furnish and install all ADA plumbing wrap.
34. Furnish and install all site plumbing to connect to existing site plumbing from building.
35. **Furnish and install all interior, exterior and Site Drinking Fountains complete per plans and specifications (BUL3).**
36. **Furnish and install all Steel Downspouts complete per plans and specifications (BUL3)**
37. **Furnish and install all Emergency Eyewash Stations complete per plans and specifications (BUL3).**
38. **Furnish and install gas regulator enclosure as noted on P/P10.10 (BUL3).**
39. **Furnish and install all Fixture backing plates as required for Equipment/Fixtures being installed by this contract. Carpentry contract will provide necessary wood backing needed to receive mounting plates. Layout of backing to be provided by this contract (BUL3).**

FOB Items

1. Provide roof jacks needed by this Prime Contract to the roofer for installation.

Provide Information Separate from Bid amount. Include on Bid form.

1. None.

Installation of FOB Items

Note. Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this subcontractor

1. None

End of Package

DC-10 HVAC & CONTROLS

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
07 72 00	Roof Accessories (As Applies)
07 84 00	Fire Stopping
07 92 00	Joint Sealants
08 31 13	Access Doors and Frames
23 00 00	General Mechanical Provisions
23 00 01	Heating Ventilating & Air Conditioning
23 09 23	Direct Digital Control & Energy System

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below:

General Items

1. Any substitution of details or materials must be pre-approved by the Architect, engineers and DSA. All substitution requests must be submitted to the CM prior to bid. This contractor is responsible for all costs and time delays required for DSA approval.
2. Provide early startup and maintenance of HVAC equipment as required by the District / or HCCI for acclimatization of buildings prior to final acceptance, which will not initiate the warranty period until the filing notice of completion.
3. See General Notes at beginning of summary of work specification section for other items.
4. Review Asbestos and lead abatement survey for abatement scope of work
5. This contract shall be responsible for all fireproofing patch back as a result of own work.
6. Provide complete mockups as required by the specifications which is not integral to the building.

Coordination with Other Trades –

1. Provide coordination drawings for underground and above ceiling work for work related to this Prime Contract. Coordinate all drawings with the drawings of this Prime Contract. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to excavation and/or installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.
2. Coordinate all work to provide access to buildings for other trades as scheduled. Provide a breakout schedule of where and when rough-in operations will be performed in the building that has been coordinated with other activities in the schedule for other trades.
3. Provide all necessary openings and/or connection points for EMS and fire alarm wiring and devices. Fire Alarms Systems will be provided under separate contracts. EMS by this contract.
4.
5. Coordinate locations of all openings, block-outs, backing, blocking and blocking for utility and fixture supports with related trades prior to installation of framing.
6. Layout blocking as required for hangers and supports for own work.
7. Any holes through materials to allow installation of utilities for this contract not called for in the contract documents shall be installed and reinforced by this Prime Contract.

8. Provide all necessary openings and/or connection points for EMS and fire alarm wiring and devices.
9. House-keeping and equipment pads will be furnished and installed by the concrete contractor. Provide dimensions and layout for pads.
10. Coordinate and layout extent of Demo with demo contractor.
11. **This contract shall be responsible for sawcutting, breaking and removing any concrete, asphalt or other site finish as needed to complete their work. This contractor shall also be responsible for the patch back as needed of theses finishes. All finishes being removed and replaced shall be removed and replaced from joint to joint with no over cuts in sawcutting allowed. (BUL3).**

Furnish and Install Items

1. Furnish and install all HVAC Systems complete per plans and specifications. This to include all accessories needed for a complete and operable system.
2. Furnish and install all Direct Digital Control & Energy Systems complete per plans and specifications. This to include all conduit, wiring, devices and accessories needed for a complete and operable system.
3. Furnish and install all drilling of holes for work performed in this Prime Contract.
4. Furnish and install all access doors necessary to provide access to work included in this Prime Contract, provide layout to framing contractor.
5. Furnish and install all attachment of all equipment related to this scope of work.
6. Furnish and install all hangers, supports and bracing necessary for installation of work included in this Prime Contract.
7. Stub HVAC to all Owner furnished equipment and connect as required.
8. Furnish and install all roof curbs with proper height and slope for the roofing system. Verify heights with roofing shop drawings prior to fabrication. This apples to only Pre-Manufactured roof curbs, all roof curbs shown to be wood framed will be provided by the Rough Carpentry package. This package will provide written and physical layout for all roof curbs associated with HVAC regardless of type.
9. Furnish and install all Roof Accessories and/or Curbs/Platforms/Stands/Supports/Steel Backing/Bolts/Angles.
10. Furnish and install all rough-in for all equipment of other Prime Contractors as required by the related specification sections and drawings. Connect and or stub as described.
11. Furnish and install drilling of metal.
12. Furnish and install fire stopping related to this scope of work.
13. Furnish and install all flues associated with own work.
14. Furnish and install protection of all roofing when work under this contract requires access on the roofing systems.
15. Furnish and install water tight closures at all gang and individual pipe penetration thru exterior walls.
16. Furnish and install all signage and lettering called for in the contract documents related to work of this subcontractor.
17. Provide for testing of Fire Smoke Dampers resettable link coordinate with Fire Alarm Contractor as required.
18. Provide Fire Smoke Dampers ready for power hook up.
19. Furnish and install all metal louvers and screens at all areas
20. Provide two sets of filters during construction and a final set of filters following Final Clean of the Bldgs.
21. Furnish & install transfer grills.
22. Furnish and install all fusible links for testing of dampers
23. Allow use, as directed by the District, of the HVAC utility systems during construction for construction and testing operations without the start of the warranty period until the notice of completion for the project.
24. Provide cut and cap of mechanical items to be demoed, all items that are to be salvaged or reused shall be removed and reinstalled by this contract.

25. Provide Demolition of existing Mechanical equipment including any refrigerant recovery required. Stockpile equipment in an area designated by the Demo. Contractor for removal and offhaul from the site.
26. Furnish and install own floor protection after initial floor protection by HCCI (i.e. Tarps, plastic, plywood, etc.)
27. Confirm standard of existing operation of mechanical equipment at the mechanical yard prior to demolition. Confirm standard of unit ventilators prior to installation and demolition.
28. Furnish and install all flashing that is modified due to mechanical work at roofs.
29. Furnish and install all roof curb adapters as required.
30. Furnish and install unit ventilator closures and gasket to window.
31. Remove and store all mechanical items that are to be reinstalled at it later date as required.
32. Verify location of rough-in prior to ordering HVAC units for electrical mechanical and plumbing utilities.
33. Confirm existing power for new equipment prior to ordering.
34. **Furnish and install plywood shims as needed for HVAC Duct Hager Straps, see B/M6.10 (BUL3)**

Provide Information Separate from Bid amount. Include on Bid form.

1. None.

FOB Items

1. Furnish all starters at HVAC units. Electrical connections shall be made by Electrical Subcontractor. Starters at MCC shall be provided by the Electrical Subcontractor.
2. Furnish FOB all sleeves for all utilities to the concrete subcontractor for installation.
3. Furnish all roof jacks for this bid package to the roofer for installation.

Installation of FOB Items

Note: Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this subcontractor

1. None

End of Package

DC-11 ELECTRICAL/LOW VOLTAGE/FIRE ALARM

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
07 84 00	Fire Stopping
07 92 00	Joint Sealants
08 31 13	Access Doors and Frames
26 00 00	Electrical
26 05 00	Common Work Results for Electrical
26 50 00	Lighting
27 00 00	Communications
27 10 00	Structured Cabling System
27 40 40	Assistive Listening Systems
27 42 00	Classroom Audio/Visual Systems
27 51 13	Paging Systems
28 31 00	Fire Detection & Alarm System

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below.

General Items

1. Contractor is responsible for all work referenced throughout the project documents related to this contractor's scope of work.
2. Any substitution of details or materials must be pre-approved by the Architect, engineers and DSA. All substitution requests must be submitted to the CM prior to bid. This contractor is responsible for all costs and time delays required for DSA approval.
3. There will be one wash out area for each Prime Contractor as designated by the CM. Each Prime Contractor will be responsible for removal from the site of all debris and spoils generated by each Prime Contractor.
4. Provide trenching plan and permits for excavations over 5' per OSHA requirements to the CM.
5. See General Notes at beginning of summary of work specification section for other items.
6. Review Asbestos and lead abatement survey for abatement scope of work

Coordination with Other Trades –

1. Provide coordination drawings for underground and above ceiling work for work related to this Prime Contract. Coordinate all drawings with the drawings of this Prime Contract. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to excavation and/or installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.
2. Provide use and maintenance of electrical equipment and devices as required by the District /or the CM for construction and testing of other equipment prior to final acceptance, which will not initiate the warranty period until filing of notice of completion.
3. Provide shop drawings for equipment layout in electrical rooms to confirm that dimensions are adequate prior to rough in and pouring of foundations.
4. Coordinate with PG&E, SBC/AT&T, Comcast, District and (E) site for service requirements to the site, as needed.

5. Coordinate all work to provide access to buildings for other trades as scheduled. Provide an underground utility schedule of where and when piping operations will be performed. Coordinate with other activities in the schedule for other trades and confirm the schedule meets the CBS dates.
6. Under slab rough-in should be figured for use of laser screed relating to holding stub ups below grade with appropriate markers.
7. At conflicts with site utilities, electrical duct banks/conduits are to have the lower elevations.
8. Any holes through materials to allow installation of utilities not called for in the contract documents shall be installed and reinforced by this Prime Contractor.
9. Quantify, coordinate and provide final connections of starters for HVAC units as provided by the Mechanical contractor.
10. Connect "hanger wires" provided by the Acoustical Subcontractor to light fixtures, cable trays and projector mounts.
11. Coordinate locations of all openings, block-outs, backing, blocking and blocking for utility and fixture supports with related trades prior to installation of framing.
12. Coordinate with all underground utilities prior to excavation.
13. Coordinate with the CM for power shutdown which must be done after school hours.
14. Coordinate location of UG utilities to be out of angle of repose of building, equipment, and tank foundations.
15. House-keeping and equipment pads will be furnished and installed by the concrete contractor. Provide dimensions for pads.
16. Review as-builts & underground locator survey & pothole utilities prior to starting work.
17. Coordinate concrete demo in the central plant with the CM and demo contractor.
18. Obtain district approval through the CM for all low voltage labeling.
19. Coordinate and provide access for all electrical conduit in aluminum storefront and curtain wall as details
20. Coordinate locations of all vaults away from doorways.
21. **This contract shall be responsible for sawcutting, breaking and removing any concrete, asphalt or other site finish as needed to complete their work. This contractor shall also be responsible for the patch back as needed of theses finishes. All finishes being removed and replaced shall be removed and replaced from joint to joint with no over cuts in sawcutting allowed. (BUL3).**

Furnish and Install Items

1. Furnish and install all Electrical Systems complete per the plans and specifications. This to include but not be limited to all Equipment, Conduit, Wire, Devices, Fixtures, Hardware and Accessories needed for a complete and functioning system.
2. Furnish and install all Communications Systems complete per the plans and specifications. This to include but not be limited to all Equipment, Conduit, Wire, Devices, Fixtures, Hardware and Accessories needed for a complete and functioning system.
3. Furnish and install all Structured Cabling System complete per plans and specifications. This to include but not be limited to all Equipment, Conduit, Wire, Devices, Fixtures, Hardware and Accessories needed for a complete and functioning system.
4. Furnish and install all Assistive Listening Devices complete per plans and specifications.
5. Furnish and install Classroom Audio/Visual Systems complete per plans and specifications. This to include but not be limited to all Equipment, Conduit, Wire, Devices, Fixtures, Hardware and Accessories needed for a complete and functioning system.
6. Furnish and install all Paging Systems complete per plans and specifications. This to include but not be limited to all Equipment, Conduit, Wire, Devices, Fixtures, Hardware and Accessories needed for a complete and functioning system.

7. Furnish and install Fire Alarm & Detection System complete per plans and specifications. This to include but not be limited to all Equipment, Conduit, Wire, Devices, Fixtures, Hardware and Accessories needed for a complete and functioning system.
8. Provide relocation of (E) systems as noted on plan sheets. Relocation should include any all items, accessories, devices required to make for a complete and operating system**. ~~Provide dedicated Fire Watch at times where FA system is unable to report or is inoperative. Dedicated Fire Watch is to be provided during work hours, nights and weekends while the system is not functioning.~~ (BUL3)**
9. Furnish and install cut and cap of existing utilities and items shown to be removed by the demolition contractor prior to demolition, terminate and pull wire back to nearest box. Remove all equipment. Light Fixtures disposal is by the demo contractor. This contract is responsible to remove and stockpile for the demo contractor.
10. Furnish and install all trench plates for excavations by this Prime Contractor for protected campus walk paths and construction activities.
11. Furnish and install disconnects not provided on factory equipment installed by other Prime Contractors.
12. Furnish and install physical layout for all deepened foundations at utilities prior to excavation.
13. Furnish and install all drilling of holes for work performed in this Prime Contractor.
14. Furnish and install protection of all roofing when work under this contract requires access on the roofing systems.
15. Furnish and install fire-stopping for own work.
16. Furnish and install pull strings / rope in all empty or future conduits.
17. Furnish and install all concrete required for installation of manholes, vaults, boxes, underground structures, for work related to this Prime Contract.
18. Furnish and install all colored concrete cap over all required duct banks.
19. Any holes through materials to allow installation of utilities not called for in the contract documents shall be installed and reinforced by this Prime Contractor.
20. Furnish and install all sleeves for work passing through masonry and concrete work. Coordinate with Respective contractors.
21. Furnish and install all sleeves in foundations prior to the installation of concrete and reinforcing steel. Coordinate location with other related contractors prior to excavation.
22. Furnish and install all access doors necessary to provide access to work included in this Prime Contract, provide layout to framing contractor.
23. Furnish off-haul of all excavation spoils off site.
24. Furnish and install all attachment of all equipment related to this scope of work.
25. Provide all backfill of excavations to original subgrade for work included in this Prime Contract.
26. Furnish and install all conduits, sleeves and bushings for future low voltage and telecommunications wiring. Install fire stopping as required.
27. Provide all trenching, conduit and wiring for low voltage and telecommunications.
28. Furnish and install disconnects and associated supports.
29. Furnish and install all necessary backing and supports (Wood Blocking/Backing by others) required for light fixtures as required.
30. Furnish and install all supports and bracing required for electrical work except for hanger wires. Hanger Wires will furnished and installed by the Acoustical package. This package will be responsible for layout of wires connecting to their work and connecting the wire to the light fixtures.
31. Furnish and install water tight closures at all gang and individual pipe penetration thru exterior walls.
32. Furnish and install sealant system as required to provide water tight condition at devices mounted at exterior.
33. Furnish and install all signage and lettering called for in the contract documents related to work of this Prime Contract.
34. Furnish and install all required utilities for Owner Furnished Equipment, hook up as required.

35. Furnish and install all rough-in for all equipment of other contractors as required by the related specification sections and drawings. Connect and or stub as described.
36. Furnish and install all power to fire and smoke dampers as called for in the documents.
37. Furnish & install all floor boxes solid for install of slab on grade.
38. Furnish and install fire alarm to all site Fire Protection equipment (PIV's, Backflow Preventers, Fire Hydrants, Etc..) as required.
39. Verify continuity of electrical and low voltage conduits for work in this contract.
40. Furnish & install all connections to existing utilities (Coordinate).
41. Furnish and install all roof accessories relative to this Prime Contract.
42. Furnish & install all roof supports for electrical.
43. Provide shop drawings with required dimensions for electrical room.
44. Furnish and Install all new clock and speakers as required.
45. Furnish and install line voltage and conduit for controls coordinate with HVAC Contractor.
46. Provide all demo for electrical work except where walls are to be demolished. Safe off prior to any demo.
47. Furnish and install own floor protection after initial floor protection by HCCI (i.e. Tarps, plastic, plywood, etc.).
48. Adjust all utility boxes to new grade.
49. Cut and cap all electrical at site as required for demo.
50. Furnish and install projector mounts and all AV equipment as called for.
51. Provide plates over all existing electrical and low-voltage items to be abandoned.
52. Remove all data wire and modify as necessary for new work.
53. Remove all technology equipment as called for in a manner as to allow the district the opportunity to salvage if desired.
54. Remove and replace all wire back to panel as called for.
55. Remove and store all electrical items to be removed and replaced at later date.
56. Unhook all utilities to existing mechanical units that are to be replaced. Reinstall connection after new equipment is installed.
57. Confirm all lamp types in field prior to bid.
58. Verify Existing system and performance prior to starting work. Report any issues.
59. Review existing low voltage and fire alarm systems and advise of any issues prior to the start of work.
60. This contract is to provide temporary power (Conduit/Temp Elec Lines/Transformers/Connected Spider Boxes, etc.) to each building after the completion of Slab-On-Grade. From the temp transformer, spider boxes shall be connected every 50' per floor and roof at each building. Contractors will be responsible for own distribution of power from that point. Spider boxes are to be inspected monthly per HCCI Safety Program and records are to be turned at the end of each month.
61. This contract is to provide temporary power to construction trailers as shown on the Site Access Plan. Enough power should be provided to run 2 (60') construction trailers with cooling/ac units. Connection of the construction trailers to the power source shall be made by this contract.
62. Install, adjust, program and test owner provided projectors.
63. **Relocate (E) Bell and PA Rack to MDF as shown on the Electrical Drawings and reconnect into the district system. This will be a temporary relocation once the project is complete relocate from (E) MDF Rm to the (N) Admin Data Rm. Include all provisions needed to put system back up and running at both locations (BUL3).**
64. **Furnish, Install and hookup power to Pump Filter shown on Landscape drawings (L1.1).**

Provide Information Separate from Bid amount. Include on Bid form.

1. None.

FOB Items

1. Furnish FOB jobsite all bolt templates for use by the concrete subcontractor and masonry

subcontractor.
2. Furnish FOB jobsite all anchor bolts and templates for all electrical equipment.
3. Furnish F.O.B. all roof jacks related to this package to the roofer for installation.

Installation of FOB Items

Note: Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this subcontractor

1. Install and hook up all starters at HVAC units as provided by the Mechanical and Plumbing subcontractor.
2. Install all switches for equipment provided by others i.e. exhaust fans, etc.…
3. Install power for smoke dampers and fire alarm for HVAC unit shut down.
4. **Install all Projectors complete (Projector Mounts are to be furnished and installed by this contract) (BUL3)**
5. **Install all TV's and TV Brackets (BUL3)**

End of Package

DC-12 EARTHWORK AND PAVING

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
31 11 00	Site Clearing
31 20 00	Earthwork
31 22 00	Soil Material
31 23 00	Trench Excavation and Backfill
31 31 00	Soil Sterilzation
32 11 26	Aggregate Base Course
32 12 16	Asphalt Paving

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below.

General Items

1. Contractor is responsible for all work referenced throughout the project documents related to this contractor's scope of work.
2. See General Notes at beginning of summary of work specification section for other items.
3. Any substitution of details or materials must be pre-approved by the Architect, engineers and DSA. All substitution requests must be submitted to the CM prior to bid**.** This contractor is responsible for all costs and time delays required for DSA approval.
4. There will be one wash out area for contractors as designated by the General Contractor. Each contractor will be responsible for removal from the site of all debris and spoils generated by each contractor.
5. Furnish and install all layout for own work from surveyor provided by the survey contractor. See survey scope of work for reference. This contractor will be responsible for all additional required layout not performed by the survey contractor. Contractors are responsible for protection of all requested survey. Provide 72 hours' notice by submitting a survey request form.
6. Provide all backfill of excavations to original sub-grade for work included in this Prime Contract.
7. Provide dust control for own work.
8. This contract is to provide temporary power for own work through completion of steel erection as required. Once temporary power has been established by the Electrical contractor, each contractor will only need to provide temporary utility distribution from services provide at the building by the electrical contractor. Contractors are responsible for own distribution of power and lighting.

Coordination with Other Trades

1. Coordinate and allow access to building pad for building related scope of work (concrete, plumbing, utilities, electrical).
2. Coordinate all work with local utilities & electrical contractor for shut down of services prior to demo with a minimum of 48 hours notice as required per Contract Documents.
3. Obtain all permits required to perform the work (including encroachment permits).
4. Hold all turf areas down 1/2" at concrete walks and mow strips for SOD, 2" at planters.
5. Remove excess spoils from site daily.
6. Review as-builts & underground locator survey & pothole utilities prior to starting work.

7. Complete all building pads and grade at building areas first as shown on the schedule.
8. Coordinate with the CM survey points required.

Furnish and Install Items

1. Furnish and install all Site Clearing work complete per plans and specifications.
2. Furnish and install all Earthwork complete per plans and specifications. This to include all required over excavation and recompaction at Building pads and any required fill at demolished portables.
3. Grade all earthwork to within +/-0.05' from a planned elevation.
4. Furnish and install all Soil Sterilization work compete per plans and specifications.
5. Furnish and install Asphalt Paving complete per plans and specifications.
6. Protect all irrigation adjacent to site work and buildings.
7. Furnish and install all cut and fill necessary to perform work
8. Furnish and Install fine grading of the site on separate move-ins (as scheduled by the CM) to accommodate the site concrete & mow strips installation. Coordinate backfill and final fine grading activities with the concrete Prime Contractor to eliminate damage to new site concrete.
9. Furnish & install all grading and swales for landscape to ± .05'
10. Maintain and protect building pads to within tolerance, elevation, moisture, weed free and compaction until accepted/received by the concrete subcontractor as noted in the schedule.
11. Furnish and Install backfill of mow strips, walks, curb, curb & gutter, planter and turf areas.
12. Furnish, install, and maintain traffic control for work included in this Prime Contract as required.
13. Furnish & install all on site earthwork, grading, paving & striping, markers, traffic signage, posts, concrete at posts, and permits.
14. Furnish & install certification of final grading to confirm grades prior to landscape.
15. Furnish & install tree/landscape protection where required. The CM will maintain protection throughout project.
16. Furnish and install all asphalt patches.
17. Furnish and install all slurry seal.
18. Strip organic materials from all areas to be demolished.
19. Furnish and install processing of subgrade at site to proper grade and compaction.
20. Provide backfill at Planter Areas during finish grade operations.
21. Furnish and install compacted soil under all concrete as called for.
22. Furnish and install cut for fire lane.
23. Furnish and install cut and fill for all valley gutters and curbs.
24. Furnish and install all track out stations as shown on the site access plan for onsite**.** Furnish and install silt fence and straw waddle around the entire perimeter of the project for the duration of the project. Track outs are to consist of crushed rock and rumble strips which measure 24' wide x 50' long. Maintain for own work. Earthwork contractor to maintain as needed. Provide street cleaning for own scope of work thru end of Earthwork operations.
25. Furnish and install slurry seal and restriping of Basketball courts, patch asphalt as necessary prior to sealing. (THIS ITEM IS NOT SHOWN ON THE PLANS BUT WILL BE PART OF THIS PRIME CONTRACTORS WORK). Exact striping layout will be determined at a later date, however, for bidding purposes figure at minimum to replace (E) striping.
26. **Furnish and install Entry Accessibility Sign per G/X2.0 (BUL3)**

FOB Items

1. None

Provide Information Separate from Bid amount. Include on Bid form.

1. None

Installation of FOB Items:

Note: Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this Prime Contractor

1. None

End of Package

DC-13 LANDSCAPING/IRRIGATION

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contract that specifically includes, but is not limited to the following:

Specification Sections

DIVISION 00	CUSD General Conditions for CM Projects
DIVISION 01	General & Supplemental Conditions
	Storm Water Pollution Prevention Plan
	Geo Technical Investigation
	Hazardous Materials Report
	Existing Landscaping Protection
	Irrigation System
	Landscape Planting

Refer to additional related specifications sections for work specifically included in this Prime Contract noted below.

General Items

1. Any substitution of details or materials must be pre-approved by the Architect, engineers and DSA. All substitution requests must be submitted to the CM prior to bid**.** This contractor is responsible for all costs and time delays required for DSA approval.
2. Furnish and install all sleeves in masonry, concrete, foundations and under existing walks prior to the installation of concrete and reinforcing steel. Coordinate location with other related Prime Contractors prior to excavation.
3. Furnish off-haul of all excavation spoils from site.
4. There will be one wash out area for each Prime Contractor as designated by HCCI. Each Prime Contractor will be responsible to dump all debris in the HCCI provided dumpster.
5. Provide all clean up and provide off-haul of own spoils from site.
6. Verify continuity of the existing irrigation system with the owner's representative prior to demolition.
7. Coordinate all work to provide access to buildings for other trades as scheduled. Coordinate with other activities in the schedule for other trades and confirm the schedule meets the CMBS dates.
8. Contractor is responsible for all work referenced throughout the project documents related to this contractor's scope of work.
9. Furnish and install all physical layout for own work except where noted above to provide written layout to others.
10. Furnish and install all attachment of all equipment related to this scope of work.

Coordination with Other Trades

1. Provide coordination drawings for underground work related to this Prime Contract. Coordinate all drawings with the drawings of other Prime Contracts. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to excavation and/or installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.
2. At conflicts with electrical duct banks, electrical duct banks are to have the lower elevations.
3. Coordinate location of UG utilities to be out of angle of repose of building equipment.
4. Receive grades at ± .10'. Cut all additional swales required to provide proper drainage
5. Review as-builts & underground locator survey & pothole utilities prior to starting work.
6. Coordinate with demolition contractor all valves, heads, etc. to be salvaged for reuse or turnover to District prior to demolition. Furnish and install all cut and cap locations prior to the start of demo.
7. See General Notes at beginning of summary of work specification section for other items.

8. Review entire irrigation system prior to starting work to confirm continuity. Report any issues to Harris immediately.
9. **This contract shall be responsible for sawcutting, breaking and removing any concrete, asphalt or other site finish as needed to complete their work. This contractor shall also be responsible for the patch back as needed of theses finishes. All finishes being removed and replaced shall be removed and replaced from joint to joint with no over cuts in sawcutting allowed. (BUL3).**
10. **Furnish and install Pump Filter System shown on L1.1, this to include concrete pier and wood top plate (BUL3).**

Furnish and Install Items

1. Furnish and install all landscaping and irrigation work complete per plans and specifications. This to include all related accessories, devices, etc…needed for a complete and functioning system. Connect to (E) power, wiring and controls where required.
2. Furnish and install cut cap and demo of existing irrigation system and terminate to nearest box or valve.
3. Protect/relocate heads and or piping as needed for new concrete improvements per irrigation legend
4. Furnish and install all drilling of holes for work performed in this subcontract.
5. Furnish & install relocation, cut, and cap of irrigation at all demo areas. Remove all irrigation at areas outside of earthwork excavation. Remove all heads and valves, etc.…salvage to Owner via the CM. Re-compact demo areas.
6. Furnish & install all thrust blocks for own work.
7. Furnish & install grading and top soil.
8. Provide water test of turf and planter areas prior to planting to confirm proper drainage and coverage
9. Furnish & install all irrigation sleeves.
10. Provide patch back of all landscaping at all utilities and new concrete as required. Review utility plans for areas.
11. Backfill all planters and planter walls
12. Furnish and install all fine grading of planter areas prior to planting. Import dirt as required
13. Remove and relocate irrigation systems as required to work
14. Replace all turf around walkways and mow strips that have been removed for construction. Replace all turf and plants disturbed by utility work.
15. This contractor is responsible for protecting and keeping all existing irrigation systems operational for the duration of the project. Any damages caused by lack of water will be the responsibility of this contractor. Hand water as required.
16. Furnish and install all temporary watering for length of project to maintain turf, trees, and plant materials.
17. Adjust all utility boxes to new grades.
18. **Furnish and install/relocate all Boulders noted on the Landscape/Irrigation drawings. This to include removal at the beginning of the project and storage until installation for boulders being relocated as needed (BUL3).**
19. **Furnish and install all stabilized DG complete per plans and specifications (BUL3).**

Provide Information Separate from Bid amount. Include on Bid form.

1. None

FOB Items

1. None

Installation of FOB Items

Note: Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be

installed by this subcontractor

1. None

End of Package

ORG SERIES Automatic Self Cleaning Water Filters

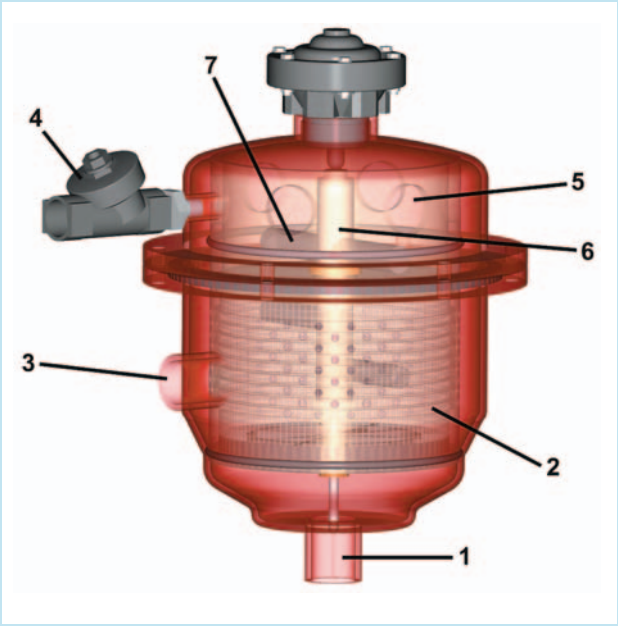
1½" to 8"

CONSERVES RINSE WATER!

Uses Up To 90% Less Water than Conventional Self Cleaning Filters

The ORG series units from Orival Inc. are designed to provide efficient, reliable filtration while reducing the amount of backwash water required. Thanks to its efficient rinse system, the ORG uses approximately 90% less than conventional self cleaning units. This low consumption makes it the ideal unit for a wide variety of applications.

The unit is available in line sizes from 1½" to 8" inlet and outlet, to handle flow rates up to 1320 gpm. The stainless steel fine screen is available in a variety of sizes to suit any application.



How It Works

Dirty water enters the inlet **(1)**, where it enters the center of the fine screen **(2)**. The water then passes through the fine screen from the inside out and exits the outlet **(3)**.

The unwanted solids accumulate on the inner surface of the fine screen, creating a pressure differential. Once the pressure drop reaches a preset level, a rinse cycle is activated by the control system by opening the rinse valve **(4)** to an atmospheric drain.

As a result, pressure drops in the hydraulic motor chamber **(5)** and dirt collector assembly **(6)**. The pressure drop creates a backflush stream, which sucks the dirt off the screen, similar to a vacuum cleaner. The backwash water is carried through the collector and ejected out of the holes in the hydraulic motor **(7)**.

The water being ejected out of the hydraulic motor causes the collector to rotate, similar to a sprinkler. In addition, the pressure drop in the hydraulic motor chamber causes the collector assembly to move axially. This combination of movements ensures that the entire screen area is cleaned each cycle.

Applications

Cooling Water	Waste Water	Pump Seals Protection
Drinking Water	Wash Water	Fire Sprinkler Protection
Intake Water	Irrigation	I.E. & R.O. Protection
Reclaimed Water	Turf	Nozzle Protection
Effluent Water	Cooling Towers	Heat Exchange Protection
Well Water	H.V.A.C.	Air Compressor Protection

Orival manufactures a wide variety of filtration systems, from 10 gpm to 12,000 gpm, in stainless steel or carbon steel construction.

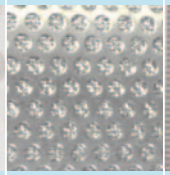
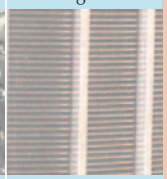
ORIVAL
Automatic Self-Cleaning
WATER FILTERS

213 S. Van Brunt St.,
Englewood, NJ 07631
(800) 567-9767
(201) 568-3311
Fax (201) 568-1916
www.orival.com
filters@orival.com

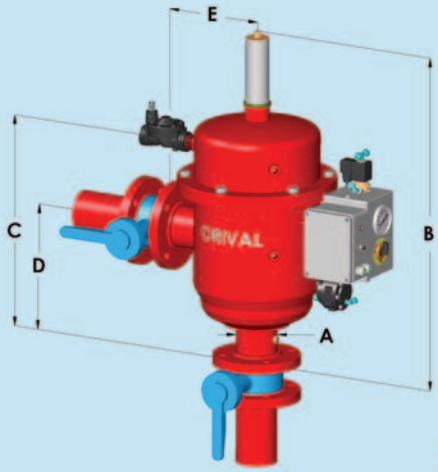
Technical Data *(Add "-S" to model number for stainless steel construction)*

Model Number	Inlet/ Outlet (in.) "A"	Max. Flow Rate (gpm)	Open Screen Area (in^2)		Rinse Valve Size (in.)	Empty Weight (lbs.)	Dimensions			
			Woven	Sintered			B	C	D	E
ORG-015-LE	1-1/2 NPT	65	64	96	1	55	20.1	13.6	7.5	7.1
ORG-020-LE	2 NPT	110	64	96	1	60	20.1	13.6	7.5	7.1
ORG-030-LE	3	175	120	180	1	90	28.4	18.5	10.2	8.5
ORG-040-LS	4	350	120	180	1	95	28.4	18.5	10.2	8.5
ORG-040-LE	4	350	466	700	1-1/2	140	55.4	38.7	21.3	12.5
ORG-060-LS	6	660	466	700	1-1/2	145	55.4	38.7	21.3	12.5
ORG-060-LE	6	660	648	972	1-1/2	170	63.2	46.7	27.4	12.5
ORG-080-LS	8	1320	648	972	1-1/2	175	63.2	46.7	27.4	12.5

Screens

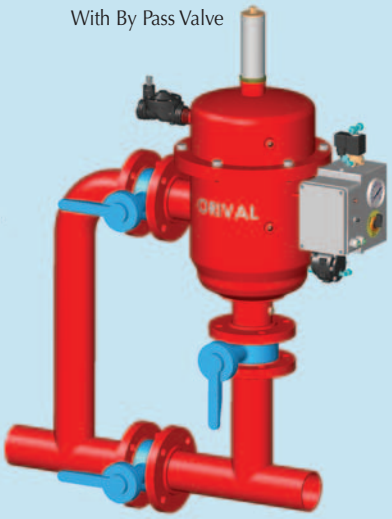
	Woven on PVC Support	Multilayer Sintered	Wedgewire
Screen Patterns			
Screen Apertures	15-5000 Mic	1-5000 Mic	25-2500 Mic
Open Screen Area	40%	60%	30%
Hydraulic Collapse D.P.	300 PSI	300 PSI	450 PSI
Temp Rating	150°F	300°F	750°F
Material	St/St 316L	St/St 316L	St/St 316L
Optional Material	Titanium, Hastelloy and other exotic material		
Fibrous Mat. Filtration	Poor	Poor	Excellent
Price	Low	Medium	High

Installations



Without By Pass Valve

With By Pass Valve



Specifications

	Standard	Optional
Power	None, line pressure powered	Electrical (See ORE/P series)
Self Cleaning Operation	Fully Automatic	Semi-automatic, manual
Material of Constuction	Carbon Steel or Stainless Steel	Titanium, Hastelloy and others
Operating Pressure	30 psi min; 150psi max	12 psi min; 1,000 psi max
Operating Temperature	No min; 150°F max	No min; 212°F max
Screen Aperture	50 - 3,000 micron	5-10,000 micron
Controls	Omnitrol 100, 400	Omnitrol 2000
Control Power	110V / 220V AC, 1/2 amp, 9V / 12V DC	Hydraulic

Screen Apertures

Visible to the naked eye. →

Micron	5	10	15	25	30	40	50	80	100	120	150	200	400	800	1000	1500	3000
Mesh*	3000	1500	1000	600	500	400	250	200	150	120	100	80	40	20	16	10	5
in*	.0002	.0004	.0006	.0010	.0012	.0016	.002	.003	.004	.005	.006	.008	.016	.032	.04	.06	.12
Physical Size																	

** Approximate and for reference only*

ORIVAL, INC. • 213 S. Van Brunt St., Englewood, NJ 07631 • (800) 567-9767 • (201) 568-3311 • Fax: (201) 568-1916
www.orival.com • filters@orival.com

Figure 1: Filter shown without manual by-pass valve.
Figure 2: Filter shown with manual bypass valve.

ORG/A-040-LS SHOWN, ORG/A-030-LE is Similar

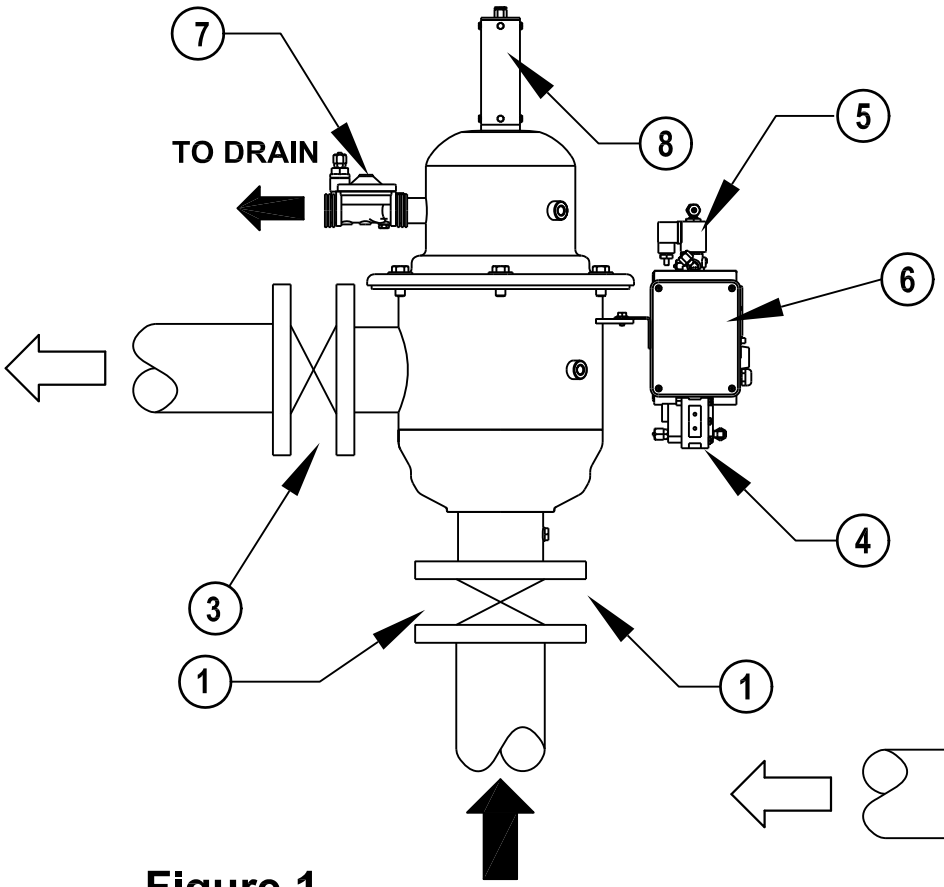


Figure 1

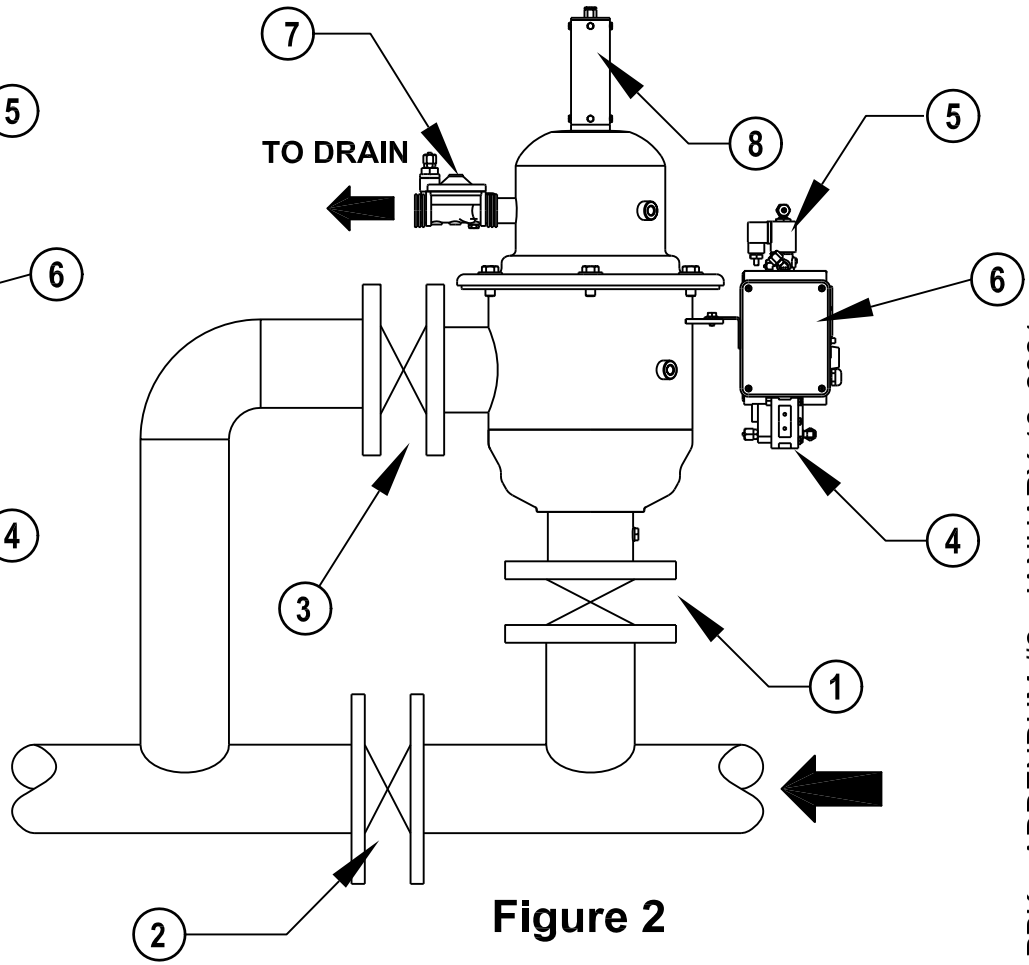


Figure 2

SIM-PBK ADDENDUM #2 JANUARY 18, 2021

No.	Description	Notes
8	Hydraulic Piston	Connect to the Solenoid
7	1" Rinse Valve	Pipe to 1"or Larger Drain
6	Controller	Mounted on Filter Housing Can be Remote Mounted
5	Solenoid Valve	24 V, 60 Hz, 3 way N.O.
4	Differential Pressure Switch	Preset to 7 psi
3	Outlet Valve	Customer Supplied
2	System Bypass Valve	Customer Supplied
1	Inlet Valve	Customer Supplied

NOTE: Drain Line from the Rinse Valve Should have a Coupling to Allow Easy Removal of the Top Section of the Body During Maintenance.

DWG. NO. 2026-1	SCALE: NONE	**ORIVAL, INC.** 213 S. VAN BRUNT ST. ENGLEWOOD, N.J. 07631 TEL (201) 568-3311, FAX (201) 568-1916
DRAWN BY: G KALINOWSKI	DATE: 11/30/10	ORG/A 3" & 4" FILTERS TYPICAL INSTALLATION LAYOUT

SECTION 08 80 00

GLAZING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Glass and glazing for Sections referencing this Section for products and installation.

B. Related Section(s):
1. Section 08 41 13 Aluminum Entrances and Storefronts
2. Section 09 06 00, Schedules for Finishes
3. Energy calculations or prescriptive compliance documents

1.02 REFERENCE STANDARDS

A. Conform to reference standards by date of issue current on date of Contract Documents.

B. 2016 California Building Code, Chapter 24, Table 2403.2.1, Tables 2406.2(1) and 2406.2(2).

C. 2016 California Energy Code, Title 24, Part 6, Subchapter 2, Sections 110.6 and Subchapter 5, Section 140.3.

D. 2016 California Administrative Code, Chapter 10, Sections 10-111 and 10-112.

E. ASTM C1036 - Standard Specification for Flat Glass

F. ASTM C1048 - Heat-Treated Flat Glass - Kind HS, Kind FT Coated and Uncoated Glass

G. ASTM D792 - Density and Specific Gravity (Relative Density) and Density of Plastics by Displacement.

H. ASTM E 2190 - Insulating Glass Unit Performance and Evaluation

I. GANA - Glass Association of North America - Glazing Manual, Latest Edition

J. GANA - Glass Association of North America - Sealant Manual, Latest Edition

K. AAMA - 92, Voluntary Specification and Test Methods for Sealants

L. GTA - Glass Tempering Division of Glass Association of North America

M. LSGA - Laminators Safety Glass Association - Standards Manual

N. SIGMA - Sealed Insulated Glass Manufacturers Association - Glazing Manual

O. IGMA - Insulating Glass Manufacturers Alliance

P. Chapter 24 , 2016 California Building Code

Q. Section KCMZ, UL Fire Resistance Directory, Volume 3, Latest Edition.

R. California Code of Regulations, Title 24
   1. CBC California Building Code (CBC) 2016
   2. CRSC California Referenced Standards Code, Standard 12-7-4, fire door tests

S. NFPA - 80 Fire Doors and Fire Windows

T. NFPA - 257 Fire Test for Windows and Glass Block Assemblies

U. CPSC 16 CFR 1201 - Safety Standard for Architectural Glazing Material, Consumer Protection Safety Commission, Code of Federal Regulations. All glazing shall pass the test requirements of CPSC 16 CFR 1201, listed in Chapter 35. Comply with the CPSC 16 CFR, Part 1201 criteria, for Category I or II as indicated in Table 2406.1, CBC. Required for fully tempered glass, laminated glass, and wire Glass.

V. ANSI Z-97.1-84 (R1994) - Performance Specifications and Methods of Test for Transparent Safety Glazing Materials Used in Buildings, Safety Performance Specifications and Method of Test. Required for fully tempered glass, laminated glass.

1.03 PERFORMANCE REQUIREMENTS

A. General: Installed glazing systems shall withstand normal thermal movement and wind without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

B. Glass sloped 15 degrees or less from vertical in windows, curtain and window walls, doors and other exterior applications shall be designed to resist the wind load in Section 1609.6.4.4 and Table 1609.6.2(2). Glass in glazed curtain walls, glazed storefronts and glazed partitions shall meet the seismic requirements of ASCE 7, Section 13.5.9. Load resistance under uniform load per ASTM E1300.
   1. Sloped glass: CBC Section 2404.2 and Section 2405 Sloping Glass and Skylights.

C. Provide minimum frame lap in accordance with Table 2403.2.1, California Building Code and Note "*1*" for design wind and earthquake drift.

D. Glazing materials and assemblies shall be tested in accordance with California Referenced Standards Code, Standard 12-7-4 and NFPA 80 Fire Doors and Fire Windows and shall be labeled and installed in accordance with their listing.

E. Glazing in fire door and fire window assemblies subject to human impact loads and in hazardous locations shall comply with requirement of CBC Sections 2406.2 and 2406.4. Air and Water Infiltration per ASTM E283 and ASTM E331.

F. Performance Rating: Glazing U-Factor, Relative Solar Heat Gain Coefficient and Visible Transmittance shall be rated in accordance with the T-24 Energy Report per maxima and minimum requirements in California Energy Code, Subchapter 5, Section 140.3(a)5 and Table 140.3-B.

G. Structural Performance: Glazing shall withstand the following design loads within limits and under conditions indicated determined according to the CBC and ASCE 7/SEI 7.
   1. Design Wind Pressures: Determine design wind pressures applicable to Project according to ASCE/SEI 7, based on heights above grade indicated on Drawings.
      a. Basic Wind Speed (Ultimate design wind speed): 115 mph
      b. Seismic Importance Factor: 1.25 for schools, Category III
      c. Exposure Category: C
   2. Maximum Lateral Deflection: For glass supported on all four edges, limit center-of-glass deflection at design wind pressure to not more than 1/50 times the short-side length or 1 inchwhichever is less.

1.04 SUBMITTALS

A. Product Data on Glass Types Specified: Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.

B. Three samples of each material specified illustrating coloration and design.

C. Submit certification of Manufacturer's Certified Fabricators.

1.05 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has completed glazing similar in material, design, and extent to that indicated for this Project; whose work has resulted in glass installations with record of successful in-service performance; and who employs glass installers for this Project who are certified under the National Glass Association's Certified Glass Installer Program.

B. Glass Fabricators: Member of manufacturer's Certified Fabricator Program (CFP)
   1. Program members participate in rigorous training program on processing of sophisticated glass products, including high-performance coated glasses.
   2. Subject to comprehensive, multiple-day audit addresses glass fabrication equipment as well as their documented processing procedures.

C. Source Limitations for Glazing Accessories: Obtain glazing accessories through one source from single manufacturer for each product and installation method indicated.

D. Perform Work in accordance with:
   1. GANA Glazing Manual.
   2. GANA Sealant Manual.
   3. LSGA Standards Manual.
   4. IGMA/SIGMA Glazing Manual, Class CBA.

1.06 ENVIRONMENTAL REQUIREMENTS

A. Do not install glazing when ambient temperature is less than 50 degrees F.

1.07 FIELD MEASUREMENTS

A. Verify that field measurements are as indicated on shop drawings.

1.08 COORDINATION

A. Coordinate the Work with glazing frames, wall openings, and perimeter air and vapor seal to adjacent Work.

1.09 WARRANTY

A. Provide one-year manufacturer's warranty from Date of Substantial Completion for defective products including broken, cracked or otherwise damaged glass not caused by vandalism. Water intrusion through sealant/glass joint.

1.10 IDENTIFICATION

A. Each pane shall bear the manufacturer's mark designating the type and thickness of glass and glazing material. Conform to Section 2403.1, California Building Code. . Safety glass shall be identified in accordance with CBC Section 2406.3 .

B. Each pane of safety glazing material installed in hazardous locations required per Section 2406.1 and as defined in Section 2406.3 Chapter 24, California Building Code . Safety glass shall be identified by a label which will specify the labeler, whether the manufacturer or installer, and state that safety glazing material has been utilized in such installation.
   1. Identification shall be acid etched, sand blasted, ceramic fired, laser etched, embossed or of that type once applied, cannot be removed without being destroyed, on glass and readable from inside of building after installation.
   2. Label text shall comply with Section 2406.3 .

C. Each pane of tempered glass, except tempered spandrel glass, shall be permanently indentified by the manufacturer. The identification mark shall be acid etched, sand blasted, ceramic fired, laser etched, embossed or of the type that once applied cannot be removed without being destroyed. Tempered spandrel glass shall be provided with a removable paper marking by the manufacturer.

D. Each lite of fire-rated glazing shall be identified by a label that verifies fire-resistant glazing as per CBC Sections 716.5.8.3 .

PART 2 - PRODUCTS

2.01 MANUFACTURERS - FLAT GLASS MATERIALS

A. Products of following manufacturers form basis for design and quality intended.
   1. PPG Industries, Pittsburgh, PA.

2. Guardian Industries Corp. Kingsburg, CA, Corsicana TX.
3. Pilkington Libbey-Owens-Ford Co, Toledo, OH.
4. AFG Industries Inc., Kingsport, TN.
5. AGC

B. Or equal as approved in accordance with Division 01, General Requirements for Substitutions.

2.02 GLASS MATERIALS

A. Safety Glass: ASTM C1048, Kind FT fully tempered, Condition A uncoated, Type I transparent glass, Class 1 Clear, Quality-Q3 Glazing select, 1/4 inch thick minimum. All safety glass shall pass the test requirements of CPSC 16 CFR 1201 criteria, for Category I or II as indicated in Table 2406.2(1), CBC and below, and for Hazardous locations per Section 2406.4:
1. 9 sq. ft. or less: Category I
2. More than 9 sq. ft.: Category II

B. Insulating Glass Units, Low-E Coated: double pane with silicone sealant edge secondary seal and polyisobutylene primary seal with aluminum spacer, clear anodized. Outboard lite of 1/4 inch tinted Fully-Tempered glass with Low-E coating on surface 2, ASTM C1048, Kind FT. Inboard lite of 1/4 inch clear tempered, Kind FT, glass, Category I, CPSC 16 CFR 1201. Category II for units less than 18" above floor, and top edge greater than 36". Low-E coating on surface 2, interpane space purged dry air; total unit thickness of one inch. Solarban 60, sputter-coated .
1. PPG Solarban 60
   a. Starphire + Starphire: Light Transmittance of 74%, shading coefficient of 0.46, SHGC of 0.40, surface 2.

C. Refer to Section 09 06 00 Schedules for Finishes.

2.03 FIRE RATED GLASS

A. Products of the following manufacturers form the basis for design and quality intended.
1. SAFTI*FIRST* San Francisco CA. Product: SuperLite II-XL, UL R25002.
2. Technical Glass Products, Kirkland, WA. UL R13377
3. Pilkington Libbey-Owens-Ford Co, Toledo, OH.
4. AGC Glass Company, Alpharetta, GA.
5. Or equal as approved in accordance with Division 01, General Requirements for substitutions.

B. Fire-Rated Glass Materials
1. SuperLite: Two layers of tempered glass separated by a stainless steel spacer. Fill Cavity with inorganic salt and water gel layer that is clear, colorless, odorless, ultra-violet stable, non-yellowing, and non-toxic.
   a. Gel-filled, Dual-Glazed Units: SAFTI SuperLite II-XL: 20 minute: 3/4" (SL-II XL-45) [45 minutes: 3/4" (SL-II-45)] [60 minutes: 1-1/8" (SL-II XL-60)] [90/120 minutes: 1-1/2" (SL-II XL 90/12)]. For 20 min. doors (max 2,880 sq.in.) and windows (4,546 sq. in.) in 1-hr corridors limit to 25% of wall area. For exterior applications, 1/2" to the above thicknesses.

2.04 GLAZING ACCESSORIES

A. Setting Blocks: 80-90 Shore A Durometer Hardness, length of 0.1 inch for each square foot of glazing or minimum 4 inch x width of glazing rabbet space minus 1/16 inch x height to suit glazing method and pane weight and area.

B. Spacer Shims: 40-50 Shore A Durometer Hardness, minimum 3 inch long x one half the height of the glazing stop x thickness to suit application, self-adhesive on one side.

C. Glazing Tape, minimum 1/8" thick, 1/2" wide, the following:
   1. Preformed butyl compound with integral resilient tube spacing device; 10 - 15 Shore A Durometer Hardness; coiled on release paper; black color.
   2. Expanded Cellular Glazing tape, closed-cell, PVC foam tapes, factory coated with adhesive of both surfaces, coiled with released liner, complying with AAMA 800. Type 1 for tape acting as primary sealant, Type 2 tape combination with full bead of sealant.

D. Glazing Splines: Resilient polyvinyl chloride extruded shape to suit glazing channel retaining slot.

E. Sealants: for color sealants; Dow Corning 795 Silicone or as specified in Section 07 92 00. Use Pecora 895 Structural Glazing for translucent and structural glazing applications or Tremco Spectrem 2 clear or equal.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify prepared openings.

B. Verify that openings for glazing are correctly sized and within tolerance.

C. Verify that surfaces of glazing channels or recesses are clean, free of obstructions and ready to receive glazing.

3.02 PREPARATION

A. Clean contact surfaces with solvent and wipe dry.

B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.

C. Prime surfaces scheduled to receive sealant.

3.03 EXTERIOR - DRY METHOD (PREFORMED GLAZING)

A. Cut glazing spline to length; install on glazing pane. Seal corners by butting spline and sealing junctions with butyl sealant.

B. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners.

C. Rest glazing on setting blocks and push against fixed stop with sufficient pressure to attain full contact.

D. Install removable stops without displacing glazing. Exert pressure for full continuous contact. Seal stop-screw holes and fill screw tips with silicone before installing.

3.04 EXTERIOR - DRY/WET METHOD (PREFORMED TAPE AND SEALANT)

A. Cut glazing tape to length and set against permanent stops, 3/16 inch below sight line. Seal corners by butting tape and dabbing with butyl sealant.

B. Apply toe bead of butyl sealant along intersection of permanent stop with frame ensuring full perimeter seal between glass and frame to complete the continuity of the air and vapor seal.

C. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners.

D. Rest glazing on setting blocks and push against tape and toe bead of sealant with sufficient pressure to attain full contact at perimeter of pane or glass unit.

E. Install removable stops, with spacer shims inserted between glazing and applied stops 1/4 inch below sight line. Place glazing tape on glazing panel or unit with tape flush with sight line. Seal stop screw holes and fill screw tips with silicone before installing.

F. Fill gap between glazing and stop with silicone type sealant to depth equal to bite of frame on glazing, but not more than 3/8 inch below sight line.

G. Apply cap bead of silicone type sealant along void between the stop and the glazing, to uniform line, flush with sight line. Tool or wipe sealant surface smooth.

3.05 EXTERIOR - WET METHOD (SEALANT AND SEALANT)

A. Place setting blocks at 1/4 points and install glazing pane or glass unit.

B. Install removable stops with glazing centered in space by inserting spacer shims both sides at 24 inch intervals, 1/4 inch below sight line. Seal stop screw holes and fill screw tips with silicone before installing.

C. Fill gaps between glazing and stops with silicone type sealant to depth of bite on glazing, but not more than 3/8 inch below sight line, to ensure full contact with glazing and continue the air and vapor seal.

D. Apply sealant to uniform line, flush with sight line. Tool or wipe sealant surface smooth.

3.06 INTERIOR - DRY METHOD (TAPE AND TAPE)

A. Cut glazing tape to length and set against permanent stops, projecting 1/16 inch above sight line.

B. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners.

C. Rest glazing on setting blocks and push against tape for full contact at perimeter of pane or unit.

D. Place glazing tape on free perimeter of glazing in same manner described above.

E. Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact. Seal stop screw holes and fill screw tips with silicone before installing.

F. Knife trim protruding tape.

3.07 INTERIOR – DRY/WET METHOD (TAPE AND SEALANT)

A. Cut glazing tape to length and install against permanent stops, projecting 1/16 inch above sight line.

B. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners.

C. Rest glazing on setting blocks and push against tape to ensure full contact at perimeter of pane or glass unit.

D. Install removable stops, with spacer shims inserted between glazing and applied stops at 24 inch intervals, 1/4 inch below sight line. Seal stop-screw holes and fill screw tips with silicone before installing.

E. Fill gaps between pane and applied stop with silicone type sealant to depth equal to bite on glazing, to uniform and level line.

F. Trim protruding glazing tape edge.

3.08 MANUFACTURER'S FIELD SERVICES

A. Glass and glazing product manufacturers to provide field surveillance of the installation of their products.

B. Monitor and report installation procedures, unacceptable conditions and report deficiencies to the Architect.

3.09 CLEANING

A. Remove glazing materials from finish surfaces.

B. Remove labels after Work is complete.

C. Clean and polish surfaces and frames.

3.10 PROTECTION OF FINISHED WORK

A. Protect finished Work.

B. After installation, mark pane with an 'X' by using removable plastic tape or paste.

END OF SECTION

SECTION 10 80 00

TOILET AND BATH ACCESSORIES

PART 1 - GENERAL

1.01 REFERENCE

A. Requirements in Addenda, Alternates, Conditions, and Division 01 collectively apply to this work.

1.02 DESCRIPTION

A. Principal Work Items Are.

1. Grab bars.
2. Mirrors.
3. Toilet paper dispensers.
4. Toilet seat cover dispensers.
5. Paper towel dispensers.
6. Soap dispensers.
7. Sanitary napkin-tampon vendors and disposal.
8. Shower seats.
9. Baby changing station
10. Special needs changing table

B. Related Work Specified Elsewhere:

1. Section 10 28 13.13 – Electric Hand Dryers
2. Section 10 16 00 – Toilet Compartments
3. Division 22 - Plumbing

1.03 SUBSTITUTIONS

A. Only written approval of the District will permit substitutions for materials specified. Refer to Section 01 25 00 – Substitution Procedures.

1.04 QUALITY ASSURANCE

A. Requirements of Regulatory Agencies: Conform to State Handicapped Regulations.

1.05 JOB CONDITIONS

A. Sequencing, Scheduling: Coordinate work with related work of other Sections. Verify types of backing prior to installation of items.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturers and Products:

1. Bobrick Washroom Equipment, Inc., as a standard of quality.
2. Other Manufacturers:

a. American Dispenser Company.
b. Accessory Specialties.
c. Bradley. D. Hallmack.
d. Parker.
e. Watrous.
f. Georgia Pacific.
g. BayWest.

B. Retain "Manufacturers" Paragraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

2.02 ITEMS

1. Soap Dispenser: District Supplied, Contractor to install
2. Paper Towel Dispenser: District Supplied, Contractor to install
3. Toilet Paper Dispenser: Bobrick B-2888
4. Seat Cover Dispenser: Bobrick B-221

5a. Grab bars: Bobrick B-490 x 42" (1 -1 /4" diameter).
5b. Grab bars: Bobrick B490 x 36" (1 -1 /4" diameter).
5c. Grab bars: Bobrick B-68137 (showers only).
6a. Mirrors: Bobrick B-1658 (Staff & Faculty restrooms only).
6b. Mirrors: Bobrick B-1556 1830.
7a. Recessed sanitary napkin-tampon vendor: Bobrick B-3706.
7b. Surface-mounted sanitary napkin-tampon vendor: Bobrick B-2706.
8. Folding shower seat: Bobrick B-5181 or B-5191 (as required).
9. Shower curtain rod: Bobrick B-6047 (length as required).
10. Mop and broom holder: Bobrick B-223 x 36" (four holders).
11. Electric hand dryers, refer to Spec Section 10 28 13.13 for staff
12. Electric hand dryers, student restrooms B-7128 110v
13. Baby changing station: Koala KB200 Horizontal Surface Mounted
14. Special needs changing table: Max-Ability Pressalit Care 3000. 75” length - Model #R8528021 Fixed height w/ safety rail
15. Heavy Duty Soap Dish and Bar: Bobrick B-4290

16a. Partition-mounted sanitary napkin disposal: Bobrick B-354.
16b. Surface-mounted sanitary napkin disposal: Bobrick B-270.

2.03 PLACEMENT LOCATIONS

A. At sink locations in the Art & Tech Labs, Science Labs, Prep Rooms, Librarian Office, Staff Lounge, Kitchens, Snack Bars, Laundry Areas and wherever shown on the drawings.

1. Soap dispensers:-#1

2. Paper towel dispensers-#2

B. Staff Restrooms

1. Men's:

a. Grab bars-#5a & #5b.
b. Mirrors-#6a.
c. Toilet tissue dispenser-#3
d. Soap dispensers-#1
e. Toilet seat cover dispenser-#4
f. Hand dryer-#11

2. Women's:

a. Grab bars-#5a & #5b.
b. Mirrors-#6a.
c. Toilet tissue dispenser-#3
d. Soap dispensers-#1
e. Toilet seat cover dispenser-#4
f. Hand dryer #11
g. Sanitary napkin disposal #16a or 16b (one per stall).
h. Sanitary napkin-tampon vendor #7a or 7b.

C. Student Restrooms

1. Boy's:

a. Grab bars-#5a & #5b.
b. Mirrors-#6a.
c. Paper towel dispenser-#2
d. Toilet tissue dispenser-#3
e. Soap dispensers-#1
f. Toilet seat cover dispenser-#4

2. Girl's

a. Grab bars-#5a & #5b.
b. Mirrors-#6a.
c. Paper towel dispenser-#2.
d. Toilet tissue dispenser-#3
e. Soap dispensers-#1
f. Toilet seat cover dispenser-#4
g. Sanitary napkin disposal #16a or 16b (one per stall).
h. Sanitary napkin-tampon vendor #7a or 7b.

D. Janitor Rooms

1. Mop and broom holder #10.

E. Various Locations per drawings

1. Baby changing station #13: Multi-Use C130 & C131, C140 & C141.
2. Special needs changing table #14: Admin A128 & A231

F. Shower Areas

1. Folding shower seat #8.
2. Grab bars #4c.
3. Shower curtain rod #9.
4. Recessed soap dish #15

PART 3 - EXECUTION

3.01 INSTALLATION

A. General:

1. Anchorage: Securely anchor all items into solid backing with manufacturer recommended suitable attachments, Phillips-head typical.
2. Mounting Heights: Conform to handicapped requirements for each particular items installed in areas serving the handicapped. Refer to construction drawing.

B. Toilet Accessory Schedule (refer to drawings):

1. Install scheduled items at locations indicated on drawings. Use manufacturer recommended anchor plates.
2. At toilet partitions, use Bobrick 258 Series anchor plates for single grab bar installations.

C. Adjust toilet accessories for proper operation and verify that mechanisms function smoothly. Replace damaged or defective items.

D. Clean and polish all exposed surfaces strictly according to manufacturer's recommendations after removing temporary labels and protective coatings.

END OF SECTION

SECTION 32 84 00

IRRIGATION SYSTEM

PART 1 - GENERAL

1.01 SCOPE OF WORK

A. Provide all materials, labor, equipment and services necessary to furnish, install and maintain the Irrigation System, accessories and other related items necessary to complete the Project as indicated by the Contract Documents unless specifically excluded.

B. Related Work Specified Elsewhere
   1. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 1 Specification Sections, apply to work of this section.
   2. Section 31 20 00 – Earthwork
   3. Section 31 23 00 – Trench Excavation and Backfilling
   4. Section 32 90 00 – Landscape Planting
   5. Division 26 00 00 – General Electrical

1.02 CODES AND REGULATIONS

A. All work and materials shall be in full accordance with the following codes adopted and amended by the authority having jurisdiction. Nothing in these drawings or specifications is to be construed to permit work not conforming to these codes. The work described in these specifications shall govern in the event that the drawings or specifications call for material or methods of construction of higher quality or standard than required by these codes.
   1. California Plumbing Code
   2. California Administrative Codes:
      a. Title 8, Industrial Relations
      b. Title 19, Public Safety
   3. California Electrical Code
   4. California Green Building Standards Code, Section 5.304.
   5. California Department of Water Resources, Model Water Efficient Landscape Ordinance (MWELO)
   6. Standards and Regulations of other agencies, water utility provider, or organizations as listed in this specification relating to products or procedures, e.g. American Society for Testing and Materials.

1.03 DEFINITIONS

A. Piping: All pipe fittings, valves, and accessories as required for a complete piping system.

B. PVC: Polyvinyl Chloride.

C. Agencies and Organizations:
   1. ASTM- American Society for Testing and Materials
   2. AWWA- American Water Works Association
   3. IAPMO- International Association of Plumbing and Mechanical Officials
   4. NEC - National Electrical Code.
   5. UL - Underwriter's Laboratories
   6. SSPWC – Standard Specifications for Public Works Construction, by the American Public Works Assoc./Associated General Contractors of California.

D. Owner: An authorized representative of the Owner or the Owner's authorized consultant.

1.04 QUALITY ASSURANCE

A. The work of this section shall be performed by a single firm experienced in irrigation work and holding a current California Contractor's A or C27 License.

B. Qualifications of Workers
   1. The Contractor shall employ skilled workers who are thoroughly trained and experienced in irrigation system installation and who are completely familiar with the specified requirements and methods needed for proper performance of this work.
   2. The Contractor shall provide adequate supervision by a qualified foreman fluent in English that will be continuously onsite during the performance of this work.

1.05 SUBMITTALS

A. An operational assessment report of any existing irrigation system in the area of work shall be submitted prior to the start of the project's work, including demolition and clearing. See Subsection 1.07.

B. The Contractor shall submit complete lists of proposed materials and equipment per the Division 01 Submittal Section, including manufacturer's name and model numbers. Only provide additional product data and/or catalog cut sheets if a substitute material or equipment is proposed. No substitution will be allowed without prior written approval.

C. Shop drawings shall be provided for the layout and description of all equipment assemblies, including dimensions, capacities, and other characteristics as listed in product specifications. Shop drawings for booster pump assemblies shall clearly and neatly indicate the layout of the assemblies and proposed piping in the pump yard, and shall show adjacent equipment, required clearances, walls, fences, piping and other existing permanent improvements affecting the layout. Materials and equipment shall not be ordered until given written acceptance. Equipment or materials installed or furnished without prior approval or acceptance may be rejected and the Contractor shall be required to remove such materials from the site at his own expense.

D. When specific name brands of equipment and materials are used, they are intended as preferred standards only. This does not imply any right upon the part of the Contractor to furnish other materials unless specifically approved in writing as equal in quality and performance by the Owner. Decisions by the Architect/Engineer shall govern as to what name brands of equipment and materials are equal to those specified on the plans and his decisions shall be final. It shall be the responsibility of the Contractor to furnish proof as to equality of any proposed equipment or material.

E. Approval of any item, alternate or substitute indicates only that the products apparently meet the requirements of the drawings and specifications on the basis of the information or samples submitted. Manufacturer's warranties shall not relieve the Contractor of his liability under the guarantee. Such warranties shall only supplement the guarantee.

F. Acceptance of any submittals, deliverables, or other work product of the Contractor shall not be construed as assent that the Contractor has complied with, nor in any way relieved the Contractor of compliance with (i) the applicable standard of care, and/or (ii) applicable statutes, regulations, rules, guidelines, and contract requirements.

G. Irrigation Equipment: When the Contractor desires to transfer salvaged irrigation equipment and/or new spare equipment and/or parts to the Owner, he must submit along with the equipment an itemized list. The Contractor is solely responsible to obtain a written confirmation by the Owner that all materials received by the Owner matches his material list. The transfer of materials will not be considered executed without written confirmation of same.

H. Submit any required or requested testing data and/or Certificates, including but not limited to the backflow prevention assembly testing Certificate after the assembly is installed prior to regular system operation.

1.06 EXPLANATION OF DRAWINGS

A. The intent of the drawings and specifications is to indicate and specify a complete and efficient sprinkler irrigation system ready for use in accordance with the manufacturer's recommendations, and all applicable local codes and ordinances. Interpretation of irrigation plans and specifications shall be the responsibility of the Landscape Architect or Owner.

B. All existing systems and improvements are shown in their approximate locations. Before proceeding with any work, the Contractor shall carefully check and verify all dimensions and shall report any variations to the Owner.

C. Due to the scale of the drawings, it is not possible to indicate all offsets, fittings, etc., which may be required. The Contractor shall carefully investigate the structural and finished conditions affecting all his work, and plan his work accordingly, furnishing such fittings, etc., as may be required to meet such conditions. Drawings are generally diagrammatic and indicative of the work to be installed in the most direct and workmanlike manner, so that conflicts between sprinkler systems, planting,

utilities, and architectural features will be avoided. Locate pipe, valves and other equipment in planting areas unless specifically noted otherwise.

D. All work called for on the drawings by notes shall be furnished and installed whether or not specifically mentioned in the specifications.

1.07 EXISTING CONDITIONS

A. The Contractor shall not install the irrigation system and equipment as shown on the Drawings when it is obvious in the field that obstructions or differences in existing conditions and/or systems are present. Such obstructions or differences should be immediately brought to the attention of the Owner. Failure to provide notification prior to the start of this work shall make the Contractor liable for any and all repairs and/or corrections necessary for proper functioning and coverage of the system without any additional cost to the Owner.

B. The Contractor shall examine carefully the site of work contemplated and the proposal, plans, specifications, and all other contract documents. By submitting a bid, the Contractor attests that he has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantity of work to be performed and materials to be furnished, and the requirements of the specifications. The Contractor shall take necessary precautions to protect existing site conditions that are to remain. Should damage be incurred, the Contractor shall make the necessary repair or replacement to bring it back to its original condition at his own expense.

C. Prior to cutting into the soil, the Contractor shall coordinate with the Owner to locate all cables, conduits, sewers, septic tanks, and other such underground utilities as are commonly encountered and he shall take proper precaution not to damage or disturb such improvements. If a conflict exists between such obstacles, notify the Owner who will consider realignment of the proposed work. The Contractor will proceed in the same manner if a rock layer or any other condition encountered underground makes change advisable. Should utilities not shown on the plans be found during excavations, Contractor shall promptly notify the Owner for instructions as to further action. Failure to do so will make Contractor liable for any and all damage thereto arising from his operations subsequent to discovery of such utilities not shown in plans.

D. The Contractor shall verify the correctness of all finish grades within the work area in order to insure the proper soil coverage (as specified) of the sprinkler system pipes. The Contractor shall verify and be familiar with location and size of the proposed water supply (P.O.C.). He shall make approved type connection and install new work.

E. The Contractor shall be responsible for notifying the Owner prior to installation that equipment or methods indicated on the drawings or in the specifications conflict with local codes, are incompatible or an error is apparent. It the event the Contractor neglects to do this, he will accept full responsibility for any revisions necessary.

1.08 PERMITS

A. The Contractor shall obtain and pay required fees to any governmental or public agency. Any permits for the installation or construction of any of the work included under this contract, which are required by any of the legally constituted authorities having jurisdiction, shall be obtained and paid for by the Contractor, each at the proper time. He shall also arrange for and pay all costs in connection with any inspections and examination required by these authorities.

1.09 TESTING

A. General: Unless otherwise directed, tests shall be witnessed by the Owner. Work to be concealed shall not be covered until prescribed tests are made. Should any work be covered before such tests, the Contractor shall, at his expense, uncover, test and repair his work and that of other contractors to original conditions. Leaks and defects shown by tests shall be repaired and entire work re-tested. Tests may be made in sections, however, all connections between sections previously tested and new section must be included in the test.

B. Main Line Piping: Maintain 125 psi water or air pressure in new main line piping for a duration of twenty-four (24) hours. There shall be no drop in pressure during test except that due to ambient temperature changes (+/- 5psi).

C. After being installed at the project site, any newly installed Backflow Prevention unit must be tested and approved as functioning properly per the local water agency requirements. Approval of the backflow prevention unit must precede any final inspection of the irrigation system. All costs for testing shall be the responsibility of the Contractor.

1.10 OBSERVATION

A. General:
   1. Installation and operations must be approved by the Owner.
   2. In no event shall the Contractor cover up or otherwise remove from view any work under this contract without prior approval of the Owner. Any work covered prior to inspection shall be opened to view by the Contractor at his expense.
   3. In all cases, where inspection of the irrigation system work is required and/or where portions of the work are specified to be performed under the direction and/or inspection of the Owner’s Representative, the Contractor shall notify the Owner’s Representative at least 48 hours in advance of the time when such inspection and/or direction is required. Any necessary re-excavation or alterations to the system needed because of failure of the Contractor to have the required inspection, shall be performed at the Contractor's own expense.

B. Periodic observations shall be required for basic operations and installations during progression of the project. The Owner’s Representative, Owner or Landscape Architect shall perform the observations and shall record the observation on the Irrigation System Observation Log form on the As Built Record Drawings. Such

observations will include but not necessarily be limited to the following items as included in the scope of work:

1. Layout and flagging of sprinkler heads.
2. Trenching.
3. Main line installation.
4. Main line sustained pressure check.
5. Wire placement.
6. Partial fill compaction of trenches.
7. Control valve installation.
8. Drip line installation prior to backfilling.
9. Well Pump filtration unit installation and operation.
10. Sprinkler/emitter coverage prior to the start of planting operations.
11. Overall system operation and primary/secondary communication.

C. Coverage & Operations Review:
   1. When the irrigation system is operational and prior to soil conditioning operations, the Contractor in the presence of the Owner shall perform a coverage test of the irrigation system. The Contractor shall furnish all materials and labor required to perform the coverage test and to correct any minor inadequacies of coverage disclosed. The Contractor shall inform the Owner and Owner of any deviation from the plan required due to wind, planting, soil, or site conditions that bear on proper coverage. If such notification of necessary corrections or additions to the irrigation system is not provided prior to or during the coverage test, the Contractor shall make all subsequent adjustments and corrections needed for proper coverage without any extra cost to the Owner.
   2. Prior to the start of the maintenance period, the irrigation system shall be reviewed by the Owner for proper operations, and a review of and training on equipment and associated controls performed. Any corrections and/or adjustment shall be made as a condition for the start of the maintenance period and subsequent Final Acceptance.
   3. Submit a Pump Start-up and Training Report after start-up. Include a copy in the O&M manual.

D. Final Acceptance: The work will be accepted in writing when the entire project improvements have been completed to the satisfaction of the Owner. In judging the work, no allowance for deviation from the original plans and specifications will be made unless already approved in writing at proper time. Should it become necessary for the Owner to occupy any portion of the work area before the contract is fully completed, such occupancy shall not constitute acceptance. The Contractor will not be responsible for any damage caused by the Owner's separate work forces.

1.11 REJECTION OF NON-CONFORMING MATERIAL OR WORK

A. The Owner reserves the right to reject any material or work which does not conform to the contract documents. The rejected material or work shall be removed or corrected by the Contractor at no additional cost to the Owner.

1.12 OPERATIONS AND MAINTENANCE INSTRUCTIONS & RECORD DOCUMENTS

A. The Contractor shall prepare and deliver to the Owner's Representative within ten (10) calendar days prior to completion of the construction and as a prerequisite to the start of the maintenance period, all required and necessary descriptive material in complete detail and sufficient quantity, properly prepared in two individually bound sets of Operating and Maintenance Manuals. These manuals shall describe the material installed and shall be in sufficient depth to permit operating personnel to understand, operate and maintain all equipment. Spare part lists and related manufacturer identification shall be included for each installed equipment item. Each complete, bound manual shall contain the following information:
   1. Cover sheet stating Contractor's address and telephone number, duration of guarantee period, and a list of equipment, with names and addresses of local manufacturer representatives and warranty periods.
   2. The Contractor to issue a "CERTIFICATE OF CONSTRUCTION COMPLIANCE" which indicates that all work done, materials and equipment used and installed are in compliance with the approved plans, specifications and all authorized revisions and that the system functions properly.
   3. Complete operating and maintenance instructions and warranties on all major equipment.
   4. Complete set of manufacturer's literature and specifications of material installed, including parts list.
   5. A list of the controller station number for each control valve if different than the control valve number shown on the drawings.
   6. Initial electrical data on each control valve:
      a. Ohms reading for each valve taken at the controller (circuit is OFF).
      b. Voltage reading for each valve taken both at the controller and at the valve (circuit is ON).

B. The contractor shall furnish one set of As-Built full-scale drawings on bond, and two compact disks with complete sets of digital PDF files of all close-out documents after the As-Built Record Drawings have been reviewed and accepted by the Landscape Architect.
   1. Label first page of each document, or set of documents, "AS-BUILT PROJECT RECORD" in neat large printed letters on lower right hand corner. Record information concurrently with construction progress. Prints for this purpose may be obtained from the Owner. This set of drawings shall be kept on the site and shall be used only as a record set. Do not conceal any work until required information is recorded. These drawings shall also serve as work in progress sheets, and the Contractor shall make **neat and legible** annotations thereon daily as the work progresses, showing the work as actually installed. These drawings shall be available at all times for inspection and shall be kept in a location designated by the Owner.
   2. Drawings: Legibly mark to record actual construction:
      a. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements. Give sufficient horizontal and vertical dimensions to accurately trace route and depth of each

concealed line or item. Accurately locate each capped, plugged or stubbed line.
b. Field changes of dimension and detail.
c. Changes made by Field Order, Addenda, or other change document.
d. Show the final controller station number for each control valve if different than the control valve number shown on the drawings.

3. Deliver all Close-out Documents (As-Builts) to the Owner. Accompany submittal with transmittal letter in duplicate, containing:
a. Date.
b. Project title.
c. Contractor's name and address.
d. Title and number of each Record Document (As-Built).
e. Signature of Contractor or his authorized representative.

C. The Contractor shall provide controller chart(s) as follows:
1. The Contractor shall provide two controller charts for each controller's area of work.
2. The chart shall show the area of work controlled by the automatic controller and shall be the maximum size that the controller door will allow.
3. Show the controller station number for each control valve if different than the control valve number shown on the drawings.
4. The chart may be a reduced drawing of the actual as-built system. However, in the event the valve numbering is not legible when the drawing is reduced, it shall be enlarged to a size that will be readable when reduced.
5. The chart shall be colored with a different permanent color for each station.
6. The chart shall be enclosed in a waterproof envelope or laminated.

D. Per MWELO Section 492.9, upon completion of the landscape planting and irrigation system, and as a condition of Final Acceptance and/or the issuance of a Certificate of Occupancy, the licensed landscape contractor shall submit to the approving agency and/or Owner, the following items in a form acceptable to the approving agency and/or Owner:
1. Project information and contact information for the Owner and Applicant (Contractor).
2. Certification that the installation complies with the approved Landscape Documentation Package.
3. Irrigation scheduling parameters used in programming the controller during the establishment and maintenance periods.
4. A Schedule of Irrigation System Maintenance.
5. A Landscape Irrigation Audit Report per MWELO Section 492.12. Provide the Audit Report unless the report is not required by the approving agency or Owner.

1.13 SPARE PARTS AND EQUIPMENT

A. Prior to the conclusion of the maintenance period, furnish the Owner with the following spare parts and equipment:
1. One quick coupler key with attached hose swivel for each set of four quick coupler valves installed.

2. Ten spare nozzles for each different sprinkler head arc and/or radius nozzle installed.
3. One valve key for the 2” operating nut and/or hand wheel isolation valve.
4. One hundred feet of in-line emitter tubing with ten straight and ten ninety degree compression fittings.

1.14 WORK AREA AND SAFETY

A. The Contractor shall furnish, erect, and maintain all temporary facilities; perform all temporary work during the period of construction, including those herein specified. All facilities shall be maintained in proper and safe operating and sanitary conditions at all times.

B. The Contractor shall comply with the provisions of the Construction Safety Orders, and General Safety Orders issued by the State Division of Industrial Safety, as well as all other applicable laws, ordinances and regulations.

C. The project site shall be maintained in a neat and safe condition at all times. Cleanup shall be accomplished as the work progresses and upon completion of the work. The Contractor shall provide adequate safety measures to protect workers and the public from injury.

1.15 GUARANTEE

A. Irrigation system consisting of materials, equipment and workmanship shall be guaranteed for proper operation a minimum of one year from date of Final Acceptance of the Work or the Notice of Substantial Completion of the Project, whichever is later. Manufacturer’s warranty periods may be longer, and shall be noted in the close-out documents.

B. The Contractor shall be held responsible for repair and/or replacement of damages to new or existing improvements resulting from the defects of materials, equipment or workmanship one year from the date of Final Acceptance of the Work or the Notice of Substantial Completion of the Project, whichever is later.

C. The Owner reserves the right to make temporary repairs as necessary to keep the irrigation system equipment in operating condition. The exercise of this right by the Owner shall not relieve the Contractor of his responsibilities under the terms of the Guarantee as herein specified.

PART 2 - PRODUCTS

2.01 PIPE AND FITTINGS

A. Schedule rated white rigid PVC Pipe shall be made from NSF approved Type 1, Grade I, PVC compound conforming to ASTM D-1785.

B. Class rated (Standard Dimension Ratio) white rigid PVC Pipe shall be made from NSF approved Type 1, Grade I, PVC compound conforming to ASTM D-1784.

C. PVC pipe shall be of the Class or Schedule as follows:
   1. PVC pipe shall meet ASTM D-2241 for solvent weld, plain end, ASTM D-2672 for solvent weld, bell end, and ASTM D-3139 for gasketed bell end. Pipe shall be of the Schedule and/or Class as shown on the Drawings.
   2. Pipe sleeves under paving shall be PVC Schedule 40 for 3-inch and smaller or SDR 35 for 4-inch and larger pipes.
   3. Riser and/or manifold pipe connecting valves to main line fittings shall be Schedule 80 PVC.

D. All pipes shall be continuously and permanently marked and conform with the following information: manufacturer's name or trademark, nominal pipe size, Schedule or Class of pipe, pressure rating in PSI, ASTM designation and (NSF) seal of approval.

E. White rigid polyvinyl chloride (PVC) Fittings:
   1. Schedule 40 type I and II grade 1, solvent weld socket fittings ASTM D-2466 for all lateral lines 2-1/2 inches and smaller.
   2. Schedule 80 type I and II grade 1 solvent weld socket fittings ASTM D-2464 for all main line less than 2 inches diameter, and lateral lines 3 inches and larger.
   3. All fittings shall bear the manufacturer's name or trademark, material designation, size, applicable (IPS) schedule, and (NSF) seal of approval.
   4. All plastic fittings and connectors shall be injection molded of an improved polyvinyl chloride compound featuring high tensile strength, high chemical resistance and high impact strength in terms of current ASTM standards for such fittings. Where threads are required in plastic fittings, these shall be injection molded also.

F. PVC Solvent Weld Adhesive: All socket and bell type connections shall be joined with primer and PVC solvent cement which shall meet the requirements of ASTM F656 for primer and ASTM D2564, "Standard Specification for Solvent Cements for Polyvinyl Chloride (PVC) Plastic Pipe and Fittings." Solvent cement joints for plastic pipe and fittings will be made as prescribed by manufacturer. The high chemical resistance of the pipe and fitting compounds specified in the foregoing sections makes it mandatory that an aggressive colored primer, which is a true solvent for PVC be used in conjunction with a solvent cement designed for the fit of pipe and fittings specified. A heavy bodied, medium set solvent cement, e.g. Weld-On 711 gray, shall be used for all classes and schedules of pipe and fittings.

G. PVC Pipe Thread Sealant: A non-hardening all purpose sealant and lubricant similar to Permatex #51 or Lasco blue pipe thread sealant which is certified by the manufacturer to be harmless to PVC pipe and fittings. Apply sealant to clean male threads, brushing into grooves and to the first three threads of the female threads. A good quality grade of teflon tape recommended by the manufacturer for use with plastics may be used in lieu of sealant. Minimum width of tape to be used is 3/4". A minimum of two wraps and a maximum of three wraps shall be used.

H. PVC Swing Joints: Connections to sprinkler heads from lateral lines shall be made with swing joints as detailed. Pre-assembled swing joints from Hunter, King Brothers or Spears are acceptable.
   1. Use 6” length nipples for 1/2 inch inlet heads.
   2. Use 12” length nipples for 3/4 or 1 inch inlet heads.

I. Coated Ductile Iron pipe and fittings:
   1. Ductile Iron pipe shall be centrifugally cast pipe conforming to ANSI/AWWA C150/A21.50 and ANSI/AWWA C151/A21.51, thickness Class 50, with cement - mortar lining and seal coating per ANSI/AWWA C104/A21.4.
   2. Ductile Iron flanged pipe shall conform to ANSI/AWWA C115/21.15.
   3. Ductile Iron flanged fitting to PVC pipe shall use a ‘Megalug’ mechanical joint restraint Series 2000PV by EBAA Iron per either ANSI/AWWA C111/A21.11 or ANSI/AWWA C153/A21.53, or equal.
   4. Joints shall comply with the following standards:
      a. Rubber gasketed/mechanical joints: ANSI/AWWA C111/A21.11.
      b. Flanged joints: ANSI/AWWA C110/A21.10, B16.1, B16.2.

J. Coated ductile iron push-on fittings meeting ANSI/AWWA C110 or C153/A21.10 shall be used for:
   1. Main line connections for pipe 2 inches and greater in diameter.
   2. New main line service tee at valve connections where a service saddle is not acceptable.
   3. Self-restrainted fittings or joint restraints (Leemco LH or equal) shall be used for all elbows, tees, bends, etc fittings.

K. Coated ductile iron service saddles with stainless steel double straps, Smith-Blair 317, Romac Industries 202NS, or equal, shall be used for remote control/quick coupler valve service connections on main lines 1.25 inch or greater, and where the available outlet size can match the largest lateral line size downstream of the remote control valve.

L. Galvanized pipe and fittings:
   1. Galvanized Pipe shall be hot dip galvanized continuous welded, seamless steel SCH 40 pipe conforming to current ASTM A53 standards.
   2. Galvanized Fittings shall be galvanized, threaded malleable iron SCH 40 conforming to current ASTM A865 standards.

2.02 BACKFLOW PREVENTION ASSEMBLY

A. The backflow prevention assembly is existing and shall remain in place.

2.03 VALVES

A. Electric Control Valves:
   1. Globe valves operated by low-power solenoid, normally closed, manual flow adjustment. Sizes and types as shown on drawings.
   2. Provide a pressure regulating module on all control valves, or other pressure regulating components as part of the operating spray head or low volume head zones when the dynamic system pressure is, or may be greater than 45 psi.

B. Control Valve Marking: Christy's valve identification tag (or equal), yellow color (purple color for recycled water) with text designating controller and valve station number, e.g. "A12", or equivalent.

C. Isolation Valves:
   1. Cast bronze, coated ductile iron or coated cast iron gate valve with resilient wedge, non-rising stem and two inch operating nut for main line 2 inch size or greater. Match size of mainline.
   2. Cast bronze threaded gate valve with bronze cross handle for main line less than 2 inch size.

D. Quick Coupling Valve: Two piece quick coupling valve as shown on the Drawings.

2.04 VALVE BOXES

A. Control Valve/Master Valve/Flow Sensor boxes:
   1. Shrub/Ground Cover areas: Carson 1419 body with lockable tan plastic cover, or equivalent. Drip Valve Kits shall use a Jumbo body with lockable tan plastic cover.
   2. Turfgrass areas: Carson 1419 body with lockable green plastic cover, or equivalent.
   3. Hardscape areas: Christy B16 concrete box (11.75" x 22.25") with N16R composite solid flush lid, or equivalent.

B. Quick Coupler Valve boxes:
   1. Shrub/Ground Cover areas: Carson 910 body with lockable tan plastic cover, or equivalent.
   2. Turfgrass area: Carson 910 body with lockable green plastic cover, or equivalent.
   3. Skinned ballfield areas: Christy F08 round concrete valve box (8" ID) with F08R concrete lid, or equivalent. Boxes in a sports venue's field of play that are noted to be installed below grade shall use a metal lid with a non-woven geotextile of a minimum 0.5 lb./sq. yd. covering the lid and box frame.

C. Isolation Valve boxes:

1. Gate Valve box in hardscape: Christy G05 round concrete valve box (10.375” ID) with cast iron G05C lid, or equivalent.
2. Gate Valve box in planting areas: Christy F08 round concrete valve box (8” ID) with F08R concrete lid, or equivalent. Use F14 ADS adapter and extension for sizes 2.5 inches and larger.
3. Ball Valve box: Same as 2.04, A.

D. Control Valve box marking: Plastic lids shall have branded markings, and concrete lids shall have painted markings on the top of lid with minimum 2 inch high stenciled letters showing controller letter and station number.

2.05 CONTROLLER

A. The irrigation Controller is existing and shall remain in place. Verify open stations and spare wire, if any in the area of work.

2.06 CONTROL AND TRACER WIRE, COMMUNICATION CABLE

A. Connections between the automatic controllers and the electric control valves, and tracer wire shall be made with direct burial AWG – UF 600 volt copper wire manufactured for irrigation system use.

B. Hot control wires for the first controller shall be red. If multiple controllers are installed, the hot wire color shall be orange, yellow, purple in order for each controller. Common ground wire shall be white, with a color stripe corresponding to the hot control wire color when multiple controllers are installed. Spare control wires shall be black and spare common wire blue. Tracer wire shall be green.

C. Install in accordance with valve manufacturer’s specifications and wire chart. In no case shall wire size be less than #14. Common wire shall be a minimum #12 size.

D. All control wire splices/caps shall be made with direct bury rated, waterproof wire connectors with silicone sealant, Spears DS-500 Dri-Splice, 3M DBR/DBY or approved equal. Use one splice per connector sealing pack.

E. Apply waterproof numbered wire markers or sleeves at both sides of all splices and at the controller terminal board corresponding to the controller (A, B, etc.) and station number (02, 14, etc.). If multiple valves are connected to one station, add a single digit indentifier (1, 2, etc.) to the station number (XX), e.g. A02-1, A02-2, etc.

F. Communication/flow sensor cable shall be a shielded and jacketed, minimum 16 gauge twisted pair with drain wire, Paige P7162D or equal compliant with the controller manufacturer’s specifications.

G. Below-grade conduit for control wires and/or cables shall be PVC for electrical use with long radius sweeps at direction changes and at valve/splice/pull box terminations.

2.07 IRRIGATION HEADS

A. Spray/Bubbler Pop-up Head: Molded plastic body with pop-up plastic riser and nozzle. Manufacturer's model numbers are listed with description on the Drawings.

B. Rotor Pop-up Head: Molded plastic body with plastic riser and nozzle. Gear driven rotation with memory arc, balanced nozzle sets. Manufacturer's model numbers are listed with description on the Drawings.

2.08 CONCRETE

A. Cast-in-place Portland cement concrete used for pipe encasement, cover, thrust blocks, pipe support or other below-grade use shall at minimum comply with 2,800 psi 28 day strength.

2.09 OTHER MATERIALS

A. Materials not specifically indicated but necessary for the proper execution of this work shall be of first quality as selected by the Contractor subject to the acceptance of the Owner.

B. All materials appearing in the legend and details of the irrigation drawings are to be furnished and installed by the Contractor unless specifically noted to the contrary. Contractor is responsible for installation according to plans and details. The system shall efficiently and uniformly irrigate all areas and perform as required by these plans and specifications.

C. Granular bedding material shall be clean natural occurring sand, free from clay, salt, sea shells or organic material, suitable for the purpose intended, and shall be of such size that 90 percent to 100 percent will pass a No. 4 sieve and not more than 5 percent will pass a No. 200 sieve.

PART 3 - EXECUTION

3.01 SYSTEM DESIGN AND VERIFICATION

A. Contractor shall verify existing pressure and any existing irrigation equipment, and shall inform the Owner of any discrepancies between the exsiting systems' make and model of equipment, such as sprinkler heads, control valves, etc., and those indicated in the Drawings in writing prior to the start of irrigation system installation. Failure to inform the Owner of any discrepancy within seven working days prior to beginning of system installation will place the responsibility of any and all corrective action on the Contractor at no expense to the Owner.

3.02 PIPING INSTALLATION

A. General:
1. Any equipment installed by the Contractor and deemed to be for the use of the Owner in various situations (i.e., control valves, control panels, etc.) shall be so

installed to be readily accessible and quickly operable. Equipment deemed by the Owner to be inoperable for its intended purpose shall be reinstalled by the Contractor in an operable position before approval will be given. Any changes made by the Contractor shall be done without any additional cost to the Owner.

2. The Contractor shall be responsible for layout of proposed facilities and any minor adjustments required due to differences between existing conditions and the Drawings. Any such deviations in layout shall be within the intent of the original drawings, and without additional costs to the Owner. The Owner will indicate the proposed precise location of the control panels. Head spacing on drawings is diagrammatic. Head spacing and patterns shall be adjusted to provide complete and adequate coverage with a minimum spray on non-planted areas. Where head spacing is not specifically noted, Contractor shall install sprinkler heads evenly along the irrigation area's perimeter. Flush all lines prior to installation of heads.
3. Support piping without strain on joints or fittings and allow for piping expansion and contraction. "Snake" pipe into trench in accordance to manufacturer's recommendations to allow for expansion. Lay on solid bedding, at uniform depth.

B. The Contractor shall examine all other portions of working drawings and plan trenching and pipe layout so that no conflict will arise between irrigation and any other work. Any corrective action will be the Contractors responsibility at no further expense to the Owner.

C. Excavations:
1. Excavations shall be open vertical construction, sufficiently wide to provide clear working space around the work installed and to provide ample space for backfilling and tamping.
2. The use of a vibratory plow or methods other than open vertical trenching will not be allowed without the written approval of the Owner. To obtain such approval, a field test must be performed, at the proposed site, with the equipment to be used in the presence of the Owner and Owner. The field test is to indicate if the proposed site is favorable to the plowing method. Approval for plowing at one location does not allow the use of plowing at another location. Approval for plowing must be obtained for each location where the use of plowing is proposed. If, at previously approved plowing locations, conditions for plowing become unfavorable as determined by the Owner, plowing shall be terminated.
3. Trenches for pipe and equipment shall be cut to required grade lines, and compacted to provide an accurate grade and uniform bearing for the full length of the line.
4. Unless written approval for using native soils as bedding material is given by the Owner, main line pipe shall be placed on a minimum 6 inch depth of granular bedding material.
5. Excess trench soil with rocks greater than ½ inch diameter shall be removed from the planted area and spread as directed by the Owner.
6. When two pipes/conduit are to be placed in the same trench, it is required to maintain a minimum six inch (6") horizontal separation between pipes/conduit.
7. Depth of trenches shall be sufficient to provide a minimum cover above the top of the pipe as follows:

a. 24-inch minimum over main lines and wire conduit.
b. 18-inch minimum over non-pressure (rotary pop-up) lateral lines.
c. 12-inch minimum over non-pressure (pop-up spray head) lateral lines.
d. 24-inch minimum from subgrade over any lines located in a paved vehicle area.
e. Maximum cover above the top of the pipe shall not exceed twelve inches (12") greater than the required minimum cover.
f. 12-inch minimum cover over drip line non-pressure lateral and manifold pipe, and main distribution tubing.
g. 3-inch minimum cover over in-line emitter tubing.

D. Assemblies:
1. Routing of pressure supply lines as indicated on drawings is diagrammatic. Install lines (and various assemblies) in such a manner as to conform with details on plans.
2. Install all assemblies specified herein according to the respective detail drawings or specifications pertaining to specific items required to complete the work. Perform work according to best standard practice.
3. Install no multiple assemblies on plastic lines. Provide each assembly with its own outlet.
4. All threaded pipe and fittings shall be assembled using an approved teflon tape, or equivalent, applied to the male threads only. A minimum of two (2) wraps and a maximum of three (3) wraps of an approved teflon tape will be required.
5. No main line elbows, branch tees or isolation valves are to be located closer than five (5) feet to each other without prior approval of the Owner.

E. Line Clearance: All lines shall have a minimum clearance of four inches (4") from each other, and six inches (6") from lines of other trades. Parallel lines shall not be installed directly over one another.

F. Plastic to Steel Connections:
1. At all plastic (PVC) pipe connections, the Contractor shall work the steel connections first. Connections shall always be plastic into steel, never steel into plastic. An approved teflon tape shall be used on all threaded (PVC) to steel, never steel into plastic. An approved teflon tape shall be used on all thread (PVC) to steel pipe joints applied to the male threads only, and light wrench pressure is to be applied. A minimum of two (2) wraps and a maximum of three (3) wraps of an approved 3/4" wide teflon tape will be required.
2. A non-hardening sealant and lubricant similar to Permatex #51 or LASCO blue pipe sealant may be used in lieu of teflon tape. Apply sealant to clean male threads brushing into grooves and to the first three threads of the female threads.

G. Plastic Pipe:
1. The Contractor shall exercise care in handling, loading, unloading, and storing plastic pipe and fittings. All plastic pipe and fittings shall be stored under a weatherproof roofed structure before using and shall be transported in a vehicle with a bed long enough to allow the length of pipe to lie flat so as not to be subject to undue bending or concentrated external load at any point.

a. All lumber, rubbish, rubble, concrete and rocks shall be removed from the trenches by the Contractor. Pipe shall have a firm uniform bearing for the entire length of each pipe line to prevent uneven settlement. Wedging or blocking under riser tees shall be done only if specified on the plans. Pad trenches with soil as necessary to provide uniform bearing surfaces.
b. Where extensive lengths of pipe are installed, snake pipe in trench from side to side to allow for expansion and contraction. One additional foot per one hundred (100) feet of pipe is the minimum allowance for snaking. Never lay pipe when there is water in the trench or when the temperature is 32 degrees F or below.
c. All changes in direction of pipe shall be made with fittings, not by bending. No main line fittings for changes in direction shall be greater than 45 degrees. Provide a minimum five (5) feet between changes in direction elbows.
d. Safely handle primers and cements per ASTM F-402. Make solvent weld joints per ASTM D-2855 with a non-synthetic bristle brush in the following sequence:
    1) Make sure pipe is cut square and all rough edges and burrs are removed. All connecting surfaces are properly cleaned and dry prior to application of pipe primer.
    2) Apply an even coat of colored primer to pipe and fitting prior to application of solvent.
    3) Apply an even coat of solvent to the outside of the pipe, making sure that the coated area is equal to the depth of the fitting socket.
    4) Apply an even light coat of solvent to the inside of the fitting.
    5) Apply a second coat of solvent to the pipe.
    6) Insert the pipe quickly into the fitting and turn pipe approximately one-eighth to one-quarter turn to distribute the solvent and remove air bubbles. Hold the joint for approximately fifteen seconds so the fittings do not push off the pipe.
    7) Using a clean rag, make sure to wipe off all excess solvent to prevent weakening at joint.
    8) Exercise care in going to the next joint so that pipe is not twisted, thereby disturbing the last completed joint.
    9) Allow at least fifteen minutes setup time for each welded joint before moving.
    10) Repairing plastic pipe when damaged shall be done by replacing the damaged portion of pipe.

H. Concrete Thrust Blocks: Concrete anchors or thrust blocks shall be provided on pressure main pipelines 2 inches or greater in diameter at abrupt changes in pipeline grade, changes in horizontal alignment (bends, tees and crosses), reduction in pipe size (reducers, reducing tees or crosses), end-line caps or plugs, and/or in-line isolation valve to absorb any axial thrust of the pipeline. The pipe manufacturer's recommendation for thrust control shall be followed. Thrust blocks must be formed against solid unexcavated earth (undisturbed). Do not enclose entire joint in concrete. Provide a minimum of three cubic feet of concrete for each thrust block.

I. Concrete thrust blocks may be eliminated if the main line piping system uses self-restrainted fittings and bell joint restraints per manufacture's specifications throughout.

3.03 PIPE DEPTH AND BACKFILL

A. Backfill shall not be placed until the installed system has been inspected, pressure tested and approved by the Owner.

B. Backfill for first 6 inches underneath, and 4 inches around and above main line pipe and control wires shall be granular bedding material, unless the Owner approves in writing that native soil may be used for initial backfill in lieu of granular bedding material. Backfill material for the upper portion of the trench shall be approved soil. Unsuitable martial, such as pipe remnants and wire including clods and rocks over two inches (2") in size, shall be removed from the premises and disposed of legally at no cost to the Owner.

C. Backfilling for all pipe shall be carried out in two basic stages.
   1. Stage One Backfilling: This shall be accomplished as soon as possible after the pipe is laid. A bedding of uniform depth with no voids must be provided along the entire length of the pipe. The bedding material should be placed in the trench and tamped into the areas under the pipe, using a suitable tool. Joints should be left exposed until hydrostatic tests are completed. Cover only those portions of the pipe necessary to prevent movement or damage.
   2. Stage Two Backfilling: This shall be completed after all hydrostatic tests are completed and the piping system has been thoroughly checked for leaks or other defects. Continue to add backfill material in four inch (4") layers and hand tamp to achieve density similar to adjacent soil. After twelve inches (12") in main line trenches and eight inches (8") in lateral line trenches of hand tamped soil is in place over the pipe and fittings, backfilling can be continued, using light machinery to place dirt in the trenches in six inch (6") layers and to compact the dirt to conform to adjacent soil. Extreme care should be taken to avoid damage to the pipe from machinery that is too heavy. All trenches shall then be water jetted to assure uniform settling and compaction. Backfilling operations will not be considered complete until the top surface has been graded to conform to the adjacent soil. All rocks uncovered and not used as backfill must be collected and removed from the site.

D. All backfilling shall be done carefully and shall be properly tamped. All soil shall be tamped and puddled to eliminate any voids.

E. Surplus earth remaining after backfilling shall be disposed of as directed by the Owner.

F. PVC piping and fittings shall not be backfilled during periods of extreme heat or when a sudden lowering of temperature of the pipe may cause separation of joints or fittings.

G. Contractor shall fill with properly amended topsoil any irrigation trench that subsides during the warranty period. Contractor shall assume all cost associated with the trench repair, including but not limited to plant replacement of a size of plant disturbed at the time of the repair.

3.04 BACKFLOW PREVENTION ASSEMBLY

A. Check the existing backflow assembly for leaks or any improper condition. Notify the Owner as such if found.

3.05 CONTROL AND TRACER WIRE, AND COMMUNICATION CABLE

A. Install control wires alongside of main line piping. Do not tape wires together when encased in sleeve or conduit. Minimum cover shall be 24 inches. Crimp wires together at valve manifold with Scotchlok connector. Conventional valve wire splices shall use a 3M DBY splice kit. Tag all control wire at splices with approved control wire markers.

B. Wire size shall be determined by the number of valves operating on a given wire and the distance from the controller to the farthest valve, as specified by the charts furnished by the remote control valve manufacturer. Splices are only allowed when rerouting or repairing existing wire. All splice connections must be provided in a valve box.

C. Communication/sensor cable shall be installed in electrical conduit with long radius sweeps at direction changes and at valve/splice/pull boxes. Maintain a minimum six inch clearance to adjacent pipe. Minimum cover shall be 24 inches.

D. Install tracer wire along the top of pipe at the following locations:
   1. All pipe sleeves.
   2. Main line pipe without adjacent control wire.

3.06 VALVES

A. The Contractor shall make all necessary connections for operation, and shall be connected and aligned to provide the most efficient flow of water to the irrigation heads. Where pressure regulating electric control valves are specified, the Contractor shall adjust the valve so a uniform distribution of water is applied by the heads, and that the most remote heads operate at the pressure recommended by the head manufacturer.

B. Each valve is to be enclosed in a separate valve box. The valve box shall be secured on firm soil clear of valves and wiring connections. Valve boxes and lids shall be set to finished grade or as indicated on the Drawings. Use valve box extensions of the same material as the box to the proper depth below the pipeline. Valve boxes shall be supported by common bricks at each corner and at the long side of the box. Use a minimum of six bricks to support rectangular boxes and four bricks to support round boxes. Backfill carefully and properly compact in order to prevent settlement and subsequent damage.

C. Install a concrete collar around valve boxes when located in asphaltic concrete pavement or in turfgrass areas.

D. Remote control valve boxes within the field of play at sports venues shall be buried with a minimum of 8 inches of cover over the box lid in turfgrass, and a minimum 3 inches in skinned infield or warning track surfacing.

E. When existing valve and/or splice boxes are within the area of work, replace in kind any damaged boxes and/or lids, unless noted otherwise. Adjust the elevation of all existing boxes within the area of work to final grade per the drawings.

F. Locate valve boxes in ground cover/shrub planting areas instead of turfgrass areas whenever possible. Locate valve boxes 18” from and perpendicular to adjacent paving. When grouped together, provide equal spacing of at least 36" between boxes.

G. Permanently attach the plastic valve identification tag to the remote control valve body and locate so it’s clearly visible in an open valve box.

H. Permanently secure the control valve identification label to the top of concrete valve box lids with non-corrosive connectors.

3.07 AUTOMATIC CONTROLS

A. Install the controller and/or associated equipment, enclosure, sensors, and accessories per the manufacturer’s details and installation requirements, and the construction documents.

B. Where the controller is not connected to a building’s electrical grounding system, install a grounding circuit for controller and associated equipment with either a ground rod or ground plate per ASIC Guideline 100-2002.

C. Where the new controllers are a site satellite controller in a central control system, the site satellite controller equipment and installation shall be reviewed for system compliance by an authorized central system distributor/installer.

D. Connect operational control wires or accessory components to the controller, and program valve schedules appropriately for the new planting.

E. The Owner shall review the fully functional operation of the irrigation control system prior to acceptance of the system, and as a requirement for the start of maintenance.

F. Install automatic controller chart in laminated or watertight plastic envelope inside controller cover showing which valves are connected to which stations on controller in the work area.

2.09 SPRINKLER HEAD INSTALLATION

A. Head spacing on drawings is diagrammatic. Head spacing and patterns shall be adjusted to provide complete and adequate coverage with a minimum spray on non-planted areas. Flush all lines prior to installation of heads.

B. Overhead distribution sprinkler heads shall be installed as detailed, set adjacent to the edge of hardscape elements (2 - 4 inches for spray heads, 6 - 8 inches for rotary heads) and perpendicular to the finish grade. Sprinkler spray heads directed toward a building shall be a minimum 7 feet from building walls, and a minimum 2 feet when directed away from the building. Sprinkler heads in turfgrass areas shall have a minimum 10 foot radius except for corners.

C. The top of the nozzle in pop-up bodies shall be flush to the finish grade in areas to receive turfgrass seed/stolons, and in ballfield skinned infields. The top of the nozzle shall be one-half inch (1/2") above the finish subgrade in areas to receive standard cut turfgrass sod.

D. High speed or other sprinkler heads in dust control zones at ballfield skinned infields shall be installed in turfgrass areas where directly adjacent to the skinned infield.

E. Where individual shrub bubblers are installed, each plant shall have a bubbler within 10 - 14 inches of the shrub center.

F. Upon completion of the installation, the Contractor shall adjust or change sprinkler head nozzles to uniformly distribute water without overspray and shall place entire irrigation system in first-class operating condition without any additional cost to the Owner.

G. Sprinkler heads shall be adjusted in order by fully opening the sprinkler furthest from the control valve and working back toward the control valve. Adjust sprinkler heads which spray toward buildings or adjacent hardscape so that water spray does not contact the side of buildings or significantly over-spray onto hardscape .

2.10 CONCRETE

A. Concrete shall be installed in accordance with the relevant portions of the Site Concrete specification section.

2.11 COMPLETION AND MAINTENANCE

A. After the system has been completed but prior to the start of maintenance, the Contractor shall operate the automated system with the Owner, shall instruct the Owner in the operations and maintenance of the system and controls, and shall program the controller for each station.

B. If site satellite controller(s) for a central control system is installed, an authorized central control distributor/installer shall program the central base station to

communicate with the site satellite controller(s), and shall verify that proper communication protocols are operational.

C. The irrigation system shall be maintained and adjusted as required to provide proper coverage throughout the maintenance period or until Final Acceptance of the project, whichever is greater. Irrigation system maintenance shall commence upon an acceptable review following the completion of irrigation installation, planting operations and general clean-up.

D. The maintenance period shall not terminate until the close-out documents and as-builts record drawings have been submitted and accepted.

2.12 REPAIR AND CLEAN-UP

A. All areas shall be maintained in a neat and orderly condition at all times. All reasonable precautions shall be taken to avoid damage to new planting and improvements. Disturbed and/or damaged areas shall be restored to their original condition to the satisfaction of the Owner.

B. Where trenching or other work disturbs newly planted turfgrass or planting, the Contractor shall reinstall the existing sod if viable, or install a full width of new turfgrass sod or planting to match the existing turfgrass/planting species/variety and size, after first conditioning the top 6 inches of soil per the Landscape Planting specification. Adjust finish grades to account for the new turfgrass sod’s soil mat so that the new sod is flush to the adjacent turfgrass.

C. After the irrigation operations are completed, the Contractor shall remove all trash, excess materials, empty containers or any other debris accumulated by the work from the site. All damage caused by the work shall be repaired or material replaced at the Contractor's expense. The site shall be left in a neat and orderly condition to the satisfaction of the Owner.

END OF SECTION

SECTION 32 90 00

LANDSCAPE PLANTING

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. The Contractor shall furnish all material, labor and equipment necessary to install all landscape work as indicated in the plans and specifications.

B. The landscape work includes but is not necessarily limited to the following:
1. Soil preparation including cross ripping of all planting soil.
2. Weed control including an application of a pre-emergent herbicide.
3. Providing import planting topsoil at raised grade planters and/or at planting areas needing fill.
4. Fine grading, conditioning and amending planting topsoil.
5. Installation of turfgrass sod.
6. Planting new trees, plants and ground covers.
7. Tree drainage sump boring and testing.
8. Root Barriers.
9. Installation of mulch.
10. Sixty (60) day maintenance.

C. Related Work Specified Elsewhere
1. Contract Drawings, Addenda, general provisions of the Contract, including General and Supplemental Conditions, and Division 1 Sections apply to work of this section.
2. Section 31 20 00 - Earthwork
3. Section 31 22 22 - Soil Materials
4. Section 32 84 00 - Irrigation System

1.2 DEFINITIONS

A. Unless noted otherwise, the term "approved" shall mean by the Owner in writing.

B. Agencies and Organizations:
1. ASTM- American Society for Testing and Materials
2. ANSI – American National Standards Institute
3. ISA – International Society of Arborists
4. SSPWC – Standard Specifications for Public Works Construction, by the American Public Works Assoc./Associated General Contractors of California.
5. TPI – Turfgrass Producers International

C. Owner: The Owner’s authorized representative or authorized consultant.

1.3 QUALITY ASSURANCE

A. The work of this Section shall be performed by a single firm experienced in landscape planting and holding a current California Contractor's A or C27 License.

B. Tree and plant quality and sizes shall conform to the current edition of "American Standard for Nursery Stock" for Number One nursery stock as adopted by the American Nursery & Landscape Association (ANSI Z60.1). Plants shall be of uniform, standard size for their listed container size, neither overgrown and root bound or encircling, nor so recently transplanted that the root system is not thoroughly well established throughout the container. Roots should reach the sides of the container and maintain a firm root ball. Pruning shall not be done prior to delivery except by prior approval.

C. Trees shall also comply with quality characteristics described in "Guideline Specifications for Nursery Tree Quality" current edition, published by the Urban Tree Foundation. Trees not in compliance with any of the following characteristics may be subject to removal and replacement, whether planted or still in their containers.
   1. Acceptable caliper and height ranges for the Type, Form and Size of tree.
   2. An intact central leader, or after heading of an old leader, the new leader diameter is greater than one-half the diameter of the old leader. Co-dominant leaders are not acceptable.
   3. Scaffold branch diameters are less than two-thirds the diameter of the trunk, and without included bark at the attachment.
   4. Scaffold branches shall be balanced, well spaced vertically, and with a radially blank section no greater than one-third of the canopy circumference.
   5. Temporary branches on the lower trunk shall be less than three-eighths inch diameter, and the clear trunk height shall be no more than forty (40) percent of the overall tree height.
   6. The root collar and rootball shall be free of defects, including circling, kinked and girdling roots. Roots at the edge and bottom of the container shall be less than one-quarter inch diameter, and uniformly distributed throughout the container.
   7. The tree canopy width shall be a minimum of twenty-five percent of the standard form tree height, except for naturally columnar forms.

D. Botanical names shall take precedence over common names. Provide plants that are true to name. Tag one representative plant of each species and size with the botanical name and size.

E. Inspection:
   1. All landscape work and materials shall comply with applicable Federal, State, County and City regulations.
   2. All plant material shall be reviewed onsite by the Owner's Representative and/or Landscape Architect prior to positioning and planting. Review shall

not limit the right of rejection during any stage of the work until Final Acceptance for any reason including condition of the foliage or root ball, size, variety, form, appearance, latent defects or injuries. Rejected plants shall be removed from the site and replaced immediately by the Contractor at no additional cost to the Owner.

F. Qualifications of Workers
1. Employ skilled workers who are thoroughly trained experienced in landscape planting and who are completely familiar with specified requirements and methods needed for proper performance of the work in this section.
2. Provide adequate supervision by a qualified foreman fluent in English that will be continuously onsite during the performance of this work.
3. Weed control pesticides shall only be applied by an individual holding a valid Qualified Applicator Certificate (Category A) issued by the Department of Pesticides Regulation. Submit a copy of the Certificate.

G. Any pruning of existing trees specified as part of this Work shall be performed under the direct supervision of an ISA Certified Arborist and in compliance with ANSI A300-Part 1 Standard Practices (Pruning).

1.4 SUBMITTALS

A. In accordance with the Submittal section, submit:
1. A complete materials list of all items proposed to be furnished including estimated quantities.
2. Laboratory analyses of soil conditioning materials shall have been performed within one year of the submittal date.
3. Quality Certificates and/or Certificates of Inspection required by government agencies (providing duplicate copies for the Owner's Representative).
4. Qualified Applicator Certificate, and DPR Registration Certificates and Material Safety Data Sheets for all pesticides/herbicides proposed for use.
5. Submit photos with a scale marker of all boxed trees proposed for use from the nursery source. Photos shall clearly show the individual tree form without background greenery.

B. Soil amendments: Submit one (1) pint sample and an analysis of organic compost and mulch.

C. Other Samples: When requested by the Landscape Architect and/or Owner's Representative.

D. Soil Fertility Analysis and Recommendations:
1. The Contractor shall provide and pay for a fertility analysis of the existing topsoil and any proposed import planting topsoil. After mass grading operations are completed, native soil samples shall be collected for the fertility analysis by collecting a minimum of 5 representative samples of the soil per acre throughout the area of work. Separate samples shall be

produced for cut and fill areas, and for any other area composed of soils not similar to the existing soils. Each sample shall be a minimum of one pint each, and shall be thoroughly mixed together to prepare a homogenous sample. A one quart representative sample for cut, fill and any other special conditions shall be submitted to the soil testing laboratory as a representative sample for fertility analysis. The fertility analysis shall at a minimum provide the following data:

a. Soil texture class and percent sands, silts and clays per ASTM D422
b. estimated soil infiltration and percolation rates
c. pH
d. organic matter (%)
e. total soluble salts (ECe)
f. Cation Exchange Capacity (CEC) and Percent Cation Saturation for K, Mg, Ca and Na
g. major and minor nutrients (ppm).

2. Recommendations for improvement of the soil conditions for optimum plant growth shall be made by the testing laboratory, and at a minimum shall include the following:
   a. A fertilizer and amendment application program (including macro and micro nutrients) for both pre-planting and maintenance fertility applications for broad area tillage and for planting pit backfill (pre-plant only).
   b. Treatments to neutralize soil pH and to correct any adverse conditions as warranted.
   c. Recommendations shall address soil conditioning for both planting area tillage and tree/plant planting pit backfill.
3. The soil analysis and recommendations shall be performed by one of the following laboratories capable of providing the above analyses by a licensed soil scientist:
   a. D&D Agricultural Laboratory. Contact Darrin Peters at 559-348-1818.
   b. Wilber-Ellis Company. Contact Michael Cline at 209-442-1220.
4. The Contractor shall submit the results of the soil testing investigations and shall receive written direction from the Landscape Architect before proceeding with any soil conditioning activities such as fertilizing and/or adding amendments.

E. Within seven days from the start of the maintenance period, submit a calendar of maintenance activities, including scheduled dates for mowing, fertilizing, weed control and all other activities. Provide the quantities of maintenance fertilizer and any other materials scheduled to be used in each application during the maintenance period.

F. Submit invoices and/or delivery tags from material suppliers for all amendments, fertilizer, seed, plants, mulch and any other materials provided for the landscape planting installation and applied during the maintenance period. Submit tags from

seed packaging indicating seed varieties, percent purity and percent germination minimums. The invoices and/or delivery tags shall be provided directly to the Owner's Representative/Inspector of Record within 24 hours of delivery to the site, as well as to the normal submittal recipients per the Contract Documents.

G. Close Out Documents: Submit prior to the start of the maintenance period, two bound copies of the following:
   1. Cover sheet stating Contractor's address and telephone number, duration of guarantee period, and a list of plant nurseries, materials and equipment vendors with names and addresses of the vendor/manufacturer representatives and warranty periods.
   2. A "CERTIFICATE OF CONSTRUCTION COMPLIANCE" which indicates that all work done, materials and equipment used and installed are in compliance with the approved plans, specifications and all authorized revisions.
   3. Maintenance Manuals and Instructions: Submit a monthly schedule of procedures to be established by Owner for maintenance of landscapes (trees, mixed planting and turfgrass) for one full year and shall include recommendations for fertilizing, pest and disease control, mowing, aeration and top dressing.
   4. Soil Amendment and Seed/Stolon Confirmation Form noting the installed quantities of materials and the person who confirmed the delivery and installation of the materials.
   5. Operations and Maintenance Manuals and Warranty certificates for any maintenance equipment turned over to the Owner.
   6. As-built Record Drawings with all modifications to the Drawings noted in red ink, and the Landscape Planting Observation Log completed.

1.5 AVAILABILITY

A. The Contractor shall confirm availability of plants, supplies, and materials prior to submitting his landscape bid. Plant variety substitutions are not desired.

B. If a plant is found not to be suitable or available, the Contractor is to notify Landscape Architect before bidding. The Landscape Architect is then required to select a reasonable alternate and to inform all those bidding of the availability of the original plant. If a substitute is selected it must be of the same size, value and quality as the original plant. Failure to inform the Landscape Architect of unavailable plants prior to bidding will require that all plants specified shall be provided by the Contractor at time of installation.

C. Plant container size listed on construction documents are minimum acceptable size. If plant material specified is not substituted prior to award of the contract the minimum container size specified shall be provided by the Contractor. If the Contractor can not provide the minimum specified size plant material at the time of installation, the Contractor shall be required to install a larger size container of the plant specified at no additional cost to the Owner.

1.6 EXISTING CONDITIONS

A. The Contractor is to visit the job site to verify existing conditions including soils, vegetative growth, subsurface conditions, existing grade and drainage, irrigation system etc. making allowances in his bid for any required work to provide the landscape installation as specified in the construction documents.

B. The Contractor shall notify the Owner to locate underground lines prior to hole boring or trenching. Do not permit heavy equipment such as trucks, rollers, or tractors to damage utilities. Hand excavate as required to minimize possibility of damage to underground utilities. Maintain grade stakes set by others until removal is mutually agreed upon by all parties concerned. Prevent damage to temporary risers of underground irrigation system and similar obstructing work located in the landscape areas.

C. If there is a conflict with existing utilities, improvements and/or planting and the proposed planting, Contractor shall promptly notify the Owner's Representative for instructions as to further action. Failure to do so will make Contractor liable for any and all damage or corrective actions arising from his operations.

D. Prior to the start of this work, the Contractor and the Owner’s Representative shall verify the operational condition of that portion of the existing irrigation system pertaining to the proposed planting area. The Contractor shall notify the Owner’s Representative of any repairs and/or corrections necessary for proper functioning and coverage. The repairs and/or corrections shall be completed before any plant material is planted. Failure to perform system verification and provide notification prior to the start of this work will make the Contractor liable for any and all repairs and/or corrections necessary for proper functioning and coverage, as well as any required plant replacement, without any additional cost to the Owner.

E. No plants shall be planted in situations that show poor drainage infiltration or low areas that result in standing water. Such situations shall be corrected by the Contractor as directed by the Landscape Architect or Civil Engineer. Failure by the Contractor to notify the Owner of poor drainage conditions prior to proceeding with the conditioning or planting operations shall place the responsibility for any plant removals, additional soil conditioning and replanting on the Contractor without any additional cost to the Owner. Any corrections of finish grading not in compliance with the Contract Documents including plant removal, soil conditioning and replanting shall be performed by the Contractor at no additional cost to the Owner.

1.7 PROTECTION

A. The Contractor shall guarantee repair of damage to any part of the premises resulting from but not limited to leaks, defects in materials or workmanship, operation of equipment, storage of materials and/or equipment, installation of underground or overhead utilities. The Contractor shall be liable for any and all

accidents resulting from his work, including open holes and trenches during construction.

B. Protect new and existing landscape areas in the area of work from theft, loss, damage and deterioration during storage, installation and maintenance. Protect from unauthorized persons (trespassers) as well as from operations by other contractors and tradesmen, and landscape operations. Protect all planted turf and shrub areas from persons as well as operations of other contractors and the Owner. Cost of protection shall be born by the Contractor with means of protection such as temporary fencing as approved by Owner. Cost for protection shall be included in the Contractor's bid for the work.

C. Contractor shall repair or replace damaged work and/or damage to existing improvements/landscape as identified by the Owner's Representative to a condition acceptable to the Owner's Representative. No additional payment will be made to the Contractor for repair or replacement of damaged work and/or damage to existing improvements/landscape.

1.8 OBSERVATIONS

A. The Owner's Representative, Project Inspector or Landscape Architect shall perform periodic observations and shall record the observation on the Landscape Planting Observation Log form on the As Built Record Drawings. Such observations shall include but are not necessarily be limited to:
1. Weed control operations prior to other portions of work.
2. Ripping and soil conditioning of the planting area.
3. Layout of the plant material and trees at the site prior to planting in order to avoid conflicts and to meet the design intent.
4. Condition and quality of plant material prior to planting.
5. Auguring, digging and preparation of plant pits for plants.
6. Planting of shrubs, ground cover and turfgrass.

B. Any corrective action called for shall be immediately performed by the Contractor.

C. Failure by the Contractor to obtain the above observations shall place the responsibility on the Contractor for any relocation and/or replacement of planted trees or shrubs.

1.9 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Plant label shall identify each species and variety. A label shall be attached to each individual plant or block of identical plants grouped together.

B. Adequately protect plants from sun and wind prior to planting. Do not allow stored plant material to dry out at any time.

C. Deliver packaged materials in containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery and while

stored at the site. Store materials and equipment in a location as directed by the Owner's Representative.

1.10 PESTICIDE NOTIFICATION

A. A written notification of any and all pesticide/herbicide products scheduled for use by the Contractor or their representative on the Owner's property must be submitted to the Owner's Representative at least seven days prior to the scheduled application. Notification shall include the product name, manufacturer's name, the pesticide active ingredient, the U.S. EPA and CalDPR registration numbers, the scheduled date and application areas, and the reason (target species) for the application.

1.11 REPAIR OF DAMAGED EXISTING PLANTING AREAS

A. The Contractor shall be responsible to repair all damage and/or distress to existing planting areas including turfgrass, shrubs, ground covers, perennials, etc., whether specifically shown on the Contract Documents or not, as a result of construction operations, material and/or equipment storage, site access, site offices, utility and/or irrigation line installations or other actions.

B. Replacement shrubs shall be 15 gallon size, replacement ground cover and perennial plants shall be 5 gallon size, and turfgrass shall be full width sod. Damaged areas shall be amended and finish graded per the Contract Documents prior to planting. Non-turfgrass planting areas shall also receive wood mulch as specified herein. The limits of repair shall be determined by the Owner.

PART 2 - PRODUCTS

2.1 TOPSOIL

A. Topsoil used in planting areas shall be a clean, friable soil with no noxious weeds, clods or stones larger than 0.5 inch in diameter, subsoil, hardpan, wood, debris, fine organic material greater than 5%, undesirable insects, plant disease or any other natural or extraneous objects detrimental to normal plant growth to a minimum depth of 18 inches from finish grade.

B. The Contractor shall provide a particle size analysis, fertility testing and amendment recommendations of proposed native and/or import topsoil, and the Landscape Architect reserves the right to reject topsoil not conforming to the minimum specifications. Stockpiled onsite topsoil may be used if analysis and testing determines compliance with these requirements prior to placement. Failure to meet minimum specifications shall result in the removal of any unauthorized placed topsoil at the Contractors expense.

C. Particle size distribution for topsoil shall meet the following per ASTM D422:
1. 100% passing a 12.2 mm (1/2") screen.
2. Minimum 95% passing a 9.5 mm (3/8") screen.

3. Minimum 75% passing a 2.36 mm (No. 8) screen.
4. Maximum 45% passing a No. 200 screen.
5. Silt content shall be a maximum 35%.
6. Clay content shall be a maximum 25%.
7. Silt to Clay ratio shall be less than 2 and greater than 0.5.

D. Other characteristics shall conform to the following:
1. Permeability rate shall be not less than one (1.0) inch per hour or not more than 20 inches per hour.
2. The sodium absorption ratio (SAR) shall not exceed 3.0 and the electrical conductivity (ECe) shall not exceed 2.5 milliohms per centimeter at 25 degrees centigrade.
3. Soluble boron shall be no greater than 1.0 part per million (mg/l).
4. Soil pH range shall be 6.5 – 7.9.
5. Maximum concentration of soluble chloride shall be 150 parts per million.
6. Maximum concentration of heavy metals shall not exceed the following when the pH is between 6 and 7:
   a. Arsenic: 0.5 ppm
   b. Cadmium: 0.5 ppm
   c. Chromium: 5 ppm
   d. Cobalt: 1 ppm
   e. Lead: 15 ppm
   f. Mercury: 0.5 ppm
   g. Nickel: 2.5 ppm
   h. Selenium: 1.5 ppm
   i. Silver: 0.25 ppm
   j. Vanadium: 1.5 ppm
7. Petroleum hydrocarbons shall not exceed 100 mg/kg dry soil.
8. Aromatic volatile organic hydrocarbons shall not exceed 2 mg/kg dry soil.

2.2 SOIL AMENDMENTS

A. Organic Compost: “Harvest Premium” as supplied by Harvest Power (559) 435-1114; “WonderGrow Compost” by Grover, Inc. (866) 764-5765, or “Allgro Compost” by Synagro (559) 341-5158, and conforming to the following minimums:
1. Certified as “Mature” or better per the California Compost Quality Council Maturity Index.
2. Pass EPA Class A standards for pathogens and heavy metals.
3. Particle size: 1/8" maximum.
4. pH: 6.5-8.0.
5. Macro-nutrients: Minimum of 1.0% Nitrogen, 0.5% Phosphorus, 0.5% Potassium.
6. AgIndex ratio (Nutrients/Salts) of 10 or more.
7. Organic matter content greater than 25% dry weight.
8. Carbon/Nitrogen ratio: less than or equal to 15.
9. Salinity (ECe): less than 5.0 dS/m.

10. Odor shall be soil-like (musty or moldy) without any sour, ammonia-like or putrid smell.

B. Gypsum shall be mined agricultural grade gypsum composed of no less than 100% $CaS0_4$-$2H_20$ hydrated calcium sulfate in a pelletized form. Elemental Sulfur shall be a minimum 95% pure agricultural grade.

C. Dry Humate organic soil conditioner comprised of 70% humic acid from Leonardite.

D. Endo 120 Mycorrhizae containing a minimum 60,000 living propagules per pound.

E. Amendment material types and application rates may be subject to change based on the findings and recommendations of the horticultural soil testing lab, and as such may result in an increase or decrease in the Contract Amount.

2.3 FERTILIZER

A. Trees and Shrubs: Fertilizer for all trees and shrubs to be BEST PAKS (20-10-5) controlled release fertilizer in a biodegradable 10 gram packet. The BEST PAKS shall be applied at the following rates:
1. 1 Gallon Can: 1 Best-Pak
2. 2 Gallon Can: 2 Best-Paks
3. 5 Gallon Can: 5 Best-Paks
4. 15 Gallon Can: 10 Best-Paks
5. 24” Box: 16 Best-Paks
6. 36” Box: 24 Best-Paks

B. The pre-plant fertilizer shall be a commercial homogeneous, granular pellet:
1. Pre-plant fertilizer for turfgrass shall be:
   a. BEST 6-24-24-5S XB+ with Avail
2. Pre-plant fertilizer for mixed plantings shall be:
   a. BEST Landscape Color 14-14-14 (14-6-11.6-3S and micronutrients) with 9.9% slow release N, or equal.

C. The maintenance fertilizer shall be a commercial homogeneous, granular pellet:
1. Maintenance fertilizer for turfgrass shall be one or more of the following:
   a. Urea 46-0-0
   b. BEST Ammonia Sulfate 21-0-0-24S, standard grade, or equal
   c. BEST Nitra King 21-2-4-14S-2Fe, or equal.
   d. BEST Nitex 20-2-3-12S-5Fe, or equal.
   b. Best Landscape Color 14-14-14 (14-6-11.6-3S and micronutrients) with 9.9% slow release N, or equal.
2. Maintenance fertilizer for mixed plantings shall be the pre-planting fertilizer.

D. Fertilizer material types and analysis may be subject to change based on the findings and recommendations from the horticultural soil testing lab, and as such

may result in an increase or decrease in the Contract Amount.

2.4 MULCH

A. Mulch for on-grade or raised native soil planters shall be a walk-on type of chipped and aged greenwaste woody material without leaves, green wood, sticks, dirt, stones, dust and other non-organic debris as accepted by the Landscape Architect. Particle size 1/2” to 3" in general size.

2.5 STAKING & GUYING MATERIALS

A. Stakes: 2" Diameter lodgepole pine, pressure treated and pointed one end.

B. Ties: V.I.T. Cinch Tie, 32 inches long, V.I.T. Products, Inc. (619) 673-1760, or equivalent.

2.6 PLANTS

A. Plants shall be typical of their species and variety, shall have normal growth habits, well developed branches and be densely foliated, and shall have fibrous root systems. No substitutions will be allowed unless approved in writing by the Landscape Architect.

B. Plants shall be free from defects and injuries including disease, insects, insect eggs and larvae and girdled or matted roots.

C. Quality and size of plants shall be in accordance with ANSI Z60.1-2004, "American Standard for Nursery Stock", and as described in Quality Assurance.

D. Plants shall not be pruned before planting.

E. Plant material must be selected from nurseries that have been inspected by State or Federal Agencies.

F. Plants shall be nursery grown and shall have been transplanted or root pruned at least once in the past three (3) years. Plants shall have been grown under climatic conditions similar to those in the locality of the project.

G. Each bundle of plants shall be properly identified by weatherproof labels securely attached thereto before delivery to the project site. Label shall identify plant by name.

H. Nomenclature shall be in accordance with Sunset Western Garden Book, current edition.

I. No plants shall be removed from their container until a review has been made in the field or at the nursery, or except when specifically authorized in writing by the Owner.

J. Collected plant material may be used only when approved. Approval shall not limit the right of rejection during work progress for conditions of the root ball, latent defects or injuries.

K. Where shown a "MULTI" provide trees with a minimum of three trunks.

L. Plant sizes listed on the planting plan are minimum acceptable sizes. The quantities listed are the Landscape Architect's estimate only. The Contractor is responsible for the quantities of plant symbols shown on the plan, and/or the quantities in hatched planting areas at the specified triangular spacing.

2.7 TURFGRASS SOD

A. Sod shall be produced from certified or approved seed/stolons, fresh and labeled in accordance with U. S. Department of Agriculture Rules and Regulations. Sod quality shall be Premium or Standard Grade per TPI specifications.

B. Sod shall be neatly mowed and be mature enough that when grasped at one end it can be picked up and handled without damage, delivered to the project site, adequately protected and installation commenced within 24 hours of harvesting.

C. Turfgrass shall be a species and variety as specified in the Contract Drawings. If a warm-season grass is specified and the installation is to be performed between the months of October and April, a species with an established perennial ryegrass overseeding shall be installed. Submit the overseeded product information for approval prior to the installation.

2.8 HERBICIDES

A. Herbicide products for removal of unwanted grass and broad-leafed weeds shall be registered and approved for use by the U.S. EPA and CalDPR, and shall comply with the Owner’s Standards and with the “Healthy Schools Act” with current amendments.

B. Provide pre-emergent and post-emergent, selective herbicide formulations for use on turfgrass areas and/or ornamental shrub/ground cover areas that are not injurious to the proposed plantings and turfgrasses.

C. Provide a non-selective contact herbicide formulation for use on existing established weeds.

2.9 OTHER MATERIALS

A. Materials not specifically indicated, but necessary for proper execution of the work, shall be of first quality as selected by the Contractor subject to approval of the Landscape Architect.

PART 3 - EXECUTION

3.1 EXAMINATION & PREPARATION

A. General: Verify that existing site conditions are as specified and indicated before beginning this work.

B. Damaged Earth: Verify that earth rendered unfit to receive planting due to concrete water, mortar, limewater, hydrocarbons or any other contaminant dumped on it has been removed and replaced with clean earth from a source approved by the Owner's Representative.

C. Examine the area and conditions under which the work in this section is to be performed. Verify that any existing irrigation system within the limit of work is in proper working order with full coverage. Correct conditions detrimental to the timely and proper completion of the work. Do not proceed until unsatisfactory conditions have been corrected. Commencement of the work signifies acceptance of the existing conditions.

D. Protection:
1. Locate sewer, water, irrigation, gas, electric, phone and other pipelines or conduits and equipment within the area of work prior to commencing work.
2. Mark existing irrigation heads, valves, valve boxes and other below grade equipment or components that are scheduled to remain. Protect in place.

E. Runoff and Erosion Control: Furnish equipment, materials and labor necessary to control the flow, drainage, and accumulation of excess water running off the work area and prevent soil erosion, blowing soil and accumulation of wind-deposited material on the site per the approved SWPPP.

3.2 ROUGH GRADING, SOIL PREPARATION, PLANTER BACKFILL

A. Rough grading shall be performed by other subcontractors to the extent of establishing rough pads, slopes and drainage patterns. The Contractor is responsible for placement of topsoil and grading required to ensure positive drainage in all turfgrass and planting areas. All planting areas shall have a minimum topsoil depth of 18 inches from on-site native and/or approved import sources. Rough grading shall be completed prior to weed control, cross ripping or rock removal operations.

B. After the completion and acceptance of the weed control operations outlined below, and unless directed otherwise by the Landscape Architect or noted on the Drawings, and except for the area under the canopy of existing trees, the Contractor shall cross rip and till (break up large clumps and clods in excess of 2 inch diameter) the existing soil within all planting areas outside the canopy drip line of existing trees until the soil is loose and friable. Ripping shall be to a minimum depth of twelve inches (12") in turfgrass areas and eighteen inches (18") in shrub/ground cover areas, with ripping tines a maximum 18" apart

performed in a minimum of four passes total in different directions (perpendicular and diagonal). The Contractor shall review the completed ripping operation with the Owner's Representative and Landscape Architect to determine compliance. The first 6 inches of any new topsoil fill shall be tilled into the existing soil to a minimum depth of 6 inches prior to placing any further topsoil fill. The Contractor shall provide any additional work as directed by the Owner's Representative after the review to obtain compliance. Do not proceed with the addition of topsoil and/or amendments, or commence rock picking or fine grading until the completed ripping operation is accepted in writing by the Owner's Representative.

C. Planting area soil under the canopy drip line of existing trees, or in planting beds not accessible by motorized equipment, shall be ripped to a minimum depth of 12 inches using manual spading shovels, forks and/or broadforks and working around major tree roots and/or utilities. In areas receiving new mulch, rip to a minimum depth of 4 inches while protecting any existing plants and their root system. Break up and/or remove rocks and clods as indicated below.

D. Do not work soil when moisture content is so great that excessive compaction will occur, or when it is so dry that dust will form in air or clods will not break up readily, or when a full ripping depth cannot be achieved. Apply water, if necessary, to bring soil to an optimum moisture content for tilling and dust control. Maintain within 2 percent above or below optimum moisture content for the existing soil type at all times during the work.

E. After soil ripping and preliminary finish grading is completed, the topsoil shall be cleared of all concrete, wire, sticks, roots, debris and foreign materials. Remove native stones and clods as follows:
   1. In shrub/ground cover areas, remove stones and clods greater than one (1.0) inches in diameter from the top 3 inches of finish grade.
   2. In general, non-traffic turfgrass areas, remove stones and clods greater than three-quarter (0.75) inch in diameter from the top 3 inches of finish grade.
   3. In designated play or sports field turfgrass areas, remove stones and clods greater than one-half (0.50) inch in diameter from the top 4 inches of finish grade using a mobile tractor pulled, PTO powered, hydraulic controlled rock picker, Cherrington Model 4500 or similar.

F. Add clean planting topsoil where needed to bring grade to elevation to promote positive drainage. Spread approved planting topsoil over ripped subgrade prior to incorporating amendments.

G. Backfill all raised grade planters with a minimum depth of 18 inches of imported clean sandy loam planting topsoil conforming to Subsection 2.02 and approved prior to import and/or placement. Failure to obtain import approval prior to backfilling raised grade planters shall result in the removal of any planting and non-approved backfill, and the reinstallation of the work with approved materials.

3.3 WEED CONTROL

A. Weed control pesticides shall only be applied by an individual holding a valid Qualified Applicator Certificate (Category A) issued by the Department of Pesticides Regulation.

B. The Contractor shall treat any weeds in proposed new turfgrass and planting areas with a post-emergent contact weed killer at manufacturer's approved rates prior to any commencement of work at the site including any irrigation work, ripping of soils or fine grading. Areas planned for turfgrass seed/stolon planting shall in addition receive “grow and kill” weed removal as outlined below.

C. Weed eradication shall be ongoing throughout the course of the landscape installation. The Contractor shall apply a pre-emergent herbicide after shrub/ground cover planting and prior to mulch installation. Manually remove weed seed heads. At no time will weeds be allowed to become established. Contractor shall provide all weed control operations as directed by the Owner’s Representative.

D. All weed control operations using pesticides/herbicides shall comply with the CalDPR and Owner Standards as well as AB2260 “Healthy Schools Act”. The Contractor shall comply with the notification and posting requirements of the “Healthy Schools Act”.
   1. The Contractor shall notify the Owner per Subsection 1.11, A.
   2. The Contractor shall post highly visible signs around the treatment area in conformance with the “Healthy Schools Act” warning of a scheduled pesticide/herbicide application a minimum of 24 hours before to 72 hours after a pesticide application.

E. Just prior to turfgrass installation, and/or after the shrub/ground cover planting is complete and prior to mulch installation, apply an approved pre-emergent herbicide per the manufacturer’s recommended rates.

3.4 SOIL CONDITIONING

A. Before commencement of any soil conditioning, weed and rock removal shall be completed as outlined above.

B. Uniformly amend the entire area of topsoil in turfgrass and mixed planting areas per the following bid rates and per the approved modifications as a result of the soils analysis recommendations:
   1. Turf and Non-Sloped (less than 4h:1v) Planting Area Soil Conditioning (per 1,000 square feet).
      a. Compost at a rate of six (6.0) cubic yards (a 2.0 inch thick layer).
      b. Gypsum at a rate of 100 pounds, or Sulfur at 19 pounds, or an equivalent combination.
      c. Humate soil conditioner at a rate of thirty (30) pounds.
      d. A pre-planting fertilizer to turfgrass areas at a rate of 1.25 pounds

of actual P and K.

e. A pre-planting fertilizer to mixed planting areas at a rate of 1 pound of actual N.

f. Endo 120 per Subsection 3.06, Mycorrhizae Application.

C. Till soil amendments into the entire planting area soil to a minimum depth of six (6) inches. Perform the cultivation in at least two passes, one in each perpendicular directions to the first, so that the amendments are homogeneously incorporated into the topsoil. All cultivation inside the dripline of existing trees shall be preformed manually with minimal disturbance to the root system.

D. Planting backfill for trees and shrubs shall be a mix of four-fifths native soil and one-fifth Compost by volume. Add Humate and Endo 120 Mycorrhizae at 5 pounds each per cubic yard of backfill.

E. Amendment material types and application rates may be subject to change based on the findings and recommendations of the horticultural soil testing lab, and as such may result in an increase or decrease in the Contract Amount.

3.5 FINE GRADING

A. Upon completion of soil preparation, fine grade all planting and turfgrass areas to a smooth and even slope conforming to and establishing drainage patterns per the approved Grading Plan. Grading shall eliminate all humps and hollows and promote positive drainage in all planting and turfgrass areas.

B. Where hardscape is installed in existing planting areas, a minimum transition grade width of 2 feet adjacent to the edge of hardscape shall be constructed unless noted otherwise. The maximum slope of any transition grade shall be 20 percent. The area of transition grading shall be planted or repaired as specified herein.

C. Tolerance of grade differential for planting and general turfgrass areas shall be plus or minus 0.04 foot. If requested, the Contractor shall water test all turf and planting areas after the grading operations are completed in the presence of the Owner’s Representative and Landscape Architect. The water test shall consist of applying water to the turf and planting areas to the point where water begins to run over the soil to show the drainage pattern. Make all corrections to the finish grading as required by the Owner’s Representative to re-established positive drainage patterns. Acceptance of the finish grading shall be obtained in writing from the Owner’s Representative and Landscape Architect prior to proceeding with soil conditioning and planting operations.

D. Turfgrass sports fields shall be fine graded using a laser controlled machine capable of producing final grades within 0.02 foot plus or minus from the proposed elevations.

E. After the finish grading process, relative compaction of the soil in turf and planting areas shall range between 82% and 85% relative density.

Compaction/moisture levels are generally acceptable if an Oakfield probe is able to penetrate a minimum of six inches into the cultivated planting topsoil with moderate pressure. The Owner reserves the right to require the Contractor to test for over compaction. If the compaction is within the acceptable range, the test will be paid for by the Owner. All testing due to non-compliance will be paid for by the Contractor.

F. Remove all rocks produced as a result of the soil conditioning and finish grading operations per the requirements of Subsection 3.02.

G. Finish grades shall be one-half inch (1/2") to three-quarter inch (3/4”) for turfgrass sod areas, flush (0.0”) for turfgrass seed/stolon areas and two inches (2") for shrub/ground cover planting areas below the finish surface of all adjacent walks, curbs, mowstrips and utility/valve boxes or collars. Transition any grade modification in existing planted areas at a maximum 12h:1v slope to existing grade, unless shown otherwise on the grading plan.

3.6 MYCORRHIZAE APPLICATION

A. In turfgrass planting areas, after fine grading is completed broadcast Endo 120 Mycorrhizae at a rate of one and one half (1.5) pounds per 1,000 square feet (65 lbs. per acre). Lightly rake into the top one inch (1”) of topsoil immediately prior to turfgrass installation.

B. In shrub and/or ground cover planting areas, the Mycorrhizae inocculant shall be incorporated into the soil with the other soil amendments at three (3.0) pounds per 1,000 square feet (130 lbs. per acre) per Subsection 3.04, Soil Conditioning. Innocculant shall also be incorporated into the planting backfill per Subsection 3.04, E.

3.7 PLANTING

A. General Requirements
1. Obtain written approval from the Landscape Architect or Owner’s Representative to begin planting operations. The irrigation system shall be fully automated and operational, all weeding, soil conditioning and finish grading completed, and the tree and plant layout approved.
2. Planting shall be performed by workmen familiar with planting procedures and under the supervision of a qualified foreman. The planting foreman shall be on the job site al all times when planting is in progress.
3. Planting operations shall not occur under unfavorable weather conditions.
4. Boxed trees shall be planted first. Shrub planting shall be completed before groundcover is planted.
5. Proceed and complete the landscape work as rapidly as portions of the site become available, working within the seasonal limitations for each kind of planting required.
6. Cooperate with other contractors and trades working in and adjacent to the planting work areas. Examine drawings which show the development of the entire site and become familiar with the scope of other work required.

B. Planting Preparation and Operations

1. Planting material shall be provided with adequate protection of root system and balls from drying winds and sun. Do not bend or bind trees or shrubs in such a manner as to damage bark, break or destroy natural shape. Provide protective covering during delivery.
2. Deliver trees and shrubs after preparations for planting have been completed, and plant immediately. If planting is delayed more than six (6) hours after deliver, set trees and shrubs in shade, protect from weather and mechanical damage and keep roots moist. Do not remove container grown stock from containers until planting time.
3. All planting areas shall be smooth and even. Finish grades shall be done prior to any placement of plants.
4. Place all trees and shrubs in locations shown on the planting plan and obtain written field approval of the Landscape Architect before planting or digging planting pits. Inform the Landscape Architect seven (7) days prior to placing the plants. Maintain a minimum 15 foot clearance from trees to any light pole, unless specifically noted otherwise.
5. Carefully remove all canned stock from containers with tin snips or approved cutter. Cut away and remove any girdled or matted roots.
6. Excavate holes of circular outline with vertical sides for all plants 15 gallon or less. Boxed trees shall have square planting holes. The vertical sides and bottom of the holes shall be thoroughly scarified to promote union of backfill with existing soils. All trees shall have two drainage sump holes drilled with a twelve inch (12") diameter auger penetrating hardpan layers to a minimum one (1) foot into a sand/gravel layer or to a minimum depth of ten (10) feet below the planting pit bottom. Precautions shall be exercised to avoid smooth sides on the holes. Offset augured holes a minimum of eighteen inches (18") from planned tree location to avoid settling of tree after planting.
7. After cleaning out the sump holes, the Contractor shall test the sumps for drainage by flooding with water. If the water does not drain out within twenty-four (24) hours, auger down as required to achieve such drainage by breaking through the hardpan layer, or by extending the drainage sumps to a minimum depth of 15 feet below the bottom of the planting pit. After obtaining approval of the sump holes, fill the augured drainage sump holes with coarse concrete sand.
8. Tree and shrub planting pits shall be at least two and one half (2.5) times the width of the plant container, but a minimum of 36” wide for trees and 18” wide for container shrubs. Planting pits shall be as deep as the soil depth in the container or box, less the additional height of the crown above the finish grade.
9. Set each plant in the center of the pit, plumb and straight. Set the crown of the plant at one inch (1") for shrubs, two inches (2”) for trees above finish grade. When 1/2 of the backfill mix has been placed, tamp-in, insert fertilizer (BEST PAKS as per Section 2.1B1) and allow no air pockets as remainder of backfill is added.
10. Compact soil around the rootball of all plants and thoroughly water in the entire backfill depth.

11. Excess soil from plant holes shall be cultivated and raked to a smooth outline.
12. Shrubs and groundcovers shall be installed in relation to walks and paving to allow for future growth without obstructing traffic with clearance as shown on the drawings.
13. All plants shall be set in watering basin which shall be as wide as the planting pit, but at least four feet (4') in diameter and four inches (4") deep for trees and two feet (2') in diameter and three inches (3") deep for shrubs and vines.
14. Ground cover plants shall be planted at the spacing noted on the drawings. Not more than fifteen minutes shall elapse from the time any groundcover plant is planted until it is watered.

C. Pruning: Prune plants in accordance with established horticultural practice. Shearing of any plants will not be acceptable. Tree pruning shall only be performed with the written approval of the Landscape Architect and under the direction of a certified arborist, and shall comply with ISA Pruning Standards (ANSI 300).

3.8 MULCH

A. Prior to any mulch application, perform weed control operations as specified herein.

B. Where mulch is to be installed in an existing planting area, breakup/till the existing soil in open areas around existing plantings to a minimum 4” depth per section 3.02, and adjust finish grade adjacent to hardscape elements per section 3.05 where not prohibited by existing plantings.

C. Install a minimum 3” layer of mulch in all non-turf planting areas, except for slopes greater than 3h:1v and seeded areas. Install a minimum 2” layer of mulch in all areas receiving flatted plants.

D. Install a minimum 3” layer of wood mulch at a minimum 3’ radius from the tree trunk of all trees located in turfgrass areas. Provide a smooth finish grade transition to a 2 inch depth where the mulch meets the turfgrass, so that the top elevation of the mulch is flush to the turfgrass soil. Keep mulch off the trunk. For new trees in turfgrass areas, remove the watering berm just prior to the turfgrass planting but maintain the mulched area within the planting pit.

3.9 STAKING & GUYING

A. Trees shall be supported by two (2) tree stakes as shown on the drawings. Cut off the top of stakes damaged by installation or where the stake conflicts with canopy branches.

B. Stakes shall be set firmly in the ground outside the rootball and where possible set stakes perpendicular to the prevailing northwest wind.

C. Trees shall be tied to upright stakes loosely with tree ties (see planting detail).

Remove the nursery stake.

D. Multi-trunked trees shall be guyed, or individual branches may be staked and loosely tied as shown on the Drawings.

3.10 TURFGRASS SOD

A. The area to be planted shall be finish graded to present a smooth and even surface free of humps and hollows and conforming to the finish grading plans. Where new sod is abutting existing turfgrass, fine grade to allow for the thickness of the new sod soil so that the new and existing sod grades are flush. Immediately prior to planting, the surface of the area to be planted shall be sufficiently loose and friable, with adequate moisture to receive the sod. Avoid laying sod on hot or dry soil.

B. Lay first strip of sod slabs along a straight line (use a string in irregular areas). Butt joints tightly. Do not overlap edges. On second strip, stagger head joints (similar to a running bond brick pattern). Use a sharp knife to cut sod in order to fit curves, edges, and sprinkler heads.

C. Install with turf-tired machinery full width sections of sod as delivered and flush to adjacent surfaces. Terminating sod edges shall be straight and at right angles to hardscape elements whenever possible.

D. As the sod is being installed, water the sod lightly to prevent drying out. Continue to lay sod and lightly water until installation is complete.

E. After laying sod, roll to eliminate irregularities and to form good contact between sod and soil. Avoid a too heavy roller or excessive initial watering which may cause roller marks.

F. Water the completed lawn surface thoroughly. Topsoil should be constantly moist for a minimum two inches deep. Repeat irrigating at regular intervals to keep sod moist until rooted. The areas shall not be watered to the extent of saturating the soil and causing "flotation" or "flowing" of the top surface of the soil. After water has once been applied, no portion of the planted areas shall be allowed to dry out during the entire maintenance period. After sod roots are established, decrease frequency and increase amount of water per application as necessary to maintain good soil moisture to a minimum 6” depth without standing water or excess runoff. The Contractor shall be responsible to monitor the site and alter the watering times and frequencies to meet site and climatic conditions.

G. Prior to the start of the maintenance period, fill all seam joint gaps greater than 1/8 inch and less than 0.5 inch with washed concrete sand. Fill any joint gaps of 0.5 inch or greater width with a minimum two foot long replacement sod section in order to achieve a tight joint.

H. Replace dead or distressed sod with equivalent material as directed by the Landscape Architect.

I. Do not install turfgrass inside the watering basin of new trees planted in turf areas, or within a 3’ radius of existing tree trunks located in turf areas.

3.11 CLEAN-UP AND REPAIR

A. All areas shall be maintained in a neat and orderly condition at all times. All reasonable precautions shall be taken to avoid damage to existing planting and structures. Disturbed and/or damaged areas, whether a part of this work or from the work of other trades, shall be restored to their original condition.

B. Plants and/or turfgrass shown to remain and damaged or removed by construction operations and/or utility/electrical/drainage lines shall be replaced with plants that match as closely as possible to the existing plant species, variety and size. The replacement turfgrass sod variety shall be the same as shown in the Planting Legend if for new work, or shall match the existing turfgrass variety where the turfgrass is existing. Adjust the finish grade so that the new turfgrass sod abuts flush to the existing turfgrass or to hardscape. The replacement plants and/or turfgrass sod shall be maintained as part of the original scope of work.

C. After the planting operations are completed, the Contractor shall remove all trash, excess soil, empty containers or any other debris accumulated by the work from the site. All damage caused by the work shall be repaired at the Contractor's expense and the site shall be left in a neat and orderly condition to the satisfaction of the Owner.

3.12 PRE-MAINTENANCE REVIEW

A. A general review will be held prior to the start of the maintenance period upon conclusion of the planting operations, irrigation system installation and after clean-up has occurred. The Owner’s Representative shall be informed in writing a minimum of seven (7) working days prior to the time the work is ready for review in order to arrange a suitable time and date for such review.

B. At the time of review, Contractor shall have all planting areas free of weeds and neatly cultivated and fine graded. All plant basins shall be in good repair. All trees shall be properly staked and tied. All turfgrass areas shall be fully established and have a healthy, uniform and dense stand of grass without weeds or bare spots.

C. Work requiring corrective action or replacement in the judgment of the Owner’s Representative shall be performed within five (5) days after the inspection. Corrective work and materials replacement shall be in accordance with the drawings and specifications and shall be made by the Contractor at no cost to the Owner. A subsequent review shall then be arranged.

D. If after the review, the Landscape Architect is of the opinion that all the work has been performed as per the Contract Documents, and a uniform stand of healthy dense turfgrass has been established without weeds or bare spots, the Contractor will be given written notice that the maintenance period may begin.

3.13 MAINTENANCE - GENERAL

A. After all work indicated on the drawings or herein specified has been completed, reviewed, and approved, and the turfgrass has been successfully established per the requirements below, the Contractor shall commence a ninety (90) calendar day maintenance period in which the Contractor shall continuously maintain all areas included in the contract during the progress of the work and throughout the maintenance period, or until Final Acceptance of the project, whichever is greater.

B. Maintenance work includes monitoring the site to control all watering, replanting, fertilizing, mulching, weeding, cultivating and mowing necessary to bring the planted areas to a healthy and vigorous growing condition, and any additional work needed to keep the areas neat, edged, weed and trash free, and attractive.

C. All trees, shrubs, ground cover shall be kept at optimum growing condition by watering weeding, replanting, fertilizing, cultivating, tree stake repair, spraying for diseases and insects, replace dead or dying materials, pruning as directed, maintaining proper grades of plants, and providing any other reasonable operations of maintenance and protection required for successful completion of the project.

D. Any date when the Contractor fails to adequately water, replace unsuitable planted areas and other work determined to be necessary by the Owner, will **NOT** be credited as part of the establishment/maintenance period.

E. The establishment of turfgrass seed is herein defined as being all work necessary to germinate the planted turfgrass and grow a full, healthy, uniform stand of smooth and even texture and grade with clean straight edges without weeds or bare spots, and has been mowed at least twice per Subsection 3.17. The establishment of turfgrass sod is herein defined as being all work necessary to develop sod without weeds or distressed areas with a minimum rooting depth of 2 inches into site soil.

F. No additional payment will be made for additional time necessary for turfgrass establishment. The maintenance period shall not start until all contract work has been completed and all close-out documents and materials have been submitted. Turfgrass will be considered weed-free if there is a maximum of one percent undesirable turfgrass species, and nine weeds or less per 50 square yards (one per 50 square feet).

G. During the progress of the maintenance period, the Contractor and the Owner's Representative shall conduct reviews at no less than 21 day intervals to determine that ongoing maintenance activities have been conducted by the Contractor. If in the opinion of the Owner, ongoing maintenance has not been conducted by the Contractor in a satisfactory manner the maintenance period shall be suspended. The Contractor shall provide remedial work as directed by the Owner's Representative to correct the found deficiencies and schedule another review. If after the subsequent review the work is deemed acceptable,

the maintenance period shall resume.

3.14 MAINTENANCE – MOWING AND DRESSING

A. For new sod, mow when 1.4 inch tall and cut down to 1.0 inch.

B. Turfgrass areas shall be mowed during the growing season a minimum of twice a week for warm-season varieties and a minimum of once a week for cool-season varieties, or at any time the grass reaches 1.4 times its mowing height. Turfgrass shall be edged weekly. The Contractor shall coordinate his watering and weed control schedules to accommodate his mowing schedule. If the Contractor is unable to mow the turf areas on the required day, he has until 5:00 pm of the next day to do the work. After that time, the Owner reserves the right to secure the services of an alternate mowing entity to perform the work. The cost for the alternate mowing will be deducted from monies owed to the Contractor. The Contractor will remain responsible to perform all scheduled mowings and maintenance of the site. The turfgrass shall be mowed and edged, and all trash and debris removed prior to Final Acceptance.

3.15 MAINTENANCE - FERTILIZATION

A. The Contractor shall fertilize the warm-season turfgrass (Bermudagrass) at the start of the maintenance period and every twenty-eight (28) days with the turfgrass maintenance fertilizer at a rate of 0.75 lb. of actual N /1,000 s.f. and as modified by the soil fertility recommendations and as directed by the Landscape Architect. The Contractor shall continue the fertilizer applications until the established turf is accepted.

B. The Contractor shall fertilize the turfgrass areas during the last week of the maintenance period with the turfgrass maintenance slow-release N fertilizer (43-0-0) at a rate of three and one-half (3.5) lbs./1,000 s.f. and as modified by the soil fertility recommendations and approved by the Landscape Architect.

C. The Contractor shall fertilize the non-turf planted areas during the last week of the maintenance period with the mixed pre-planting fertilizer (14-6-11.6) at a rate of six (6.0) lbs./1,000 s.f. and as modified by the soil fertility recommendations and approved by the Landscape Architect.

3.16 MAINTENANCE – REPAIR AND WEEDING

A. Between the twenty-first (21) day and the twenty-eigth (28) day after turfgrass planting, the Contractor shall perform the following: replant all spots or areas where normal germination or growth is not evident; remove all rocks or other debris that would constitute a hindrance to mowing or cultivating; repair all damage done by his operations. Where poorly compacted trench backfill shows settlement, remove turfgrass or plants, fill all depressions and eroded channels with sufficient conditioned topsoil to raise to proper grade, compact lightly and replant the filled areas. Roll all planted or replanted turfgrass areas with a lightly weighted turf roller in order to provide a smooth and even mowing surface.

B. Visible weeds shall be removed at least weekly during the maintenance period. At the end of the maintenance period, all planting areas shall be without weeds. If weeds are present, the Contractor shall manually remove the weeds and shall then apply a granular, selective pre-emergent herbicide at manufacturer's approved rates. Coordinate application with the Owner's Representative and provide certificates of application to Owner's Representative. The turfgrass will be considered weed-free if there are 9 weeds or less per 50 square yards (one per 50 square feet).

3.17 FINAL REVIEW

A. A Final Review will be made before the end of the Maintenance Period or upon the pending Final Acceptance of the work, whichever is earlier, provided all deficiencies revealed during the maintenance period have been corrected. If these deficiencies have not been corrected by the end of the stated maintenance period, the Contractor shall continue to fully maintain the project at his own expense. After all deficiencies have been corrected, a Final Review will be held with the Landscape Architect, Owner's Representative, and Contractor.

B. If after the Final Review, the Landscape Architect and Owner's Representative are of the opinion that the work is acceptable and complete, the Contractor's maintenance responsibility shall terminate on an agreed upon date.

3.18 WARRANTY AND REPLACEMENT

A. All trees and plants provided under this Contract shall be guaranteed to be in good, healthy, disease/pest free and in a flourishing condition one growing year from the date of Final Acceptance of the work, provided the Owner maintains the plants properly and in accordance with accepted horticultural practices. Species and size of any tree and/or plant replacements, either prior to or after Final Acceptance, shall be equal to that of the same adjacent trees and/or plants at the time of replacement as determined by the Landscape Architect.

B. The Contractor shall be responsible to replace all lost plants due to theft, vandalism or any other preventable causes till Final Acceptance of the work by the Owner. Replacement trees and plants shall be planted as originally specified and detailed. Replacement trees and plants shall be guaranteed as specified above from the date of replacement. The maintenance period may be extended for a duration of not more than the original maintenance period duration for the establishment of replacement plants.

C. The Contractor shall be held responsible for repair and/or replacement of damages to new or existing improvements resulting from the defects or actions of trees, plants, materials, equipment or workmanship one year from the date of Final Acceptance or the Notice of Completion, whichever is later.

END OF SECTION

CONTRACTOR TO PROVIDE 24" DIAMETER, UN-REINFORCED CONCRETE PIER FOOTINGS (4,000psi) 60" DEEP FOR ALL 5-1/2" TO 6" POSTS (TYPICAL)

CONTRACTOR TO PROVIDE 2'X2'X2' CUBICAL FOOTING FOR ALL OTHER, SMALL-DIAMETER POSTS (TYPICAL)

CONTRACTOR TO PROVIDE 24" DIAMETER, UN-REINFORCED CONCRETE PIER FOOTINGS (4,000psi) 60" DEEP FOR ALL 5-1/2" TO 6" POSTS (TYPICAL)

CONTRACTOR TO PROVIDE 2'X2'X2' CUBICAL FOOTING FOR ALL OTHER, SMALL-DIAMETER POSTS (TYPICAL)

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FRESNO, CALIFORNIA 93711
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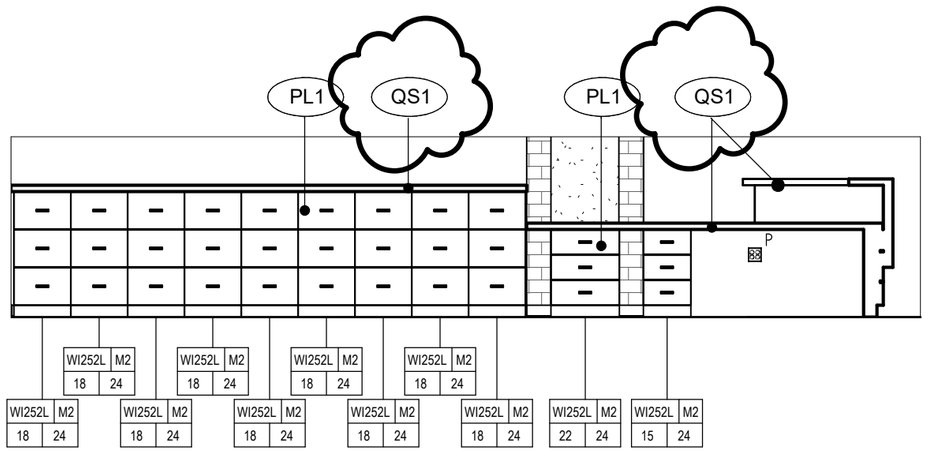
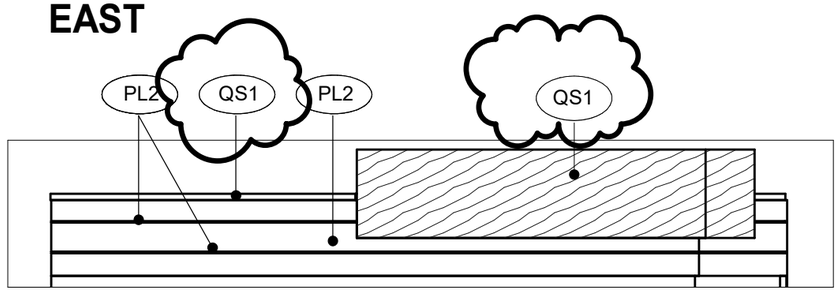
CLIENT NAME: CLOVIS UNIFIED SCHOOL DISTRICT			ADDENDUM ITEM NUMBER: AD2-C01
PROJECT NAME: DRY CREEK MODERNIZATION		PROJECT NUMBER: 19-34	
SHEET NAME: PLAY EQUIPMENT SCOPE OF WORK REQUIREMENTS		SCALE: NTS	REFERENCE SHEET NUMBER: -
DATE: 1/15/21	DSA APP NUMBER: 02-118109		



EAST



SOUTH

RECEPTION DESK ELEVATION **3**

1/4" = 1'-0"

c. HEIGHT: 4"

09 65 19 - RESILIENT TILE FLOORING

1. **LVT 1** - RESILIENT TILE TYPE 1:
   a. MANUFACTURER: MOHAWK GROUP
   b. STYLE: LARGE & LOCAL C0128
   c. COLOR: 948 SANDHILL
   d. LENGTH: 9.25" x 59"

3. **C 3** - CARPET TYPE 3: (CFCI)
   a. MANUFACTURER: TANDUS CENTIVA
   b. STYLE: ABRASIVE ACTION II, #02578
   c. COLOR: WINTER GRAY #19103

09 72 17 - VINYL-COATED WALLCOVERINGS

1. **VWC 1** - WALL COVERING TYPE 1:
   a. MANUFACTURER: KOROSEAL
   b. STYLE: CUSTOM DIGITAL PRINTED WALLCOVERING
   c. COLOR: TYPE II WALL COVERING DIGITAL MEDIA- LINEN IMAGE TO BE SELECTED BY ARCHITECT

2. **VWC 2** - WALL COVERING TYPE 2:
   a. MANUFACTURER: KOROSEAL
   b. STYLE: WALLTALKER, MAG-RITE 48, M2PR-00
   c. COLOR: WHITE

3. **TW 1** - TAC-WALL TYPE 1:
   a. MANUFACTURER: KOROSEAL
   b. STYLE: TAC-WALL
   c. COLOR: HARBOR 48" (06)

09 73 13 - FIBERGLASS REINFORCED PLASTIC PANELS

FINISH SCHEDULE

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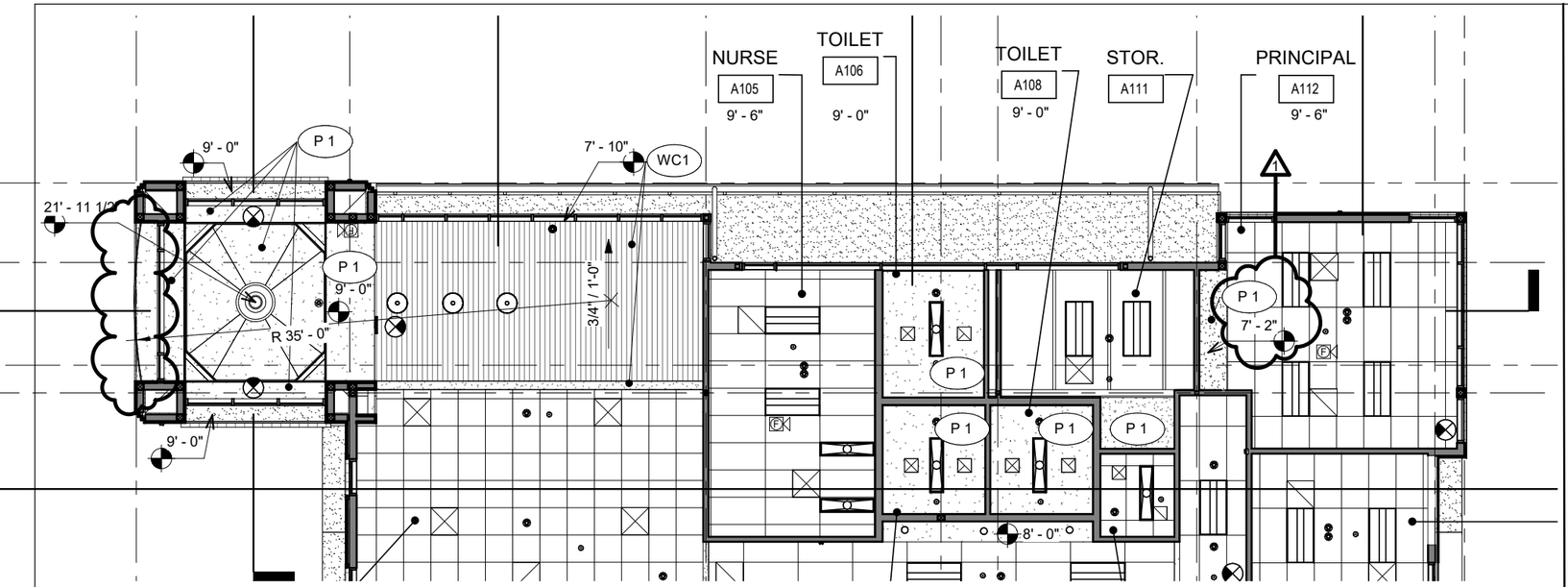
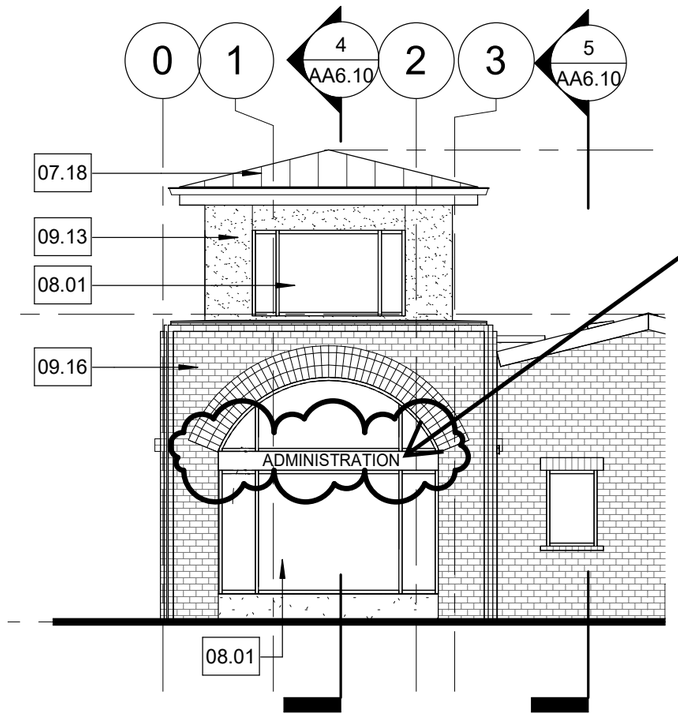
CLIENT NAME: CLOVIS UNIFIED SCHOOL DISTRICT			ADDENDUM ITEM NUMBER: AD2-A01
PROJECT NAME: DRY CREEK MODERNIZATION		PROJECT NUMBER: 19-34	
SHEET NAME: AA2.0 FINISH FLOOR PLAN & AA7.10 BLDG A ENLARGED FLOOR PLAN & INT. ELEV.		SCALE:	REFERENCE SHEET NUMBER: AA2.0 & AA7.10
DATE: 1/18/21	DSA APP NUMBER: 02-118109		



REMODEL REFLECTED CEILING PLAN - BUILDING A

2

NTS

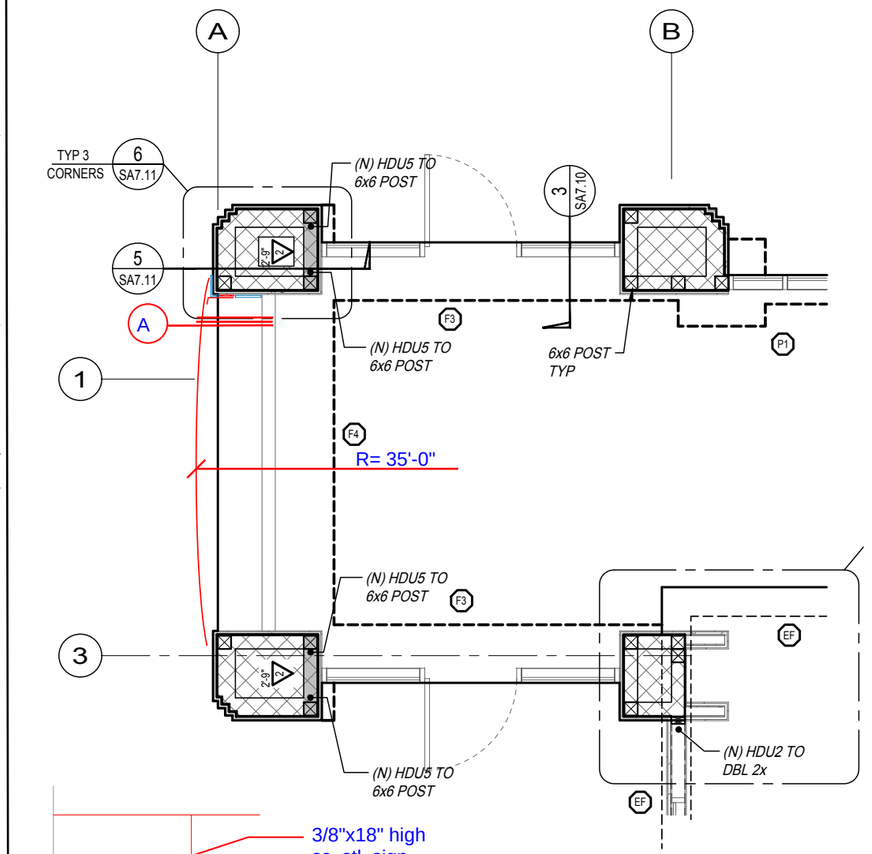


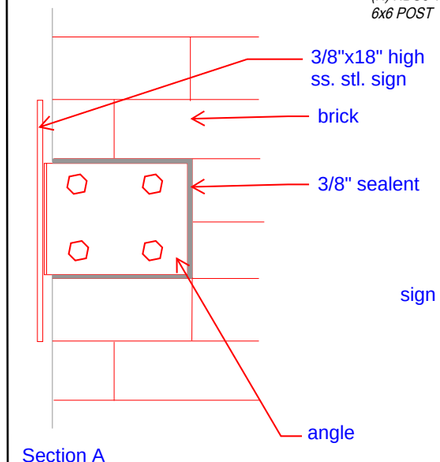
12" HIGH LETTERS --
WATER JET CUT OUT

PROPOSED EXTERIOR ELEVATION - WEST

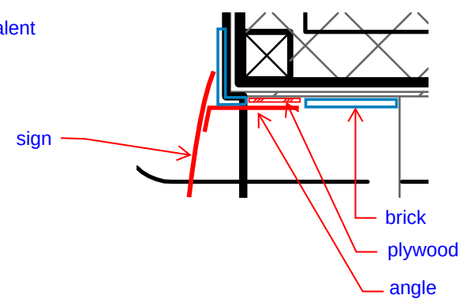
4

1/8" = 1'-0"





Section A



REFERENCE SKETCH - BID PURPOSES ONLY

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CLIENT NAME: CLOVIS UNIFIED SCHOOL DISTRICT

PROJECT NAME: DRY CREEK MODERNIZATION

PROJECT NUMBER: 19-34

SHEET NAME: AA3.10 REFLECTED CEILING PLAN & AA5.10 EXTERIOR ELEVATION

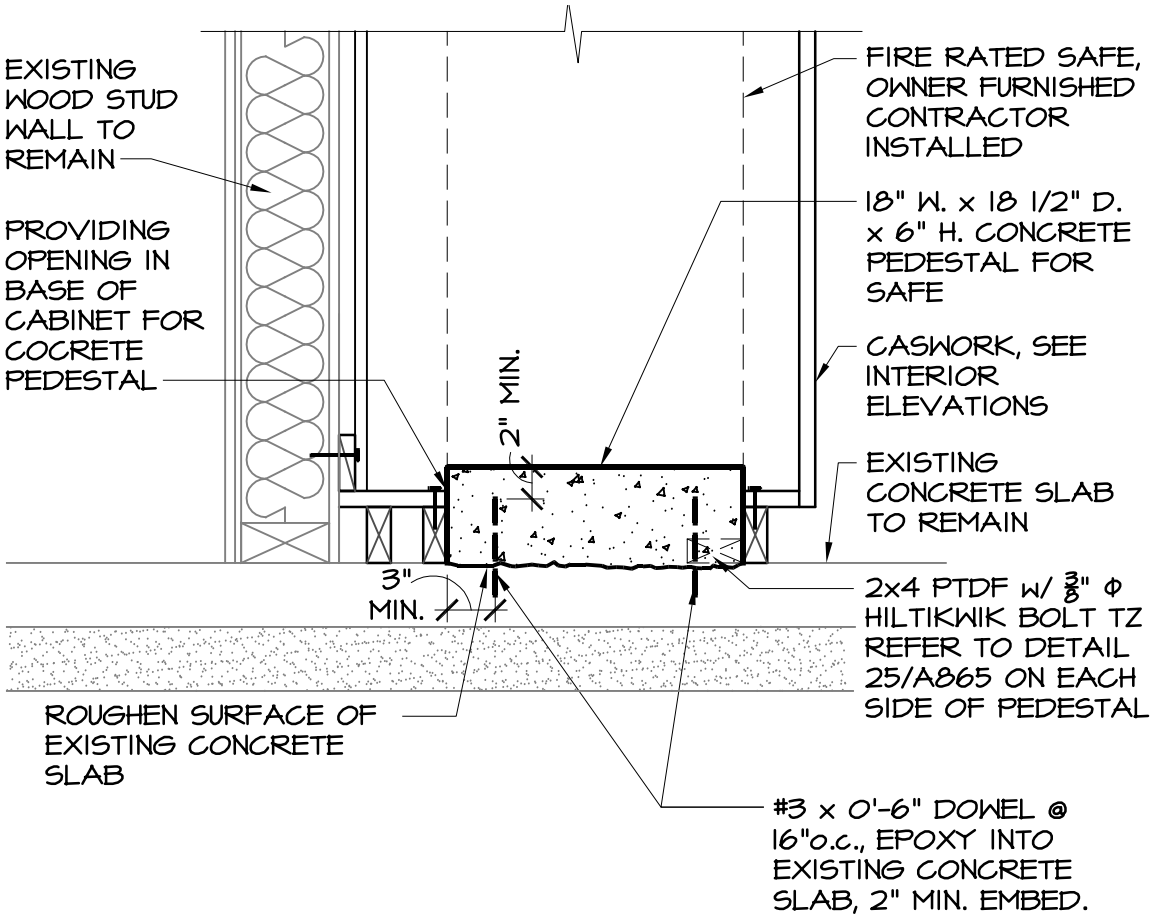
SCALE:

DATE: 1/18/21

DSA APP NUMBER: 02-118109

ADDENDUM ITEM NUMBER: AD2-A02

REFERENCE SHEET NUMBER: AA3.10 & AA5.10



CONCRETE PEDSTAL (SAFE)

SCALE: 1"=1'-0"

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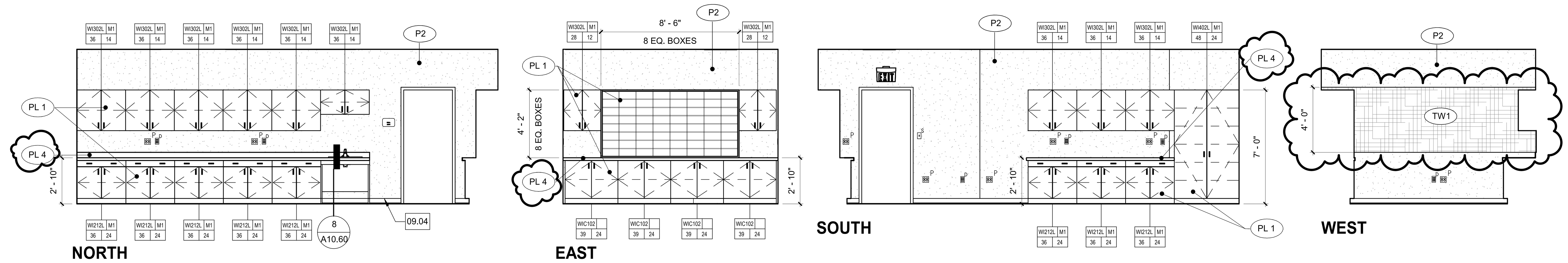
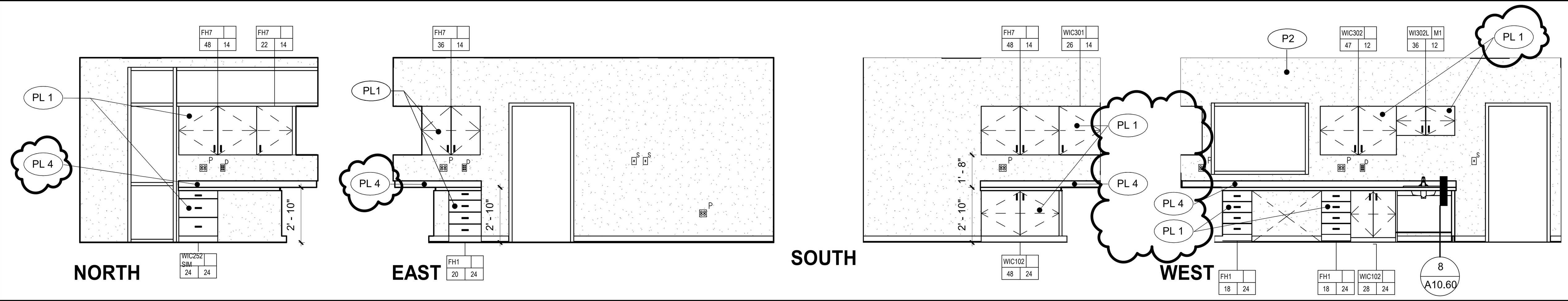
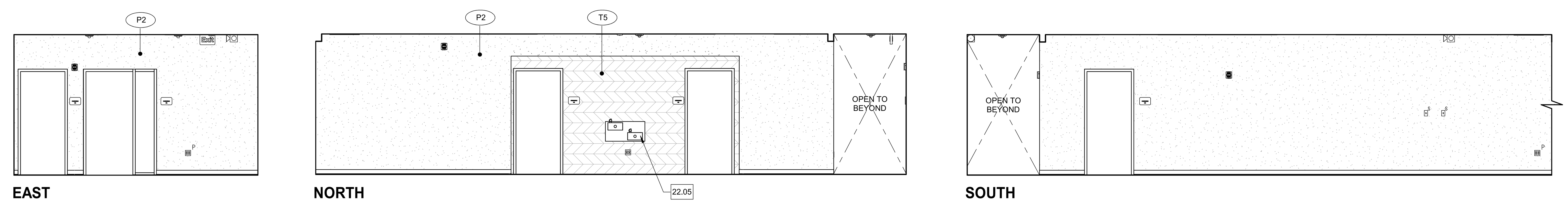
SCHOOL DISTRICT: CLOVIS UNIFIED SCHOOL DISTRICT		ADDENDUM SHEET NUMBER: AD2-A03
PROJECT NAME: DRY CREEK MODERNIZATION	PROJECT NUMBER: 19-34	
SHEET NAME: Pedestal for Safe	SCALE:	REFERENCE SHEET NUMBER: -
DATE: 01/18/21	DSA APP NUMBER: 02-118109	



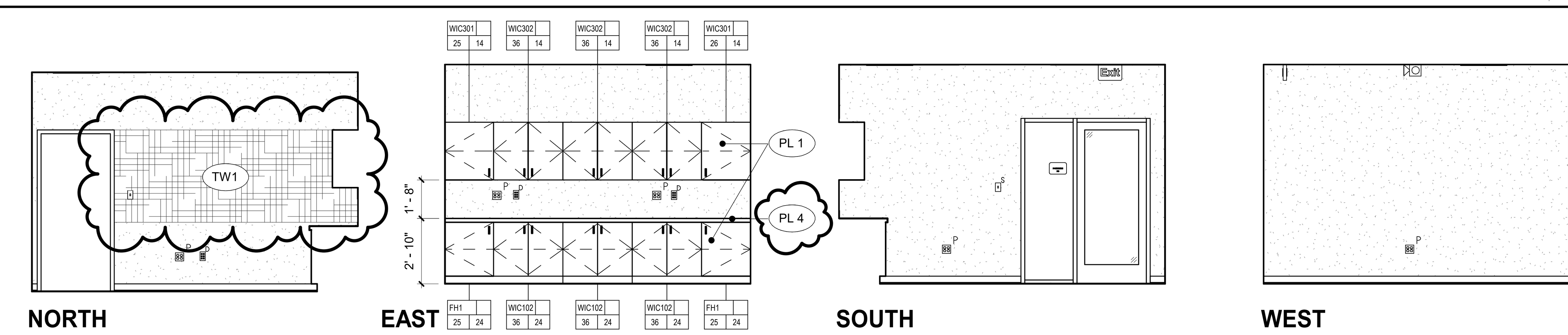
WORKROOM A109 **6** 1/4" = 1'-0"



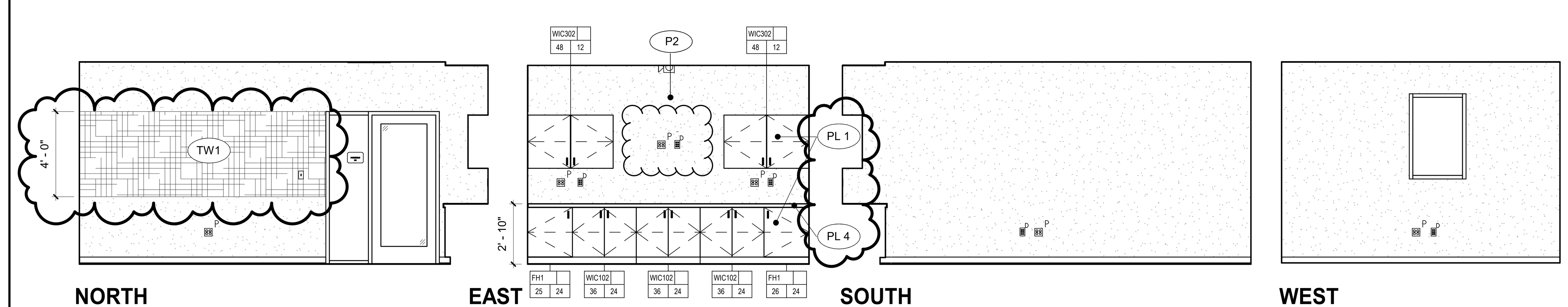
NURSE A105 **5** 1/4" = 1'-0"



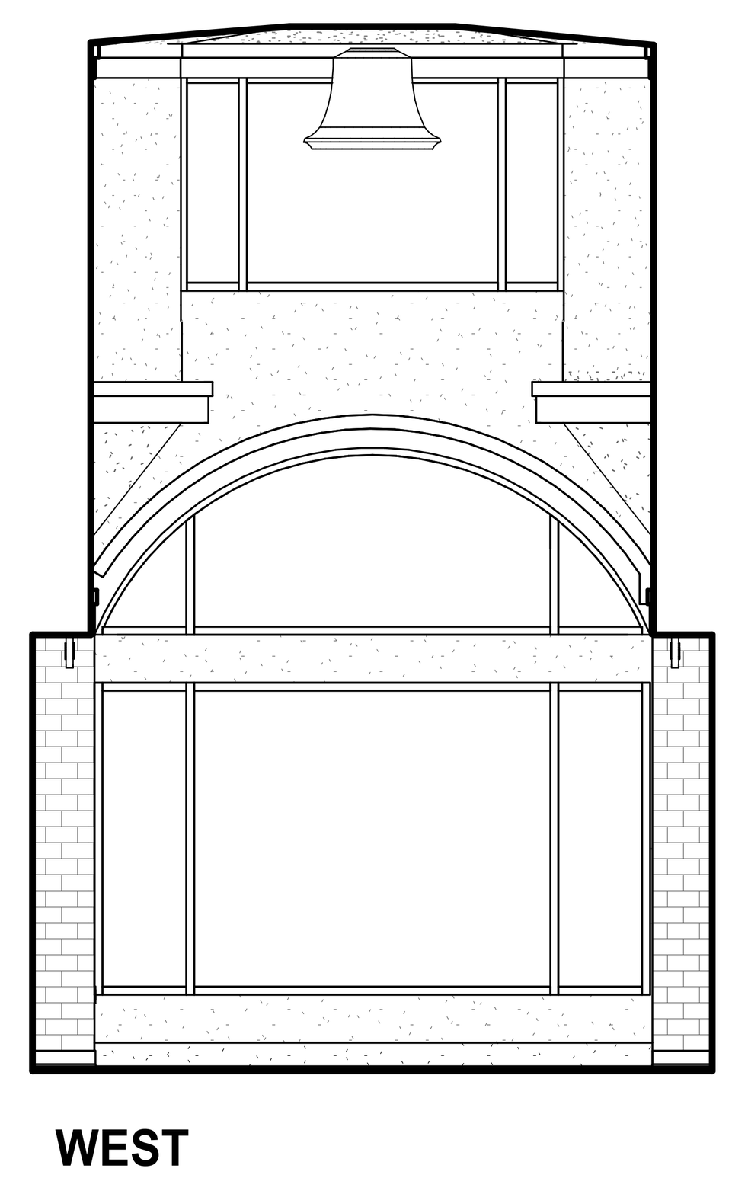
CORRIDOR A104 **4** 1/4" = 1'-0"

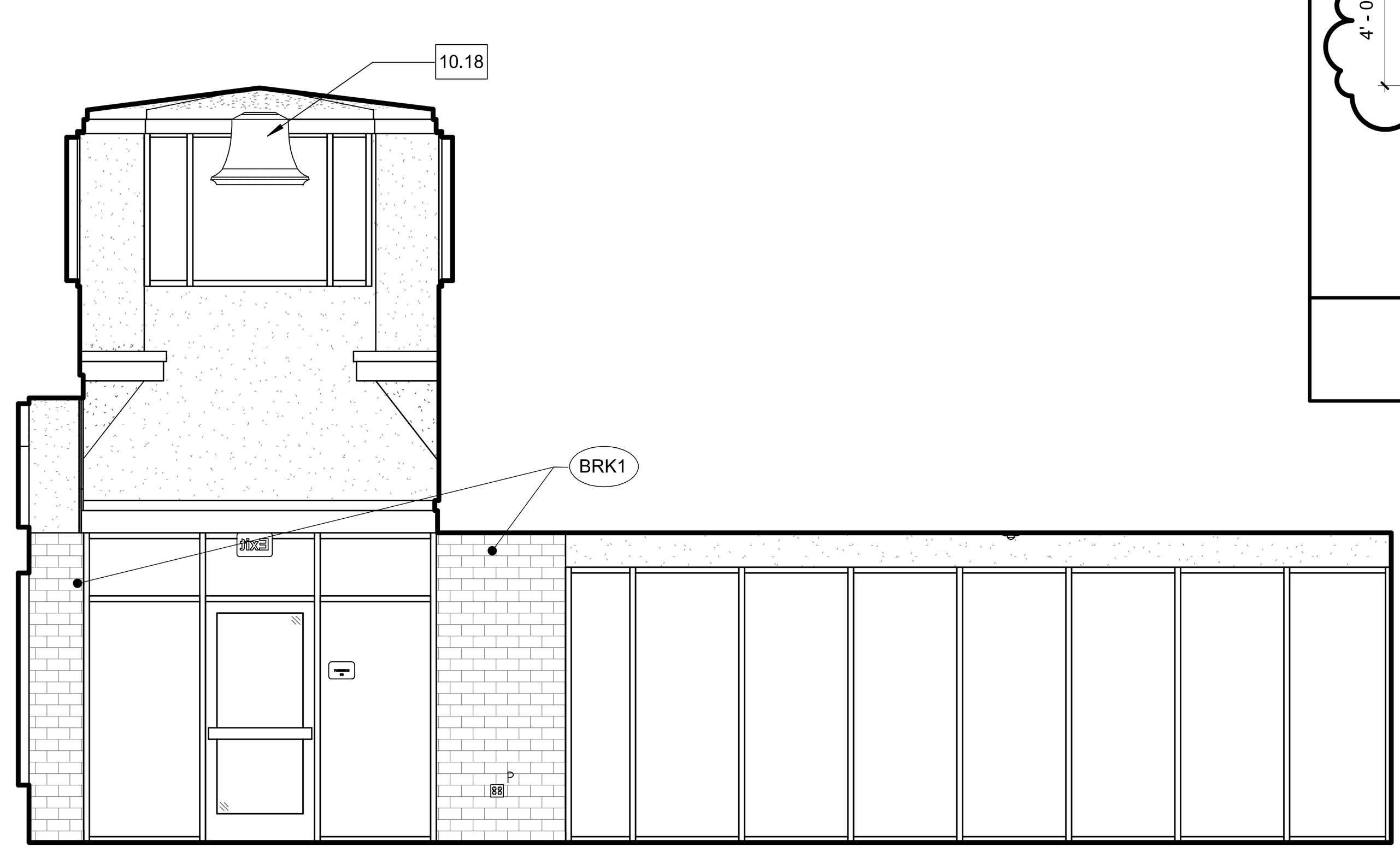


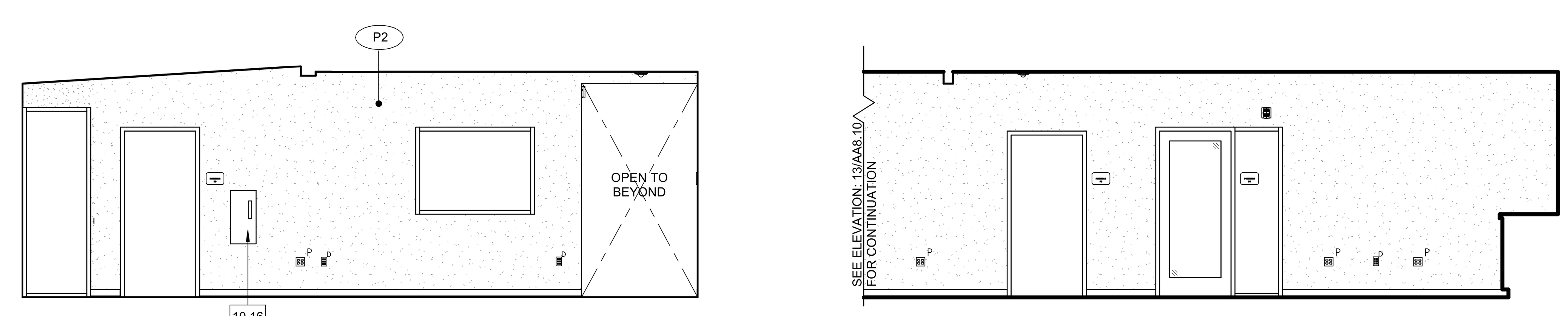
GIS A103 **3** 1/4" = 1'-0"



CONFERENCE ROOM A102 **2** 1/4" = 1'-0"







OPEN OFFICE A101 **1** 1/4" = 1'-0"

KEYNOTES

09.04	4" RUBBER BASE.
10.16	SURFACE MOUNTED FIRE EXTINGUISHER AND WALL BRACKET WITH VALID TAG. TOP OF F.E. HANDLE SHALL BE 48" MAX ABOVE F.F.
10.18	DECORATIVE BELL
22.05	PLUMBING, HI-LO DRINKING FOUNTAIN. SEE DETAIL 17/A10.10 AND PLUMBING DRAWINGS.

LEGEND - INTERIOR ELEVATIONS

GLAZING - SEE WINDOW SCHEDULE

IDENTIFICATION SIGNAGE - SEE SCHEDULE AND SHEET A10.10

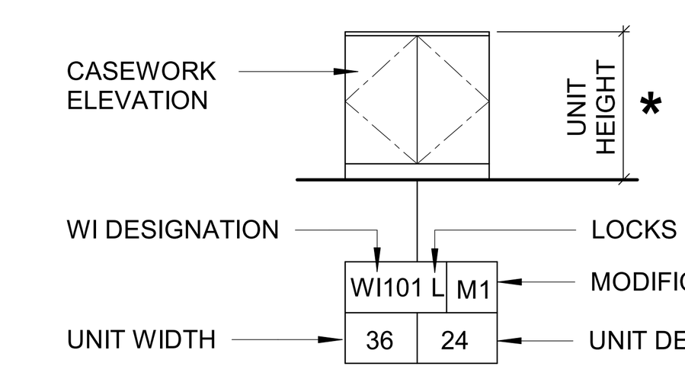
ELECTRICAL AND LOW VOLTAGE DEVICES - SEE ELECTRICAL DRAWINGS

INTERIOR FINISH TAG - SEE SHEET A2.00 FOR FINISH SCHEDULE

FIRE ALARM DEVICE - SEE ELECTRICAL DRAWINGS

MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS

LEGEND - CASEWORK



MODIFICATION NOTATIONS:
M1- PROVIDE ADJUSTABLE SHELVES
M2 - MODIFY AS SHOWN ON PLANS

* SEE INTERIOR ELEVATION SHEETS AND DETAILS ON SHEET A10.60 FOR CASEWORK HEIGHTS

CASEWORK NOTES
1. INSULATE HOT WATER & DRAIN PIPES AT SINKS. THERE SHALL BE NO SHARP OR ABRASIVE OBJECTS OR SURFACES UNDER LAVATORIES OR SINK.
2. PROVIDE PLASTIC LAMINATE FINISH AT ALL EXPOSED CASEWORK SURFACES INCLUDING, BUT NOT LIMITED TO : END PANELS, KNEE SPACES, NICHES AND CUBBIES.
3. PROVIDE WHITE CABINET LINER FINISH (GRADE: CLS HPDL AT ALL SEMI-EXPOSED SURFACES) I.E., INSIDE DRAWERS AND CABINETS.
4. WOODWORK INSTITUTE (WI) CASEWORK: (REFER TO CURRENT EDITION OF THE WOODWORK INSTITUTE, MANUAL OF MILLWORK)
5. REFER TO DETAIL 6/A10.60 FOR CASEWORK CONNECTIONS AND ANCHORAGE KEY PLAN.

GENERAL NOTES: INTERIOR ELEVATIONS

1. SEE SHEET G0.1 FOR TYPICAL SYMBOLS AND ABBREVIATIONS.
2. SEE STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL & TECHNOLOGY DRAWINGS FOR EXTENT OF STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL & TECHNOLOGY SCOPE OF WORK.
3. SEE SHEET AA2.00 FOR FINISH SCHEDULES.
4. SEE SHEET A9.10 FOR DOOR SCHEDULES & FRAME TYPES
5. SEE SHEET A9.11 FOR WINDOW TYPES
6. SEE SHEET A10.10 FOR SIGNAGE AND ACCESSIBILITY DETAILS.
7. SEE SHEET A10.60 FOR CASEWORK DETAILS.
8. SEE SHEET A10.70 FOR ROOF & EXTERIOR DETAILS.
9. SEE SHEET A10.80 FOR WINDOW AND DOOR DETAILS.
10. SEE SHEET A10.90 FOR CEILING AND FINISH DETAILS.
11. SEE FLOOR PLANS FOR ROOM NAMES AND NUMBERS
12. ALL WALLS PAINTED "P 1" UNO.
13. SOAP DISPENSER AND PAPER TOWEL DISPENSER ARE TO BE O.F.C.I.
14. ALL CARPET TO BE O.F.C.I.
15. FLOORING MATERIALS SHALL EXTEND UNDER SINKS AND COUNTERTOPS. EXTEND TO FACE OF WALL OR FACE OF CABINET BASE WHERE APPLICABLE.
16. WHERE A WALL SURFACE IS NOT ELEVATED, MATCH ADJACENT WALL FINISH.

DSA STAMP LOCATION - KEEP CLEAR - DSA STAMP LOCATION - KEEP CLEAR

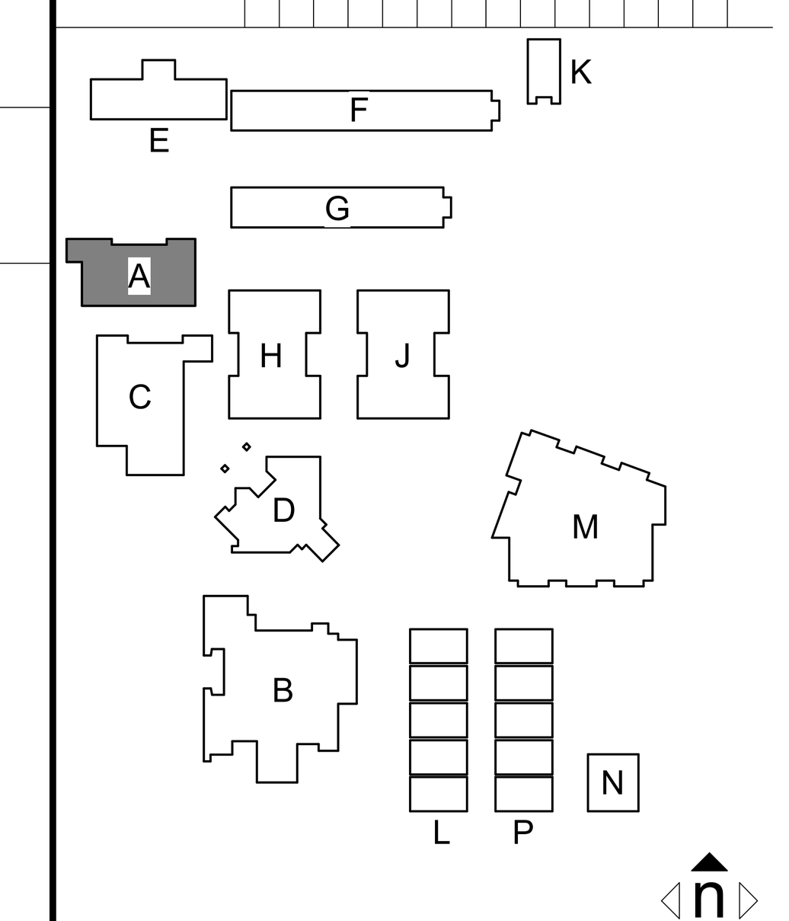
DSA: 02-118109
FILE: 10-27
PTN: 62117-334

DRY CREEK ELEMENTRY - NEW CLASSROOM BUILDING & ADMIN. MODERNIZATION

1273 NORTH ARMSTRONG
CLOVIS, CALIFORNIA

REVISIONS

No.	DATE	DESCRIPTION
1	Date 3	ADDENDUM ?
		ADDENDUM #2 - JANUARY 18, 2021



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LICENSED ARCHITECT JOHN HAMILTON SMITH C15685 9-30-21 RENEWAL DATE STATE OF CALIFORNIA

DRAWN BY Author
CHECKED BY Checker
PROJECT NUMBER 172827
DATE 12/16/2019
PROJECT ARCHITECT JOHN SMITH

AD2-A04

BUILDING A - INTERIOR ELEVATIONS

AA8.10

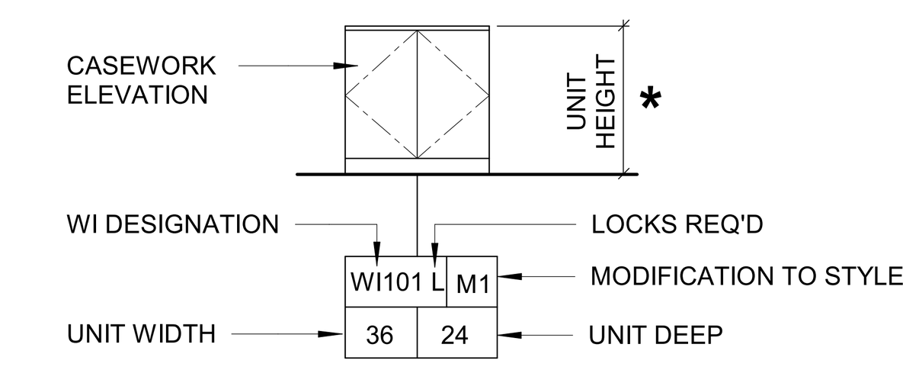
KEYNOTES

10.23	CONCRETE PEDESTAL, PER DETAIL AD2-A03
10.24	SAFE, OFCI
10.25	KEY BOX, OFCI
26.07	ELECTRICAL PANEL. REFER TO ELECTRICAL DRAWINGS FOR MORE INFORMATION

LEGEND - INTERIOR ELEVATIONS

- GLAZING - SEE WINDOW SCHEDULE
- IDENTIFICATION SIGNAGE - SEE SCHEDULE AND SHEET A10.10
- ELECTRICAL AND LOW VOLTAGE DEVICES - SEE ELECTRICAL DRAWINGS
- INTERIOR FINISH TAG - SEE SHEET A2.00 FOR FINISH SCHEDULE
- FIRE ALARM DEVICE - SEE ELECTRICAL DRAWINGS
- MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS

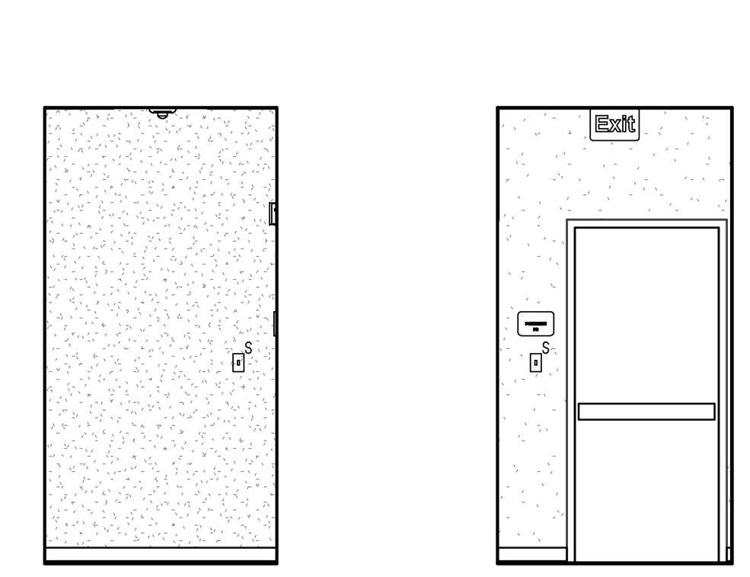
LEGEND - CASEWORK



MODIFICATION NOTATIONS:
M1- PROVIDE ADJUSTABLE SHELVES
M2 - MODIFY AS SHOWN ON PLANS

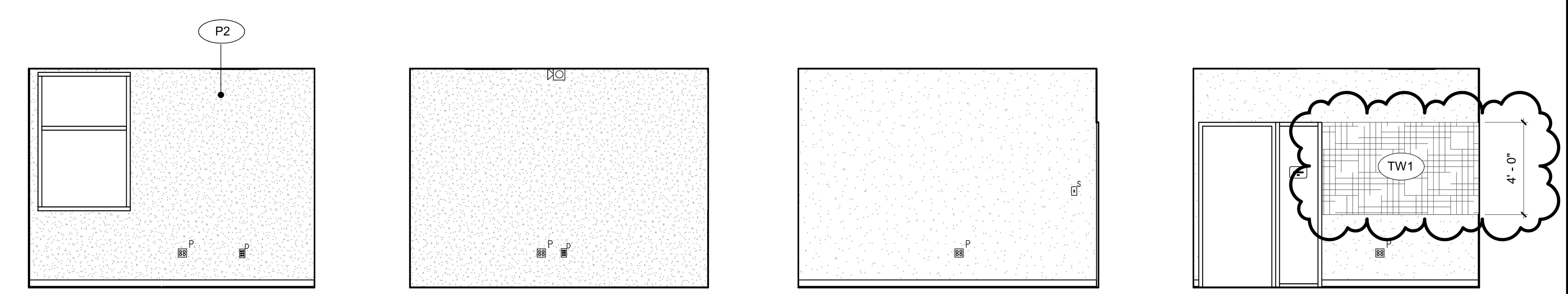
* SEE INTERIOR ELEVATION SHEETS AND DETAILS ON SHEET A10.60 FOR CASEWORK HEIGHTS

CASEWORK NOTES
1. INSULATE HOT WATER & DRAIN PIPES AT SINKS. THERE SHALL BE NO SHARP OR ABRASIVE OBJECTS OR SURFACES UNDER LAVATORIES OR SINK.
2. PROVIDE PLASTIC LAMINATE FINISH AT ALL EXPOSED CASEWORK SURFACES INCLUDING, BUT NOT LIMITED TO : END PANELS, KNEE SPACES, NICHES AND CUBBIES.
3. PROVIDE WHITE CABINET LINER FINISH (GRADE: CLS HPDL AT ALL SEMI-EXPOSED SURFACES) I.E., INSIDE DRAWERS AND CABINETS.
4. WOODWORK INSTITUTE (WI) CASEWORK: (REFER TO CURRENT EDITION OF THE WOODWORK INSTITUTE, MANUAL OF MILLWORK)
5. REFER TO DETAIL 6/A10.60 FOR CASEWORK CONNECTIONS AND ANCHORAGE KEY PLAN.



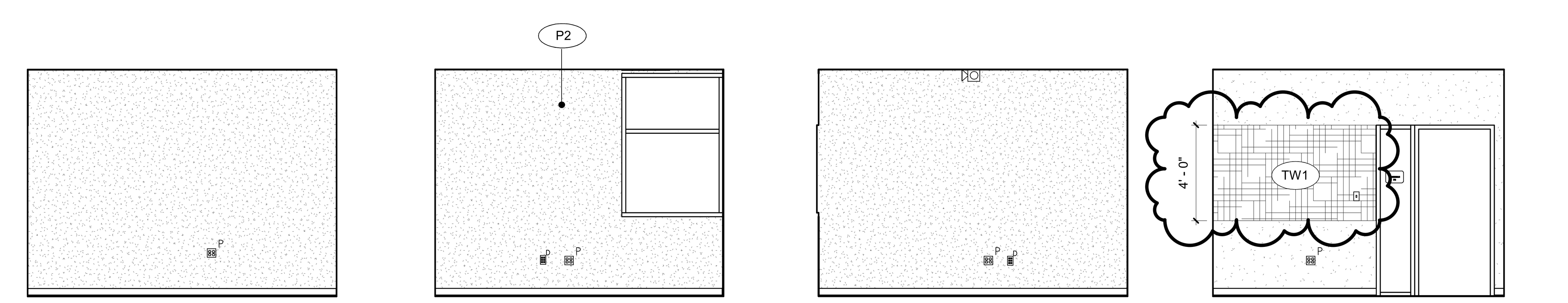
NORTH SOUTH

CORRIDOR A115 **7** 1/4" = 1'-0"



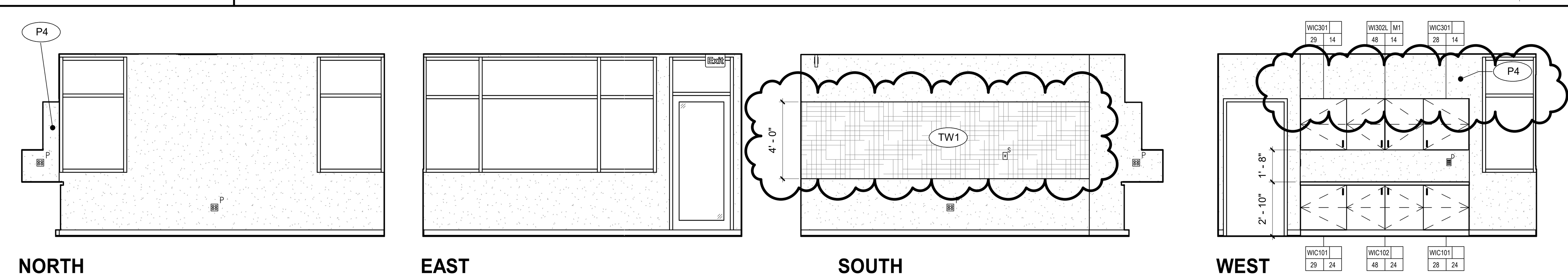
EAST NORTH SOUTH WEST

OFFICE A114 **5** 1/4" = 1'-0"



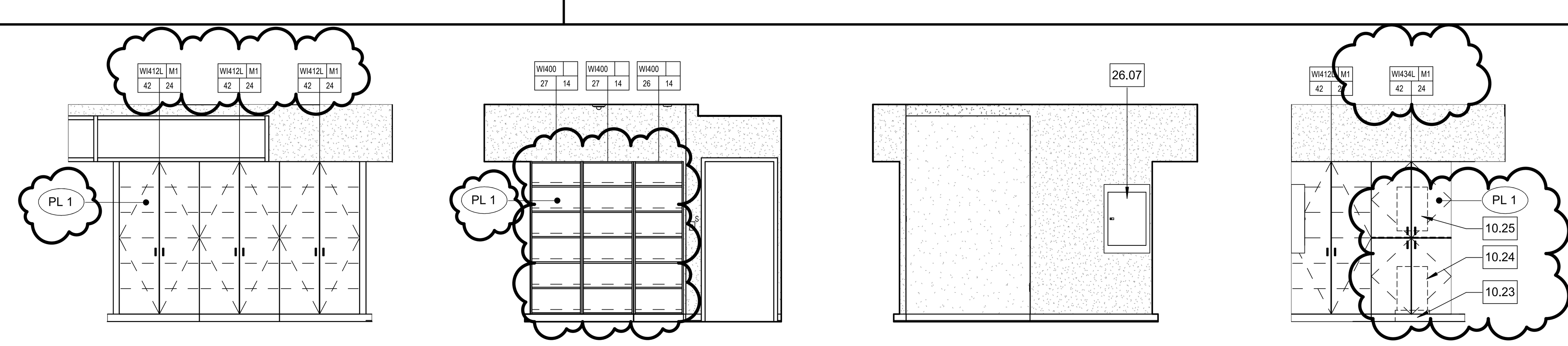
NORTH EAST SOUTH WEST

OFFICE A113 **4** 1/4" = 1'-0"



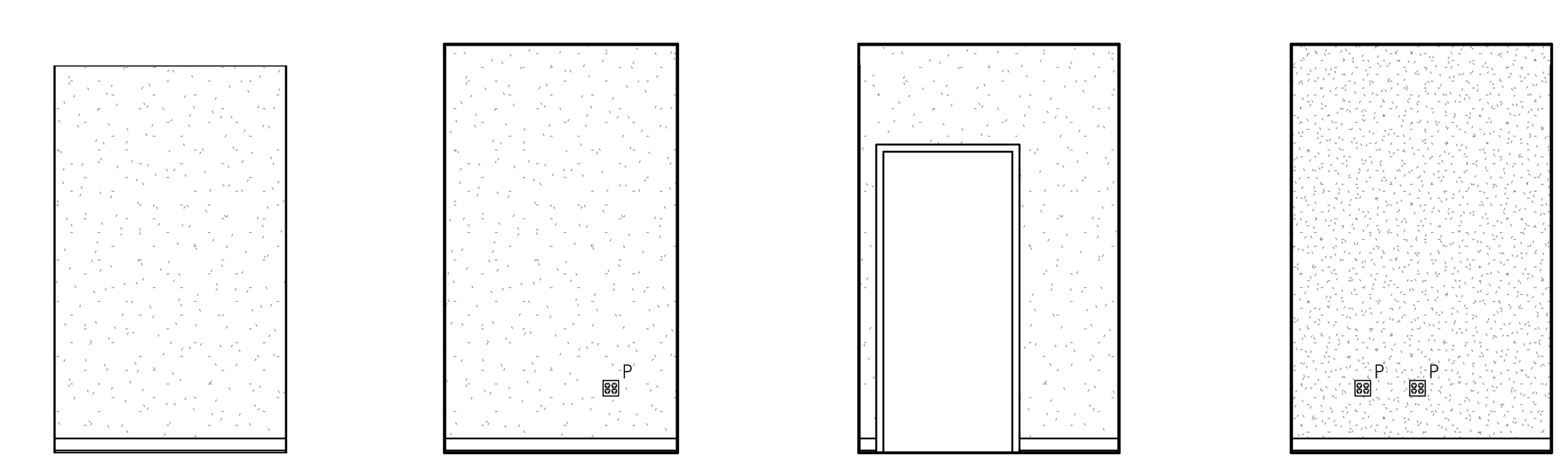
NORTH EAST SOUTH WEST

PRINCIPLE OFFICE A112 **3** 1/4" = 1'-0"



NORTH EAST SOUTH WEST

STORAGE ROOM A111 **2** 1/4" = 1'-0"



NORTH SOUTH EAST WEST

DATA ROOM A110 **1** 1/4" = 1'-0"

- DSA STAMP LOCATION - KEEP CLEAR

DSA: 02-118109
FILE: 10-27
PTN: 62117-334

DRY CREEK ELEMENTRY - NEW CLASSROOM BUILDING & ADMIN. MODERNIZATION

1273 NORTH ARMSTRONG
CLOVIS, CALIFORNIA

REVISIONS

No.	DATE	DESCRIPTION
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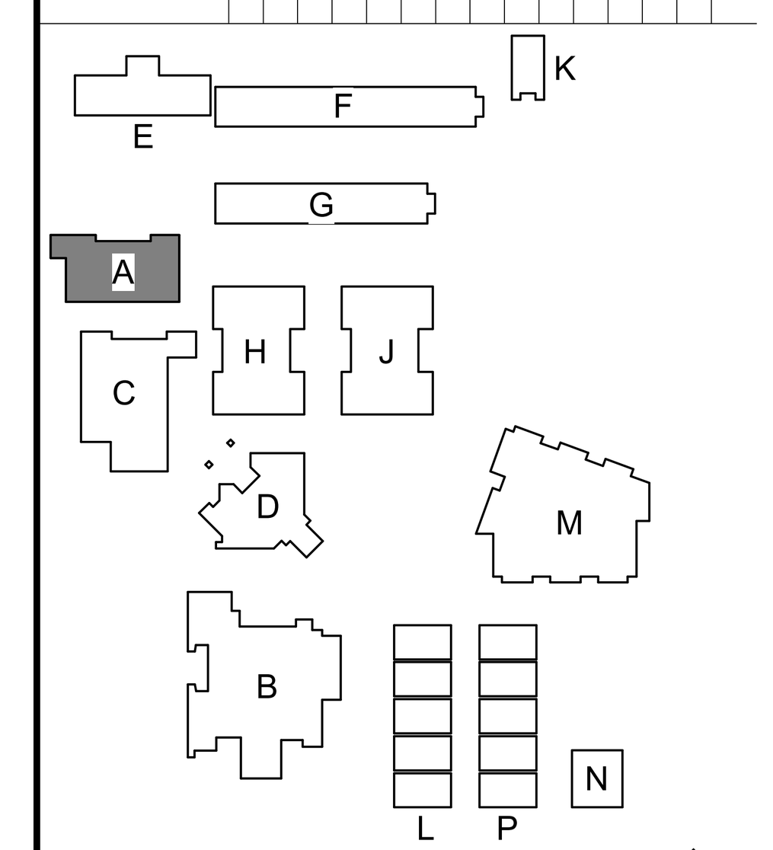
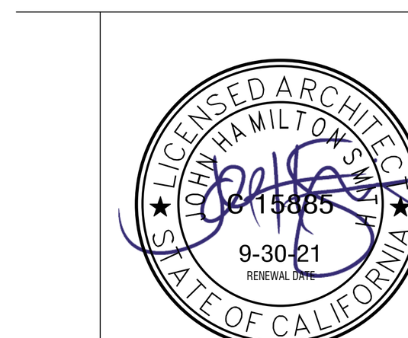
		ADDENDUM #2 - JANUARY 18, 2021





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PROJECT NUMBER 172827
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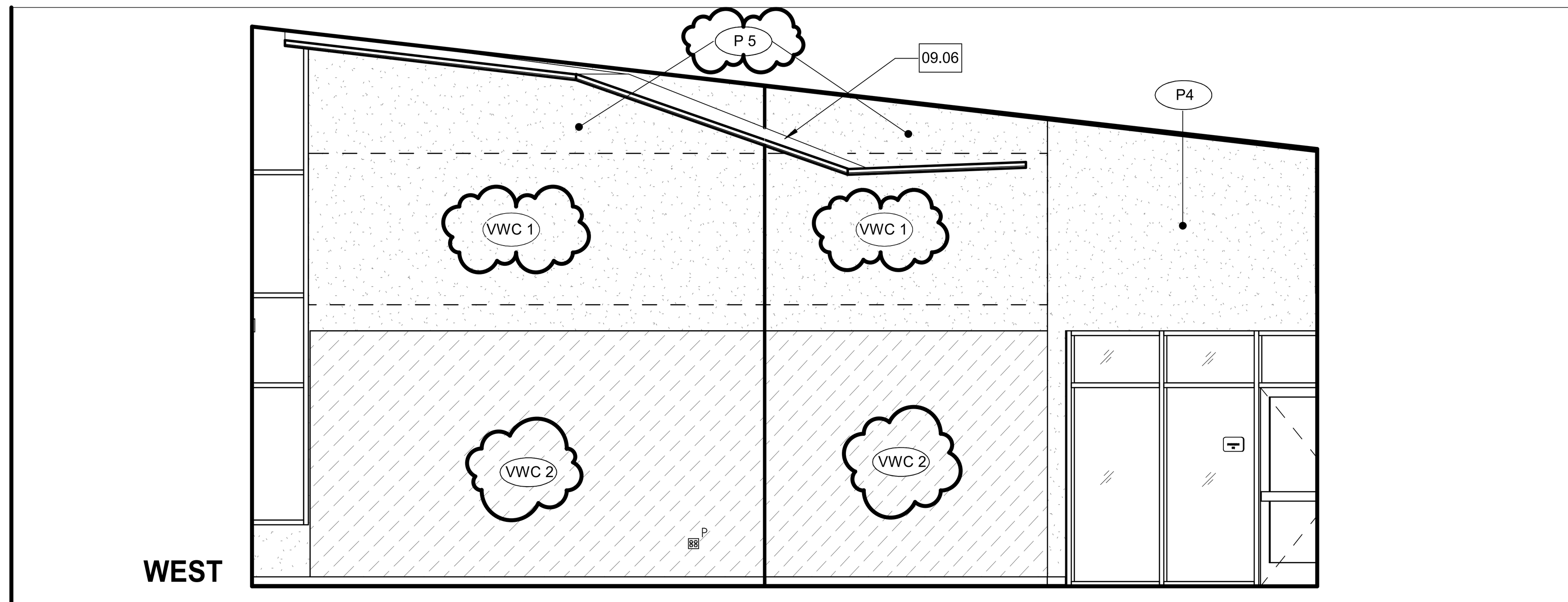
DRAWN BY Author
CHECKED BY Checker
PROJECT ARCHITECT JOHN SMITH

AD2-A05

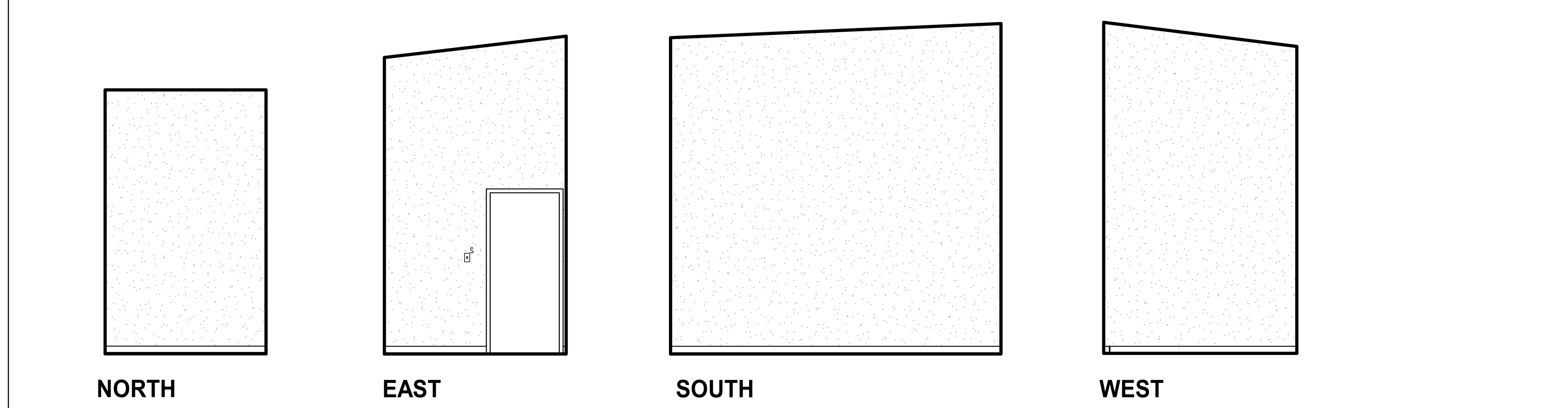
BUILDING A - INTERIOR ELEVATIONS

AA8.11



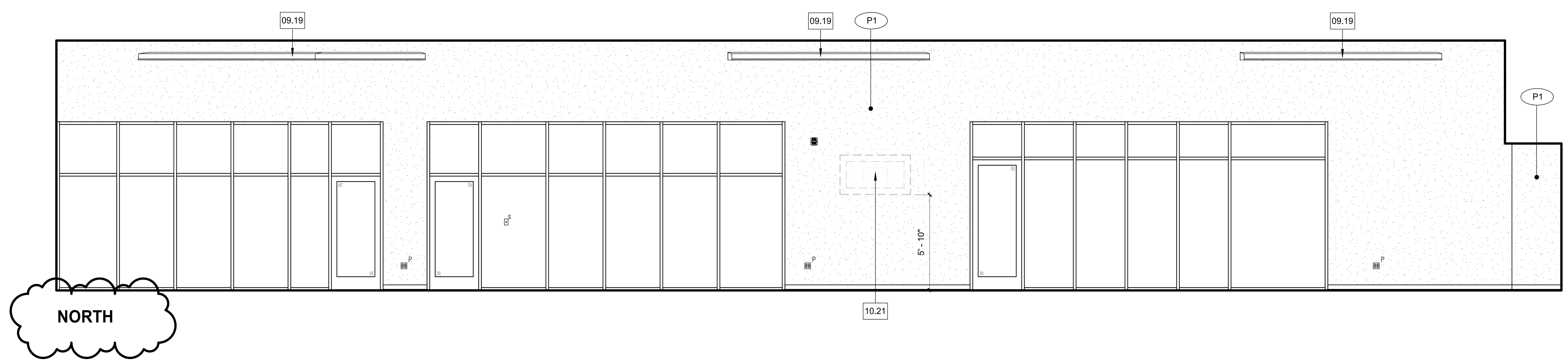
COLLABORATION AREA M108 **2**

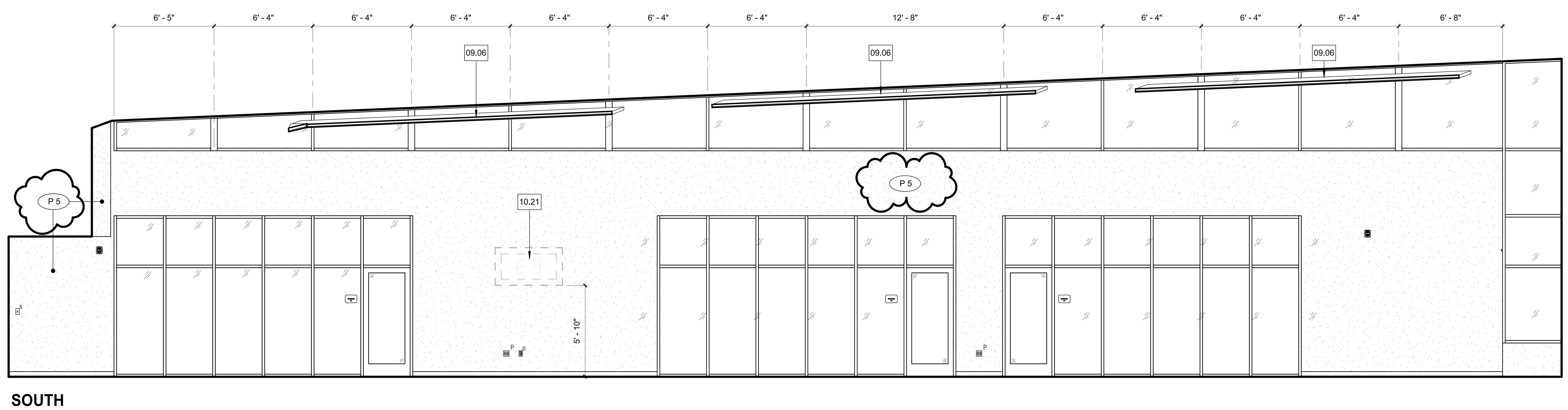
1/4" = 1'-0"



ELECTRICAL ROOM M111 **5**

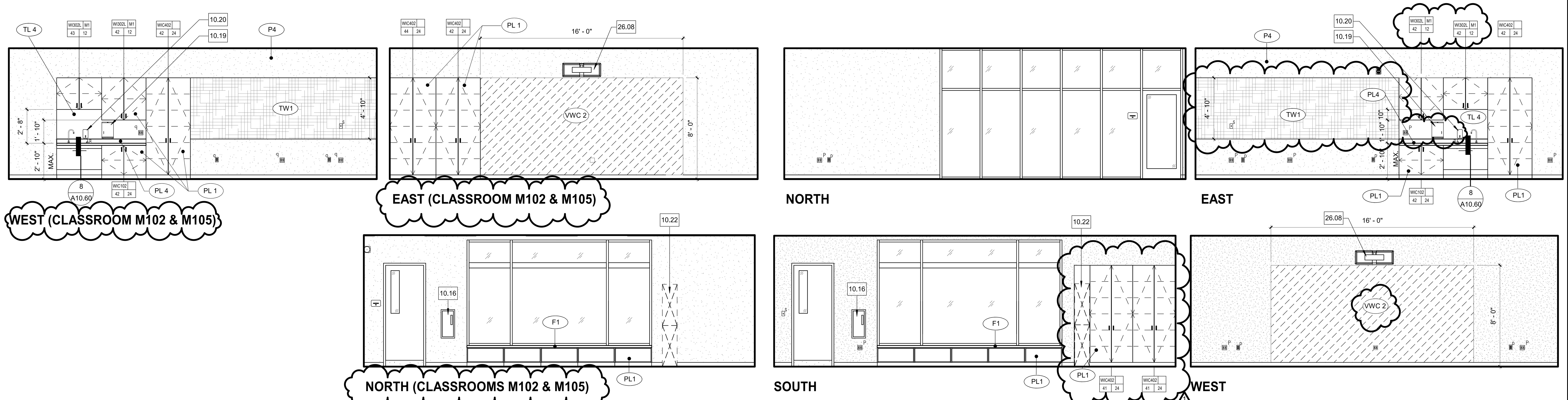
1/4" = 1'-0"





COLLABORATION AREA M108 **2**

1/4" = 1'-0"



TYPICAL CLASSROOM **1**

1/4" = 1'-0"

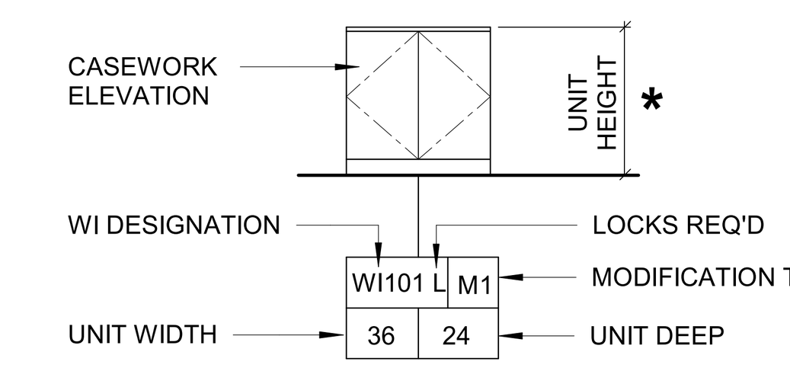
KEYNOTES

09.06	WOOD CEILING SYSTEM, TYPE WC 1
09.19	SUSPENDED WOOD CEILING SYSTEM, REFER TO STRUCTURAL DRAWINGS
10.16	SURFACE MOUNTED FIRE EXTINGUISHER AND WALL BRACKET WITH VALID TAG. TOP OF F.E. HANDLE SHALL BE 48" MAX ABOVE F.F.
10.19	PAPER TOWEL DESPENSER
10.20	SOAP DESPENSER
10.21	WALL MOUNTED TELEVISON
10.22	LAPTOP STORAGE TOWER. OWNER FURNISHED CONTRACTOR INSTALLED WITH STRAP TO WALL.
26.08	PROJECTOR

LEGEND - INTERIOR ELEVATIONS

- GLAZING - SEE WINDOW SCHEDULE
- IDENTIFICATION SIGNAGE - SEE SCHEDULE AND SHEET A10.10
- ELECTRICAL AND LOW VOLTAGE DEVICES - SEE ELECTRICAL DRAWINGS
- INTERIOR FINISH TAG - SEE SHEET A2.00 FOR FINISH SCHEDULE
- FIRE ALARM DEVICE - SEE ELECTRICAL DRAWINGS
- MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS

LEGEND - CASEWORK



MODIFICATION NOTATIONS:
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M2 - MODIFY AS SHOWN ON PLANS

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CASEWORK NOTES

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DSA STAMP LOCATION - KEEP CLEAR - DSA STAMP LOATION - KEEP CLEAR

DSA: 02-118109
FILE: 10-27
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DRY CREEK ELEMENTRY - NEW CLASSROOM BUILDING & ADMIN. MODERNIZATION

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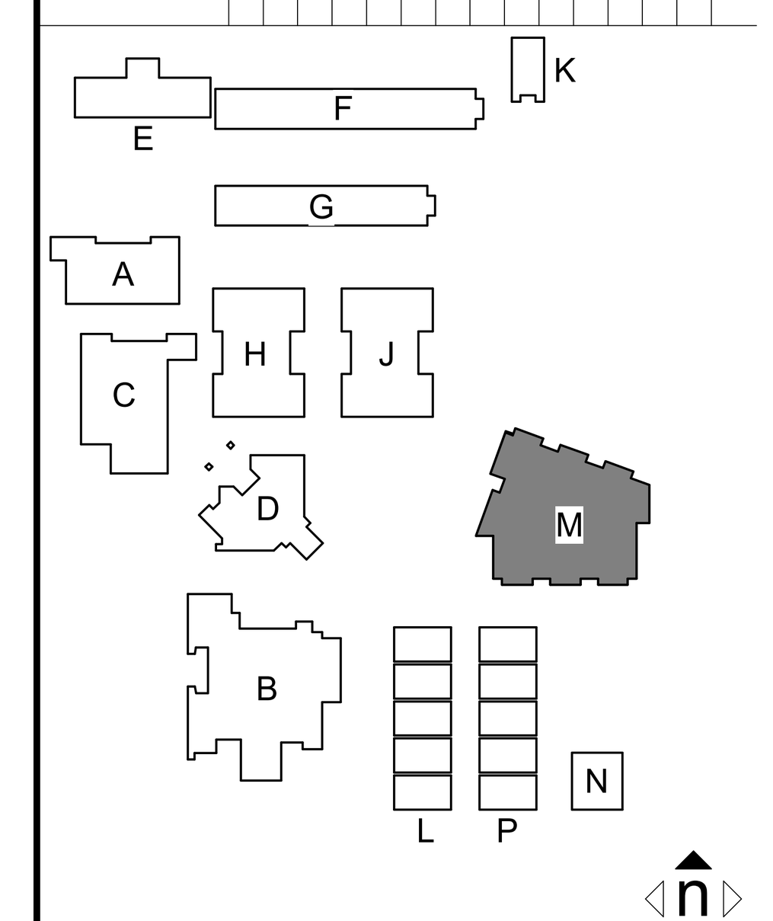

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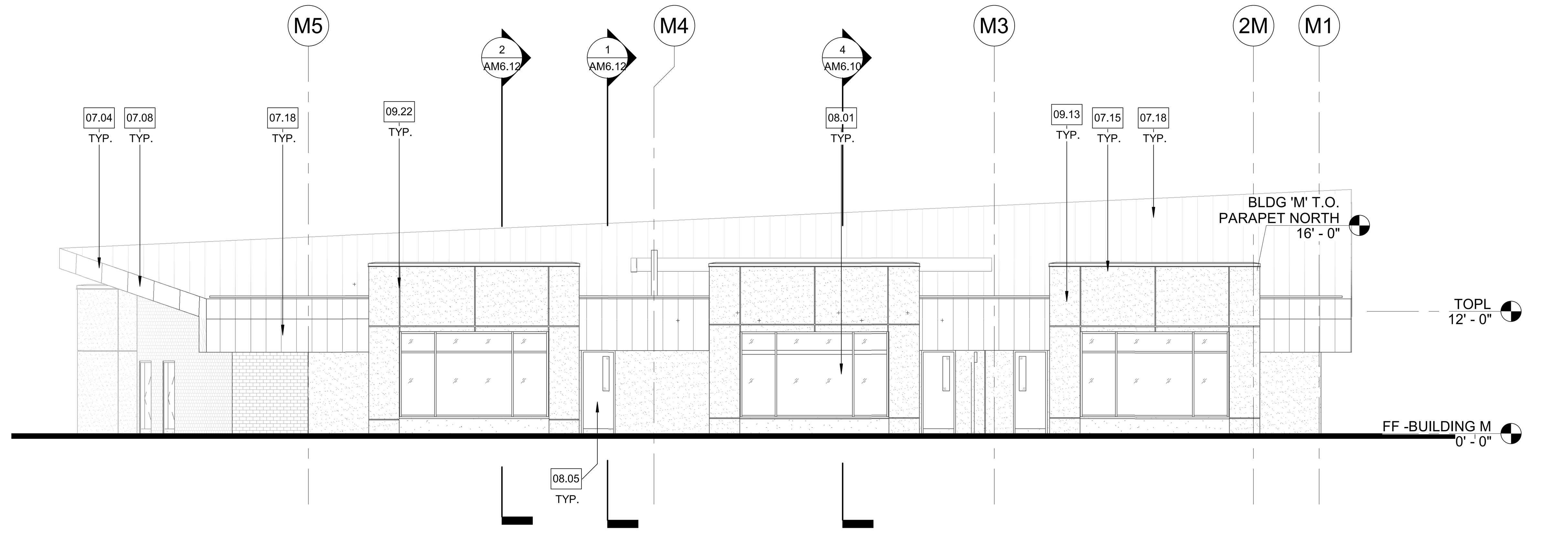
LICENSED ARCHITECT JOHN HAMILTON SMITH C 15885 9-30-21 RENEWAL DATE STATE OF CALIFORNIA

DRAWN BY Author
CHECKED BY Checker
PROJECT ARCHITECT JOHN SMITH
PROJECT NUMBER 172827
DATE 12/16/2019

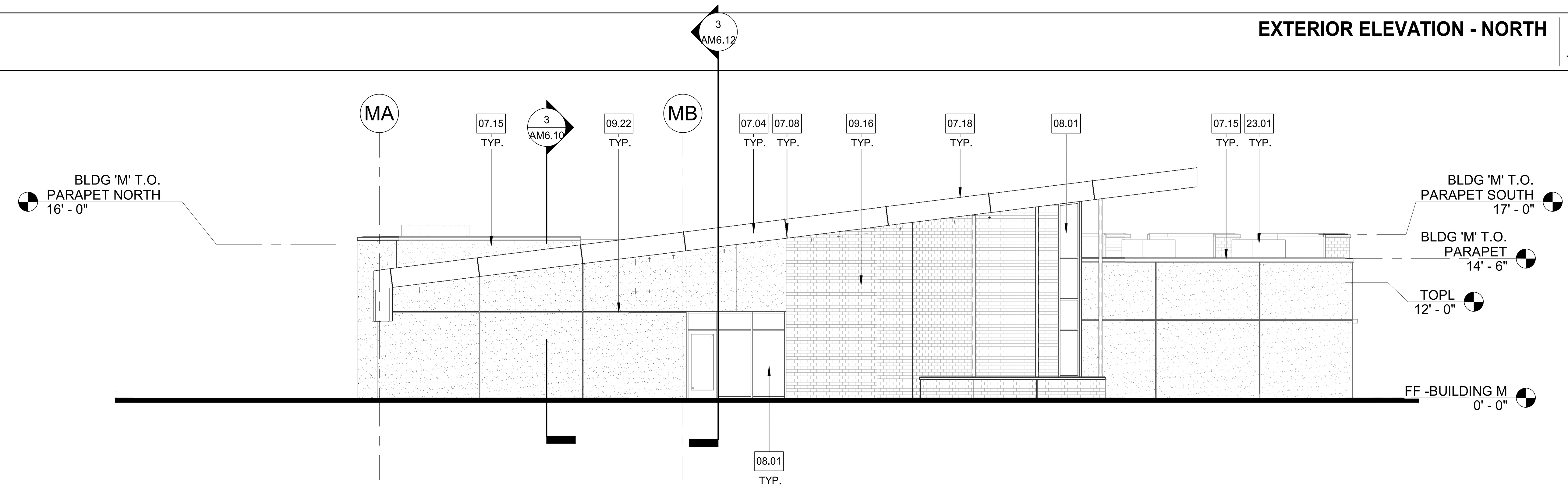
AD2-A06

BUILDING M - INTERIOR ELEVATIONS

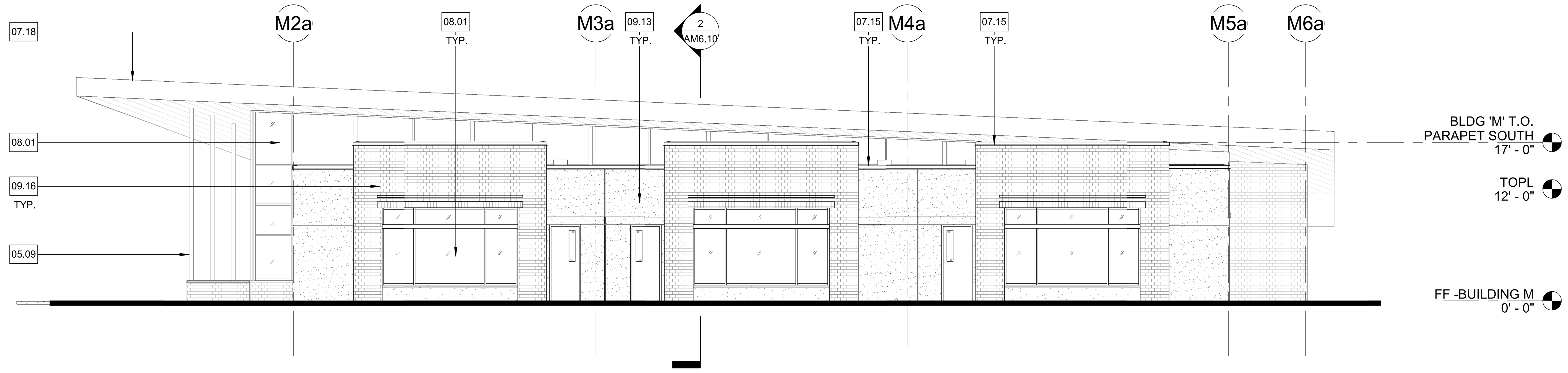
AM8.10



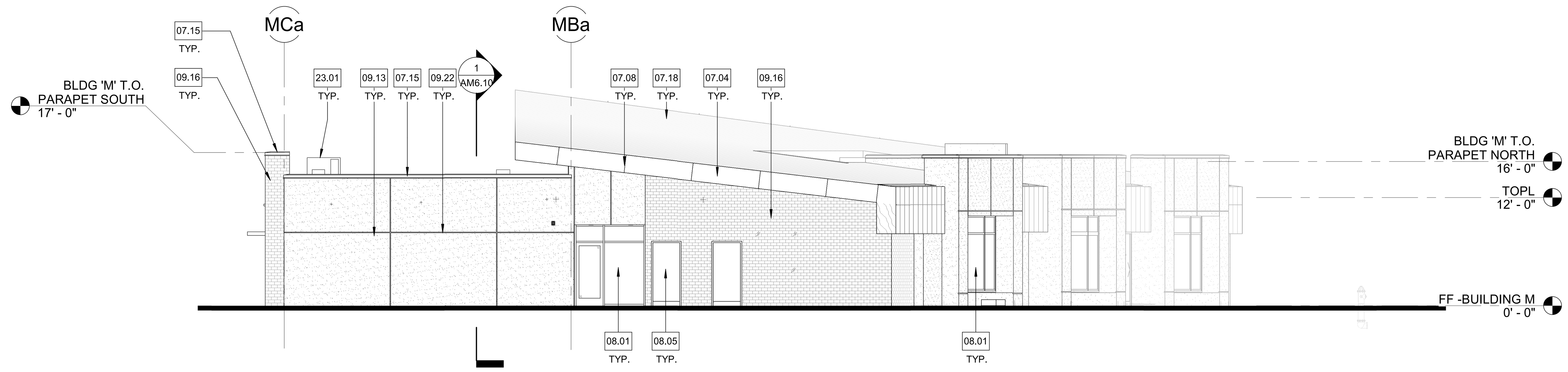
EXTERIOR ELEVATION - NORTH 4
1/8" = 1'-0"



EXTERIOR ELEVATION - WEST 3
1/8" = 1'-0"



EXTERIOR ELEVATION - SOUTH 2
1/8" = 1'-0"



EXTERIOR ELEVATION - EAST 1
1/8" = 1'-0"

KEYNOTES

05.09	STEEL COLUMN REFER TO STRUCTURAL
07.04	COMPOSITE PANELS
07.08	COMPOSITE PANELS, JOINTS.
07.15	GALVANIZED METAL COPING, PAINT
07.18	STANDING SEAM ROOF
08.01	HOLLOW METAL WINDOW SYSTEM. SEE WINDOW SCHEDULE.
08.05	REMOVE (E) WINDOW INFILL PANELS. PROVIDE ALUMINUM GLAZING INFILL PANELS. REFER TO SHEET A9.12 FOR WINDOW ELEVATION/TYPE. (ALTERNATE 5)
09.13	PORTLAND CEMENT PLASTER
09.16	THIN BRICK VENEER
09.22	CONTROL JOINTS
23.01	MECHANICAL, ROOFTOP MECHANICAL UNIT. REFER TO MECHANICAL DRAWINGS.

GENERAL NOTES

1. SEE SHEET G0.1 FOR TYPICAL SYMBOLS AND ABBREVIATIONS.
2. SEE MECHANICAL DRAWINGS FOR EXTENT OF MECHANICAL SCOPE OF WORK.
3. SEE PLUMBING DRAWINGS FOR EXTENT OF PLUMBING SCOPE OF WORK.
4. SEE ELECTRICAL DRAWINGS FOR EXTENT OF ELECTRICAL SCOPE OF WORK.
5. SEE TECHNOLOGY DRAWINGS FOR EXTENT OF TECHNOLOGY SCOPE OF WORK.
6. COORDINATE WITH SPECIFICATIONS SECTION (09 06 00) FOR MATERIAL TYPE, STYLE, COLOR, & FINISH.
7. SEE SHEETS A9.10 FOR DOOR AND WINDOW SCHEDULES
8. SAFETY GLAZING SHALL COMPLY WITH CBC 2406. REFER TO ELEVATIONS AND WINDOW SCHEDULE FOR SAFETY GLAZING REQUIREMENT AND LOCATION.

DRY CREEK ELEMENTRY - NEW CLASSROOM BUILDING & ADMIN. MODERNIZATION

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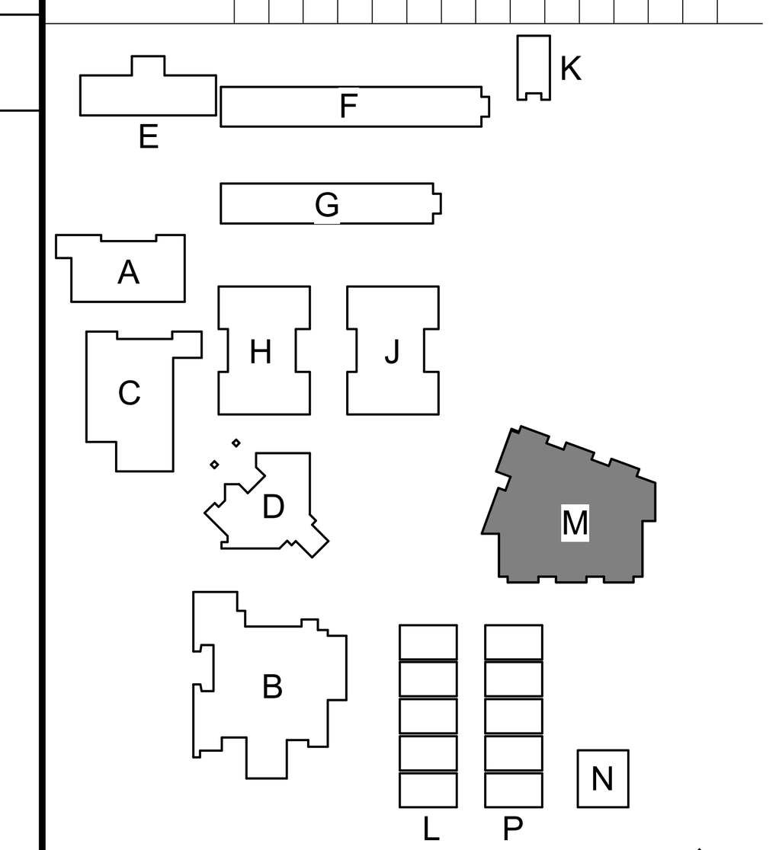

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PROJECT ARCHITECT JOHN SMITH

AD2-A07

BUILDING M - EXTERIOR ELEVATIONS

AM5.10