THE CITY OF
EL CERRITO

COMMUNITY DEVELOPMENT DEPARTMENT

Staff Liaison
Sean Moss | 510.215.4330
smoss@ci.el-cerrito.ca.us

AGENDA

REGULAR MEETING OF THE **PLANNING COMMISSION**

November 20, 2024 at 7:30 p.m.

City Council Chambers, El Cerrito City Hall
10890 San Pablo Avenue
El Cerrito, CA 94530

7:30 p.m. CONVENE REGULAR MEETING

1. ROLL CALL – Chair Joy Navarrete; Vice Chair Erin Gillett; Members Daniel Hamilton, Leslie Mendez, Abhijeet Singh, and Nathan Tinclair

2. COUNCIL/STAFF LIAISON ANNOUNCEMENTS AND REPORTS
The City Council Liaison or City staff may report on matters of general interest to the Planning Commission, Council policies, priorities and significant actions taken by the City Council.

3. ORAL COMMUNICATIONS FROM THE PUBLIC
Remarks are typically limited to three minutes per person, and may be on anything within the subject matter jurisdiction of the body. Remarks on non-agenda items will be heard first, remarks on agenda items will be heard at the time the item is discussed.

4. ADOPTION OF MINUTES
Adoption of the September 18, 2024 meeting minutes.

5. ADOPTION OF THE 2025 REGULAR PLANNING COMMISSION MEETING SCHEDULE
Adoption of the regular meeting schedule for the 2025 calendar year.

6. COMMISSIONER COMMUNICATION/CONFLICT OF INTEREST DISCLOSURE
This time on the agenda is reserved for Commissioners to disclose communications from individuals regarding specific agenda items or to state a potential conflict of interest in relation to a specific agenda item.

7. PUBLIC HEARING: 729 KEARNEY - ADMINISTRATIVE USE PERMIT AMENDMENT

Application:	PL24-0101
Applicant:	Gunkel Architecture
Location:	729 Kearny Street
APN:	503-392-026
Zoning:	TOMIMU
General Plan:	TOMIMU
Request:	Planning Commission consideration of an Administrative Use Permit Amendment for a Day Care Center within an existing two-story building. The original Administrative Use Permit allowed 72 students and 10

employees to occupy the first floor of the building. The requested amendment would allow the use of the second story of the building for classrooms and would allow for a total of 14 employees and 154 students for the entire building.

CEQA: This project is categorically exempt from the provisions of CEQA pursuant to Section 15332 of the CEQA Guidelines, Class 32: Infill Development Projects.

8. STUDY SESSION: SAFETY ELEMENT UPDATE

Applicant: City of El Cerrito
Location: Citywide
Request: Planning Commission study session on the draft policies for the update of the General Plan Safety Element.

9. STAFF COMMUNICATIONS

Informational reports on matters of general interest, presented by City staff.

10. ADJOURNMENT

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Sean Moss at (510) 215-4330. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 35.102-35.104 ADA Title I).

Any writings or documents provided to a majority of the members regarding any item on this agenda will be made available for public inspection.

THE CITY OF
EL CERRITO

COMMUNITY DEVELOPMENT DEPARTMENT

Staff Liaison
Sean Moss | 510.215.4330
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MINUTES

REGULAR MEETING OF THE **PLANNING COMMISSION**

September 18, 2024 at 7:30 p.m.

City Council Chambers, El Cerrito City Hall
10890 San Pablo Avenue
El Cerrito, CA 94530

7:30 p.m. CONVENE REGULAR MEETING

1. ROLL CALL – Chair Joy Navarrete; Vice Chair Erin Gillett; Members Daniel Hamilton, Leslie Mendez, and Nathan Tinclair. Member Abhijeet Singh had an excused absence.

2. COUNCIL/STAFF LIAISON ANNOUNCEMENTS AND REPORTS
Nothing was reported.

3. ORAL COMMUNICATIONS FROM THE PUBLIC
No speakers addressed the Commission.

4. ADOPTION OF MINUTES
Moved/Second: Commissioners Hamilton/Mendez. **Action:** Passed a motion to adopt the June 20, 2024 special meeting minutes.
Ayes: Gillett, Mendez, Navarrete, Hamilton
Noes: None
Abstain: Tinclair
Absent: Singh

5. COMMISSIONER COMMUNICATION/CONFLICT OF INTEREST DISCLOSURE
Nothing was reported.

6. PUBLIC HEARING: CONDITIONAL USE PERMIT – 1715 ELM STREET

Application:	PL24-0033
Applicant:	Harmeet Anand
Location:	1715 Elm Street
APN:	502-112-038
Zoning:	RM-PD (Multi-family Residential - Planned Development)
General Plan:	High Density Residential
Request:	Planning Commission consideration of a Final Subdivision Map to create fourteen condominium residential units within a multifamily residential building and to create one commercial condominium unit within a separate structure on the parcel (Chapter 18.16, ECMC).
CEQA:	An Initial Study/Mitigated Negative Declaration was prepared and adopted for the project pursuant to the California Environmental Quality Act.

Senior Planner Jeff Ballantine presented the staff report.

The public hearing was opened.

No speakers addressed the Commission.

The public hearing was closed.

Moved/Second: Commissioners Hamilton/Mendez. **Action:** Passed a motion to approve Final Subdivision Map to create fourteen condominium residential units at 1715 Elm Street.
Ayes: Gillett, Hamilton, Mendez, Navarrete, Tinclair
Noes: None
Abstain: None
Absent: Singh

7. PUBLIC HEARING: CONDITIONAL USE PERMIT – 10919 SAN PABLO AVE

Application:	PL24-0083
Applicant:	Wang Brothers Investments LLC
Location:	10919 San Pablo Avenue
APN:	509-120-001, -013, -014, -015
Zoning:	Transit-Oriented Mid-Intensity Mixed Use (TOMIMU)
General Plan:	Transit-Oriented Mid-Intensity Mixed Use (TOMIMU)
Request:	Planning Commission consideration of a request for an extension of the Planning Commission's and Design Review Board's approval of Tier IV Design Review for a new building containing 90 residential units and 2,998 square feet of commercial space (Section 19.32.100, ECMC.
CEQA:	This project has been found to be consistent with the Program Environmental Impact Report prepared for the San Pablo Avenue Specific Plan, pursuant to CEQA Guidelines Sections 15168(c) and 15182.

Senior Planner Jeff Ballantine presented the staff report.

The public hearing was opened.

No speakers addressed the Commission.

The public hearing was closed

Moved/Second: Commissioners Mendez/Navarrete. **Action:** Passed a motion to approve an extension of the Planning Commission's and Design Review Board's approval of Tier IV Design Review.
Ayes: Gillett, Hamilton, Mendez, Navarrete, Tinclair
Noes: None
Abstain: None
Absent: Singh

8. STAFF COMMUNICATIONS

Senior Planner Jeff Ballantine updated the Commission on the upcoming community meeting for the Safety Element update, the 1715 Elm Street Development Agreement extension, and the El Cerrito Plaza BART Station Transit Oriented Development AHSC grant award.

9. ADJOURNMENT
7:53 p.m.

_____
Joy Navarrete, Chair

This is to certify that the foregoing is a true and correct copy of the minutes of the regular Planning Commission meeting of September 18, 2024, as approved by the Planning Commission.

_____
Sean Moss, Staff Liaison

THE CITY OF EL CERRITO

2025 Regular Meeting Schedule
PLANNING COMMISSION

Location:
Council Chambers
10890 San Pablo Ave.
Meeting Time: 7:30PM

January

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
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February

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March

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April

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June

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July

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August

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September

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October

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November

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December

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28	29	30	31			

Community Development Department
Planning and Building Division
10890 San Pablo Avenue, El Cerrito, CA 94530
(510) 215-4330 | planning@ci.el-cerrito.ca.us

PLANNING COMMISSION STAFF REPORT
November 20, 2024

LITTLE LAMB PRESCHOOL, 729 KEARNEY STREET

DETAILS

Application Number: PL24-0101

Applicant: Gunkel Architecture

Location: 729 Kearney Street

APN: 503-392-026

Zoning: Transit-Oriented Mid-Intensity Mixed Use (TOMIMU)

General Plan: Transit-Oriented Mid-Intensity Mixed Use (TOMIMU)

Request: Administrative Use Permit Amendment for a Day Care Center within an existing two-story building. The original Administrative Use Permit allowed 72 students to occupy the first floor of the building. The requested amendment would allow the use of the second story of the building for classrooms and would allow for 154 students for the entire building.

CEQA: This project is Categorically Exempt from the California Environmental Quality Act, pursuant to CEQA Guidelines Section 15303 (New Construction or Conversion of Small Structures).

EXECUTIVE SUMMARY

On October 20, 2021, the Planning Commission adopted resolution PC2021-14 granting a Conditional Use Permit for a new Day Care Center and an exception to the buffer yard standards of El Cerrito Municipal Code Chapter 19.25 (application PL21-0048). On November 3, 2021, the Design Review Board adopted resolution DRB2021-02 granting Tier II Design Review approval of a proposed new 7,772 square foot two story building and adjoining outdoor play area for the project. These approvals allowed for a capacity of up to 72 students who could occupy classrooms on the first floor of the building and only storage use was allowed on the second floor of the building.

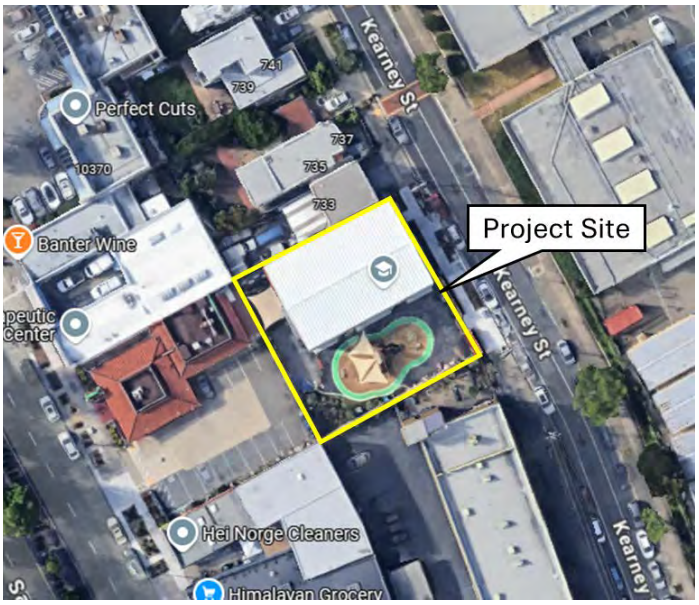
On October 3, 2024, Amber Baker and Brad Gunkel of Gunkel Architecture submitted, on behalf of property owners Bingyi Yu and Xin Dong, an application for Use Permit amendment to allow the use of the second story of the building for classrooms which would allow for 154 students to occupy the entire building and site.

The applicant provided an updated Transportation Demand Management (TDM) Plan that assesses the proposed increase in students and finds that the existing measures approved in the original TDM Plan are sufficient to address this increase in students. Staff recommends approval of the requested amendment of PL21-0048.

Background

On October 20, 2021, the Planning Commission adopted resolution PC2021-14 granting a Conditional Use Permit for a new Day Care Center and an exception to the buffer yard standards of El Cerrito Municipal Code Chapter 19.25 (application PL21-0048). On November 3, 2021, the Design Review Board adopted resolution DRB2021-02 granting Tier II Design Review approval of a proposed new 7,772 square foot two story building and adjoining outdoor play area for the project. These approvals allowed for a capacity of up to 72 students who could occupy classrooms on the first floor of the building and only storage use was allowed on the second floor of the building. The applicant is now requesting to amend this approval to allow the use of the second story of the building for classrooms which would allow for 154 students to occupy the entire building and site.

Vicinity Map



Analysis

On October 3, 2024, Amber Baker and Brad Gunkel of Gunkel Architecture submitted, on behalf of property owners Bingyi Yu and Xin Dong, an application for Use Permit amendment to allow the use of the second story of the building for classrooms which would allow for 154 students to occupy the entire building and site (see Attachment 3 – Applicant Statement). The proposed changes to the exterior of the building include an exterior staircase connecting to a new door on the second floor of the rear of the building (see Attachment 2 – Project Plans).

There are not any changes proposed to the project that would affect the project's consistency with the San Pablo Avenue Specific Plan or with the General Plan. The analysis of the approved project's consistency with these documents is included in the October 20, 2021 Planning Commission staff report for this project (Attachment 5).

Vehicle Access

The project includes no off-street vehicle parking spaces. The following are some transportation measures and parameters that were included in the approved Transportation Demand Management (TDM) Plan dated October 13, 2021 (see Attachment 6):

- Vehicular access to the project will be provided through a proposed drop-off zone along the site's frontage. All curb-cuts and driveways along the project site frontage were removed and replaced with a raised concrete curb. This consists of approximately 80 linear feet divided in half for a white-curb loading zone and green-curb short-term parking (e.g., 15-minutes max).

- Drop-off time occurs from 8:30 a.m. to 9:00 a.m. and pick-up time occurs from 5:15 p.m. to 5:45 p.m. Early drop-off may occur between 7:00 a.m. and 8:30 a.m. when either: (i) an additional fee (i.e., in addition to regular tuition) is charged; or (ii) it is related to delivering older siblings to school (e.g., Fairmount Elementary School

This TDM Plan is further summarized in the October 20, 2021 Planning Commission staff report for this project (Attachment 5). An updated Transportation Demand Management Plan, dated August 27, 2024 (Attachment 7) was prepared. This 2024 TDM plan finds that the measures adopted in the 2021 TDM Plan are sufficient to support the requested capacity increase to allow up to 154 students at the day care center.

Environmental Review

The project, which includes increasing the capacity of an existing day care center to a maximum of 154 students, is Categorically Exempt from the California Environmental Quality Act (CEQA), pursuant to CEQA Guidelines Section 15303 (New Construction or Conversion of Small Structures). Substantial evidence in the record establishes that the project is for a day care center use that is similar to other commercial uses in an urbanized area that does not exceed 10,000 square feet in floor area on a site zoned for day care center use. In addition: the project does not involve the use of significant amounts of hazardous substances; all necessary public services and facilities are available; and the surrounding area is not environmentally sensitive.

The original project for the day care center approved in 2021 was evaluated under the California Environmental Quality Act (CEQA) and determined to be Categorically Exempt, pursuant to CEQA Guidelines Section 15332 (Class 32: In-Fill Development). As provided by CEQA Guidelines Section 15332, the project: (a) is consistent with the El Cerrito General Plan and Zoning Ordinance; (b) is located at a site within the city limits and less than five acres in size; (c) has no habitat value; (d) would not result in significant effects relating to traffic, noise, air quality, or water quality; and (e) can be adequately served by required utilities and public services.

Public Notice

Pursuant to San Pablo Avenue Specific Plan Section 2.02.07.02.02, public notice for the project was published in the East Bay Times and mailed to owners of property within 300 feet of the project site and all interested parties on November 6, 2024. As of the publication of this staff report, no comments have been received.

Required Findings

Pursuant to San Pablo Avenue Specific Plan Section 2.02.06.05.03, a Conditional Use Permit shall only be granted if the Planning Commission finds that the proposal as submitted, modified, and/or conditioned conforms to all the following criteria. Staff's analysis follows each finding in *italics*.

A. The location, size, design, and operating characteristics of the proposed development and/or use will be harmonious and compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood.

   The proposed changes to the exterior of the building include an exterior staircase connecting to a new door on the second floor of the rear of the building. These changes to the project's physical design features are compliant with the requirements of the San Pablo Avenue Specific Plan.

   Concerning operating characteristics, the project still includes hours of operation consistent with Zoning Ordinance Section 19.20.060(B). As examined in the staff report, the circulation aspects of the project have been evaluated considering the joint use of Kearney Street for student drop-off and pick-up. Staff's analysis concludes the project can operate in harmony with the adjacent school and surrounding neighborhood.

   For all the above reasons, the project will be harmonious and compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood.

B. The location and design of the proposal will provide a convenient and functional living, working, shopping, or civic environment that will be an attractive amenity for the City.

   The project will result in expanding the number of students and employees at an existing day care center at a location convenient to both residents of and employees within El Cerrito. This convenience is achieved by the site's accessibility by multiple transportation modes including by walking, bicycling, transit (AC Transit and BART), and vehicles. The project also contributes to a functional living environment by locating in proximity to similar (e.g., school) and compatible (e.g., residential, commercial) land uses.

C. The proposal is consistent with the purposes of the Transect Zone where it is located and conforms in all significant respects with the Specific Plan, El Cerrito General Plan, and with any other applicable policy or plan adopted by the City Council.

   The project conforms to all standards of the San Pablo Avenue Specific Plan and, as noted in these herein, is consistent with the El Cerrito General Plan.

Staff Recommendation

Based on the information contained in this report, staff recommends approval of Planning Application No. PL24-0101, as conditioned by the draft resolution in Attachment 1.

Proposed Motion

Move adoption of Resolution PC2024-14 granting a use permit amendment for an existing day care center at 729 Kearney Street to allow for the use of the second story of the building for classrooms which would allow for 154 students to occupy the entire building and site.

Appeal Period

Within ten (10) calendar days after the date of the decision, the Planning Commission action may be appealed to the City Council.

Attachments

1. Draft Resolution
2. Project Plans, dated October 3, 2024
3. Applicant Statement
4. Resolution PC2021-14
5. Planning Commission Staff Report (PL21-0048)
6. Transportation Demand Management Plan, dated October 13, 2021
7. Transportation Demand Management Plan, dated August 27, 2024

Planning Commission Resolution PC 2024-14

APPLICATION NO. PL24-0101

A RESOLUTION OF THE CITY OF EL CERRITO PLANNING COMMISSION APPROVING A USE PERMIT AMENDMENT FOR AN EXISTING DAY CARE CENTER AT 729 KEARNEY STREET TO ALLOW FOR THE USE OF THE SECOND STORY OF THE BUILDING FOR CLASSROOMS WHICH WOULD ALLOW FOR 154 STUDENTS TO OCCUPY THE ENTIRE BUILDING AND SITE

WHEREAS, the site is located at 729 Kearney Street;

WHEREAS, the existing Assessor's Parcel Number of the site is 503-392-026;

WHEREAS, the site is located within the San Pablo Avenue Specific Plan Area;

WHEREAS, the General Plan land use classification of the site is Transit-Oriented Mid-Intensity Mixed Use;

WHEREAS, the zoning district of the site is Transit-Oriented Mid-Intensity Mixed Use and the project is located on a Neighborhood Street;

WHEREAS, on March 9, 2021, Amber Baker and Brad Gunkel of Gunkel Architecture submitted, on behalf of property owners Bingyi Yu and Xin Dong, an application for a Use Permit for a Day Care Center land use and Tier II Design Review for development of an approximate 7,500 square foot two-story building and adjoining outdoor play area on a vacant site (application PL21-0048);

WHEREAS, on October 20, 2021, the Planning Commission adopted resolution PC2021-14 granting a Conditional Use Permit for a new Day Care Center and an exception to the buffer yard standards of El Cerrito Municipal Code Chapter 19.25;

WHEREAS, on November 3, 2021, the Design Review Board adopted resolution DRB2021-02 granting Tier II Design Review approval of the project;

WHEREAS, on October 3, 2024, Amber Baker and Brad Gunkel of Gunkel Architecture submitted, on behalf of property owners Bingyi Yu and Xin Dong, an application for Use Permit amendment to allow for the second story of the building for classrooms which would allow for 154 students to occupy the entire building and site;

WHEREAS, on November 20, 2024, the Planning Commission, after due consideration of all evidence and reports offered for review, does find and determine the following:

1. The project is Categorically Exempt from the California Environmental Quality Act (CEQA), pursuant to CEQA Guidelines Section 15303 (New Construction or Conversion of Small Structures). Substantial evidence in the record establishes that the project is for a day care center use that is similar to other commercial uses in an urbanized area that does not exceed 10,000 square feet in floor area on a site zoned for day care center use. In addition: the project does not involve the use of significant amounts of hazardous substances; all necessary public services and facilities are available; and the surrounding area is not environmentally sensitive.

2. The project will implement the following policies of the El Cerrito General Plan: LU2.3: Local Employment Opportunities, LU2.1: San Pablo Avenue Specific Plan Area, LU4.2: Availability of Goods

and Services, Policy LU6.2: Circulation Alternatives, Policy CD2.3: Streetscape Alternatives, Policy H2.3, Policy T1.3: Bicycle Circulation, Policy T1.4: Pedestrian Circulation.

3. As required by San Pablo Avenue Specific Plan Section 2.02.07.02.03, all the required findings for granting of a Use Permit amendment can be made, as follows:

   a. The project's physical design features (e.g., building location, size) are compliant with the San Pablo Avenue Specific Plan.

      The proposed changes to the exterior of the building include an exterior staircase connecting to a new door on the second floor of the rear of the building.

      Concerning operating characteristics, the project still includes hours of operation consistent with Zoning Ordinance Section 19.20.060(B). As examined in the staff report, the circulation aspects of the project have been evaluated considering the joint use of Kearney Street for student drop-off and pick-up. Staff's analysis concludes the project can operate in harmony with the adjacent school and surrounding neighborhood.

      For all the above reasons, the project will be harmonious and compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood.

   b. The project will result in expanding the number of students and employees at an existing day care center at a location convenient to both residents of and employees within El Cerrito. This convenience is achieved by the site's accessibility by multiple transportation modes including by walking, bicycling, transit (AC Transit and BART), and vehicles. The project also contributes to a functional living environment by locating in proximity to similar (e.g., school) and compatible (e.g., residential, commercial) land uses.

   c. The project conforms to all standards of the Specific Plan and, as noted in these herein, is consistent with the El Cerrito General Plan. Where the project does not conform to prescriptive buffer yard standards for Day Care Center uses, there is an adequate basis to support the granting of an exception, as provided for.

NOW, THEREFORE, BE IT RESOLVED that after careful consideration of all maps, facts, exhibits, correspondence, and testimony, and other evidence submitted in this matter, and, in consideration of the findings, the El Cerrito Planning Commission hereby approves Application No. PL24-0101. The conditions of approval of Resolution PC2021-14 remain in effect except as amended below:

Planning Division:

Standard Conditions of Approval:

1. The project will be constructed substantially in conformance with the plans dated October 1, 2021, as modified by the plans dated October 3, 2024 and except as noted at Condition No. 9 below. Minor changes may be approved by the Zoning Administrator. All improvements shall be installed in accordance with these approvals. Once constructed or installed, all improvements shall be maintained as approved.

4. If not ~~used~~exercised, this use permit amendment approval shall expire two years from the date of this action pursuant to El Cerrito Municipal Code Section 19.32.100.

Project Specific Conditions of Approval:

8. Consistent with the purposes and authority granted by Zoning Ordinance Section 19.34.050, this approval authorizes a Day Care Center land use consistent with the following operational parameters:

    a. Enrollment of ~~72~~154 students.

    b. Hours of Operation that are 7:00 a.m. to 7:00 p.m., Monday through Friday, but inclusive of the drop-off limitation of Condition No. 8.d below.

    c. Outdoor play that does not occur before 8:00 a.m.

    d. Student drop-off that starts at 8:30 a.m. except that early drop-off may occur between 7:00 a.m. and 8:30 a.m. when either: (i) an additional fee (i.e., in addition to regular tuition) is charged; or (ii) it is related to delivering older siblings to school (e.g., Fairmount Elementary School.

    Changes to these parameters are subject to the procedures at Zoning Ordinance Section 19.32.110.

10. This approval documents and affirms the Zoning Administrator's approval of ~~a~~the Transportation Demand Management Plan (TDM) Plan prepared for the project dated August 27, 2024 in conjunction with the TDM Plan previously approved for the project dated August 16, 2021, pursuant to San Pablo Avenue Specific Plan Section 2.05.08.05(B). The TDM measures identified in the Plan shall be carried out for the duration of the project. TDM measures may be modified by the Zoning Administrator as needed to improve effectiveness.

~~11. This approval expressly authorizes the use of the building's second floor for storage purposes only. The applicant is hereby advised that use of the second floor for any other purpose (e.g., additional classrooms) is subject to further review under multiple policies and codes of the City of El Cerrito. These may include, but are not limited to, the El Cerrito General Plan, the San Pablo Avenue Specific Plan (e.g., Use Permit Amendment), Municipal Code Chapter 16 (Building and Construction) (e.g., Building Code, Fire Code), and federal and state Americans with Disabilities Act standards. Prior to granting this approval, the applicant has been apprised of the likely terms of this approval and, should the second floor be used for other purposes such as classrooms, that potential building modification(s) are necessary to comply with construction codes. Such compliance could include improvements with substantial costs and include additional means of egress through means such as additional stairs, an elevator, and/or additional pathways and/or doors.~~

CERTIFICATION

I certify that this resolution was adopted by the El Cerrito Planning Commission at a regular meeting held on November 20, 2024, upon motion of Commissioner _____, second by Commissioner _____:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Sean Moss, AICP
Planning Manager

PRESCHOOL BUILDING

729 KEARNEY ST,
EL CERRITO, CA 94530

DESCRIPTION OF WORK

1. CHANGE 2ND FLOOR STORAGE TO CLASSROOM & BATHROOM REQUIRED FOR CLASSROOM. NO CHANGE IN TOTAL BUILDING FLOOR AREA.
2. ADD EXIT STAIR FOR SECOND FLOOR CLASSROOM EXIT.

PROJECT INFORMATION

APN: 503-392-026-4
ZONING: TOMIMU
LOT SIZE: 10,000
PARKING: NO CAR PARKING PROVIDED
BUILDING OCCUPANCY: E (CHILD CARE)
CONSTRUCTION TYPE: V-B

AREA CALCULATION

LOT AREA = 10,000 SF
BUILDING FOOTPRINT = 3,886 SF
FLOOR AREA = 3,886 SF (1ST FLOOR) + 3,886 SF (2ND FLOOR) = 7,772 SF
FLOOR AREA RATIO = .8 F.A.R.
OPEN SPACE = 6,250 SF
USABLE OUTDOOR AREA = 5,218 SF
PERVIOUS SURFACE AREA = SEE LANDSCAPE AND CIVIL DRAWINGS

HEIGHT

TOMIMU ZONE:
REQUIRED: 2 STORIES MIN. 55'-0" MAX.
PROVIDED: 26'-7" AT RIDGE

PARKING

CAR PARKING REQUIRED: UP TO 1 CAR / 500 SF
CAR PARKING PROVIDED: 0, TDM PARKING STUDY INCLUDED IN SUBMISSION

BIKE PARKING

SHORT TERM REQUIRED: 1.5 SPACES PER 3,000 SF
(7,500 SF / 3,000 SF) X 1.5 SPACE = 4 SPACES
SHORT TERM PROVIDED: 6 IN FRONT + 2 IN BACK= 8 TOTAL

LONG TERM REQUIRED: 1 SPACE PER 10,000 SF
(7,500 SF/ 10,000 SF)X 1 SPACE =0.7 = 1 SPACE
LONG TERM PROVIDED: 1 BIKE LOCKER BEHIND BUILDING

GARBAGE AND RECYCLING

GARBAGE = 2 - 52 GALLON CANS
RECYCLING = 2 - 52 GALLON CANS
GREEN WASTE = 1 - 52 GALLON CAN

PROJECT TEAM

OWNER

LITTLE LAMB PRESCHOOL
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ARCHITECT

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MEP & COORDINATORS

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CODE COMPLIANCE

2022 CALIFORNIA BUILDING CODE (INCORPORATES BY ADOPTION AND REPRINTS THE 2018 INTERNATIONAL BUILDING CODE WITH CALIFORNIA AMENDMENTS. PUBLISHED BY THE INTERNATIONAL CODE COUNCIL, ICC)

2022 CALIFORNIA RESIDENTIAL CODE - APPLIES TO ONE AND TWO FAMILY HOUSES AND TOWNHOMES LESS THAN 3 STORIES IN HEIGHT. (INCORPORATES BY ADOPTION AND REPRINTS THE 2018 INTERNATIONAL RESIDENTIAL CODE.)

2022 CALIFORNIA ENERGY CODE - CHECK THE CALIFORNIA ENERGY COMMISSION'S WEBSITE AT HTTP://WWW.ENERGY.CA.GOV FOR A DOWNLOADABLE VERSION. (PUBLISHED BY ICC).

2022 CALIFORNIA ELECTRICAL CODE (INCORPORATES BY ADOPTION AND REPRINTS THE 2017 NATIONAL ELECTRICAL CODE WITH CALIFORNIA AMENDMENTS. PUBLISHED BY THE NATIONAL FIRE PROTECTION AGENCY, NFPA)

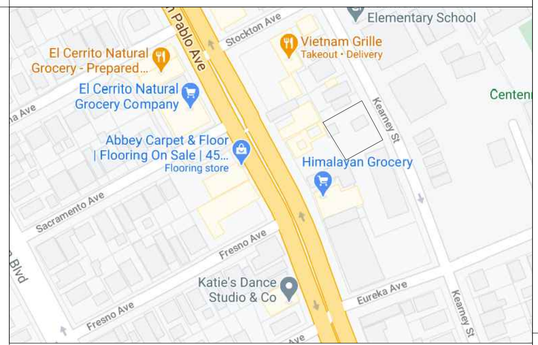
2022 CALIFORNIA PLUMBING CODE (INCORPORATES BY ADOPTION AND REPRINTS THE 2018 UNIFORM PLUMBING CODE WITH CALIFORNIA AMENDMENTS. PUBLISHED BY THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)

2022 CALIFORNIA MECHANICAL CODE (INCORPORATES BY ADOPTION AND REPRINTS THE 2018 UNIFORM MECHANICAL CODE WITH CALIFORNIA AMENDMENTS. PUBLISHED BY THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)

2022 CALIFORNIA FIRE CODE (INCORPORATES BY ADOPTION AND REPRINTS THE 2018 INTERNATIONAL FIRE CODE WITH CALIFORNIA AMENDMENTS. PUBLISHED BY ICC)

2022 CALGREEN CODE - APPLIES TO CERTAIN NEW BUILDINGS ONLY - ALL NEW RESIDENTIAL BUILDINGS 3 STORIES OR LESS AND ALL NEW NON-RESIDENTIAL BUILDINGS. HERS VERIFICATION REQUIRED BY T-24 ENERGY REPORT.

VICINITY MAP



DRAWING NOTES

THESE DRAWINGS ARE INTENDED FOR BUILDING PERMIT APPROVAL AND ARE NOT INTENDED TO BE A COMPREHENSIVE SET OF DRAWINGS INDICATING CONSTRUCTION DETAILS, WATER PROOFING, SPECIFIC FINISHES, SPECIFIC CABINETRY, SPECIFIC PLUMBING FIXTURES, LIGHTING FIXTURES, SPECIFIC DOORS, WINDOWS, & HARDWARE, OR M.E.P. & UTILITY ROUTING. OWNER/DEVELOPER IS RESPONSIBLE FOR THE SELECTION OF THESE ITEMS AND CLARIFICATION AND COORDINATION OF THESE WITH THE CONTRACTOR AS PART OF THE OF THE BUILDING CONTRACT AND CONSTRUCTION PROCESS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING CODE COMPLIANCE OF ALL WORK NOT FULLY REFLECTED IN THESE DOCUMENTS AS WELL AS ANY REVISIONS TO THIS SCOPE WITH THE ENTITIES HAVING JURISDICTION. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE, STRUCTURALLY SOUND, FULLY OPERATIONAL, CODE COMPLIANT, FINISHED WORK WITH COMPLETE PROTECTION AGAINST ELEMENTS.

SYMBOLS

HEIGHT — +0'-0" A.F.F.
SECTION — I / AX.XX
EXTERIOR ELEVATION — I / AX.XX
INTERIOR ELEVATION — 4 / 2 / 3 / I / AX.XX
ROOM TAG — RoomName / A101
WALL TAG (SEE A8.1 FOR EXTERIOR WALLS & A8.2 FOR INTERIOR WALLS) — A
DETAIL — I / AX.XX
GRIDLINE, S.S.D. — A
WINDOW TAG (SEE A8.01) — A
KEY NOTE — 1
FINISH NOTE — 1
DOOR TAG (SEE A8.0) — 101A

DEFERRED APPROVAL ITEMS

- EXTERIOR STAIR
- 2ND FLOOR FIRE SPRINKLER MODIFICATION
- 2ND FLOOR FIRE ALARM MODIFICATION

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LICENSED ARCHITECT
BRAD KENNETH GUNKEL
No. C-30424
1/31/25
RENEWAL DATE
STATE OF CALIFORNIA

RENOVATION
729 KEARNEY ST,
EL CERRITO, CA 94530

TITLE SHEET

BUILDING PERMIT

DATE 9/16/24

A0.0

GENERAL		PERMIT SUBMITTAL
A0.0	TITLE SHEET	X
A0.1	SHEET INDEX	X
A0.2	GENERAL NOTES	X
A0.3	ABBREVIATIONS	X
A0.4	CODE ANALYSIS	X
A0.5	EGRESS, FIRE SEPARATION & OCCUPANCY	X
ARCHITECTURAL		
A1.1	SITE PLAN/ROOF PAN	X
A2.1	EXISTING FIRST FLOOR PLAN	X
A2.2	IMPROVEMENT FIRST FLOOR PLAN	X
A2.3	DEMO SECOND FLOOR PLAN	X
A2.4	IMPROVEMENT SECOND FLOOR PLAN	X
A3.1	SECOND FLOOR REFLECTED CEILING PLAN	X
A4.1	ELEVATIONS	X
A5.1	STAIR SECTION	X
A6.1	ENLARGED PLANS & INTERIOR ELEVATIONS	X
A6.2	ENLARGED STAIR PLANS	X
A7.1	DOOR SCHEDULE	X
A8.1	EXTERIOR ASSEMBLIES & DETAILS	X
A8.2	INTERIOR ASSEMBLIES & DETAILS	X
A8.3	FIRE PENETRATION DETAILS	X
A9.1	DETAILS	X
A10.1	SIGNAGE DETAILS	X
TITLE 24		
T 1.00	T24 - ENERGY COMPLIANCE	X
T 2.00	T24 - ENERGY COMPLIANCE	X
STRUCTURAL		
S-1	ENDWALLS FRAMING	X
S-2	DETAILS DRAWINGS	X
MECHANICAL		
M 1.01	MECHANICAL COVER SHEET	X
M 1.02	MECHANICAL REQUIREMENTS & CODE ANALYSIS	X
M 1.03	MECHANICAL GENERAL DETAILS	X
M 2.01	MECHANICAL LAYOUT	X
M 3.01	EQUIPMENT SCHEDULES	X
M 4.01	MECHANICAL EQUIPMENT DATA SHEETS	X
PLUMBING		
P 1.01	PLUMBING COVER SHEET	X
P 1.02	PLUMBING REQUIREMENTS & CODE ANALYSIS	X
P 1.03	PLUMBING CALCULATIONS, SCHEDULES & GENERAL DETAILS	X
P 2.01	WATER SUPPLY LAYOUT	X
P 3.01	SEWER LAYOUT	X
P 4.01	PLUMBING EQUIPMENT DATA SHEETS	X
ELECTRICAL		
E 1.00	ELECTRICAL SPECIFICATIONS	X
E 2.00	GENERAL NOTES AND ABBRIEVIATIONS	X
E 3.00	LIGHTING LAYOUT	X
E 4.00	POWER LAYOUT	X
E 5.00	PHOTOMETRICS LAYOUT	X
E 6.00	EMERGENCY PHOTOMETRICS LAYOUT	X
E 7.00	SINGLE LINE DIAGRAM, GROUNDING DETAILS & PANEL SCHEDULE	X

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SHEET INDEX

BUILDING PERMIT

DATE 9/16/24

A0.1

GENERAL NOTES

ADMINISTRATIVE REQUIREMENTS:

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMISSION OF BIDS TO REVIEW EXISTING CONDITIONS OF AREAS THAT ARE TO BE BID. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS & SITE CONDITIONS. THE GENERAL CONTRACTOR SHALL INSPECT THE EXISTING PREMISES & TAKE NOTE OF EXISTING CONDITIONS PRIOR TO SUBMITTING PRICES. NO CLAIM SHALL BE ALLOWED FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE REASONABLY BEEN INFERRED FROM SUCH AN EXAMINATION.

2. DISCREPANCIES: WHERE A CONFLICT IN REQUIREMENTS OCCURS BETWEEN THE SPECIFICATIONS AND DRAWINGS, OR ON THE DRAWINGS, & A RESOLUTION IS NOT OBTAINED FROM THE ARCHITECT BEFORE THE BIDDING DATE, THE MORE STRINGENT
ALTERNATE WILL BECOME THE CONTRACTUAL REQUIREMENTS, AND SUCH INFORMATION SHALL BE NOTED IN THE CONTRACTOR'S CLARIFICATIONS.

3. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION AND ADDITIONS IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CHANGE ORDER, OR A SEPARATE SET OF DRAWINGS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY AREA HAVING JURISDICTION BEFORE PROCEEDING WITH THE WORK.

4. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS TO INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY FOR ALL WORK SHOWN, PRESCRIBED, OR REASONABLY IMPLIED, BUT NOT LIMITED TO THAT EXPLICITLY INDICATED IN THE CONTRACT DOCUMENTS. WHERE WORK OR EQUIPMENT IS INDICATED N.I.C. (NOT IN CONTRACT), SUCH WORK AND/OR EQUIPMENT SHALL BY PROVIDED BY OTHERS. CONTRACTOR SHALL COORDINATE AND COOPERATE TO EFFECT SUCH INSTALLATION. ALL REQUESTS FOR CLARIFICATIONS OF THESE DRAWINGS SHALL BE DIRECTED TO THE ARCHITECT OF RECORD. ALL REQUIRED WORK SHALL BE PERFORMED BY THE CONTRACTOR INCLUDING THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS, THEY SHALL BE ONE AND THE SAME. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES ON THE PROJECTS. ANY CHANGES OR DELAYS ARISING FROM CONFLICTS BETWEEN TRADES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL TRADES COORDINATE INTERFACE BETWEEN THEMSELVES, IE. PLUMBING, ROUGH-IN CABINETRY, ETC.

5. THE CONSTRUCTION DOCUMENTS, INCLUDING THE SPECIFICATIONS, PLANS AND DRAWINGS, ARE COMPLEMENTARY AND WHAT IS CALLED FOR BY ANY ONE SHALL BE AS BINDING AS IF CALLED FOR BY ALL. IN CASE OF CONFLICT, LARGE SCALE (DETAIL) DRAWINGS SHALL GOVERN OVER SMALL-SCALE DRAWINGS. CONFLICTS FOUND BETWEEN THE DRAWINGS AND THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT, SPECIAL PROVISIONS SHALL GOVERN OVER BOTH THE CONSTRUCTION DRAWINGS AND THE GENERAL CONDITIONS, AND SUBSEQUENT ADDENDA. INTERPRETATIONS, OR CHANGE ORDERS SHALL GOVERN OVER THE ORIGINAL DOCUMENTS, UNLESS A DIFFERENT ORDER OF PROCEDURE IS NOTED ELSEWHERE IN CONJUNCTION WITH A SPECIFIC PORTION OF THE DOCUMENTS.

IN CASE OF CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE DOCUMENT CONTAINING ADDITIONAL QUANTITIES SHALL GOVERN IN MATTERS OF QUANTITY; THE DOCUMENT REQUIRING A HIGHER DEGREE OF QUALITY SHALL GOVERN IN MATTERS OF QUALITY. IN CASE OF CONFLICT WITHIN THE DRAWINGS INVOLVING QUANTITIES OR WITHIN THE SPECIFICATIONS INVOLVING QUALITY, THE GREATER QUANTITY AND THE HIGHER QUALITY SHALL BE FURNISHED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ALL SUCH QUANTITY AND QUALITY CONFLICTS AND SHALL AGREE UPON RESOLUTION, IN WRITING, PRIOR TO PROCEEDING. ANY ERRORS, OMISSIONS, OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT & THE OWNER BEFORE PROCEEDING WITH THE WORK.

WHERE ON ANY DRAWING A PORTION OF THE WORK IS DRAWN OUT AND THE REMAINDER IS INDICATED IN OUTLINE, THE DRAWN-OUT PARTS SHALL APPLY TO ALL OTHER LIKE PORTIONS OF THE WORK. WHERE ORNAMENT OR OTHER DETAILS IS INDICATED AS STARTING, SUCH DETAIL SHALL BE CONTINUED THROUGHOUT THE COURSES OR PARTS IN WHICH IT OCCURS AND SHALL ALSO APPLY TO OTHER SIMILAR PARTS IN THE WORK, UNLESS OTHERWISE INDICATED.

6. SUB-CONTRACTOR AND CONSULTANT COORDINATION: CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK AMONG INFORMATION SHOWN ON DRAWINGS BY ARCHITECTURAL, STRUCTURAL, LANDSCAPE, CIVIL, MECHANICAL, PLUMBING, & ELECTRICAL CONSULTANTS. THIS INCLUDES REVIEWING REQUIREMENTS OF INDIVIDUAL SYSTEMS BEFORE ORDERING & INSTALLATION OF ANY WORK. VERIFY ALL ARCHITECTURAL DETAILS & ALL FINISH CONDITIONS (WHETHER DEPICTED IN DRAWINGS OR NOT) WITH SAME DISCIPLINES.

7. ASBESTOS: USE OF ANY MATERIAL CONTAINING ASBESTOS IS PROHIBITED.

8. SCALING DRAWINGS: DO NOT SCALE DRAWINGS. DRAWINGS SHOULD BE USED AS A SUPPLEMENTAL TOOL FOR THE CONTRACTOR'S USE IN REVIEWING ACTUAL FIELD CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION.

9. DIMENSIONS: ALL DIMENSIONS NOTED ARE APPROXIMATE. THE CONTRACTOR SHALL REVIEW & VERIFY ALL DIMENSIONS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES THAT WOULD AFFECT THE FUNCTIONALITY, CODE COMPLIANCE OR COST OF SCOPE OF WORK PRIOR TO PROCEEDING W/ CONSTRUCTION.

- -- AT EXISTING CONDITIONS, PLAN DIMENSIONS ARE FROM FACE OF FINISH, U.O.N.
- -- AT NEW CONDITIONS,PLAN DIMENSIONS ARE FROM/TO CENTERLINE OR FACE OF STUDS, U.O.N. ON PLANS.
- -- ALL VERTICAL DIMENSIONS ARE TO TOP OF PLYWOOD OR TOP OF CONCRETE IN SECTION OR ELEVATION, U.O.N.
- -- AT GRID LINES TO CENTERLINE OF COLUMN OR FACE OF EXTERIOR WOOD STUD, U.O.N.

10. MATCH LINES ARE INDICATORS OF WHERE ADJOINING FLOOR PLANS OR ELEVATIONS MEET. SEE PLANS ON BOTH SIDES OF MATCH LINE FOR INFORMATION OVERLAPPING THE LINE.

11. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY IN SIMILAR CONDITIONS.

12. THE TERM "TYPICAL" (TYP.) SHALL BE CONSTRUED TO MEAN APPLYING TO ALL LIKE OR SIMILAR CONDITIONS IN THE AREAS DESIGNATED FOR WORK SCOPE (IE. WITHIN THE BOUNDARIES OF THIS PROJECT.).

13. INSTALL ALL FIXTURES, EQUIPMENT, & MATERIALS PER MANUFACTURER'S RECOMMENDATIONS & THE REQUIREMENTS OF THE CODES. ALL APPLIANCES, FIXTURES, & EQUIPMENT ASSOCIATED WITH PLUMBING, ELECTRICAL, & MECHANICAL SYSTEMS SHALL BE LISTED BY A NATIONALLY RECOGNIZED & APPROVED TESTING
AGENCY.

14. EXISTING UTILITIES AND IMPROVEMENTS DAMAGED DURING THE COURSE OF THE WORK SHALL BE PROMPTLY REPAIRED. EXISTING UTILITIES AND IMPROVEMENTS DAMAGED FOR WHICH LOCATIONS WERE UNKNOWN, SHALL BE IMMEDIATELY BROUGHT TO THE OWNER'S AND ARCHITECT'S ATTENTION AND PROMPTLY REPAIRED AT HIS/HER DIRECTION. THE WORK REQUIRED TO REPAIR DAMAGED EXISTING UTILITIES AND IMPROVEMENTS FOR WHICH LOCATIONS WERE UNKNOWN WILL BE REVIEWED AND TAKEN UNDER CONSIDERATION AS EXTRA WORK.

15. ALL ITEMS NOTED TO BE SALVAGED SHALL BE RETURNED TO THE OWNER.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING FOR & OBTAINING ALL REQUIRED INSPECTIONS TO CONFORM WITH LOCAL BUILDING & FIRE CODES.

17. THE CONTRACTOR SHALL MAINTAIN THE PUBLIC RIGHTS OF WAY, SIDEWALKS, CORRIDORS, ETC., AFFECTED BY THE CONSTRUCTION, AND KEEP THESE AREAS FREE OF ALL SOIL, DEBRIS, TRASH, ETC., ON A DAILY BASIS. CLEAN EGRESS SHALL BE MAINTAINED AT ALL TIMES FOR ALL ADJACENT BUILDING TENANTS, THEIR EMPLOYEES AND GUESTS.

18. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH AND AGENCIES. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE SITE. THE CONTRACTOR SHALL AT ALL TIMES, KEEP PREMISES FREE FROM ACCUMULATION OF DEBRIS CAUSED BY ITS OPERATIONS. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL CLEAN THE BUILDING AND LEAVE THE WORK "READY FOR MOPPING AND WAXING."

19. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE & PROVIDE ALL NECESSARY TEMPORARY UTILITY HOOK-UPS FOR ALL EQUIPMENT DURING CONSTRUCTION.

20. CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTION/CAPPING OF ALL EXISTING UTILITIES ON SITE& RE-CONNECTION WHERE RE-USE IS POSSIBLE.

21. CONTRACTOR SHALL NOTIFY GEOTECHNICAL ENGINEER FOR INSPECTION OF BUILDING PAD FOUNDATION EXCAVATION, SLAB ON GRADE, FILL PLACEMENT INCLUDING RETAINING WALL BACKFILL & TRENCH BACKFILL, & DRAINAGE AS APPLICABLE.

22. ITEMS INDICATED TO BE VERIFIED OR FIELD VERIFIED ARE REQUIRED TO BE VERIFIED PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH THE WORK. ITEMS ARE ALWAYS TO BE VERIFIED FOR DESIGN INTENT AND COMPATIBILITY.

23. VERIFY CLEARANCES FOR FLUES, VENTS, CHASES, SOFFITS, FIXTURES, ETC., BEFORE ANY CONSTRUCTION, ORDERING OF, OR INSTALLATION OF ANY ITEM OF WORK.

24. PROVIDE FIRE-STOP IN CONCEALED SPACES OF ALL STUD SPACES BETWEEN FLOORS WITH APPROVED FIRE STOP U.O.N. PER CODE REQUIREMENTS.

25. MECHANICAL, PLUMBING, ELECTRICAL, & OTHER PENETRATIONS OF FLOORS, WALLS & CEILINGS SHALL BE SEALED AIRTIGHT WITH ACOUSTICAL SEALANT OR FIRESAFING AS REQUIRED BY CODE.

26. ALL EXTERIOR DOORS & WINDOWS ARE TO BE WEATHER-STRIPPED PER TITLE 24 REQUIREMENTS.

27. CONTRACTOR TO REVIEW & BE RESPONSIBLE FOR ALL NOTATIONS OF FINISH ALIGNMENTS ON DRAWINGS.MISALIGNED FRAMING TO BE CORRECTED @ CONTRACTOR'S EXPENSE.

28. PENETRATIONS IN FIRE RATED ASSEMBLIES AND BEARING WALLS SHALL BE PROTECTED AS REQUIRED BY 2019 CBC CHAPTER 7

29. CLEAR DIMENSIONS SHALL NOT BE ALTERED WITHOUT APPROVAL OF THE ARCHITECT.

30. PROVIDE & INSTALL 2x6 SOLID WOOD, METAL STUD, OR SHEET METAL BACKING FOR ALL BATH ACCESSORIES, HANDRAILS, TOWEL BARS, WALL MOUNTED FIXTURES, & ANY OTHER ITEMS ATTACHED TO WALLS, U.O.N.

31. ALL CHANGES IN FLOOR MATERIALS OCCUR @ STRIKE SIDE OF DOOR STOP, OR FLUSH WITH DOOR. CHANGE IN MATERIALS @ FRAMED OPENINGS OCCUR @ FACE OF FINISH AS NOTED.

32. WORK NOTED AS "OFCI" (OWNER-FURNISH, CONTRACTOR-INSTALL) SHALL MEET ALL APPLICABLE CODES & REGULATORY REQUIREMENTS, AND SHALL BE INSTALLED & FULLY OPERATIONAL PRIOR TO FINAL APPROVAL & OCCUPANCY OF THIS PROJECT.

33. GENERAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND FIELD VERIFYING DEMOLITION REQUIREMENTS IN RELATION TO CONSTRUCTION DRAWINGS. THE ARCHITECT IS TO BE NOTIFIED OF ANY AND ALL CONFLICTS, DISCREPANCIES OR PROBLEMS.

34. CONTRACTOR TO REPAIR AND PATCH ALL AREAS DISTURBED DUE TO THIS PROJECT'S SCOPE OF WORK.

35. ITEMS INDICATED TO BE VERIFIED OR FIELD VERIFIED ARE REQUIRED TO BE VERIFIED PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH THE WORK. ITEMS ARE ALWAYS TO BE VERIFIED FOR DESIGN INTENT AND COMPATIBILITY

36. ALL NEW GYPSUM BOARD TO BE INSTALLED CONSISTENT WITH 2019 CBC SECTION 2508.

37. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTORS TO SUPPLY AND DISTRIBUTE ADEQUATE COPIES OF ALL DRAWINGS TO ALL TRADES FALLING UNDER THEIR RESPONSIBILITY AT ALL TIMES DURING THE PROGRESS OF THE JOB (IE. REVISIONS).

38. GENERAL CONTRACTOR OR ITS SUBCONTRACTORS SHALL BE RESPONSIBLE FOR VERIFICATION AND APPROVALS OF SUBSTITUTED MATERIALS AS REQUIRED BY GOVERNING CODES AND AGENCIES.

39. CONTRACTOR SHALL SUBMIT ALL PERTINENT SHOP DRAWINGS AND COLOR SAMPLES (INCLUDING CASEWORK) FOR THE ARCHITECT'S REVIEW. ALLOWING ADEQUATE TIME FOR REVIEW AND CORRECTIVE ACTION, SHOULD IT BE REQUIRED. BY SUBMITTING SHOP DRAWINGS, THE CONTRACTOR THEREBY REPRESENTS THAT HE HAS VERIFIED ALL FIELD MEASUREMENTS, METHODS OF ACCESS TO THE POINT OF INSTALLATION AND SIMILAR FIELD CRITERIA FOR CABINETRY/MILLWORK AND ALL PREFABRICATED ASSEMBLIES OTHER THEN BUILDING STANDARD WORK.

40. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH AND AGENCIES.

41. THE ARCHITECT'S APPROVAL OF SHOP DRAWINGS SHALL NOT RELIEVE THE GENERAL CONTRACTOR FROM RESPONSIBILITY FOR DEVIATIONS FROM DRAWINGS OR SPECIFICATIONS UNLESS HE HAS (IN WRITING) CALLED THE ARCHITECT'S ATTENTION TO SUCH DEVIATIONS AT THE TIME OF SUBMISSION NOR SHALL IT RELIEVE HIM OF RESPONSIBILITY FOR ERRORS OF ANY SORT IN THE SHOP DRAWINGS.

42. TYPICAL WINDOW & DOOR DETAILS ARE REFERENCED IN THE WINDOW & DOOR SCHEDULES. WHEN DOORS ARE NOT DIMENSIONED OR DETAILED, THEY SHOULD BE LOCATED 2 STUD WIDTHS FROM THE ADJACENT WALL.

43. SLOPES: SLOPE FLOORS WHERE SHOWN, & ROOFS, INCLUDING CRICKET VALLEYS, A MIN OF 1/4" PER 1'-0", U.O.N.

44. CHANGES IN FINISH SURFACE: WHERE THE THICKNESS OF FINISH CHANGES ALONG THE LENGTH OF A WALL, THE CONTRACTOR WILL ADJUST THE STUD LOCATIONS OR PROVIDE FURRING TO ALLOW FOR A FLUSH FINISH U.O.N.; THE SOLUTION OF ALL SUCH CONDITIONS IS TO BE DESCRIBED BY THE CONTRACTOR & APPROVED BY THE ARCHITECT BEFORE CONSTRUCTION.

45. SASM: PROVIDE SELF-ADHESIVE SELF-ADHERING FLASHING @ ALL INSIDE & OUTSIDE CORNERS, AND WINDOWS, UON.

46. HVAC CONTROLS: ALL HVAC CONTROLS IN COMMON AREAS TO BE PLACED IN ACCESSIBLE RANGE.

47. PROTRUDING OBJECTS: NO PROTRUDING OBJECTS GREATER THAN 4", AND OVERHANGING OBSTRUCTION LESS THAN 80" (84" FOR EXITS) ARE ALLOWED.

48. MECHANICAL & ELECTRICAL WORK SHOWN ON DRAWINGS IS SCHEMATIC IN NATURE; CONTRACTOR TO CONFIRM FINAL LAYOUT WITH ARCHITECT, PRIOR TO PROCEEDING WITH THE WORK. LOCATION OF SPRINKLER HEADS, SMOKE DETECTORS, & FIRE ALARMS MUST BE APPROVED BY ARCHITECT IN ALL PUBLIC SPACES, INCLUDING LOBBIES, CORRIDORS, COMMUNITY ROOMS, & RESIDENTIAL SERVICE SPACES.

49. PROVIDE EMERGENCY/EXIT LIGHTING @ ALL EXIT PATHS OF TRAVEL AS REQUIRED BY CODE, & ON DRAWINGS.

50. STAGGER ALL ELECTRICAL & MECHANICAL ITEMS IN ALL DEMISING WALLS & FLOORS BETWEEN UNITS TO MAINTAIN ASSEMBLY'S ACOUSTICAL RATINGS. SEE SPECIFICATION DETAILS FOR SPECIFIC REQUIREMENTS.

51. ALL ELECTRICAL RECEPTACLES IN DAMP LOCATIONS TO BE GROUND FAULT INTERRUPTED AS REQUIRED BY CODE.

52. INTERIOR WALL AND CEILING FINISH MATERIALS SHALL BE CLASSIFIED IN ACCORDANCE WITH NFPA 286 AND COMPLY WITH SECTION 803.1.1.1. MATERIALS COMPLYING WITH SECTION 803.1.1.1 SHALL BE CONSIDERED TO ALSO COMPLY WITH THE REQUIREMENTS OF CLASS A.

803.1.1.1 ACCEPTANCE CRITERIA FOR NFPA 286
THE INTERIOR FINISH SHALL COMPLY WITH THE FOLLOWING:

- DURING THE 40 KW EXPOSURE, FLAMES SHALL NOT SPREAD TO THE CEILING.
- THE FLAME SHALL NOT SPREAD TO THE OUTER EXTREMITY OF THE SAMPLE ON ANY WALL OR CEILING.
- FLASHOVER, AS DEFINED IN NFPA 286, SHALL NOT OCCUR.
- THE PEAK HEAT RELEASE RATE THROUGHOUT THE TEST SHALL NOT EXCEED 800 KW.
- THE TOTAL SMOKE RELEASED THROUGHOUT THE TEST SHALL NOT EXCEED 1,000 M2.

53. DESIGN-BUILD ITEMS:

A. SOLAR PHOTOVOLTAICS - ALL SUPPORTS FOR THE PV PANEL FRAMES SHALL INCUDE STRUCTURAL BLOCKING AND SHALL BE COORDINATED WITH WATERPROOFING AS PART OF THE BID AND CONSTRUCTION SCOPE OF WORK.

B. FIRE PROTECTION SYSTEMS - ALL FIRE PROTECTION SYSTEMS SHALL BE COORDINATED WITH THE ARCHITECT FOR LAYOUT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING BLOCKING THAT ENABLES SPRINKLER HEADS TO BE LOCATED AS REQUIRED BY ARCHITECT AND OWNER, EXCEPT WHERE THE BUILDING CODE DOES NOT PERMIT.

C. LOW VOLTAGE - CONTRACTOR TO REVIEW AND INCLUDE ELECTRICAL ENGINEER "LOW VOLTAGE NARRATIVE".

54. UPON COMPLETION OF THE JOB, THE GENERAL CONTRACTOR SHALL SUBMIT CERTIFICATES OF INSPECTION OF SATISFACTORY COMPLETION, AND OPERATION AND MAINTENANCE INSTRUCTIONS OF ALL EQUIPMENT TO THE OWNER AND TENANT. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL WORK AND MATERIALS IN CONFORMANCE WITH ANY CODE OR CODES OF FEDERAL, STATE, COUNTY OR MUNICIPALITY HAVING JURISDICTION OVER SUCH WORK. ALL APPLICABLE REQUIREMENTS IN THESE REGULATIONS ALL BE FOLLOWED THE SAME AS IF NOTED ON THE DRAWINGS. CONFLICTS BETWEEN WORK SET FORT ON THE DRAWINGS AND BUILDING CODES, LAWS OR REGULATIONS NOTED BY THE GENERAL CONTRACTOR SHALL BE SUBMITTED TO THE ARCHITECT FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK.

THESE DRAWINGS ARE INTENDED FOR BUILDING PERMIT APPROVAL AND ARE NOT INTENDED TO BE A COMPREHENSIVE SET OF DRAWINGS INDICATING CONSTRUCTION DETAILS, WATER PROOFING, SPECIFIC FINISHED, SPECIFIC CABINETRY, SPECIFIC PLUMBING FIXTURES, LIGHTING FIXTURES, SPECIFIC DOORS, WINDOWS, & HARDWARE, OR M.E.P & UTILITY ROUTING. OWNER/DEVELOPER IS RESPONSIBLE FOR THE SELECTION OF THESE ITEMS AND CLARIFICATION AND COORDINATION OF THESE WITH THE CONTRACTOR AS PART OF THE BUILDING CONTRACT AND CONSTRUCTION PROCESS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING CODE COMPLIANCE OF ALL WORK NOT FULLY REFLECTED IN THESE DOCUMENTS AS WELL AS ANY REVISION TO THIS SCOPE WITH DOCUMENTS AS WELL AS ANY REVISIONS TO THIS SCOPE WITH THE ENTITIES HAVING JURISDICTION. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE, STRUCTURALLY SOUND, FULLY OPERATIONAL, CODE COMPLIANT, FINISHED WORK WITH COMPLETE REFLECTION AGAINST.

FIRE SAFETY DURING CONSTRUCTION:

1. SMOKING SHALL BE PROHIBITED EXCEPT IN DESIGNATED AREAS WITH APPROVED ASHTRAYS. ALL OTHER AREAS MUST HAVE "NO SMOKING" SIGNAGE POSTED AROUND CONSTRUCTION AREAS IN ACCORDANCE WITH CFC§310. [CFC§3304.1]

2. COMBUSTIBLE DEBRIS SHALL NOT BE ACCUMULATED WITHIN BUILDING. COMBUSTIBLE DEBRIS, RUBBISH AND WASTE MATERIAL SHALL BE REMOVED FROM BUILDING AT THE END OF EACH SHIFT OF WORK. [CFC §3304.2]

3. MATERIALS SUSCEPTIBLE TO SPONTANEOUS IGNITION, SUCH AS OILY RAGS, SHALL BE STORED IN A LISTED DISPOSAL CONTAINER. [CFC §3304.2.4]

4. OPERATIONS INVOLVING THE USE OF CUTTING AND WELDING SHALL BE DONE IN ACCORDANCE WITH CHAPTER CFC §3304.6.

5. ADD A NOTE TO PLANS TO INDICATE THAT DURING CONSTRUCTION, THE CONSTRUCTION SITE OR AREA MUST BE CLEAN UP AT THE END OF THE DAY IN ORDER TO PROVIDE FIREFIGHTER ACCESS IN THE BUILDING IN AN EVENT OF A FIRE.

6. PLEASE FIND ATTACHED ADDITIONAL "CONSTRUCTION FIRE SAFETY IN THE CITY OF BERKELEY" MEASURES FOR CONSTRUCTION WITHIN THE CITY OF BERKELEY.

7. HOT WORK: PLEASE CLARIFY IF ANY WELDING OR HOT WORK WILL BE PERFORMED UNDER THE SCOPE OF THIS permit. ANY WELDING OR HOT WORK SHALL BE PERFORMED IN ACCORDANCE WITH CFC CHAPTER 35. [CFC §3304.6]

8. ENSURE ALL MEANS OF EGRESS OF THE ADJACENT BUILDING(S) ARE MAINTAINED DURING THE CONSTRUCTION AND DEMOLITION WORK. [CFC§3311.2]

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LICENSED ARCHITECT
BRUCE KENNETH GUNKEL
No. C-30424
1/31/25
RENEWAL DATE
STATE OF CALIFORNIA

RENOVATION
729 KEARNEY ST,
EL CERRITO, CA 94530

GENERAL NOTES

BUILDING PERMIT

DATE 9/16/24

A0.2

ABBREVIATIONS

&	AND
@	AT
#	POUND OR NUMBER
A.B.	ANCHOR BOLT
ABV.	ABOVE
A.C.	ASPHALTIC CONCRETE
A.C.T.	ACOUSTICAL CEILING TILE
A/C	AIR CONDITIONING
ACOUS.	ACOUSTICAL
A.D.	AREA DRAIN
ADMIN.	ADMINISTRATION
A.F.F.	ABOVE FINISHED FLOOR
AL.	ALUMINUM
ALT.	ALTERNATE
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
ASPH.	ASPHALT
BD.	BOARD
BET.	BETWEEN
B.F.	BRACED FRAME
BLDG.	BUILDING
BLK.	BLOCKING
BM.	BEAM
BOT.	BOTTOM
CAB.	CABINET
CBC.	CALIFORNIA BUILDING CODE
CEM.	CEMENT
CER.	CERAMIC
C.F.	CUBIC FEET
C.L..	CENTERLINE
CLG.	CEILING
CLKG.	CAULKING
CLO.	CLOSET
CLR.	CLEAR
C.M.U.	CONCRETE MASONRY UNIT
COL.	COLUMN
COMP.	COMPUTER
CONC.	CONCRETE
CONF.	CONFERENCE
CONT.	CONTINUOUS
CONST.	CONSTRUCTION
CORR.	CORRIDOR
CPT.	CARPET
CSMT.	CASEMENT
C.T.	CERAMIC TILE
CTR.	CENTER
C.Y.	CUBIC YARDS
D	DRYER
DBL.	DOUBLE
DECK.	DECKING
DEG.	DEGREE
DEMO.	DEMOLITION
DEPT.	DEPARTMENT
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DIR.	DIRECTION
DISP.	DISPOSAL
DIV.	DIVISION
DWN.	DOWN
DR.	DOOR
D.S.	DOWNSPOUT
DWG.	DRAWING
E.	EAST
EA.	EACH
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELAS.	ELASTOMERIC
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EMER.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
E.S.	EACH SIDE
EXP.	EXPANSION
EXH.	EXHAUST
(E)	EXISTING
EXT.	EXTERIOR
F.A.	FIRE ALARM
F.D.	FLOOR DRAIN
FND.	FOUNDATION
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.F.	FINISH FLOOR
FIN.	FINISH
FIX.	FIXTURE
FLUOR.	FLUORESCENT
F.O.	FACE OF
F.O.C.	FACE OF CONCRETE
F.O.F.	FACE OF FINISH
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
FPRF.	FIREPROOF(ING)
FRM'G	FRAMING
F.R.P.	FIBERGLASS REINFORCED PLASTIC
F.S.	FLOOR SINK
FT.	FOOT OR FEET
FTG.	FOOTING
FURR.	FURRING
GA.	GAUGE
GALV.	GALVANIZED
GL	GLASS
GND.	GROUND
G.S.M.	GALVANIZED SHEET METAL
GYP.	GYPSUM
G.W.B.	GYPSUM WALL BOARD
H.B.	HOSE BIBB
H.C.	HOLLOW CORE
HDWR.	HARDWARE
HDWD.	HARDWOOD
HT.	HEIGHT
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
H.P.	HIGH POINT
HVAC	HEATING, VENTILATING, AIR CONDITIONING
H.W.H.	HOT WATER HEATER
I.D.	INSIDE DIAMETER
IIC.	IMPACT INSULATION CLASS
IN.	INCH
INCR.	INCREMENT
INFO.	INFORMATION
INSUL.	INSULATION
INT.	INTERIOR
JAN.	JANITOR
JST.	JOIST
JT.	JOINT
KIT.	KITCHEN
K.P.	KICK PL
LAM.	LAMINATE
LAV.	LAVATORY
LB.	POUND
L.F.	LINEAR FEET
L.H.	LEFT HAND
LIN.	LINEAR
L.P.	LOW POINT
LT.	LIGHT
LVR.	LOUVER
MACH.	MACHINE
MAINT.	MAINTENANCE
MATL.	MATERIAL
MAS.	MASONRY
MAX.	MAXIMUM
M.B.	MARKER BOARD
M.C.	MEDICINE CABINET
MECH.	MECHANICAL
MEP	MECHANICAL/ ELECTRICAL & PLUMBING
MFR.	MANUFACTURER
MICRO	MICROWAVE
MIN.	MINIMUM
MET.	MIRROR
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
MTD.	MOUNTED
MTL.	METAL
N.	NORTH
(N)	NEW
N/A	NOT APPLICABLE
N.E.	NORTHEAST
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
N.T.S.	NOT TO SCALE
N.W.	NORTHWEST
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER or DIMENSION
O.F.C.I.	OWNER FURNISHED, CONTRACTOR INSTALLED
O.F.D.	OVERFLOW DRAIN
O.F.S.	OVERFLOW SCUPPER
O.H.	OVER HEAD
OPNG.	OPENING
OPP. HD.	OPPOSITE HAND
OZ.	OUNCE
P.B.	PANIC BAR
P.C.P.	PRECAST CONCRETE PANEL
PERIM.	PERIMETER
P.L.	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS.	PLASTER
PLBG.	PLUMBING
PLYWD.	PLYWOOD
PNL.	PANEL
PR.	PAIR
PREP.	PREPARATION
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
P.A.	PRESSURE TREATED
PT.	POINT
PTD.	PAINTED
PVC	POLYVINYL CHLORIDE
PVMT.	PAVEMENT
R.A.	RETURN AIR
RAD.	RADIUS
R.B.	RUBBER BASE
R.C.P.	REFLECTED CEILING PLAN
R.D.	ROOF DRAIN
REF.	REF./REFERENCE
REF	REFRIGERATOR
REINF.	REINFORCED
REQD.	REQUIRED
REV.	REVISION OR REVISED
RESIL.	RESILIENT
R.H.	RIGHT HAND
RM.	ROOM
R.O.	ROUGH OPENING
RWD.	REDWOOD
R.W.L.	RAINWATER LEADER
S.	SOUTH
S.A.	SUPPLY AIR
S.B.	SCOREBOARD
S.C.	SOLID CORE
S.C.D.	SEE CIVIL DRAWINGS
SCHED.	SCHEDULE
S.D.	STORM DRAIN
S.D.S.	SEE DOOR SCHEDULE
S.E.	SOUTHEAST
S.E.D.	SEE ELECTRICAL DRAWINGS
SECT.	SECTION
S.F.	SQUARE FOOT (FEET)
SHTG.	SHEET SHEATHING
SIM.	SIMILAR
S.L.D.	SEE LANDSCAPE DRAWINGS
S.M.	SHEET METAL
S.M.D.	SEE MECHANICAL DRAWINGS
S.O.G.	SLAB ON GRADE
S.P.D.	SEE PLUMBING DRAWINGS
SPEC.	SPECIFICATION
SPR	SPRINKLERED
SQ.	SQUARE
S.S.D.	SEE STRUCTURAL DRAWINGS
STD.	STANDARD
STL.	STEEL
STRL.	STRUCTURAL
S.S.	STAINLESS STEEL
STOR	STORAGE
S.T.C.	SOUND TRANSMISSION CLASS
SUSP.	SUSPENDED
S.W.	SOUTHWEST
SYM.	SYMMETRICAL
T.	TREAD
T.B.	TACKBOARD
TECH.	TECHNOLOGY
TELE.	TELEPHONE
TEMP.	TEMPERED or TEMPERATURE
T & G	TONGUE & GROOVE
THK.	THICK
THRES.	THRESHOLD
T.O.	TOP OF
T.O.C.	TOP OF CURB
T.O.CONC.	TOP OF CONCRETE
T.O.D.	TOP OF DECKING
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PAVEMENT
T.O.S.	TOP OF SLAB
T.O.W.	TOP OF WALL
T.S.	TUBULAR STEEL
TV	TELEVISION
TYP.	TYPICAL
U.B.C.	UNIFORM BUILDING CODE
U.G.	UNDERGROUND
U.L.	UNDERWRITERS LABORATORY
UNF.	UNFINISHED
U.O.N.	UNLESS OTHERWISE NOTED
V.C.T.	VINYL COMPOSITION TILE
VERT.	VERTICAL
VEST.	VESTIBULE
V.I.F.	VERIFY IN FIELD
VOL.	VOLUME
V.T.R.	VENT THRU ROOF (S..P.D. VINYL
W.	WEST
W	WASHER
W/	WITH
W.C.	WATER CLOSET
W/D	WASHER/DRYER
WD.	WOOD
WDW.	WINDOW
W.F.	WIDE FLANGE
WGL	WIRE GLASS
W.O.	WHERE OCCURS
W/O	WITHOUT
WSCT.	WAINSCOT
W.S.P.	WET STANDPIPE
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC

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PRESCHOOL RENOVATION

729 KEARNEY ST,
EL CERRITO, CA 94530

ABBREVIATION

BUILDING PERMIT

DATE 9/16/24

A0.3

BUILDING CODE ANALYSIS

REFERENCES IN PARENTHESES () ARE KEYED TO THE CBC

PROJECT	LITTLE LAMB PRESCHOOL
	729 KEARNEY ST., EL CERRITO, CA94530

CODES

BUILDING	2022 CALIFORNIA BUILDING CODE (CBC) , (BASED ON THE 2018 INTERNATIONAL BUILDING CODE (IBC))
FIRE	2022 CALIFORNIA FIRE CODE (CFC), (BASED ON THE 2018 INTERNATIONAL FIRE CODE(IFC))
SPRINKLER	NFPA 13, 2019
MECHANICAL	2022 CALIFORNIA MECHANICAL CODE (CMC) (BASED ON THE 2018 UNIFORM MECHNICAL CODE(UMC))
PLUMBING	2022 CALIFORNIA PLUMBING CODE (CPC) (BASED ON THE 2018 UNIFORM PLUMBING CODE(UPC))
ELECTRICAL	2022 NATIONAL ELECTRICAL CODE (NEC) (BASED ON THE 2018 NATIONAL ELECTRICAL (NEC))
ENERGY	2022 CALIFORNIA ENERGY CODE (CENC)
ACCESSIBILITY	2022 CALIFORNIA BUILDING CODE (CBC), CHAPTER 11A AND CHAPTER 11B AND UFAS
CAL GREEN	2022 CALIFORNIA GREEN BUILDING STANDARDS, (CALGREEN)

OCCUPANCY CLASSIFICATION (SEC. 302)

DESCRIPTION	TYPE	CODE SECTION	REMARKS
CLASSROOM	E	305	
RESTROOM	B	304.1	

TYPE OF CONSTRUCTION (TABLE 601)

DESCRIPTION	TYPE	SPRINKLERS	CODE SECTION
WHOLE BUILDING	VB	YES (NFPA 13)	508.2, 602.3, 903.2.8, 903.2.1, 903.3.1.1

ALLOWABLE HEIGHT (TABLE 504.3 & SEC. 504.2)

E	60' (NFPA 13, S WITHOUT AREA INCREASE)
B	60' (NFPA 13)

ACTUAL HEIGHT (TABLE 504.3 & SEC. 504.2)

WHOLE BUILDING	27'-7"	COMPLIES

ALLOWABLE STORIES (TABLE 504.4, SEC. 504.2)

E	2(NFPA 13, S WITHOUT AREA INCREASE)
B	3

ACTUAL STORIES (SEC. 504)

E	2	COMPLIES
B	2	COMPLIES

ALLOWABLE BUILDING AREA (TABLE 506.2)

E	28,500 (SM-WITHOUT HEIGHT INCREASE)
B	27,000(SM)

ACTUAL BUILDING AREA (SEC. 506.2.3)

FIRST FLOOR	SECOND FLOOR	TOTAL AREA
3750	3750	7500

ALLOWABLE BUILDING AREA CALCULATION - TYPE VB CONSTRUCTION (SEC. 506.2.2, 508.3.2, 508.4.2)

THIS BUILDING IS TREATED AS NON-SEPARATED OCCUPANCY E SINCE B OCCUPANCE IS LESS THAN 10% OF FLOOR AREA

ALLOWABLE AREA OF EACH STORY

Aa = At + (NS x If)					
NS= 9500		3396/40500 = 0.08 < 1			
If = 0					
Aa=	28500 + (9500 x 0) =	28500	>	3750	COMPLIES

ALLOWABLE AREA OF WHOLE BUILDING

Aa = [At + (NS x If)] x Sa					
NS= 9500		3396/40500 = 0.08 < 1			
If = 0					
Aa =	[28500 + (9500 x 0)] x 2 =	57000	>	7500	COMPLIES

CONSTRUCTION NOTES

FIRE-RESISTANCE RATINGS (TABLE 601, 602 & SEC. 510.2)

	TYPE VB
STRUCTURAL FRAME	0-HR
BEARING WALLS: EXTERIOR	0-HR
X < 5' FIRE SEPARATION	1-HR
BEARING WALLS: INTERIOR	0-HR
NONBEARING WALLS & PARTITIONS: EXTERIOR	
X < 5' FIRE SEPARATION	1-HR
NONBEARING WALLS & PARTITIONS: INTERIOR	0-HR
FLOOR CONSTRUCTION (INCL. BEAMS & JOISTS)	0-HR
ROOF CONSTRUCTION (INCL. BEAMS & JOISTS)	0-HR

MAX. AREA OF UNPROTECTED EXTERIOR WALL OPENINGS (TABLE 705.8, SEC. 705.8.1, & SEC. 705.8.2)

FIRE SEPARATION DISTANCE	ALLOWABLE AREA
X < 3'	NOT PERMITTED
3' < X < 5'	15%
5' < X < 10'	25%
10' < X < 15'	45%
15' < X < 20'	75%
20' < X < 25'	NO LIMIT

SEE ALLOWABLE OPENING AREA CALCULATIONS ON SHEET A0.5

FIREBLOCKING (SEC. 708.4.2)

DRAFTSTOPPING: NOT REQUIRED W/SPRINKLERS (EXCEPTION 1)

MEANS OF EGRESS

OCCUPANT LOADS	(TABLE 1004.5)
PRESCHOOL	35 GROSS S.F./OCCUPANT
BUSINESS	150 GROSS S.F./OCCUPANT

EGRESS WIDTH	(SEC. 1005)

STAIRWAYS 0.2 INCHES PER OCCUPANT (1005.3.1 EX. 1)
OTHER EGRESS COMPONENTS 0.15 INCHES PER OCCUPANT (1005.3.2 EX. 1)

MEANS OF EGRESS ILLUMINATION	(SEC. 1008)
ILLUMINATION LEVEL	NOT LESS THAN 1 FOOT-CANDLE AT THE WALKING SURFACE (EXCEPTION FOR INDIVIDUAL DWELLING UNITS)
EMERGENCY POWER REQUIRED	CORRIDORS, EXIT ENCLOSURES, EXIT PASSAGEWAYS, EXTERIOR LANDINGS

ACCESSIBLE MEANS OF EGRESS	(SEC. 1009.1)

2 REQUIRED PER 1009.1 AND 1015.1

ELEVATORS ARE NOT REQUIRED TO BE PART OF THE ACCESSIBLE MEANS OF EGRESS PER 1009.2.1 (LESS THAN 4 STORIES ABOVE EXIT DISCHARGE)
STAIRWAYS ALLOWED TO BE 44" PER 1009.3 EX. 2
AREAS OF REFUGE ARE NOT REQUIRED PER 1009.3.3 EX. 5

DOORS	(SEC. 1010)

STAIRWAYS	(SEC. 1011)

RISERS 7" MAX, 4" MIN.
TREADS 11" MAX

STAIRWAYS	(SEC. 1011)
MIN WIDTH	44"
MAX SLOPE AT EGRESS	8%
MAX SLOPE AT OTHER AREAS	12.50%
MAX CROSS-SLOPE	2%
MAX RISE W/OUT LANDING	30"
LANDING SIZE	60"
HANDRAILS REQUIRED	GREATER THAN 6" RISE OR STEEPER THAN 1/20 (SEC. 1002)

ELEVATORS	(SEC. 1009.2.1, 11B-206.2.3)

ELEVATOR IS NOT REQUIRED TO BE PART OF THE ACCESSIBLE MEANS OF EGRESS PER 1009.2.1 EX.1
ELEVATOR IS NOT REQUIRED PER 11B-206.2.3 EX. 1.1.2
" SECOND FLOOR USE IS A DUPLICATION OF THE FIRST FLOOR, THEREFORE NO ELEVATOR REQUIRED", AS CONFIRMED BY SCOTT MARTIN OF 4LEAF.

EXIT SIGNS	(SEC. 1013)

REQUIRED AT EXITS AND EXIT ACCESS DOORS
NOT REQUIRED IN ROOMS WITH ONE EXIT
TACTILE EXIT SIGN REQUIRED AT EXIT STAIRWAY, EXIT PASSAGEWAY, AND EXIT DISCHARGE

HANDRAILS	(SEC. 1014)

REQUIRED TO BE 34"-38"

GUARDS	(SEC. 1015)

REQUIRED TO BE 42"

COMMON PATH OF EGRESS TRAVEL FOR SPACE W/ ONE EXIT	(SEC. 1006)
E	75'
B	100'

NUMBER OF EXITS	(SEC. 1006)

ONE EXIT ALLOWED IN A OR E OCCUPANCY WITH OCCUPANT LOAD LESS THAN 49 (TABLE 1006.2.1)
TWO REQUIRED AT BOILER ROOMS OVER 500SF OR WITH EQUIPMENT EXCEEDING 400,000BTU (SEC. 1015.3)
SEPARATION OF 1/3 LENGTH OF DIAGONAL BETWEEN EXITS (SEC. 1007.1.1 EX. 2)

EXIT ACCESS TRAVEL DISTANCE	(TABLE 1017.2)	OCCUPANCY	DISTANCE
		E	250'
		B	300'

EXTERIOR EXIT RAMPS AND STAIRWAYS	(SEC. 1027)
EXIT DISCHARGE	(SEC. 1028)
EMERGENCY ESCAPE AND RESCUE	(SEC. 1030)

EMERGENCY ESCAPE AND RESCUE OPENING (EERO) ARE NOT REQUIRED IN GROUP R-2 APARTMENTS WITH TWO OR MORE EXITS.

ACCESSIBILITY

NOT REQUIRED IN SECOND FLOOR PER 11B-206.2.

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CODE ANALYSIS

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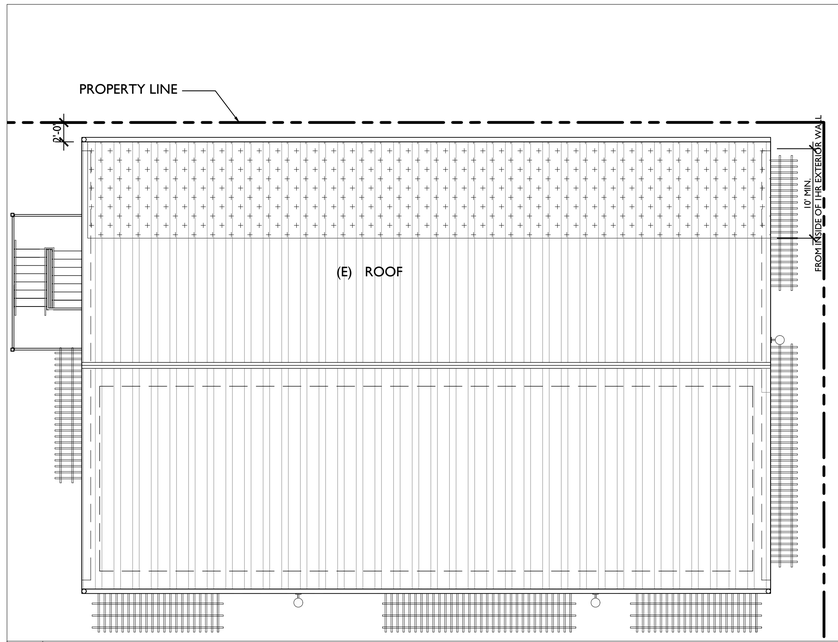
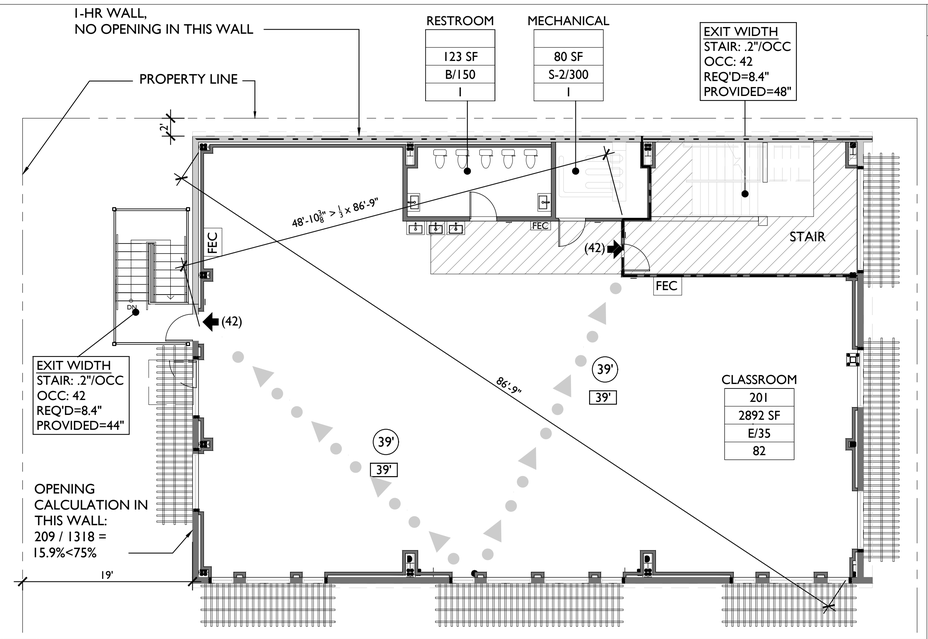
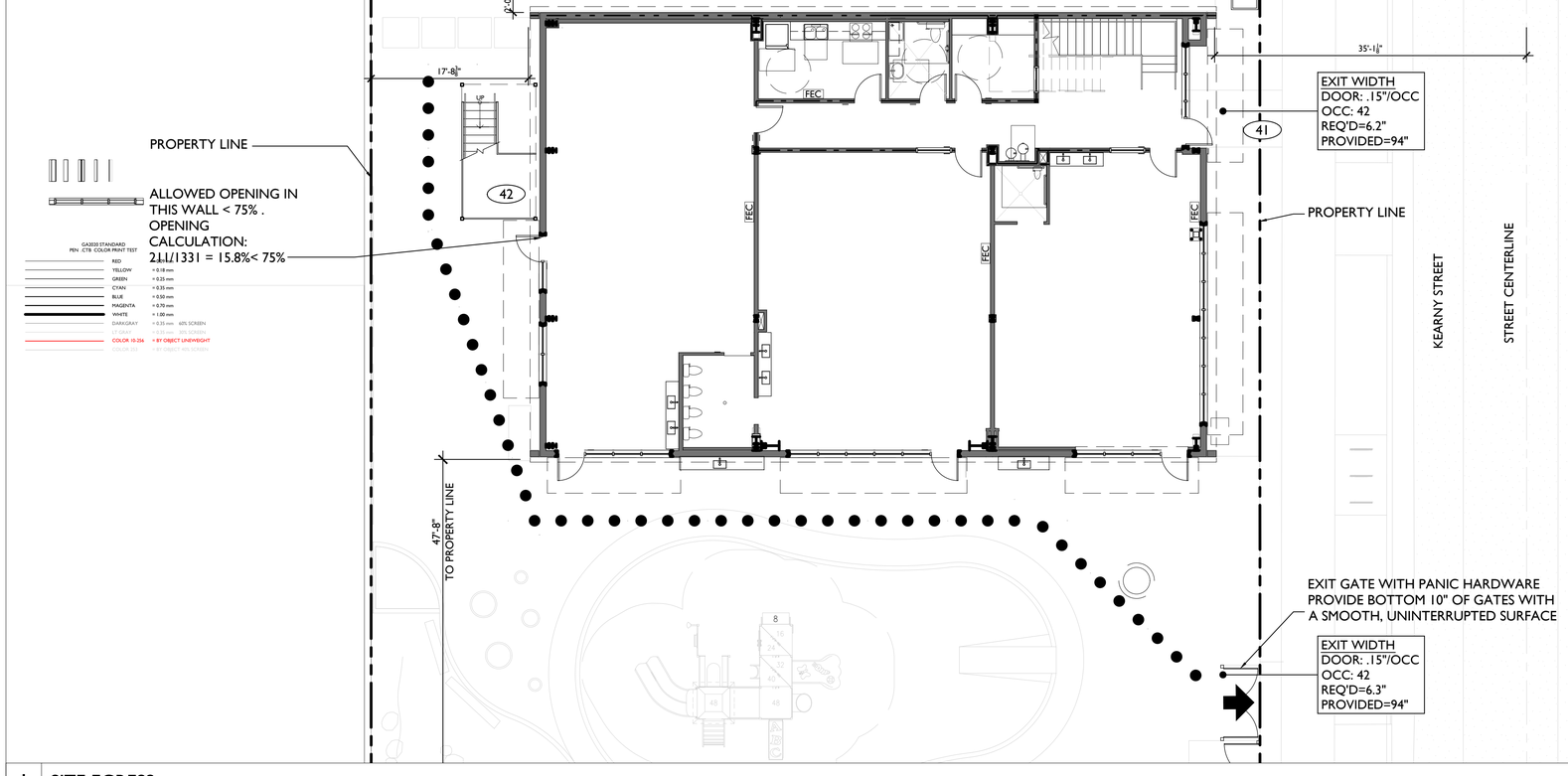
A0.4



3 | FIRE SEPARATION - ROOF PLAN | SCALE 1/8" = 1'-0"



2 | EGRESS, FIRE SEPARATION & OCCUPANCY - IMPROVED SECOND FLOOR PLAN | SCALE 1/8" = 1'-0"



1 | SITE EGRESS | SCALE 1/8" = 1'-0"

EXITING/ FIRE WALL LEGEND

HALL / LOBBY
128
1,000 SF
B / 150
7

OCCUPANCY INFORMATION:
ROOM NAME
ROOM NUMBER
SQUARE FOOTAGE
OCCUPANCY TYPE / LOAD FACTOR
OCCUPANT TOTAL

COMMON PATH OF EGRESS TRAVEL

REMOTE POINT (BEGIN EGRESS)

EXIT ACCESS TRAVEL PATH

#' COMMON PATH OF EGRESS TRAVEL DISTANCE
REQUIRED:
OCCUPANCY E: 75' MAX.
OCCUPANCY B, S: 100' MAX.
PROVIDED:
OCCUPANCY E: 0'
OCCUPANCY S: 85'
OCCUPANCY B: 15'

(#) EXIT ACCESS TRAVEL DISTANCE

(#) OCCUPANT TOTAL (CUMULATIVE)

(#) OCCUPANT TOTAL (CUMULATIVE AT EXIT)

EXIT WIDTH
DOOR: 3"/OCC
OCC:
REQ'D=X"
PROVIDED=X"
REQUIRED EXIT WIDTH

EXIT

FEC WALL MOUNTED FIRE EXTINGUISHER CABINET RATED 2A-20BC, TYP. RATED 4A:80B:C @ KITCHEN

SHEET NOTES

1. SEE DETAIL 4 & 5/A8.5 FOR THROUGH PENETRATION ON FIRE-RESISTANCE RATED WALL. SEE DETAIL 6,10, & 11/A8.5 FOR MEMBRANE PENETRATION IN FIRE RATED ASSEMBLY.
2. NO THROUGH PENETRATION ON RATED HORIZONTAL ASSEMBLY.
3. REFER TO ELECTRICAL DRAWING FOR SMOKE ALARMS, CARBON MONOXIDE ALARM & CO ALARMS.

SHEET LEGEND

1-HOUR WALL ASSEMBLY

- 1-HR ROOF ASSEMBLY, SEE 9/A8.1
- 1-HR BEAM ASSEMBLY ON RATED ROOF, FLOOR OR WALL, SEE 7/A8.2
- NO ROOF PENETRATION AND OPENING SHALL BE LOCATED WITHIN 10' OF THE 1-HR FIRE RESISTANCE RATED EXTERIOR WALL MEASURED FROM INTERIOR SIDE OF WALL.

(E)1-HOUR FLOOR ASSEMBLY BETWEEN FIRST FLOOR STAIRWELL AND SECOND FLOOR

FE PER SECTION 906.3 CLASS A (2-A:10-B:C) FIRE EXTINGUISHER IN RECESSED CABINET, SEE 11/A9.1 FOR WALL PENETRATION

N TRUE NORTH

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PHONE: (510) 984 - 1112

LICENSED ARCHITECT
BRUD KENNETH G. NKEL
No. C-30424
1/31/25
RENEWAL DATE
STATE OF CALIFORNIA

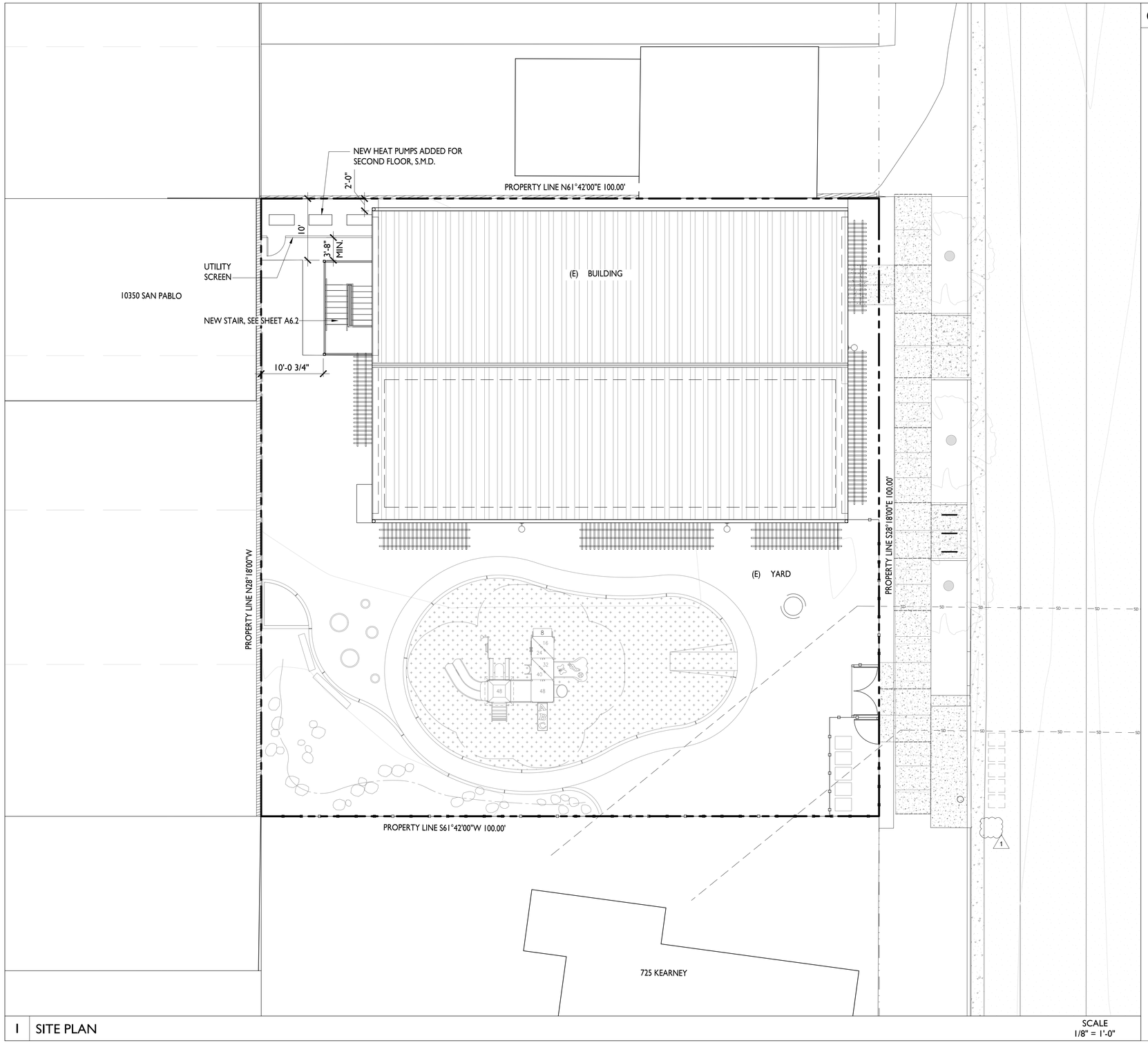
PRESCHOOL RENOVATION
729 KEARNEY ST,
EL CERRITO, CA 94530

EGRESS, FIRE SEPARATION & OCCUPANCY

BUILDING PERMIT

DATE 9/16/24

A0.5



1 SITE PLAN

SCALE
1/8" = 1'-0"

N TRUE NORTH

GENERAL NOTES

1. THE NEW STAIR IS LOCATED OVER EXISTING CONCRETE PAVERS. THERE IS NO LANDSCAPING CHANGE

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BRUCE KENNETH G. GUNKEL
No. C-30424
1/31/25
RENEWAL DATE
STATE OF CALIFORNIA

PRESCHOOL RENOVATION

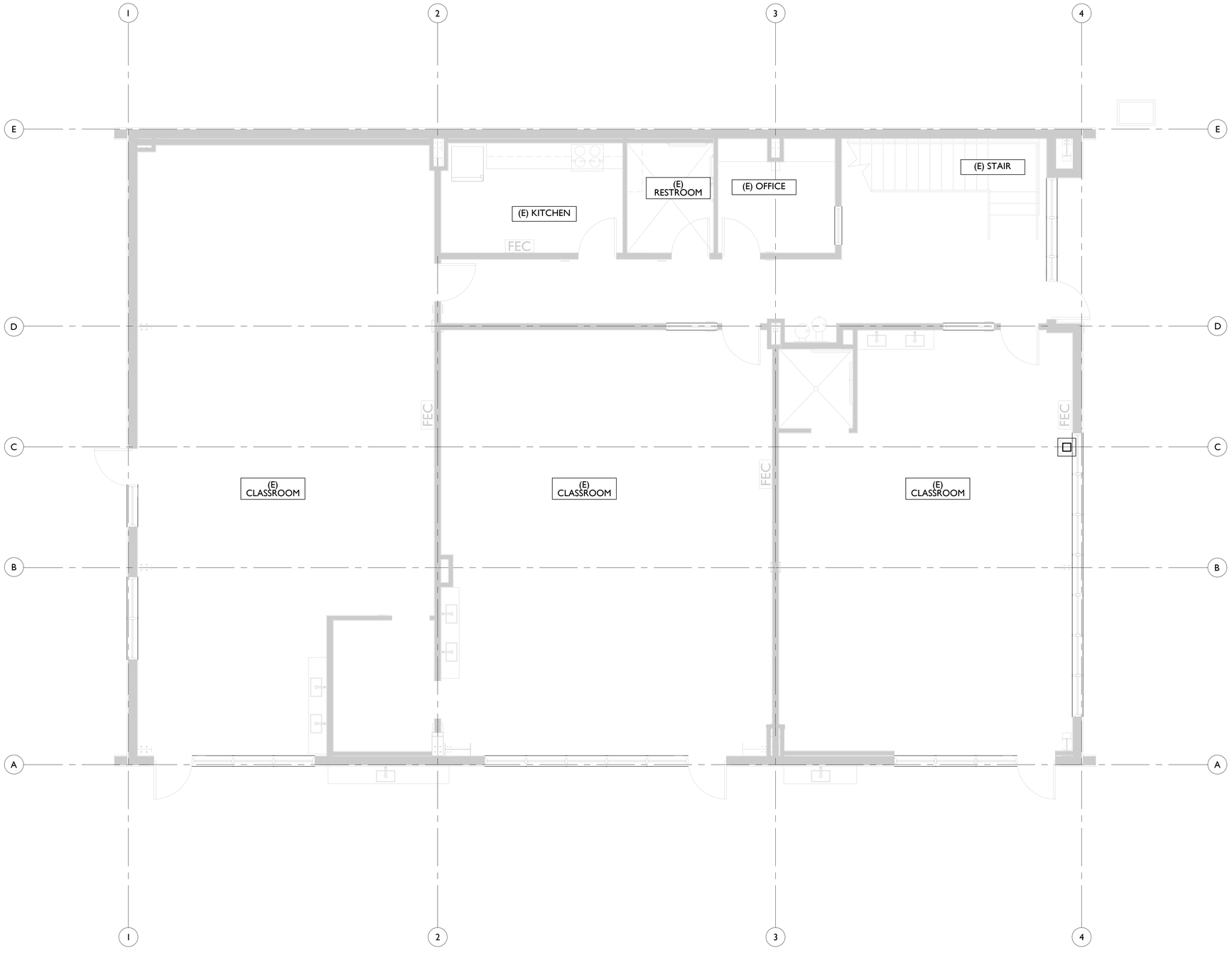
729 KEARNEY ST,
EL CERRITO, CA 94530

SITE PLAN / ROOF PLAN

BUILDING PERMIT

DATE 9/16/24

A1.1



LEGEND

(E) WALL

(E) DOOR

(E) WINDOW

1 EXISTING FIRST FLOOR PLAN

SCALE 1/4" = 1'-0"

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PRESCHOOL RENOVATION

729 KEARNEY ST,
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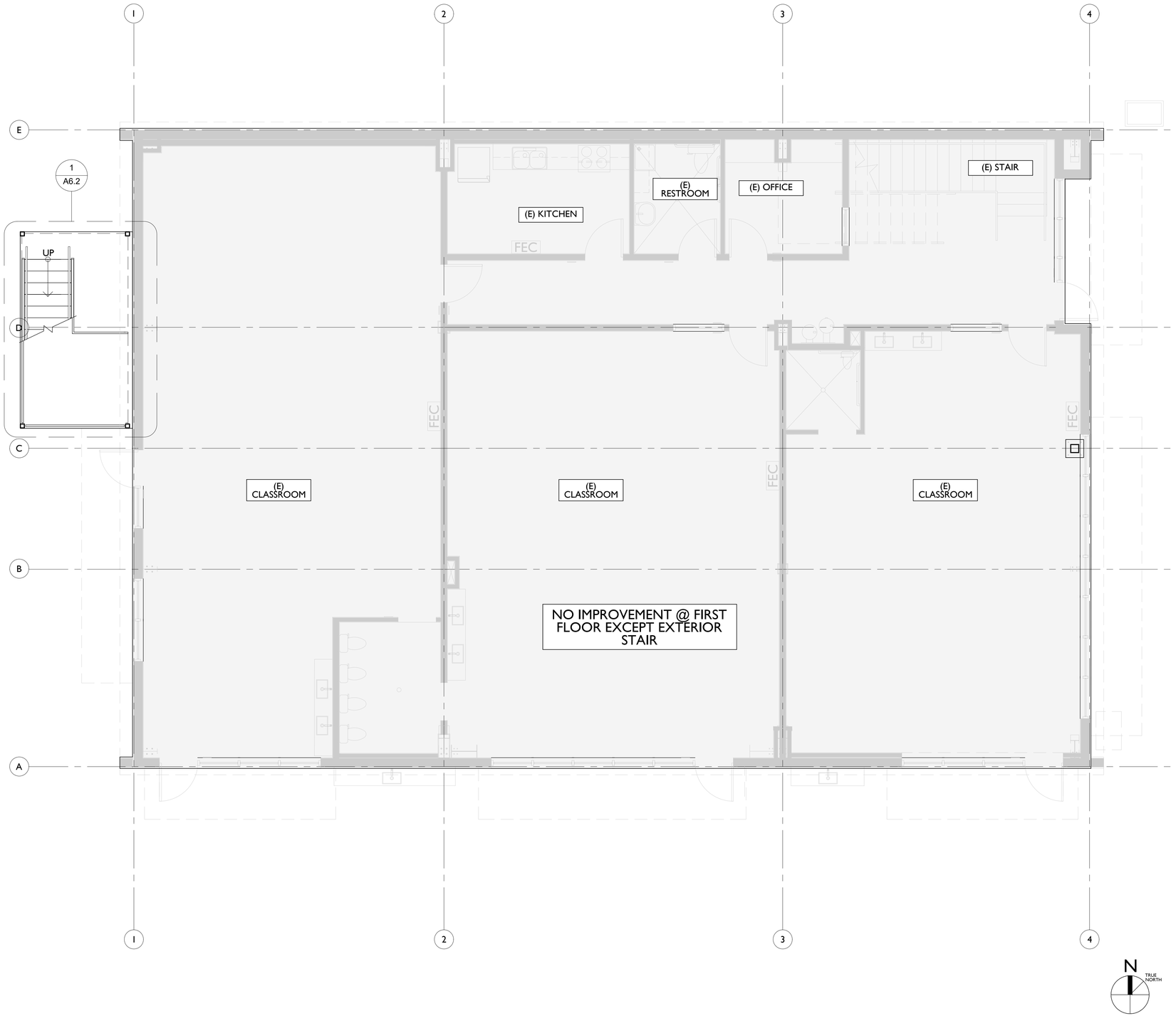
EXISTING FIRST FLOOR PLAN

BUILDING PERMIT

DATE 9/16/24

A2.1



1 IMPROVEMENT FIRST FLOOR PLAN

SCALE
1/4" = 1'-0"

LEGEND

- (N) WALL
- (E) WALL
- (N) DOOR
- (E) DOOR
- (E) WINDOW
- FEC — WALL MOUNTED FIRE EXTINGUISHER CABINET RATED 2A-20BC, TYP. RATED 4A:80B:C @ KITCHEN

KEYNOTES

1. REROUTE DUCTS TO FIT IN THE MECHANICAL ROOM.

SHEET NOTES

- SEE SHEET A7.1 FOR DOOR SCHEDULES.

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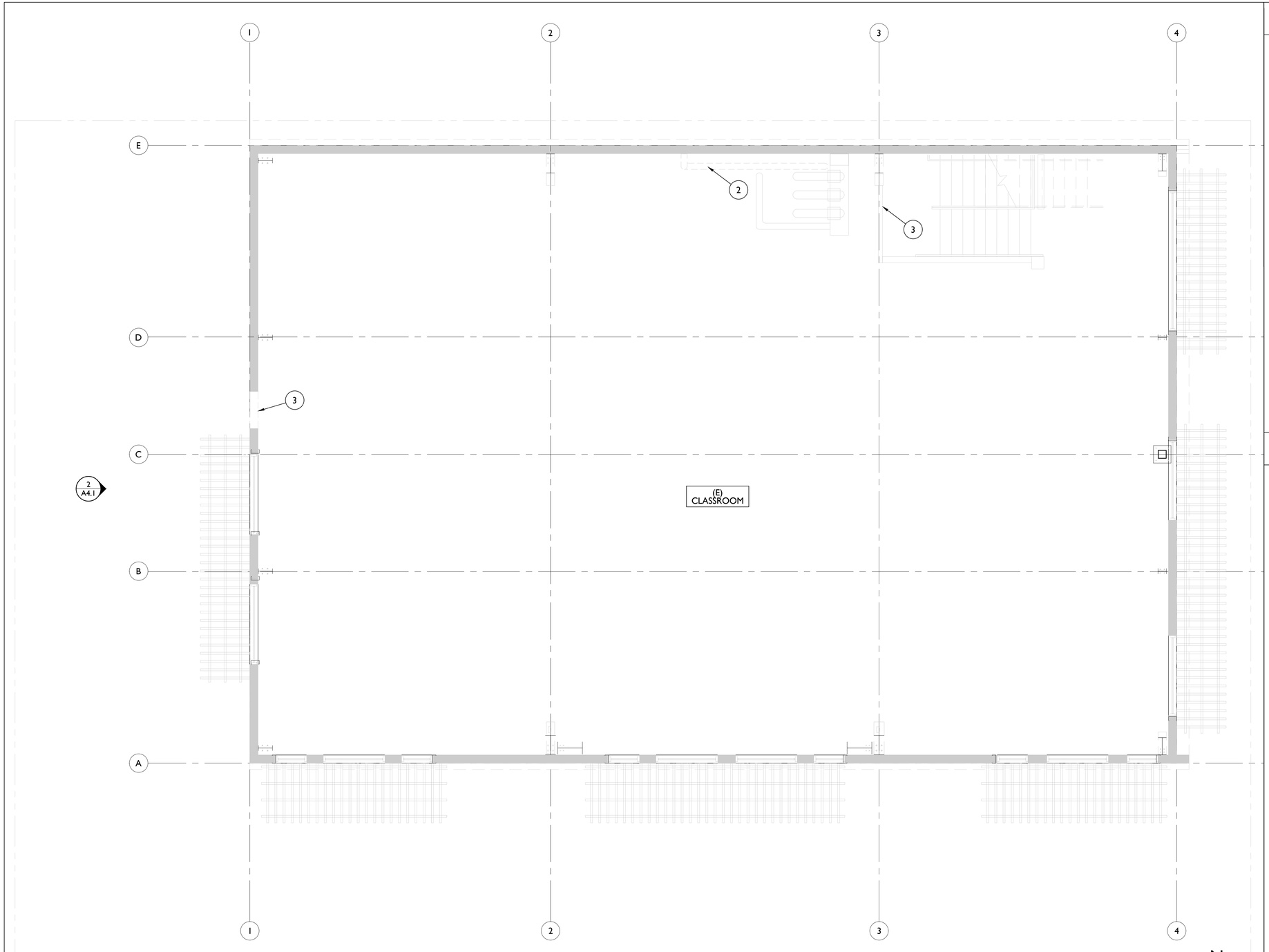
IMPROVEMENT FIRST FLOOR PLAN

BUILDING PERMIT

DATE 9/16/24

A2.2



1 EXISTING SECOND FLOOR PLAN

SCALE
1/4" = 1'-0"

LEGEND

- (E) WALL
- (E) DOOR
- (E) WINDOW
- DEMOLISHED WALL OR DUCT

KEYNOTES

1. DEMOLISH (E)WALL @ NEW DOOR, COORDINATE WITH METAL BUILDING MANUFACTURE.
2. DEMOLISH (E) DUCT FROM ALONG FLOOR TO OVERHEAD IN SOFFIT.
3. BUILD (N) WALL O/ EXISTING HALF WALL. FIRE RATE WHOLE WALL.

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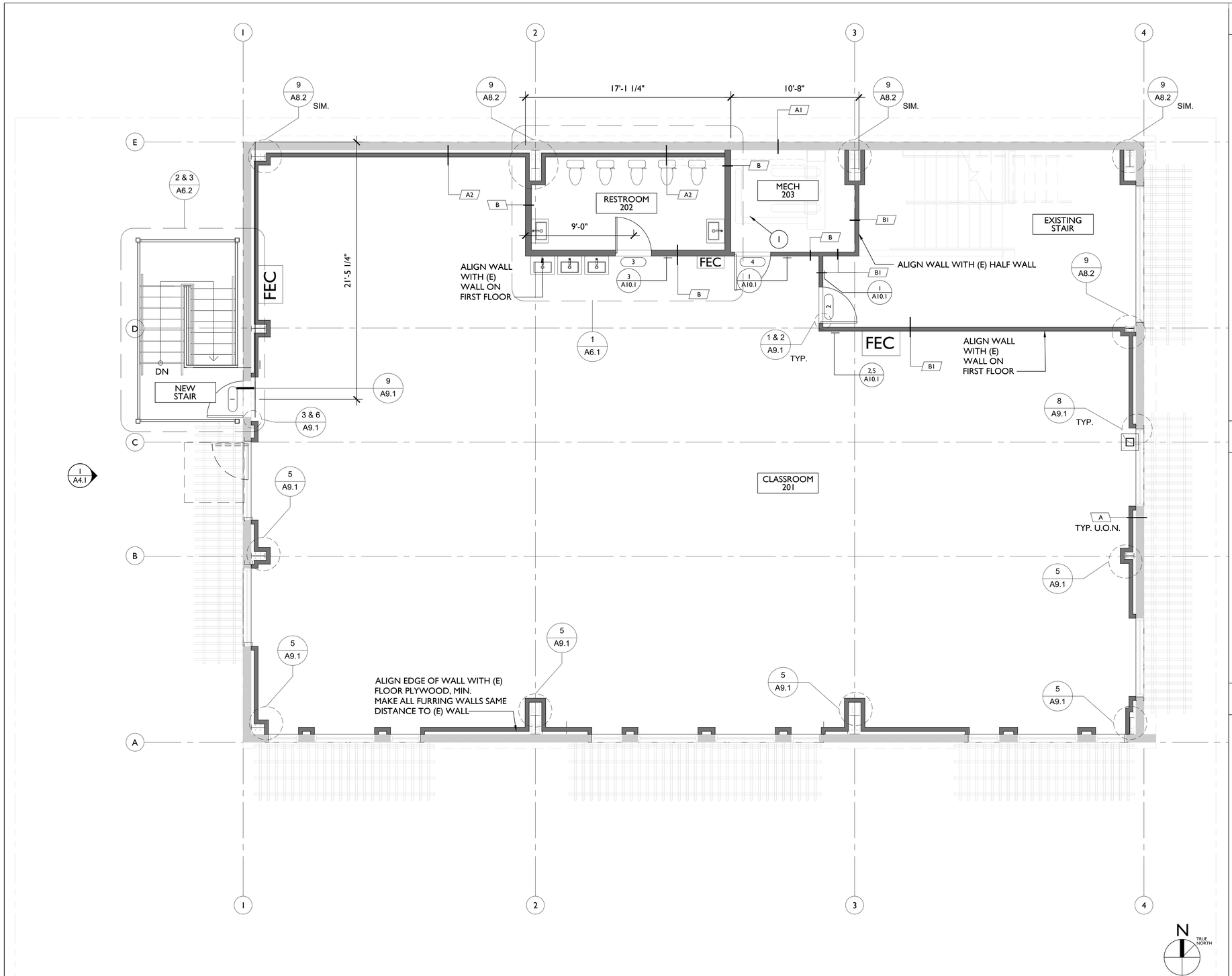
DEMO SECOND FLOOR PLAN

BUILDING PERMIT

DATE 9/16/24

A2.3



1 IMPROVEMENT SECOND FLOOR PLAN

SCALE
1/4" = 1'-0"

LEGEND

- (N) WALL
- (E) WALL
- (N) DOOR
- (E) DOOR
- (E) WINDOW
- FEC — WALL MOUNTED FIRE EXTINGUISHER CABINET RATED 2A-20BC, TYP. RATED 4A:80B:C @ KITCHEN

KEYNOTES

1. REROUTE DUCTS TO FIT IN THE MECHANICAL ROOM.

SHEET NOTES

- SEE SHEET A7.1 FOR DOOR SCHEDULES.

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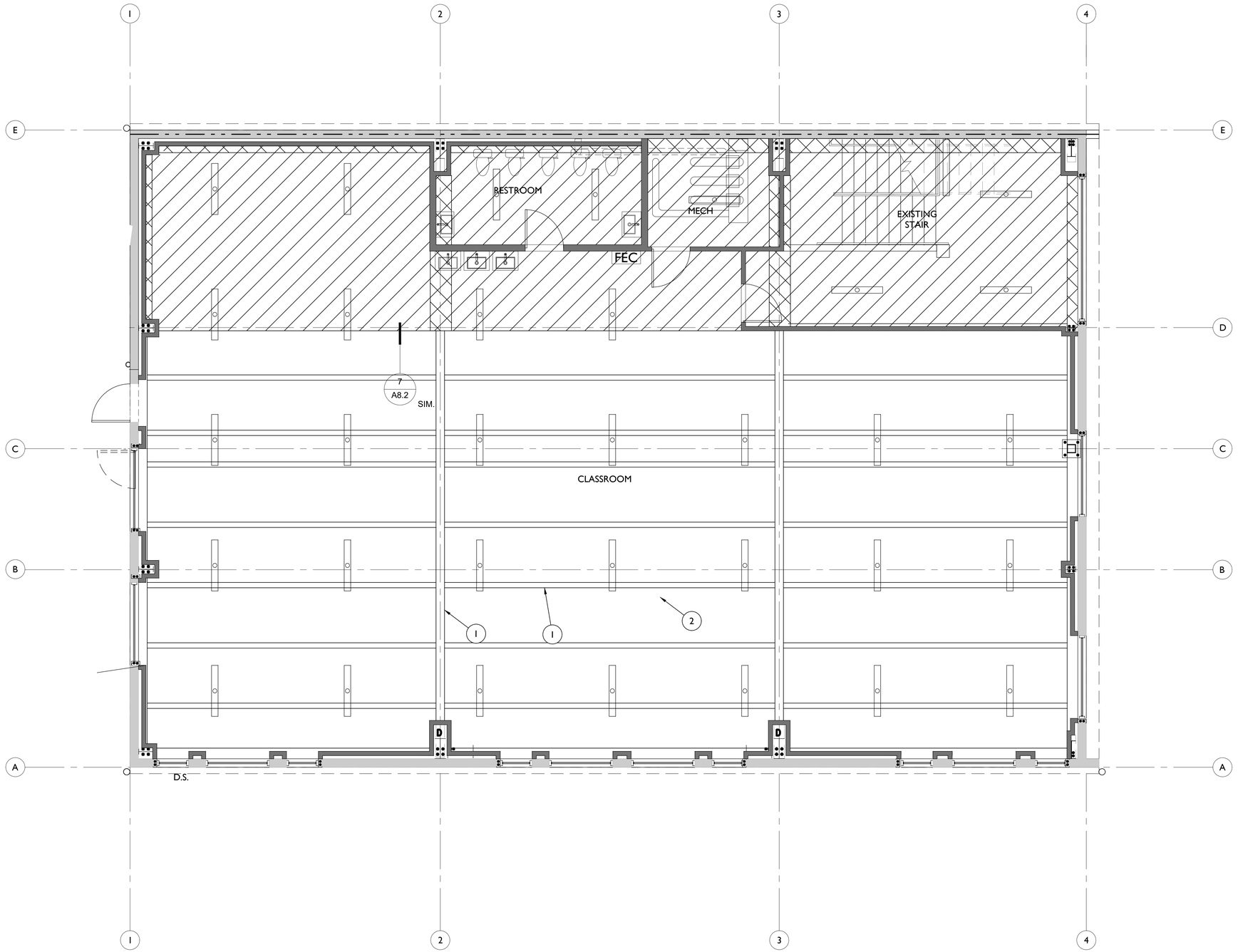
RENOVATION
729 KEARNEY ST,
EL CERRITO, CA 94530

IMPROVEMENT SECOND FLOOR PLAN

BUILDING PERMIT

DATE 9/16/24

A2.4



SHEET NOTES

- MODIFY EXISTING SPRINKLER SYSTEMS, SMOKE DETECTS AS NECESSARY.
- SEE ELECTRICAL DRAWING FOR NEW LIGHTS, ETC.

LEGEND

1-HR ROOF ASSEMBLY, SEE 9/A8.1

1-HR BEAM ASSEMBLY, SEE 7/A8.2, SIM.

KEYNOTES

1. EXISTING METAL BEAM/PURLINS.
2. EXISTING PVC INSULATION

N TRUE NORTH

1 REFLECTED CEILING PLAN

SCALE 1/4" = 1'-0"

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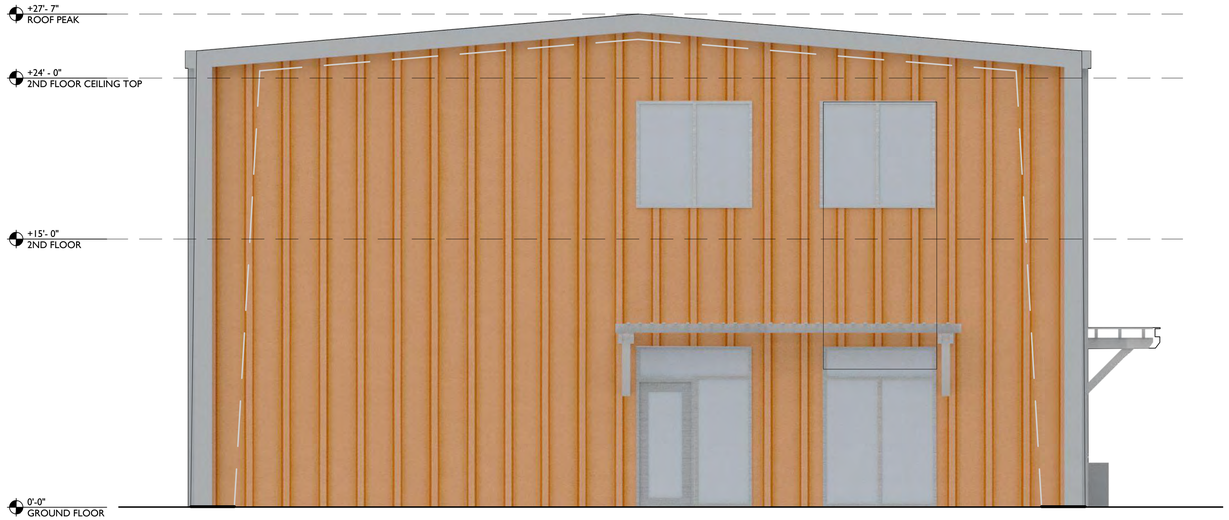
SECOND FLOOR REFLECTED CEILING PLAN

BUILDING PERMIT

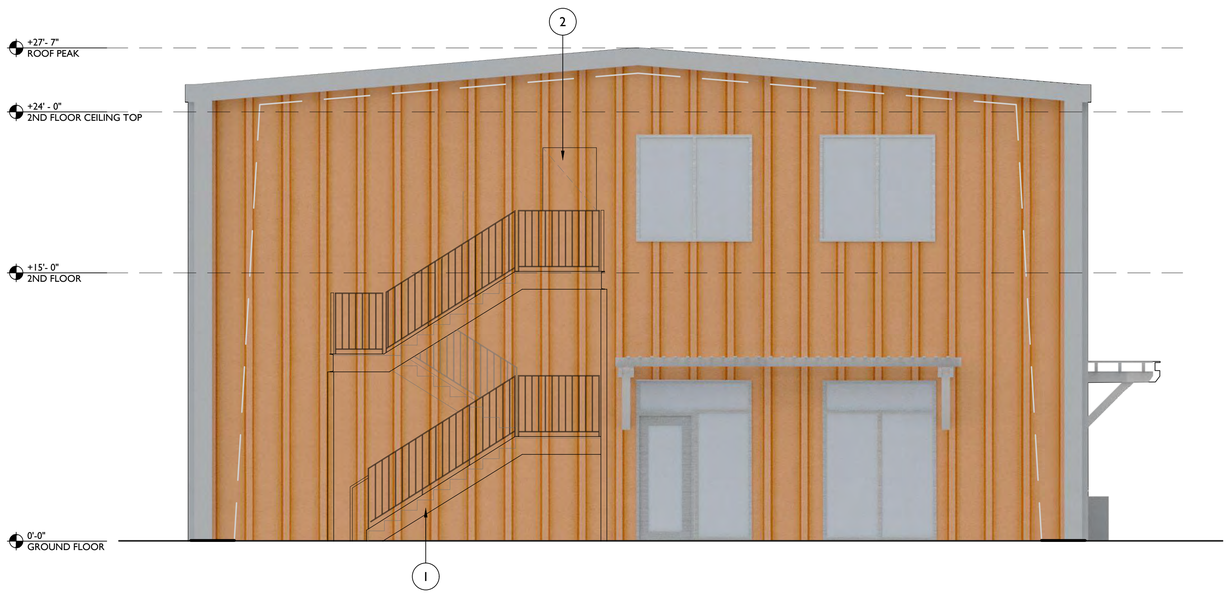
DATE 9/16/24

A3.1



2 EXISTING EAST ELEVATION

SCALE
1/4" = 1'-0"



1 IMPROVEMENT EAST ELEVATION

SCALE
1/4" = 1'-0"

LEGEND

KEY NOTES

1. NEW STAIR, SEE SHEET A6.2
2. NEW DOOR, SEE PLAN

GENERAL NOTES

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LICENSED ARCHITECT
STATE OF CALIFORNIA
No. C-30424
1/31/25
RENEWAL DATE

PRESCHOOL RENOVATION
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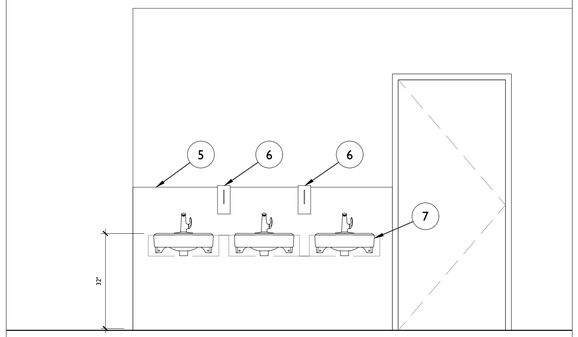
ELEVATIONS

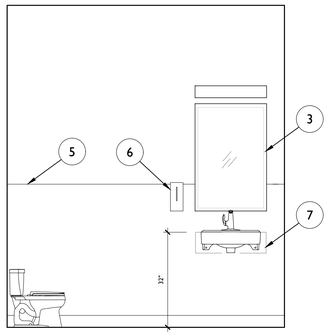
BUILDING PERMIT

DATE 9/16/24

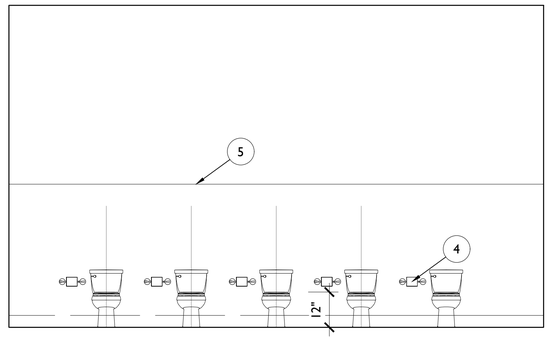
A4.1



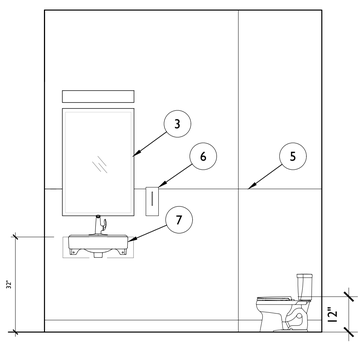
6 1/2" = 1'-0"



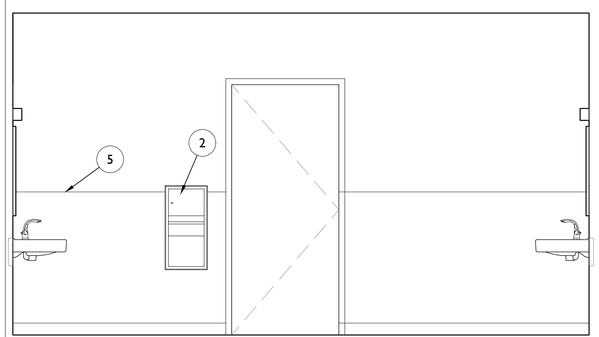
4 1/2" = 1'-0"



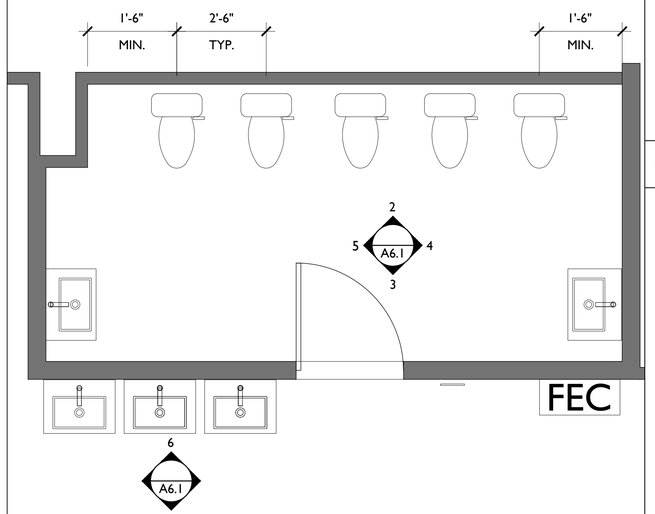
2 ENLARGED RESTROOM 110 1/2" = 1'-0"



5 1/2" = 1'-0"



3 1/2" = 1'-0"



1 ENLARGED RESTROOM 202 1/2" = 1'-0"

LEGEND

KEY NOTES

1. TOILET SEAT COVER DISPENSER
2. PAPER TOWEL DISPENSER
3. MIRROR
4. TOILET PAPER HOLDER
5. VINYL WALL COVER 48" HIGH
6. SOAP DISPENSER
7. WALL MOUNTED LAVATORY

GENERAL NOTES

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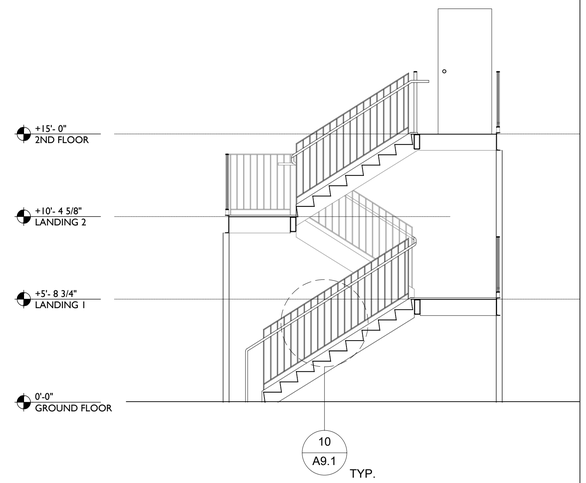
729 KEARNEY ST,
EL CERRITO, CA 94530

ENLARGED PLANS & INTERIOR ELEVATIONS

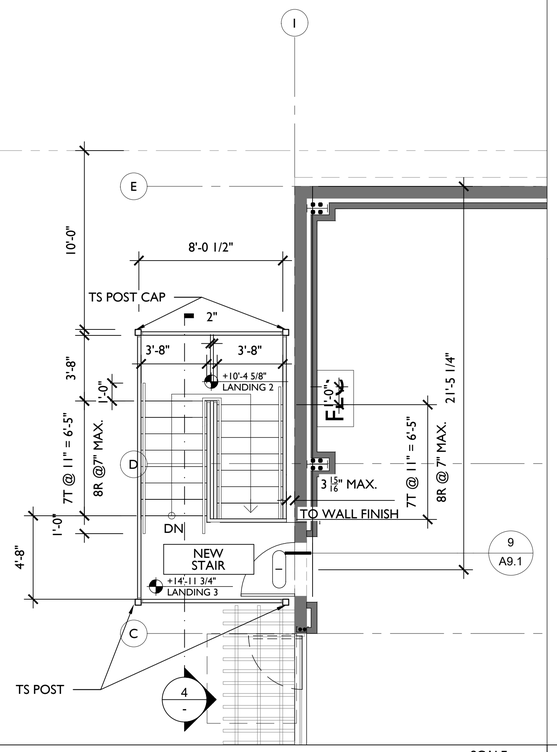
BUILDING PERMIT

DATE 9/16/24

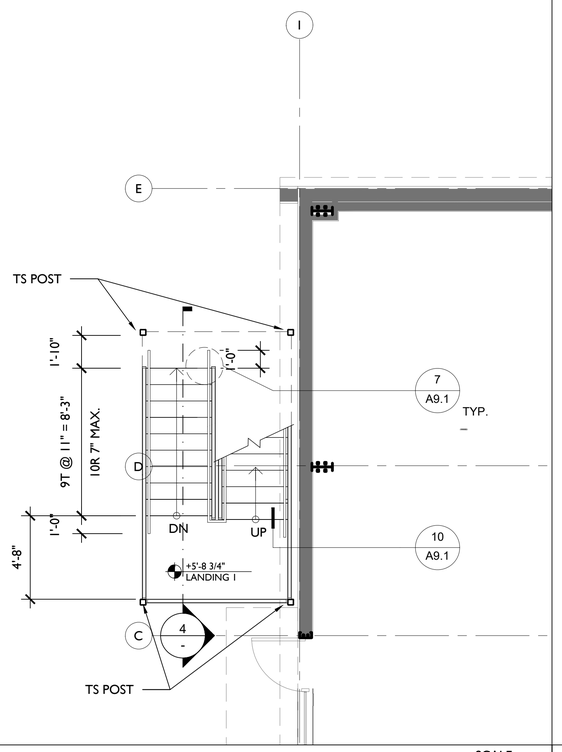
A6.1



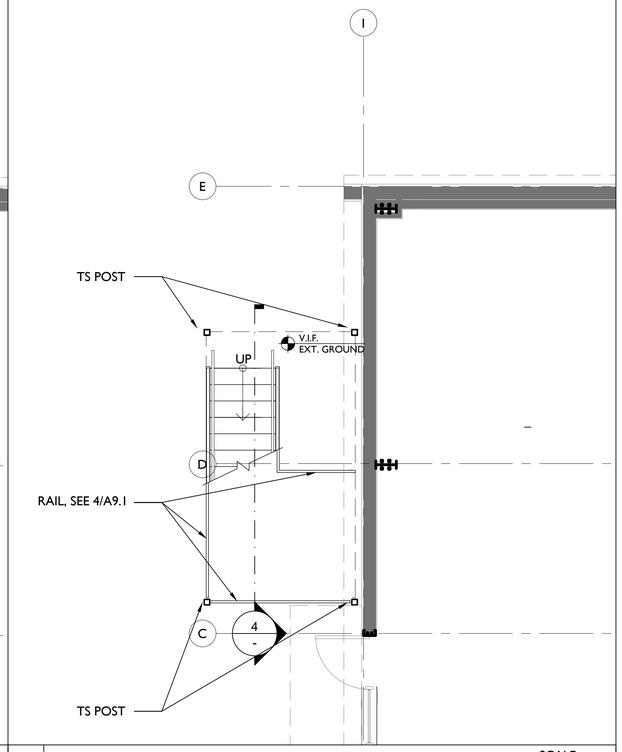
4 STAIR - SECTION — SCALE 1/4" = 1'-0"



3 STAIR - SECOND FLOOR PLAN — SCALE 1/4" = 1'-0"



2 STAIR - LANDING 1 PLAN — SCALE 1/4" = 1'-0"



1 STAIR - FIRST FLOOR PLAN — SCALE 1/4" = 1'-0"

N TRUE NORTH

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PRESCHOOL RENOVATION

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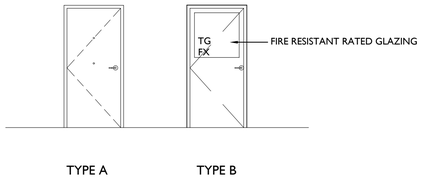
ENLARGED

STAIR PLANS

BUILDING PERMIT

DATE 9/16/24

A6.2



2 DOOR ELEVATIONS

SCALE
1/4" = 1'-0"

TAG	LOCATION	EXTERIOR/ INTERIOR	TYPE	WIDTH	HEIGHT	OPERATION	DOOR			FRAME		FIRE RATING
							MATERIAL	FINISH	PANIC HARDWARE	MATERIAL	FINISH	
1	NEW STAIR	EXTERIOR	TYPE A	3'-0"	7'-0"	SWING, SINGLE	H.M.	PAINT	YES	H.M.	PAINT	NONE
2	EXISTING STAIR	INTERIOR	TYPE B	3'-0"	7'-0"	SWING, SINGLE	WOOD	PAINT	YES	H.M.	PAINT	60
3	RESTROOM	INTERIOR	TYPE A	3'-0"	7'-0"	SWING, SINGLE	WOOD	PAINT	NO	H.M.	PAINT	NONE
4	MECHNICAL	INTERIOR	TYPE A	3'-0"	7'-0"	SWING, SINGLE	WOOD	PAINT	NO	H.M.	PAINT	NONE

1 DOOR SCHEDULE

SCALE
NOT TO SCALE

DOOR NOTES

1. ALL HAND-ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 34" AND 44" ABOVE THE FLOOR. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE. LOCKED DOORS SHALL OPERATE AS ABOVE IN THE EGRESS DIRECTION.
2. MAXIMUM EFFORT TO OPERATE ANY DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR INTERIOR DOORS. SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE RATED DOORS ARE REQUIRED, THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY BE INCREASED BUT NOT TO EXCEED 15 POUNDS, WHEN APPROVED BY LOCAL AUTHORITIES.
3. THE BOTTOM 10" OF ALL DOORS EXCEPT AUTOMATIC AND SLIDING DOORS SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. WHERE NARROW FRAME DOORS ARE USED, A 10" HIGH SMOOTH PANEL SHALL BE INSTALLED ON THE PUSH SIDE OF THE DOOR, WHICH WILL ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.
4. ANY DOORS AND FRAMES WITH 20 MINUTES TO AND INCLUDING 90 MINUTES RATINGS SHALL HAVE SMOKE SEAL GASKETS AND SELF CLOSERS OR AUTOMATIC CLOSERS CONNECTED TO FIRE ALARM.
5. ALL DOOR & STOREFRONT GLAZING TO BE TEMPERED DUAL PANE LOW-E GLASS (U<=.41; SEE TITLE 24 FOR REQUIRED EFFICIENCY). PROVIDE RATED GLAZING AT RATED DOORS.
6. ALL FIRE RATED DOORS & EXTERIOR GROUND FLOOR SWING DOORS TO HAVE CLOSER & LATCH. ALL OTHER SWING DOORS TO HAVE LATCH. PROVIDE FLOOR STOPS AT ALL DOORS.
7. VERIFY ALL DOOR SIZES & FRAME THICKNESS IN FIELD PRIOR TO FABRICATION

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PRESCHOOL RENOVATION

729 KEARNEY ST,
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DOOR SCHEDULE

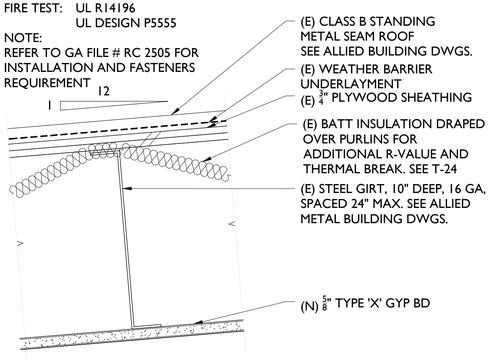
BUILDING PERMIT

DATE 9/16/24

A7.1

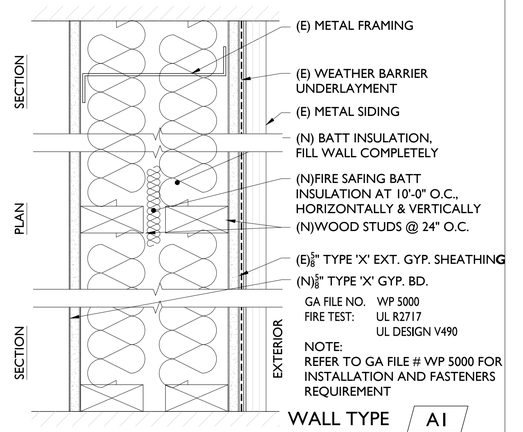
GA FILE #: RC 2505
FIRE TEST: UL R14196
UL DESIGN P5555

NOTE:
REFER TO GA FILE # RC 2505 FOR INSTALLATION AND FASTENERS REQUIREMENT



SECTION
R-VALUE TO BE COORDINATED W/ T-24 CALCS

9 | 1 HR ROOF ASSEMBLY | SCALE 3" = 1'-0"

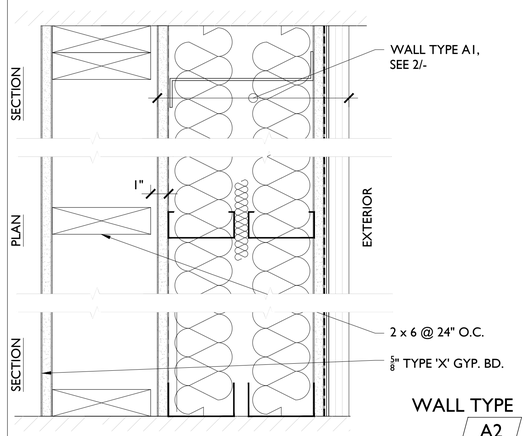


GA FILE NO. WP 5000
FIRE TEST: UL R2717
UL DESIGN V490

NOTE:
REFER TO GA FILE # WP 5000 FOR INSTALLATION AND FASTENERS REQUIREMENT

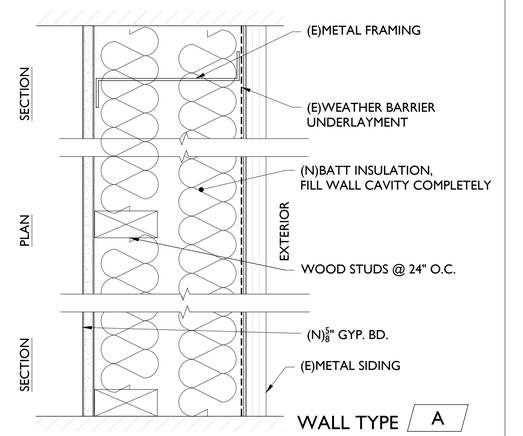
WALL TYPE A1

2 | STEEL 1 HR EXTERIOR WALL | SCALE 3" = 1'-0"



WALL TYPE A2

4 | 1 HR EXTERIOR WALL W/ PLUMBING WALL | SCALE 3" = 1'-0"



WALL TYPE A

1 | STEEL EXTERIOR WALL (NON-RATED) | SCALE 3" = 1'-0"

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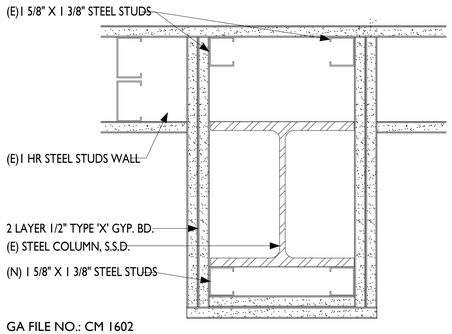
EXTERIOR ASSEMBLIES & DETAILS

BUILDING PERMIT

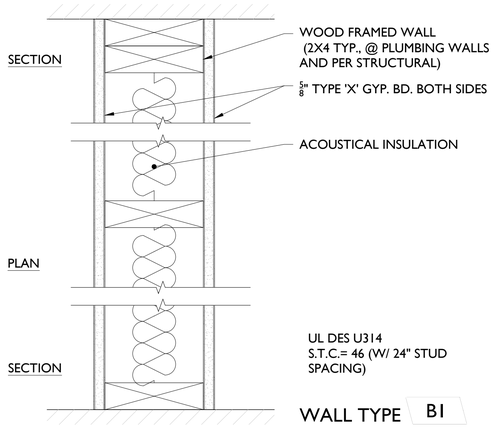
DATE 9/16/24

A8.1

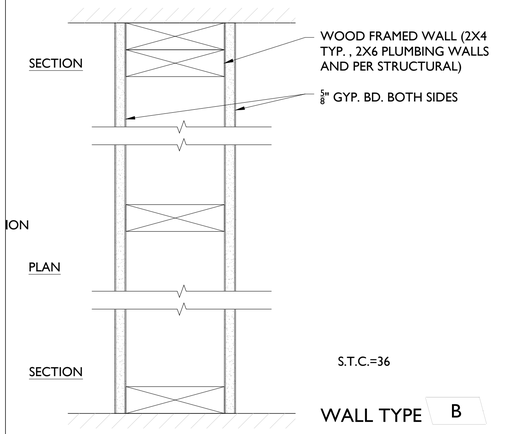


GA FILE NO.: CM 1602
UL NC505, 77NK1747 6-13-77
UL DESIGN X528
NOTE:
REFER TO GA FILE # CM 1602 FOR INSTALLATION AND FASTENERS REQUIREMENT

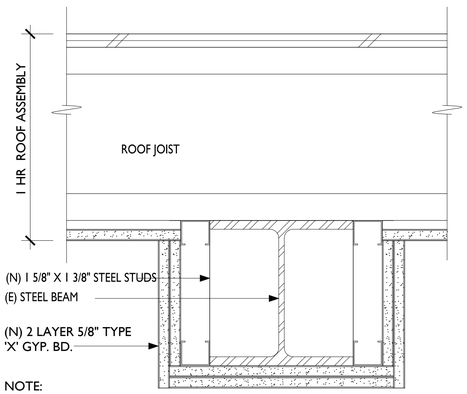
9 1 HR STEEL COLUMN SCALE 1-1/2" = 1'-0"



6 NEW RATED WALL SCALE 3" = 1'-0"



5 NEW NON-RATED WALL SCALE 3" = 1'-0"



NOTE:
REFER TO GA FILE # BM 1137 FOR INSTALLATION AND FASTENERS REQUIREMENT

GA FILE NO.: BM 1137
FIRE TEST: UL R1319-133
UL DESIGN L524

7 1 HR STEEL BEAM SCALE 1-1/2" = 1'-0"

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LICENSED ARCHITECT
BRAD KENNETH G. UNKEL
No. C-30424
1/31/25
RENEWAL DATE
STATE OF CALIFORNIA

PRESCHOOL RENOVATION

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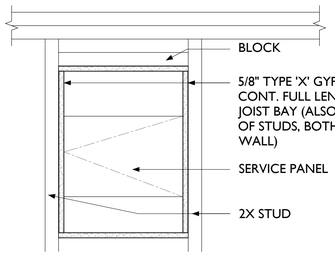
EL CERRITO, CA 94530

INTERIOR ASSEMBLIES & DETAILS

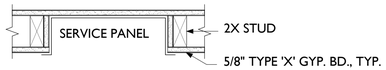
BUILDING PERMIT

DATE 9/16/24

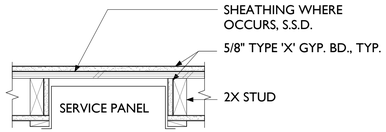
A8.2



ELEVATION SERVICE PANEL



PLAN PENETRATION NON-BEARING

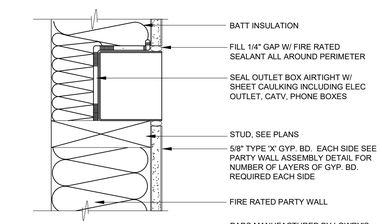


PLAN PENETRATION W/ BEARING WALL

NOTE: BASED UPON USG TECHNICAL NOTES # 09260.001, 8/24/03

THE FIVE SIDED ENCLOSURE WOULD BE APPLICABLE TO OTHER LARGE SIZE STEEL BOX-TYPE INTRUSIONS INTO THE PARTITION CAVITY OF WALLS WITH RATING OF 1-TO 4-HOURS AS LONG AS THE ENCLOSURE IS BUILT WITH THE SAME NUMBER OF LAYERS OF GYPSUM PANELS AS THE STEEL BOX TYPE INTRUSION BREACHED THROUGH THE MEMBRANE.

11 FIRE SIDED ENCLOSURE — SCALE 1-1/2" = 1'-0"



SECTION

10 OUTLET IN SOUND/ FIRE WALL — SCALE 3" = 1'-0"

SYSTEM NO. CLIV

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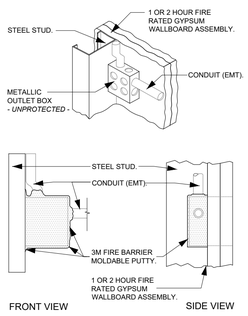

LOOK FOR CLASSIFICATION MARKING ON PRODUCT
The Classification Marking of Underwriters Laboratories Inc. (shown below) on the product or container is the only method provided by Under writers Laboratories Inc. to identify Wall Opening Protective Materials produced under its Classification and Follow-Up Service.

UNDERWRITERS LABORATORIES INC.®
CLASSIFIED
WALL OPENING PROTECTIVE MATERIAL
FIRE RESISTANCE CLASSIFICATION

SEE PRODUCT CATEGORY IN UL FIRE RESISTANCE DIRECTORY

3M COMPANY 3M FIRE PROTECTION PRODUCTS
3M CENTER, ST PAUL MN 55144 USA

WALL OPENING PROTECTIVE MATERIALS (CLIV)

This category covers proprietary compositions which are used to maintain the hourly ratings of fire resistive walls and partitions containing flush mounted devices such as outlet boxes, electrical cabinets and mechanical cabinets. The individual Classifications indicate the specific applications and the method of installation for which the materials have been evaluated.

The basic standard used to investigate products in this category is ANSI/UL 263, "Fire Tests of Building Construction and Materials."

Type MPP+ moldable putty pads for use with max 4-11/16 by 4-11/16 by 2-1/8 in. deep flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 or 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood or steel studs and constructed as specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 4-11/16 by 4-11/16 by 2 1/8 in. deep flush device UL Listed Metallic Outlet Boxes installed with steel or plastic cover plates for use in 1 hr or 2 hr fire rated gypsum board wall assemblies framed with min 5-1/2 in. wide wood or steel studs and constructed as specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory. Metallic outlet boxes to be provided with steel attachment brackets which offset box min 1/4 in. from stud. Putty pad to be affixed to the back and all four sides of the box. Boxes may be installed back-to-back within the stud cavity. When back-to-back boxes are interconnected, a ball of putty is to be installed to plug the open end of each electrical metallic tube or conduit within the outlet boxes.

Type MPP+ moldable putty pads for use with max 4 by 4 by 2-1/8 in. deep flush device UL Listed Metallic Outlet Boxes installed with plastic cover plates for use in 1 or 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood or steel studs and constructed as specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 14 by 4 by 2-1/2 in. deep flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 or 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide steel studs and constructed as specified in the individual U400 or V400 Series Wall and Partition Designs in the fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 14 by 4-1/2 by 2-1/2 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Carlon Electrical Products, made of PVC and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance" category in the Fire Resistance Directory. Boxes installed with steel cover plates, for use in 1 or 2 hr rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood studs and constructed as specified in the individual U300 Series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 4 by 3-1/4 by 3-3/4 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Thomas & Betts Corp., made of polycarbonate, Type 234 or made of phenolic, Type 1052 and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance" category in the Fire Resistance Directory. Boxes installed with steel cover plates. For use in 1 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood studs and constructed as specified in the individual U300 series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 4 by 3-3/4 by 3 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Carlon Electrical Products, made of PVC and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance category in the Fire Resistance Directory. Boxes installed with plastic cover plates, for use in 1 hr rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood studs and constructed as specified in the individual U300 Series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 4 by 3-1/4 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Thomas & Betts Corp., made of phenolic, Type 2002-738-C and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance" category in the Fire Resistance Directory. Boxes installed with steel cover plates. For use in 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide steel studs and constructed as specified in the individual U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 4 by 4 by 1-1/2 in. deep flush device UL Listed Metallic Outlet Boxes installed with plastic cover plates for use in 1 hr fire rated gypsum board wall assemblies framed with min 3-5/8 in. wide steel studs and constructed as specified in the individual U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory. Boxes may be installed back-to-back within the stud cavity.

Type MPP+ moldable putty pads for use with max 5 by 5 by 2 7/8 in. deep flush device UL Listed Metallic Outlet Boxes or UL Listed Communications-Circuit Accessories manufactured by Randl Industries Inc for use in 1 hr or 2 hr fire rated gypsum board wall assemblies framed with min 3-5/8 in. wide wood or steel studs and constructed as specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory. Metallic outlet boxes to be provided with UL Listed Signal Appliance with steel cover plate manufactured by Cooper Wheelock Inc.

Moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud unless otherwise noted) including nailing tabs and to completely seal against the stud within the stud cavity. Multiple moldable putty pads may be installed on an outlet box to attain the required minimum thickness of putty material. Additional putty material used to seal around each conduit and/or cable fitting on the exterior of each box. A min 1/10 in. thickness of putty material is required on the exterior surfaces of flush device boxes in 1 and 2 hr fire rated Wall and Partition Designs. When the moldable putty pad outlet box protective material is used on boxes on both sides of wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. provided that the outlet boxes are not installed back to back, except as noted.

Suggested Installation for 3M™ Fire Barrier Moldable Putty+ on Electrical Outlet Boxes

6 WALL OPENING PROTECTIVE MATERIALS — SCALE 1" = 1'-0"

SYSTEM N0. W-L-1001

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METALLIC PIPES THRU WOOD OR STEEL STUD FRAMED WALLS

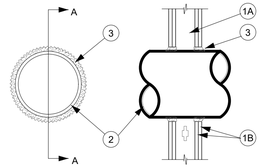
F Ratings - 1, 2, 3 and 4 Hr. (See Items 2 and 3)
T Ratings - 0, 1, 2, 3 and 4 Hr (See Item 3)
L Ratings At Ambient - 1 CFM/sq ft
L Rating At 400 F - less than 1 CFM/sq ft

1. **WALL ASSEMBLY** – THE 1, 2, 3 OR 4 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. **STUDS** – WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 HR FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. (92 MM) WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX 24 IN. OC.
   B. **GYPSUM BOARD*** – NOM 1/2 OR 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 26 IN..
2. **THROUGH PENETRANT** – ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN OF 0 IN. (POINT CONTACT) TO MAX 2 IN.. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. **STEEL PIPE** – NOM 24 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. **IRON PIPE** – NOM 24 IN. DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN. DIAM (OR SMALLER) OR CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE.
   C. **CONDUIT** – NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT OR NOM 4 IN. (DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING
   D. **COPPER TUBING** – NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING
   E. **COPPER PIPE** – NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
   F. **THROUGH PENETRATING PRODUCT*** – FLEXIBLE METAL PIPING – THE FOLLOWING TYPES OF STEEL FLEXIBLE METAL GAS PIPING MAY BE USED:
      1. NOM 2 IN. DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.
         OMEGA FLEX INC
      2. NOM 1 IN. DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.
         TITEFLEX CORP
         A BUNDY CO
      3. NOM 1 IN. DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.
         WARD MFG INC
3. **FILL, VOID OR CAVITY MATERIAL*** – CAULK OR SEALANT – MIN 5/8. 1-1/4,1-7/8 AND 2-1/2 IN. THICKNESS OF CAULK FOR 1, 2, 3 AND 4 HR RATED ASSEMBLIES, RESPECTIVELY, APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. MIN 1/4 IN. DIAM BEAD OF CAULK APPLIED TO GYPSUM BOARD/PENETRANT INTERFACE AT POINT CONTACT LOCATION ON BOTH SIDES OF WALL. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

   +WHEN COPPER PIPE IS USED, T RATING IS 0 HR.

   3M COMPANY – CP 25WB+ CAULK OR FB-3000 WT SEALANT,

*BEARING THE UL CLASSIFICATION MARKING



SECTION A-A

Max Pipe or Conduit Diam In.	F Rating Hour	T Rating Hour
1	1 or 2	0+, 1 or 2
1	3 or 4	2
4	1 or 2	3
6	3 or 4	2
12	1 or 2	2

5 PENETRATION FIRESTOP FOR 12" MAX. PIPE IN GYP. BD. WALL — SCALE 1" = 1'-0"

SYSTEM NO. W-L-3001 September 07, 2004

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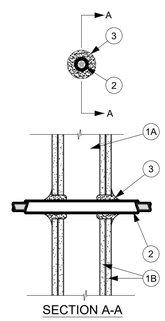
CABLE BUNDEL THRU WOOD OR STEEL STUD FRAMED WALLS

F Ratings - 1 and 2 Hr. (See Item 3)
T Ratings - 3/4, 1, 1 1/2, and 2 Hr (See Item 2)
L Ratings At Ambient - 15 CFM/sq ft (See Item 3)
L Rating At 400 F - less than 1 CFM/sq ft (See Item 3)



SECTION A-A

1. **WALL ASSEMBLY** – THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. **STUDS** – WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX 24 IN OC.
   B. **GYPSUM BOARD*** – NOM 1/2 OR 5/8 IN. THICK, 4 FT WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN. DIAM OF CIRCULAR THROUGH OPENING TO BE 3/8 IN. TO 5/8 IN. LARGER THAN OUTSIDE DIAM OF CABLE OR CABLE BUNDLE.
   C. **FASTENERS** – WHEN WOOD STUD FRAMING IS EMPLOYED GYPSUM WALLBOARD LAYERS ATTACHED TO STUDS WITH CEMENT COATED NAILS AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN. WHEN STEEL CHANNEL STUD FRAMING IS EMPLOYED, GYPSUM WALLBOARD ATTACHED TO STUDS WITH TYPE S SELF-DRILLING, SELF-TAPPING BUGLE-HEAD STEEL SCREWS AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN.

   THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.
2. **CABLES** – INDIVIDUAL CABLE OR MAX 1 IN. DIAM CABLE BUNDLE INSTALLED IN THROUGH OPENING WITH AN ANNULAR SPACE OF MIN 0 IN. (POINT CONTACT) TO MAX 3/4 IN. CABLE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED:
   A. MAX 150 PAIR NO. 24 AWG COPPER CONDUCTOR TELEPHONE CABLE WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET MATERIALS.
      WHEN MAX 25 PAIR TELEPHONE CABLE IS USED, T RATING IS 2 HR. WHEN 50 TO 150 PAIR TELEPHONE CABLE IS USED IN 1 HR FIRE RATED WALL, T RATING IS 3/4 HR. WHEN 50 TO 150 PAIR TELEPHONE CABLE IS USED IN 2 HR FIRE RATED WALL, T RATING IS 1 HR.
   B. MAX NO. 10 AWG MULTIPLE COPPER CONDUCTOR TYPE NM ("ROMEX") NONMETALLIC SHEATHED CABLE WITH PVC INSULATION AND JACKET MATERIALS.
      WHEN TYPE NM CABLE IS USED, MAX T RATING IS 1-1/2 HR.
   C. MULTIPLE FIBER OPTICAL COMMUNICATION CABLE JACKETED WITH PVC AND HAVING A MAX OUTSIDE DIAM OF 5/8 IN. **WHEN FIBER OPTIC CABLE IS USED, MAX T RATING IS 2 HR.**
   D. MAX 12 AWG MULTI CONDUCTOR (MAX SEVEN CONDUCTORS) POWER/CONTROL CABLE WITH CROSS-LINKED POLYETHYLENE (XLPE) INSULATION AND XLPE OR PVC JACKET MATERIALS. **WHEN MULTI CONDUCTOR POWER/CONTROL CABLE IS USED, MAX T RATING IS 2 HR.**
   E. MAX FOUR CONDUCTOR WITH GROUND NO. 2 AWG (OR SMALLER) ALUMINUM SER CABLES WITH POLYVINYL CHLORIDE INSULATION AND JACKET MATERIALS.
3. **FILL, VOID OR CAVITY MATERIALS* – CAULK, SEALANT OR PUTTY** – CAULK OR PUTTY FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN CABLE AND GYPSUM WALLBOARD ON BOTH SIDES OF WALL AND WITH A MIN 1/4 IN. DIAM BEAD OF CAULK OR PUTTY APPLIED TO PERIMETER OF CABLE(S) AT ITS EGRESS FROM EACH SIDE OF THE WALL.

   3M COMPANY – MP+ STIX PUTTY, CP 25WB+ CAULK, FB-3000 WT SEALANT OR CABLE WRAP PUTTY
   (NOTE: L RATINGS APPLY ONLY WHEN CP 25WB+ CAULK OR FB-3000 WT IS USED.)

*BEARING THE UL CLASSIFICATION MARK

4 PENETRATION FIRESTOP FOR CABLE IN GYP. BD. WALL — SCALE 1" = 1'-0"

GUNKEL ARCHITECTURE
1295 59TH STREET
EMERYVILLE CA 94608
GUNKELARCHITECTURE.COM
PHONE: (510) 984 - 1112

LICENSED ARCHITECT
BRUCE KENNETH GUNKEL
No. C-30424
1/31/25
RENEWAL DATE
STATE OF CALIFORNIA

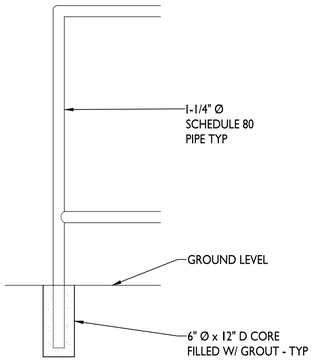
PRESCHOOL RENOVATION
729 KEARNEY ST,
EL CERRITO, CA 94530

FIRE PENETRATION DETAILS

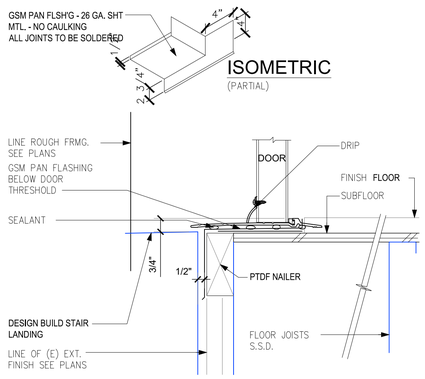
BUILDING PERMIT

DATE 9/16/24

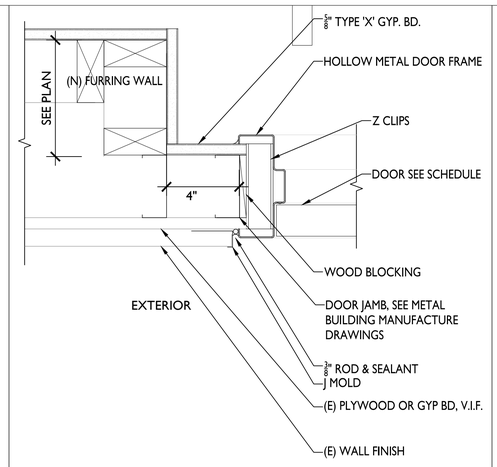
A8.3



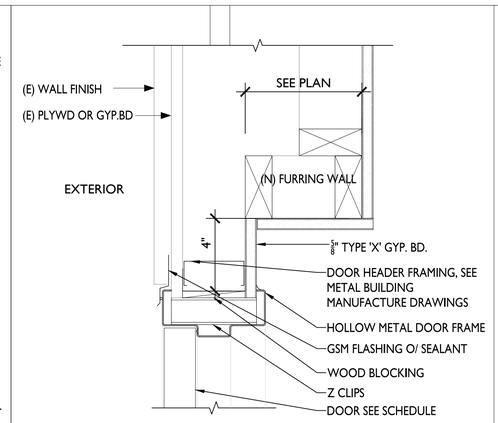
12 | RAILING POST TO GROUND | SCALE 3" = 1'-0"



9 | EXTERIOR. HM. DOOR - SILL | SCALE 3" = 1'-0"

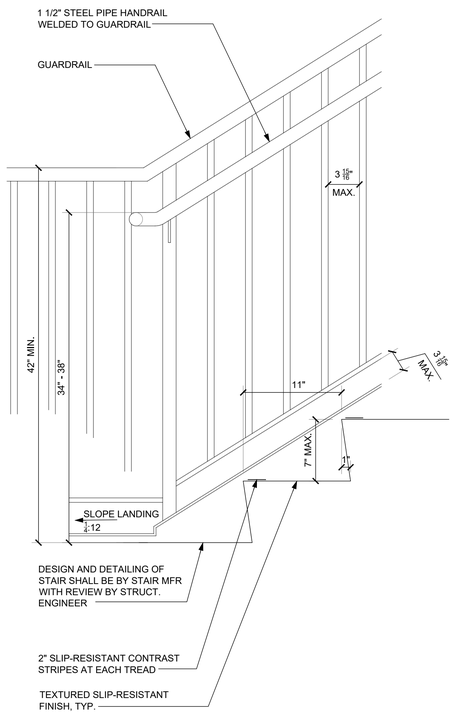


6 | EXTERIOR. HM. DOOR - JAMB | SCALE 3" = 1'-0"

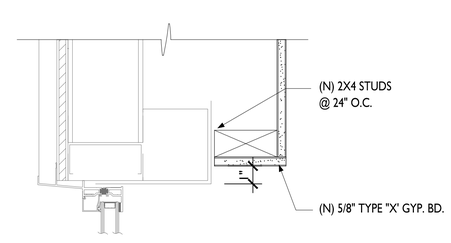


3 | EXTERIOR. HM. DOOR - HEAD | SCALE 3" = 1'-0"

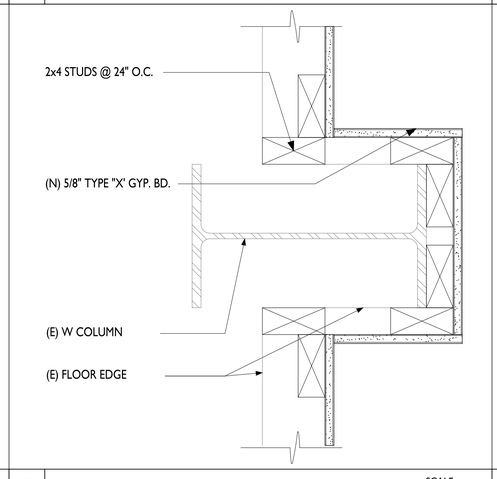
NOTE:
NO 4" DIAMETER BALL CAN PASS THROUGH GUARDRAIL
DESIGN AND DETAILING OF STAIR SHALL BE BY STAIR MFR WITH REVIEW BY STRUCT. ENGINEER



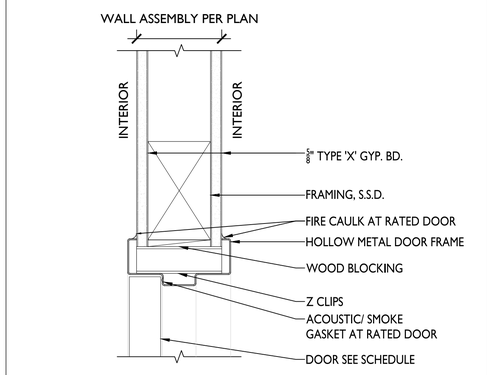
10 | STAIR HANDRAIL AND RISER | SCALE 1-1/2" = 1'-0"



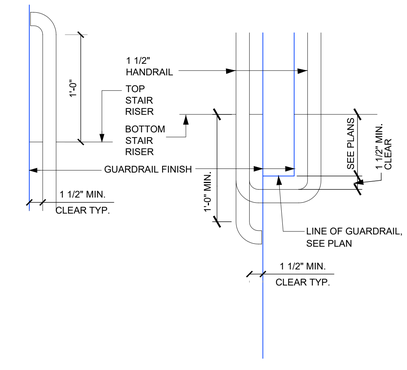
8 | NEW FURRING WALL AT WINDOW | SCALE 3" = 1'-0"



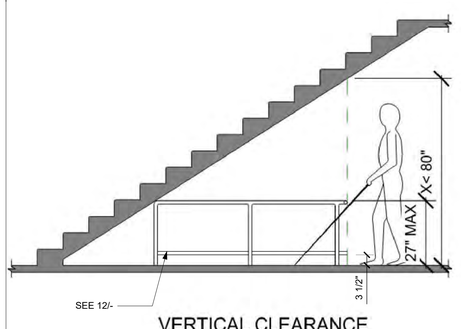
5 | (N) FURIING WALL PLAN | SCALE 3" = 1'-0"



2 | INT. HM. DOOR - HEAD | SCALE 3" = 1'-0"

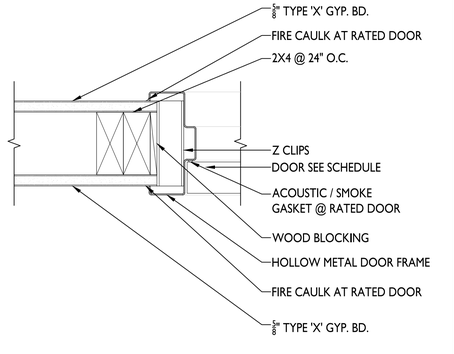


7 | STAIR HANDRAIL EXTENSIONS | SCALE 1-1/2" = 1'-0"



VERTICAL CLEARANCE
FIGURE11B-307.4

4 | VERTICAL CLEARANCE RAIL | SCALE N.T.S.



1 | INT. HM. DOOR - JAMB | SCALE 3" = 1'-0"

GUNKEL ARCHITECTURE
1295 59TH STREET
EMERYVILLE CA 94608
GUNKELARCHITECTURE.COM
PHONE: (510) 984 - 1112

LICENSED ARCHITECT
BRUD KENNETH G. NKEL
No. C-30424
1/31/25
RENEWAL DATE
STATE OF CALIFORNIA

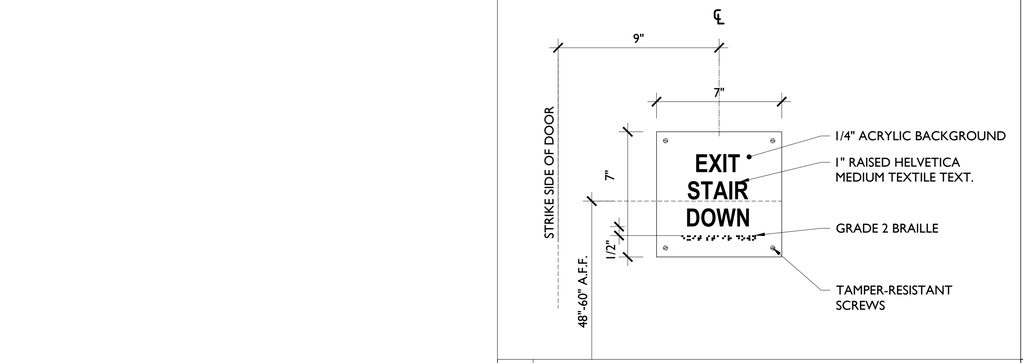
PRESCHOOL RENOVATION
729 KEARNEY ST,
EL CERRITO, CA 94530

DETAILS

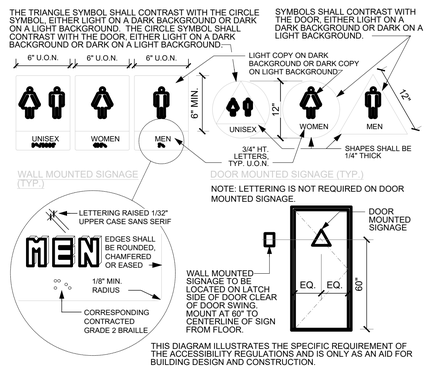
BUILDING PERMIT

DATE 9/16/24

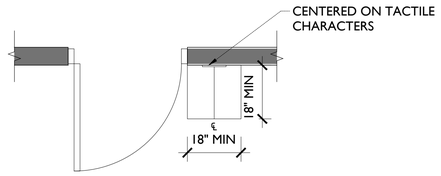
A9.1



6 EXIT STAIR DOWN SIGN - UPPER FLRS SCALE 3" = 1'-0"



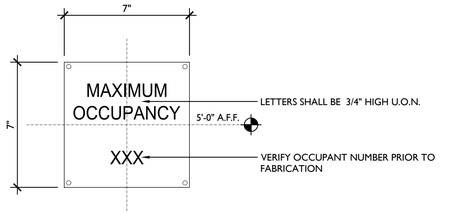
3 RESTROOM SIGNAGE 1/4"=1'-0"



1. WHERE A TACTILE SIGN IS PROVIDED AT A SINGLE-LEAF DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE.
2. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF.
3. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR.
4. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL.

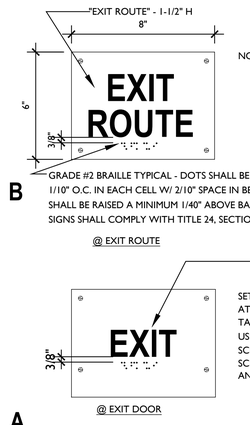
SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18" MIN BY 18" MIN CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND BOX SHOULD BE 45 DEGREE OPEN POSITION.

8 TACTILE SIGN LOCATION SCALE 1/2" = 1'-0"

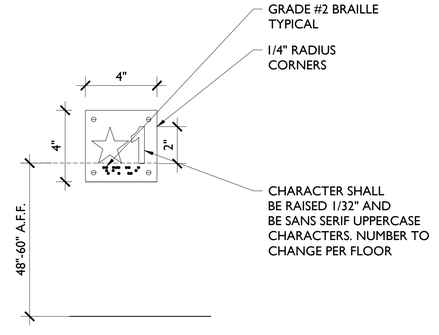


SOLID SURFACE:
SET SIGN IN FULL BED OF ADHESIVE AND ANCHOR EACH CORNER WITH #8 COUNTERSUNK TAMPER-RESISTANT SCREWS. USE TYPE OF SCREW (SHEET METAL SCREW, WOOD SCREW OR CONCRETE SCREW) APPLICABLE FOR SUBSTRATE ANCHORAGE.

5 OCCUPANCY SIGN SCALE 3" = 1'-0"



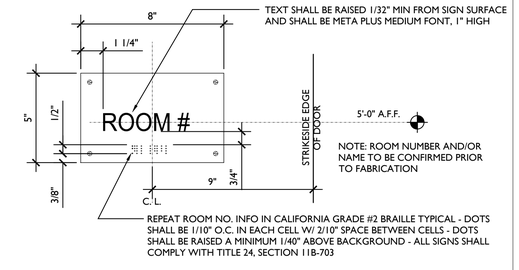
2 ACCESSIBLE EXIT SIGN SCALE 3" = 1'-0"



4 STAIR ID SIGNAGE SCALE 3" = 1'-0"

APPLIED ON SURFACE OF WINDOW GLASS WITH MATCHING BACK

SIGN SHALL CONSIST OF TWO COLORS MIN (TEXT COLOR AND 70% CONTRASTING BACKGROUND COLOR)



SOLID SURFACE:
SET SIGN IN FULL BED OF ADHESIVE AND ANCHOR EACH CORNER WITH #8 COUNTERSUNK TAMPER-RESISTANT SCREWS. USE TYPE OF SCREW (SHEET METAL SCREW, WOOD SCREW OR CONCRETE SCREW) APPLICABLE FOR SUBSTRATE ANCHORAGE.

1 ROOM SIGNAGE SCALE 3" = 1'-0"

GUNKEL ARCHITECTURE
1295 59TH STREET
EMERYVILLE CA 94608
GUNKELARCHITECTURE.COM
PHONE: (510) 984 - 1112

LICENSED ARCHITECT
REGD KENNETH G. NIKEL
No. C-30424
1/31/25
RENEWAL DATE
STATE OF CALIFORNIA

PRESCHOOL RENOVATION
729 KEARNEY ST,
EL CERRITO, CA 94530

SIGNAGE DETAILS

BUILDING PERMIT

DATE 9/16/24

A10.1

Project Name: LITTLE LAMB PRESCHOOL | **Date Prepared:** 2024-08-26

A. General Information

1	Project Name	LITTLE LAMB PRESCHOOL			
2	Run Title	Title 24 Analysis			
3	Project Location	729 KEARNEY ST			
4	City	EL CERRITO	5	Standards Version	Compliance 2022
6	Zip code	94530	7	Compliance Software (version)	EnergyPro 9.3
8	Climate Zone	3	9	Building Orientation (deg)	0
10	Building Type(s)	• Nonresidential	11	Weather File	OAKLAND-INTL_STYP20.epw
12	Project Scope	• Existing addition and alteration	13	Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	3219	15	Total # of hotel/motel rooms	0
16	Total Unconditioned Floor Area (ft²)	532	17	Fuel Type	Natural gas
18	Nonresidential Conditioned Floor Area	3219	19	Total # of Stories (Habitable Above Grade)	1
20	Residential Conditioned Floor Area	0			

B. PROJECT SUMMARY

Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.

Building Components Complying via Performance						Building Components Complying Prescriptively	
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water Heating (See Table I3)	☐	Performance	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).	
	MultiFam	Not Included		☒	Not Included		
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)	☐	Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required
	MultiFam	Not Included		☒	Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required
Domestic Hot Water (See Table I)	Nonres	Performance	Covered Process: Laboratory Exhaust (see Table J)	☐	Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required
	MultiFam	Not Included		☒	Not Included	**Building Components Complying with Mandatory Measures**	
Lighting (Indoor Conditioned, see Table K)	Nonres	Performance	Photovoltaics (see Table F)	☐	Performance	Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)	
	MultiFam	Not Included		☒	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required
			Battery (see Table F)	☐	Performance	Commissioning 120.8	NRCC-CXR-E is required
				☒	Not Included	Solar and Battery 110.10	NRCC-SAB-E is required

C1. COMPLIANCE SUMMARY

COMPLIES[3]

	Time Dependent Valuaton (TDV)		Source Energy Use
	Efficiency[1] (kBtu/ft² - yr)	**Total[2] (kBtu/ft² - yr)**	**Total[2] (kBtu/ft² - yr)**
Standard Design	247.13	n/a	n/a
Proposed Design	169.04	n/a	n/a
Compliance Margins	**78.09**	**n/a**	**n/a**
	Pass	**n/a**	**n/a**

[1] *Efficiency measures include improvements like a better building envelope and more efficient equipment*
[2] *Compliance Totals include efficiency, photovoltaics and batteries*
[3] *New Construction, Complete Addition Scope: Building complies when all efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded*
Existing, Addition and Alteration Scope: Building complies when efficiency compliance margin is greater than or equal to zero and unmet load hour limits are not exceeded

C2. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft² - yr)

COMPLIES[2]

Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Space Heating	25.83	40.78	-14.95
Space Cooling	37.63	33.32	4.31
Indoor Fans	117.87	41.92	75.95
Heat Rejection	0	0	0
Pumps & Misc.	0	0	0
Domestic Hot Water	33.4	39.88	-6.48
Indoor Lighting	32.4	13.14	19.26
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**247.13**	**169.04**	**78.09 (31.6%)**
Photovoltaics	---	---	---
Batteries	---	---	---
TOTAL COMPLIANCE	**247.13**	**169.04**	**78.09 (31.6%)**

[1] *Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.*

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Receptacle	72.28	72.28	---
Process	---	---	---
Other Ltg	5.16	5.16	---
Process Motors	0.3	3.86	-3.56
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**324.87**	**250.34**	**74.53 (22.9%)**

[1] *Notes: This table is not used for Energy Code Compliance.*

C6. 'ABOVE CODE' QUALIFICATIONS

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2

C7. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	---	4.4	---	31	---	---
Space Cooling	3.6	3.2	0.4	---	---	---
Indoor Fans	13.2	4.7	8.5	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	---	---	---	---	---
Domestic Hot Water	4.3	5.3	-1	---	---	---
Indoor Lighting	4	1.6	2.4	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**25.1**	**19.2**	**5.9**	**31**	**0**	**31**
Photovoltaics	---	---	---	---	---	---
Batteries	---	---	---	---	---	---
ENERGY USE SUBTOTAL	**25.1**	**19.2**	**5.9**	**31**	**0**	**31**
Receptacle	9.3	9.3	0	---	---	---
Process	---	---	---	---	---	---
Other Ltg	0.6	0.6	0	---	---	---
Process Motors	0	0.4	-0.4	---	---	---
ENERGY USE TOTAL	**35**	**29.5**	**5.5**	**31**	**0**	**31**

C8. ENERGY USE INTENSITY (EUI)

	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage
GROSS EUI[1]	40.1	26.83	13.27	33.09
NET EUI[1]	40.1	26.83	13.27	33.09

[1] *Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.*

D1. EXCEPTIONAL CONDITIONS

• The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

01	02	03	04
Opaque Surfaces & Orientation	**Total Gross Surface Area (ft²)**	**Total Fenestration Area (ft²)**	**Window to Wall Ratio (%)**
North-Facing[1]	320	80	25
East-Facing[2]	710	125	17.61
South-Facing[3]	500	80	16
West-Facing[4]	220	0	0
Total	**1750**	**285**	**16.29**
Roof	3219	0	0

Notes
[1] *North-Facing is oriented to within 45 degrees of true north, including 45 00'00" east of north (NE), but excluding 45 00'00" west of north (NW),*
[2] *East-Facing is oriented to within 45 degrees of true east, including 45 00'00" south of east (SE), but excluding 45 00'00" north of east (NE),*
[3] *South-Facing is oriented to within 45 degrees of true south, including 45 00'00" west of south (SW), but excluding 45 00'00" east of south (SE),*
[4] *West-Facing is oriented to within 45 degrees of true west, including 45 00'00" north of west (NW), but excluding 45 00'00" south of west (SW),*

G4. NONRESIDENTIAL AIR BARRIER

01	02
Building Story Name	**Air Barrier**
Com-Floor 2	No air barrier

G5. OPAQUE SURFACE ASSEMBLY SUMMARY

01	02	03	04	05	06		07	08	09	10
Surface Name	**Construction Type**	**Area (ft²)**	**Framing Type**	**Cavity R-Value**	**Continuous R-Value**		**Units**	**Value**	**Description of Assembly Layers**	**Status[1]**
					Interior	**Exterior**				
R139	Exterior Wall	2,370	N/A	13	N/A	N/A	U-factor	0.113	Metal Siding - 1/16 in. Composite-1	N
Roof R1928	Roof	3,751	N/A	19	N/A	N/A	U-factor	0.082	Metal Standing Seam - 1/16 in. Composite-2	N
R-19 Floor metal30	Interior Floor	3,751	Metal	19	N/A	N/A	U-factor	0.0837	Composite-3 Plywood - 1/2 in. Carpet - 3/4 in.	N

[1] *Status: N - New, A - Altered, E - Existing*

G7A. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL)

01	02	03	04	05	06	07	08	09
Fenestration Assembly Name	**Fenestration Type/ Product Type / Frame Type**	**Certification Method[1]**	**Assembly Method**	**Area (ft²)**	**Overall U-factor**	**Overall SHGC**	**Overall VT**	**Status[2]**
Residential Cooling	Vertical fenestration Fixed window N/A	NFRC	Manufactured	353	0.3	0.23	0.5	N

[1] *Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.*
[2] *Status: N - New, A - Altered, E - Existing*

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	**Equipment Type**	**Qty**	**Heating**				**Cooling**			**Economizer Type (if present)**	**Status[1]**
			Total Heating Output (kBtu/h)	**Supp Heat Output (kBtu/h)**	**Efficiency Unit**	**Efficiency**	**Total Cooling Output (kBtu/h)**	**Efficiency Unit**	**Efficiency**		
OU-01&2&3	Single Zone Heat Pump	3	37.49	0	COP HSPF	3.25 8.2	34.56	EER SEER	7.6 14.5	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13
Name or Item Tag	**Qty**	**Design OA CFM**	**Supply Fan**				**Return / Relief Fan**					**Status[1]**
			CFM	**Power**	**Power Units**	**Control**	**Fan Type**	**CFM**	**Power**	**Power Units**	**Control**	
OU-01&2&3	3	407.74	1,200	0.4	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

H5. GENERAL EXHAUST FAN SUMMARY

01	02	03	04	05	06	07	08
System ID	**Zone Name**	**Qty**	**CFM**	**Power**	**Power Units**	**Continuous Operation?**	**Status[1]**
Restroom31-EF	2-Restroom	1	350	0.11	BHP	No	N

[1] *Status: N - New, A - Altered, E - Existing*

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

CONFIDENTIALITY STATEMENT:

NOTES:

1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.
2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.
3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

T24 - ENERGY COMPLIANCE

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	**-.-.**	**NTS**
SHEET #	REV. #	DATE
T 1.00	**00**	

SEAL

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
EWH-011 - SHW	Service Hot Water	N/A	Fixed Temperature Control

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.

[1] *Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.*

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
1-Classrooms	Education - Classrooms (ages 5-8)	80.47	1223.22	0	3219	N/A

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
OU-01&2&3	Single Zone Heat Pump	3	37.49	34.56	1,200	N/A	N/A	0.4	BHP	Continuous	☐

I1. WATER HEATER EQUIPMENT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heater Element Type	Tank Type	Qty	Tank Vol (gal)	Rated Input	Rated Input Unit	Efficiency	Efficiency Unit	Tank Insulation R-value Int/Ext	Standby Loss Fraction	1st Hr. Rating or Flow Rate (gal)	Heat Pump Type	Tank Location or Ambient Condition
Instantaneous Electric2	Electricity	Instantaneous	1	1	4.81	kW	0.98	UEF	N/A	N/A	8	N/A	N/A

K1. INDOOR CONDITIONED LIGHTING GENERAL INFO

01	02	03	04	05	06
Occupancy Type[1]	Conditioned Floor Area[2] (ft²)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Additional (Custom) Allowance	
				Area Category Footnotes (Watts)	Area Category Footnotes (Watts)
Classroom, Lecture, or Training Vocational	3219	783	0	0	0
Building Totals:	**3219**	**783**	**0**	**0**	**0**

[1] *See Table 140.6-C*
[2] *See NRCC-LTI--E for unconditioned spaces*
[3] *Lighting information for existing spaces modeled is not included in this table*

K2. INDOOR CONDITIONED LIGHTING SCHEDULE

Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/ft² in offices)

01	02	03	04	05	06
Name or Item Tag	Complete Luminaire Description (i.e. 3-lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Installed Watts (Conditioned)			
		Watts per luminaire	How is Wattage determined	Total Number of Luminaires	Installed Watts
L1	L1	29	According to	27	783

[1] *If lighting power densities were used in the compliance model Building Departments will need to check prescriptive forms for Luminaire Schedule details.*

K4. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROL

Building Level Controls

01	02
Mandatory Demand Response 110.12(c)	Shut-Off Controls 130.1(c) & 160.5(b)4C
Required	Required

Area Level Controls (includes all lighting controls installed in conditioned space to meet mandatory requirements per 130.1)

03	04	05	06	07	08	09
Area Description	Area Category Primary Function Area	Area Controls 130.1(a) & 160.5(b)4A	Multi-Level Controls 130.1(b) & 160.5(b)4B	Shut-Off Controls 130.1(c) & 160.5(b)4C	Primary Daylighting 130.1(d) & 160.5(b)4D	Secondary Daylighting 140.5(d) & 160.5(b)4D
Classrooms	Classroom, Lecture, or Training Vocational	Required	Exempt	Required	Required	Required
Restrooms	Restroom	Required	Exempt	Required	NA	NA
Mechanical Room	Electrical Mechanical Telephone Room	Required	Exempt	Required	NA	NA
Stairs	Stairwell	Required	Exempt	Required	NA	NA

L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

Building Component	Form/Title
Envelope	NRCI-ENV-01-E - Must be submitted for all buildings
Envelope	NRCI-ENV-E - Envelope (for all buildings)
Mechanical	NRCI-MCH-01-E - Must be submitted for all buildings
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems
Plumbing	NRCI-PLB-01-E - Must be submitted for all buildings
Plumbing	NRCI-PLB-E - For all buildings with Plumbing Systems
Indoor Lighting	NRCI-LTI-01-E - Must be submitted for all buildings
Indoor Lighting	NRCI-LTI-E - Indoor Lighting (for all buildings)

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component	Form/Title & System Name(s)
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Indoor Lighting	NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls.
Indoor Lighting	NRCA-LTI-03-A - Automatic Daylight Controls.
Mechanical	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
	OU-01&2&3
Mechanical	NRCA-MCH-03-A - Constant Volume Single Zone HVAC
	OU-01&2&3

N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

There are no Certificates of Verification applicable to this project

Documentation Author's Declaration Statement

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Syed P Alam	Documentation Author Signature: Syed Alam
Company: BCE	Signature Date: 2024.08.26
Address: 726 Foxbrough	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Pleasanton, CA 94543	Phone:

Responsible Person's Declaration statement

I certify the following under penalty of perjury, under the laws of the State of California:

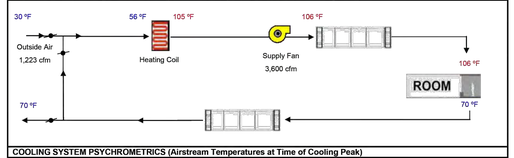
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to accomplish this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

Responsible Designer Name: Gregory Dillett	Responsible Designer Signature: Gregory Dillett
Company: BCE	
Address: 726 Foxbrough	Date Signed: 2024.08.26
City/State/Zip: Pleasanton, CA 94543	License #: 21635
Phone:	Title: PE ELECTRICAL Scope: ELECTRICAL
Responsible Designer Name: Syed P. Alam	Responsible Designer Signature: Syed Alam
Company: BCE	
Address: 726 Foxbrough	Date Signed: 2024.08.26
City/State/Zip: Pleasanton, CA 94543	License #: 27087
Phone:	Title: PE MECHANICAL Scope: MECH & PLUMBING

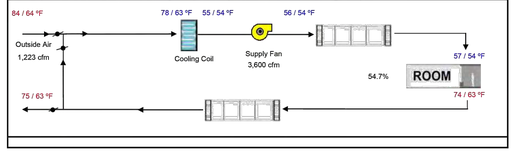
HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name: LITTLE LAMB PRESCHOOL					Date: 8/26/2024	
System Name: OU-01&2&3					Floor Area: 3,219	
ENGINEERING CHECKS		**SYSTEM LOAD**				
			COIL COOLING PEAK		COIL HTG. PEAK	
			CFM	Sensible	Latent	CFM	Sensible
Number of Systems	3						
Heating System							
Output per System	36,000	**Total Room Loads**	4,078	75,038	24,947	475	18,285
Total Output (Btuh)	108,000	**Return Vented Lighting**		0			
Output (Btuh/sqft)	33.6	**Return Air Ducts**		3,752			914
Cooling System		**Return Fan**		0			0
Output per System	36,000	**Ventilation**	1,223	11,902	-10,606	1,223	52,397
Total Output (Btuh)	108,000	**Supply Fan**		3,684			-3,684
Total Output (Tons)	9.0	**Supply Air Ducts**		3,752			914
Total Output (Btuh/sqft)	33.6						
Total Output (sqft/Ton)	357.7	**TOTAL SYSTEM LOAD**		98,128	14,341		68,826
Air System							
CFM per System	1,200	**HVAC EQUIPMENT SELECTION**					
Airflow (cfm)	3,600	OU-01&02&03		107,465	0		74,946
Airflow (cfm/sqft)	1.12						
Airflow (cfm/Ton)	400.0						
Outside Air (%)	34.0%	**Total Adjusted System Output** (Adjusted for Peak Design conditions)		107,465	0		74,946
Outside Air (cfm/sqft)	0.38						
Note: values above given at ARI conditions		**TIME OF SYSTEM PEAK**			Jul 3 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)



CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

CONFIDENTIALITY STATEMENT:

ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF THE DESIGNER AND THE SAME MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT CONSENT OF THE DESIGNER.

NOTES:

1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.
2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.
3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

T24 - ENERGY COMPLIANCE

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	**-.-.**	**NTS**
SHEET #	REV. #	DATE
T 2.00	**00**	

SEAL

REGISTERED PROFESSIONAL ENGINEER
SYED P. ALAM
NO. M 27087
EXP. 06/30/2025
MECHANICAL
STATE OF CALIFORNIA

BOLT TABLE FRAME LINE 1 & 4				
LOCATION	QUAN	TYPE	DIA	LENGTH
ER-101/ER-102	8	A325	5/8"	1 3/4"
Columns/Raf	4	A325	3/4"	1 1/2"
Columns/Raf	4	A325	3/4"	1 1/2"
Jamb/ER-102	2	A307	1/2"	1"

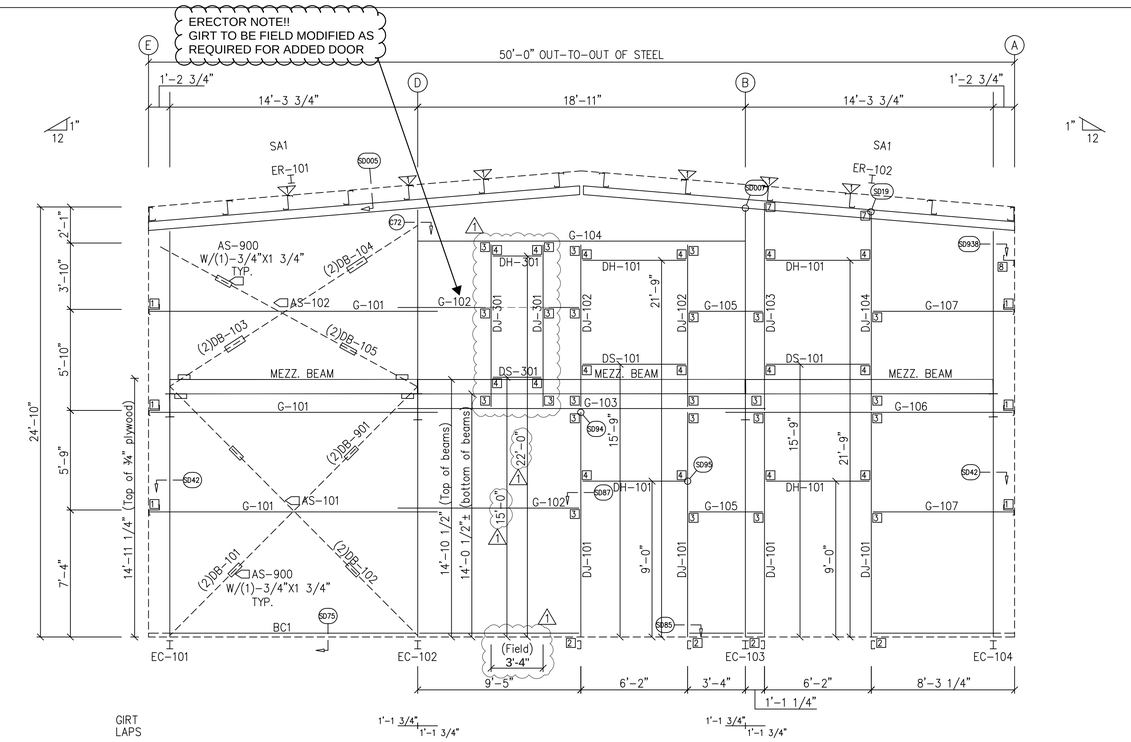
MEMBER TABLE FRAME LINE 1 & 4		
MARK	PART	LENGTH
EC-101	W14X22	23'-0 1/4"
EC-102	W14X22	24'-2 9/16"
EC-103	W14X22	24'-2 9/16"
EC-104	W14X22	23'-0 1/4"
ER-101	W12X14	25'-0 13/16"
ER-102	W12X14	25'-0 13/16"
DJ-101	8X35C16	12'-8 3/4"
DJ-102	8X35C16	9'-0"
DJ-103	8X35C16	11'-8 5/16"
DJ-104	8X35C16	11'-1 7/8"
DJ-109	8X35C16	9'-4 3/4"
DJ-110	8X35C16	7'-2"
DJ-111	8X35C16	4'-3"
DH-101	8X25C16	6'-1 1/2"
DH-106	8X25C16	22'-3 1/2"
DH-107	8X25C16	6'-1 1/2"
DH-109	8X25C16	11'-1 1/2"
DS-101	8X25C16	6'-1 1/2"
DS-104	8X25C16	22'-3 1/2"
DS-105	8X25C16	6'-1 1/2"
DS-107	8X25C16	11'-1 1/2"
G-101	8X25Z16	16'-8"
G-102	8X25Z16	10'-2 3/4"
G-103	8X25Z16	21'-2 1/2"
G-104	8X35Z16	19'-6 1/2"
G-105	8X25Z16	3'-9 1/4"
G-106	8X25Z16	16'-8"
G-107	8X25Z16	7'-11"
G-108	8X25Z16	2'-7 3/4"
G-109	8X25Z16	28'-1 1/2"
G-110	8X25Z16	28'-1 1/2"
G-111	8X25Z14	28'-1 1/2"
G-112	8X25Z14	8'-6"
G-113	8X25Z14	2'-7 3/4"
G-911	8X25Z14	28'-1 1/2"
G-910	8X25Z16	28'-1 1/2"
DJ-209	8X35C16	9'-4 3/4"
DJ-210	8X35C12	13'-8 1/4"
G-999	4X25C12	1'-3 1/2"
DB-101	D3X3/16	9'-9 1/2"
DB-102	D3X3/16	19'-4 5/16"
DB-103	D3X3/16	6'-8 11/16"
DB-104	D3X3/16	8'-9 3/8"
DB-105	D3X3/16	15'-3 1/16"
DB-901	D3X3/16	9'-2 3/4"
DJ-301	8X35C16	9'-0"
DH-301	8X35C16	3'-3 1/2"
DS-301	8X35C16	3'-3 1/2"

1 ERECTOR NOTE!! SILL CAN BE USED AS REQUIRED

FLANGE BRACE TABLE FRAME LINE 1 & 4		
VID	MARK	LENGTH
1	FB101A	2'-11 1/2"

CONNECTION PLATES FRAME LINE 1 & 4	
CID	MARK/PART
1	CL-64
2	CL-104
3	CL-103
4	CL-100
5	CL-61
6	R8
7	R1
8	R2
9	R5
10	R6
11	R7
12	R9

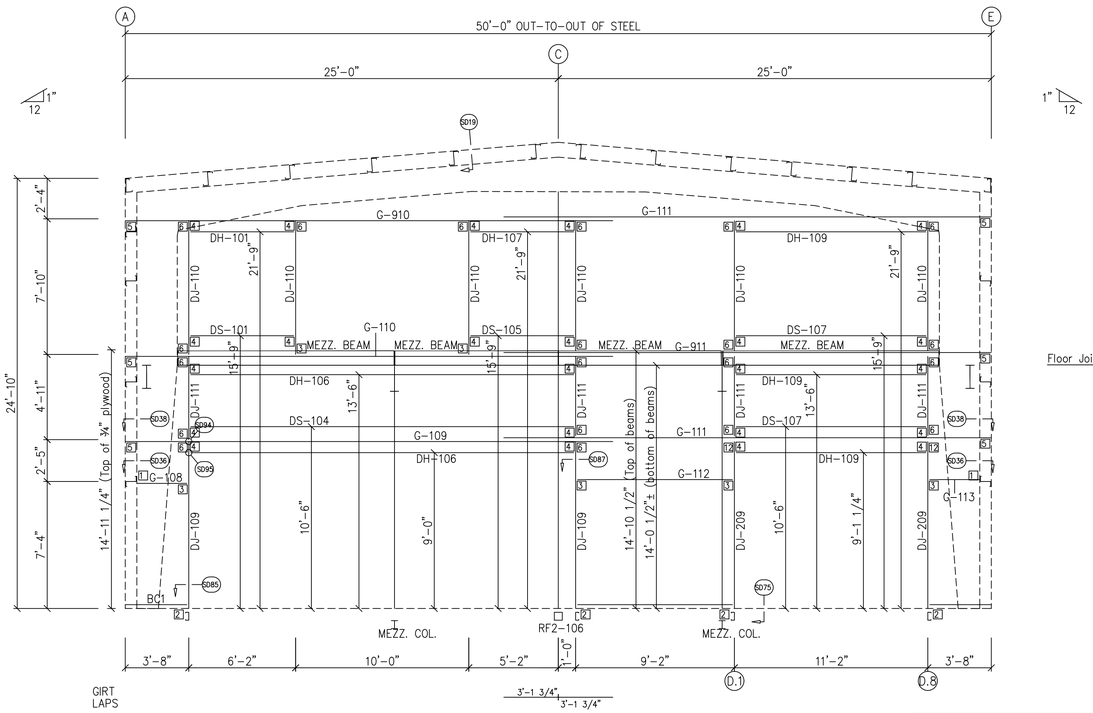
Note: Any of imposed/transfered loads from the external canopies/awnings are not in scope of this current design at all locations.



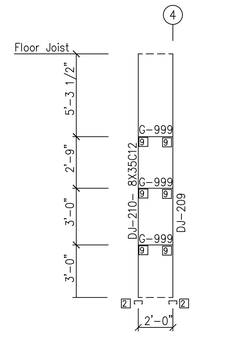
ENDWALL FRAMING: FRAME LINE 1

NOTE: BRACING DETAILS WILL BE AS SAME AS AT SIDEWALL LINE E

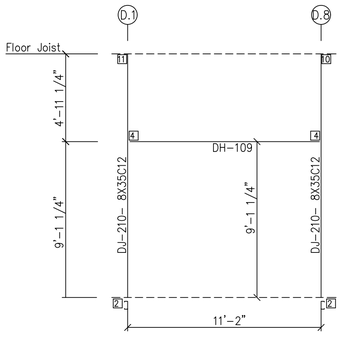
NOTE: FOR MEZZANINE BEAMS/COLUMNS PART MARKS, REFER TO MEZZANINE LAYOUT PLAN



ENDWALL FRAMING: FRAME LINE 4



RECESS FRAMING
FRAME LINE D.1, D.8



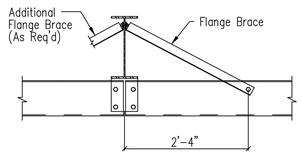
RECESS FRAMING
FRAME LINE 3.8

REVISIONS				
NO.	DATE	DESCRIPTION	BY	CK'D
A3	09/20/21	REISSUED FOR APPROVAL	MN	ASB
P	09/23/21	PERMIT DRAWINGS	MN	ASB
P1	03/30/22	REISSUED PERMIT DRAWINGS	MN	ASB
C	05/10/22	ISSUED FOR CONSTRUCTION	EDG	EDG
1	09/17/24	REVISED DUE TO ADD'L MAN DOOR	EDG	EDG

CUSTOMER BENJAMIN YU and XIN DONG
ADDRESS
OWNER OR PROJECT Little Lamp Preschool
JOBSITE LOCATION 729 KEARNEY ST. EL CERRITO, CA 94530
CAD BY | CK'D BY | DATE | SCALE N.T.S.

ALLIED
PH: 888-864-8666
Fax: 866-783-3521
alliedbuildings.com

BUILDING SIZE 50.00' x 75.00' x 24.83' (BUILDING SIZE IS NOMINAL, PLEASE REFER TO PLAN)
DESCRIPTION Endwalls framing
JOB NO. 401834 | PHASE | SHEET NO. S-1

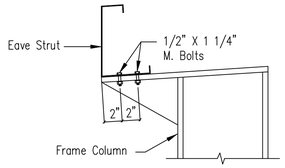


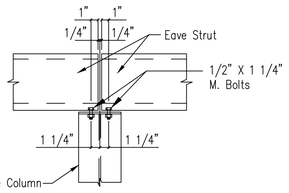
(4 Bolts Total)

Note: All connection bolts are 1/2" x 1" machine bolts unless noted.

Simple Span Girt Framing

DRAWING NO. SD52

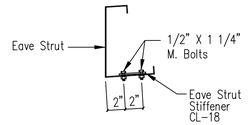


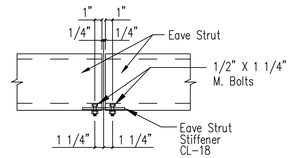


Eave Strut at Interior Column

(By Pass Sidewall)

DRAWING NO. SD59

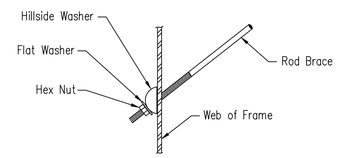




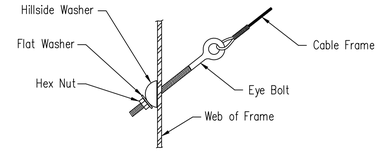
Eave Strut Stiffener Plate

Low Eave

DRAWING NO. SD60



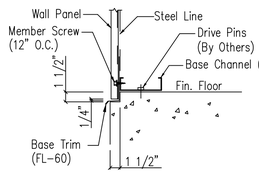
Rod Brace to Frame Detail



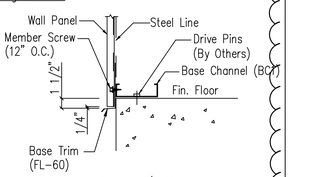
Cable Brace to Frame Detail

Cable or Rod Brace to Frame Connection

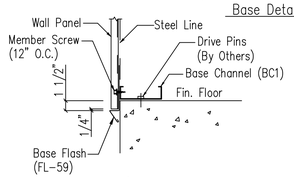
DRAWING NO. SD66



Base Detail w/ Sheeting Notch



Base Detail w/o Sheeting Notch



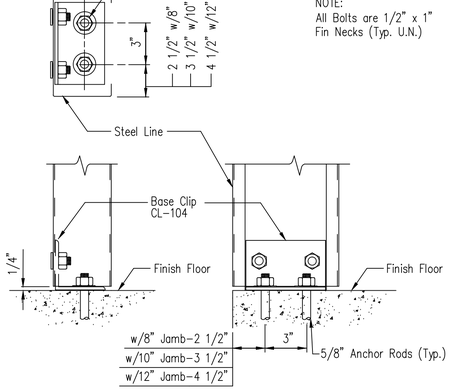
Base Detail w/o Sheeting Notch

NOTE: If insulation is required install trim first.
NOTE: A minimum of 1/4" space should be allowed from the sheet end to any surface.

Base Channel w/Trim

Revised On: 03/22/18
Created On: 5/25/12

DRAWING NO. SD75

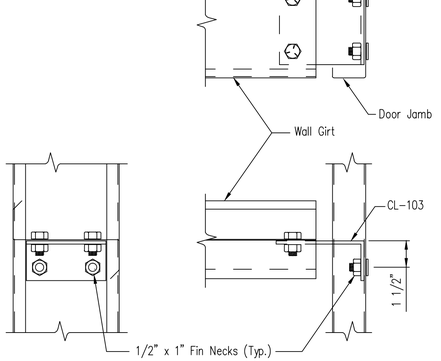


NOTE:
All Bolts are 1/2" x 1"
Fin Necks (Typ. U.N.)

Jamb to Floor

Created On: 5/25/12

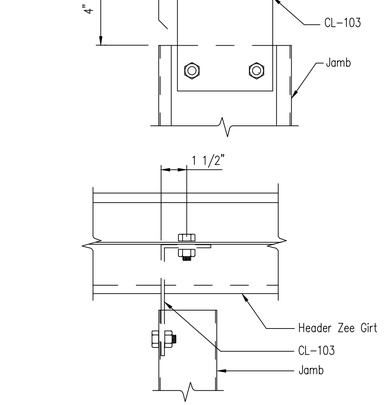
DRAWING NO. SD85



Girt to Jamb (Bolted Clips)

Created On: 10/15/10

DRAWING NO. SD87



Jamb to Header Girt

DRAWING NO. SD94

REVISIONS				
NO.	DATE	DESCRIPTION	BY	CK'D
A3	09/20/21	REISSUED FOR APPROVAL	MN	ASB
P	09/23/21	PERMIT DRAWINGS	MN	ASB
P1	03/30/22	REISSUED PERMIT DRAWINGS	MN	ASB
C	05/10/22	ISSUED FOR CONSTRUCTION	EDG	EDG

CUSTOMER: BENJAMIN YU and XIN DONG
ADDRESS:
OWNER OR PROJECT: Little Lamp Preschool
JOBSITE LOCATION: 729 KEARNEY ST., EL CERRITO, CA 94530

CAD BY	CK'D BY	DATE	SCALE
			N.T.S.

ALLIED
PH: 888-864-8666
Fax: 866-783-3521
alliedbuildings.com

BUILDING SIZE: 50.00' x 75.00' x 24.83' (BUILDING SIZE IS NOMINAL, PLEASE REFER TO PLAN)
DESCRIPTION: Details Drawings
JOB NO.: 401834
PHASE:
SHEET NO.: S-2

HVAC ABBREVIATIONS

A	
A	AREA
ABV	ABOVE
ADJ	ADJUSTABLE
AC	AIR CONDITIONING
ACH	AIR CHANGE PER HOUR
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AMB	AMBIENT
ASHRAE	AMERICAN SOCIETY OF HEATING AND REFRIGERATION ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AVG	AVERAGE
B	
BDD	BACK-DRAFT DAMPER
BHP	BREAK HORSE POWER
BTU	BRITISH THERMAL UNIT
C	
CDP	CONDENSATE DRAIN PIPE
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CG	CEILING GRILLE
CLG	CEILING
COND	CONDENSATE
CO	CLEAN OUT
CONT	CONTINUATION / CONTINUED
COP	COEFFICIENT OF PERFORMANCE
CP	CONDENSATE PUMP
D	
D	DEPTH
DB	DRY BULB
DEHUM	DEHUMIDIFIER
DMPR	DAMPER
DWG	DRAWING
E	
(E)	EXISTING
EA	EACH
EAD	EXHAUST AIR DUCT
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
ELEC	ELECTRIC
ELEV	ELEVATION
EQ	EQUAL
EVC	EVAPORATIVE COOLER
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
F	
°F	DEGREES FAHRENHEIT
F	FILTER
F/A	FROM ABOVE
FAD	FRESH AIR DUCT
F/B	FROM BELOW
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FPM	FEET PER MINUTE
FT	FEET / FOOT
FLA	FULL LOAD AMPERES
FLEX	FLEXIBLE
FV	FACE VELOCITY

H	
H	HEIGHT
HC	HEATING COIL
HTG	HEATING
HTR	HEATER
HP	HORSE POWER
HSPF	HEATING SEASONAL PERFORMANCE FACTOR
HUM	HUMIDIFIER
HZ	HERTZ
I	
ID	INSIDE DIAMETER
IDU	INDOOR UNIT
IE	INVERT ELEVATION
IN	INCH
IN WC	INCH, WATER COLUMN
INSUL	INSULATION
INT	INTERNAL / INTERIOR
K	
KEF	KITCHEN EXHAUST FAN
KW	KILOWATT
L	
L	LENGTH
LBS	POUNDS
LP	LOW PRESSURE
LRA	LOCKED ROTOR AMPS
LV	LEVEL
LWB	LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
M	
MAX	MAXIMUM
MB	MIXING BOX
MBH	THOUSAND BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MOPD	MAXIMUM OVERCURRENT PROTECTION DEVICE
MUA	MAKE-UP AIR UNIT
N	
(N)	NEW
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NK	NECK
NO	NORMALLY OPEN, NUMBER
NTS	NOT TO SCALE
O	
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OD	OUTSIDE DIAMETER
ODU	OUTDOOR UNIT
OV	OUTLET VELOCITY
P	
P	PRESSURE / POWER
PD	PRESSURE DROP
PF	PRE FILTER
PH	PHASE
POC	POINT OF CONNECTION
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH, GAUGE
Q	
QTY	QUANTITY

R	
(R)	RELOCATED
R	RISE
RA	RETURN AIR
RAD	RETURN AIR DUCT
RAF	RETURN AIR FAN
RAG	RETURN AIR GRILLE
REQD	REQUIRED
REV	REVISION
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RLA	RUNNING LOAD AMPS
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RR	RETURN REGISTER
RTU	ROOFTOP UNIT
S	
SA	SUPPLY AIR
SAD	SUPPLY AIR DUCT
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SENS	SENSIBLE
SD	SMOKE DETECTOR
SF	SQUARE FOOT
SQ IN	SQUARE INCH
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SS	STAINLESS STEEL
T	
T	THERMOSTAT
T/A	TO ABOVE
T/B	TO BELOW
TBD	TO BE DETERMINED
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
TR	TOP REGISTER
TRF	TRANSFER FAN
TG	TRANSFER GRILLE
TRD	TRANSFER DUCT
TYP.	TYPICAL
U	
U/F	UNDER FLOOR
U/G	UNDER GROUND
UH	UNIT HEATER
U/S	UNDER SLAB
UON	UNLESS OTHERWISE NOTED
UTR	UP THROUGH ROOF
V	
V	VOLT
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VEL	VELOCITY
VIF	VERIFY IN FIELD
VTR	VENT THROUGH ROOF
W	
W	WATT, WIDTH
W/	WITH
W/O	WITHOUT
WB	WETBULB
WIC	WALK-IN COOLER
WIF	WALK-IN FREEZER
WMS	WIRE MESH SCREEN
WT	WEIGHT

COMPLETION REQUIREMENTS

THE CONTRACTOR SHALL PROVIDE, WITHIN 90 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE, RECORD DRAWINGS AND AN OPERATING AND MAINTENANCE MANUAL TO THE BUILDING OWNER OR THE DESIGNATED REPRESENTATIVE OF THE OWNER. THE RECORD DRAWING SHALL BE OF THE ACTUAL INSTALLATION AND INCLUDE AS A MINIMUM THE LOCATION AND PERFORMANCE DATA ON EACH PIECE OF EQUIPMENT, GENERAL CONFIGURATION OF DUCT AND PIPE DISTRIBUTION SYSTEM INCLUDING SIZES, AND THE TERMINAL AIR OR WATER DESIGN FLOW RATES. THE OPERATING AND MAINTENANCE MANUALS SHALL BE IN ACCORDANCE WITH INDUSTRY-ACCEPTED STANDARDS AND SHALL INCLUDE, AT A MINIMUM:

(A) SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE
(B) OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT NOT FURNISHED AS PART OF THE PROJECT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED
(C) NAMES AND ADDRESSES OF AT LEAST ONE SERVICE AGENCY
(D) HVAC CONTROLS SYSTEMS MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SYSTEM SEQUENCE DESCRIPTIONS. DESIRED OR FIELD-DETERMINED SET-POINTS SHALL BE PERMANENTLY RECORDED ON CONTROL DRAWINGS AT CONTROL DEVICES OR, FOR DIGITAL CONTROL SYSTEMS, IN PROGRAMMING COMMENTS
(E) A COMPLETE NARRATIVE OF HOW EACH SYSTEM EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING SET-POINTS.

HVAC LEGEND

NEW DUCT WORK AND/OR EQUIPMENT
(E) EXISTING DUCT WORK AND/OR EQUIPMENT
HIDDEN DUCT WORK AND/OR EQUIPMENT
(D) DUCT WORK AND/OR EQUIPMENT TO BE DEMOLISHED
RETURN AIR DUCT UP
SUPPLY AIR DUCT UP
EXHAUST AIR DUCT UP
RETURN AIR DUCT DOWN
SUPPLY AIR DUCT DOWN
EXHAUST AIR DUCT DOWN
ELBOWS WITH TURNING VANES
TEE DUCT WITH TURNING VANES
DUCT WITH ACOUSTICAL LINING
D DUCT DROP (IN DIRECTION OF AIRFLOW)
R DUCT RISE (IN DIRECTION OF AIRFLOW)
TRANSITION SQUARE TO ROUND
TRANSITION SQUARE TO SQUARE /ROUND TO ROUND
FLEXIBLE DUCT
FLEXIBLE CONNECTION
RADIUS ELBOW
SUPPLY AIR RECTANGULAR CEILING DIFFUSER
RETURN AIR CEILING REGISTER/GRILLE
EXHAUST AIR REGISTER GRILLE
D VERTICAL DUCT DROP
R VERTICAL DUCT RISE
1 / M-1 DETAIL TOP - I.D. NUMBER; REF. BOTTOM - SHT. NUMBER
1 / M-1 SECTION TOP - I.D. NUMBER; REF. BOTTOM - SHT. NUMBER
F FIRE DAMPER
SF COMBINATION OF SMOKE & FIRE DAMPER
BD BACK DRAFT DAMPER
S SMOKE DETECTOR
MANUAL VOLUME DAMPER
L DOOR LOUVER
UC UNDERCUT (DOOR)
CD CONDENSATE DRAIN
T THERMOSTAT
Ø DIAMETER/ROUND
SQUARE FEET
M PROVIDED AND INSTALLED BY DIVISION 15
C PROVIDED & INSTALLED BY DIVISION 15 CONTROL
E PROVIDED AND INSTALLED BY DIVISION 16
POC POINT OF CONNECTION
18 / 800 DIFFUSER NECK SIZE; CFM

CODE COMPLIANCE

- 2022 CALIFORNIA MECHANICAL CODE (CMC), TITLE 24, PART 4
- 2022 CALIFORNIA PLUMBING CODE (CPC), TITLE 24, PART 5
- 2022 CALIFORNIA ENERGY CODE (CEnC), TITLE 24, PART 6
- 2022 CALIFORNIA ELECTRICAL CODE (CEC), TITLE 24, PART 3
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSC), TITLE 24, PART 11
- 2022 CALIFORNIA REFERENCED STANDARDS, TITLE 24, PART 12

SPECIAL NOTES TO CONTRACTORS

1. MECHANICAL CONTRACTOR SHALL EXAMINE ALL OTHER SPECIFICATIONS, DRAWINGS AND ALL FEATURES OF BUILDING CONSTRUCTION WHICH MAY AFFECT HIS WORK AND SHALL BE GOVERNED BY THESE AND OTHER SPECIFICATIONS, INCLUDING THE GENERAL CONDITIONS AND PARTICULAR INSTRUCTIONS TO ALL BIDDER AND SUPPLIERS.
2. ALL WORK SHALL BE EXECUTED AND INSPECTED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND/OR STATE CODES, LAWS, ORDINANCES, RULES AND REGULATIONS APPLICABLE TO THIS PARTICULAR CLASS OF WORK, AND EACH CONTRACTOR SHALL INCLUDE IN HIS PRICE ALL APPLICABLE SERVICE CHARGES, FEES, PERMITS, TAXES, AND OTHER SIMILAR COSTS IN CONNECTION THEREWITH.
3. PRIOR TO FABRICATION OF DUCTWORK, THE MECHANICAL CONTRACTOR SHALL EXAMINE AND VERIFY ALL CONDITIONS ABOVE AND BELOW THE CEILING WHICH MAY INTERFERE WITH THE DUCT SYSTEM AND NOTIFY THE ARCHITECT OF ANY CONFLICT ENCOUNTERED. CONTRACTOR SHALL PROVIDE ALL OFFSETS, ETC. WHICH MAY BE REQUIRED, WITHOUT ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR WILL BE HELD RESPONSIBLE TO HAVE VISITED AND EXAMINED THE PREMISES PRIOR TO SUBMITTING HIS PROPOSAL IN ORDER TO UNDERSTAND THE EXISTING CONDITIONS RELATED TO HIS WORK.
5. THE PERSON WITH OVERALL RESPONSIBILITY FOR CONSTRUCTION OR THE PERSON RESPONSIBLE FOR INSTALLATION OF REGULATED FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES SHALL POST, OR MAKE AVAILABLE WITH THE BUILDING PERMIT(S) ISSUED FOR THE BUILDING, THE REQUIRED INSTALLATION CERTIFICATE(S) FOR FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES REGULATED BY THE APPLIANCE EFFICIENCY REGULATIONS OR PART 6. SUCH INSTALLATION CERTIFICATE(S) SHALL BE MADE AVAILABLE TO THE ENFORCEMENT AGENCY FOR ALL APPROPRIATE INSPECTIONS. THESE CERTIFICATES SHALL:
   i) IDENTIFY FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES REQUIRED TO VERIFY COMPLIANCE WITH THE APPLIANCE REGULATIONS AND PART 6.
   ii) INCLUDE A STATEMENT INDICATING THAT THE FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES CONFORM TO THE APPLIANCE EFFICIENCY REGULATIONS AND PART 6 AND THE REQUIREMENTS FOR SUCH FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES GIVEN IN THE PLANS AND SPECIFICATIONS APPROVED BY THE LOCAL ENFORCEMENT AGENCY. iii) STATE THE NUMBER OF THE BUILDING PERMIT UNDER WHICH CONSTRUCTION OR INSTALLATION WAS PERFORMED.
6. THE BUILDER SHALL PROVIDE THE BUILDING OWNER OR THE PERSON(S) RESPONSIBLE FOR BUILDING MAINTENANCE (IN CASE OF MULTI-TENANT OR CENTRALLY OPERATED BUILDINGS) AT OCCUPANCY THE FOLLOWING:
   1) OPERATING INFORMATION: THE APPROPRIATE CERTIFICATE(S) OF COMPLIANCE AND A LIST OF THE FEATURES, MATERIALS, COMPONENTS, AND MECHANICAL DEVICES INSTALLED IN THE BUILDING AND INSTRUCTIONS ON HOW TO OPERATE THEM EFFICIENTLY.
   2) MAINTENANCE INFORMATION: REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY STATED AND INCORPORATED ON A READILY ACCESSIBLE LABEL. THE LABEL MAY BE LIMITED TO IDENTIFYING THE OPERATION AND MAINTENANCE MANUAL.
7. WORK IN THIS BUILDING SHALL BE DONE WHEN AND AS DIRECTED AND SHALL BE PERFORMED SO AS TO CAUSE THE LEAST POSSIBLE INCONVENIENCE AND DISTURBANCE TO ITS OCCUPANTS. ALL WORK IS TO BE COMPLETED DURING NORMAL HOURS UNLESS OTHERWISE DIRECTED.
8. MATERIALS, DOCUMENTATION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS, LOCAL CODES AND AS SPECIFIED.
9. SUPPORT ALL DUCTWORK AND PIPING FROM BUILDING STRUCTURE AND/OR FRAMING IN AN APPROVED MANNER. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OF SUPPORTS FOR EQUIPMENT, FURNISH ADDITIONAL FRAMING.
10. SEAL OPENINGS AROUND DUCTS AND PIPING THROUGH PARTITIONS, WALLS AND FLOORS WITH MINERAL WOOL, BUTYL RUBBER, NEOPRENE OR EPDM POLYMER WITH POLYISOBUTYLENE PLASTICIZER AND EPDM O-RING FOR ROUND DUCTS. SURFACE-BURNING CHARACTERISTICS FOR SEALANTS AND GASKETS SHALL BE A MAXIMUM FLAME-SPREAD INDEX OF 25 AND A MAXIMUM SMOKE-DEVELOPED INDEX OF 50 WHEN TESTED ACCORDING TO UL 723, CERTIFIED BT NRTL.
11. FIREPROOFING AND INSULATION DISTURBED BY NEW CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION.
12. DO NOT INTERRUPT ANY SERVICES OF THE EXISTING BUILDING NOR INTERFERE WITH THE SERVICES IN ANY WAY WITHOUT WRITTEN PERMISSION. INTERRUPTIONS SHALL BE AS BRIEF AS POSSIBLE AND ONLY AT DESIGNATED TIMES. NOISE SHALL BE REDUCED TO A MINIMUM.
13. REMOVE RUBBISH FROM PREMISES AND SITE AT THE END OF EACH WORK DAY AND AS DIRECTED. STORE MATERIALS IN DESIGNATED SPACES.
14. COORDINATE NEW WORK WITH OTHER TRADES AND EXISTING FIELD CONDITIONS.
15. MECHANICAL CONTRACTOR SHALL COORDINATE ALL TIE-INS, PLUS REMOVALS WITH GENERAL CONTRACTOR AND OWNER'S SCHEDULE.
16. THIS CONTRACTOR SHALL PAY FEES, GIVE NOTICE, FILE NECESSARY DRAWINGS AND OBTAIN PERMITS AND CERTIFICATES OF APPROVAL REQUIRED IN CONNECTION WITH WORK UNDER THIS CONTRACT. THE CONTRACTOR SHALL COMPLY WITH LOCAL & STATE LAWS, ORDINANCES, RULES & REGULATIONS.
17. NEW WORK AND EQUIPMENT SHALL BE THOROUGHLY CLEANED AND MADE READY FOR USE.
18. ALL DEMOLITION WORK SHALL STRICTLY COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES AND STANDARDS INCLUDING BUT NOT LIMITED TO OSHA, STATE BUILDING CODE, ETC.
19. THE CONTRACTOR TO PROVIDE CHEMICAL CLEANING FOR THE TENANT CONDENSER WATER PIPING, AND FLUSH OUT ALL DEBRIS PRIOR TO TIE INTO THE BASE BUILDING CONDENSER WATER SYSTEM. THIS WORK MUST BE DONE UNDER THE SUPERVISION OF THE BUILDING MANAGEMENT.
20. CONTRACTOR SHALL MOUNT AND CONNECT EACH ITEM OF EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION, STATE MECHANICAL CODE CHAPTER 6 AND STATE BUILDING CODE SECTION 1632A.
21. INSULATE AND SEAL ALL DUCTWORK PER CHAPTER 10 OF THE STATE MECHANICAL CODE (T-24, PART 4).
22. CONTRACTOR SHALL VERIFY ALL CLEARANCES AND AVAILABLE SPACE FOR HVAC UNITS AND DUCTWORK PRIOR TO ORDERING AND/OR FABRICATING MATERIAL.
23. EXACT LOCATIONS OF ALL CEILING DIFFUSERS, REGISTERS, AND GRILLES SHALL BE COORDINATED WITH ALL OTHER TRADES. DRAWINGS SHALL BE USED ONLY FOR GENERAL DUCT ROUTING AND AIR DISTRIBUTION. DOORS SHALL BE PROVIDED ON ALL FIRE DAMPERS, AUTOMATIC DAMPERS, MANUAL DAMPERS, BYPASS ACCESS DAMPERS AND UNITS FILTER SECTION. COORDINATE WITH UNITS RECOMMENDED CLEARANCE PRIOR TO INSTALLATION.
24. ALL SHEET METAL DUCT CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH "SMACNA" LOW PRESSURE DUCT CONSTRUCTION STANDARD. ALL BRACING OF DUCTS AND PIPING SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES.
25. PROVIDE BACK DRAFT DAMPER AND MOTORIZED DAMPER IN ALL OUTSIDE AIR DUCTS, WHETHER INDICATED OR NOT.
26. CONTRACTOR SHALL PROVIDE ALL RETURN AIR WALL OPENINGS REQUIRED FOR A COMPLETE SYSTEM..
27. PRIOR TO INSTALLATION OF EQUIPMENT, VERIFY MANUFACTURER RECOMMENDED AND CODE REQUIRED CLEARANCE.
28. COORDINATE ALL AIR DEVICES LOCATION WITH FINAL ARCHITECTURAL REFLECTED CEILING PLAN.
29. UNLESS NOTED OTHERWISE, ALL LINE VOLTAGE WIRING, CONDUIT, FINAL CONNECTIONS, DISCONNECTS, STARTERS, AND OVER CURRENT PROTECTION DEVICES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR AS INDICATED ON THESE MECHANICAL DRAWINGS AND/OR ELECTRICAL DRAWINGS AND/OR ELECTRICAL SECTION OF THE SPECIFICATIONS.
30. INSTALL ALL LOW VOLTAGE HVAC CONTROL WIRE AND DEVICES PER PLAN. ALL WIRE SHALL BE IN CONDUIT PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
31. PROVIDE OWNER WITH THREE COPIES OF A CERTIFIED AIR BALANCE REPORT PREPARED IN BY A THIRD PARTY CERTIFIED BY THE AABC OR NEBB. TEST, ADJUST AND BALANCE THE HVAC SYSTEM IN ACCORDANCE WITH AABC OR NEBB PROCEDURES. PROVIDE START-UP/TEST REPORTS FOR ALL AIR HANDLING EQUIPMENT, FANS, AND REFRIGERATION EQUIPMENT. TEST AND VERIFY PROPER OPERATION OF ALL MAKE-UP AIR/EXHAUST AIR INTERLOCK SYSTEMS AND THEIR SEQUENCES OF OPERATION. BALANCE ALL AIR FLOWS WITHIN 5% OF DESIGN VALUES. PERMANENTLY MARK BALANCE POSITION OF ALL REGULATING DEVICES.
32. PROVIDE OWNER WITH THREE SETS OF AS-BUILT PLANS AND OPERATIONS AND MAINTENANCE MANUALS. CLEARLY IDENTIFY ALL EQUIPMENT WITH PERMANENT PLASTIC OR METAL LABELS/TAGS (PEN MARKING NOT ACCEPTABLE).
33. PROVIDE ONE YEAR WARRANTY ON ALL LABOR, PARTS AND MATERIALS.
34. ANY CHANGE OR DEVIATION FROM THESE PLANS OR SPECIFICATIONS SHALL REQUIRE THE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO COMMENCEMENT OF SUCH WORK.
35. HVAC CONTROL SYSTEM SHALL BE TESTED TO ENSURE THAT CONTROL ELEMENTS ARE CALIBRATED, ADJUSTED, AND IN PROPER WORKING CONDITION, AND THAT THE SYSTEM MEETS THE DESIGN REQUIREMENTS.
36. CONTRACT DIRECTLY A THIRD PARTY TO PROVIDE TEST AND BALANCE OF THE HVAC SYSTEM. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SCHEDULING. TEST AND ADJUST ALL MECHANICAL SYSTEM AND EQUIPMENT TO ASSURE PROPER BALANCE AND OPERATION. PERFORM TESTS IN ACCORDANCE WITH NEBB PROCEDURAL STANDARDS-1999 OR AABC 2002, AND ASHRAE STANDARD 111. ELIMINATE NOISE AND VIBRATION, AND ASSURE PROPER FUNCTION OF CONTROLS. SUBMIT COMPLETED TEST AND BALANCE REPORT TO OWNER'S REPRESENTATIVE. BALANCING CONTRACTOR SHALL BE INDEPENDENT AND CERTIFIED WITH NEBB OR AABC. BALANCE ALL SYSTEMS WITHIN 5% OF AIR FLOW INDICATED ON DRAWINGS, AND REPORT ALL DISCREPANCIES TO THE HVAC CONTRACTOR FOR CORRECTION. MARK FINAL BALANCE POSITIONS ON DAMPERS WITH PERMANENT MARKER.

HVAC BUILDING DEPARTMENT NOTES

A. A SPECIAL INSPECTION AND TEST WILL BE CONDUCTED UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR ARCHITECT OR OTHER PERSON HAVING NOT LESS THAN (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF VENTILATING SYSTEMS.THE TEST WILL SHOW COMPLIANCE WITH THE BUILDING ADMINISTRATIVE CODE AND REFERENCE STANDARDS
B. THE LICENSED PROFESSIONAL ENGINEER OR ARCHITECT OR OTHER PERSON NOT HAVING LESS THAN (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF VENTILATING SYSTEMS AND CONDUCTING SUCH TESTS WILL FILE A CERTIFICATE AND REPORT OF TEST THAT THE SYSTEM COMPLIES WITH THE APPLICABLE LAWS.
C. A STATEMENT WILL BE FILED BY THE OWNER (OR TENANT) IN POSSESSION THAT THE VENTILATING SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION DURING NORMAL OCCUPANCY OF THE PREMISES.
D. ALL FIRE DAMPERS ARE TO BE OF TYPE APPROVED BY THE BOARD OF FIRE UNDERWRITERS. WHERE ENTERING OR LEAVING SHAFTS, FIRE DAMPERS ARE TO BE EQUIVALENT TO WALL RATING.
E. THE LATEST RULES OF BUILDING CODES ARE TO BE COMPLIED WITH.
F. SMOKE AND FIRE DETECTION SYSTEMS TO BE INSTALLED IN ACCORDANCE WITH THE BUILDING ADMINISTRATIVE CODE & REFERENCE STANDARDS.

SCOPE OF WORK

- INSTALLING NEW HVAC SPLIT REFRIGERANT TYPE UNITS TO PROVIDE COOLING & HEATING FOR THE INDIVIDUAL ZONES AND MULTI-ZONE SYSTEMS.
- INSTALLING NEW FLOOR MOUNTED AIR CONDITIONING UNITS AS SHOWN ON PLANS.
- INSTALLING NEW CONDENSER UNITS ON GRADE AS SHOWN ON PLANS.
- INSTALLING NEW TOILET EXTRACTION FANS.
- INSTALLING ALL NEW DUCTWORK, AIR OUTLETS, VOLUME DAMPERS, BACK DRAFT DAMPERS, BACK DRAFT LOUVERS AS SHOWN ON PLANS AND AS PER CODE COMPLIANCE.
- INSTALLING MINIMUM OF MERV.13 FILTER ON ALL FRESH AIR INTAKE.

MECHANICAL SHEET INDEX

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

CONFIDENTIALITY STATEMENT:

ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF THE DESIGNER AND THE SAME MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT CONSENT OF THE DESIGNER.

NOTES:

1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.

2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.

3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.

4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

MECHANICAL COVER SHEET

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	**-.-.**	**NTS**
SHEET #	REV. #	DATE
M 1.01	**00**	

SEAL

REGISTERED PROFESSIONAL ENGINEER
SYED P. ALAM
NO. M 27087
EXP. 06/30/2025
MECHANICAL
STATE OF CALIFORNIA

MECHANICAL GENERAL NOTES

1. ALL MECHANICAL EQUIPMENT AND SYSTEMS INSTALLED AS PART OF PROJECT SHALL COMPLY W/ ALL REQUIREMENTS OF 2022 CALIFORNIA MECHANICAL CODE AND THE 2022 CALIFORNIA BUILDING CODE, 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE AND THE 2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS.
2. TURNING VANES SHALL BE INSTALLED IN ALL BENDS IN RECTANGULAR DUCT EXCEEDING 30"
3. ALL DUCTS SHALL BE SUPPORTED WITH 1"WIDE, 16 GAUGE, GALVANIZED STEEL BANDS.
4. ALL RECTANGULAR DUCT SHALL BE INSULATED WITH A MIN. OF 1"INTERNAL LINER, 2 LBS. DENSITY R-6.0. ALL ROUND DUCTS AND DIFFUSER TOPS SHALL HAVE A MIN. 2" THICK OF FOIL BACKED BLANKET TYPE INSULATION R=4-4.2, WITH ALL JOINTS BUTTED AND TAPED.
5. ALL DUCT DIMENSIONS SHOWN ON PLANS ARE INTERNAL.
6. PROVIDE LATERAL BRACING OF ALL DUCTS AND PIPES AS REQUIRED BY CODE.
7. MAXIMUM LENGTH OF RUN OF FLEXIBLE DUCT SHALL NOT EXCEED 5 FEET.
8. MOUNT ALL THERMOSTATS AT 48" ABOVE FINISHED FLOOR.
9. WHERE BRACING DETAILS ARE NOT SHOWN ON THE DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT AND THE MECHANICAL ENGINEER.
10. DUCT SMOKE DETECTOR SHALL BE INSTALLED BELOW THE ROOF.
11. CONDENSATE WASTE FROM AIR CONDITIONING COILS DISCHARGES BY DIRECT CONNECTION TO A LAVATORY TAILPIECE OR TO AN APPROVED ACCESSIBLE INLET ON A BATHTUB OVERFLOW, THE CONNECTION SHALL BE LOCATED IN AN AREA CONTROLLED BY THE SAME PERSON CONTROLLING THE AIR-CONDITIONED SPACE (CMC 310.6)
12. THE HEATING & COOLING DUCT SYSTEM SHOULD BE SIZED IN ACCORDANCE W/ ONE OF THE RECOGNIZED METHODS OF ASHRAE, ACCA OR OTHER APPROVED METHODS. PROOF OF UTILIZING AN APPROVED METHOD SHOULD SUBMITTED FOR REVIEW, OR A STATEMENT SHOULD BE INCLUDED ON THE PLANS THAT ONE OF THE ABOVE METHODS HAS BEEN USED TO SIZE THE DUCT SYSTEM. THE STATEMENT SHOULD BE SIGNED BY THE LICENSED PROFESSIONAL. SECTION 601.2 OF THE CMC.
13. ALL DUCTWORK FOR HEATING AND COOLING SYSTEM OR EVAPORATIVE COOLING SYSTEM SHALL BE CONDUCTED THROUGH DUCT SYSTEMS CONSTRUCTED OF METAL AS SET FORTH IN THE SMACNA HVAC DUCT CONSTRUCTION STANDARD-METAL AND FLEXIBLE. FACTORY MADE AIR DUCTS SHALL BE APPROVED FOR THE USE INTENDED OR SHALL COMPLY W/ THE 2022 CMC REFERENCED STANDARDS CHAPTER 17. (CMC 602.1)
14. ALL DUCT SMOKE DETECTORS INSTALLED, AS PART OF THIS PROJECT SHALL BE SUPERVISED BY THE BUILDING. FIRE DETECTION OR ALARM SYSTEM WHEN THE BUILDING. IS EQUIPPED W/ SUCH SYSTEM. LONG BEACH FIRE DEPARTMENT FIRE PREVENTION BUREAU PLAN CHECK APPROVAL AND PERMIT ARE REQUIRED FOR CONNECTION OF THE DUCT SMOKE DETECTORS TO THE FIRE DETECTION OR ALARM SYSTEM.
15. THE REQUIRED SERVICE DISTANCE FROM MECHANICAL EQUIPMENT TO SCREENING, PARAPETS, WALLS & OTHER EQUIPMENT SHALL BE MINIMUM OF 30"x30" ON THE SERVICE SIDE OF THE EQUIPMENT, OR AS REQUIRED BY THE MANUFACTURERS INSTALLATION INSTRUCTIONS, IF THE INSTRUCTIONS REQUIRE A GREATER CLEARANCE. (CMC SECTION 304.1)
16. ALL APPLIANCES DESIGNED TO BE IN A FIXED POSITION SHALL BE SECURELY FASTENED IN PLACE IN ACCORDANCE W/ THE MANUFACTURERS INSTALLATION INSTRUCTIONS. SUPPORTS FOR APPLIANCES SHALL BE DESIGNED AND CONSTRUCTED TO RESIST HORIZONTAL AND VERTICAL LOADS WITHIN THE STRESS LIMITATIONS OF THE CBC. (CMC 304.1)
17. EQUIPMENT & APPLIANCES SHALL BE ACCESSIBLE TO SERVICE, INSPECTION REPAIR AND REPLACEMENT W/O REMOVING PERMANENT CONSTRUCTION. SUFFICIENT CLEARANCE SHALL BE MAINTAINED TO PERMIT CLEANING, REPLACEMENT OF FILTERS, BLOWERS, MOTOR CONTROLS AND LUBRICATION OF MOVING PARTS. 30 INCHES OF CLEARANCE IN DEPTH, WIDTH AND HEIGHT SHALL BE PROVIDED TO SERVICE THE APPLIANCE OR EQUIPMENT. (CMC 304.1)
18. MECHANICAL DUCT PENETRATIONS OF A NON-FIRE RESISTANCE RATED FLOOR. ASSEMBLY SHALL BE PROTECTED W/ A SHAFT ASSEMBLY IN ACCORDANCE W/ CBC SECTION 708. OR, WHEN THE DUCT CONNECTS NOT MORE THAN TWO STORIES, THE ANNULAR SPACE AROUND THE PENETRATING DUCT MUST BE PROTECTED W/ THE APPROVED NON COMBUSTIBLE MATERIAL THAT RESISTS THE FREE PASSAGE OF FLAME & PRODUCTS OF CONSTRUCTION. (CBC 714.5.2)
19. OUTSIDE AIR FOR HEATING & COOLING SYSTEM SHALL NOT BE TAKEN FROM CLOSER THAN 10 FEET FROM AN APPLIANCE VENT, VENT OPENING OF A PLUMBING SYSTEM, OR THE DISCHARGE OUTLET OF EXHAUST FAN, UNLESS ' THE OUTLET IS 3FT. ABOVE THE OUTSIDE INLET. (CMC 314.3)
20. ALL MATERIALS EXPOSED WITHIN DUCTS AND PLENUMS INCLUDING ANY ABOVE CEILING RETURN AIR PLENUM SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 & A SMOKE DEVELOPED INDEX NOT TO EXCEED THEN 50 WHEN TESTED AS A COMPOSITE PRODUCT IN ACCORDANCE W/ ASTM E 84 OR UL 723 & SHALL COMPLY W/ ALL REQUIREMENTS OF THE 2022. (CMC SECTION 602.2)
21. REFRIGERANT CONTAINING PORTIONS OF A SYSTEM THAT ARE FIELD ERECTED SHALL BE TESTED AND PROVED TIGHT TO THE AUTHORITY HAVING JURISDICTION AFTER COMPLETE INSTALLATION AND BEFORE OPERATION. THE HIGH AND LOW SIDES OF EACH SYSTEM SHALL BE TESTED AND PROVED TIGHT AT NOT LESS THAN LOWER OF THE PRESSURE IN CMC TABLE 1124.2 OR THE SETTING THE PRESSURE RELIEF DEVICE (CMC 1124.2).
22. PROVIDE 120 VOLT ELECTRICAL OUTLETS WITHIN 25FT. OF ALL ROOF MOUNTED AND OUTDOOR MECHANICAL EQUIPMENT. (CMC 301.4)
23. THE CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS SECTION 140.4(e) REQUIRES PRESCRIPTIVE APPROACH SUBMITTALS W/ COOLING FAN SYSTEMS THAT HAVE A DESIGN TOTAL MECHANICAL COOLING CAPACITY OVER 54,000Btu/hr TO INCLUDE AN ECONOMIZER. PRESCRIPTIVE APPROACH SHOW METHOD OF PRO VIDING ECONOMIZER(S)ON THE MECHANICAL PLANS FOR THE SYSTEMS PROPOSED INCLUDE ALL DAMPERS, DUCTWORK, FANS, PIPING ETC. REQUIRED TO ACCOMPLISH THIS REQUIREMENTS. PERFORMANCE BASED SUBMITTALS THAT INCLUDE ECONOMIZER REQUIREMENTS MUST ALSO BE DETAILED ON THE PLANS. A WATER ECONOMIZER CAPABLE OF PROVIDING 100% OF THE EXPECTED SYSTEM COOLING LOAD AS CALCULATED IN ACCORDANCE WITH A METHOD APPROVED BY THE COMMISSION, AT OUTSIDE AIR TEMPERATURE OF 50°F DRY-BULB AND 45°F WET-BULB AND BELOW.
24. ECONOMIZER FAULT DETECTION AND DIAGNOSTICS (FDD). ALL NEWLY INSTALLED CEILING RETURN AIR AIR-COOLED UNITARY DIRECT-EXPANSION UNITS, EQUIPPED W/ AN ECONOMIZER AND W/ MECHANICAL COOLING CAPACITY AT AHRI CONDITIONS GREATER THAN OR EQUAL TO 54,000 BTU/HR SHALL INCLUDE A FAULT DETECTION AND DIAGNOSTICS (FDD) SYSTEM IN ACCORDANCE W/ SUBSECTIONS 120.2(i)1 THROUGH 120.2(I)9 OF THE 2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS, AIR-COOLED UNITARY DIRECT EXPANSION UNITS INCLUDE PACKAGED, SPLIT-SYSTEM, HEAT PUMPS, AND VARIABLE REFRIGERANTS FLOW (VRF), WHERE THE VRF CAPACITY IS DEFINED BY THAT OF THE CONDENSING UNIT. ECONOMIZER CONTROLS AND SENSORS REQUIRED BY CALIFORNIA BUILDING EFFICIENCY STANDARDS SECTION 120.2(i).
   - A. THE FOLLOWING TEMPERATURE SENSORS SHALL BE PERMANENTLY INSTALLED TO MONITOR SYSTEM OPERATION: OUTSIDE AIR, SUPPLY AIR AND IF REQUIRED FOR DIFFERENTIAL ECONOMIZER OPERATION, RETURN AIR SENSOR.
   - B. TEMPERATURE SENSORS SHALL HAVE AN ACCURACY OF ±2°F OVER THE RANGE OF 40°F TO 80°F; AND
   - C. REFRIGERANT PRESSURE SENSORS, IF USED, SHALL HAVE AN ACCURACY OF ±3 PERCENT OF FULL SCALE; AND
   - D. THE CONTROLLER SHALL HAVE CAPABILITY OF DISPLAYING THE VALUE OF THE SENSOR; AND
   - E. THE CONTROLLER SHALL PROVIDE SYSTEM STATUS BY INDICATING BY INDICATING THE FOLLOWING CONDITIONS; * FREE COOLING AVAILABLE * ECONOMNIZER ENABLED * COMPRESSOR ENABLED * HEATING ENABLED * MIXED AIR LOW LIMIT CYCLE ACTIVE
   - F. THE UNIT CONTROLLER SHALL MANUALLY INITIATE EACH OPERATING MODE SO THAT THE OPERATION OF COMPRESSORS, ECONOMIZERS, FANS, AND HEATING SYSTEM CA BE INDEPENDENTLY TESTED AND VERIFIED.
   - G. FAULTS SHALL BE REPORTED TO A FAULT MANAGEMENT APPLICATION ACCESSIBLE BY DAY-TO-DAY OPERATING OR SERVICE PERSONNEL, OR ANNUNCIATED LOCALLY ON ZONE THERMOSTATS.
   - H. THE FDD SYSTEM SHALL DETECT THE FOLLOWING FAULTS: * AIR TEMPERATURE SENSOR FAILURE/FAULT * NOT ECONOMIZING WHEN IT SHOULD * ECONOMIZING WHEN IT SHOULD NOT * DAMPER NOT MODULATING * EXCESS OUTDOOR AIR THE FDD SYSTEM SHALL BE CERTIFIED BY THE ENERGY COMMISSION AS MEETING REQUIREMENTS OF SECTIONS 120.2(i)1 THROUGH 120.2(i)8 IN ACCORDANCE WITH SECTION 100(h). INDICATE MAKE, MODEL OF THE FDD CONTROLS. A LIST OF CERTIFIED CONTROLS MAY BE FOUND AT THE FOLLOWING; http;//www.energy.ca.gov/title24/equipment cert/dd/
25. PROVIDE DEMAND CONTROL VENTILATION FOR THE SYSTEM PROPOSED ON THE PLANS AS REQUIRED BY THE CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS SECTION 120.1(c)3. HVAC SYSTEM W/ THE FOLLOWING CHARACTERISTICS SHALL HAVE DEMAND VENTILATION CONTROLS COMPLYING W/ 120.1(c)3.
   - A. THEY HAVE AN AIR ECONOMIZER
   - B. THEY SERVE A SPACE W/ A DESIGN OCCUPANT DENSITY, OR A MAXIMUM OCCUPANT LOAD FACTOR FOR EGRESS PURPOSE IN THE CBC, GREATER OR EQUAL TO 25 PEOPLE PER 100 SQUARE FEET (40 SQUARE FEET OR LESS PER PERSON)
   - C. THEY ARE EITHER; SINGLE ZONE SYSTEMS WITH ANY CONTROLS OR MULTIPLE ZONE SYSTEMS W/ DIRECT DIGITAL CONTROLS (DDC) TO THE ZONE LEVEL.
26. REFRIGERANT SERVICE PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING TYPE TAMPER RESISTANT CAPS OR SHALL BE PROTECTED FROM UNAUTHORIZED ACCESS BY A MEANS ACCEPTABLE TO THE ENFORCING AGENCY.
27. CONTRACTOR TO COORDINATE WITH CLIENT FOR THE EQUIPMENT SELECTION. EQUIPMENT LISTED IN THE EQUIPMENT SCHEDULES ARE THE MINIMUM REQUIRED. PROVIDE THE SAME LISTED EQUIPMENT OR APPROVED EQUAL.
28. HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS (INCLUDING HYDRONIC SYSTEMS) SHALL BE BALANCED IN ACCORDANCE WITH ONE OF THE FOLLOWING METHODS IN ACCORDANCE WITH THE CMC 314.1 REQUIREMENTS. NOTE ON CONSTRUCTION DOCUMENTS THAT TESTING SHALL BE PERFORMED BY ANY OF THE FOLLOWING RECOGNIZED STANDARDS:
   - A. AABC NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE
   - B. ACCA MANUAL B
   - C. ASHRAE 111
   - D. NEBB PROCEDURAL STANDARDS FOR TESTING, ADJUSTING BALANCING OF ENVIRONMENTAL SYSTEMS
   - E. SMACNA HVAC TESTING, ADJUSTING, AND BALANCING
29. BATHROOMS: PROVIDE AN EXHAUST FAN (AT LEAST 50 CFM) DUCTED TO THE OUTSIDE (MINIMUM 4" DIAMETER FLEX DUCT WITH A MAXIMUM LENGTH OF 70"), IDENTIFY THE REQUIREMENT FOR A BACK-DRAFT DAMPER ON THE DUCT, AN ENERGY STAR COMPLIANT EXHAUST FAN THAT IS CONTROLLED BY A HUMIDITY SENSOR THAT IS CAPABLE OF BEING ADJUSTED BETWEEN ≤ 50-PERCENT TO 80-PERCENT HUMIDITY; AND A SEPARATE SWITCH FROM THE LIGHT UNLESS THE FAN IS ALLOWED TO OPERATE WITH THE LIGHT SWITCHED OFF.

MANDATORY MEASURES

1. JOINTS, PENETRATIONS AND OTHER OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, WEATHER STRIPPED, OR OTHERWISE SEALED TO LIMIT INFILTRATION AND EX-FILTRATION.
2. ALL MECHANICAL VENTILATION AND SPACE-CONDITIONING SYSTEMS SHALL BE INSTALLED WITH DUCTWORK, DAMPERS, AND CONTROLS TO ALLOW OUTSIDE AIR RATES TO BE OPERATED AT THE LARGER OF (1) THE MINIMUM LEVELS SPECIFIED IN SECTION 120.1(b) OR (2) THE RATE REQUIRED FOR MAKE UP OF EXHAUST SYSTEMS THAT ARE REQUIRED FOR AN EXEMPT OR COVERED PROCESS FOR CONTROL OF ODORS, OR FOR THE REMOVAL OF CONTAMINANTS WITHIN THE SPACE. ALL VARIABLE AIR VOLUME SPACE-CONDITIONING SYSTEMS SHALL INCLUDE CONTROLS THAT MAINTAIN MEASURED OUTSIDE AIR VENTILATION RATE AT BOTH FULL AND REDUCED SUPPLY AIRFLOW CONDITIONS.
3. THE THERMOSTATIC CONTROLS FOR HVAC SYSTEMS SHALL MEET THE FOLLOWING REQUIREMENTS AS APPLICABLE:
   - a) EACH SPACE CONDITIONING ZONE SHALL BE CONTROLLED BY AN INDIVIDUAL THERMOSTATIC CONTROL THAT RESPONDS TO TEMPERATURE WITHIN THE ZONE AND MEETS THE APPLICABLE REQUIREMENTS OF SECTION (b).
   - b) EACH THERMOSTATIC CONTROL REQUIRED BY SECTION (a) SHALL BE CAPABLE OF BEING SET LOCALLY OR REMOTELY BY ADJUSTMENT OR SELECTION OF SENSORS TO CONTROL: i) COMFORT HEATING DOWN TO 55°F OR LOWER. COMFORT COOLING UP TO 85°F OR HIGHER. ii) BOTH HEATING AND COOLING, THE THERMOSTATIC CONTROLS SHALL BE CAPABLE OF PROVIDING A TEMPERATURE RANGE OR DEAD BAND OF AT LEAST 5°F WITHIN WHICH HEATING AND COOLING ENERGY TO THE ZONE IF SHUT OFF OR REDUCE TO A MINIMUM.
4. OUTDOOR AIR SUPPLY AND EXHAUST EQUIPMENT SHALL BE INSTALLED WITH DAMPERS THAT AUTOMATICALLY CLOSE UPON FAN SHUT DOWN.
5. ALL AIR DISTRIBUTION SYSTEM DUCTS AND PLENUMS, INCLUDING, BUT NOT LIMITED TO, BUILDING CAVITIES, MECHANICAL CLOSETS, AIR-HANDLER BOXES AND SUPPORT PLATFORMS USED AS DUCTS OR PLENUMS, SHALL BE INSTALLED, SEALED AND INSULATED TO MEET THE REQUIREMENTS OF THE 2022 CALIFORNIA MECHANICAL CODE AND ANSI/SMACNA-006.2006 HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE. SUPPLY-AIR DUCTS CONVEYING HEATED OR COOLED AIR SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-4.2 (R-8 IN UNCONDITIONED SPACE), UNLESS DUCTS ARE IN CONDITIONED SPACE.
6. MAXIMUM LENGTH OF DUCT AND CONNECTORS SHALL NOT BE MORE THAN 5 FEET. FLEXIBLE DUCTS SHALL NOT BE USED IN LIEU OF RIGID ELBOWS.
7. EACH SPACE-CONDITIONING SYSTEM SHALL BE INSTALLED WITH CONTROLS THAT COMPLY WITH THE FOLLOWING:
   - CAPABLE OF AUTOMATICALLY SHUTTING OFF THE SYSTEM DURING DURING PERIODS OF NON-USE AND SHALL HAVE: i) AN AUTOMATIC TIME SWITCH CONTROL DEVICE COMPLYING WITH SEC.110.9, WHICH AN ACCESSIBLE MANUAL OVERRIDE THAT ALLOWS OPERATION OF THE SYSTEM FOR UP TO 4 HOURS; OR ii) AN OCCUPANCY SENSOR; OR iii) A FOUR-HOUR TIMER THAT CAN BE MANUALLY OPERATED. EXCEPTION: MECHANICAL SYSTEMS SERVING RETAIL STORES AND ASSOCIATED MALLS, RESTAURANTS, GROCERY STORES, CHURCHES AND THEATERS EQUIPPED WITH 7-DAY PROGRAMMABLE TIMERS.
   - AUTOMATICALLY RESTART AND TEMPORARILY OPERATE THE SYSTEM AS REQUIRED TO MAINTAIN: i) A SETBACK HEATING THERMOSTAT SET POINT, IF THE SYSTEM PROVIDES MECHANICAL HEATING; EXCEPTION: AREA WITH THE DESIGN WINTER OUTDOOR TEMPERATURE OF GREATER THAN 32°F. ii) A SETUP COOLING THERMOSTAT SET POINT, IF THE SYSTEM PROVIDES MECHANICAL COOLING. EXCEPTION: AREA WITH THE DESIGN SUMMER OUTDOOR TEMPERATURE OF GREATER THAN 100°F.
   - MULTIPURPOSE ROOM LESS THAN 1000 FT2, CLASSROOMS GREATER THAN 750 FT2 AND CONFERENCE, CONVENTION, AUDITORIUM & MEETING CENTER ROOMS GREATER THAN 750 FT2 THAT DO NOT HAVE PROCESSES OR OPERATIONS THAT GENERATE DUSTS, FUMES, VAPORS, OR GASSES SHALL BE EQUIPPED WITH OCCUPANT SENSOR(S) TO ACCOMPLISH THE FOLLOWING DURING UNOCCUPIED PERIODS: (1) AUTOMATICALLY SETUP THE OPERATING COOLING TEMPERATURE SET POINT OF 2°F OR MORE AND SETBACK THE OPERATING HEATING TEMPERATURE SET POINT BY 2°F OR MORE; AND (2) AUTOMATICALLY RESET THE MINIMUM REQUIRED VENTILATION RATE WITH AN OCCUPANT SENSOR VENTILATION CONTROL DEVICE ACCORDING TO SECTION 120.1(c)5. EXCEPTION TO SECTIONS 120.2(e)3: IF DEMAND CONTROL VENTILATION IS IMPLEMENTED AS REQUIRED BY SECTION 120.1(c)3 AND 120.1(4).
8. INDICATE OUTSIDE AIR QUANTITY (CFM) PROVIDED BY EACH HVAC SYSTEM ON THE PLANS TO VERIFY COMPLIANCE WITH THE VENTILATION REQUIREMENTS OF SEC. 120.1.
9. DUCT SYSTEM USED WITH BLOWER TYPE EQUIPMENT WHICH ARE PORTIONS OF A HEATING, COOLING, ABSORPTION, EVAPORATIVE COOLING, OR OUTDOOR AIR VENTILATION SYSTEM SHALL BE SIZED IN ACCORDANCE WITH CHAPTER 17 OF THE CALIFORNIA MECHANICAL CODE.
10. THE LESSER OF THE MINIMUM RATE OF OUTDOOR AIR REQUIRED BY SEC. 120.1 (b) 2, OR THREE COMPLETE AIR CHANGES SHALL BE SUPPLIED TO THE ENTIRE BUILDING DURING THE ONE-HOUR PERIOD IMMEDIATELY BEFORE THE BUILDING IS NORMALLY OCCUPIED.

MECHANICAL CODE ANALYSIS & INSTALLATION REQUIREMENTS

CMC-903.2.3-THE INSTALLATION OF AIR-CONDITIONING APPLIANCES SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
1- LISTED AIR-CONDITIONING APPLIANCES SHALL BE INSTALLED WITH CLEARANCES IN ACCORDANCE WITH THE TERMS OF THEIR LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2-UNLISTED AIR-CONDITIONING APPLIANCES SHALL BE INSTALLED WITH CLEARANCES FROM COMBUSTIBLE MATERIAL OF NOT LESS THAN 18 INCHES (457 ABOVE THE APPLIANCE AND AT THE SIDES, FRONT, AND REAR AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. [NFPA 54:10.2.3(2)]

CMC-502.2.1-ENVIRONMENTAL AIR DUCT EXHAUST SHALL TERMINATE NOT LESS THAN 3 FEET (914 MM) FROM A PROPERTY LINE, 10 FEET (3048 MM) FROM A FORCED AIR INLET, 10 FEET (3048 MM) ABOVE A PUBLIC WALKWAY, AND 3 FEET (914 MM) FROM OPENINGS INTO THE BUILDING. THE DISCHARGE OF ENVIRONMENTAL EXHAUST DUCTS SHALL NOT BE DIRECTED ONTO A PUBLIC WALKWAY

CMC-504.1.1-EXHAUST DUCTS SHALL TERMINATE OUTSIDE THE BUILDING AND SHALL BE EQUIPPED WITH BACK-DRAFT DAMPERS OR WITH MOTORIZED DAMPERS THAT AUTOMATICALLY SHUT WHERE THE SYSTEMS OR SPACES SERVED ARE NOT IN USE. [OSHPD 1, 1R, 2, 4 & 5] EXCEPTION: BACK-DRAFT DAMPERS ARE NOT REQUIRED WHEN THE EXHAUST FAN MUST OPERATE CONTINUOUSLY. EXCEPTION: WHERE THE EXHAUST DUCT DOES NOT DISCHARGE INTO A COMMON EXHAUST PLENUM AND ONE OF THE FOLLOWING:
1-THE EXHAUST FAN RUNS CONTINUOUSLY.
2- THE EXHAUST DUCT SERVES SPACE(S) THAT ARE NOT MECHANICALLY HEATED OR COOLED.
3- THE SPACE SERVED IS MAINTAINED AT POSITIVE PRESSURE.

CEC-150.0(H)3- INSTALLED AIR CONDITIONER AND HEAT PUMP OUTDOOR CONDENSING UNITS SHALL HAVE A CLEARANCE OF AT LEAST FIVE (5) FEET (1.5 METERS) FROM THE OUTLET OF ANY DRYER VENT.

MECHANICAL SYSTEMS INCLUDING HEATING AND AIR CONDITIONING SYSTEMS THAT SUPPLY AIR TO HABITABLE SPACES SHALL HAVE MERV 13 FILTERS OR BETTER.

EXHAUST FANS SHALL BE SWITCHED SEPARATELY FROM THE LIGHTING SYSTEMS. SECTION 150.0(K)(2)(B).

EXHAUST OPENINGS TERMINATING TO THE OUTDOORS SHALL BE COVERED WITH A CORROSION RESISTANT SCREEN HAVING NOT LESS THAN ¼ OF AN INCH OPENING AND SHALL HAVE NOT MORE THAN ½ INCH OF AN OPENINGS. CMC 502.1.

CONDENSATE LINES FROM MECHANICAL EQUIPMENT SHALL DISCHARGE TO A PLUMBING FIXTURE OR AN APPROVED LOCATION BY MEANS OF AN INDIRECT WASTE PIPE. CONDENSATE LINES SHALL NOT TERMINATE IN LANDSCAPE OR YARD AREAS. (CMC 310.5)

CMC-APPENDIX E 502.3.1-BALANCING DAMPERS SHALL BE INSTALLED IN BRANCH DUCTS, AND THE AXIS OF THE DAMPER SHALL BE INSTALLED PARALLEL TO THE DIRECTION OF AIRFLOW IN THE MAIN DUCT

CMC-APPENDIX E 502.4.4-DUCT SYSTEMS SHALL BE SIZED IN ACCORDANCE WITH ACCA MANUAL D.
VELOCITY IN MAIN DUCT SHALL NOT EXCEED 1000 FEET PER MINUTE.
VELOCITY IN SECTION BRANCHES SHALL NOT EXCEED 600 FEET PER MINUTE.

CMC-APPENDIX E 503.4.6.1-OUTDOOR AIR INTAKE AND EXHAUST SYSTEMS SHALL BE EQUIPMENT WITH MOTORIZED DAMPERS THAT WILL AUTOMATICALLY SHUT WHEN THE SYSTEMS OR SPACES SERVED ARE NOT IN USE. EXCEPTIONS: BACK-DRAFT GRAVITY DAMPERS SHALL BE PERMITTED FOR EXHAUST AND RELIEF IN BUILDINGS LESS THAN 3 STORIES IN HEIGHT.

CMC-603.7.1-DUCTS SHALL BE SUPPORTED AT EACH CHANGE OF DIRECTION AND IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS -- METAL AND FLEXIBLE. RISER DUCTS SHALL BE HELD IN PLACE BY MEANS OF METAL STRAPS OR ANGLES AND CHANNELS TO SECURE THE RISER TO THE STRUCTURE.

CMC-602.5-VIBRATION ISOLATION CONNECTORS INSTALLED BETWEEN MECHANICAL EQUIPMENT AND METAL DUCTS (OR CASINGS) SHALL BE MADE OF AN APPROVED MATERIAL AND SHALL NOT EXCEED 10 INCHES (254 MM) IN LENGTH.

CMC-303.8-APPLIANCES ON ROOFS SHALL BE DESIGNED OR ENCLOSED SO AS TO WITHSTAND CLIMATIC CONDITIONS IN THE AREA IN WHICH THEY ARE INSTALLED. WHERE ENCLOSURES ARE PROVIDED, EACH ENCLOSURE SHALL PERMIT EASY ENTRY AND MOVEMENT, SHALL BE OF REASONABLE HEIGHT, AND SHALL HAVE AT LEAST A 30 INCH (762 MM) CLEARANCE BETWEEN THE ENTIRE SERVICE ACCESS PANEL(S) OF THE APPLIANCE AND THE WALL OF THE ENCLOSURE. [NFPA 54:9.4.1.1]

CMC-303.8.4-APPLIANCES SHALL BE INSTALLED ON A WELL-DRAINED SURFACE OF THE ROOF. AT LEAST 6 FEET (1829 MM) OF CLEARANCE SHALL BE AVAILABLE BETWEEN ANY PART OF THE APPLIANCE AND THE EDGE OF A ROOF OR SIMILAR HAZARD, OR RIGIDLY FIXED RAILS, GUARDS, PARAPETS, OR OTHER BUILDING STRUCTURES AT LEAST 42 INCHES (1067 MM) IN HEIGHT SHALL BE PROVIDED ON THE EXPOSED SIDE. [NFPA 54:9.4.2.2]

CMC-402.4-REQUIRED OUTDOOR-AIR INTAKES SHALL BE COVERED WITH A SCREEN HAVING NOT LESS THAN 1/4 OF AN INCH (6.4 MM) OPENINGS, AND SHALL HAVE NOT MORE THAN 1/2 OF AN INCH (12.7 MM) OPENINGS.

CMC-407.2-OUTDOOR AIR INTAKES SHALL BE LOCATED AT LEAST 25 FEET (7.62 M) FROM EXHAUST OUTLETS OF VENTILATING SYSTEMS, COMBUSTION EQUIPMENT STACKS, MEDICAL-SURGICAL VACUUM SYSTEMS, COOLING TOWERS, AND AREAS THAT MAY COLLECT VEHICULAR EXHAUST OR OTHER NOXIOUS FUMES. PLUMBING VENTS SHALL BE LOCATED IN RELATION TO OUTDOOR AIR INTAKES PER CALIFORNIA PLUMBING CODE. THE BOTTOM OF OUTDOOR AIR INTAKES SHALL BE LOCATED AS HIGH AS PRACTICABLE, BUT NOT LESS THAN 10 FEET (3048 MM) ABOVE GROUND LEVEL. IF INSTALLED ABOVE THE ROOF, THEY SHALL BE LOCATED 18 INCHES (457 MM) ABOVE ROOF LEVEL OR 3 FEET (914 MM) ABOVE A FLAT ROOF WHERE HEAVY SNOWFALL IS ANTICIPATED.

CMC-507.2.5-ALL INTERIOR SURFACES OF THE EXHAUST SYSTEM SHALL BE ACCESSIBLE FOR CLEANING AND INSPECTION PURPOSES. [NFPA 96:4.1.8]

CMC-609.1-AIR-MOVING SYSTEMS SUPPLYING AIR IN EXCESS OF 2000 CUBIC FEET PER MINUTE (FT3/MIN) (0.9439 M3/S) TO ENCLOSED SPACES WITHIN BUILDINGS SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF. AUTOMATIC SHUTOFF SHALL BE ACCOMPLISHED BY INTERRUPTING THE POWER SOURCE OF THE AIR-MOVING EQUIPMENT UPON DETECTION OF SMOKE IN THE MAIN SUPPLY-AIR DUCT SERVED BY SUCH EQUIPMENT. EXCEPTIONS: 1- AUTOMATIC SHUTOFF IS NOT REQUIRED WHERE OCCUPIED ROOMS SERVED BY THE AIR-HANDLING EQUIPMENT HAVE DIRECT EXIT TO THE EXTERIOR, AND THE TRAVEL DISTANCE DOES NOT EXCEED 100 FEET (30 480 MM). 2- AUTOMATIC SHUTOFF IS NOT REQUIRED FOR GROUP R, DIVISION 3 AND GROUP U OCCUPANCIES.

CALGREEN MECHANICAL REQUIREMENTS

1. THE PERMANENT HVAC SYSTEM SHALL ONLY BE USED DURING CONSTRUCTION IF NECESSARY TO CONDITION ADDITIONS OR AREAS OF ALTERATION WITHIN THE REQUIRED TEMPERATURE RANGE OF THE MATERIAL AND EQUIPMENT INSTALLATION. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8, BASED ON ASHRAE 52.2-1992. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY, OR, IF THE BUILDING IS OCCUPIED DURING ALTERATION, AT THE END OF CONSTRUCTION. INCLUDING A NOTE ON THE PLANS TO SPECIFY COMPLIANCE IS ACCEPTABLE FOR THIS ITEM. (CAL GREEN 5.504.1)
2. TESTING AND ADJUSTING OF SYSTEMS IS REQUIRED FOR NEW BUILDINGS LESS THAN 10,000 SQ. FT. AND FOR NEW SYSTEMS TO SERVE AN ALTERATION OR ADDITION. INCLUDE A WRITTEN PLAN FOR TESTING AND ADJUSTING OF SYSTEMS ON THE MECHANICAL PLANS. THE HVAC SYSTEMS AND CONTROLS SHALL BE INCLUDED IN THE TESTING AND ADJUSTING. PROVIDE A COPY OF THE WRITTEN PLAN FOR TESTING AND ADJUSTING THE HVAC SYSTEMS ON THE MECHANICAL PLANS. (CAL GREEN 5.410.4)
3. PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND APPLICABLE NATIONAL STANDARDS ON EACH SYSTEM. INCLUDING A NOTE ON THE PLANS TO SPECIFY COMPLIANCE IS ACCEPTABLE FOR THIS ITEM. (CAL GREEN 5.410.3)
4. INSTALL HVAC AND REFRIGERATION SYSTEMS THAT DO NOT CONTAIN CHLOROFLUO-ROCARBONS (CFCs) OR HALONS. SHOW COMPLYING REFRIGERANT TYPE FOR EACH SYSTEM ON THE PLANS IF ACCEPTABLE.
5. AFTER COMPLETION OF TESTING, ADJUSTING AND BALANCING, PROVIDE A FINAL REPORT OF TESTING SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFMORMING THESE SERVICES. INCLUDING A NOTE ON THE PLANS TO SPECIFY COMPLIANCE IS ACCEPTABLE FOR THIS ITEM. (CAL GREEN 5.410.4.4)
6. PROVIDE THE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES AND WARRANTIES FOR EACH SYSTEM. Q&M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CCR TITLE 8, SECTION 5142 AND OTHER RELATED REQUIREMENTS. INCLUDING A NOTE ON THE PLANS TO SPECIFY COMPLIANCE IS ACCEPTABLE FOR THIS ITEM. (CAL GREEN 5.410.4.5)
7. INCLUDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS REQUIRED BY THE ENFORCING AGENCY WITH THE FINAL REPORT TO THE BUILDING OWNER. INCLUDING A NOTE ON THE PLANS TO SPECIFY COMPLIANCE IS ACCEPTABLE FOR THIS ITEM. (CAL GREEN 5.410.4.5.1)
8. AT THE TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE CONSTRUCTION SITE UNTIL FINAL STARTUP OF THE HEATING AND COOLING AND VENTILATION EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST, WATER OR DEBRIS WHICH MAY ENTER THE SYSTEM. INCLUDING A NOTE ON THE PLANS TO SPECIFY COMPLIANCE IS ACCEPTABLE FOR THIS ITEM. (CAL GREEN 5.504.3)
9. IN MECHANICALLY VENTILATED BUILDINGS, PROVIDE REGULARLY OCCUPIED AREAS OF THE BUILDING WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR THAT PROVIDES AT LEAST A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8. MERV 8 FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY, AND RECOMMENDATIONS FOR MAINTENANCE WITH FILTERS OF THE SAME VALUE SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL. SPECIFY COMPLIANT FILTERS ON THE PLANS. (CAL GREEN 5.504.5.3)

DUCT SIZING SCHEDULE

RECTANGULAR DUCTS				ROUND DUCTS			
S.N.	**Duct Size**	**CFM Range**	**Velocity (FPM)**	**S.N.**	**Duct Size**	**CFM Range**	**Velocity (FPM)**
1	6"x6"	15 to 100	300 to 500	1	4" Dia	15 to 50	300 to 500
2	8"x8"	115 to 200	300 to 500	2	6" Dia	50 to 115	300 to 500
3	10"x8"	150 to 250	300 to 500	3	8" Dia	115 to 200	300 to 500
4	12"x8"	180 to 300	300 to 500	4	10" Dia	200 to 300	300 to 500
5	14"x8"	200 to 350	300 to 500	5	12" Dia	300 to 450	300 to 500
6	16"x8"	240 to 400	300 to 500	6	14" Dia	450 to 600	300 to 500
7	20"x8"	300 x 480	300 to 500	7	16" Dia	600 to 800	300 to 500
8	10"x10"	200 to 300	300 to 500	8	18" Dia	800 to 1000	300 to 500
9	12"x10"	230 to 380	300 to 500	9	20" Dia	1000 to 2000	500 to 800
10	14"x10"	260 to 440	300 to 500	10	22" Dia	1500 to 2400	500 to 800
11	16"x10"	300 to 500	300 to 500	11	24" Dia	1800 to 3000	500 to 800
12	18"x10"	330 to 550	300 to 500	12	26" Dia	2100 to 3400	500 to 800
13	20"x10"	370 to 620	300 to 500	13	28" Dia	2500 to 3800	500 to 800
14	22"x10"	400 to 660	300 to 500	14	30" Dia	2800 to 4600	500 to 800
15	12"x12"	300 to 450	300 to 500				
16	14"x12"	320 to 530	300 to 500				
17	16"x12"	360 to 600	300 to 500				
18	18"x12"	400 to 670	300 to 500				
19	20"x12"	450 to 750	300 to 500				
20	22"x12"	500 to 820	300 to 500				
21	24"x12"	530 to 900	300 to 500				

DUCTWORK LEGEND

TRANSITIONS

MAIN BRANCH TAKE-OFFS

RISERS

DUCT CROSSOVERS

SUB-BRANCH TAP AND TEE

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

CONFIDENTIALITY STATEMENT:

ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF THE DESIGNER AND THE SAME MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT CONSENT OF THE DESIGNER.

NOTES:

1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.

2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.

3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.

4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

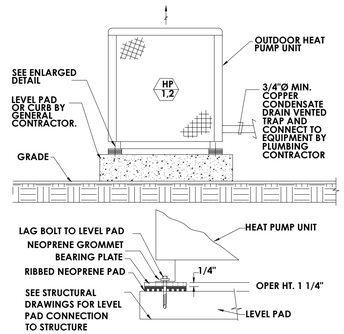
MECHANICAL REQUIREMENTS & CODE ANALYSIS

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	-.-.	NTS
SHEET #	**REV. #**	**DATE**
M 1.02	00	

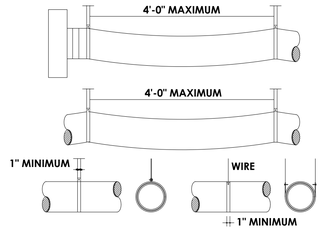
SEAL

SYED P. ALAM
NO. M 27087
EXP. 06/30/2025

MECHANICAL GENERAL DETAILS



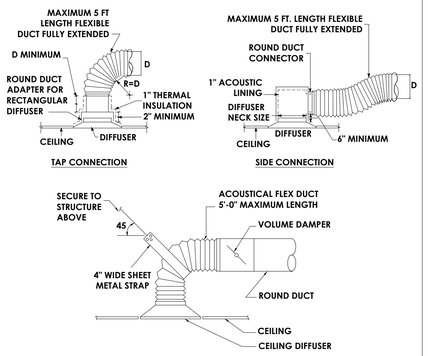
HEAT PUMP UNIT INSTALLATION — SCALE NONE — 4



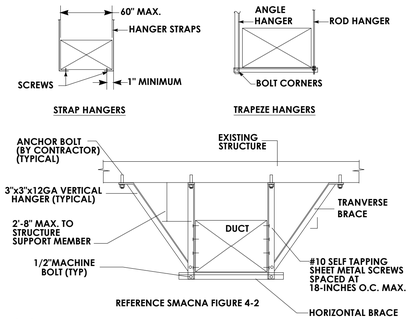
NOTES:

1. DUCT SHOULD EXTEND STRAIGHT FOR SEVERAL INCHES FROM CONNECTION BEFORE BENDING.
2. MAXIMUM SAG 1/2" PER. FOOT OF SUPPORT SPACING.
3. SUPPORT SYSTEM MUST NOT DAMAGE DUCT OR CAUSE OUT OF ROUND SHAPE.
4. SEE MANUFACTURER'S SPECIFICATIONS.

FLEXIBLE DUCT SUPPORT DETAIL — SCALE NONE — 5



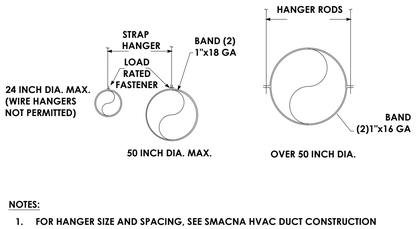
CEILING DIFFUSER CONNECTION DETAIL — SCALE NONE — 6



NOTES:

1. FOR HANGERS SIZE AND SPACING, SEE SMACNA HVAC DUCT CONSTRUCTION STANDARDS TABLE 4-1.
2. STANDARDS FIG.4-1 & FIG.4-2. APPROVAL.
3. FOR BRACING AND OTHER SEISMIC REQUIREMENTS, SEE GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS & PLUMBING PIPING SYSTEMS PUBLISHED BY SMACNA AND PPIC AS APPROVED BY OFFICE OF THE CALIFORNIA STATE ARCHITECT 10/31/82,OSHPD PRE APPROVED R0010. ALSO REFER TO NATIONAL UNIFORM SEISMIC INSTALLATION GUIDELINES (NUSIG)

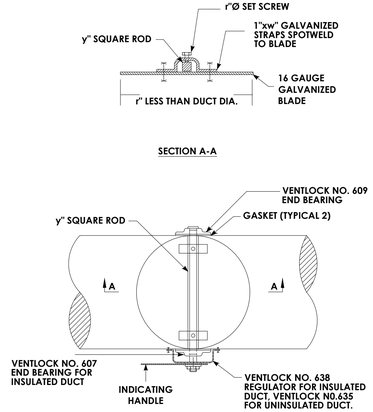
DUCT SUPPORT DETAIL — SCALE NONE — 7



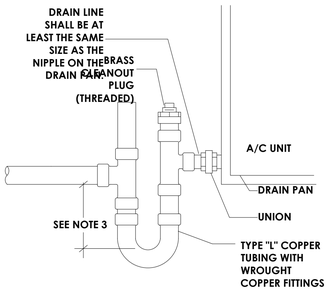
NOTES:

1. FOR HANGER SIZE AND SPACING, SEE SMACNA HVAC DUCT CONSTRUCTION STANDARDS TABLE 4.2.
2. FOR UPPER ATTACHMENT TO BUILDING SEE SMACNA HVAC DUCT CONSTRUCTION STANDARDS FIG. 4-1 AND FIG. 4-2 WITH SPECIFIC BUILDING STRUCTURAL ENGINEER APPROVAL.
3. FOR BRACING AND OTHER SEISMIC REQUIREMENTS SEE GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS PUBLISHED BY SMACNA AND PPIC. ALSO REFER TO NATIONAL UNIFORM SEISMIC INSTALLATION GUIDELINES (NUSIG).

HORIZONTAL ROUND DUCT SUPPORT — SCALE NONE — 8



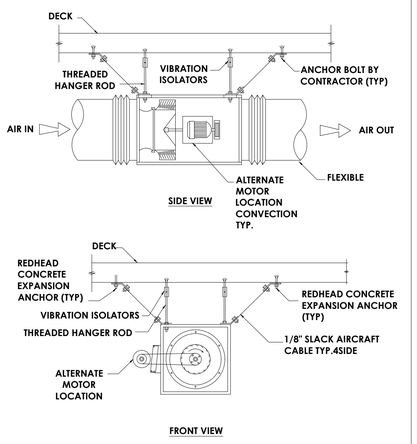
ROUND VOLUME DAMPER — SCALE NONE — 9



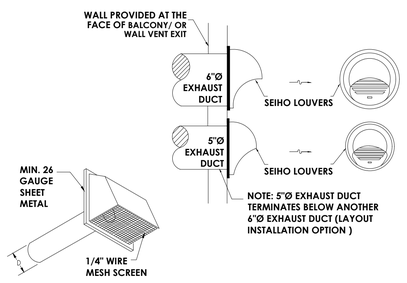
NOTES:

1. ALL CONDENSATE DRAIN LINES WITHIN BUILDING SHALL BE INSULATED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 15400, PLUMBING SPECIFICATIONS.
2. SEE DRAWING FOR SIZES.
3. TRAP DEPTH SHALL BE EQUAL TO THE A/C UNIT TOTAL STATIC PRESSURE PLUS 1-INCH BUT NOT LESS THAN 2-INCHES.
4. SOME UNITS MAY NOT REQUIRE A 4 TRAP AS SHOWN. FIELD VERIFY.

CONDENSATE DRAIN DETAIL — SCALE NONE — 10



INLINE EXHAUST FAN DETAIL — SCALE NONE — 11

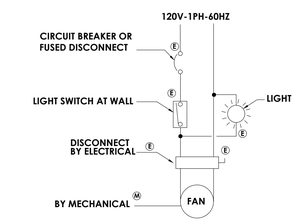


NOTES:

1. TYPICAL FOR EXHAUST TERMINATION
2. SIMILAR FOR DRYER VENT EXCEPT ADDITION
3. TERMINATION MUST BE MINIMUM 3'-0" AWAY WIRE MESH SCREEN. OF A BACK-DRAFT DAMPER & REMOVAL OF FROM ANY OPENINGS OR AIR INTAKE INTO THE BUILDING.

VENT TERMINATION DETAIL — SCALE NONE — 13

TOILET EXHAUST FAN CONNECTIONS — SCALE NONE — 15



(E) FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
(M) FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR.

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

NOTES:

1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.
2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.
3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. #	DESCRIPTION	DATE	BY

PROJECT:

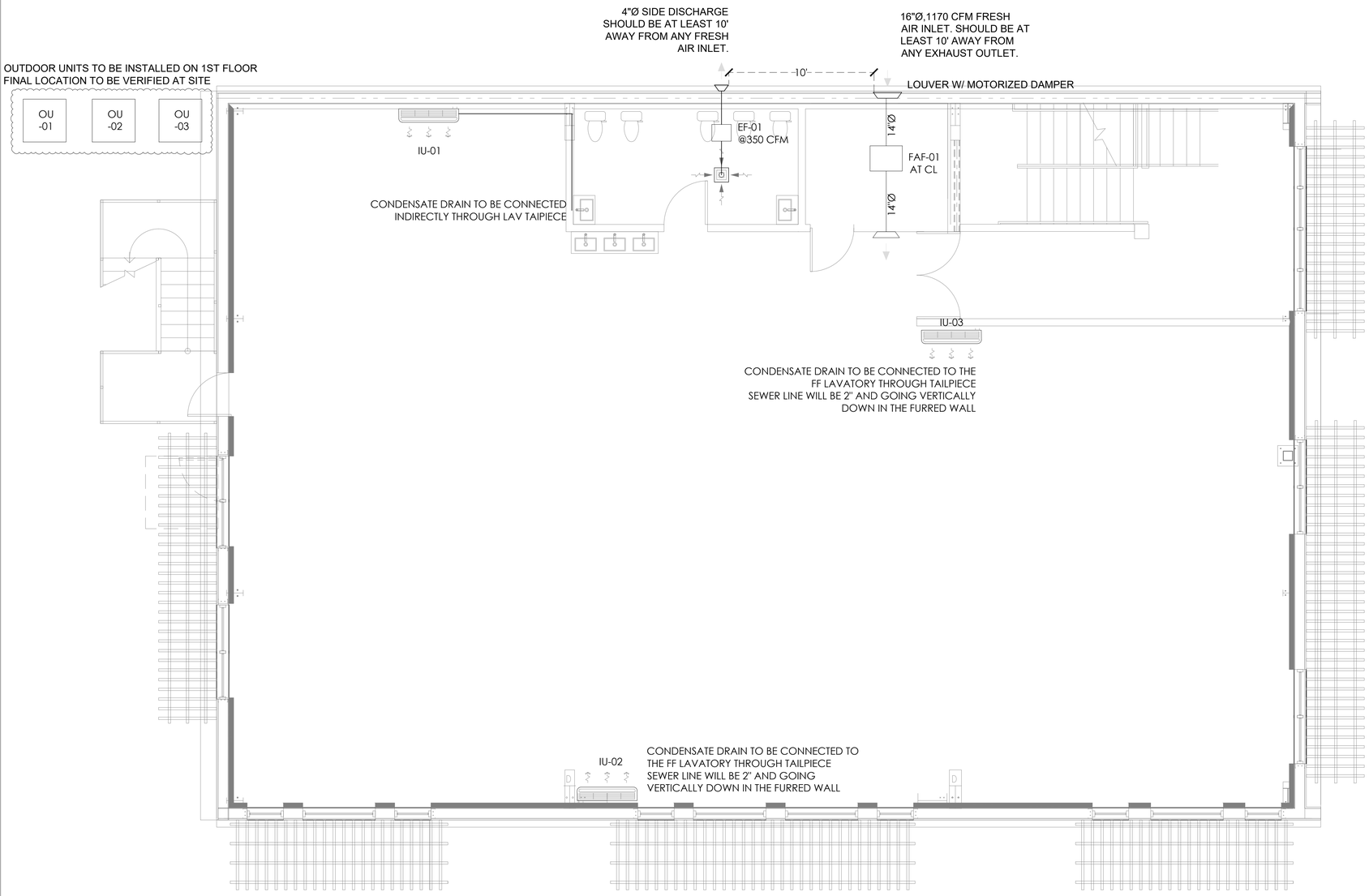
PRESCHOOL RENOVATION

SHEET TITLE:

MECHANICAL GENERAL DETAILS

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	-.-.	NTS
SHEET #	REV. #	DATE
M 1.03	00	

SEAL



PROJECT: LITTLE LAMP PRESCHOOL

Ventilation Calculations (2022 California Mechanical Code):

S.N.	Space Name	AREA	OCCUPANT DENSITY #/1000FT2	OCCUPANCY	PEOPLE OUTDOOR AIRFLOW RATE (CFM/PERSON)	CFM A	AREA OUTDOOR AIRFLOW RATE	CFM B	TOTAL CFM
1	Study Area	2,940	25	74	10.00	**735**	0.12	**353**	**1,088**
2	Corridor	350	0	0	0.00	**0**	0.06	**21**	**21**
3	**TOTAL =**		**25**		**-**	**735**	**-**	**374**	**1,109**

Ventilation Calculations (2022 California Energy Code):

S.N.	Space Name	AREA	AREA OUTDOOR AIRFLOW RATE	TOTAL CFM
1	Study Area	2,940	0.38	**1,117**
2	Corridor	350	0.15	**53**
3	**TOTAL =**		**-**	**1,170**

Exhaust Calculations (2022 California Mechanical Code)

S.N.	Space Name	AREA	AREA OUTDOOR AIRFLOW RATE	TOTAL CFM
1	Restroom	124	-	**250**
2	**TOTAL =**		**-**	**250**

Exhaust Calculations (2022 California Energy Code):

S.N.	Space Name	AREA	AREA OUTDOOR AIRFLOW RATE	TOTAL CFM
1	Restroom	124	-	**250**
2	**TOTAL =**		**-**	**250**

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

NOTES:

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3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.

4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

MECHANICAL LAYOUT

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	**-.-.**	**1/4" = 1'-0"**

SHEET #	REV. #	DATE
M 2.01	**00**	

SEAL

SCHEDULE No. 1
OUTDOOR HEAT PUMPS (OR APPROVED EQUAL)

TAG	OU-01,02,03
SERVING	AHU-02,03
MANUFACTURER	MITSUBISHI
MODEL	MSZ-D36NA
POWER SUPPLY (V / PH / HZ)	208/230 / 1 / 60
MCA (A) / MOCP (A)	21/ 25
NOMINAL COOLING / HEATING CAPACITIES (BTU/HR)	33,200 / 36,000
SHIPPING WEIGHT (LBS)	126
WIDTH X DEPTH X HEIGHT (IN.)	33 x 11 x 34
SEER / EER / HSPF	14.5 / 7.6 / 8.2

SCHEDULE No. 2
INDOOR AIR HANDLING UNITS (OR APPROVED EQUAL)

TAG	IU-01,02,03
SERVING	2ND FLOOR
MANUFACTURER	MITSUBISHI
MODEL	MUZ-D36NA
POWER SUPPLY (V / PH / HZ)	POWERED BY OUTDOOR
NOMINAL COOLING CAPACITY (BTU/HR)	33,200
NOMINAL HEATING CAPACITY (BTU/HR)	36,000
SHIPPING WEIGHT (LBS)	40
WIDTH X DEPTH X HEIGHT (IN.)	46 x 11 x 14
FLOWRATE RANGE (CFM)	1,030 TO 2,340

SCHEDULE No. 3
EXHAUST FANS (OR APPROVED EQUAL)

TAG	EF-01
LOCATION	BATHROOM
AIR FLOW (CFM)	350
STATIC PRESSURE (IN. W.G)	0.4"
VOLTAGE (V / PH / HZ)	120 / 1 / 60
POWER (W) / CURRENT (A)	119 / 1.14
IMPELLER SPEED (RPM)	2550
FAN TYPE	INLINE
MANUFACTURER	FANTECH
MODEL	FG 8

NOTES:
1. PROVIDE UL LISTING.
2. PROVIDE ENERGY STAR COMPLIANCE.
3. INTERLOCK WITH WALL SWITCH.
4. PROVIDE MOTOR WITH THERMAL OVERLOADS.

SCHEDULE No. 4
FRESH AIR FANS (OR APPROVED EQUAL)

TAG	FAF-01
LOCATION	MECH. ROOM
AIR FLOW (CFM)	1168
STATIC PRESSURE (IN. W.G)	0.55"
VOLTAGE (V / PH / HZ)	120 / 1 / 60
HP	0.25
IMPELLER SPEED (RPM)	1800
FAN TYPE	INLINE
MANUFACTURER	GREENHECK
MODEL	BSK-120-4X-QD-DR3

NOTES:
1. PROVIDE ENERGY STAR COMPLIANCE.
2. PROVIDE MOTOR WITH THERMAL OVERLOADS.
3. PROVIDE MERV-13 FILTER.

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

NOTES:

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REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

EQUIPMENT SCHEDULES

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	**-.-.**	**NTS**
SHEET #	REV. #	DATE
M 3.01	**00**	

SEAL

REGISTERED PROFESSIONAL ENGINEER
SYED P. ALAM
NO. M 27087
EXP. 06/30/2025
MECHANICAL
STATE OF CALIFORNIA

This cut sheet was generated from Greenheck Shop Online and is for the product SKU referenced below. Cut sheets for accessories or ancillary products must be printed separately.

GREENHECK Shop Online

SKU
BSQ-120-4X-QD-DR3

Job Name:
Mark:
Submitted By:
Date: 08/26/2024

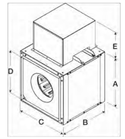
Square Centrifugal Inline Fan, Product # BSQ-120-4X-QD-DR3, 964-1598 CFM

Model BSQ centrifugal inline fan features a unique combination of installation flexibility, rugged construction, ease of service, high efficiency and low sound levels. These compact fans are the ideal selection for indoor clean air applications including intake, exhaust, return or make-up air.

- 15.875 x 15.875 inch inlet width x height
- 15.875 x 15.875 inch outlet width x height
- Horizontal or vertical mounting

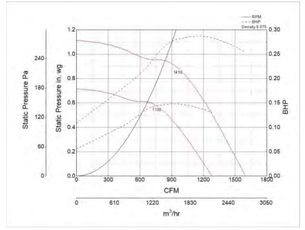
Certifications

AMCA Sound & Air
UL/cUL 705



A	B	C	D	E
19 in	21 in	19 in	15.875 in	12.5 in

Performance Characteristics



Construction Features

Housing Material	Galvanized Steel
Drive Type	Belt Drive
Impeller Type	Centrifugal Wheel
Impeller Material	Aluminum
Includes	Motor cover Unassembled drive package
Certifications	AMCA Sound & Air UL/cUL 705
Drive Package Description	Motor and drives shipped loose

Motor Information

Motor Insulation	B
Motor Phase	1
Service Factor	1.35
Voltage	115
HP	1/4
Hertz	60
Motor Enclosure	Open Drip Proof
RPM	1800
Thermal Protection	AutoOverload
Nominal Efficiency	75
NEMA Frame Size	48

Air and Sound Performance

Motor HP	Max BHP	Max Fan RPM	Min Fan RPM	Ps (in. wg)	0	0.125	0.25	0.375	0.5	0.625	0.75	0.875
1/4	0.29	1410	1130	CFM	1,598	1,523	1,446	1,368	1,286	1,197	1,099	964
				Sones	11.7	11.5	11.5	11.1	10.8	10.6	10.3	9.8

- Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.
- Performance certified is for installation type B: Free inlet, Ducted outlet.
- Power rating (BHP/kW) includes transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The inlet sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type B: free inlet hemispherical sone levels.

California Residents

⚠ WARNING

This product can expose you to chemicals including cadmium used in the processing of corrosion resistant metal and fasteners, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information visit www.P65Warnings.ca.gov

MSZ/MSY-GL Model MSZ/MSY-D Model

Indoor Unit					MSZ-GL06NA	MSZ-GL09NA	MSZ-GL12NA	MSZ-GL15NA	MSZ-GL18NA	MSZ-GL24NA	MSZ-D30NA	MSZ-D36NA
Outdoor Unit					—	MUZ-GL09NA	MUZ-GL12NA	MUZ-GL15NA	MUZ-GL18NA	MUZ-GL24NA	MUZ-D30NA	MUZ-D36NA
Cooling	Capacity	Rated [1]	BTUH	—	9,000	12,000	14,000	18,000	22,400	30,600	33,200	
	Capacity Range	Min-Max	BTUH	—	3,600–12,200	1,500–13,600	3,100–18,200	5,800–22,000	8,200–31,400	9,800–30,700	9,800–33,200	
	Power Input	Rated [1]	W	—	585	920	1,080	1,340	1,800	3,850	4,360	
	Moisture Removal	Pints/h		—	1.5	2.5	2.7	2.1	5.1	9.9	11.3	
	Sensible Heat Factor			—	0.820	0.740	0.800	0.870	0.750	0.640	0.620	
Heating	Capacity at 47°F	Rated [2]	BTUH	—	10,900	14,400	18,000	21,600	27,600	32,600	35,200	
	Capacity Range	Min-Max	BTUH	—	4,500–15,900	2,000–18,100	4,800–20,900	5,400–25,000	7,500–36,900	8,700–34,000	8,700–36,000	
	Power Input at 47°F	Rated [2]	W	—	720	1,100	1,600	1,680	2,340	3,360	3,840	
	Capacity at 17°F	Rated [2]	BTUH	—	6,700	9,200	12,200	13,800	16,000	19,500	21,800	
		Max	BTUH	—	10,200	12,000	16,400	18,200	24,600	20,800	22,800	
	Capacity at 5°F	Max [3]	BTUH	—	8,170	9,790	13,680	14,900	19,320	—	—	
	Capacity at -5°F	Max [3]	BTUH	—	—	—	—	—	—	—	—	
Efficiency	SEER			—	24.6	23.1	21.6	20.5	20.5	14.5	14.5	
	EER			—	15.4	13.0	13.0	13.4	12.5	8.0	7.6	
	HSPF			—	12.8	12.5	11.7	11.2	10.0	8.2	8.2	
	COP			—	4.44	3.84	3.3	3.77	3.46	2.84	2.69	
	ENERGY STAR® Certified			—	Yes	Yes	Yes	Yes	Yes	No	No	
Indoor Unit	Air Flow Rate - Cooling (Quiet-Lo-Med-Hi-Shl)	Dry	CFM	—	145–170–237–321–399	145–170–237–321–399	145–170–237–321–399	205–272–325–420–533	258–332–417–522–646	388–469–544–628–738	389–439–848–887	389–439–846–887
	Air Flow Rate - Cooling (Quiet-Lo-Med-Hi-Shl)	Wet	CFM	—	109–134–201–286–364	109–134–201–286–364	109–134–201–286–364	170–237–300–385–498	232–299–375–470–581	347–420–487–562–661	350–576–763–798	350–576–763–788
	Air Flow Rate - Heating (Quiet-Lo-Med-Hi-Shl)	Dry	CFM	—	145–170–237–321–406	145–170–237–321–406	145–170–237–321–406	205–247–304–367–463	258–332–417–565–646	388–469–544–628–738	445–539–848–887	445–539–846–887
	Sound Pressure Level (Quiet-Lo-Med-Hi-Shl)	Cooling	dB(A)	—	19–22–30–37–43	19–22–30–37–43	19–22–30–37–43	26–32–38–44–49	28–33–38–44–49	34–41–45–49–53	32–40–49–51	32–42–49–51
	Sound Pressure Level (Quiet-Lo-Med-Hi-Shl)	Heating	dB(A)	—	19–22–30–37–43	19–22–30–37–43	19–22–30–37–43	26–40–45–49–54	29–41–43–48–52	34–41–45–49–52	34–42–49–50	34–42–49–50
	External Static Pressure		In. W.G.	—	—	—	—	—	—	—	—	—
	Condensate Lift Mechanism	Max Distance	In. [mm]	—	Yes	Yes	Yes	Yes	Yes	No	No	
	Dimensions	H	In. [mm]	—	11-5/8 [295]	11-5/8 [295]	11-5/8 [295]	11-5/8 [295]	12 [305]	12-13/16 [325]	14-3/8 [365]	14-3/8 [365]
		W	In. [mm]	—	31-7/16 [798]	31-7/16 [798]	31-7/16 [798]	31-7/16 [798]	36-5/16 [923]	43-5/16 [1100]	46-1/16 [1170]	46-1/16 [1170]
		D	In. [mm]	—	9-1/8 [232]	9-1/8 [232]	9-1/8 [232]	9-1/8 [232]	9-13/16 [250]	9-3/8 [238]	11-5/8 [295]	11-5/8 [295]
	Weight		lbs [kg]	—	22 [10.0]	22 [10.0]	22 [10.0]	22 [10.0]	28 [13.0]	37 [17.0]	40 [18.0]	40 [18.0]
Outdoor Unit	MCA		A	—	—	9.0	9.0	0.0	14.0	7.0	21.0	21.0
	MOCP		A	—	—	15	15	15	15	20	25	25
	Dimensions	H	In. [mm]	—	—	21-5/8 [550]	21-5/9 [550]	21-5/10 [550]	34-5/8 [880]	34-5/8 [550]	33-7/16 [850]	33-7/16 [850]
		W	In. [mm]	—	—	31-1/2 [800]	31-1/2 [800]	31-1/4 [800]	33-7/16 [849]	33-7/16 [849]	33-7/16 [849]	33-7/16 [849]
		D	In. [mm]	—	—	11-1/4 [285]	11-1/5 [285]	11-1/6 [285]	13 [330]	13 [330]	13 [330]	13 [330]
	Weight		lbs [kg]	—	—	81 [37]	81 [37]	81 [37]	121 [55]	119 [54]	126 [57]	126 [57]
	Air Flow Rate (Cooling/Heating)		CFM	—	—	1229/1172	1229/1172	1243/1129	1691/1691	1769/1701	1941/1941	1941/1941
	Sound Pressure Level	Cooling	dB(A)	—	—	48	49	49	54	55	55	56
		Heating	dB(A)	—	—	50	51	51	55	55	57	56
Piping	Diameter	Gas (O.D.)	In. [mm]	—	—	3/8 [9.52]	3/8 [9.52]	1/2 [12.7]	1/2 [12.7]	5/8 [15.88]	5/8 [15.88]	5/8 [15.88]
		Liquid (O.D)	In. [mm]	—	—	1/4 [6.35]	1/4 [6.35]	1/4 [6.35]	1/4 [6.35]	3/8 [9.52]	3/8 [9.52]	3/8 [9.52]
	Indoor Drain		In. [mm]	—	5/8 [15.88]	5/8 [15.88]	5/8 [15.88]	5/8 [15.88]	5/8 [15.88]	5/8 [15.88]	5/8 [15.88]	5/8 [15.88]
	Max. Length		ft [m]	—	—	65 [20]	65 [20]	65 [20]	100 [30]	100 [30]	100 [30]	100 [30]
	Max. Height		ft [m]	—	—	40 [12]	40 [12]	40 [12]	50 [15]	50 [15]	50 [15]	50 [15]
Electrical	Outdoor-Indoor [4]		V, ph, Hz	—	—	208/230, 1, 60	208/230, 1, 60	208/230, 1, 60	208/230, 1, 60	208/230, 1, 60	208/230, 1, 60	208/230, 1, 60
	Recommended Breaker Size		A	—	—	15	15	15	15	20	25	25
Refrigerant Type				—	—	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Guaranteed Temperature Operation Range	Cooling [1]	°F DB [°C DB]		—	—	14 to 115 [-10.0 to 46.0]	14 to 115 [-10.0 to 46.0]	14 to 115 [-10.0 to 46.0]	14 to 115 [-10.0 to 46.0]	14 to 115 [-10.0 to 46.0]	14 to 115 [-10.0 to 46.0]	14 to 115 [-10.0 to 46.0]
	Heating	°F DB [°C DB]		—	—	4 to 75 [-20.0 to 24.0]	4 to 75 [-20.0 to 24.0]	4 to 75 [-20.0 to 24.0]	4 to 75 [-20.0 to 24.0]	4 to 75 [-20.0 to 24.0]	14 to -75 [-10.0 to 24.0]	14 to -75 [-10.0 to 24.0]

Notes:
AHRI Rated Conditions
(Rated data is determined at a fixed compressor speed)

Conditions
[4]indoor units receive power from outdoor units through field-supplied interconnecting wiring.
[5]applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

[1]Cooling (Indoor // Outdoor) — 80 DB, 67 WB // 95 DB, 75 WB
[2]Heating at 47°F (Indoor // Outdoor) — 70 DB, 60 WB // 47 DB, 43 WB
[3]Heating at 17°F (Indoor // Outdoor) — 70 DB, 60 WB // 17 DB, 15 WB
[3]Heating at 5°F (Indoor // Outdoor) — 70 DB, 60 WB // 5 DB, 4 WB
[3]Heating at -5°F (Indoor // Outdoor) — 70 DB, 60 WB // -5 DB, -6 WB

WhisperGreenSelect VENTILATION FAN

Built-in Self Adjusting Airflow Capability — FV-0511VK2

Specification Submittal Data / Panasonic Ventilation Fan

Description

Customizable ceiling mount ventilating fan, low sone and rated for continuous operation. ENERGY STAR® rated and certified by the Home Ventilating Institute (HVI). Evaluated by the Underwriters Laboratories and conforms to both UL and cUL standards.

Motor/Blower:

- Enclosed brushless ECM smart motor technology rated for continuous operation
- Adjustable ventilation rates at 50 – 80 – 110 CFM
- Power rating of 120 volts and 60 Hz
- UL and cUL listed for tub/shower enclosure when GFCI protected
- Motor equipped with thermal cutoff fuse
- Removable permanently lubricated plug-in motor

Housing:

- Environmentally friendly 26 gauge Zinc-Aluminum-Magnesium (ZAM) housing
- Integrated dual 4" or 6" diameter duct adapter
- Built-in damper reduces back draft and helps with blower door testing
- Built-in metal flange provides blocking for penetrations through drywall as an Air Barrier, and assists with the decrease in leakage in the Building Envelope during blower door testing
- Suitable for installation in ceilings insulated up to R60
- Articulating and expandable installation bracket up to 24"

Grille:

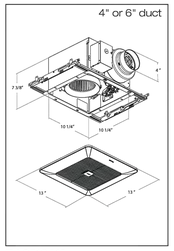
- Attractive design using Poly Pro material
- Attaches directly to housing with torsion springs
- Includes a motion sensor cap for use as a cover when motion sensor Plug 'n Play™ module has not been selected

Warranty:

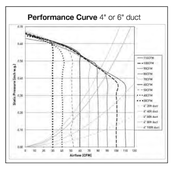
- ECM Motor: 6 Years from original purchase date
- ALL Parts: 3 Years from original purchase date

Architectural Specifications:

Customizable ceiling mount ventilation fan, ENERGY STAR® rated with built-in speed selector. Select from 50/80/110 CFM with <0.3 sone as certified by the Home Ventilating Institute (HVI) at 0.1 w.g. with 51/80/108 CFM and no more than 0.4/0.5/0.8 sones at 0.25 w.g. and 51/79/108 CFM at 0.375 w.g. Power Consumption shall be no greater than 9.9/7.9/6.5 watts at 0.1 w.g. and 15.4/13.1/11.2 watts at 0.25 w.g. and 9.6/13.4/20.0 watts at 0.375 w.g. ENERGY STAR® rated with efficiency of no less than 16.2/15.7/11.1 CFM/watt at 0.1 w.g. and 8.3/8.3/7.1 CFM/watt at 0.25 w.g. and 5.3/5.9/5.4 CFM/watt at 0.375 w.g. The motor shall be enclosed with brushless ECM motor engineered to run continuously. ECM motor speed shall automatically increase when the fan senses static pressure to maintain selected CFM. Power rating shall be 120v/60Hz. Duct diameter shall be no less than 4", inclusive of an integrated dual 4" or 6" duct adapter. **Plug 'N Play™ modules** provide up to three additional features. Select from Multi-Speed with Time Delay, Condensation Sensor, and Motion Sensor. Fan shall be RoHS Compliant and UL and cUL listed for tub/shower enclosure when GFCI protected. Also suitable for installation in ceilings insulated up to R60. Fan can be used to comply with ASHRAE 62.2, LEED, ENERGY STAR® IAP, EarthCraft, California Title-24 and VA Ventilation Code.



FV-0511VK2



ENERGY STAR CERTIFIED

ECM Motor Technology:
When fan senses static pressure, its speed is automatically increased to ensure that the desired CFM is not compromised, which allows the fan to perform as rated.

Model	Quantity	Comments	Project:
			Location:
			Architect:
			Engineer:
			Contractor:
			Submitted by:
			Date:

For complete Installation Instructions visit **us.panasonic.com/ventfans**

Ceiling Radiation Damper; WhisperGreen Select™ is UL listed for use with the Panasonic Ceiling Radiation Damper (Model #: PC-RDS505, sold separately).

WhisperGreenSelect VENTILATION FAN

Built-in Self Adjusting Airflow Capability — FV-0511VK2

Plug 'N Play™ Modules

Plug 'N Play™ modules provide up to three additional features. Select from Multi-Speed with Time Delay, Motion Sensor, and Condensation Sensor.

FV-VS15VK1: Multi-Speed with Time Delay

Allows you to select the proper CFM settings to satisfy ASHRAE 62.2 continuous ventilation requirements. The fan runs continuously at a pre-set lower level (0, 30-100 CFM, in 10 CFM increments), then elevates to a maximum level of operation (50-80-110 CFM) when the wall switch is turned on, or when the motion sensor or Condensation Sensor module is activated. A High/Low delay timer returns the fan to the pre-set CFM level after a period of time set by the user.

FV-MSVK1: Motion Sensor

Automatically activates when someone enters the room. Once the settings have been applied, the fan becomes truly automatic. This module also activates a 20 minute delay off timer for the fan.

FV-CSVK1: Condensation Sensor

Helps control bathroom condensation to prevent mold and mildew. Sensor technology detects relative humidity and temperature to anticipate dew point, automatically turning the fan on to control humidity. Built-in Relative Humidity (RH) sensitivity adjustment enables fine tuning for moist conditions and for satisfying CalGreen requirements. When the condensation sensor is used in conjunction with multi-speed functionality, the fan will kick up to high speed when the condensation sensor detects moisture in the room. This module also activates a 20 minute delay off timer for the fan.

Fan Specifications	WhisperGreen Select™ FV-0511VK2								
Static Pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	110	108	80	80	79	50	51	51
Noise (sones)	<0.3	0.8	-	<0.3	0.5	-	<0.3	0.4	-
Power Consumption (watts)	9.9	15.4	20.0	5.1	9.6	13.4	3.1	6.2	9.6
Energy Efficiency (CFM/Watt)	11.1	7.1	5.4	15.7	8.3	5.9	16.2	8.3	5.3
Speed (RPM)	920	1192	1358	796	1113	1315	722	1054	1266
Current (amps)	0.10	0.16	0.20	0.06	0.10	0.14	0.04	0.07	0.10
MAX. Current(amps)	0.20								
Power Rating (V/Hz)	120/60								
ENERGY STAR rated	Yes								

0.375=Installed Performance

Fan Specifications	WhisperGreen Select™ FV-0511VK2 + FV-VS15VK1 (Multi Speed Plug 'N Play™ Modules)																							
Static Pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	110	108	100	101	101	90	90	90	80	80	79	70	71	70	60	60	60	50	51	51	40	41	40	30	30	30
Noise (sones)	<0.3	0.8	-	<0.3	0.7	-	<0.3	0.6	-	<0.3	0.5	-	<0.3	0.5	-	<0.3	0.4	-	<0.3	0.4	-	<0.3	0.3	-	<0.3	0.3	-
Power Consumption (watts)	9.9	15.4	20.0	7.9	13.1	17.8	6.5	11.2	16.0	5.1	9.6	13.4	4.3	8.5	12.1	3.7	6.9	10.3	3.1	6.2	9.6	2.7	5.5	7.8
Energy Efficiency (CFM/Watt)	11.1	7.1	5.4	12.7	7.7	5.7	13.9	8.0	5.6	15.7	8.3	5.9	16.7	8.5	5.9	16.3	8.7	5.7	16.2	8.3	5.3	14.8	7.4	5.1
Speed (RPM)	920	1192	1358	889	1164	1356	839	1135	1351	795	1113	1315	760	1112	1308	751	1061	1297	722	1054	1266	707	1057	1251
Current (amps)	0.10	0.16	0.20	0.09	0.14	0.18	0.07	0.12	0.16	0.06	0.10	0.14	0.05	0.09	0.13	0.05	0.08	0.11	0.04	0.07	0.10	0.04	0.07	0.09
MAX. Current(amps)	0.20																							
Power Rating (V/Hz)	120/60																							
ENERGY STAR rated	Yes																							

0.375=Installed Performance

Panasonic Eco Solutions Company of North America
Eco Products Division
Two Riverfront Plaza
Newark, NJ 07102

us.panasonic.com/ventfans

Most Efficient 2018 — ENERGY STAR — www.energystar.gov

Panasonic

VF1897255-FV-0511VK2

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

CONFIDENTIALITY STATEMENT:

NOTES:

1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.

2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.

3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.

4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

MECHANICAL EQUIPMENT DATA SHEETS

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	-.-.	NTS

SHEET #	REV. #	DATE
M 4.01	00	

SEAL

PLUMBING ABBREVIATIONS

A	
ABV	ABOVE
ADJ	ADJUSTABLE
AC	AIR CONDITIONING
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AVG	AVERAGE
B	
BF	BELOW FLOOR
BFP	BACK-FLOW PREVENTER
BT	BATH-TUB
BTU	BRITISH THERMAL UNIT
BV	BALL VALVE
C	
CDP	CONDENSATE DRAIN PIPE
CLG	CEILING
COND	CONDENSATE
CO	CLEAN-OUT
CONT	CONTINUATION / CONTINUED
CP	CIRCULATING PUMP
CV	CHECK VALVE
CW	COLD WATER / CITY WATER
CWP	COLD WATER PIPE
D	
D	DEPTH
DFU	DRAINAGE FIXTURE UNITS
DN	DOWN
DW	DOMESTIC WATER / DISH WASHER
DWG	DRAWING
E	
(E)	EXISTING
EA	EACH
ELEC	ELECTRIC
ELEV	ELEVATION
EQ	EQUAL
EVC	EVAPORATIVE COOLER
EWH	ELECTRIC WATER HEATER
EWT	ENTERING WATER TEMPERATURE
EXP	EXPANSION
EXP.T	EXPANSION TANK
F	
°F	DEGREES FAHRENHEIT
F	FILTER
F/A	FROM ABOVE
F/B	FROM BELOW
FCO	FLOOR CLEAN-OUT
FCU	FAN COIL UNIT
FD	FLOOR DRAIN / FUNNEL DRAIN
FH	FIRE HYDRANT / FIRE HOSE
FIXT	FIXTURE
FPS	FEET PER SECOND
FS	FLOOR SINK / FIRE SPRINKLER
FT	FEET / FOOT
FLR	FLOOR
G	
G	GAS
GAL	GALLON
GM	GAS METER
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GV	GATE VALVE
GW	GREASE WASTE
GWH	GAS WATER HEATER

H	
H	HEIGHT
HB	HOSE BIBB
HD	HEAD / HUB DRAIN
HTR	HEATER
HP	HORSE POWER
HPWH	HEAT PUMP WATER HEATER
HW	HOT WATER
HWP	HOT WATER PIPE
HWRP	HOT WATER RETURN PIPE
HZ	HERTZ
I	
ID	INSIDE DIAMETER
IDU	INDOOR UNIT
IE	INVERT ELEVATION
IN	INCH
IN WC	INCH, WATER COLUMN
INSUL	INSULATION
INT	INTERNAL / INTERIOR
IW	INDIRECT WASTE
K	
KS	KITCHEN SINK
KW	KILOWATT
L	
L	LENGTH
LAV	LAVATORY
LBS	POUNDS
LP	LOW PRESSURE
LRA	LOCKED ROTOR AMPS
LV	LEVEL
LWT	LEAVING WATER TEMPERATURE
M	
MAX	MAXIMUM
MBH	THOUSAND BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MOPD	MAXIMUM OVERCURRENT PROTECTION DEVICE
MS	MOP SINK
MUA	MAKE-UP AIR UNIT
MV	MIXING VALVE
N	
(N)	NEW
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN, NUMBER
NTS	NOT TO SCALE
O	
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER OVER-FLOW DRAIN
ODU	OUTDOOR UNIT
P	
P	PUMP / PRESSURE / POWER
PD	PRESSURE DROP
PH	PHASE
PLBG	PLUMBING
POC	POINT OF CONNECTION
POU	POINT OF USE
PP	POLYPROPYLENE
PPM	PARTS PER MILLION
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH, GAUGE
PVC	POLYVINYL CHLORIDE

Q	
QTY	QUANTITY
R	
(R)	RELOCATED
R	RISE
RD	ROOF DRAIN
RECIRC	RECIRCULATE/RECIRCULATING
REQD	REQUIRED
REQD	REQUIRED
REV	REVISION
RLA	RUNNING LOAD AMPS
RM	ROOM
RP	RECIRCULATION PUMP
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
RTU	ROOFTOP UNIT
RV	RELIEF VALVE
S	
S	SEWER
SAN	SANITARY
SD	STORM DRAIN
SE	SEWAGE EJECTOR
SEC	SECONDARY
SF	SQUARE FOOT
SH	SHOWER
SQ IN	SQUARE INCH
SOV	SHUT-OFF VALVE
SP	STATIC PRESSURE / SUMP PUMP
SPEC	SPECIFICATION
T	
T/A	TO ABOVE
T/B	TO BELOW
TBD	TO BE DETERMINED
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TP	TRAP PRIMER
TV	THERMOSTATIC MIXING VALVE
TYP.	TYPICAL
U	
U	URINAL
U/F	UNDER FLOOR
U/G	UNDER GROUND
UH	UNIT HEATER
U/S	UNDER SLAB
UON	UNLESS OTHERWISE NOTED
UTR	UP THROUGH ROOF
V	
V	VOLT / VENT
VAC	VACUUM
VEL	VELOCITY
VIF	VERIFY IN FIELD
VTR	VENT THROUGH ROOF
W	
W	WATT / WIDTH / WASTE
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WCO	WALL CLEAN-OUT
WIC	WALK-IN COOLER
WIF	WALK-IN FREEZER
WM	WATER METER / WASHING MACHINE
WSFU	WATER SUPPLY FIXTURE UNIT
WT	WEIGHT

CODE COMPLIANCE

- 2022 CALIFORNIA MECHANICAL CODE (CMC), TITLE 24, PART 4
- 2022 CALIFORNIA PLUMBING CODE (CPC), TITLE 24, PART 5
- 2022 CALIFORNIA ENERGY CODE (CEnC), TITLE 24, PART 6
- 2022 CALIFORNIA ELECTRICAL CODE (CEC), TITLE 24, PART 3
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSC), TITLE 24, PART 11
- 2022 CALIFORNIA REFERENCED STANDARDS, TITLE 24, PART 12

SCOPE OF WORK

- INSTALLATION OF NEW COLD AND HOT WATER PIPING AND FITTINGS FOR NEW FIXTURES.
- INSTALLATION OF NEW WATER HEATER.
- INSTALLATION OF ALL NEW SEWER AND VENT PIPING AND FITTINGS FOR NEW FIXTURES.
- NEW WATER AND SEWER PIPES CONNECTED TO EXISTING NETWORKS.

PLUMBING LEGEND

FITTINGS

	BALL VALVE
	CHECK VALVE - ONE WAY VAVLE
	PIPE ELBOW / PIPE DROP
	PIPE UP
	PIPE DOWN
	PIPE UNION
	BACK FLOW PREVENTER
	CALIBRATED BALANCE VALVE
	FLEXIBLE HOSE CONNECTER
	FLOW CONTROL VALVE
	HOSE BIBB
	ISOLATION VALVE
	MIXING VALVE
	PRESSURE GAGE
	PRESSURE REDUCING VALVE
S	SOLENOID VALVE
	THERMOMETER
	TRIPLE DUTY VALVE

MISCELLANEOUS

	CONDENSATE POC
	POC - WATER, WASTE, VENT, GAS, ETC. (DRAWING DEPENDANT)
	COLD WATER POC
	WALL CLEAN-OUT
	FLOOR CLEAN-OUT
	FLOOR SINKS: HALF GRATE
	FLOOR DRAIN
	TRENCH DRAIN
	AREA DRAIN
XX FU / XX" DIA	PIPE FIXTURE UNIT LOAD VALUE AND PIPE SIZE TAG
	PUMP / RECIRCULATION PUMP
	EXPANSION TANK
W	WATER METER
G	GAS METER
X	PLUMBING NOTE CALL-OUT

SPECIAL NOTES TO CONTRACTORS

1) THE CONTRACTOR SHALL EXAMINE THE PROPOSED PROJECT SITE AND EXAMINE ALL EXISTING CONDITIONS, INCLUDING ALL SERVICE POINT OF CONNECTIONS THAT COULD AFFECT THE PLUMBING SCOPE OF WORK PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PERTAINING TO THE PLUMBING WORK SHOWN AND SHALL INCLUDE ALL OF THE NECESSARY LABOR AND MATERIAL COSTS IN THE PROPOSAL TO CONNECT SERVICES AND TO PROVIDE FULLY OPERATIONAL SYSTEMS ANY DISCREPANCIES NOTED SHALL BE REPORTED TO THE ARCHITECT PRIOR TO BID. NO ADDITIONAL ALLOWANCES WILL BE GRANTED DUE TO LACK OF KNOWLEDGE OF SITE CONDITIONS. CONTRACTOR SHALL ACCEPT SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS INCLUDING THE SAFETY OF ALL PERSONAL AND PROPERTY DURING THE EXECUTION OF THE WORK.
2) THE DRAWINGS SHALL INDICATE DIAGRAMMATICALLY THE CONFIGURATION OF THE PRINCIPAL EQUIPMENT & FIXTURES, PIPING, DUCTWORK, AND OTHER MATERIAL. DRAWINGS SHALL BE ADHERED TO AS MUCH AS POSSIBLE IN ORDER TO OBTAIN A CLEAN INSTALLATION WHILE WORKING TO AVOID ANY OBSTRUCTIONS. INSPECTION OF THE SITE CONDITIONS THAT MAY AFFECT IS NECESSARY FOR INSTALLATION. PROVIDE REQUIRED FITTINGS AND ACCESSORIES TO MEET SIDE CONDITIONS WHETHER THEY ARE SHOWN OR NOT.
3) THE CONTRACTOR IS RESPONSIBLE FOR LOCATING THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO WORK BEING DONE. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND REPAIRING ANY DAMAGE DONE TO THEM. CONTRACTOR SHALL CONTACT THE UNDERGROUND SERVICE ALERT AT 1-800-642-2444 48 HOURS PRIOR TO BEGINNING THE WORK.
4) THE CONTRACTOR SHALL COORDINATE SERVICE LOCATIONS AND SIZES OF UTILITIES WITH ALL UTILITY COMPANIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY TRENCHING, CONDUITS, CONDUCTORS, METERS AND ANY OTHER NECESSARY OUTLETS REQUIRED BY THE UTILITY COMPANIES. THE OWNER SHALL PAY ALL REQUIRED UTILITY FEES. TRENCHING AND BACKFILLING SHALL BE IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS SHOWN ON THE PLANS. PRIOR TO INSTALLATION, TRENCHING FOR UNDERGROUND SYSTEM SHALL BE STAKED OUT FOR APPROVAL BY THE OWNER. NO SITE WORK SHALL BEGIN PRIOR TO STAKE-OUT APPROVAL BY THE AUTHORITY HAVING JURISDICTION OVER THE PROJECT.
5) THE INTENTION OF THE PLANS AND SPECIFICATIONS IS NOT TO COVER ALL INCIDENTALS NECESSARY TO PROVIDE A COMPLETE AND FULLY OPERATIONAL SYSTEM. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, PROVIDE NECESSARY TRANSPORTATION AND STORAGE OF MATERIALS & EQUIPMENT, AND TO PROVIDE MISCELLANEOUS SERVICES, ETC, REQUIRED TO ACCOMPLISH THE DESIGN. ANYTHING THAT MAY BE REASONABLE CONSTRUED AS NECESSARY AS PART OF THE INSTALLATION SHALL BE INCLUDED, WHETHER THAT TOPIC IS SPECIFICALLY SHOWN, MENTIONED, OR NOT. THE EOR SHALL PROVIDE INTERPRETATIONS UPON REQUEST.
6) ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH ALL STATE AND LOCAL CODES AND AMENDED CODES THAT HAVE BEEN ADOPTED BY THE AUTHORITY HAVING JURISDICTION (THE AHJ) OVER THE PROJECT. NOTHING ON THESE PLANS IS TO BE MISCONSTRUED TO PERMIT WORK NOT CONFORMING TO THE CODES AND REGULATIONS APPLICABLE TO THIS PROJECT. THE CODES SHALL DETERMINE THE MINIMUM REQUIRED GUIDELINES FOR MATERIALS, METHODS, AND REQUIRED LABOR PRACTICES NOT OTHERWISE SPECIFIED IN THE SPECIFICATIONS.
7) THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SITE VOLTAGES PRIOR TO BIDDING AND ORDERING EQUIPMENT. REIMBURSEMENT WILL NOT BE THE RESPONSIBILITY OF THE CLIENT SHOULD THE ELECTRICAL CONTRACTOR INCUR ADDITIONAL COSTS DUE TO SUBSTITUTION OF MECHANICAL EQUIPMENT HAVING ELECTRICAL REQUIREMENTS THAT DIFFER FROM SITE CONDITIONS.
8) THE CONTRACTOR WILL PROVIDE ALL OPERATION AND MAINTENANCE MANUALS, PREVENTATIVE MAINTENANCE MANUALS, AND ANY OTHER DOCUMENTATION NECESSARY TO MAINTAIN ALL PLUMBING AND MECHANICAL EQUIPMENT TO THE OWNER.
9) THE CONTRACTOR WILL PROVIDE, TO THE OWNER AND LOCAL AUTHORITIES HAVING JURISDICTION, EVIDENCE OF LICENSING, BONDING, AND INSURANCE. THE CONTRACTOR WILL ALSO PROVIDE ANY OTHER NECESSARY ADMINISTRATIVE FUNCTIONS REQUIRED FOR CONTRACTOR'S WORK.
10) THE CONTRACTOR SHALL FURNISH AND INSTALL INDICATED FIXTURES OR THEIR APPROVED EQUALS SHOWN ON THE SCHEDULES OF THESE PLANS. REFER TO THE ARCHITECTURAL DRAWINGS FOR REQUIRED INSTALLATION HEIGHTS AND/OR CLEARANCES.
11) THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL REQUIRED PERMITS AND SERVICE CHARGES. THE CONTRACTOR SHALL COMPLY WITH ALL NECESSARY LICENSING AND PERMITTING REQUIREMENTS THAT ARE ENFORCED BY THE LOCAL BUILDING OFFICIAL UTILITY DISTRICT AND SHALL ATTEND ALL REQUIRED INSPECTIONS FOR THE WORK PERFORMED UNDER THIS CONTRACT.
12) CUT AND PATCH CONCRETE AS REQUIRED. CUTTING OR WELDING OF STRUCTURAL MEMBERS SHALL ONLY BE DONE WITH PRIOR APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD (SEOR). PATCHING SHALL BE SUBJECT TO THE ACCEPTANCE OF THE OWNER.
13) ANY SAW CUT TRENCHES SHALL BE FULLY REPAIRED AND REINFORCED TO PREVENT DROOPING OR SAGGING. ROUGH UP THE EDGED PRIOR POURING NEW CONCRETE TO ENSURE GOOD CONTACT BETWEEN NEW AND EXISTING CONCRETE.
14) CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES TO ENSURE A COMPLETE INSTALLATION. ENSURE CONNECTION OF ALL EQUIPMENT FURNISHED BY OTHERS AS REQUIRED. INSTALLATION OF ALL WORK SHALL BE CLEAR OF STRUCTURAL AND ARCHITECTURAL MEMBERS WHEN POSSIBLE. ABOVE GRADE PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE TO PROVIDE CLEARANCE FOR DUCTWORK, EQUIPMENT, INSPECTION, AND MAINTENANCE OF SAID EQUIPMENT.
15) CONTRACTOR SHALL RESTORE ANY DAMAGED MATERIALS RESULTING FROM THEIR WORK AND LEAVE THE PREMISES IN GOOD CONDITION WHEN FINISHED WITH THE WORK. CONTRACTOR SHALL ADJUST, REPAIR, REPLACE, OR CLEAN PRODUCTS THAT HAVE BEEN DAMAGED, FINAL APPROVAL OF ADJUSTED, REPAIRED, REPLACED OR CLEANED PRODUCTS SHALL BE DETERMINED BY THE OWNER OR OWNERS REPRESENTATIVE.
16) MINOR ADJUSTMENTS SHALL BE PERMITTED TO BE MADE TO WORK WHERE REQUESTED BY OWNER. WHEN THESE ADJUSTMENTS ARE NECESSARY FOR PROPER OPERATION AND ARE WITHIN THE SCOPE OF THE CONTRACT. NOTIFY APPROPRIATE ARCHITECT AND/OR ENGINEERS OF MODIFICATIONS SO THAT PLANS MAY BE UPDATED TO REFLECT CHANGES.
17) MATERIALS AND EQUIPMENT SHALL BE NEW, OR OF LIKE-NEW CONDITION, COMMERCIAL-GRADE, AND UL-LISTED. FIXTURES SHALL BE SUITABLE FOR THE LOCATIONS AND ENVIRONMENTAL CONDITIONS WHERE THEY ARE TO BE INSTALLED. REUSE EXISTING FIXTURES AND/OR EQUIPMENT ONLY WHEN THEY ARE FOUND TO BE COMPLIANT WITH THE CONTRACT DOCUMENTS, THEY ARE IN ACCEPTABLE CONDITION, AND HAVE BEEN APPROVED BY THE ENGINEER OF RECORD.
18) INSTALLATION OF ALL EQUIPMENT, MATERIALS, AND SYSTEMS SHALL BE IN ACCORDANCE WITH MANUFACTURERS INSTALLATION REQUIREMENTS AND INSTRUCTIONS.
19) INSTALL ALL PIPING AND DUCTWORK IN A DIRECT AND LINEAR FASHION TO CREATE AN ORDERLY APPEARANCE. RUN ALL PIPE AND DUCTS PARALLEL TO THE BUILDING CONSTRUCTION AS MUCH AS POSSIBLE. MAINTAIN ADEQUATE CLEARANCE FOR MAINTENANCE, AND GRADIENTS WHERE REQUIRED. PROVIDE ADDITIONAL SPACE FOR EXPANSION AND CONTRACTION WHERE NECESSARY.
20) CONTRACTOR SHALL PROVIDE A THOROUGH AND COMPLETE START-UP TEST OF ALL SYSTEMS, EQUIPMENT, MODIFIED SYSTEMS/EQUIPMENT, TO CLEARLY DEMONSTRATE PROPER OPERATION OF SAID SYSTEMS AND EQUIPMENT, FURNISHED AND/OR INSTALLED FOR THIS CONTRACT.
21) CONTRACTOR SHALL RESTORE ANY DAMAGE THAT HAS RESULTED FROM THE WORK DONE AND LEAVE THE PROJECT SITE CLEAN AND READY FOR OCCUPATION. CLEAN, REPAIR, ADJUST, AND/OR REPLACE ANY ITEMS THAT HAVE BEEN DAMAGED DURING THE COURSE OF THE WORK PERFORMED. RESTORE/REPAIR ANY WALL AND ROOF PENETRATIONS TO MATCH THE EXISTING/SURROUNDING WALL OR ROOF RESPECTIVELY.
22) ALL MATERIALS AND EQUIPMENT PROVIDED AND INSTALLED SHALL BE GUARANTEED FREE FROM MECHANICAL/ELECTRICAL/WORKMANSHIP DEFECTS FOR AT LEAST ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES DONE TO THE PREMISES CAUSED BY BREAKS, LEAKS, AND/OR FAILURES IN FITTINGS AND PIPES INSTALLED UNDER THIS CONTRACT, AS WELL AS ANY DAMAGE RESULTING FROM ROOF PENETRATIONS THAT WERE MADE AND SEALED UNDER CONTRACTOR'S SCOPE OF WORK.
23) CONTRACTOR SHALL PROVIDE DRIP PANS UNDER ALL PIPING THAT IS ROUTED ABOVE ELECTRICAL EQUIPMENT. THE PIPING AND DRIP PAN SHALL BE INSTALLED AT LEAST 6' ABOVE THE EQUIPMENT, PER NEC 110.26(E). SHOULD THE 6' CLEARANCE NOT BE ACHIEVABLE, THE PIPING SHALL BE ROUTED AROUND THE FOOT PRINT OF THE EQUIPMENT. THE DRIP PAN SHALL DISCHARGE INTO AN APPROVED FIXTURE OR FIXTURE TAILPIECE.
24) CONTRACTOR SHALL PROVIDE FLOW CONTROL DEVICES ON ALL LAVATORIES. CONTRACTOR SHALL PROVIDE ALL FIXTURES WITH STOP VALVES, SAID STOP VALVES CAN BE INTEGRAL TO THE SUPPLY FITTINGS FOR THE FIXTURE.
25) CONTRACTOR SHALL WRAP HOT WATER PIPING AND WASTE LINES AT EACH ACCESSIBLE SINK, LAVATORY, ETC, WITH 1/2" POLYETHYLENE PIPE INSULATION WITH A MINIMUM R-VALUE OF 3.21.
26) CONTRACTOR SHALL INSTALL ALL CLEANOUTS TO BE AIR TIGHT. CLEANOUTS SHALL BE INSTALLED AT THE ENDS OF EVERY WASTE LINE GREATER THAN 10' AND EVERY 100' THEREAFTER TO THE BUILDING CLEAN OUT LOCATED 2' OUTSIDE OF THE FACE OF THE BUILDING. WALL CLEANOUTS SHALL BE INSTALLED AT THE BASE OF EVERY WASTE RISER.
27) ALL NEW WASTE PIPE SHALL BE INSTALLED SUCH THAT THEY MATCH THE EXISTING INVERT ELEVATION.
28) DRILLING THROUGH EXISTING CONCRETE WALLS SHALL BE PERMITTED WHERE REQUIRED TO INSTALL OR REROUTE PLUMBING WORK. ALL PENETRATIONS SHALL BE SEALED TO BE WATER TIGHT.
29) EXISTING PIPING THAT HAS BEEN FOUND TO NOT BE REQUIRED FOR NEW SCOPE OF WORK SHALL BE PERMITTED TO BE CUT, CAPPED AND ABANDONED IN PLACE SO LONG AS IT DOESN'T INTERFERE WITH THE NEW WORK TO BE DONE AND MAINTENANCE OF THE NEW PIPING, DUCTWORK, AND EQUIPMENT.
30) ALL CONTRACTORS (GENERAL CONTRACTOR AND SUB-CONTRACTORS) BIDDING THIS PROJECT ARE REQUIRED TO VISIT THE JOB SITE AND VERIFY THE EXISTING CONDITIONS PRIOR TO SUBMITTING THEIR BID. CONTRACTORS ARE TO CAREFULLY REVIEW ALL CONSTRUCTION DOCUMENTS AND NOTE ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CONDITIONS OBSERVED AT THE JOB SITE PRIOR TO SUBMISSION OF ANY BID. THE BUILDING OWNER REPRESENTATIVE LISTED BELOW MAY BE CONTACTED FOR ACCESS TO THE JOB SITE.
31) CONTRACTORS ARE RESPONSIBLE FOR VERIFYING THE LOCATION AND CONDITION OF ALL POINTS OF CONNECTION, LOCATION AND CONDITION OF ALL BUILDING (ROOF/FLOOR/CEILING) PENETRATIONS, LOCATION AND CONDITION OF ALL UTILITIES AND BUILDING SYSTEMS INCLUDING, BUT NOT LIMITED TO GAS, WATER, SEWER, VENT, ELECTRICAL, BUILDING MECHANICAL SYSTEMS, DUCT CONNECTIONS, EXHAUST/OUTSIDE AIR CONNECTIONS, SECURITY, FIRE ALARM, DATA, AND PHONE PRIOR TO SUBMISSION OF THEIR BID.
32) ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CONDITIONS OBSERVED SHALL BE BROUGHT TO THE ATTENTION, IN WRITING, TO THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
33) PRIOR TO PERFORMING WORK, CONTRACTOR TO COORDINATE PIPE ROUTING WITH ALL OTHER TRADES AND EXISTING FIELD CONDITIONS, EXACT PIPE SIZES, INVERT ELEVATIONS, PRESSURES FOR LOCATIONS OF ANY SEWER, WATER PIPING AND WATER METER WITH CIVIL UTILITIES DRAWINGS, AND ANY OTHER ENGINEER AS APPLICABLE.
34) ALL WATER PIPING SHALL BE INSTALLED ON INTERIOR SIDE OF THE BUILDING WALL INSULATION.
35) CONTRACTOR SHALL PROVIDE VALVES LOCATED ABOVE LAY-IN CEILING OR 24"X24" CEILING ACCESS PANEL COORDINATE FINAL LOCATION AND SIZE WITH ARCHITECT. PROVIDE BALANCING VALVES FOR HOT WATER RETURN SYSTEM AS REQUIRED.

GALGREEN PLUMBING REQUIREMENTS

PROJECTS WHICH DISTURB LESS THAN ONE ACRE OF SOIL SHALL MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION BY ONE OF THE FOLLOWING: A. RETENTION BASINS. B. WHERE STORM WATER IS CONVEYED TO A PUBLIC DRAINAGE SYSTEM, WATER SHALL BE FILTERED BY USE OF A BARRIER SYSTEM, WATTLE OR OTHER APPROVED METHOD.

CGC 4.106.3. SITE GRADING OR DRAINAGE SYSTEM WILL MANAGE ALL SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS (SWALES, WATER COLLECTION, FRENCH DRAINS, ETC.). EXCEPTION: ADDITIONS NOT ALTERING THE DRAINAGE PATH.

CGC 4.303.1.3.2. WHEN A SHOWER IS PROVIDED WITH MULTIPLE SHOWER HEADS, THE SUM OF FLOW TO ALL THE HEADS SHALL NOT EXCEED 1.8 GPM @ 80 PSI, OR THE SHOWER SHALL BE DESIGNED SO THAT ONLY ONE HEAD IS ON AT A TIME.

CGC 4.304.1. LANDSCAPE IRRIGATION WATER USE SHALL HAVE WEATHER OR SOIL BASED CONTROLLERS.

CGC 4.408.1. THE PLANS THAT A MINIMUM OF 65% OF CONSTRUCTION WASTE IS TO BE RECYCLED.

CGC 4.408.2. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION WASTE MANAGEMENT PLAN.

CGC 4.410.1. THE BUILDER IS TO PROVIDE AN OPERATION MANUAL (CONTAINING INFORMATION FOR MAINTAINING APPLIANCES, ETC.) FOR THE OWNER AT THE TIME OF FINAL INSPECTION.

CGC 4.503.1. THE GAS FIREPLACE(S) SHALL BE A DIRECT-VENT SEALED- COMBUSTION TYPE. WOOD-STOVE OR PELLET STOVES MUST BE US EPA PHASE II RATED APPLIANCES.

CGC 5.303.3.1. THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATER-SENSE SPECIFICATION FOR TANK-TYPE TOILETS.

CGC 5.303.3.2. THE EFFECTIVE FLUSH VOLUME OF WALL-MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS PER FLUSH. ALL OTHER URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH.

CGC 5.303.3.3. SINGLE SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 2.0 GALLONS PER MINUTE AT 80 PSI. SHOWER HEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATER-SENSE SPECIFICATION FOR SHOWERHEADS. WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OF ALL SHOWERHEADS SHALL NOT EXCEED 2.0 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME.

CGC 5.303.3.4. i) NONRESIDENTIAL LAVATORY FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 0.5 GALLONS PER MINUTE AT 60 PSI. ii) KITCHEN FAUCETS AND WASH FOUNTAINS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW RATE ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTE AT 60 PSI. iii) METERING FAUCETS SHALL NOT DELIVER MORE THAN 0.20 GALLONS PER CYCLE.

CGC 5.303.5. FOR THOSE OCCUPANCIES WITHIN THE AUTHORITY OF THE CALIFORNIA BUILDING STANDARDS COMMISSION AS SPECIFIED IN SECTION 103, THE PROVISIONS OF SECTION 5.303.3 AND 5.3034 SHALL APPLY TO NEW FIXTURES IN ADDITIONS OR AREAS OF ALTERATIONS TO THE BUILDING.

CGC 5.410.4.5. PROVIDE THE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF SYSTEM PRIOR TO FINAL INSPECTION.

PLUMBING SHEET INDEX

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

CONFIDENTIALITY STATEMENT:

ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF THE DESIGNER AND THE SAME MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT CONSENT OF THE DESIGNER.

NOTES:

1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.

2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.

3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.

4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

PLUMBING COVER SHEET

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	**-.-.**	**NTS**
SHEET #	REV. #	DATE
P 1.01	**00**	

SEAL

REGISTERED PROFESSIONAL ENGINEER
SYED P. ALAM
NO. M 27087
EXP. 06/30/2025
MECHANICAL
STATE OF CALIFORNIA

PLUMBING GENERAL REQUIREMENTS

1. ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES. INSTALL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS AND TO ALLOW FOR INSTALLATION OF OTHER WORK SUCH AS DUCTS AND ELECTRICAL CONDUIT. AT ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING, PROVIDE AN ISOLATING DIALECTIC UNION. ALL HANGERS SHALL BE COMPATIBLE WITH PIPING MATERIAL TO PREVENT CORROSION. PROVIDE ALL FITTINGS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE PLUMBING SYSTEM'S FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT INDICATED.

2. PROVIDE A COMPLETE SYSTEM OF STANDARD WEIGHT CAST IRON NO-HUB VENT RISERS WHERE THE CEILING SPACE IS USED AS A RETURN AIR PLENUM OR USE CO-EXTRUDED PVC DWV (SCHEDULE 40) PIPE (WHERE PERMITTED BY CODE/LOCAL AUTHORITIES) WHERE THERE IS A DUCTED RETURN AIR SYSTEM. DO NOT USE PVC PIPE IN RETURN AIR PLENUM SPACES. THE VENT SYSTEM SHALL BE CARRIED THROUGH THE ROOF WITH APPROPRIATE FLASHING.

3. CONDENSATE & INDIRECT DRAIN PIPING ABOVE FLOOR SHALL BE CO-EXTRUDED PVC DWV (SCHEDULE 40) PIPE, FITTINGS AND CONNECTIONS. PIPING BELOW GRADE SHALL BE CO-EXTRUDED PVC DWV(SCHEDULE 40) PIPE WITH SOLVENT WELD FITTINGS.

4. LAYOUT WATER PIPING SO THAT THE ENTIRE SYSTEM CAN BE DRAINED. HOT AND COLD WATER PIPING SHALL BE 1/2" MIN. CPVC PIPE WITH SOLVENT FITTING. PROVIDE WATER HAMMER ARRESTERS AT EACH FIXTURE OR GROUP OF FIXTURES AS REQUIRED. INSTALL CHROME PLATED BRASS ESCUTCHEON PLATES AT ALL PENETRATIONS THROUGH FINISHED SURFACES (INCLUDING CABINET INTERIORS).

5. INSULATE (AS ALLOWED BY CODE) ALL LISTED SERVICE PIPING AS FOLLOWS. DOMESTIC COLD/HOT WATER, HOT WATER RETURN, STORM WATER PIPING. PROVIDE 1" PREFORMED FIBERGLASS, ASJ/SS-11, FLAME SPREAD 25, SMOKE DEVELOPED 50, ASTM C-547. FOR CONDENSATE PIPING PROVIDE 1/2" THICK INSULATION OF SAME CHARACTERISTICS AS LISTED FOR 1" ABOVE. WHERE PERMITTED BY LOCAL CODES, PROVIDE 1/2" SELF-ADHESIVE UNICELLULAR FOAM PIPE INSULATION WITH PRE-FORMED PVC FITTING COVERS - EQUAL TO SELF-ADHESIVE ARMSTRONG 2000 WITH K FACTOR OF 0.27 AT 75 DEGREES MEAN TEMPERATURE. INSULATE ANY EXPOSED CONDENSATE PIPING WITH WASTE TEMPERATURE BELOW 60 DEGREES F.

6. SHUTOFF VALVES, WITH UNIONS SHALL BE PROVIDED FOR SERVICE TO EACH PLUMBING FIXTURE, FOOD SERVICE EQUIPMENT ITEM OR OTHER EQUIPMENT ITEM, TO FACILITATE ISOLATION FOR REPAIR OR REPLACEMENT. VALVES SHALL BE EQUAL TO JENKINS #902-T BALL VALVE, CHROME-FINISHED BRONZE, TEFLON SEATS AND PACKING, 400 LB. W.O.G., SOLDER END.

7. ACCESS PANELS SHALL BE PROVIDED WHERE CONCEALED CONTROL DEVICES, VALVES, ETC. ARE CONCEALED WITHIN WALLS. WHERE ACCESS FOR ADJUSTMENT AND MAINTENANCE IS POSSIBLE THROUGH LAY-IN SUSPENDED CEILINGS, ACCESS PANELS ARE NOT REQUIRED.

8. CONDENSATE DRAINS SHALL BE PROVIDED FOR EACH AIR CONDITIONING UNIT. HORIZONTAL CONDENSATE DRAINS ABOVE ANY CEILING SHALL BE INSULATED WITH MIN. 3/8" THICK CLOSED CELL INSULATION.

9. PIPING: WASTE, VENT, AND STORM DRAIN PIPING SHALL BE CO-EXTRUDED PVC SCHEDULE 40 PIPE, WATER PIPE SHALL BE CPVC PIPE, CONDENSATE PIPING SHALL BE CO-EXTRUDED PVC (SCHEDULE 40) PIPE

10. INSIDE GAS PIPING SHALL BE BLACK IRON SCHEDULE 40 WITH MALLEABLE IRON FITTINGS. OUTSIDE SHALL BE GALVANIZED IRON SCHEDULE 40 WITH GALVANIZED FITTINGS. GAS LINE TO BE PAINTED GRAY IN COLOR. A 24 HOUR METERED GAS TEST SHALL BE REQUIRED.

11. PROVIDE WATER TIGHT FLASHINGS WHEREVER PIPES PASS THROUGH EXTERIOR WALLS, ROOFS, OR FLOORS.

12. LOCATION OF EXISTING UTILITIES AND POINTS OF CONNECTION ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND SERVICES PRIOR TO STARTING WORK OF THIS SECTION. IF INDICATED POINTS OF CONNECTION CANNOT BE MADE TO EXISTING UTILITIES AS FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO INSTALLING ANY WORK WHICH MAY BE AFFECTED.

13. VALVES SHALL BE NIBCO, JENKINS, HAMMOND, RED & WHITE OR APPROVED EQUAL. SERVICE PRESSURE SHALL BE SUITABLE FOR SERVICE INTENDED. THE MAIN WATER SHUT OF VALVE SHALL BE A FULL PORT BALL TYPE AND APPROVED FOR SERVICE INTENDED.

14. PROVIDE HANGERS AND SUPPORTS AS REQUIRED. PLUMBERS TAPE AND WIRE ARE NOT ACCEPTABLE.

15. ALL EQUIPMENT THAT REQUIRES KEYS OR SPECIAL TOOLS TO OPERATE SHALL SUPPLY THE OWNER WITH TWO OF ANY SUCH KEYS OR TOOLS FOR EACH PIECE OF EQUIPMENT THAT REQUIRE THE SAME.

16. ALL PLUMBING, ELECTRICAL, AND GAS LINES SHALL BE CONCEALED WITHIN THE THE BUILDING STRUCTURE TO AS GREAT EXTENT AS POSSIBLE. ALL LINES NOT CONCEALED SHALL BE SECURED 6" OFF THE FLOOR AND 3/4" FROM THE WALLS USING STANDOFF BRACKETS

17. AN APPROVED BACK-FLOW PREVENTOR SHALL BE PROPERLY INSTALLED UPSTREAM OF ANY POTENTIAL HAZARD BETWEEN THE POTABLE WATER SUPPLY AND SOURCE OF CONTAMINATION.

18. WATER SUPPLY CARBONATORS SHALL BE PROTECTED BY AN APPROVED REDUCED PRESSURE PRINCIPLE BACK-FLOW PREVENTOR. THE RELIEF VALVE SHALL DRAIN IN-DIRECTLY TO A FLOOR SINK WITH A 1" MIN. AIR GAP.

19. BATHTUBS AND WHIRLPOOL BATHTUBS. THE MAX. HOT WATER TEMPERATURE DISCHARGING SHALL BE LIMITED TO 120 DEGREES. BATHTUBS WASTE OPENING IN FLOOR OVER CRAWL SPACES SHALL BE PROTECTED BY A METAL SCREEN NOT EXCEEDING 12" OR SOLID COVER.

20. SHOWERS AND TUB-SHOWERS COMBINATIONS IN ALL BUILDINGS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION OF BOTH THAT PROVIDE SCALD AND THERMAL SHOCK PROTECTION. VALVES SHALL BE ADJUSTED TO DELIVER A MAXIMUM MIXED WATER SETTING OF 120 DEGREES FAHRENHEIT. THE WATER HEATER THERMOSTAT SHALL NOT BE CONSIDERED A SUITABLE CONTROL FOR MEETING THIS PROVISION.

21. IF WATER PRESSURE EXCEEDS 80 PSI, EXPANSION TANK & APPROVED PRESSURE REGULATOR SHALL BE INSTALLED.

22. NON-REMOVABLE BACK FLOW PREVENTER OR BIBB-TYPE VACUUM BREAKER WILL BE INSTALLED ON ALL EXTERIOR HOSE BIBBS.

23. HOT WATER RE-CIRCULATING SYSTEM IS INSTALLED, THE ENTIRE LENGTH OF HOT WATER PIPES SHALL BE INSULATED.

24. ALL PLUMBING FIXTURES SHALL BE OF WATER CONSERVATION TYPE AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.

25. ALL SANITARY DRAINAGE PIPING 4" AND SMALLER SHALL BE SLOPED AT $\frac{1}{4}$" PER FOOT. PIPING 4" AND LARGER SHALL BE SLOPED AT $\frac{1}{8}$" PER FOOT.

26. ALL CONDENSATE DRAIN PIPING SHALL BE SLOPED AT $\frac{1}{8}$" PER FOOT AND PROVIDE ACCESSIBLE CLEANOUTS AT ALL CHANGES OF DIRECTION.

27. FLOOR DRAINS SHALL BE PROVIDED WITH TRAP PRIMERS, AND/OR TRAP SEALS WHERE APPROVED BY THE AHJ.

28. WATER PIPING LOCATED ABOVE GROUND SHALL BE PERMITTED TO BE TYPE 'M' HARD COPPER TUBING. THE JOINTS SHALL BE JOINED WITH LEAD FREE SOLDER. WATER PIPING LOCATED BELOW GRADE SHALL BE PERMITTED TO BE TYPE 'L' SOFT COPPER TUBING. THE JOINTS BELOW GRADE SHALL BE SIL-FLOS, OR EQUAL. SEE PLUMBING PLANS FOR LOCATIONS AND SIZES.

DW PIPE SIZES PER 2022 CPC 610.4

MAXIMUM ALLOWABLE LENGTH (FEET)																	
METER AND STREET SERVICE (inches)	BUILDING SUPPLY AND BRANCHES (inches)	40	60	80	100	150	200	250	300	400	500	600	700	800	900	1000	
PRESSURE RANGE — 30 to 45 psi																	
3/4	1/2	6	5	4	3	2	1	1	1	0	0	0	0	0	0	0	
3/4	3/4	16	16	14	12	9	6	5	5	4	4	3	2	2	2	1	
3/4	1	29	25	23	21	17	15	13	12	10	8	6	6	6	6	6	
1	1	36	31	27	25	20	17	15	13	12	10	8	6	6	6	6	
3/4	1-1/4	36	33	31	28	24	23	21	19	17	16	13	12	12	11	11	
1	1-1/4	54	47	42	38	32	28	25	23	19	17	14	12	12	11	11	
1-1/2	1-1/4	78	68	57	48	38	32	28	25	21	18	15	12	12	11	11	
1	1-1/2	85	84	79	65	56	48	43	38	32	28	26	22	21	20	20	
1-1/2	1-1/2	150	124	105	91	70	57	49	45	36	31	26	23	21	20	20	
2	1-1/2	151	129	129	110	80	64	53	46	38	32	27	23	21	20	20	
1	2	85	85	85	85	85	85	82	80	66	61	57	52	49	46	43	
1-1/2	2	220	205	190	176	155	138	127	120	104	85	70	61	57	54	51	
2	2	370	327	292	265	217	185	164	147	124	96	70	61	57	54	51	
2	2-1/2	445	418	390	370	330	300	280	265	240	220	198	175	158	143	133	

PIPE MATERIAL SCHEDULE

SYSTEM	JOINING METHOD	MATERIAL
CONDENSATE PIPING - HIDDEN	SOLVENT	PVC
CONDENSATE PIPING - EXPOSED	SOLVENT	PVC (PROTECTED WITH WATER BASED LATEX PAINT)
DOMESTIC WATER	95/5 SOLDER	TYPE "L" OR "K" COPPER W/ SEISMIC BRACING
SANITARY WASTE & VENT (ABOVE GRADE)	SOLVENT	ABS

HOT WATER INSULATION SCHEDULE

SYSTEM	OPERATING TEMPERATURE	INSULATION TYPE	PIPE SIZE	INSULATION THICKNESS
-DOMESTIC HW -HOT WATER REC. (ABOVE GRADE)	105 °F - 140 °F	GLASS FIBER	1/2"	1/2"
			3/4"	1"
			1" TO 1-1/2"	1-1/2"
			2" & ABOVE	2"

WATER SUPPLY CODE NOTES

CPC 609.12.2- ALL HOT WATER SUPPLY & RETURN PIPING SHALL BE INSULATED AS FOLLOWS:
a. 1" INSULATION THICKNESS REQUIRED FOR 3/4" PIPE.
b. 1-1/2" INSULATION THICKNESS REQUIRED FOR 1" TO 1-1/2" PIPE.
c. 2" INSULATION THICKNESS REQUIRED FOR 2" PIPE & LARGER.

CPC 604.2 - WATER PIPE AND FITTINGS WITH A LEAD CONTENT WHICH EXCEED 0.25% SHALL BE PROHIBITED IN SYSTEMS CONVEYING POTABLE WATER. (CALIFORNIA HEALTH & SAFETY CODE 116875).

ALL FIXTURES IN HANDICAP RESTROOMS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE OF CALIFORNIA HANDICAP CODE AND LOCAL HANDICAP CODES HAVING JURISDICTION.

CPC 301.2 - ALL FIXTURES, EQUIPMENT, PIPING, AND MATERIALS SHALL BE LISTED.

PUBLIC LAVATORIES SHALL HAVE CONTROLS TO LIMIT THE WATER TEMPERATURE TO 120°F.

ALL SERVICE WATER HEATING EQUIPMENT TO BE IN COMPLIANCE WITH THE MODEL ENERGY CODE REQUIREMENTS AND LABELED.

ALL HOSE BIBBS AND JANITORIAL SERVICE SINKS SHALL BE EQUIPPED WITH APPROVED, PROPERLY INSTALLED ATMOSPHERIC TYPE VACUUM BREAKERS.

INSULATION SHALL BE PROVIDED ON ALL HOT WATER AND CIRCULATING PIPING AND THE FIRST 5' ON THE COLD WATER FROM THE WATER HEATER.

CPC-407.2.1-THE MAXIMUM FLOW RATE FOR PUBLIC LAVATORY FAUCETS SHALL NOT EXCEED 0.5 GPM AT 60 PSI (1.9 L/M AT 414 KPA).

CPC-407.2.2-THE MAXIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALLONS (4.54 L) PER MINUTE AT 60 PSI. THE MINIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT BE LESS THAN 0.8 GALLONS (3.03 L) PER MINUTE AT 20 PSI.

CPC-411.2-THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS (4.8 L) PER FLUSH WHEN TESTED IN ACCORDANCE WITH ASME A112.19.2/CSA B45.1.

THE MAXIMUM VOLUME OF WATER PER FLUSH FROM A URINAL AND THE ASSOCIATED FLUSH VALVE, IF ANY, SHALL NOT EXCEED AN AVERAGE OF ONE GALLON WHEN TESTED IN ACCORDANCE WITH ANSI TESTING PROCEDURES

CPC-420.2-SINK FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 2.2 GPM AT 60 PSI (8.3 L/M AT 414 KPA).

CPC-420.2.2-THE MAXIMUM FLOW RATE OF KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALLONS (6.81 L) PER MINUTE AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS (8.32 L) PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS (6.81 L) PER MINUTE AT 60 PSI

CPC-606.2-A FULLWAY VALVE CONTROLLING OUTLETS SHALL BE INSTALLED ON THE DISCHARGE SIDE OF EACH WATER METER AND EACH UNMETERED WATER SUPPLY. WATER PIPING SUPPLYING MORE THAN ONE BUILDING ON ONE PREMISE SHALL BE EQUIPPED WITH A SEPARATE FULLWAY VALVE TO EACH BUILDING, SO ARRANGED THAT THE WATER SUPPLY CAN BE TURNED ON OR OFF TO AN INDIVIDUAL OR SEPARATE BUILDING PROVIDED.

CPC-603.5-1-WATER-COOLED COMPRESSORS, DEGREASERS, OR OTHER WATER-COOLED EQUIPMENT SHALL BE PROTECTED BY A BACKFLOW PREVENTER. 2- POTABLE WATER CONNECTIONS TO STEAM OR HOT WATER BOILERS SHALL BE PROTECTED FROM BACKFLOW BY A DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY. 3- POTABLE WATER SUPPLY TO BEVERAGE DISPENSERS, CARBONATED BEVERAGE DISPENSERS, OR COFFEE MACHINES SHALL BE PROTECTED BY AN AIR GAP OR A VENTED BACKFLOW PREVENTER THAT COMPLIES WITH ASSE 1022

CPC-602.3-NO PLUMBING FIXTURE, DEVICE, OR CONSTRUCTION SHALL BE INSTALLED OR MAINTAINED, OR SHALL BE CONNECTED TO A DOMESTIC WATER SUPPLY, WHERE SUCH INSTALLATION OR CONNECTION PROVIDES A POSSIBILITY OF POLLUTING SUCH WATER SUPPLY OR CROSS-CONNECTION BETWEEN A DISTRIBUTING SYSTEM OF WATER FOR DRINKING AND DOMESTIC PURPOSES AND WATER THAT BECOMES CONTAMINATED BY SUCH PLUMBING FIXTURE, DEVICE, OR CONSTRUCTION UNLESS THERE IS PROVIDED A BACKFLOW PREVENTION DEVICE APPROVED FOR THE POTENTIAL HAZARD.

CPC-608.2-WHERE STATIC WATER PRESSURE IN THE WATER SUPPLY PIPING IS EXCEEDING 80 PSI (552 KPA), AN APPROVED-TYPE PRESSURE REGULATOR PRECEDED BY AN ADEQUATE STRAINER SHALL BE INSTALLED AND THE STATIC PRESSURE REDUCED TO 80 PSI (552 KPA) OR LESS.

CPC-504.3-504.3.1 LISTED WATER HEATERS: THE CLEARANCES SHALL NOT BE SUCH AS TO INTERFERE WITH COMBUSTION AIR, DRAFT HOOD CLEARANCE AND RELIEF, AND ACCESSIBILITY FOR SERVICING. LISTED WATER HEATERS SHALL BE INSTALLED IN ACCORDANCE WITH THEIR LISTINGS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

CPC-504.3.2 UNLISTED WATER HEATERS: UNLISTED WATER HEATERS SHALL BE INSTALLED WITH A CLEARANCE OF 12 INCHES (305 MM) ON ALL SIDES AND REAR. COMBUSTIBLE FLOORS UNDER UNLISTED WATER HEATERS SHALL BE PROTECTED IN AN APPROVED MANNER. [NFPA 54:10.27.2.2]

CPC-504.4-A WATER HEATER INSTALLATION SHALL BE PROVIDED WITH OVERPRESSURE PROTECTION USING AN APPROVED, LISTED DEVICE INSTALLED IN ACCORDANCE WITH THE TERMS OF ITS LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

CPC-504.5-A WATER HEATER INSTALLATION OR A HOT WATER STORAGE VESSEL INSTALLATION SHALL BE PROVIDED WITH OVERTEMPERATURE PROTECTION BY MEANS OF AN APPROVED, LISTED DEVICE INSTALLED IN ACCORDANCE WITH THE TERMS OF ITS LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

CPC-507.2-WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER ONE THIRD (1/3) AND LOWER ONE-THIRD (1/3) OF ITS VERTICAL DIMENSIONS. AT THE LOWER POINT, A MINIMUM DISTANCE OF FOUR(4) INCHES (102 MM) SHALL BE MAINTAINED ABOVE THE CONTROLS WITH THE STRAPPING.

SEWER & INDIRECT WASTE CODE NOTES

CMC-310.1-CONDENSATE FROM AIR WASHERS, AIR-COOLING COILS, CONDENSING APPLIANCES, AND THE OVERFLOW FROM EVAPORATIVE COOLERS AND SIMILAR WATER-SUPPLIED EQUIPMENT OR SIMILAR AIR-CONDITIONING EQUIPMENT SHALL BE COLLECTED AND DISCHARGED TO AN APPROVED PLUMBING FIXTURE OR DISPOSAL AREA. WHERE DISCHARGED INTO THE DRAINAGE SYSTEM, EQUIPMENT SHALL DRAIN BY MEANS OF AN INDIRECT WASTE PIPE. THE WASTE PIPE SHALL HAVE A SLOPE OF NOT LESS THAN 1/8 INCH PER FOOT (10.4 MM/M) OR 1 PERCENT SLOPE AND SHALL BE OF APPROVED CORROSION-RESISTANT MATERIAL NOT SMALLER THAN THE OUTLET SIZE IN ACCORDANCE WITH SECTION 310.3 OR SECTION 310.4 FOR AIR-COOLING COILS OR CONDENSING APPLIANCES, RESPECTIVELY. CONDENSATE OR WASTEWATER SHALL NOT DRAIN OVER A PUBLIC WAY.

CMC-310.3.1-CONDENSATE DRAIN LINES SHALL BE CONFIGURED OR PROVIDED WITH A CLEANOUT TO PERMIT THE CLEARING OF BLOCKAGES AND FOR MAINTENANCE WITHOUT REQUIRING THE DRAIN LINE TO BE CUT.

CMC-310.5-AIR-CONDITIONING CONDENSATE WASTE PIPES SHALL CONNECT INDIRECTLY, EXCEPT WHERE PERMITTED IN SECTION 310.6, TO THE DRAINAGE SYSTEM THROUGH AN AIR GAP OR AIR BREAK TO TRAPPED AND VENTED RECEPTORS, DRY WELLS, LEACH PITS, OR THE TAILPIECE OF PLUMBING FIXTURES. A CONDENSATE DRAIN SHALL BE TRAPPED IN ACCORDANCE WITH THE APPLIANCE MANUFACTURER'S INSTRUCTIONS OR AS APPROVED.

CPC-801.2-INDIRECT WASTE PIPING SHALL DISCHARGE INTO THE BUILDING DRAINAGE SYSTEM THROUGH AN AIR GAP OR AIR BREAK AS SET FORTH IN THIS CODE. WHERE A DRAINAGE AIR GAP IS REQUIRED BY THIS CODE, THE MINIMUM VERTICAL DISTANCE AS MEASURED FROM THE LOWEST POINT OF THE INDIRECT WASTE PIPE OR THE FIXTURE OUTLET TO THE FLOOD-LEVEL RIM OF THE RECEPTOR SHALL BE NOT LESS THAN 1 INCH (25.4 MM).

CPC-801.3.1-EXCEPT FOR REFRIGERATION COILS AND ICE-MAKING MACHINES, THE SIZE OF THE INDIRECT WASTE PIPE SHALL BE NOT SMALLER THAN THE DRAIN ON THE UNIT, BUT SHALL BE NOT SMALLER THAN 1 INCH (25 MM), AND THE MAXIMUM DEVELOPED LENGTH SHALL NOT EXCEED 15 FEET (4572 MM). INDIRECT WASTE PIPE FOR ICE-MAKING MACHINES SHALL BE NOT LESS THAN THE DRAIN ON THE UNIT AND IN NO CASE LESS THAN 3/4 OF AN INCH (20 MM). INDIRECT WASTE PIPES EXCEEDING 5 FEET (1524 MM), BUT LESS THAN 15 FEET (4572 MM) IN LENGTH SHALL BE DIRECTLY TRAPPED, BUT SUCH TRAPS NEED NOT BE VENTED.

CPC-801.3.2-FOR WALK-IN COOLERS, FLOOR DRAINS SHALL BE PERMITTED TO BE CONNECTED TO A SEPARATE DRAINAGE LINE DISCHARGING INTO AN OUTSIDE RECEPTOR. THE FLOOD-LEVEL RIM OF THE RECEPTOR SHALL BE NOT LESS THAN 6 INCHES (152 MM) LOWER THAN THE LOWEST FLOOR DRAIN. SUCH FLOOR DRAINS SHALL BE TRAPPED AND INDIVIDUALLY VENTED.

CPC-906.1-EACH VENT PIPE OR STACK SHALL EXTEND THROUGH ITS FLASHING AND SHALL TERMINATE VERTICALLY NOT LESS THAN 6 INCHES (152 MM) ABOVE THE ROOF NOR LESS THAN 1 FOOT (305 MM) FROM A VERTICAL SURFACE. ABS AND PVC PIPING EXPOSED TO SUNLIGHT SHALL BE PROTECTED BY WATER BASED SYNTHETIC LATEX PAINTS.

CPC-906.2-EACH VENT SHALL TERMINATE NOT LESS THAN 10 FEET (3048 MM) FROM, OR NOT LESS THAN 3 FEET (914 MM) ABOVE, AN OPENABLE WINDOW, DOOR, OPENING, AIR INTAKE, OR VENT SHAFT, OR NOT LESS THAN 3 FEET (914MM) IN EVERY DIRECTION FROM A LOT LINE, ALLEY AND STREET EXCEPTED.

CPC-707.4-1- EACH HORIZONTAL DRAINAGE PIPE SHALL BE PROVIDED WITH A CLEANOUT AT ITS UPPER TERMINAL. EXCEPTIONS:
1-CLEANOUTS SHALL BE PERMITTED TO BE OMITTED ON A HORIZONTAL DRAIN LINE LESS THAN 5 FEET IN LENGTH UNLESS SUCH LINE IS SERVING SINKS OR URINALS.
2- EACH RUN OF PIPING, THAT IS MORE THAN 100 FEET IN TOTAL DEVELOPED LENGTH.
3-A CLEANOUT SHALL BE PROVIDED IN A DRAINAGE LINE FOR EACH AGGREGATE HORIZONTAL CHANGE IN DIRECTION EXCEEDING 135 DEGREES.
4- A CLEANOUT SHALL BE INSTALLED ABOVE THE FIXTURE CONNECTION FITTING, SERVING EACH URINAL, REGARDLESS OF THE LOCATION OF THE URINAL IN THE BUILDING.

CPC-707.8-EACH CLEANOUT, UNLESS INSTALLED UNDER AN APPROVED COVER PLATE, SHALL BE ABOVE GRADE, READILY ACCESSIBLE, AND SO LOCATED AS TO SERVE THE PURPOSE FOR WHICH IT IS INTENDED. CLEANOUTS LOCATED UNDER COVER PLATES SHALL BE SO INSTALLED AS TO PROVIDE THE CLEARANCES AND ACCESSIBILITY REQUIRED BY THIS SECTION.

CPC-707.9-EACH CLEANOUT IN PIPING 2 INCHES (50MM OR LESS IN SIZE SHALL BE SO INSTALLED THAT THERE IS A CLEARANCE OF NOT LESS THAN 18 INCHES (457 MM) BY 18 INCHES (457 MM IN FRONT OF THE CLEANOUT. CLEANOUTS IN PIPING EXCEEDING 2 INCHES (50 MM) SHALL HAVE A CLEARANCE OF NOT LESS THAN 24 INCHES (610 MM) BY 24 INCHES (610 MM) IN FRONT OF THE CLEANOUT.

CPC-418.3-FLOOR DRAINS SHALL BE INSTALLED IN THE FOLLOWING AREAS:
1) TOILET ROOMS CONTAINING TWO OR MORE WATER CLOSETS OR A COMBINATION OF ONE WATER CLOSET AND ONE URINAL, EXCEPT IN A DWELLING UNIT.
2) COMMERCIAL KITCHENS AND IN ACCORDANCE WITH SECTION 704.3.
3) LAUNDRY ROOMS IN COMMERCIAL BUILDINGS AND COMMON LAUNDRY FACILITIES IN MULTI-FAMILY DWELLING BUILDINGS.
4) BOILER ROOMS.

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

CONFIDENTIALITY STATEMENT:

NOTES:

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2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.

3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.

4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

PLUMBING REQUIREMENTS & CODE ANALYSIS

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	**-.-.**	**NTS**
SHEET #	REV. #	DATE
P 1.02	**00**	

SEAL

REGISTERED PROFESSIONAL ENGINEER
SYED P. ALAM
NO. M 27087
EXP. 06/30/2025
MECHANICAL
STATE OF CALIFORNIA

WATER SUPPLY FIXTURE LOADS

FROM 2022 CPC - TABLE 610.3:
WATER SUPPLY FIXTURE UNITS LOADS:

FIXTURE	W.S.F.U	QTY.	TOTAL W.S.F.U
WATER CLOSET	2.5	5	12.5
LAVATORY	1.0	5	5.0
TOTAL BUILDING WSFU =			**17.5**

FROM 2022 CPC - TABLE 610.3:
WATER SUPPLY FIXTURE UNITS LOADS:

FIXTURE	W.S.F.U	QTY.	TOTAL W.S.F.U
WATER CLOSET	2.5	11	27.5
LAVATORY	1.0	11	11.0
MOP SINK	3.0	1	3.0
KITCHEN SINK	1.5	1	1.5
ICE MAKER	1	1	1.0
DRINKING FOUNTAIN	0.5	2	1.0
TOTAL BUILDING WSFU =			**45.0**

PER 2022 CPC - TABLE 610.4:
- THE LONGEST RUN IS APPROX. 150 FT.
- FOR W/M PRESSURE RANGE 30-45 PSI.
- **THE MAIN CWP TO BE NOT LESS THAN 1-1/2"**
- **W/M NOT LESS THAN 1"**

DRAINAGE FIXTURE LOADS

FROM 2022 CPC - TABLE 702.1:
DRAINAGE FIXTURE UNIT VALUES (DFU)

FIXTURE	D.F.U	QTY.	TOTAL D.F.U
WATER CLOSET	4.0	5	20.0
LAVATORY	1.0	5	5.0
FLOOR DRAIN	2.0	2	4.0
TOTAL SECOND FLOOR DFU =			**29.0**

FROM 2022 CPC - TABLE 702.1:
DRAINAGE FIXTURE UNIT VALUES (DFU)

FIXTURE	D.F.U	QTY.	TOTAL D.F.U
WATER CLOSET	4.0	11	44.0
LAVATORY	1.0	11	11.0
FLOOR DRAIN	2.0	4	8.0
KITCHEN SINK	2.0	1	2.0
ICE MAKER	1.0	1	1.0
DRINKING FOUNTAINS	1.0	2	2.0
MOP SINK	3.0	1	3.0
TOTAL BUILDING DFU =			**70.0**

PLUMBING FIXTURES & EQUIPMENT SCHEDULES

SCHEDULE No. 1
ELECTRIC WATER HEATER SCHEDULE (OR APPROVED EQUAL)

TAG	EWH-01
LOCATION	BATHROOM
MANUFACTURER	CHRONOMITE
MODEL	M-20L/240
TYPE	INSTA HOT ELECTRICAL
VOLTAGE (V/PH/HZ) - POWER (W)	240/1/60 - 4800
UNIT WEIGHT (lbs)	95
WIDTH x DEPTH (in)	10" x 2- 3/4"
WATER CONNECTION SIZE	3/4"

HOT WATER DEMAND CALCULATION

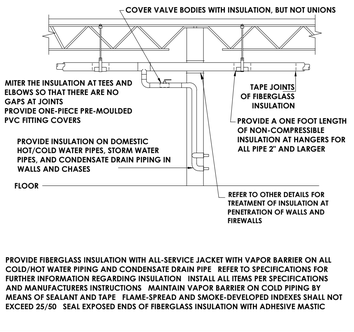
HOT WATER DEMAND CALCULATION:

FIXTURE (GWH-01)	UNIT DEMAND (GPH)	QTY	TOTAL DEMAND (GPH)
Lavatory	5	5	25
TOTAL =		5	25

kW Input = GPH x °F x 8.33 lb/gal. ÷ (Eff. x 3,412 BTU/kW)

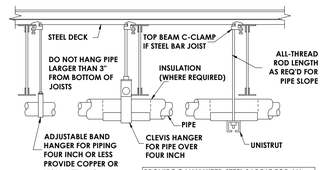
25 GPH x 80 % Allowance = **20 GPH**
Input kW = 20 x 50 °F x 8.33 lb/gallon ÷ (0.9 x 3,412)
Input kW = 3 kW

PLUMBING GENERAL DETAILS



PROVIDE FIBERGLASS INSULATION WITH ALL-SERVICE JACKET WITH VAPOR BARRIER ON ALL COLD/HOT WATER PIPING AND CONDENSATE DRAIN PIPE REFER TO SPECIFICATIONS FOR FURTHER INFORMATION REGARDING INSULATION INSTALL ALL ITEMS PER SPECIFICATIONS AND MANUFACTURERS INSTRUCTIONS MAINTAIN VAPOR BARRIER ON COLD PIPING BY MEANS OF SEALANT AND TAPE FLAME-SPREAD AND SMOKE-DEVELOPED INDEXES SHALL NOT EXCEED 25/50 SEAL EXPOSED ENDS OF FIBERGLASS INSULATION WITH ADHESIVE MASTIC

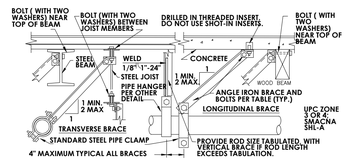
PIPE INSULATION DETAIL — SCALE NONE — 1



PROVIDE GALVANIZED STEEL SADDLE FOR ALL INSULATED PIPE LARGER THAN 3/4". VERIFY INSULATION THICKNESS WHEN SIZING HANGERS.

PROVIDE UPPER ATTACHMENT AS REQUIRED FOR CASES NOT SHOWN HERE. DO NOT INSTALL HANGER INSIDE INSULATION OR OTHERWISE PENETRATE VAPOR BARRIER. DO NOT HANG ONE PIPE FROM ANOTHER EXCEPT IN CHASES. TRAPEZE HANGERS MAY BE USED FOR MUL PLE PARALLEL PIPES. HANGER SPACING FOR PIPE SIZE: COPPER: 4"=12'-0"; 3"=11'-0"; "=10'-0", 2"=9'-0"; 1½"=8'-0"; 1¼"=7'-0"; 1" &. "=6'-0"; ½"=5'-0". CAST IRON: 10'-0" AND ONE NEAR ALL JOINTS. STEEL: 4"=14'-0"; 3"=12'-0"; 2½"=11'-0"; 2"=10'-0"; 1½"=9'-0"; 1"=7'-0"; "=6'-0"; ½=5'-0". LOCATE HANGERS AS CLOSE AS POSSIBLE TO TURNS AND TEES OF PIPE. PROVIDE SUPPLEMENTARY STEEL STRUTS BETWEEN JOISTS IF REQUIRED. LOCATE HANGERS TO TAKE LOAD OFF OF EQUIPMENT CONNECTIONS. ANCHOR WATER PIPE AGAINST SWAYING DUE TO CHANGES IN WATER VELOCITY. PROVIDE SEISMIC BRACING IF/AS REQUIRED BY LOCAL AUTHORITIES. CHAINS OR PERFORATED STRAP IRON OR STEEL IS NOT ACCEPTABLE. REFER TO CODES FOR FURTHER INFORMATION.

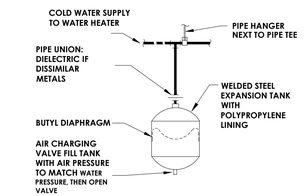
PIPE HANGERS DETAIL — SCALE NONE — 2



PIPE SIZE	SPACING TR.	SPACING LO.	TRANSVERSE BRACE	LONGITUDINAL BRACE	BOLT SIZE	ROD SIZE	MAX ROD LENGTH	VERTICAL BRACE
1" TO 2"	20'	20'	2"x2"x18GA	2"x2"x18GA	1/4"	3/8"	20"	2"x2"x18GA
2-1/2" TO 3"	40'	40'	2-1/2x2-1/2x16GA	2-1/2x2-1/2x16GA	3/8"	1/2"	25"	2"x2"x16GA
4" TO 5"	40'	40'	2-1/2x2-1/2x16GA	2-1/2x2-1/2x20GA	1/2"	5/8"	31"	2"x2"x16GA
6"	40'	40'	2-1/2x2-1/2x12GA	2-1/2x2-1/2x12GA	1/2"	3/4"	37"	2-1/2x2-1/2x16GA
8"	40'	40'	2-1/2x2-1/2x12GA	2-1/2x2-1/2x16GA	5/8"	7/8"	43"	2-1/2x2-1/2x12GA

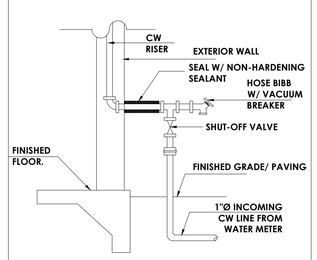
DO NOT BRACE ANY PIPES WHERE TOP PF PIPE TO BOTTOM OF UPPER ATTACHMENT IS LESS THAN 12". BRACE GAS, OIL, AND AIR PIPES 1" AND LARGER. BRACE ALL PIPES IN EQUIPMENT ROOMS 1-1/4" AND LARGER. BRACE ALL OTHER PIPE 2-1/2" AND LARGER. BRACE HUBLESS CAST IRON PIPE ON EACH SIDE OF ANY CHANGE IN DIRECTION OF 90 DEGREES OR MORE. MAXIMUM HANGER ROD LENGTH IS 6 FEET. WHERE LENGTH OF RUN EXCEEDS LONGITUDINAL BRACE SPACING, PROVIDE 2 FEET OFFSET IN PIPE AND LOCATE BRACE AT MID RUNS. REFER TO CURRENT EDITION OF SMACNA"SEISMIC RESTRAINT MANUAL" FOR ALTERNATIVE ATTACHMENTS AND ADDITIONAL INFORMATION AND REQUIREMENTS. (THIS DETAIL APPLIES IN THE ABSENCE OF OTHER LOCAL CODE REQUIREMENTS.)

SEISMIC BRACING FOR PIPE — SCALE NONE — 3

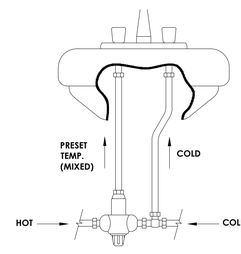


PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. MAKE PIPE SAME SIZE AS TANK FITTING. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION PROCEDURE. VERIFY PROPER OPERATION WHEN INSTALLED. EXPANSION TANK INSTALLATION SHALL OCCUR ONLY WHEN THERE IS A BACKFLOW PREVENTION DEVICE INSTALLED WITHIN THE TENANT SPACE WATER SYSTEM OR BUILDING WATER SYSTEM.

EXPANSION TANK DETAIL — SCALE NONE — 7



WATER ENTRY DETAIL — SCALE NONE — 5



ANTI-SCALD MIXING VALVE — SCALE NONE — 6

NOTE:
CLEAN-OUT COVER FLUSH WITH TILE OR WITH CONCRETE FLOOR IN AREA FLUSH WITH NO TILE.

FLOOR CLEAN-OUT DETAIL — SCALE NONE — 8

T&P DRAIN CONNECTION — SCALE NONE — 10

AHU CONDENSATE DRAIN DETAIL — SCALE NONE — 11

FLOOR DRAIN DETAIL — SCALE NONE — 13

WATER HEATER SEISMIC SUPPORT DETAIL

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

CONFIDENTIALITY STATEMENT:

ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF THE DESIGNER AND THE SAME MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT CONSENT OF THE DESIGNER.

NOTES:

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REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

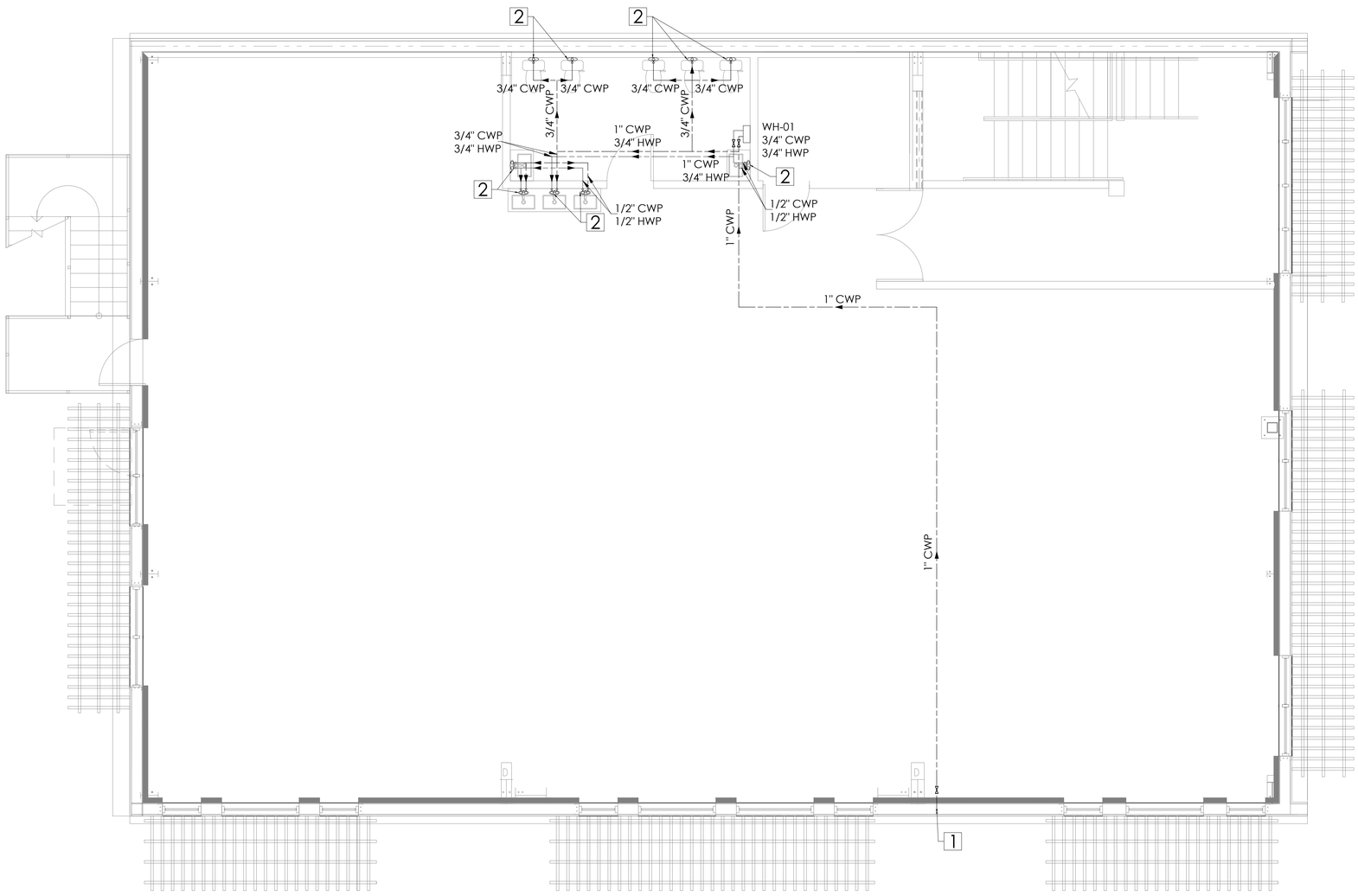
SHEET TITLE:

PLUMBING CALCULATIONS, SCHEDULES & GENERAL DETAILS

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	-.-.	NTS
SHEET #	**REV. #**	**DATE**
P 1.03	00	

SEAL

REGISTERED PROFESSIONAL ENGINEER
SYED P. ALAM
NO. M 27087
EXP. 06/30/2025
MECHANICAL
STATE OF CALIFORNIA



WATER SUPPLY SHEET NOTES

SHEET NOTES:

1 - DCW RISES FROM FLOOR BELOW.

2 - DCW AND/OR DHW TO FIXTURE CONNECTION.

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

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REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

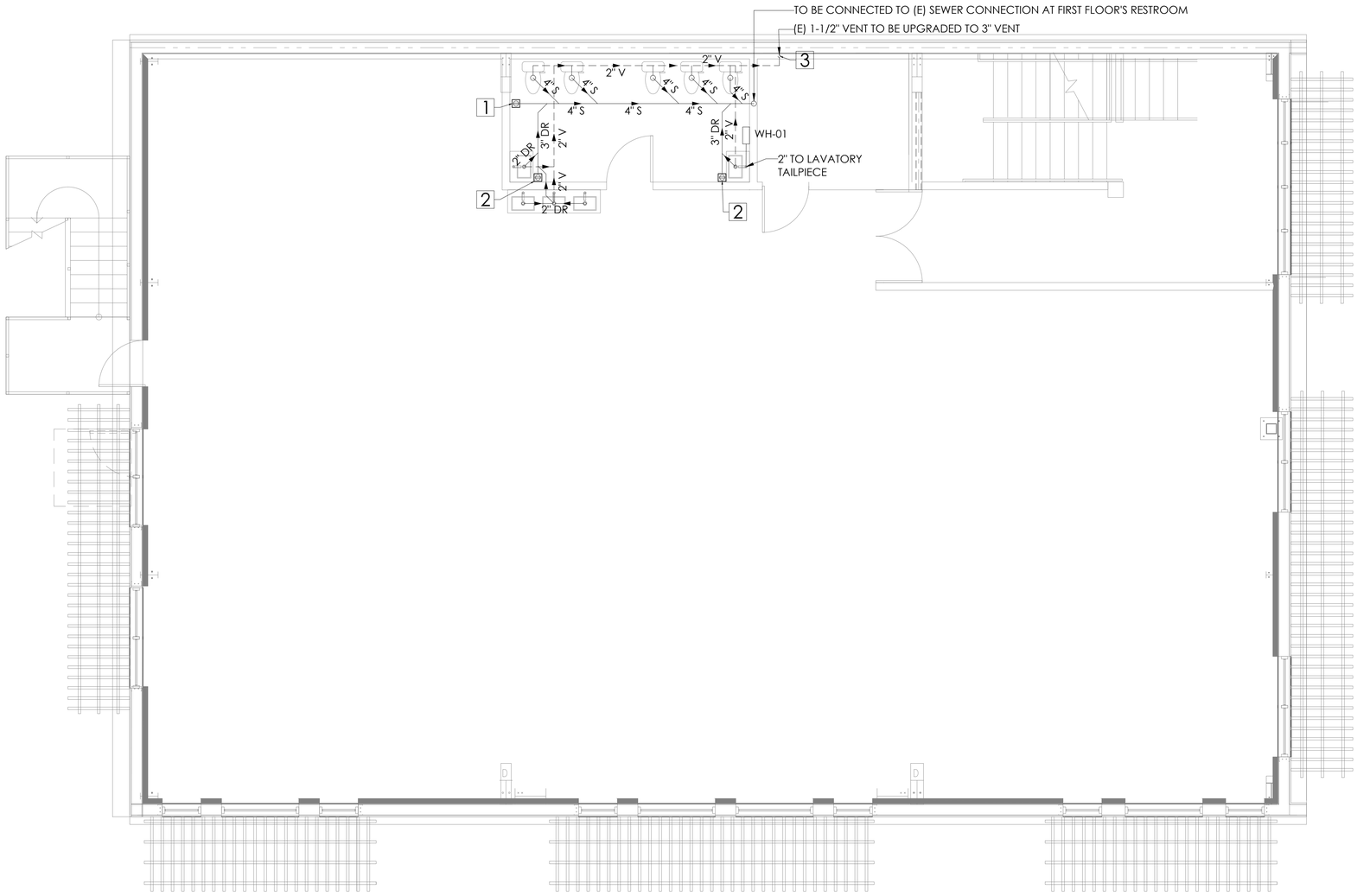
SHEET TITLE:

WATER SUPPLY LAYOUT

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	**-.-.**	**1/4" = 1'-0"**
SHEET #	REV. #	DATE
P 2.01	**00**	

SEAL

REGISTERED PROFESSIONAL ENGINEER
SYED P. ALAM
NO. M 27087
EXP. 06/30/2025
MECHANICAL
STATE OF CALIFORNIA



SANITRAY SHEET NOTES

SHEET NOTES:

1 - 4" FLOOR CLEAN-OUT.

2 - 3" FLOOR DRAIN.

3 - 3" VENT STACK TO ABOVE.

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

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REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

SEWER LAYOUT

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	**-.-.**	**1/4" = 1'-0"**
SHEET #	REV. #	DATE
P 3.01	**00**	

SEAL

ELECTRICAL SPECIFICATIONS

PART 1 — GENERAL

1.01 SCOPE OF WORK:
Furnish and Install all materials and equipment and provide all labor, tools, transportation, superintendence and services required and necessary to complete the work shown on the drawings and/or specified herein.
Also include all other work and miscellaneous items, not specifically mentioned, but reasonably inferred for a complete installation including all accessories and appurtenances required for testing the system. It is the intent of the drawings and specifications that all systems be complete, and ready for operation.

1.02 REGULATORY REQUIREMENTS:
Code compliance is mandatory. Nothing in these Drawings and Specification spermits work not conforming to these codes. Where work is shown to exceed minimum code requirements, comply with drawings and specifications. All work and materials shall comply with the latest rules, codes and regulations, including, but not limited to the following:
Occupational Safety and Health Act Standards (OSHA).
NFPA #70: National Electric Code (NEC).
NFPA #101: Life Safety Code.
State Fire Marshal.
Local Utilities Companies.

1.03 LICENSE, FEES AND PERMITS:
Electrical contractor shall pay for all licenses, permits and inspection fees required by the authority having jurisdiction and shall arrange for all required inspections.

1.04 SAFETY AND INDEMNITY:
The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of work. This requirement will apply continuously and not be limited to normal working hours. No act, service, drawing review or construction review by the Owner, the Engineers or their Consultants, is intended to include review of the adequacy of the Contractor's safety measures, in, on, or near the construction site.

1.05 DRAWINGS AND SPECIFICATIONS:
All drawings and all Divisions of these specifications shall be considered as a whole and work of this Division shown anywhere therein shall be furnished under this Division. Drawings are diagrammatic and indicate the general arrangement of equipment and wiring. Most direct routing of conduits and wiring is not assured. Exact requirements shall be governed by conditions of the job. Consult all other drawings in preparation of the bid.
Extra lengths of wiring or addition of pull or junction boxes, etc., necessitate by such conditions shall be included in the bid.

1.06 CONDITIONS AT SITE:
The electrical contractor shall have examined the site and familiarized themselves with all discernible existing conditions. No extra payment will be allowed for work required because of these conditions, whether specifically mentioned or not.

1.07 WORKMANSHIP AND CONTRACTOR'S QUALIFICATIONS:
Only quality workmanship will be accepted. Haphazard or poor installation will be cause for rejection of work.

1.08 SHOP DRAWINGS AND MATERIALS LISTS:
Submit to Owner in a single package six (6) copies of complete shop drawings and materials list, as noted below, for review within fifteen (15) days after award of contract.
Submittals required as follows:
1. Wiring devices: switches, receptacles, device plates.
2. Enclosures for utility company metering.
3. Main fused disconnect switch.
4. Panelboards.
5. Disconnect switches.
6. Lighting fixtures, lamps and lighting control equipment.

1.09 SUBSTITUTIONS:
One or more makes of materials or methods may have been specified to establish the standard of quality, workmanship, finish and design required, but other materials or methods equal in quality, workmanship, finish, design, and guaranteed performance, will be accepted. However, all changes and substitutions shall be requested in letter form and shall be accompanied with a statement of the amount of money to be returned to the contract if the substitution is permitted.
No work involving materials submitted for substitution shall proceed until written acceptance is received from the Owner. The Owner is the sole judge of acceptability of preferred substitutions. If a substitution item is permitted, and any re-design effort is thereby necessitated, the required redesign shall be at the Contractor's expeense.

1.10 COORDINATION:
Coordinate work with other trades to avoid conflict and to provide correct rough-in and connection for equipment furnished under other trades that require electrical connections.
Inform Contractors of other trades of the required access to and clearances around electrical equipment to maintain service ability and code compliance.
Verify equipment dimensions and requirements with provisions specified under this Section.
Check actual job conditions before fabricating work. Report necessary changes in time to prevent needless work. Changes or additions, subject to additional compensation, which are made without written authorization and an agreed price, shall be at the Contractor's risk and expense.

1.11 CUTTING AND PATCHING:
All cutting and patching required for work of this Division is included herein. Coordination with General Contractor and other trades is imperative. Contractor shall bear the responsibility for and the added expense of adjusting for improper holes, supports, etc.

1.12 ACCEPTANCE DEMONSTRATION:
Upon completion of the work, at a time to be designated by the Owner, the Contractor shall demonstrate for the Owner the operation of the electrical installation including any and all special items installed by him or installed under his supervision. Property set automatic time switches to perform switching operations in accordance with schedules provided by the Owner's representative, and demonstrate (using the manufacturer's operating instructions) how to override and/or test time switches programming.

1.13 RECORD DRAWINGS, EQUIPMENT DATA:
Maintain one set of clean working drawings at the job site and enter daily such "as-built" information as feeder and service routes, pull box locations and changes in layout or arrangement which occur during construction.
Deliver completed drawings to the Owner.
Deliver to the Owner's representative three copies of data sheets or other current manufacturers' publications for each item of electrical equipment furnished for the project including at least these data:
1. Technical description and replaceable parts list.
2. Physical description and installation instructions.
3. Main fused disconnect switch.
4. Manufacturer's Warranty.

1.14 CLEAN-UP:
Rid the premises of scrap materials, trash and debris both during construction and at completion of the project.
Leave the building and surrounding area in a clean and orderly condition.

1.15 GUARANTEE:
Guarantee the installation free from defects of workmanship and materials for a period of one year after Date of Certification of final payment and promptly remedy any defects developing during this period, without charge.

1.16 TEMPORARY SERVICES:
Provide adequate and safe temporary electrical power and lighting throughout the construction and finishing of the premises. In addition to special or unusual requirements, provide at least these items:
1. Three 20-amp circuits for construction power tools. Provide GFI temporary circuits with coverplates to meet OSHA requirements.
2. Three or more light strings suspended approximately one foot below the height of finish ceiling with lamps spaced not more than twelve feet on centers. Strings shall be run the length of the store space parallel to the demising walls, with one string within eight feet of each wall and one (or more) intermediate string(s) arranged to limit the spacing between rows to sixteen feet or less.
3. Flood lighting and task lighting for painting and other finish work. When permanent electrical service is operable, disconnect and remove from the premises the materials and equipment used for temporary power and lighting, and restore modifications and repair damage caused by the installation, use or removal of temporary service provisions.

PART 2 — PRODUCTS

2.01 MATERIAL APPROVAL:
All materials must be new and bear Underwriter's Laboratories label. Materials that are not covered by UL testing standards shall be tested and approved by an independent testing laboratory or a governmental agency. Material not in accordance with these specifications may be rejected either before or after installation.

2.02 CONDUITS AND OTHER RACEWAYS:
A. Rigid Steel: Hot-dipped galvanized.
B. Intermediate Metal Conduit (IMC): Hot-dipped galvanized.
C. Electrical Metallic Tubing (EMT): Electro-galvanized.
D. Wireway: Code gauge steel, with knockouts and hinged cover, corrosion resistant gray baked enamel finish.
E. Provide fittings and accessories approved for the purpose equal in all respects to the conduit or raceway.
EMT connectors and couplings shall be steel setscrew type indoors and steel compression type in wet locations and outdoors.

2.03 WIRES AND CABLES:
A. For power and lighting system 600V or less:
1. Conductor: minimum size #12 AWG.
a. #12 and #10 AWG solid copper.
b. #8 AWG and larger shall be stranded copper.
2. Insulation type:
a. #12 to #1 AWG: THWN for wet or underground and THHN for dry locations.
b. #1/0 through #4/0 AWG: XHHW (55 mils).
c. #250 MCM and larger: XHHW (65 mils).
d. Grounding wire: TW.
B. For signal and communications circuit:
1. Special cables shall be as specified on drawings.
2. Conductors for general use shall be stranded copper conductor, #16 AWG minimum, with THWN insulation for underground or wet locations and THHN insulation for dry locations.
C. Acceptable Products: General Electric, Anaconda, Okonite, Paranite or Triangle products conforming or exceeding applicable IPCEA standards.

2.04 OUTLET BOXES, JUNCTION AND PULL BOXES:
A. Outlet boxes: 4" square x 1-1/2" deep (or larger) galvanized sheet steel KO-type with plaster ring and cover for general interior use and cast metal type FS or FD with matching screw covers for exterior and exposed interior locations (gasketed in damp or wet locations).
B. Junction boxes shall be same as outlet boxes up to 42 cu. in. and codegauge steel in larger sizes with surface or flush-type screw-mounted trim covers, both boxes and covers inhibitor-primed and painted inside out.
C. Pull boxes shall be same as junction boxes unless indicated otherwise on the drawings, with covers.
D. Telephone outlet boxes shall be the type and size required by the serving telephone company but not smaller than 4-11/16" square x 2-1/8" deep with single-gang ring and Sierra #S-754N split plate bushing.

2.05 WIRING DEVICES AND PLATES:
Wiring devices and plates shall be by Pass and Seymour or approved equal.
1. Standard design:
a. Switch and receptacles devices shall be plastic bodies, color per architect.
b. Wall plates shall be metal type 430, stainless steel, color per architect.
c. Isolated ground receptacles shall be white with orange triangle as required per NEC, manufactured by "Leviton" # 5362-IGW or approved equal.

2.06 CONDUIT HANGERS:
For individual conduit runs not directly fastened to the structure, use rod hangers manufactured by Caddy, Unistrut or Powerstrut. For multiple conduit runs, use Unistrut or Powerstrut trapeze type conduit support designed for maximum deflection not greater than 1/8".

2.07 WIRE CONNECTORS:
For wire sizes #8 AWG and smaller: Insulated pressure type (with live spring) rated 105 degrees C, 600V, for building wiring and 1000V in signs or fixtures. Scotchlok or Ideal. For wire size #6 AWG and larger: T & B or equivalent compression type with 3M #33+ or Plymouth "Slipknot Grey" tape insulation.

2.08 PANELBOARDS:
A. Construction: Cabinets shall be of code gauge, galvanized steel, surface or flush mountted as indicated. Doors shall be of cold-rolled steel with concealed hinges and flush catch and lock. All panels shall be keyed alike. Panels locatec adjacent to each other shall have identically sized enclosure and trims. Minimum panel width shall be 20". Finish exposed part with one coat of primer and one coat of light grey enamel suitable for overpainting in field if desired.
B. Bus Bars: Provide ground block with full complement of terminals in addition to insulated neutral bus. Future breaker spaces shall have complete provision including busses and connecting hardware.
C. Manufacturers: Panelboards shall be General Electric Type "AQ" or type "AE" or equivalent products of Eaton, Square-D or Siemens-ITE.
D. Circuit Breakers: Shall be quick-make, quick-break, molded case type:
1. 120/240 Volt Panels: Shall be General Electric Type "Q" line, bolt-on type, with minimum symmetrical interrupting capacity as shown.
2. Provide multi-pole units with common trip element.
3. Circuit breakers used on "ON-OFF" control of fluorescent lighting (panelboard switching) shall be Underwriters' Laboratories listed and marked "SWD" to indicate their suitability.
E. Identification: Provide screwed-on (no adhesives) bakelite or photo-etched metallic nameplate identification on outside of each panel showing panel designation, voltage and phase in minimum 1/8" high letters. Each panel shall contain a metal-framed circuit directory inside cover, with plastic protector.
F. Complete shop drawings are required. See Article 1.08.

2.09 INDIVIDUALLY MOUNTED MOTOR CONTROLLERS:
A. For Polyphase Motors: Combination motor circuit protector and magnetic starter, with 3-leg overload protection. Provide two interlock contacts of the interchangeable open-close type. Provide hand-off-automatic selector switch, motor running pilot light and reset button in cover. Circuits 300V and over shall be provided with 120V control transformers.
B. Starters for fractional horsepower 120V motors shall be manual type unless shown otherwise, equipped with built-in overload protection.
C. Acceptable manufacturers: General Electric, Siemens, Square D, Eaton, and Westinghouse.

2.10 LIGHIING:
A. Furnish and install all fixtures complete, including lamps and ballast ready for service.
B. Supports: Proper supports and mounting accessories, such as hangers, stems, yokes, plaster frames, etc. shall be provided as required by the type of ceiling installed. Where swivel canopies or ball aligners are specified, they shall couse fixture to hang plump regardless of ceiling slope.
C. Fixture Designation: Fixture types are designated on drawings. Where only one fixture designation is shown, it applies to all fixtures in that room or area. For exact fixture count and location refer to reflected ceiling plan.
D. Wire 1-lamp and 3-lamp fluorescent fixtures in tandem where required by code.
E. Ballasts: Advance, GE or Approved high frequency electronic, full light output, energy saving, Class "P", high power factor, ETL certified, sound rating "A" or as indicated on drawings.

2.11 MISCELLANEOUS MATERIALS:
A: Safety Switches:
Heavy duty type, 600V, horsepower rated for motors, fused or non-fused as required. Mount in enclosure with NEMA rating as required for the specific application General Electric, Square D or Westinghouse.

PART 2 — PRODUCTS

2.12 DRY TYPE TRANSFORMERS:
General:
Equipment shall conform to or exceed requirements of NEMA, ANSI Standard C89.2 for Dry Type Transformers for General Applications. Acceptable products are those of General Electric Company's "QL," Line or equivalent Square D, Siemens-ITE, or Eaton.

Electrical Ratings:
1. Primary windings voltage: 480 Volts, 3-Phase, delta. Secondary windings voltages: 240Y/120 Volts, 3-Phase grounded. Frequency: 60 Hz. KVA rating: As shown on drawings. Taps: Six (6) 2.5% full capacity taps: 2 above and 4 below, rated voltage. Impedance: For transformers larger than 75 KVA, 4.5% minimum, 5.75% maximum.
2. Winding temperature rise shall be 150 degrees Centigrade in accordance with UL Specification Article 506.
3. Transformer shall be capable of operating at 100% of nameplate rating continuously while in an ambient temperature not exceeding 40 degrees Centigrade.
4. Transformer shall meet the daily overload requirements of ANSI Standard C57.96.
Vibration Isolation, Factory-Installed Provide neoprene rubber pads to isolate core and coil assembly from transformer enclosure.

Installation:
1. Anchor transformer securely with minimum 1/2" diameter bolts. Strength of bolts used to secure the transformer shall be sufficient to resist shear and uplift produced by force equal to 1/2 of the equipment mass applied horizontally at center of gravity.
2. Provide 1" thick high resiliency pads to isolate transformer from floor or platform. Korfund "Elasto Rib" or equivalent.
3. Use flexible conduits at least 24" long for electrical connections.
4. Provide grounding of each transformer secondary including all conduits, wires, and connectors in accordance with NEC 250-26 and any local additional regulations.

PART 3 — EXECUTION

3.01 GENERAL:
A: Electric system layouts indicated on the drawings are generally diagrammatic and shall be followed as closely as actual construction and work of other trades will permit. Govern exact routing of cable and wiring and the locations of outlets by the structure and equipment served. Take all dimensions from architectural drawings.
B. Consult all other drawings, verify scales and report any dimensional discrepancies or other conflicts with Owner before submitting bid.
C. All home runs to panelboards are indicated as starting from the outlet nearest the panel and continuing in the general direction of that panel. Continue such circuits to the panel as though the routes were completely indicated. Terminate homeruns of signal, alarm, and communication systems in a similar manner.
D. Avoid cutting and boring holes through structure or structural members wherever possible. Obtain prior approval of Owner and conform to all structural requirements when cutting or boring the structure is necessary and permitted.
E. Furnish and install all necessary hardware, hangers, blocking, brackets, bracing, runners, etc. required for equipment specified under this Section.
F. Provide necessary backing required to insure rigid mounting of outlet boxes.

3.02 WIRING METHODS:
A. Install all wiring in raceway or use MC cable. Where approved by all Applicable codes.Conduit shall be rigid steel, IMC or EMT as follows:
1. Above ground: Use rigid steel, IMC or EMT.
a. Wet locations: Rigid steel or IMC only,
b. Locations subject to mechanical injury: Rigid steel or IMC only.
c. Dry locations and not subject to mechanical injury: EMT, IMC or rigid steel conduit.
2. Underground: Use rigid steel.
B. Use flexible conduits in the following applications:
1. Recessed lighting fixtures.
2. Motor connections.
3. At building joints. At wet locations, flexible conduit shall be liquid tight type.

3.03 INSTALLATION OF CONDUITS:
A. General:
1. Run all conduit concealed unless otherwise noted or shown.
2. Run all conduit parallel to or at right angles to center lines of columns and beams.
3. Conduits above ceilings shall not obstruct removal of ceiling tiles, lighting fixtures, air diffusers, etc.
4. Conduits shall not cross any duct shaft or area designated as future duct shaft horizontally. Conduit risers when allowed in duct shaft must be coordinated with Mechanical work to avoid any conflict.
B. Conduit Supports:
1. Support conduits with Underwriter's Laboratories listed steel conduit supports at intervals required by the National Electric Code. Wires or sheet metal strips are not acceptable for conduit support. Use conduit hangers for all conduits not directly fastened to structure and for all multiple conduit runs. Do not attach any conduit to mechanical ducts or pipes.
2. Individual conduits 1/2" and 3/4" size for lighting may be supported from ceiling support wires with Caddy clips only if acceptable to local code. Only one conduit is permitted to be attached to any ceiling support wire. Hang such conduit so as not to affect level of ceiling.
3. Avoid attaching conduit to fan plenums. When it is necessary to support conduit from fan plenum, provide a length of flexible conduit between portion attached fan plenum and portion attached to the building to minimize transmission of vibration to the building structure.

3.04 CONNECTIONS TO EQUIPMENT:
A. General:
1. Furnish and install required power supply conduit and wiring to all equipment. See below for other wiring required.
2. Furnish and install a disconnect switch immediately ahead of and adjacent to each magnetic motor starter or appliance unless the motor appliance is located adjacent and within sight of the serving panelboard, circuit breaker or switch. Verify all equipment nameplate current ratings prior to installation.
3. Install all rough-in work for equipment from approved shop drawings to suit the specific requirements of the equipment.
4. Furnish and install manual thermal protection for all motors not integrally equipped with thermal protection.
5. Furnish 120 Volt power to each control panel and time switch requiring a source of power to operate.

3.05 WIRE COLOR CODE:
Color coding shall be continuous for wire #12 through #10 AWG. Phase conductors #8 and larger and nconductors of any size in cable assemblies may have colored phasing tape at terminations.

Color code wires as follows:

Voltage	Phase A	Phase B	Phase C	Neutral	Ground
120/208V	Black	Red	Blue	White	Green
277/480V	Brown	Orange	Yellow	Gray	Green

PART 3 — EXECUTION

3.06 INSTALLATION OF WIRES:
A. Pull no wire into any portion of the conduit system until all construction work which might damage the wire has been completed.
B. Install all wire continuous from outlet to outlet or terminal to terminal. Splices in cables when required shall be made in handholes, pull boxes or junction boxes. Make branch circuit splices in outlet boxes with 8" of correctly color-coded tails left in the box.
C. Splices in wires and cables shall be made utilizing materials and methods described herein before.
D. Make all ground, neutral and line connections to receptacle and wiring device terminals as recommended by manufacture. Provide ground jumper from outlet box to ground terminal of devices when the device is not approved for grounding through the mounting screws.
E. Provide Brady wire markers where number of conductors in a box exceeds four.
F. Megger and record insulation resistance of all 600 Volt insulated conductors size #4/0 and larger using 500 Volt megger for one minute. Make tests with circuits isolated from source and load.

3.07 IDENTIFICATION:
A. Provide nameplates for switchgears, panelboards, and all similar devices. Nameplates shall be screwed (no adhesives) engraved bakelite or photo-etched metallic nameplate identification showing panel designation, voltage and phase in minimum 1/4" high letters.
B. Provide dymo labels on all lighting switches and convenience and special purpose receptacles to show panel and circuit number to which the device is connected.
C. Each panelboard shall contain a metal-framed circuit directory inside cover, with plastic protector.
D. Panelboard Schedule: After completion of work, provide typewritten updated panelboard schedules for all panelboards.

3.08 REMODELING WORK:
A. Existing electrical wiring which will not be made obsolete and which will be disturbed due to construction changes required by this contract shall be restored to operating condition. Where construction changes require, outlets and conduit runs shall be relocated. Extend conduits and pull in new wiring or install junction boxes and splice in new wiring.
B. Outlets from which fixtures, switches, receptacles, and/or other electrical devices are moved and which are not replaced or reused shall be removed, where outlets boxes, etc., are completely removed, the contractor shall cut off conduits and remove wiring.
C. Where conduits extending through floors are to be abandoned, the contractor shall cut and cap or plug conduit, and the conduit shall not protrude above the floor.
D. Where existing conduit is to be abandoned, the conduit shall be removed if it is exposed, in a crawl space or in accessible ceiling. Where it is impossible to remove the conduit, it shall be cut off and capped or plugged.
E. Remove all existing wiring not reused or required to maintain continuity circuits to remain.
F. The contractor shall be held fully responsible for the proper restoration of all existing surfaces requiring patching, plastering, painting and/or other repairs due to the installation of electrical work under the terms of this specification. Close all openings, repair all surfaces, etc., as required.
G. Maintain circuit continuity to areas outside of this work. Provide new conduit and conductors as required to maintain continuity and maintain area as existing.

3.09 GROUNDING:
A. Electrical service and separately derived alternating current system shall be grounded in accordance with NEC Article 250-3 to 250-26, inclusive.
B. Ground non-current carrying metal parts of electrical equipment enclosures, frames, conductor raceways or cable trays to provide a low impendance path for line-to-ground fault current and to band all non-current carrying metal parts together. Provide ground conductor in each raceway system in addition to conductors shown.
Equipment ground conductor shall be electrically and mechanically continuous from the electrical circuit source to the equipment to be grounded. Size ground conductors per NEC Article 250-95 unless larger conductors are shown on drawings.
C. Grounding conductors shall be identified with green insulation. Where green insulation is not available on larger sizes, black insulation shall be used and suitable identified with green tape at each junction box or device enclosure.

END OF SECTION

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

NOTES:

1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.

2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.

3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.

4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. #	DESCRIPTION	DATE	BY

PROJECT:
PRESCHOOL RENOVATION

SHEET TITLE:
ELECTRICAL SPECIFICATIONS

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	-.-.	NTS
SHEET #	REV. #	DATE
E 1.00	00	

SEAL
LICENSED PROFESSIONAL ENGINEER
GREGORY MICHAEL DUCKETT
E 21635
Exp: 09/30/24
ELECTRICAL
STATE OF CALIFORNIA

GENERAL NOTES

A. ALL EXISTING COMPONENTS OF THIS ELECTRICAL DIAGRAM ARE TO REMAIN AS INSTALLED AND ARE SHOWN FOR REFERENCE ONLY.
B. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL FIRE PROTECTION
C. ASSOCIATION (NFPA) 70, NATIONAL ELECTRICAL CODE. ALL ITEMS ARE ON AN OR EQUAL BASIS.
D. ALL SINGLE PHASE BRANCH CIRCUITS (RECEPTACLES, LIGHTING, ETC.; ARE 1/2" CONDUIT OR EMT WITH THIN, 90C WIRING, UNLESS NOTED OTHERWISE. ALL OTHER CONDUIT AND WIRING SHALL BE AS INDICATED ON THE PLANS. ACTUAL ROUTING AND HOME RUN GROUPINGS ARE TO BE DETERMINED IN THE FIELD.
E. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC EXCEPT FOR DETAILS AND ELEVATIONS. DO NOT SCALE FROM DIAGRAMMATIC DRAWINGS. EXACT LOCATIONS OF DEVICES AND PANELS ARE TO BE DETERMINED AND ROUGHED-IN DURING CONSTRUCTION TO AVOID INTERFERENCE, TO MEET USER REQUIREMENTS, TO PROVIDE ADEQUATE MOUNTING, AND TO MEET NEC LINEAR ACCESS AND CLEARANCE REQUIREMENTS.
F. BACK TO BACK MOUNTING OF RECEPTACLES IS NOT PERMITTED.
G. IN ADDITION TO THE NEC REQUIREMENTS FOR GFCI PROTECTION FOR RECEPTACLES, THE FOLLOWING RECEPTACLES SHALL ALSO HAVE GFCI PROTECTION: (1)-ALL RECEPTACLES LOCATED WITHIN 8 FEET OF A SINK, (2)-ALL RECEPTACLES WHICH ARE PROVIDED FOR CONVENIENCE IN SERVICING HVAC EQUIPMENT REGARDLESS OF LOCATION.AS REQUIRED TO ACCOMMODATE CONDUCTOR PULLING EASE, FIELD LIFE SAFETY.
H. PROVIDE A LAMICOID NAMEPLATE (WHITE LETTERS ON BLACK BACKGROUND; ON EACH PANELBOARD, MOTOR STARTER,CONTACTOR, TRANSFORMER, ETC. LETTERS SHALL BE 0.75 INCH MAINIMUM.
I. CONTRACTOR SHALL CUT AS REQUIRED TO INSTALL ELECTRICAL EQUIPMENT REPAIR OF FLOOR OR WALLS SHALL BE COORDINATED WITH GENERAL CONTRACTOR CONTRACTOR SHALL ALSO REPAIR ALL OPENINGS LEFT DUE TO EQUIPMENT REMOVAL.
J. CONDUCTORS ARE COPPER UNLESS OTHERWISE SHOWN. ALL CONDUCTORS LARGER THAN #10 SHALL BE STRANDED.
K. PANELBOARDS SHALL CONTAIN A TYPEWRITTEN DIRECTORY WITH A PLASTIC COVER AFFIXED TO THE INSIDE DOOR.

L. ALL FIXTURES, DEVICES, CONDUIT, AND EQUIPMENT SHALL BE SECURED WITH APPROVED HANGERS AND ANCHORS AND IN ACCORDANCE WITH APPROVED STANDARDS OF INSTALLATION.
M. ALL BREAKERS SHOWN IN THE PANELBOARD SCHEDULE SHALL BE RATED AS SHOWN FOR BOTH CIRCUIT CAPACITY AND FAULT CURRENT INTERRUPTING CAPACITY.
N. ALL PANELBOARDS, DISCONNECT SWITCHES, MOTOR STARTERS, AND CONTACTORS SHALL BE NEMA 1, UNLESS OTHERWISE NOTED.
O. ELECTRICAL CONTRACTOR MUST BE AVAILABLE AT TIME OF DBS INSPECTION. COORDINATE WITH GENERAL CONTRACTON.
P. FIELD VERIFY THE AVAILABLE FAULT CURRENT AT THE LANDLORD'S EXISTING PANEL AND PROVIDE A NEW, FULLY RATED, PANEL TO MATCH EXISTING.
Q. CONTRACTOR TO MAKE FINAL CONNECTIONS IN EMS PANEL FOR LANDLORD PROVIDED LIGHTING CIRCUITS. 50% OF THE GENERAL LIGHTING CIRCUITS SHOULD BE ROUTED THROUGH THE CUSTOMER CONTROL ZONE .

CODE ANALYSIS:
CALIFORNIA BUILDING CODE 2022 (VOL 1 & 2)
CALIFORNIA EXISTING BUILDING CODE 2022
CALIFORNIA FIRE CODE 2022
CALIFORNIA MECHANICAL CODE 2022
CALIFORNIA PLUMBING CODE 2022
CALIFORNIA ELECTRICAL CODE 2022
TORRANCE MUNICIPAL CODE 2022

SCOPE OF WORK:

ELECTRICAL DESIGN OF A SECOND FLOOR IN A PRESCHOOL

GENERAL ELECTRICAL NOTES

#	DESCRIPTION
1	GENERAL CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE SUBMITTING BID.
2	ALL WORK SHALL BE DONE IN ACCORDANCE WITH 2019 CALIFORNIA BUILDING CODE 2019 GREEN BUILDING CODE AND 2020 MILPITAS MUNICIPAL CODE".
3	GENERAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, CERTIFICATES, ETC. REQUIRED.
4	GENERAL CONTRACTOR SHALL OBTAIN AND PAY FOR BOTH ROUGH AND FINAL UNDER-WRITERS OR OTHER APPROVED INSPECTION AGENCY CERTIFICATES "ELECTRICAL INSPECTION". THESE CERTIFICATES SHALL BE PRESENTED WITH REQUEST FOR FINAL PAYMENT.
5	IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE OPERATING ELECTRICAL SYSTEM. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL WIRING, EQUIPMENT, MATERIAL. ETC. REQUIRED, EXCEPT WHERE SPECIFICALLY NOTED AS BEING FURNISHED BY OTHERS. SHOULD THERE BE ANY QUESTIONS CONCERNING RESPONSIBILITY, THEY SHALL BE ADDRESSED TO ARCHITECT PRIOR TO BID. NO EXTRA CHARGES WILL BE ALLOWED.
6	ELECTRICAL SERVICE SHALL BE COORDINATED WITH THE EXISTING FIELD CONDITIONS.
7	CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO ALL CONTROLS, OWNER-SUPPLIED EQUIPMENT, MECHANICAL AND PLUMBING EQUIPMENT AS REQUIRED.
8	REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATION DETAILS. ALL FIXTURE AND DEVICE LOCATIONS SHOWN ON ARCHITECTURAL DRAWINGS SUPERSEDE THOSE SHOWN ON ELECTRICAL PLANS.
9	CIRCUIT NUMBER ON THE DRAWINGS SHALL BE AS PER APPROVED PLANS.
10	BRANCH CIRCUIT CONDUCTOR INSULATION SHALL BE COLOR CODED AND SHALL BE 600 VOLT. TYPE THHN/THWN.
11	CABLES IN HIGH TEMPERATURE AREAS SHALL HAVE INSULATION TYPE SUITABLE FOR THE TEMPERATURE. CABLES USED IN SPACES FOR ENVIRONMENTAL AIR SHALL CONFORM WITH APPLICABLE C.E.C REQUIREMENTS.
12	ALL WIRING USED IN RETURN OR DISCHARGE AIR PLENUMS SHALL BE PLENUM RATED OR INSTALLED PER METHODS APPROVED BY THE LATEST EDITION OF THE C.E.C. FOR SUCH APPLICATION.
13	ALL WIRE AND CABLE CONDUCTORS SHALL BE COPPER WITH INSULATION RATED 600V. CONDUCTORS SIZED #10 AWG AND SMALLER SHALL BE SOLID OD STRANDED, AND CONDUCTORS SIZED LARGER THAN #10 AWG SHALL BE STRANDED WIRE.
14	BRANCH CIRCUITS FOR POWER AND LIGHTING SHALL NOT BE LESS THAN #12 AWG. OR AS NOTED. WIRES ARE TO BE SIZED FOR THE APPROPRIATE VOLTAGE DROPS. SEE WIRE SIZE SCHEDULE ON THIS SHEET.
15	ALL DATA CABLES SHALL BE CAT6, PLENUM RATED. TO BE PROVIDED BY OWNER SELECTED VENDOR. ELECTRICAL WORK SHALL BE TO PROVIDE OUTLET BOXES AND "RING AND STRING" FOR PULLING OF CABLES IN CONCEALED SPACES.
16	CONTROL WIRING SHALL NOT BE LESS THAN #14 AWG UNLESS OTHERWISE NOTED.
17	HOMERUNS SHOWN ARE SCHEMATIC. CONTRACTOR MAY ORIGINATE HOMERUNS FROM DIFFERENT LOCATIONS. ALL WIRE INCLUDING HOMERUNS SHALL BE DELINEATED ON AS-BUILT DRAWINGS.
18	ALL WIRING INSTALLED UNDER THIS CONTRACT SHALL BE TESTED FOR PROPER CONNECTIONS AND SHORT CIRCUITS PRIOR TO THE TURNING OVER OF WORK AS A COMPLETE UNIT.
19	PROVIDE ALL ELECTRICAL SYSTEM GROUNDING IN ACCORDANCE WITH C.E.C. REQUIREMENTS EVEN IF IT IS NOT SHOWN ON THE DRAWINGS. INCLUDE ADDITIONAL GROUNDING CONDUCTORS IN ALL RACEWAYS EVEN THOUGH THE DRAWINGS SHOW ONLY CIRCUIT AND/OR NEUTRALS CONDUCTORS. THE PLUMBING AND PIPING SYSTEM SHALL NOT BE USED AS A GROUND. ALL TRANSFORMER NEUTRALS SHALL BE GROUNDED TO BUILDING STEEL IN ACCORDANCE WITH NEC 250-70.
20	ALL CONDUITS PASSING THROUGH PARTITIONS ARE TO BE APPROPRIATELY SLEEVED AND SEALED.
21	FURNISH AND INSTALL ALL CONDUIT WITH PULL WIRES AS REQUIRED. ALL OUTLET BOXES SHALL BE STEEL, EXTRA DEEP WITH GROUNDING PIGTAILS. GROUNDING PUSH-CLIPS ARE NOT ACCEPTABLE.
22	ALL PENETRATIONS SHALL BE INSTALLED AND SEALED PER NATIONAL STATE AND LOCAL CODES
23	DO NOT MAKE ANY CHANGES OR SUBSTITUTIONS WITHOUT SPECIFIC WRITTEN APPROVAL FROM THE ARCHITECT OR ENGINEER.
24	GUARANTEE ALL WORK, MATERIAL AND EQUIPMENT FOR A PERIOD OF ONE YEAR FROM THE DATE OF APPROVAL AND FINAL ACCEPTANCE.
25	THIS DESIGN IS BASED ON INITIAL DESIGN DATA. GENERAL CONTRACTOR TO SUPPLY AND INSTALL FEEDERS, FUSES AND CIRCUIT BREAKERS TO MATCH THE NAMEPLATE RATING OF ALL EQUIPMENT. THIS SHALL BE INCLUDED IN THE INITIAL BID PROPOSAL AND NO EXTRAS SHALL BE ENTERTAINED.
26	Service equipment in other than dwelling units shall be legibly marked in the field with the maximum available fault current. The field markings shall include the date the fault current calculation was performed and be of sufficient durability to withstand the environment involv ed. CEC 110.24(A).

GENERAL ELECTRICAL NOTES

#	DESCRIPTION
27	LABEL ALL JUNCTION BOXES, OUTLETS, LIGHT SWITCH, ETC. WITH CIRCUIT NUMBER ON INTERIOR ON COVER PLATE. USE SELF-ADHESIVE "DYMO" LABEL 1/8" HIGH LETTERS.
28	GENERAL CONTRACTOR SHALL PROVIDE SEISMIC RESTRAINTS AND SUPPORTS FOR ALL FLOOR, WALL, AND CEILING MOUNTED ELECTRICAL EQUIPMENT TO RESIST EARTHQUAKE EFFECTS DETERMINED IN ACCORDANCE WITH THE BUILDING CODE.
29	THE G.C. SHALL PROVIDE ALL EQUIPMENT. MATERIALS AND LABOR TO COMPLETE ALL ELECTRICAL WORK IN A NEAT AND WORKMANLIKE MANNER AND IN ACCORDANCE WITH GOOD COMMERCIAL PRACTICE INCLUDING THE INSTALLATION OF ALL THE EQUIPMENT MATERIALS AND SYSTEMS AND THE FINAL CONNECTIONS TO THE OWNER'S EQUIPMENT AND FIXTURES AS REQUIRED BY THE OWNER. THE G.C. SHALL ALSO FURNISH TEMPORARY WIRING AND LIGHTING T0 PROVIDE A MINIMUM OF 25 FC IN WORK AREAS FOR USE OF ALL THE TRADES DURING CONSTRUCTION AND THE INSTALLATION OF THE OWNERS FIXTURES. THE G.C. IS RESPONSIBLE TO REMOVE ALL TEMPORARY WIRING UPON COMPLETION OF CONSTRUCTION OF ALL TRADES.
30	THIS CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL SUPPLEMENTARY SUPPORT, INCLUDING SUPPORT STEEL AS REQUIRED TO HANG ALL EQUIPMENT AND LIGHTING FROM THE EXISTING STRUCTURE IN ACCORDANCE WITH THE ARCHITECTURAL/STRUCTURAL SUPPORT AND LOADING CRITERIA.
31	IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO PROVIDE FULLY DIMENSIONED COORDINATION DRAWINGS FOR ALL OF HIS RESPECTIVE WORK. THESE DRAWINGS MUST BE FULLY COORDINATED WITH ALL EXISTING CONDITIONS. ALL HVAC, PLUMBING, FIRE PROTECTION, ELECTRICAL, LIGHTING, STRUCTURAL AND ARCHITECTURAL SYSTEMS PRIOR TO PREPARING COMPOSITE MULTI DISCIPLINE COORDINATION DRAWINGS.
32	ALL DISCONNECTING MEANS AND EQUIPMENT INDICATED ON THE DRAWING SHALL BE IDENTIFIED BY NAMEPLATE IN COMPLIANCE WITH CALIFORNIA ELECTRICAL CODE
33	ALL WIRING FOR THE EMERGENCY LIGHTING AND EMERGENCY SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CALIFORNIA ELECTRICAL CODE
34	THE WIRING METHODS AND MATERIALS INDICATED IN THE SPECIFICATIONS AND ON THE DRAWINGS SHALL BE INSTALLED AND CONNECTED IN ACCORDANCE WITH THE REQUIREMENTS OF CALIFORNIA ELECTRICAL CODE
35	THE ELECTRICAL SERVICE AND DISTRIBUTION SYSTEM AS INDICATED ON THE RISER DIAGRAM AND MATERIALS INDICATED IN THE SPECIFICATIONS SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF CALIFORNIA ELECTRICAL CODE
36	ALL OVER CURRENT PROTECTION SHALL BE IN COMPLIANCE WITH THE CALIFORNIA ELECTRICAL CODE
37	ALL GROUNDING REQUIREMENTS OF THE COMPLETE ELECTRICAL DISTRIBUTION SYSTEM AND AS INDICATED IN THE SPECIFICATIONS SHALL BE IN ACCORDANCE WITH CALIFORNIA ELECTRICAL CODE
38	PRIOR IO ANY REQUIRED CUTTING AND PATCHING OF CONCRETE FLOOR A ND/OR CUTTING OF ROOF, CONTRACTOR SHALL COORDINATE WITH BUILDING ENGINEER.
39 40	FOR ALL LIGHTING FIXTURES MOUNTED IN HUNG CEILING THE GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL INDIVIDUAL SUPPORT AT EACH CORNER OF RECESSED LIGHTING TROFFER CONNECTED TO BUILDING STEEL ABOVE ALL CONDUIT AND MC CABLE MOUNTED ABOVE HUNG CEILING SHALL BE INDIVIDUALLY SUPPORTED IN THE SAME FASHION AS PER CEC REQUIREMENTS.
41	DO NOT SCALE FROM THESE DRAWINGS.
42	PLANS ARE PREPARED WITH REQUIRED BRANCH CIRCUITS INDICATED BY CIRCUITS NUMBERS. PROVIDE AND INSTALL ALL CONDUITS. CONDUCTORS, BOXES, MISCELLANEOUS FITTINGS, ETC. FOR A COMPLETE AND OPERABLE SYSTEM (HOME RUN SHOWN). BRANCH CIRCUIT INSTALLATION SHALL COMPLY WITH SPECIFICATIONS AND C.E.C.
43	ELECTRICAL RECEPTACLE, SWITCH AND CONTROL HEIGHTS (CBC 11B-308:) RECEPTACLE HEIGHTS: ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL BE LOCATED NO MORE THAN 48 INCHES (1219MM) MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING NOR LESS THAN 15 INCHES (381MM) MEASURED FROM THE BOTTOM OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING TO THE LEVEL OF FINISHED FLOOR OR WORKING FLATFORM. IF THE REACH IS OVER AN OBSTRUCTION (FOR EXAMPLE, A KITCHEN BASE CABINET) BETWEEN 20 AND 25 INCHES (508 AND 635MM) IN DEPTH, THE MAXIMUM HEIGHT MEASURED AT THE BOX IS REDUCED TO 44 INCHES (1118MM) FOR FORWARD APPROACH, OR 46 INCHES (1168MM) FOR SIDE APPROACH, PROVIDED THE OBSTRUCTION IS NO MORE THAN 24 INCHES (610MM) IN DEPTH. OBSTRUCTION SHALL NOT EXCEED MORE THAN 25 INCHES (635MM) FROM THE WALL BENEATH THE RECEPTACLE.
44	SWITCH AND CONTROL HEIGHTS: (CBC 11B-308:) CONTROL OR SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES, ALARMS OR COOLING, HEATING AND VENTILATING EQUIPMENT SHALL BE LOCATED NO MORE THAN 48 INCHES (1219MM) MEASURED FROM THE TOP OF THE OUTLET BOX NOR LESS THAN 15 INCHES (381MM) MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISHED FLOOR OR WORKING PLATFORM. IF THE REACH IS OVER A PHYSICAL BARRIER OR AN OBSTRUCTION (FOR EXAMPLE, A KITCHEN BASE CABINET) BETWEEN 20 AND 25 INCHES (508 AND 635MM) IN DEPTH, THE MAXIMUM HEIGHT IS REDUCED TO 44 INCHES (1118MM) FOR FORWARD APPROACH, OR 46 INCHES (1168MM) FOR SIDE APPROACH, PROVIDED THE OBSTRUCTION IS NO MORE THAN 24 INCHES (610MM) IN DEPTH. PHYSICAL BARRIERS OR OBSTRUCTIONS SHALL NOT EXTEND MORE THAN 25 INCHES (635MM) FROM THE WALL BENEATH A CONTROL.

WIRE SCHEDULE AND NOTES

LOAD PER PH (KVA)	WIRE SIZE (AWG)	MAXIMUM LENGTH OF BRANCH CIRCUIT PER UTILIZATION VOLTAGE			NOTES AND REMARKS
		(120, 1PH, MAX V.D. 3%)	(240, 1PH, MAX V.D. 3%)	(240, 3PH, MAX V.D. 3%)	
< 1.92	# 12	56 FT	85 FT	98 FT	5
	# 10	94 FT	141 FT	163 FT	5
	# 8	144 FT	217 FT	250 FT	5
	# 6	230 FT	345 FT	398 FT	5
< 1.44	# 12	75 FT	113 FT	130 FT	5
	# 10	125 FT	188 FT	217 FT	5
	# 8	192 FT	289 FT	334 FT	5
	# 6	306 FT	460 FT	531 FT	5
< 1.26	# 12	86 FT	129 FT	149 FT	
	# 10	143 FT	215 FT	248 FT	
	# 8	220 FT	330 FT	381 FT	
< 1.08	# 12	100 FT	150 FT	173 FT	
	# 10	167 FT	250 FT	289 FT	
	# 8	256 FT	385 FT	445 FT	
< 0.9	# 12	120 FT	180 FT	240 FT	
	# 10	200 FT	300 FT	347 FT	
< 0.72	# 12	150 FT	225 FT	260 FT	
	# 10	250 FT	376 FT	434 FT	

#	NOTES
1	CONTRACTOR SHALL REFER TO THIS TABLE PRIOR TO START OF BRANCH CIRCUIT ROUGH-IN.
2	CONTRACTOR SHALL USE THE APPROPRIATE WIRE SIZE IN CONJUNCTION WITH THE LENGTH OF THE PROPOSED FIELD VERIFIED ROUTING OF BRANCH CIRCUIT WIRING (INCLUDING VERTICAL & LATERAL RUN, ROUTED PARALLEL/PERPENDICULAR TO THE BUILDING STRUCTURE).
3	SEE PANEL SCHEDULE FOR THE CORRESPONDING KVA LOAD PER PHASE OF A PARTICULAR BRANCH CIRCUIT.
4	RESISTANCE VALUES USED ARE FOR UNCOATED COPPER WIRES IN STEEL CONDUIT. 75 DEGREE C., OPERATING AT 60HZ.
5	THE VALUES IN "120V, 1PH" COLUMN IS TO BE USED FOR GENERAL PURPOSE RECEPTACLE LOADS.

ABBREVIATIONS AND TAGS

ABB.	DESCRIPTION	ABB.	DESCRIPTION
EWH	ELECTRIC WATER HEATER	SD	SMOKE DETECTOR
(E)	EXISTING TO REMAIN	TEL	TELEPHONE
EC	ELECTRICAL CONTRACTOR	TX	TRANSFORMER
FA	FIRE ALARM	TV	TELEVISION
FMT	FLEXIBLE METALLIC TUBING	UAC	UNDER ANOTHER CONTRACT
GC	GENERAL CONTRACTOR	UAS	UNDER ANOTHER SECTION
GFCI	GROUND FAULT INTERUPTER	UON	UNLESS OTHERWISE NOTED
IG	ISOLATED GROUND	V.D.	VOLTAGE DROP
LL	LANDLORD	W	WIRE
LV	LOW VOLTAGE	WP	WEATHERPROOF
AC 1	MECHANICAL UNIT TAG. SEE MECHANICAL DRAWINGS FOR ADDITIONAL DESCRIPTION.	E-4 4	DETAIL TAG. REFER TO DETAIL 4 ON SHEET NUMBER E 4.

ELECTRICAL LIST OF DRAWINGS (LoD):

SHEET TAG	TITLE	SCALE
E 1.00	**ELECTRICAL** SPECIFICATIONS	NTS
E 2.00	GENERAL NOTES AND ABBREVIATIONS	NTS
E 3.00	LIGHTING LAYOUT	1/4"=1'-0"
E 4.00	POWER LAYOUT	1/4"=1'-0"
E 5.00	PHOTOMETRICS LAYOUT	1/4"=1'-0"
E 6.00	EMERGENCY PHOTOMETRICS LAYOUT	1/4"=1'-0"
E 7.00	SINGLE LINE DIAGRAM, GROUNDING DETAILS & PANEL SCHEDULE	NTS

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

NOTES:

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REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

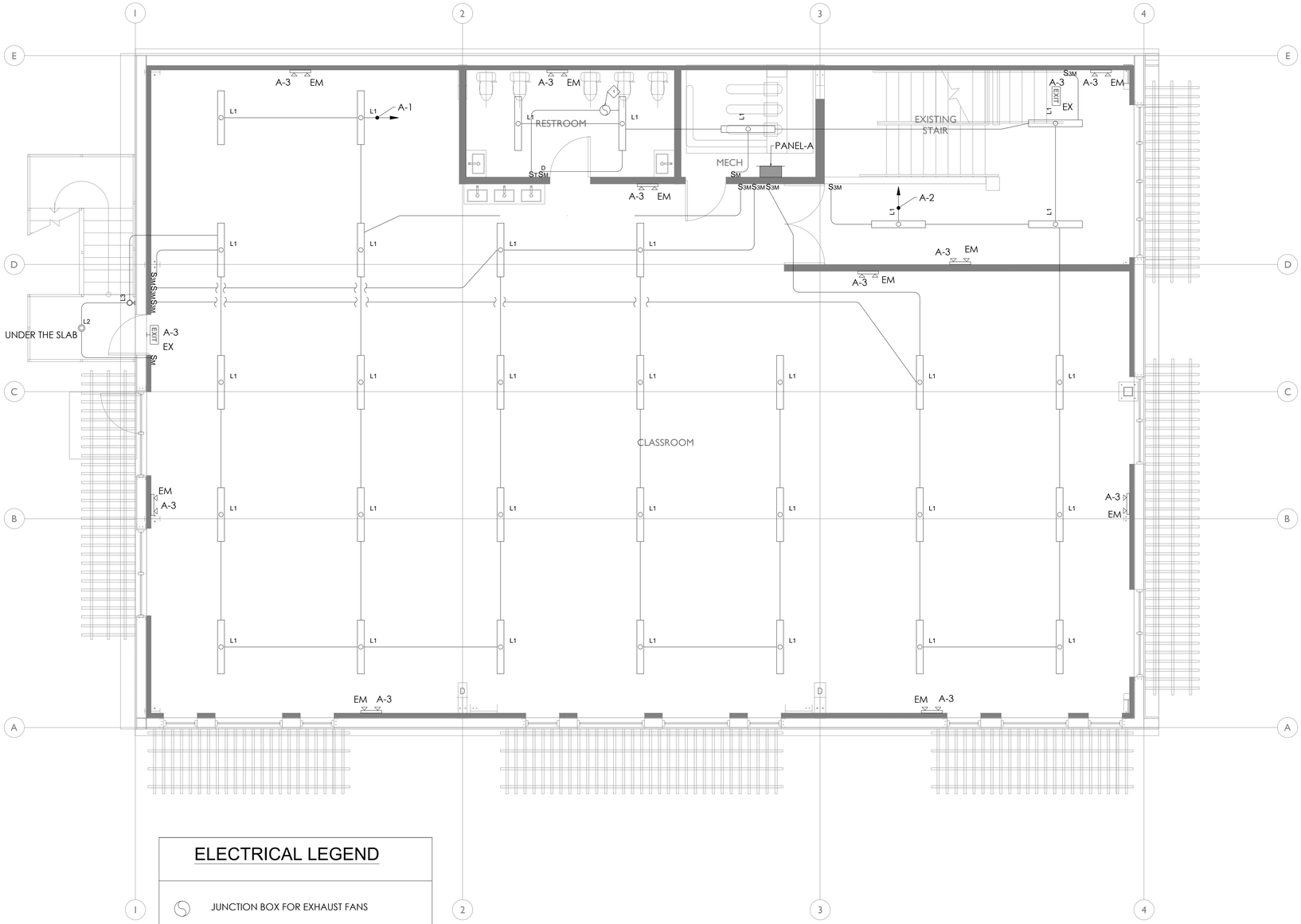
SHEET TITLE:

GENERAL NOTES AND ABBREVIATIONS

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	-.-.	NTS
SHEET #	REV. #	DATE
E 2.00	00	

SEAL

LICENSED PROFESSIONAL ENGINEER
GREGORY MICHAEL DILLETT II
E 21635
Exp: 09/30/24
ELECTRICAL
STATE OF CALIFORNIA



ELECTRICAL LEGEND

- JUNCTION BOX FOR EXHAUST FANS
- SM — OCCUPANCY SENSOR
- D — DIMMER
- S — ONE WAY LIGHTING SWITCH
- S3 — THREE WAYS LIGHTING SWITCH
- EM — EMERGENCY LIGHTING WALL MOUNTED WITH INTERNAL BACK UP BATTERY WITH MINIMUM 90 MINS AUTONOMY
- EX — EXIT SIGN WALL MOUNTED WITH INTERNAL BACK UP BATTERY WITH MINIMUM 90 MINS AUTONOMY WITH 2 HEAD LIGHTS
- C — SELF CONTAINED SMOKE/CARBON MONOXIDE (120 W/BATTERY BACKUP) - CEILING MOUNTED
- S — SMOKE DETECTOR(120 W/BATTERY BACKUP) - CEILING MOUNTED

NOTE-GEN-CENLEFT

TAG	SYMBOL	DESCRIPTION	TYPE	W	V	MOUNT.	MANUF.	MODEL	QUANTITY
L1		RECESSED DOWNLIGHT	LED	29W	120V	SUSP.	PHILIPS	SP342P 36S/940 PSD O L120	33
L2		RECESSED DOWNLIGHT - 6" TO BE WP	LED	15W	120V	REC.	TBD	TBD	1
L3		WALL MOUNTED LIGHT TO BE WP	LED	15W	120V	WALL	LSI INDUSTRIES, INC	XWS-LED-02L-FTW-30-80CRI-BB	1

SHEET NOTES:

1 - PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR EXHAUST FAN

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EL CERRITO CA 94530

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REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

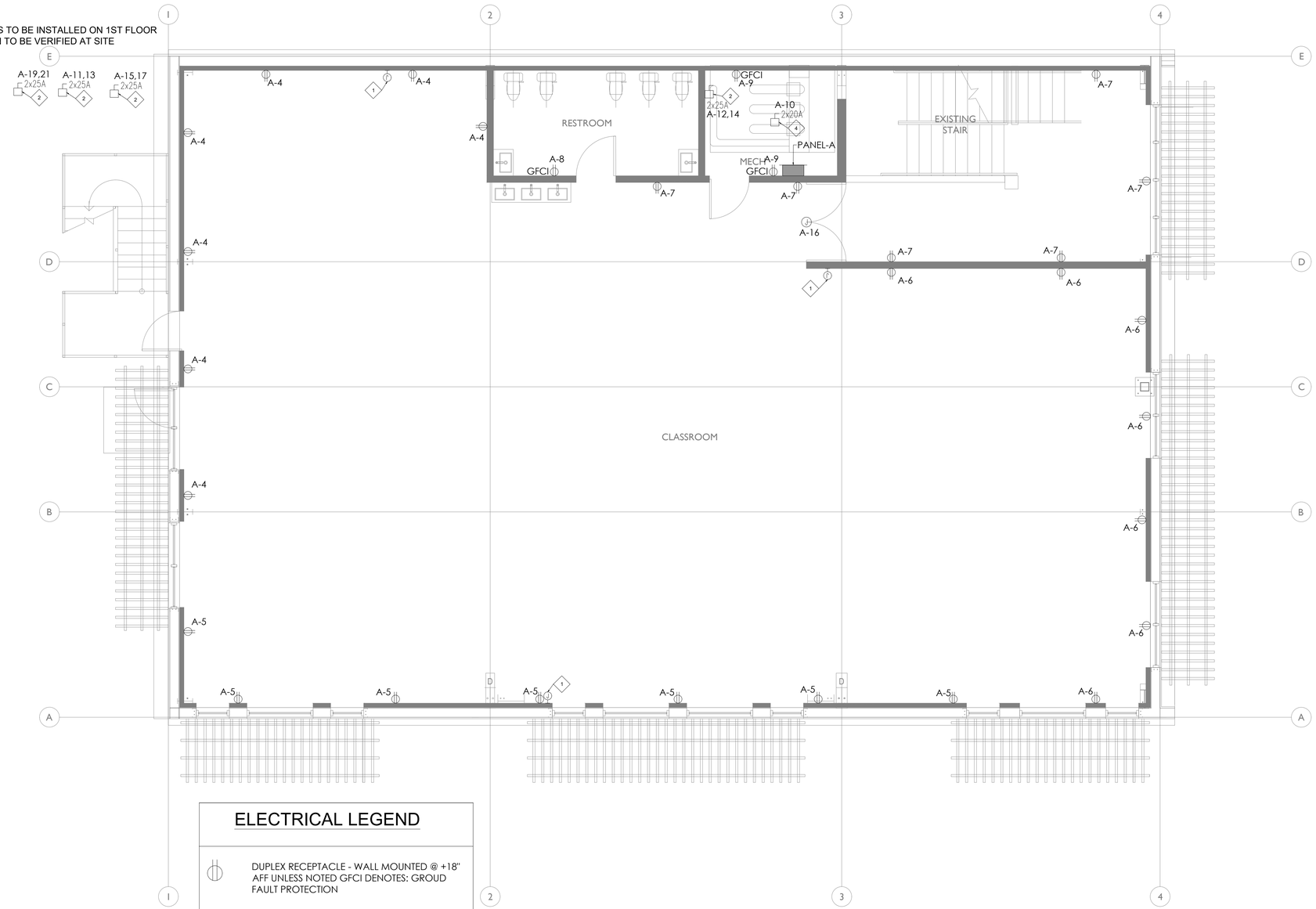
LIGHTING LAYOUT

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	-.-.	1/4"=1'-0"
SHEET #	REV. #	DATE
E 3.00	00	

SEAL

LICENSED PROFESSIONAL ENGINEER
GREGORY MICHAEL GILLETT II
E 21635
Exp: 09/30/24
ELECTRICAL
STATE OF CALIFORNIA

OUTDOOR UNITS TO BE INSTALLED ON 1ST FLOOR
FINAL LOCATION TO BE VERIFIED AT SITE



ELECTRICAL LEGEND

	DUPLEX RECEPTACLE - WALL MOUNTED @ +18" AFF UNLESS NOTED GFCI DENOTES: GROUD FAULT PROTECTION
IG	DUPLEX RECEPTACLE - CEILING MOUNTED IG DENOTES: IG TYPE
	QUADRIPLEX RECEPTACLE - WALL MOUNTED @ +18" AFF UNLESS NOTED GFCI DENOTES: GROUD FAULT PROTECTION
YxXXA	NON-FUSED DISCONNECT SWITCH - SIZE AS INDICATED
J	WALL MOUNTED ELECTRIC JUNCTION BOX
J	CEILING MOUNTED ELECTRIC JUNCTION BOX

SHEET NOTES:

1. PROVIDE HEAVY DUTY DISCONNECT SWITCH FOR INDOOR UNIT POWERED FROM OUTDOOR UNIT
2. PROVIDE NEMA 3R DISCONNECT SWITCH FOR OUTDOOR UNIT
3. PROVIDE NEMA 3R DISCONNECT SWITCH FOR INSTANT. ELECTRIC WATER HEATER
4. PROVIDE NEMA 3R DISCONNECT SWITCH FOR FRESH AIR FAN

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

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REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

POWER LAYOUT

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	-.-.	1/4"=1'-0"
SHEET #	REV. #	DATE
E 4.00	00	

SEAL

LICENSED PROFESSIONAL ENGINEER
GREGORY MICHAEL DILLETT
E 21635
Exp: 09/30/24
ELECTRICAL
STATE OF CALIFORNIA

Luminaire list (Building 1, Classroom)

Index	Manufacturer	Article name	Item number	Fitting	Luminous flux	Maintenance factor	Connected load	Quantity
1	Philips	SM350C 40S/840 PSU PCS L1200	910925868353	1x 40S/840	4000 lm	0.80	30 W	32

#	Name	Parameter	Min	Max	Average	Min/average	Min/max
1	Desk Level	Perpendicular illuminance	14.1 fc	50.6 fc	33.3 fc	0.422	0.278
2	Entrance	Perpendicular illuminance (Adaptive)	5.85 fc	60.3 fc	40.3 fc	0.145	0.097
3	Bathroom	Perpendicular illuminance (Adaptive)	33.0 fc	60.1 fc	50.6 fc	0.653	0.549

CLIENT:

ADDRESS:

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EL CERRITO CA 94530

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REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

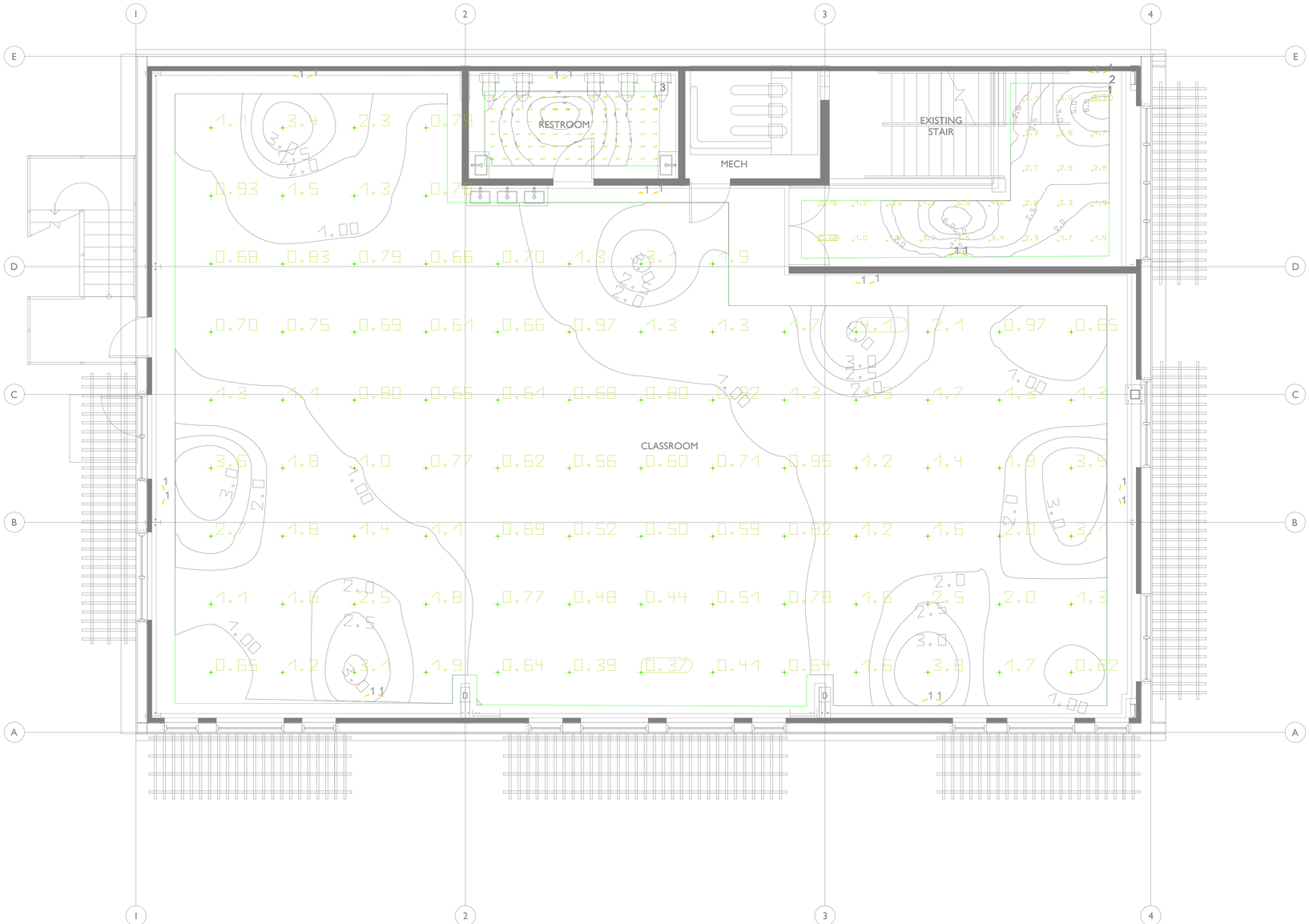
SHEET TITLE:

PHOTOMETRICS LAYOUT

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	-.-.	1/4"=1'-0"
SHEET #	REV. #	DATE
E 5.00	00	

SEAL

LICENSED PROFESSIONAL ENGINEER
GREGORY MICHAEL PULLEN
E 21635
Exp: 09/30/24
ELECTRICAL
STATE OF CALIFORNIA



Luminaire list (Building 1, Classroom)

Index	Manufacturer	Article name	Item number	Fitting	Luminous flux	Maintenance factor	Connected load	Quantity
1	Eaton Emergency Lighting	BeamLite II 2x400lm 3h CGL	BL2MD-E3CGL	1x Emergency mode BL2MD-E3CGL - WB	400 lm	0.80	4.5 W	20

#	Name	Parameter	Min	Max	Average	Min/average	Min/max
1	Desk Level	Perpendicular illuminance	0.37 fc	4.11 fc	1.32 fc	0.279	0.090
2	Entrance	Perpendicular illuminance (Adaptive)	0.63 fc	6.66 fc	2.81 fc	0.225	0.095
3	Bathroom	Perpendicular illuminance (Adaptive)	1.29 fc	5.71 fc	3.05 fc	0.422	0.225

CLIENT:

ADDRESS:

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EL CERRITO CA 94530

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REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

EMERGENCY PHOTOMETRICS LAYOUT

PROJECT #	DRAWN BY	SCALE @ 24"X36"
----	-.-.	1/4"=1'-0"
SHEET #	REV. #	DATE
E 6.00	00	

SEAL

*	LOAD SUMMARY	CL	DF	CONNECTED LOAD A	CONNECTED LOAD B	DEMAND TOTAL
L	Lighting	1.03	1.25	0.93	0.10	1.29
R	Convenience Recept	5.70		2.88	2.82	5.70
H	Heating (Space)	5.00	1.25	2.50	2.50	6.25
C	Cooling		1.00			
A	HVAC	16.07	1.00	8.51	7.56	16.07
P	Process		1.00			
O	Other Continuous		1.25			
K	Kitchen		13.00			
N	Noncontinuous		1.00			
			1.00			
	Total	27.79		14.81	12.98	29.30

Location:

Total Demand Load (KVA)	29.30
Total Demand Current (A)	122.08
Min. Feeder Ampacity (A)	178.19

PANEL A

PANELBOARD DESIGNATION

SYSTEM VOLTAGE	240/120V, 1Φ, 3W
BUS SIZE	125A
SYSTEM TYPE	NORMAL
FEEDER PROT	125A-2P C/B Bus Plug
CONDUCTOR SIZE	1 AWG - #6G CU
CONDUCTOR/PHASE	1
MAINS	125A MCB
SCCR	FULLY RATED
MCB RATING	80%
GROUND FAULT	NO
FEEDER LENGTH (FT)	100
FEEDER V. DROP (%)	1.606
FAULT CURRENT	
KAIC RATING	10
ENCLOSURE	TYPE 1

	DESCRIPTION	*	WIRE	GRD	CB	KVA	A	B	KVA	CB	WIRE	GRD	DESCRIPTION	*	
1	LIGHTING 2ND FLOOR	L	2x 14 AWG	- #14G	15A-1P	0.61	0.93		0.32	15A-1P	2x 14 AWG	- #14G	LIGHTING 2ND FLOOR	L	2
3	EMERGENCY LIGHTING	L	2x 14 AWG	- #14G	15A-1P	0.10		1.36	1.26	20A-1P	2x 12 AWG	- #12G	RECEPTACLES GENERAL USE	R	4
5	RECEPTACLES GENERAL USE	R	2x 12 AWG	- #12G	20A-1P	1.26	2.52		1.26	20A-1P	2x 12 AWG	- #12G	RECEPTACLES GENERAL USE	R	6
7	RECEPTACLES GENERAL USE	R	2x 12 AWG	- #12G	20A-1P	1.08		1.26	0.18	20A-1P	2x 12 AWG	- #12G	RECEPTACLE GFCI RESTROOM	R	8
9	RECEPTACLES GFCI MECH ROOM	R	2x 12 AWG	- #12G	20A-1P	0.36	1.31		0.95	20A-1P	2x 12 AWG	- #12G	FAF	A	10
11	OU-01	A	3x 10 AWG	- #10G	25A-2P	2.52		5.02	2.50	25A-2P	3x 10 AWG	- #10G	IEWH	H	12
13		A				2.52	5.02		2.50					H	14
15	OU-02	A	3x 10 AWG	- #10G	25A-2P	2.52		2.82	0.30	20A-1P	2x 12 AWG	- #12G	DOOR OPENER	R	16
17		A				2.52	2.52						SPACE		18
19	OU-03	A	3x 10 AWG	- #10G	25A-2P	2.52		2.52					SPACE		20
21		A				2.52	2.52						SPACE		22
23	SPACE												SPACE		24
		(KVA)													
					Total Connected Load		14.81	12.98							

SINGLE-LINE DIAGRAM KEYED NOTES

(1) VERIFY WITH SERVICE PLANNER FOR AIC RATING AND ELECTRICAL INFORMATION BEFORE ISSUING ANY BID. NOTIFY ENGINEER IMMEDIATELY IF MAJOR DISCREPANCIES OCCURS.

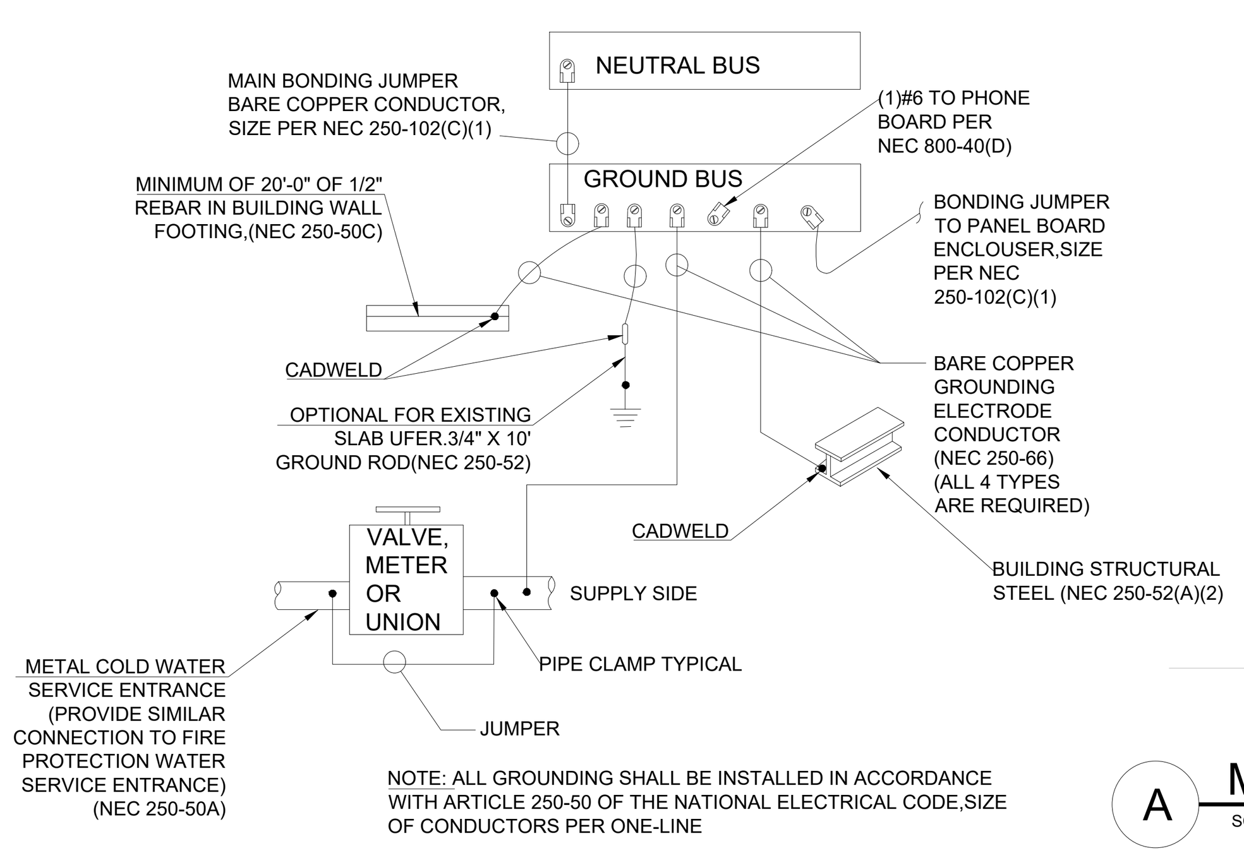
SINGLE-LINE DIAGRAM GENERAL NOTES

1. THE MAXIMUM AVAILABLE FAULT CURRENT IS BASED ON WORST CASE FAULT CURRENT PUBLISHED BY THE

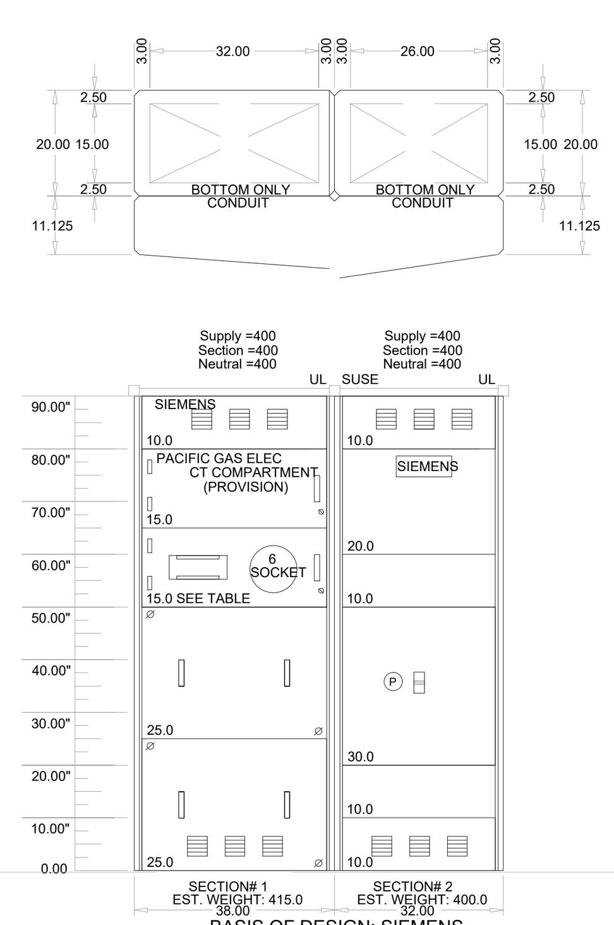
   THE DRAWINGS, CONTACT ELECTRICAL ENGINEER IMMEDIATELY.
2. STUB 1" FUTURE PV CONDUIT FOR SOLAR. COORDINATE WITH SOLAR CONSULTANT FOR ALL ELECTRICAL REQUIREMENTS.
3. LETTER FOR SHORT CIRCUIT CURRENT VALUE FROM UTILITY COMPANY SHALL BE AVAILABLE AT THE JOB SITE FOR INSPECTION.
4. ELECTRICAL EQUIPMENT SHALL BE LISTED BY THE CITY, WHERE THE PROJECT IS LOCATED, RECOGNIZED ELECTRICAL TESTING LABORATORY OR APPROVED BY THE DEPARTMENT.
5. ALL NEW CIRCUIT BREAKERS, FUSIBLE SWITCHES AND ELECTRICAL EQUIPMENT SHALL BE FULLY RATED HAVING A SHORT-CIRCUIT (AIC) RATING EXCEEDING THE AVAILABLE SHORT-CIRCUIT CURRENT AT THE EQUIPMENT. SERIES RATING OF EQUIPMENT IS NOT ALLOWED.
6. ALL SWITCHBOARDS AND DISTRIBUTION BOARDS SHALL HAVE:
   - 6.1. TIN-PLATED ALUMINUM BUSSING WITH RECTANGULAR CROSS SECTION. HORIZONTAL AND VERTICAL BUSSING SHALL HAVE MINIMUM WITHSTAND RATING EQUAL TO THE AVAILABLE FAULT CURRENT BUSSING SHALL BE FULL LENGTH AND SHALL HAVE PROVISIONS FOR FUTURE EXTENSIONS. ALL INDICATED. ALL VERTICAL AND HORIZONTAL BUSSING SHALL BE RATED AT FULL CAPACITY IN ALL SWITCHBOARD AND DISTRIBUTION BOARD SECTIONS. PROVIDE 100% NEUTRAL BUSSING MINIMUM UNLESS OTHERWISE NOTED. PROVIDE FULL LENGTH GROUND BUS AND, WHERE INDICATED ON PLANS, ISOLATED GROUND BUSSING. PROVIDE REAR WIRE WAY IN ALL SWITCHBOARD SECTIONS.
   - 6.2. LUGS SUITABLE FOR USE WITH COPPER OR ALUMINUM CONDUCTORS LISTED FOR USE WITH 75 DEGREE CELSIUS AMPACITY CONDUCTORS.
   - 6.3. PERMANENT PLACARD(S) MARKED PER THE SPECIFICATIONS AND PER NEC (OR CEC-WHERE ADOPTED) SECTIONS 225.37, 230.2(E), 690.56, 692.56, 700.7, 701.7, 702.7, AND 705.10 DENOTING THE PRESENCE OF ADDITIONAL SERVICES, PHOTOVOLTAIC SYSTEMS, FUEL CELLS, EMERGENCY OR STAND-BY POWER SOURCES AS APPLICABLE.
   - 6.4. SINGLE LINE DIAGRAM SHOWN IS A "FULLY RATED SYSTEM" UNLESS NOTED. OTHERWISE.
   - 6.5. THE MAXIMUM COMBINED VOLTAGE DROP ON BOTH INSTALLED FEEDER CONDUCTORS AND BRANCH CONDUCTORS TO THE FARTHEST CONNECTED LOAD OR OUTLET SHALL NOT EXCEED 5 PERCENT.
   - 6.6. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED, LISTED, OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY ACCREDITED BY THE "UNITED STATES OCCUPATIONAL SAFETY HEALTH ADMINISTRATION".

ALL SERVICE IS EXISTING TO REMAIN
JUST ADDING A NEW SUB-PANEL ON THE 2ND FLOOR THAT
IS FED FROM THE MAIN PANEL P

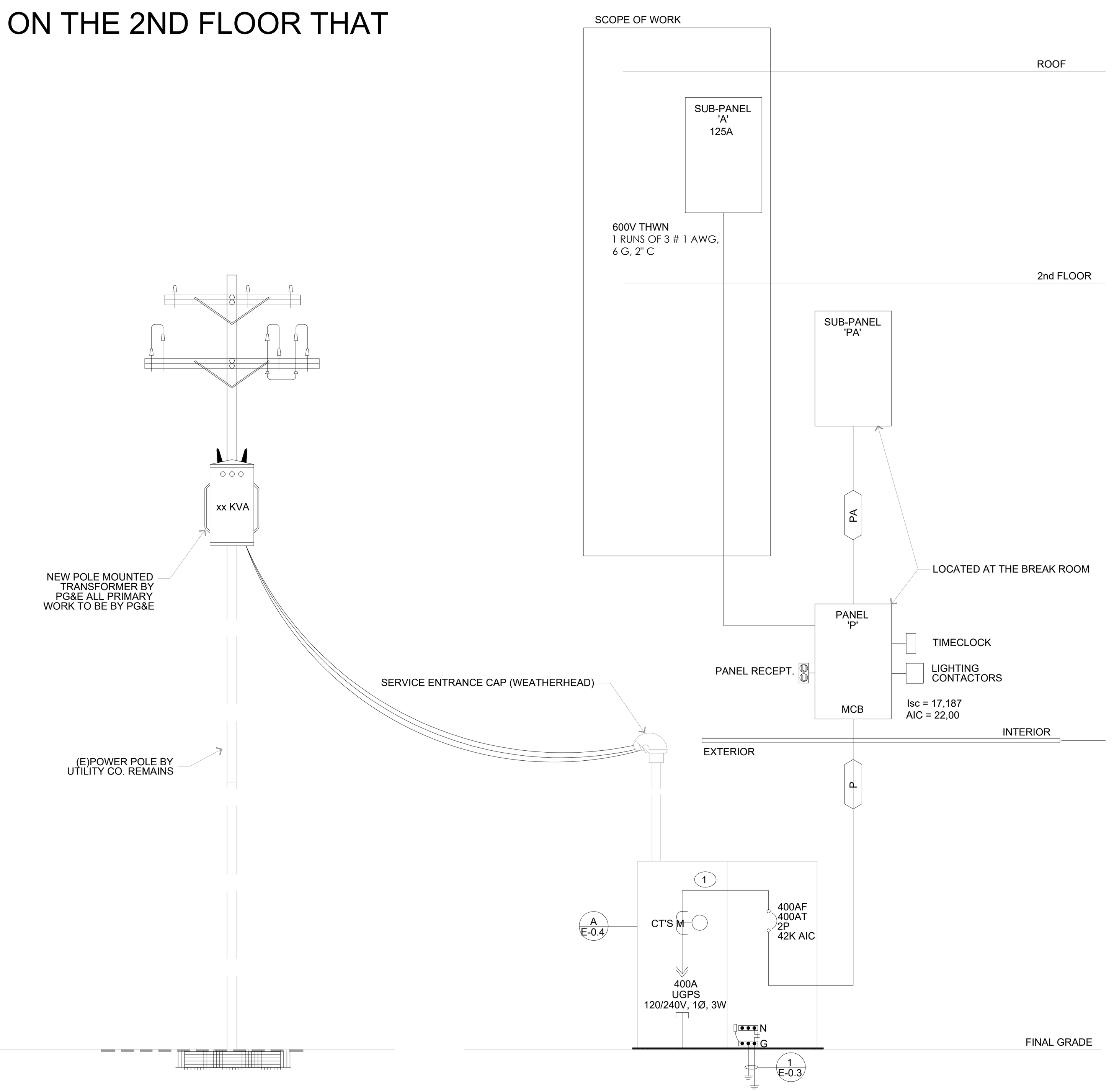
LOAD SUMMARY	CONNECTED KVA	DESIGN FACTOR	DESIGN DEMAND KVA
LIGHTING	6.053	1.25	7.56625
RECEPTACLES	29.48	NEC	21.688
SIGN	0	1.25	0
WATER HEATER	23.9	1.0	23.9
HVAC - LARGEST	5.472	1.25	6.8
HVAC - REMAINING	31.065	1.0	14.96
HVAC - NO COINCIDENT	0	1.25	0
MISCELLANEOUS	0	1.0	0
TOTAL KVA	95.97		74.91
TOTAL AMPS	399.875		312.125



GROUNDING DETAIL
EXISTING TO REMAIN



A MAIN SWITCHBOARD ELEVATION
SCALE: 1/2" : 1'-0"
EXISTING TO REMAIN



SINGLE LINE DIAGRAM

CLIENT:

ADDRESS:

729 KEARNEY ST.
EL CERRITO CA 94530

CONFIDENTIALITY STATEMENT:

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REV. #	DESCRIPTION	DATE	BY

PROJECT:

PRESCHOOL RENOVATION

SHEET TITLE:

SINGLE LINE DIAGRAM, GROUNDING DETAILS & PANEL SCHEDULE

PROJECT #	DRAWN BY	SCALE @ 24"X36"
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SHEET #	REV. #	DATE
E 7.00	00	

SEAL

GUNKEL ARCHITECTURE
1295 59TH STREET EMERYVILLE CALIFORNIA 94608 (510)984-1112
WWW.GUNKELARCHITECTURE.COM

Date: November 07, 2024

To: Jeff Ballentine
El Cerrito Community Development Department
Planning Division
10890 San Pablo Avenue, El Cerrito, CA 94530
planning@ci.el-cerrito.ca.us

From: Gunkel Architecture
1295 59th Street Emeryville, CA 94608
Principal: Brad Gunkel / Project Manager: Amber Baker
brad@gunkelarchitecture.com / amber@gunkelarchitecture.com

RE: **Design Review Submittal for property located at 729 Kearney**
Little Lamb Bilingual Pre-school
Project Summary
Findings for Approval

PROJECT SUMMARY:
Project Owner statement:

The demand for high-quality Chinese immersion preschools in our area has increased steadily, with our enrollment numbers rising throughout the year. We are now close to reaching our current capacity. Initially, we designated the second floor as storage with the possibility of future conversion to classrooms, as we didn't anticipate this level of demand so soon. However, to better accommodate more families in our community, we are now planning to convert the second floor into additional space for our program in the near future.

This expansion will allow us to serve 82 more students to meet the community's growing need for bilingual early education. No other changes are being done to the building, the program, or its administration (please see permit plans, the updated Traffic Demand Management Plan, and the Design Review Submittal for our program dated 3/8/2021 submitted to Jeff Ballentine at the El Cerrito Community Development Department Planning Division for additional detail).

We are applying for a Use Permit to convert the second story of the existing building at 729 Kearney Street, El Cerrito, CA, to additional childcare for the campus of Little Lamb Bilingual Preschool (LLBP).

FINDINGS FOR APPROVAL

The project is within the San Pablo Avenue Specific Plan area (TOMIMU and TOHIMU zoning districts). Below, we have summarized how the proposal satisfies the findings required by Section 2.02.07.02.03 of the Plan.

2.02.07.02.03A

The location, size, design, and operating characteristics and/or use of the proposed project will be harmonious with the surrounding neighborhood and compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood:

The proposal does not change the design or use of the existing building except for a new rear exterior stair that is not visible from the street and will match the aesthetic of the existing building.

2.02.07.02.03B

The location and design of the proposal will provide a convenient and functional living, working, shopping, or civic environment that will be an attractive amenity for the city:

The proposal does not change the design or use of the existing building. It simply adds additional, much-needed childcare capacity to an existing facility.

2.02.07.02.03C

The proposal provides an over-arching public benefit:

The proposal adds additional, much-needed childcare capacity to an existing facility.

2.02.07.02.03D

The proposal is consistent with the purposes of the Transect Zone where it is located and conforms in all significant respects with the Specific Plan, El Cerrito General Plan, and with any other applicable policy or plan adopted by the City Council.

The proposed use as a day care center is consistent with the purposes of the Transit-Oriented Medium Intensity Mixed Use Transect Zone where the project is located and conforms in all significant respects with the Specific Plan, El Cerrito General Plan, and with any other applicable policy or plan adopted by the City Council. The proposed design complies with height, setback, façade transparency, density and parking (as noted in the attached TDM Plan) requirements.

Please don’t hesitate to call if you have any questions regarding our proposed development or if you would like any further information.

Thank you for your consideration.

Brad Gunkel

Principal, Gunkel Architecture

ATTACHMENT 4

Planning Commission Resolution PC 2021-14

APPLICATION NO. PL21-0048

A RESOLUTION OF THE CITY OF EL CERRITO PLANNING COMMISSION APPROVING A CONDITIONAL USE PERMIT FOR A NEW DAY CARE CENTER TO BE LOCATED AT 729 KEARNEY STREET AND EXCEPTION TO THE BUFFER YARD STANDARDS OF CHAPTER 19.25

WHEREAS, the site is located at 729 Kearney Street;

WHEREAS, the existing Assessor's Parcel Number of the site is 503-392-026;

WHEREAS, the site is located within the San Pablo Avenue Specific Plan Area;

WHEREAS, the General Plan land use classification of the site is Transit-Oriented Mid-Intensity Mixed Use;

WHEREAS, the zoning district of the site is Transit-Oriented Mid-Intensity Mixed Use and the project is located on a Neighborhood Street;

WHEREAS, on March 9, 2021, Amber Baker and Brad Gunkel of Gunkel Architecture submitted, on behalf of property owner Bingyi Yu, an application for a Use Permit for a Day Care Center land use and Tier II Design Review for development of a vacant site;

WHEREAS, on October 20, 2021, the Planning Commission, after due consideration of all evidence and reports offered for review, does find and determine the following:

1. The project is Categorically Exempt from the California Environmental Quality Act (CEQA), pursuant to CEQA Guidelines Section 15332 (Infill Development). Substantial evidence in the record establishes that the project: (a) is consistent with the applicable general plan designation and all applicable general plan policies as well with applicable zoning designation and regulations; (b) occurs within city limits on a project site of no more than five (5) acres substantially surrounded by urban uses; (c) has no value as habitat for endangered, rare, or threatened species; (d) would not result in any significant effects relating to traffic, noise, air quality, or water quality; and (e) can be adequately served by all required utilities and public services. The project is also not subject to any of the exceptions at CEQA Guidelines Section 15300.2, including location, cumulative impacts, significant effects, scenic highways, hazardous waste sites, and historic resources.

2. The project will implement the following policies of the El Cerrito General Plan: LU2.3: Local Employment Opportunities, LU2.1: San Pablo Avenue Specific Plan Area, LU4.2: Availability of Goods and Services, Policy LU6.2: Circulation Alternatives, Policy CD2.3: Streetscape Alternatives, Policy H2.3, Policy T1.3: Bicycle Circulation, Policy T1.4: Pedestrian Circulation.

3. As required by San Pablo Avenue Specific Plan Section 2.02.07.02.03, all the required findings for granting of a Use Permit can be made, as follows:

    a. The project's physical design features (e.g., building location, size) are compliant with the San Pablo Avenue Specific Plan.

        The project is non-compliant with the buffer yard standards of Chapter 19.25 (Day Care Centers); however, an exception under Section 19.25.090(E) is appropriate since the project's design

features are responsive to the existing context. Namely, the abutting residential buildings are placed very close the project site's northern/southern property line, are configured to orient towards Kearney Street, and exclude fenestration on elevations facing the project. For these reasons, not result in conflict between land uses on adjoining lots.

Concerning operating characteristics, the project includes hours of operation consistent with Zoning Ordinance Section 19.20.060(B). As examined in the staff report, the circulation aspects of the project have been evaluated considering the joint use of Kearney Street for student drop-off and pick-up. Staff's analysis concludes the project can operate in harmony with the adjacent school and surrounding neighborhood.

For all the above reasons, the project will be harmonious and compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood.

b. The project will result in a new day care center at a location convenient to both residents of and employees within El Cerrito. This convenience is achieved by the site's accessibility by multiple transportation modes including by walking, bicycling, transit (AC Transit and BART), and vehicles. The project also contributes to a functional living environment by locating in proximity to similar (e.g., school) and compatible (e.g., residential, commercial) land uses.

c. The project provides a service vital to a functional economy: childcare for workers. Providing this service in El Cerrito increases the ability for parents to participate in the workforce, generally. For this reason, the project provides an over-arching public benefit.

d. The project conforms to all standards of the Specific Plan and, as noted in these herein, is consistent with the El Cerrito General Plan. Where the project does not conform to prescriptive buffer yard standards for Day Care Center uses, there is an adequate basis to support the granting of an exception, as provided for.

NOW, THEREFORE, BE IT RESOLVED that after careful consideration of all maps, facts, exhibits, correspondence, and testimony, and other evidence submitted in this matter, and, in consideration of the findings, the El Cerrito Planning Commission hereby approves Application No. PL21-0048, subject to the following conditions:

Planning Division:

Standard Conditions of Approval:

1. The project will be constructed substantially in conformance with the plans dated October 1, 2021 except as noted at Condition No. 9 below. Minor changes may be approved by the Zoning Administrator. All improvements shall be installed in accordance with these approvals. Once constructed or installed, all improvements shall be maintained as approved.

2. If Applicant constructs the building or makes improvements in accordance with this approval but fails to comply with any of the Conditions of Approval or limitations set forth in these Conditions of Approval and does not cure any such failure within a reasonable time after notice from the City of El Cerrito, then such failure shall be cause for non-issuance of a certificate of occupancy, revocation or modification of these approvals or any other remedies available to the City.

3. These Conditions of Approval shall apply to any successor in interest in the property and Applicant shall be responsible for assuring that the successor in interest is informed of the terms and conditions of this approval.

4. If not used, this approval shall expire two years from the date of this action.

5. The applicant shall share the conditions of approval with their general contractor for the project. The general contractor shall sign a copy of the conditions of approval to acknowledge that he/she is aware of all these conditions of approval and will comply as directed. Prior to the issuance of a building permit, this signed copy shall be returned to the planning and building division and kept as part of the project file. The conditions of approval shall be reviewed at the mandatory pre-construction meeting held between the City and the General Contractor. A copy of the conditions of approval shall be maintained on the project site at all times during construction.

6. Prior to issuance of building permit, the applicant shall demonstrate compliance with Municipal Code Chapter 13.50 (Art in Public Places) to the satisfaction of the Zoning Administrator. The project shall be fully compliant with Chapter 13.50 prior to issuance of Certificate of Occupancy.

7. A construction staging plan shall be submitted to the Zoning Administrator for review and approval prior to the issuance of a building permit. The construction staging plan shall illustrate where the construction equipment will be staged and the location of parking for the construction employees. This construction and staging plan may also require the submission of a Temporary Use Permit to allow this use.

Project Specific Conditions of Approval:

8. Consistent with the purposes and authority granted by Zoning Ordinance Section 19.34.050, this approval authorizes a Day Care Center land use consistent with the following operational parameters:

    a. Enrollment of 72 students.

    b. Hours of Operation that are 7:00 a.m. to 7:00 p.m., Monday through Friday, but inclusive of the drop-off limitation of Condition No. 8.d below.

    c. Outdoor play that does not occur before 8:00 a.m.

    d. Student drop-off that starts at 8:30 a.m. except that early drop-off may occur between 7:00 a.m. and 8:30 a.m. when either: (i) an additional fee (i.e., in addition to regular tuition) is charged; or (ii) it is related to delivering older siblings to school (e.g., Fairmount Elementary School.

    Changes to these parameters are subject to the procedures at Zoning Ordinance Section 19.32.110.

9. All curb-cuts and driveways along the project site frontage at Kearney Street shall be removed and replaced with a raised concrete curb.

10. This approval documents and affirms the Zoning Administrator's approval of a Transportation Demand Management Plan (TDM) Plan, pursuant to San Pablo Avenue Specific Plan Section 2.05.08.05(B). The TDM measures identified in the Plan shall be carried out for the duration of the project. TDM measures may be modified by the Zoning Administrator as needed to improve effectiveness.

11. This approval expressly authorizes the use of the building's second floor for storage purposes only. The applicant is hereby advised that use of the second floor for any other purpose (e.g., additional classrooms) is subject to further review under multiple policies and codes of the City of El Cerrito. These may include, but are not limited to, the El Cerrito General Plan, the San Pablo Avenue Specific Plan (e.g., Use Permit Amendment), Municipal Code Chapter 16 (Building and Construction) (e.g., Building Code, Fire Code), and federal and state Americans with Disabilities Act standards. Prior to

granting this approval, the applicant has been apprised of the likely terms of this approval and, should the second floor be used for other purposes such as classrooms, that potential building modification(s) are necessary to comply with construction codes. Such compliance could include improvements with substantial costs and include additional means of egress through means such as additional stairs, an elevator, and/or additional pathways and/or doors.

Conditions based on applicable mitigation measures from the San Pablo Avenue Specific Plan Program EIR:

12. Aesthetics and Visual Resources. (Mitigation 4.2): Regarding reflective building materials, for all future development in the Specific Plan area, facades shall be of non-reflective materials, and windows shall incorporate non-reflective coating.

13. Air Quality (Mitigation Measure 5.1): Implement the following BAAQMD-recommended measures to control particulate matter emissions during construction. City staff will spot check that these measures are being implemented throughout the construction phase of the project. These measures reduce diesel particulate matter PM2.5 and PM10 created from construction to ensure that short-term health impacts to nearby sensitive receptors are avoided or reduced:

    Dust (PM2.5 and PM10) Control Measures:

    a. Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.
    b. Cover all hauling trucks or maintain at least two feet of freeboard.
    c. Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.
    d. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously graded areas that are inactive for 10 days or more).
    e. Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.
    f. Limit traffic speeds on any unpaved roads to 15 mph.
    g. Replant vegetation in disturbed areas as quickly as possible.
    h. Suspend construction activities that cause visible dust plumes to extend beyond the construction site.
    i. Post a publicly visible sign(s) with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

    Additional Measures to Reduce Diesel Additional Measures to Reduce Diesel Particulate Matter and PM2.5 and other construction emissions:

    j. The developer or contractor shall provide a plan for approval by the City or BAAQMD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOX reduction and 45 percent particulate reduction compared to the most recent CARB fleet average for the year 2011.
    k. Clear signage at all construction sites shall be posted indicating that diesel and gasoline equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were on-site or adjacent to the construction site.

l. The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors).
m. Properly tune and maintain equipment for low emissions

14. Air Quality (Mitigation Measure 5.2): Prior to issuance of building permit the applicant shall complete a project-level construction health risk assessment to the satisfaction of the Zoning Administrator. This assessment shall be completed either through screening or refined modeling to identify impacts and, if necessary, include performance standards and industry-recognized measures to be accomplished through, though is not limited to, the following measures:

    a. Construction equipment selection.
    b. Use of alternative fuels and engine retrofits temporary line power or electric equipment.
    c. Modified construction schedule; and
    d. Implementation of BAAQMD Basic and/or Additional Construction Mitigation Measures for control of fugitive dust.

15. Biological Impacts (Mitigation Measure 6.1): Removal of trees, shrubs, or weedy vegetation between February 1 and August 31 shall require a survey for nesting birds by a qualified wildlife biologist to the satisfaction of the Zoning Administrator. The survey shall be conducted no sooner than 14 days prior to the start of removal of trees, shrubs, or weedy vegetation. Survey results shall be valid for 21 days following the survey. Any removal of trees, shrubs, or weedy vegetation more than 21 days after a survey shall require a new survey. The area surveyed shall include all construction sites, access roads, and staging areas, as well as areas within 150 feet outside the boundaries of the areas to be cleared or as otherwise determined by the biologist.

    In the event that an active nest is discovered in the areas to be cleared, or in other habitats within 150 feet of construction boundaries, clearing and construction shall be postponed for at least two weeks or until a wildlife biologist has determined that the young have fledged (left the nest), the nest is vacated, and there is no evidence of second nesting attempts.

    A qualified biologist shall conduct preconstruction surveys for bats and suitable bat roosting habitat at work sites where culverts, structures and/or trees would be removed or otherwise disturbed prior to the initiation of construction. If bats or suitable bat roosting habitat is detected, CDFW shall be notified immediately for consultation and possible on-site monitoring.

    The survey for nesting birds, bats and suitable bat roosting habitat may be conducted simultaneously.

16. Prior to the issuance of a building permit, the applicant shall implement a program that includes the following elements:

    a. Archeological resource identification training procedures for construction personnel
    b. Procedures for reporting archeological discoveries

17. Historic and Cultural Resources (Mitigation Measure 7.2): If subsurface archeological or cultural resources are encountered during ground-disturbing activities, work in the immediate vicinity shall be stopped and a qualified archaeologist shall be retained to evaluate the finds following the procedures described in Mitigation Measure 7-3 of the San Pablo Avenue Specific Plan Environmental Impact Report. Project personnel shall not collect cultural resources. If human remains are found, special rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 15126.4(b) shall apply, and there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Contra Costa County Coroner has been

notified of the remains and has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

18. Paleontological Resources (Mitigation Measure 7.3): The applicant shall implement a program that includes the following elements:

    a. Paleontological resource identification training procedures for construction personnel
    b. Spot-checks by a qualified paleontological monitor of all excavations deeper than seven feet below ground surface.
    c. Procedures for reporting paleontological discoveries and their geologic context.

    If subsurface paleontological resources are encountered, excavation shall halt in the vicinity of the resources, and the project paleontologist shall evaluate the resource and its stratigraphic context. The monitor shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. During monitoring, if potentially significant paleontological resources are found, "standard" samples shall be collected and processed by a qualified paleontologist to recover micro vertebrate fossils. If significant fossils are found and collected, they shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of material collected and identified shall be provided to a local museum repository with the specimens. Significant fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a local museum repository for permanent curatorship and storage. A report documenting the results of the monitoring and salvage activities, and the significance of the fossils, if any, shall be prepared and submitted to the Zoning Administrator.

19. Geology and Soils (Mitigation Measure 8.1): As required by the Building Official, subject to City review and approval, the applicant shall complete and implement the geotechnical mitigation recommendations identified in the required site-specific geotechnical investigations and engineering studies, in coordination with City grading permit and building permit performance standards.

20. Noise (Mitigation 13.2): New commercial development proposed in the same building as or adjacent to residential development could result in noise levels exceeding City standards.

    a. Noise levels at residential property lines from commercial development shall be maintained not in excess of the General Plan and municipal code limits for the Cities of El Cerrito and Richmond. The approval of the commercial development shall require a noise study demonstrating how the business--including loading docks, refuse areas, and ventilation systems would meet these requirements and would be consistent with the respective City's noise standards.
    b. Ensure that noise-generating activities, such as maintenance and loading and unloading, are limited to the hours of 7:00 AM to 9:00 PM.

21. Noise and Land Use Compatibility/ Construction Noise (Mitigation Measure 13.3): Construction equipment shall be well-maintained and used judiciously to be as quiet as practical. The following measures shall be implemented to reduce noise from construction activities:

    a. Equip all internal combustion engine-driven equipment with mufflers that are in good condition and appropriate for the equipment.

b. Utilize "quiet" models of air compressors and other stationary noise sources where technology exists.
c. Locate stationary noise-generating equipment as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
d. Prohibit unnecessary idling of internal combustion engines.
e. Pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.
f. Construct solid plywood fences around construction sites adjacent to operational business, residences, or noise-sensitive land uses.
g. If noise conflicts occur which are not irresolvable by proper scheduling, a temporary noise control blanket barrier shall be erected, as determined to be necessary by the Zoning Administrator, along building facades facing construction sites.
h. Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.
i. Construction activities (including the loading and unloading of materials and truck movements) and excavating, grading, and filling activities (including warming of equipment motors) shall be limited to the hours of 7:00 AM to 6:00 PM on weekdays and to the hours of 9:00 AM and 5:00 PM on Saturdays. Work shall be prohibited on Sundays and Holidays.
j. Businesses, residences, or noise-sensitive land uses adjacent to construction sites shall be notified of the construction schedule in writing.
k. Designate a "construction liaison" who would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.

22. Noise and Land Use Compatibility/Construction Noise (Mitigation 13-4): The following measures are recommended to reduce vibration from construction activities:

a. Avoid impact pile driving where possible. Drilled piles causes lower vibration levels where geological conditions permit their use.
b. Avoid using vibratory rollers and tampers near sensitive areas.
c. In areas where project construction is anticipated to include vibration-generating activities, such as pile driving, in close proximity to existing structures, site-specific vibration studies shall be conducted to determine the area of impact and to present appropriate mitigation measures that may include the following:

i. Identify sites that would include vibration compaction activities (such as pile driving) and have the potential to generate ground-borne vibration, and the sensitivity of nearby structures to ground-borne vibration. Vibration limits shall be applied to all vibration-sensitive structures located within 200 feet of the project. A qualified structural engineer should conduct this task.
ii. Develop a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions.
iii. Design construction contingencies that would be implemented when vibration levels approached the limits.
iv. At a minimum, conduct vibration monitoring during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for more or less intensive measurements.
v. When vibration levels approach limits, suspend construction and implement

contingencies to either lower vibration levels or secure the affected structures.

vi. Conduct post-survey on structures under either of these circumstances: (a) when construction monitoring has indicated high vibration levels or (b) when complaints of damage have been made due to construction activities. Make appropriate repairs or compensation when damage has resulted from construction activities.

Public Works Department:

23. As part of the applications for the Building Permit and Encroachment Permit, the applicant/property owner must replace the approximately first 18 feet of the existing 24-inch RCP storm drainpipe beginning at the Kearney St storm drain inlet towards the angle point and at the wood intrusion based on the CCTV filming submitted to Public Works. Applicant shall also install a new junction box at the angle point and allow for a maintenance access opening with new frame and cover. Applicant shall provide a profile for the pipeline that will be replaced with all the invert elevations and slopes.

24. The applicant has changed the original submitted Stormwater Control Plan for A Small Development Project reporting for a project that creates or replaces between 2,500 and 10,000 square feet to a C.3 Stormwater Control Plan for larger projects. This more substantial report was not required to be submitted by Public Works, but rather the prior version of report needed to be fully completed to include the required plan sheet and data. The bio retention basin area is acceptable as shown, however, as part of the Building Permit application, the applicant will be required to refine the design and details to treat the appropriate amount of impervious area. Additionally, as part of the Building Permit application, the applicant must submit the updated Stormwater Control Plan for A Small Development Project (report and including Plan Sheet C4.4) completing the checklist for each stormwater runoff reduction measure selected and correctly calling out the Best Management Practice (BMP).

25. Following up on comment above, the plan set submitted on September 18 changed how stormwater is discharged into the bio retention area and it appears to be discharged below the level of the bio-retention soil. As part of the Building Permit application, the applicant shall revise the piping so the discharge of stormwater from at least a portion of the building roof and/or the proposed hardscape is discharged above the bio retention soil and stormwater is adequately treated through bio retention area shown.

26. The project will require that the property owner enter into an Easement Agreement with the City for the existing storm drain facility on this property. As part of the Building Permit application, the applicant shall provide a Plat Map and Legal Description, prepared by a licensed surveyor, for the future storm drain easement to provide City access and facilitate operation, inspection, maintenance, repair, removal, and replacement of the storm drainpipe on this private property as may be needed in the future. The Plat Map must identify the surveyed location of the existing storm drainpipe, and the easement shall be of a minimum of 10-ft on each side of the pipeline. All the proposed improvements above the storm drain easement such as fencing, gate, concrete flatwork and curbing improvements will have to be listed on this future easement, and costs for the removal of any of these improvements shall be the sole expense of the owner upon notice from the City regarding the City's need to access the easement area, as well as solely responsible for the costs of removing and restoring any permanent improvements, if it cannot be relocated, as a result of the City's activities in the easement area. Costs for all the legal and engineering review of the easement documents shall be also carried by owner. The City will provide estimate for the legal easement processing costs and language for the legal easement.

27. As part of the applications for a Building Permit and Encroachment Permit, the applicant must specify that new sidewalk curb drain must comply with the City Standard Detail.

28. As part of the applications for a Building Permit and Encroachment Permit, the applicant must submit a signing, striping, and curb marking plan, prepared by a professional engineer, to implement loading area and short-term parking spaces at the public right of way as identified in the Traffic Impact Study by W-Trans, dated October 13, 2021.

29. The applicant/property owner must implement all recommendations in the Traffic Impact Study prepared by W-Trans, dated October 13, 2021 including:

    a. Pay the City's Transportation Impact Fee. Note all other applicable fees per the City's Master Fee Schedule also apply.

    b. Implement all Transportation Demand Management (TDM) programs and measures, including TDM Plan for 729 Kearney Street prepared by W-Trans, dated April 20, 2021 in accordance with Condition No. 9.

    c. Dedicate staff to monitor the loading area and short-term parking spaces proposed along the project frontage Monday through Friday during pick-up and drop-off activities.

Fire Department:

30. Building construction shall meet current International and California Building & Fire Codes and the El Cerrito Fire Code.

31. A Knox Box rapid entry system shall be provided at all main entrances with keys for all common areas.

32. Any electronic gates installed shall be equipped with Knox Key switch system.

33. Any non-electric gates installed shall have Knox Box next to gate(s) with all appropriate keys.

34. All exit doors shall be a minimum of 36-inch unobstructed width.

35. All exit doors shall have panic hardware installed.

36. All stairwells shall be designed for easy exiting to the outside of the building.

37. Escape or rescue windows shall be installed in accordance with CFC 1030.

38. A minimum of one (1) 2A-20BC fire extinguisher shall be provided in each room and be located to provide to allow access within 75' from anywhere in the room.

39. Fire extinguishers shall be mounted on the wall with a sign visible when standing, showing location.

40. Manual activation switch shall be located near the exit door.

41. Fire suppression system shall be tied into the alarm system.

42. Type K fire extinguisher shall be provided.

43. Automatic Fire Sprinklers shall be installed throughout the building on both levels.

44. Fire sprinkler plans shall be submitted for review, approval, and permit under separate cover.

45. Fire riser and FDC locations shall be submitted for review and approval.

46. Fire FDC shall be in an acceptable for fire department for emergency operations.

47. Plans for fire service underground shall be submitted for review, approval and permit under separate cover.

48. A fire hydrant to be located within 75' of the FDC.

49. Provide code analysis of required total fire flow.

50. Based on required fire flow, show on plans the number of fire hydrants required and locations based on maximum spacing requirements.

51. A supervised fire alarm system shall be provided that monitors the fire riser and water flow system, smoke and CO detectors.

52. Pull stations shall be provided as required by code.

53. Smoke detectors shall be installed in each classroom, hallway, kitchen and storage area.

54. Smoke detectors shall be 120-volt AC powered with battery backup.

55. Smoke detectors shall be interconnected.

56. Carbon monoxide detectors shall be installed in each classroom and on every floor.

57. Carbon Monoxide detectors shall be installed in accordance with NFPA 720.

58. Carbon Monoxide alarms shall be 120-volt AC powered with battery backup and shall be interconnected with the smoke detectors.

59. All electrical breakers shall be labeled.

60. All major equipment to be labeled with circuit identification

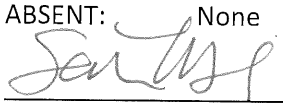
61. Approved address numbers that are at least 6" tall shall be provided in such a position to be plainly visible and legible from the street fronting the property.

62. Address shall be either internally or externally illuminated.

CERTIFICATION

I certify that this resolution was adopted by the El Cerrito Planning Commission at a regular meeting held on October 20, 2021, upon motion of Commissioner Mendez, second by Commissioner Navarrete:

AYES:	Chair Hamilton, Vice Chair Mendez, Members Bloom, Crump, Gillett, Klein, and Navarrete
NOES:	None
ABSTAIN:	None
ABSENT:	None



Sean Moss, AICP
Planning Manager

ATTACHMENT 5

Community Development Department
Planning and Building Division
10890 San Pablo Avenue, El Cerrito, CA 94530
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PLANNING COMMISSION STAFF REPORT
October 20, 2021

LITTLE LAMB PRESCHOOL,729 KEARNEY STREET

DETAILS

Application Number: PL21-0048

Applicant: Gunkel Architecture

Location: 729 Kearney Street

APN: 503-392-026

Zoning: Transit-Oriented Mid-Intensity Mixed Use (TOMIMU)

General Plan: Transit-Oriented Mid-Intensity Mixed Use (TOMIMU)

Request: Use Permit for a proposed new two-story building and outdoor play yard for a Day Care Center use.

CEQA: This project is Categorically Exempt from the California Environmental Quality Act, pursuant to CEQA Guidelines Section 15332 (Infill Development).

EXECUTIVE SUMMARY

The proposed project is development of an approximate 0.23-acre vacant site with an approximate 7,500 square foot two-story building and adjoining outdoor play area for purposes of a Day Care Center land use. The proposed use will accommodate pre-kindergarten students that are 18 months old to 5 years old. Hours will be year-round Monday through Friday between 8:00 AM to 6:00 PM except for weekends, federal holidays, one week for summer break, and two weeks for winter break. Up to 74 children and 10 employees are anticipated. The proposed land use requires Administrative Use Permit approval when located in the TOMIMU zoning district.

In this case, the Zoning Administrator has elevated the Administrative Use Permit request to Planning Commission to maximize awareness and transparency in decision-making and, pursuant to Zoning Ordinance Section 19.20.060(E), to enable consideration of an exception to buffer yard requirements for the proposed use. After detailed analysis of the project's relationship to the circulation characteristics associated with Fairmont Elementary School, staff concludes the project includes adequate and safe passenger loading and parking facilities. The project's physical design features are wholly compliant with the San Pablo Avenue Specific Plan's development standards. Based on the information in this report, which supports the required findings, staff recommends approval of the Use Permit.

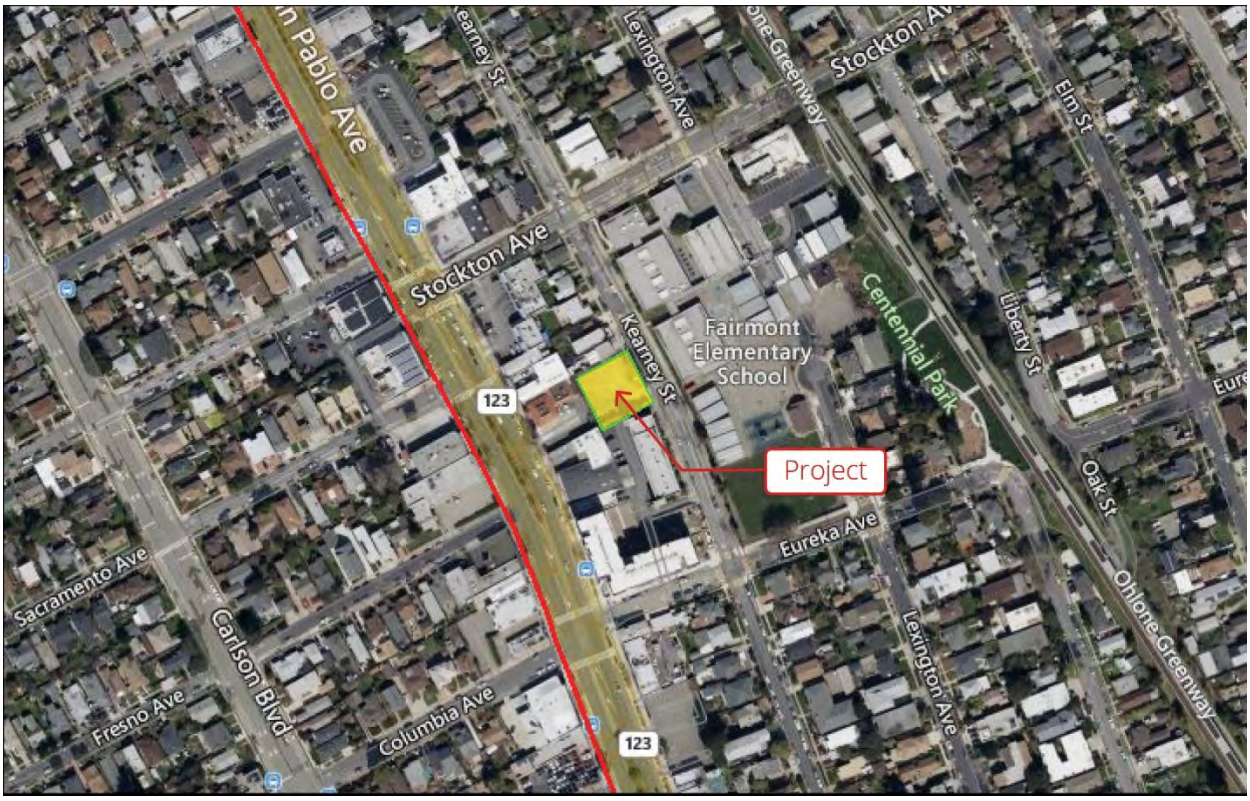
The project also requires Tier II Design Review approval since it concerns development of a vacant site. If the Planning Commission grants approval to the use permit, the project will be reviewed by the Design Review Board on November 3, 2021.

Background

Site Location and Layout

The project site is located at 729 Kearney Street between Stockton Avenue and Eureka Avenue. The site is presently vacant, consists of one parcel (APN 503-392-026-4), and is approximately 10,000 square feet (0.23 acre) in size. The site is located across the street from Fairmont Elementary School and abutting properties include existing multi-family uses. The site is level with a gentle downslope trending southerly along Kearney Street. A restaurant and other commercial uses (fronting San Pablo Avenue) occur to the rear of the site.

Vicinity Map



Existing Public Right-of-Way

The site has approximately 100 feet of street frontage along Kearney Street. The existing sidewalk along the frontage is approximately 4 feet wide; however, the width varies between the intersecting streets. Kearney Street has a mid-block crossing immediately north of the project site and which integrates with a speed table (to slow vehicle speeds). Additional vehicular control measures are present and correspond with the use of the east block face for purposes of pick-up/drop-off for Fairmont Elementary School students. These measures include: (a) solid striping to delineate vehicle travel lane; (b) white curb (3-minute loading zone between 7 AM and 4 PM (Monday to Friday)) along east block face except for 100 linear feet of green curb (15-minute parking between 7 AM and 4 PM (Monday to Friday)); and (c) on-road striping indicating “Slow School Xing.” Additional discussion about circulation on Kearney Street is provided in the analysis below.

Site Photo

Adjacent Land Uses

North: Single-family residence (TOMIMU Zone)
East: Fairmont Elementary School (Public and Semi Public District)
South: Multi-family residences (TOMIMU Zone)
West: Restaurant (Sasa Kitchen) and other commercial uses along San Pablo Avenue (TOMIMU Zone)

Analysis

Project Description

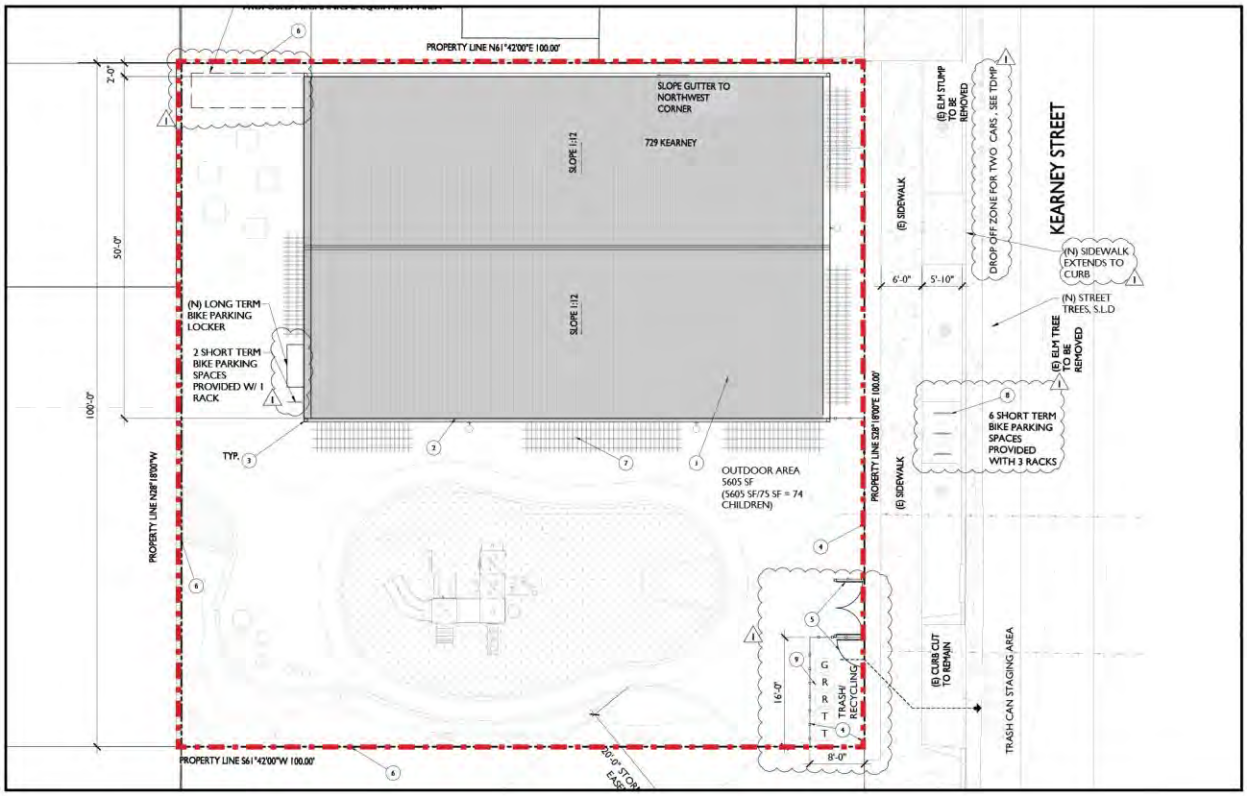
Land Use

The proposed Day Care Center use will accommodate pre-kindergarten students that are 18 months old to 5 years old. Hours will be year-round Monday through Friday between 8:00 AM to 6:00 PM except for weekends, federal holidays, one week for summer break, and two weeks for winter break. Regular student drop-off time will start at 8:30 AM with earlier drop-off available to parents with siblings attending Fairmont Elementary School or paying a fee in addition to regular tuition. Up to 74 children and 10 employees are anticipated.

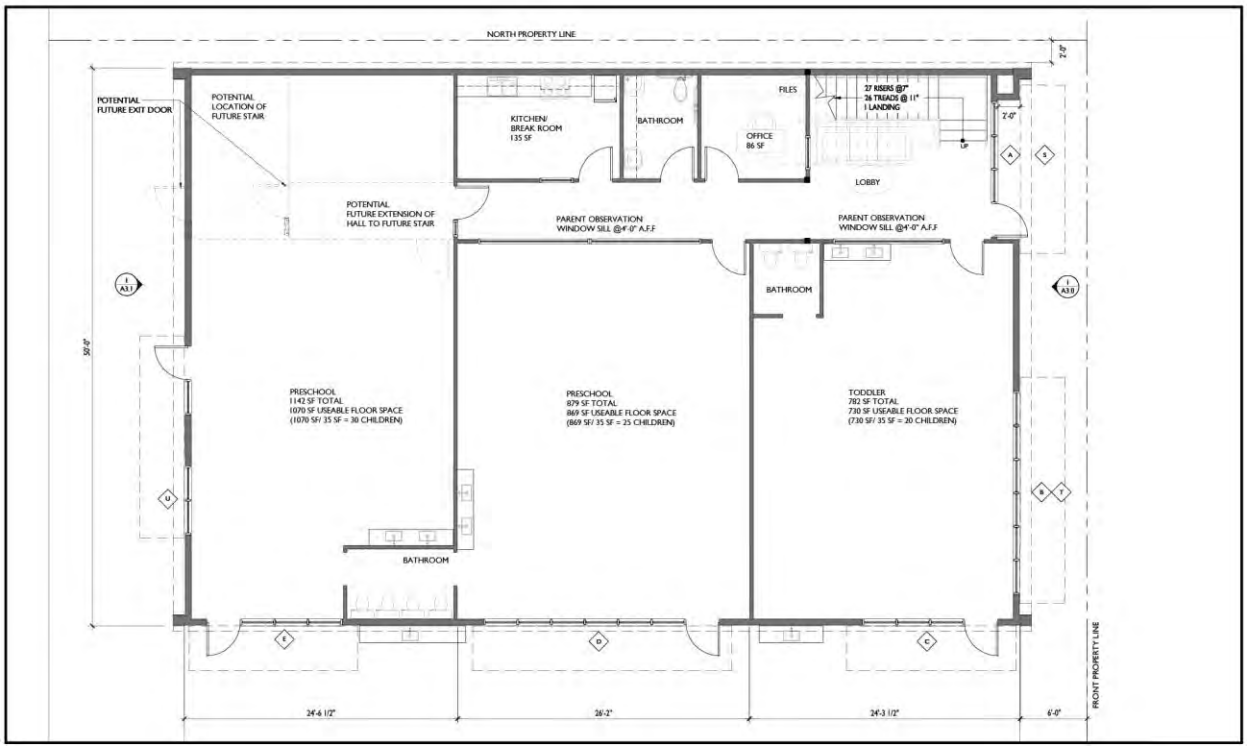
Site Plan and Floor plan

The site plan locates a new approximately 7,500 square foot, two-story building along the northern property line. Stormwater treatment is located along the southern property line, within an adjoining soft surface play area with play equipment. Three classrooms are located on the ground floor with adjoining administrative office area, bathrooms, and kitchen. The second floor is identified as storage. Building ingress and egress is provided directly to Kearney Street as well as from each classroom (to playground) and building rear. The project plans are included at Attachment 2.

Site Plan



Floor Plan



Access (Pedestrians/Bicycles/Pedestrians)

Access to the site will be provided, as follows:

- Pedestrians: A continuous network of sidewalks exists in the project vicinity, including the Ohlone Greenway via Stockton Avenue (750 feet) or Eureka Avenue (900 feet). The project will construct a 5-foot 10-inch amenity zone and a 6-foot minimum clear pedestrian zone along the site's frontage, in compliance with the San Pablo Avenue Specific Plan (See Section 2.04.02). An existing mid-block crosswalk is presently provided on this block of Kearney Street.

- Bicycles: Area roadways (as well as the Greenway) provide for bicyclists. The project provides three bike racks (i.e., 6 short-term spaces) in the amenity zone on Kearney Street. Three long-term bike parking spaces are provided on-site and include one locker and one bike rack. The San Pablo Avenue Specific Plan identifies Kearney Street as a planned Bike Boulevard (see Section 3.03.06, Figure 63) which includes maintaining the existing curb lines and vehicle travel lane with added striping and signage for bicyclists.

- Vehicles: The project includes no off-street vehicle parking spaces. Vehicular access to the project will be provided through a proposed drop-off zone along the site's frontage. This consists of approximately 80 linear feet divided in half for a white-curb loading zone and green-curb short-term parking (e.g., 15-minutes max). Drop-off time will be from 8:30 a.m. to 9:00 a.m. and pick-up time will be from 5:15 p.m. to 5:45 p.m.

The project access features described above are, in part, the result of a Transportation Demand Management (TDM) Plan relating to a parking adjustment request under San Pablo Specific Plan Section 2.05.08.05(B). This is addressed within the San Pablo Specific Plan Compliance section below.

Standard of Review

When located in the TOMIMUM Zone, the Day Care Center use type requires an Administrative Use Permit and is subject to the specific use standards at Zoning Ordinance Section 19.20.060. As development on a vacant site, the project also requires Design Review approval (i.e., Tier II Design Review in this case).

The Zoning Administrator has, pursuant to San Pablo Specific Plan Section 2.02.06.02(B), referred the Use Permit aspect of this application to the Planning Commission. After initial review of the application, the Administrator determined it may garner neighborhood interest for reasons including, but not limited to, the relationship to land use and circulation characteristics associated with Fairmont Elementary School. Moreover, the Administrator determined such interest, if present, would benefit from a noticed public hearing to maximize awareness and transparency in decision-making.

During its consideration of the Use Permit, the Planning Commission has authority over the land use activities, site plan, and, in this case, one requested exception to the citywide standards for Day Care Center uses (buffer yards—discussed further below). The Design Review Board has authority over the aesthetic components of the project. In the Planning Commission's review of the project, the following standards of review shall be applied:

- San Pablo Avenue Specific Plan
- Zoning Ordinance
  - Section 19.20.060 (Day Care Centers)
  - Section 19.34.040 (Use Permit Findings)

- General Plan

Staff's analysis of the project under these standards is provided below.

San Pablo Avenue Specific Plan Compliance

The San Pablo Avenue Specific Plan applies standards according to Transect Zones and Street Types. The project is located within the Transit-Oriented Mid-Intensity Mixed Use (TOMIMU) Zone and fronts a Neighborhood Street. The table below summarizes project compliance with applicable Street Type standards.

Street Type Standards		
Neighborhood Street	**Required**	**Provided**
Building Placement		
Sidewalk Amenity Zone	5 ft. min	5 ft. 10 in.
Sidewalk Pedestrian Zone	5 ft. min adjacent to residential	6 ft.
Sidewalk Activity Zone	0 ft. min	0 ft.
Ground Floor Front Setback	Min: distance needed to accommodate required zones	Zones provided for
Side Setback	0 ft. min	2 ft. (north); 49 ft (south)
Rear Setback	See Section 2.01.05 (Shadows)	Complies (See Sheet A4.1)
Pedestrian Access	Entries on front and side streets	Main entrance faces street
Building Form		
Upper Floor Setbacks	See Section 2.01.05 (Shadows)	N/A – no residences to east
Ground Floor Ceiling Height	14 ft. min clear	14 ft.
Upper Floor Ceiling Height	9 ft. min clear	9 ft.
Building Length	200 ft. max	50 ft.
Ground Floor Transparency	Non-residential 50% min, Residential 30% min.	51%
Upper Floor Transparency	25% min	29%
Front Encroachments	2 ft. max / ground floor commercial	0 ft.
Rear Encroachments	4 ft. max	N/A
Allowed Frontage Types	Front Yard Forecourt Flex Shop Front	100% Shop Front

Note: No vehicular access standards apply; no driveway or automobile parking proposed. Daylight plane standards at Section 2.05.02.02.06 not applicable; building height does not exceed 35 feet.

Transect Zone Standards		
TOMIMU Zone	**Required**	**Provided**
Standards		
Building Height Minimum	2 stories min	2 stories
Building Height Maximum	55 ft. max	27 ft. 7 in.
Vehicle Parking Requirement	Up to 1 auto space/500 sf; 7 spaces for project	0
Bicycle Parking Requirement	2 short-term; 1 long-term	6 short-term; 3 long-term

Transportation Demand Plan

A TDM Plan is proposed to address the shortfall of off-street parking spaces. The TDM Plan is subject to Zoning Administrator review and approval, pursuant to San Pablo Avenue Specific Plan Section 2.05.08.05. Concurrent with the TDM Plan, and at the Zoning Administrator's request, a Traffic Study was also submitted and addresses the project's operation and design features (including parking). Based on each document, the project is estimated to generate a demand for six vehicular parking spaces. Proposed TDM strategies included with the project to match the zero parking spaces proposed include:

- Transit Subsidy - Implement a monthly subsidy program for employees (e.g., $100/month on Clipper cards) or, if minimal transit usage is anticipated due to employee home locations, instead establish a pre-tax benefit program.

- Cash-Out Transit Incentive – Implement an incentive that pays employees $5 per day when transit used.

- Bicycle Parking – Provide a minimum of 3 short-term and 2 long-term parking spaces. Note: the project exceeds this recommendation, as indicated in the table above.

- Rideshare Program – Carpooling program overseen by transportation coordinator.

Additional supportive measures include: a Guaranteed Ride Home Program (through 511 Contra Costa), on-site bike parking spaces, and transit education/outreach. All these measures have been deemed satisfactory by the Zoning Administrator and compliant with San Pablo Avenue Specific Plan Section 2.05.08.05(B)(1) and (2). Implementation of TDM measures is ensured by Condition of Approval No. 9. The TDM Plan as well as a Traffic Impact Study are included at Attachment 3.

Zoning Ordinance

The project is subject to the use-specific standards at Zoning Ordinance Section 19.20.060 (Day Care Centers). The standards are provided below with staff's analysis in *italics*.

A. Landscaping and Buffer Yards. Landscaping and buffer yards adjacent to residential districts shall be provided for day care centers, pursuant to the standards prescribed by Chapter 19.25, Landscaping and Buffer Yards. In addition to the requirements of Chapter 19.25, a periphery wall, constructed of wood or masonry, shall be provided for purposes of securing outdoor play areas

and screening the site and shall achieve 75 percent opacity. Chain metal fencing or barbed wire is prohibited.

Staff Analysis: The project includes an outdoor play area that is enclosed by a periphery wall of material compliant with this standard. The buffer yard standards of Chapter 19.25 require, on the project site, a ten-foot landscaped area including a mix of trees and shrubs on the north and southern property lines. Planting specifications include: (a) trees of minimum 15 gallons in size; (b) trees planted at least 20-foot intervals; and (c) shrubs planted at 20-foot intervals. Use of the buffer yard shall not include parking, driveways, trash enclosures, mechanical equipment, or as a building area. The project includes a request for exceptions to these buffer yard standards.

The project locates a building 2-feet from the north property line and a mixture of outdoor play area, stormwater treatment area, and trash/recycling storage along the southern property line (see Sheet A1.0 and L4.0 for details). According to Zoning Ordinance Section 19.25.090(A), the buffer yard standards are, "intended to minimize or eliminate conflicts between potentially incompatible but otherwise permitted land uses on adjoining lots through a combination of setbacks and visual screening."

In staff's view, the project achieves this intent through design features responsive to the existing context. Namely, the abutting residential buildings are placed very close the project site's northern/southern property line, are configured to orient towards Kearney Street, and exclude fenestration on elevations facing the project. For these reasons, staff supports the exception to buffer yard standards, pursuant to Zoning Ordinance Section 19.25.090(E).

B. Hours of Operation. 7:00 a.m. to 7:00 p.m., Monday through Friday.

Staff Analysis: The project will operate within these timeframes. Recommended Condition of Approval No. 8 includes this Zoning Ordinance requirement and distinguishes between allowed hours of operation (e.g., when employees may be on-site working, e.g., 7:00 a.m. to 7:00 p.m.) and additional parameters for student drop-off and pick-up. As worded, Condition of Approval No. 8 will allow two more hours of operation than proposed by the applicant and is recommended to prevent future permit amendments related to changes in business operations that are consistent with the Zoning Ordinance.

C. Noise. Outdoor play shall not occur before 8:00 a.m. when the site is located within or adjacent to a residential district. Day care centers shall comply with the requirements of the City's noise ordinance limits.

Staff Analysis: The project is adjacent to existing residences and within a zoning district that permits residential land uses. Recommended Condition of Approval No. 8 conveys this outdoor play time requirement.

D. Passenger Loading and Drop-off. One curbside passenger loading zone designated by the City shall be located near the entrance of the day care center or in an off-street location acceptable to staff.

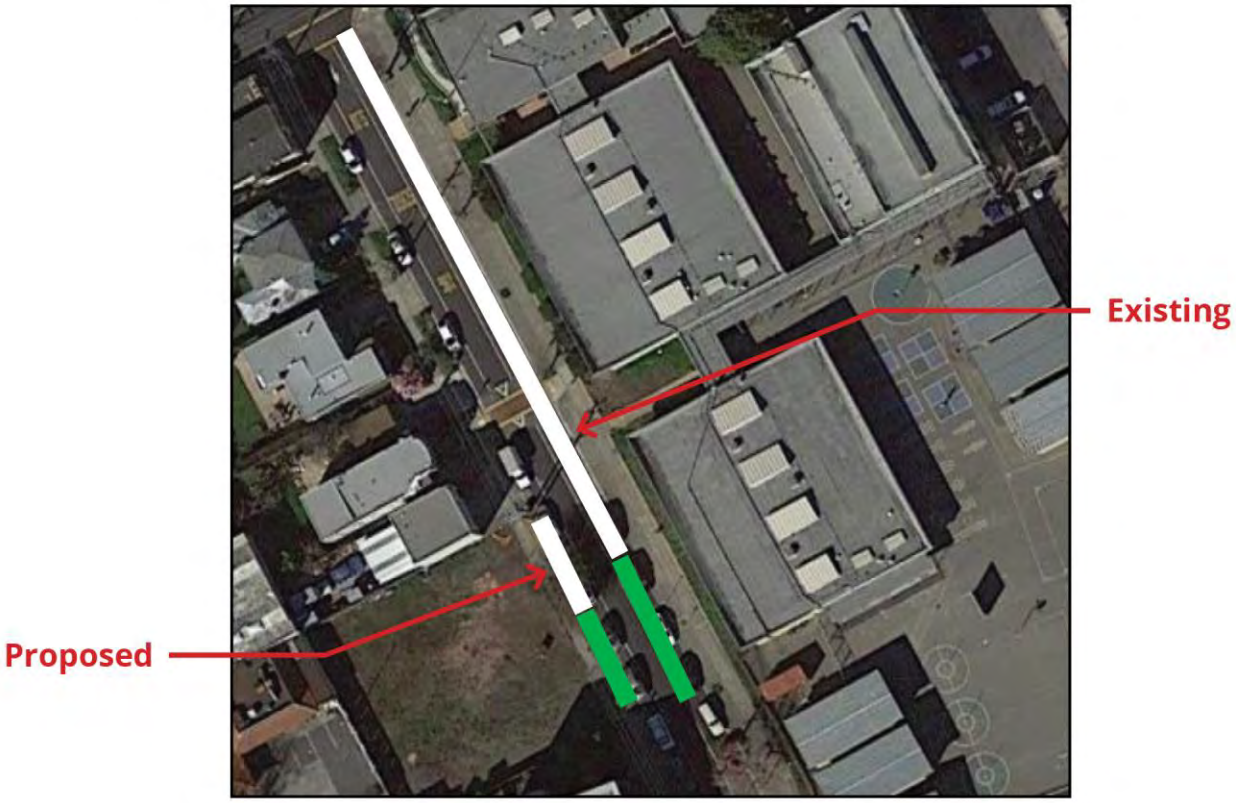
Staff Analysis: The project includes a passenger loading zone and short-term parking space which has been reviewed and deemed adequate by Public Works Department staff. Recommended Condition of Approval No. 27, provides for the installation and maintenance of traffic control devices (e.g., striping, signage) for the loading zone. In addition to the physical design features, this Use Permit also includes consideration of the project's operational aspects relating to

circulation. The following analysis addresses operational features with an emphasis on traffic safety due to the shared use of Kearney Street by Fairmont Elementary School.

Fairmont Elementary School is located across the street from the project and spans the entire block. The school uses Kearney Street for student drop-off/pick-up for those traveling in vehicles. On the school's frontage, there are sixteen passenger-loading or short-term parking on Kearney Street. An additional approximate 250 linear feet of unrestricted parking extends along the same street side, southerly to Eureka Avenue. Fairmont Elementary begins instruction at 8:30 a.m. and dismissal occurs at 2:40 p.m. The schools bell schedule identifies: 8:00 a.m. (Breakfast in MP room), 8:15 a.m. (Morning Yard Bell), and 8:25 a.m. (Line Up Bell).

Access to Fairmont Elementary is also provided at locations in addition to Kearney Street. School buses park along Stockton Avenue and load/unload there. Teachers are provided signed vehicular parking spots adjacent to the El Cerrito Library. Kindergarten classes are also adjacent to the library with access occurring there. Lastly, access is provided at the terminus of Lexington Street next to a city-run Fairmont Childcare facility providing early and afterschool care for Fairmont Elementary students.

Kearney Street: Drop-off/Loading Zones



To get a sense of existing circulation conditions, staff observed drop-off activities at Kearney Street during the morning of Thursday, September 23rd. All observations concern the east block face of Kearney Street (nearest the school; from Stockton Avenue to Eureka Avenue) and include:

- 8:00 a.m.: No activity, no parked cars.

- 8:10 a.m.: Four (4) cars with students parked.
- 8:15 a.m.: Eleven (11) cars with students parked.
- 8:20 a.m.: Fifteen (15) cars with students parked.
- 8:25 a.m.: Two (2) vehicles double-parking in roadway, four (4) to six (6) loading spaces available, lots of walkers arriving.
- 8:30 a.m.: Parked vehicles start departing; bell rings and students enter campus.
- 8:35 a.m.: No cars or students; return to conditions observed at 8:00 a.m.

The project proposes hours of operation between 8:00 a.m. to 6:00 p.m. but with a regular drop-off time starting at 8:30 a.m. to create a staggered start time with Fairmont Elementary. Earlier drop-off would be provided to parents with older siblings attending Fairmont Elementary School or those paying a fee in addition to regular tuition. Pick-up time would coincide with the end of a typical workday (e.g., 5:15 to 5:45 pm) which is many hours after Fairmont School ends instruction.

The applicant suggests the proximity of the two schools makes it possible for families with children attending both schools to make a single drop-off or pick-up trip. Additionally, the applicant indicates employees will be available to assist with drop-offs and pick-ups.

Staff concurs that, given the number of on-street spaces available and that the peak hours of student pick-ups and drop-offs for the project and Fairmont School are staggered, there should be adequate available passenger loading and short-term parking space to accommodate the project. As mentioned, recommended Condition of Approval No. 27 provides for the installation and maintenance of traffic control devices (e.g., striping, signage) for the loading zone and short-term parking space.

E. Exceptions. Exceptions to these standards shall be granted by Conditional Use Permit.

Staff Analysis: One exception is requested (e.g., buffer yard standards) and is addressed above. Granting of the exception would occur through the requested Conditional Use Permit.

General Plan Compliance

The project is consistent with and will implement the following policies of the El Cerrito General Plan:

Policy LU2.3: Local Employment Opportunities. Promote economic development that offers local employment opportunities for El Cerrito residents.

The project will result in the development of a vacant site for commercial purposes and result in an estimated ten new jobs. For these reasons, the project will increase local employment opportunities for El Cerrito residents.

Policy LU2.1: San Pablo Avenue Specific Plan Area. Promote retail, office, and mixed uses within the San Pablo Avenue Specific Plan Area to provide more tax revenues to the city.

The project promotes a mix of uses in the plan area by providing a service to both residents of and employees working in El Cerrito. Development of the vacant site will bring increased property tax revenue to the city, and employees of the project can be expected to generate an incremental

increase in sales tax through patronage of adjacent commercial businesses (e.g., restaurants, grocery stores).

Policy LU4.2: Availability of Goods and Services. Provide for economic development that assures the availability and diversity of resident-serving goods and services.

The project will provide a daycare service supporting both El Cerrito residents working outside the city limits as well as those who commute to work in the city. In this way, the project supports economic development over the short and long-terms.

Policy LU6.2: Circulation Alternatives. To the extent possible, encourage alternatives to the use of private automobiles. Encourage a full range of transportation options – driving, transit, walking and biking – without allowing any one to preclude the others. On San Pablo Avenue, in many constrained right-of-ways, it is not possible to provide optimum facilities for all user groups and in the event that trade-offs are necessary, transit users and pedestrians are the highest priority.

The location of the project provides convenient access to frequent public transit along San Pablo Avenue as well as the El Cerrito Plaza BART station. The location also provides convenient walking access to local businesses. The project also provides long-term and short-term bicycle parking spaces and contributes its fair share to the San Pablo Avenue Complete Streets program.

Policy CD2.3: Streetscape Improvements. Maintain an active program of street tree planting and improved roadway landscaping through both public and private means. Design guidelines shall describe appropriate types of trees for commercial areas – to enhance the shopping experience rather than detract from it.

The San Pablo Avenue Specific Plan provides standards and requirements for public right-of-way improvements relating to implementation of this policy. The project is consistent with those standards including, for example, through new street tree plantings and will enhance the adjacent public rights of way in compliance with the San Pablo Avenue Specific Plan.

Policy H2.3: Continue to enforce the sections of the Zoning Ordinance that increase density, reduce parking requirements, and establish design and development standards to create inviting, mixed-use neighborhoods around transit, and enforce the San Pablo Avenue Specific Plan.

The San Pablo Avenue Specific Plan reduced parking requirements and eliminated maximum density in the plan area. This project will enhance the mix of uses in the corridor adjacent to public transit. The project complies fully with the standards of the San Pablo Avenue Specific Plan.

Policy T1.3: Bicycle Circulation. Create a complete, interconnected bicycle circulation system. Provide a bicycle system that serves commuter as well as recreational travel. Improve bicycle routes and access to and between major destinations.

The project exceeds minimum standards for short and long-term bicycle parking standards. Also, the project's mandatory payment of a Traffic Impact Fee, pursuant to Municipal Code Chapter 4.54, provides a fair share contribution towards the future improvement of Kearney Street into a 'Bike Boulevard' consistent with the San Pablo Avenue Specific Plan. For these reasons, the project is consistent with Policy T1.3.

Policy T1.4: Pedestrian Circulation. Provide a safe, convenient, continuous and interconnected pedestrian circulation system throughout the City. Ensure safe pedestrian access to local schools.

The project will provide pedestrian improvements along its frontage in a manner consistent with the San Pablo Avenue Specific Plan. The project also includes a loading zone and short-term parking space compliant with Zoning Ordinance Section 19.20.060(D). Lastly, as explained in the analysis above, the project's operational characteristics would not diminish the safety of pedestrian access to Fairmont Elementary School. For these reasons, the project is consistent with Policy T1.4.

Art in Public Places

The project's development costs are sufficient to compel compliance with Municipal Code Chapter 13.50 (Art in Public Places). The applicant will make an in-lieu contribution equal to one percent of development costs, pursuant to Municipal Code Section 13.50.030(A). Payment will occur at the time of building permit application.

Environmental Review

The proposed project was evaluated under the California Environmental Quality Act (CEQA) and determined to be Categorically Exempt, pursuant to CEQA Guidelines Section 15332 (Class 32: In-Fill Development). As provided by CEQA Guidelines Section 15332, the project: (a) is consistent with the El Cerrito General Plan and Zoning Ordinance; (b) is located at a site within the city limits and less than five acres in size; (c) has no habitat value; (d) would not result in significant effects relating to traffic, noise, air quality, or water quality; and (e) can be adequately served by required utilities and public services. Additionally, the project is not subject to any of the exceptions to the use of Categorical Exemptions, as enumerated at CEQA Guidelines Section 15300.2. Substantial evidence supporting these determinations is included at Attachment 4.

Public Notice

Pursuant to San Pablo Avenue Specific Plan Section 2.02.07.02.02, public notice for the project was published in the East Bay Times, posted on the project site, and mailed to owners of property within 300 feet of the project site and all interested parties on September 29, 2021. Additionally, staff contacted the principal of Fairmont Elementary School to ensure that school administration was aware of the project. As of the publication of this staff report, no comments had been received.

Required Findings

Pursuant to San Pablo Avenue Specific Plan Section 2.02.07.02.03, a Conditional Use Permit shall only be granted if the Planning Commission finds that the proposal as submitted, modified, and/or conditioned conforms to all the following criteria. Staff's analysis follows each finding in *italics*.

A. The location, size, design, and operating characteristics of the proposed development and/or use will be harmonious and compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood.

   The project's physical design features (e.g., building location, size) are compliant with the San Pablo Avenue Specific Plan.

   The project is non-compliant with the buffer yard standards of Chapter 19.25 (Day Care Centers); however, an exception under Section 19.25.090(E) is appropriate since the project's design

features are responsive to the existing context. Namely, the abutting residential buildings are placed very close the project site's northern/southern property line, are configured to orient towards Kearney Street, and exclude fenestration on elevations facing the project. For these reasons, not result in conflict between land uses on adjoining lots.

Concerning operating characteristics, the project includes hours of operation consistent with Zoning Ordinance Section 19.20.060(B). As examined in the staff report, the circulation aspects of the project have been evaluated considering the joint use of Kearney Street for student drop-off and pick-up. Staff's analysis concludes the project can operate in harmony with the adjacent school and surrounding neighborhood.

For all the above reasons, the project will be harmonious and compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood.

B. The location and design of the proposal will provide a convenient and functional living, working, shopping, or civic environment that will be an attractive amenity for the City.

The project will result in a new day care center at a location convenient to both residents of and employees within El Cerrito. This convenience is achieved by the site's accessibility by multiple transportation modes including by walking, bicycling, transit (AC Transit and BART), and vehicles. The project also contributes to a functional living environment by locating in proximity to similar (e.g., school) and compatible (e.g., residential, commercial) land uses.

C. The proposal provides an over-arching public benefit.

The project provides a service vital to a functional economy: childcare for workers. Providing this service in El Cerrito increases the ability for parents to participate in the workforce, generally. For this reason, the project provides an over-arching public benefit.

D. The proposal is consistent with the purposes of the Transect Zone where it is located and conforms in all significant respects with the Specific Plan, El Cerrito General Plan, and with any other applicable policy or plan adopted by the City Council.

The project conforms to all standards of the Specific Plan and, as noted in these herein, is consistent with the El Cerrito General Plan. Where the project does not conform to prescriptive buffer yard standards for Day Care Center uses, there is an adequate basis to support the granting of an exception, as provided for.

Staff Recommendation

Based on the information contained in this report, staff recommends approval of Planning Application No. PL21-0048, as conditioned by the draft resolution in Attachment 1.

Proposed Motion

Move adoption of Planning Commission Resolution PC2021-14 granting Use Permit approval to Planning Application No. PL21-0048: a new Day Care Center to be located at 729 Kearney Street.

Appeal Period

Within ten (10) working days after the date of the decision, the Planning Commission action may be appealed to the City Council.

Attachments

1. Draft Resolution
2. Project Plans, dated October 1, 2021
3. Traffic Impact Study/TDM Plan
4. CEQA Memorandum

October 13, 2021

Mr. Bingyi Yu
717 Albemarle Street
El Cerrito, CA 94530

Final Traffic Impact Study for the 729 Kearney Street Project

Dear Mr. Yu;

As requested, W-Trans has prepared a traffic impact study for the Childcare Center to be located at 729 Kearney Street in the City of El Cerrito. We understand that the project includes a 7,720 square foot building with an enrollment of 72 children. This letter report was prepared in conjunction with and following the preparation of the *Transportation Demand Management Plan for 729 Kearney Street* (W-Trans), April 20, 2021.

Existing Conditions

The study area consists of Kearney Street, which runs along the frontage of the project site in the City of El Cerrito. Kearney Street generally runs north-south and, along the project frontage, is a one-way street with one travel lane in the southbound direction. Within the study area, Kearney Street between Stockton Avenue and Eureka Avenue has parking on both sides of the roadway, including loading zones for the Fairmont Elementary School located on the easterly side of the roadway.

Project Description

The proposed project would build a new childcare center at 729 Kearney Street. The proposed project would include a 7,720 square foot two-story building that would provide care for up to 72 children and be staffed by ten employees. No parking is proposed off-street with the project though there would be a designated loading area along the frontage for drop-off and pick-up activities.

Project Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10th Edition, 2017 for "Day Care Center" (ITE LU 565). The expected trip generation potential for the proposed project is indicated in Table 1. The proposed project is expected to generate an average of 294 trips per day, including 56 trips during the a.m. peak hour and 57 during the p.m. peak hour. These new trips represent the increase in traffic associated with the project compared to existing volumes.

Table 1 – Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Day Care Center	72 children	4.09	294	0.78	56	30	26	0.79	57	27	30

Consistency with the San Pablo Avenue Specific Plan (SPASP)

The proposed project is located within the San Pablo Avenue Specific Plan (SPASP) area which was analyzed in a 2014 EIR. The project site is located within the Midtown District Transit-Oriented Mid-Intensity Mixed Use (TOMIMU) zone. In the project area, Kearney Street is designated as a neighborhood street. As detailed in the plan, where possible on neighborhood streets landscaped bulb-outs and wider sidewalks should be provided.

Other improvements in the area include a bikeway for the length of Kearney Street from Blake Street to the southern City limits, a mid-block crossing between San Pablo Avenue to Fairmont Park and a separated bikeway along San Pablo Avenue between Lincoln Avenue and Potrero Avenue.

To fund the multimodal improvements as detailed in the SPASP, the City has approved a transportation impact fee (TIF) program to determine each project's fair share payment. It is recommended that the project pay its share of the costs for these multimodal improvements through the City of El Cerrito's TIF program.

Site Plan Review

Access and Circulation

The proposed project would take access via Kearney Street. There are existing sidewalks and transit stops nearby. With the project, bicycle parking would be provided.

Vehicles

As proposed the project would not provide off-street vehicular access to the site so sight lines along the project frontage were reviewed to determine if there is sufficient stopping sight distance for vehicles stopping or slowing to pull into or out of the on-street parking and loading areas. Sight distance along Kearney Street along the project frontage was evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distances needed for a following driver to stop if there is a vehicle waiting to turn into a side street, driveway, or parking space is evaluated based on the stopping sight distance criterion and the approach speed on the major street.

Sight distance along the project frontage was field measured and measured using available aerials. Based on a *prima facie* residential street speed of 25 mph, as well as the speeds sampled at the location, the minimum stopping sight distance needed is 150 feet. Along the frontage, Kearney Street is straight with a line of sight that extends more than 150 feet. Along the project frontage, the stopping sight distance exceeds the recommended minimum.

Loading Operations

Currently, there are 16 passenger-loading or short-term parking spaces on Kearney Street, located on the easterly side of Kearney Street adjacent to Fairmont Elementary School. As proposed, additional loading and short-term parking spaces would be provided along the frontage. It is understood that school instruction begins at 8:30 a.m. for all grade levels Monday through Friday with a "Morning Yard Bell" at 8:15 a.m. and a "Line up Bell" at 8:25 a.m. For Kindergarten and pre-Kindergarten age levels, dismissal is every day at 2:05 p.m. For grade levels one through six, the pick-up time is 2:40 p.m. on all days except Wednesdays when dismissal is also at 2:05 p.m. Based on discussions with the Principal, there are six gates into the school where children enter and exit the site. For the upcoming 2021 school year with extra COVID-19 safety precautions in-place, parents will not be allowed on-site, so it is anticipated that around the perimeter there will be more families congregating than in previous years.

Based on the elementary school's bell schedule, the peak morning drop-off period is between 8:00 a.m. and 8:30 a.m. As the elementary school and daycare center are complimentary uses, it is anticipated that some families will drop-off children at both the school and the daycare center during the same period. These families can use the school's intended drop-off area or the daycare center's proposed area. To minimize the potential for conflicts with the elementary school's drop-off period, the proposed project should begin the regular daycare program no earlier than 8:30 a.m. with an optional early morning childcare program offered from 8:00 to 8:30 a.m. An additional fee should be charged to families using this optional program unless they are already in the area to deliver older siblings to the elementary school.

Since the pick-up period for Fairmont Elementary school does not overlap with the proposed pick-up period for the daycare center, the project is not expected to impact existing dismissal operations for the school. Also, since pick-up periods for daycare centers tend to be staggered over a few hours depending on the parents' availability to pick-up their children, the proposed loading and short-term parking facilities along the project frontage paired with the curb side spaces along the easterly side of Kearney Street are expected to adequately accommodate the demand.

It is understood that staff from the daycare center staff will facilitate the pick-up and drop-off activities including taking children to or from their parents' vehicles in the loading zone. With the staggered pick-up and drop-off periods and staff aiding with the operations, loading is expected to operate acceptably.

Pedestrians

Pedestrian access to the site would be via the existing sidewalk on Kearney Street. Per the SPASP Form-Based Code section 2.04.02, Neighborhood residential streets should have a five-foot amenity walk zone and a five-foot minimum clear pathway. As proposed, the existing six-foot sidewalk would remain, and the planter strip of five feet plus would also remain with a few curb extensions to provide access to the loading area on Kearney Street. Also, with the proposed mid-block crossing as detailed in the SPASP, there would be a more direct pedestrian route to San Pablo Avenue. Through the project's payment of the TIF program fee, the project would contribute its proportional share towards this improvement.

Bicycles

As detailed above, Kearny Street is a proposed bikeway. With the proportional share fee through the TIF program the project would contribute toward both the bikeway along Kearney Street as well as the proposed separated bikeway along San Pablo Avenue.

Per the SPASP Form-Based Code Table 32, the proposed project would be required to provide three short-term bicycle parking spaces and one long-term bicycle parking space. As proposed, the project would provide six short-term bicycle parking spaces along the project frontage and one long-term bicycle parking space on-site behind the structure, exceeding the minimum requirements.

Transit

AC Transit provides fixed route bus service in the City of El Cerrito. The nearest bus stops are located on the northeast corners of the San Pablo Avenue intersections with Stockton Avenue and Eureka Avenue, approximately 650 feet from the project site. These stops are serviced by Routes 72, 72M, and 800. Route 72 provides service from the Hilltop Mall to Jack London Square, predominately via San Pablo Avenue. Route 72M provides route between Point Richmond and Jack London Square, also predominately along San Pablo Avenue. Both routes operate at about 30-minute headways from early in the morning to midnight. Route 800 is the overnight service that runs from midnight to early morning and provides loop access from the Richmond BART station, through Berkeley, Oakland, and Emeryville to San Francisco.

Slightly more than one-half-mile southeast of the project site is the El Cerrito Plaza BART Station. This station provides service access to the Richmond-Berryessa/North San Jose and the Richmond-Millbrae/ San Francisco International Airport lines.

With the proposed mid-block crossing as detailed in the SPASP, the proposed project would have more direct access to the AC transit bus stops. Through the payment of the TIF program fees, the applicant would contribute towards this improvement and better access to transit.

Parking

As proposed, the project would not provide any off-street parking. Per section 2.05.08 Parking Standards in the SPASP, given the proposed childcare center would be 7,720 square feet, the number of off-street parking spaces required for a commercial site of more than 3,000 square feet, would be at most 15 spaces. However, with sufficient supporting documentation and a TDM plan, projects proposing less than the requirement are permitted.

Existing Parking Demand

In the project area, Kearney Street provides access predominantly to multifamily and single-family residences and Fairmont Elementary School. For the former residential uses, typical (without COVID) parking patterns for weekdays revolve around the workday with utilization of on-street parking beginning in the late afternoon or evening through the night to early morning. On weekends, there is more variability as residents are home or running errands. Through communication with the Fairmont Elementary School principal, it is understood that on typical weekdays, the peak parking demand by the paraprofessional team and teachers is between 8 a.m. and 4 p.m. It is understood that the staff park in the small lot behind the school, along the block of Stockton Avenue and Kearney Street fronting the school, with a few on the southern perimeter of the school yard. Otherwise, the staff walk or bike to the school.

Based on this understanding of the existing parking demand in the area, the mix of residential land uses, and the elementary school are complimentary uses with peak parking demand periods that do not overlap. Further, it is noted that the existing loading area and short-term parking for the elementary school on Kearney Street are only enforced Monday through Friday from 7 a.m. through 4 p.m. so this space would be available for residential parking outside of these hours and on the weekends.

Project Parking Demand

Unmitigated parking demand for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Parking Generation*, 5th Edition, 2019. The parking demand of the project was estimated using the average peak for Day Care Center (ITE LU #565) in a dense multi-use urban setting. Table 2 summarizes the childcare center's parking demand.

Table 2 – Parking Analysis Summary

Land Use	Units (Employees)	Proposed On-Site Supply (Spaces)	ITE Parking Generation	
			Rate[1]	Unmitigated Parking Demand
Day Care Center	10	0	0.60	6

Notes: [1] *Parking Generation,* 5th Edition, Institute of Transportation Engineers, 2019

The expected reductions in parking demand associated with the various TDM measures were estimated based on information published in the California Air Pollution Officers Association (CAPCOA) report *Quantifying Greenhouse Gas Mitigation Measures*, CAPCOA, 2010, the location of the project site, and knowledge of transportation characteristics of the area. The TDM strategies detailed in the following section are projected to reduce the anticipated parking demand from six spaces to zero.

Parking Supply with Project

The proposed daycare center would operate from 8 a.m. to 6 p.m. With the project, the existing on-street unregulated parking along the frontage would be converted to a loading zone and short-term parking resulting in a reduction of approximately three unregulated on-street parking spaces. Given the land uses nearby, these

parking spaces would likely be utilized by staff for the Elementary school during the weekday and the nearby residences beginning in the evenings through the night and on the weekends. Based on communications with the Elementary school principal, the staff that drive can park adjacent to the school on either Stockton Avenue, Kearney Street or near the rear entrance. With the conversion of these three unregulated parking spaces on Kearney Street along the project frontage to a loading zone and given that the nearby blocks are primarily residential with unutilized on-street parking during the weekday, no parking deficiencies during the weekday are expected. Since the proposed project would not operate on weekends, it is recommended that the loading and short-term parking restrictions be only enforced Monday through Friday during the proposed hours of operation. With this recommendation, no parking supply deficiency would be expected because of the project.

Vehicle Miles Traveled (VMT)

Senate Bill (SB) 743 established a change in the metric to be applied for determining traffic impacts associated with development projects. Rather than the delay-based criteria associated with a Level of Service analysis, the increase in Vehicle Miles Traveled (VMT) as a result of a project is now the basis for determining impacts. The guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory, 2018, was used for the analysis.

Based on guidance from the OPR Technical Advisory, local-serving retail such as a childcare facility can generally be presumed to have a less-than-significant impact on VMT. While the proposed project is childcare, in nature the type of trips and patronage are most similar to retail. The total demand for retail in a region, or in this case daycare, tends to hold steady; adding new local-serving retail typically shifts trips away from another provider rather than adding entirely new trips to the region. OPR cites a size of 50,000 square feet or greater as being a potential indicator of regional-serving retail (versus local-serving) that would typically require a quantitative VMT analysis. The proposed project with 7,720 square feet would be well below the threshold in OPR's guidance.

As such, the project is anticipated to result in a less-than-significant impact on vehicle miles traveled.

Transportation Demand Management (TDM)

As part of the project, the following Transportation Demand Management (TDM) programs are proposed in addition to other improvements like bicycle parking and the staggered drop-off and pick-up times discussed in the loading section of the report. The full TDM plan with the recommendations is enclosed.

Guaranteed Ride Home Program

Guaranteed Ride Home (GRH) is a program that provides a "back-up" ride to employees who use transit, carpool, biking/walking, or other alternatives as their commute mode. If an employee who takes transit to work, so does not have their own vehicle, needs to leave work for an emergency, such as a sick child or some other unexpected need, they will be redeemed for the cost of the taxi ride to get them home. This is an important supportive measure to encourage employees to not drive alone to work and often goes as a welcome, but unused benefit. A free GRH program is available for employees through 511 Contra Costa.

Transit Benefits

Pre-Tax Transit Benefits

The federal tax code allows for the use of tax-free dollars to pay for transit commuting through an employer-sponsored program. Establishing a program for employees to set aside income on a pre-tax basis for transit use saves employees money as they do not pay federal income taxes and it can save employers money by reducing payroll taxes. The current monthly exclusion for transit passes is $270.

Employee BART or AC Transit Subsidy

The childcare center's proximity to a BART station and high-frequency bus routes on San Pablo Avenue make it ideal for transit users. To encourage transit use, the center could provide employees with a $100 monthly subsidy on Clipper cards (equivalent to cover daily rides on AC Transit).

Cash-Out

A cash-out program operates when employers pay their employees a cash incentive for the days on which they use an alternative mode of transportation (transit, bike, walk, or carpool to work) to help reduce parking demand and vehicle commute trips. The cash value of the subsidy can vary depending on the resources available and, in the case of carpools, would be offered to both employees who participate to provide an equitable benefit.

Bicycle Benefits - Bicycle Parking

The provision of both short-term and long-term bicycle parking is important. Secure long-term parking (e.g., bike lockers) is a critical component in encouraging employees to bike to work as the lack of secure parking is often cited by employees as a deterrent. Short-term parking (e.g., a bike rack) is relatively inexpensive and can be used by employees or parents. City Code requires a minimum of two short-term bicycle spaces and one long-term bicycle space. The Association of Pedestrian and Bicycle Professionals recommends a minimum of three short-term spaces and two long-term spaces for a private childcare center located in an urbanized area.

Rideshare Program

Carpooling is one of the most common and cost-effective alternative modes of transportation and one which both employees and parents can adopt. There are numerous benefits to ridesharing. Carpooling can reduce peak-period vehicle trips and increase commuters' travel choices. Further, it reduces congestion, road and parking facility costs and pollution emissions. Carpooling tends to have the lowest cost per passenger-mile of any motorized mode of transportation as it makes use of a vehicle seat that would otherwise be empty. Carpooling also provides financial savings to consumers by decreasing fuel and parking costs.

The greatest barrier to both workplace and parent carpooling is often simply being able to identify other employees or parents with the same travel route. The most effective approach would be for the childcare center to create personalized trip planning information, regardless of mode, for all parents and employees. The transportation coordinator (see recommended position below) could review the home locations of all students and employees and determine their best options for accessing the childcare center by each mode. For instance, based on the home location of a student, the transportation coordinator could recommend a rideshare with a nearby student. Personalized trip planning information would be presented to families and employees in packets prior to joining the program (as a printout or as a PDF via email). Given the goal of zero parking demand for employees, employee ridesharing should focus on pairing riders to access transit.

There are also many services that can assist in ride-matching that are less customized. The most basic publicly available service is 511.org's free ride-matching service. There are also various private ride-matching providers (e.g., Zimride, RideAmigos, Via, Scoop) that can effectively create carpool networks while making them safe and convenient for their users, but these are typically used by larger employers.

Education, Outreach & Marketing

Transportation Coordinator

The presence of a staff person dedicated part-time to overseeing and managing the TDM program would be helpful in ensuring the ongoing success of these programs. This would not be a distinct position, but instead would be a role that is integrated into the on-site manager. The duties can include:

- Oversee the ride-matching program.
- Create and distribute transportation information welcome packets.
- Maintain and update a bulletin board or other physical source of transportation information.
- Monitor bicycle facilities.
- Administer the cash-out program.
- Oversee and manage the Guaranteed Ride Home program.
- Monitor drop-offs and pick-ups.
- Manage transit pass and/or pre-tax transit benefits.
- Review and improve the TDM program.

Transportation Information

Providing parents and employees with information (on-line and written) regarding transportation options for travel to the childcare center can help encourage the use of non-auto or rideshare options. This information should also be emailed or mailed to parents and employees as part of their confirmation process providing them with the information early on to assist in their logistics planning. Information could include maps and information from AC Transit and BART as well as materials regarding the childcare center's ride-matching services, the guaranteed ride home program, and the cash-out program. In addition, a transportation board including bicycle maps, transit routes and schedules, and contact numbers for taxi services should be included on-site to assist parents and employees.

TDM Parking Reduction

With the proposed TDM measures discussed above, Table 3 summarizes the reduction in parking demand.

Table 3 – TDM Analysis Parking Summary

TDM Strategy	Parking Space Reduction[1]
Transit Benefits	-2
Cash-Out	-2
Rideshare Program	-2
Bicycle Benefits	Supportive
Guaranteed Ride Home Program	Supportive
Education, Outreach and Marketing	Supportive
Total	**-6**

Notes: [1] Calculated using the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures*

Conclusions and Recommendations

- The proposed project is expected to generation an average of 294 daily trips, 56 of which would occur during the morning peak hour and 57 during the evening peak hour.

- As proposed, the project is consistent with the San Pablo Avenue Specific Plan. In order to fund the improvements as discussed in the plan, the project should pay its share of the costs for these improvements through contribution to the City's TIF program.

- Vehicle, pedestrian, bicycle, and transit access to the site is adequate with payment towards the City's TIF program.

- The project should implement a TDM plan.

- It is recommended that the loading area and short-term parking spaces proposed along the project frontage only be enforced Monday through Friday during the hours of operation. With the day and time limits, no parking deficiency is expected in the area as a result of the project.

- In order to not conflict with the drop-off and pick-up periods for the Fairmont Elementary School, it is recommended that the proposed daycare center begin their drop-off period after 8:30 a.m. with an optional early morning childcare program offered from 8:00 to 8:30 a.m. Families using this optional program should be charged an additional fee unless they are already scheduled to deliver older siblings to the elementary school.

- The project is expected to result in a less-than-significant impact on vehicle miles traveled.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

Kenny Jeong, PE
Traffic Engineer

Mark E. Spencer, PE
Senior Principal

MES/kbj/ECE009.L1

Enclosure: *Transportation Demand Management Plan for 729 Kearney Street*

Transportation Demand Management Plan for 729 Kearney Street

Prepared for the City of El Cerrito

Submitted by
W-Trans

April 20, 2021

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Introduction

This report presents a Transportation Demand Management (TDM) plan for the 729 Kearney Street childcare center project in the City of El Cerrito. The proposed project site is located 0.6 miles from the El Cerrito Plaza BART station, one block from the high-frequency San Pablo Avenue transit corridor, and directly across the street from the Fairmont Elementary School. It is anticipated to have ten employees and 72 enrolled students. According to Section 2.05.08 of the San Pablo Specific Plan, a maximum of two parking spaces per thousand square feet of space may be built in the Transit Oriented Mid-Intensity zone, but any project proposing a parking supply of zero may be required to provide a TDM program. The purpose of the plan detailed in this report is to provide a robust suite of strategies that validates the proposal to provide no parking.

Parking Analysis

Existing Conditions

Although the project is not proposing to provide parking, there is considerable adjacent on-street parking available, particularly for pick-ups and drop-offs. On Kearney Street between Stockton Avenue and Eureka Avenue there are currently twenty-one unregulated parking spaces on the west side and twenty-nine spaces on the east side, comprised of eleven three-minute passenger loading spaces, five fifteen-minute spaces, and thirteen unregulated spaces.

Parking Demand

Unmitigated parking demand for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Parking Generation*, 5th Edition, 2019. The parking demand of the project was estimated using the average peak for Day Care Center (ITE LU #565) in a dense multi-use urban setting.

The expected reductions in parking demand associated with the various TDM measures were estimated based on information published in the California Air Pollution Officers Association (CAPCOA) report *Quantifying Greenhouse Gas Mitigation Measures*, CAPCOA, 2010, the location of the project site, and knowledge of transportation characteristics of the area. The TDM strategies detailed in the following section are projected to reduce the anticipated parking demand from six to zero spaces.

Table 1 summarizes the childcare center's parking demand. Table 2 summarizes the reduction in parking demand from each TDM measure.

Table 1 – Parking Analysis Summary

Land Use	Units (Employees)	Proposed On-Site Supply (Spaces)	ITE Parking Generation		Reduced Demand from TDM[2]	Mitigated Parking Demand
			Rate[1]	Unmitigated Parking Demand		
Day Care Center	10	0	0.60	6	-6	0

Notes: [1] *Parking Generation,* 5th Edition, Institute of Transportation Engineers, 2019
[2] Calculated using the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures*

Table 2 – TDM Analysis Summary	
TDM Strategy	**Parking Space Reduction[1]**
Transit Benefits	-2
Cash-Out	-2
Rideshare Program	-2
Bicycle Benefits	Supportive
Guaranteed Ride Home Program	Supportive
Education, Outreach and Marketing	Supportive
Total	**-6**

Notes: [1] Calculated using the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures*

Transportation Demand Management (TDM) Plan

The following section describes the proposed employee and parent TDM plan. It is noted that although most measures described below are intended for employees and can be implemented relatively easily, some of them come at a considerably higher cost depending on the measure in question.

Staggered Drop-Off/Pick-Up Times

As noted in the parking analysis, there are sixteen passenger-loading or short-term parking on Kearney Street, located across the street from the proposed childcare center. The Fairmont School begins each day at 8:15 a.m. and dismissal occurs at 2:40 p.m. The planned hours of operation for the childcare center will be 8:00 a.m. to 6:00 p.m. Based on the school's existing operation situation, the peak drop-off time will be from 8:30 a.m. to 9:00 a.m. and peak pick-up time will be from 5:15 p.m. to 5:45 p.m. The proximity of the two schools makes it possible for families with children attending both schools to make a single drop-off or pick-up trip. Additionally, childcare center employees will be available to assist with drop-offs and pick-ups.

Without current data on the home locations of students, general estimates were used to gauge the potential number of drop-offs and pick-ups. Assuming an eighty-percent drive-alone mode split and 1.5 students per vehicle, there will be an estimated thirty-eight vehicles dropping off and picking up at the childcare center. Given the number of on-street spaces available and that the peak hours of student pick-ups and drop-offs for the childcare center and Fairmont School are well-staggered, there should adequate available passenger loading and short-term parking space to accommodate the childcare center without causing congestion. Regardless, the additional passenger loading, and short-term parking spaces should be striped on the west side of Kearney Street in front of the childcare center for immediate access. Plate 1 shows the passenger loading locations in white and short-term parking in green.

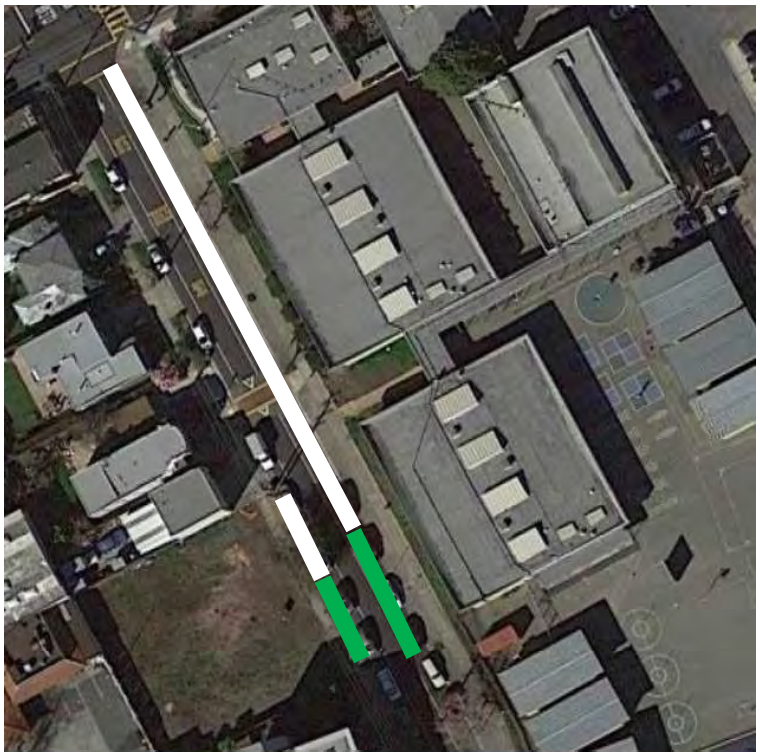

Plate 1 Existing and Proposed Passenger Loading and Short-Term Parking Areas

Recommendation – Stripe the curb space in front of the childcare center as passenger loading and 15-minute short-term parking. Use the existing passenger loading and short-term parking on the east side of Kearney Street for student pick-ups and drop-offs and monitor as necessary.

Guaranteed Ride Home Program

Guaranteed Ride Home (GRH) is a program that provides a "back-up" ride to employees who use transit, carpool, biking/walking, or other alternatives as their commute mode. If an employee who takes transit to work, so does not have their own vehicle, needs to leave work for an emergency, such as a sick child or some other unexpected need, they will be redeemed for the cost of the taxi ride to get them home. This is an important supportive measure to encourage employees to not drive alone to work and often goes as a welcome, but unused benefit. A free GRH program is available for employees through 511 Contra Costa.

Recommendation – Market 511 Contra Costa's GRH program to encourage employee use.

Transit Benefits

Pre-Tax Transit Benefits

The federal tax code allows for the use of tax-free dollars to pay for transit commuting through an employer-sponsored program. Establishing a program for employees to set aside income on a pre-tax basis for transit use saves employees money as they do not pay federal income taxes and it can save employers money by reducing payroll taxes. The current monthly exclusion for transit passes is $270.

Employee BART or AC Transit Subsidy

The childcare center's proximity to a BART station and high-frequency bus routes on San Pablo Avenue make it ideal for transit users. To encourage transit use, the center can provide employees with a $100 monthly subsidy on Clipper cards (equivalent to cover daily rides on AC Transit).

Recommendation – Implement a monthly transit subsidy program for employees. If minimal transit use is anticipated due to employee home locations, instead establish a pre-tax transit benefit program for employees.

Cash-Out

A cash-out program operates when employers pay their employees a cash incentive for the days they use an alternative mode of transportation (transit, bike, walk, or carpool to work) to help reduce parking demand and vehicle commute trips. The cash value of the subsidy can vary depending on the resources available and, in the case of carpools, would be offered to both employees who participate to provide an equitable benefit.

Recommendation – Implement a cash-out program that pays employees five dollars each day they use an alternative mode of transportation.

Bicycle Benefits

Bicycle Parking

The provision of both short-term and long-term bicycle parking is important. Secure long-term parking (e.g. bike lockers) is a critical component in encouraging employees to bike to work as the lack of secure parking is often cited by employees as a deterrent. Short-term parking (e.g. bike racks) is relatively inexpensive and can be used

by employees or parents. City Code requires a minimum of two short-term bicycle spaces and one long-term bicycle space. The Association of Pedestrian and Bicycle Professionals recommends a minimum of three short-term spaces and two long-term spaces for a private childcare center located in an urbanized area.

Recommendation – Provide the recommended amount of both short-term and long-term bicycle parking.

Rideshare Program

Carpooling is one of the most common and cost-effective alternative modes of transportation and one which both employees and parents can adopt. There are numerous benefits to ridesharing. Carpooling can reduce peak-period vehicle trips and increase commuters' travel choices. Further, it reduces congestion, road and parking facility costs and pollution emissions. Carpooling tends to have the lowest cost per passenger-mile of any motorized mode of transportation as it makes use of a vehicle seat that would otherwise be empty. Carpooling also provides financial savings to consumers by decreasing fuel and parking costs.

The greatest barrier to both workplace and parent carpooling is often simply being able to identify other employees or parents with the same travel route. The most effective approach would be for the childcare center to create personalized trip planning information, regardless of mode, for all parents and employees. The transportation coordinator (see recommended position below) could review the home locations of all students and employees and determine their best options for accessing the childcare center by each mode. For instance, based on the home location of a student, the transportation coordinator could recommend a rideshare with a nearby student. Personalized trip planning information would be presented to families and employees in packets prior to joining the program (as a printout or as a PDF via email). Given the goal of zero parking demand for employees, employee ridesharing should focus on pairing riders to access transit.

There are also many services that can assist in ride-matching that are less customized. The most basic publicly available service is 511.org's free ride-matching service. There are also various private ride-matching providers (e.g. Zimride, RideAmigos, Via, Scoop) that can effectively create carpool networks while making them safe and convenient for their users, but these are typically used by larger employers.

Recommendation – Create a custom in-house ridesharing program overseen by the transportation coordinator.

Education, Outreach & Marketing

Transportation Coordinator

The presence of a staff person dedicated part-time to overseeing and managing the TDM program will be helpful in ensuring the ongoing success of these programs. This would not be a distinct position, but instead would be a role that is integrated into the on-site manager. The duties can include:

- Oversee the ride-matching program
- Create and distribute transportation information welcome packets
- Maintain and update a bulletin board or other physical source of transportation information
- Monitor bicycle facilities
- Administer the cash-out program
- Oversee and manage the Guaranteed Ride Home program
- Monitor drop-offs and pick-ups
- Manage transit pass and/or pre-tax transit benefits
- Review and improve the TDM program

Transportation Information

Providing parents and employees with information (on-line and written) regarding transportation options for travel to the childcare center can help encourage the use of non-auto or rideshare options. This information should also be emailed or mailed to parents and employees as part of their confirmation process providing them with the information early on to assist in their logistics planning. Information could include maps and information from AC Transit and BART as well as material regarding the childcare center's ride-matching services, the guaranteed ride home program, and the cash-out program. In addition, an on-site transportation board including bicycle maps, transit routes and schedules, and contact numbers for taxi services should be included on-site to assist parents and employees.

Monitor Performance

It is important to continually monitor the performance of a TDM program and adjust measures as necessary to ensure its success. The transportation coordinator should conduct qualitative and mode split surveys each year to both make adjustments and use as marketing material. Employee satisfaction surveys are also an effective way of ensuring a quality TDM program.

Recommendation – Designate the on-site manager as the Transportation Coordinator and task that person to provide appropriate information to both employees and parents, and both monitor and tailor the TDM program as necessary.

Study Participants and References

Study Participants

Principal in Charge	Brian Canepa
Editing/Formatting	Alex Scrobonia
Quality Control	Dalene J. Whitlock, PE, PTOE

References

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ATTACHMENT 7

Draft Report

Transportation Demand Management Plan Update for 729 Kearney Street

Prepared for the
City of El Cerrito

August 27, 2024

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Table of Contents

Introduction

This report presents a Transportation Demand Management (TDM) plan for the 729 Kearney Street childcare center in the City of El Cerrito. The site is located 0.6 miles from the El Cerrito Plaza BART station, one block from the high-frequency San Pablo Avenue transit corridor, and directly across the street from the Fairmont Elementary School. Currently, the childcare center has 10 employees and 60 enrolled students, but the first-floor capacity of 72 students is expected to be met upon the proposed addition of a second floor of the childcare center. In addition, four staff and an additional 82 students are expected on the second floor following the expansion, for a total of 14 staff and 154 enrolled students. According to Section 2.05.08 of the San Pablo Specific Plan, a maximum of two parking spaces per thousand square feet of space may be built in the Transit Oriented Mid-Intensity zone, but any project that proposes no parking may be required to provide a TDM program. The purpose of the TDM plan detailed in this report is to provide a robust suite of strategies that validates the provision of no parking.

Parking Analysis

Existing Conditions

Although the project does not provide parking, there is considerable adjacent on-street parking available, particularly for pick-ups and drop-offs. On Kearney Street between Stockton Avenue and Eureka Avenue there are an estimated twenty-one unregulated parking spaces on the west side and twenty-nine spaces on the east side, comprised of eleven three-minute passenger loading spaces, five fifteen-minute spaces, and thirteen unregulated spaces.

Parking Demand

Unmitigated parking demand for the expanded childcare center was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Parking Generation*, 6th Edition, 2023. The parking demand of the project was estimated using the average peak for Day Care Center (ITE LU #565) in a dense multi-use urban setting.

Additionally, the number of employees who regularly drive to work alone is included. It is noted that these employees park in on-street parking spaces that are unoccupied while nearby renters are away during the day, creating ample parking availability through normal hours of operation for the childcare center.

Table 1 summarizes the childcare center's parking demand.

Table 1 – Parking Analysis Summary

Land Use	Units (Employees)	Proposed On-Site Supply (Spaces)	ITE Parking Generation		Current Observed Employee Parking Demand[2]
			Rate[1]	Unmitigated Parking Demand	
Day Care Center	14	0	0.60	9	7

Notes: [1] *Parking Generation,* 5th Edition, Institute of Transportation Engineers, 2019
[2] *Monitoring Report,* Little Lamb Childcare Center, 2024

Transportation Demand Management (TDM) Plan

The following section describes the existing employee and parent TDM plan that will also apply to new employees and families. It is noted that although most measures described below are intended for employees and have been implemented relatively easily, some of them come at a considerably higher cost depending on the measure in question.

Staggered Drop-Off/Pick-Up Times

As noted in the parking analysis, there are sixteen passenger-loading or short-term parking on Kearney Street, located across the street from Little Lamb childcare center. Fairmont Elementary School begins each day at 8:15 a.m. and dismissal occurs at 2:40 p.m. Based on the school's existing operation situation, the peak drop-off time will be from 8:30 a.m. to 9:00 a.m. and peak pick-up time will be from 5:15 p.m. to 5:45 p.m. The hours of operation for Little Lamb childcare center are from 8:00 a.m. to 6:00 p.m. The center does not require specific drop-off or pick-up times but generally recommends drop-offs to occur between 8:00 a.m. and 9:30 a.m. and pick-ups to occur between 4:00 p.m. and 6:00 p.m. Furthermore, for newly enrolled students as part of the proposed second floor expansion, preschool student drop-offs should occur between 9:00 a.m. and 9:30 a.m., and from 1:00 p.m. to 2:00 p.m. for after school student drop-offs. It is anticipated that the majority of after school drop-offs will be accomplished by walking from Fairmont Elementary School. Staff will accommodate via ride-share other students who are dropped off after school and that attend other elementary schools.

Based on the provided monitoring report, peak drop-off time is between 8:45 a.m. and 9:15 a.m. Due to the variability in parents' schedules, pick-up times were not observed to follow a common pattern; pick-up times are relatively evenly distributed between 4:00 p.m. and 6:00 p.m. as recommended by the school. In addition, the proximity of the two schools makes it possible for families with children attending both schools to make a single drop-off or pick-up trip. Childcare center employees are also available to assist with drop-offs and pick-ups.

Without data on the home locations of students, general estimates were used to gauge the potential number of drop-offs and pick-ups. Assuming an eighty-percent drive-alone mode split and 1.5 students per vehicle, an estimated 82 vehicles will drop-off and pick-up at the childcare center. Given the number of on-street spaces available and that the peak hours of student pick-ups and drop-offs for the childcare center and elementary school are well-staggered, there should adequate available passenger loading and short-term parking space to accommodate the childcare center without causing congestion. Currently, both sides of Kearny Street are striped for passenger loading and 15-minute short-term parking; upon monitoring, most parents utilize these zones during drop-off and pick-up times.

Recommendation – Maintain the curb space in front of the childcare center as passenger loading and 15-minute short-term parking. Use the existing passenger loading and short-term parking on the east side of Kearney Street for student pick-ups and drop-offs and monitor as necessary.

Guaranteed Ride Home Program

Guaranteed Ride Home (GRH) is a program that provides a "back-up" ride to employees who use transit, carpool, biking/walking, or other alternatives as their commute mode. If an employee who takes transit to work, so does not have their own vehicle, needs to leave work for an emergency, such as a sick child or some other unexpected need, they will be redeemed for the cost of the taxi ride to get them home. This is an important supportive measure to encourage employees to not drive alone to work and often goes as a welcome, but unused benefit. A free GRH program is available for employees through 511 Contra Costa.

It was reported that employees have been informed about this program and are encouraged to take transit and utilize the program's benefits.

Recommendation – Continue to market the 511 Contra Costa's GRH program and encourage employee use.

Transit Benefits

Pre-Tax Transit Benefits

The federal tax code allows for the use of tax-free dollars to pay for transit commuting through an employer-sponsored program. Establishing a program for employees to set aside income on a pre-tax basis for transit use saves employees money as they do not pay federal income taxes, and it can save employers money by reducing payroll taxes. The current monthly exclusion for transit passes is $315.

Employee BART or AC Transit Subsidy

The childcare center's proximity to a BART station and high-frequency bus routes on San Pablo Avenue make it ideal for transit users. To encourage transit use, the center can provide employees with a $100 monthly subsidy on Clipper cards (equivalent to cover daily rides on AC Transit).

A transit subsidy is available to all staff who take public transit which covers 100 percent of their transit fees.

Recommendation – Continue to provide the current transit subsidy program for employees.

Bicycle Benefits

Bicycle Parking

The provision of both short-term and long-term bicycle parking is important. Secure long-term parking (e.g. bike lockers) is a critical component in encouraging employees to bike to work as the lack of secure parking is often cited by employees as a deterrent. Short-term parking (e.g. bike racks) is relatively inexpensive and can be used by employees or parents. City Code requires a minimum of two short-term bicycle spaces and one long-term bicycle space. The Association of Pedestrian and Bicycle Professionals recommends a minimum of three short-term spaces and two long-term spaces for a private childcare center located in an urbanized area.

Three bicycle parking spaces are provided outside of the childcare center.

Recommendation – Maintain existing bicycle parking spaces or provide additional spaces, based on the City's recommended amount of both short-term and long-term bicycle parking.

Education, Outreach & Marketing

Transportation Coordinator

The presence of a staff person dedicated part-time to overseeing and managing the TDM program is helpful in ensuring the ongoing success of these programs. This is not a distinct position, but instead is a role that is integrated into the on-site manager. The duties can include:

- Oversee the ride-matching program
- Create and distribute transportation information welcome packets

- Maintain and update a bulletin board or other physical source of transportation information
- Monitor bicycle facilities
- Administer the cash-out program
- Oversee and manage the Guaranteed Ride Home program
- Monitor drop-offs and pick-ups
- Manage transit pass and/or pre-tax transit benefits
- Review and improve the TDM program

Currently, the Head of School and Preschool Director work collectively as Transportation Coordinators. Together, these on-site Transportation Coordinators manage and educate about the active TDM program, in addition to monitoring drop-offs and pick-ups.

Transportation Information

Providing parents and employees with information (on-line and written) regarding transportation options for travel to the childcare center can help encourage the use of non-auto or rideshare options. This information should also be emailed or mailed to parents and employees as part of their confirmation process providing them with the information early on to assist in their logistics planning. Information could include maps and information from AC Transit and BART as well as material regarding the childcare center's ride-matching services, the guaranteed ride home program, and the cash-out program. In addition, an on-site transportation board including bicycle maps, transit routes and schedules, and contact numbers for taxi services should be included on-site to assist parents and employees. This information should be consistently updated and presented to parents and employees as necessary.

Monitor Performance

It is important to continually monitor the performance of a TDM program and adjust measures as necessary to ensure its success. The transportation coordinator is tasked with conducting qualitative and mode split surveys each year to both make adjustments and use as marketing material. Employee satisfaction surveys are also an effective way of ensuring a quality TDM program.

A 2024 Monitoring Report was provided by the Transportation Coordinators at Little Lamb Childcare Center. This report includes observed transportation trends and existing conditions at the project site, the mode split of students and employees, and an overview of the existing TDM program. Furthermore, it was noted that approximately 71 percent of staff and students drive alone, despite the TDM program in place.

This report has been utilized to update the TDM program for 2024 and will be used to continue monitoring its progress and make improvements as needed.

Recommendation – The Transportation Coordinator should continue to provide appropriate information to both employees and parents, and both monitor and tailor the TDM program moving forward.

Study Participants and References

Study Participants

Principal in Charge	Brian Canepa, TDM-CP
Assistant Engineer	Joseph J. Faria-Poynter, EIT
Editing/Formatting	Alex Scrobonia, Rebecca Mansour
Quality Control	Mark E. Spencer, PE (Traffic)

References

511 Contra Costa, https://511contracosta.org/guaranteed-ride-home
AC Transit, http://www.actransit.org/fares-tickets-transfers
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Publication 15-B (2024), Employer's Tax Guide to Fringe Benefits, Internal Revenue Service, https://www.irs.gov/publications/p15b#en_US_2024_publink1000193743

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PLANNING COMMISSION STAFF REPORT
November 20, 2024

SAFETY ELEMENT UPDATE STUDY SESSION

DETAILS

Applicant: City of El Cerrito

Location: Citywide

Request: A Planning Commission Study Session on the draft goals and polices for the General Plan Safety Element update.

EXECUTIVE SUMMARY

All cities and counties in California must adopt a General Plan pursuant to the California Government Code. The General Plan establishes a community vision for future development. The General Plan must contain seven "elements" or topics. Safety of one of the required elements.

The City of El Cerrito is updating the Safety Element as required by state law. The project commenced in early 2024.

In May 2024, the City held a community meeting to gather input on the Safety Element update. Those in attendance identified safety concerns and suggested strategies to address various hazards in El Cerrito.

Following this meeting, City staff and the City's consultant, Placeworks developed a series of draft goals and policies. These are included as Attachment 1. Staff and Placeworks are now seeking feedback from the public and the Planning Commission on the draft goals and policies. The goals and policies will be refined and incorporated into a draft of the updated Safety Element. The draft Safety Element will be presented to the Planning Commission for review and recommendation in 2025.

Background

Pursuant to California Government Code, all cities and counties in California are required to adopt General Plans. The General Plan is a policy document that establishes a citywide vision and consistent direction for future development. It reflects community priorities and values, and includes supporting goals, policies, and implementation measures to achieve the community's vision. There are seven mandatory “elements” or topics that every jurisdiction must include in its General Plan. Safety is one of the mandatory elements.

The El Cerrito General Plan was last adopted in 1999. Rather than being organized into individual chapters, the required elements are woven throughout eight chapters. The introduction to each chapter explains which components of the required elements are contained in that chapter. El Cerrito’s existing Safety Element resides within portions of Chapter 6: Public Facilities and Services and Chapter 7: Resources and Hazards. The General Plan has been amended strategically at various times, notably in 2014 to accommodate the San Pablo Avenue Specific Plan. However, the Safety Element portion of the General Plan has not been substantively amended since its adoption.

Senate Bill 1035, adopted in 2018, requires cities and counties to update their Safety Elements upon the "next update" of the Housing Element. El Cerrito’s updated Housing Element was adopted by the City Council on August 15, 2023 and City staff indicated to the state Department of Housing and Community Development that the Safety Element would be developed next.

The Governor’s Office Land Use and Climate Innovation (LCI) publishes General Plan Guidelines that describe the focus and requirements of the mandatory elements. The Safety Element generally addresses risks of injury, death, property damage, and economic and social dislocation from various hazards including fire, earthquake, flood, landslide, and climate change.

In 2023, the City selected Placeworks as the consultant for the Safety Element update and commenced the Safety Element update project in early 2024.

On May 30, 2024, the City held a community meeting to gather feedback on the Safety Element update. Approximately 15 members of the public attended the meeting, and those in attendance were generally engaged in topics related to community safety. City staff and Placeworks gave a informational presentation on the Safety Element update project followed by an opportunity to ask questions and give comments, and then followed by an open house with interactive stations covering various safety topics. Attendees identified wildfire and earthquake hazards as their greatest safety concerns, and many mentioned they had experienced impacts from wildfire smoke exposure, power outages, and increased property insurance costs. Community members strongly supported strategies to improve fire resilience at the Hillside Nature Area and better manage vegetation to reduce wildfire risk. Participants also emphasized the importance of emergency preparedness and communication, particularly the need for robust alert systems that work during power outages, distribute information in multiple forms, and are available in languages other than English.

Following the community meeting, Placeworks and City staff began the policy development phase of the project. Placeworks completed a review of the City’s existing General Plan safety policies with recommendations about which policies to retain and to modify. This effort, the feedback from the May community meeting, and input from City staff in the Community Development, Public Works, Fire, and Police Departments formed the basis for the draft Safety Element goals and policies that are presented in Attachment 1.

Analysis

The updated Safety Element is proposed to be focused on eight goals. Each goal is further divided into more specific policies. Each policy lists potential actions that can be taken to implement the policy. Each draft policy in Attachment 1 includes a note that indicates if it is a new policy or a modification of an existing General Plan policy. The policies that have been modified are shown with changes in underline and strike-through.

Since the Safety Element has not been updated since 1999, the Safety Element update will respond to applicable changes in state law since that time. Some of the notable changes include:

- SB 379: requires that the local agencies address climate adaptation within General Plans. The City of El Cerrito completed much of this work as part of the recent update to the Climate Action and Adaptation Plan (CAAP). The Safety Element update will supplement the CAAP as needed to comply SB 379.

- AB 747: requires identification of evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. This analysis has informed many of the policies under Goal 8.

- SB 99: requires identification of residential developments in hazard areas that do not have at least two emergency evacuation routes.

Additionally, the draft policies for the Safety Element update have been developed to reflect current best practices and the programs and regulations in place at the current time. Accordingly, some policies highlight existing regulations and other actions that the City is currently undertaking. Although highlighting existing actions, these policies many still be noted as 'new' policies because they are not contained in the existing General Plan and are new to this update.

City staff and Placeworks are seeking feedback from the public and the Planning Commission on the draft goals and policies. Feedback will be taken into consideration when refining the goals and policies. The goals and polices will be incorporated into a draft of the updated Safety Element which will be presented to the Planning Commission for review and recommendation in 2025.

Attachments

1. Draft Goals and Policies

Goal 1: Mitigate risk from geologic and seismic hazards. (New goal)

Policy 1.1: Geotechnical Review. Require geotechnical studies for development proposals in ~~potentially hazardous~~ areas at risk from geologic and seismic hazards (see Figure X to X), in accordance with City procedures. Such studies should evaluate ~~determine~~ the ~~actual~~ extent of geotechnical hazards, optimum location for structures, the advisability of special structural requirements, and the feasibility and desirability of a proposed facility in a specified location. (Modified existing policy)

Implementation Measures:

- Development Review
- Geologic, Fire, Flooding and Other Hazard Maps
- Municipal Code

Policy 1.2: Erosion Control. Provide appropriate control measures in conjunction with proposed development in areas susceptible to erosion, including an erosion control plan and revegetation plan as part of grading permits~~, and ensure that mineral production be planned and carried out to avoid destruction or degradation of the environment~~. (Modified existing policy)

Implementation Measures:

- Development Review
- Hillside Natural Area Vegetation Management Plan

Policy 1.3: Seismic Safety of New Development. ~~Assure~~ Require ~~existing and~~ new structures to be designed to contemporary standards for seismic safety. ~~Review, amend, and update, at regular intervals, all relevant City codes and ordinances incorporate the most current knowledge and highest standards of seismic safety.~~ Require that new City-owned critical facilities be constructed to the highest possible standard of seismic safety. (Modified existing policy)

Implementation Measures:

- Building Code Update
- Geologic, Fire, Flooding and Other Hazard Maps
- Unreinforced Masonry ~~Buildings~~Building Ordinance

Policy 1.4: Seismic Safety of Existing Development. Assist occupants and owners of existing structures in identifying seismic risks to their structures and provide support in obtaining appropriate seismic retrofit measures. Evaluate all City-owned facilities to

determine seismic risks and implement appropriate seismic retrofit measures. (New policy)

Implementation Measures:

- Municipal Outreach and Engagement
- Unreinforced Masonry Building Ordinance
- Rebate Program for Seismic Upgrades
- City-owned Facility Assessment
- Investigation of Wood-Frame Target Story Structures

Policy 1.5: Seismic Safety of Utilities. Encourage local gas, water, and sewer providers to review and retrofit their main distribution pipes. (New policy)

Implementation Measures:

Municipal Outreach and Engagement

Goal 2: Minimize potential damage from existing hazardous materials and prevent future hazardous materials contamination. (New goal)

Policy 2.1: Potential Hazardous Soils Conditions of New Development. Evaluate new development on potentially contaminated sites (such as older fill sites, historical auto service uses, industrial uses, or areas where hazardous materials may have been used, as mapped in Figure X) and require that development proposals contain adequate measures to mitigate hazardous material exposure prior to development approvals. (Modified existing policy)

Implementation Measures:

- ~~Hazardous Materials Storage Tanks~~
- Hazardous Soils Remediation
- NPDES Permit Compliance MRP 3.0 (Provisions C.11.b Mercury Controls and C.12.b, C.12.g Polychlorinated Biphenyls (PCBs) Controls)
- CEQA Documents

Policy 2.2: Hazardous Soil Conditions in Inundation Hazard Areas. Work with Contra Costa Health Services and other regional partners to identify hazardous materials sites where proximity to mapped flood hazard zones, sea level rise inundation areas, and other water-based hazards that may spread hazardous materials. Prioritize remediation of these sites. (New policy)

Implementation Measures:

- Geologic, Fire, Flooding and Other Hazard Maps
- ~~Hazardous Materials Storage Tanks~~
- Hazardous Soils Remediation

Policy 2.3: Hazardous Materials at Municipal Facilities. Ensure that hazardous materials owned by the City are managed and disposed of appropriately to protect human and environmental health and safety. (New policy)

Implementation Measures:

- Hazardous Waste Management
- Municipal Stormwater Pollution Prevention Plan/NPDES Permit Compliance

Policy 2.4: Hazardous Materials Storage and Disposal. Require proper storage and disposal of hazardous materials in accordance with all State, Federal and local laws and regulations to prevent leakage, potential explosions, fires, or the escape of harmful gases, and to prevent individually innocuous materials from combining to form hazardous substances, especially at the time of disposal. (Existing policy)

Implementation Measures:

- ~~Hazardous Materials Storage Tanks~~
- Hazardous Soils Remediation
- Hazardous Waste Management

Policy 2.5: Hazardous Materials Usage in Construction. Require and enforce effective mitigation measures to minimize ~~the use of~~ exposure to toxic and hazardous materials during building renovations and demolitions. ~~Encourage the use of safer alternative materials and practices, and advise builders on applying for any programs for non-toxic building materials incentives.~~ (Modified existing policy)

Implementation Measures:

- Development Review
- Hazardous Waste Management
- CEQA Documents

Policy 2.6: ~~Clean Environment~~ Hazardous Materials Public Education. Provide information to the community regarding the potential health hazards posed by hazardous materials~~pollution~~ and possible ~~solutions~~ ways to reduce hazardous materials use and properly dispose of hazardous materials. ~~Such educational programs sponsored by educational institutions should also be supported.~~ (Modified existing policy)

Implementation Measures:

- Hazardous Waste Management
- Municipal Outreach and Engagement

Goal 3: Reduce risks from flooding and sea level rise and provide timely and effective flood response. (New goal)

Policy 3.1: Flood-responsive Siting of New Critical Facilities. Prohibit the construction of new critical facilities and infrastructure, including hospitals, health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communication facilities within mapped flood hazard and sea level rise inundation zones (see Figure X to X). (New policy)

Implementation Measures:

- Development Regulations
- Geologic, Fire, Flooding, and Other Hazard Maps

Policy 3.2: Flood-proofing New Construction. Require flood-proofing of new and significantly renovated buildings and structures within the mapped 100-year flood zones, as required by the California Building Code and in accordance with the City's Floodplain Management ordinance. (New policy)

Implementation Measures:

- Building Code Update
- Geologic, Fire, Flooding, and Other Hazard Maps

Policy 3.3: Flood Hazards from New Construction. Require new development and significant redevelopment projects, greater than 10,000 square feet of conditioned space, to prepare drainage studies to assess stormwater runoff impacts on the local storm drain system, and to develop recommended detention and drainage facilities to ensure that increased risks of flooding do not result from development. (New policy)

Implementation Measures:

- Development Review
- Stormwater Management Facilities

Policy 3.4: Flood Hazards to Existing Development. Help property owners identify qualified service providers and obtain financial incentives to floodproof existing buildings. (New policy)

Implementation Measures:

- Geologic, Fire, Flooding, and Other Hazard Maps
- Municipal Outreach and Engagement

Policy 3.5: Maintenance for the City's Storm Drainage Facilities~~. In order to maintain unobstructed drainage courses,~~ Continue to enforce existing laws prohibiting the dumping of debris, fill or other waste materials into creeks and channels, and the littering of garbage. ~~should be strictly enforced. The City will also~~ Continue to ~~maintain a high level of maintenance for its~~ensure that local storm drainage facilities are sufficiently maintained. Pursue viable funding sources for local and regional drainage improvements for adequate flood control and protection.~~New developments will be carefully reviewed to insure that adequate storm drain facilities are available both on and off the site.~~ (Modified existing policy)

Implementation Measures:

- Annual Budget
- Cooperating with Other Jurisdictions in Solving Storm Drainage Problems
- Stormwater Management Facilities
- Municipal Stormwater Pollution Prevention Plan/NPDES Permit Compliance

Policy 3.6: Creek Maintenance Education. Continue to educate local property owners about their responsibilities to maintain creeks and open channels located on private property (New policy).

Implementation Measures:

- Annual Budget
- Municipal Outreach and Engagement

Policy 3.7: Natural Stormwater Management Solutions. Continue to identify opportunities and funding sources to expand the City's green infrastructure network, as defined in the City's Green Infrastructure Plan. Require new development to incorporate natural stormwater management solutions on-site as a condition of approval for discretionary projects, as appropriate. (New policy)

Implementation Measures:

- Building Code Update
- Green Infrastructure Plan
- Municipal Code
- Stormwater Management Facilities

- Municipal Stormwater Pollution Prevention Plan/NPDES Permit Compliance
- Capital Improvement Program
- Climate Action and Adaptation Plan

Policy 3.8: Permeable Paving. Encourage new development to reduce impervious area and use permeable surfaces. (New policy)

Implementation Measures:

- Building Code Update
- Stormwater Management Facilities
- Climate Action and Adaptation Plan
- NPDES Permit

Policy 3.9: Continuity of public facilities during flooding. Maintain the structural and operational integrity of essential public facilities during flooding through structural retrofits, flood management, operational improvements, and other appropriate actions. (New policy)

Implementation Measures:

- Capital Improvement Program
- Stormwater Management Facilities

Policy 3.10: ~~Rise in Sea Level~~Sea Level Rise Coordination. Coordinate with local, regional, state, and federal agencies ~~regarding potential rise in sea level~~ to plan for the impacts of flooding, sea level rise, and groundwater intrusion in the community. (Modified existing policy)

Implementation Measures:

- Collaborative Development Standards Updates
- Cooperating with Other Jurisdictions in Solving Storm Drainage Problems
- Intergovernmental Coordination

Policy 3.11: Flood Response. Coordinate with the Contra Costa County Flood Control and Water Conservation District and neighboring jurisdictions to address regional flood hazards. (New policy)

Implementation Measures:

- Cooperating with Other Jurisdictions in Solving Storm Drainage Problems
- Intergovernmental Coordination

Goal 4: Reduce El Cerrito's risk of wildfire and provide timely and effective fire response. (New goal)

Policy 4.1: Fire-Resilient Existing Development. Work with property owners and building occupants to raise awareness about potential building and landscape modifications to improve wildfire resilience and work to obtain funding to help property owners make these improvements. (New policy)

Implementation Measures:

- Municipal Outreach and Engagement

Policy 4.2: Fire ~~Retardant~~ Resistant Landscaping. Require ~~Encourage~~ the use of fire-~~retardant~~ resistant vegetation for landscaping in new development~~, especially~~ in high fire hazard areas. Encourage the use of fire-resistant vegetation in all development city-wide. (Modified existing policy)

Implementation Measures:

- Development Regulations
- Emergency Preparedness Planning
- Geologic, Fire, Flooding, and Other Hazard Maps
- Weed Abatement and Vegetation Management Standards

Policy 4.3: Hillside Natural Area. ~~Control~~ Manage vegetation ~~growth~~ in the Hillside Natural Area to reduce fire hazards. Integrate measures into the Hillside Natural Area Fire Resilience and Forest Conservation Management Plan that promote wildfire resilience. (Modified existing policy)

Implementation Measures:

- Annual Budget
- Weed Abatement and Vegetation Management Standards
- Emergency Preparedness Planning
- Climate Action and Adaptation Plan
- Hillside Natural Area Fire Resilience and Forest Conservation Management Plan

Policy 4.4: Hazardous Tree Removal on Private Property. Evaluate options for supporting removal of trees on private property that pose threats to residential buildings and critical facilities. This evaluation will explore various approaches, including:

- **Permitting and Replacement Requirements**: Assess potential modifications to permitting processes and replacement requirements for tree removal without imposing financial burdens on property owners.
- **Funding Opportunities**: Investigate the feasibility of establishing a loan or grant program to assist property owners in funding the removal of hazardous trees, leveraging external funding sources to minimize costs to the City.
- **Collaborative Partnerships**: Explore partnerships with local organizations, non-profits, or state agencies that may provide resources or support for tree removal initiatives. (New policy)

Implementation Measures:

- Annual Budget

Policy 4.5: Public Tree Maintenance. Regularly trim or remove trees and other vegetation on public land to minimize wildfire risks (New policy).

Implementation Measures:

- Annual Budget
- Climate Action and Adaptation Plan
- Urban Forest Management Plan

Policy 4.6: Fire Breaks. Require property owners of existing and new development in Very High Fire Hazard Severity Zones or the Wildland-Urban Interface (as shown on Figure X and Figure X) to create and maintain community fire breaks and defensible space around structures that is free from dry brush and other flammable materials and to comply with the 100-foot Defensible Space Requirement in the Public Resources Code (PRC 4291) and Government Code (GC 51182) for fuel modification to reduce fire danger. Maintain fire or shaded fuel breaks along roadways. (New policy)

Implementation Measures:

- Annual Budget
- Weed Abatement and Vegetation Management Standards
- Geologic, Fire, Flooding, and Other Hazard Maps

Policy 4.7: Regional Wildfire Prevention. Continue to collaborate with the Contra Costa Resource Conservation District, Alameda County Resource Conservation District, neighboring jurisdictions, and local community organizations to regularly review regional

wildfire hazards and vulnerabilities and develop regional wildfire abatement and response strategies. (New policy)

Implementation Measures:

- Collaborative Development Standards Updates
- Emergency Preparedness Planning
- Intergovernmental Coordination

Policy 4.8: Wildfire Risk from Energy Infrastructure. Coordinate with PG&E to ensure that fire breaks are maintained around electrical infrastructure. Identify opportunities and funding sources to underground electricity infrastructure in Very High FHSZs. (New policy)

Implementation Measures:

- Capital Improvement Program
- Development Regulations
- Emergency Preparedness Planning
- Geologic, Fire, Flooding, and Other Hazard Maps
- Weed Abatement and Vegetation Management Standards

Policy 4.9: Fire Fighting Infrastructure. Facilitate the timely and effective provision of firefighting services by:

1. Expanding the availability of fire hydrants in Very High and High FHSZs.
2. Coordinating with the East Bay Municipal District to ensure that adequate peak load water supplies are available to fight fires. Redundancies in the water storage and capacity distribution network should be considered and implemented in those areas of the city where ground failure could result in breaks to both the water and gas mains, with the potential for significant conflagrations.
3. Requiring that development in Very High FHSZs contain visible street signage.
4. Requiring that new development provide roadways of adequate width to support emergency response vehicles.
5. Requiring that new development provide adequate water pressure for firefighting.
6. Identifying opportunities to facilitate access of emergency vehicles to existing development in Very High FHSZs. (New policy)

Implementation Measures:

- Building Code Update
- Capital Improvement Program
- Emergency Preparedness Planning

- Intergovernmental Coordination

Policy 4.10: Sufficient Fire Fighting Services. Regularly review staffing levels, fire station location, equipment availability, water availability, and availability of other key resources of the El Cerrito-Kensington Fire Department to ensure that the Department is keeping pace with changes in local population. (New policy)

Implementation Measures:

- Annual Budget
- Capital Improvement Program
- Emergency Preparedness Planning

Policy 4.11: Fire Protection for New Development. In coordination with the El Cerrito-Kensington Fire Department, ensure new development be located where fire and emergency services have sufficient capacity to meet project needs or require that new development provide resources for the City to expand fire protection services and resources to ensure new development has adequate fire protection and that existing development maintains its current level of protection service. (New policy)

Implementation Measures:

- Intergovernmental Coordination
- Development Regulations

Policy 4.12: Post-Fire Development. Require redevelopment after wildfires to meet current California Building Code, California Fire Code, and California Fire Safe Standards to reduce future vulnerabilities to fire hazards through site preparation, layout design, fire-resistant landscaping, and fire-retarding building design and materials. Re-evaluate development standards after a wildfire to ensure consistency with the latest regulations and best practices. (New policy)

Implementation Measures:

- Building Code Update
- Development Regulations

Policy 4.13: Post-Fire Displacement. Work with neighboring jurisdictions and local homeless service and emergency support providers to help residents displaced from wildfires to secure housing and other necessary services. (New policy)

Implementation Measures:

- Community Collaborations

- Emergency Preparedness Planning
- Intergovernmental Coordination

Policy 4.14: Post-Fire Slope Stabilization. Coordinate with local, state, and federal agencies to stabilize burned slopes after a wildfire. (New policy)

Implementation Measures:

- Intergovernmental Coordination

Policy 4.15: Wildfire Health Impacts. Work with the Contra Costa County Public Health Division and health service providers to plan for increased levels of illness and injury due to wildfire and to distribute N95 masks during periods of poor air quality. (New policy)

Implementation Measures:

- Community Collaborations
- Emergency Preparedness Planning
- Intergovernmental Coordination

Policy 4.16: New Development in Very High FHSZs. Require review by the Community Development Department and El Cerrito-Kensington Fire Department prior to the issuance of development permits for proposed new construction, significant redevelopment projects, and conceptual landscaping plans in Very High Fire Hazard Severity Zones identified by CAL FIRE (see Figure X Fire Hazard Severity Zones). Plans for proposed development in such areas shall include, at a minimum:

- Site plan, planting plan, planting palette, and irrigation plan to reduce the risk of fire hazards and with consideration to site conditions, including slope, structures, and adjacencies.
- Development and maintenance of defensible space.
- Development of fire protection plans.
- Multiple points of ingress and egress to improve evacuation, emergency response, and fire equipment access and adequate water infrastructure for water supply and fire flow that meets or exceeds the standards in the California Fire Safe Regulations. This specifically includes two sections of Title 14 of the CCR, Division 1.5, Chapter 7: Subchapter 2, Articles 1-5 (commencing with section 1270, SRA Fire Safe Regulations); and Subchapter 3, Article 3 commencing with section 1299.01, Fire Hazard Reduction Around Buildings and Structures Regulations).
- Class A roof materials for new and replacement roofs.
- Location and source of anticipated water supply. (New policy)

Implementation Measures:

- Development Regulations
- Intergovernmental Coordination
- Geologic, Fire, Flooding, and Other Hazard Maps

Policy 4.17: Fire Hazards Response Support. Help firefighting crews and emergency response teams respond to fire hazards or work under low-visibility conditions by requiring measures such as high-visibility signage for streets and building addresses that meet or exceed the standards in the California Fire Safe Regulations (Title 14 of the CCR, Division 1.5, Chapter 7, Articles 2 and 3, Sections 1273 and 1274). (New policy)

Implementation Measures:

- Intergovernmental Coordination

Policy 4.18: Access for Fire and Emergency Vehicles and Equipment. Require proposed development to provide adequate access for fire and emergency vehicles and equipment that meets or exceeds the standards in the California Fire Safe Regulations (California Code of Regulations, Title 14, Division 1.5, Chapter 7): Subchapter 2, Articles 1-5 (commencing with section 1270, SRA Fire Safe Regulations); and Subchapter 3, Article 3 (commencing with section 1299.01, Fire Hazard Reduction Around Buildings and Structures Regulations). (New policy)

Implementation Measures:

- Development Regulations

Policy 4.19: Retrofitting City-Owned Roadways. Identify existing public and private roadways in fire hazard severity zones that are not in compliance with current fire safety regulations, to the extent resources are available. Work at retrofitting and maintaining City-owned roadways as needed to meet current standards and encourage private property owners to do the same, to the extent feasible and given the absence of other site constraints. These standards include road standards for evacuation and emergency vehicle access, vegetation clearance, and other requirements of the California Fire Safe Regulations, Title 14 of the CCR, Division 1.5, Chapter 7): specifically Subchapter 2, Articles 1-5 (commencing with section 1270, SRA Fire Safe Regulations); and Subchapter 3, Article 3 (commencing with section 1299.01, Fire Hazard Reduction Around Buildings and Structures Regulations). (New policy)

Implementation Measures:

- Annual Budget

- Capital Improvement Program

Policy 4.20: Firewise Communities. Publicize the Firewise USA program to neighborhoods in areas with high fire risks and support neighborhoods in Very High Fire Hazard Severity Zones and the Wildland-Urban Interface in pursuing designation as Firewise Communities. (New policy)

Implementation Measures:

- Community Collaborations
- Municipal Outreach and Engagement

Goal 5: Reduce risk from and provide timely and effective response to extreme heat and severe weather. (New goal)

Policy 5.1: Urban Tree Canopy. Maintain the health of the urban tree canopy to reduce risk of downed trees during severe weather. Expand the urban tree canopy to help reduce the impacts of extreme heat. (New policy)

Implementation Measures:

- Annual Budget
- Urban Forest Management Plan
- Capital Improvement Program
- Climate Action and Adaptation Plan

Policy 5.2: Shade Structures. Install shade structures, both green and built infrastructure, at parks, schools, bus stops, along public streets and trails, and at other public spaces to reduce ground surface temperatures. (New policy)

Implementation Measures:

- Annual Budget
- Capital Improvement Program
- Climate Action and Adaptation Plan

Policy 5.3: Shading and Heat-Mitigating Materials. Coordinate with local and regional public transportation providers to increase shading and heat-mitigating materials on pedestrian walkways and at transit stops. (New policy)

Implementation Measures:

- Capital Improvement Program
- Intergovernmental Coordination

- Climate Action and Adaptation Plan

Policy 5.4: Resilience Hubs. Work with neighboring jurisdictions to establish and maintain a network of equitably located community resilience hubs throughout El Cerrito and in the wider region, and ensure that resilience hubs are situated outside of areas at risk from hazards impacts to the extent possible, offer refuge from extreme heat and poor air quality due to regional wildfire smoke, and are equipped with renewable energy generation and backup power supplies. Such facilities should be in easily accessible locations and available to all community members. Conduct outreach to educate and inform the community about the resilience hubs. (New policy)

Implementation Measures:

- Community Collaborations

Policy 5.5: Resilient Development. Encourage new and existing development to incorporate building and site design features that reduce the effects of extreme heat, improve indoor air quality, and reduce energy demand. These features could include air conditioning, air filtration, energy-efficient duct work, energy efficient windows and doors, improved awnings and shading, and shade trees and other green infrastructure. Help residents connect with contractors and financial assistance programs to implement these improvements. (New policy)

Implementation Measures:

- Building Code Update
- Municipal Outreach and Engagement Climate Action and Adaptation Plan

Policy 5.6: Resilient Power Supplies. Work with PG&E, MCE, and local solar energy installers to support resiliency of the local power grid, including solar and battery systems for residents, businesses, and public agencies. (New policy)

Implementation Measures:

- Capital Improvement Program
- Intergovernmental Coordination
- Climate Action and Adaptation Plan

Policy 5.7: On-Site Solar and Energy Storage at City Facilities. Continue installing and upgrading on-site solar photovoltaic systems with energy storage at City facilities, using resources from Bay Area Regional Energy Network (BayREN) and other regional energy networks and partners. Identify and prioritize buildings and facilities that may need backup

energy during outages and provide essential City services during extreme weather events. (New policy)

Implementation Measures:

- Annual Budget
- Capital Improvement Program
- Emergency Preparedness Planning
- Climate Action and Adaptation Plan

Policy 5.8: Community Solar and Energy Storage. Provide financial incentives and technical assistance in partnership with MCE, the Bay Area Regional Energy Network, and others to support the development of community solar projects, streamline permitting where possible, and prioritize storage systems to ensure community solar could be used during outages. (New policy)

Implementation Measures:

- Annual Budget
- Capital Improvement Program
- Climate Action and Adaptation Plan

Policy 5.9: Planning for Extreme Heat. Collaborate with neighboring jurisdictions to develop an extreme heat response plan that includes establishment of community cooling centers, weatherization of city buildings, temperature triggers for when cooling centers would open, and cooling strategies for persons engaged in outdoor work and persons experiencing homelessness. (New policy)

Implementation Measures:

- Emergency Preparedness Planning
- Intergovernmental Coordination
- Climate Action and Adaptation Plan

Policy 5.10: Community Support Networks. Support residents in developing neighborhood support programs to perform wellness checks on vulnerable neighbors during hazardous events. (New policy)

Implementation Measures:

- Municipal Outreach and Engagement

Policy 5.11: Urban Greening Plan. Implement the Urban Greening Plan to enhance public places and open spaces throughout the city. Open and green spaces provide cooling from heat and are linked to mental health and quality of life benefits. (New policy)

Implementation Measures:

- Annual Budget
- Capital Improvement Program

Climate Action and Adaptation Plan Goal 6: Secure a resilient water supply and use water supplies sustainably. (New goal)

Policy 6.1: Drought-tolerant Landscaping. Require drought-tolerant landscaping in new private and municipal development, in accordance with applicable state and local laws. Ensure that new landscaping does not exacerbate wildfire or flood risks, and aligns with vegetation and stormwater management standards. (New policy)

Implementation Measures:

- Building Code Update
- Climate Action and Adaptation Plan

Policy 6.2: Water-efficient Development. Require the installation of water efficiency measures at municipal facilities. Encourage the installation of water efficiency and graywater measures in existing private development, including by helping residents identify rebates and other financial incentives. (New policy)

Implementation Measures:

- Municipal Outreach and Engagement
- Rebate Program for Water Conservation Projects
- Climate Action and Adaptation Plan

Policy 6.3: Drought Planning. Work with regional water providers to prepare for a reduced long-term water supply resulting from more frequent and severe drought events to implement extensive water conservation measures and ensure sustainable water supplies, including fire suppression needs. (New policy)

Implementation Measures:

- Intergovernmental Coordination

Goal 7: Protect the health of El Cerrito residents. (New goal)

Policy 7.1: Regional Health. Work with Contra Costa County to identify and track disease conditions that may affect El Cerrito residents. (New policy)

Implementation Measures:

- Intergovernmental Coordination

Policy 7.2: Pandemic Planning. Work with Contra Costa County to plan for future pandemic events, including securing necessary public health supplies, preparing effective messaging for preventative actions and treatments, and identifying and evaluating potential public health measures. (New policy)

Implementation Measures:

- Intergovernmental Coordination
- Emergency Preparedness Planning

Policy 7.3: Vector-Borne Diseases. Support the County in working with healthcare providers to support free or reduced-cost vaccinations for vector-borne diseases for El Cerrito residents. (New policy)

Implementation Measures:

- Community Collaborations

Policy 7.4: Medical Providers. Work with Contra Costa County to coordinate with local medical providers to ensure low-cost medical and emergency medical services are available to all residents in the city. (New policy)

Implementation Measures:

- Intergovernmental Coordination

Policy 7.5: Outdoor Workers. Look for opportunities to ensure that workers in outdoor industries have the training and resources to be adequately protected from environmental hazards, including extreme heat, poor air quality, pests, and diseases. (New policy)

Implementation Measures:

- Community Collaborations
- Intergovernmental Coordination

Policy 7.6: Public Awareness. Work with local community groups, providers of senior services, and childcare workers to raise awareness about disease prevention and response. (New policy)

Implementation Measures:

- Community Collaborations

Goal 8: A community prepared for an effective response and recovery in the event of emergencies or natural and human-caused disasters. (New goal)

Policy 8.1: **Hazard Awareness.** Publicize ~~disaster plans~~ areas at risk of local hazards, emergency preparedness programs, evacuation planning resources, and other efforts to promote resident awareness and caution regarding hazards, including soil instability, earthquakes, flooding, and fire. (Modified existing policy)

Implementation Measures:

- Emergency Preparedness Planning
- Geologic, Fire, Flooding, and Other Hazard Maps
- Release of Hazardous Materials

Policy 8.2: Public Facilities. ~~Locate and design~~ Avoid construction of new emergency buildings (police, fire, hospital, etc.) and vital utilities, communication systems and other public facilities within identified fire, flood, and geologic hazard zones (see Figures X through X) to the extent feasible. Design such buildings and infrastructure to ~~so that they~~ remain operational during and after an emergency or disaster and ensure that existing critical facilities and infrastructure remain operational during and after an emergency or disaster. (Modified existing policy).

Implementation Measures:

- Emergency Preparedness Planning
- Geologic, Fire, Flooding, and Other Hazard Maps

Policy 8.3: **Emergency Notification and Communication.** Promote participation in the City's Emergency Alert E-Notifications program, PG&E's emergency alert system, emergency HAM radio operators network, and other networks that can reach residents in the event of an emergency. Continue to support the County's Community Warning System sirens and explore opportunities to expand emergency warning siren systems in El Cerrito. Ensure that the City can issue emergency warnings even in the absence of electrical and

cellular service. Ensure that all official City communications are provided in formats and languages that are reflective of the demographics of El Cerrito. (New policy)

Implementation Measures:

- Emergency Preparedness Planning

Policy 8.4: Power Outages. Identify residents whose health and safety may be most severely impacted by power outages and provide support and assistance in obtaining backup power supplies and other safety resources. (New policy)

Implementation Measures:

- Emergency Preparedness Planning

Policy 8.5: Local Hazard Mitigation Plan. Upon update and certification by the Federal Emergency Management Agency, incorporate the current Contra Costa County Local Hazard Mitigation Plan and the City's Annex into this Safety Element by reference, as permitted by California Government Code Section 65302.6. (New policy)

Implementation Measures:

- Emergency Preparedness Planning

Policy 8.6 Community Emergency Preparedness. In partnership with neighboring jurisdictions, conduct community emergency response and evacuation drills to increase awareness and support improved community preparedness for future emergencies. (New policy)

Implementation Measures:

- Emergency Preparedness Planning

Policy 8.7: CERT Training. Support and encourage Community Emergency Response Team (CERT) training to residents and members of the business community to increase disaster awareness and emergency response capability. (New policy)

Implementation Measures:

- Emergency Preparedness Planning

Policy 8.8: Hazard Insurance. Work with property and rental insurance providers to raise awareness about the latest safety requirements related to seismic, flood, and fire hazards and regularly incorporate these requirements into development codes as necessary. Work with other jurisdictions and local community-based organizations to evaluate

opportunities to preserve and improve the cost and quality of property insurance for El Cerrito community members. (New policy)

Implementation Measures:

- Annual Budget
- Building Code Update
- Development Regulations
- Emergency Preparedness Planning
- Municipal Code
- Municipal Outreach and Engagement

Policy 8.9: Regional Emergency Response. Coordinate with neighboring jurisdictions and Caltrans in emergency response and evacuation planning. (New policy)

Implementation Measures:

- Emergency Preparedness Planning

Policy 8.10: Multi-Destination Evacuation Planning
Identify and maintain a list of multiple evacuation destinations in different locations in the vicinity of the city to provide diverse points of refuge and reduce evacuation times. The City should select these sites based on their capacity to accommodate the estimated number of evacuating people from El Cerrito and unincorporated Kensington (New policy)**.**

Implementation Measures:

- Emergency Preparedness Planning

Policy 8.11: Inter-Jurisdictional Coordination for Evacuation Route Maintenance
Collaborate and plan with the City of Richmond, Contra Costa County, Contra Costa Transportation Authority, and Caltrans to ensure the ongoing maintenance and readiness of potential evacuation routes serving El Cerrito and unincorporated Kensington, including making improvements to existing roads to support safe evacuations, as needed. Continue to implement and expand existing agreements where feasible along evacuation routes. These agreements shall include provisions for:

a) Regular assessment and improvement of existing roads to support safe evacuations.
b) Coordinated planning and implementation of traffic management strategies during evacuations.

These efforts will help to ensure adequate capacity, safety, and viability of evacuation routes in the event of an emergency (New policy).

Implementation Measures:

- Caltrans Integrated Corridor Management Project
- Capital Improvement Program
- Incident Management Plans
- Intergovernmental CoordinationEmergency Preparedness Planning
- Local Hazard Mitigation Plan
- West County Memorandum of Understanding for Signal Timing and Emergency Management

Policy 8.12: Evacuation Route Infrastructure Preparedness
To enhance evacuation efficiency and safety, the City will:

a. Continue to evaluate and to extent feasible provide back-up power systems for all City-owned traffic signals on potential evacuation routes.
b. Evaluate and as appropriate develop or update emergency evacuation traffic signal timing plans for all signals on potential evacuation routes, prioritizing outbound traffic flow while maintaining access for emergency vehicles through traffic signal pre-emption.
c. Identify and designate corridors where temporary evacuation capacity can be created through manual traffic direction to optimize traffic flow, including use of available parking lanes, shoulders, and bikeways for traffic while ensuring emergency responder access is maintained.
d. Identify additional opportunities to preserve and enhance evacuation route infrastructure preparedness as part of regular maintenance activities (New policy).

Implementation Measures:

- Annual Budget
- Capital Improvement Program
- Emergency Preparedness Planning
- I-80 Integrated Corridor Mobility Program
- Local Hazard Mitigation Plan

Policy 8.13: Evacuation Route Clearance and Capacity Enhancement

To maximize evacuation route effectiveness:

a. The City will implement a permanent program that allows restriction of on-street parking on designated evacuation routes during high-risk periods for various hazards based on evaluation of pilot program.
b. El Cerrito will support efforts by PG&E to prioritize the undergrounding of utilities and the upgrading of power poles with current isolating/shutdown technologies along main evacuation corridors to minimize the risk of downed wires during evacuations. The City will also support tree trimming and other regular maintenance conducted by PG&E along utility corridors (New policy).

Implementation Measures:

- Annual Budget
- Capital Improvement Program
- Emergency Preparedness Planning

Policy 8.14: Community Evacuation Education and Preparedness
El Cerrito will implement a comprehensive community evacuation education and preparedness program, including:

a) Regular updates and dissemination of information about how to plan for safe and effective evacuations, in multiple languages and formats accessible to all community members. 1
b) Coordination with West Contra Costa Unified School District (WCCUSD) and private schools to develop and regularly update evacuation plans for all schools within El Cerrito and Kensington.
c) Targeted outreach and planning for areas with high concentrations of physically and socially vulnerable residents, including those with age-related, disability-related, or other mobility challenges.
d) Conducting periodic community-wide evacuation exercises to test and refine evacuation plans and procedures.
e) Encouraging residents and employees to sign up with the Contra Costa County Community Warning System and Zonehaven Aware to receive emergency alerts and ensure effective distribution of evacuation notifications (New policy).

Implementation Measures:

- Municipal Outreach and Engagement
- Community Collaborations
- Emergency Preparedness Planning

Policy 8.15: Evacuation Assistance Program

Develop and implement an evacuation assistance program, in coordination with Contra Costa Transportation Authority, AC Transit, paratransit, dial-a-ride agencies, and care homes to help those with limited mobility, lack of access to a vehicle, and other at-risk populations evacuate safely. Consider training for emergency responders and volunteers in assisting vulnerable populations during evacuations (New policy).

Implementation Measures:

- Annual Budget
- Municipal Outreach and Engagement
- Community Collaborations
- Emergency Preparedness Planning