DSA **140**

APPLICATION FOR SUBMITTAL OF POST-APPROVAL DOCUMENT

This application is for submittal of documents, after the initial approval of the project (post-approval documents), that require Division of the State Architect (DSA) review and approval.This form shall be completed by the Design Professional in General Responsible Charge of the project, in accordance with California Code of Regulations, Title 24, Part 1, Sections 4-317, 4-323 and 4-338 and in compliance with DSA IR A-6: Construction Change Document Submittal and Approval Process.

DSA documents referenced within this form are available on the DSA Forms or DSA Publications webpages.

1. SUBMITTAL TYPE: (Is this a resubmittal? Yes ☐ No ☑)

Deferred Submittal ☐	Addendum Number: 1	Revision Number:	CCD Number: Category A ☐ or B ☐

2. PROJECT INFORMATION:

School District/Owner: Bakersfield City School District	DSA File Number: 15 6
Project Name/School: Dr. Martin Luther King Jr. Elementary School	DSA Application Number 03 123900

3. APPLICANT INFORMATION:

Date Submitted: 12/20/24	Attached Pages? No ☐ Yes ☑ Number of pages? 57		
Firm Name: Integrated Designs by SOMAM, Inc.	Contact Name: Sean Parker		
Work Email: sparker@somam.com	Work Phone: (559) 436-0881		
Firm Address: 6011 N. Fresno Street, Suite 130	City: Fresno	State: CA	Zip Code: 93710

4. REASON FOR SUBMITTAL: (Check applicable boxes)

☑ For revision or addendum prior to construction. ☐ For a project currently under construction.

☐ For a project that has a form *DSA 301-N: Notification of Requirement for Certification*, *DSA 301-P: Posted Notification of Requirement for Certification* or a 90-Day Letter issued.

☐ To obtain DSA approval of an existing uncertified building or buildings.

☐ For Category B CCD this is: ☐ a voluntary submittal, ☐ a DSA required submittal (attach DSA notice requiring submission).

5. DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE:

Name of the Design Professional In General Responsible Charge: Curtis E. Flynn

Professional License Number: C28966 Discipline: Architect

Design Professional in General Responsible Charge Statement: The attached post-approval documents have been examined by me for design intent and appear to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications. They are acceptable for incorporation into the construction of the project.

Signature: _____

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE

6. CONFIRMATION, DESCRIPTION AND LISTING OF DOCUMENTS:

For addenda, revisions, or CCDs: CHECK THIS BOX ☑ to confirm that *all* post-approval documents have been stamped and signed by the Responsible Design Professional listed on form *DSA 1: Application for Approval of Plans and Specifications* for this project. (For *Deferred Submittals*, refer to *IR A-18: Use of Construction Documents Prepared by Other Professionals,* and *IR A-19: Design Professional's Signature and Seal (Stamp) on Construction Documents*, when applicable, for signature and seal requirements.)

Provide a brief description of construction scope for this post-approval document (attach additional sheets if needed):

Final Coordination Items, Please see Project Manual

List of DSA-approved drawings affected by this post-approval document:

A2.01, A5.01, M2.12, M3.11, E-1.03, E-4.0

DSA USE ONLY

SSS_____ Date_____ ☐Approved ☐Disapproved ☐Not Required

Comments:_____

FLS_____ Date_____ ☐Approved ☐Disapproved ☐Not Required

Comments:_____

ACS_____ Date_____ ☐Approved ☐Disapproved ☐Not Required

Comments:_____

Returned	DSA STAMP
Date:	
By:	

ADDENDUM NO. 1

PROJECT MANUAL

MLK ELEMENTARY SCHOOL
TRANSITIONAL KINDERGARTEN
BAKERSFIELD CITY SCHOOL DISTRICT

Project No.: 5593
DSA File No. 15-6
DSA App No. 03-123900
December 20, 2024

This Addendum and Addendum drawings form a part of the Contract Documents. It modifies the original Project Manual and Drawings. Bidders are required to acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to acknowledge receipt of each addendum may subject bidder to disqualification.

GENERAL

1-01 **GEOTECH REPORT:** Add attached Geotech report in its entirety. See Exhibit 1-01.

1-02 **GEOTECH REPORT UPDATE:** Add attached Geotech report update int its entirety. See exhibit 1-02

1-03 **BID FORM:** Replace Bid Form and Proposal document 004113 in its entirety. See Exhibit 1-03.

1-04 District will provide Pelican Thermostat. Contractor to install. See Exhibit 1-04.

1-05 District will cut and cap existing irrigation lines as necessary for construction of new building.

PROJECT MANUAL

1-06 **PROJECT MANUAL, SPECIFICATION SECTION 000010 – TABLE OF CONTENTS:** Replace specification section 000010 in its entirety. See Exhibit 1-06.

1-07 **PROJECT MANUAL, SPECIFICATION SECTION 074246 – FIBER CONUIT FASCIA BOARDS:** Add specification section 074246 in its entirety. See exhibit 1-07

1-08 **PROJECT MANUAL, SPECIFICATIONS SECTION 097217 – VINYL COVERED TACKBOARD:** Add the following to Part 2, Section C:

15. Color: Match Chatfield Clarke Company, INC Color Ceres Fog.

1-09 **PROJECT MANUAL, SPECIFICATION SECTION 271000 – STRUCTURED CABLING SYSTEM:** Add specification section 271000 in its entirety. See Exhibit 1-09.

DRAWINGS

ARCHITECUTURAL

1-10 **DRAWING, SHEET A2.01 – FLOOR PLAN:** Note the following changes (See A2.01 addendum 1 drawing):

1. Electrical and low voltage panels in room TK 2.1 have been changed. See keynotes 25 and 31 and Interior Elevations 5/A5.01
2. Add IDF cabinet to room TK2.1. See keynote 31.
3. Add tall cabinets to rooms TK1 and TK2. See keynote 30.
4. Marker board and smart board have been moved to the East wall in room TK1 and TK2. See keynote 4 and 5.
5. Add walk off carpet tiles to room 101. See keynote 27.
6. VCT has been modified in TK1 and TK2. See keynote 10.
7. Change markerboards to 5’-0” long. See keynote 24

8. Keynotes 1 and 9 have been modified.

1-11 **DRAWING, SHEET A5.01 – INTERIOR ELEVATIONS:** Note the following changes (See A5.01 addendum 1 drawings):

1. Elevation “B” and “D” TK 1 and TK2.:
2. Markerboards and smartboard have been modified
3. Add elevations to storage room TK2.1

MECHANICAL

1-12 **DRAWING, SHEET M2.12 – MECHANICAL PLAN – PLUMBING:** Note the following changes (See M2.12 addendum 1 drawing):

1. Modify keynote 3.
2. Add note in room 15.

1-13 **DRAWING, SHEET M3.11 – MECHANICAL PLAN - HVAC:** Note the following changes (See M3.11 addendum 1 drawing):

1. Detail 2/M3.11 has been added.
2. Keynote 1 has been modified.

ELECTRICAL

1-14 **DRAWING, SHEET E-1.03 – DATA AND COMM PLAN:** Note the following changes (See E1.03 addendum 1 drawing):

1. Add spare conduit and pull box

1-15 **DRAWING, SHEET E-4.0 – ELECTRICAL FLOOR PLAN:** Note the following changes (See E4.0 addendum 1 drawing):

1. Add electrical notes 3 and 4.
2. Add IDF to storage room..
3. Add spare conduit and pull box.
4. Update data outlets

END ADDENDUM NO. 1

Krazan & ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

September 25, 2017

KA Project No. 022-17101

Mr. Marcos Rodriguez
Bakersfield City School District
1501 Feliz Drive
Bakersfield, CA 93307
mrodriguez@bcsd.com

RE: R-Value Testing and Pavement Design Recommendations
New BCSD Elementary School – Off-Site Street Improvements
Citadel Street & Mardi Gras
Bakersfield, California

Dear Mr. Rodriguez:

As requested, we have completed the R-Value Testing and Pavement Design Recommendations for the above-referenced project site.

Four subgrade soil samples were obtained from the project site for laboratory R-Value testing. The samples were tested in accordance with the State of California Materials Manual Test Designation 301. Results of the tests are as follows; laboratory test data sheets are attached.

Sample No.	Depth	Location	Description	R-Value at Equilibrium
RV1	6"-18"	NWC Cottonwood Rd & Cheatham Ave	Silty Sand (SM)	58
RV2	6"-18"	Cottonwood Rd @ Mardi Gras	Silty Sand (SM)	60
RV3	6"-18"	Mardi Gras, 45'S of park	Silty Sand (SM)	57
RV4	6"-18"	Citadel St, 50'S of existing pavement	Silty Sand (SM)	56

These test results are good and indicate good subgrade support characteristics under dynamic traffic loads. Per the procedures in Caltrans Highway Design Manual, Chapter 610 – Pavement Engineering Considerations, an R-Value of 50 was used for design purposes. The following table shows the recommended minimum pavement sections for various traffic indices based on an R-Value of 50.

Traffic Index	Asphaltic Concrete	Class 2 Aggregate Base*	Compacted Subgrade*
5.0	2.5"	4.0"	12.0"
5.5	3.0"	4.0"	12.0"
6.0	3.0"	4.0"	12.0"
6.5	3.5"	4.0"	12.0"
7.0	4.0"	4.5"	12.0"
7.5	4.0"	5.5"	12.0"
8.0	4.5"	6.0"	12.0"
8.5	5.0"	6.0"	12.0"
9.0	5.0"	7.0"	12.0"

** Recommended 95% compaction based on ASTM Test Method D1557*

We recommend a Traffic Index of 5.0 be used for light automobile traffic areas and a Traffic Index of 8.0 be used for heavy traffic areas. The Traffic Index should be verified and/or determined by the project Civil Engineer or the local Building Official, as applicable.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (661) 837-9200.

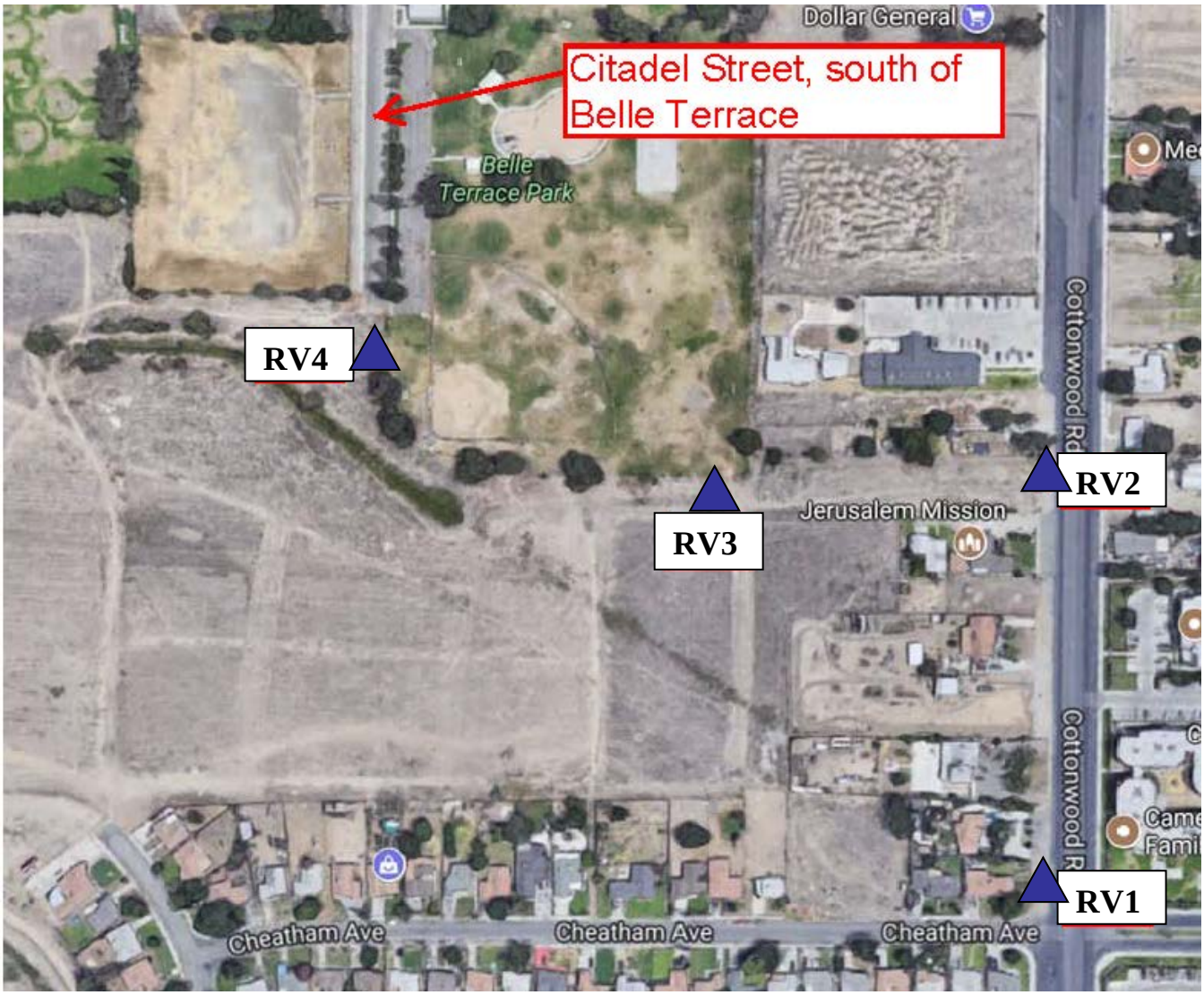
Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

Ryan K. Privett, PE
Senior Engineer
RCE No. 59372

RKP:rp

Attachments: R-Value Location Map
Laboratory Test Results

Cc: Robert C. Siegrist, AIA
Fred Porter II



▲ APPROXIMATE R-VALUE LOCATION

N
W E
S

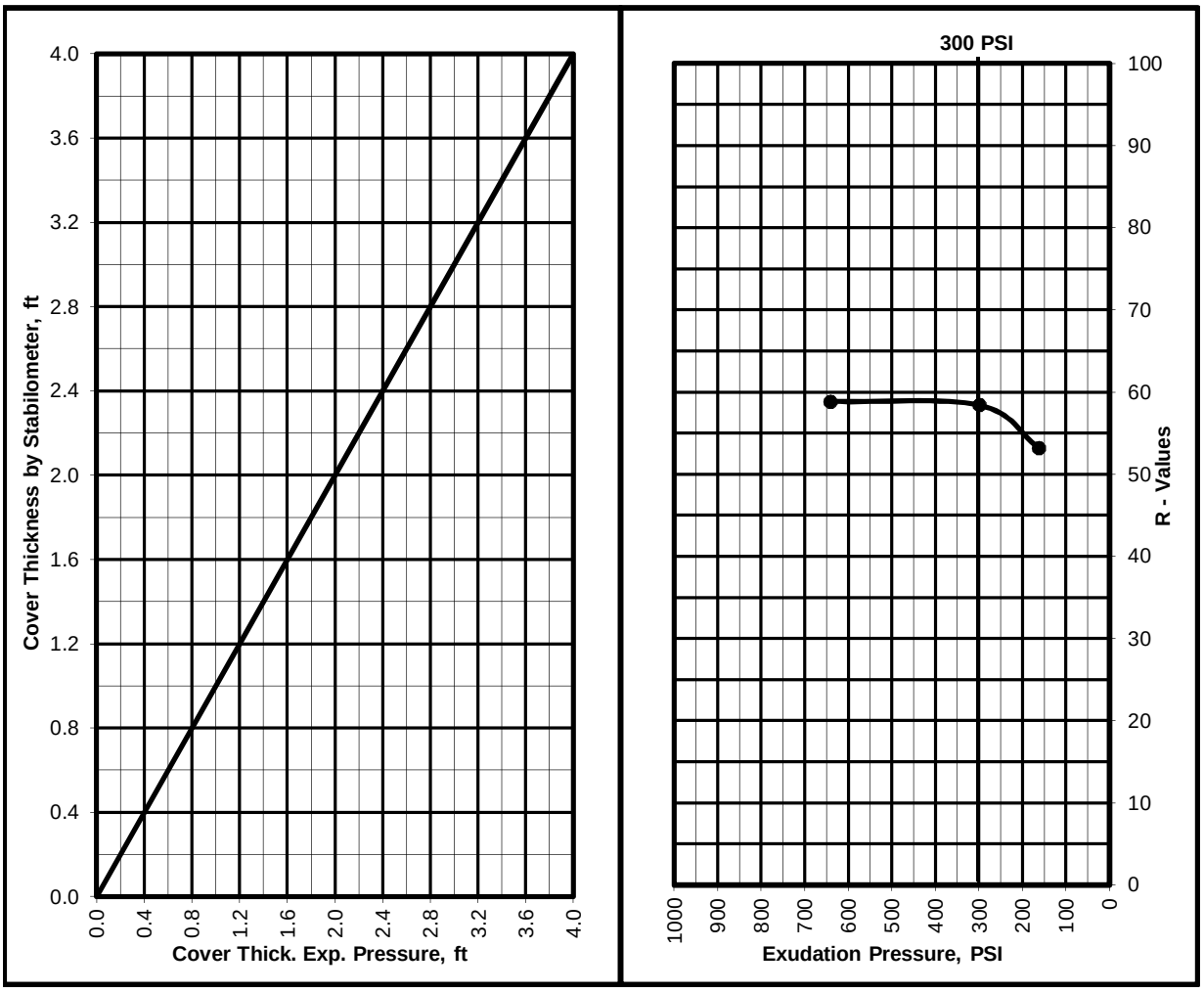
R-VALUE LOCATION MAP	**Scale:** NTS	**Date:** 09-25-2017	Krazan GEOTECHNICAL ENGINEERING
New BCSD Elementary School Citadel Rd, S. of Belle Terrace Bakersfield, California	**Drawn by:** RP	**Approved by:** RP	
	Project No. 022-17101	**Figure No.** 1	

R - VALUE TEST
ASTM D - 2844 / CAL 301

Project Number	:	2217101
Project Name	:	New Elementary School
Date	:	9/15/2017
Sample Location/Curve Number	:	RV#1 NWC Cottonwood Rd & Cheatham Ave
Soil Classification	:	Silty Sand

TEST	A	B	C
Percent Moisture @ Compaction, %	9.3	9.8	10.3
Dry Density, lbm/cu.ft.	120.9	119.1	118.7
Exudation Pressure, psi	641	299	163
Expansion Pressure, (Dial Reading)	--	--	--
Expansion Pressure, psf	--	--	--
Resistance Value R	59	58	53

R Value at 300 PSI Exudation Pressure	**58**
R Value by Expansion Pressure (TI =): 5	**Expansion Pressure nil**



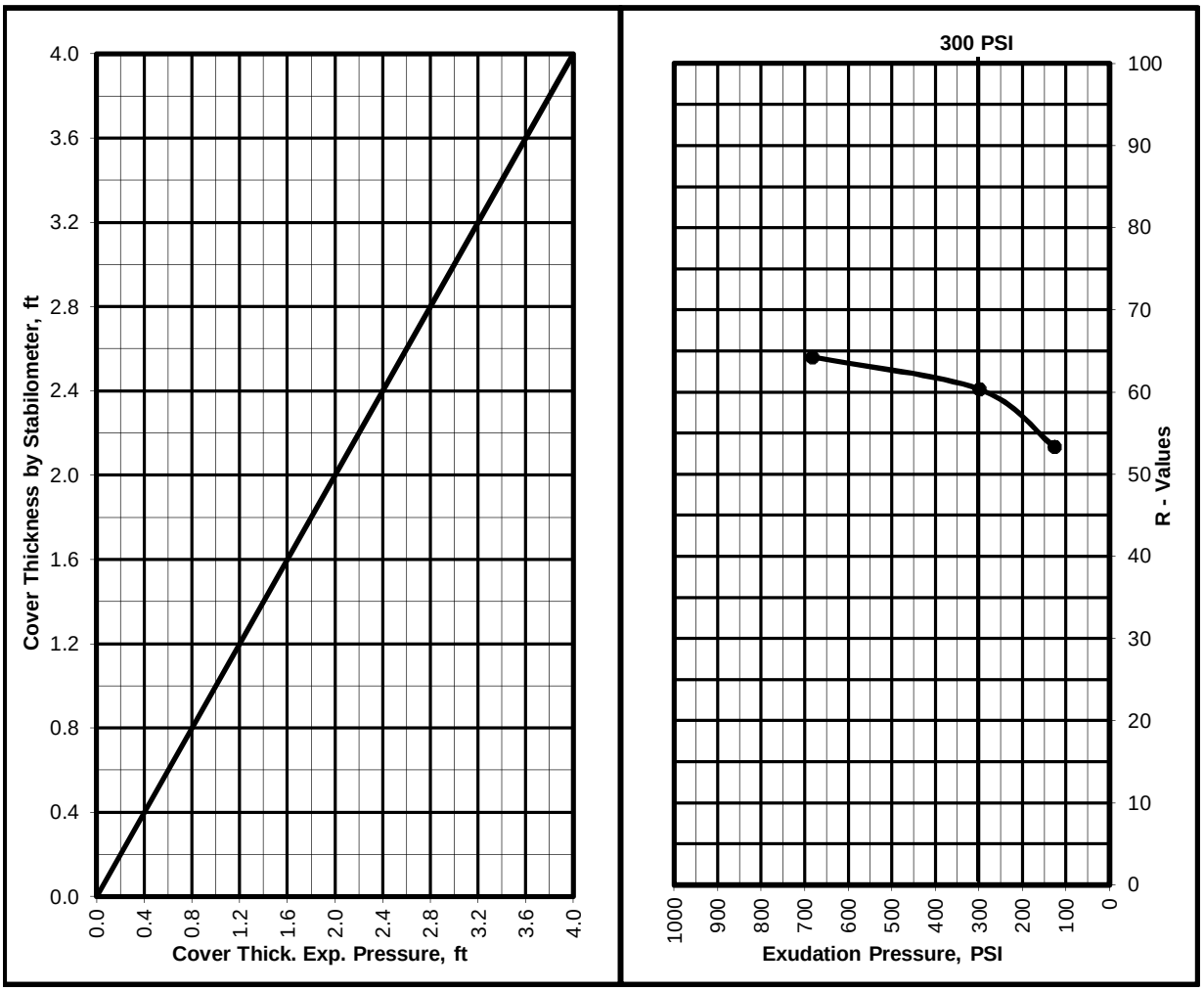
Krazan Testing Laboratory

R - VALUE TEST
ASTM D - 2844 / CAL 301

Project Number	:	2217101
Project Name	:	New Elementary School
Date	:	9/15/2017
Sample Location/Curve Number	:	RV#2 Cottonwood Rd @ Mardi Gras
Soil Classification	:	Silty Sand

TEST	A	B	C
Percent Moisture @ Compaction, %	10.2	9.7	10.7
Dry Density, lbm/cu.ft.	121.1	121.1	119.4
Exudation Pressure, psi	299	683	127
Expansion Pressure, (Dial Reading)	--	--	--
Expansion Pressure, psf	--	--	--
Resistance Value R	60	64	53

R Value at 300 PSI Exudation Pressure	**60**
R Value by Expansion Pressure (TI =): 5	**Expansion Pressure nil**



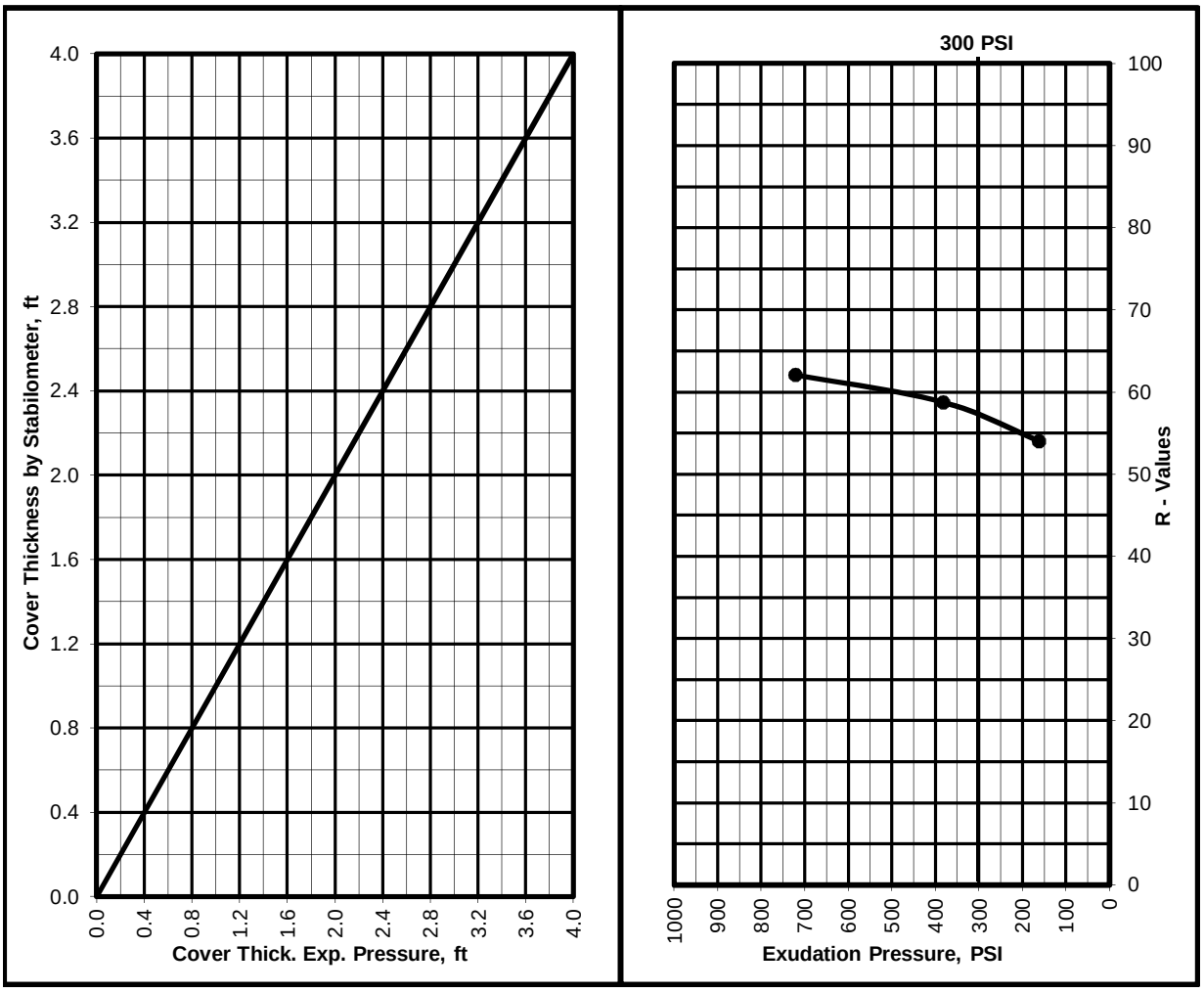
Krazan Testing Laboratory

R - VALUE TEST
ASTM D - 2844 / CAL 301

Project Number	:	2217101
Project Name	:	New Elementary School
Date	:	9/15/2017
Sample Location/Curve Number	:	RV#3 Mardi Gras
Soil Classification	:	Silty Sand

TEST	A	B	C
Percent Moisture @ Compaction, %	10.3	11.0	9.1
Dry Density, lbm/cu.ft.	121.2	119.6	121.4
Exudation Pressure, psi	382	163	721
Expansion Pressure, (Dial Reading)	--	--	--
Expansion Pressure, psf	--	--	--
Resistance Value R	59	54	62

R Value at 300 PSI Exudation Pressure	**57**
R Value by Expansion Pressure (TI =): 5	**Expansion Pressure nil**



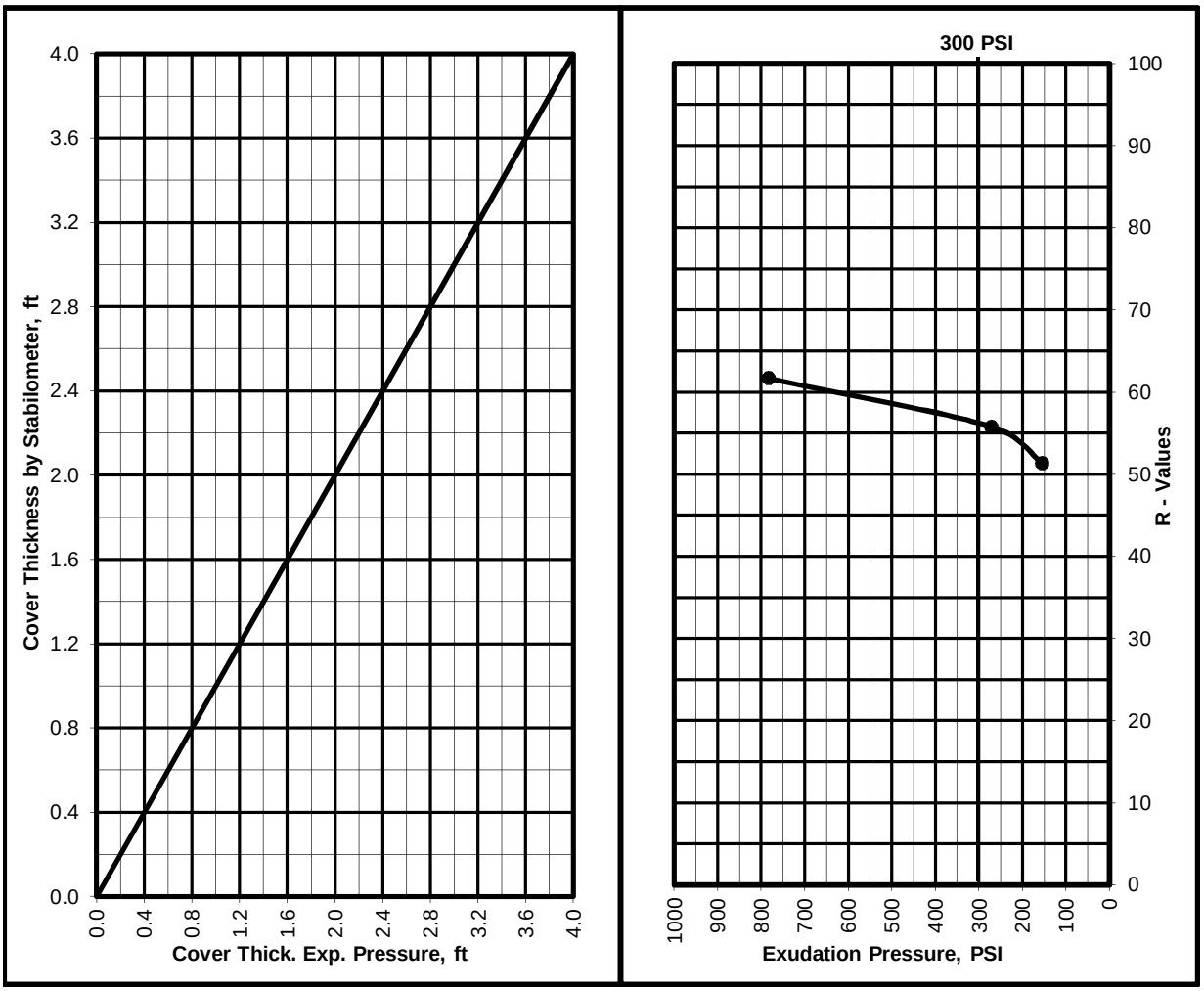
Krazan Testing Laboratory

R - VALUE TEST
ASTM D - 2844 / CAL 301

Project Number	:	2217101
Project Name	:	New Elementary School
Date	:	9/15/2017
Sample Location/Curve Number	:	RV#4 Citadel St.
Soil Classification	:	Silty Sand

TEST	A	B	C
Percent Moisture @ Compaction, %	11.8	12.8	12.3
Dry Density, lbm/cu.ft.	119.2	119.1	117.3
Exudation Pressure, psi	784	155	271
Expansion Pressure, (Dial Reading)	--	--	--
Expansion Pressure, psf	--	--	--
Resistance Value R	62	51	56

R Value at 300 PSI Exudation Pressure	**56**
R Value by Expansion Pressure (TI =): 5	**Expansion Pressure nil**



Krazan Testing Laboratory

November 30, 2023 KA Project No. 022-17101

Mr. Daniel Wastaferro
Bakersfield City School District
1501 Feliz Drive
Bakersfield, California 93307

Re: Geotechnical Engineering Investigation Update
Proposed MLK Elementary Transitional Kindergarten Building
1100 Citadel Street
Bakersfield, California

Dear Mr. Wastaferro:

In accordance with your request, we are providing this Geotechnical Engineering Investigation Update for the proposed Transitional Kindergarten Building to be located at MLK Elementary School in Bakersfield, California. The purpose of this Update is to address any changed site conditions and subsequent modifications or additions to the recommendations of the original report, as well as to provide additional information to conform with seismic design requirements of the 2022 California Building Code (2022 CBC). This Update shall be applicable only for the currently proposed building referenced herein.

A Geotechnical Engineering Investigation & Geologic Hazards Investigation report was previously completed for the school site by Krazan & Associates (KA No. 022-17101), dated November 1, 2017. In our original report, in addition to the evaluation of geologic and seismic hazards (including liquefaction), we provided recommendations for foundation types and embedment depths, Engineered Fill, Drainage and Landscaping, Utility Trench Backfill, Excavation Stability, Floor Slabs and Exterior Flatwork, Lateral Earth Pressures and Retaining Walls, Pavement Design, Seismic Design Parameters, Soil Cement Reactivity, Compacted Material Acceptance, and Testing and Inspection. The school site construction was completed in 2019. The proposed Transitional Kindergarten Building is planned to be a 1,896 square foot conventional single-story wood-frame or metal-frame building located at the southwest end of the existing Classroom Building "D," which is located in the southwestern portion of the school site. The new building is anticipated to utilize conventional reinforced concrete spread and continuous footings and a slab-on-grade floor.

At the time of our recent site visit on November 28, 2023, the project area was comprised of an asphalt-concrete paved area leading to the paved play court area further to the southwest. The asphalt-concrete pavement will need to be removed prior to construction of the new building pad, and will not be suitable to incorporate into the building pad fill soils. Based on the observations made during our recent site visit, the recommendations presented in the previous report shall remain applicable to the currently proposed construction, including the previously recommended site preparation, allowable soil bearing pressures and lateral earth pressures, with the following modifications.

Site Preparation – Slot-Cutting

It is anticipated that the previous earthwork construction was completed to a minimum of 5 feet beyond the existing building footprint. This should be verified at the beginning of earthwork construction for the new addition. Provided that the previous earthwork extended 5 feet beyond the existing building footprint, over-excavation of the previously compacted fill soils will not be necessary within this area only. However, if it is determined that the previous earthwork did not extend 5 feet beyond the existing building footprint, this condition may require the use of a slot-cutting procedure to complete the necessary over-excavation and backfill beneath the proposed foundation areas. When utilizing a slot-cutting procedure, the existing structure foundations should be unloaded in increments resulting in no more than one-third of the foundation being unloaded at any time. In addition, the maximum continuous length of foundation unloading should be held to 8 feet or less, with no less than 16 feet of supporting material remaining in-place between excavated slots. The most efficient means of completing a slot-cutting procedure with one-third maximum foundation unloading is to label adjacent 8-foot segments as "A," "B," and "C" in repeating alphabetical order. Excavation and backfill of the "A" slots would be performed first, followed by the "B" slots, and then the "C" slots.

Completed slot excavations should have a horizontal bottom area so that subsequent fill will be placed and compacted on level ground. Excavated slots should be backfilled and compacted as soon as possible and should not be allowed to become saturated or remain open overnight. Vibratory equipment should not be used for compaction of the backfill soils. Krazan and Associates should be on-site full-time during excavation of slots and during backfill operations to verify and document the required over-excavation depth and width were achieved, and that soil conditions are firm and stable. Compaction of the bottom of excavated slots is required as previously noted, i.e., exposed subgrade soils should be scarified to a depth of 12 inches, moisture-conditioned to at or above optimum moisture content, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. If unstable conditions are encountered, work should be suspended and Krazan and Associates notified immediately so that alternative recommendations may be provided.

In addition to the above, the following recommendations are included to comply with the 2022 CBC and shall supersede the recommendations of the previous report where applicable. All previous references to the 2016 CBC shall now be revised to refer to the 2022 CBC.

Drainage and Landscaping

The ground surface should slope away from building pad and pavement areas toward appropriate drop inlets or other surface drainage devices. In accordance with Section 1804 of the 2022 California Building Code, it is recommended that the ground surface adjacent to foundations be sloped a minimum of 5 percent for a minimum distance of 10 feet away from structures, or to an approved alternative means of drainage conveyance. Swales used for conveyance of drainage and located within 10 feet of foundations should be sloped a minimum of 2 percent. Impervious surfaces, such as pavement and exterior concrete flatwork, within 10 feet of building foundations should be sloped a minimum of 1 percent away from the structure. Drainage gradients should be maintained to carry all surface water to collection devices and/or facilities and off-site. These grades should be maintained for the life of the project.

Dynamic Seismic Lateral Earth Pressure

The 2022 CBC requires determination of dynamic seismic lateral earth pressures on foundation walls and retaining walls supporting more than 6 feet of backfill height due to design earthquake ground motions. The Site Modified Peak Ground Acceleration (PGA_M), based on ASCE/SEI 7-22 and information from the SEAOC and OSHPD Seismic Design Maps website (https://seismicmaps.org), is 0.491. We recommend an incremental seismic lateral pressure of 22 pcf be included in the stability analyses for retaining walls as needed. The incremental seismic lateral pressure should be applied in a reverse triangular distribution at the back side of the wall.

Seismic Parameters – 2022 California Building Code

The Site Class per Section 1613 of the 2022 California Building Code (2022 CBC) and ASCE/SEI 7-22, Chapter 20 is based upon the site soil conditions. It is our opinion that a Site Class D – Stiff Soil is most consistent with the subject site soil conditions. A site modified peak ground acceleration of 0.491 may be used for seismic analysis. The following table provides recommended seismic design parameters based on the seismic provisions of the 2022 CBC. If the project is being designed based on the 2022 CBC and the exception to Item 1 from Section 11.4.8 given in Supplement 3 of ASCE 7-16 is utilized, the value of S_{M1} (and the resulting values of S_{D1} and T_S) should be increased by 50 percent.

Seismic Item	CBC Value	CBC Reference
Site Class	D	Section 1613.2.2
Site Coefficient F_a	1.118	Table 1613.2.3 (1)
S_S	0.956	Section 1613.2.1
S_{MS}	1.069	Section 1613.2.3
S_{DS}	0.712	Section 1613.2.4
Site Coefficient F_v	1.955	Table 1613.2.3 (2)
S_1	0.345	Section 1613.2.1
S_{M1}	0.674	Section 1613.2.3
S_{D1}	0.450	Section 1613.2.4
T_S	0.632	Section 1613.2

* Based on Equivalent Lateral Force (ELF) Design Procedure being used.

Limitations

Soils Engineering is one of the newest divisions of Civil Engineering. This branch of Civil Engineering is constantly improving as new technologies and understanding of earth sciences advance. Although your site was analyzed using the most appropriate and most current techniques and methods, undoubtedly there will be substantial future improvements in this branch of engineering. In addition to advancements in the field of Soils Engineering, physical changes in the site, either due to excavation or fill placement, new agency regulations, or possible changes in the proposed structure after the soils report is completed may require the soils report to be professionally reviewed. In light of this, the Owner should be aware that there is a practical limit to the usefulness of this report without critical review. Although the time limit for this review is strictly arbitrary, it is suggested that 2 years be considered a reasonable time for the usefulness of this report.

Foundation and earthwork construction is characterized by the presence of a calculated risk that soil and groundwater conditions have been fully revealed by the original foundation investigation. This risk is derived from the practical necessity of basing interpretations and design conclusions on limited sampling of the earth. The recommendations made in this report are based on the assumption that soil conditions do not vary significantly from those disclosed during the field investigation. If any variations or undesirable conditions are encountered during construction, the Soils Engineer should be notified so that supplemental recommendations may be made.

The conclusions of this report are based on the information provided regarding the proposed construction. If the proposed construction is relocated or redesigned, the conclusions in this report may not be valid. The Soils Engineer should be notified of any changes so the recommendations may be reviewed and re-evaluated.

This report is a Geotechnical Engineering Investigation Update with the purpose of evaluating the soil conditions in terms of building foundation design and related site preparation. The scope of our services did not include any Environmental Site Assessment for the presence or absence of hazardous and/or toxic materials in the soil, groundwater, or atmosphere, or the presence of wetlands. Any statements, or absence of statements, in this report or on any boring log regarding odors, unusual or suspicious items, or conditions observed, are strictly for descriptive purposes and are not intended to convey engineering judgment regarding potential hazardous and/or toxic assessment.

The geotechnical engineering information presented herein is based upon professional interpretation utilizing standard engineering practices and a degree of conservatism deemed proper for this project. It is not warranted that such information and interpretation cannot be superseded by future geotechnical engineering developments. We emphasize that this report is valid for the project outlined above and should not be used for any other sites.

ACCESSIBILITY NOTES

THE PATH OF TRAVEL (P.O.T.) IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE P.O.T. WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED AND 2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECTS WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.

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

ARCHITECT HAS INSPECTED THE PATH OF TRAVEL (P.O.T.) AS INDICATED ON THE PLANS AND HAS FOUND IT TO BE, OR HAS INDICATED ON THE PLANS REMEDIAL WORK WHICH WOULD CAUSE IT TO BE, A BARRIER-FREE ACCESSIBLE ROUTE:

- AT LEAST 48" IN WIDTH; OR AS APPROVED BY CODE
- FREE OF ABRUPT LEVEL CHANGES EXCEEDING ½" IF BEVELED AT 1:2 MAX SLOPE, OR VERTICAL LEVEL CHANGES EXCEEDING ¼"
- WITH A FIRM, STABLE, AND SLIP RESISTANT WALKING SURFACE
- WITH A RUNNING SLOPE OF 1:20 (5%) OR LESS AND WITH A CROSS SLOPE OF 1:50 (2%) OR LESS OR A RAMP WITH A RUNNING SLOPE OF 1:12 (8.33%) AND A CROSS SLOPE OF 1:50 (2%) WITH APPROPRIATE REQUIREMENTS AS DETAILED WITHIN THIS SET OF DOCUMENTS
- IS FREE OF OVERHEAD OBSTRUCTIONS WITHIN 80" ABOVE THE WALKING SURFACE
- IS FREE OF OBJECTS WHICH PROTRUDE MORE THAN 4" BETWEEN THE HEIGHTS OF 27" AND 80" ABOVE THE WALKING SURFACE

GENERAL NOTES

A. [illegible]

B. [illegible]

C. [illegible]

D. [illegible]

E. [illegible]

F. [illegible]

G. [illegible]

H. [illegible]

I. [illegible]

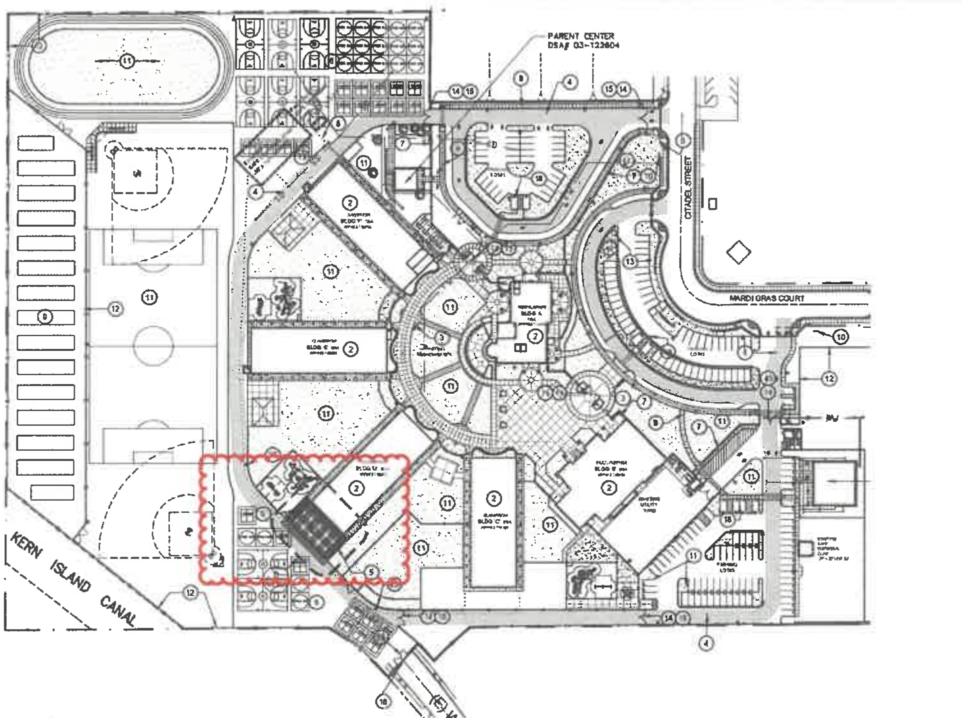
J. [illegible]

K. [illegible]

L. [illegible]

M. [illegible]

N. [illegible]



SITE PLAN

TRANSITIONAL KINDERGARTEN

SCALE: 1" = 80'

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

[illegible]

DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES — STATE OF CALIFORNIA

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

[illegible]

DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES — STATE OF CALIFORNIA

Hydrant Flow Test Report

Test Date 10/26/2022 Test Time 4:00pm

Location
Martin Luther King Jr. Elementary School
1100 Citadel St
Bakersfield, CA 93307

Tested by
RLH Fire Protection
4300 Stine Rd. Ste 800
Bakersfield, CA 93308
661-322-9344
LIC# 777717
Jose Castillo & Randy Baxter

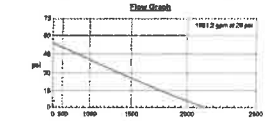
Notes
4inch Big Hose Monster used for flow test
Flow: Center of Campus
Read: East of building A & B

Read Hydrant
54 psi static pressure
34 psi residual pressure
1.5 ft hydrant elevation

Flow Hydrant(s)

Outlet	Elev	Size	C	Pitot Pressure	Flow
#1	1.5	4	88		1247 gpm

Flow Graph



KEY NOTES

1. NEW BUILDING UNDER THIS APPLICATION
2. EXISTING BUILDINGS UNDER DSA APP # 03-118394
3. (E) FIRE HYDRANT
4. FIRE TRUCK ACCESS LANE (20'-0" WIDE MIN).
5. NEW CONCRETE SIDEWALK
6. (E) HARDCOVER PLAY AREA
7. (E) 8' HIGH DECORATIVE STEEL FENCE
8. ACCESSIBLE PATH OF TRAVEL
9. (E) SOLAR ARRAY.
10. (E) FIRE DEPARTMENT CONNECTION (FDC) -SEE DSA #03-118394
11. (E) LANDSCAPING & IRRIGATION
12. (E) 8' HIGH CHAINLINK FENCE
13. (E) TOWAWAY ENTRANCE SIGN
14. (E) KNOX BOX KEY VAULT PER LOCAL FIRE AUTHORITY REQUIREMENTS, TYP. AT ALL GATES IN FIRE TRUCK ACCESS ROAD
15. 22' WIDE DECOR. STEEL DBL GATE
16. (E) 20'-0" WIDE DOUBLE CHAINLINK GATE
17. NOT USED
18. (E) ADA PARKING STALLS PER DSA # 03-118394
19. (N) SITE LIGHT, SEE ELECTRICAL SHEETS

SAFE DISPERSAL AREA

TRANSITIONAL KINDERGARTEN (10' x 19'-6") = 775 SF

775 SF / 20 SF PER OCCUPANT = 39 OCC

39 OCC x 5 SF PER OCC = 195 SF REQ'D
195 SF (19'-6" x 10') PROVIDED = OK

NOTE
1. SAFE DISPERSAL AREA MUST BE 50' AWAY FROM ANY BUILDING. DISPERSAL AREA SHALL BE PROVIDED WITH A SAFE AND UNOBSTRUCTED PATH OF TRAVEL FROM ANY BUILDING.
2. SEE ELECTRICAL FOR SAFE DISPERSAL AREA LIGHTING

PARKING LOTS

LOT #1
PARKING STALLS: 30
ADA STALLS: 2
(1 VAN)
TOTAL ADA REQUIRED: 2

LOT #2
PARKING STALLS: 48
ADA STALLS: 2
(1 VAN)
TOTAL ADA REQUIRED: 2

LOT #3
TOTAL STALLS: 70
ADA PARKING: 4
(1 VAN)
TOTAL ADA REQUIRED: 3

LEGEND

- NEW BUILDING
- EXISTING BUILDING
- NEW CONCRETE SIDEWALK
- 20'-0" WIDE FIRE TRUCK ACCESS LANE
- NEW LANDSCAPE
- PROPERTY LINE
- ACCESSIBLE PATH OF TRAVEL

BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER ST.
BAKERSFIELD CA 93305

Project Name
TRANSITIONAL KINDERGARTEN

Project Address
MLK ELEMENTARY SCHOOL
1100 Citadel
Bakersfield, CA 93307

integrated designs by SOMAM, Inc

ARCHITECTURE
ENGINEERING
INTERIOR DESIGN

6011 N. FRESNO STREET, SUITE 130
FRESNO CALIFORNIA 93710
P (559) 436-0881 F (559) 436-0887
E: design@somam.com
integrateddesigns.com

Stamp

Sheet Title
SITE PLAN

Job No.: **5593**

Sheet No.: **A1.01**

The recommendations and limitations provided in the previous report, dated November 1, 2017, which were not revised or superseded herein, will apply to this letter. If you have any questions, or if we can be of further assistance, please contact our office at (661) 837-9200.

Respectfully submitted,
KRAZAN & ASSOCIATES

Ryan K. Privett, PE
Project Engineer
RCE No. 59372

David R. Jarosz, II
Managing Engineer
RGE No. 2698/RCE No. 60185

RKP/DRJ:rp

DOCUMENT 00 41 13

BID FORM AND PROPOSAL

To: Governing Board of the Bakersfield City School District ("District" or "Owner")

From: _____
(Proper Name of Bidder)

The undersigned declares that Bidder has read and understands the Contract Documents, including, without limitation, the Notice to Bidders and the Instructions to Bidders, and agrees and proposes to furnish all necessary labor, materials, and equipment to perform and furnish all work in accordance with the terms and conditions of the Contract Documents, including, without limitation, the Drawings and Specifications of for the following projects known as:

Martin Luther King Jr. Elementary School - Wellness Center / 22243.00-09-WEL / DSA # 03-122605, Parent Center / 22243.00-09-PRC / DSA # 03-122604, T-Kindergarten / 23189.00-09-TK / DSA # 03-123900

("Project" or "Contract") and will accept in full payment for that Work the following grand total lump sum amount, all taxes included:

_____	dollars	$ _____
WELLNESS CENTER TOTAL		
_____	dollars	$ _____
PARENT CENTER TOTAL		
_____	dollars	$ _____
TRANSITIONAL KINDERGARTEN TOTAL		
_____	dollars	$ _____
BASE BID GRAND TOTAL		

Additive/Deductive Alternates: None

1. The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this Proposal, understands the construction and project management function(s) is described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the District, and agrees that its Proposal, if

accepted by the District, will be the basis for the Bidder to enter into a contract with the District in accordance with the intent of the Contract Documents.

2. The undersigned has notified the District in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents, and has contacted the Construction Manager before bid date to verify the issuance of any clarifying Addenda.

3. The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all work within the time specified in the Contract Documents.

4. The liquidated damages clause of the General Conditions and Agreement is hereby acknowledged.

5. It is understood that the District reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.

6. The following documents are attached hereto:

   - Bid Bond on the District's form or other security
   - Designated Subcontractors List
   - Non-Collusion Declaration
   - Iran Contracting Act Certification

7. Receipt and acceptance of the following Addenda is hereby acknowledged:

No. _____, Dated _____	No. _____, Dated _____
No. _____, Dated _____	No. _____, Dated _____
No. _____, Dated _____	No. _____, Dated _____

8. Bidder acknowledges that the license required for performance of the Work is a B license.

9. Bidder hereby certifies that Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.

10. Bidder specifically acknowledges and understands that if it is awarded the Contract, that it shall perform the Work of the Project while complying with all requirements of the Department of Industrial Relations.

11. Bidder hereby certifies that its bid includes sufficient funds to permit Bidder to comply with all local, state or federal labor laws or regulations during the Project, including payment of prevailing wage, and that Bidder will comply with the provisions of Labor Code section 2810(d) if awarded the Contract

12. Bidder specifically acknowledges and understands that if it is awarded the Contract, that it shall perform the Work of the Project while complying with the Davis Bacon Act, applicable reporting requirements, and any and all other applicable requirements for federal funding. If a conflict exists, the more stringent requirement shall control.

13. Bidder represents that it is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the Work that may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property.

14. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the Work with respect to such hazards.

15. Bidder expressly acknowledges that it is familiar with and capable of complying with applicable federal, State, and local requirements relating to COVID-19 or other public health emergency/epidemic/pandemic including, if required, preparing, posting, and implementing a Social Distancing Protocol.

16. Bidder expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Gov. Code, § 12650 et seq.), the District will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.

17. The undersigned Bidder certifies that it is, at the time of bidding, and shall be throughout the period of the Contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents and registered as a public works contractor with the Department of Industrial Relations. Bidder further certifies that it is regularly engaged in the general class and type of work called for in the Contract Documents.

Furthermore, Bidder hereby certifies to the District that all representations, certifications, and statements made by Bidder, as set forth in this bid form, are true and correct and are made under penalty of perjury.

Dated this _____ day of _____ 20 ____

Name of Bidder: _____

Type of Organization: _____

Signature: _____

Print Name: _____

Title: _____

Address of Bidder: _____

Taxpayer Identification No. of Bidder: _____

Telephone Number: _____

Fax Number: _____

E-mail: _____ Web Page: _____

Contractor's License No(s): No.: _____ Class: _____ Expiration Date: _____

No.: _____ Class:_____ Expiration Date: _____

No.: _____ Class:_____ Expiration Date: _____

Public Works Contractor Registration No.: _____

END OF DOCUMENT

PELICAN

TS250 Internet-Enabled Thermostat with Integrated CO^2 Sensor

The Pelican Internet-Enabled Thermostat with an integrated CO^2 sensor provides commercial customers with virtual climate and air quality management. The TS250 delivers accurate temperature management, air quality (CO^2) management, leading edge energy efficiency, built-in safeties and alarming, and fine tuned comfort. Coupled with the Pelican Web App, the TS250 tracks space temperature, CO^2 levels, and HVAC operational data in real-time and historically. All information is displayed in real-time online and is viewable on any Internet-connected device.

MESH WIRELESS NETWORK

The TS250 communicates wirelessly with a GW400 to reach the Internet. Each TS250 has built-in state-of-the-art wireless mesh network communication and repeating.

FAULT ALARMING

Built-in system and space analytics with automated email or text message alerts when a fault is detected.

WEB APP

Virtual and central management of TS250 available on all smart phones, tablets, and PCs. Directly manage thermostat temperature and CO^2 levels through a web browser. Designed for intuitive control over multiple thermostats.

HISTORICAL TREND DATA

Online viewable historical data of space temperature, setpoints, HVAC demand, CO^2 level, and fan demand.

INSTALLATION

Industry standard HVAC terminals utilize existing thermostat wire. Included with TS250 is Pelican's innovative limited wiring relay pack (WM500) used in applications where there are only three (3) wires to the HVAC unit.

SCHEDULING

Through the Pelican Web App you can schedulethe TS250 thermostat for daily, 5-2, or 7-day schedules. Thermostats can also be scheduled as groups, for simple multi-thermostat management.

Specifications

POWER	
Hardwire	24VAC, 60Hz; 50 mA
Voltage Range	23 - 30VAC
Relay Current	1.0A running
COMPATIBILITY	
24VAC gas, electric, or oil heating systems. Conventional and Heat Pump	
WIRING	
Conventional	R, RC, W, W2, Y, Y2, G, C
Heat Pump	R, RC, O/B, AUX, Y, Y2, G, C
SYSTEM PROTECTION	
Four-Minute Compressor Short-Cycle Protection	
Temporary Schedule Override	
Auxiliary/Emergency Heat Efficiency Algorithm	
Keypad Lockout	
Trend Data Analytics and Fault Monitoring	
THERMOSTAT RANGE	
Operating Range	-20°F to 122°F
Differential Temperature	±0.5°F
Operating Humidity (%RH)	5 to 90% RH; non-condensing
Integrated Room CO^2 Sensor	0 – 2000 PPM; +/- 50ppm accuracy
Storage Temperature	-20°F to 160°F
SIZE	
Inch	H 3.5 x W 5.97 x D 1.5
mm	H 89 x W 150 x D 38
Horizontal Mounting	

Designed and assembled in the USA
5-Year Limited Warranty

CONTAINS FCC ID OA3MRF24J40MA

Air Quality Management

Pelican Wireless Systems | 2655 Collier Canyon Road, Livermore CA 94551
(888) 512-0490 | sales@pelicanwireless.com

5593 BAKERSFIELD CITY SCHOOL DISTRICT
MLK ELEMENTARY SCHOOL TRANSITIONAL KINDERGARTEN
TABLE OF CONTENTS

1

SECTION 074246 – FIBER CONUIT FASCIA BOARDS

1

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Fiber cement facort finished Fascia board.

1.2 RELATED SECTIONS

A. Section 06100 - Rough Carpentry: Wood framing and bracing.

B. Section 07210 - Insulation: Exterior wall insulation.

1.3 REFERENCES

A. AS D3359 - Standard Test Method for Measuring Adhesion by Tape Test, Tool and Tape.

B. AS E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C.

1.4 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

C. Shop Drawings: Provide detailed drawings of atypical non-standard applications of cementitious siding materials which are outside the scope of the standard details and specifications provided by the manufacturer.

D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each finish product specified, two samples, minimum size 4 by 6 inches (100 by 150 mm), representing actual product, color, and patterns.

1.5 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.6 WARRANTY

A. Product Warranty: Limited, non-pro-rated product warranty.

1. HardieTrim HZ10 boards for 15 years.

B. Finish Warranty: Limited product warranty against manufacturing finish defects.

1. When used for its intended purpose, properly installed and maintained according to manufacturer’s published installation instructions, James Hardie's ColorPlus finish with ColorPlus Technology, for a period of 15 years from the date of substantial completion: will not peel; will not crack; and will not chip. Finish warranty includes the coverage for labor and material.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Hardie Board Fiber prefinished, fascia board manufactured by James Hardie Building products Inc comparable product by an equivalent manufacturer.

2.2 FASTENERS

A. Wood Framing Fasteners:

1. Wood Framing: 0.089 inch shank by 0.221 inch head by 2 inches corrosion resistant siding nails.

2.3 FlNlSHES

A. Factory Finish: Refer to Exterior Finish Schedule.

1. Product: ColorPlus Technology by James Hardie.
2. Definition: Factory applied finish; defined as a finish applied in the same facility and company that manufactures the siding substrate.
3. Process:

    a. Factory applied finish by fiber cement manufacturer in a controlled environment within the fiber cement manufacturer's own facility utilizing a multi-coat, heat cured finish within one manufacturing process.
    b. Each finish color must have documented color match to delta E of 0.5 or better between product lines, manufacturing lots or production runs as measured by photospectrometer and verified by third party.

4. Protection: Factory applied finish protection such as plastic laminate that is removed once siding is installed
5. Accessories: Complete finishing system includes pre-packaged touch-up kit provided by fiber cement manufacturer. Provide quantities as recommended by manufacturer.

B. Factory Finish Color for Trim, as selected by owners:

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Install a water-resistive barrier is required in accordance with local building code requirements.

D. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements.

E. Install Engineered for Climate HardieWrap weather barrier in accordance with local building code requirements.

F. Use HardieWrap Seam Tape and joint and laps.

G. Install and HardieWrap flashing, HardieWrap Flex Flashing.

3.3 INSTALLATION - HARDIE FASCIA BOARD

A. Install materials in strict accordance with manufacturer's installation instructions.

B. Starting: Install a minimum 1/4 inch (6 mm) thick lath starter strip at the bottom course of the wall. Apply planks horizontally with minimum 1-1/4 inches (32 mm) wide laps at the top. The bottom edge of the first plank overlaps the starter strip.

C. Allow minimum vertical clearance between the edge of siding and any other material in strict accordance with the manufacturer's installation instructions.

D. Butt joints must not fall within 4 inches of a stud. Do not nail within 2 inches of the end of planks.

E. Locate splices at least one stud cavity away from window and door openings.

F. For proper fastener selection and fastening schedules for various wind load requirements and framing options, refer to the Technical Data Sheet at www.aspyredesign.com.

3.4 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 271000 - STRUCTURED CABLING SYSTEM

1 1

Part 1 General

1.1 Work Included

A. General

1. Provide all labor, materials, tools and equipment required for the complete installation of work called for on the Construction Drawings and described in the Scope Documentation.
2. This document describes the requirements for the contractors, products and installation relating to furnishing and installing Telecommunications Cabling systems.
3. The Horizontal Cabling System as described in this document consists of cabling, infrastructure, J-hook pathways and termination devices for Data systems.
4. Contractor will provide a bid including all labor, materials, tools and equipment required for the complete installation of work called for on the Construction Drawings and described in this Document. It is the responsibility of the Contractor to provide all material necessary to provide a complete and operable system. If the contractor feels that the system described is incomplete, they must address this in writing to the Owner/Owner's Representative before providing a bid.
5. All questions concerning non-specified product and services will be addressed to the Owner's Representative before Contactor provides a bid. Owner expects that by accepting the Contractor's bid proposal that the Contractor has provided a competent bid for a complete solution.
6. Product specifications, general design considerations, and installation guidelines are provided in this document. Quantities of telecommunications outlets, typical installation details, cable routing and outlet types will be provided as an attachment to this document.

1.2 References

A. Regulatory References

1. Contractors will comply with all requirements as specified in Section 27 0000 '1.3. – Regulatory References'.

1.3 Safety and Indemnity

A. Requirements

1. Contractors will submit the necessary documentation to demonstrate their compliance with Section 27 0000 '2.1 – Safety and Indemnity'.

1.4 Contractor Qualifications

A. Requirements

1. Contractors will submit the necessary documentation to demonstrate their compliance with Section 270000 '2.2 – Contractor Qualifications'.

1.5 Quality Assurance

A. Requirements

1. Contractors shall comply with all requirements as specified in Section 27 0000 ‘2.3 – Quality Assurance’.

1.6 Equivalent Products

A. Approved Products

1. All Products described, and Part Numbers given in this Specification are those of Hubbell unless otherwise noted.

B. Pre-Approved Equals:

1. None

C. Other Than Approved Products

1. Contractors wishing to approve a system other than those specified in this document shall do so in accordance with Section 27 000 ‘3.1 Products’.

1.7 Submittal Documentation

A. Requirements

1. The successful contractor shall provide their submittal package in accordance with the Section ‘01 20 00 – Submittal Schedule’ and Section 27 0000 ‘3.2 – Submittal Documentation’.

1.8 Acceptance

A. Requirements

1. The contractor shall comply with all requirements as listed in Section 27 0000 ‘3.3 – Acceptance’.

1.9 Warranty

A. Requirements

1. The contractor shall comply with all requirements as listed in Section 27 0000 ‘3.4 – Warranty’.

1.10 Technology Clause

A. General Requirements

1. As technology advances, it is understood that improved or enhanced products may supersede existing products in both price and performance and yet be essentially similar. This request for bids seeks to address the rapid advances in technology by allowing functionally similar or identical products that may be introduced in the future, during the term of this bid, to be included under the general umbrella of compatible product lines and are thus specifically included in this bid document.
2. Discontinued or end of life products shall be replaced with an equal product to the original specified product at no additional costs to the owner.

Part 2 Products

2.1 Work Area Subsystem

A. General

1. The Work Area shall consist of the connectivity equipment used to connect the horizontal cabling subsystem and the equipment in the work area. The connectivity equipment shall include the following options:

- Patch Cords
- Modular Inserts, Jacks and Plugs
- Faceplates

2. Category 6A Wireless Access Points Outlet Patch Cords

- All category 6A channel patch cords shall be constructed with a snagless boot, made of molded PVC, colored matched to the color of the patch cord cable.
- All category 6A channel patch cords shall be constructed with category 6A patch cable, 24 AWG, 7/32 tinned copper stranded patch cable, insulated with polyethylene and paired, jacketed with PVC, ETL Verified for ISO 11801, (UL) NEC type CM or CMR, 75º C, Article 800 CSA Type CMG.
- All category 6A channel patch cords shall be 100% factory tested to pass return loss (RL) and near-end cross talk (NEXT).
- All category 6A channel patch cords shall be manufactured using a T568-B plug-wiring format.
    - All patch cords will be delivered to the site and must be signed for by the Owner/Owner's Representative. It will be the responsibility of other to install all Work Area Data Patch Cords.
- Length:
    - Wi-Fi patch cords will be 3 feet long.
- Color:
    - Wi-Fi White
- Quantity
    - Wi-Fi Contractor will provide one (1) patch cable for each Wi-Fi data outlet.
- Hubbell Premise Part #, or approved equal:
    - Wi-Fi HCL6AW03

B. Modular Inserts and Jacks

1. Category 6 Data/Voice Jack & Camera Termination Plugs

- Jack will meet the Category 6 Standard.
- Jacks shall be 8 positions un-keyed

- Each jack shall be an individually constructed unit and shall snap mount in an industry standard keystone opening (.760" x 580")
- Jacks shall utilize a 2-layer printed circuit board to control NEXT
- Jack termination shall follow the industry standard 110 IDC.
- Jacks shall have a designation indicating Category 6 on the nose which can be plainly seen from the front of the faceplate. Bottom of jack shall have date code and an abbreviated catalog number.
- Jacks shall utilize a paired punch down sequence. Cable pair twists shall be maintained up to the IDC, terminating all conductors adjacent to its pair mate to better maintain pair characteristics designed by the cable manufacturer.
- Jacks shall terminate 22-26 AWG stranded or solid conductors.
- Jacks shall be compatible with single conductor 110 impact termination tools.
- Jacks shall be compatible with TIA/EIA 606 color code labeling
- Jacks shall have universal wiring designation.
- Jacks shall have an attached color-coded wiring instruction label housed between the IDC termination towers.
- Jacks shall be manufactured in the USA
- Jacks will be terminated according to theT568B wiring scheme
- Color:

    - Data/Voice WHITE
    - Camera Factory

- Quantity: Contractor will provide one jack for every outlet cable shown on the drawings.
- Hubbell Premise Part #, or approved equal.

    - Data/Voice HXJ6W
    - Camera SP6

2. Category 6A Wireless Access Point Jack

- Jack will meet the Category 6A Standard.
- Jacks shall be 8 positions un-keyed
- Each jack shall be an individually constructed unit and shall snap mount in an industry standard keystone opening (.760" x 580")
- Jacks shall utilize a 2-layer printed circuit board to control NEXT
- Jack termination shall follow the industry standard 110 IDC.
- Jacks shall have a designation indicating Category 6A on the nose which can be plainly seen from the front of the faceplate. Bottom of jack shall have date code and an abbreviated catalog number.
- Jacks shall utilize a paired punch down sequence. Cable pair twists shall be maintained up to the IDC, terminating all conductors adjacent to its pair mate to better maintain pair characteristics designed by the cable manufacturer.
- Jacks shall terminate 22-26 AWG stranded or solid conductors.
- Jacks shall be compatible with single conductor 110 impact termination tools.
- Jacks shall be compatible with TIA/EIA 606 color code labeling
- Jacks shall have universal wiring designation.
- Jacks shall have an attached color-coded wiring instruction label housed between the IDC termination towers.
- Jacks shall be manufactured in the USA
- Jacks will be terminated according to theT568B wiring scheme
- Color:

- Wi-Fi Purple

- Quantity: Contractor will provide one jack for every outlet cable shown on the drawings.
- Hubbell Premise Part #, or approved equal.

  - Wi-Fi HJU6AP24

C. Wall Mount and Modular Furniture Faceplates

1. Wall Plates

- Faceplates shall be UL Listed and CSA Certified
- Faceplates shall be 2.75" W x 4.5" H (69.8 mm x 114.3 mm)
- Faceplates shall provide for TIA/EIA 606 compliant station labeling
- Faceplates shall have plastic covers over the mounting screws that can be replaced with a clear plastic window over a printable paper insert
- Color: WHITE or STAINLESS STEEL.

  - Contractor will field verify and match finish to the existing electrical outlet face plate cover.

- Quantity: Contractor will provide one single gang faceplate for each outlet shown on the drawings.
- Hubbell Premise Part #, or approved equal.

  - WHITE

    - 1 Port IFP11W
    - 2 Port IFP12W
    - 3 Port IFP13W
    - 4 Port IFP14W
    - 6 Port IFP16W

  - STAINLESS STEEL

    - 1 Port SSFL11
    - 2 Port SSFL12
    - 3 Port SSFL13
    - 4 Port SSFL14
    - 6 Port SSFL16

2. Blank Insert

- Color: Blank Insert to be WHITE –
- Quantity: Contractor will provide one insert for every unused port in a faceplate.
- Hubbell Wiring, Part #: SFBW10, or approved equal.

3. Wall Phone Plates

- Faceplate shall be a two-piece design, including a steel base and a stainless-steel cover plate.
- Faceplates steel base shall incorporate six screw terminals, one 6 position jack and an insulating plastic sleeve.

- Faceplate shall be equipped with screw studs to be used as the mounts for wall hung telephones.
- Color: Faceplate to be STAINLESS STEEL
- Quantity: Contractor will provide one faceplate for each Intercom Handset outlet shown on the drawings.
- Allen Tel, Part #: AT630A-6, or approved equal. Tragic

4. Blank Wall Plates

- Faceplate shall be constructed from stainless steel.
- Faceplates shall be UL Listed and CSA Certified
- Faceplates shall be 2.75" W x 4.5" H (69.8 mm x 114.3 mm) for single gang.
- Color: Faceplate to be STAINLESS STEEL
- Quantity: Contractor will provide one faceplate for each unused data/voice/video/intercom outlet shown on the drawings.
- Hubbell Wiring Part #: S13, or approved equal.

5. Surface Mount Raceway Insert –

- Inserts for Hubble PB2, PB3, and PS3 Device Mounting Brackets
- Insert shall allow for two category 6 jacks to be mounted flush.
- Insert shall match the color of the Raceway installed.
- Color: Faceplate to be IVORY
- Quantity: Contractor will provide one 2port insert for each outlet in the Surface Mount Raceway shown on the drawings.
- Hubbell Part #: KP2162 or approved equal.

2.2 Horizontal Distribution Cabling

1. The horizontal distribution cabling system is the portion of the telecommunications cabling system that extends from the Work Area (WA) telecommunications outlet/connector to the horizontal cross-connect in the Telecommunications Room (TR).

- Cabling Support System
- Copper Station Cabling
- Copper Cross-Connect Cabling

B. Cabling Support System

1. J-Hooks

- Cable supports shall provide a bearing surface of sufficient width to comply with required bend radii of high-performance cables; cULus Listed.
- Cable supports shall have flared edges to prevent damage while installing cables.
- Cable support system shall provide fasteners that allow them to be mounted to wall, concrete, joist, tee-bar wire, treaded rod, beams and raised floor supports.
- Fasteners shall have the ability to either be factory or jobsite assembled; rated for indoor use in non-corrosive environments; cULus Listed.
- Fastener to with one non-continuous cable support, factory or jobsite assembled.
- Color: NA
- Quantity: Contractor will provide quantities of j-hooks and hanger accessories in the amount necessary to support all horizontal cabling every 4-5 feet.
- Part #:

- ERICO CAT425
- Cooper B-Line BCH12, BCH21, BCH32, BCH64 and accessories.

C. Copper Station Cable

1. Category 6 Data/Voice, Camera, and Intercom Unshielded Twisted Pair (UTP) Cable

- Cable will meet or exceed the proposed requirements of ANSI/TIA/EIA 568-B.2, 568-B.2 Addendum #1 and ISO/IEC 11801 Category 6 Cable Standard for: NEXT and ELFEXT (Pair-To-Pair and Power Sum), Insertion Loss (Attenuation), Return Loss, and Delay Skew.
- Cable shall be proven to support Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab, ATM up to 155 Mbps, IEEE 802.3af Power Over Ethernet for VoIP, 100 Mbps Fast Ethernet / 100BASE-T / IEEE 802.3, ANSI.X3.263 FDDI TP-PMD, Ethernet / 10BASE-T / IEEE 802.3, 4 & 16 Mbps Token Ring / IEEE 802.5, T1/E1, xDSL, ISDN, 550 MHz Broadband Video and standards under development such as ATM at 622 Mbps, 1.2 and 2.4 Gbps.
- The cable shall consist of four unshielded twisted pairs of thermoplastic insulated bare copper enclosed in a thermoplastic jacket.
- All cable shall conform to the requirements for communications circuits defined by the National Electrical Code (Article 800) and the Canadian Building Code. Cable listed to NEC Article 800-51(a) will be used for "Plenum" installations. Cable listed to NEC Article 800-51(b) shall be installed in vertical runs penetrating more than one floor.
- Cable shall have been certified with the UL 1666 Vertical Tray Flame Test.
- Cable shall be available in a Plenum, Riser and Indoor/Outdoor rated jackets.
- Contractor will use the indoor/outdoor rated cable for all locations where the cable pathway goes underground and/or run in exterior conduit.
- The listed Category 6 cables in this specification are manufactured by Mohawk/CDT. All other manufactures eligible for Hubbell's Certified Premise Solution also have been pre-approved.
- Color:
  - Data/Voice BLUE
  - Camera WHITE
  - Intercom YELLOW
- Quantity: See Drawing for quantity and installation details.
- Part#:
  - For Riser Application:
    - Data/Voice Hubbell C6RREB
    - Camera Hubbell C6RREW
    - Intercom Hubbell C6RREY
  - For Plenum Application:
    - Data/Voice Hubbell C6RPEB
    - Camera Hubbell C6RPEW
    - Intercom Hubbell C6RPEY
  - For Indoor/Outdoor Application:

- Data/Voice, Mohawk PN# M58722 (all cable jackets will be BLACK)

2. Category 6A Wireless Access Point Unshielded Twisted Pair (UTP) Cable

- Cable will meet or exceed the proposed requirements of ANSI/TIA/EIA 568-B.2, 568-B.2 Addendum #1 and ISO/IEC 11801 Category 6 Cable Standard for: NEXT and ELFEXT (Pair-To-Pair and Power Sum), Insertion Loss (Attenuation), Return Loss, and Delay Skew.
- Cable shall be proven to support Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab, ATM up to 155 Mbps, IEEE 802.3af Power Over Ethernet for VoIP, 100 Mbps Fast Ethernet / 100BASE-T / IEEE 802.3, ANSI.X3.263 FDDI TP-PMD, Ethernet / 10BASE-T / IEEE 802.3, 4 & 16 Mbps Token Ring / IEEE 802.5, T1/E1, xDSL, ISDN, 550 MHz Broadband Video and standards under development such as ATM at 622 Mbps, 1.2 and 2.4 Gbps.
- The cable shall consist of four unshielded twisted pairs of thermoplastic insulated bare copper enclosed in a thermoplastic jacket.
- All cable shall conform to the requirements for communications circuits defined by the National Electrical Code (Article 800) and the Canadian Building Code. Cable listed to NEC Article 800-51(a) will be used for "Plenum" installations. Cable listed to NEC Article 800-51(b) shall be installed in vertical runs penetrating more than one floor.
- Cable shall have been certified with the UL 1666 Vertical Tray Flame Test.
- Cable shall be available in a Plenum, Riser and Indoor/Outdoor rated jackets.
- Contractor will use the indoor/outdoor rated cable for all locations where the cable pathway goes underground and/or run in exterior conduit.
- The listed Category 6 cables in this specification are manufactured by Mohawk/CDT. All other manufactures eligible for Hubbell's Certified Premise Solution also have been pre-approved.
- Color:
  - Wi-Fi BLUE
- Quantity: See Drawing for quantity and installation details.
- Part#:
  - For Riser Application:
    - Wi-Fi Hubbell C6ASRB
  - For Plenum Application:
    - Wi-Fi Hubbell C6ASPB
  - For Indoor/Outdoor Application:
    - Wi-Fi, Mohawk PN# M58722 (all cable jackets will be BLACK)

D. Horizontal Copper Cross-Connect Cabling

1. Voice Cross-Connect Cabling

- Cable shall meet and/or exceed the UL Listed Type CMR and the ANSI/ICEA S-80-576 standard.
- Core Construction

- Conductors: Solid-copper conductors, 24 AWG.
- Insulation: Flame retardant semi-rigid PVC.
- Core Assembly: Cable core will be made up of 100 pair units consisting of four (4) 25 pair sub-units. Each group individually identifiable by color coded unit binders.

- Jacket: Gray, flame retardant PVC jacket.
- Color: Voice cable jacket will be GRAY
- Quantity: See Drawing for quantity and installation details. The number of 25-pair cable between the MDF and the IDF shall be derived by multiplying the number of pairs required for the cross-connect by 1.25 to the nearest 25-pair increment.
- Part#: Equal to Mohawk Cable:

  - 12 pair = PN# 09-094-02 – Superior Essex
  - 25 pair = PN# M58141
  - 50 pair = PN# M58522
  - 100 pair = PN# M585201

2.3 Backbone Cabling

A. General

1. The backbone cabling system is the portion of the telecommunications cabling system that extends from the Intermediate Distribution Frame (IDF) to the Main Distribution Frame (MDF).

   - Fiber Optic Backbone Cabling
   - Copper Backbone Cabling

B. Fiber Optic Backbone Cabling –

1. Data System Backbone Cabling

   - Cable shall be UL/cUL OFNR/OFN FTA rated and be Flame Resistant in accordance with the UL 1666.
   - Cable shall an indoor/outdoor rated jacket.
   - Cable shall be constructed utilizing a loose tube design.
   - Cable will be fully water blocked combining overall water blocking tape and a moisture blocking gel for each individual tube.
   - Cable will maintain the following:

     - Crush Resistance (EIA-455-41) = 2000 N/cm
     - Impact Resistance (EIA-455-25) = 2000 Impacts w/1.6 N-m
     - Min Bend Radius:

       - Long Term - No Load = 15x Cable diameter
       - Short Term – Load = 20x Cable diameter

     - Operating Temp. = -40°C to +70°C
     - Storage Temp. = -40°C to +80°C

   - Cable shall be constructed of 50/125µ Laser Optimized rated glass capable of:

     - 1 Gigabit Ethernet Link at 1000m/600m (@850nm/1300nm)

- 10 Gigabit Ethernet Link at 300m/300m (@850nm/1300nm)

- The Fiber Optic Cable in this specification is manufactured by Mohawk/CDT. All other manufactures eligible for Hubbell's Certified Premise Solution that meet and/or exceed the below specifications have also been pre-approved.
- Color: Fiber Optic cable jacket will be BLACK
- Quantity: See Drawing for quantity and installation details.
- Hubbell Premise Part #:

  - 12 Strand Multi Mode Fiber HFCD14012R4BK

C. Copper System Backbone Cabling

1. Voice & Intercom System Backbone Cabling

- Cable shall meet or exceed those specified in RUS Bulletin 1753F-208 (REA PE-89)
- Core Construction

  - Conductors: Solid, annealed copper, 24 AWG unless otherwise noted on design documents.
  - Insulation: Dual insulation consisting of an inner layer of foamed polyolefin skin, colored coded in accordance with industry standards
  - Core Assembly: Cables of 25 pairs and less formed by assembling pairs together in a single group. Cables of more than 25 pairs formed by twisted pairs arranged in groups with each group having a color coded unit binder.
  - Filling Compound: The entire core assembly completely filled with ETPR compound, filling the interstices between the pairs and under the core tape.
  - Core Wrap: Non-hygroscopic dielectric tape applied longitudinally with an overlap.
  - Sheath Construction
  - Aluminum Shield: Corrosion protected plastic coated, corrugated 0.008" aluminum tape.

- Jacket: Black, linear low-density polyethylene.
- Color: Voice cable jacket will be BLACK
- Quantity: See Drawing for quantity and installation details. The number of 25-pair cable between the MDF and the IDF shall be derived by multiplying the number of pairs serving the individual telephone handsets by 1.25 to the nearest 25-pair increment.
- Part#: Equal to General Cable:

  - 12 pair = PN#09-094-02 – Superior Essex
  - 25 pair = PN# 7525758
  - 50 pair = PN# 7525793
  - 75 pair = PN# 7525801
  - 100 pair = PN# 7525819
  - 200 pair = PN# 7525835

2.4 Telecommunication Room

A. General Requirements

1. The Telecommunication Room (TR) includes those products that terminate horizontal and backbone cabling subsystems and connect then to the network equipment.

- Patch Cords
- Horizontal Cabling Termination Equipment
- Backbone Cabling Termination Equipment
- Cabinets, Racks, and Enclosures
- Cable Support System

B. Patch Cords

1. Category 6 Data/Voice & Camera TR Patch Cords

- TR Copper Patch Cords shall comply with those specified in 2.1 Work Area Subsystem, A. Patch Cords, 1. Category 6 Data Outlet Patch Cords
- All patch cords will be delivered to the site and must be signed for by the Owner/Owner's Representative. It will be the responsibility of other to install all TR Data and Voice Patch Cords.
- Color:
  - Data/Voice BLUE
  - Camera RED
- Quantity: Contractor will provide one patch cord for every data and voice outlet cable shown on the drawings. Contractor will provide the quantity of different length patch cords as follows:
- Part#:
  - Data/Voice Patch Cords
    - 3-Foot HCL6B03
  - Camera Patch Cords
    - 3-Foot HCL6R03

2. Category 6A Wireless Access Points TR Patch Cords

- TR Copper Patch Cords shall comply with those specified in 2.1 Work Area Subsystem, A. Patch Cords, 1. Category 6A Data Outlet Patch Cords
- All patch cords will be delivered to the site and must be signed for by the Owner/Owner's Representative. It will be the responsibility of other to install all TR Data and Voice Patch Cords.
- Color:
  - Wi-Fi PURPLE
- Quantity: Contractor will provide one patch cord for every data and voice outlet cable shown on the drawings. Contractor will provide the quantity of different length patch cords as follows:
- Part#:
  - Wi-Fi Patch Cords

- 3-Foot HCL6AP03

3. Fiber Patch Cords

- Patch Cords shall be a Duplex LC to LC 50/125µm "Laser Optimize" Graded-Index Multimode Fiber Patch Cord.
- All patch cords shall be factory polished and 100% optically tested for superior performance.
- Cables shall have a Mated Pair MM Insertion Loss of less than 0.60 dB (0.25 dB Typical).
- Cable Retention: > 25 pounds
- All optical, mechanical and environmental performance shall meet and/or exceed the TIAEIA-568-B.3 specifications.
- Fiber patch cords will be 1-meter long.
- Color: NA
- Quantity: Contractor will provide two fiber patch cords for every New fiber optic backbone cable run shown on the drawings.
- Part#: DFRCLCLCF1MM

C. Horizontal Cable Termination Equipment

1. Modular Unloaded Patch Panels (Only 48-Port Patch Panels is Acceptable)

- Panels shall be made of black anodized aluminum in 24-, 48-, and 96- port configurations.
- Panels shall have modular jacks employing a tri-plane staggered contact array with a flat "hairpin" contact design made of Beryllium copper with a minimum 50-micro-inch gold plating on contact surfaces over 50-100 micro-inch of nickel compliant with FCC part 68.
- Panels shall be equipped with 110-style termination made of fire retardant UL 94V0 rated thermoplastic and tin lead solder plated IDC.
- Panels shall have optional rear cable support bar for strain relief. Cable support bar shall attach to the rear of the patch panel itself without the use of additional fasteners or screws.
- Panels shall have self-adhesive, clear label holders and white designation labels provided with the panel for each row of 24 ports.
- Panels shall provide wiring identification & color code and maintain an in-line, paired punch down sequence that does not require the splitting of conductors from individual cable pairs.
- Panels shall terminate 22-26 AWG solid conductors, maximum insulated conductor outside diameter 0.050".
- Panels shall be ANSI/TIA/EIA-568-B.1, B.2 and ISO/IEC 11801 category 6 compliant.
- Panels shall be UL LISTED 1863 and CSA certified.
- Panels shall be made by an ISO 9002 Certified Manufacturer.
- Panels installed in a 4-connector channel with a category 6 modular jack, and category 6 patch cords, all from the same manufacturer, and a qualified category 6 cables shall meet or exceed the requirements of Draft 5 of the TIA UTP Systems Task Group PN3727, Category 6 Draft Addendum to the ANSI/TIA/EIA-568-B.2 standard.
- Color: Patch Panel shall be BLACK
- Quantity: See Drawing for quantity and installation details. The number of patch panels to be supplied shall be derived by multiplying the number of data/voice

cables being terminated at the individual TR by 1.25 and providing additional panels in the nearest 24 port increment.

- Part#:
    - 24 port Category Patch Panel, HWS14608C
    - 48 port Category Patch Panel, HWS14609C
        - *Provide one Cable Management Bar, PN# PCBLMGT, for each 24 ports.

D. Horizontal Voice & Intercom Cross-Connect 66 Wiring Blocks

1. Wall Mount

- Blocks shall be available in a 25 pair unit.
- Blocks shall be wall mounted.
- Wiring blocks shall be available as kits that include the wiring blocks, the proper number of connecting clips, wire management and label strips.
- Blocks shall be constructed of a UL94 V0 rated polycarbonate blend.
- Blocks shall be mounted to a rugged 16 ga steel distribution frame. Frame shall support the 66 blocks and allow for a through for cables to be routed through the rear of the blocks directly to the termination point.
- Blocks shall be UL VERIFIED for TIA/EIA-568-B compliance.
- Color: NA
- Quantity: See Drawing for quantity and installation details.
- Part#: 6 pair block, PN# HPW66B16
- Part#: 25 pair block, PN# HPW66B425
- Accessories to be provided with each installed 66 Block:
    - Mounting Bracket PN# HPW89D

E. Backbone Cable Termination Equipment

1. Fiber Optic Cassette

- ETL Tested per TIA/EIA-568-C.3
- MM Mated Pair Insertion Loss: <0.5dB (0.35dB typical)
- Return Loss: <-35dB
- Operating temperature: 0-70°C
- Materials:
    - Connector ferrule: Zirconia ceramic
    - Connector body/nut: Nickel plated brass/zinc or polymer
- Strain relief boot: Flame retardant (UL-Rated 94-V0) polymer
- Color: Aqua
- Quantity: See Drawing for quantity and installation details.
- Part#: OCLC50G4CVI

F. Copper Termination Panels

1. Voice 110 Wiring Blocks
2. Wall Mount

- Blocks shall be available in a 300-pair unit.
- Blocks shall be wall mounted.
- Wiring blocks shall be available as kits that include the wiring blocks, the proper number of 5 pair connecting clips, wire management and label strips.
- Blocks shall be constructed of a UL94 V0 rated polycarbonate blend.
- Blocks shall be mounted to a rugged 16 ga steel distribution frame. Frame shall support the 110 blocks and allow for a through for cables to be routed through the rear of the blocks directly to the termination point.
- Blocks shall be UL VERIFIED for TIA/EIA-568-B compliance.
- Color: NA
- Quantity: See Drawing for quantity and installation details. The number of 110 blocks to be supplied shall be derived by multiplying the number of voice/intercom cables being terminated at the individual TR by 1.25 and providing additional panels in the nearest 300 pair block increment.
- Part#: 300 pair block, PN# 110WMK

3. OSP Protection Panels

- 110 connector input and output
- wall or frame mountable
- designed with an internal splice chamber and cover over incoming and outgoing connections and protection modules
- stackable to allow for future service expansion
- equipped with an internal fuse link
- external ground connectors accept 6-14 AWG ground wire
- accommodates industry standard 5 pin protection modules
- designed to exceed the requirements set forth in Underwriters Laboratory's UL497
- Color: NA
- Quantity: One protection panel will be installed per IDF home run to the MDF. Protection panels are not required at the IDF side of the cable run.

4. Part#: Circa Enterprise inc. –
   25 pair block, PN# 1880ECA1-25
   50 pair block, PN# 1880ECA1-50
   100 pair block, PN# 1880ECA1-100

G. Fiber Termination Panels

1. MDF Rack Mount Fiber Panel

- Panels shall be constructed of cold rolled 16 ga. steel with a black powder paint finish and provide for fully enclosed fiber patching and termination.
- Panels shall have a removable smoked Plexiglas front cover with optional lock kit. The panel shall have a removable top, front and rear covers. The panel adapter tray shall be removable from the front of the panel by sliding the tray forward. Panels shall come with rack mounting brackets that allow it to be mounted with the front cover flush with the front of the rack, or with the front of the panel extended 5.0" in front of the rack.
- Panels shall be 2 rack spaces, accepting 9 adapter panels.
- Adapter panels shall be available with SC multimode adapters. Adapter shall have a zirconia alignment sleeve.
- Panel shall have a splice tray mounting stud incorporated into the base for mounting of mechanical or fusion splice trays. Adapter tray shall have cable

management anchor points and come with cable anchors allowing for the maintenance of the incoming cable with the proper minimum bend radius.

- Panels shall have four cable entrance ports on the top and 2 on the bottom, which are covered by knock outs. Panels shall have two jumper ports in the bottom at the front of the panel with plastic dust covers for routing of jumpers.
- Color: Fiber Panel will be BLACK
- Quantity: See Drawing for quantity and installation details.
- Hubbell Premise Part #, or approved equal:
    - 4U Rack Mount Panel FCR4U15SPL
    - Insert Panels
        - Blanks FSPB

2. IDF Rack Mount Fiber Panel

- Panels shall be constructed of cold rolled 16-gauge steel with a black powder paint finish.
- The panel shall have a hinged swing-out fiber drawer. Panels shall come with rack mounting brackets that allow it to be mounted on a 19" or 23" rack. Panel shall occupy no more than one rack space.
- Panel shall be constructed to accept up to 3 adaptor panels.
- Panels shall have cable entrance points in the rear, which are covered by knock-outs
- Color: Fiber Panel will be BLACK
- Quantity: See Drawing for quantity and installation details.
- Hubbell Premise Part #, or approved equal:
    - Rack Mount Panel
        - 1U Rack Mount Panel FCR1U3SPL
    - Insert Panels
        - Blanks FSPB

3. IDF Wall Mount Fiber Panel

- Panels shall be constructed of cold rolled 16-gauge steel with a black powder paint finish.
- Panel shall be constructed to accept up to 1 adaptor panels.
- Color: Fiber Panel will be BLACK
- Quantity: See Drawing for quantity and installation details.
- Corning Cabling System Part #, or approved equal:
    - Wall Mount Panel
        - Single Panel Housing SPH-01P

H. Cabinets, Racks, and Enclosures

1. Contractor will provide the following 'MDF/IDF' Cabinets, Racks, Enclosures and components based on the number of cables to that will be terminated:

1. Floor Mount Cabinets

- Width: 750.0mm 29.52” (19” EIA)
- Height: 1991.0mm 78.38” (42 RMU)
- Depth: 39”
- Color: Floor Mount Cabinet will be or BLACK
- Quantity: See Drawing for quantity and installation details.
- Part#:
  Floor Mount Cabinet
  AR3150 NetShelter SX 42U
- Contractor to provide 3 for MDF

2. Floor Mount 2-post Racks

- Overall dimensions of 86.0”H x 29.1” W x 18.6” D
- Provides 45U x 19” W of mounting space
- Channel or Trough Depth 3”
- Rack shall provide High-density cable management fins provide an integrated vertical pathway for premise cabling and facilitate adherence to bend radius requirements
- Features EIA-310-D, Universal spacing, threaded #12-24 mounting holes
- Frame components are aluminum, while cable rings are an engineered polymer
- Finished with black, powder coat paint
- Supports 1,000 lb. [110 lb. maximum. per cable fin]
- Color: BLACK
- Quantity: See Drawing for quantity and installation details.
- Part #’s:

  - 2-Post Rack HPW84RR19
  - Vertical Management VM820

3. Wall-Mounted Cabinets

- Wall-mounted cabinets shall be manufactured from steel sheet.
- Each cabinet will have a rear panel that attaches to the wall, a hinged cabinet body that swings open from the rear panel providing easy access to the rear of equipment and a locking front door.
- The rear panel will provide cable access with pre-punched knockouts, up to 3”, for conduit along the top and bottom edges of the panel. There will also be cutouts in the back of the rear panel so that cables can enter the panel through the wall. The rear panel will provide attachment points for accessory equipment mounting brackets and cable tie points within the panel (cabinet).
- The cabinet body will include a single pair of vertical 19” EIA equipment mounting rails. The mounting rails will be EIA-310-D compliant with the Universal hole pattern. Mounting holes will have #12-24 threads.
- Mounting rails will be adjustable in depth so that they can be positioned at any point within the cabinet body. The design of all cabinets will allow an additional pair of mounting rails (for a total of two pairs of mounting rails per cabinet) to be added to the cabinet.
- The wall-mount cabinet shall provide a hinge design that attaches the cabinet body and the rear panel and allow the rear panel to be removed during installation. The hinge design will allow the cabinet body to open at least

90°. The hasp used to secure the rear panel and the cabinet body together will assist in drawing the components together during the locking action.

- The cabinet body will include vents that are designed to accept fan kits.
- The front door will be hinged and locking. The front door and rear panel will be keyed alike. The front door will have rounded edges and corners. The cabinet body will allow the front door to be attached so that it will swing open from the right or left. The cabinet manufacture shall provide an option for a solid or a tinted plexi-glass window front door. The plexi-glass in doors shall be bronze acrylic (not clear) with a UL flammability classification of 94HB or better.
- Finish shall be epoxy-polyester hybrid powder coat (paint).
- The cabinet shall have the option of being delivered fully assembled. All cabinets will include installation hardware (hex lag screws) for wood studs and 50 each #12-24 equipment mounting screws.
- Load bearing capacity for cabinets that wall-mount will be a minimum of 200 pounds per cabinet.
- Cabinets that are wall-mount only will be certified and UL Listed to standard UL 60950 under category NWIN.
- Color: Wall Mount Cabinet will be White
- Quantity: See Drawing for size, quantity and installation details.
- Part#:

    - Hubbell RE4X
    - Great Lakes GL24WE-B-0
    - Great Lakes GL48WMCMM-B-SH-AF-CM
    - 11900-724 Chatsworth Cube-it
    - Accessories to be provided with each installed cabinet:

        - Sound Dampening Kit REKS
        - Fan Kit REKF
        - Fan Filter Kit REKFF

I. Telco Backboards

1. Backboards shall be 4’ x 8’ x .75” void free plywood (ACX Plywood with the “A” side turned out).
2. Sheets shall be but to size for the application intended.
3. The plywood shall be painted with two coats of white fire-retardant paint.

    - Flame Stop III paint additive ASTM E-84, NFPA 255, UL 723
    - Add one pint of Flame Stop III and one pint of water to one gallon of latex-based paint.

Part 3 Execution

3.1 Installation

A. Work Area Outlets Installation

1. No more than 12” of cable shall be stored in an outlet box, modular furniture raceway, or insulated walls.
2. Bend radius of the cable in the termination area shall not be less than 4 times the outside diameter of the cable.

3. The cable jacket shall be maintained to within 12.7mm (½ inch) of the termination point.
4. All UTP cables shall have no more than 12.7mm (½ inch) of pair untwist at the termination point.
5. Data jacks, unless otherwise noted in drawings, shall be located in the top position(s) of each faceplate. Data jacks in horizontally oriented faceplates shall occupy the left-most position(s).
6. Voice jacks, unless otherwise noted in drawings, shall occupy the next position(s) below the data on the faceplate. Voice jacks in horizontally oriented faceplates shall occupy the position left of the data jack.
7. Video jacks, unless otherwise noted in drawings, shall occupy the bottom position(s) on the faceplate. Video jacks in horizontally oriented faceplates shall occupy the position left of the data/voice jack.
8. All faceplates installed shall be level.
9. All outlets will be labeled according to the approved labeling scheme.
10. Each faceplate shall be machine labeled. The labeling shall be placed on the faceplate so that the individual jack can be clearly identified by its associated label.
11. Cables shall be identified by a self-adhesive label in accordance with the Identification and Labeling section of this specification and ANSI/TIA/EIA-606. The cable label shall be applied to the cable no further than 6" behind termination module, behind the faceplate on a section of cable that can be accessed by removing the cover plate.

B. Horizontal Distribution Cable Installation

1. Cable shall be installed in accordance with manufacturer's recommendations and best industry practices.
2. Tie Wraps will not be allowed for supporting, bundling and/or dressing of any station cables on this project.
3. Contractor will provide a three foot "service loop" for all station cables. The service loop will be coiled and secured using Velcro in the accessible ceiling at the conduit stub to the work area outlet box.
4. A pull cord (nylon; 1/8" minimum) shall be co-installed with all cable installed in all "common" conduit runs. "Common" Conduit Runs are those that house more than one cable or set of cables that do not specifically feed a Work Station Outlet. Examples of "Common" Conduit Runs are: floor/ceiling penetrations, stub-throughs, distribution conduits, all conduits between J-boxes, etc.
5. Cable raceways shall not be filled greater than the TIA/EIA-569-A maximum fill for the particular raceway type or 40%.
6. Cables shall be installed in continuous lengths from origin to destination (no splices) except for transition points, or consolidation points.
7. The cable's minimum bend radius and maximum pulling tension shall not be exceeded.
8. Pulling tension on 4-pair UTP cables shall not exceed 25-lb for a four-pair UTP cable.
9. The Cable Support System shall be installed in such away that will allow for future cables to be added and to provide sufficient protection of all cable.
10. For all installs where station cables are not installed in a continuous conduit run the following guidelines will apply. The Contractor will be responsible to reinstall all cables and pathways that do not meet with the following at no additional cost to the Owner:
11. J-hooks shall be installed to support all station cables every 4ft to 5ft.
12. All pathways shall be run at right angles. No diagonal pathways will be allowed unless otherwise noted on the drawings.
13. Horizontal cables shall be bundled in groups of no more than 25 cables per Cooper B-Line's BCH21 J-hook, no more than 40 cables per Cooper B-Line's BCH32 J-hook, and no more than 64 cables per Cooper B-Line's BCH64 J-hook.
14. At no point shall cable(s) rest on acoustic ceiling grids, acoustic panels, or lighting fixtures.

15. All cables will be installed so that there is a minimum of 3” of clearance above all ceiling grid and tiles.
16. All cables will be installed so that there is a minimum of 12” of clearance above all florescent lighting.
17. All cables will be installed so that there is a minimum of 6” of clearance from all fire alarm and electrical system conduits.
18. Cables shall not be attached to the ceiling grid or lighting fixture wires. The contractor will provide their own carriers wires to support their horizontal cabling.
19. All cables shall be installed above fire-sprinkler systems and plumbing system fixtures and devises. Cables shall not be attached to or supported by these fixtures and/or their ancillary equipment or hardware.
20. The cable system and support hardware shall be installed so that it does not obscure any valves, fire alarm conduit, boxes, or other control devices.
21. Contractor is responsible for sealing around all cables that penetrate fire rated barriers.
22. Any cable damaged or exceeding recommended installation parameters during installation shall be replaced by the contractor prior to final acceptance at no cost to the Owner.

C. Horizontal Cross-Connect Installation

1. Cables shall be dressed and terminated in accordance with the recommendations made in the TIA/EIA-568-A standard, manufacturer's recommendations and best industry practices.
2. The cable jacket shall be maintained to within 12.7mm (½ inch) of the termination point.
3. All UTP cables shall have no more than 12.7mm (½ inch) of pair untwist at the termination point.
4. Bend radius of the cable in the termination area shall not exceed 4 times the outside diameter of the cable.
5. All cables shall be neatly bundled and dressed continuously from the entrance point of the Telecommunications Room to their respective panels or blocks. Each panel or block shall be fed by an individual bundle separated and dressed back to the point of cable entrance into the rack or frame. Contractor will use Velcro strip to bundle cables together. The use of Tie –Wraps is not permitted.
6. Each cable shall be clearly labeled on the cable jacket behind the patch panel at a location that can be viewed without removing the bundle support ties. Cables labeled within the bundle, where the label is obscured from view shall not be acceptable.

D. Backbone Cable Installation

1. Backbone cables shall be installed separately from horizontal distribution cables.
2. Where possible the backbone and horizontal cables shall be installed in separate conduits.
3. Where backbone cables and distribution cables are installed in a cable tray or wireway, backbone cables shall be installed first and bundled separately from the horizontal distribution cables.
4. Pulling tension on Backbone cables shall not exceed the manufacture’s limitations.
5. The minimum bend radius for all Backbone cables is 16 times the cable diameter or the manufactures specification, whichever is greater.
6. All OSP cables may not penetrate more than 50ft into the buildings before be terminated or splices to cable with a fire resistant jacket, unless the jacket is indoor/outdoor rated.
7. A pull cord (nylon; 1/8" minimum) shall be co-installed with all cable installed in any conduit.
8. A pull cord (nylon; 1/8" minimum) shall be installed with all empty OSP and Entrance Facility conduit.
9. All backbone cables shall be securely fastened to the sidewall of the TR on each floor.

10. Backbone cables spanning more than three floors shall be securely attached at the top of the cable run with a wire mesh grip and on alternating floors or as required by local codes.
11. Vertical runs of cable shall be supported to messenger strand, cable ladder, or other method to provide proper support for the weight of the cable.
12. Large bundles of cables and/or heavy cables shall be attached using metal clamps and/or metal banding to support the cables.

E. Backbone Cross-Connect Installation

1. Cables shall be dressed and terminated in accordance with the recommendations made in the TIA/EIA-568-A document, manufacturer's recommendations and best industry practices.
2. Bend radius of the cable in the termination area shall not exceed 16 times the outside diameter of the cable.
3. All cables shall be neatly bundled and dressed continuously from the entrance point of the Telecommunications Room to their respective panels or blocks.
4. Contractor will provide a minimum of a 3 foot “service loop” for each backbone cable before terminating to allow future rearrangement. Cables will be coiled and secured above the ceiling where possible or to the Telco Backboard where entrance point is from the floor.
5. Wall mounted termination block fields shall be installed with the lowest edge of the mounting frame 18” from the finished floor.
6. Contractor shall provide a machine label 1ft. to 2ft. from the entrance point of the TR and 6in. to 12in. from the termination point on each backbone cable. Cable shall be easily identified and fully legible without removing the bundle support ties.

F. Cabinets, Racks, Enclosures and Ladder Rack Installation

1. Wall Mount Racks/Cabinets shall be securely attached to the Telco Backboard using minimum 3/8” hardware or as required by local codes.
2. Floor Mount Racks/Cabinets shall be securely attached to the concrete floor using minimum 3/8” drop-in anchor hardware or as required by local codes.
3. All Floor Mount Racks/Cabinets will be either; secured on one side to the wall or attached to the closest wall with ladder rack.
4. All Racks/Cabinets shall be braced to meet Zone 4 seismic requirements.
5. Contractor will maintain a minimum of 36 inches of clearance from the front of the all rack/cabinets and all other obstructions.
6. Floor Mount Racks/Cabinets shall be installed to allow for a minimum of 36” from rear and all other obstructions.
7. All racks shall be grounded to the telecommunications ground bus bar.
8. Rack mount screws not used for installing patch panels and other hardware shall be bagged and left with the rack upon completion of the installation.
9. The plywood bottom edge shall be mounted vertically no less than 12” above the finished floor.
10. Contractor will provide all cutouts for the Electrical Contractors expansion rings and electric receptacles as shown on the drawings.
11. Ladder Rack must be securely attached to walls, backboards, and racks/cabinets to comply with all Zone 4 seismic requirements.
12. Ladder rack shall be installed so that there is a minimum of 8” of unobstructed clearance above rack.
13. Ladder Rack shall be installed so that there is a minimum of 12” of clearance from all: florescent lighting, electrical conduits/circuits, and fire alarm conduits/devices.

3.2 Identification and Labeling

A. General Requirements

1. The contractor shall develop and submit for approval a labeling system for the cable installation. The Owner will negotiate an appropriate labeling scheme with the successful contractor.
2. The approved system will comply with the TIA/EIA -606-A Class 2 designations and include at a minimum, identifiers for all major components of the system: telecommunication rooms, grounding bus bars, racks, cables, panels and outlets. The labeling system shall designate the cables origin and destination and a unique identifier for the cable within the system. Racks and patch panels shall be labeled to identify the location within the cable system infrastructure.
3. All label printing will be machine generated or hand-held printers using indelible ink ribbons or cartridges. Self-laminating labels will be used on cable jackets, appropriately sized to the OD of the cable, and placed within view at the termination point on each end. Outlet, patch panel and wiring block labels shall be installed on, or in, the space provided on the device.
4. All labeling information shall be recorded on the as-built drawings and all test documents shall reflect the appropriate labeling scheme.

3.3 Testing and Acceptance

A. General

1. All cables and termination hardware shall be 100% tested for defects in installation and to verify cabling system performance under installed conditions according to the requirements of ANSI/TIA/EIA-568-A Addendum 5, TSB-67 and TSB-95. All pairs of each installed cable shall be verified prior to system acceptance. Any defect in the cabling system installation including but not limited to cable, connectors, feed through couplers, patch panels, and connector blocks shall be repaired or replaced in order to ensure 100% useable conductors in all cables installed.
2. All cables shall be tested in accordance with this document, the ANSI/TIA/EIA standards, the Manufacturer's Warranty guidelines and best industry practice. If any of these are in conflict, the Contractor shall bring any discrepancies to the attention of the project team for clarification and resolution.
3. Contractor will notify the Owner/Owner's Representative 72 hours before commencement of testing.
4. Upon receipt of the test documentation, the Customer reserves the right to have the contractor perform a 10% witnessed "spot testing" of the cabling system to validate test results provided in the test document, at no additional cost. If a significant amount of cables are marginal and/or fail during the "spot test" Contractor will retest the entire cable plant at no additional cost.

B. Copper Cable Testing

1. Twisted Pair Cable

- All twisted-pair copper cable links (including backbone cables) shall be tested for continuity, pair reversals, shorts, opens and performance as indicated below.
- Continuity - Each pair of each installed cable shall be tested using a test unit that shows opens, shorts, polarity and pair-reversals, crossed pairs and split pairs. Shielded/screened cables shall be tested with a device that verifies shield continuity in addition to the above stated tests. The test shall be recorded as pass/fail as

indicated by the test unit in accordance with the manufacturers' recommended procedures, and referenced to the appropriate cable identification number and circuit or pair number. Any faults in the wiring shall be corrected and the cable re-tested prior to final acceptance.

- Length - Each installed cable link shall be tested for installed length using a TDR type device. The cables shall be tested from patch panel to patch panel, block to block, patch panel to outlet or block to outlet as appropriate. The cable length shall conform to the maximum distances set forth in the ANSI/TIA/EIA-568-A Standard. Cable lengths shall be recorded, referencing the cable identification number and circuit or pair number. For multi-pair cables, the shortest pair length shall be recorded as the length for the cable.

2. Category 6 Performance

- Follow the Standards requirements established in:

  - ANSI/TIA/EIA-568-A -TSB-67
  - Wire Map
  - Length
  - Attenuation
  - NEXT (Near end crosstalk)
  - · ANSI/TIA/EIA-568-A -TSB-95
  - Return Loss
  - ELFEXT Loss
  - Propagation Delay
  - Delay skew
  - · ANSI/TIA/EIA-568-A, Amendment 5.
  - PSNEXT (Power sum near-end crosstalk loss)
  - PSELFEXT (Power sum equal level far-end crosstalk loss)

- A Level III or better test unit is required to verify category 6 performances and must be updated to include the requirements of TSB-95 and Amendment 5. Testers will be equal to Fluke Network's DXT CableAnalyzer™ Series.
- All testers shall have been recalibrated with 6 months of use on this project. Contractor will be asked to provide proof of recalibration.
- Test results shall be automatically evaluated by the equipment, using the most up-to-date criteria from the TIA/EIA Standard, and the result shown as pass/fail. The approved Level Three tester shall provide a printed document for each test that is also available in a downloadable file using an application from the test equipment manufacturer. The printed test results shall include a print out of all tests performed, and the individual test results for each cable.

C. Fiber Optic Cable Testing

1. 50/125µ Backbone Fiber

- Each fiber strand shall be tested for attenuation with an Optical Power Meter and light source and with an Optical Time Domain Reflectometer (OTDR) for actual length and splice/connector loss. Cable length shall be verified using sheath markings. The guidelines and procedures established for Tier 1 testing in TIA/TSB-140 shall apply.
- All fiber optic cables shall be tested from the site's MDF to each fiber terminals located in the IDF. The results of OTDR testing to define the length of each riser cable shall be documented. The Contractor shall conduct a power meter (loss) test

of each fiber optic station and riser cable at both wavelengths, 850/1300nm for MM and 1310/1550nm for SM, A to B, B to A, and OSPL (OSPL is defined as La + Lb). No individual station or riser fiber link segment (including connectors) shall measure more than 2.0 dB loss. Tests shall be conducted using ANSI/EIA/TIA/EIA-526-14A, Method B. Test results evaluation for the panel to panel (backbone) shall be based on the values set forth in ANSI/TIA/EIA-568-B.1.The Contractor shall provide an electronic printout for each strand tested with the Power Meter and the OTDR.

- Where concatenated links are installed to complete a circuit between devices, the Contractor shall test each link from end to end to ensure the performance of the system. After the link performance test has been successfully completed, each link shall be concatenated and tested. The test method shall be the same used for the test described above. The evaluation criteria shall be established between the Owner and the Contractor prior to the start of the test.
- All installed cables must meet or exceed the defined standards for performance. The Contractor shall take all steps necessary to repair or replace any optic not meeting the standard.
- Fiber optic riser and station cable test results shall be provided in electronic format to the Owner.

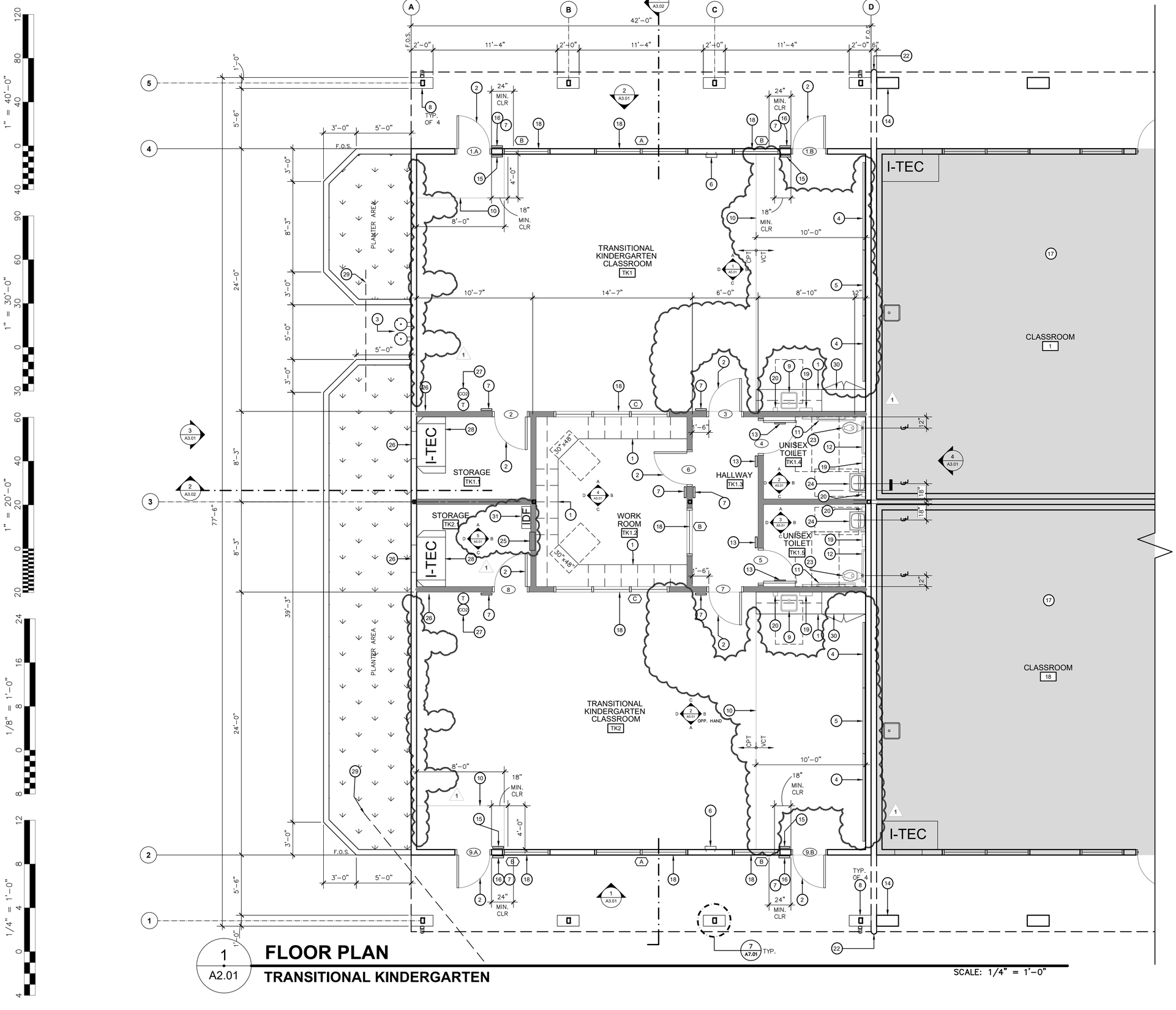
3.4 System Closeout and As-built Documentation

A. General Requirements

1. Upon completion of the installation, the telecommunications contractor shall provide three (3) full documentation sets to the Owner's Representative/Engineer for approval. One (1) to be a hardcopy and two (2) to be electronic copies. Documentation shall include the items detailed in the sub-sections below.
2. Documentation shall be submitted within ten (10) working days of the completion of each testing phase. This is inclusive of all test results and draft as-built drawings. Draft drawings may include annotations done by hand. Machine generated (final) copies of all drawings shall be submitted within 30 calendar days of the completion of each testing phase. At the request of the Owner's Representative/Engineer, the telecommunications contractor shall provide copies of the original test results.
3. The Owner's Representative/Engineer will request that a 10% random field re-test be conducted on the cable system, at no additional cost, to verify documented findings. Tests shall be a repeat of those defined above. If findings contradict the documentation submitted by the telecommunications contractor, additional testing can be requested to the extent determined necessary by the Engineer, including a 100% re-test. This re-test shall be at no additional cost to the Owner.
4. Test Results documentation shall be provided in two media, as listed above, one (1) hardcopy and one (1) on disk within three weeks after the completion of the project. The documentation shall be clearly marked on the outside front cover with the words "Project Test Documentation", the project name, and the date of completion (month and year). The results shall include a record of test frequencies, cable type, conductor pair and cable (or outlet) I.D., measurement direction, reference setup, and crew member name(s). The test equipment name, manufacturer, model number, serial number, software version and last calibration date will also be provided at the end of the document. Unless the manufacturer specifies a more frequent calibration cycle, an bi-annual calibration cycle is anticipated on all test equipment used for this installation. The test document shall detail the test method used and the specific settings of the equipment during the test as well as the software version being used in the field test equipment.
5. Printouts generated for each cable by the wire test instrument shall be submitted as part of the documentation package.

6. When repairs and re-tests are performed, the problem found and corrective action taken shall be noted, and both the failed and passed test data shall be documented.
7. The As-Built drawings are to include cable routes, outlet locations and the approved labeling identifiers. Their sequential number as defined elsewhere in this document shall identify outlet locations. Numbering, icons, and drawing conventions used shall be consistent throughout all documentation provided. The Owner will provide floor plans in paper and electronic (DWG, AutoCAD 2008) formats on which as-built construction information can be added. These documents will be modified accordingly by the telecommunications contractor to denote as-built information as defined above and returned to the Owner.
8. Contractor will provide one laminated 11”x17” drawing at each IDF that includes the building layout for that IDF, along with the outlet locations and all of the approved labeling.

END OF SECTION



1 A2.01 **FLOOR PLAN**

TRANSITIONAL KINDERGARTEN

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

KEY NOTES

1. (N) CABINETS - F.B.O. / I.B.O, BLK'G BY CONTRACTOR, -SEE DETAIL # 1/A8.02.
2. (N) DOOR, FRAME, AND HARDWARE - SEE DOOR SCHEDULE.
3. (N) ACCESSIBLE HI/LO DRINKING FOUNTAIN - SEE DETAIL 12/A8.01
4. (N) 4'-0" X 6'-0" & 4'-0" X 8'-0" MARKER BOARDS - SEE DETAIL 9/A8.02
5. (N) SMARTBOARD N.I.C.
6. (N) FIRE EXTINGUISHER CABINET. - SEE DETAIL 13/A8.02
7. (N) TACTILE ROOM IDENTIFICATION SIGN - SEE DETAIL 5/A8.01
8. (N) COLUMN
9. (N) SINK - F.B.C. / I.B.C., ON COUNTERTOP WITH CABINETS - F.B.O / I.B.O. - BLK'G BY CONTRACTOR, -SEE DETAIL 6 & 7/A8.02
10. (N) WALK-OFF CARPET TILES
11. (N) 48" GRAB BAR - SEE DETAIL 8/A8.01
12. (N) 36" GRAB BAR - SEE DETAIL 8/A8.01
13. (N) RESTROOM SIGNAGE PER DETAIL 2/A8.01
14. (E) COLUMN
15. (N) TACTILE EXIT SIGN - SEE DETAIL 4/A8.01
16. (N) BUILDING ENTRANCE SIGN - SEE DETAIL 1/A8.01
17. NO WORK IN THIS ROOM
18. (N) WINDOW & FRAME - SEE WINDOW SCHEDULE.
19. (N) PAPER TOWEL DISPENSER F.B.O. INSTALLED BY CONTRACTOR - SEE DETAIL 7/A8.01
20. (N) SOAP DISPENSER F.B.O. INSTALLED BY CONTRACTOR - SEE DETAIL 7/A8.01
21. (N) MIRROR - SEE DETAIL A7/A8.01
22. SEISMIC JOINT COVER
23. (N) WATER CLOSET - SEE PLUMBING
24. (N) LAVATORY - SEE PLUMBING
25. (N) ELECTRICAL PANEL - SEE ELECTRICAL
26. (N) WALL GRILL - SEE MECHANICAL
27. (N) THERMOSTAT & CO2 SENSOR - SEE MECHANICAL
28. (N) HEAT PUMP - SEE MECHANICAL.
29. (N) IRRIGATION SLEEVE - SEE DETAIL 14/A1.04.
30. (N) TALL CABINETS - CABINETS F.B.O. / I.B.O., BLK'G BY CONTRACTOR, -SEE 10/A8.02.
31. (N) IDF, -SEE ELECTRICAL SHEETS.

GENERAL NOTES

1. DIMENSIONS ARE GIVEN TO FACE OF STUD UNLESS NOTED OTHERWISE.
2. DIMENSIONS FOR ACCESSIBILTY COMPLIANCE ARE GIVEN FROM CENTERLINE OR FACE OF FIXTURE/ACCESSORY TO FACE OF FINISH OR ADJACENT FIXTURE/ACCESSORY. SEE NOTE BELOW
3. SEE SHEET A8.01 FOR MOUNTING HEIGHT AND CLEARANCE REQUIREMENTS AT ALL TOILET ROOM ACCESSORIES AND ACCESSIBLE FIXTURES: WATER CLOSETS, LAVATORIES, DRINKING FOUNTAINS, ETC.
4. SEE MATERIAL & FINISH SCHEDULE ON FOR MATERIAL & FINISH SELECTIONS.
5. ALL INTERIOR WALLS TO RECEIVE ACOUSTIC BATT INSULATION. PROVIDE GYPSUM BD. FROM FINISH FLOOR TO WITHIN ¾" OF ROOF DECK ABOVE W/ BLOCKING BETWEEN ROOF FRAMING MEMBERS
6. ALL GYPSUM BOARD TO BE 5/8" U.N.O.; 5/8" CEMENT BACKER @ C.T.
7. FRAME ALL INTERIOR WALLS FROM FLOOR SLAB BELOW TO WITHIN 1/4" OF THE UNDERSIDE OF THE ROOF DECK ABOVE U.N.O. W/ 5/8" GYP. BD. BOTH SIDES FROM FIN. FLOOR BELOW TO 6" ABOVE HIGHEST ADJACENT CEILING
8. SEE STRUCTURAL DRAWINGS FOR SHEAR WALL LOCATIONS
9. SEE STRUCTURAL DRAWINGS FOR TYPICAL FRAMING CONSTRUCTION DETAILS
10. ALL INSULATION AT EXTERIOR WALLS SHALL BE R-19 INSULATION. INSULATION IN ATTIC SPACE SHALL BE R-38 FOIL-FACT F.G. BATT INSULATION INSTALLED.
11. PROVIDE ACOUSTIC BATT INSULATION AT ALL INTERIOR TOILET ROOM WALLS. PROVIDE ACOUSTIC SEALANT AT ALL END WALL JOINTS AND AT ALL PENETRATIONS.

WALL LEGEND

- EXTERIOR 6" METAL STUDS
- INTERIOR 6" METAL STUDS
- THERMOSTAT
- CARBON MONOXIDE CENSOR

Owner:

BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER ST.
BAKERSFIELD CA 93305

Project Name:

TRANSITIONAL KINDERGARTEN

Project Address:

MLK ELEMENTARY SCHOOL
1100 Citadel
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LICENSED ARCHITECT — CURTIS E. LYNN — No. C 28966 — REN. 5-31-25 — STATE OF CALIFORNIA

Sheet Title:

FLOOR PLAN

Job No.: **5593**

Sheet No.: **A2.01**

Release: ADDENDUM 1 (1) Issue Date: 12/20/24

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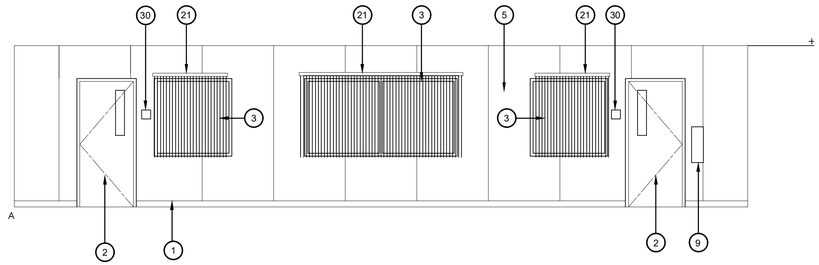
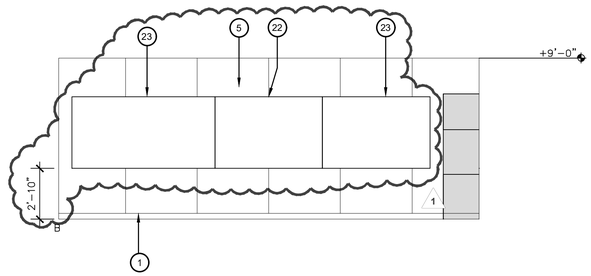
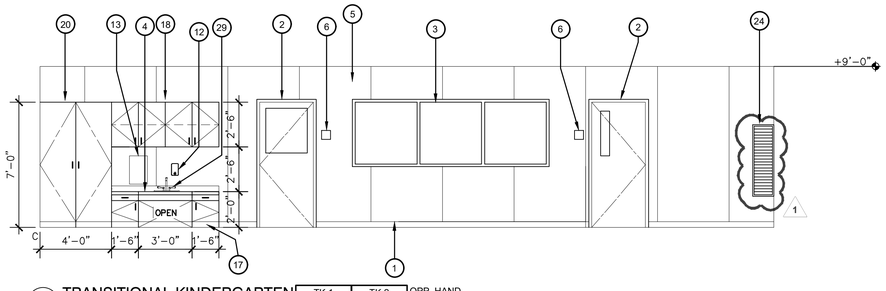
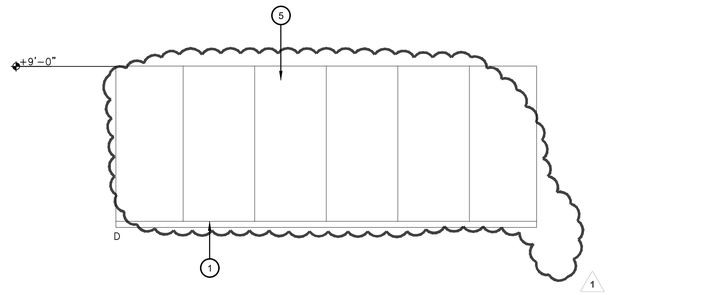




1 TRANSITIONAL KINDERGARTEN TK 1 TK 2 OPP. HAND

1/4" = 1'-0"





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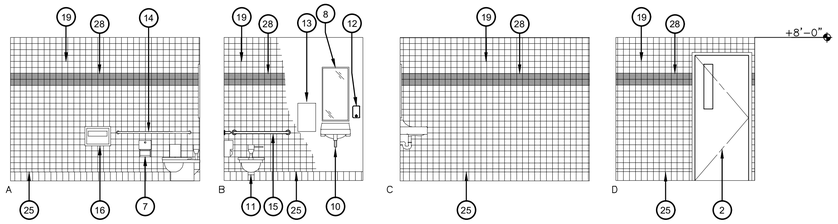
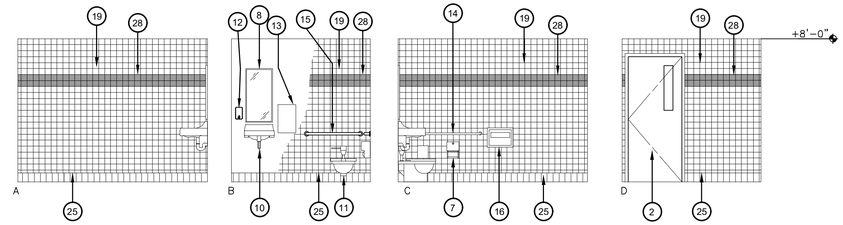


2 TOILET TK 1.4

1/4" = 1'-0"



3 TOILET TK 1.5

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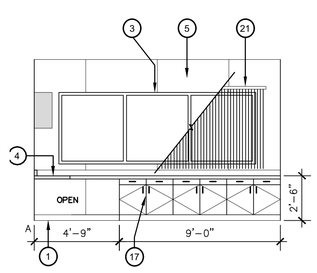
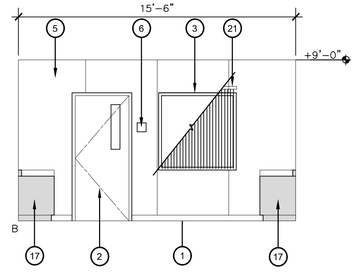
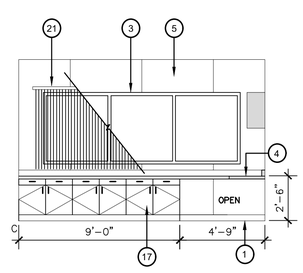
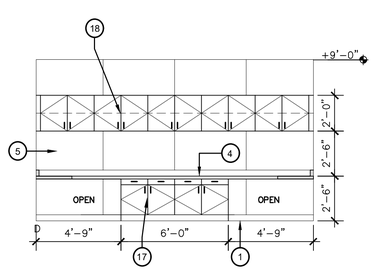


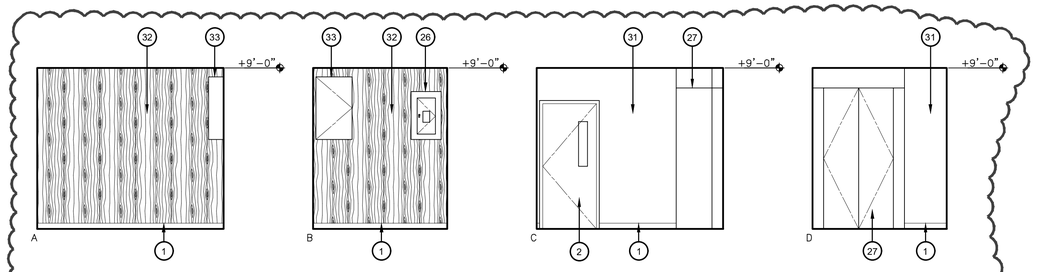






4 WORK ROOM TK 1.2

1/4" = 1'-0"



5 STORAGE TK 2.1

1/4" = 1'-0"

1

KEY NOTES

1. 4" RUBBER TOPSET BASE
2. DOOR & FRAME,SEE DOOR SCHEDULE
3. WINDOW FRAME, SEE WINDOW SCHEDULE
4. 12 MM CORIAN COUNTERTOP WITH 4" BACKSPLASH, F.B.O. / I.B.O.
5. (N) TACKBOARD
6. ROOM IDENTIFICATION SIGN, SEE DETAIL 5/A8.01
7. TOILET TISSUE DISPENSER
8. MIRROR
9. FIRE EXTINGUISHER CABINET
10. LAVATORY - SEE PLUMBING DRAWINGS
11. FLOOR MOUNTED WATER CLOSET - SEE PLUMBING
12. WALL MOUNTED SOAP DISPENSER - F.B.O. INSTALLED BY CONTRACTOR
13. PAPER TOWEL DISPENSER F.B.O INSTALLED BY CONTRACTOR
14. 48" LONG GRAB BAR GB-1 - SEE DETAIL 8/A8.01
15. 36" LONG GRAB BAR GB-1 - SEE DETAIL 8/A8.01
16. TOILET SEAT COVER DISPENSER
17. BASE CABINETS - F.B.O. / I.B.O., CONTRACTOR TO PROVIDE BLK'G, -SEE DETAIL 1/A8.02
18. UPPER CABINET - F.B.O. / I.B.O., CONTRACTOR TO PROVIDE BLK'G SEE DETAIL 1/A8.02
19. CERAMIC WALL TILE
20. TALL STORAGE CABINET - F.B.O. / I.B.O., CONTRACTOR TO PROVIDE BLK'G, - SEE DETAIL 1/A8.02
21. VERTICAL BLINDS
22. SMART BOARD
23. MARKER BOARD - SEE DETAIL 9/A8.02
24. WALL LOUVER - SEE MECHANICAL
25. 6" HIGH CERAMIC TILE COVE BASE
26. ELECTRICAL PANEL, -SEE ELECTRICAL SHEETS. IN ROOM TK1.1 ONLY.
27. HEAT PUMP, -SEE MECHANICAL SHEETS.
28. CERAMIC WALL TILE ACCENT COLOR
29. SINK W/ FAUCET - F.B.O. / I.B.O., - SEE PLUMBING
30. TACTILE EXIT SIGN - SEE DETAIL 4/A8.01.
31. GYP. BOARD FINISH, PRIME & PAINT.
32. ¾" PLYWOOD o/ GYP BOARD.
33. IDF, -SEE ELECTRICAL SHEETS. IN ROOM TK2.1 ONLY.

GENERAL NOTES

1. REFER TO ROOM FINISH SCHEDULE FOR FINISHES SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS & FINISHES
2. CONTRACTOR SHALL PROVIDE BACKING AS PER MANUFACTURES REQUIREMENTS FOR ALL WALL MOUNTED ACCESSORIES. SEE DETAIL 7/A8.01 FOR ACCESSORY MOUNTING HEIGHTS AND DETAIL 1/A8.02 FOR CASEWORK ANCHORING
3. COLORS FOR ALL ITEMS OF WORK SHALL BE SELECTED BY ARCHITECT
4. ALL CABINET DOOR PULLS SHALL BE MOUNTED VERTICALLY AND DRAWER PULLS SHALL BE MOUNTED HORIZONTALLY
5. CONTRACTOR SHALL COORDINATE w/ ELECTRICAL, PLUMBING, AND MECHANICAL DRAWINGS FOR LOCATIONS OF ALL OUTLETS, EXITS SIGNS, DATA BOXES, ACCESS DOORS, AND REQUIRED FINISHES
6. SEE DETAILS ON SHEET A8.01 FOR STANDARD MINIMUM ACCESSIBLE CLEARANCES/HEIGHTS AT TOILETS, LAVATORIES, TOILET ACCESSORIES, DRINKING FOUNTAINS, ETC.

Owner:

BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER ST.
BAKERSFIELD CA 93305

Project Name:

TRANSITIONAL KINDERGARTEN

Project Address:

MLK ELEMENTARY SCHOOL

1100 Citadel
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STATE OF CALIFORNIA

Sheet Title:

INTERIOR ELEVATIONS

Job No.: **5593**

Sheet No.: **A5.01**

Release: ADDENDUM 1 1 Issue Date: 12/20/24

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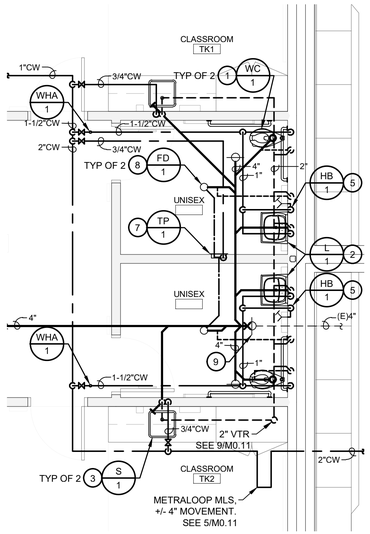


2 M2.12 ENLARGED PLUMBING PLAN

TRANSITIONAL KINDERGARTEN

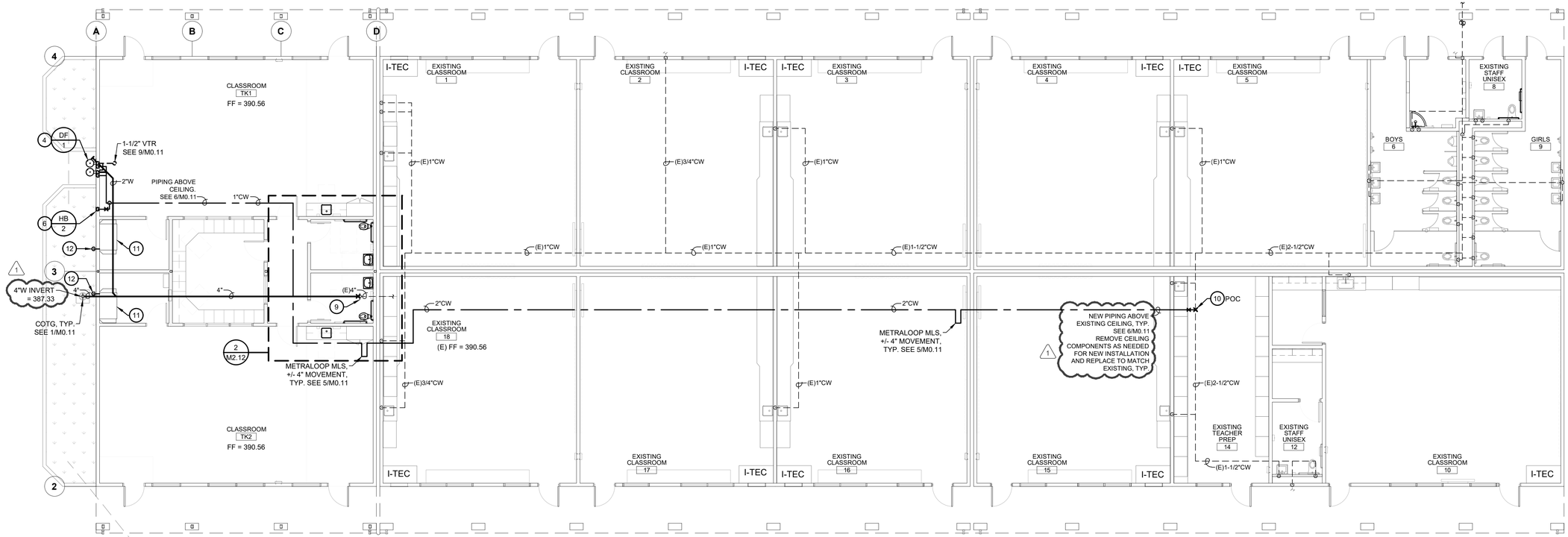
SCALE: 1/4" = 1'

KEY NOTES

1. 1-1/2"CW, 4"S, 2"V TO WATER CLOSET, TYP.
2. 3/4"CW, 2"W, 1-1/2"V TO LAV, TYP. SEE 2/M0.11
3. 3/4"CW, 2"W WITH WCO, 1-1/2"V TO SINK, TYP. CABINET TO BE FURNISHED AND INSTALLED BY OWNER. COORDINATE SINK INSTALLATION WITH OWNER.
4. 3/4"CW, 2"W WITH WCO, 1-1/2"V TO DRINKING FOUNTAIN, FOR EACH CONNECTION. SEE 10/M0.11
5. 3/4"CW TO HOSE BIBB BELOW LAV, TYP.
6. 3/4"CW TO HOSE BIBB AT +12" ABOVE FINISH GRADE, TYP.
7. 3/4"CW TO TRAP PRIMER WITH SHUTOFF VALVE IN WALL AT +24" BEHIND WALL ACCESS PANEL. EXTEND 1/2"CW BELOW FLOOR TO FLOOR DRAIN, TYP.
8. 1/2"CW BELOW FLOOR FROM TRAP PRIMER TO FLOOR DRAIN, TYP.
9. REPLACE WITH NEW FLOOR CLEANOUT, FLUSH WITH NEW FINISH FLOOR. EXTEND 4" SEWER FOR NEW WORK.
10. POC NEW 2"CW TO EXISTING 2-1/2"CW ABOVE CEILING WITH SHUTOFF VALVE, EXTEND 2"CW TO NEW ADDITION. FIELD VERIFY SIZE AND LOCATION. REPLACE CEILING TILES AS NEEDED. PATCH OPENINGS TO MATCH EXISTING.
11. PACKAGE INDOOR HEAT PUMP UNIT ON FLOOR, TYP. SEE HVAC PLANS FOR EXACT LOCATION.
12. CONNECT 3/4" DRAIN TO PACKAGE INDOOR HEAT PUMP UNIT, DISCHARGE THROUGH WALL WITH 90 ELL TURNED DOWN AT +12" ABOVE PLANTER. SEAL OPENING WATER-TIGHT.

LEGEND

SYMBOL	ABBR	DESCRIPTION
	S. W. D.	SOIL, WASTE OR DRAIN
	CW	DOMESTIC COLD WATER
	COTG	CLEANOUT TO GRADE
	FCO	FLOOR CLEANOUT
	GV OR SOV	GATE OR SHUT - OFF VALVE
		ELBOW UP
		ELBOW DOWN
	RED	REDUCER
	HB	HOSE BIBB
	AFF	ABOVE FINISH FLOOR
		CAP
	(E)	EXISTING
	DEMO	(E) TO BE REMOVED
	(N)	NEW
	POC	POINT OF CONNECTION
	TYP	TYPICAL



1 M2.12 MECHANICAL PLAN - PLUMBING

TRANSITIONAL KINDERGARTEN

SCALE: 1/8" = 1'

Owner:

BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER ST.
BAKERSFIELD CA 93305

Project Name:

TRANSITIONAL KINDERGARTEN

Project Address:

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Sheet Title:

MECHANICAL PLAN - PLUMBING

Job No.: **5593**

Sheet No.: **M2.12**

Release: ADDENDUM 1 (1)

Issue Date: 12/20/24

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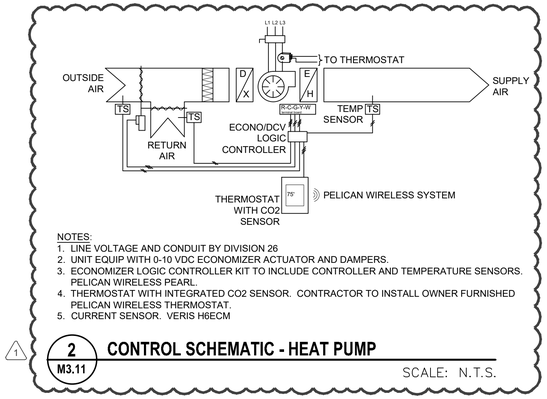
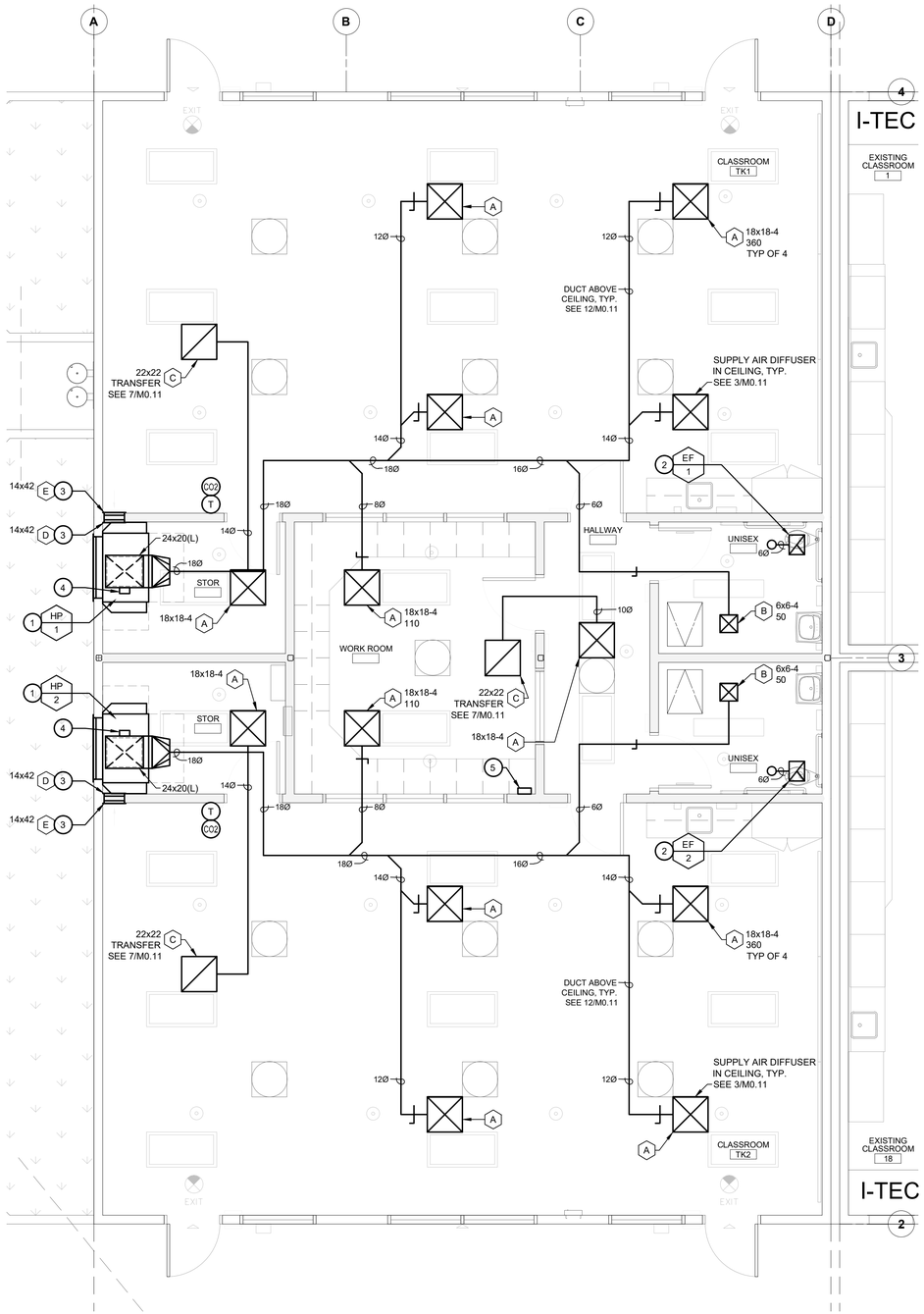


NOTES:
1. LINE VOLTAGE AND CONDUIT BY DIVISION 26
2. UNIT EQUIP WITH 0-10 VDC ECONOMIZER ACTUATOR AND DAMPERS.
3. ECONOMIZER LOGIC CONTROLLER KIT TO INCLUDE CONTROLLER AND TEMPERATURE SENSORS. PELICAN WIRELESS PEARL.
4. THERMOSTAT WITH INTEGRATED CO2 SENSOR. CONTRACTOR TO INSTALL OWNER FURNISHED PELICAN WIRELESS THERMOSTAT.
5. CURRENT SENSOR. VERIS H6ECM

1 2 M3.11 **CONTROL SCHEMATIC - HEAT PUMP**

SCALE: N.T.S.



1 M3.11 **MECHANICAL PLAN - HVAC**

TRANSITIONAL KINDERGARTEN

SCALE: 1/4" = 1'

KEY NOTES

1. INTERIOR PACKAGED HEAT PUMP UNIT ON FLOOR WITH WALL SLEEVE, WALL LOUVER, TOP CABINET EXTENSION TO CEILING SUPPLIED BY UNIT MANUFACTURER. SEE 11/M0.11 AND 2/M3.11 (1)
2. CEILING EXHAUST FAN WITH 6" ROUND EXHAUST DUCT THRU ROOF. PROVIDE ROOF FLASHING AND CAP ASSEMBLY, PAINT TO MATCH ADJACENT SURFACES. SEE DETAILS 4 AND 8/M0.11
3. 14x42 DUCT IN WALL WITH GRILLES ON BOTH ENDS, DUCT TO FIT IN BETWEEN 2x STUDS WITH 16" SPACING. BOTTOM OF GRILLES AT 21" ABOVE FINISH FLOOR.
4. AIR IONIZATION SYSTEM IN SUPPLY AIR DUCT, NU-CALGON iWAVE-C. PROVIDE 120V POWER.
5. HVAC WIRELESS REPEATER. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 120V WALL OUTLET.

LEGEND

SYMBOL	DESCRIPTION	ABBR
AC 1	EQUIPMENT DESIGNATION / UNIT ABBREVIATION / NUMBER	AC-1
A 10x10-3 120	GRILLE DESIGNATION / NECK SIZE & BLOW / CFM	
	SUPPLY AIR	SA
	RETURN AIR	RA
	EXHAUST AIR	EXH
	ACOUSTIC LINED DUCT	(L)
	DUCT RISER	
	DUCT DROP	
	SQUARE TO ROUND FITTING	
	FIRE/SMOKE DAMPER	FSD
SD	DUCT SMOKE DETECTOR	SD
	VOLUME CONTROL DAMPER	VCD
CO2	CARBON DIOXIDE SENSOR AT 48" MAXIMUM TO TOP OF BOX	CO2
S	SWITCH	
T	THERMOSTAT AT 48" MAXIMUM TO TOP OF BOX	T'STAT
RL	REFRIGERANT LIQUID	RL
RS	REFRIGERANT SUCTION	RS
	ABOVE FINISH FLOOR	AFF
	EXISTING	(E)
	(E) TO BE REMOVED	DEMO
	NEW	(N)
	OUTSIDE AIR	OSA
X	POINT OF CONNECTION	POC
	TYPICAL	TYP

Owner:

BAKERSFIELD CITY SCHOOL DISTRICT
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Project Name:

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MECHANICAL PLAN - HVAC

Job No.: **5593**

Sheet No.: **M3.11**

Release: ADDENDUM 1 (1) Issue Date: 12/20/24

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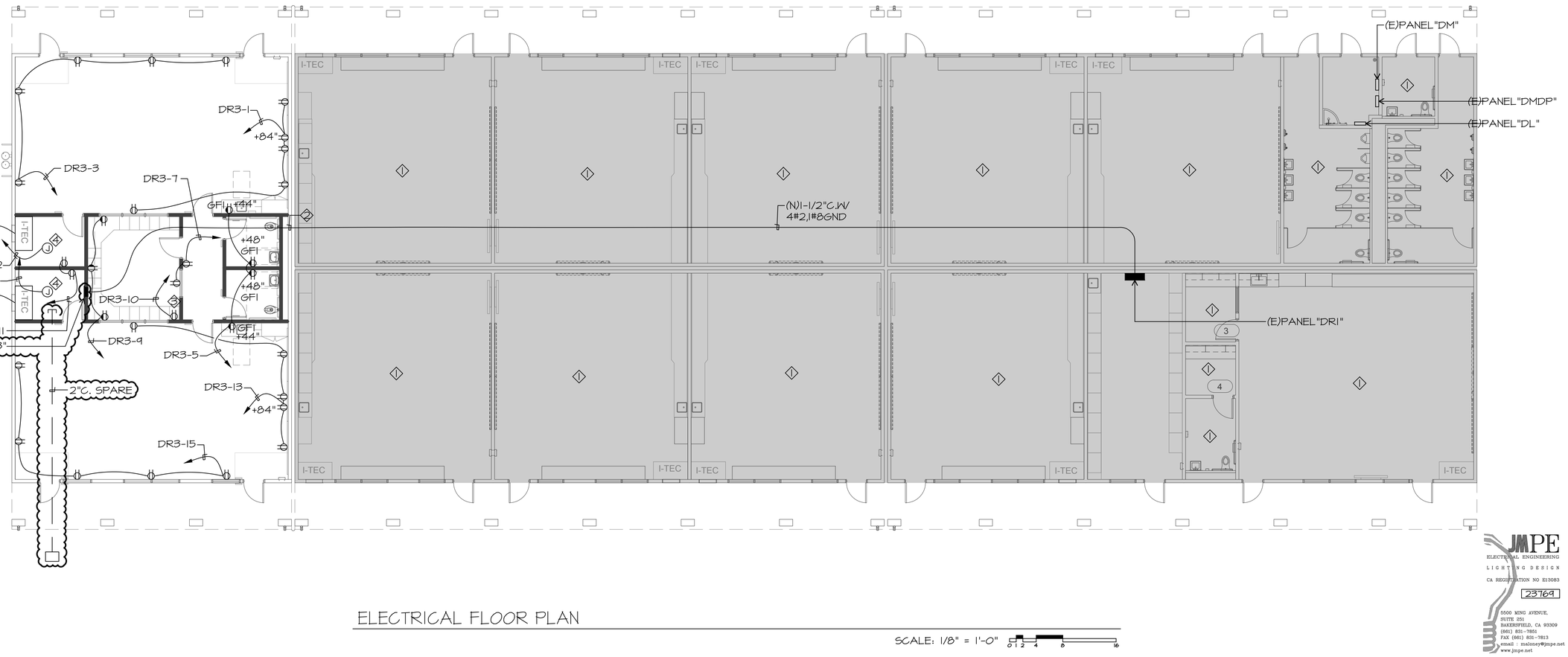
ELECTRICAL NOTES

1. NO WORK IN THIS SPACE
2. SEE SEISMIC JOINT DETAIL C/E00
3. PROVIDE OUTLET FOR HVAC WIRELESS REPEATER. COORDINATE EXACT LOCATION WITH MECHANICAL SHEET M3.11.
4. CONNECT AIR IONIZERS. COORDINATE EXACT LOCATION WITH MECHANICAL SHEET M3.11



ELECTRICAL FLOOR PLAN

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

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Sheet Title:

ELECTRICAL FLOOR PLAN

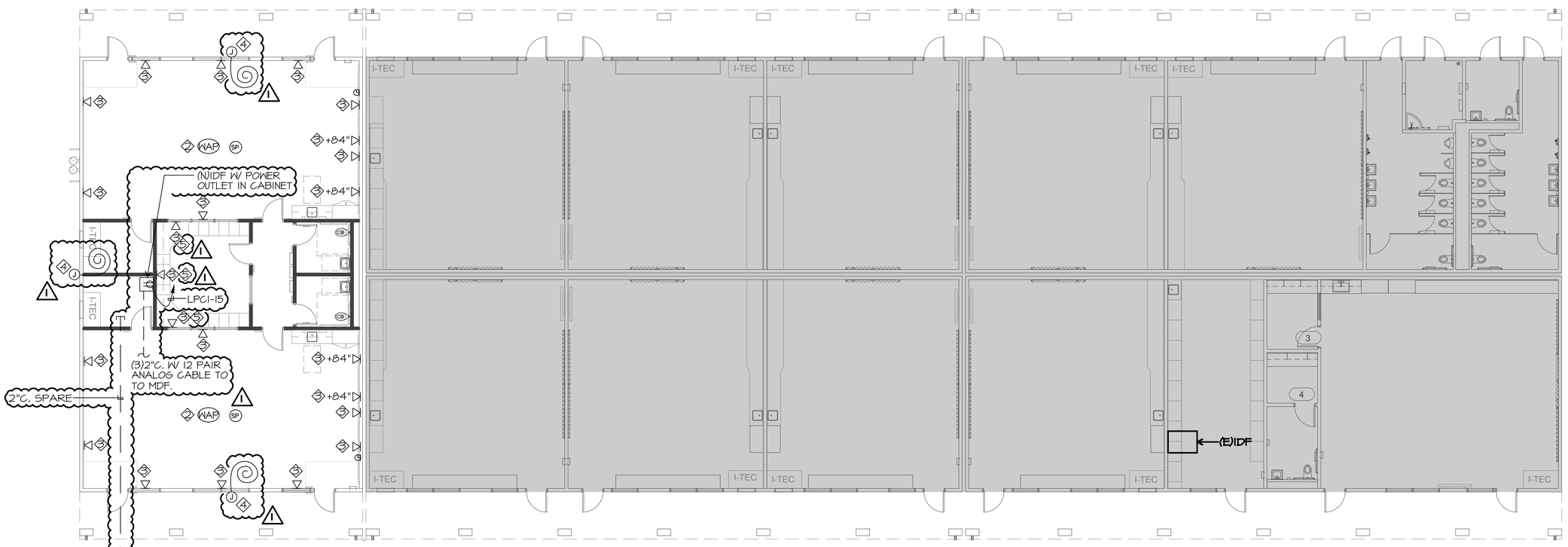
Job No.: 5593

Sheet No.: E1.00

Release: _ADDENDUM 1 ⚠

ELECTRICAL NOTES

1. NO WORK IN THIS SPACE
2. (2)CAT 6A BACK TO IDF. WAP FURNISHED BY BCSD.
3. DATA OUTLET W/ (2)RJ45 CONNECTORS AND (2)CAT6 CABLES BACK TO IDF.
4. 20' CAT6 CABLE COILED ABOVE CEILING FOR CAMERAS.
5. DATA OUTLET SHALL BE MOUNTED ABOVE BACKSPLASH.



DATA AND COMMUNICATIONS PLAN

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

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Sheet Title:

DATA AND COMM. PLAN

Job No.:

5593

Sheet No.:

E1.03

Release: _ADDENDUM 1