(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL

7315 HARRIS RD. BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT

14535 OLD RIVER RD. BAKERSFIELD, CA 93313

SHEETS IN SET 120

GENERAL NOTES

1. THE DRAWINGS, IDEAS AND DESIGNS REPRESENTED HEREIN ARE THE PROPERTY OF THE ARCHITECT.
2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO CONVEY AN OVERALL DESCRIPTION OF THE PROJECT IN SUFFICIENT DETAIL FOR ITS COMPLETE CONSTRUCTION. SOME CONDITIONS, WHICH ARE COMMONLY ENCOUNTERED IN CONSTRUCTION OF THIS TYPE AND/ OR CONDITIONS WHICH RELATE TO SPECIFIC PRODUCTS OR PROCESSES, MAY NOT BE SPECIFICALLY DETAILED IN THESE PLANS. ALL CONDITIONS NOT SPECIFICALLY DETAILED SHALL BE CONSTRUCTED COMPLETELY PER THE CURRENT STANDARDS OF THE APPROPRIATE INDUSTRY AND ANY APPLICABLE MANUFACTURER'S RECOMMENDATIONS.
3. NOTHING IN THE PLANS AND SPECIFICATIONS IS TO BE CONSTRUED TO PERMIT CONSTRUCTION IN CONFLICT WITH THE REQUIREMENTS OF ANY CODE, LAW ORDINANCE OR REGULATION.
4. "TYPICAL" MEANS IDENTICAL FOR ALL SAME CONDITIONS UNLESS OTHERWISE NOTED. "SIMILAR" MEANS COMPARABLE CHARACTERISTICS FOR THE CONDITIONS NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN WITH THE ARCHITECT.
5. ALL PARTITIONS ARE DIMENSIONED TO CENTERLINE UNLESS OTHERWISE NOTED.
6. DIMENSIONS ARE NOT ADJUSTABLE WITHOUT APPROVAL OF THE ARCHITECT, UNLESS OTHERWISE NOTED (+).
7. DO NOT SCALE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL DIMENSIONS.
8. ALL HEIGHTS ARE DIMENSIONED FROM TOP OF EXISTING SLAB UNLESS NOTED OTHERWISE "AFF", ABOVE FINISH FLOOR.
9. ALL WORK SHALL BE SCHDULED AND PERFORMED SO AS NOT TO DISTURB OR CAUSE DAMAGE TO ADJACENT PROPERTIES.
10. ALL REVISIONS TO THE APPROVED PLANS MUST BE APPROVED BY THE DIVISION OF STATE ARCHITECT.
11. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONSFOR ACCURACY AND CONFIRMING THAT WORK IS BUILDABLE AS SHOWN BEFORE PROCEEDING WITH CONSTRUCTION. IF THERE ARE ANY QUESTIONS REGARDING THESE OR OTHER COORDINATION QUESTIONS, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ARCHITECT BEFORE PROCCEEDING WITH WORK OR RELATED WORK IN QUESTION.
12. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL COORDINATE THE LAYOUT AND EXACT LOCATION OF ALL PARTITIONS, DOORS, PLUMBING, MECHANICAL, ELECTRICAL AND FIRE PROTECTION EQUIPMENT IN THE FIELD BEFORE PROCEEDING WITH CONSTRUCTION.
13. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE PROJECT AND SHALL BE RESPONSIBLE FOR DISIPLINE OF ALL WORKERS ON THE PROJECT.
14. ALL DECORATIVE MATERIALS AND TRIM SHALL COMPLY WITH CALIFORNIA BUILDING CODE, SECTION 806.1
15. JOINTS 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 EXFILTRATION PER CEC 110.7
16. ALL WORK SHALL CONFORM TO 2022 EDITION TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
17. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
18. A "DSA CERTIFIED" PROJECT INSPECTOR (MIN. CLASS 1) EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
19. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH LOCAL ORDINANCES.
20. ALL MATERIALS AND WORK SHOWN SHALL BE CONSIDERED A PART OF THE SCOPE OF WORK FOR THIS PROJECT UNLESS INDICATED AS EXISTING (E).
21. WHENEVER DSA FINDS ANY CONSTRUCTION WORK IS BEING PERFORMED IN A MANNER CONTRARY TO THE PROVISIONS OF CALIFORNIA BUILDING CODE AND THAT WOULD COMPRISE THE STRUCTURAL INTEGRITY OF THE BUILDING, THE DEPARTMENT OF GENERAL SERVICES, STATE OF CALIFORNIA. IS AUTHORIZED TO ISSUE A STOP WORK ORDER PER SECTION 4-334.1 CALIFORNIA ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR).
22. TITLE 24, PARTS 1-5 AND 9 MUST BE KEPT ON SITE DURING CONSTRUCTION.
23. ALL STRUCTURAL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING MATERIALS INSTALLATION TO COMPLY WITH APPLICABLE CODES, STANDARDS, AND MANUFACTURER'S RECOMENDATIONS.
24. THE PROJECT INSPECTION (PI) SHALL WITNESS AND VERIFY GROUNDING.
25. WORK SHALL COMPLY WITH THE PROVISIONS OF CHAPTER 33 OF CBC & CFC DURING CONSTRUCTION
26. IF ANY CONDITION IS DISCOVERED WHICH, IF LEFT UNCORRECTED, WOULD MAKE THE BUILDING NON-COMPLIANT WITH THE REQUIREMENTS OF THE EDITION OF THE CBC ENFORCED AT THE TIME OF ORIGINAL CONSTRUCTION, THE CONDITION MUST BE CORRECTED IN ACCORDANCE WITH CURRENT CODE REQUIREMENTS. A CONSTRUCTION CHANGE DOCUMENT, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK. (SECTION 4-317 (C), PART 1, TITLE 24, CCR).

DEFERRED APPROVAL

FABRICAION AND INSTALLATION OF DEFFERED SUBMITTAL ITEMS SHALL NOT BE STARTED UNTIL CONTRACTROR'S DRAWING, SPECIFICATIONS, AND ENGINEERING CALCULATION FOR THE ACTUAL SYSTEMS TO BE INSTALLED HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR STRUCURAL ENGINEER AND APPROVED BY DSA.

PV SOLAR SYSTEM

CODE REQUIREMENTS

ALL DRAWINGS AND CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES:
TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

2022 TITLE 24 CCR, PART 1 - BUILDING STANDARDS ADMINISTRATIVE CODE

2022 TITLE 24 CCR, PART 2 - CALIFORNIA BUILDING CODE, VOL. 1 & 2
(CBC) *(2018 IBC, AS AMENDED BY CA)*

2022 TITLE 24 CCR, PART 3 - CALIFORNIA ELECTRICAL CODE
(CEC) *(2017 NEC (NFPA). AS AMENDED BY CA)*

2022 TITLE 24 CCR, PART 4 - CALIFORNIA MECHANICAL CODE
(CMC) *(2018 IAPMO UMC, AS AMENDED BY CA)*

2022 TITLE 24 CCR, PART 5 - CALIFORNIA PLUMBING CODE
(CPC) *(2018 IAPMO UPC, AS AMENDED BY CA)*

2022 TITLE 24 CCR, PART 6 - CALIFORNIA ENERGY CODE

2022 TITLE 24 CCR, PART 8 - CALIFORNIA HISTORICAL BUILDING CODE

2022 TITLE 24 CCR, PART 9 - CALIFORNIA FIRE CODE
(CFC) *(2018 IFC, AS AMENDED BY CA)*

2022 TITLE 24 CCR, PART 10 - CALIFORNIA EXISTING BUILDING CODE
(IEBC) *(2018 INTERNATIONAL EXISTING BUILDING CODE, AS AMENDED BY CA)*

2022 TITLE 24 CCR, PART 11 - GREEN BUILDING STANDARDS CODE
(CALGREEN CODE)

2022 TITLE 24 CCR, PART 12 - CALIFORNIA REFERENCED STANDARDS

2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

PARTIAL LIST OF STANDARDS COMMONLY USED. FOR COMPLETE LIST AND YEAR OF EDITION ADOPTED, SEE 2022 CBC CH. 35 & 2022 CFC CH. 45:

2022 NFPA 13, INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDED)
2019 NFPA 14, STANDPIPE & HOSE (CA AMENDED)
2019 NFPA 20, PUMPS FOR FIRE PROTECTION
2019 NFPA 24, FIRE SERVICE MAINS (CA AMENDED)
2022 NFPA 72, FIRE ALARM CODE (CA AMENDED)
2018 UL 1971 STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED

NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT CONSTRUCTION IN CONFLICT WITH THE REQUIREMENTS OF ANY CODE, LAW, ORDINANCE, OR REGULATION. THE FOLLOWING AGENCIES SHALL HAVE JURISDICTION OVER THE PROGRESS OF THE WORK:

DIVISION OF THE STATE ARCHITECT	CAL/OSHA
COUNTY OF KERN: FIRE DEPARTMENT PUBLIC WORKS DEPARTMENT	REGULATORY SERVICES: STRUCTURAL SAFETY SECTION FIRE & LIFE SAFETY SECTION ACCESS COMPLIANCE SECTION

ACCESSIBILITY STANDARDS

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

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

1. HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 34 INCHES AND 44 INCHES ABOVE 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, BY PANIC BARS, PUSH-PULL ACTIVATION BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP AND TURN OPENING HARDWARE. LOCKED EXIT DOORS SHALL OPERATE AS ABOVE IN EGRESS DIRECTION.
2. MAXIMUM EFFORT TO OPERATE 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 DOORS ARE REQUIRED. THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY BE INCREASED NOT TO EXCEED 15 POUNDS.
3. CONSTRUCTION: THE BOTTOM 10" OF ALL DOORS EXCEPT AUTOMATIC AND SLIDING 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 FRAMES 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. FOR HINGED DOORS, THE OPENING WIDTH SHALL BE MEASURED WITH THE DOOR POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION. AT LEAST ONE OF A PAIR OF DOORS SHALL MEET THIS OPENING WIDTH REQUIREMENT.
5. IN ADDITION TO ALL LOCAL CODES, ACCESSIBILITY REQUIREMENTS SHALL COMPLY WITH THE CALIFORNIA BUILDING CODE, TITLE 24, AS WELL AS FEDERAL A.D.A., (AMERICANS WITH DISABILITIES ACT).

PROJECT INFORMATION

CONSTRUCTION TYPE:
TYPE VB

OCCUPANCY TYPE:
E OCCUPANCY
A-3 OCCUPANCY (SHADE STRUCTURE)

BUILDING HEIGHT:
ALLOWABLE: 40'-0"

ACTUAL: 15'-0"

STORIES:
ONE

PROJECT AREA:

ALLOWABLE AREA:	=	9,500 SF
BUILDING A 72'x40'	=	2,880 SF
CANOPY AREA	=	504 SF
TOTAL AREA	=	3,384 SF < 9,500 SF = OK
BUILDING B 72'x40'	=	2,880 SF
CANOPY AREA	=	504 SF
TOTAL AREA	=	3,384 SF < 9,500 SF = OK
ALLOWABLE AREA	=	6,000 SF
SHADE STRUCTURE	=	1,800 SF
TOTAL AREA	=	1,800 SF < 6,000 SF = OK

FIRE SPRINKLERS:
NO

PARKING REQUIRED:
N/A

PARKING PROVIDED:
N/A

FIRE PROTECTION

1. PROVIDE ONE 4A 10 B.C. RATED EXTINGUISHER FOR EACH 6,000 SQUARE FEET OR PORTION THEREOF ON EACH FLOOR - TRAVEL DISTANCE SHALL NOT EXCEED 75 FEET.
2. FIRE DAMPER ASSEMBLIES, INCLUDING SLEEVES AND INSTALLATION PROCEDURES SHALL BE APPROVED BY THE BUILDING INSPECTOR PRIOR TO INSTALLATION.

ARCHITECTS STATEMENT

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS / ENGINEERS WHO UTILIZE PLANS,
INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS

☒ THE DRAWINGS OR SHEETS LISTED ON THE COVER OR INDEX SHEET AS DENOTED WITH AN ASTERISK (*)
☐ THIS DRAWING, PAGE OF SPECIFICATIONS/CALCULATIONS, OR THE ATTACHED LIST OF ITEMS

HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE UNDER MY CONTROL AND/OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAS BEEN EXAMINED BY ME FOR:

1. DESIGN INTENT AND APPEARS TO MEET THE APPROPRIATE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME, AND
2. COORDINATION WITH MY PLANS AND SPECIFICATIONS AND IS ACCEPTABLE FOR INCORPORATION INTO THE CONSTRUCTION OF THIS PROJECT
3. THE STATEMENT OF GENERAL CONFORMANCE "SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES, AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-344" OF TITLE 24, PART 1, (TITLE 24, PART 1, SECTION 4-317 [b])

REFER TO SHEET INDEX FOR A LIST OF "DRAWINGS PREPARED BY OTHERS" INCLUDING ALL DRAWINGS AS DENOTED WITH AN ASTERISK (*):

MODULAR CLASSROOMS
IDENTIFIED BY THE FOLLOWING NUMBERS:
JTS MODULAR SLABON GRADE
PC#02-120983

SHADE STRUCTURE
IDENTIFIED BY THE FOLLOWING NUMBERS:
USA SHADE
PC# 04-121917

I FIND THAT:
☒ ALL DRAWINGS OR SHEETS LISTED ON THE COVER OR INDEX SHEET
☒ THIS DRAWING OR PAGE

☒ IS/ARE IN GENERAL CONFORMANCE WITH THE PROJECT DESIGN INTENT, AND
☒ HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS.

ARCHITECTS SIGNATURE

ARCHITECTS OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE

JOSEPH E. ZASOSKI
PRINT NAME

C-36742 — 05/31/2027
LICENSE NUMBER — EXPIRATION DATE

PROJECT DIRECTORY

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Jaime Rios

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John Maloney

EXIT REQUIREMENTS

1. ALL EXITS SHALL BE OPENABLE DURING BUSINESS HOURS FROM INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE. NO DEAD OR SLIDING BOLTS. NO LATCH OR LATCHING DEVICE EXCEPT PANIC HARDWARE PERMITTED.
2. EXIT SIGNS MUST BE INTERNALLY ILLUMINATED.
3. PROVIDE TWO SEPARATE CIRCUITS FOR EXIT SIGNS.
4. PROVIDE TWO SEPARATE SOURCES OF POWER FOR EXIT SIGNS.

SCOPE OF WORK

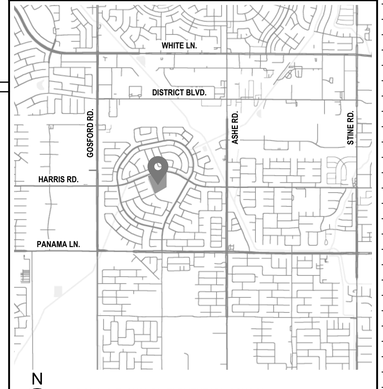
1. CONSTRUCTION OF A NEW PERMANENT MODULAR BUILDING CONTAINING CLASSROOMS AND RESTROOMS. PC#02-120983
2. NECCESSARY SITE WORK FOR, AND INCLUDING,NEW SITE IRRIGATION.
3. INSTALATION OF SHADE STRUTURES (2) 30'x30' (PC# 04-121917), CONCRETE WALKWAYS.

THE SCOPE OF WORK SHALL COVER ALL ASPECTS OF SITE PREPARATION FOR RELOCATABLE BUILDING FOUNDATION AS PER MANUFACTURER'S AND ENGINEER'S DRAWINGS. INSTALLATION OF THIS BUILDING SHALL INCLUDE ALL ELECTRICAL AND FIRE ALARM PROVISIONS, PLUMBING AND SITE MODIFICATIONS WITHIN THE ACCESIBLE PATH OF TRAVEL, AND REPAIR OF ALL AFFECTED PAVING AND CONCRETE FLATWORK.

"SCOPE OF WORK" STATEMENT IS NO WAY TO BE USED FOR CONTRACTOR BIDDING PURPOSE. SCOPE OF WORK STATEMENT PROVIDES CONTRACTOR WITH GENERAL DESCTRIPTION OF WORK.

FIRE ALARM SYSTEM TO BE A STAND ALONE SYSTEM.

VICINITY MAP



DONALD E. SUBURU ELEMENTARY SCHOOL — NTS
7315 HARRIS RD. BAKERSFIELD, CA 93313

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LICENSED ARCHITECT — JOSEPH E. ZASOSKI — C-36742 — MAY 31, 2027 RENEWAL DATE — STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA — ARCHITECT C-36294
JEANINE S. BERTOLACCINI, AIA — ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA — ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES
AT
DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:
LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396
A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

THE DRAWINGS, IDEAS, AND DESIGNS REPRESENTED ON THIS SHEET ARE THE PROPERTY OF THE ARCHITECT.

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SHEET TITLE
GENERAL INFORMATION

SHEET IDENTIFICATION NUMBER
G-001

SHEETS IN SET 120

PLOT DATE: 5/27 AM
PLOTTED BY: Richard
PLOT SIZE: 24x36

EGRESS LEGEND

OFFICE — ROOM NAME
100 — ROOM NUMBER
A: 200 SF — SQUARE FOOTAGE
100 / 2 — OCCUPANT LOAD FACTOR
OCCUPANT LOAD
XX — SUB-TOTAL OCCUPANT LOAD
XXX — OCCUPANT LOAD AT EXIT
X.X" / X" — REQUIRED EXIT WIDTH / PROVIDED EXIT WIDTH
X' — PATH OF EGRESS TRAVEL
X' = COMMON PATH OF TRAVEL DISTANCE
PH — PANIC HARDWARE
X — SIGNAGE SYMBOL, REFER TO LEGEND

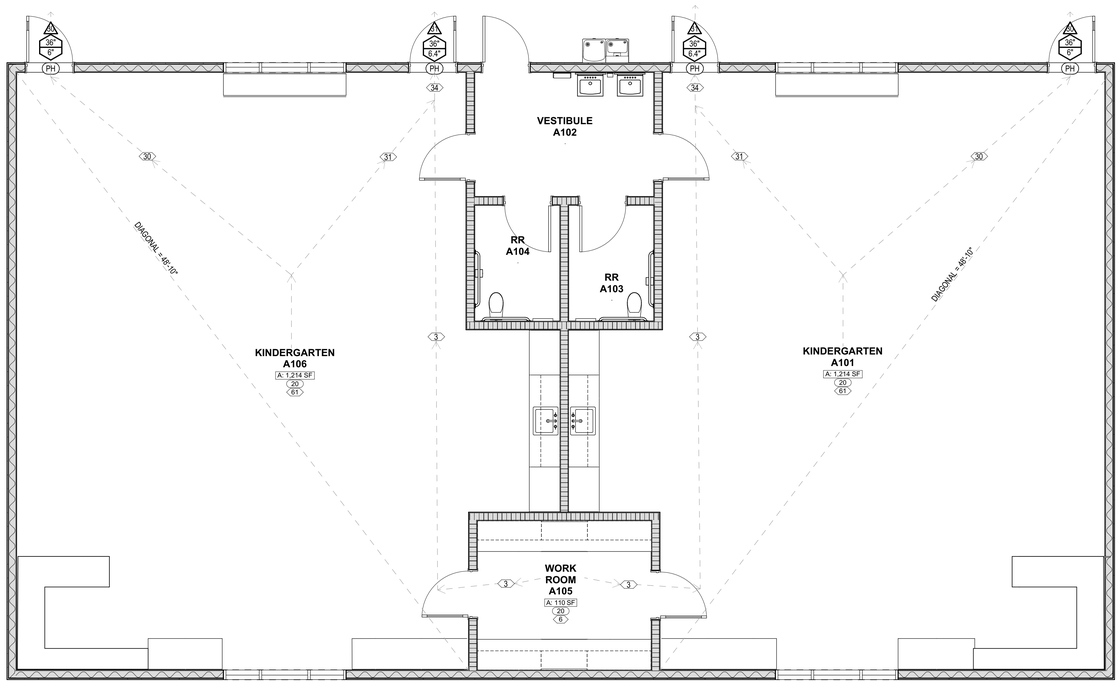
SIGNAGE LEGEND

A — 12" DIA. — WOMEN / GIRLS
B — 12" TYP. — MEN / BOYS
C — 12" DIA. — UNISEX
WOMEN — A.1
GIRLS — A.2
MEN — B.1
BOYS — B.2
RESTROOM — C.1
D — 6" SQ.
E — 6" SQ.
F — EXIT
G — DATA
H — ELECTRICAL
I — CUSTODIAN
K — 100A CLASSROOM PER DISTRICT
ID — ASSISTIVE LISTENING SYSTEM AVAILABLE

NOTE:
CLASSROOM SIGNS TO BE COORDINATED WITH OWNER

CODE ANALYSIS (EDUCATION)

Classification	ROOM	NAME	AREA	USE	LOAD	Occupant Load
-	A102	VESTIBULE	94.72		300	0
-	A103	RR	42.46		300	0
-	A104	RR	42.46		300	0
-	B102	VESTIBULE	94.72		300	0
-	B103	RR	42.46		300	0
-	B104	RR	42.46		300	0
E	A101	KINDERGARTEN	1,213.62	Educational Classroom area	20	61
E	A105	WORK ROOM	110.47	Educational Classroom area	20	6
E	A106	KINDERGARTEN	1,213.62	Educational Classroom area	20	60
E	B101	KINDERGARTEN	1,213.62	Educational Classroom area	20	61
E	B105	WORK ROOM	110.47	Educational Classroom area	20	6
E	B106	KINDERGARTEN	1,213.62	Educational Classroom area	20	60



A1 **CODE ANALYSIS / EGRESS PLAN (TYP.)**
SCALE: 1/4" = 1'-0"

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LICENSED ARCHITECT
JOSEPH E. ZASOSKI
C-36742
MAY 31, 2027
RENEWAL DATE
STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA
ARCHITECT C-36294
JEANNIE S. BERTOLACCINI, AIA
ARCHITECT C-35596
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(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES
AT
DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396
A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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SHEET TITLE

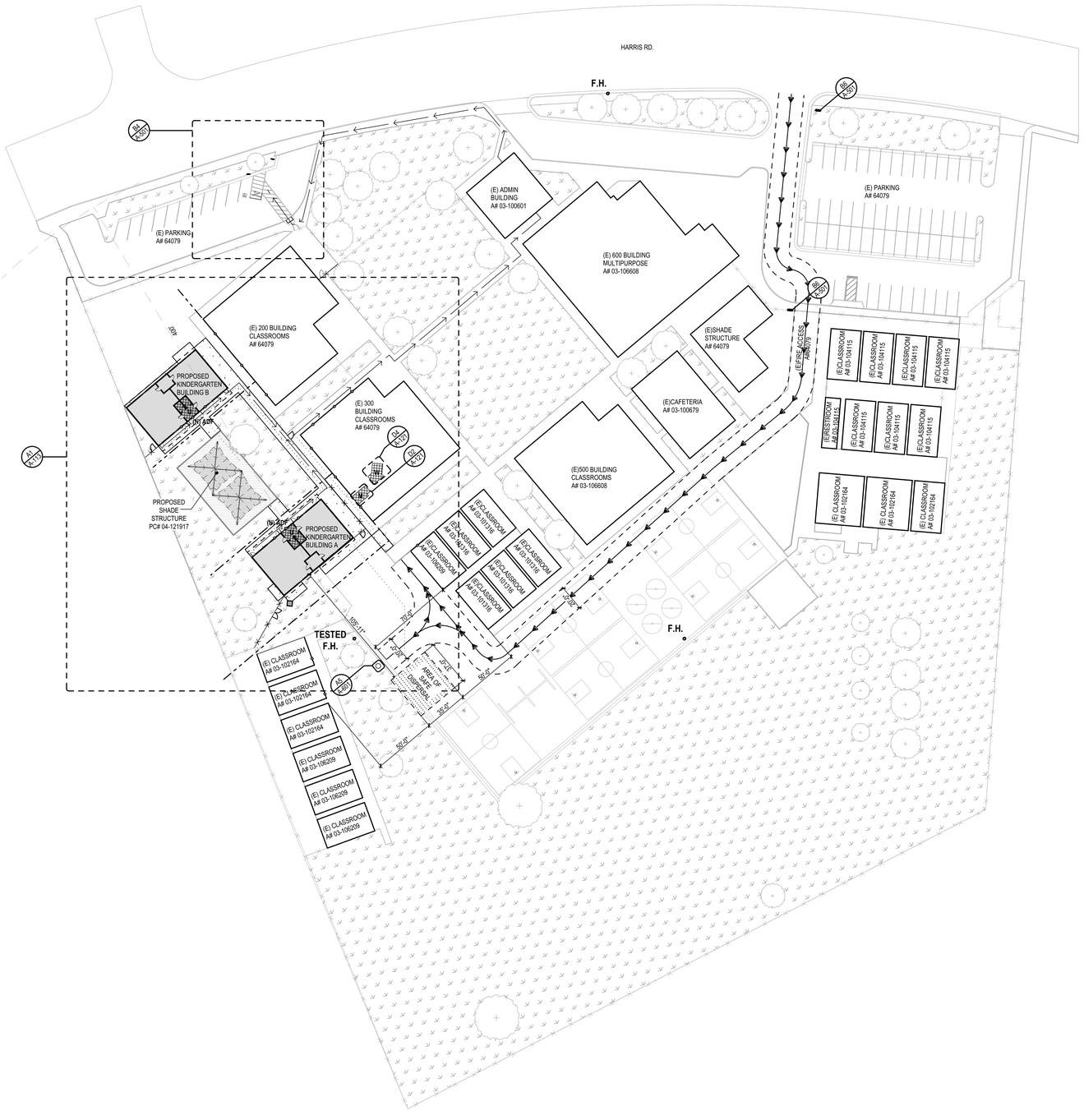
EGRESS PLAN

SHEET IDENTIFICATION NUMBER

G-002

SHEETS IN SET 120

PLOT TIME: 8:57 AM
PLOT DATE: 6/24/2025



DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

Division of the State Architect (DSA) documents referenced within this publication are available on the DSA Forms or DSA Publications webpages.

To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new building(s), additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply.

Information associated with compliance items 1 through 3 below is to be provided for all project types indicated above. Information associated with items 4 through 7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the Local Fire Authority (LFA) is only required when an alternate design means is being requested.

The Project Information and Fire & Life Safety Information sections are to be completed for all projects and imaged onto the fire access site plan. When an alternate design/means is proposed, all sections on pages 1 and 2 are to be completed and imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy *PL 09-01: Fire Flow for Buildings*.

PROJECT INFORMATION	
School District/Owner:	LAKESIDE UNION SCHOOL DISTRICT
Project Name/School:	NEW KINDERGARTEN CLASSROOM BUILDINGS AT DONALD E. SUBURU ELEMENTARY SCHOOL
Project Address:	7315 HARRIS RD. BAKERSFIELD, CA 93313

FIRE & LIFE SAFETY INFORMATION				
1.	Has a fire hydrant flow test been performed within the past 12 months? *(If yes, provide a copy of the test data.)*	Yes ☑		No ☐
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☑		No ☐
3.	Is the project located within a designated fire hazard severity zone (FHSZ) as established by Cal-Fire? *(If yes, indicate FHSZ classification below.)*	Yes ☐		No ☑
	Refer to the following website for FHSZ locations: Fire Hazard Severity Zones in State Responsibility Area	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

DSA 810
FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED			
		Yes	No	N/A	N/R
4.	Emergency vehicle access roadways do not meet CFC requirements.			✔	
4a.	**Acceptable Alternate:** Emergency vehicle and personnel access as proposed by the project architect is acceptable for providing fire suppression and protection of life and property.				
5.	**Fire Hydrants:** Number and spacing does not meet CFC requirements.			✔	
5a.	**Acceptable Alternate:** Number of fire hydrants and spacing as proposed by the project architect is acceptable for fire suppression and protection of life and property.				
6.	**Fire Hydrants:** Water flow and pressure are less than CFC minimum.			✔	
6a.	**Acceptable Alternate:** The available flow and pressure is acceptable for providing fire suppression and protection of life and property.				
7.	Location of fire department connection(s) serving fire sprinkler systems or standpipe systems does not meet CFC requirements.			✔	
7a.	**Acceptable Alternate:** The location of fire department connection serving the fire sprinkler system and/or standpipe system is acceptable for providing fire suppression and protection of life and property.				

School District Acceptance of Acceptable Design Alternates

By signing this form, the school district acknowledges and accepts the proposed design as an alternative to California Building Code (CBC) and California Fire Code (CFC) minimum requirements, as indicated by one or more of the conditions indicated at items 4a, 5a, 6a or 7a, for providing fire and life safety protection of life and property.

Accepted by: _____ Title: _____

Signature: _____ Date: _____

LOCAL FIRE AUTHORITY (LFA) INFORMATION	
LFA Agency Name:	
LFA Review Official:	
Title:	Work Phone:
Work Email:	

LFA Reviewer's Signature: _____ Date: _____

Hydrant Flow Test Report

Test Date 11/14/2024 **Test Time** 9:10am

Location
DONALD E. SUBURU ELEMENTARY
7315 HARRIS RD.
BAKERSFIELD,CA. 93313

Tested by
JAKE BUSTOS &
HECTOR CONTRERAS
CONTROL FIRE PROTECTION, INC.
1347 OGDEN ST.
BAKERSFIELD, CA. 93305

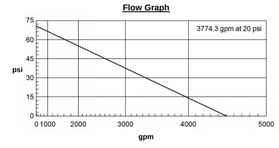
Notes
HYDRANT A: FLOW
HYDRANT B: STATIC/ RESIDUAL

Read Hydrant
71 psi **static pressure**
65 psi **residual pressure**
2 ft **hydrant elevation**

Flow Hydrant(s)

Outlet	Elev	Size	C	Pitot Pressure	Flow
#1	2	2.5	.9	50	1187 gpm

Flow Graph



Created with the free hydrant flow test program from www.igneusinc.com

SAFE DISPERSAL CALCULATION

SAFE DISPERSAL AREA CALCULATION PER CBC 1027.6
NEW CLASSROOMS @
SUBURU ELEMENTARY SCHOOL
NEW CLASSROOM BLDGS
4,320 S.F.

OCCUPANCY = 254 STUDENTS & STAFF

AREA OF SAFE DISPERSAL REQUIRED @ FOR GROUP E BUILDINGS, THE AREA OF SAFE DISPERSAL SHALL BE LOCATED ON THE SAME LOT AT LEAST 50'-0" AWAY FROM ANY BUILDING.

254 (OCCUPANCY) X 5 (S.F./OCCUPANCY) = 1,270 SQUARE FEET REQUIRED.
35' X 37' = 1,270 SQUARE FEET PROVIDED

SITE LEGEND

TYPE	DESCRIPTION
	(E) TURF
	EXISTING BUILDINGS (SEE BUILDING LEGEND FOR A#'S) NO WORK IN THIS AREA
	NEW CONCRETE
	PROPOSED CLASSROOMS
	POURED RUBBER PLAY SURFACE
	RESTROOMS TO BE REMODELLED / ADDED IN THIS APPLICATION
	(E) ACCESSIBLE RESTROOMS PER A#64079
	AREA OF SAFE DISPERSAL
	PATH OF TRAVEL (P.O.T) AS INDICATED IS A COMMON BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" AT 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEED 1/4" VERTICAL. P.O.T. IS A MINIMUM OF 48" WIDE. THE SURFACE SHALL BE FIRM, STABLE, AND SLIP RESISTANT. PASSING SPACES (11B-405.5.3) AT LEAST 60" X 60" SHALL BE LOCATED NOT MORE THAN 200' APART. PARTS OF P.O.T. WITH CONTINUOUS GRADIENTS SHALL HAVE 60" LEVEL AREAS AT INTERVALS OF 400' MAXIMUM (11B-403.7) SLOPE SHALL NOT EXCEED 2% CROSS-SLOPE AND 5% RUNNING SLOPE IN THE DIRECTION OF TRAVEL (11B-401.1) SLOPES GREATER THAN 5% TO A MAXIMUM OF 8.33% SHALL BE CONSIDERED AS A RAMP (11B-405). THERE SHALL BE NO DROP-OFF OVER 4" ALONG THE EDGE OF WALK OR LANDING. P.O.T. SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS AND OBJECTS PROTRUDING GREATER THAN 4" FROM A WALL, BETWEEN 27" TO 80" ABOVE FINISHED GRADE. ARCHITECT SHALL VERIFY THAT NO BARRIERS EXIST IN THE PATH OF TRAVEL. **DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:** THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED AND 2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORTRATED INTO THESE CONSTRUCION DOCUMENTS. ANY NON COMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FIND OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT
→	EMERGENCY VEHICLE ACCESS
℄	PROPERTY LINE
- - -	ASSUMED PROPERTY LINE
-x-x-x-	CHAINLINK FENCE
-o-o-o-	WROUGHT IRON FENCE
→	EXIT DISCHARGE PATH
ADF	NEW ACCESSIBLE DRINKING FOUNTAINS
B	STUDENT BOYS RESTROOM
G	STUDENT GIRLS RESTROOM
U	STUDENT RESTROOM - UNISEX
M	STAFF MENS RESTROOM
W	STAFF WOMENS RESTROOM
F.H.	FIRE HYDRANT
◎	(E) EXTERIOR LIGHTING

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LICENSED ARCHITECT
JOSEPH E. ZASOSKI
C-36742
MAY 31, 2027
RENEWAL DATE
STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANINE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396
A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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SHEET TITLE

SITE PLAN: ACCESSIBILITY

SHEET IDENTIFICATION NUMBER

A-111

SHEETS IN SET 120

PLOT DATE: 6/27/25
PLOTTED BY: KENNEDY
PC-0.CTB, 1/16/2012



A1 **SITE PLAN DEMOLITION**

SCALE: 3/32" = 1'-0"

PLOT DATE: 8:57 AM
PLOT BY: Kyle Fowler
PLOT SIZE: 30"x42"

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FOR:

LAKESIDE UNION SCHOOL DISTRICT

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BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396

A#: 03-124548

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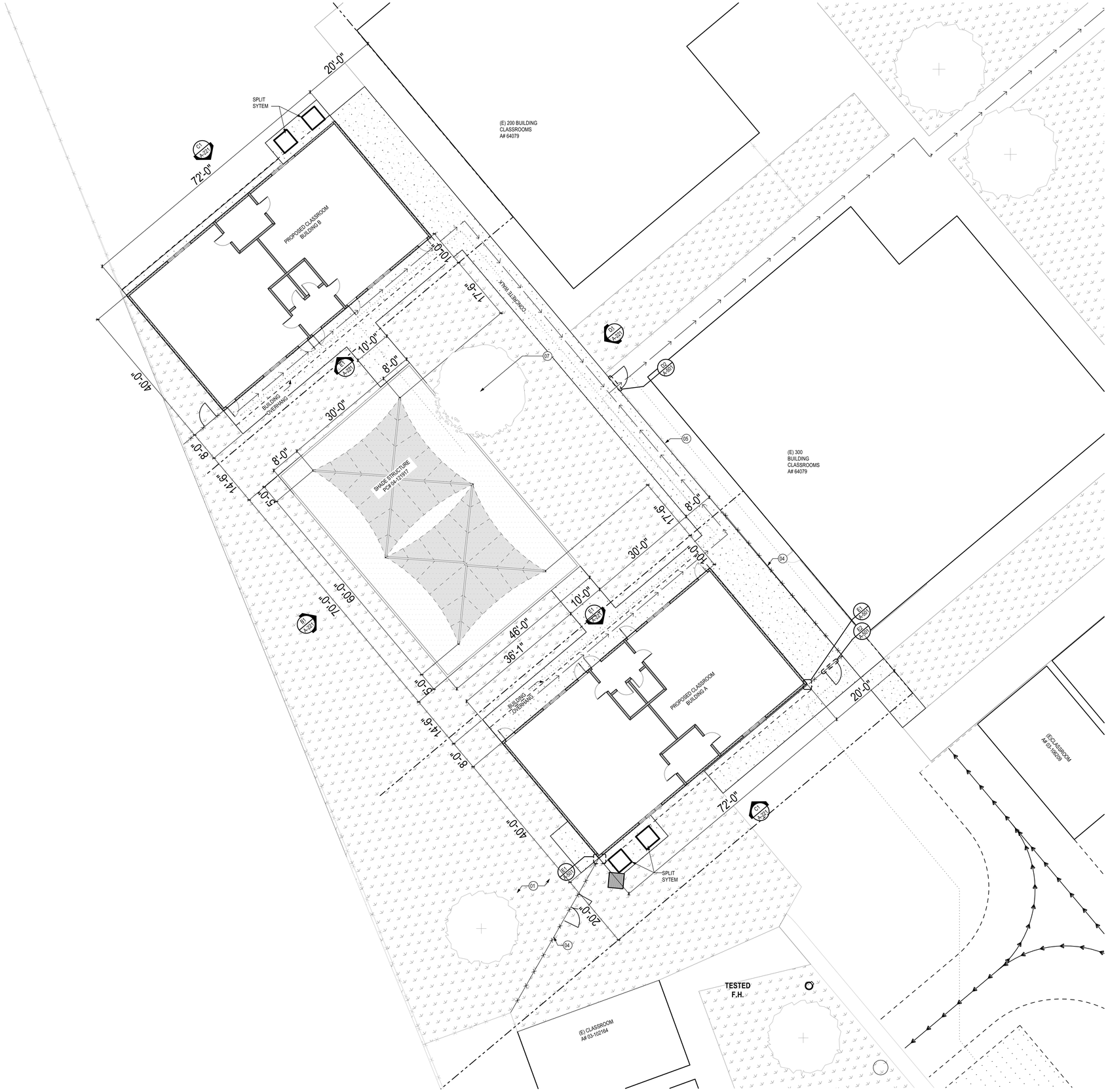
SHEET TITLE

DEMOLITION PLANS

SHEET IDENTIFICATION NUMBER

A-112

SHEETS IN SET 120



SITE LEGEND

TYPE	DESCRIPTION
	(E) TURF
	EXISTING BUILDINGS (SEE BUILDING LEGEND FOR A#'S) NO WORK IN THIS AREA
	NEW CONCRETE
	PROPOSED CLASSROOMS
	POURED RUBBER PLAY SURFACE
	RESTROOMS TO BE REMODELLED / ADDED IN THIS APPLICATION

ENLARGED SITE KEYNOTES

#	DESCRIPTION
01	NEW TURF
02	POURABLE RUBBER PLAY SURFACE
03	CONCRETE WALK
04	CHAINLINK FENCE
05	(E) CHAINLINK FENCE TO REMAIN
06	CONCRETE CURB
07	(E) TREE TO REMAIN
08	SHADE STRUCURE REFER TO PC

A1 SITE PLAN ENLARGED

SCALE: 3/32" = 1'-0"

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(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

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JOB NUMBER:
2396

A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
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CHECKED BY:
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SHEET TITLE

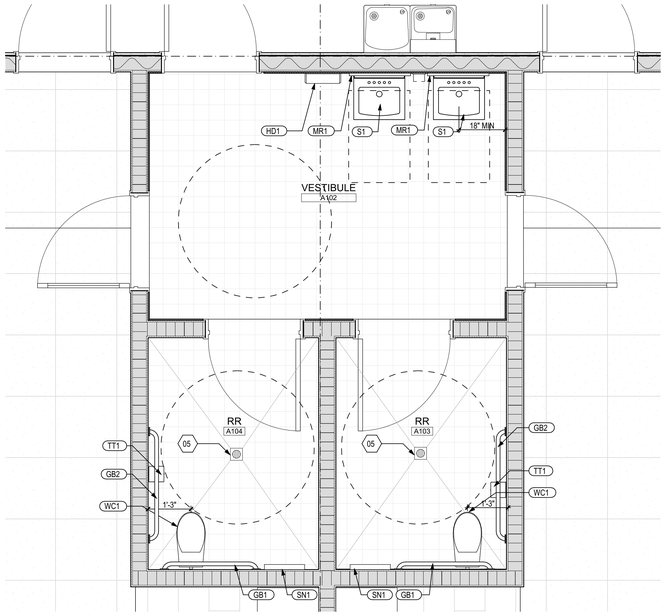
SITE PLAN: ENLARGED

SHEET IDENTIFICATION NUMBER

A-113

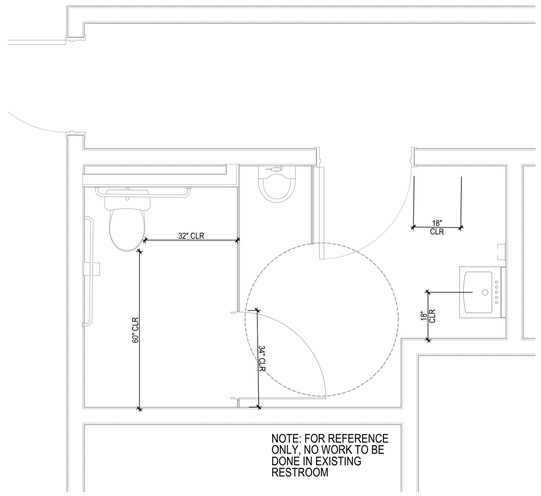
SHEETS IN SET 120

PLOTTING: 8:37 AM
PLOTTED BY: AKF
PLOTTED: 12/19/2025



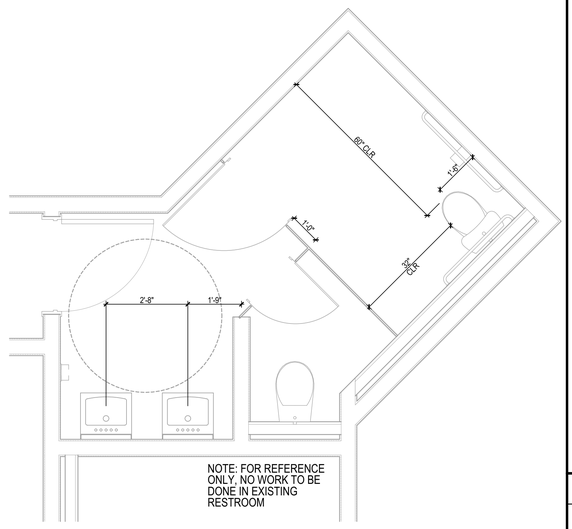
D1 FLOOR PLAN ENLARGED (TYP.)

SCALE: 1/2" = 1'-0"



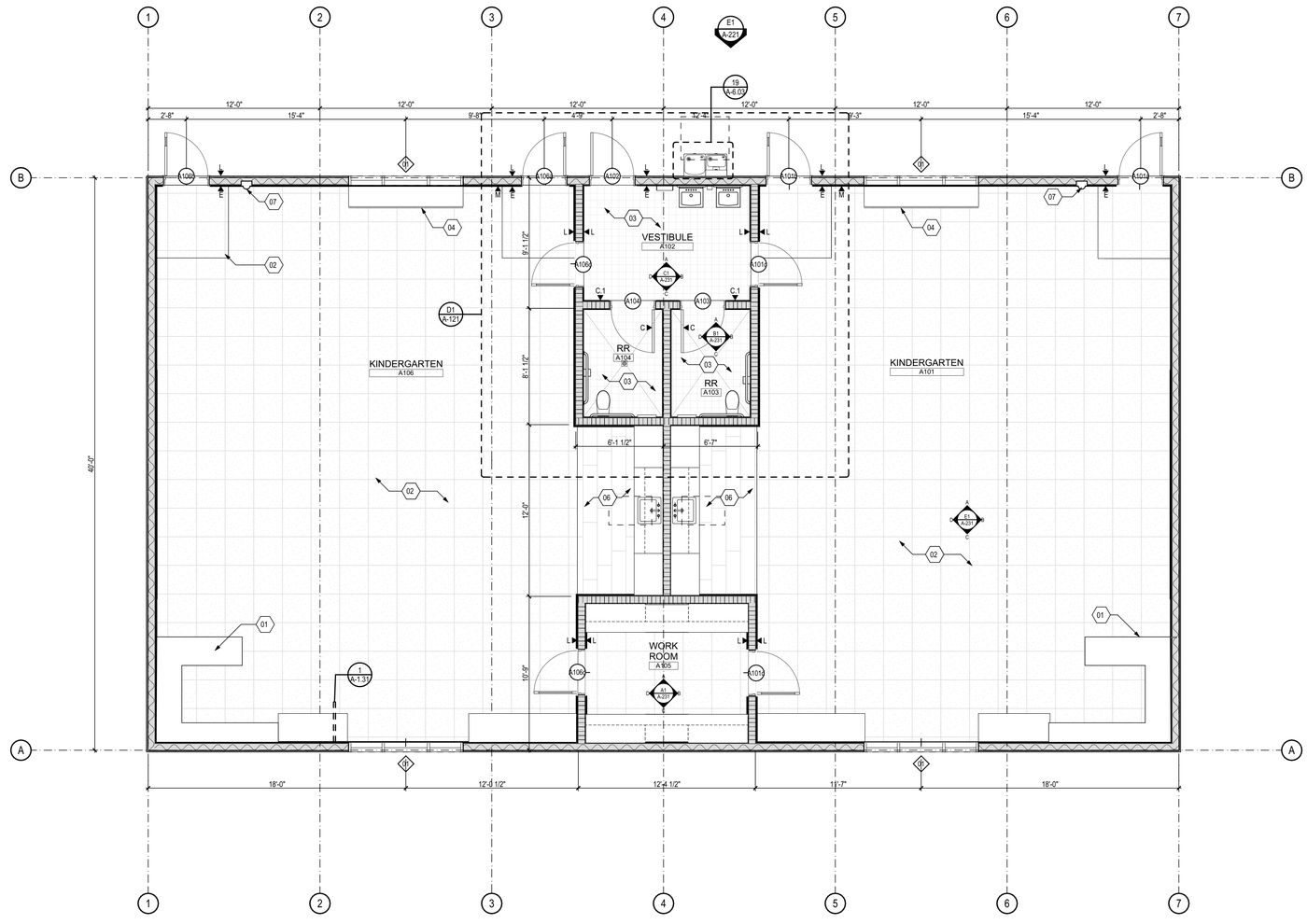
D2 (E) MENS RESTROOM

SCALE: 1/2" = 1'-0"



D4 (E) WOMENS RESTROOM

SCALE: 1/2" = 1'-0"



A1 FLOOR PLAN (TYP.)

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

SYMBOL LEGEND

- LOBBY / 100 — ROOM NAME / ROOM NUMBER
- 101D / P — DOOR SYMBOL: ROOM NUMBER, DOOR NUMBER, PANIC HARDWARE INDICATOR
- 01 — WINDOW SYMBOL: SEE WINDOW SCHEDULE ON A-601
- INTERIOR ELEVATION SYMBOL: ELEVATION ORIENTATION, LOCATION ON SHEET, SHEET NUMBER
- A1 / A-221 — EXTERIOR ELEVATION SYMBOL: LOCATION ON SHEET, SHEET NUMBER
- A1 / A-301 — SECTION SYMBOL: LOCATION ON SHEET, SHEET NUMBER
- A1 / A-501 — DETAIL SYMBOL: LOCATION ON SHEET, SHEET NUMBER
- X — ADA SIGNAGE SYMBOL SEE DETAIL A1/ A-501
- FE — FIRE EXTINGUISHER IN RECESSED CABINET - 8/A-6.02
- MT — METAL THRESHOLD
- MTS — METAL TRANSITION STRIP
- FD — FLOOR DRAIN - SLOPE FLOOR TO DRAIN
- # — GRID LINE - FACE OF
- # — GRID LINE - CENTER
- RSF / CPT — FLOORING TRANSITION STRIP INDICATOR

ACCESSORY SCHEDULE

ID	DESCRIPTION
GB1	36" GRAB BAR (SEE PC DRAWINGS)
GB2	42" GRAB BAR (SEE PC DRAWINGS)
HD1	HAND DRYER
MR1	MIRROR W/ SS FRAME
SD1	SOAP DISPENSER
SN1	SANITARY NAPKIN WASTE
TT1	TOILET TISSUE DISPENSER

FLOOR PLAN KEYNOTES

ID	DESCRIPTION
01	DESK BY - TO BE SELECTED BY DISTRICT, SUPPLIED AND INSTALLED BY SITE CONTRACTOR
02	CARPET TILE FLOORING
03	4" CERAMIC TILE FLOORING
04	CUBBIES - TO BE SELECTED BY DISTRICT, SUPPLIED AND INSTALLED BY SITE CONTRACTOR (MOUNTING 1/A-1.31)
05	FLOOR DRAIN
06	LVT
07	FIRE EXTINGUISHER
08	CABINETS - TO BE SELECTED BY DISTRICT, SUPPLIED AND INSTALLED BY SITE CONTRACTOR. (MOUNTING 1/A-1.31)

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C-36742
MAY 31, 2027
RENEWAL DATE
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JOB NUMBER:
2396

A#: 03-124848

CAD DRAWING FILE:
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DRAWN BY:
AKF

CHECKED BY:
GA

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SHEET TITLE

FLOOR PLAN

SHEET IDENTIFICATION NUMBER

A-121

SHEETS IN SET 120

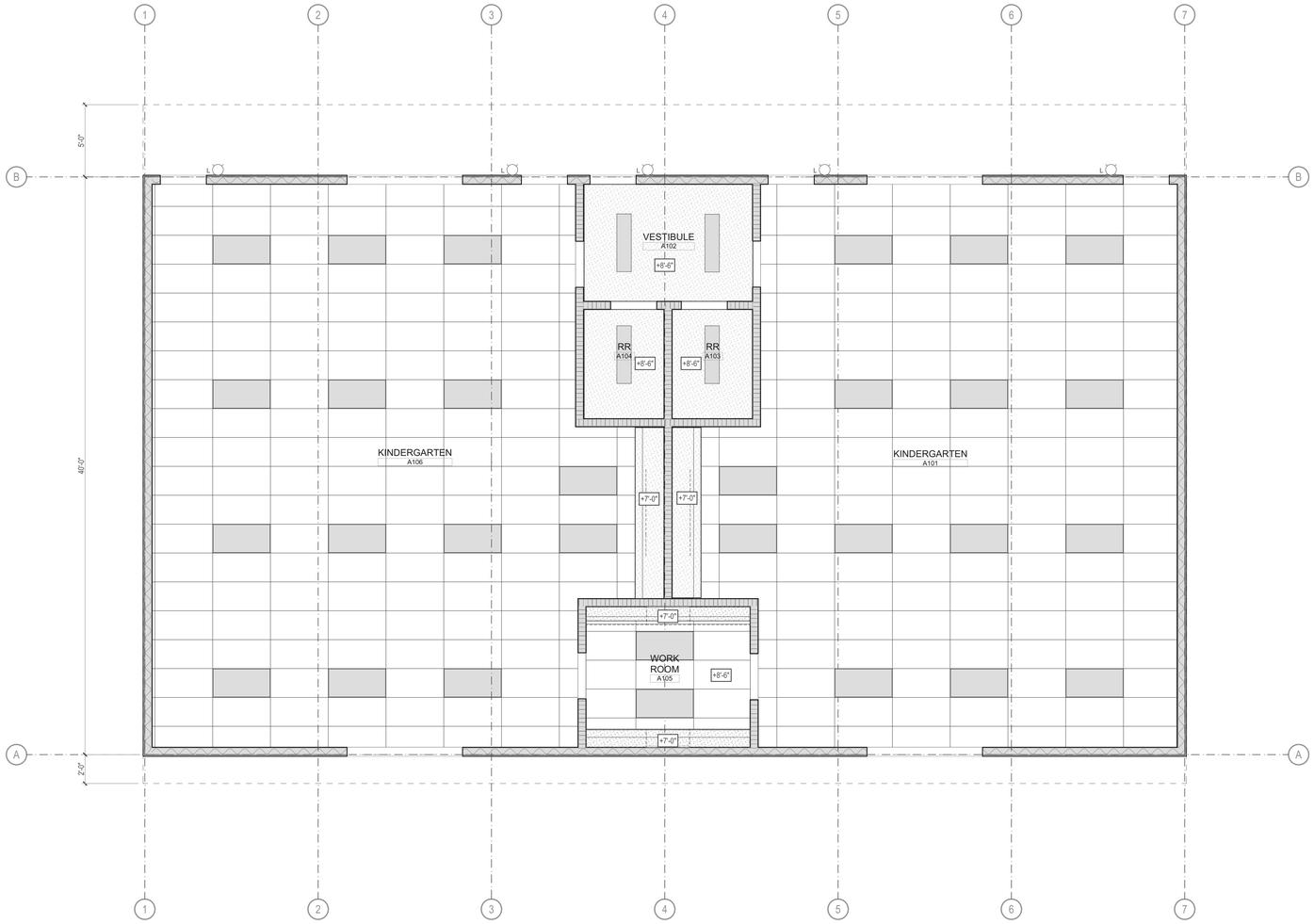
PLOT DATE: 8:31 AM
PLOTTED BY: RICHARD

CEILING TYPES

PLAN VIEW	ID	DESCRIPTION
	TYPE III	PAINTED GYP BOARD CEILING
	TYPE IV	SUSPENDED 2X4 ACOUSTIC CEILING PANELS IN TBAR GRID (REFER TO PC DRAWINGS)

REFLECTED CEILING PLAN LEGEND

PLAN VIEW	DESCRIPTION
	LIGHTING: 2x4 RECESSED FIXTURE (LIGHTING PLAN E-150)
	LIGHTING: SURFACE MOUNTED 1x4 LIGHT (LIGHTING PLAN E-150)



A1 REFLECTED CEILING PLAN (TYP.)

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

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LICENSED ARCHITECT
JOSEPH E. ZASOSKI
C-36742
MAY 31, 2027
RENEWAL DATE
STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA
ARCHITECT C-36294

JEANINE S. BERTOLACCINI, AIA
ARCHITECT C-35596

JOSEPH E. ZASOSKI, AIA
ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL

7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT

14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396

A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
DA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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SHEET TITLE

REFLECTED CEILING PLAN

SHEET IDENTIFICATION NUMBER

A-131

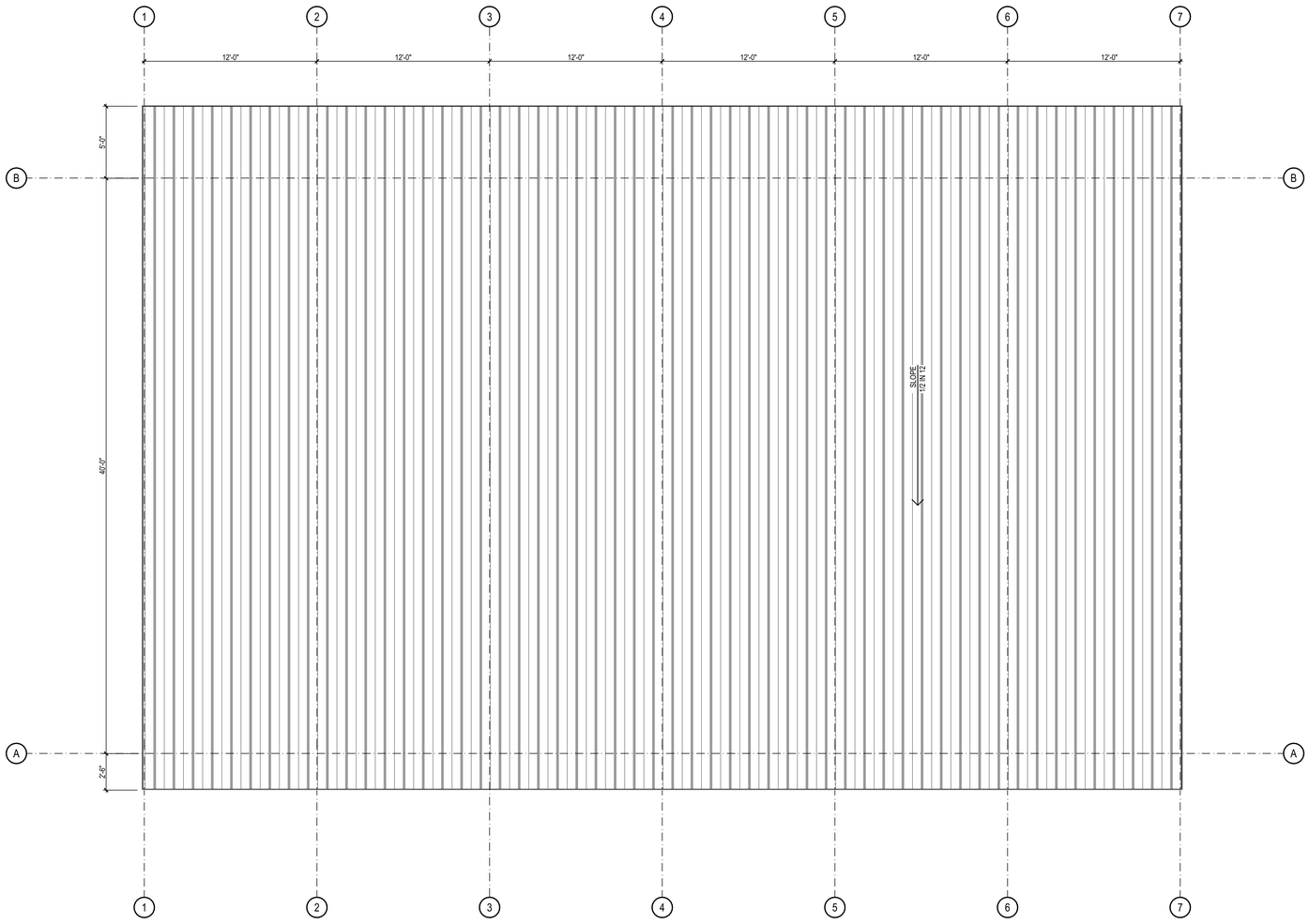
SHEETS IN SET 120

PLOT TIME 9:22 AM
PLOT DATE 10/7/2025

ROOF LEGEND

	STANDING SEAM ROOF PER PC DRAWINS A-4.00
SLOPE 1/2 IN 12	DIRECTION OF ROOF SLOPE (1/2"-12"U.N.O.) (ARROW POINTS IN DIRECTION OF FLOW)

REFER TO A-4.00



A1 ROOF PLAN (TYP.)

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

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SHEET TITLE

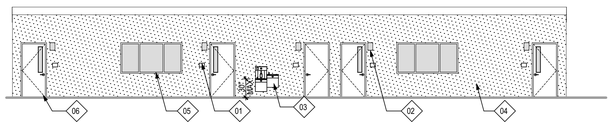
ROOF PLAN

SHEET IDENTIFICATION NUMBER

A-141

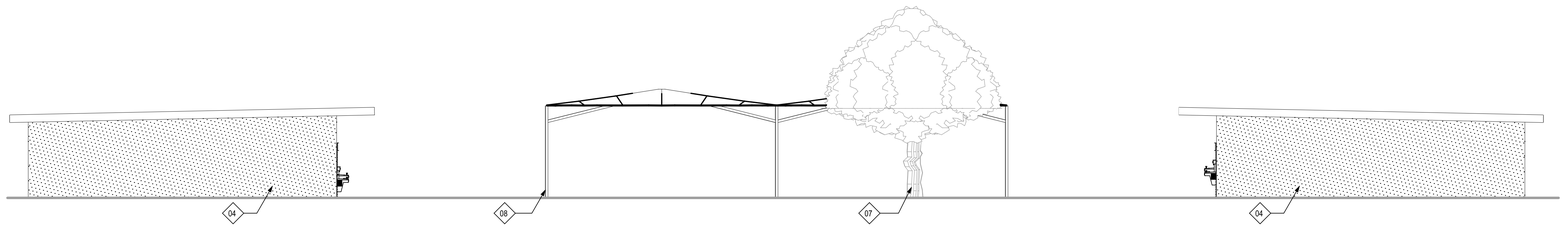
SHEETS IN SET 120

PLOT DATE: 8:57 AM
PLOT BY: KENNY
PLOTTED: 10/24/25



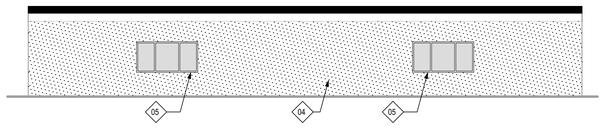
E1 BUILDING A NORTH ELEVATION

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



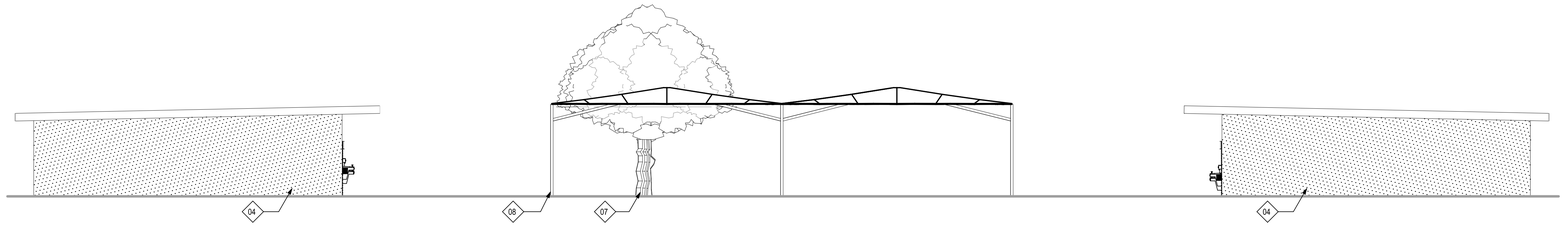
D1 BUILDING A EAST ELEVATION

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



C1 BUILDING A SOUTH ELEVATION

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



B1 BUILDING A WEST ELEVATION

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

EXTERIOR ELEVATIONS LEGEND	
	EXTERIOR 7/8" CEMENT PLASTER SYSTEM

EXTERIOR ELEVATION KEYNOTES	
ID	DESCRIPTIONS
01	WALL SIGN
02	LIGHT TYP.
03	DRINKING FOUNTAIN/ WATER BOTTLE FILLING STATION (C1/A-501)
04	EXTERIOR 7/8" CEMENT PLASTER SYSTEM
05	WINDOW (SEE SCHEDULE)
06	HOLLOW METAL DOOR (SEE SCHEDULE)
07	(E) TREE TO REMAIN
08	SHADE STRUCTURE PCI#04-121917

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	.	

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DRAWN BY:
AKF

CHECKED BY:
GA

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SHEET TITLE

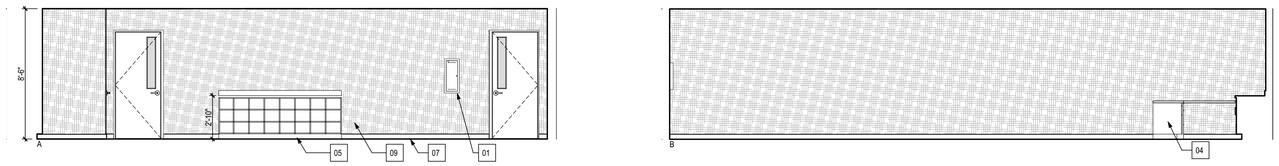
EXTERIOR ELEVATIONS

SHEET IDENTIFICATION NUMBER

A-221

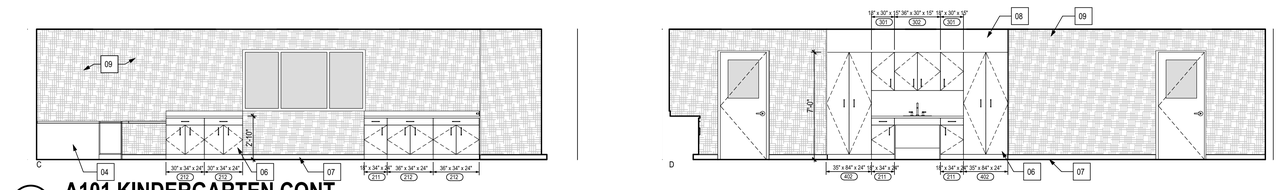
SHEETS IN SET 120

PLOT DATE: 5/27 AM
PLOT BY: Kenneth Fuentes



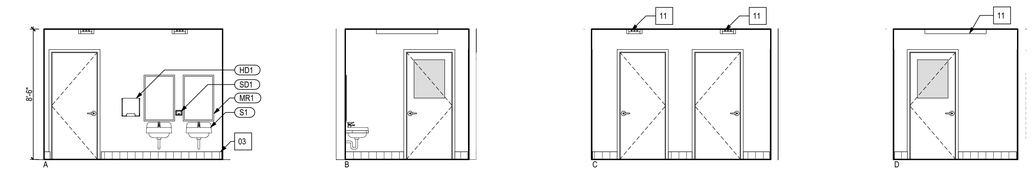
E1 A101 KINDERGARTEN

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



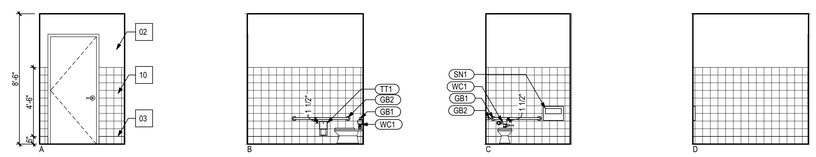
D1 A101 KINDERGARTEN CONT.

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



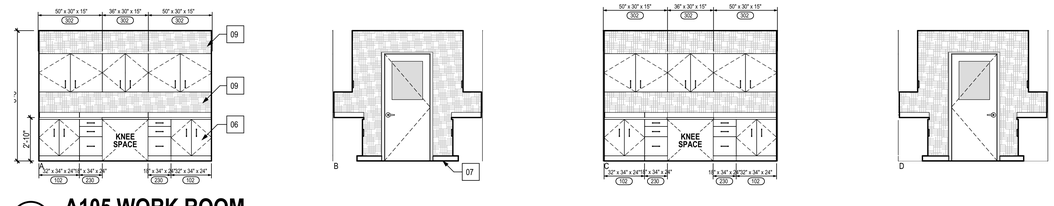
C1 A102 VESTIBULE

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



B1 A103 RESTROOM

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



A1 A105 WORK ROOM

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

PLOT TIME: 8:57 AM
PLOT DATE: 9/9/2025

CABINET LEGEND

GENERAL NOTES:

-FIELD VERIFY CABINET SIZE TYP.
-ALL COUNTERTOPS SHALL HAVE 6" INTEGRAL SPLASH UNLESS NOTED OTHERWISE
-SEE DETAIL E6/ A-231 FOR TYPICAL CABINET ANCHORAGE

36"x34"x24" — CABINET WIDTH, HEIGHT, DEPTH
222 — W.I.C. CABINET NUMBER

INTERIOR ELEVATIONS LEGEND

	VINYL TACKABLE WALL BOARD
	GYP. WALL BOARD
	6" CERAMIC TILE

ACCESSORY SCHEDULE

ID	DESCRIPTION
GB1	36" GRAB BAR (SEE PC DRAWINGS)
GB2	42" GRAB BAR (SEE PC DRAWINGS)
HD1	HAND DRYER
MR1	MIRROR W/ SS FRAME
SD1	SOAP DISPENSER
SN1	SANITARY NAPKIN WASTE
TT1	TOILET TISSUE DISPENSER

INTERIOR ELEVATIONS KEYNOTES

ID	DESCRIPTION
01	FIRE EXTINGUISHER
02	PAINTED GYP BOARD
03	TILE COVED BASE
04	DESK BY DISTRICT
05	CUBBIES TO BE SELECTED BY DISTRICT, SUPPLIED AND INSTALLED BY SITE CONTRACTOR TYP. (MOUNTING 1/A-1.31)
06	CABINETS - TO BE SELECTED BY DISTRICT, SUPPLIED AND INSTALLED BY SITE CONTRACTOR. (MOUNTING 1/A-1.31)
07	RTSB
08	PAINTED GYP BOARD
09	VINYL TACKABLE WALL BOARD
10	6" CERAMIC TILE
11	SURFACE MOUNTED 1x4 LIGHT

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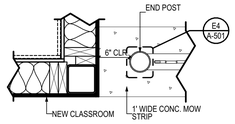
SHEET TITLE

INTERIOR ELEVATIONS

SHEET IDENTIFICATION NUMBER

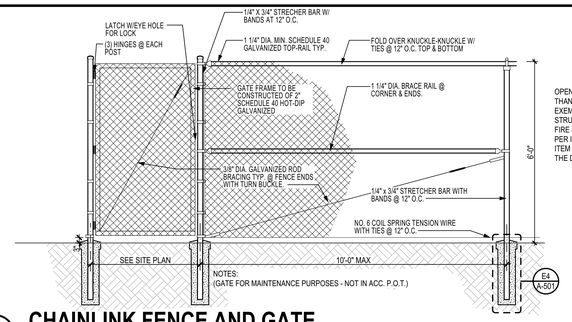
A-231

SHEETS IN SET 120



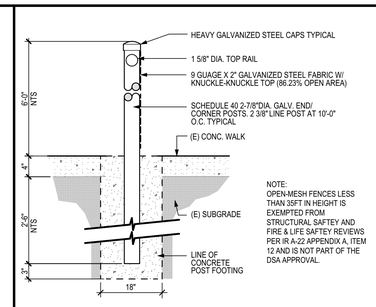
E1 FENCE POST AT BUILDING

SCALE: 1" = 1'-0"



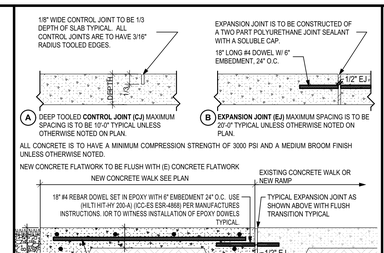
E2 CHAINLINK FENCE AND GATE

SCALE: 1/2" = 1'-0"



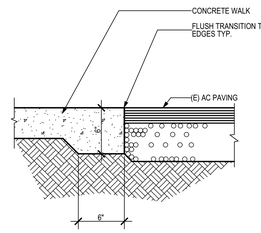
E4 TYP. FENCE POST

SCALE: 1" = 1'-0"



E5 TYP. CONCRETE JOINTS

SCALE: 1" = 1'-0"



E6 CONCRETE WALK TO AC PAVING

SCALE: 1 1/2"= 1'-0"

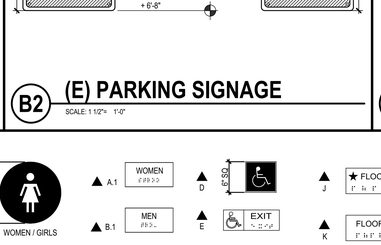
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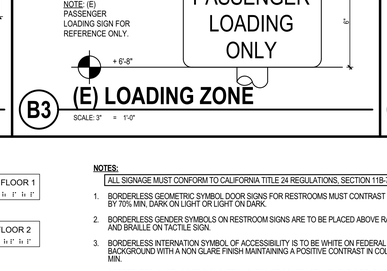
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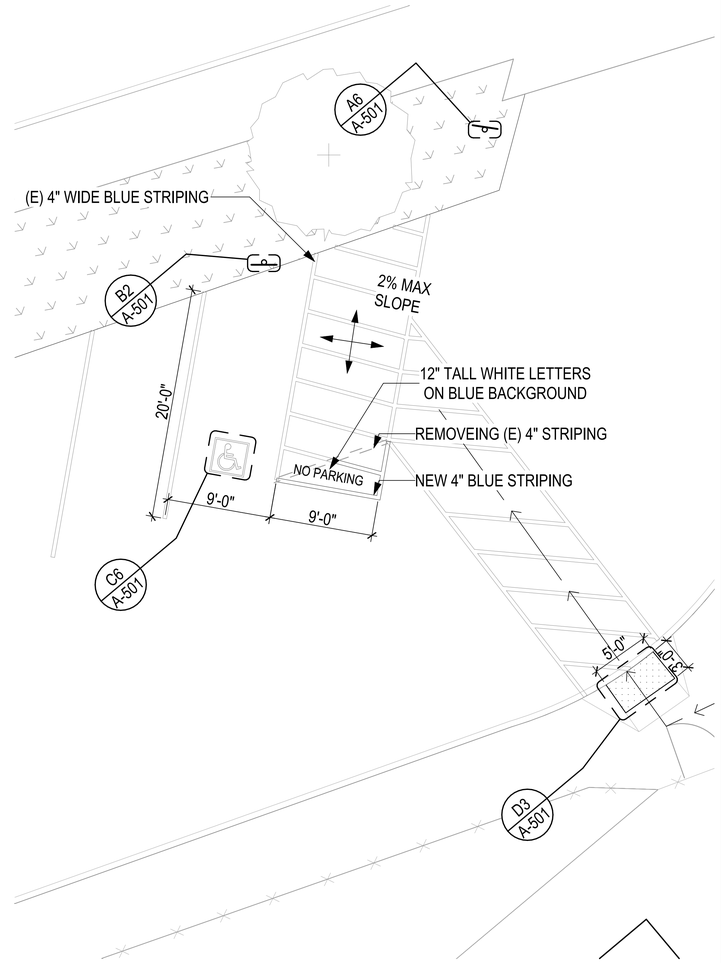
D2 CHAINLINK W/ PANIC HARDWARE

SCALE: 1/2" = 1'-0"



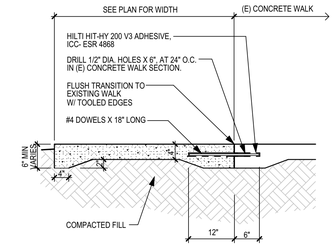
D3 TRUNCATED DOMES

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



B4 (E) ADA PARKING

SCALE: 3/16" = 1'-0"



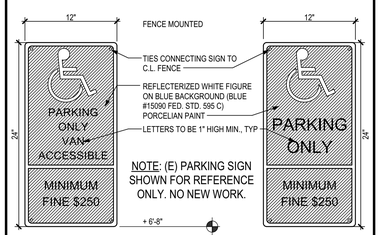
D6 TYP. CONCRETE WALK

SCALE: 3/4" = 1'-0"

NOTE: (E) ADA PARKING SHOWN FOR REFERENCE ONLY. NO NEW WORK.

C6 (E) ACCESSIBILITY SIGNAGE

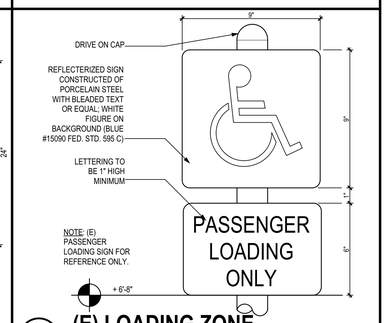
SCALE: 1/8" = 1'-0"



NOTE: (E) PARKING SIGN SHOWN FOR REFERENCE ONLY. NO NEW WORK.

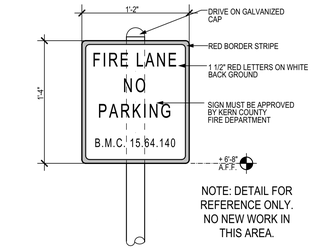
B2 (E) PARKING SIGNAGE

SCALE: 1 1/2"= 1'-0"



B3 (E) LOADING ZONE

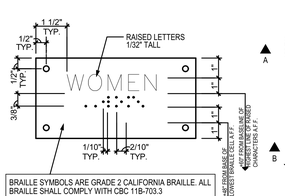
SCALE: 3" = 1'-0"



NOTE: DETAIL FOR REFERENCE ONLY. NO NEW WORK IN THIS AREA.

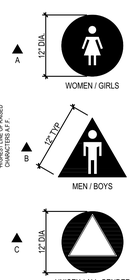
B6 (E) FIRE LANE ACCESS SIGNAGE

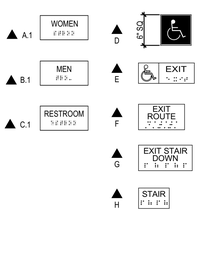
SCALE: 1 1/2"= 1'-0"



NOTE:

1. BRAILLE SHOWN IS NOT A VERIFIED TRANSLATION OF TEXT. PROVIDE CORRECT BRAILLE FOR EACH SIGN.
2. ROOM SIGNS TO BE COORDINATED WITH OWNER





NOTE: PROVIDE MINIMUM OF TWO PORTABLE ALS SYSTEMS.

NOTES:

ALL SIGNAGE MUST CONFORM TO CALIFORNIA TITLE 24 REGULATIONS, SECTION 11B-703.

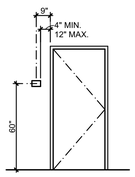
1. BORDERLESS GEOMETRIC SYMBOL DOOR SIGNS FOR RESTROOMS MUST CONTRAST IN COLOR WITH DOOR BY 70% MIN, DARK ON LIGHT OR LIGHT ON DARK.
2. BORDERLESS GENDER SYMBOLS ON RESTROOM SIGNS ARE TO BE PLACED ABOVE RAISED CHARACTERS AND BRAILLE ON TACTILE SIGN.
3. BORDERLESS INTERNATION SYMBOL OF ACCESSIBILITY IS TO BE WHITE ON FEDERAL BLUE COLOR # 15090 BACKGROUND WITH A NON GLARE FINISH MAINTAINING A POSITIVE CONTRAST IN COLOR WITH DOOR BY 70% MIN.
4. BORDERLESS UNISEX DOOR SIGNS, TRIANGLE MUST CONTRAST WITH THE CIRCLE WHICH MUST CONTRAST WITH THE DOOR BY 70% MIN.
5. CONTRAST BETWEEN CHARACTERS AND BACKGROUND MUST BE 70% MINIMUM ON ALL TACTILE SIGNAGE WITH A NON GLARE FINISH
6. SIGNS A, B, & C SHALL BE CENTERED ON THE ASSIGNED DOOR AND 60" ABOVE FINISH FLOOR TO CENTERLINE.
7. WALL MOUNTED SIGNS SHALL BE PLACED AT +60" ABOVE FINISH FLOOR TO CENTERLINE OF SIGN AND ON STRIKE SIDE OF DOOR WITHIN 6" OF DOOR JAMB.
8. BRAILLE ON SIGNS SHALL COMPLY WITH CBC 11B-703.3
11. FOR SIGNS DESIGNATING OCCUPANT LOAD, REFER TO SHEET G-002, CODE ANALYSIS, FOR ACTUAL OCCUPANT LOAD PER ROOM - VERIFY LOCATION

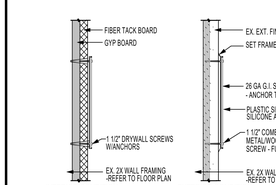
A1 SIGNAGE

SCALE: 1" = 1'-0"

TYPICAL SIGN MOUNTING:

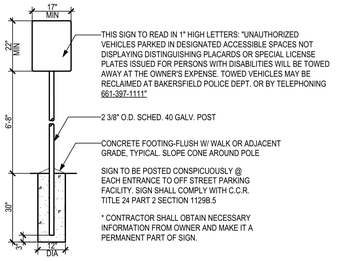
APPLY CONTINUOUS BEAD OF SILICONE ADHESIVE AT PERIMETER OF SIGN. ANCHOR W/ MIN. (6) TAMPER RESISTANT STAINLESS STEEL SCREWS





A5 TYP SIGN MOUNTING

SCALE: 3" = 1'-0"



A6 AUTHORIZATION SIGN

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

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL

7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT

14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396

A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT

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SHEET TITLE

DETAILS

SHEET IDENTIFICATION NUMBER

A-501

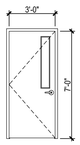
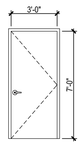
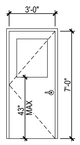
SHEETS IN SET 120

PLOT DATE: 8/27 AM
PLOTTED BY: AKF
PLOTTING: 1/2 HALF

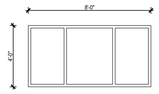
DOOR AND FRAME SCHEDULE

DOOR	TYPE	DOOR					FRAME		HARDWARE		REMARKS
		SIZE			MATERIAL	FINISH	MATERIAL	FINISH	SET NUMBER	PANIC	
		W	HT	THK							
A101a	I	3'-0"	7'-0"	1 3/4"	HM	P2	HM	P2	2	YES	-
A101b	I	3'-0"	7'-0"	1 3/4"	HM	P2	HM	P2	2	YES	-
A101c	III	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	5	-	SAFETY GLAZING PER CBC 2406.1 (A-6.01)
A101d	III	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	3	-	SAFETY GLAZING PER CBC 2406.1 (A-6.01)
A102	I	3'-0"	7'-0"	1 3/4"	HM	P2	HM	P2	4	-	-
A103	II	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	5	-	-
A104	II	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	5	-	-
A106a	I	3'-0"	7'-0"	1 3/4"	HM	P2	HM	P2	2	YES	-
A106b	I	3'-0"	7'-0"	1 3/4"	HM	P2	HM	P2	2	YES	-
A106c	III	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	5	-	SAFETY GLAZING PER CBC 2406.1 (A-6.01)
A106d	III	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	3	-	SAFETY GLAZING PER CBC 2406.1 (A-6.01)
B101a	I	3'-0"	7'-0"	1 3/4"	HM	P2	HM	P2	2	YES	-
B101b	I	3'-0"	7'-0"	1 3/4"	HM	P2	HM	P2	2	YES	-
B101c	III	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	5	-	SAFETY GLAZING PER CBC 2406.1 (A-6.01)
B101d	III	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	3	-	SAFETY GLAZING PER CBC 2406.1 (A-6.01)
B102	I	3'-0"	7'-0"	1 3/4"	HM	P2	HM	P2	4	-	-
B103	II	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	5	-	-
B104	II	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	5	-	-
B106a	I	3'-0"	7'-0"	1 3/4"	HM	P2	HM	P2	2	YES	-
B106b	I	3'-0"	7'-0"	1 3/4"	HM	P2	HM	P2	2	YES	-
B106c	III	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	5	-	SAFETY GLAZING PER CBC 2406.1 (A-6.01)
B106d	III	3'-0"	7'-0"	1 3/4"	SC WD	ST	WD	P2	3	-	SAFETY GLAZING PER CBC 2406.1 (A-6.01)

DOOR & FRAME TYPE SCHEDULE

TYPE	I	II	III
ELEVATION			

WINDOW TYPE LEGEND

ID	01
VIEW	
MATERIAL	HOLLOW METAL
FINISH	STEEL

HARDWARE LEGEND

SET	QTY	EXTERIOR CLASSROOM
1	3	IVES HINGE 5BB1HW 4.5x4.5 630 NRP
	1	SCHLAGE SECURITY LOCK ND75TDRH0626
	2	SCHLAGE CORE 26-030 626
	1	LCN CLOSER 4040XP 689
	1	IVES KICK PLATE 8400 10"x2" LDW 630
	2	NGP JAMB SEAL 700ES
	1	NGP HEAD SEAL 700S
	1	NGP THRESHOLD 613 MS/LA
	1	DOOR STOP FS436 US10 IVE
	1	SEAL 700S

SET	QTY	EXTERIOR CLASSROOM WITH PANIC
2	3	IVES HINGE 5BB1HW 4.5x4.5 630 NRP
	1	VON DURPIN EXIT DEVICE CD99NL x 990NL 626
	1	SCHLAGE RIM CYLINDER 20-061-ICX 626
	1	SCHLAGE MORTISE CYLINDER 20-061-ICX-262
	2	SCHLAGE CORE 23-030 626
	1	LCN CLOSER 4040XP 689
	1	IVES KICK PLATE 8400 10" x 2" LDW 630
	2	NGP JAMB SEAL 700ES
	1	NGP HEAD SEAL 700S
	1	NGP THRESHOLD 613 MS/LA
	1	DOOR STOP FS436 US10 IVE
	1	SEAL 700S

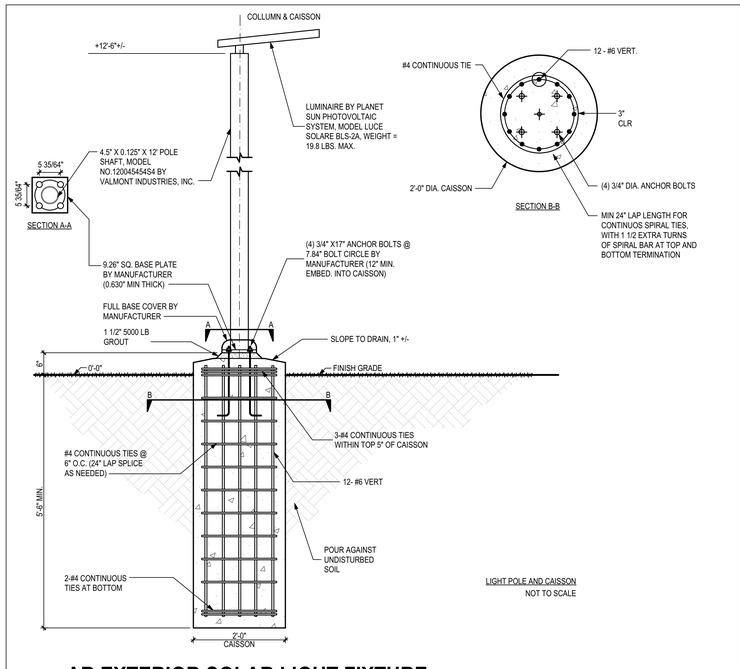
SET	QTY	INTERIOR WORKROOM
3	3	IVES HINGE 5BB1 4.5 x 4.5 652
	1	SCHLAGE LOCK ND53TDRH0626
	1	SCHLAGE CORE 23-030 626
	1	LCN CLOSER 4040XP 689
	1	IVES KICK PLATE 8400 10" x 2" LDW 630
	1	DOOR STOP FS436 US10 IVE
	1	SEAL 700S

SET	QTY	EXTERIOR RESTROOM
4	3	IVES HINGE 5BB1HW 4.5 x 4.5 630 NRP
	1	SCHLAGE CLASSROOM LOCK ND70TDRHO626
	1	SCHLAGE CORE 23-030 626
	1	LCN CLOSER 4040XP 689
	1	IVES KICK PLATE 8400 10" x 2" LDW 630
	2	NGP JAMB SEAL 700ES
	1	NGP HEAD SEAL 700S
	1	NGP THRESHOLD 613 MS/LA
	1	DOOR STOP FS436 US10 IVE

SET	QTY	INTERIOR RESTROOM
5	3	IVES HINGE 5BB1 4.5x4.5 652 NRP
	1	SCHLAGE PRIVACY SET ND40SRHO626
	1	LCN CLOSER 4040XP 689
	1	IVES KICK PLATE 8400 10" x 2" LDW 630
	1	DOOR STOP FS436 US10 IVE
	1	SEAL 700S

GLAZING / FRAME LEGEND

MARK	DESRIPTION
HM	HOLLOW METAL
ALUM	ALUMINUM STOREFRONT
TG	TEMPERED GLASS LOCATION
FF	FACTORY FINISH
P	PAINT
SP	SPANDREL GLASS PANEL LOCATION
TP	TEMPERED GLASS PANEL LOCATION
TS	TEMPERED SPANDREL GLASS PANEL LOCATION



A5 AR EXTERIOR SOLAR LIGHT FIXTURE

SCALE: 3/4" = 1'-0"

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5500 Ming Avenue, Suite 280
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o: (661) 832-5258
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LICENSED ARCHITECT
JOSEPH E. ZASOSKI
C-36742
MAY 31, 2027
RENEWAL DATE
STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA
ARCHITECT C-36294

JEANINE S. BERTOLACCINI, AIA
ARCHITECT C-35596

JOSEPH E. ZASOSKI, AIA
ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

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7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

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BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396

A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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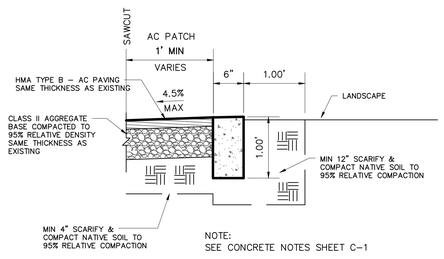
DOOR & WINDOW SCHEDULES

SHEET IDENTIFICATION NUMBER

A-601

SHEETS IN SET 120

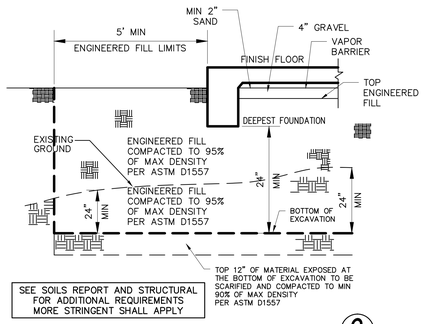
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PLOT BY: Kevin Ford
PC STYLE: NAMED



NOTE:
SEE CONCRETE NOTES SHEET C-1

0" FLUSH CONCRETE CURB (3)

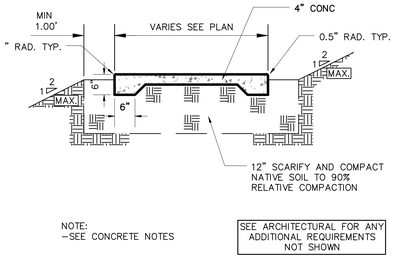
"ONSITE DETAILS" SCALE: 1"=1'



SEE SOILS REPORT AND STRUCTURAL FOR ADDITIONAL REQUIREMENTS MORE STRINGENT SHALL APPLY

BUILDING PAD IN LESS THAN 5' FILL (2)

"ONSITE DETAILS" SCALE: 1"=2'



NOTE:
–SEE CONCRETE NOTES

SEE ARCHITECTURAL FOR ANY ADDITIONAL REQUIREMENTS NOT SHOWN

TYPICAL SIDEWALK DETAIL (1)

"ONSITE DETAILS" SCALE: 1"=2'

GENERAL GRADING NOTES

1. GRADING SHALL CONFORM TO STANDARDS, SPECIFICATIONS, AND REQUIREMENTS OF THE LATEST EDITION OF THE BUILDING CODE AS ADOPTED BY THE LOCAL GOVERNING AGENCY

2. THE CONTRACTOR SHALL REMOVE AND OR RELOCATE ALL OBSTRUCTIONS WITHIN THE IMPROVEMENT AREA AS DIRECTED IN THESE PLANS.

3. ALL EXISTING IMPROVEMENTS THAT ARE REMOVED, DAMAGED, OR UNDERCUT SHALL BE REPAIRED OR REPLACED AS DIRECTED BY AFFECTED AGENCY.

4. ALL CUT SLOPES SHALL BE NO STEEPER THAN (2) TWO HORIZONTAL TO (1) ONE VERTICAL.

5. ALL FILL SLOPES SHALL BE NO STEEPER THAN (2) TWO HORIZONTAL TO (1) ONE VERTICAL.

6. ALL VEGETABLE MATTER SHALL BE REMOVED FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED, AND THE SURFACE SHALL BE PLOWED SCARIFIED TO A DEPTH OF AT LEAST TWELVE INCHES (12"), AND UNTIL THE SURFACE IS FREE FROM RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH WOULD TEND TO PREVENT UNIFORM COMPACTION BY THE EQUIPMENT TO BE USED.

7. FILL MATERIALS: MATERIALS FOR FILL SHALL CONSIST OF MATERIAL SELECTED BY THE SOILS ENGINEER FROM SOURCES IDENTIFIED IN LABORATORY REPORTS. THE MATERIAL USED SHALL BE FREE FROM VEGETABLE MATTER AND OTHER DELETERIOUS SUBSTANCES AND SHALL NOT CONTAIN ROCKS OR LUMPS HAVING A DIAMETER OF OR MORE THAN SIX INCHES (6").

8. AMOUNT OF COMPACTION: AFTER EACH LAYER (LIFT) HAS BEEN PLACED, MIXED AND SPREAD EVENLY, IT SHALL BE THOROUGHLY COMPACTED TO THE SPECIFIED DENSITY. THE SPECIFIED DENSITY WILL BE STATED AS A PERCENTAGE OF THE MAXIMUM DENSITY ATTAINABLE USING CURRENT ASTM DENSITY TEST NO. D 1557 THE SPECIFIED DENSITY TYPICALLY WILL BE NINETY PERCENT (90%) OF THE MAXIMUM FOR MOST COHESIVE, NON-EXPANSIVE SOILS, HOWEVER IT WILL BE ESTABLISHED AS APPROPRIATE FOR THE MATERIALS AND ENVIRONMENT DEFINED. FILL COMPACTION SHALL CONFORM TO U.B.C. STANDARDS AND LOCAL GRADING STANDARDS.

9. DEPTH AND MIXING OF FILL LAYERS: THE SELECTED FILL MATERIAL SHALL BE PLACED IN LEVEL, UNIFORM LAYERS WHICH, WHEN COMPACTED, SHALL HAVE A DENSITY CONFORMING TO THAT STIPULATED IN THESE PLANS OR THE SOILS REPORT. EACH LAYER SHALL BE THOROUGHLY BLADE MIXED DURING THE SPREADING TO INSURE UNIFORMITY OF MATERIALS IN EACH LAYER. COMPACTED LAYER THICKNESS NORMALLY WILL BE SIX (6"), HOWEVER, IT MAY BE SPECIFIED OTHERWISE IF COMPACTION EQUIPMENT OF DEMONSTRATED CAPABILITY WILL BE USED.

10. COMPACTING AREA TO BE FILLED: AFTER THE FOUNDATION FOR THE FILL HAS BEEN CLEARED AND PLOWED OR SCARIFIED, IT SHALL BE DISKED OR BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS, BROUGHT TO THE PROPER MOISTURE CONTENT, AND COMPACTED (TYPICALLY) TO NOT LESS THAN NINETY (90%) OF MAXIMUM DENSITY IN ACCORDANCE WITH CURRENT ASTM DENSITY TEST NO. D 1557, OR TO SUCH OTHER DENSITY AS MAY BE DETERMINED APPROPRIATE FOR THE MATERIALS AND CONDITIONS AND ACCEPTABLE TO THE ENGINEER AND OR INSPECTORS.

11. ROCK: WHEN FILL MATERIAL INCLUDES ROCK, THE MAXIMUM ROCK SIZE ACCEPTABLE SHALL BE SIX INCHES (6"). NO LARGE ROCKS SHALL BE ALLOWED TO NEST AND ALL VOIDS MUST BE CAREFULLY FILLED WITH SMALL STONES OR EARTH, PROPERLY COMPACTED. NO LARGE ROCKS WILL BE PERMITTED WITHIN TWELVE INCHES (12"), OF THE FINISHED GRADE.

12. MOISTURE CONTENT: THE FILL MATERIAL SHALL BE COMPACTED AT THE APPROPRIATE MOISTURE CONTENT SPECIFIED FOR THE SOILS BEING USED, AS IDENTIFIED IN LABORATORY AND SOILS REPORT. MOISTURE CONTENT TOLERANCES SHOULD BE CLEARLY DEFINED FOR PLACEMENT OF EACH MATERIAL PROPOSED FOR USE IN A FILL. APPROPRIATE MOISTURE CONTENT IS DEFINED TYPICALLY, AS OPTIMUM MOISTURE CONTENT, HOWEVER FOR EXPANSIVE SOILS IT MAY BE GREATER THAN OPTIMUM MOISTURE CONTENT, AND OTHER MOISTURE CONTENTS MAY BE NECESSARY TO PRODUCE THE DESIRED RESULTS WITH SPECIFIC SOILS.

13. DENSITY TESTS: FIELD DENSITY TEST SHALL BE MADE BY THE SOILS ENGINEER OF THE COMPACTION OF EACH LAYER OF FILL. DENSITY TEST SHALL BE TAKEN IN THE COMPACTED MATERIAL BELOW THE DISTURBED SURFACE. WHEN THESE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE REQUIRED DENSITY, THE PARTICULAR LAYER OF PORTION SHALL BE REWORKED UNTIL THE REQUIRED DENSITY HAS BEEN OBTAINED. SUFFICIENT DENSITY TESTS SHALL BE MADE TO SUPPORT THE SOILS ENGINEER'S CERTIFICATION OF EACH FILL LAYER.

14. REPRESENTATIVES OF THE SOILS ENGINEER WILL OBSERVE THE WORK IN PROGRESS, MAKE TESTS OF THE SOIL, AND REVIEW THE EXCAVATIONS AND TRENCHES. THE PROJECT CIVIL ENGINEER WILL OBSERVE GRADING OPERATIONS TO FACILITATE SUBSTANTIAL COMPLIANCE WITH THE PLANS. SPECIFICATIONS AND CODES WITHIN HIS PURVIEW. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND TECHNIQUES, SEQUENCES AND PROCEDURES. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. INTERMITTENT VISITS BY THE SOILS ENGINEER OR THE PROJECT CIVIL ENGINEER DO NOT INCLUDE REVIEW OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE.

15. GRADING WORK SHALL BE DONE IN A MANNER TO PREVENT STORM DAMAGE TO PUBLIC OR PRIVATE PROPERTY OF OTHERS BY FLOODING, EROSION, DEPOSITION, DEBRIS, OR ANY OTHER DAMAGE RESULTING FROM THE GRADING WORK.

16. SURFACE DRAINAGE SHALL HAVE A MINIMUM SLOPE OF TWO PERCENT AWAY FROM ALL STRUCTURES.

17. THE GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE PROJECT SHALL BE NOTIFIED BY THE CONTRACTOR OF THE OWNER A MINIMUM OF 48 HOURS PRIOR TO THE TIME THAT GRADING IS TO COMMENCE AND THE CONTRACTOR OR THE OWNER SHALL MAKE ALL NECESSARY ARRANGEMENTS FOR THEIR INSPECTIONS.

18. THE SOILS ENGINEER SHALL BE NOTIFIED SUFFICIENTLY IN ADVANCE TO PERMIT EXAMINATION OF SUBGRADE AND TESTING OF FILL AND FINAL GRADES. THE SOILS ENGINEER SHALL BE NOTIFIED OF ANY CONDITION THAT MAY EFFECT THE PROJECT.

19. COMPACTION IN PROPOSED PAVEMENT AREAS SHALL EXTEND TO A MINIMUM DISTANCE OF (2) FEET BEYOND THE OUTSIDE EDGE OF PAVEMENTS.

20. DURING GRADING, REASONABLE SEARCHING SHOULD BE PERFORMED FOR CANCELED SUBSURFACE OBSTRUCTIONS. ALL ABANDONED SUBSURFACE OBSTRUCTIONS SHOULD BE REMOVED. IF THE TERMINUS OF ANY ABANDONED PIPING IS OUTSIDE THE PROJECT LIMITS, THE PIPING SHOULD BE REMOVED WITHIN THE PROJECT AND PROPERLY CAPPED AT THE PROJECT BOUNDARY.

21. CONTRACTOR TO COORDINATE WITH INSPECTOR AND DEVELOPER, THE LOCATION OF THE BORROW OR SPOILS PRIOR TO CONSTRUCTION.

22. THE LOCATION OF EXISTING UTILITIES AND UNDERGROUND PIPELINES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND PIPELINES BEFORE COMMENCING WORK, CONTRACTOR ASSUMES ALL LIABILITY FOR ANY AND ALL UNDERGROUND UTILITIES AND PIPELINES.THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE REMOVAL OR RELOCATION OF ANY AND ALL EXISTING UTILITIES WITH THE RESPECTIVE UTILITY COMPANY. COST OF THIS COORDINATION IS TO BE INCLUDED IN THE PRICE BID FOR THE VARIOUS IMPROVEMENTS TO COMPLETE THE PROJECT.

23. CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA) AND THE LOCAL PUBLIC WORKS DEPARTMENT AT LEAST TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO MARK THE LOCATIONS OF EXISTING UTILITY LINES. 811

24. SITE GRADING. THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL SLOPE AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN ONE UNIT VERTICAL IN 20 UNITS HORIZONTAL (5%) FOR A MINIMUM DISTANCE OF 10 FEET MEASURED PERPENDICULAR TO THE FACE OF THE WALL EXCEPTION: WHERE CLIMATIC OR SOIL CONDITIONS WARRANT, THE SLOPE OF THE GROUND AWAY FROM THE BUILDING FOUNDATION SHALL BE PERMITTED TO BE REDUCED TO NOT LESS THAN 1%

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS,
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES WHETHER SHOWN OR NOT SHOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING FACILITIES FROM DAMAGE DURING CONSTRUCTION.

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER OF PROJECT CIVIL ENGINEER.

2. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL SURVEY MONUMENTS. ANY SURVEY MONUMENTS DISTURBED DURING THE COURSE OF CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

3. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUALLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE COUNTY HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE COUNTY.

4. AN ENCROACHMENT PERMIT FROM THE COUNTY SHALL BE OBTAINED PRIOR TO THE BEGINNING OF ANY WORK OR CONSTRUCTION WITHIN THE STREET.

5. ALL EXCAVATIONS SHALL BE BACK FILLED AT THE END OF EACH WORKING DAY AND ROADS OPEN TO VEHICULAR TRAFFIC UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.

6. THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTY OWNERS FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUN-OFF AND/OR DISPLACEMENT OF DEBRIS RESULTING FROM ANY AND ALL WORK IN CONJUNCTION WITH CONSTRUCTION OF THESE IMPROVEMENTS.

7. THE CONTRACTOR SHALL, AT NO COST TO THE COUNTY, PROVIDE ALL NECESSARY SAMPLES AND TESTS THAT THE COUNTY ENGINEER MAY REQUIRE TO ENSURE THAT QUALITY OF MATERIAL AND WORKMANSHIP ARE IN ACCORDANCE WITH THE COUNTY SPECIFICATIONS.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND SHALL MAINTAIN ALL FACILITIES (COMPLETE AND/OR INCOMPLETE) UNTIL ACCEPTED BY THE COUNTY.

9. THE CONTRACTOR SHALL ADJUST ALL EXISTING VALVE COVERS, MAN HOLES AND AND UTILITY BOXES AS NEEDED TO ACCOMMODATE NEW IMPROVEMENTS.

10. ALL MANHOLE AND MONUMENT ENCASEMENT COVERS SHALL BE SET 1/4" BELOW PAVEMENT GRADE.

11. THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

25. IMPORTANT NOTICE – SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE ANY "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE AT 811, TWO WORKING DAYS BEFORE YOU DIG.

CONCRETE NOTES:

1. CONCRETE BASE MATERIALS, CURBS, GUTTERS, WALKS AND PAVEMENT – PER GREEN BOOK CURRENT ADDITION SECTION 200 AND 201

CEMENT MIX – PER TABLE 201–1.1.2(A)
560–C–3250 OR 565–CFW–3250P
532–CFW–3250 OR 537–CFW–3250P

3000 PSI MIN COMPRESSIVE STRENGTH AT 28 DAYS. MIX DESIGN SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL

AGGREGATE BASE – PER TABLE 200–2.2.2 MIN OR BETTER

FILL SAND – PER 200–1.5

2. SIDEWALKS, CURBS AND GUTTERS TO BE TROWELED AND HAVE A LIGHT BRUSHED FINISH. BRUSH LINES IN GUTTER SHALL BE PARALLEL TO THE DIRECTION OF FLOW.
3. 1/8" WIDE CONTROL JOINTS, 1/3 DEPTH, 3/16" RADIUS TOOLED EDGES. MAX SPACING AT 10' O.C.
4. 1/2" ASPHALT IMPREGNATED EXPANSION JOINT WITH A REMOVEABLE CAP. FILL TOP WITH TWO PART POLYURETHANE JOINT SEALANT. MAX SPACING AT 20' O.C.
5. SAND SHALL BE CLEAN RIVER SAND FREE FROM ORGANICS, DIRT AND/OR DEBRIS.
6. AGGREGATE BASE SHALL CONFORM TO SECTION 26, CLASS II PER STATE STANDARD SPECIFICATIONS.
7. ASPHALTIC CONCRETE AND EARTHWORK SHALL CONFORM TO SECTION 39 AND 19 OF THE STATE STANDARD SPECIFICATION LATEST EDITION.
8. THE STRUCTURAL SECTION AS SHOWN SHALL HAVE A MINIMUM SUBSOIL R–VALUE OF 50. FOR R VALUES LESS THAN 50, THE STRUCTURAL SECTION SHALL BE DESIGNED IN ACCORDANCE TO LOCAL GOVERNING AGENCY STANDARDS WITH A MINIMUM TRAFFIC INDEX = 4.
9. RECLAIMED AGGREGATE BASE – THICKNESS OF RECLAIMED AGGREGATE BASE STATE STANDARD SPECIFICATIONS.
10. REBAR SHALL CONFORM TO ASTM A615 AND BE GRADE 40 FOR REBAR #3 AND GRADE 60 FOR REBAR #4 AND LARGER.
11. DOWEL INTO EXISTING CONCRETE – 18" #3 REBAR DOWEL SET IN EPOXY WITH 6" EMBEDMENT 18" O.C. (MATCH SLAB BAR SPACING) USE SIMPSON SET XP EPOXY ADHESIVE (ESR–2508) PER MANUFACTURERS INSTRUCTIONS. IOR TO WITNESS INSTALLATION OF EPOXY DOWELS TYP.

DUST CONTROL

1. PORTABLE WATER WILL BE APPLIED TO DISTURBED SOIL AREAS OF THE PROJECT SITE TO CONTROL DUST AND MAINTAIN OPTIMUM MOISTURE LEVELS FOR COMPACTION. THE WATER WILL BE APPLIED USING WATER TRUCKS. AS SHOWN ON THE PROJECT SCHEDULE, PROJECT SOILS WILL BE DISTURBED AND EXPOSED FROM APPROXIMATELY MAY 1 THROUGH SEPTEMBER 15. WATER APPLICATIONS WILL BE CONCENTRATED DURING THE LATE SUMMER AND EARLY FALL MONTHS.

2. BMP WE–1, WIND EROSION CONTROL, AND BMP NS–1, WATER CONSERVATION PRACTICES, WILL BE IMPLEMENTED TO PROVIDE DUST CONTROL AND PREVENT DISCHARGES FROM DUST CONTROL ACTIVITIES AND WATER SUPPLY EQUIPMENT. WATER APPLICATION RATES WILL BE MINIMIZED AS NECESSARY TO PREVENT RUNOFF AND PONDING AND WATER EQUIPMENT LEAKS WILL BE REPAIRED IMMEDIATELY.

- MOST DUST CONTROL MEASURES REQUIRE FREQUENT, OFTEN DAILY, OR MULTIPLE TIMES PER DAY ATTENTION.

3. DURING WINDY CONDITIONS (FORECAST OR ACTUAL WIND CONDITIONS APPROXIMATELY 25 MPH OR GREATER), DUST CONTROL WILL BE APPLIED TO DISTURBED AREAS, INCLUDING HAUL ROADS, TO ADEQUATELY CONTROL WIND EROSION.

4. BMP WM–3, STOCKPILE MANAGEMENT, USING SILT FECES AND PLASTIC COVERS WILL BE IMPLEMENTED TO PREVENT WIND DISPERSAL OF SEDIMENT FROM STOCKPILES.

NPDES NOTES

CALIFORNIA WATER CODE – NPDES PERMIT ACTIVITY
CALIFORNIA BUILDING STANDARDS CODE

WITH RESPECT TO THE STORMWATER AND NPDES REQUIREMENTS PER THE ABOVE REFERENCED CODES, REGULATIONS AND STANDARDS:
1. CONSTRUCTION ACTIVITY WILL NOT RESULT IN THE DISTURBANCE OF ONE ACRE OR MORE OF TOTAL LAND AREA
2. CONSTRUCTION ACTIVITY 'OIL & GAS' WILL NOT RESULT IN THE DISCHARGE TO A WATER OF THE STATE OF STORMWATER CONTAINING CONTAMINANTS AND/OR SEDIMENTS THAT WILL CONTRIBUTE TO A VIOLATION OF WATER QUALITY STANDARDS.
3. CONSTRUCTION ACTIVITY WILL COMPLY WITH CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN) REQUIREMENTS.

PER 2016 CALGREEN BUILDING STANDARDS CODE 5.106.1, NON–RESIDENTIAL NEWLY CONSTRUCTED PROJECTS WHICH DISTURB LESS THAN ONE ACRE OF LAND SHALL PREVENT THE LOSS OF SOIL OF POLLUTION OF STORM WATER RUNOFF FROM THE CONSTRUCTION ACTIVITIES THROUGH LOCAL ORDINANCE REQUIREMENTS AND/OR BEST MANAGEMENT PRACTICE (BMP).
BMP'S THAT SHOULD BE CONSIDERED FOR IMPLEMENTATION AS APPROPRIATE FOR EACH PROJECT INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

EROSION AND SEDIMENT CONTROL BMP'S
–SCHEDULING CONSTRUCTION ACTIVITIES
–PRESERVATION OF NATURAL FEATURES, VEGETATION, AND SOIL
–DRAINAGE SWALES OR LINED DITCHES T CONTROL STORM WATER FLOW
–MULCHING OR HYDRO SEEDING TO STABILIZE SOIL EROSION CONTROL COVERS TO PROTECT SLOPES
–PROTECTION OF STORM DRAIN INLETS (GRAVEL BAGS OR CATCH BASIN INSERTS)
–PERIMETER SEDIMENT CONTROL (PERIMETER SILT FENCE, FIBER ROLLS)
–SEDIMENT TRAP OR SEDIMENT BASIN TO RETAIN SEDIMENT ON SITE
–STABILIZED CONSTRUCTION EXITS
–WIND EROSION CONTROL

HOUSEKEEPING BMP'S
–MATERIAL HANDLING AND WASTE MANAGEMENT
–BUILDING MATERIALS STOCKPILE MANAGEMENT
–MANAGEMENT OF WASHOUT AREAS (CONCRETE,PAINTS,STUCCO,ECT..)
–CONTROL OF VEHICLE/EQUIPMENT FUELING TO CONTRACTOR'S STAGING AREA
–VEHICLE AND EQUIPMENT CLEANING PERFORMED OFF SITE
–SPILL PREVENTION CONTROL

SHEET INDEX

C–1 (C–1)	COVER SHEET / NOTES / DETAILS
C–2 (C–2)	GRADING AND DRAINAGE PLAN
C–3 (C–3)	UTILITY PLAN COVER SHEET
C–4 (C–4)	UTILITY PLAN

LOCAL BENCHMARK

LOCAL CONTROL POINT 10 – SCRIBED "+" IN CONCRETE

ASSUMED ELEVATION = 300.00'

LOCAL CONTROL POINT 30 – SCRIBED "+" IN CONCRETE

ELEVATION = 299.10'

LOCAL CONTROL POINT 40 – SCRIBED "+" IN CONCRETE

ELEVATION = 298.80'

LOCAL CONTROL POINT 50 – SCRIBED "+" IN CONCRETE

ELEVATION = 298.65'

LEGEND

⌖	SET LOCAL CONTROL POINT
( )	EXISTING
(%)	EXISTING SLOPE
–%	PROPOSED SLOPE
CONC	CONCRETE
P	PAVEMENT
GB	GRADE BREAK
FF	FINISH FLOOR
FP	FINISH PAVEMENT
EP	EDGE PAVEMENT
LIP	GUTTER LIP
TC	TOP OF CURB
FG	FINISH GROUND
CP	CORRUGATED PIPE
EG	EXISTING GROUND
G	GROUND

NO DEMOLITION SHOWN ON THIS PLAN. REFER TO ARCHITECTURAL FOR DEMOLITION REQUIREMENTS.

THESE PLANS ARE PART OF A LARGER SET. CONTRACTOR TO VERIFY AND COMPARE WITH COMPLETE SER FOR DIMENSIONS OF BUILDING AND SITE.

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS WAS OBTAINED BY TOPOGRAPHIC SURVEY OF THE SURFACE, AND SEARCH OF THE AVAILABLE RECORDS IF AVAILABLE. UTILITIES SHOWN ON THESE PLANS ARE TO THE BEST OF OUR KNOWLEDGE. AFINAR, INC IS NOT RESPONSIBLE FOR ANY UNDERGROUND UTILITIES OR STRUCTURES NOT SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO LOCATE ALL UTILITIES AND TO PROTECT THE UTILITY LINES SHOWN AND NOT SHOWN ON THESE DRAWINGS. IF UTILITIES ARE FOUND THAT ARE NOT SHOWN ON THESE PLANS, CONTACT OWNER, ARCHITECT AND ENGINEER FOR DIRECTION. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES TO VERIFY THE SIZE, DEPTH AND LOCATION, PRIOR TO START OF PROJECT. ANY DISCREPANCY BETWEEN THE PLANS AND FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.

ALL UTILITIES IN EFFECTED WORK AREA WILL BE POTHOLED AT CONTRACTORS EXPENSE PRIOR TO EXCAVATION. OWNER, ARCHITECT, AND ENGINEER WILL BE NOTIFIED 48 HOURS PRIOR TO POTHOLE WORK. ALL EXPOSED UTILITIES WILL BE INSPECTED AND MEASURED BY SURVEYOR PRIOR TO BACKFILL.

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITION DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR ALSO AGREES TO DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

ENGINEER'S STATEMENT

THESE PLANS AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECTION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH LOCAL ORDINANCES, STANDARDS AND INCLUDE ALL IMPROVEMENT REQUIREMENTS OF THE ADVISORY AGENCY OR OTHER REVIEW BOARD.

ANY ERRORS, OMISSIONS OR DEVIATIONS FROM THOSE ORDINANCES OR STANDARDS ENCOUNTERED DURING CONSTRUCTION SHALL BE CORRECTED AND SUCH CORRECTIONS REFLECTED ON THE PLANS AND SUBMITTED TO THE ENGINEER.

Bernard O Salgado 7/16/25
BERNARD ORTIZ SALGADO, R.C.E. 71320 DATE

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REGISTERED ARCHITECT
JOSEPH E. ZASOSKI
C-36742
MAY 31, 2027
RENEWAL DATE
STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA
ARCHITECT C-36294

JEANINE S. BERTOLACCINI, AIA
ARCHITECT C-35596

JOSEPH E. ZASOSKI, AIA
ARCHITECT C-36742

MARK	DATE	DESCRIPTION

JOB NUMBER:
2396
A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL

7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

SHEET TITLE

COVER SHEET/ NOTES/ DETAILS

SHEET IDENTIFICATION NUMBER

C-1

SHEETS IN SET 120

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REGISTERED PROFESSIONAL ENGINEER BERNARD ORTIZ SALGADO No. 71320 Exp. 12-31-25 CIVIL STATE OF CALIFORNIA

THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECTION

Bernard O Salgado 7/16/25
BERNARD O. SALGADO, PE DATE

DATE:	BY:	REVISION
7–16–25	BOS	DSA PLAN CHECK 1 RESPONSE

DONALD E. SUBURU ELEMENTARY SCHOOL
LAKESIDE UNION SCHOOL DISTRICT
NEW TK/K CLASSROOMS
7315 HARRIS ROAD, BAKERSFIELD, CA 93313

COVER SHEET / NOTES / DETAILS

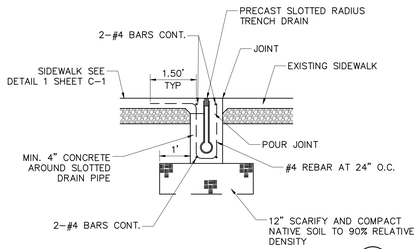
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DRAWN BY: AFINAR
SCALE: AS NOTED
JOB#: 2024–40

C-1
1 OF 4

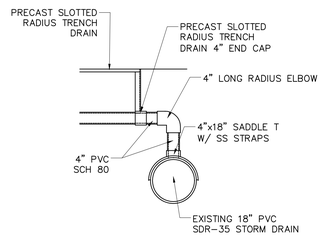
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PLOTTED BY: AFINAR
PLOT SIZE: 30X42

ONSITE IMPROVEMENTS

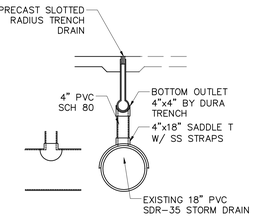
1. NEW 4" THICK CONCRETE SIDEWALK. MAX 5% SLOPE IN DIRECTION OF TRAVEL. MAX 2% CROSS SLOPE. MAX 2% CROSS SLOPE IN ANY DIRECTION AT LANDINGS AND CHANGE IN DIRECTION. REMOVE EXISTING TURF OR VEGETATION AS NEEDED. SEE DETAIL 1 SHEET C–1.
2. BUILDING PAD IN LESS THAN 5' FILL REQUIREMENTS SEE DETAIL 2/C–1
3. PLAYGROUND CURB – SEE ARCHITECTURAL
4. RUBBER PLAYGROUND SURFACE, DRAIN SUB–SURFACE TO EXISTING DRAIN INLET – SEE ARCHITECTURAL FOR SURFACE DETAILS/SECTIONS.
5. 0" FACE FLUSH CONCRETE CURB. PATCH AC, REPLACE WITH EXISTING PAVEMENT SECTION SECTION. SEE DETAIL 3 SHEET C–1.
6. CLEAR AND GRUB, RE–GRADE AREA SMOOTH AND DRAIN TO SWALES AND/OR INLETS PER PLAN. SEE LANDSCAPE PLANS FOR LANDSCAPE REQUIREMENTS.
7. REMOVE EXISTING CONCRETE STORM DRAIN INLET STRUCTURE. PROVIDE SDR–35 PVC COUPLING AND CONTINUE STORM DRAIN LINE WITH NEW SDR–35 PVC PIPE TO NEW 36" SQUARE CONCRETE STRUCTURE WITH OPEN BOTTOM AND ADA GRATE. SEE DETAIL 6 SHEET C–2.
8. SEE BUILDING FLASHING DETAIL 1 SHEET A–6.00 OD MODULAR BUILDING PLANS
9. PRECAST SLOTTED TRENCH DRAIN. SEE DETAILS 1, 2 AND 3 SHEET C–2.
10. 4" YARD DRAIN. SEE DETAIL 4 SHEET C–2.
11. PLAYGROUND DRAIN. SEE DETAIL 7 SHEET C–2.
12. PROVIDE STORM DRAIN INLET STRUCTURE AT EXISTING STORM DRAIN LINE. SEE DETAIL 5 SHEET C–2.
13. 6" 2–WAY CLEANOUT IN BOX TO FINISH SURFACE
14. TIE IN ROOF DRAIN DOWNSPOUT TO STORM DRAIN. PROVIDE 3"x4" NO HUB COUPLING. SEE DETAIL 1 SHEET A–6.00 OF MODULAR BUILDING PLANS. PROVIDE 4" PVC SCH–40 DRAIN PIPE TO STORM DRAIN. DROP IN TIE IN WITH 4"x18" SADDLE OR 4" PVC FITTINGS BASED ON TIE IN LOCATION.



TRENCH DRAIN DETAIL 1
"ONSITE DETAILS" SCALE: 1"=2'

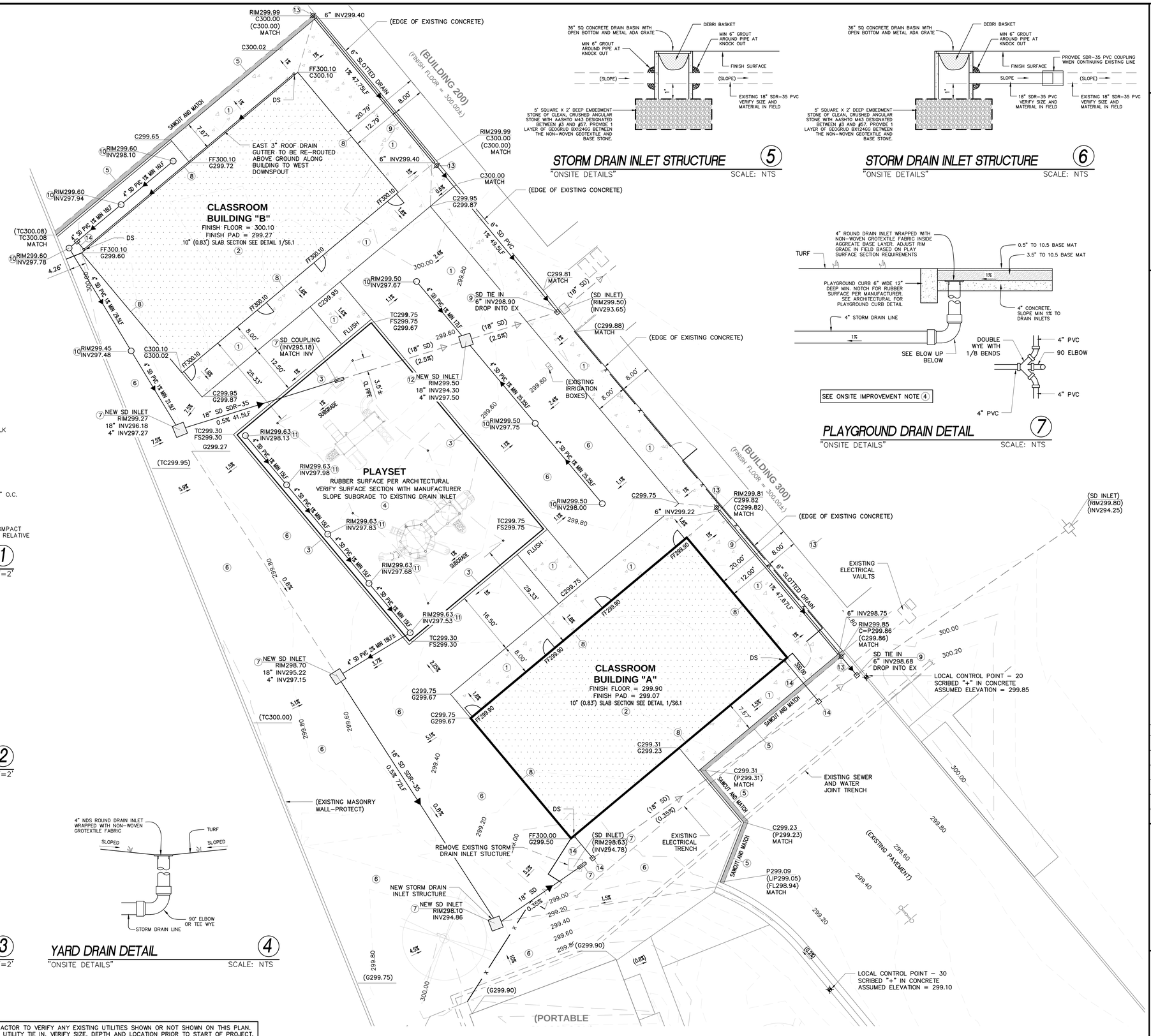


TRENCH DRAIN DETAIL 2
"ONSITE DETAILS" SCALE: 1"=2'



TRENCH DRAIN DETAIL 3
"ONSITE DETAILS" SCALE: 1"=2'

YARD DRAIN DETAIL 4
"ONSITE DETAILS" SCALE: NTS



STORM DRAIN INLET STRUCTURE 5
"ONSITE DETAILS" SCALE: NTS

STORM DRAIN INLET STRUCTURE 6
"ONSITE DETAILS" SCALE: NTS

PLAYGROUND DRAIN DETAIL 7
"ONSITE DETAILS" SCALE: NTS

NORTH
0 10 20
5 15
SCALE: 1"=10'

CONTRACTOR TO VERIFY ANY EXISTING UTILITIES SHOWN OR NOT SHOWN ON THIS PLAN. AT ALL UTILITY TIE IN, VERIFY SIZE, DEPTH AND LOCATION PRIOR TO START OF PROJECT. CONTRACTOR SHALL FIELD VERIFY AND CONFIRM ALL MATERIAL LENGTHS PER THIS PLAN

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THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECTION

Bernard O Salgado 7/16/25

BERNARD O. SALGADO, PE DATE

DATE:	BY:	REVISION
7–16–25	BOS	DSA PLAN CHECK 1 RESPONSE

DONALD E. SUBURU ELEMENTARY SCHOOL
LAKESIDE UNION SCHOOL DISTRICT
NEW TK/K CLASSROOMS
7315 HARRIS ROAD, BAKERSFIELD, CA 93313
GRADING AND DRAINAGE PLAN

DATE: 12–6–2024
DRAWN BY: AFINAR
SCALE: AS NOTED
JOB#: 2024–40

C-2
2 OF 4

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LICENSED ARCHITECT JOSEPH E. ZASOSKI C-36742 MAY 31, 2027 RENEWAL DATE STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANNINE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES
AT
DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION

JOB NUMBER: 2396
A#: 03-124848
CAD DRAWING FILE: 2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln
DRAWN BY: AKF
CHECKED BY: GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

THE DRAWINGS, IDEAS, AND DESIGNS REPRESENTED ON THIS SHEET ARE THE PROPERTY OF THE ARCHITECT.

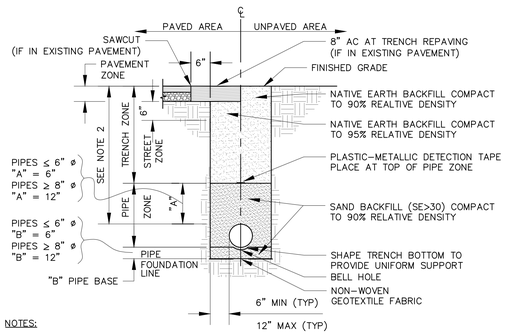
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SHEET TITLE
GRADING AND DRAINAGE PLAN

SHEET IDENTIFICATION NUMBER
C-2

SHEETS IN SET 120

PLOT TIME: 8:57 AM
PLOT DATE: 7/16/2025
PLOTTED BY: AFINAR



NOTES:

1. TRENCH WALL SHOWN VERTICAL FOR CLARITY, EXCAVATE PER OSHA REQUIREMENTS.
2. DEPTH OF BURIAL REQUIREMENS FOR PIPES AND CONDUIT;
   A. MINIMUM COVER OVER WATER MAIN = 30"
   B. WHERE GAS MAINS AND GAS SERVICE LATERALS CROSS OVER WATER MAINS, MAINTAIN 30" MIN. COVER OVER GAS LINE (24" MIN. COVER OVER GAS SERVICE LATERAL 2" DIA. AND SMALLER) AND 8" MIN VERTICAL CLEARANCE BETWEEN GAS LINE AND WATER MAIN.
3. CONTRACTOR SHALL COMPLY WITH CALIFORNIA ADMINISTRATIVE CODE TITLE 22 FOR WATER AND SEWER MAIN CONSTRUCTION REQUIREMENTS AND CLEARANCES AT CROSSINGS AND WHERE THEY ARE CONSTRUCTED PARALLEL WITH EACH OTHER.
4. CONTRACTOR SHALL THOROUGHLY DEWATER TRENCHES AND STABILIZE FOUNDATION PRIOR TO INSTALLING PIPE.
5. PIPE INSTALLATION SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS.
6. ALL TRENCH BACKFILL SHALL BE COMPACTED MECHANICALLY. NO JETTING OR PONDING WILL BE ALLOWED.
7. CBC 1809A.14 UNLESS OTHERWISE RECOMMENDED BY SOILS REPORT, OPEN OR BACKFILLED TRENCHES PARALLEL WITH FOOTING SHALL BE BELOW A PLANE HAVING A DOWNWARD SLOPE OF 1 UNIT VERITCAL TO 2 UNITS HORIZONTAL (50%) SLOPE FROM A LINE 9 INCHES ABOVE THE BOTTOM EDGE OF THE FOOTING, AND NOT CLOSER THAN 18 INCHES FROM THE FACE OF SUCH FOOTING.

WHERE PIPES CROSS UNDER FOOTINGS, THE FOOTINGS SHALL BE SPECIALLY DESIGNED. PIPE SLEEVES SHALL BE PROVIDED WHERE PIPES CROSS THROUGH FOOTINGS OR FOOTING WALLS AND SLEEVE CLEARANCES SHALL PROVIDE FOR POSSIBLE FOOTING SETTLEMENT, BUT NOT LESS THAN 1 INCH ALL AROUND PIPE.

TYPICAL ONSITE TRENCH DETAIL — 1

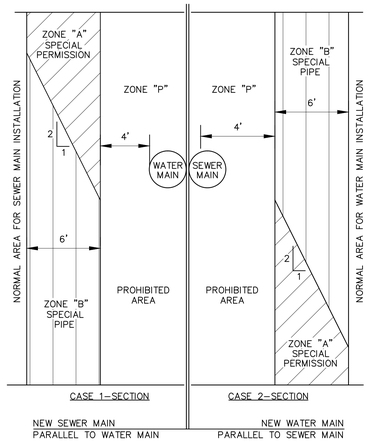
"ONSITE DETAILS" SCALE: NTS

NOTES:

1. CONTRACTOR SHALL USE THE MOST APPROPRIATE TYPE CONNECTION ("A", "B", OR "C") FOR THE PARTICULAR SITUATION ENCOUNTERED.
2. PIPE BACKFILL FOR SEWER LATERAL TRENCHES TO BE THE SAME AS FOR SEWER MAIN PIPE TRENCHES.

SEWER SERVICE CONNECTION — 2

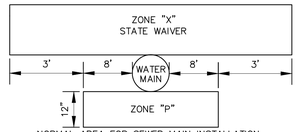
"ONSITE DETAILS" SCALE: NTS



NOTES:

1. ZONES IDENTICAL ON EITHER SIDE OF CENTER LINES.
2. ZONES "P" IS A PROHIBITED ZONE, NO VARIANCES OR SPECIAL CASES, SECTION 64630(e)(2) CALIFORNIA ADMINISTRATIVE CODE, TITLE 22.

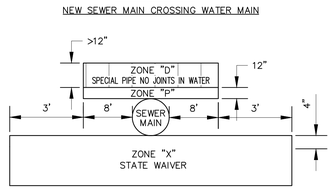
PARALLEL LINES



NORMAL AREA FOR SEWER MAIN INSTALLATION

CASE 1-SECTION

NEW SEWER MAIN CROSSING WATER MAIN



CASE 2-SECTION

NEW WATER MAIN CROSSING SEWER MAIN

NOTES:

1. ZONE "P" IS A PROHIBITED ZONE, NO VARIANCES OR SPECIAL CASES, SECTION 64630(e)(2) CALIFORNIA ADMINISTRATIVE CODE TITLE 22.
2. ZONE "X" REQUIRES STATE WAIVER
2. THE ABOVE CONSTRUCTION CRITERIA APPLIES TO SEWER MAINS AND SERVICE LATERALS THAT CRISS ABOVE A PRESSUTE WATER MAIN BUT NOT TO THOSE THAT CROSS BELOW A PRESSURE WATER MAIN.

ADDITIONAL REQUIREMENTS

CASE 1 NEW SEWER MAIN BEING INSTALLED	
ZONE	SPECIAL CONSTRUCTION REQUIRED FOR SEWER
A	SEWER LINES PARALLEL TO WATER MAINS SHALL NOT BE PERMITTED IN THIS ZONE WITHOUT APPROVAL FROM THE DIVISION OF DRINKING WATER AND WATER SUPPLIER.
B	A SEWER LINE PLACED PARALLEL TO A WATER LINE SHALL BE CONSTRUCTED OF: 1. HDPE PIPE WITH FUSED JOINTS
X	REQUIRES A WAIVER FROM THE DIVISION OF DRINKING WATER PURSUANT TO CCR, TITLE 22 SECTION 64551.100. NOTE: APPLIES TO MAIN ONLY. SUPPLY LINES AND HOUSE LATERALS ARE NOT SUBJECT TO WAIVER REQUIREMENTS.
CASE 2 NEW WATER MAIN BEING INSTALLED	
ZONE	SPECIAL COSNTRUCTION REQUIRED FOR WATER
A	NO WATER MAINS PARALLEL TO SEWERS SHALL BE CONSTRUCTED WITHOUT APPOVAL FROM THE DIVISION OF DRINKING WATER AND WATER SUPPLIER.
B	IF THE SEWER PARALLELING THE WATER MAIN DOES NOT MEET THE CASE 1, ZONE B REQUIREMENTS, THE WATER MAIN SHALL BE CONSTRUCTED OF: 1. DUTILE IRON PIPE 2. CLASS 200 PVC PIPE
X	REQUIRES A WAIVER FROM THE DIVISION OF DRINKING WATER PURSUANT TO CCR, TITLE 22, SECTION 64551.100. NOTE: APPLIES TO MAIN ONLY. SUPPLY LINES AND HOUSE LATERALS ARE NOT SUBJECT TO WAIVER REQUIREMENTS.
D	IF THE SEWER CROSSING THE WATER MAIN IS NOT HDPE WITH FUSED JOINTS, THEN THE WATER MAIN SHALL HAVE NO JOINTS WITHIN 8 FEET FROM EITHER SIDE OF THE SEWER AND SHALL BE CONSTRUCTED OF: 1. DUCTILE IRON PIPE 2. CLASS 200 PVC PIPE

GENERAL NOTES FOR SEWER

1. ALL CONSTRUCTION SHALL CONFORM TO THE KERN COUNTY STANDARDS FOR SANITARY SEWERS.
2. SEWER SHALL BE SDR 35 PVC GREEN GASKETED PIPE.
3. FINAL TESTING FOR PIPELINE LEAKAGE SHALL BE MADE IN THE PRESENCE OF THE COUNTY INSPECTOR AFTER BACKFILL HAS BEEN INSPECTED AND APPROVED.
4. ALL TRENCH BACKFILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION.
5. THE CONTRACTOR SHALL NOTIFY THE COUNTY 48 HOURS PRIOR TO STARTING ANY WORK.
6. IT SHALL BE THE SEWER CONTRACTOR'S RESPONSIBILITY TO SET MANHOLE COVERS, AND CLEANOUT COVERS TO FINISH GRADE IN ACCORDANCE WITH THE COUNTY STANDARDS.
7. ALL ELEVATIONS SHOWN TO BE EXISTING WERE TAKEN FROM TOPOGRAPHIC SURVEY AND GRADING/UTILITY PLANS FOR SCHOOL SITE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAR THE RIGHT-OF-WAY IN ACCORDANCE WITH THE PROVISIONS OF LAW AS IT AFFECTS EACH UTILITY INCLUDING IRRIGATION LINES AND APPURTENANCES AT NO COST TO THE COUNTY.
9. THE CONTRACTOR SHALL AT NO EXPENSE TO THE COUNTY PROVIDE ALL NECESSARY SAMPLES AND TESTS REQUIRED BY THE CITY TO ASSURE THAT THE QUALITY OF MATERIALS AND WORKMANSHIP ARE IN ACCORDANCE WITH THESE PLANS AND SAID SPECIFICATIONS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND SHALL MAINTAIN ALL FACILITIES COMPLETED AND UNCOMPLETED, UNTIL ACCEPTED BY THE COUNTY.
11. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY UTILITY COMPANIES 48 HOURS IN ADVANCE OF THE BEGINNING OF CONSTRUCTION.
12. CHISEL "S" ON TOP OF CURB AT EVERY SERVICE LATERAL.
13. UNDERGROUND SERVICE ALERT (USA) SHALL BE NOTIFIED AT LEAST 2 WORKING DAYS BEFORE CONSTRUCTION. TELEPHONE 811.
14. PRIOR TO THE START OF ANY PHASE OF CONSTRUCTION REQUIRING COUNTY INSPECTION, THE COUNTY SHALL BE GIVEN AT LEAST 24 HOURS NOTICE.
15. PRIOR TO THE START OF ANY PHASE OF CONSTRUCTION NOT REQUIRING COUNTY INSPECTION, THE PROJECT ENGINEER SHALL BE GIVEN AT LEAST 24 HOURS NOTICE. (661)716-7443.
16. INSTALL #10 SOLID COATED COPPER DETECTOR WIRE ON ALL PVC PIPE.
17. EXISTING UNDERGROUND STRUCTURES: THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS, OR STRUCTURE SHOWN ON THESE PLANS WERE BASED ON SURFACE EVIDENCE AND AVAILABLE RECORDS. CONTRACTOR SHALL VERIFY ACTUAL LOCATIONS PRIOR TO CONSTRUCTION.

GENERAL NOTES FOR DOMESTIC WATER

1. ALL CONSTRUCTION AND MATERIAL SHALL CONFORM TO KERN COUNTY STANDARDS FOR WATER SYSTEMS AS CALLED ON PLANS FOR WATER SYSTEM CONSTRUCTION.
2. DISTANCES SHOWN ARE FROM INTERSECTION TO INTERSECTION OR ANGLE POINT AND ARE APPROXIMATE. THE CONTRACTOR SHOULD FIELD VERIFY ALL DISTANCES PRIOR TO ORDERING MATERIALS OR INSTALLATION.
3. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SET ALL COVERS TO FINISH GRADE.
4. INSTALL #10 SOLID COATED COPPER DETECTOR WIRE ON ALL PVC PIPE.
5. GATE VALVES SHALL BE INSTALLED WITH CONCRETE ENCASEMENTS WITH LID LABELED "WATER".
6. ALL 1-1/2" AND 2" DOMESTIC SERVICE LATERALS SHALL BE OF AN APPROVED MATERIAL PER KERN COUNTY STANDARDS FOR WATER SYSTEMS.
7. AN ADEQUATE WATER SOURCE FOR FIRE PROTECTION, AS DETERMINED BY FIRE CHIEF, SHALL BE ESTABLISHED AND MAINTAINED PRIOR TO DELIVERY OF COMBUSTIBLE BUILDING MATERIALS, EXCEPT FOR FOUNDATION FRAMING MATERIALS.

CONTRACTOR TO VERIFY ANY EXISTING UTILITIES SHOWN OR NOT SHOWN ON THIS PLAN. AT ALL UTILITY TIE IN VERIFY SIZE DEPTH AND LOCATION PRIOR TO START OF PROJECT. CONTRACTOR SHALL FIELD VERIFY AND CONFIRM ALL MATERIAL LENGTHS PER THIS PLAN. NO POTHOLE WORK WAS PERFORMED TO VERIFY DEPTH OF TIE IN LOCATIONS. CONTRACTOR TO NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES FOUND OR FIELD ADJUST ELEVATIONS AND SOPES TO MAKE TIE IN AS NEEDED.

UTILITY COMPANIES

1. ELECTRICITY: PACIFIC GAS & ELECTRIC COMPANY
   4101 WIBLE ROAD
   BAKERSFIELD CA, 93313
   1-661-837-7273
2. GAS: PACIFIC GAS & ELECTRIC COMPANY
   4101 WIBLE ROAD
   BAKERSFIELD CA, 93313
   1-661-837-7273
3. SEWER/WATER: PRIVATE
4. TELEPHONE/CABLE: SPECTRUM

UTILITY PLAN LEGEND

———	PROPOSED LINE	FL	FLANGED JOINT
— — —	EXISTING	TG	TOP OF GRATE
⊕	CLEANOUT TO GRADE	FW	FIRE WATER LINE
WM	WATER METER	W	DOMESTIC WATER LINE
	EXISTING FIRE HYDRANT ASSEMBLY	SD	STORM DRAIN
	PROPOSED FIRE HYDRANT ASSEMBLY	SS	SANITARY SEWER
	EXISTING SEWER MANHOLE	EG	EXISTING GROUND
	PROPOSED SEWER MANHOLE	INV	PIPE INVERT
300.00	PROPOSED		RW GATE VALVE
(300.00)	EXISTING		TEE
PO	PUSH ON		TAPPING TEE
MJ	MECHANICAL JOINT		11 1/2" ELBOW
			22 1/2" ELBOW
			45" ELBOW
			90" ELBOW

THESE PLANS ARE PART OF A LARGER SET. CONTRACTOR TO VERIFY AND COMPARE WITH COMPLETE SER FOR DIMENSIONS OF BUILDING AND SITE.

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS WAS OBTAINED BY TOPOGRAPHIC SURVEY OF THE SURFACE, AND SEARCH OF THE AVAILABLE RECORDS IF AVAILABLE. UTILITIES SHOWN ON THESE PLANS ARE TO THE BEST OF OUR KNOWLEDGE. AFINAR, INC IS NOT RESPONSIBLE FOR ANY UNDERGROUND UTILITIES OR STRUCTURES NOT SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO LOCATE ALL UTILITIES AND TO PROTECT THE UTILITY LINES SHOWN AND NOT SHOWN ON THESE DRAWINGS. IF UTILITIES ARE FOUND THAT ARE NOT SHOWN ON THESE PLANS, CONTACT OWNER, ARCHITECT AND ENGINEER FOR DIRECTION. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES TO VERIFY THE SIZE, DEPTH AND LOCATION, PRIOR TO START OF PROJECT. ANY DISCREPANCY BETWEEN THE PLANS AND FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.

ALL UTILITIES IN EFFECTED WORK AREA WILL BE POTHOLED AT CONTRACTORS EXPENSE PRIOR TO EXCAVATION. OWNER, ARCHITECT, AND ENGINEER WILL BE NOTIFIED 48 HOURS PRIOR TO POTHOLE WORK. ALL EXPOSED UTILITIES WILL BE INSPECTED AND MEASURED BY SURVEYOR PRIOR TO BACKFILL.

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITION DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR ALSO AGREES TO DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

ENGINEER'S STATEMENT

THESE PLANS AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECTION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH LOCAL ORDINANCES, STANDARDS AND INCLUDE ALL IMPROVEMENT REQUIREMENTS OF THE ADVISORY AGENCY OR OTHER REVIEW BOARD.

ANY ERRORS, OMISSIONS OR DEVIATIONS FROM THOSE ORDINANCES OR STANDARDS ENCOUNTERED DURING CONSTRUCTION SHALL BE CORRECTED AND SUCH CORRECTIONS REFLECTED ON THE PLANS AND SUBMITTED TO THE ENGINEER.

Bernard O Salgado 7/16/25
BERNARD ORTIZ SALGADO, R.C.E. 71320 DATE

ordiz melby architects
a professional corporation
5500 Ming Avenue, Suite 280
Bakersfield, CA 93309
www.ordizmelby.com
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f: (661) 832-4291

REGISTERED ARCHITECT JOSEPH E. ZASOSKI C-36742 MAY 31, 2027 RENEWAL DATE STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANINE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL

7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT

14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION

JOB NUMBER: 2396
A#: 03-124848

CAD DRAWING FILE: 2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln
DRAWN BY: AKF
CHECKED BY: GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

THE DRAWINGS, IDEAS, AND DESIGNS REPRESENTED ON THIS SHEET ARE THE PROPERTY OF THE ARCHITECT.

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SHEET TITLE

UTILITY PLAN COVER SHEET / NOTES / DETAILS

SHEET IDENTIFICATION NUMBER

C-3

SHEETS IN SET 120

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Afinar CONSULTING CIVIL ENGINEERS Established 1997
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www.afinar.net

REGISTERED PROFESSIONAL ENGINEER BERNARD ORTIZ SALGADO No. 71320 Exp. 12-31-25 CIVIL STATE OF CALIFORNIA

THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECTION

Bernard O Salgado 7/16/25
BERNARD O. SALGADO, PE DATE

DATE:	BY:	REVISION
7-16-25	BOS	DSA PLAN CHECK 1 RESPONSE

DONALD E. SUBURU ELEMENTARY SCHOOL
LAKESIDE UNION SCHOOL DISTRICT
NEW TK/K CLASSROOMS
7315 HARRIS ROAD, BAKERSFIELD, CA 93313

UTILITY PLAN COVER SHEET / NOTES / DETAILS

DATE: 12-6-2024
DRAWN BY: AFINAR
SCALE: AS NOTED
JOB#: 2024-40

C-3
3 OF 4

PLOT TIME: 7:27 AM
PLOTTED BY: AFINAR

ONSITE UTILITY IMPROVEMENTS

SEWER IMPROVEMENTS

S1 SANITARY SEWER TIE IN. PROVIDE NECESSARY FITTINGS NEEDED FOR CONNECTION. CONTRACTOR TO POTHOLE AND VERIFY SIZE, DEPTH, LOCATION AND MATERIAL OF EXISTING SEWER PRIOR TO START OF PROJECT. SHALL NOTIFY ARCHITECT AND ENGINEER IF ANY DISCREPANCIES FOUND.

S2 PROVIDE 2" SINK DRAIN LATERAL, PVC SCH-40. MIN 2% SLOPE. VERIFY POC SIZE AND LOCATION AT BUILDING. ASSUMING MIN 30" DEPTH TO INVERT FROM FINISH FLOOR. PROVIDE 2" CLEANOUT TO GRADE IN BOX AT BUILDING. SEE DETAIL 2/S1.4 FOR SEWER THROUGH FOOTINGS DETAIL.

S3 4" SEWER LATERAL TO NEW PORTABLE RESTROOM. VERIFY POC SIZE AND LOCATION AT PORTABLE. ASSUMING 30" MIN DEPTH TO INVERT FROM FINISH FLOOR. PROVIDE CLEANOUT AT BUILDING PER ONSITE UTILITY IMPROVEMENTS NOTE "S2".

S4 4" SANITARY SEWER CLEANOUT TO GRADE IN BOX WITH LID LABELED "SEWER". SEE DETAIL 1 AND 2 SHEET C-5.

S5 4" PVC SDR-35 GREEN GASKETED SEWER MIN 1% SLOPE

S6 SEWER DROP IN CONNECTION PER DETAIL 2 SHEET C-4.

WATER IMPROVEMENTS

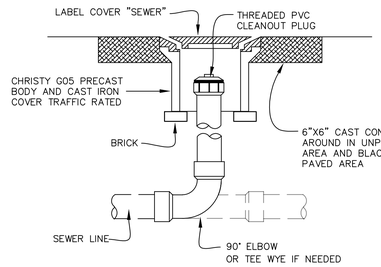
W1 WATER TIE IN, PROVIDE NECESSARY FITTINGS NEEDED FOR CONNECTION. CONTRACTOR TO POTHOLE AND VERIFY SIZE, DEPTH, LOCATION AND MATERIAL OF EXISTING WATER PRIOR TO START OF PROJECT. SHALL NOTIFY ARCHITECT AND ENGINEER IF ANY DISCREPANCIES FOUND.

W2 NEW 2-1/2" PVC CLASS 200 WATER SERVICE TO BUILDING. PROVIDE FITTINGS AND VALVES AS NEEDED. VERIFY WITH MODULAR BUILDING FOR EXACT POC SIZE AND LOCATION. PROVIDE 2-1/2" VALVE IN BOX PER DETAIL 1 SHEET C-5. SEE DETAIL 1 SHEET P5.01 FOR WATER SUPPLY TO BUILDING.

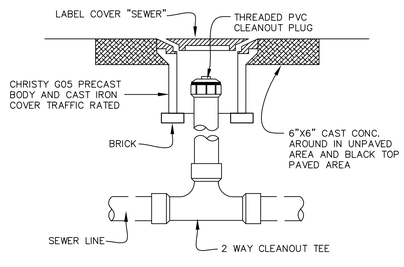
W3 NEW PVC FITTINGS PUSH-ON WITH THRUST BLOCKS.

W4 3" WATER VALVE IN BOX TO GRADE WITH LID LABELED "WATER".

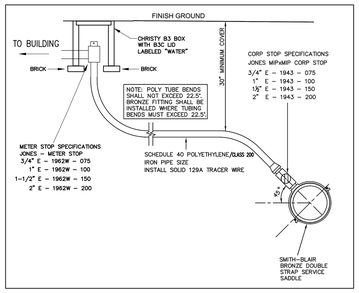
W5 NEW 3" PVC CLASS 200 WATER LINE. MIN 30" COVER.



CLEANOUT DETAIL 1
"ONSITE DETAILS" SCALE: NTS

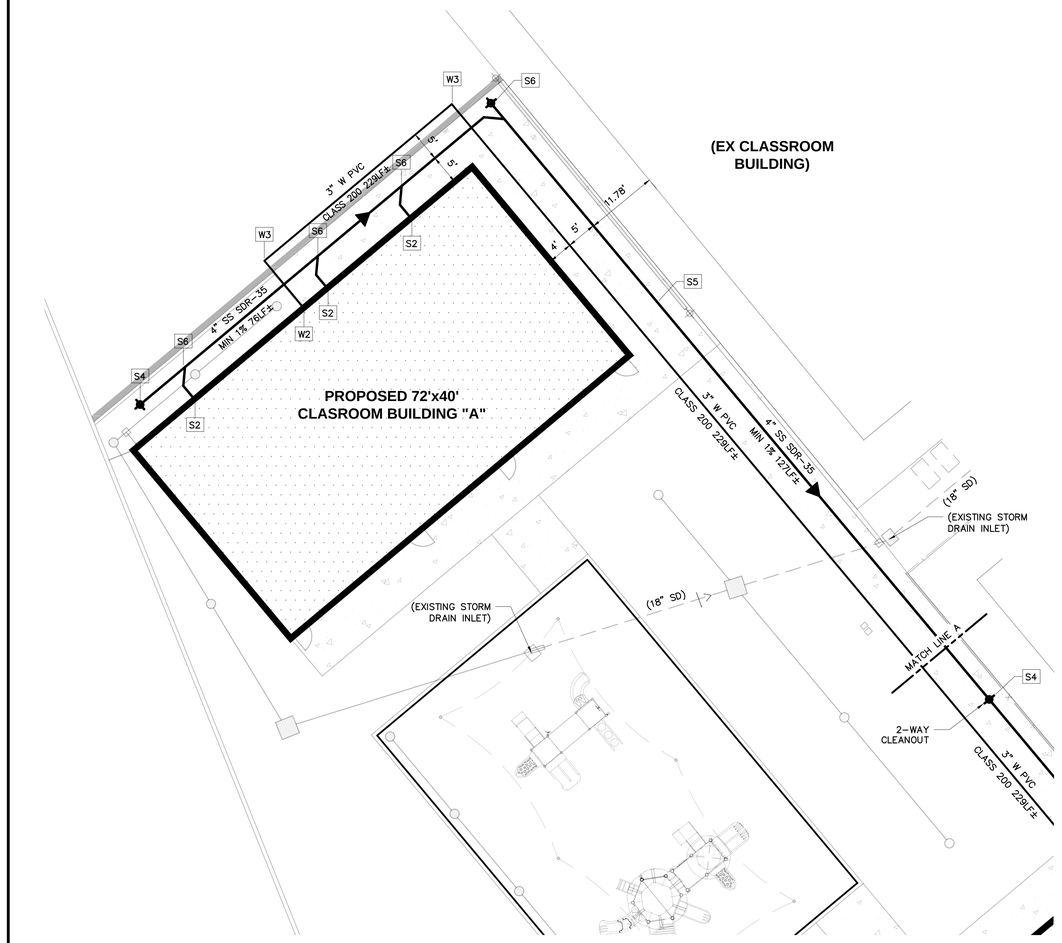


CLEANOUT DETAIL 2
"ONSITE DETAILS" SCALE: NTS



3/4" TO 2' WATER SERVICE 3
"ONSITE DETAILS" SCALE: NTS

CONTRACTOR TO VERIFY ANY EXISTING UTILITIES SHOWN OR NOT SHOWN ON THIS PLAN. AT ALL UTILITY TIE IN VERIFY SIZE DEPTH AND LOCATION PRIOR TO START OF PROJECT. CONTRACTOR SHALL FIELD VERIFY AND CONFIRM ALL MATERIAL LENGTHS PER THIS PLAN. NO POTHOLE WORK WAS PERFORMED TO VERIFY DEPTH OF TIE IN LOCATIONS. CONTRACTOR TO NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES FOUND OR FIELD ADJUST ELEVATIONS AND SLOPES TO MAKE TIE IN AS NEEDED.

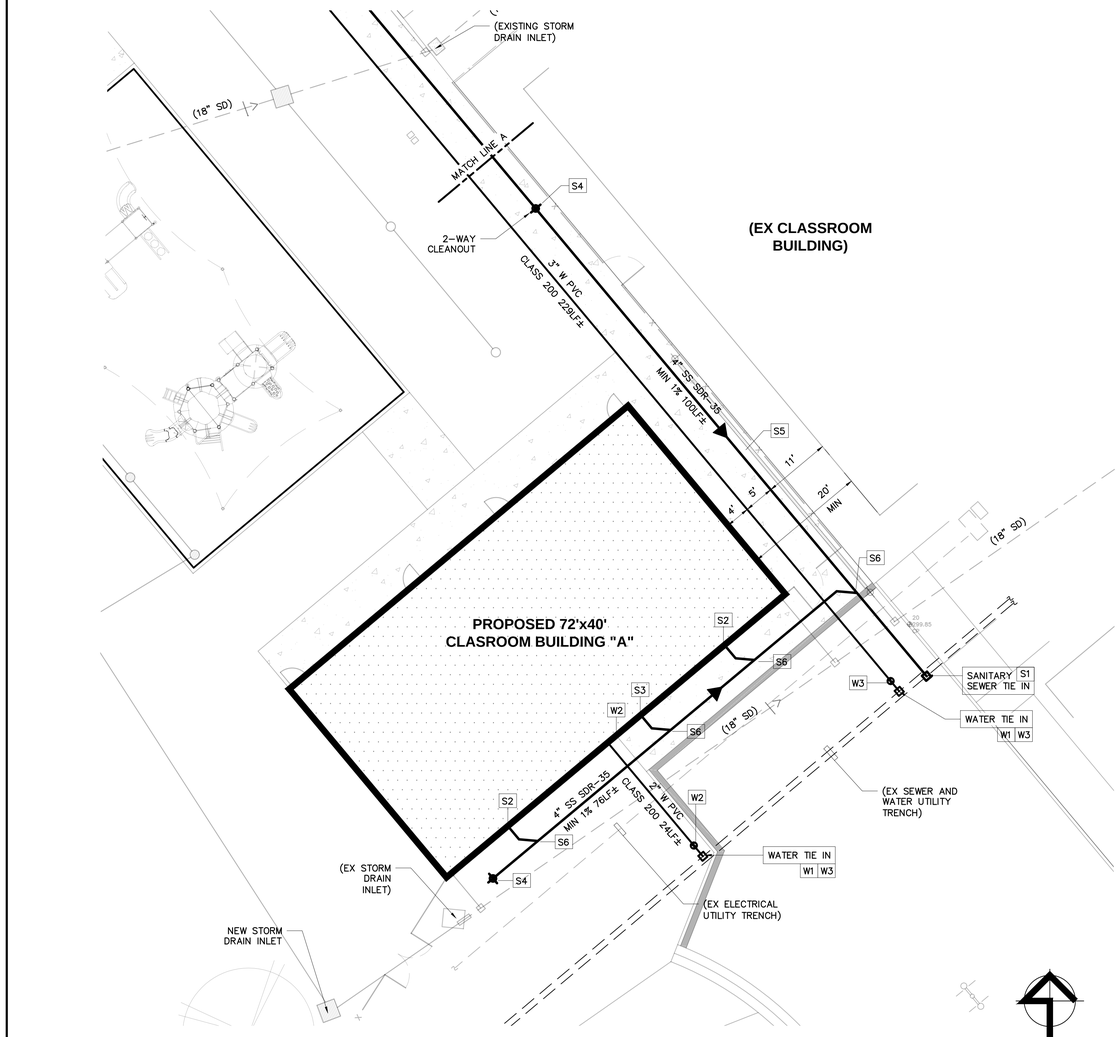


UTILITY PLAN - CLASSROOM BUILDING "B"



SCALE: 1"=10'

CONTRACTOR TO VERIFY ANY EXISTING UTILITIES SHOWN OR NOT SHOWN ON THIS PLAN. AT ALL UTILITY TIE IN VERIFY SIZE DEPTH AND LOCATION PRIOR TO START OF PROJECT. CONTRACTOR SHALL FIELD VERIFY AND CONFIRM ALL MATERIAL LENGTHS PER THIS PLAN. NO POTHOLE WORK WAS PERFORMED TO VERIFY DEPTH OF TIE IN LOCATIONS. CONTRACTOR TO NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES FOUND OR FIELD ADJUST ELEVATIONS AND SLOPES TO MAKE TIE IN AS NEEDED.



UTILITY PLAN - CLASSROOM BUILDING "A"

SCALE: 1"=10'

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LICENSED ARCHITECT JOSEPH E. ZASOSKI C-36742 MAY 31, 2027 RENEWAL DATE STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANNE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION

JOB NUMBER: 2396
A#: 03-124848

CAD DRAWING FILE: 2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY: AKF

CHECKED BY: GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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SHEET TITLE

UTILITY PLAN

SHEET IDENTIFICATION NUMBER

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SHEETS IN SET 120

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www.afinar.net

REGISTERED PROFESSIONAL ENGINEER BERNARD ORTIZ SALGADO No. 71320 Exp. 12-31-25 CIVIL STATE OF CALIFORNIA

THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECTION

Bernard O Salgado 7/16/25
BERNARD O. SALGADO, PE DATE

DATE:	BY:	REVISION
7-16-25	BOS	DSA PLAN CHECK 1 RESPONSE

DONALD E. SUBURU ELEMENTARY SCHOOL
LAKESIDE UNION SCHOOL DISTRICT
NEW TK/K CLASSROOMS
7315 HARRIS ROAD, BAKERSFIELD, CA 93313
UTILITY PLAN

DATE: 12-6-2024
DRAWN BY: AFINAR
SCALE: AS NOTED
JOB#: 2024-40

C-4
4 OF 4

PLOT TIME: 8:37 AM
PLOT BY: MTORRES

APPLICABLE CODE REQUIREMENTS

PERFORMANCE OF THE WORK OF THIS CONTRACT SHALL CONFORM TO THE REQUIREMENTS OF APPLICABLE GOVERNING CODES AND ORDINANCES INCLUDING THE FOLLOWING:

2022	BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24, C.C.R.
2022	CALIFORNIA BUILDING CODE, PART 2, TITLE 24 C.C.R. (2020 IBC, VOLUMES 1-3 WITH CALIFORNIA AMENDMENTS)
2022	CALIFORNIA ELECTRICAL CODE, PART 3, TITLE 24 C.C.R. (2020 N.E.C. WITH CALIFORNIA AMENDMENTS)
2022	CALIFORNIA MECHANICAL CODE, PART 4, TITLE 24 C.C.R (2020 U.M.C. WITH CALIFORNIA AMENDMENTS)
2022	CALIFORNIA PLUMBING CODE, PART 5, TITLE 24 C.C.R. (2020 U.P.C. WITH CALIFORNIA AMENDMENTS)
2022	CALIFORNIA ENERGY CODE, PART 6, TITLE 24 C.C.R.
2022	CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R. (2012 I.F.C. WITH CALIFORNIA AMENDMENTS)
2022	CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R. TITLE 19 C.C.R. PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.
NFPA 13	AUTOMATIC SPRINKLER SYSTEM ----------2022 EDITION
NFPA 14	STANDPIPE SYSTEM ----------2019 EDITION
NFPA 17A	WET CHEMICAL SYSTEM ----------2021 EDITION
NFPA 24	PRIVATE SERVICE MAINS ----------2022 EDITION
NFPA 72	NATIONAL FIRE ALARM CODE ----------2022 EDITION (NOTE SEE UL STANDARDS 1971 FOR ("VISUAL DEVICES")

APPLICABLE CODE: 2022 CBC

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA-APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26, AND 30:

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G., HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVING A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURE ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

MEP DISTRIBUTION SYSTEM BRACING NOTE FOR PIPING, DUCTWORK AND ELECTRICAL CONDUIT:

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7 SECTION 13.3 AS DEFINED IN ASCE 7 SECTIONS 13.6.5, 13.6.6, 13.6.7 AND 13.6.8 AND 2022 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A1.26.

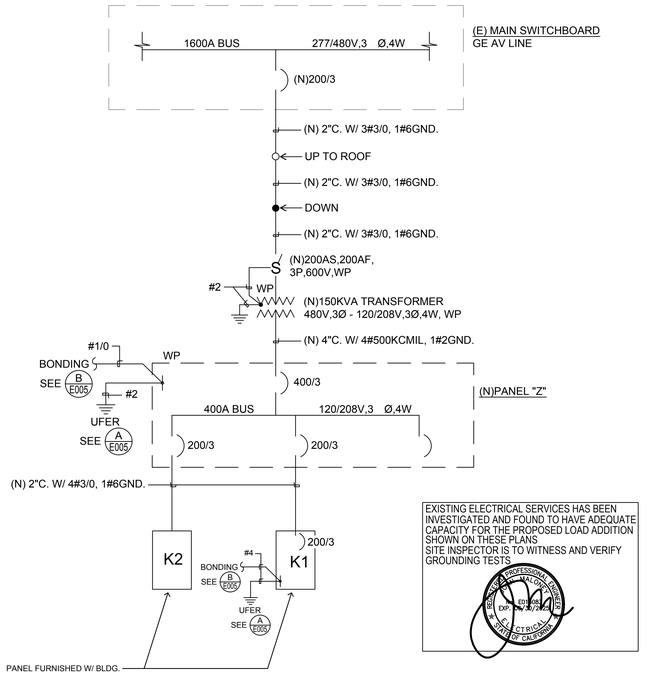
THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEMS ARE AS NOTED BELOW. THE MEP DESIGN PROFESSIONAL ENGINEER RESPONSIBLE FOR CONTENT ON THESE SHEETS HAS VERIFIED THAT THE DESIGN METHODS IDENTIFIED BELOW ARE IN ACCORDANCE WITH DSA IR 16-13.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP ☐	MD ☐	PP ☐	E ☒	OPTION 1: PROJECT-SPECIFIC DESIGN.
MP ☐	MD ☐	PP ☐	E ☐	OPTION 2: DESIGN BASED ON OSHPD OPM, WITHIN PROJECT SUBMITTAL
MP ☐	MD ☐	PP ☐	E ☐	OPTION 3: DESIGN BASED ON OSHPD OPM, DEFERRED SUBMITTAL

LED FIXTURE SCHEDULE

TYPE	MANUFACTURER AND CATALOG NUMBER	LED MODULE TYPE	LED MODULE COLOR TEMP	LED MODULE WATTS	DRIVER	OPTIC/LENS	REMARKS
A 28	LITHONIA TRUN48AL04CMP8SWW2ZTMVOLT		4000K	28	0-10V	DIFFUSE	4 FT WRAP
B 38	LITHONIA ENVX2X4HRG4800LM80CRI35KMIN10ZT MVOLT		3500K	38	0-10V	DIFFUSE	2X4
E 3	ISOLITE RLP6UWMMTEB		GREEN	3	NICAD BATTERY	PRISMATIC	EXIT SIGN W/ EM LIGHT
X 39	LITHONIA TWX2LEDALO40KMVOLTPEDDBXD		4000K	39	0-10V	PRISMATIC	LED WALL PACK



SINGLE LINE DIAGRAM — A

GENERAL NOTES

1. VISIT JOB SITE AND VERIFY EXISTING CONDITIONS PRIOR TO BID.
2. THE ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE 2022 CALIFORNIA ELECTRICAL CODE AND ALL APPLICABLE LOCAL ORDINANCES. WHERE PLANS CALL FOR A HIGHER STANDARD THAN APPLICABLE CODES, THE PLANS SHALL GOVERN.
3. CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD TO SUIT FIELD CONDITIONS.
4. ALL ELECTRICAL EQUIPMENT, APPLIANCES AND LIGHTING FIXTURES SHALL BE LISTED BY A RECOGNIZED TEST LAB AND BEAR THAT LABEL OF APPROVAL.
5. CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT ALL MATERIAL AND EQUIPMENT FOR THIS WORK UNLESS OTHERWISE NOTED.
6. FURNISH DISCONNECT SWITCHES AT REMOTE MOTORS.
7. ALL SPACES AS INDICATED ON PANELS OR SWITCHBOARDS SHALL BE COMPLETE WITH HARDWARE AND BUSSING FOR FUTURE BREAKER OR SWITCH.
8. CHECK ARCHITECTURAL PLANS FOR DOOR SWINGS BEFORE INSTALLING SWITCH OUTLETS.
9. GROUNDING AND BONDING SHALL BE PER CODE PLUS ANY ADDITIONAL PROVISIONS SPECIFIED OR SHOWN ON DRAWINGS.
10. ALL CONDUIT RUNS SHALL CONTAIN A CODE SIZED GREEN GROUND WIRE.
11. THESE PLANS ARE NOT COMPLETE UNTIL APPROVED BY THE AUTHORITY HAVING JURISDICTION.
12. ALL CONDUCTORS SHALL BE IN CONDUIT.
13. ALL CONDUCTORS SHALL BE COPPER WITH TYPE THHN/THWN INSULATION.

ACCESSIBILITY NOTES

Installation of switches, outlets and controls to reflect the accessibility requirements of the 2022 CBC Chapters 11A and 11B for Accessibility.

1. CBC 11B-308.1.1 Electrical controls and switches intended to be used by the occupant of a room or area shall be located within the allowable reach ranges. Low reach shall be measured from the bottom of the outlet box and high reach is measured to the top of the outlet box.

2. CBC 11B-308.1.2 Electrical receptacle outlets on branch circuits of 30 amperes or less and communication system receptacles shall be located in the allowable reach range. Low reach shall be measured from the bottom of the outlet box and high reach is measured to the top of the outlet box.

3. CBC 11B-308.2.1 High forward reach that is unobstructed shall be 48 inches maximum and the low forward reach shall be 15 inches minimum above finish floor or ground.

4. CBC 11B-308.2 Forward Reach Obstructed - Electrical receptacle outlets shall be located no more than 44 inches measured from the top of the receptacle outlet box when the obstruction is over 20" and does not exceed 25". When the depth is less than 20" height can be increased to 48". (desk counters)

5. CBC 11B-308.3 Side Reach Obstructed - Electrical receptacle outlets shall be located no more than 46 inches measured from the top of the receptacle outlet box when the obstruction is over 10" and does not exceed 24". When the depth is less than 10" height can be increased to 48".

6.Overhang light fixtures or wall fixtures projecting more than 4" from the wall surface shall be a minimum of 80" above the walking surface.

SYMBOLS

- CONDUIT EXISTING
- CONDUIT CONCEALED IN WALL OR CEILING
- CONDUIT CONCEALED UNDER FLOOR OR BELOW GRADE
- CONDUIT STUBBED OUT AND CAPPED
- CONDUIT TURNED UP
- CONDUIT TURNED DOWN
- HATCH MARKS INDICATE NO. OF #12 WIRES IN CODE SIZED CONDUIT (3) MAX. IN 1/2" C., (5) MAX. IN 3/4" C., (8) MAX. IN 1"C., NO MARKS = 2#12
- HOME RUN: LETTER INDICATES PANEL, NUMBER(S) INDICATES CIRCUIT(S). (A-3 / D)
- SAWCUT
- GROUND CONNECTION
- DISTRIBUTION SWITCHBOARD OR PANEL
- PANEL, BRANCH CIRCUIT TYPE, SURFACE AND FLUSH
- SIGNAL TERMINAL CABINET, SURFACE & FLUSH
- LINEAR SURFACE FIXTURE
- OUTLET DATA: BAR INDICATES WALL MOUNT, LETTER INDICATES SWITCH CONTROL, NO. INDICATES CIRCUIT. (2 / a)
- SURFACE FIXTURE ON FLUSH OUTLET.
- RECESSED FIXTURE WITH JUNCTION BOX FOR THRU WIRING
- EXIT LIGHT WITH ARROWS AS SHOWN ON PLANS, WALL AND CEILING MOUNT.
- LOW LEVEL EXIT SIGN, +6" AFF, +4" FROM DOOR JAMB
- A / 100 — LIGHT FIXTURE DESIGNATION, LETTER INDICATES TYPE, NO. INDICATES WATTAGE. SEE FIXTURE SCHEDULE.
- FC / 1 — MECHANICAL EQUIPMENT DESIGNATION. SEE MECHANICAL DRAWINGS.
- SPECIAL RECEPTACLE - SEE PLAN
- (M) METER
- FLUSH FLOOR RECEPTACLE
- RECEPTACLE, DUPLEX, 15A, 125V, NEMA 5-15R +18" U.N.O.
- DUPLEX RECEPTACLE MTD. ABOVE BACKSPLASH
- DUPLEX RECEPTACLE W/LOWER HALF SWITCHED
- GFI — GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- CEILING RECEPTACLE
- RECEPTACLE, DUPLEX, 20A, 125V, NEMA 5-20R +18" U.N.O.
- J — JUNCTION BOX 4" SQUARE, 1-1/2" DEEP U.N.O.
- T — THERMOSTAT F.B.O. +48"
- (2) — MOTOR, NO. INDICATES HORSEPOWER
- CLOCK OUTLET +7'-6" U.N.O.
- DISCONNECT SWITCH, NON-FUSED
- F — DISCONNECT SWITCH FUSED HORSEPOWER RATED OR SIZED AS NOTED
- COMBINATION MAGNETIC STARTER WITH DISCONNECT SWITCH AND FUSES
- MAGNETIC MOTOR STARTER W/OVERLOADS IN EACH PHASE
- D — DIMMER W/INTEGRAL "ON-OFF" SW.
- PUSHBUTTON
- PC — PHOTOCELL
- SD — SMOKE DETECTOR
- TELEPHONE/COMPUTER/DATA OUTLET, TWO GANG BOX W/1 GANG COVERPLATE & GROMMETED OPENING +18" U.N.O.
- CABLE TV OUTLET +18" U.N.O.
- M — MOTION SENSOR
- $ — EXISTING SWITCH
- S — SINGLE POLE SWITCH
- ^{2} — DOUBLE POLE SWITCH
- ^{3} — THREE WAY SWITCH
- ^{P} — SWITCH W/PILOT LT.

  (S, ^{2}, ^{3}, ^{P}: QUIET TOGGLE TYPE RATED AT 20A, 120/277V A.C. +42" U.N.O.)
- ^{M} — MANUAL MOTOR STARTER
- FACP — FIRE ALARM CONTROL PANEL
- GFI — GROUND FAULT CIRCUIT INTERRUPTING
- LST — LABOR SAVING TANDEM
- MLO — MAIN LUGS ONLY
- w/ — WITH
- C.O. — CONDUIT ONLY
- W.P. — WEATHERPROOF
- F.B.O. — FURNISHED BY OTHERS, INSTALL & CONNECT
- U.N.O. — UNLESS NOTED OTHERWISE
- N.E.C. — NATIONAL ELECTRICAL CODE
- N.I.C. — NOT IN CONTRACT
- (E) — EXISTING
- (N) — NEW
- (R) — REMOVE
- (RL) — RELOCATE
- S/M — SURFACE MOUNT
- U/G — UNDERGROUND
- CWP — COLD WATER PIPE
- AFF — ABOVE FINISHED FLOOR
- HACR — HEATING AND AIR CONDITIONING RATED CIRCUIT BREAKER
- N.L. — NIGHT LIGHT

NOTE: NOT ALL SYMBOLS SHOWN ARE USED ON THIS PROJECT.

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LICENSED ARCHITECT — JOSEPH E. ZASOSKI — C-36742 — MAY 31, 2027 RENEWAL DATE — STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANINE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL

7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT

14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

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LIGHTING DESIGN
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24701

REGISTERED PROFESSIONAL ENGINEER — MATTHEW J. MALONEY — ELECTRICAL — EXP. 06/30/2026 — STATE OF CALIFORNIA

2025-07-21
PRINT DATE

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396

A#: 03-124548

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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SHEET TITLE

GENERAL NOTES SYMBOLS

SHEET IDENTIFICATION NUMBER

E-001

SHEETS IN SET 120

PLOT TIME: 8:53 AM
PLOTTED: 07/21/2025

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: SUBURU ELEMENTARY SCHOOL	Report Page: (Page 1 of 7)
Project Address: 7315 HARRIS RD, BAKERSFIELD, CA 93313	Date Prepared: 2023-05-23T14:58:19-04:00

This document is used to demonstrate compliance with requirements in 110.9, 130.0, 130.2, 140.7, and 141.0(b)2L for outdoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e)6, 180.1(a) and 180.2(b)4Bv for outdoor lighting scopes using the prescriptive path for multifamily and mixed-use occupancies. Multifamily includes dormitory and senior living facilities.

A. GENERAL INFORMATION

01	Project Location (city)	BAKERSFIELD	04	Total Illuminated Hardscape Area (ft²)	2020
02	Climate Zone	13			
03	Outdoor Lighting Zone per Title 24 Part 1 10.114 or as designated by Authority Having Jurisdiction (AHJ):				
☐	LZ-0: Very Low - Undeveloped Parkland	☐ LZ-2: Moderate - Urban Clusters	☐ LZ-4: High - Must be reviewed by CA Energy Commission for Approval		
☐	LZ-1: Low - Rural Areas	☒ LZ-3: Moderately High - Urban Areas			
05	Occupancy Types within Project				
• Relocatable Public School					

B. PROJECT SCOPE

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.7 / 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv for alterations.

My Project Consists of:

01	02
☐ New Lighting System	Must Comply with Allowances from 140.7 / 170.2(e)6
☒ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)? ◉ Yes ○ No

03	04	05
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method
☐ < 10% ☐ >= 10% and < 50% ☐ >= 50%		

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.

[1] *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.*

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: SUBURU ELEMENTARY SCHOOL

Report Page: (Page 2 of 7)
Date Prepared: 2023-05-23T14:58:19-04:00

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through N. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

Calculations of Total Allowed Lighting Power (Watts) 140.7 / 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv											Compliance Results	
01		02		03		04		05		06	07	08	09
General Hardscape Allowance 140.7(d)1 / 170.2(e)6 (See Table I)	+	Per Application 140.7(d)2 / 170.2(e)6 (See Table J)	+	Sales Frontage 140.7(d)2 (See Table K)	+	Ornamental 140.7(d)2 / 170.2(e)6 (See Table L)	+	Per Specific Area 140.7(d)2 / 170.2(e)6 (See Table M)	OR	Existing Power Allowance 141.0(b)2L / 180.2(b)4Bv (See Table N)	= **Total Allowed** (Watts)	≥	**Total Actual** (Watts)	**07 must be >= 08**
127.22	+	---	+	---	+	---	+	---	OR	---	= 127.22	≥	108	COMPLIES
Shielding Compliance (See Table G for Details)														N/A
Controls Compliance (See Table H for Details)														COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 110034-0523-0002 Report Generated: 2023-05-23 11:58:21

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: SUBURU ELEMENTARY SCHOOL

Report Page: (Page 3 of 7)
Date Prepared: 2023-05-23T14:58:19-04:00

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

Designed Wattage:

01	02		03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description		Watts per luminaire[1,2]	How is Wattage determined	Total Number Luminaires[2]	Luminaire Status[3]	Excluded per 140.7(a) / 170.2(e)6A	Design Watts	Cutoff Req. > 6,200 initial lumen output 130.2(b) / 160.5(c)[4]	Field Inspector	
										Pass	Fail
A	LED WALL SCONCE	☐ Linear	54	Mfr. Spec	2	New	☐	108	NA: < 6200 lumens	☐	☐
							Total Design Watts:	108			

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue; EXCEPTION 2 to 130.2(b)

[1] *FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b)*
[2] *For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.*
[3] *Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.*
[4] *Compliance with mandatory shielding requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by 130.2(b)/ 160.5(c)*

G. SHIELDING REQUIREMENTS (BUG)

This section does not apply to this project.

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
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STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: SUBURU ELEMENTARY SCHOOL

Report Page: (Page 4 of 7)
Date Prepared: 2023-05-23T14:58:19-04:00

H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
Outdoor lighting for nonresidential buildings, parking garages and common service areas in multifamily buildings must be documented separately from outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit

Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Areas in Multifamily Buildings

01	02	03	04	05	
Area Description	Shut-Off 130.2(c)1 / 160.5(c)	Auto-Schedule 130.2(c)2 / 160.5(c)	Motion Sensor 130.2(c)3 / 160.5(c)	Field Inspector	
				Pass	Fail
BUILDING WALKWAY: "A"	Astronomical Timer	Provided	Provided	☐	☐

[1] *FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.*
[2] *Authority having jurisdiction may ask for cutsheets or other documentation to confirm compliance of light source.*
[3] *Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are excepted from ii and iii.*

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
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STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: SUBURU ELEMENTARY SCHOOL

Report Page: (Page 5 of 7)
Date Prepared: 2023-05-23T14:58:19-04:00

I. LIGHTING POWER ALLOWANCE (per 140.7 / 170.2(e))

This table includes areas using allowance calculations per 140.7 / 170.2(e). General Hardscape Allowance is per Table 140.7-A/Table 170.2-R while "Use it or lose it" Allowances are per Table 140.7-B /Table 170.2-S. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.
Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

	01				
		"Use it or lose it" Allowance (select all that apply) (select all that apply)			
	☒ General Hardscape Allowance Table I (below)	☐ Per Application Table J	☐ Sales Frontage Table K	☐ Ornamental Table L	☐ Per Specific Area Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A for Nonresidential & Hotel/Motel

02	03	04	05	06	07	08	09
Area Description	Area Wattage Allowance (AWA)			Linear Wattage Allowance (LWA)			Total General AWA + LWA (Watts)
	Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	
BUILDING WALKWAY	2020	0.021	42.42	424	0.2	84.8	127.22
Initial Wattage Allowance for Entire Site (Watts):							
Instances of Initial Wattage Allowance (LZ 0 only)[1]							
Total General Hardscape Allowance (Watts):							127.22

J. LIGHTING ALLOWANCE: PER APPLICATION

This section does not apply to this project.

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL

This section does not apply to this project.

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 110034-0523-0002 Report Generated: 2023-05-23 11:58:21

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: SUBURU ELEMENTARY SCHOOL

Report Page: (Page 6 of 7)
Date Prepared: 2023-05-23T14:58:19-04:00

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This section does not apply to this project.

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This section does not apply to this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTO-E - Must be submitted for all buildings

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	BUILDING WALKWAY: "A"

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
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STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: SUBURU ELEMENTARY SCHOOL
Project Address:

Report Page: (Page 7 of 7)
Date Prepared: 2023-05-23T14:58:19-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: John Maloney	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/ HERS Certification Identification (if applicable):
City/State/Zip:	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 will ensure that a completed signed 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. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Responsible Designer Signature:
Company:	Date Signed:
Address:	License:
City/State/Zip:	Phone:

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
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LICENSED ARCHITECT
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24701

REGISTERED PROFESSIONAL ENGINEER
JOHN A. MALONEY
No. E013083
EXP. 06/30/26
ELECTRICAL
STATE OF CALIFORNIA

2025-07-21
PRINT DATE

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396
A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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SHEET TITLE

OUTDOOR LIGHTING COPLIANCE FORMS

SHEET IDENTIFICATION NUMBER

E-002

SHEETS IN SET 120

PLOT TIME: 8:58 AM
PLOT DATE: 7/21/2025

FIRE ALARM SYMBOL LIST MATRIX

	SYMBOL	DEVICE	MFR & CAT#	REMARKS	CSFM LISTING
(E)	■	MAIN FIRE ALARM PANEL	NOTIFIER N-16X	SURFACE MOUNT W/ SOFTWARE UDPATE	7165-0028:0516
(E)	DVC	DIGITAL VOICE COMMAND	NOTIFIER DVC-EM	SURFACE MOUNT	7165-0028:0224
(E)	DAA-5025	DIGITAL AUDIO AMPLIFIER	NOTIFIER DAA-5025	PART OF DVC	7165-0028:0224
(E)	DAC	FIRE ALARM COMMUNICATOR	NOTIFIER 411UDACT	PART OF NFS2-640	7300-0075:0174
(N)	SD	SMOKE DETECTOR	NOTIFIER FSP-951	PROVIDE BASE B210 LP(A) ON 4"SQ. DEEP BOX	7272-0028:0255
(N)	HD	HEAT DETECTOR (IN ATTIC SPACE)	NOTIFIER FST-951H	PROVIDE BASE B210 LP(A) ON 4"SQ. DEEP BOX	7270-0028:0196
(E)	F	ADDRESSABLE MANUAL PULL STATION	NOTIFIER NBG-12LX	PROVIDE 4"SQ. DEEP BOX	7150-0028:0199
(N)	AV	SPEAKER STROBE	SYSTEM SENSOR SPSCR AV CM	PROVIDE DEEP SQ J-BOX	7320-1653:0201
(N)	S WP	EXTERIOR SPEAKER	SYSTEM SENSOR SPRK	PROVIDE MWBB BACKBOX	7320-1653:0201
(N)	———	FPLR CABLE	WESTPENN 975	18/2 BARE, CU, SHIELDED	7161-0859:0101
(N)	———	FPLR CABLE	WESTPENN 998	12/2 SOLID, CU, UNSHIELDED	7161-0859:0101
(N)	———	FPLR CABLE	WESTPENN AQ294	18/2 STRANDED, CU, SHIELDED W/ AQUASEAL	7161-0859:0101
(N)	———	FPLR CABLE	WESTPENN AQC294	18/2 STRANDED, CU, SHIELDED W/ AQUASEAL	7161-0859:0101
(E)	DPM	DPM	NOTIFIER FCPS24S	SLM	7315-0028:0206

FIRE ALARM SYSTEM REQUIREMENTS

1) APPLICABLE STANDARD 2022 NFPA 72
2) INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAS BEEN APPROVED BY DSA.
3) UPON COMPLETION OF THE INSTALLATION OF THE SYSTEMS, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.
4) A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
5) ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
6) DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND /OR TESTING.
7) ALL PENETRATIONS THROUGH RATED ASSEMBLIES, REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER LAB TESTING CRITERIA. APPROVED TYPE OF MATERIALS SHALL BE IDENTFIED WITHIN THE SPECIFICATION WITHIN THE FIRE ALARM SECTION.
8) WALL MOUNTED VISUAL NOTIFICATION DEVICES SHALL HAVE THEIR ENTIRE LENS TO BE BETWEEN 80" AND 90"FROM FINISHED FLOOR.
9) WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THEN 6" TO A HORIZONTAL STRUCTURE.
10) AUDIBLE DEVICES TO BE AT LEAST 15 DBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL BUT NOT LESS THAN 75 DBA AT 10 FEET OR MORE THAN 110 DBA AT THE MINIM HEARING DISTANCE. SOUND LEVEL SHALL BE MAINTAIND FOR DURATION OF AT LEAST 60 SECTIONS 5 DBA MUST BE MAINTAINED.
11) AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.
12) THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
13) VISUAL DEVICES SHOULD NOT EXCEED 2 FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN 1 FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELLA. VISUAL DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
14) UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATERTIGHT FITTINGS AND WIRE TO BE APPROVAL FOR WET LOCATIONS.
15) ALL FIRE ALARM WIRING SHALL BE FLP OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN OR THWN.
16) PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. THERE MUST BE AT LEAST 6' OF LEAD WIRE FROM THE BOX TO THE DEVICE. ALL BOXES TO BE SIZED PER CEC.
17) SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
18) ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANOR AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMETS.
19) FIRE ALARM PANEL, REMOTES, AND COMPONENETS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED THE WEIGHT OF 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
20) A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL". CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS.
21) THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION PER NFPA 72, REQUIREMENTS.
22) CONTROL PANELS, REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48" 23) THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.3.
24) SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.
25) OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
26) A DSA CLASS 3 INSPECTOR SHALL BE HIRED BY THE DISTRICT AND APPROVED BY DSA TO INSPECT THIS PROJECT.

FIRE LIFE SAFETY NOTES

1 CBC 3401.12 - BUILDING AND PARTS OF THEREOF SHALL BE MAINTAINED IN A SAFE AND SANITARY CONDITION. DEVICES OR SAFEGUARDS WHICH ARE REQUIRED BY THIS CODE SHALL BE MAINTAINED IN CONFORMANCE WITH THE CODE EDITION UNDER WHICH INSTALLED. THE OWNER OR THE OWNERS DESIGNATED AGENT SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF BUILDING.

2 CFC 503.1; TITLE 19 DIVISION 1 §3.05 MAINTAIN FIRE ACCESS ROUTE(S). PUBLIC STREET ACCESS - PROVIDE SIGN(S) NO PARKING FIRE LANE WITH CALIFORNIA VEHICLE CODE 22500.1' AND DETAIL. (OR INCLUDE NOTE - EXISTING NO PARKING FIRE LANE SIGN TO BE FIELD VERIFIED BY IOR)

3 CFC 503.1 - MAINTAIN / PROVIDE KEY BOXES FOR FIRE DEPARTMENT ACCESS, AS APPROPRIATE.

4 CFC 701.2 - WHERE ANY COMPONENTS IN THIS CHAPTER ARE NOT MAINTAINED AND DO NOT FUNCTION AS INTENDED OR DO NOT HAVE THE FIRE RESISTANCE REQUIRED BY THE CODE UNDER WHICH THE BUILDING WAS CONSTRUCTED, REMODELED OR ALTERED, SUCH COMPONENT(S) OR PORTIONS THEREOF SHALL BE DEEMED AN UNSAFE CONDITION, IN ACCORDANCE WITH SECTION 110.1. COMPONENTS OR PORTIONS THEREOF DETERMINED TO BE UNSAFE SHALL BE REPAIRED OR REPLACED TO CONFORM TO THAT CODE UNDER WHICH THE BUILDING WAS CONSTRUCTED, REMODELED, ALTERED OR THIS CHAPTER, AS DEEMED APPROPRIATE BY THE FIRE CODE OFFICIAL.

5 CFC 703.1 AND TITLE 19 DIVISION 1 §1.14 - THE REQUIRED FIRE-RESISTANCE RATING OF FIRE-RESISTANCE CONSTRUCTION (INCLUDING WALLS, FIRESTOPS, SHAFT ENCLOSURES, PARTITIONS, SMOKE-BARRIERS, FLOORS, FIRE-RESISTIVE COATINGS AND SPRAYED FIRE-RESISTANT MATERIALS APPLIED TO STRUCTURAL MEMBERS AND FIRE-RESISTANT JOINTS SYSTEMS) SHALL BE MAINTAINED. SUCH ELEMENTS SHALL BE VISUALLY INSPECTED BY THE OWNER AND PROPERLY REPAIRED, RESTORED OR REPLACED WHEN DAMAGED, ALTERED, BREACHED OR PENETRATED. OPENINGS THROUGH FIRE-RESTANCE-RATED ASSEMBLIES SHALL BE PROTECTED BY SELF- OR AUTOMATIC-CLOSING DOORS OF APPROVED CONSTRUCTION MEETING THE FIRE PROTECTION REQUIRMENTS FOR THE ASSEMBLY.

6 CFC 703.2 - OPENING PROTECTIVE SHALL BE MAINTAINED IN AN OPERATIVE CONDITION IN ACCORDANCE WITH NFPA 80. FIRE DOORS AND SMOKE BARRIER DOORS SHALL NOT BE BLOCKED OR OBSTRUCTED OR OTHERWISE BE MADE INOPERABLE. FUSIBLE LINKS SHALL BE REPLACED PROMPTLY WHENEVER FUSED OR DAMAGED. FIRE ASSEMBLIES SHALL NOT BE MODIFIED.

7 CFC 901.4; 907.8.5 AND TITLE 19 DIVISION 1 1.14 - INSTALLATION FIRE PROTECTION SYSTEM SHALL BE MAINTAINED IN ACCORDANCE WITH ORIGINAL INSTALLATION STANDARDS FOR THAT SYSTEM. REQUIRED SYSTEMS SHALL BE EXTENDED, ALTERED OR AUGMENTED AS NECESSARY TO MAINTAIN AND CONTINUE PROTECTION WHENEVER THE BUILDING IS ALTERED, REMODELED OR ADDED TO. ALTERATIONS TO FIRE PROTECTION SYSTEM SHALL BE DONE IN ACCORDANCE WITH APPLICABLE STANDARDS.

8 TITLE 19 DIVISION 1 §1.14 - EVERY FIRE ALARM SYSTEM OR DEVICE, SPRINKLER SYSTEM, FIRE EXTINGUISHER, FIRE HOSE, FIRE-RESISTIVE ASSEMBLY OR ANY OTHER FIRE SAFETY ASSEMBLY, DEVICE MATERIAL OR EQUIPMENT INSTALLED AND RETAINED IN SERVICE IN ANY BUILDING OR STRUCTURE SUBJECT TO CALIFORNIA CODE OF REGULATIONS, TITLE 19 DIVISION 1 REGULATIONS SHALL BE MAINTAINED IN AN OPERABLE CONDITION AT ALL TIMES IN ACCORDANCE WITH CALIFORNIA CODE OF REGULATIONS TITLE 19 DIVISION 1 REGULATIONS AND WITH THEIR INTENDED USE.

9 TITLE 19 DIVISION 1 §3.24 - UPON DISRUPTION OF DIMINISHMENT OF THE FIRE PROTECTIVE QUALITIES OF SUCH EQUIPMENT, MATERIAL OR SYSTEMS IMMEDIATE ACTION SHALL BE INSTITUTED TO EFFECT A REESTABLISHMENT OF SUCH EQUIPMENT MATERIAL OR SYSTEMS TO THEIR ORIGINAL NORMAL OPERATIONAL CONDITION.

10 CFC 901.5.1 - IT SHALL BE UNLAWFUL TO OCCUPY ANY PORTION OF A BUILDING OR STRUCTURE UNTIL THE REQUIRED FIRE DETECTION, ALARM SYSTEM HAS BEEN TESTED AND APPROVED.

11 CFC 901.5.1 - IT SHALL BE UNLAWFUL TO OCCUPY ANY PORTION OF A BUILDING OR STRUCTURE UNTIL THE REQUIRED FIRE DETECTION, ALARM SYSTEM HAS BEEN TESTED AND APPROVED.

12 FIRE ALARM SCOPE REQUIRES DSA APPROVED DRAWINGS FOR REFERENCE OF AREAS IN SCOPE INCLUDE COMPLIANT FIRE ALARM COMPONENTS (SMOKE-HEAT-AUDIBLE-VISUAL-MANUAL). (STATEMENT OF COMPLIANCE PER CFC 901.2.1; 901.6.2.1.4 TITLE 19 DIVISION 1 §904.1(b) 904.2(c) RECORD AS-BUILT DRAWINGS AND TEST REPORTS.) ROOMS / AREAS IN SCOPE TO INCLUDE EXISTING FIRE ALARM COMPONENTS.

13 CFC 1030.1 - THE MEANS OF EGRESS FOR BUILDING OR PORTIONS THEREOF SHALL BE MAINTAINED IN ACCORDANCE WITH THIS SECTION.

14 CFC 1030.4 - EXIT SIGNS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH SECTION 1011.

15 CFC CHAPTER 11, PROVISIONS APPLICABLE TO EXISTING BUILDING.

16 CFC CHAPTER 33, FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION APPLICABLE PROVISIONS TO BE REPLICATED VERBATIM - SAMPLE SECTIONS - 3304 PRECAUTIONS AGAINST FIRE: 3304.2 WASTE DISPOSAL; 3304.5 FIRE WATCH; 3304.6 CUTTING AND WELDING; 3305 FLAMMABLE AND COMBUSTIBLE LIQUIDS; 3308 OWNERS RESPONSIBILITY; 3310 ACCESS FOR FIREFIGHTING; 3311 MEANS OF EGRESS; 3315 FIRE EXTINGUISHERS.

EXISTING FACP BATTERY CALCULATION FACP, NOTIFIER N-16X

EQUIPMENT DESCRIPTION	QUANTITY EXISTING	QUANTITY NEW	SUPERVISORY CURRENT (AMPERES) EACH	SUPERVISORY CURRENT (AMPERES) SUB-TOTAL	ALARM CURRENT (AMPERES) EACH	ALARM CURRENT (AMPERES) SUB-TOTAL
FIRE ALARM PANEL	1	0	0.25	0.25	0.25	0.25
DIGITAL ALARM COMMUNICATOR	1	0	0.052	0.052	0.087	0.087
DVC	1	0	0.44	0.44	0.44	0.44
DAA 5025	1	0	0.35	0.35	1.9	1.9
PULL STATION	1	0	0.0003	0.0003	0.0005	0.0005
SMOKE DETECTOR	38	16	0.00039	0.02106	0.00039	0.02106
HEAT DETECTOR	38	16	0.00035	0.0189	0.00035	0.0189
VISUALS 15cd	0	4			0.066	0.264
VISUALS 30cd	0	4			0.077	0.308
VISUALS 75cd	0	4			0.158	0.632
SUB TOTAL AMPERES			1.13226 AMPS		3.92146 AMPS	
			x 24 HOURS		X 0.25 HOURS	
SUB TOTAL AMPERE-HOURS			27.17424 A.H.		0.980365 A.H.	
TOTAL REQUIRED AMPERE-HOURS FOR DISTRIBUTED POWER MODULE					28.15461 A.H.	
BATTERY NON-LINEAR DISCHARGE CHARACTERISTIC FACTOR					x 1.2	
TOTAL MINIMUM AMPERE HOURS REQUIRED					33.78553 A.H.	
PROVIDED BATTERY CAPACITY					55.00 A.H.	

EXISTING VOICE PANEL BATTERY CALCULATION – DVC-EM

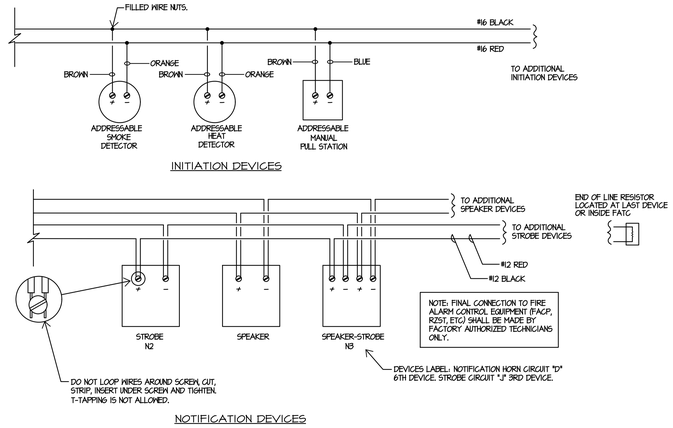
EQUIPMENT DESCRIPTION	QUANTITY EXISTING	QUANTITY NEW	SUPERVISORY CURRENT (AMPERES) EACH	SUPERVISORY CURRENT (AMPERES) SUB-TOTAL	ALARM CURRENT (AMPERES) EACH	ALARM CURRENT (AMPERES) SUB-TOTAL
DVC	1	0	0.44	0.44	0.44	0.44
DAA 5025	1	0	0.35	0.35	1.9	1.9
				0		0
¼ Watt Speaker	2	4	0	0	0.017	0.102
1 Watt Speaker	5	4	0	0	0.068	0.612
2 Watt Speaker	3	4		0	0.132	0.924
	0	0		0	0	0
VISUALS 75 cd	0	0		0	0.158	0
VISUALS 30 cd	0	0	0	0	0.094	0
VISUALS 15 cd	0	0	0	0	0.066	0
	0	0	0	0	0	0
				0		0
	0	0	0	0	0	0
SUB TOTAL AMPERES			0.79 AMPS		3.978 AMPS	
			x 24 HOURS		X 0.25 HOURS	
SUB TOTAL AMPERE-HOURS			18.96 A.H.		0.9945 A.H.	
TOTAL REQUIRED AMPERE-HOURS FOR DISTRIBUTED POWER MODULE					19.9545 A.H.	
BATTERY NON-LINEAR DISCHARGE CHARACTERISTIC FACTOR					x 1.2	
TOTAL MINIMUM AMPERE HOURS REQUIRED					23.9454 A.H.	
PROVIDED BATTERY CAPACITY					26.00 A.H.	

FIRE ALARM BATTERY CALCULATION-DISTRIBUTED POWER MODULE FCPS-24

DPM-300 EQUIPMENT DESCRIPTION	QUANTITY EXISTING	QUANTITY NEW	SUPERVISORY CURRENT (AMPERES) EACH	SUPERVISORY CURRENT (AMPERES) SUB-TOTAL	ALARM CURRENT (AMPERES) EACH	ALARM CURRENT (AMPERES) SUB-TOTAL
DISTRIBUTED POWER MODULE	1	0	0.065	0.065	0.145	0.145
FCM-1	0	0	0.0003	0.0003	0.0003	0
AUDIBLE/VISUALS 15 cd	0	0	0	0		0
AUDIBLE/VISUALS 15/75 cd	0	0	0	0		0
AUDIBLE/VISUALS 30 cd	0	0	0	0		0
AUDIBLE/VISUALS 75 cd	6	4	0	0	0.158	1.58
SUB TOTAL AMPERES			0.0653 AMPS		1.725 AMPS	
			x 24 HOURS		x 0.25 HOURS	
SUB TOTAL AMPERE-HOURS			1.5672 A.H.		0.43126 A.H.	
TOTAL REQUIRED AMPERE-HOURS FOR DISTRIBUTED POWER MODULE					1.99845 A.H.	
BATTERY NON-LINEAR DISCHARGE CHARACTERISTIC FACTOR					x 1.2	
TOTAL MINIMUM AMPERE HOURS REQUIRED					2.39814 A.H.	
PROVIDED BATTERY CAPACITY					7.00 A.H.	

FIRE ALARM SEQUENCE OF OPERATION

INPUT & OUTPUT MATRIX		SYSTEM INPUTS: AREA SMOKE DETECTOR	AREA HEAT DETECTOR		FIRE ALARM SYSTEM AC POWER FAILURE	FIRE ALARM SYSTEM LOW BATTERY	OPEN CIRCUIT	GROUND FAULT	NOTIFICATION APPLIANCE CIRCUIT SHORT					
	SYSTEM OUTPUTS													
Control Unit Annunciation	ACTUATE COMMON ALARM SIGNAL INDICATOR (RED LED)	●	●											
	ACTUATE AUDIBLE ALARM SIGNAL (PIEZO BUZZER)	●	●											
	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR (AMBER LED)													
	ACTUATE AUDIBLE SUPERVISORY SIGNAL (PIEZO BUZZER)													
	ACTUATE COMMON TROUBLE SIGNAL INDICATOR (AMBER LED)				●	●	●	●	●					
	ACTUATE AUDIBLE COMMON TROUBLE SIGNAL (PIEZO BUZZER)				●	●	●	●	●					
Notification	ACTUATE EVACUATION SIGNAL THROUGHOUT THE BUILDING SPEAKERS & SPEAKERS/STROBES	●	●											
	TRANSMIT FIRE ALARM SIGNAL TO SUPERVISING STATION	●	●											
	TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION													
	TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION				●	●	●	●	●					
Supplementary														



FIRE ALARM DEVICES TYPICAL MOUNTING DETAIL
SCALE : NONE
A E700

SCOPE OF FIRE ALARM WORK

THIS IS AN ADDITION TO AN EXISTING FULLY-AUTOMATIC, ADDRESSABLE FIRE ALARM & EMERGENCY VOICE AND COMMUNICATION SYSTEM.

FIRE WATCH, FIRE MARSHAL REQUIREMENTS:

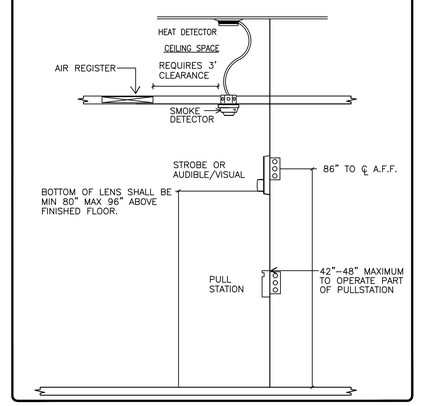
REQUIREMENTS FOR DISABLING THE FIRE ALARM SYSTEM;

1. AS REQUIRED BY THE **2019 CALIFORNIA FIRE CODE**, STANDBY PERSONNEL OR SYSTEMS TEMPORARILY "OUT OF SERVICE". THE LOCAL FIRE MARSHAL IS AUTHORIZED TO REQUIRE THE CONTRACTOR TO PROVIDE STANDBY PERSONNEL AS SET FORTH IN THESE SECTIONS, UNTIL THE SYSTEM IS RESTORED TO OPERATION.

2. SUCH INDIVIDUAL SHALL BE SUBJECT TO THE LOCAL FIRE MARSHAL'S ORDER AT ALL TIMES WHEN SO EMPLOYED AND SHALL REMAIN ON DUTY DURING THE TIME SUCH PLACES ARE OPEN TO THE PUBLIC OR WHEN SUCH PUBLIC ACTIVITY IS BEING CONDUCTED. FIRE WATCH PERSONNEL SHALL BE PROVIDED WITH AT LEAST ONE APPROVED MEANS FOR NOTIFICATION OF THE FIRE DEPARTMENT.

3. SUCH INDIVIDUALS SHALL KEEP A DILIGENT WATCH FOR FIRES AND BE ABLE TO TAKE PROMPT AND APPROPRIATE ACTION IN THE EVENT OF A FIRE. SUCH INDIVIDUALS SHALL NOT BE REQUIRED OR PERMITTED, WHILE ON DUTY, TO PERFORM ANY OTHER DUTIES THAN THESE HEREIN SPECIFIED.

DEVICE MOUNTING DETAIL



FIRE ALARM MOUNTING DETAIL
SCALE : NONE
C E700

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LICENSED ARCHITECT JOSEPH E. ZASOSKI C-36742 MAY 31, 2027 RENEWAL DATE STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANINE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

JMPE
ELECTRICAL ENGINEERING
LIGHTING DESIGN
CA REGISTRATION NO E13083
2880 SANTA MARIA WAY, STE D4
SANTA MARIA CA 93455
(805) 569-0016
FAX (805) 569-2405
email maloney@jmpe.net
www.jmpe.net
24701

REGISTERED PROFESSIONAL ENGINEER MALONEY ED. M. EXP. 06/30/2026 ELECTRICAL STATE OF CALIFORNIA

2025-07-21 PRINT DATE

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER: 2396
A#: 03-124848

CAD DRAWING FILE: 2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY: AKF

CHECKED BY: GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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SHEET TITLE

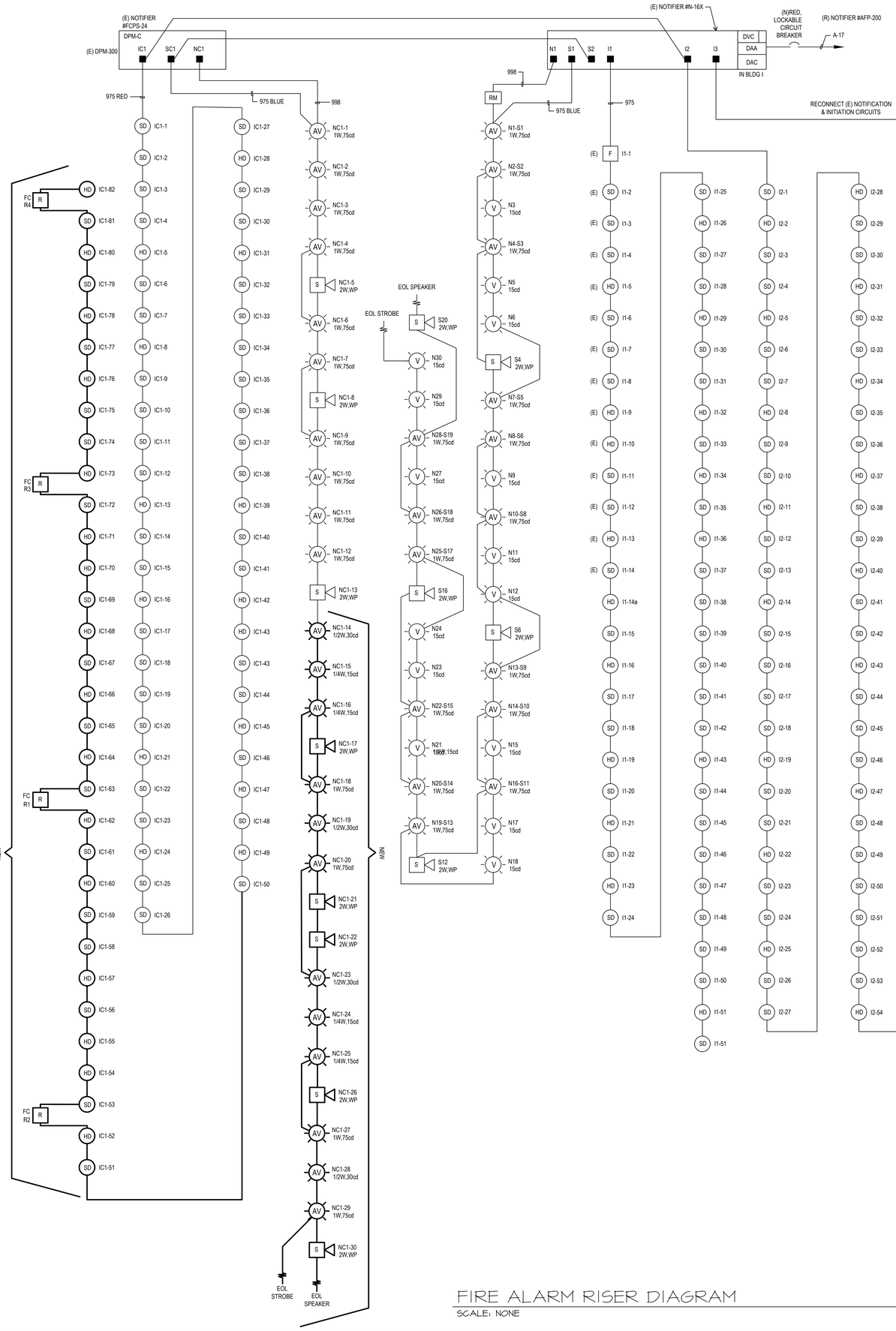
FIRE ALARM SYMBOLS DETAILS BATTERY CALCS

SHEET IDENTIFICATION NUMBER

E-003

SHEETS IN SET 120

PLOT TIME: 8:59 AM
PLOT DATE: 10/7/2025



FIRE ALARM RISER DIAGRAM

SCALE: NONE

Ⓐ

FIRE ALARM NOTES

1. APPLICABLE STANDARD NFPA 72, AS ADOPTED AND AMENDED IN CBC CHAPTER 35.
2. INSTALLATION OF THE SYSTSEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAS BEEN APPROVED BY DSA.
3. UPON COMPLETION OF SYSTEM INSTALLATION, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.
4. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
6. DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND/OR TESTING.
7. ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER APPROVED LAB TESTING CRITERIA. APPROVED TYPES OF MATERIALS SHALL BE IDENTIFIED WITHIN THE PROJECT SPECIFICATIONS WITHIN THE FIRE ALARM SECTION.
8. WALL MOUNTED VISIBLE NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80" MINIMUM AND 96" MAXIMUM FROM FINISHED FLOOR.
9. WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THAN 6" TO A HORIZONTAL STRUCTURE.
10. AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBLES (DBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR FIVE DBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPIABLE SPACE WITHIN THE BUILDING.
11. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.
12. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
13. VISIBLE DEVICES SHOULD NOT EXCEED TWO FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN ONE FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELLA. VISIBLE DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
14. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER TIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.
15. ALL FIRE ALARM WIRING SHALL BE FPLOR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE TYPE THHN OR THWN.
16. PER CEC STANDARDS, ALL WIRING TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLIACE THE WIRE. ALL BOXES TO BE SIZED PER CEC.
17. SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1" FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM, DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED VER TO THE OWNER.
18. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANOR AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
19. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
20. A DEDICATED BRANCH CIRUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL" CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS.
21. THE INSTALLING CONTRACTOR SHALL PROVIDE A COMPLETED "SYSTEM RECORD OF COMPLETION" PER NFPA 72, FIGURE 17.8.2.
22. FIRE ALARM CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48" ABOVE THE FINISHED FLOOR.
23. MICROPHONES ASSOCIATED WITH EMERGENCY VOICE ALARM COMMUNICATION SYSTEMS (EVAC) SHALL BE ACCESSIBLE FOR USE, INSTALLED IN COMPLIANCE WITH CBC SECTIONS 11B-305 AND 11B-308.
24. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2.
25. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.
26. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.

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(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL

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FOR:

LAKESIDE UNION SCHOOL DISTRICT

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STATE OF CALIFORNIA

2025-07-21
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MARK	DATE	DESCRIPTION
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JOB NUMBER:
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A#: 03-124848

CAD DRAWING FILE:
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DRAWN BY:
AKF

CHECKED BY:
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SHEET TITLE

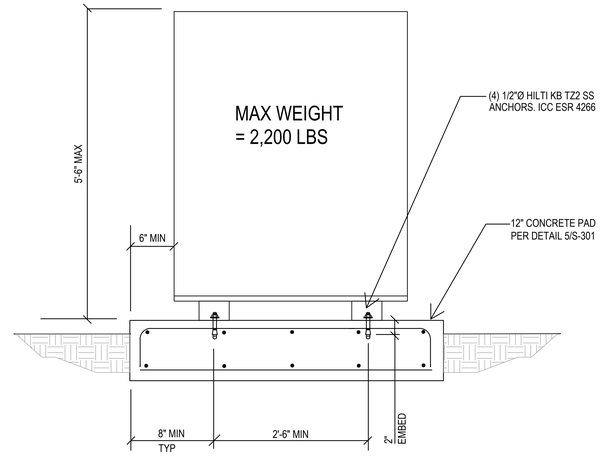
FIRE ALARM NOTES AND RISER

SHEET IDENTIFICATION NUMBER

E-004

SHEETS IN SET 120

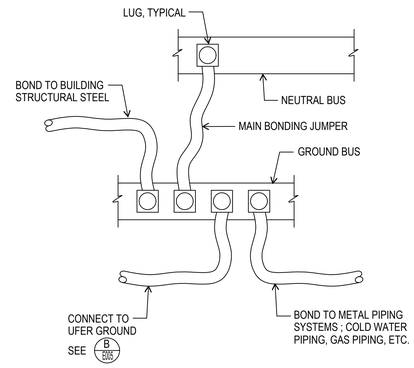
PLOT TIME 8:59 AM
PLOTTED BY: MICHAEL



F
TRANSFORMER MOUNTING DETAIL

SCALE : NONE

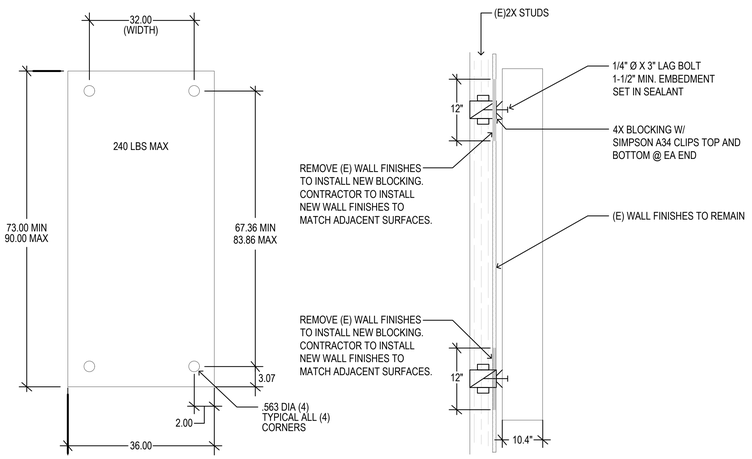
F
E005



BONDING DIAGRAM

SCALE : NONE

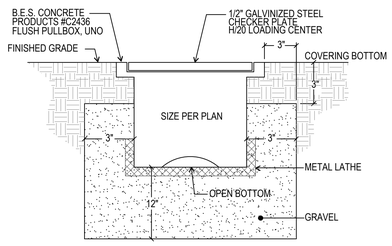
B
E005



PANEL MOUNTING DETAIL

SCALE : NONE

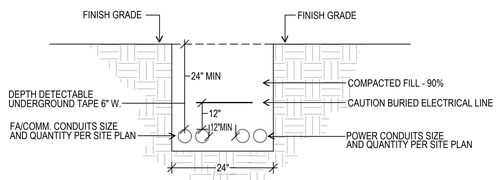
E
E005



FLUSH PULLBOX DETAIL

SCALE : NONE

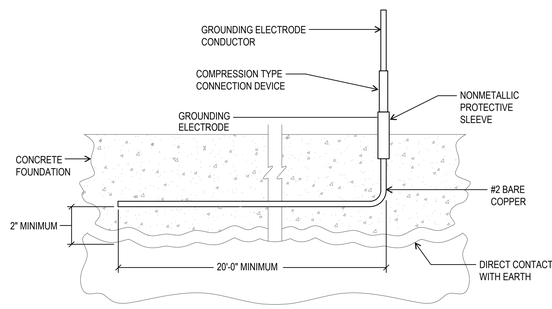
D
E005



TRENCH DETAIL

SCALE : NONE

C
E005



THE GROUNDING SYSTEM SHALL CONSIST OF A "UFER" TYPE 20' LONG OF #2 BARE COPPER CONDUCTOR EMBEDDED ALONG THE BOTTOM OF A CONCRETE FOOTING OR GRADE BEAM THAT IS IN DIRECT CONTACT WITH THE EARTH.

UFER GROUND DETAIL

SCALE : NONE

A
E005

PLOT DATE: 5:08 AM
PLOT BY: MJONES
PLOTTED: 1/1/2025

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(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

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FOR:

LAKESIDE UNION SCHOOL DISTRICT

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2025-07-21
PRINT DATE

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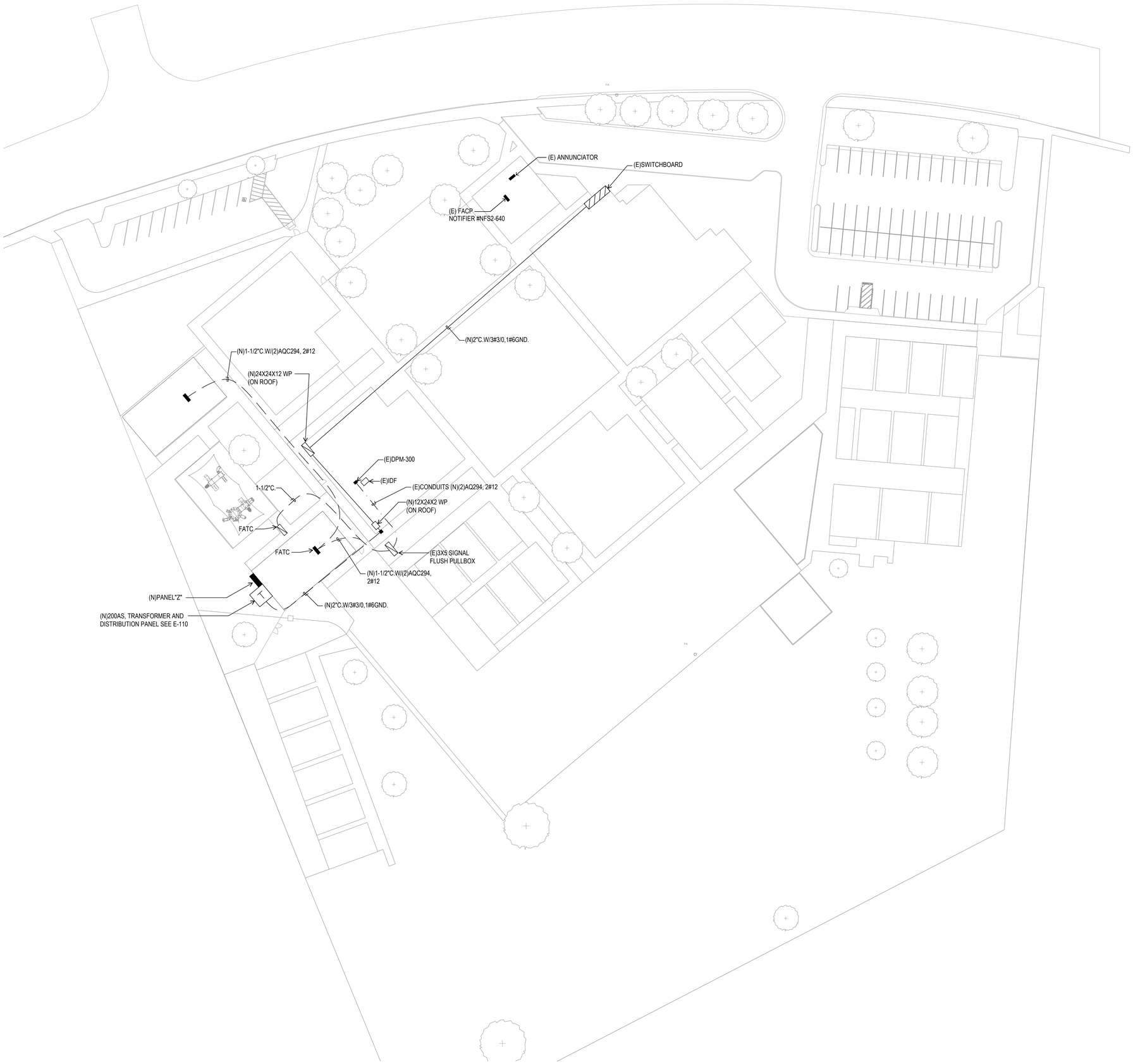
SHEET TITLE

ELECTRICAL DETAILS

SHEET IDENTIFICATION NUMBER

E-005

SHEETS IN SET 120



OVERALL ELECTRICAL SITE PLAN

SCALE: 1" = 30'-0"

PLOT TIME: 8:53 AM
PLOT DATE: 10/24/25

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PRINT DATE

MARK	DATE	DESCRIPTION
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JOB NUMBER:
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A#: 03-124548

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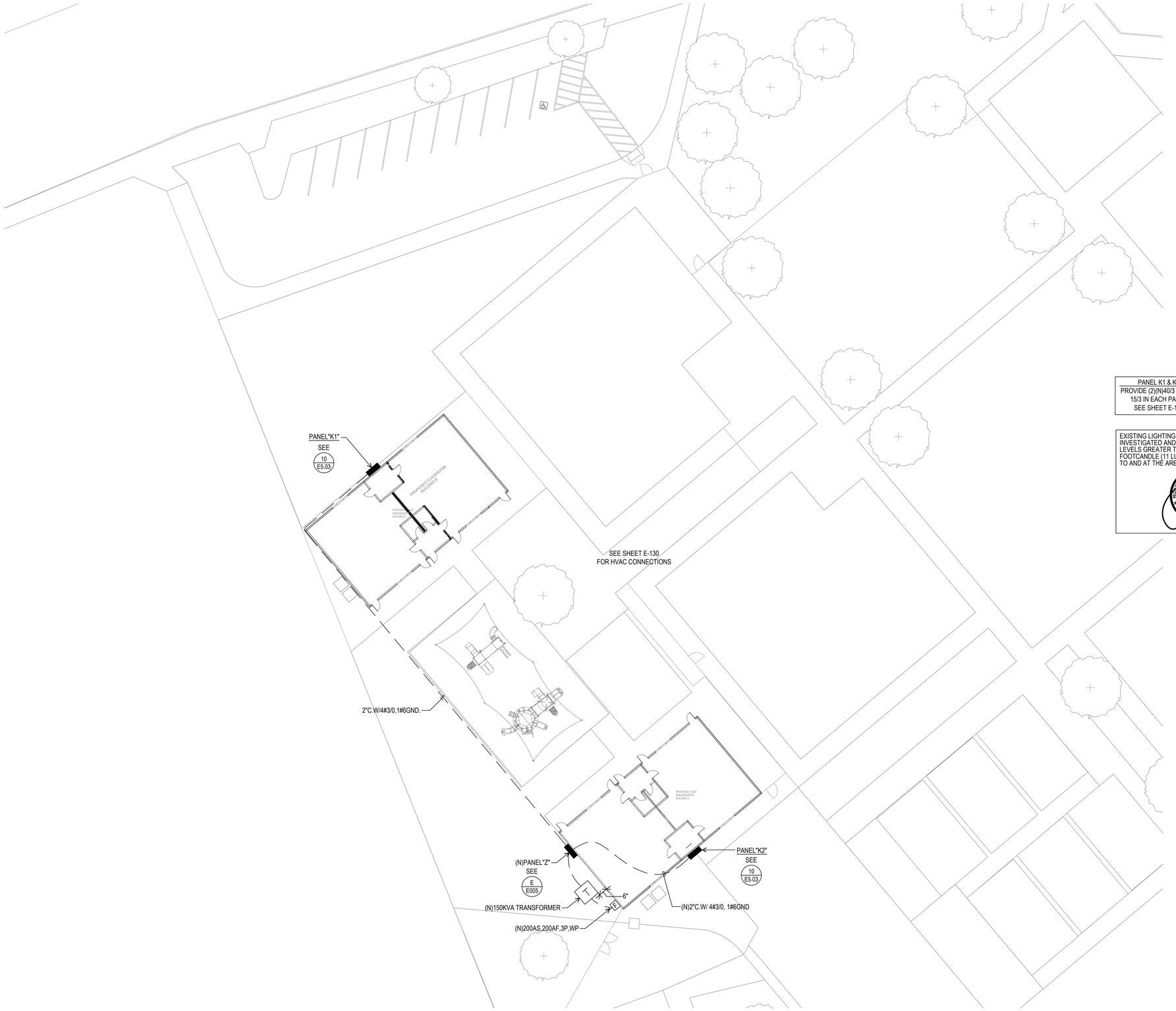
SHEET TITLE

OVERALL ELECTRICAL SITE PLAN

SHEET IDENTIFICATION NUMBER

E-100

SHEETS IN SET 120



PANEL K1 & K2
PROVIDE (2)(N)40/3 & (2)(N) 15/3 IN EACH PANEL
SEE SHEET E-130

EXISTING LIGHTING CONDITIONS HAVE BEEN INVESTIGATED AND FOUND TO HAVE ILLUMINATION LEVELS GREATER THAN OR EQUAL TO 1 FOOTCANDLE (11 LUX) ALONG THE PATH OF EGRESS TO AND AT THE AREA OF SAFE DISPERSAL.

ENLARGED ELECTRICAL SITE PLAN

SCALE: 1/16" = 1'-0"

PLOT TIME: 9:58 AM
PLOT DATE: 7/21/2025

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(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

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FOR:

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2025-07-21
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AKF

CHECKED BY:
GA

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SHEET TITLE

ENLARGED ELECTRICAL SITE PLAN

SHEET IDENTIFICATION NUMBER

E-110

SHEETS IN SET 120



ENLARGED GROUNDING SITE PLAN

SCALE: 1/16" = 1'-0"

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(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

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FOR:

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2025-07-21
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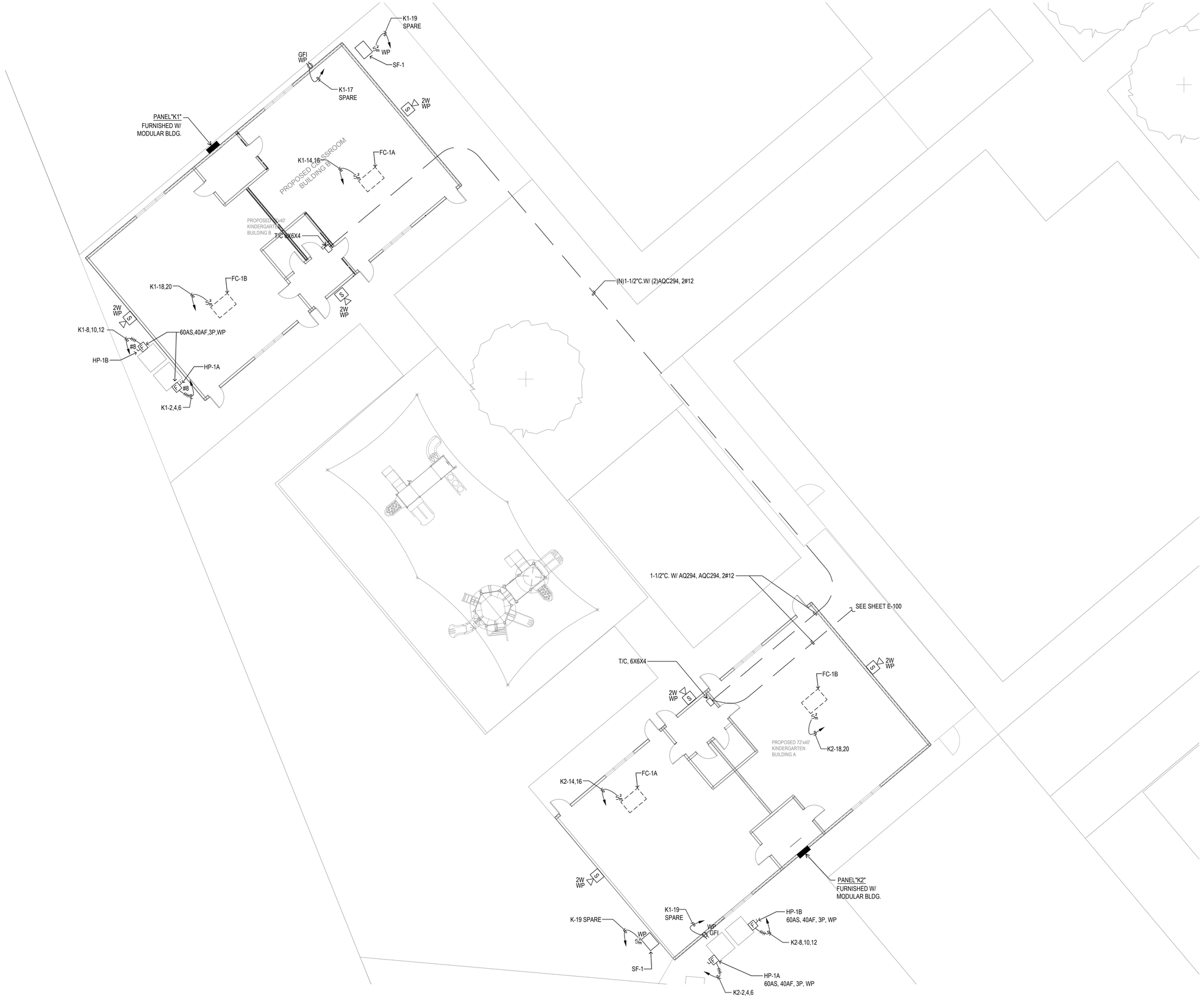
ENLARGED GROUNDING SITE PLAN

SHEET IDENTIFICATION NUMBER

E-120

SHEETS IN SET 120

PLOT TIME 8:59 AM
PLOT DATE 7/21/2025
BY AKF



FIRE ALARM SITE PLAN

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

PLOT TIME 8:59 AM
PLOT DATE 7/21/2025

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STATE OF CALIFORNIA

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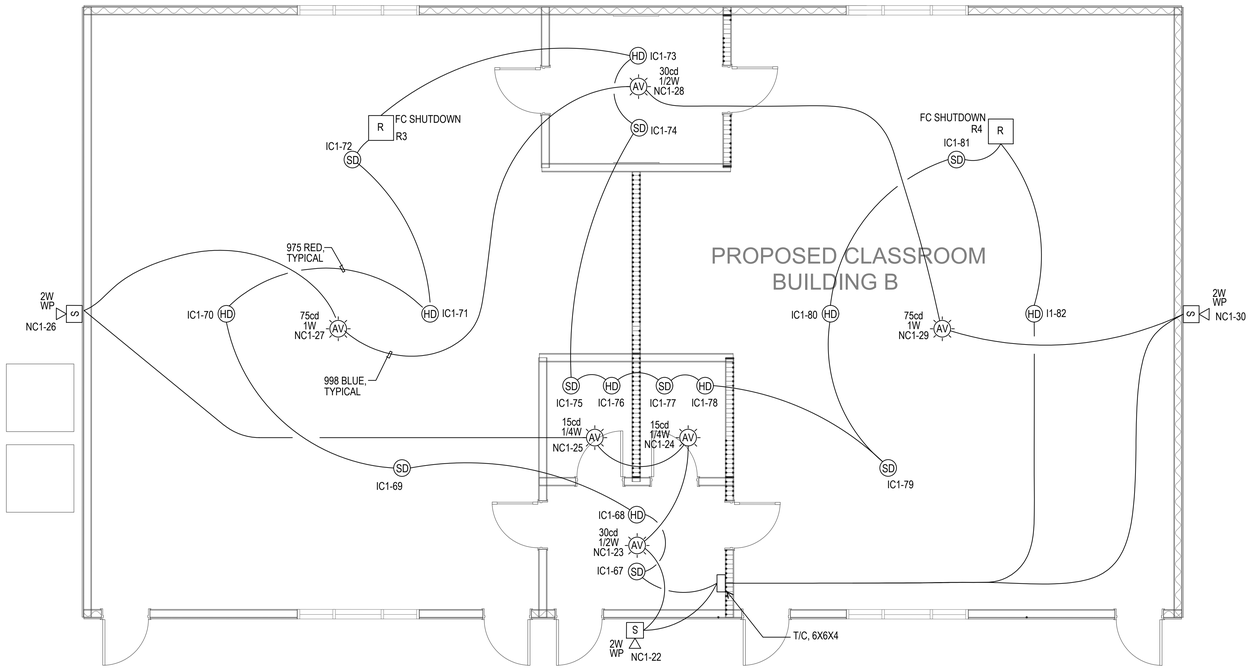
SHEET TITLE

FIRE ALARM SITE PLAN

SHEET IDENTIFICATION NUMBER

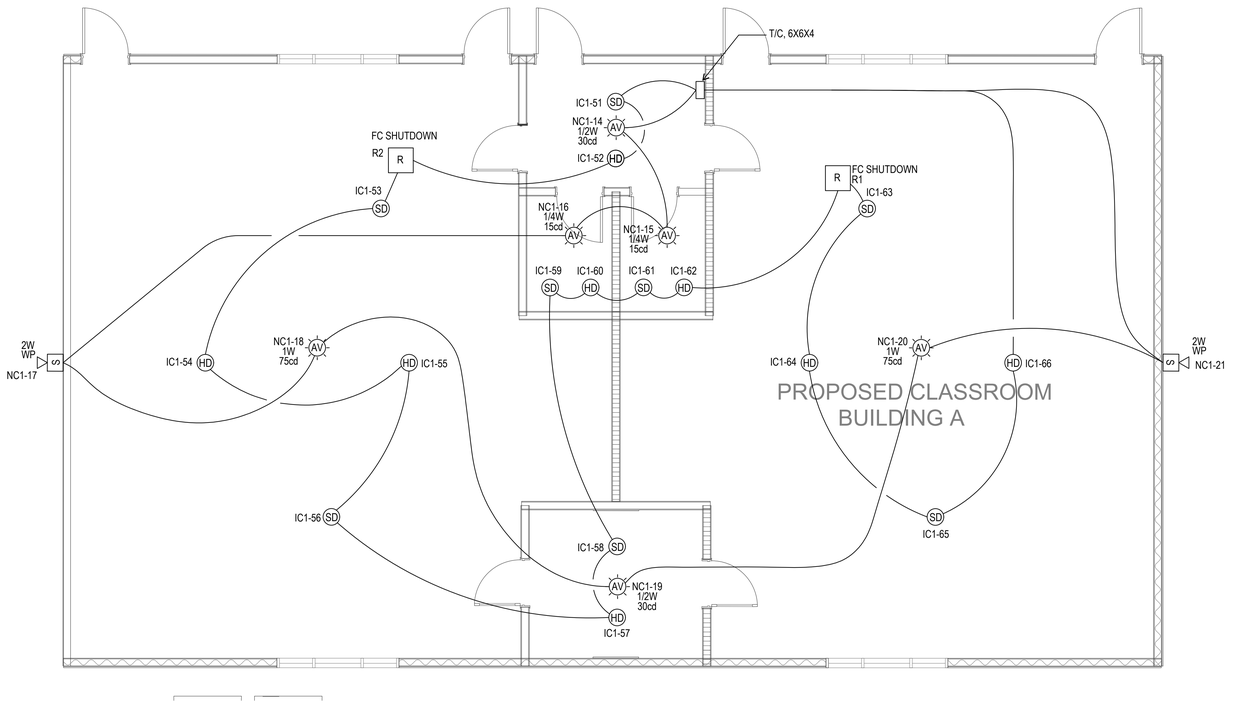
E-130

SHEETS IN SET 120



BUILDING K1 FIRE ALARM PLAN

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



BUILDING K2 FIRE ALARM PLAN

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

PLOTTIME: 8:54 AM
PLOTDATE: 7/21/2025

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(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

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FOR:

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STATE OF CALIFORNIA

2025-07-21
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FIRE ALARM PLANS

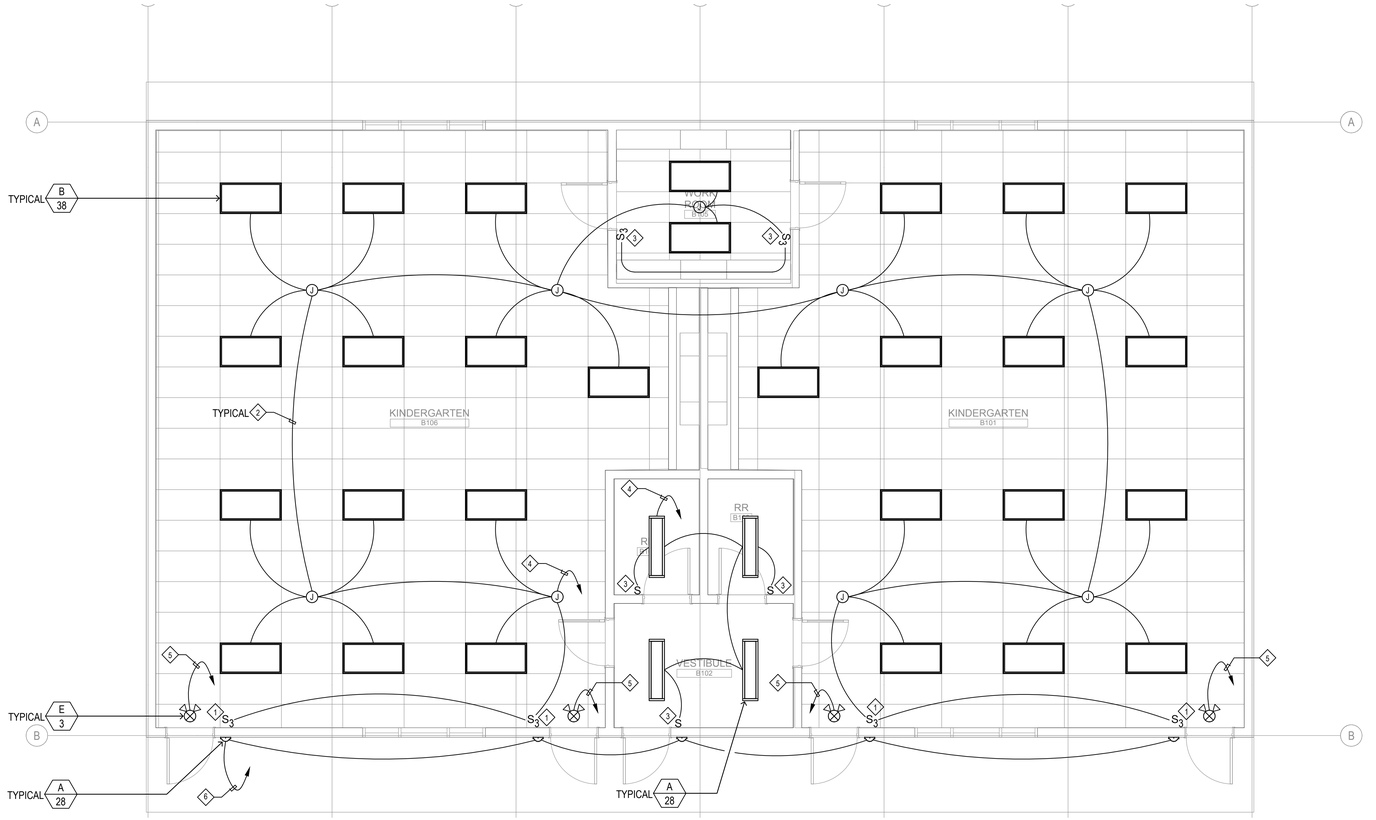
SHEET IDENTIFICATION NUMBER

E-140

SHEETS IN SET 120

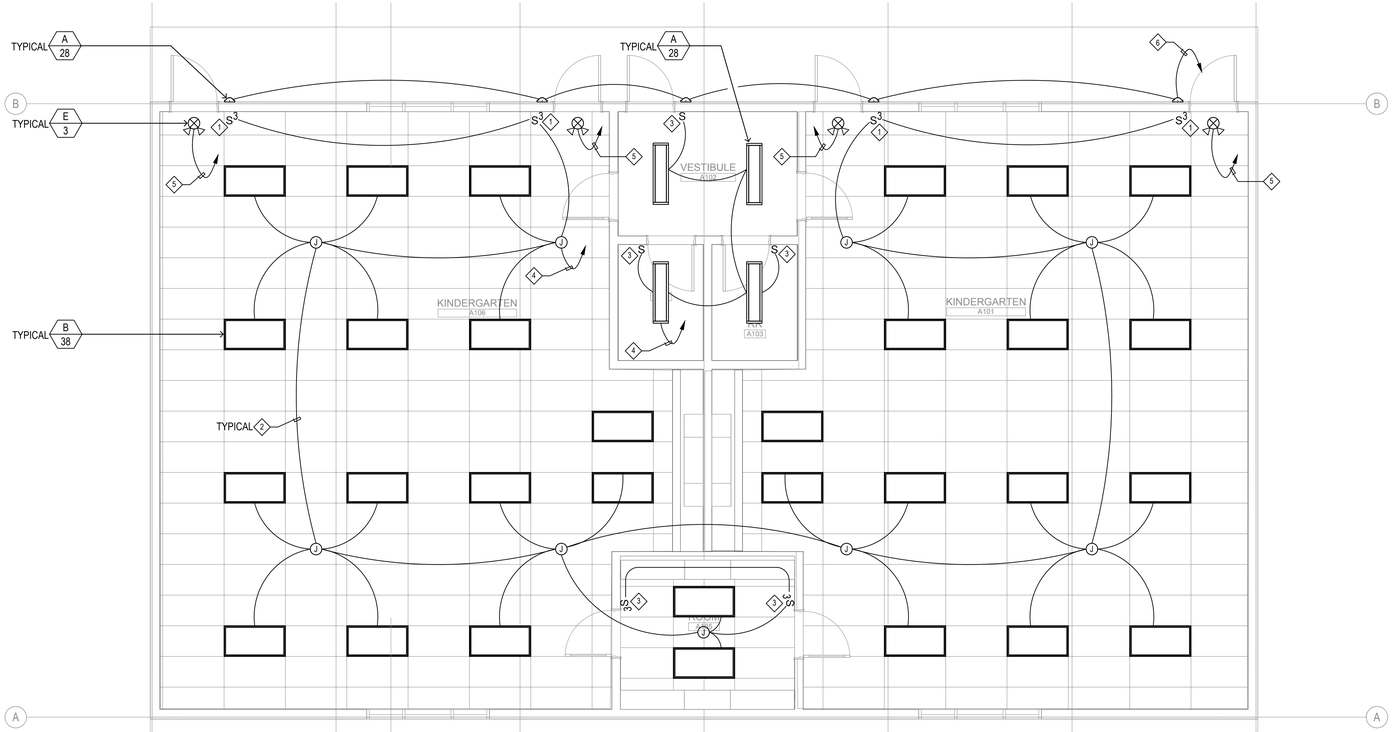
LIGHTING PLAN NOTES

1. LUTRON #MSZ 101MH
2. MC LUMINARY CABLE, 2 #12, 2 #14, 1 # 12 GND
3. SENSOR SWITCH # WSD-PDT-WH
4. CONNECT TO (E) LIGHTING CIRCUIT
5. CONNECT TO (E) EMERGENCY LIGHTING CIRCUIT
6. HOMERUN VIA PHOTOCELL. CONNECT TO (E) EXTERIOR LIGHTING CIRCUIT.



BUILDING K1 LIGHTING PLAN

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



BUILDING K2 LIGHTING PLAN

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

PLOT DATE: 6/6/2025
PLOT TIME: 9:58 AM
PLOTTED BY: MJONES

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JOSEPH E. ZASOSKI, AIA
ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

JMPE
ELECTRICAL ENGINEERING
LIGHTING DESIGN
CA REGISTRATION NO E13083
2880 SANTA MARIA WAY, STE D4
SANTA MARIA CA 93455
(805) 569-0216
FAX (805) 569-2405
email : maloney@jmpe.net
www.jmpe.net
24701

REGISTERED PROFESSIONAL ENGINEER
MICHAEL C. MALONEY
No. E13083
EXP. 09/30/2026
ELECTRICAL
STATE OF CALIFORNIA

2025-07-21
PRINT DATE

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396

A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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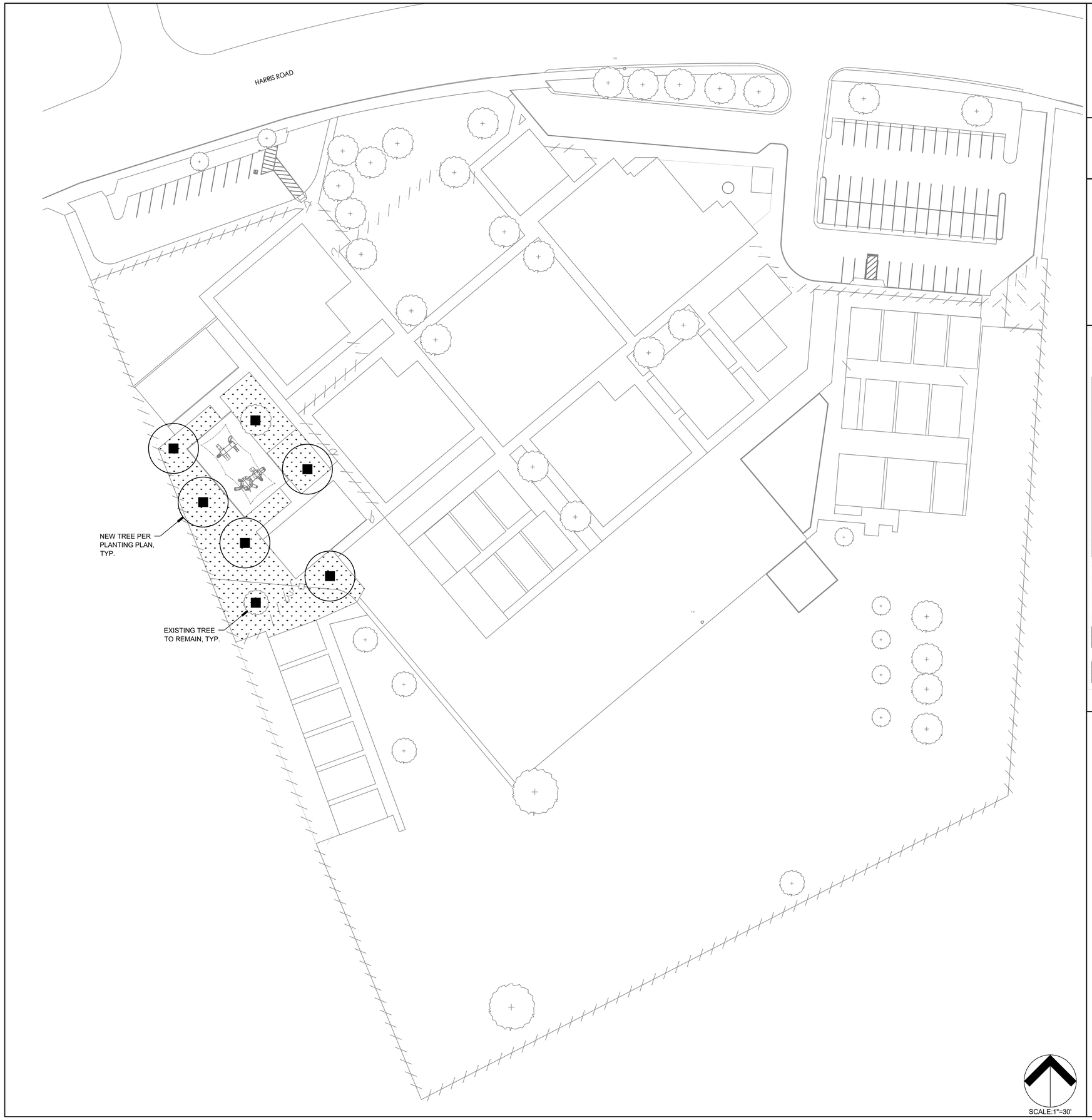
SHEET TITLE

LIGHTING PLANS

SHEET IDENTIFICATION NUMBER

E-150

SHEETS IN SET 120



SCALE:1"=30'

Know what's below. Call before you dig.

REGISTERED LANDSCAPE ARCHITECT JEANNE RIOS No. 2979 Signature SEPTEMBER 30,2026 Expiration Date FEB. 4,2025 Date STATE OF CALIFORNIA

RIOS DESIGN STUDIO
LANDSCAPE ARCHITECTURE & DESIGN
3805 ORA VISTA AVENUE
BAKERSFIELD, CALIFORNIA
93309
P: 661.835.9259

NOTES

- REFER TO SHEET L2 FOR TURF IRRIGATION PLAN AND LEGEND.
- REFER TO SHEET L3 FOR TREE IRRIGATION PLAN, NOTES AND CALCULATIONS.
- REFER TO SHEET L4 FOR IRRIGATION DETAILS.
- REFER TO SHEET L5 FOR PLANTING PLAN, LEGEND, NOTES AND DETAILS.

HYDROZONE SUMMARY

NON-SPECIAL LANDSCAPE AREAS

HYDROZONE #	SYMBOL	DESCRIPTION
A		HYDROZONE A- 175 SF (1.5%) TREE IRRIGATED WITH BUBBLERS
		TOTAL NON-SPECIAL LANDSCAPE AREA - 175 SF

SPECIAL LANDSCAPE AREAS- (AREAS USED FOR RECREATION OR GATHERING)

B		HYDROZONE B- 12,968 SF (98.5%) TURFGRASS IRRIGATED W/ ROTORS AND MP ROTATORS
		TOTAL SPECIAL LANDSCAPE AREA - 12,968 SF
		COMBINED SLA AND NON-SLA AREA - 13,143 SF (TOTAL LANDSCAPE AREA)

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package.

Reference Evapotranspiration (ETo) 52.4

Hydrozone # /Planting Description[a]	Plant Factor (PF)	Irrigation Method[b]	Irrigation Efficiency (IE)[c]	ETAF (PF/IE)	Landscape Area (sq.ft.)	ETAF x Area	Estimated Total Water Use (ETWU)[d]
Regular Landscape Areas							
Zone A Trees	0.30	drip	0.81	0.37	175	65	2,106
				Totals	175	65	2,106
Special Landscape Areas							
Zone B Turf				1.00	12,968	12,968	421,304
				Totals	12,968	12,968	421,304
						ETWU Total	423,410
						Maximum Allowed Water Allowance (MAWA)[e]	423,863

[a] Hydrozone #/Planting Description
E.g.
1.) high water use
2.) low water use
3.) moderate water use

[b] Irrigation Method
overhead spray
or drip

[c] Irrigation Efficiency
0.75 for spray head
0.81 for drip

[d] ETWU (Annual Gallons Required)
Eto x 0.62 x ETAF x Area

[e] MAWA (Annual Gallons Allowed)
(Eto) (.062) [(ETAF x LA) + ((1-ETAF) x SLA)]

ETAF CALCULATION

Regular Landscape Areas

Total ETAF X Area	65
Total Area	175
Average ETAF	**0.37**

All Landscape Areas

Total ETAF X Area	13,033
Total Area	13,143
Sitewide ETAF	**0.99**

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

MWELO

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LICENSED ARCHITECT JOSEPH E. ZASOSKI C-36742 MAY 31, 2027 RENEWAL DATE STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANNE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

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2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

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SHEET TITLE

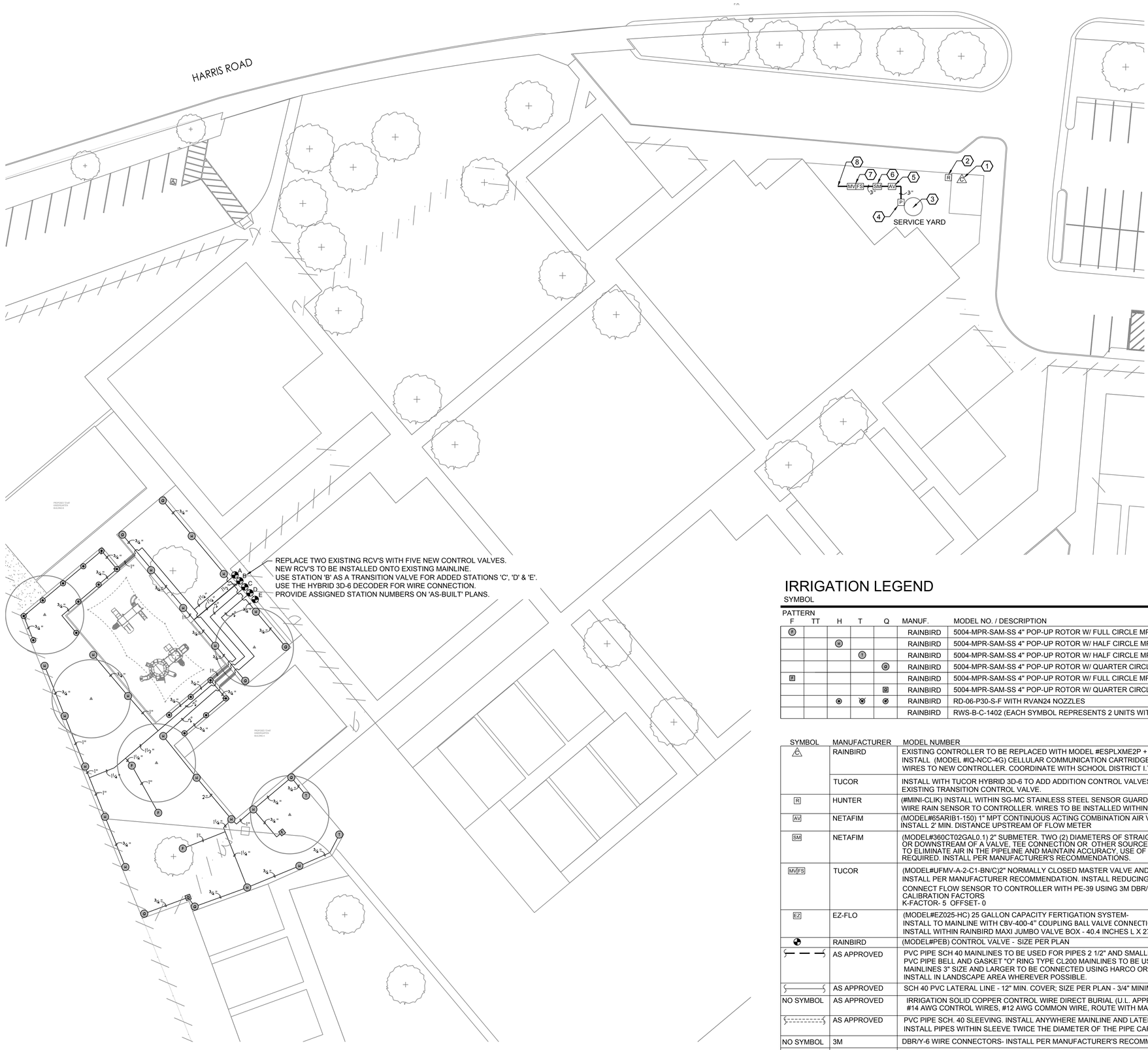
HYDROZONE PLAN AND WATER USE CALCULATIONS

SHEET IDENTIFICATION NUMBER

L1

SHEETS IN SET 120

PLOT TIME 8:29 AM
PLOT DATE 10/7/2025



TURF IRRIGATION PLAN

SCALE:1"=20'

Know what's below. Call before you dig.

REGISTERED LANDSCAPE ARCHITECT
JAIME RIOS No. 2979
Signature
SEPTEMBER 30,2026
Expiration Date
FEB. 4,2025
Date
STATE OF CALIFORNIA

RIOS DESIGN STUDIO
LANDSCAPE ARCHITECTURE & DESIGN
3805 ORA VISTA AVENUE
BAKERSFIELD, CALIFORNIA
93309
P: 661.835.9259

LEGEND

1. UPGRADE EXISTING IRRIGATION CONTROLLER AS SPECIFIED ON IRRIGATION LEGEND.
2. RAIN SENSOR TO BE INSTALLED ON BUILDING EAVE
3. EXISTING WATER TANK TO REMAIN
4. EXISTING IRRIGATION 10 HP BOOSTER PUMP TO REMAIN
5. 1" MPT CONTINUOUS ACTING COMBINATION AIR VENT
6. 2" OCTAVE LANDSCAPE WATER METER
7. 2" MASTER VALVE/FLOW SENSOR ASSEMBLY
8. 3" IRRIGATION MAINLINE- CONNECT TO EXISTING MAINLINE

CONTROL VALVE KEY

A	1"	16.4 TURF
B	1"	13.4 TURF
C	1½"	36.4 TURF
D	1½"	39.3 TURF
E	1"	7 TREE

VALVE IDENTIFICATION KEY

VALVE STATION NUMBER — VALVE G.P.M.
VALVE SIZE — 1" 10 DRIP — SYSTEM DESCRIPTION

POINT-OF-CONNECTION INFO.

2" LANDSCAPE WATER METER
2" MASTER VALVE / FLOW SENSOR UNIT
CONTROLLER- 36 STATION
MAXIMUM FLOW DEMAND- 110 GPM

EXISTING BOOSTER PUMP
WATER PRESSURE- 81 PSI

WATER PURVEYOR: CITY OF BAKERSFIELD

NOTES

- REFER TO SHEET L3 FOR TREE IRRIGATION PLAN AND NOTES.
- REFER TO SHEET L4 FOR IRRIGATION DETAILS.

CONTRACTOR TO REMOVE EXISTING IRRIGATION HEADS AND VALVES FROM AREAS THAT ARE TO BE RENOVATED.

IRRIGATION LEGEND

SYMBOL

PATTERN F	TT	H	T	Q	MANUF.	MODEL NO. / DESCRIPTION	PSI	RADIUS	GPM F	TT	H	T	Q	DET REF
F					RAINBIRD	5004-MPR-SAM-SS 4" POP-UP ROTOR W/ FULL CIRCLE MPR-35 NOZZLE	35	27'	6.62					N/L4
		H			RAINBIRD	5004-MPR-SAM-SS 4" POP-UP ROTOR W/ HALF CIRCLE MPR-35 NOZZLE	35	27'			3.33			N/L4
			T		RAINBIRD	5004-MPR-SAM-SS 4" POP-UP ROTOR W/ HALF CIRCLE MPR-35 NOZZLE	35	27'				2.15		N/L4
				Q	RAINBIRD	5004-MPR-SAM-SS 4" POP-UP ROTOR W/ QUARTER CIRCLE MPR-35 NOZZLE	35	27'					1.67	N/L4
F					RAINBIRD	5004-MPR-SAM-SS 4" POP-UP ROTOR W/ FULL CIRCLE MPR-30 NOZZLE	35	24'	5.08					N/L4
				Q	RAINBIRD	5004-MPR-SAM-SS 4" POP-UP ROTOR W/ QUARTER CIRCLE MPR-30 NOZZLE	35	24'					1.23	N/L4
		H	T	Q	RAINBIRD	RD-06-P30-S-F WITH RVAN24 NOZZLES	30	17'-19'			1.20	0.78	0.60	O/L4
					RAINBIRD	RWS-B-C-1402 (EACH SYMBOL REPRESENTS 2 UNITS WITH .5 GPM EACH)	30	FLOOD	1.00					P/L4

SYMBOL	MANUFACTURER	MODEL NUMBER	DET REF
A	RAINBIRD	EXISTING CONTROLLER TO BE REPLACED WITH MODEL #ESPLXME2P + TWO ESPLXMSM12 MODULES FOR A TOTAL OF 36 STATIONS. INSTALL (MODEL #IQ-NCC-4G) CELLULAR COMMUNICATION CARTRIDGE WITH ONE YEAR SERVICE ACTIVATED. WIRE EXISTING AND NEW WIRES TO NEW CONTROLLER. COORDINATE WITH SCHOOL DISTRICT I.T. PERSONNEL TO CONFIGURE THE CELLULAR CONNECTION	A/L4
	TUCOR	INSTALL WITH TUCOR HYBRID 3D-6 TO ADD ADDITION CONTROL VALVES USING CONTROL AND COMMON WIRES FROM NEARBY EXISTING TRANSITION CONTROL VALVE.	E/L4
R	HUNTER	(#MINI-CLIK) INSTALL WITHIN SG-MC STAINLESS STEEL SENSOR GUARD ENCLOSURE. INSTALL ON BUILDING EAVE. WIRE RAIN SENSOR TO CONTROLLER. WIRES TO BE INSTALLED WITHIN SCH 40 GREY CONDUIT	B/L4
AV	NETAFIM	(MODEL#65ARIB1-150) 1" MPT CONTINUOUS ACTING COMBINATION AIR VENT. INSTALL 2' MIN. DISTANCE UPSTREAM OF FLOW METER	C/L4
SM	NETAFIM	(MODEL#360CT02GAL0.1) 2" SUBMETER. TWO (2) DIAMETERS OF STRAIGHT PIPE ARE REQUIRED WHEN INSTALLING THE METER UPSTREAM OR DOWNSTREAM OF A VALVE, TEE CONNECTION OR OTHER SOURCE OF SIGNIFICANT TURBULENCE. TO ELIMINATE AIR IN THE PIPELINE AND MAINTAIN ACCURACY, USE OF AND PROPER COMBINATION AIR/VACUUM RELEASE AIR VENT IS REQUIRED. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.	D/L4
MV FS	TUCOR	(MODEL#UFMV-A-2-C1-BN/C)2" NORMALLY CLOSED MASTER VALVE AND FLOW SENSOR ASSEMBLY (FLOW RANGE 5-135 GPM) INSTALL PER MANUFACTURER RECOMMENDATION. INSTALL REDUCING COUPLERS AS NEEDED TO TIE INTO EXISTING MAINLINE. CONNECT FLOW SENSOR TO CONTROLLER WITH PE-39 USING 3M DBR/Y-6 CONNECTORS CALIBRATION FACTORS K-FACTOR- 5 OFFSET- 0	F/L4
EZ	EZ-FLO	(MODEL#EZ025-HC) 25 GALLON CAPACITY FERTIGATION SYSTEM- INSTALL TO MAINLINE WITH CBV-400-4" COUPLING BALL VALVE CONNECTION INSTALL WITHIN RAINBIRD MAXI JUMBO VALVE BOX - 40.4 INCHES L X 27.1 INCHES W X 18.0 INCHES H.	G/L4
	RAINBIRD	(MODEL#PEB) CONTROL VALVE - SIZE PER PLAN	H/L4
	AS APPROVED	PVC PIPE SCH 40 MAINLINES TO BE USED FOR PIPES 2 1/2" AND SMALLER, SIZE PER PLAN PVC PIPE BELL AND GASKET "O" RING TYPE CL200 MAINLINES TO BE USED FOR PIPES 3" AND LARGER, SIZE PER PLAN MAINLINES 3" SIZE AND LARGER TO BE CONNECTED USING HARCO OR LEEMCO FITTINGS AND JOINT RESTRAINTS INSTALL IN LANDSCAPE AREA WHEREVER POSSIBLE.	I/L4
	AS APPROVED	SCH 40 PVC LATERAL LINE - 12" MIN. COVER; SIZE PER PLAN - 3/4" MINIMUM SIZE	I/L4
NO SYMBOL	AS APPROVED	IRRIGATION SOLID COPPER CONTROL WIRE DIRECT BURIAL (U.L. APPROVED) #14 AWG CONTROL WIRES, #12 AWG COMMON WIRE, ROUTE WITH MAINLINE	I&J/L4
	AS APPROVED	PVC PIPE SCH. 40 SLEEVING. INSTALL ANYWHERE MAINLINE AND LATERAL LINES OCCUR BELOW OR THROUGH PAVING AND HARDSCAPE. INSTALL PIPES WITHIN SLEEVE TWICE THE DIAMETER OF THE PIPE CARRIED WITHIN.	J/L4
NO SYMBOL	3M	DBR/Y-6 WIRE CONNECTORS- INSTALL PER MANUFACTURER'S RECOMMENDATIONS	K/L4
NO SYMBOL	APPLIED ENGINEERING	VALVE BOX WITH DROP IN STYLE LOCKING LIDS STANDARD RECTANGULAR SERIES 1015 1G2G VALVE BOX FOR RCVS & FLOW SENSOR JUMBO RECTANGULAR SERIES 1320 1G2G VALVE BOX FOR MASTER VALVE 9" ROUND SERIES 910L 1G2G VALVE BOX FOR GATE VALVES AND QUICK COUPLERS	L&M/L4
P	EXISTING	10 HP IRRIGATION BOOSTER PUMP TO REMAIN	

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LICENSED ARCHITECT
JOSEPH E. ZASOSKI
C-36742
MAY 31, 2027
RENEWAL DATE
STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANINE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396
A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
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(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

SHEET TITLE

TURF IRRIGATION PLAN AND LEGEND

SHEET IDENTIFICATION NUMBER

L2

SHEETS IN SET 120

PLOT DATE: 9:58 AM
PLOT BY: Ken Howard
XC FILES: 1/2/2025

IRRIGATION CONTROLLER RUN TIMES

Controller A — Days Per Week: 3

Month	Plant/Irrigation	Station Quantity	Eto	AKc	PR RATE	IE	RUN TIME PER STATION				RUN TIME
January											
	Turf/5004 Rotors	3	1.00	0.60	0.54	0.75	0.12	Hrs.	6.9 =	21	Min.
	Turf/RVAN24	1	1.00	0.60	0.64	0.81	0.09	Hrs.	5.4 =	6	Min.
	Tree/Bubbler	1	1.00	0.30	3.85	0.81	0.01	Hrs.	0.4 =	1	Min.
							Total Runtime 4 stations =			27	Min.
February											
	Turf/5004 Rotors	3	1.80	0.60	0.54	0.75	0.21	Hrs.	12.4 =	39	Min.
	Turf/RVAN24	1	1.80	0.60	0.64	0.81	0.16	Hrs.	9.7 =	10	Min.
	Tree/Bubbler	1	1.80	0.30	3.85	0.81	0.01	Hrs.	0.8 =	1	Min.
							Total Runtime 4 stations =			49	Min.
March											
	Turf/5004 Rotors	3	3.50	0.60	0.54	0.75	0.40	Hrs.	24.2 =	75	Min.
	Turf/RVAN24	1	3.50	0.60	0.64	0.81	0.32	Hrs.	18.9 =	19	Min.
	Tree/Bubbler	1	3.50	0.30	3.85	0.81	0.03	Hrs.	1.6 =	2	Min.
							Total Runtime 4 stations =			94	Min.
April											
	Turf/5004 Rotors	3	4.70	0.60	0.54	0.75	0.54	Hrs.	32.5 =	99	Min.
	Turf/RVAN24	1	4.70	0.60	0.64	0.81	0.42	Hrs.	25.4 =	26	Min.
	Tree/Bubbler	1	4.70	0.30	3.85	0.81	0.04	Hrs.	2.1 =	3	Min.
							Total Runtime 4 stations =			125	Min.
May											
	Turf/5004 Rotors	3	6.60	0.60	0.54	0.75	0.76	Hrs.	45.6 =	138	Min.
	Turf/RVAN24	1	6.60	0.60	0.64	0.81	0.59	Hrs.	35.6 =	36	Min.
	Tree/Bubbler	1	6.60	0.30	3.85	0.81	0.05	Hrs.	3.0 =	3	Min.
							Total Runtime 4 stations =			174	Min.
June											
	Turf/5004 Rotors	3	7.70	0.60	0.54	0.75	0.89	Hrs.	53.2 =	162	Min.
	Turf/RVAN24	1	7.70	0.60	0.64	0.81	0.69	Hrs.	41.6 =	42	Min.
	Tree/Bubbler	1	7.70	0.30	3.85	0.81	0.06	Hrs.	3.5 =	4	Min.
							Total Runtime 4 stations =			204	Min.
July											
	Turf/5004 Rotors	3	8.50	0.60	0.54	0.75	0.98	Hrs.	58.8 =	177	Min.
	Turf/RVAN24	1	8.50	0.60	0.64	0.81	0.77	Hrs.	45.9 =	46	Min.
	Tree/Bubbler	1	8.50	0.30	3.85	0.81	0.06	Hrs.	3.8 =	4	Min.
							Total Runtime 4 stations =			223	Min.
August											
	Turf/5004 Rotors	3	7.30	0.60	0.54	0.75	0.84	Hrs.	50.5 =	153	Min.
	Turf/RVAN24	1	7.30	0.60	0.64	0.81	0.66	Hrs.	39.4 =	40	Min.
	Tree/Bubbler	1	7.30	0.30	3.85	0.81	0.05	Hrs.	3.3 =	4	Min.
							Total Runtime 4 stations =			193	Min.
September											
	Turf/5004 Rotors	3	5.30	0.60	0.54	0.75	0.61	Hrs.	36.6 =	111	Min.
	Turf/RVAN24	1	5.30	0.60	0.64	0.81	0.48	Hrs.	28.6 =	29	Min.
	Tree/Bubbler	1	5.30	0.30	3.85	0.81	0.04	Hrs.	2.4 =	3	Min.
							Total Runtime 4 stations =			140	Min.
October											
	Turf/5004 Rotors	3	3.50	0.60	0.54	0.75	0.40	Hrs.	24.2 =	75	Min.
	Turf/RVAN24	1	3.50	0.60	0.64	0.81	0.32	Hrs.	18.9 =	19	Min.
	Tree/Bubbler	1	3.50	0.30	3.85	0.81	0.03	Hrs.	1.6 =	2	Min.
							Total Runtime 4 stations =			94	Min.
November											
	Turf/5004 Rotors	3	1.60	0.60	0.54	0.75	0.18	Hrs.	11.1 =	36	Min.
	Turf/RVAN24	1	1.60	0.60	0.64	0.81	0.14	Hrs.	8.6 =	9	Min.
	Tree/Bubbler	1	1.60	0.30	3.85	0.81	0.01	Hrs.	0.7 =	1	Min.
							Total Runtime 4 stations =			45	Min.
December											
	Turf/5004 Rotors	3	0.90	0.60	0.54	0.75	0.10	Hrs.	6.2 =	21	Min.
	Turf/RVAN24	1	0.90	0.60	0.64	0.81	0.08	Hrs.	4.9 =	5	Min.
	Tree/Bubbler	1	0.90	0.30	3.85	0.81	0.01	Hrs.	0.4 =	1	Min.
							Total Runtime 4 stations =			26	Min.

IRRIGATION CONTROLLER RUN TIMES

Controller A — Days Per Week: 6

Month	Plant/Irrigation	Station Quantity	Eto	AKc	PR RATE	IE	RUN TIME PER STATION				RUN TIME
January											
	Turf/5004 Rotors	3	1.00	0.60	0.54	0.75	0.06	Hrs.	3.5 =	12	Min.
	Turf/RVAN24	1	1.00	0.60	0.64	0.81	0.05	Hrs.	2.7 =	3	Min.
	Tree/Bubbler	1	1.00	0.30	3.85	0.81	0.00	Hrs.	0.2 =	1	Min.
							Total Runtime 4 stations =			15	Min.
February											
	Turf/5004 Rotors	3	1.80	0.60	0.54	0.75	0.10	Hrs.	6.2 =	21	Min.
	Turf/RVAN24	1	1.80	0.60	0.64	0.81	0.08	Hrs.	4.9 =	5	Min.
	Tree/Bubbler	1	1.80	0.30	3.85	0.81	0.01	Hrs.	0.4 =	1	Min.
							Total Runtime 4 stations =			26	Min.
March											
	Turf/5004 Rotors	3	3.50	0.60	0.54	0.75	0.20	Hrs.	12.1 =	39	Min.
	Turf/RVAN24	1	3.50	0.60	0.64	0.81	0.16	Hrs.	9.5 =	10	Min.
	Tree/Bubbler	1	3.50	0.30	3.85	0.81	0.01	Hrs.	0.8 =	1	Min.
							Total Runtime 4 stations =			49	Min.
April											
	Turf/5004 Rotors	3	4.70	0.60	0.54	0.75	0.27	Hrs.	16.2 =	51	Min.
	Turf/RVAN24	1	4.70	0.60	0.64	0.81	0.21	Hrs.	12.7 =	13	Min.
	Tree/Bubbler	1	4.70	0.30	3.85	0.81	0.02	Hrs.	1.1 =	2	Min.
							Total Runtime 4 stations =			64	Min.
May											
	Turf/5004 Rotors	3	6.60	0.60	0.54	0.75	0.38	Hrs.	22.8 =	69	Min.
	Turf/RVAN24	1	6.60	0.60	0.64	0.81	0.30	Hrs.	17.8 =	18	Min.
	Tree/Bubbler	1	6.60	0.30	3.85	0.81	0.02	Hrs.	1.5 =	2	Min.
							Total Runtime 4 stations =			87	Min.
June											
	Turf/5004 Rotors	3	7.70	0.60	0.54	0.75	0.44	Hrs.	26.6 =	81	Min.
	Turf/RVAN24	1	7.70	0.60	0.64	0.81	0.35	Hrs.	20.8 =	21	Min.
	Tree/Bubbler	1	7.70	0.30	3.85	0.81	0.03	Hrs.	1.7 =	2	Min.
							Total Runtime 4 stations =			102	Min.
July											
	Turf/5004 Rotors	3	8.50	0.60	0.54	0.75	0.49	Hrs.	29.4 =	90	Min.
	Turf/RVAN24	1	8.50	0.60	0.64	0.81	0.38	Hrs.	23.0 =	23	Min.
	Tree/Bubbler	1	8.50	0.30	3.85	0.81	0.03	Hrs.	1.9 =	2	Min.
							Total Runtime 4 stations =			113	Min.
August											
	Turf/5004 Rotors	3	7.30	0.60	0.54	0.75	0.42	Hrs.	25.2 =	78	Min.
	Turf/RVAN24	1	7.30	0.60	0.64	0.81	0.33	Hrs.	19.7 =	20	Min.
	Tree/Bubbler	1	7.30	0.30	3.85	0.81	0.03	Hrs.	1.6 =	2	Min.
							Total Runtime 4 stations =			98	Min.
September											
	Turf/5004 Rotors	3	5.30	0.60	0.54	0.75	0.31	Hrs.	18.3 =	57	Min.
	Turf/RVAN24	1	5.30	0.60	0.64	0.81	0.24	Hrs.	14.3 =	15	Min.
	Tree/Bubbler	1	5.30	0.30	3.85	0.81	0.02	Hrs.	1.2 =	2	Min.
							Total Runtime 4 stations =			72	Min.
October											
	Turf/5004 Rotors	3	3.50	0.60	0.54	0.75	0.20	Hrs.	12.1 =	39	Min.
	Turf/RVAN24	1	3.50	0.60	0.64	0.81	0.16	Hrs.	9.5 =	10	Min.
	Tree/Bubbler	1	3.50	0.30	3.85	0.81	0.01	Hrs.	0.8 =	1	Min.
							Total Runtime 4 stations =			49	Min.
November											
	Turf/5004 Rotors	3	1.60	0.60	0.54	0.75	0.09	Hrs.	5.5 =	18	Min.
	Turf/RVAN24	1	1.60	0.60	0.64	0.81	0.07	Hrs.	4.3 =	5	Min.
	Tree/Bubbler	1	1.60	0.30	3.85	0.81	0.01	Hrs.	0.4 =	1	Min.
							Total Runtime 4 stations =			23	Min.
December											
	Turf/5004 Rotors	3	0.90	0.60	0.54	0.75	0.05	Hrs.	3.1 =	12	Min.
	Turf/RVAN24	1	0.90	0.60	0.64	0.81	0.04	Hrs.	2.4 =	3	Min.
	Tree/Bubbler	1	0.90	0.30	3.85	0.81	0.00	Hrs.	0.2 =	1	Min.
							Total Runtime 4 stations =			15	Min.

IRRIGATION PRESSURE CALCULATIONS

Irrigation Pressure Calculation

Subaru ES Kindergarten — Static Pressure: 81.00

Max. GPM Demand: 110.00

Units	Size	Type	Description	GPM	Unit PSI Loss
1	2"	Cast Iron	Submeter	110.00	01.20
1	2"	Brass	Master Valve	110.00	04.00
1	2"	Ryton	Flow Sensor	110.00	01.00
810	3"	Cl. 200	Main Line	110.00	07.63
1	1-1/2"	Plastic	Control Valve	52.60	03.70
24	3/4"	Sch. 40	Lateral Line	01.67	00.07
7	3/4"	Sch. 40	Lateral Line	02.90	00.05
29	3/4"	Sch. 40	Lateral Line	04.57	00.53
30	1-1/4"	Sch. 40	Lateral Line	13.38	00.32
10	1-1/4"	Sch. 40	Lateral Line	20.00	00.23
27	2"	Sch. 40	Lateral Line	32.63	00.21
27	2"	Sch. 40	Lateral Line	35.96	00.26
103	2"	Sch. 40	Lateral Line	39.29	01.15
Misc		Fittings	Allowance		02.09
			Component Losses:		**22.44**

Station #: D — Min. Req'r by Head: 35.00

Highest GPM System — 5.0' Elevation Loss: 02.17

Total Pressure Req'r: 59.61

Residual Pressure: 21.39

IRRIGATION PLAN NOTES

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS, AS DESCRIBED IN THE SPECIFICATIONS, AND IN ACCORDANCE WITH APPLICABLE CODES AND ORDINANCES.

DESIGN REFLECTS COMPLIANCE WITH CALIFORNIA STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO) AND/OR THE LOCAL GOVERNING AGENCY'S ADOPTED WATER EFFICIENT LANDSCAPE ORDINANCE.

DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENTS NECESSARY TO CONFORM TO ACTUAL FIELD CONDITIONS.

CONTRACTOR SHALL FLUSH ALL LINES AND ADJUST ALL HEADS FOR OPTIMUM PERFORMANCE IN ACCORDANCE WITH THE SPECIFICATIONS AND TO PREVENT OVERSPRAY ONTO HARDSCAPE AREAS OR STRUCTURAL ELEMENTS. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT ACTUAL SITE CONDITIONS AND TO THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM. COSTS INCURRED DUE TO ANY ADJUSTMENTS FOR 100% COVERAGE, INCLUDING THOSE REQUESTED BY THE DISTRICT'S AUTHORIZED REPRESENTATIVE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

EQUIPMENT SHOWN IN HARDSCAPE AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED WHENEVER POSSIBLE WITHIN PLANTED AREAS A REASONABLE, REACHABLE DISTANCE FROM HARDSCAPE OR TURF AREAS.

UNLESS OTHERWISE NOTED ON THE DRAWINGS, CONTRACTOR SHALL INSTALL WIRE AND PIPE UNDER HARDSCAPE AREAS IN P.V.C. SCHEDULE 40 SLEEVES PLACED PRIOR TO INSTALLING HARDSCAPE IN ACCORDANCE WITH APPLICABLE CODES.

EXISTING CONTROL WIRES AND CONTROL VALVES SHALL BE USED FOR THIS INSTALLATION.

SPLICING OF 24 VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. CONTRACTOR TO LEAVE A 24" COIL OF EXCESS WIRE AT EACH SPLICE AND EVERY 100' ON CENTER ALONG WIRE RUN. TAPE WIRE BUNDLES 10' ON-CENTER. NO TAPING WILL BE PERMITTED INSIDE SLEEVES.

WIRE CONNECTORS SHALL BE SCOTCH DBY/R-6 OR APPROVED EQUAL.

CONTROL VALVES SHALL BE SIZED AS DESIGNATED ON THE DRAWINGS AND SHALL BE INSTALLED IN VALVE BOXES AS INDICATED IN THE DETAILS. BOXES SHALL BE SET FLUSH WITH THE FINISH GRADE OR SURFACE AND PERMANENTLY MARKED WITH THE LETTERS R.C.V.

CONTRACTOR SHALL INSTALL ANTI-DRAIN CHECK VALVES AS NECESSARY TO PREVENT LOW HEAD DRAINAGE.

IRRIGATION HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHEWISE DESIGNATED ON THE PLANS.

BUBBLERS SHALL BE LOCATED ON OPPOSITE SIDES OF THE TREE TRUNK.

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CONTROL VALVE KEY

A	1"	16.4 TURF
B	1"	13.4 TURF
C	1½"	36.4 TURF
D	1½"	39.3 TURF
E	1"	7 TREE

VALVE IDENTIFICATION KEY

VALVE STATION NUMBER — VALVE G.P.M.

VALVE SIZE — 1" — DRIP — SYSTEM DESCRIPTION

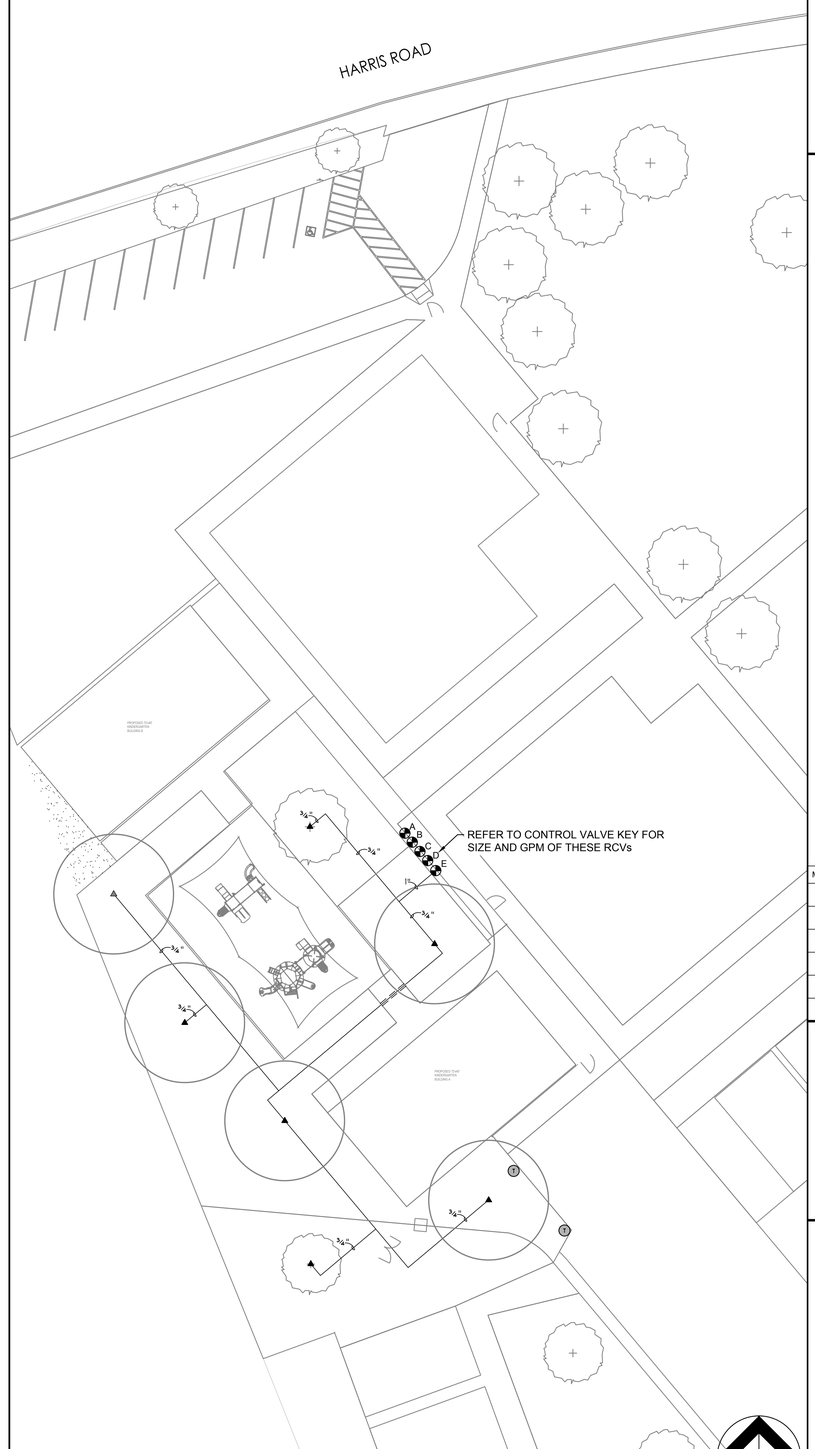
POINT-OF-CONNECTION INFO.

2" LANDSCAPE WATER METER
2" MASTER VALVE / FLOW SENSOR UNIT
CONTROLLER- 36 STATION
MAXIMUM FLOW DEMAND- 110 GPM

EXISTING BOOSTER PUMP
WATER PRESSURE- 81 PSI

NOTES

- REFER TO SHEET L2 FOR TURF IRRIGATION PLAN AND LEGEND.
- REFER TO SHEET L4 FOR IRRIGATION DETAILS.



TREE IRRIGATION PLAN

SCALE:1"=20'

RECEIVED LANDSCAPE IRRIGATION AUDIT Irene Rios No. 2979 Signature of Expiration Date SEPTEMBER 30,2026 Date FEB. 4,2025 STATE OF CALIFORNIA

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LICENSED ARCHITECT JOSEPH E. ZASOSKI C-36742 MAY 31, 2027 RENEWAL DATE STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANINE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER: 2396

A#: 03-124848

CAD DRAWING FILE: 2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY: AKF

CHECKED BY: GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

THE DRAWINGS, IDEAS, AND DESIGNS REPRESENTED ON THIS SHEET ARE THE PROPERTY OF THE ARCHITECT.

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SHEET TITLE

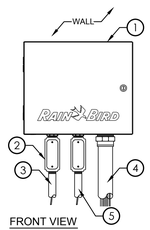
TREE IRRIGATION PLAN

SHEET IDENTIFICATION NUMBER

L3

SHEETS IN SET 120

PLOT TIME 8:29 AM
PLOT DATE 03/04/25



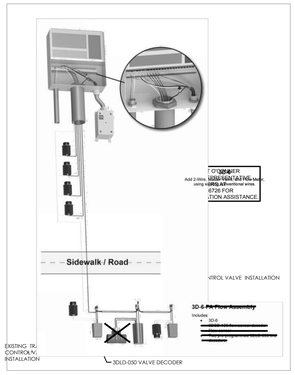
1. TRADITIONAL WIRE CONTROLLER: RAIN BIRD ESP-LXME2/PRO IN LXMM METAL OR LXMMSS STAINLESS STEEL. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
2. JUNCTION BOX
3. 1-INCH CONDUIT AND FITTINGS FOR POWER SUPPLY WIRE.
4. 2-INCH CONDUIT AND FITTINGS FOR CONTROL WIRES TO VALVES.
5. 1-INCH OPTIONAL CONDUIT AND FITTINGS FOR IQ COMMUNICATION WIRE.

KEY SPECIFICATIONS

MODEL \ FEATURE	MAX PROGRAMS	MAX STATIONS	FLOW SENSOR	SECOND MASTER VALVE OR PUMP START	FREEZE SENSING	WEATHER SENSORS
LXME2	4	4	1	0	0	1
LXME2 PRO	4	4	1	1	1	1

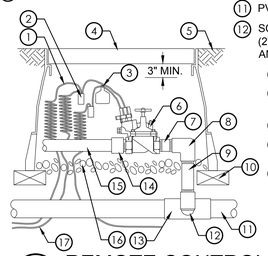
NOTES:
1. LXME2 CONTROLLER IS AVAILABLE IN TWO MODELS. THE LXME2 AND THE LXME2-PRO. REFER TO THE CHART BELOW FOR DIFFERENCES BETWEEN THE TWO MODELS.
2. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS. IF CONTROLLER IS MOUNTED INDOORS, USE POWER SUPPLY GROUND.

A WALL MOUNT CONTROLLER
SCALE: NTS

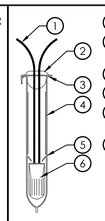


E TUCOR HYBRID 3D INSTALLATION
SCALE: NTS

1. 30" LINEAR LENGTH OF WIRE COILED
2. APPROVED WATERPROOF WIRE CONNECTORS, TYP.
3. VALVE IDENTIFICATION TAG
4. VALVE BOX WITH LOCKING LID, HEAT BRAND WITH STATION NUMBER ON LID.
5. FINISH GRADE/TOP OF MULCH
6. REMOTE CONTROL VALVE PER IRRIGATION LEGEND
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE- (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH 80 NIPPLE (2" LENGTH, HIDDEN) AND SCH 40 ELL
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3" MIN. DEPTH OF 3/4" WASHED GRAVEL
17. CONTROL WIRES



H REMOTE CONTROL VALVE
SCALE: NTS



1. LOW VOLTAGE WIRES, 3 MAXIMUM
2. WIRES PASS THROUGH GROOVES IN TUBE LID TO ALLOW LID TO CLOSE
3. CLOSE TUBE LID AFTER WIRE IS INSERTED INTO TUBE
4. POLY TUBE PRE-FILLED WITH WATERPROOF GEL
5. LOCK TABS PREVENT WIRE REMOVAL ONCE CONNECTOR IS INSERTED
6. SCOTCHLOK ELECTRICAL SPRING CONNECTOR. WIRES SHALL BE PRE-STRIPPED OF 1/2" OF THE INSULATION PRIOR TO INSERTION INTO THE CONNECTOR. TWIST CONNECTOR ONTO WIRES TO SEAT FIRMLY.

   SCOTCHLOK CONNECTOR AND WIRES INSERTED INTO TUBE UNTIL THE CONNECTOR PASSES LOCK TABS

NOTE:
WIRE CONNECTOR SHALL BE A 3M DBY-6 DIRECT BURY SPLICE KIT.

KIT SHALL INCLUDE A SCOTCHLOK Y SPRING CONNECTOR, A POLYPROPYLENE TUBE AND A WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED PREFILLED WITH GEL.

DIRECT BURY SPLICE KIT SHALL BE USED TO ELECTRICALLY CONNECT (2 - 3) #14 OR (2) #12 PRE-STRIPPED COPPER WIRES. LARGER WIRES OR GREATER QUANTITIES OF WIRES SHALL REQUIRE A LARGER APPROVED WIRE CONNECTION.

K WATERPROOF WIRE CONNECTION
SCALE: NTS

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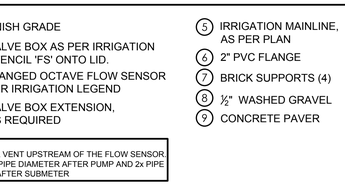
JEANNE S. BERTOLACCINI, AIA
ARCHITECT C-35596

JOSEPH E. ZASOSKI, AIA
ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES
AT
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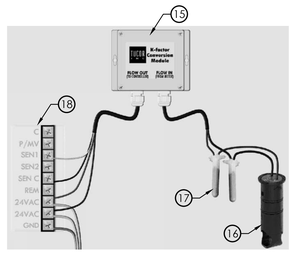
FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

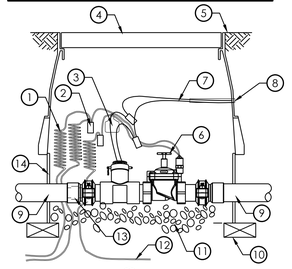


1. WIRED RAIN SENSOR PER IRRIGATION LEGEND
2. BUILDING EAVE MOUNT. MOUNT IN LOCATION WHERE SENSOR CAN RECEIVE FULL SUN, IS OPEN TO RAINFALL AND OUT OF SPRINKLER SPRAY PATTERN
3. WALL MOUNT CONTROLLER PER IRRIGATION LEGEND
4. POWER SOURCE
5. VALVE CONTROL WIRE SCH 40 GREY CONDUIT.

B WIRED RAIN SENSOR
SCALE: NTS

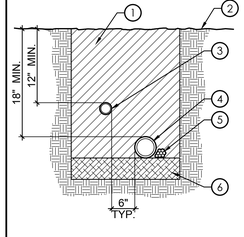


NOTE:
CONNECT THE UFMV-A K FACTOR CONVECTION MODULE TO THE CONTROLLER TERMINALS.



1. 30" LINEAR LENGTH OF WIRE COILED
2. APPROVED WATERPROOF WIRE CONNECTORS, TYP.
3. VALVE IDENTIFICATION TAG
4. JUMBO VALVE BOX WITH LOCKING LID
5. FINISH GRADE/TOP OF MULCH
6. MASTER CONTROL VALVE/ FLOW SENSOR ASSEMBLY PER IRRIGATION LEGEND
7. FLOW SENSOR WIRING
8. FLOW SENESOR WIRING TO RETURN TO CONTROLLER LOCATION
9. PVC MAINLINE PIPE
10. BRICK (1 OF 4)
11. 3" MIN. DEPTH OF 3/4" WASHED GRAVEL
12. CONTROL WIRES
13. QUICK-CONNECT COUPLINGS (VICTAULIC-STYLE, GROOVED)
14. EXTENSION LENGTH AS REQUIRED
15. K-FACTOR CONVERSION MODULE
16. QS-200 FLOW SENSOR INSERT
17. 3M DBR/Y-6 DIRECT BURY SPLICE KIT WIRE CONNECTORS, (TWO REQUIRED)
18. CONTROLLER TERMINALS

F MASTER VALVE/FLOW SENSOR
SCALE: NTS

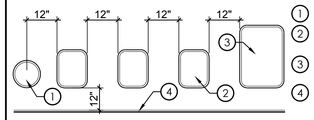


1. CLEAN BACKFILL- 90% COMPACTION REQUIRED
2. FINISH GRADE
3. NON-PRESSURE LATERAL LINE SNAKE PIPE IN TRENCH
4. PRESSURE SUPPLY LINE SNAKE PIPE IN TRENCH
5. CONTROL WIRES - BUNDLE AND TAPE AT 10' O.C. AND INSTALL ADJACENT TO PRESSURE SUPPLY LINE
6. PROVIDE 2" MIN. OF CLEAN BACKFILL

NOTES:
1. PIGTAIL AND LOOP CONTROL WIRE AT ALL 90 DEGREE CHANGES IN DIRECTION.
2. PROVIDE A MINIMUM 10 FEET SEPERATION BETWEEN POTABLE AND RECLAIMED MAINLINE PIPING.
3. 24" MINIMUM COVER ON 3" MAINLINE AND LARGER.

I TYPICAL TRENCHING
SCALE: NTS

NOTES:
1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING THE VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUNDCOVER/ SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
3. SET RVC AND VALVE BOX ASSEMBLY IN GROUNDCOVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUNDCOVER DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE & DEFORMATION OF VALVE BOX SIDES.
6. IDENTIFY VALVE BOX WITH CONTROLLER LETTER AND VALVE NUMBER USING 1 ½" - 2" LETTERING.

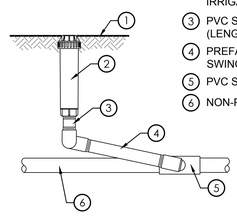


1. 10" ROUND VALVE BOX
2. 14"x19" RECTANGULAR VALVE BOX
3. 23"x 33" RECTANGULAR VALVE BOX
4. EDGE OF LAWN, WALK, FENCE, CURB, ETC.

PLAN VIEW

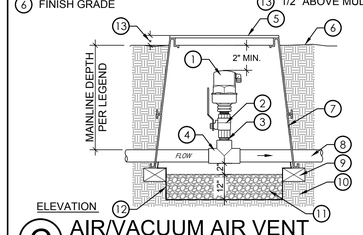
L VALVE BOX INSTALLATION
SCALE: NTS

NOTES:
1. LOCATE HEAD 2" FROM WALKS, CURBS, HARDSCAPING, MOW STRIP, HEADERBOARD AND EDGE OF LAWN.
2. LOCATE STREAM SPRAY/BUBBLERS 6" FROM ALL STRUCTURES. SPRAY HEADS 12" FROM ALL STRUCTURES IN SHRUB AREAS, BUT 6" FROM ALL STRUCTURES IN GROUNDCOVER AREAS.



1. FINISH GRADE/TOP OF MULCH
2. POP-UP SPRAY HEAD PER IRRIGATION LEGEND
3. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
4. PREFABRICATED TRIPLE SWING JOINT
5. PVC SCH 40 TEE OR ELL
6. NON-PRESSURE PVC LATERAL LINE

O POP-UP SPRAY HEAD
SCALE: NTS

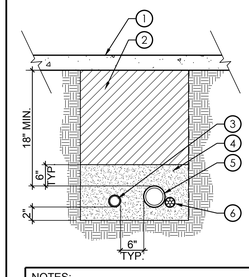


ELEVATION

1. NETAFIM AIR/VACUUM CONTINUOUS ACTING AIR VENT
2. BRASS BALL VALVE
3. SCH 80 PVC NIPPLE LENGTH AS NEEDED
4. SCH 80 PVC MAINLINE TEE WITH SxSxT. INSTALL USING SADDLES ON LARGER SIZE MAINLINE.
5. RECTANGULAR VALVE BOX WITH LOCKING LID. HEAT BRAND "ARV" ON LID IN 2" HIGH BLOCK LETTERS
6. FINISH GRADE
7. RECTANGULAR VALVE BOX EXTENSIONS
8. MAINLINE
9. COMMON BRICK SUPPORTS (4 REQUIRED)
10. COMPACTED NATIVE SOIL
11. FILL BASE OF BOX WITH ¾" GRAVEL
12. FILTER FABRIC - COVER ALL BOX HOLES
13. 1/2" ABOVE MULCH LEVEL

C AIR/VACUUM AIR VENT
SCALE: NTS

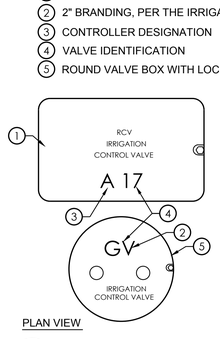
NETAFIM



1. HARDSCAPE/PAVING
2. CLEAN BACKFILL- 90% COMPACTION REQUIRED
3. LATERAL LINE SLEEVE- SIZED TO TWICE DIAMETER OF NON-PRESSURE LATERAL LINE
4. SAND
5. SUPPLY LINE SLEEVE- SIZED TO TWICE DIAMETER OF PRESSURE SUPPLY LINE
6. CONTROL WIRE SLEEVE- SIZE PER PLAN. INSTALL ADJACENT TO PRESSURE SUPPLY LINE

NOTES:
1. ALL SLEEVES TO BE SCHEDULE 40 PVC.
2. EXTEND ALL SLEEVES 12" BEYOND EDGE OF HARDSCAPING AT BOTH ENDS.
3. 24" MIN. COVER ON MAINLINE 3" AND LARGER

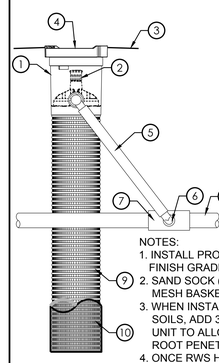
J TYPICAL SLEEVING
SCALE: NTS



1. VALVE BOX WITH LOCKABLE COVER
2. 2" BRANDING, PER THE IRRIGATION SPECIFICATIONS.
3. CONTROLLER DESIGNATION
4. VALVE IDENTIFICATION
5. ROUND VALVE BOX WITH LOCKABLE COVER.

PLAN VIEW

M VALVE BOX ID BADGE
SCALE: NTS



1. ROOT WATERING SYSTEM PER IRRIGATION LEGEND
2. BUBBLER PER IRRIGATION LEGEND (INCLUDED)
3. FINISH GRADE/TOP OF MULCH
4. 4" LOCKING GRATE (INCLUDED)
5. 12" SWING ASSEMBLY (INCLUDED)
6. ½" MALE NPT INLET (INCLUDED)
7. PVC SCH 40 TEE OR ELL
8. PVC LATERAL PIPE
9. 4" WIDE X 36" LONG RIGID BASKET WEAVE CANISTER (INCLUDED)
10. SOCK (RWS-SOCK) FOR SANDY SOILS

NOTES:
1. INSTALL PRODUCT SO THAT THE GRATE IS EVEN WITH FINISH GRADE OR TOP OF MULCH.
2. SAND SOCK (RWS-SOCK) IS 34" IN LENGTH TO COVER MESH BASKET AREA.
3. WHEN INSTALLING IN EXTREMELY HARD OR CLAY SOILS, ADD 3/4" GRAVEL UNDER AND AROUND THE UNIT TO ALLOW FASTER WATER INFILTRATION AND ROOT PENETRATION.
4. ONCE RWS HAS BEEN INSTALLED FILL THE BASKET WITH PEA GRAVEL BEFORE LOCKING LID.

P TREE BUBBLER
SCALE: NTS

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396
A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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SHEET TITLE

IRRIGATION DETAILS

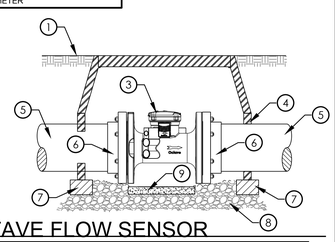
SHEET IDENTIFICATION NUMBER

L4

SHEETS IN SET 120

1. FINISH GRADE
2. VALVE BOX AS PER IRRIGATION STENCIL 'FS' ONTO LID.
3. FLANGED OCTAVE FLOW SENSOR PER IRRIGATION LEGEND
4. VALVE BOX EXTENSION, AS REQUIRED
5. IRRIGATION MAINLINE, AS PER PLAN
6. 2" PVC FLANGE
7. BRICK SUPPORTS (4)
8. ½" WASHED GRAVEL
9. CONCRETE PAVER

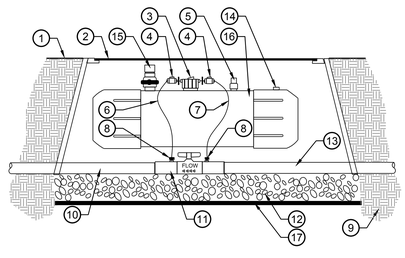
NOTE:
INSTALL AIR VENT UPSTREAM OF THE FLOW SENSOR. INSTALL 5x PIPE DIAMETER AFTER PUMP AND 2x PIPE DIAMETER AFTER SUBMETER



D OCTAVE FLOW SENSOR
SCALE: NTS

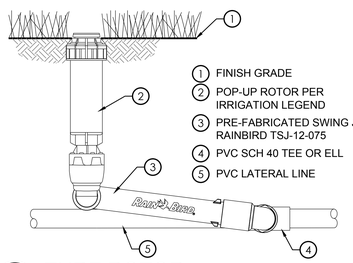
NOTES:
INSTALL FERTIGATION UNIT IN ONE VALVE BOX AND THE SADDLE CONNECTION TO THE MAINLINE IN ANOTHER VALVE BOX.

ITEMS 3, 4, 5, 6, 7 AND 8 ARE INCLUDED WITH THE EZ-FLO SYSTEM. ITEM 11 IS PURCHASED SEPARATELY.



1. FINISH GRADE
2. RAINBIRD MAXI JUMBO VALVE BOX WITH LOCKABLE COVER. HEAT BRAND 'F' ON LID
3. PROPORTIONING CAP WITH FEED ADJUSTMENT KNOB
4. EZ-FLO SHUT OFF VALVES
5. AIR VENT VALVE
6. FERTILIZER OUT - CONNECT CLEAR TUBE TO GREEN CONNECTIONS ON PROPORTIONING CAP AND COUPLING
7. WATER IN - CONNECT BLACK TUBE TO BLUE CONNECTIONS ON PROPORTIONING CAP AND COUPLING
8. 1/4" TUBING CLAMP - BOTH THE GREEN AND BLUE COUPLING TUBING CONNECTIONS
9. APPROVED BACKFILL
10. PVC MAIN LINE TO VALVE MANIFOLD
11. ATTACH ¼" TUBING TO SADDLE KITS AND INSTALL LINE SIZE BUTTERFLY VALVE BETWEEN TWO SADDLE KITS.
12. 6" MIN. LAYER PEA GRAVEL (3 CU. FT.)
13. PVC MAIN LINE FROM BACK- FLOW PREVENTER
14. PRESSURE RELIEF VALVE
15. FILL VALVE (DRAIN VALVE INCLUDED BUT NOT SHOWN)
16. EZ-FLO MODEL EZ025-HC FERTILIZING SYSTEM 36" L x 19" W x 25" H
17. LANDSCAPE FABRIC

G 25 GALLON FERTILIZATION UNIT
SCALE: NTS

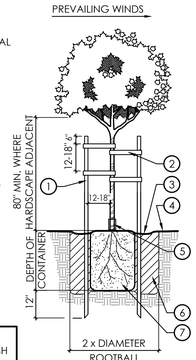


1. FINISH GRADE
2. POP-UP ROTOR PER IRRIGATION LEGEND
3. PRE-FABRICATED SWING JOINT: RAINBIRD TSJ-12-075
4. PVC SCH 40 TEE OR ELL
5. PVC LATERAL LINE

N TURF ROTOR
SCALE: NTS

PLOT TIME: 8:54 AM
PLOT DATE: 10/7/2025
PLOTTED BY: AKF

1. 2" DIA. MIN. x 10' DOUGLAS FIR LODGE POLE STAKES, BOTH SIDES
2. CINCH TIE, ARBOR TIE, OR APPROVED EQUAL
3. A SHALLOW BASIN 2" DEEP SHALL BE FORMED AROUND BALL BELOW FINISH GRADE. TREES PLANTED IN TURF AREAS SHALL NOT HAVE BASINS.
4. FINISH GRADE
5. TREES INSTALLED WITHIN TURF AREAS SHALL BE INSTALLED WITH 'ARBOR-GARD' OR APPROVED EQUAL AT BASE OF TRUNK.
6. BACKFILL IN ACCORDANCE WITH PROJECT AGRICULTURAL SUITABILITY SOILS REPORT. THOROUGHLY MIX 'AquaSmart PRO' MOISTURE RETENTION PRODUCT INTO BACKFILL MIX. REFER TO PLANTING NOTES FOR AMOUNT TO USE FOR EACH PLANT CONTAINER SIZE.
7. ROOTBALL



NOTES:
1. CROWN OF ROOTBALL TO BE 1" ABOVE FINISH GRADE.
2. FOR ADDITIONAL INFORMATION REFER TO PLANTING NOTES AND SPECIFICATIONS.

A TREE PLANTING (DOUBLE STAKE)
SCALE: NOT TO SCALE

SOIL ANALYSIS AND SOIL PREPARATION REQUIREMENTS

THE SOIL ANALYSIS REPORT WAS CONDUCTED BY MIDWEST LABS.

THE ANALYSIS AND SOIL SAMPLE INDICATE A LOAM TEXTURE.
ORGANIC VALUES ARE HIGH AND NITROGEN VALUES ARE MODERATE.
THE PHOSPHORUS AND POTASSIUM VALUES ARE VERY HIGH.

THE PH VALUE IS 6.9, GOOD FOR ALL GROWING CONDITIONS.

SODIUM VALUES ARE MODERATE, AND BORON VALUES ARE VERY HIGH.

CA/MG RATIO IS OPTIMAL.

MANGANESE AND IRON VALUES ARE MODERATE.

LIVE EARTH LIQUID 6% IS RECOMMENDED @ 32 OZ. PER 1000 SQ FT.
REPEAT TWICE AND WATER IN THOROUGHLY.

COMPLETE SITE RECOMMENDATIONS AND RATES FOR SOIL AMENDING:
A. LIVE EARTH HUMATE SOIL CONDITIONER - @ 150 LBS PER 1000 SQ. FT.
B. LIVE EARTH BACK NINE (9-0-0) - @ 25 LBS PER 1000 SQ FT.

INCORPORATE THE ABOVE PRODUCTS INTO THE TOP 2-3 INCHES OF YOUR SOIL (FINISHED GRADE).

TREES AND SHRUBS:

LIVE EARTH HUMATE SOIL CONDITIONER - APPROX. .5 LB OR 1 CUP PER GALLON CONTAINER. BLEND WITH BACK FILL.
24" BOX - 25LBS
36" BOX - 35LBS
48" BOX - 50LBS

MAINTENANCE 6 WEEKS AFTER INSTALLATION. APPLY TO ALL TURF AREAS
LIVE EARTH IRON 10 (5-0-0) @ 12.5 LBS PER 1000 SQ FT.

TURF LIQUID PROGRAM:
LIVE EARTH BLITZ 22 PLUS - @ 10 GALLONS PER ACRE.
24-32 OZ PER 1000 SQ FT.
APPLY 8 TIMES ANNUALLY.

TURF GRANULAR PROGRAM:
MARCH - LIVE EARTH IRON 10 - @ 12.5 LBS PER 1000 SQ FT.
MAY - LIVE EARTH BACK NINE (9-0-0) - @ 12.5 LBS PER 1000 SQ FT.
AUGUST - BLITZ 22 GRANULAR - @ 6.25 LBS PER 1000 SQ FT.
OCTOBER - LIVE EARTH HUMATE SOIL CONDITIONER W/MN - @ 50 LBS PER 1000 SQ FT.
LIVE EARTH IRON 10 - @ 12.5 LBS PER 1000 SQ FT.

TREE AND SHRUB LIQUID PROGRAM:
LIVE EARTH BLITZ 22 PLUS - @ 10 GALLONS PER ACRE.
(24-32 OZ PER 1000 SQ FT).
APPLY 2 APPLICATIONS IN SPRING AND FALL ANNUALLY.

TREE AND SHRUB GRANULAR PROGRAM:
LIVE EARTH BACK NINE (9-0-0) - @ 12.5 LBS PER 1000 SQ FT.
APPLY 2 APPLICATIONS IN SPRING AND FALL.

CALGREEN CALCULATIONS

301.4.3 MINIMUM REHABILIATED LANDSCAPE AREA REQUIREMENT
1. TOTAL BLDG AREA= 5,760 SF
2. MRLA (75% OF BLDG AREA)= 4,320 SF MIN. REHABILIATED LANDSCAPE AREA REQUIRED
3a. REHABILIATED LANDSCAPE AREA PROVIDED 13,143 SF
3b. LANDSCAPE IRRIGATION AREA REMOVED FROM SERVICE + 2,207 SF
TOTAL = 15,503 SF (COMPLIANCE MET)

SHADE CALCULATIONS

5.106.12.1 SURFACE PARKING AREAS - PROVIDE 50% SHADE OF PARKING AREA WITHIN 15 YEARS.
1. PARKING SURFACE AREAS - 0 SF x .5 = 0 SF SHADE REQUIRED.
2. PARKING SURFACE AREAS SHADE PROVIDED - 0 SF (COMPLIANCE MET).

5.106.12.2 LANDSCAPE AREAS - PROVIDE 20% SHADE OF LANDSCAPE AREA WITHIN 15 YEARS.
1. LANDSCAPE AREAS - 13,143 SF x .2 = 2,628.6 SF SHADE REQUIRED
2. LANDSCAPE AREA SHADE PROVIDED - 9,425 SF (COMPLIANCE MET).
ULM PAR 1,885 x 5 = 9,425 SF SHADE PROVIDED

5.106.12.3 HARDSCAPE AREAS - PROVIDE 20% SHADE OF HARDSCAPE AREA WITHIN 15 YEARS.
1. HARDSCAPE AREAS - 3,778 SF x .2 = 755.6 SF SHADE REQUIRED
2. HARDSCAPE AREA SHADE PROVIDED - 5,655 SF (COMPLIANCE MET).
ULM PAR 1,885 x 3 = 5,655 SF SHADE PROVIDED

TREE PLANTING LEGEND

ABBREV.	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	WULCOS
ULM PAR	ULMUS PARVIFOLIA 'DRAKE'	CHINESE ELM	36" BOX	5	M

	% IN MIX	% PURITY	GERMINATION
HYDROSEED TURFGRASS			
GRAND SLAM FS PERENNIAL RYEGRASS	50	98	85
TRIPLE CROWN EXTREME TALL FESCUE	30	98	85
ROYAL TXD BERMUDA GRASS BLEND (COATED)	20	98	85

HYDROSEED MIX INSTALLED AT RATE OF 10 LBS/1000 SF
AVAILABLE AT STOVER SEED COMPANY (800) 621-0315

DURING SOIL PREPARATION PROCESS, INCORPORATE 'AquaSmart Pro' WATER RETENTION SAND POLYMER AT RATE OF 40 LBS/1000 SF TO THE TOP 4" OF SOIL. AVAILABLE AT EWING IRRIGATION (661) 323-9530

PLANTING PLAN NOTES

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL PLANT MATERIAL AS SHOWN ON THE DRAWINGS AND AS DESCRIBED IN THE SPECIFICATIONS.

UNLESS DESIGNATED ON THE DRAWINGS OTHERWISE, STRUCTURAL IMPROVEMENTS AND HARDSCAPE SHALL BE INSTALLED PRIOR TO PLANTING OPERATIONS.

ALL WORK ON THE IRRIGATION SYSTEM, INCLUDING HYDROSTATIC, COVERAGE, AND OPERATIONAL TESTS AND THE BACKFILLING AND COMPACTION OF TRENCHES SHALL BE PERFORMED PRIOR TO PLANTING OPERATIONS.

PLANT LIST ON THE DRAWINGS SHALL BE USED AS A GUIDE ONLY. CONTRACTOR SHALL TAKEOFF AND VERIFY SIZES AND QUANTITIES BY PLAN CHECK.

SAMPLES OF FERTILIZERS, ORGANIC AMENDMENT, SOIL CONDITIONERS, AND SEED SHALL BE SUBMITTED PRIOR TO INCORPORATION. CONTRACTOR SHALL FURNISH TO THE DISTRICT'S AUTHORIZED REPRESENTATIVE A CERTIFICATE OF COMPLIANCE FOR SUCH FURNISHED MATERIALS.

LOCATIONS OF PLANT MATERIAL SHALL BE REVIEWED ON SITE BY THE DISTRICT'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION.

AMENDMENTS, AS INDICATED IN THE SOILS REPORT SHOWN ON THE DRAWINGS, ARE BASED ON AGRICULTURAL SUITABILITY SOILS TESTS PERFORMED PRIOR TO GRADING AND WERE PRESENTED FOR BIDDING PURPOSES. IF NO SOILS REPORT EXISTS, CONTRACTOR SHALL PROPOSE ON AMENDMENTS AS STATED IN THE SPECIFICATIONS. CLIENT OR CONTRACTOR SHALL OBTAIN AGRICULTURAL SOILS TESTING AND RECOMMENDATIONS AFTER GRADING OPERATIONS AND PRIOR TO PLANT INSTALLATION.

TREES SHALL BE PLANTED NO CLOSER THAN TEN FEET (10') FROM UTILITIES.

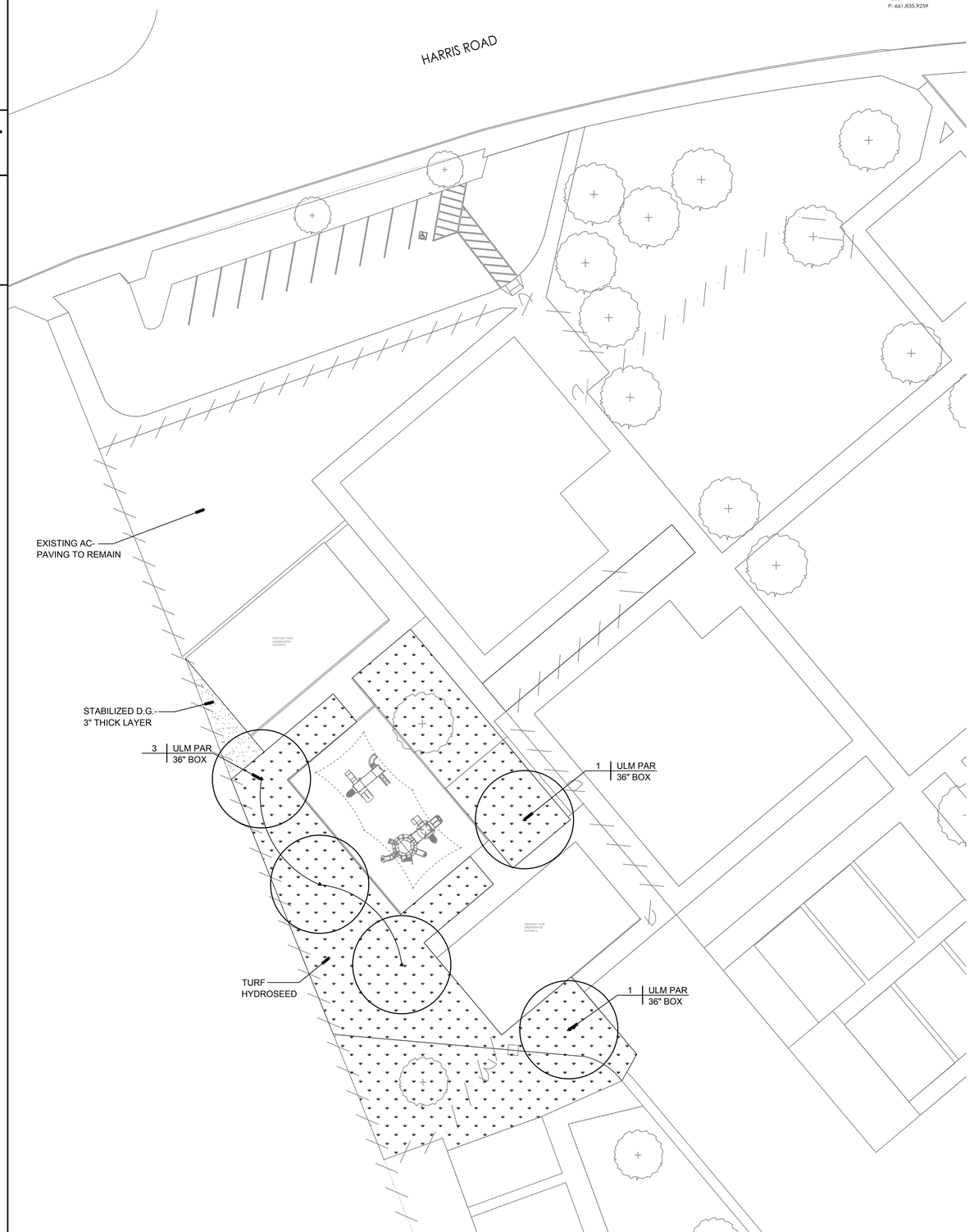
TREES PLANTED WITHIN FIVE FEET (5') OF HARDSCAPE OR STRUCTURES SHALL BE INSTALLED WITH A ROOT BARRIER AS APPROVED BY THE DISTRICT'S AUTHORIZED REPRESENTATIVE.

IF, DURING PLANTING OPERATIONS THERE SEEMS TO BE MINIMAL OR NO PERCOLATION IN PLANTING PITS, CONTRACTOR SHALL CEASE PLANTING OPERATIONS AND IMMEDIATELY NOTIFY THE DISTRICT'S AUTHORIZED REPRESENTATIVE TO DISCUSS ALTERNATIVE TO MAINTAINING POSITIVE ROOTBALL DRAINAGE MEASURES.

CONTRACTOR TO APPLY A 3" LAYER OF MULCH, AS APPLICABLE, IN ALL SHRUB AND GROUNDCOVER AREAS. CONTRACTOR TO SUBMIT SAMPLES FOR APPROVAL PRIOR TO INSTALLATION.

CONTRACTOR SHALL INCORPORATE 4 CU YDS OF COMPOST PER 1000 SF TO A DEPTH OF 6" OF PERMEABLE AREA SO AS TO MAXIMIZE WATER RETENTION AND INFILTRATION. IF THE SOILS ANALYSIS INDICATES THAT THE TOP 6" OF SOIL CONTAINS GREATER THAN 6% ORGANIC MATTER, THE AREA SHALL BE EXEMPTION FROM THESE REQUIREMENTS.

CONTRACTOR SHALL THOUROUGHLY MIX 'AquaSmart PRO' MOISTURE RETENTION PRODUCT TO THE BACKFILL MIX IN THE PLANTING PITS OF ALL TREES, SHRUBS AND VINES.
USE THE FOLLOWING RATES-
24" BOX- 2.5 CUPS
5 GALLON- 1/3 CUP
1 GALLON- 2 TABLESPOONS



SCALE:1"=20'

Know what's below. Call before you dig.

RIOS DESIGN STUDIO
LANDSCAPE ARCHITECTURE & DESIGN
3805 ORA VISTA AVENUE
BAKERSFIELD, CALIFORNIA 93309
P: 661.835.9259

REGISTERED LANDSCAPE ARCHITECT JAIME RIOS No. 2979 Signature SEPTEMBER 30,2026 Expiration Date FEB. 4,2025 Date STATE OF CALIFORNIA

ordiz melby architects
a professional corporation
6500 Ming Avenue, Suite 280 o: (661) 832-5268
Bakersfield, CA 93309 f: (661) 832-4291
www.ordizmelby.com

LICENSED ARCHITECT JOSEPH E. ZASOSKI C-36742 MAY 31, 2027 RENEWAL DATE STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANINE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES
AT
DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION

JOB NUMBER:
2396
A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

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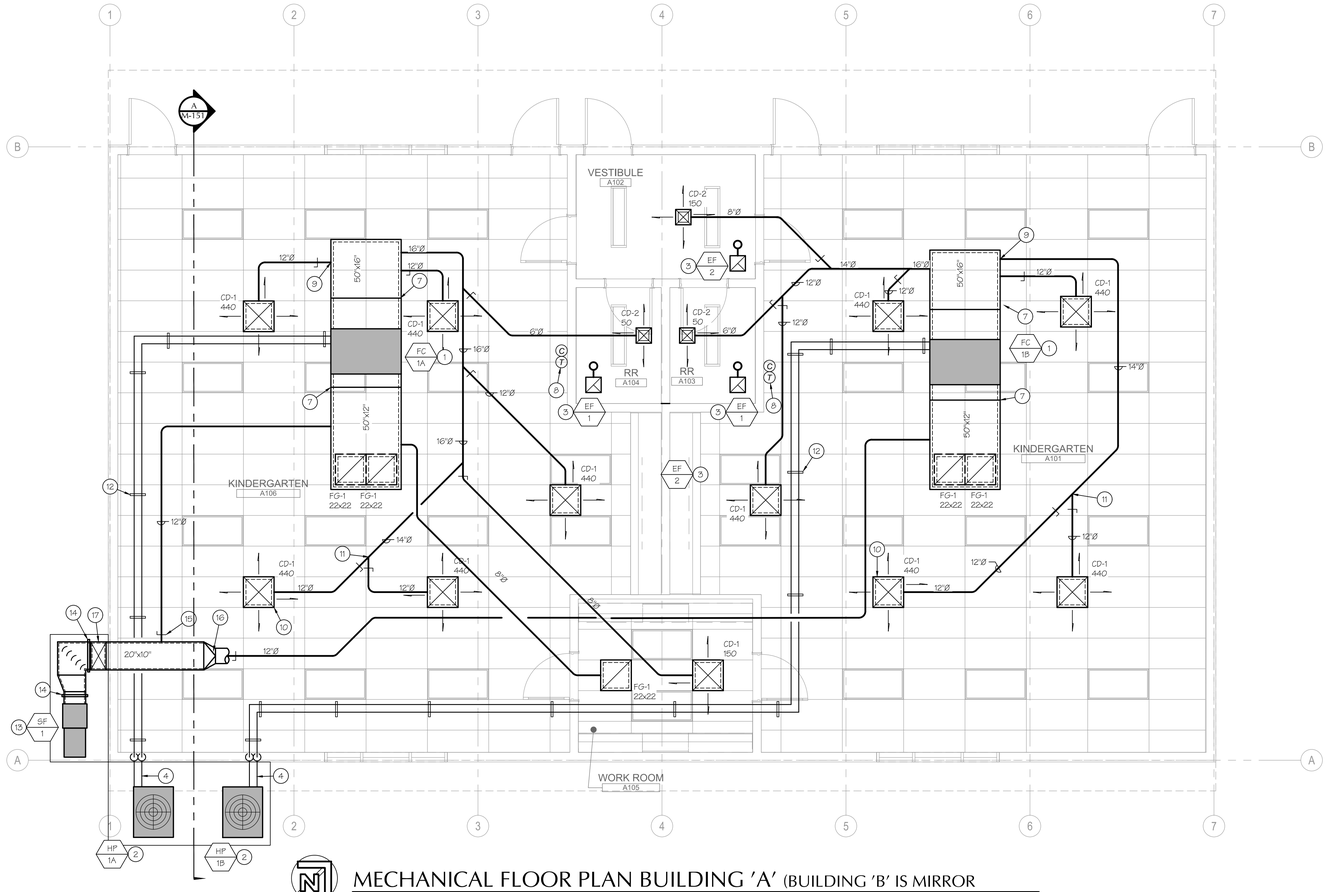
PLANTING PLAN

SHEET IDENTIFICATION NUMBER

L5

SHEETS IN SET 120

PLOTTING 8:58 AM
PLOTTED BY AKF



MECHANICAL FLOOR PLAN BUILDING 'A' (BUILDING 'B' IS MIRROR IMAGE)

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

MECHANICAL KEYNOTES:

1. FAN COIL, SEE DETAIL A/M-501.
2. GROUND MOUNTED HEAT PUMP UNIT, SEE DETAIL B/M-501
3. CEILING MOUNTED EXHAUST FAN W/FULL SIZE DISCHARGE TO ROOF CAP.
4. 7/8" RS & 1/2" RL INSULATED COPPER REFRIGERANT PIPING, PIPING EXPOSED TO WEATHER SHALL BE ALUM-CLAD
5. ~~12"X6" LINED DUCT DROP DOWN FROM EF-1.~~
6. ~~12"X6" LINED DUCT DROP DOWN FROM EF-2.~~
7. TRANSITION AS REQ'D FOR P.O.C. TO FC
8. THERMOSTAT/CO^2 SENSOR MOUNT PER DETAIL D/M-501
9. SEE TYPICAL DETAIL E/M-501
10. SEE TYPICAL GRILLE DETAIL F/M-501
11. SEE TYPICAL BRANCH DETAIL G/M-501
12. SEE DETAIL J/M-501 FOR REFRIGERANT PIPE SUPPORT TYP. MAX 8'-0" SPACING
13. FILTERED SUPPLY FAN SEE DETAIL K/M-501
14. DUCT SUPPORT SEE DETAIL A/M-502
15. BALANCE OSA TO 920 CFM TO FC-1A
16. BALANCE OSA TO 510 CFM TO FC-1B
17. 20"x12" SA RISE UP ON WALL TO ABOVE CEILING, FLASH & SEAL WALL PENETRATION WEATHER TIGHT. SEE DETAIL B/M-502 FOR DUCT SUPPORT ON WALL

Air Conditioning Legend

SYMBOL	ABBR.	ITEM	SYMBOL	ABBR.	ITEM
	A.C.	Air Conditioning		H.W.R.	Heating Water Return
	A.D.	Access Door		H.W.S.	Heating Water Supply
	A.F.F.	Above Finished Floor		INT.	Internal
	A.H.	Air Handler		LOC.	Location
	B.A.S.	Building Automation System		M.O.	Motor Operated
	B.V.	Butterfly Valve		(N)	New
	C.D.	Condensate Drain		N.C.	Normally Closed
	C.E.	Ceiling Exhaust Register		N.I.C.	Not in Contract
	C.W.R.	Condensor Water Return		N.O.	Normally Open
	C.W.S.	Condensor Water Supply		O.S.A.	Outside Air
	C.H.W.R.	Chilled/Hot Water Return		O.B.D.	Opposed Blade Damper
	C.H.W.S.	Chilled/Hot Water Supply		P.O.C.	Point of Connection
	COMB.	Combustion		P.P.	Pintes Plug
	CONN.	Connection		PROV.	Provide
	CONT.	Continuation		P.R.V.	Pressure Reducing Valve
	C.R.	Ceiling Return Register		SIM.	Similar
	CLG.	Ceiling		S.F.D.	Smoke / Fire Damper w/ access panel
	C.S.	Ceiling Supply Register		S.M. or S/M	Sheet Metal
	C.V.	Check Valve		S.O.V.	Shut Off Valve
	D.C.W.	Domestic Cold Water		S.P.S.T.	Single Pole Single Throw
	DIA.	Diameter		STAT.	Thermostat or Room Sensor
	D.L.	Door Louver		SURF.	Surface
	DN.	Down		(TYP.)	Typical
	D.P.D.T.	Double Pole Double Throw		U.G.	Underground
	D.T.R.	Duct Thru Roof		U.N.O.	Unless Noted Otherwise
	(E)	Existing		V.D.	Volume Damper
	E.F.	Exhaust Fan		V.D.	V.H. Damper w/ Remote Operator
	E.M.S.	Energy Management System		W/	With
	EX.	Exhausts		W.R.	Wall Return Register
	F.D.	Fire Damper w/ acc. panel		W.S.	Wall Supply Register
	Flex. Conn	Flexible Connection			Duct w/ Acoustic Lining
	FLR.	Floor		T.V.	Turning Vanes
	F.T.R.	Flue Thru Roof			Extractor
	Furn.	Furnace			
	GA.	Gauge			
	GAL.	Gallon			CO2 SENSOR
	GALV.	Galvanized			
	G.P.M.	Gallons per Minute			Union
	GRD.	Grade			Reducer or Increaser
	G.V.	Gate Valve			

DIFFUSER SIZING CHART

CFM	TITUS TDC, SQUARE NECK
0 - 150	6" x 6"
151 - 275	9" x 9"
276 - 475	12" x 12"
476 - 700	15" x 15"
701 - 950	18" x 18"
951 - 1250	21" x 21"
1251 - 1700	24" x 24"
1701 - 2500	30" x 30"

Equipment Anchorage Notes:

All Mechanical, Plumbing, and Electrical components shall be anchored and installed per the details on the DSA approved construction documents. The following components shall be anchored or braced to meet the force and displacement requirements prescribed in the 2022 CBC, Sections 1617A.1.18 through 1617A.1.26 and ASCE 7-16 Chapters 13, 26 and 30.

1. All permanent equipment and components.
2. Temporary, movable or mobile equipment that is permanently attached (E.G. hard wired) to the building utility services such as electricity, gas or water. "Permanently attached" shall include all electrical connections except plugs for 110/220 volt receptacles having a flexible cable.
3. Temporary, moveable or mobile equipment which is heavier than 400 pounds or has a center mass located 4 feet or more above the adjacent floor or roof level that directly support the component is required to be restrained in a manner approved by DSA.

The following Mechanical and Electrical components shall be positively attached to the structure, but need not demonstrate design compliance with the references noted above. These components shall have flexible connections provided between the component and associated ductwork, piping and conduit. Flexible connections must allow movement in both transverse and longitudinal directions:

A. Components weighing less than 400 pounds and have a center of mass located 4 feet or less above the adjacent floor or roof level that directly support the component.
B. Components weighing less than 20 pounds, or in the case of distributed systems, less than 5 pounds per foot, which are suspended from a roof or floor or hung from a wall.

The anchorage of all Mechanical, Electrical and Plumbing components shall be subject to the approval of the design professional in general responsible charge or structural engineer delegated responsibility and acceptance by DSA. The project inspector will verify that all components and equipment have been anchored in accordance with above requirements.

Piping, Ductwork, and Electrical Distribution System Bracing Note:

Piping, ductwork, and Electrical distribution systems shall be braced to comply with the forces and displacements prescribed in ASCE 7 Section 13.3 as defined in ASCE 7 Section 13.6.5., 13.6.6, 13.6.7, 13.6.8, and 2022 CBC, Sections 1617A.1.24, 1617A.1.25 and 1617A.1.26.

The method of showing bracing and attachments to the structure for the identified distribution system are as noted below. The MEP design professional engineer responsible for content on these sheets has verified that the design methods identified below are in accordance with DSA IR 16-13

Mechanical Piping (MP), Mechanical Ducts (MD), Plumbing Piping (PP),
Electrical Distribution Systems (E):

MP☑ MD☑ PP ☐ E ☐ **Option 1:** Project Specific Design.

MP☐ MD☐ PP ☐ E ☐ **Option 2:** Design Based on OSHPD OPM, Within Project Submittal.

MP☐ MD☐ PP ☐ E ☐ **Option 3:** Design Based on OSHPD OPM, Deferred Submittal.

TITLE 24 MECHANICAL & PLUMBING REQUIREMENTS (CODE REFERENCES ARE TO 2022 BUILDING ENERGY EFFICIENCY STANDARDS):

1. All air cooled HVAC units shall have minimum efficiencies per Table 110.2-A.
2. All thermostats shall comply with 110 (b) or (c), as applicable.
3. All HVAC systems shall have outside (ventilation) air per 120.1 (b) 2. Also see mechanical plans for minimum outside air settings. Refer to table on plan.
4. When CO2 ventilation demand controls are specified, provide in accordance with 120.1 C. 4.
5. Minimum ventilation rates shall be initiated one hour prior to scheduled occupancy per 120.1 (c) 2.
6. Each HVAC system shall have shut-off and reset controls complying with 120.2 (e).
7. All outside and exhaust dampers shall automatically close per 120.2 (i).
8. All systems greater than a nominal 54 MBH cooling capacity shall have economizers equipped with fault detection and diagnostics per 120.2 (i).
9. All ductwork insulation shall comply with 120.4.
10. Set up all thermostats with a dead band of no less than three degrees to prevent cycling between heating and cooling.
11. Acceptance tests required prior to granting occupancy. NA refers to Non Residential appendices:
    - Outdoor air ventilation systems per NA 7.5.1.
    - Constant volume single zone system controls per NA 7.5.2.
    - Air economizers per NA 7.5.4.
    - Demand control (CO2) controls, when required, per NA 7.5.5.
    - Fault Detection & diagnostics (FDD) per NA 7.5.11.

Codes:

California Code of Regulations (C.C.R)

Part 1 - 2022 California Standards Administrative Code, Title 24, C.C.R.
Part 2 - 2022 California Building Code (C.B.C.), Title 24, C.C.R. Volumes 1-3.
Part 3 - 2022 California Electrical Code, Title 24, C.C.R.
Part 4 - 2022 California Mechanical Code (C.M.C.), Title 24, C.C.R.
Part 5 - 2022 California Plumbing Code (C.P.C.), Title 24, C.C.R.
Part 6 - 2022 California Energy Code, Title 24, C.C.R.
Part 9 - 2022 California Fire Code, Title 24, C.C.R.

Standards and Guides:

ADAAG - American with Disabilities Act, Accessibility Guidelines.
Fixtures - Plumbing fixtures to comply with table 5.303.6 of the California Green Building Standards - 2022 Edition.

General Project Note:

1. Coordination of work: Layout of materials, equipment and systems is generally diagrammatic unless specifically dimensioned. Some work may be shown offset for clarity. The actual location of all materials, piping, ductwork, fixtures, equipment, supports, etc. shall be carefully planned, prior to installation of any work to avoid all interferences with each other, or with structural, fire sprinkler, electrical, architectural or other elements. Verify the proper voltage and phase of all equipment with the electrical plans. All conflicts shall be called to the attention of the architect and the engineer prior to the installation of any work or the ordering of any equipment.

2. Cutting, boring, saw cutting or drilling through the new or existing structural elements to be done only when so detailed in the drawings or accepted by the Architect and Structural engineer with the approval of DSA representative.

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Plt: 10-16-25

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LICENSED ARCHITECT JOSEPH E. ZASOSKI C-36742 MAY 31, 2027 RENEWAL DATE STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANINE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396
A#: 03-124548

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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SHEET TITLE

MECHANICAL FLOOR PLAN

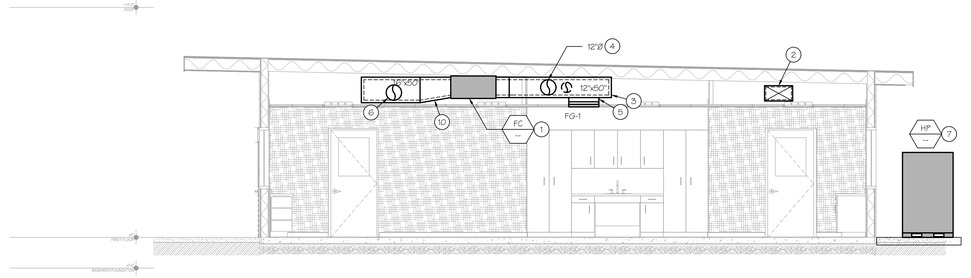
REGISTERED PROFESSIONAL ENGINEER GREG ALMANZA No. M26578 Exp. 06-30-26 MECHANICAL STATE OF CALIFORNIA

SHEET IDENTIFICATION NUMBER

M-121

SHEETS IN SET 120

PLOT TIME: 8:57 AM
PLOT DATE: 10/16/25



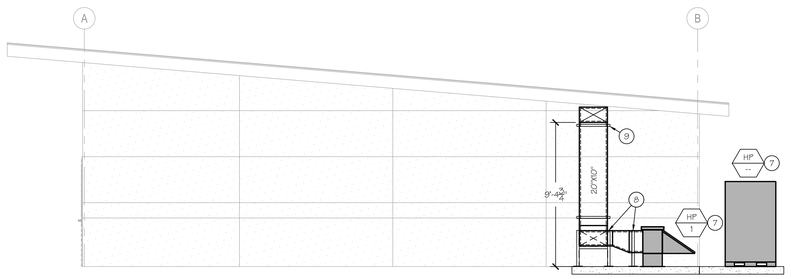
MECHANICAL SECTION PLAN

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

A

MECHANICAL KEYNOTES:

1. FAN COIL, SEE DETAIL A/M-501.
2. 10"x20" OSA DUCT FROM SF-1
3. 12"x50" RA PLENUM W/2" LINER, DIMENSIONS ARE NET INSIDE
4. 12"Ø OSA DUCT SEE M-121 FOR CONTINUATION
5. 24"x24" RA DOWN TO FG-1 TYP. OF 2, SEE M-121
6. 12"Ø SA DUCT SEE M-121 FOR CONTINUATION
7. HP UNIT SEE DETAIL B/M-501
8. DUCT SUPPORT SEE DETAIL A/M-502
9. DUCT SUPPORT ON WALL SEE DETAIL B/M-502
10. 16"x50" SA w/2" LINER TRANS. AS REQ'D FOR P.O.C. TO FAN COIL



MECHANICAL ELEVATION PLAN ROOM 101 - WEST

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

A

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LICENSED ARCHITECT
JOSEPH E. ZASOSKI
C-36742
MAY 31, 2027
RENEWAL DATE
STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA
ARCHITECT C-36294

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	.	

JOB NUMBER:
2396

A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

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MECHANICAL SECTION PLAN

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Exp. 06-30-26
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STATE OF CALIFORNIA

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Tel: (661) 397-2114
Job: 24112
Plt: 10-16-25

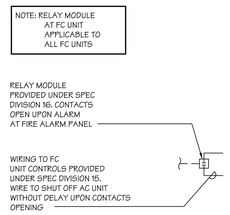
SHEET IDENTIFICATION NUMBER

M-151

SHEETS IN SET 120

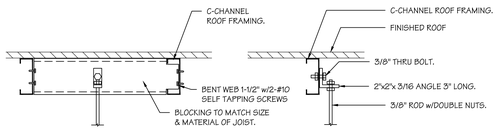
PLOT TIME: 8:37 AM
PLOT DATE: 10/17/2025

NOTE: RELAY MODULE AT FC UNIT APPLICABLE TO ALL FC UNITS



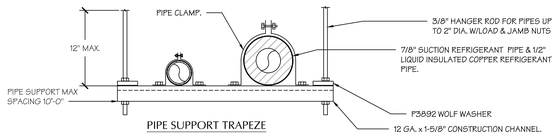
FAN COIL UNIT INTERLOCKS WITH FIRE ALARM PANEL

SCALE: N.T.S. — I



UPPER ATTACHMENTS

MAX WEIGHT FOR THIS DETAIL IS 18 LBS.



PIPE SUPPORT TRAPEZE

PIPE SUPPORT HANGER

SCALE: N.T.S. — J

RECTANGULAR DUCT HANGERS				
Maximum Half of Duct perimeter	Pair at 10 ft Spacing	Pair at 8 ft Spacing	Pair at 5 ft Spacing	Pair at 4 ft Spacing
	Strap	Strap	Strap	Strap
P/2 = 30"	1" x 20 ga	1" x 20 ga	1" x 20 ga	1" x 20 ga
P/2 = 72"	1" x 18 ga	1" x 20 ga	1" x 20 ga	1" x 20 ga

NOTES:

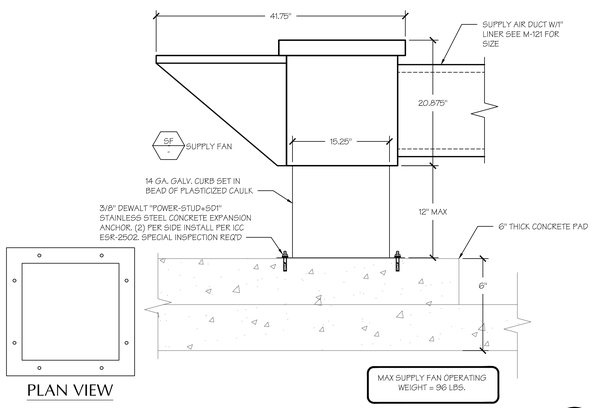
A. STRAPS ARE GALVANIZED STEEL; OTHER MATERIALS ARE UNCOATED STEEL.

B. 12,10, OR 8 GA WIRE IS STEEL OF BLACK ANNEALED, BRIGHT BASIC, OR GALVANIZED TYPE.

ROUND DUCT HANGERS		
RIGID DUCT		
10 in. dn	12 ft.	1 in. x 20 ga
11-18 in.	12 ft.	1 in. x 20 ga
19-24 in.	12 ft.	1 in. x 20 ga
25-36 in.	12 ft.	1 in. x 20 ga

NOTES:

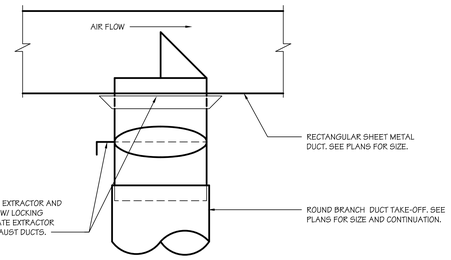
A. STRAPS ARE GALVANIZED STEEL;



PLAN VIEW

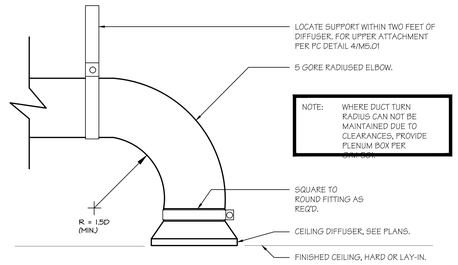
GROUND MOUNTED SUPPLY FAN

SCALE: NTS — K



SPIN-IN TAKE OFF

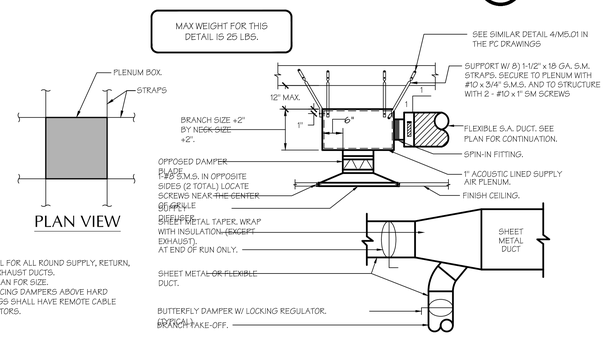
SCALE: N.T.S. — E



CEILING DIFFUSER/REGISTER CONNECTION

SCALE: N.T.S. — F

MAX WEIGHT FOR THIS DETAIL IS 25 LBS.



PLAN VIEW

NOTES:
1. TYPICAL FOR ALL ROUND SUPPLY, RETURN, AND EXHAUST DUCTS.
2. SEE PLAN FOR SIZE.
3. BALANCING DAMPERS ABOVE HARD CEILINGS SHALL HAVE REMOTE CABLE OPERATORS.

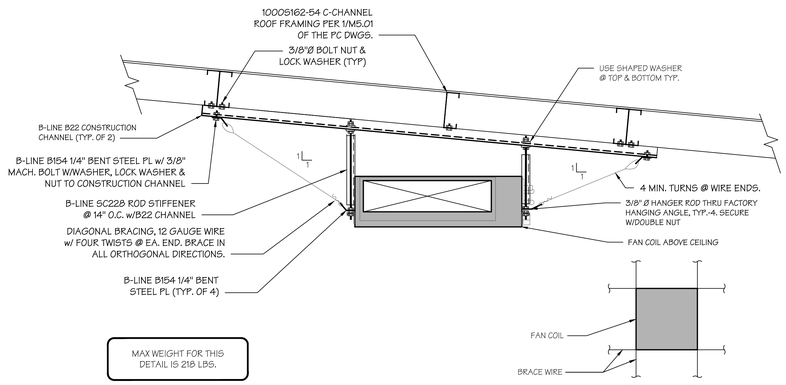
SUPPLY AIR PLENUM AND BRANCH DUCTS

SCALE: NTS — G

NOTES:
1. DUCT SUPPORT PER PC DRAWINGS 4/M5.01 AND 8/M5.01.

DUCT HANGERS

SCALE: N.T.S. — H

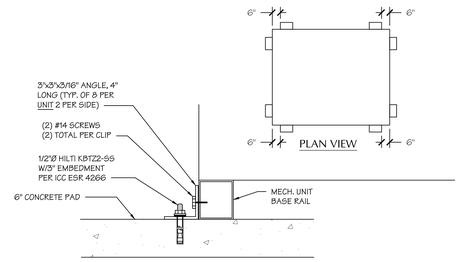


PLAN VIEW

MAX WEIGHT FOR THIS DETAIL IS 218 LBS.

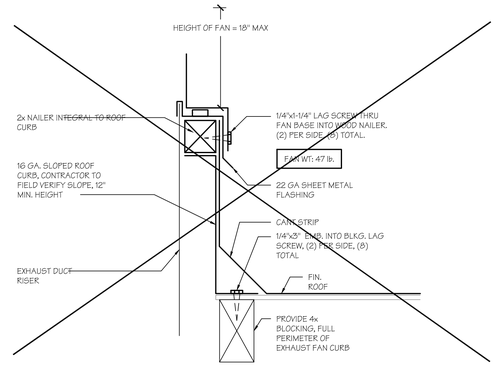
FAN COIL MOUNTING DETAIL

SCALE: N.T.S. — A



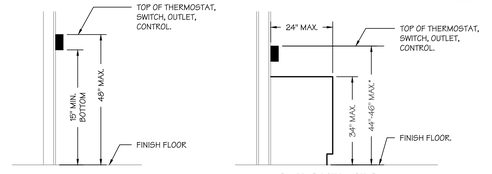
HEAT PUMP MOUNTING DETAIL

SCALE: N.T.S. — B



ROOF MOUNTED EXHAUST FAN

SCALE: NTS — C



* 44" MAX. FOR WHEEL CHAIR FORWARD APPROACH AND 46" MAX. FOR SIDE APPROACH PER CBC FIGURE 11B-308.2 & 11B-308.3.

THERMOSTAT/CO2 SENSOR LOCATION DETAIL

SCALE: NTS — D

REGISTERED PROFESSIONAL ENGINEER — JESSE JAMES BASKIN III — No. M26578 — Exp. 06-30-26 — MECHANICAL — STATE OF CALIFORNIA

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LICENSED ARCHITECT — JOSEPH E. ZASOSKI C-36742 — MAY 31, 2027 RENEWAL DATE — STATE OF CALIFORNIA

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FOR:

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14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER: 2396
A#: 03-124848

CAD DRAWING FILE: 2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY: AKF

CHECKED BY: GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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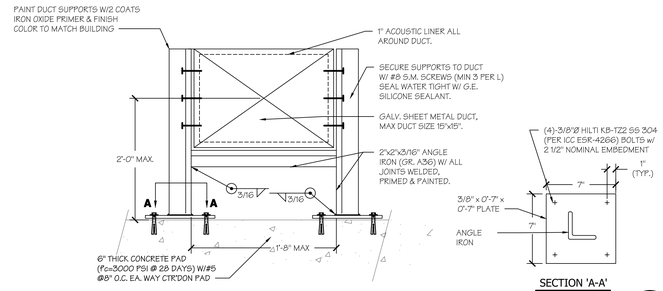
MECHANICAL DETAILS

SHEET IDENTIFICATION NUMBER

M-501

SHEETS IN SET 120

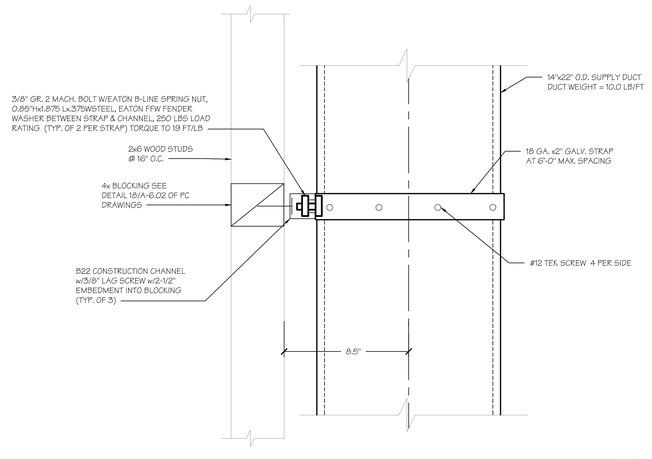
PLOT TIME 8:29 AM
PLOTTED BY MICHAEL



DUCT ON SLAB - RECT. INTERNAL INSUL.

SCALE: N.T.S.

A



VERTICAL DUCT SUPPORT

SCALE: N.T.S.

B

BRACING GENERAL NOTES:

1. DUCT BRACE MAX SPACING IS 20' ON CENTER
2. PROVIDE ADDITIONAL BRACE AT EACH 90 DEGREE ELBOW
3. BRACING OF DUCTS MAY BE OMITTED WHEN ALL OF THE FOLLOWING APPLY
   - FLEXIBLE CONNECTIONS OR OTHER ASSEMBLIES ARE PROVIDED BETWEEN THE DUCT SYSTEM AND ASSOCIATED COMPONENTS TO ACCOMMODATE RELATIVE DISPLACEMENTS.
   - THE DUCT SUPPORT SYSTEM IS POSITIVELY ATTACHED TO STRUCTURE.
   - VERTICAL SUPPORT PROVIDED BY 3/8 INCH OR 1/2 INCH DIAMETER ROD HANGERS.
   - EACH ROD IN THE RUN DOES NOT EXCEED 12 INCHES IN LENGTH FROM THE DUCT SUPPORT POINT TO THE STRUCTURE ATTACHMENT POINT.
   - THE TOTAL WEIGHT TO ANY SINGLE ROD IS 50 POUNDS OR LESS.
4. PIPE BRACE MAX SPACING IS 40'-0" ON CENTER
5. PROVIDE ADDITIONAL BRACE AT EACH 90 DEGREE ELBOW.
6. BRACING OF PIPES MAY BE OMITTED WHEN ALL OF THE FOLLOWING APPLY.
   - FLEXIBLE CONNECTIONS, EXPANSIONS LOOPS, OR OTHER ASSEMBLIES ARE PROVIDED TO ACCOMMODATE THE RELATIVE DISPLACEMENT BETWEEN THE EQUIPMENT IE: WATER HEATER AND THE PIPING.
   - THE PIPING SYSTEM IS POSITIVELY ATTACHED THE STRUCTURE.
   - **TRAPEZE ASSEMBLIES**:
     a. THE R_g IS GREATER THAN OR EQUAL TO 4.5 (EXCLUDES PIPES OF GLASS, CAST IRON, AND NON-DUCTILE PLASTICS).
     b. VERTICAL SUPPORT PROVIDED BY 3/8 INCH OR 1/2 INCH DIAMETER ROD HANGERS.
     c. EACH ROD IN THE RUN DOES NOT EXCEED 12 INCHES IN LENGTH FROM THE PIPE SUPPORT POINT TO THE STRUCTURE ATTACHMENT POINT.
     d. NO SINGLE NOMINAL PIPE SIZE EXCEEDS 3 INCHES FOR l_p = 1.0 AND EXCEEDS 2" l_p = 1.5
     e. TOTAL WEIGHT SUPPORTED BY SINGLE TRAPEZE IS 100 POUNDS OR LESS
   - **INDIVIDUALLY SUPPORTED PIPES**:
     b. R_g IS GREATER THAN OR EQUAL TO 4.5 (EXCLUDES PIPES OF GLASS, CAST IRON, AND NON-DUCTILE PLASTICS.)
     c. PIPE DIAMETER DOES NOT EXCEED 3 INCHES WHEN l_p = 1.0, OR EXCEED 1" FOR l_p = 1.5.
     d. VERTICAL SUPPORT IS PROVIDED BY 3/8 INCH OR 1/2 INCH DIAMETER ROD HANGERS.
     e. ROD HANGERS DO NOT EXCEED 12 INCHES IN LENGTH FROM THE PIPE SUPPORT POINT TO THE CONNECTION POINT ON THE SUPPORTING STRUCTURE.
     f. THE TOTAL WEIGHT SUPPORTED BY ANY ROD HANGER IS 50 POUNDS OR LESS.

HEAT PUM P UNIT SCHEDULE

DESIGNATION	HP-1A, 1B
MCA / MOCP	36.4 / 40
VOLTS/PHASE	208 / 3
AIR COOL / HEAT CAPACITY (MBH)	72.0 / 81.0
SEER / EER / IEER	-- / 12.6 / 22.1
MANUFACTURER	CARRIER / TOSHIBA
TYPE	AIR COOLED
MODEL NUMBER	MMY-MUP0721HT9P-UL
OPER. WT (LBS)	521
ACCESSORIES	1 THRU 4

1. INSULATE REF PIPING PER INSTALLATION INSTRUCTIONS.
2. LIQUID LINE SOLENOID VALVE PER INSTALLATION INSTRUCTIONS.
3. ANTI SHORT CYCLE TIMER.
4. SEE MOUNTING DETAIL B/M-501

FAN COIL SCHEDULE

DESIGNATION	FC-1A, 1B
SUPPLY AIR (CFM)	2,225
EXT. SP (IN WC)	0.70
ELECTRICAL	
VOLTAGE /PHASE	208 / 1
MCA / MOCP	5.7 / 15
COOLING CAPACITY	
TOTAL COOLING CAPACITY (MBH)	65.8
SENSIBLE CAPACITY (MBH)	54.7
HEAT CAPACITY	
HEAT (MBH)	67.30
BLOWER	
BHP / HP / WATTS	-- / -- / 1000
DRIVE	DIRECT
MANUFACTURER	CARRIER / TOSHIBA
MODEL NUMBER	MMD-UP0721HP-UL
OPER. WT (LBS)	218
ACCESSORIES	1, 2, 3, 4, 5, 6

1. PELICAN TC3 W/INTEGRAL CO2 SENSOR TITLE 24 COMPLIANT FIELD INSTALLED AND WIRED WALL MOUNTED THERMOSTAT
2. 24 VOLT THERMOSTAT INTERFACE.
3. SUSPEND AIR HANDLER PER DETAIL A/M-501
4. INSTALL CANVAS CONNECTION AT SUPPLY AND RETURN DUCT CONNECTIONS.
5. SEE DETAIL I/M-501 FOR INTERLOCK W/FIRE ALARM PER CMC 609.0
6. SEE MOUNTING DETAIL A/M-501

GRILLE SCHEDULE

MARK	DUTY	DESCRIPTION
CD-1	CEILING SUPPLY	TITUS MODEL TDC LOUVERED FACE DIFFUSER WITH T-BAR FRAME, SEE DIFFUSER SIZING CHART FOR NECK SIZE.
CD-2	CEILING SUPPLY	TITUS MODEL TDC LOUVERED FACE DIFFUSER WITH FOR SURFACE MOUNT, SEE DIFFUSER SIZING CHART FOR NECK SIZE.
FG-1	FILTER GRILLE	TITUS CORE 50FF ALUMINUM EGG CRATE 2" FILTER GRILLE WITH 1/2"x1/2" GRID, NO. 26 OFF-WHITE FINISH, FOR STD. LAY-IN CEILING 20"x20"x2" DEEP MERV 13 FILTER
CE-1	CEILING EXHAUST	TITUS CORE 50 ALUMINUM EGG CRATE REGISTER WITH 1/2" x 1/2" GRID, NO. 26 OFF-WHITE FINISH, FOR SURFACE MOUNT

NOTE: PAINT ALL VISIBLE SURFACES BEHIND DIFFUSERS AND GRILLES FLAT BLACK.

EXHAUST FAN SCHEDULE

DESIGNATION	EF-1	EF-2	SF-1
CFM	75	150	1,030
EXT. S P (IN. WC)	0.30	0.30	0.40
BHP/HP/WATTS	-- / -- / 16	-- / -- / 83	0.28 / 1.0 / --
VOLTS/ PHASE	115 / 1	115 / 1	115 / 1
RPM	950	773	1,976
SONES (dBA)	0.9	1.5	12.5
DRIVE	DIRECT	DIRECT	DIRECT
MOUNTING	CEILING	CEILING	GROUND
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK
TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
MODEL NUMBER	SP-A110	SP-A250	KSQ-9-M1-VG
OPER. WT. (LBS)	29	32	96
START/STOP INTERLOCK WITH	SEE NOTE 3	SEE NOTE 3	SEE NOTE 3
ACCESSORIES	6	6	1, 2, 4, 5

1. 16 GA. GALV. FLAT CURB, BIRD SCREEN
2. ECM MOTOR W/VARI-GREEN SPEED CONTROL
3. INTERLOCK START/STOP WITH ASSOCIATED HP UNIT W/PELICAN PM5
4. HORIZONTAL DISCHARGE & WEATHER HOOD W/1" WASHABLE FILTER & MERV 13 FILTERS
5. SEE DETAIL K/M-501
6. CEILING EXHAUST FAN W/FULL SIZE DISCHARGE TO ROOF RJ-6X9 ROOF JACK SEE PC DETAIL 9/M5.01

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MAY 31, 2027
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ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA
ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396
A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

THE DRAWINGS, IDEAS, AND DESIGNS REPRESENTED ON THIS SHEET ARE THE PROPERTY OF THE ARCHITECT.

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SHEET TITLE

MECHANICAL SCHEDULES

REGISTERED PROFESSIONAL ENGINEER
ALAN JAMES BASKIN
No. M26578
EXP. 06-30-26
MECHANICAL
STATE OF CALIFORNIA

BASKIN MECHANICAL ENGINEERS
2131 19th St, Suite B
Bakersfield, CA 93301
Tel: (661) 397-2114
Job: 24112
Plt: 10-16-25

SHEET IDENTIFICATION NUMBER

M-502

SHEETS IN SET 120

PLOT TIME 8:59 AM
PLOTTED BY MICHAEL

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E

Nonresidential Performance Compliance Method — (Page 1 of 14)

Project Name: Kindergarten Classrooms at Suburu ES | **Date Prepared:** 2025-07-07

A. General Information

1	Project Name	Kindergarten Classrooms at Suburu ES			
2	Run Title	Title 24 Analysis			
3	Project Location	7315 Harris Rd.			
4	City	Bakersfield	5	Standards Version	Compliance 2022
6	Zip code	93313	7	Compliance Software (version)	EnergyPro 9.3
8	Climate Zone	13	9	Building Orientation (deg)	0
10	Building Type(s)	• Nonresidential	11	Weather File	MEADOWS-FIELD_STYP20.epw
12	Project Scope	• New envelope and mechanical	13	Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	2706	15	Total # of hotel/motel rooms	0
16	Total Unconditioned Floor Area (ft²)	0	17	Fuel Type	Natural gas
18	Nonresidential Conditioned Floor Area	2706	19	Total # of Stories (Habitable Above Grade)	1
20	Residential Conditioned Floor Area	0			

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E

Nonresidential Performance Compliance Method — (Page 2 of 14)

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	Not Included	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	Not Included	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

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E

Nonresidential Performance Compliance Method — (Page 3 of 14)

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	242.82	242.82	18.49
Proposed Design	228.21	228.21	18.31
Compliance Margins	**14.61**	**14.61**	**0.18**
	Pass	**Pass**	**Pass**

[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

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E

Nonresidential Performance Compliance Method — (Page 4 of 14)

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	10.18	35.25	-25.07
Space Cooling	68.82	78.04	-9.22
Indoor Fans	100.91	52.04	48.87
Heat Rejection	0	0	0
Pumps & Misc.	0	0	0
Domestic Hot Water	30.84	30.81	0.03
Indoor Lighting	32.07	32.07	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**242.82**	**228.21**	**14.61 (6%)**
Photovoltaics	---	---	---
Batteries	---	---	---
TOTAL COMPLIANCE	**242.82**	**228.21**	**14.61 (6%)**

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

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E

Nonresidential Performance Compliance Method — (Page 5 of 14)

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

Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Receptacle	65.9	65.9	---
Process	---	---	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**308.72**	**294.11**	**14.61 (4.7%)**

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

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E

Nonresidential Performance Compliance Method — (Page 6 of 14)

C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft² /yr)

COMPLIES[2]

Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Space Heating	1.34	4.7	-3.36
Space Cooling	3.08	3.77	-0.69
Indoor Fans	8.6	4.37	4.23
Heat Rejection	0	0	0
Pumps & Misc.	0	0	0
Domestic Hot Water	2.9	2.9	0
Indoor Lighting	2.57	2.57	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**18.49**	**18.31**	**0.18 (1%)**
Photovoltaics	---	---	---
Batteries	---	---	---
TOTAL COMPLIANCE	**18.49**	**18.31**	**0.18 (1%)**

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

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E

Nonresidential Performance Compliance Method — (Page 7 of 14)

C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Receptacle	4.93	4.93	---
Process	---	---	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**23.42**	**23.24**	**0.18 (0.8%)**

[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

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E

Nonresidential Performance Compliance Method — (Page 8 of 14)

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	0.8	2.9	-2.1	---	---	---
Space Cooling	5	5.8	-0.8	---	---	---
Indoor Fans	9.6	5	4.6	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	---	---	---	---	---
Domestic Hot Water	3.4	3.4	0	---	---	---
Indoor Lighting	3.3	3.3	0	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**22.1**	**20.4**	**1.7**	**0**	**0**	**0**
Photovoltaics	---	---	---	---	---	---
Batteries	---	---	---	---	---	---
ENERGY USE SUBTOTAL	**22.1**	**20.4**	**1.7**	**0**	**0**	**0**
Receptacle	7.2	7.2	0	---	---	---
Process	---	---	---	---	---	---
Other Ltg	---	---	---	---	---	---
Process Motors	---	---	---	---	---	---
ENERGY USE TOTAL	**29.3**	**27.6**	**1.7**	**0**	**0**	**0**

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E

Nonresidential Performance Compliance Method — (Page 9 of 14)

C8. ENERGY USE INTENSITY (EUI)

	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage
GROSS EUI[1]	36.94	34.8	2.14	5.79
NET EUI[1]	36.94	34.8	2.14	5.79

[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.
• The building does not include service water heating. Verify that service water heating is not required and is not included in the design.
• Project is claiming Exception 2 to Section 140.10(a): No PV system is required where the required PV system size is less than 4 kWdc.

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]	923	64	6.93
East-Facing[2]	480	0	0
South-Facing[3]	705	64	9.08
West-Facing[4]	480	0	0
Total	**2588**	**128**	**4.95**
Roof	2706	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),

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JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

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FOR:

LAKESIDE UNION SCHOOL DISTRICT
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MARK	DATE	DESCRIPTION
	.	

JOB NUMBER: 2396
A#: 03-124848

CAD DRAWING FILE: 2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY: AKF

CHECKED BY: GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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SHEET TITLE

TITLE 24 REPORT

SHEET IDENTIFICATION NUMBER

M-503

SHEETS IN SET 120

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Job: 24112
Plt: 10-16-25

PLOT DATE: 9:58 AM
PLOTTED BY: Mahesh
PLOTTER: 1024x36

G4. NONRESIDENTIAL AIR BARRIER

01	02
Building Story Name	Air Barrier
Com-Floor 1	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				
R-38 No Attic Standing Se6	Roof	2,706	Wood	38	N/A	N/A	U-factor	0.0292	Metal Standing Seam - 1/16 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Composite-1 Gypsum Board - 1/2 in.	N
R-21 Wall8	Exterior Wall	2,588	Wood	21	N/A	N/A	U-factor	0.0691	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Composite-2 Gypsum Board - 1/2 in.	N
R-21 Wall81	Interior Wall	1,509	Wood	21	N/A	N/A	U-factor	0.0659	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Composite-2 Gypsum Board - 1/2 in.	N
Slab On Grade18	Underground Floor	2,706	N/A	0	N/A	N/A	F-factor	0.73	Slab Type =Unheated slab on grade Insulation Orientation =None Insulation R-Value =none	N

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

G6A. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)

01	02	03	04
Assembly Name	Area (ft²)	Overall U-factor	Status[1]
Insulated Door10	105	0.2	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]
Milgard Dbl/Mtl Clr Low-E	Vertical fenestration Fixed window N/A	NFRC	Manufactured	128	0.77	0.4	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		
HP-1B	Variable Refrigerant Flow	1	81	N/A	COP	3.3	72	EER	12.6	N/A	N

[1] *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		
HP-1A	Variable Refrigerant Flow	1	81	N/A	COP	3.3	72	EER	12.6	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	
2-Classroom-VRF	1	507.68	2,225	0.62	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
3-Classroom-VRF	1	520.6	2,225	0.62	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

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

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-Classroom	Education - Classrooms (ages 5-8)	33.4	507.68	0	1336	N/A
2-Classroom	Education - Classrooms (ages 5-8)	34.25	520.6	0	1370	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 (kBtu/h)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
2-Classroom-VRF	Variable Refrigerant Flow	1	81	72	2,225	N/A	N/A	0.62	BHP	Continuous	☐
3-Classroom-VRF	Variable Refrigerant Flow	1	81	72	2,225	N/A	N/A	0.62	BHP	Continuous	☐

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

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

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: Mike Mundschau	Documentation Author Signature:
Company: Baskin Mechanical Engineers	Signature Date: 2025-01-30
Address: 2131 19th St., Suite B	CEA/HERS Certification Identification (if applicable): M37211
City/State/Zip: Bakersfield, California 93301	Phone: (661) 397-2114

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: Joseph Zasoski	Responsible Designer Signature:	
Company: Ordiz Melby Architects		
Address: 5500 Ming Ave., Suite 280	Date Signed:	
City/State/Zip: Bakersfield, California 93309	License #: C-36742	
Phone: (661)832-5258	Title:	Scope:
Responsible Designer Name: Mark Baskin	Responsible Designer Signature:	
Company: Baskin Mechanical Engineers		
Address: 2131 19th St., Suite B	Date Signed: 2024-11-27	
City/State/Zip: Bakersfield, California 93301	License #: M26578	
Phone: (661)397-2114	Title:	Scope:

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LICENSED ARCHITECT JOSEPH E. ZASOSKI C-36742 MAY 31, 2027 RENEWAL DATE STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANINE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E. ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

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SHEET TITLE

TITLE 24 REPORT

REGISTERED PROFESSIONAL ENGINEER CLARK JAMES BASKIN No. M26578 Exp. 06-30-26 MECHANICAL STATE OF CALIFORNIA

BASKIN MECHANICAL ENGINEERS
2131 19th St, Suite B
Bakersfield, CA 93301
Tel: (661) 397-2114
Job: 24112
Plt: 10-16-25

SHEET IDENTIFICATION NUMBER

M-504

SHEETS IN SET 120

PLOT DATE: 8:58 AM
PLOTTED BY: AKF
PLOTTER: Plotter

PLUMBING LEGEND

SYMBOL	ABBR.	ITEM
	ACC.	ACCESSIBLE
	A.D.	ACCESS DOOR/WALL BOX
	A.F.F.	ABOVE FINISHED FLOOR
	C.D.	CONDENSATE DRAIN
	C.I.	CAST IRON
	C.L.G.	CEILING
—o—	C.O.	CLEANOUT
	COMB.	COMBUSTION
	CONN.	CONNECTION
	CONT.	CONTINUATION
—o—	COTG	CLEANOUT TO GRADE
— — —	(D)C.W.	(DOMESTIC) COLD WATER
	D.F.	DRINKING FOUNTAIN
— — —	(D)H.W.	(DOMESTIC) HOT WATER
— — —	(D)HWR	(DOMESTIC) HOT WATER RETURN
—o	DN.	DOWN
	DRN.	DRAIN
	(E).	EXISTING
— — —	(E)C.W.	EXISTING COLD WATER
— — —	(E)H.W.	EXISTING HOT WATER
— — —	(E)HWR	EXISTING HOT WATER RETURN
(E)C.D — —	(E)C.D	EXISTING CONDENSATE DRAIN
— — — —	(E)S.&W.	EXISTING SOIL AND WASTE
	E.D.F.	ELECTRIC DRINKING FOUNTAIN
	E.W.H.	ELECTRIC WATER HEATER
	EXTG	EXISTING
— —o— —	F.C.O.	FLOOR CLEANOUT
●	F.D.	FLOOR DRAIN
	FLR.	FLOOR
	F.S.	FLOOR SINK
— — G — —	G.	GAS
	G.D.	GARBAGE DISPOSAL
G.W.	G.W.	GREASE WASTE
	GRD.	GRADE
—|	H.B.	HOSE BIBB
	H.V.(A-C)	AIR CONDITIONING EQPT.
	L.	LAVATORY
	LOC.	LOCATION
	(N)	NEW
	N.I.C.	NOT IN CONTRACT
—| OR —X—	P.O.C.	POINT OF CONNECTION
	PROV.	PROVIDE
	P.R.V.	PRESSURE REDUCING VALVE
	R.D.	ROOF DRAIN
	R.W.L.	RAINWATER LEADER
	S.	SINK
	S.&W.	SOIL AND WASTE
	SIM.	SIMILAR
⋈ OR ⊗ OR ⋈	S.O.V.	SHUT OFF VALVE
	SS	STAINLESS STEEL
	S.S.	SERVICE SINK
	SURF.	SURFACE
	T.&P.	TEMPERATURE AND PRESSURE RELIEF
—■—	T.P.	TRAP PRIMER
	(TYP)	TYPICAL
	UR.	URINAL
— — —○	V.O.	VENT OFFSET
⊙	V.T.R.	VENT THRU ROOF
	W.	WASTE
	W.C.	WATER CLOSET
	W.H.	WATER HEATER
○—H	W.C.O.	WALL CLEANOUT

Pipe Material Schedule:

Soil and Waste/Vent: Cast Iron pipe & fitting w/ "HUSKY", 4-band connections
Water: Type "L" copper w/sweat fittings
Condensate: Type "M" copper w/sweat or "Pro-Press" fittings (see "M" sheets)
Water below grade: Schedule 40 PVC w/glued fittings (building riser to be "L" copper)

TITLE 24 MECHANICAL & PLUMBING REQUIREMENTS (CODE REFERENCES ARE TO 2022 BUILDING ENERGY EFFICIENCY STANDARDS):

1. All air cooled HVAC units shall have minimum efficiencies per Table 110.2-A.
2. All furnaces shall have minimum efficiencies per Table 110.2-J.
3. All furnaces shall have stand by loss controls per section 110.2 (d).
4. All thermostats shall comply with 110 (b) or (c), as applicable.
5. All HVAC systems shall have outside (ventilation) air per 120.1 (b) 2. Also see mechanical plans for minimum outside air settings. Refer to table on plan.
6. When CO2 ventilation demand controls are specified, provide in accordance with 120.1 C. 4.
7. Minimum ventilation rates shall be initiated one hour prior to scheduled occupancy per 120.1 (c) 2.
8. Each HVAC system shall have shut-off and reset controls complying with 120.2 (e).
9. All outside and exhaust dampers shall automatically close per 120.2 (f).
10. All systems greater than a nominal 33 MBH cooling capacity shall have economizers equipped with fault detection and diagnostics per 120.2 (i).
11. All ductwork insulation shall comply with 120.4.
12. Set up all thermostats with a dead band of no less than three degrees to prevent cycling between heating and cooling.
13. Acceptance tests required prior to granting occupancy. NA refers to Non Residential appendices:
    - Outdoor air ventilation systems per NA 7.5.1.
    - Constant volume single zone system controls per NA 7.5.2.
    - Air economizers per NA 7.5.4.
    - Demand control (CO2) controls, when required, per NA 7.5.5.
    - Fault Detection & diagnostics (FDD) per NA 7.5.11.

Equipment Anchorage Notes:

All Mechanical, Plumbing, and Electrical components shall be anchored and installed per the details on the DSA approved construction documents. The following components shall be anchored or braced to meet the force and displacement requirements prescribed in the 2022 CBC, Sections 1617A.1.18 through 1617A.1.26 and ASCE 7-16 Chapters 13, 26 and 30.

1. All permanent equipment and components.
2. Temporary, movable or mobile equipment that is permanently attached (E.G. hard wired) to the building utility services such as electricity, gas or water. "Permanently attached" shall include all electrical connections except plugs for 110/220 volt receptacles having a flexible cable.
3. Temporary, moveable or mobile equipment which is heavier than 400 pounds or has a center mass located 4 feet or more above the adjacent floor or roof level that directly support the component are required to be restrained in a manner approved by DSA.

The following Mechanical and Electrical components shall be positively attached to the structure, but need not demonstrate design compliance with the references noted above. These components shall have flexible connections provided between the component and associated ductwork, piping and conduit. Flexible connections must allow movement in both transverse and longitudinal directions:

A. Components weighing less than 400 pounds and have a center of mass located 4 feet or less above the adjacent floor or roof level that directly support the component.
B. Components weighing less than 20 pounds, or in the case of distributed systems, less than 5 pounds per foot, which are suspended from a roof or floor or hung from a wall.

The anchorage of all Mechanical, Electrical and Plumbing components shall be subject to the approval of the design professional in general responsible charge or structural engineer delegated responsibility and acceptance by DSA. The project inspector will verify that all components and equipment have been anchored in accordance with above requirements.

Piping, Ductwork, and Electrical Distribution System Bracing Note:

Piping, ductwork, and Electrical distribution systems shall be braced to comply with the forces and displacements prescribed in ASCE 7 Section 13.3 as defined in ASCE 7 Section 13.6.5., 13.6.6, 13.6.7, 13.6.8, and 2022 CBC, Sections 1617A.1.24, 1617A.1.25 and 1617A.1.26.

The method of showing bracing and attachments to the structure for the identified distribution system are as noted below. The MEP design professional engineer responsible for content on these sheets has verified that the design methods identified below are in accordance with DSA IR 16-13

Mechanical Piping (MP), Mechanical Ducts (MD), Plumbing Piping (PP), Electrical Distribution Systems (E):

MP☐ MD☐ PP ☑ E ☐ **Option 1:** Project Specific Design.

MP☐ MD☐ PP ☐ E ☐ **Option 2:** Design Based on OSHPD OPM, Within Project Submittal.

MP☐ MD☐ PP ☐ E ☐ **Option 3:** Design Based on OSHPD OPM, Deferred Submittal.

Codes:

California Code of Regulations (C.C.R)
Part 1 - 2022 California Standards Administrative Code, Title 24, C.C.R.
Part 2 - 2022 California Building Code (C.B.C.), Title 24, C.C.R. Volumes 1-3.
Part 3 - 2022 California Electrical Code, Title 24, C.C.R.
Part 4 - 2022 California Mechanical Code (C.M.C.), Title 24, C.C.R.
Part 5 - 2022 California Plumbing Code (C.P.C.), Title 24, C.C.R.
Part 6 - 2022 California Energy Code, Title 24, C.C.R.
Part 9 - 2022 California Fire Code, Title 24, C.C.R.

Standards and Guides:

ADAAG - American with Disabilities Act, Accessibility Guidelines.
Fixtures - Plumbing fixtures to comply with table 5.303.6 of the California Green Building Standards - 2022 Edition.

General Project Note:

1. Coordination of work: Layout of materials, equipment and systems is generally diagrammatic unless specifically dimensioned. Some work may be shown offset for clarity. The actual location of all materials, piping, ductwork, fixtures, equipment, supports, etc. shall be carefully planned, prior to installation of any work to avoid all interferences with each other, or with structural, fire sprinkler, electrical, architectural or other elements. Verify the proper voltage and phase of all equipment with the electrical plans. All conflicts shall be called to the attention of the architect and the engineer prior to the installation of any work or the ordering of any equipment.
2. Cutting, boring, saw cutting or drilling through the new or existing structural elements to be done only when so detailed in the drawings or accepted by the Architect and Structural engineer with the approval of DSA representative.
3. For hanger and bracing see PC plans for details.

PLUMBING FIXTURE SCHEDULE

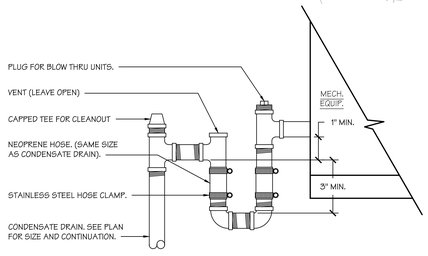
NOTE:
For all other Plumbing Fixtures see PC Plans for Fixture Schedules.

DF 3 — Wall mounted hi-low dual accessible drinking fountain and bottle filling station, "Haws" #1119 with bottle filler standalone station 1920, 18 ga. stainless steel satin, push button operated, 1/2" C.W., 2" W., 2" W.C.O., 1-1/2" V.O., 3/16" steel pre-drilled in-wall mounting plate "Haws" #6700.4 (hi-low) & #6700 (bottle filler) with in wall carrier "Haws" #6800



PARTIAL PLUMBING SITE PLAN

SCALE: 1"=20'-0"



CONDENSATE DRAIN CONNECTION — A

SCALE: N.T.S.

ordiz melby architects
a professional corporation
6500 Ming Avenue, Suite 280
Bakersfield, CA 93309
o: (661) 832-5268
f: (661) 832-4291
www.ordizmelby.com

LICENSED ARCHITECT — JOSEPH E. ZASOSKI — C-36742 — MAY 31, 2027 — RENEWAL DATE — STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA ARCHITECT C-36294
JEANNIE S. BERTOLACCINI, AIA ARCHITECT C-35596
JOSEPH E ZASOSKI, AIA ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396
A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
QA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

THE DRAWINGS, IDEAS, AND DESIGNS REPRESENTED ON THIS SHEET ARE THE PROPERTY OF THE ARCHITECT.

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SHEET TITLE

PLUMBING SITE PLAN & NOTES

REGISTERED PROFESSIONAL ENGINEER — MARK COMES — No. M26578 — Exp. 06-30-26 — MECHANICAL — STATE OF CALIFORNIA

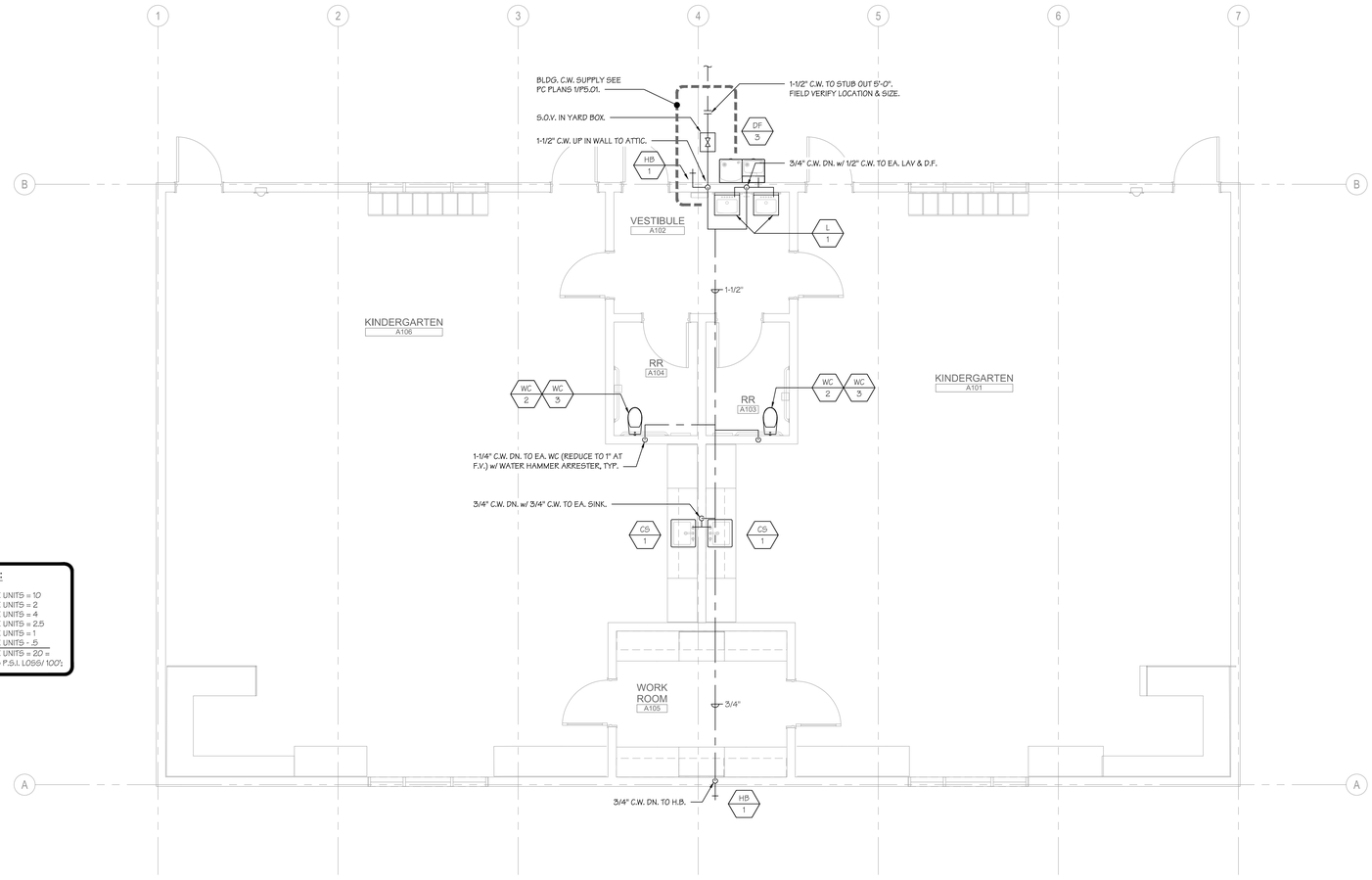
BASKIN MECHANICAL ENGINEERS
2131 19th St, Suite B
Bakersfield, CA 93301
Tel: (661) 397-2114
Job: 24112
Plt: 10-16-25

SHEET IDENTIFICATION NUMBER

P-111

SHEETS IN SET 120

PLOT TIME: 8:58 AM
PLOTTED: 10/16/2025



C.W. CALC's:

2	W.C.'s	@ 5	FIXTURE UNITS = 10
2	LAV's	@ 1	FIXTURE UNITS = 2
2	SINK's	@ 2	FIXTURE UNITS = 4
1	HB	@ 2.5	FIXTURE UNITS = 2.5
1	HB	@ 1	FIXTURE UNITS = 1
1	DF	@ .5	FIXTURE UNITS = .5
		TOTAL	FIXTURE UNITS = 20 =

35 G.P.M. = 1-1/2" @ 6.1 F.F.S. & 4.5 P.S.I. LOSS/ 100'.

PLUMBING PLAN - WATER

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

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LICENSED ARCHITECT
JOSEPH E. ZASOSKI
C-36742
MAY 31, 2027
RENEWAL DATE
STATE OF CALIFORNIA

MANUEL MALDONADO JR., AIA
ARCHITECT C-36294

JEANINE S. BERTOLACCINI, AIA
ARCHITECT C-35596

JOSEPH E. ZASOSKI, AIA
ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396

A#: 03-124548

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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PLUMBING PLAN - WATER

SHEET IDENTIFICATION NUMBER

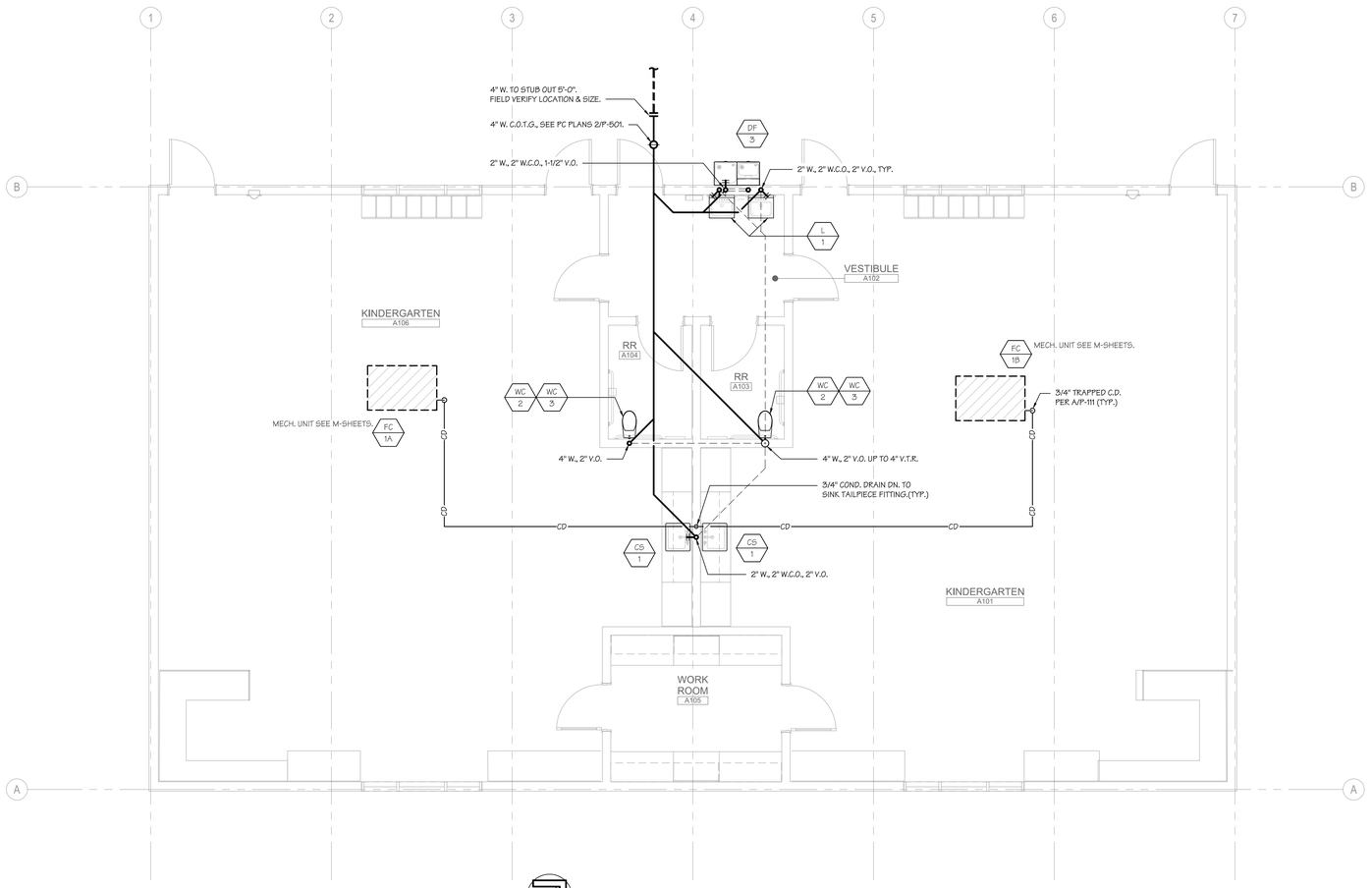
P-121

SHEETS IN SET 120

REGISTERED PROFESSIONAL ENGINEER
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MECHANICAL
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Job: 24112
Plt: 10-16-25

PLOT TIME: 8:56 AM
PLOTTED: 10/16/25



PLUMBING PLAN - WASTE & VENT

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

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JOSEPH E. ZASOSKI
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MAY 31, 2027
RENEWAL DATE
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JEANINE S. BERTOLACCINI, AIA
ARCHITECT C-35596

JOSEPH E. ZASOSKI, AIA
ARCHITECT C-36742

(2) NEW TK/K CLASSROOM & (2) FABRIC SHADE STRUCTURES

AT

DONALD E. SUBURU ELEMENTARY SCHOOL
7315 HARRIS RD.
BAKERSFIELD, CA 93313

FOR:

LAKESIDE UNION SCHOOL DISTRICT
14535 OLD RIVER RD.
BAKERSFIELD, CA 93311

MARK	DATE	DESCRIPTION
	.	

JOB NUMBER:
2396

A#: 03-124848

CAD DRAWING FILE:
2396 (3) Kindergarten Classrooms @ Suburu ES SD27.pln

DRAWN BY:
AKF

CHECKED BY:
GA

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT.

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SHEET TITLE

PUMBING PLAN - WASTE & VENT

SHEET IDENTIFICATION NUMBER

P-122

SHEETS IN SET 120

REGISTERED PROFESSIONAL ENGINEER
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2131 19th St, Suite B
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Tel: (661) 397-2114
Job: 24112
Plt: 10-16-25

PLOT TIME: 9:58 AM
PLOT DATE: 10/16/25

USASHADE & Fabric Structures, Inc.

FABRIC SHADE STRUCTURE

DSA P.C. 04-121917

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE 2022 EDITION OF THE TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR),
2. ALL WORK SHALL BE IN COMPLIANCE WITH CFC CHAPTER 33 - FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION.
3. SEE INDIVIDUAL STRUCTURAL DRAWINGS FOR SPECIFIC DESIGN NOTES AND LOADING.
4. PRIOR TO SUBMITTAL ARCHITECT OF RECORD SHALL IDENTIFY PC MODEL(S) SELECTED BY END USER ON SHEETS T-1.0 AND T-2.0 BY CHECKING THE APPROPRIATE BOX ASSOCIATED WITH SELECTED PC MODEL(S), EXCLUDE SHEETS FOR MODELS NOT SELECTED.

PLANS FOR SPECIFIC APPLICATION SHALL INCLUDE THE FOLLOWING:

1. COMPLETE SCOPE OF WORK INCLUDING THE SHADE STRUCTURE MODEL NUMBER, P.C. NUMBER, AND SPECIFIC SIZE OF THE SHADE STRUCTURE(S).
2. PROVIDE A CODE ANALYSIS, INCLUDING ACTUAL SHADE STRUCTURE AREA (SQ. FT.), OCCUPANCY TYPE (A-3), AND TYPE OF CONSTRUCTIONS (V-B), INDICATE OCCUPANT LOAD FACTOR (2022 CBC, SECTION 1004).
3. ACTUAL DIMENSIONS OF SHADE STRUCTURES.
4. DIMENSIONS FROM ADJACENT STRUCTURES AND PROXIMITY OF ASSUMED OR ACTUAL PROPERTY LINES.
5. INDICATE LOCATIONS OF FIRE EXTINGUISHERS WITHIN 75 FEET.
6. SHOW LOCATION OF AUDIBLE FIRE ALARM.
7. ALL SADDLES, CLAMPS AND FITTINGS SHALL CONFORM TO THE GUIDELINES AS SPECIFIED IN APPENDICES "A, B, & C", RESPECTIVELY, IN ASCE/SEI 19-16, "STRUCTURAL APPLICATIONS OF STEEL CABLES FOR BUILDINGS."
8. ARCHITECTS OF RECORD TO DETERMINE IF SPECIFIC SITE IS LOCATED IN A MAPPED GEOLOGIC HAZARD ZONE. GEOHAZARD REPORTS REQUIREMENTS SHALL COMPLY WITH DSA IR A-4,
9. ARCHITECTS OF RECORD TO DETERMINE IF SPECIFIC SITE IS LOCATED IN A MAPPED FIRE HAZARD SEVERITY ZONE OR WILDLAND INTERFACE AREA.

FOR SNOW LOAD MODELS ONLY:

10. INDICATE DIMENSIONS FROM THE ROOF TO THE HIGHER STRUCTURE OR TERRAIN FEATURE. MINIMUM DIMENSION OF 20'-0" FOR SNOW LOAD MODEL (ASCE 7-16).
11. ACTUAL SITE ELEVATION (FEET) TO DETERMINE IF THE SITE OCCURS AT OR BELOW THE UPPER ELEVATION LIMIT FOR THE GROUND SNOW LOAD SHOWN IN ASCE 7-16.

P.C. NOTES

PLANS FOR SPECIFIC APPLICATION SHALL INCLUDE THE FOLLOWING:

LIST OF APPLICABLE CODES:

- 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 C.C.R.
- 2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
- 2022 CALIFORNIA ELECTRICAL CODE (CEC) , PART 3, TITLE 24 C.C.R.
- 2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R.
- 2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
- 2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R.
- 2022 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
- 2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 C.C.R.
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 C.C.R.
- 2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 C.C.R.
- TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

APPLICABLE STANDARDS:

FOR A LIST OF APPLICABLE STANDARDS, INCLUDING CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS, REFER TO CBC CHAPTER 35 AND CFC CHAPTER 80.

APPLICABLE CODES

SITE SPECIFIC PARAMETERS

INSTRUCTIONS: DESIGN PROFFESIONAL SHALL CHECK THE APPROPRIATE SELECTION BOXES BELOW AND ENTER THE DESIGN PARAMETERS APPLICABLE TO THE SPECIFIC PROJECT SITE

SEISMIC

SELECT ONE

- ☐ DESIGN BASED ON SITE CLASS $D_{default}$
  NO GEOTECHNICAL INVESTIGATION REQUIRED
  Ss = _____ Fa = 1.2
- ☐ DESIGN BASED ON SITE CLASS DETERMINED PER CHAPTER 20 OF ASCE 7-16
  GEOTECHNICAL INVESTIGATION PROVIDED
  SITE CLASS: ☐ C ☐ D
  Ss = _____ Fa = _____ PER ASCE 7-16 SUPPL 3, TABLE 11.4-1
- ☐ DESIGN BASED ON SITE CLASS SPECIFIC GROUND MOTION HAZARD ANALYSIS PER CHAPTER 21 OF ASCE 7-16
  SHORT-PERIOD DESIGN SPECTRAL RESPONSE PARAMETER, S_{DS}, SHALL BE AS SPECIFIED IN GEOTECHNICAL INVESTIGATION
  CGS APPROVAL REQUIRED
  NOT ELIGIBLE FOR OTC REVIEW
  SITE CLASS: ☐ C ☐ D

S_{DS} = 2/3 Fa Ss = _____ ≤ 2.0
Cs = 1.6 USED IN DESIGN
SEISMIC DESIGN CATEGORY: ☐ D ☐ E

CODE ANALYSIS			
OCCUPANCY GROUP	OCCUPANT LOAD FACTOR	TOTAL OCCUPANT LOAD	SHADE STRUCTURE AREA (ft^2)

SITE SPECIFIC PARAMETERS

MANUFACTURER:

USA SHADE & FABRIC STRUCTURES
2580 ESTERS BOUVLEVARD, SUITE 100
DFW AIRPORT, TEXAS 75261
PH. 800-966-5005
W. www.usa-shade.com

ARCHITECT:

HIGGINSON ARCHITECTS, INC.
DAVID HIGGINSON, AIA, PRINCIPAL ARCHITECT
34247 YUCAIPA BOULEVARD, SUITE D
YUCAIPA, CALIFORNIA 92399
PH. 909-499-0058
E. dhiggInson@higgInsonarchitects.com
W. www.higgInsonarchitects.com

LICENSED ARCHITECT — DAVID HIGGINSON — C19168 — 10-31-25 RENEWAL DATE — STATE OF CALIFORNIA

STRUCTURAL ENGINEER:

MARK LOWE, S.E.
c/o USA SHADE AND FABRIC STRUCTURES

REGISTERED PROFESSIONAL ENGINEER — ALBERT MARK LOWE — No. 3693 — STRUCTURAL — STATE OF CALIFORNIA

ARCHITECT / ENGINEER

✓	SHEET NO.	SHEET DESCRIPTION	UNIT STRUCTURE TYPE	MAX. UNIT SIZE	UNIT MODEL NUMBER
X	T-1.0	TITLE SHEET			
X	T-2.0	UNIT SELECTION			
X	T-3.0	T&I FORMS			
	1.1-1000	PRODUCT INFORMATION	HIP	20' x 30' x 15'	DSA4012030-22
	1.2-2000	REACTIONS	HIP	20' x 30' x 15'	DSA4012030-22
	2.1-1000	PRODUCT INFORMATION	HIP	30' x 30' x 15'	DSA4013030-22
	2.2-2000	REACTIONS	HIP	30' x 30' x 15'	DSA4013030-22
	3.1-1000	PRODUCT INFORMATION	HIP	30' x 40' x 15'	DSA4013040-22
	3.2-2000	REACTIONS	HIP	30' x 40' x 15'	DSA4013040-22
	4.1-1000	PRODUCT INFORMATION	HIP	40' x 40' x 15'	DSA4014040-22
	4.2-2000	REACTIONS	HIP	40' x 40' x 15'	DSA4014040-22
	5.1-1000	PRODUCT INFORMATION	HIP	20' x 30' x 12'	DSA401203012-22
	5.2-2000	REACTIONS	HIP	20' x 30' x 12'	DSA401203012-22
	6.1-1000	PRODUCT INFORMATION	HIP	30' x 30' x 12'	DSA401303012-22
	6.2-2000	REACTIONS	HIP	30' x 30' x 12'	DSA401303012-22
	7.1-1000	PRODUCT INFORMATION	HIP	30' x 40' x 12'	DSA401304012-22
	7.2-2000	REACTIONS	HIP	30' x 40' x 12'	DSA401304012-22
	8.1-1000	PRODUCT INFORMATION	HIP (20 psf SNOW LOAD)	20' x 30' x 15'	DSA401S2030-22
	8.2-2000	REACTIONS	HIP (20 psf SNOW LOAD)	20' x 30' x 15'	DSA401S2030-22
X	9.1-1000	PRODUCT INFORMATION	JOINED HIPS	VARIES	DSA401J-22
X	9.2-1001	DETAILS	JOINED HIPS	VARIES	DSA401J-22
X	9.3-2000	REACTIONS	JOINED HIPS	VARIES	DSA401J-22
	10.1-1000	PRODUCT INFORMATION	QUAD JOINED HIPS	VARIES	DSA401Q-22
	10.2-1001	DETAILS	QUAD JOINED HIPS	VARIES	DSA401Q-22
	10.3-2000	REACTIONS	QUAD JOINED HIPS	VARIES	DSA401Q-22
	11.1-1000	PRODUCT INFORMATION	FULL CANTILEVER HIP SINGLE	20' x 30' x 15'	DSA2022030-22
	11.2-2000	REACTIONS	FULL CANTILEVER HIP SINGLE	20' x 30' x 15'	DSA2022030-22
	12.1-1000	PRODUCT INFORMATION	FULL CANTILEVER HIP JOINED	20' x 200' x 15'	DSA3022060-22
	12.2-2000	REACTIONS	FULL CANTILEVER HIP JOINED	20' x 200' x 15'	DSA3022060-22
	13.1-1000	PRODUCT INFORMATION	SINGLE POST PYRAMID	14' x 14' x 12'	DSA1031414-22
	13.2-2000	REACTIONS	SINGLE POST PYRAMID	14' x 14' x 12'	DSA1031414-22
	14.1-1000	PRODUCT INFORMATION	SINGLE POST PYRAMID	20' x 20' x 12'	DSA1032020-22
	14.2-2000	REACTIONS	SINGLE POST PYRAMID	20' x 20' x 12'	DSA1032020-22
	15.1-1000	PRODUCT INFORMATION	SINGLE POST PYRAMID CANTILEVER	14' x 14' x 12'	DSA1241414-22
	15.2-2000	REACTIONS	SINGLE POST PYRAMID CANTILEVER	14' x 14' x 12'	DSA1241414-22
	16.1-1000	PRODUCT INFORMATION	SINGLE POST PYRAMID CANTILEVER	20' x 20' x 12'	DSA1242020-22
	16.2-2000	REACTIONS	SINGLE POST PYRAMID CANTILEVER	20' x 20' x 12'	DSA1242020-22
	17.1-1000	PRODUCT INFORMATION	MARINER PEAK	30' x 30' x 15'	DSA4073030-22
	17.2-2000	REACTIONS	MARINER PEAK	30' x 30' x 15'	DSA4073030-22
	18.1-1000	PRODUCT INFORMATION	MARINER PEAK	30' x 40' x 18'	DSA4073040-22
	18.2-2000	REACTIONS	MARINER PEAK	30' x 40' x 18'	DSA4073040-22
X	19.1-1000	PRODUCT INFORMATION	MARINER PEAK JOINED	30' x 133' x 15'	DSA407J3060-22
X	19.2-2000	REACTIONS	MARINER PEAK JOINED	30' x 133' x 15'	DSA407J3060-22
	20.1-1000	PRODUCT INFORMATION	MARINER PEAK QUAD	60' x 60' x 15'	DSA407Q6060-22
	20.2-2000	REACTIONS	MARINER PEAK QUAD	60' x 60' x 15'	DSA407Q6060-22
	21.1-1000	PRODUCT INFORMATION	TRI TRUSS HIP SINGLE WIDE	20' x 30' x 15'	DSA2062030-22
	21.2-2000	REACTIONS	TRI TRUSS HIP SINGLE WIDE	20' x 30' x 15'	DSA2062030-22
	22.1-1000	PRODUCT INFORMATION	TRI TRUSS HIP JOINED	20' x 200' x 15'	DSA3052060-22
	22.2-2000	REACTIONS	TRI TRUSS HIP JOINED	20' x 200' x 15'	DSA3052060-22
	23.1-1000	PRODUCT INFORMATION	TENSION SAILS THREE POINT	30' x 133' x 15'	DSA30730-22
	23.2-2000	REACTIONS	TENSION SAILS THREE POINT	30' x 133' x 15'	DSA30730-22
	24.1-1000	PRODUCT INFORMATION	TENSIONS SAILS FOUR POINT	20' x 200' x 15'	DSA4182020-22
	24.2-2000	REACTIONS	TENSIONS SAILS FOUR POINT	20' x 200' x 15'	DSA4182020-22
	25.1-1000	PRODUCT INFORMATION	TENSIONS SAILS FOUR POINT	30' x 133' x 15'	DSA4183030-22
	25.2-2000	REACTIONS	TENSIONS SAILS FOUR POINT	30' x 133' x 15'	DSA4183030-22
	26.1-1000	PRODUCT INFORMATION	TRIANGLE	25' x 25' x 15'	DSA30125-22
	26.2-2000	REACTIONS	TRIANGLE	25' x 25' x 15'	DSA30125-22
	27.1-1000	PRODUCT INFORMATION	TRIANGLE	40' x 40' x 15'	DSA30140-22
	27.2-2000	REACTIONS	TRIANGLE	40' x 40' x 15'	DSA30140-22
	28.1-1000	PRODUCT INFORMATION	HEXAGON	Ø40' X 15'	DSA60340-22
	28.2-2000	REACTIONS	HEXAGON	Ø40' X 15'	DSA60340-22
	29.1-1000	PRODUCT INFORMATION	HEXAGON	Ø60' X 15'	DSA60360-22
	29.2-2000	REACTIONS	HEXAGON	Ø60' X 15'	DSA60360-22

TOTAL SHEET COUNT: 63 SHEETS

SHEET INDEX

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN

USASHADE & Fabric Structures®

CORPORATE HEADQUARTERS
2580 ESTERS BLVD. SUITE 100
DFW AIRPORT, TX, 75261
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Lakeside Union School District

PROJECT NAME:
Lakeside School

LOCATION:
14535 Old River Road
Bakersfield, CA 93361

MODEL NUMBER:

APPROVED
DIV OF THE STATE ARCHITECT
ACCESS COMPLIANCE
DSA
STRUCTURAL SAFETY
DEPARTMENT OF GENERAL SERVICES
DATE: 10/30/2023

STRUCTURE TYPE:

SCALE : VARIES

DRAWING SIZE:
D

PRE-CHECK (PC) DOCUMENT
Code : 2022 CBC
A separate project application for construction is required.

Eng. By :	DWH	2/14/23
Design By :	DWH	2/14/23
Approved By :	DWH	2/14/23

DRAWING DESCRIPTION:

DWG. TITLE SHEET

SHEET T-1.0

REV.

x

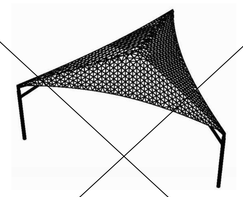
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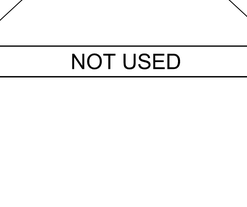
TRIANGLE



	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA30125-22 25' x 25' x 15' 271 SQ. FT. 18 PERSONS	SEE SHEET 26.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA30140-22 30' x 30' x 15' 692 SQ. FT. 46 PERSONS	SEE SHEET 27.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

HEXAGON

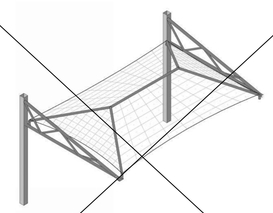


	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA60340-22 060' x 15' 1,040 SQ. FT. 69 PERSONS	SEE SHEET 28.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA60360-22 060' x 15' 2,338 SQ. FT. 156 PERSONS	SEE SHEET 29.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

NOT USED

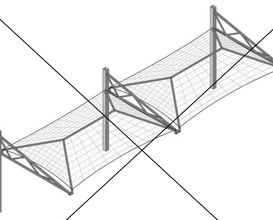
TRI-TRUSS HIP SINGLE WIDE



	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA2062030-22 20' x 30' x 15' 600 SQ. FT. 40 PERSONS	SEE SHEET 21.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

TRI-TRUSS HIP JOINED



	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA3052060-22 20' x 200' x 15' 4,000 SQ. FT. 266 PERSONS	SEE SHEET 22.1-1000

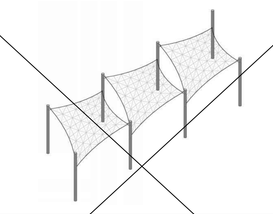
FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

TENSIONS SAILS THREE-POINT

	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA30730-22 30' x 133' x 15' 3,990 SQ. FT. 266 PERSONS	SEE SHEET 23.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

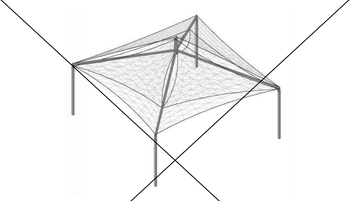
TENSIONS SAILS FOUR-POINT



	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA4182020-22 20' x 200' x 15' 4,000 SQ. FT. 266 PERSONS	SEE SHEET 24.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA4183030-22 30' x 133' x 15' 3,990 SQ. FT. 266 PERSONS	SEE SHEET 25.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

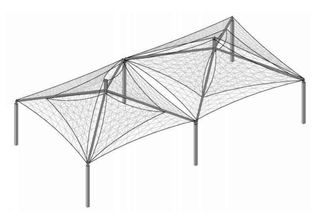
MARINER PEAK



	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA4073030-22 30' x 30' x 15' 600 SQ. FT. 40 PERSONS	SEE SHEET 17.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA4073040-22 30' x 40' x 15' 1,200 SQ. FT. 80 PERSONS	SEE SHEET 18.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

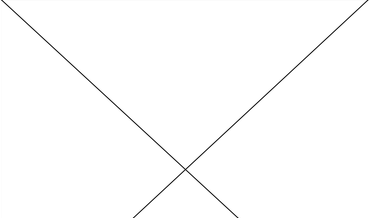
MARINER PEAK JOINED



X	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA407J3060-22 30' x 133' x 15' 3,990 SQ. FT. 266 PERSONS	SEE SHEET 19.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

MARINER PEAK QUAD

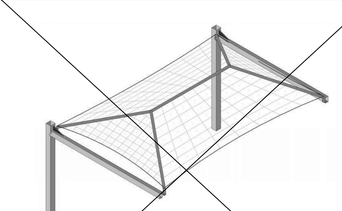


	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA407Q6060-22 60' x 60' x 15' 3,600 SQ. FT. 240 PERSONS	SEE SHEET 20.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

NOT USED

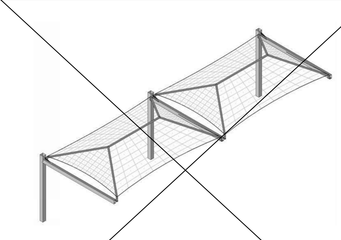
FULL CANTILEVER HIP SINGLE



	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA2022030-22 20' x 30' x 15' 600 SQ. FT. 40 PERSONS	SEE SHEET 11.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

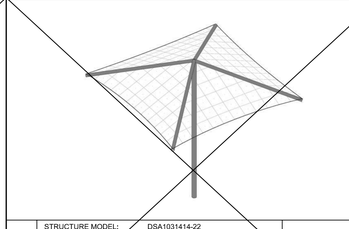
FULL CANTILEVER HIP JOINED



	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA3022060-22 20' x 200' x 15' 4,000 SQ. FT. 266 PERSONS	SEE SHEET 12.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

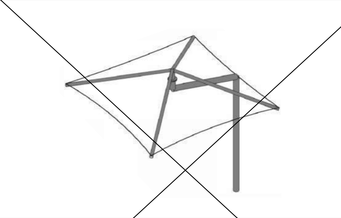
SINGLE POST PYRAMID



	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA1031414-22 14' x 14' x 12' 196 SQ. FT. 13 PERSONS	SEE SHEET 13.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA1032020-22 20' x 20' x 12' 400 SQ. FT. 26 PERSONS	SEE SHEET 14.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

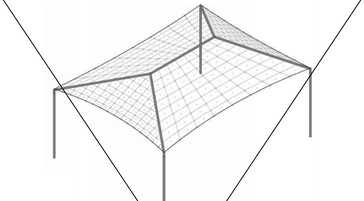
SINGLE POST PYRAMID CANTILEVER



	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA1241414-22 14' x 14' x 12' 196 SQ. FT. 13 PERSONS	SEE SHEET 15.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA1242020-22 20' x 20' x 12' 400 SQ. FT. 26 PERSONS	SEE SHEET 16.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

HIP



	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA4013030-22 30' x 30' x 15' 600 SQ. FT. 40 PERSONS	SEE SHEET 1.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA4013030-22 30' x 30' x 12' 600 SQ. FT. 60 PERSONS	SEE SHEET 2.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA4013040-22 30' x 40' x 15' 1,200 SQ. FT. 80 PERSONS	SEE SHEET 3.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA401203012-22 120' x 30' x 12' 600 SQ. FT. 40 PERSONS	SEE SHEET 4.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA401303012-22 30' x 30' x 12' 900 SQ. FT. 60 PERSONS	SEE SHEET 5.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA401304012-22 30' x 40' x 12' 1,200 SQ. FT. 80 PERSONS	SEE SHEET 6.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA4014040-22 40' x 40' x 12' 1,600 SQ. FT. 106 PERSONS	SEE SHEET 7.1-1000
	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA401S2030-22 (20 psf SNOW LOAD) 20' x 30' x 15' 600 SQ. FT. 40 PERSONS	SEE SHEET 8.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

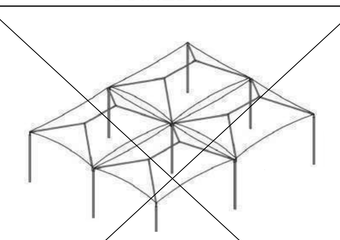
JOINED HIP



X	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA401J-22 VARIES, SEE JOINED HIP UNIT SHEET VARIES VARIES	SEE SHEET 9.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

QUAD HIP



	STRUCTURE MODEL: MAX. SIZE: MAX. AREA: MAX. OCCUPANCY:	DSA401Q-22 VARIES, SEE QUAD HIP UNIT SHEET VARIES VARIES	SEE SHEET 10.1-1000

FOR DSA 103 TESTING & INSPECTIONS SAMPLE, SEE PC T-3.0 & PC T-4.0

REGISTERED PROFESSIONAL ENGINEER
MARK ALBERT DOYLE
No. 3693
STRUCTURAL
STATE OF CALIFORNIA

10/18/2023

LICENSED ARCHITECT
DAVID HIGGINS
C19168
10-31-25
RENEWAL DATE
STATE OF CALIFORNIA

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN

USASHADE & Fabric Structures®

CORPORATE HEADQUARTERS
2580 ESTERS BLVD. SUITE 100
DFW AIRPORT, TX, 75261
800-966-5005

CERTIFICATIONS:

IAS CERTIFICATION No: FA-428

CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Lakeside Union School District

PROJECT NAME:
Lakeside School

LOCATION:
14535 Old River Road
Bakersfield, CA 93361

MODEL NUMBER:

APPROVED
DIV. OF THE STATE ARCHITECT
ACCESS COMPLIANCE
DSA-AC
DEPARTMENT OF GENERAL SERVICES
DATE: 10/30/2023

STRUCTURE TYPE:

SCALE : VARIES

DRAWING SIZE:
D

PRE-CHECK (PC) DOCUMENT
Code : 2022 CBC
A separate project application for construction is required.

Eng. By :	**DWH**	**2/14/23**
Design By :	**DWH**	**2/14/23**
Approved By :	**DWH**	**2/14/23**

DRAWING DESCRIPTION:

DWG.
UNIT SELECTION

SHEET
T-2.0

REV.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

Application Number: 04-121917
DSA File Number:
School Name: PC FABRIC SHADE STRUCTURES
Increment Number:
School District: USA SHADE AND FABRIC STRUCTURES
Date Created: 2023-02-15 15:23:09

2022 CBC

IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, and erection of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2022 CBC).

****NOTE:** Undefined section and table references found in this document are from the CBC, or California Building Code.

KEY TO COLUMNS

1. TYPE	2. PERFORMED BY
Continuous – Indicates that a continuous special inspection is required	**GE (Geotechnical Engineer)** – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative.
Periodic – Indicates that a periodic special inspection is required	**LOR (Laboratory of Record)** – Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335.
Test – Indicates that a test is required	**PI (Project Inspector)** – Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA.
	SI (Special Inspection) – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC

Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13
Application Number: 04-121917
DSA File Number:
School Name: PC FABRIC SHADE STRUCTURES
Increment Number:
School District: USA SHADE AND FABRIC STRUCTURES
Date Created: 2023-02-15 15:23:09

C1. CAST-IN-PLACE CONCRETE

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	**a.** Verify use of required design mix.	**Periodic**	**SI**	**Table 1705A.3 Item 5, 1910A.1.**
☑	**b.** Identify, sample, and test reinforcing steel.	**Test**	**LOR**	**1910A.2;** ACI 318-19 Ch 20 and Section 26.6.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.)
☑	**c.** During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	**Test**	**LOR**	**Table 1705A.3 Item 6;** ACI 318-19 Sections 26.5 & 26.12.
☑	**d.** Test concrete (f'c).	**Test**	**LOR**	**1905A.1.17;** ACI 318-19 Section 26.12.
☑	**e.** Batch plant inspection. **Eliminated**	**See Notes**	**SI**	Default of '**Continuous**' per **1705A.3.3**. If approved by DSA, batch plant inspection may be reduced to '**Periodic**' subject to requirements in Section **1705A.3.3.1,** or eliminated per **1705A.3.3.2.** See IR 17-13. (See Appendix (end of this form) for exemptions.)
☐	**f.** Welding of reinforcing steel.	Provide special inspection per STEEL, Category S/A4(d) & (e) and/or S/A5(g) & (h) below.		

C2. PRESTRESSED / POST-TENSIONED CONCRETE (IN ADDITION TO SECTION C1):

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Sample and test prestressing tendons and anchorages.	**Test**	**LOR**	**1705A.3.4, 1910A.3**
☐	**b.** Inspect placement of prestressing tendons.	**Periodic**	**SI**	**1705A.3.4, Table 1705A.3 Items 1 & 9.**

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
Application Number: 04-121917
DSA File Number:
School Name: PC FABRIC SHADE STRUCTURES
Increment Number:
School District: USA SHADE AND FABRIC STRUCTURES
Date Created: 2023-02-15 15:23:09

S/A3. WELDING:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	**a.** Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	**Periodic**	**SI**	**1705A.2.5, Table 1705A.2.1 Items 4 & 5;** AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
☑	**b.** Verify weld filler material manufacturer's certificate of compliance.	**Periodic**	**SI**	DSA IR 17-3.
☑	**c.** Verify WPS, welder qualifications and equipment.	**Periodic**	**SI**	DSA IR 17-3.

S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3):

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds	**Continuous**	**SI**	**Table 1705A.2.1 Items 5a.1–4;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3
☑	**b.** Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	**Periodic**	**SI**	**1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☐	**c.** Inspect welding of stairs and railing systems.	**Periodic**	**SI**	**1705A.2.2;** AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.
☐	**d.** Verification of reinforcing steel weldability other than ASTM A706.	**Periodic**	**SI**	**1705A.3.1;** AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
☐	**e.** Inspect welding of reinforcing steel.	**Continuous**	**SI**	**Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
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	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**c.** Storage rack anchorage installation.	**Periodic**	**SI**	ANSI/MH16.1 Section 7.3.2; Table 1705A.13.7
☐	**d.** Completed storage rack system to indicate compliance with the approved construction documents.	**Periodic**	**SI***	Table 1705A.13.7; * May be performed by the project inspector when specifically approved by DSA

S/A11. Other Steel

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.**			

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

Table 1705A.6, Table 1705A.7, Table 1705A.8
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School District: USA SHADE AND FABRIC STRUCTURES
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Geotechnical Reports: Project does NOT have and does NOT require a geotechnical report

S1. GENERAL:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	**a.** Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings are adequate to achieve the design bearing capacity.	**See Notes**	**PI**	Refer to specific items identified in the Appendix listing exemptions for limitations. Placement of controlled fill exceeding 12" depth under foundations is not permitted without a geotechnical report.

S2. SOIL COMPACTION AND FILL:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	**a.** Verify use of proper materials, densities and inspect lift thickness, placement and compaction during placement of fill.	**Continuous**	**LOR***	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	**b.** Compaction testing.	**Test**	**LOR***	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.

S3. DRIVEN DEEP FOUNDATIONS (PILES):

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Verify pile materials, sizes and lengths comply with the requirements.	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative.
☐	**b.** Determine capacities of test piles and conduct additional load tests as required.	**Test**	**LOR***	* Under the supervision of the geotechnical engineer.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC

Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13
Application Number: 04-121917
DSA File Number:
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	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**c.** Verify in-situ concrete strength prior to stressing of post-tensioning tendons.	**Periodic**	**SI**	**Table 1705A.3 Item 13.** Special inspector to verify specified concrete strength test prior to stressing.
☐	**d.** Inspect application of post-tensioning or prestressing forces and grouting of bonded prestressing tendons.	**Continuous**	**SI**	**1705A.3.4, Table 1705A.3 Item 9;** ACI 318-14 Section 26.13

C3. PRECAST CONCRETE (IN ADDITION TO SECTION C1):

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Inspect fabrication of precast concrete members.	**Continuous**	**SI**	ACI 318-19 Section 26.13.
☐	**b.** Inspect erection of precast concrete members.	**Periodic**	**SI***	**Table 1705A.3 Item 10.** * May be performed by PI when specifically approved by DSA
☐	**c.** For precast concrete diaphragm connections or reinforcement at joints classified as moderate or high deformability elements (MDE or HDE) in structures assigned to Seismic Design Category D, E or F, inspect such connections and reinforcement in the field for: 1. Installation of the embedded parts 2. Completion of the continuity of reinforcement across joints. 3. Completion of connections in the field.	**Continuous**	**SI**	Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5
☐	**d.** Inspect installation tolerances of precast concrete diaphragm connections for compliance with ACI 550.5.	**Periodic**	**SI**	Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
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DSA File Number:
School Name: PC FABRIC SHADE STRUCTURES
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S/A5. FIELD WELDING (IN ADDITION TO SECTION S/A3):

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds	**Continuous**	**SI**	**Table 1705A.2.1 Items 5a.1–4;** AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3
☐	**b.** Inspect single-pass fillet welds ≤ 5/16".	**Periodic**	**SI**	**Table 1705A.2.1 Item 5a.5;** AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3
☐	**c.** Inspect end-welded studs (ASTM A-108) installation (including bend test)	**Periodic**	**SI**	**2213A.2;** AISC 360-16 (AISC 341-16 as applicable); AWS D1.1; DSA IR 17-3
☐	**d.** Inspect floor and roof deck welds.	**Periodic**	**SI**	**1705A.2.2, Table 1705A.2.1 Item 5a.6;** AISC 360-16 (AISC 341-16 as applicable); AWS D1.3; DSA IR 17-3.
☐	**e.** Inspect welding of structural cold-formed steel.	**Periodic**	**SI***	**1705A.2.5; AWS D1.3; DSA IR 17-3.** The quality control provisions of AISI S240-20 Chapter D shall also apply. * May be performed by the project inspector when specifically approved by DSA.
☐	**f.** Inspect welding of stairs and railing systems.	**Periodic**	**SI***	**1705A.2.1;** AISC 360-16 (AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. * May be performed by the project inspector when specifically approved by DSA.
☐	**g.** Verification of reinforcing steel weldability.	**Periodic**	**SI**	**1705A.3.1;** AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
☐	**h.** Inspect welding of reinforcing steel.	**Continuous**	**SI**	**Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3.

GENERAL DSA-103 NOTES:

1. THE SAMPLE DSA-103 FORM PROVIDED ON THIS SHEET IS FOR ILLUSTRATIVE PURPOSES ONLY TO ASSIST IN THE COMPLETION OF SPECIFIC DSA-103 FORMS FOR FUTURE PROJECTS.
2. A CURRENT DSA-103 FORM IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS P.C. DOCUMENT IS BEING INCORPORATED INTO AND ALL SAMPLE DSA-103 SHEETS ARE TO BE CROSSED OUT ON THIS SHEET

ADDITIONAL TESTING AND INSPECTION NOTES:

1. THE PROJECT INSPECTOR AND TESTING AGENCY SHALL BE EMPLOYED BY THE SCHOOL DISTRICT AND APPROVED BY DSA AND THE ARCHITECT OF RECORD.
2. A "DSA CERTIFIED" PROJECT INSPECTRO EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.
3. THE SITE PROJECT INSPECTOR SHALL BE CLASS 2.
4. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE RQUIRED TEST AND INSPECTIONS FOR THE PROJECT.,
5. THE COSTS OF THE PROJECT INSPECTOR AND TESTING AGENCY SHALL BE BORN BY THE SCHOOL DISTRICT,
6. COPIES OF THE VERIFIED REPORTS SHALL BE SENT TO DSA, THE ARCHITECT, THE SCHOOL DISTRICT, THE CONTRACTOR, AND THE PROJECT INSPECTOR.
7. THE IN-PLANT INSPECTOR SHALL BE A WELDING SPECIAL INSPECTOR FOR MATERIAL VERIFICATION AND WELDING.
8. PER 2022 CBC, SECTION 1705A.3.3, BATCH PLANT INSPECTION MAY BE WAIVED WHEN THE FOLLOWING REQUIREMENTS ARE MET;
   - 8.1. A LICENSED WEIGHMASTER SHALL POSITIVELY IDENTIFY QUANTITY OF MATERIALS AND CERTIFY EACH LOAD BY A BATCH TICKET;
   - 8.2. BATCH TICKETS, INCLUDING MATERIAL QUANTITIES AND WEIGHTS SHALL ACCOMPANY THE LOAD, SHALL BE TRANSMITTED TO THE INSPECTOR OF RECORD BY THE TRUCK DRIVER WITH LOAD IDENTIFIED THEREON. THE LOAD SHALL NOT BE PLACED WITHOUT A BATCH TICKET IDENTIFYING THE MIX. THE INSPECTOR OF RECORD SHALL KEEP A DAILY RECORD OF PLACEMENTS, IDENTIFYING EACH TRUCK, IT'S LOAD, TIME OF RECEIPT AT THE JOBSITE, AND APPROXIMATE LOCATION OF DEPOSIT IN THE STRUCTURE AND SHALL MAINTAIN A COPY OF THE DAILY RECORD AS REQUIRED BY THE ENFORCING AGENCY.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

Table 1705A.6, Table 1705A.7, Table 1705A.8
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	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**c.** Inspect drilling operations and maintain complete and accurate records for each pile.	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative.
☐	**d.** Verify locations of piles and their plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and record any pile damage.	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative.
☐	**e.** Steel piles.	Provide tests and inspections per STEEL section below.		
☐	**f.** Concrete piles and concrete filled piles.	Provide tests and inspections per CONCRETE section below.		
☐	**g.** For specialty piles, perform additional inspections as determined by the registered design professional in responsible charge.	*	*	* As defined on drawings or specifications.

S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):

	Test or Special Inspection	Type	Performed By	Code References and Note
☑	**a.** Inspect drilling operations and maintain complete and accurate records for each pier.	**Continuous**	**PI**	Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	**b.** Verify pier locations, diameters, plumbness and lengths.Record concrete or grout volumes.	**Continuous**	**PI**	Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	**c.** Concrete piers.	Provide tests and inspections per CONCRETE section below.		

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC

Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13
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C4. SHOTCRETE (IN ADDITION TO SECTION C1):

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Inspect shotcrete placement for proper application techniques.	**Continuous**	**SI**	**1705A.3.9, Table 1705A.3 Item 7, 1908A.1, 1908A.2, 1908A.3.** See ACI 506.2-13 Section 3.4; ACI 506-16
☐	**b.** Sample and test shotcrete (f'c).	**Test**	**LOR**	**1908A.2, 1705A.3.8**

C5. POST-INSTALLED ANCHORS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Inspect installation of post-installed anchors	**See Notes**	**SI***	**1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic), 1705A.3.8** (see Appendix (end of this form) for exemptions). ACI 318-14 Sections 17.8 & 26.13. * May be performed by the project inspector when specifically approved by DSA
☐	**b.** Test post-installed anchors.	**Test**	**LOR**	**1910A.5.** (See Appendix (end of this form) for exemptions.)

C6. OTHER CONCRETE:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.**			

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
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S/A6. NONDESTRUCTIVE TESTING:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Ultrasonic	**Test**	**LOR**	**1705A.2.1, 1705A.2.5;** AISC 341-16 J6.2, AISC 360-16 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2.
☐	**b.** Magnetic Particle	**Test**	**LOR**	**1705A.2.1, 1705A.2.5;** AISC 341-16 J6.2, AISC 360-16 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2.
☐	**c.**	**Test**	**LOR**	

S/A7. STEEL JOISTS AND TRUSSES:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Verify size, type and grade for all chord and web members as well as connectors and weld filler material; verify joist profile, dimensions and camber (if applicable); verify all weld locations, lengths and profiles; mark or tag each joist.	**Continuous**	**SI**	**1705A.2.3, Table 1705A.2.3;** AWS D1.1; DSA IR 22-3 for steel joists only. **1705A.2.4;** AWS D1.3 for cold-formed steel trusses.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

Table 1705A.6, Table 1705A.7, Table 1705A.8
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S5. RETAINING WALLS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Placement, compaction and inspection of backfill.	**Continuous**	**GE***	**1705A.6.1.** * By geotechnical engineer or his or her qualified representative. (See Section 32 above).
☐	**b.** Placement of soil reinforcement and/or drainage devices.	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative.
☐	**c.** Segmental retaining walls; inspect placement of units, dowels, connectors, etc.	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative. See DSA IR 18-2.
☐	**d.** Concrete retaining walls.	Provide tests and inspections per CONCRETE section below.		
☐	**e.** Masonry retaining walls.	Provide tests and inspections per MASONRY section below.		

S6. OTHER SOILS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Soil improvements	**Test**	**GE***	Submit a comprehensive report documenting final soil improvements constructed, construction observation and the results of the confirmation testing and analysis to CGS (California Geological Survey) for final acceptance. * By geotechnical engineer or his or her qualified representative.
☐	**b.** Inspection of Soil Improvements	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative.
☐	**c.**			

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
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S/A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	**a.** Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	**Periodic**	*	**Table 1705A.2.1 Item 3a–3c**; 2202A.1; AISI S100-20 Section A3.1 & A3.2; AISI S240-20 Section A3 & A5; AISI S220-20 Sections A4 & A5. * By special inspector or qualified technician when performed off-site.
☑	**b.** Test unidentified materials	**Test**	**LOR**	**2202A.1.**
☑	**c.** Examine seam welds of HSS shapes	**Periodic**	**SI**	DSA IR 17-3
☑	**d.** Verify and document label fabrication per DSA-approved construction documents.	**Periodic**	**SI**	Not applicable to cold-formed steel light-frame construction, except for trusses (**1705A.2.4**)
☐	**e.** Buckling restrained braces.	**Test**	**LOR**	Testing and special inspections in accordance with IR 22-4.

S/A2. HIGH-STRENGTH BOLTS: SEE STRUCTURAL NOTES ON SERIES 1000 SHEETS FOR JOINT TYPE

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	**a.** Verify identification markings and manufacturer's certificates of compliance conforms to ASTM standards specified in the DSA-approved documents.	**Periodic**	**SI**	**Table 1705A.2.1 Items 1a & 1b, 2202A.1;** AISC 360-16 Section A3.3; J3.1, and N3.2; RCSC 2014 Section 1.5 & 2.1; DSA IR 17-8 & DSA IR 17-9.
☑	**b.** Test high-strength bolts, nuts and washers.	**Test**	**LOR**	**Table 1705A.2.1 Item 1c, 2213A.1**; RCSC 2014 Section 7.2; DSA IR 17-8.
☑	**c.** Bearing-type ("snug tight") connections.	**Periodic**	**SI**	**Table 1705A.2.1 Item 2a, 1705A.2.6, 2204A.2**; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Section 9.1; DSA IR 17-9.
☑	**d.** Pretensioned and slip-critical connections.	*	**SI**	**Table 1705A.2.1 Item 2b & 2c, 1705A.2.6, 2204A.2**; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Sections 9.2 & 9.3; DSA IR 17-9. **"Continuous" or "Periodic" depends on the tightening method used.

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1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
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S/A8. SPRAYED FIRE-RESISTANT MATERIALS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Examine structural steel surface conditions, inspect application, take samples, measure thickness and verify compliance of all aspects of application with DSA-approved documents.	**Periodic**	**SI**	**1705A.15, 1705A.1, 1705A.2, 1705A.3, 1705A.4.**
☐	**b.** Test density.	**Test**	**LOR**	**1705A.15.1, 1705A.15.5, ASTM E736**
☐	**c.** Bond strength adhesion/cohesion.	**Test**	**LOR**	**1705A.15.1, 1705A.15.4, ASTM E605**

S/A9. ANCHOR BOLTS AND ANCHOR RODS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Anchor Bolts and Anchor Rods	**Test**	**LOR**	Sample and test anchor bolts and anchor rods not readily identifiable per procedures noted in DSA IR 17-11.
☐	**b.** Threaded rod not used for foundation anchorage.	**Test**	**LOR**	Sample and test threaded rods not readily identifiable per procedures noted in DSA IR 17-11.

S/A10. STORAGE RACK SYSTEMS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**a.** Materials used, to verify compliance with one or more of the material test reports in accordance with the approved construction documents.	**Periodic**	**SI**	Table 1705A.13.7
☐	**b.** Fabricated storage rack elements.	**Periodic**	**SI**	1704A.2.5; Table 1705A.13.7

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN

USA SHADE & Fabric Structures®

CORPORATE HEADQUARTERS
2580 ESTERS BLVD. SUITE 100
DFW AIRPORT, TX, 75261
800-966-5005

CERTIFICATIONS:

IAS CERTIFICATION No: FA-428

CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Lakeside Union School District

PROJECT NAME:

LOCATION:
Lakeside School
14535 Old River Road
Bakersfield, CA 93361

MODEL NUMBER:

APPROVED
DIV. OF THE STATE ARCHITECT
ACCESS COMPLIANCE
DSA-AC
APPLICATION NO. 03-121917
DEPARTMENT OF GENERAL SERVICES
DATE: 10/30/2023

STRUCTURE TYPE:

SCALE : VARIES

DRAWING SIZE:
D

PRE-CHECK (PC) DOCUMENT
Code : 2022 CBC
A separate project application for construction is required.

Eng. By :	**DWH**	**2/14/23**
Design By :	**DWH**	**2/14/23**
Approved By :	**DWH**	**2/14/23**

DRAWING DESCRIPTION:

DWG. T&I FORMS

SHEET T-3.0

REV.

REGISTERED PROFESSIONAL ENGINEER — MARK ALBERT DAVIS — No. 3593 — STRUCTURAL — STATE OF CALIFORNIA
10/18/2023

LICENSED ARCHITECT — DAVID HIGGINS — C19168 — 10-31-25 RENEWAL DATE — STAT

GENERAL NOTES

1.- SPECIAL INSPECTION REQUIREMENTS SHALL FOLLOW THE ATTACHED SAMPLE TEST AND INSPECTION LIST (T & I LIST) APPROVED BY DSA. THE SHOP WELDING INSPECTION SHALL INCLUDE WELDING OF ALL STEEL MEMBERS AND IDENTIFICATION OF STEEL THROUGH MILL CERTIFICATE OR MATERIAL TESTING. UNCERTIFIED STEEL SHALL BE TESTED TO THE REQUIREMENTS OF CBC 2022 CHAPTER 17A. THE FIELD SPECIAL INSPECTION SHALL INCLUDE COMPRESSION CYLINDER TESTS FOR THE CONCRETE FOUNDATION.

2.- STRUCTURE SHALL BE IN THE LOCATION SHOWN ON THE SITE SPECIFIC DSA APPLICATION DRAWING.

3.- FOUNDATION DESIGN BASED ON CBC 2022, TABLE 1806A.2, SOIL CLASS 5 (ALLOWABLE FOUNDATION PRESSURE 1500 PSF)

4.- DESIGN PER FOLLOWING CODES: CBC 2022 (CHAPTER 35), ASCE 7-16, AISC 360-16, AISC 341-16, ACI 318-19, ASCE 55-16 & ASCE 19-16

STRUCTURAL STEEL

1.- FABRICATION OF THE STEEL STRUCTURES SHALL BE PERFORMED BY SHADE STRUCTURES OR AN AUTHORIZED LICENSEE. MATERIAL TESTING (OR MILL CERTIFICATES) AND INSPECTION OF WELDING SHALL BE CONDUCTED PER CBC 2022 SECTIONS 1704A, 1705A, 1705A.2, AND TABLE 1705A.2.1.

2.- ONLY CALIFORNIA LICENSED CONTRACTORS AUTHORIZED BY SHADE STRUCTURES SHALL INSTALL THE SHADE STRUCTURES.

3.- ALL WORK SHALL CONFORM TO CBC 2022 EDITION, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)

4.- ALL GALVANIZED STEEL TUBE PRODUCTS MANUFACTURED BY ALLIED TUBE & CONDUIT FOR THIS STRUCTURE SHALL BE, AND CONFORM TO ASTM A500-16 GRADE C, IN ITS' ENTIRETY.
TYPICAL MECHANICAL PROPERTIES ARE:
ROUND TUBE GRADE C 46,000 PSI YIELD STRESS MINIMUM / 62,000 PSI TENSILE STRESS MINIMUM

5.- ALL STRUCTURAL SHAPES SHALL BE COLD FORMED HSS ASTM A500 GRADE C, UNLESS OTHERWISE NOTED. TYPICAL MECHANICAL PROPERTIES ACHIEVED FOR HSS PRODUCTS:
SQUARE AND RECTANGULAR 50,000 PSI YIELD STRESS / 62,000 PSI TENSILE STRESS
ROUND PIPE 50,000 PSI YIELD STRESS / 62,000 PSI TENSILE STRESS

6.- ALL PLATES PRODUCTS SHALL COMPLY WITH ASTM A572 GRADE 50.

7.- STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS.

8.- ALL WELDING TO CONFORM WITH AMERICAN WELDING SOCIETY STANDARDS AND SHALL BE INSPECTED BY AN AWS/CWI INSPECTOR. AWS D1.1 FOR HOT ROLLED. AWS D1.3 FOR SHEET/COLD FORMED. AWS D1.8 SEISMIC SUPPLEMENT.

9.- ALL FULL PENETRATION WELD SHALL BE CONTINUOUSLY INSPECTED PER AWS D1.1 & D1.8.

10.- SHOP CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE. ALL FILLET WELDS SHALL BE A MINIMUM OF 3/16" ER70SX ELECTRODES UNLESS OTHERWISE NOTED. GMAW IS ACCEPTABLE.

11.- ALL STAINLESS STEEL BOLTS SHALL COMPLY WITH ASTM F-593, ALLOY GROUP 2, CONDITION CW1 (Ø1/2"-Ø5/8") & CW2 (Ø3/4"). CW1 YIELD STRENGTH= 65 KSI, CW2 YIELD STRENGTH= 45 KSI, CW1 TENSILE STRENGTH=100 KSI MINIMUM, CW2 TENSILE STRENGTH=85 KSI MINIMUM. ALL NUTS SHALL COMPLY WITH ASTM F-594 ALLOY GROUP 2, CONDITION CW1 (Ø1/2"-Ø5/8") & CW2 (Ø3/4"). REFERRING TO RCSC, ASTM F-593 IS NOT CONSIDERED AS HIGH STRENGTH BOLTS. BOLTS SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION (ST).

12.- ALL STRUCTURAL STEEL (ITEMS FROM NOTE 5) SHALL BE POWDER COATED WITH ONE SHOP COAT (2.5 MILS MIN.) OF ZINC-RICH PRIMER, UNDERCOAT, AND FINISH COAT, OR EQUIVALENT PAINT SYSTEM. THIS COAT IS A WEATHER RESISTANT POWDER COATING BASED ON POLYESTER TGIC (MANUFACTURED BY SHERWIN WILLIAMS, ASKO NOBEL, PPG OR TIGER DRYLAC). TO ACHIEVE OPTIMUM ADHESION, IT IS RECOMMENDED THAT THE PROPER TREATMENT AND DRYING TAKE PLACE BEFORE COATING. POLYESTER POWDER (TGIC) SPECIFICATIONS SHALL BE AS FOLLOWS:
- PENCIL HARDNESS (ASTM D-3363). - HUMIDITY (ASTM D-2247).
- SOLVENT RESISTANCE (PCI METHOD) - 50 DBL RUBS SL. SOFTNESS.

13.- ALL STEEL ROUND TUBING (ITEMS FROM NOTE 4) SHALL BE TRIPLE COATED FOR RUST PROTECTION USING THE IN-LINE ELECTROPLATING COAT PROCESS. TUBING SHALL BE INTERNALLY COATED WITH ZINC AND ORGANIC COATINGS TO PREVENT CORROSION AS MANUFACTURED BY ALLIED TUBE & CONDUIT.

14.- ALL EXPOSED STEEL FASTENERS SHALL BE STAINLESS STEEL (TYPE 304 MINIMUM), HOT DIP GALVANIZED (ASTM A153, CLASS D MINIMUM OR ASTM F2329) AS APPLICABLE, OR PROTECTED WITH CORROSION PREVENTIVE COATING THAT DEMONSTRATED NO MORE THAN 2% OF RED RUST IN MINIMUM 1,000 HOURS OF EXPOSURE IN SALT SPRAY TEST PER ASTM B117. ZINC-PLATED FASTENERS DO NOT COMPLY WITH THIS REQUIREMENT.

GEOHAZARD REPORT IS NOT REQUIRED FOR OPEN FABRIC STRUCTURES 1,600 SQF OR LESS COMPLYING WITH THE REQUIREMENTS OF IR A-4 SECTION 3.1.1. OPEN FABRIC SHADE STRUCTURES GREATER THAN 1,600 SQUARE FEET UP TO A MAXIMUM OF 4,000 SQUARE FEET AND COMPLYING WITH THE REQUIREMENTS NOTED IN IR A-4 SECTION 3.1.1 DO NOT REQUIRE A GEOHAZARD REPORT PROVIDED A GEOTECHNICAL REPORT INDICATES THAT NO LIQUEFACTION POTENTIAL EXISTS.

ARCHITECT OF RECORD TO DETERMINE IF SPECIFIC SITE IS IN GEOLOGIC HAZARD ZONE. GEOHAZARD REPORT REQUIREMENTS PER DSA IR A-4.

PC OPTIONS SHALL NOT INCLUDE LIQUEFIABLE SOIL (EXCEPTION: OPEN FABRIC SHADE STRUCTURES 1,600 SQUARE FEET OR LESS COMPLYING WITH REQUIREMENTS OF IR A-4 SECTION 3.1.1). IF STRUCTURE IS LOCATED IN AN AREA WITH LIQUEFIABLE SOIL OR SITE CLASS F, OVER-THE-COUNTER SUBMITTAL IS NOT ALLOWED AND REGULAR PROJECT SUBMITTAL IS REQUIRED. IF SITE IS NOT IN A MAPPED LIQUEFACTION HAZARD ZONE, IT MAY BE PRESUMED THAT NO LIQUEFACTION HAZARD EXISTS ON THAT SITE UNLESS A SITE-SPECIFIC GEOTECHNICAL REPORT IDENTIFIES SUCH HAZARD.

FABRIC SPECIFICATION

1.- FABRIC SHALL BE MANUFACTURED BY MULTIKNIT LTD., WHICH MEETS THE SPECIFICATIONS LISTED ON PAGE 2000, AND SHALL BE FABRICATED FROM POLYETHYLENE MATERIALS. MINIMUM SEAM LENGTH 3/4".

2.- THE FABRIC SHALL RETAIN 80% OF ITS TENSILE AND TEARING STRENGTH AFTER ULTRAVIOLET EXPOSURE PER ASTM G53 USING A 313 NM LIGHT SOURCE FOR 500 HOURS WHILE MOISTENED FOR 1 HOUR EVERY 12 HOURS.

3.- PROVIDE CERTIFICATION BY MANUFACTURER AND STATE FIRE MARSHAL TO SCHOOLS DISTRICT INSPECTOR OF RECORD AT SITE SPECIFIC INSTALLATION. COPY OF FIRE CERTIFICATION SHALL BE SENT TO DSA.

4.- FABRIC SHALL REQUIRE ANNUAL INSPECTION AND MAINTENANCE BY THE DISTRICT. FIRE TEST ON FABRIC: NFPA 701 TEST 2 AND ASTM E 84 EXTENDED 30 MINUTES TEST. FLAME SPREAD INDEX: (FSI): 10. SMOKE DEVELOPED INDEX (SDI): 50. FABRIC IS ACCEPTABLE FOR USE IN WILDLIFE URBAN INTERFACE AREA.

5.- FABRIC TOP NEEDS TO BE REMOVED IF SNOW EXCEEDING 5 PSF ARE ANTICIPATED, FABRIC TOP NEEDS TO BE REMOVED IF WINDS EXCEEDING 115 MPH ARE ANTICIPATED.

6.- A VISUAL INSPECTION LOOKING FOR TEAR AND ABNORMAL WEAR IN FABRIC MATERIAL AND THREAD IS REQUIRED PRIOR TO RE-INSTALLATION. USA SHADE & FABRIC STRUCTURES SHALL BE NOTIFIED IF SIGNIFICANT DAMAGE IS PRESENT BEFORE RE-INSTALLATION.

AIRCRAFT CABLE

1.- FOR FABRIC ATTACHMENT USE 3/8" 7x19 GALV. CABLE PER ASTM A1023/A1023M, WITH A BREAKING STRENGTH VALUE OF 14,400 LBS. CABLE SHALL BE TENSIONED TO TABLE 1, ITEM 27. THE MAXIMUM CALCULATED CABLE TENSIONS ARE IN TABLE 1, ITEM 23. THE MAXIMUM CALCULATED CABLE ALLOWABLE CAPACITY IS Sa=4909 LB.

2.- CABLES SHALL BE FED THROUGH THE FABRIC SLEEVES AROUND THE PERIMETER OF THE CANOPY AND TENSIONED UNTIL THE FABRIC PANELS (DESIGNED PURPOSELY UNDERSIZED) REACH A TAUT APPEARANCE. ANY LONG TERM CABLE SAG SHALL BE MINIMIZED DURING THE MAINTENANCE RE-TIGHTING VISITS AS REQUIRED.

CONCRETE SPECIFICATION

1.- CONCRETE SHALL BE SAMPLED AND TESTED PER CBC 2022 SECTION 1903A & SHALL BE INSPECTED PER SECTION 1903A.

2.- CONCRETE TO BE F'c= 4500 PSI, TYPE V CEMENT PLUS POZZOLAN OR SLAG CEMENT, MAXIMUM WATER/CEMENT RATIO OF 0.45, PER ACI 318-19 CHAPTER 19. (NO ADMIXTURES CONTAINING CALCIUM CHLORIDE WILL BE USED.) REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60 AND TO BE Fy= 60000 PSI , MIN. GR. 60. ALSO COATED ACCORDING TO ASTM A767/ A767M, STANDARD SPECIFICATION FOR ZINC-COATING (GALVANIZED) STEEL BARS FOR CONCRETE REINFORCEMENT.

3.- ALL ANCHOR BOLTS SET IN NEW CONCRETE (WHEN APPLICABLE) SHALL COMPLY WITH ASTM F-1554 GRADE 36 (GALVANIZED PER ASTM A153, CLASS D MINIMUM OR ASTM F2329).
ANCHOR BOLTS DIAMETER NEEDS TO BE AS FOLLOW:
A) ANCHOR BOLT Ø1 1/4"

4.- CERTIFIED MILL TEST REPORTS ARE TO BE PROVIDED FOR EACH SHIPMENT OF REINFORCEMENT.

5.- ALL NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 5000 PSI, AND SHALL COMPLY THE REQUIREMENTS OF ASTM C109, ASTM C939, ASTM C1090, ASTM C1107, WHEN APPLICABLE.

6.- CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES SHALL BE AIR ENTRAINED PER ACI 318 SECTION 19.3.3.

CBC PC DESIGN NOTES

BUILDING CODE	CBC 2022 (BASED ON IBC 2021)
FLOOR LIVE LOAD	N/A
ROOF LIVE LOAD	RLL 5 PSF

ALLOWABLE SOIL PRESSURE:
DL + LL (CONC FTG) 1500 PSF
DL + LL + SEISMIC (CONC FTG) 1500 PSF
LATERAL BEARING DESIGN VALUE 100 PSF/FT BELOW NATURAL GRADE, PER TABLE 1806A.2
TWO TIMES THE TABULAR VALUE IS USED (200 PSF/FT)
PER CBC SECTION 1806A.3.4.
ALLOWABLE PIER FRICTIONAL RESISTANCE 250 PSF MAXIMUM
BASED ON SECTION 1810A.3.3.1.4 (ONE-SIXTH OF THE BEARING VALUE).
UPLIFT FRICTIONAL RESISTANCE HAVE A SAFETY FACTOR OF 3.

ROOF SNOW LOAD	5 PSF
ICE LOAD	ZERO PSF
FLOOD HAZARD AREA	ZONE X

WHEN A SITE SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED AND SIGNED FROM A SOILS ENGINEER IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN THE PC ARE STILL APPLICABLE.

WIND DESIGN DIRECTIONAL PROCEDURE: ASCE 7-16, SECTION 27.3.2
NOTE: WIND DESIGN IS LIMITED TO UNOBSTRUCTED CLEAR FLOW CONDITION

-BASIC DESIGN WIND SPEED (3 SEC GUST)	V	115 MPH
-ASD WIND LOAD (CBC 2022 SEC. 1603A.1.4)	V_{ASD}	90 MPH
-WIND EXPOSURE FACTOR	C	
-TOPOGRAPHIC FACTOR	Kzt	1
-RISK CATEGORY	II	
-VELOCITY PRESSURE EXPOSURE COEFFICIENT	Kz	SEE TABLE 1, ITEM 26
-VELOCITY PRESSURE	qz	SEE TABLE 1, ITEM 25

SEISMIC DESIGN:
-SITE CLASS D
NOTE: UNLESS A SITE-SPECIFIC GROUND MOTION HAZARD ANALYSIS IS PERFORMED, THE SM1 VALUE INCREASED BY 50% SHALL BE LESS THAN THE DESIGN CRITERIA STATED HEREIN.

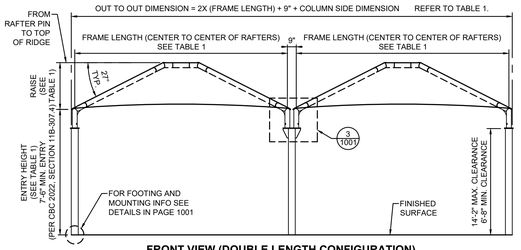
	SS	3.00g
	S1	1.389g
-SPECTRAL RESPONSE COEFFICIENTS	SDS	2.00
	SD1	1.39
-LATERAL FORCE RESISTING SYSTEM	G.2 ORDINARY CANTILEVERED COLUMN SYSTEM.	
-SEISMIC IMPORTANCE FACTOR	Ie	1.0
-DESIGN BASE SHEAR AT BASE	V	SEE TABLE 1, ITEM 24
-SEISMIC RESPONSE COEFFICIENTS	Cs	1.6
-RESPONSE MODIFICATION FACTOR	R	1.25
-ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE	
-RISK CATEGORY	II	
-SEISMIC DESIGN CATEGORY		E
-SITE COEFFICIENT CATEGORY	Fa	1.2
	Fv	1.5
-REDUNDANCY FACTOR	ρ	1.3

MINIMUM FOUNDATION SETBACK LIMIT IN ADJACENT SLOPE: THE DEPTH OF REQUIRED PIER EMBEDMENT SHALL START FROM AN ELEVATION THAT CORRESPONDS WITH A HORIZONTAL CLEAR DISTANCE OF 14 FEET THAT INTERSECT WITH THE SLOPE (DAYLIGHTING) FOR FOOTING TYPE "A" (2'-0" DIAMETER) AND A CLEAR DISTANCE OF 17'-6" FOR FOOTING TYPE "B" (2'-6" DIAMETER). IF SETBACK LIMITS ARE SMALLER THAN CBC REQUIRES, A SITE-SPECIFIC SOILS REPORT IS REQUIRED.

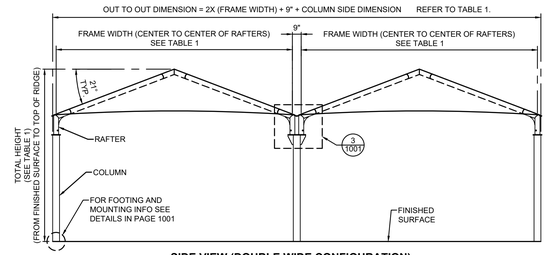
MINIMUM CLASS 2 PROJECT INSPECTOR REQUIRED.

MAXIMUM OCCUPANT LOAD (PER CBC 2022 TABLE 1604A.5)

-K-12:	250 PERSONS
-PUBLIC ASSEMBLY:	300 PERSONS
-EDUCATIONAL OCCUPANCIES ABOVE 12TH GRADE:	500 PERSONS



FRONT VIEW (DOUBLE LENGTH CONFIGURATION)
(SCHEMATIC VIEW ONLY)



SIDE VIEW (DOUBLE WIDE CONFIGURATION)
(SCHEMATIC VIEW ONLY)

TABLE 1

ITEM	DESCRIPTION	JOINED FRAMES 20'X25'X12'e	JOINED FRAMES 20'X30'X12'e	JOINED FRAMES 30'X30'X12'e	JOINED FRAMES 30'X40'X12'e	JOINED FRAMES 20'X25'X15'e	JOINED FRAMES 20'X30'X15'e	JOINED FRAMES 30'X30'X15'e	JOINED FRAMES 30'X40'X15'e
	PRODUCT NAME	DSA401J202512-22	DSA401J203012-22	DSA401J303012-22	DSA401J304012-22	DSA401J2025-22	DSA401J2030-22	DSA401J3030-22	DSA401J3040-22
	DOUBLE LENGTH CONFIGURATIONS (WxL)	20' X (50',75')	20' x (60',90')	30' X (60',90')	30' X (80',120')	20' X (50',75')	20' x (60',90')	30' X (60',90')	30' X (80',120')
	DOUBLE WIDE CONFIGURATIONS (WxL)	(40',60') X 25'	(40',60') X 30'	(60',90') X 30'	(60',90') X 40'	(40',60') X 25'	(40',60') X 30'	(60',90') X 30'	(60',90') X 40'
	MAXIMUM INDIVIDUAL FRAME LENGTH	25'-0"	30'-0"	30'-0"	40'-0"	25'-0"	30'-0"	30'-0"	40'-0"
	MAXIMUM INDIVIDUAL FRAME WIDTH	20'-0"	20'-0"	30'-0"	30'-0"	20'-0"	20'-0"	30'-0"	30'-0"
	MAXIMUM ENTRY HEIGHT	12'-0"	12'-0"	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"
	MAXIMUM DISTANCE "A"	7'-6"	7'-6"	11'-3"	11'-3"	7'-6"	7'-6"	11'-3"	11'-3"
	MAXIMUM RAISE	3'-10"	3'-10"	5'-8"	5'-8"	3'-10"	3'-10"	5'-8"	5'-8"
	MINIMUM RAISE	1'-10"	1'-10"	3'-10"	3'-10"	1'-10"	1'-10"	3'-10"	3'-10"
	MAXIMUM TOTAL HEIGHT	15'-10"	15'-10"	17'-8"	17'-8"	18'-10"	18'-10"	20'-8"	20'-8"
1	COLUMN	HSS 5.0 x 5.0 x 0.250	HSS 5.0 x 5.0 x 0.250	HSS 6.0 x 6.0 x 0.375	HSS 7.0 x 7.0 x 0.375	HSS 5.0 x 5.0 x 0.250	HSS 7.0 x 7.0 x 0.250	HSS 7.0 x 7.0 x 0.375	HSS 7.0 x 7.0 x 0.375
2	CUP CONNECTOR (6" LG)	HSS 3.5 x 0.25	HSS 4.0 x 0.25	HSS 4.5 x 0.375	HSS 5.0 x 0.375	HSS 4.0 x 0.25	HSS 4.0 x 0.25	HSS 4.5 x 0.375	HSS 5.0 x 0.375
3	RAFTER	HSS 4.0 x 0.188	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	5.00 GA 7 RD. TUBE (HSS 5.0 x 0.188)	HSS 5.563 x 0.258	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	5.00 GA 7 RD. TUBE (HSS 5.0 x 0.188)	HSS 5.563 x 0.258
4	SWAGE LENGTH	6"	6"	6"	6"	6"	6"	6"	6"
5	EXTENSION	HSS 4.0 x 0.188	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	5.00 GA 7 RD. TUBE (HSS 5.0 x 0.188)	HSS 5.563 x 0.258	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	5.00 GA 7 RD. TUBE (HSS 5.0 x 0.188)	HSS 5.563 x 0.258
6	CROSSPIECE	HSS 4.0 x 0.188	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	5.00 GA 7 RD. TUBE (HSS 5.0 x 0.188)	HSS 5.563 x 0.258	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	5.00 GA 7 RD. TUBE (HSS 5.0 x 0.188)	HSS 5.563 x 0.258
7	RIDGE	HSS 4.0 x 0.188	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	5.00 GA 7 RD. TUBE (HSS 5.0 x 0.188)	HSS 5.563 x 0.258	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	4.50 GA 7 RD. TUBE (HSS 4.5 x 0.188)	5.00 GA 7 RD. TUBE (HSS 5.0 x 0.188)	HSS 5.563 x 0.258
8	FABRIC TOP	FR COLOURSHADE 190/F5	FR COLOURSHADE 190/F5	FR COLOURSHADE 190/F5	FR COLOURSHADE 190/F5	FR COLOURSHADE 190/F5	FR COLOURSHADE 190/F5	FR COLOURSHADE 190/F5	FR COLOURSHADE 190/F5
9	CABLE (GALVANIZED)	Ø3/8" CABLE	Ø3/8" CABLE	Ø3/8" CABLE	Ø3/8" CABLE	Ø3/8" CABLE	Ø3/8" CABLE	Ø3/8" CABLE	Ø3/8" CABLE
10	CABLE CLAMP (GALVANIZED)	Ø3/8" CABLE CLAMP	Ø3/8" CABLE CLAMP	Ø3/8" CABLE CLAMP	Ø3/8" CABLE CLAMP	Ø3/8" CABLE CLAMP	Ø3/8" CABLE CLAMP	Ø3/8" CABLE CLAMP	Ø3/8" CABLE CLAMP
11	HEX BOLT (ST)	Ø1/2"-13NC x 1" HEX BOLT 316 SS	Ø5/8"-11NC x 6 HEX BOLT 316 SS	Ø5/8"-11NC x 6 1/2" HEX BOLT 316 SS	Ø3/4"-10NC x 7" HEX BOLT 316 SS	Ø5/8"-11NC x 6" HEX BOLT 316 SS	Ø5/8"-11NC x 6" HEX BOLT 316 SS	Ø5/8"-11NC x 6 1/2" HEX BOLT 316 SS	Ø3/4"-10NC x 7" HEX BOLT 316 SS
12	HEX NUT	Ø1/2"-13NC HEX NUT 316 SS	Ø5/8"-11NC HEX NUT 316 SS	Ø5/8"-11NC HEX NUT 316 SS	Ø3/4"-10NC HEX NUT 316 SS	Ø5/8"-11NC HEX NUT 316 SS	Ø5/8"-11NC HEX NUT 316 SS	Ø5/8"-11NC HEX NUT 316 SS	Ø3/4"-10NC HEX NUT 316 SS
13	SPLIT LOCK WASHER	Ø1/2" SPLIT LOCK WASHER 316 SS	Ø5/8" SPLIT LOCK WASHER 316 SS	Ø5/8" SPLIT LOCK WASHER 316 SS	Ø3/4" SPLIT LOCK WASHER 316 SS	Ø5/8" SPLIT LOCK WASHER 316 SS	Ø5/8" SPLIT LOCK WASHER 316 SS	Ø5/8" SPLIT LOCK WASHER 316 SS	Ø3/4" SPLIT LOCK WASHER 316 SS
14	FLAT WASHER	Ø1/2" FLAT WASHER 316 SS	Ø5/8" FLAT WASHER 316 SS	Ø5/8" FLAT WASHER 316 SS	Ø3/4" FLAT WASHER 316 SS	Ø5/8" FLAT WASHER 316 SS	Ø5/8" FLAT WASHER 316 SS	Ø5/8" FLAT WASHER 316 SS	Ø3/4" FLAT WASHER 316 SS
15	DRILLED PIER FOOTING DETAIL	FOOTING TYPE A (Ø2'-0")	FOOTING TYPE A (Ø2'-0")	FOOTING TYPE B (Ø2'-6")	FOOTING TYPE B (Ø2'-6")	FOOTING TYPE A (Ø2'-0")	FOOTING TYPE A (Ø2'-0")	FOOTING TYPE B (Ø2'-6")	FOOTING TYPE B (Ø2'-6")
16	FOOTING DEPTH	7'-6"	7'-6"	8'-6"	9'-6"	7'-6"	8'-6"	9'-3"	10'-6"
17	ALT. SPREAD FOOTING SIZE	4'-0" SQ	4'-6" SQ	5'-0" SQ	5'-6" SQ	4'-0" SQ	5'-0" SQ	6'-0" SQ	6'-6" SQ
18	HORIZONTAL REBAR	7#5 E.W. TOP AND BOTTOM	8#5 E.W. TOP AND BOTTOM	9#5 E.W. TOP AND BOTTOM	10#5 E.W. TOP AND BOTTOM	7#5 E.W. TOP AND BOTTOM	9#5 E.W. TOP AND BOTTOM	10#5 E.W. TOP AND BOTTOM	11#5 E.W. TOP AND BOTTOM
19	MINIMUM COLUMN EMBEDMENT	36"	36"	42"	49"	36"	49"	49"	49"
20	WELD "A" (T&B COLUMN)	3/16"	3/16"	5/16"	5/16"	3/16"	3/16"	5/16"	5/16"
21	WELD "B" (UPPERFRAME)	3/16"	3/16"	3/16"	1/4"	3/16"	3/16"	3/16"	1/4"
22	WELD "C" (CUP CONNECTOR)	3/16"	3/16"	1/4"	1/4"	3/16"	3/16"	1/4"	1/4"
23	MAXIMUM CABLE TENSION	2369 LB	2425 LB	2820 LB	3695 LB	2342 LB	2741 LB	3144 LB	3763 LB
24	DESIGN BASE SHEAR AT BASE	15685 LB / 28 COLUMNS	17282 LB / 28 COLUMNS	27352 LB / 28 COLUMNS	38822 LB / 28 COLUMNS	25296 LB / 37 COLUMNS	32112 LB / 37 COLUMNS	46222 LB / 37 COLUMNS	58530 LB / 37 COLUMNS
25	VELOCITY PRESSURE qz	24.46 PSF	24.46 PSF	24.46 PSF	24.46 PSF	25.32 PSF	25.32 PSF	25.32 PSF	25.32 PSF
26	VELOCITY PRESSURE EXPOSURE COEFF.Kz	0.85	0.85	0.85	0.85	0.88	0.88	0.88	0.88
27	CABLE PRESTRESS	300-500 LBS	300-500 LBS	300-500 LBS	300-500 LBS	300-500 LBS	300-500 LBS	300-500 LBS	300-500 LBS

SELECTION CHECKBOX

JOINED FRAMES 20'X25'X12'e	JOINED FRAMES 20'X30'X12'e	JOINED FRAMES 30'X30'X12'e	JOINED FRAMES 30'X40'X12'e	JOINED FRAMES 20'X25'X15'e	JOINED FRAMES 20'X30'X15'e	JOINED FRAMES 30'X30'X15'e	JOINED FRAMES 30'X40'X15'e
DSA401J202512-22	DSA401J203012-22	DSA401J303012-22	DSA401J304012-22	DSA401J2025-22	DSA401J2030-22	DSA401J3030-22	DSA401J3040-22
20'X50'X12' MAX	20'X60'X12' MAX	30'X60'X12' MAX	30'X80'X12' MAX	20'X50'X15' MAX	20'X60'X15' MAX	30'X60'X15' MAX	30'X80'X15' MAX
20'X75'X12' MAX	20'X90'X12' MAX	30'X90'X12' MAX	30'X120'X12' MAX	20'X75'X15' MAX	20'X90'X15' MAX	30'X90'X15' MAX	30'X120'X15' MAX
40'X25'X12' MAX	40'X30'X12' MAX	60'X30'X12' MAX	60'X40'X12' MAX	40'X25'X15' MAX	40'X30'X15' MAX	60'X30'X15' MAX	60'X40'X15' MAX
60'X25'X12' MAX	60'X30'X12' MAX	90'X30'X12' MAX	90'X40'X12' MAX	60'X25'X15' MAX	60'X30'X15' MAX	90'X30'X15' MAX	90'X40'X15' MAX

LICENSED ARCHITECT DAVID HIGGINSON C19168 10-31-25 RENEWAL DATE OF CALIFORNIA

10/18/2023

REGISTERED PROFESSIONAL ENGINEER MARK ALBERT No. 3693 STRUCTURAL STATE OF CALIFORNIA

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CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Lakeside Union School District

PROJECT NAME:
Lakeside School

LOCATION:
14535 Old River Road
Bakersfield, CA 93361

MODEL NUMBER:
DSA401J-22

APPROVED
DIV. OF THE STATE ARCHITECT
ACCESS COMPLIANCE
DSA-AC
DSA-SS/CC DSA-SS
DEPARTMENT OF GENERAL SERVICES
DATE: 10/30/2023

STRUCTURE TYPE:
JOINED HIPS
DSA
SIZE: SEE TABLE 1

SCALE : NONE

DRAWING SIZE:
D

PRE-CHECK (PC) DOCUMENT
Code : 2022 CBC
A separate project application for construction is required.

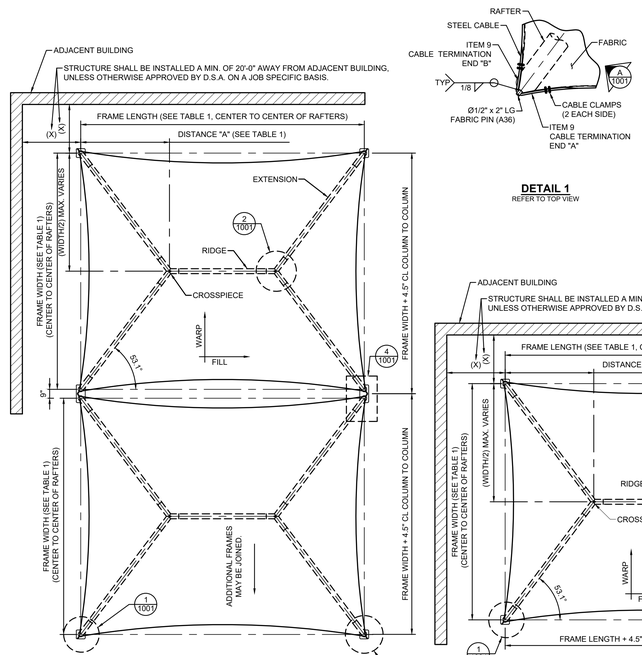
Eng. By :	HH	12/01/22
Design By :	OS	12/01/22
Approved By :	MB	12/01/22

DRAWING DESCRIPTION:
PRODUCT INFORMATION

DWG.
DSA401J-22

SHEET
9.1-1000

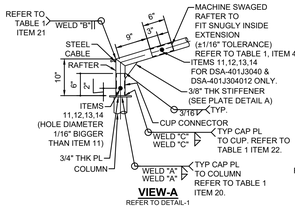
REV.
NC



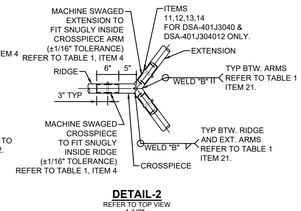
DOUBLE WIDE JOINED CONFIGURATION
TOP VIEW (2 FRAMES SCHEMATIC VIEW ONLY)

THE MINIMUM CLEARANCE REQUIRED BETWEEN DRILLED PIERS WHEN PLACING MULTIPLE OPEN FABRIC SHADE STRUCTURES ADJACENT TO EACH OTHER, FROM CENTER TO CENTER, IS THREE TIMES THE LEAST HORIZONTAL DIMENSION OF THE PIER PER CBC 2022 SEC. 1810A.2.5.

DETAIL 1
REFER TO TOP VIEW



VIEW-A
REFER TO DETAIL-1



DETAIL-2
REFER TO TOP VIEW



PLATE DETAIL A
REFER TO VIEW A (3/8" THK STIFFENER) (TYP. FOR ALL RAFTERS) (A572 GR. 50)

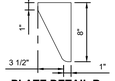
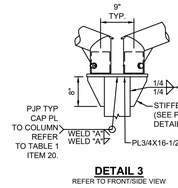
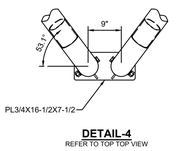


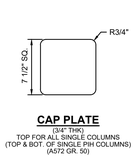
PLATE DETAIL B
REFER TO DETAIL 3 (1/2" THK STIFFENER) (A572 GR. 50)



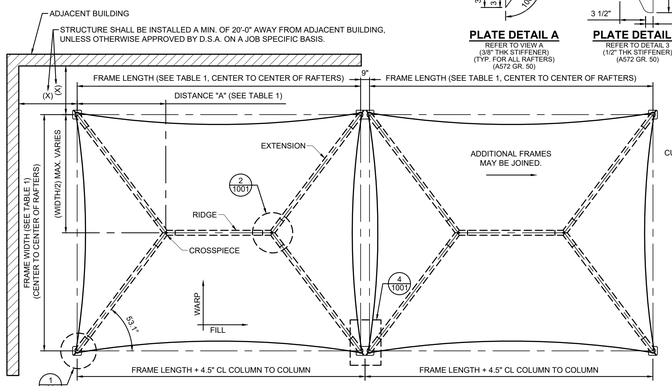
DETAIL 3
REFER TO FRONT/SIDE VIEW



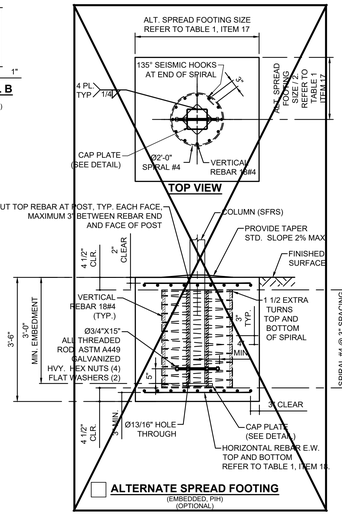
DETAIL-4
REFER TO TOP TOP VIEW

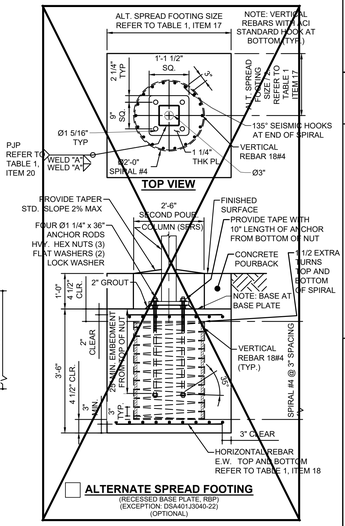


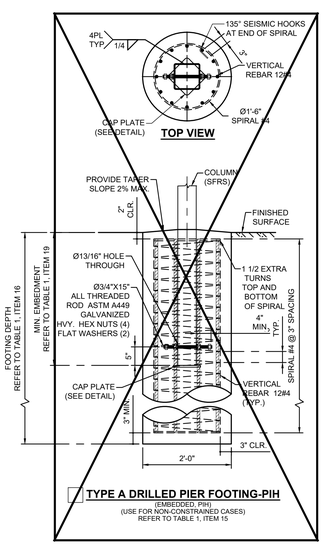
CAP PLATE
(3/4" THK)
TOP FOR ALL SINGLE COLUMNS (TOP & BOT. OF SINGLE PIH COLUMNS) (A572 GR. 50)

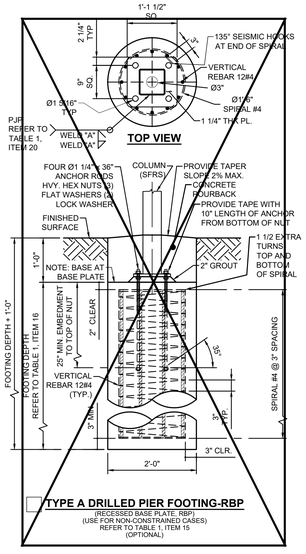


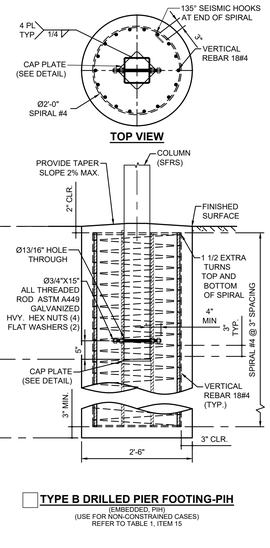
DOUBLE LENGTH JOINED CONFIGURATION
TOP VIEW (2 FRAMES SCHEMATIC VIEW ONLY)

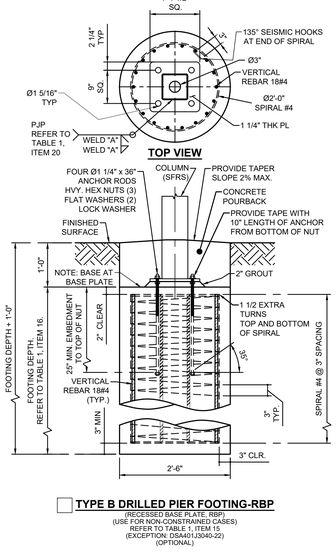












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USA SHADE & Fabric Structures
CORPORATE HEADQUARTERS
2580 ESTERS BLVD. SUITE 100
DFW AIRPORT, TX, 75261
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Lakeside Union School District

PROJECT NAME:
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LOCATION:
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MODEL NUMBER:
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APPROVED
DIV. OF THE STATE ARCHITECT
ACCESS COMPLIANCE
DSA
REVIEWED FOR ACCESS COMPLIANCE
DEPARTMENT OF GENERAL SERVICES
DATE: 10/30/2023

STRUCTURE TYPE:
JOINED HIPS
DSA
SIZE: SEE TABLE 1

SCALE : NONE

DRAWING SIZE:
D

PRE-CHECK (PC) DOCUMENT
Code : 2022 CBC
A separate project application for construction is required.

Eng. By :	HH	12/01/22
Design By :	OS	12/01/22
Approved By :	MB	12/01/22

DRAWING DESCRIPTION:
DETAILS

DWG. DSA401J-22

SHEET 9.2-1001

REV. NC

LICENSED ARCHITECT
DAVID HIGGINSON
C19168
10-31-25
RENEWAL DATE
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
MARK ALBERT BOYLE
No. 3693
STRUCTURAL
STATE OF CALIFORNIA

190/F5 Fire rated specifications

Multiknit INTERNATIONAL

Standard range

Revision 0 28-Oct-12

Colour	Shade %	UV Block %	Average GSM	Average Warp break strength kgs	Average Elongation %	Average Weft break strength kgs	Average Elongation %	Average Burst Kpa	Average Burst to Mass ratio
Desert Sand	80	92	185	50	40	72	73	156	0.84
Blue	80	85	185	50	40	72	73	156	0.84
Brown	85		185	50	40	72	73	156	0.84
Green	80	85	185	50	40	72	73	156	0.84
Red	80	86	185	50	40	72	73	156	0.84
Silver	80	81	185	50	40	72	73	156	0.84
Terracotta	75	82	185	50	40	72	73	156	0.84
Yellow	80	89	185	50	40	72	73	156	0.84
				110 LB		159 LB		3258 PSF	

CONVERSION TO IMPERIAL UNITS:
185 GSM = .0378 psf
50 KGS = 110 Lb
72 KGS = 159 Lb
156 Kpa = 3258 psf

Notes:
- 190/F5 conforms to The California State Fire Marshal Title 19 Test for Small scale Fabrics
- Tear tests are done using a 50mm wide strip and a cross head speed of 500mm/min
- This report has been compiled using the mean results from all tests conducted on the given sample by our Quality Control Laboratory, the information provided is considered to be a good reflection of the relevant properties of the fabric tested. These results must only be used as an indication of the quality and characteristics of the fabric tested. Company cannot be held responsible or liable in any way whatsoever should this information differ to that of a registered testing institution.

PP
Deon Joubert
General Manager - Multiknit (Pty) Ltd

Tommy Rogers
Managing Director - Multiknit (Pty) Ltd

CAL FIRE

FLAME RETARDANT

Fabric Registration

LICENSE NUMBER: F-052001

COLOURSHADE 190/F5

Product Marketed by:
MULTIKNIT (PTY) LTD
BOX 798 WHITE RIVER 1240
MPUMALANGA SOUTH AFRICA.

Issue Date : 05/08/2023
Expiration Date : 06/30/2024

This product meets the minimum requirements of flame resistance established by the California State Fire Marshal for products identified in Section 13115, California Health and Safety Code. The scope of the approved use of this product is provided in the current edition of the CALIFORNIA APPROVED LIST OF FLAME RETARDANT CHEMICALS AND FABRICS, GENERAL AND LIMITED APPLICATIONS CONCERNS published by the California State Fire Marshal.

Issued By Cortney Walker
Fire Engineering License Manager
Fire Engineering & Investigations Division

Reviewed and Approved By Patricia Setter
Deputy State Fire Marshal III
Fire Engineering & Investigations Division

OFFICE OF THE STATE FIRE MARSHAL

Please visit calfire.govmotus.org for more information on Licensing and Permitting with CAL FIRE

Page 1 of 1

Aircraft Cable

Preformed, made in accordance with commercial specifications military and federal specification rope available.

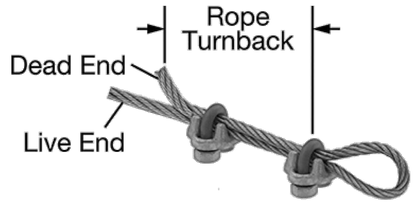
Carbon Steel (Aircraft Cable) - Galvanized cable has the highest strength and greatest fatigue life of the materials offered. It has good to fair corrosion resistance in rural to industrial atmosphere environments. This material is most widely used for small diameter cables. Tin over galvanized cable offers greater corrosion resistance and reduced friction over pulleys.



7 x 19

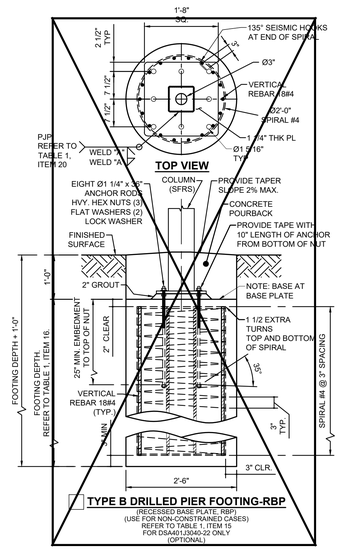
7 x 19		Galvanized Min. Breaking Strengths (lbs)
Dia. (In)	Approx. Wt 1000 Ft/lbs	
3/32	17.	1,000
1/8	29.	2,000
5/32	45.	2,800
3/16	65.	4,200
7/32	86.	5,600
1/4	110.	7,000
9/32	139.	8,000
5/16	173.	9,800
3/8	243.	14,400



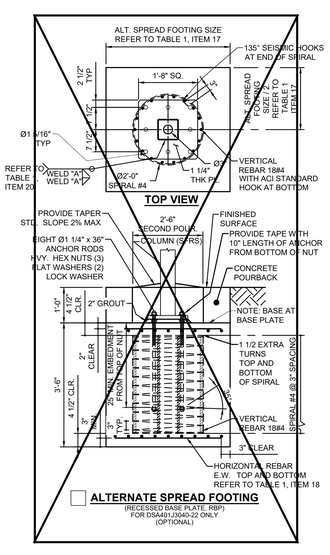


FORGED WIRE ROPE CLAMP

FITTING TYPE ROPE CLAMP
FABRICATION: FORGED
MATERIAL: GALVANIZED STEEL
FOR WIRE ROPE DIAMETER 3/8"
NUMBER OF CLAMPS REQUIRED: 2
ROPE TURNBACK: 6 1/2"
FOR WIRE ROPE CONSTRUCTION 7 × 19
ATTACHMENT TYPE: LOOP
CLAMP:WIDTH 2", HEIGHT 1 15/16", THICKNESS 1 11/16"
REQUIRED INSTALLATION TOOL TORQUE WRENCH
REQUIRED TORQUE 45 FT.-LBS.
CAPACITY 80% OF THE ROPE'S CAPACITY
SPECIFICATIONS MET ASME B30.26, FED. SPEC. FF-C-450



TYPE B DRILLED PIER FOOTING-RBP
(RECESSED BASE PLATE, RBP)
(USE FOR NON-CONSTRAINED CASES)
REFER TO TABLE 1, ITEM 15
FOR DSA401J3040-22 ONLY
(OPTIONAL)



ALTERNATE SPREAD FOOTING
(RECESSED BASE PLATE, RBP)
FOR DSA401J3040-22 ONLY
(OPTIONAL)

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USASHADE & Fabric Structures
CORPORATE HEADQUARTERS
2580 ESTERS BLVD. SUITE 100
DFW AIRPORT, TX, 75261
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Lakeside Union School District

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LOCATION:
14535 Old River Road
Bakersfield, CA 93361

MODEL NUMBER:
DSA401J-22

APPROVED
DIV. OF THE STATE ARCHITECT
ACCESS COMPLIANCE
EXEMPT PER CBC 1.9.1.5
DEPARTMENT OF GENERAL SERVICES
DATE: 10/30/2023

STRUCTURE TYPE:
JOINED HIPS DSA
SIZE: SEE TABLE 1

SCALE : NONE

DRAWING SIZE: **D**

PRE-CHECK (PC) DOCUMENT
Code : 2022 CBC
A separate project application for construction is required.

Eng. By :	HH	12/01/22
Design By :	OS	12/01/22
Approved By :	MB	12/01/22

DRAWING DESCRIPTION:
FOUNDATION & SPECIFICATIONS

DWG. **DSA401J-22**

SHEET **9.3-2000**

REV. **NC**

LICENSED ARCHITECT DAVID HIGHTOWER C19168 10-31-25 RENEWAL DATE STATE OF FLORIDA

REGISTERED PROFESSIONAL ENGINEER ALBERT CLARK No. 3693 STRUCTURAL STATE OF CALIFORNIA

GENERAL NOTES

1.- SPECIAL INSPECTION REQUIREMENTS SHALL FOLLOW THE ATTACHED SAMPLE TEST AND INSPECTION LIST (T & I LIST) APPROVED BY DSA. THE SHOP WELDING INSPECTION SHALL INCLUDE WELDING OF ALL STEEL MEMBERS AND IDENTIFICATION OF STEEL THROUGH MILL CERTIFICATE OR MATERIAL TESTING. UNCERTIFIED STEEL SHALL BE TESTED TO THE REQUIREMENTS OF CBC 2022 CHAPTER 17A. THE FIELD SPECIAL INSPECTION SHALL INCLUDE COMPRESSION CYLINDER TESTS FOR THE CONCRETE FOUNDATION.

2.- STRUCTURE SHALL BE IN THE LOCATION SHOWN ON THE SITE SPECIFIC DSA APPLICATION DRAWING.

3.- FOUNDATION DESIGN BASED ON CBC 2022, TABLE 1806A.2, SOIL CLASS 5 (ALLOWABLE FOUNDATION PRESSURE 1500 PSF)

4.- DESIGN PER FOLLOWING CODES: CBC 2022 (CHAPTER 35), ASCE 7-16, AISC 360-16, AISC 341-16, ACI 318-19, ASCE 55-16 & ASCE 19-16

STRUCTURAL STEEL

1.- FABRICATION OF THE STEEL STRUCTURES SHALL BE PERFORMED BY SHADE STRUCTURES OR AN AUTHORIZED LICENSEE. MATERIAL TESTING (OR MILL CERTIFICATES) AND INSPECTION OF WELDING SHALL BE CONDUCTED PER CBC 2022 SECTIONS 1704A, 1705A, 1705A.2, AND TABLE 1705A.2.1.

2.- ONLY CALIFORNIA LICENSED CONTRACTORS AUTHORIZED BY SHADE STRUCTURES SHALL INSTALL THE SHADE STRUCTURES.

3.- ALL WORK SHALL CONFORM TO CBC 2022 EDITION, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)

4.- ALL GALVANIZED STEEL TUBE PRODUCTS MANUFACTURED BY ALLIED TUBE & CONDUIT FOR THIS STRUCTURE SHALL BE, AND CONFORM TO ASTM A500-16 GRADE C, IN ITS' ENTIRETY.
TYPICAL MECHANICAL PROPERTIES ARE:
ROUND TUBE GRADE C 46,000 PSI YIELD STRESS MINIMUM / 62,000 PSI TENSILE STRESS MINIMUM

5.- ALL STRUCTURAL SHAPES SHALL BE COLD FORMED HSS ASTM A500 GRADE C, UNLESS OTHERWISE NOTED. TYPICAL MECHANICAL PROPERTIES ACHIEVED FOR HSS PRODUCTS:
SQUARE AND RECTANGULAR 50,000 PSI YIELD STRESS / 62,000 PSI TENSILE STRESS
ROUND PIPE 50,000 PSI YIELD STRESS / 62,000 PSI TENSILE STRESS

6.- ALL PLATES PRODUCTS SHALL COMPLY WITH ASTM A572 GRADE 50.

7.- STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS.

8.- ALL WELDING TO CONFORM WITH AMERICAN WELDING SOCIETY STANDARDS AND SHALL BE INSPECTED BY AN AWS/CWI INSPECTOR. AWS D1.1 FOR HOT ROLLED. AWS D1.3 FOR SHEET/COLD FORMED. AWS D1.8 SEISMIC SUPPLEMENT.

9.- ALL FULL PENETRATION WELD SHALL BE CONTINUOUSLY INSPECTED PER AWS D1.1 & D1.8.

10.- SHOP CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE. ALL FILLET WELDS SHALL BE A MINIMUM OF 3/16" ER70SX ELECTRODES UNLESS OTHERWISE NOTED. GMAW IS ACCEPTABLE.

11.- ALL STAINLESS STEEL BOLTS SHALL COMPLY WITH ASTM F-593, YIELD STRENGTH= 45 KSI, TENSILE STRENGTH=85 KSI MINIMUM, ALLOY GROUP 2, CONDITION CW2. ALL NUTS SHALL COMPLY WITH ASTM F-594 ALLOY GROUP 2, CONDITION CW2. REFERRING TO RCSC, ASTM F-593 IS NOT CONSIDERED AS HIGH STRENGTH BOLTS. BOLTS SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION (ST).

12.- ALL STRUCTURAL STEEL (ITEMS FROM NOTE 5) SHALL BE POWDER COATED WITH ONE SHOP COAT (2.5 MILS MIN.) OF ZINC-RICH PRIMER, UNDERCOAT, AND FINISH COAT, OR EQUIVALENT PAINT SYSTEM. THIS COAT IS A WEATHER RESISTANT POWDER COATING BASED ON POLYESTER TGIC (MANUFACTURED BY SHERWIN WILLIAMS, ASKO NOBEL, PPG OR TIGER DRYLAC). TO ACHIEVE OPTIMUM ADHESION, IT IS RECOMMENDED THAT THE PROPER TREATMENT AND DRYING TAKE PLACE BEFORE COATING. POLYESTER POWDER (TGIC) SPECIFICATIONS SHALL BE AS FOLLOWS:
- PENCIL HARDNESS (ASTM D-3363). - HUMIDITY (ASTM D-2247).
- SOLVENT RESISTANCE (PCI METHOD) - 50 DBL RUBS SL. SOFTNESS.

13.- ALL STEEL ROUND TUBING (ITEMS FROM NOTE 4) SHALL BE TRIPLE COATED FOR RUST PROTECTION USING THE INLINE ELECTROPLATING COAT PROCESS. TUBING SHALL BE INTERNALLY COATED WITH ZINC AND ORGANIC COATINGS TO PREVENT CORROSION AS MANUFACTURED BY ALLIED TUBE & CONDUIT.

14.- ALL EXPOSED STEEL FASTENERS SHALL BE STAINLESS STEEL (TYPE 304 MINIMUM), HOT DIP GALVANIZED (ASTM A153, CLASS D MINIMUM OR ASTM F2329) AS APPLICABLE, OR PROTECTED WITH CORROSION PREVENTIVE COATING THAT DEMONSTRATED NO MORE THAN 2% OF RED RUST IN MINIMUM 1,000 HOURS OF EXPOSURE IN SALT SPRAY TEST PER ASTM B117. ZINC-PLATED FASTENERS DO NOT COMPLY WITH THIS REQUIREMENT.

CONCRETE SPECIFICATION

1.- CONCRETE SHALL BE SAMPLED AND TESTED PER CBC 2022 SECTION 1903A & SHALL BE INSPECTED PER SECTION 1903A.

2.- CONCRETE TO BE F'c= 4500 PSI, TYPE V CEMENT PLUS POZZOLAN OR SLAG CEMENT, MAXIMUM WATER/CEMENT RATIO OF 0.45. PER ACI 318-19 CHAPTER 19. (NO ADMIXTURES CONTAINING CALCIUM CHLORIDE WILL BE USED.) REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60 AND TO BE Fy= 60000 PSI , MIN. GR. 60. ALSO COATED ACCORDING TO ASTM A767/ A767M, STANDARD SPECIFICATION FOR ZINC-COATING (GALVANIZED) STEEL BARS FOR CONCRETE REINFORCEMENT.

3.- ALL ANCHOR BOLTS SET IN NEW CONCRETE (WHEN APPLICABLE) SHALL COMPLY WITH ASTM F-1554 GRADE 36 (GALVANIZED PER ASTM A153, CLASS D MINIMUM OR ASTM F2329).
ANCHOR BOLT'S DIAMETER NEEDS TO BE AS FOLLOW:
A) ANCHOR BOLT Ø1 1/4"

4.- CERTIFIED MILL TEST REPORTS ARE TO BE PROVIDED FOR EACH SHIPMENT OF REINFORCEMENT.

5.- ALL NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 5000 PSI, AND SHALL COMPLY THE REQUIREMENTS OF ASTM C109, ASTM C939, ASTM C1090, ASTM C1107, WHEN APPLICABLE.

6.- CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES SHALL BE AIR ENTRAINED PER ACI 318 SECTION 19.3.3.

FABRIC SPECIFICATION

1.- FABRIC SHALL BE MANUFACTURED BY MULTIKNIT LTD., WHICH MEETS THE SPECIFICATIONS LISTED ON PAGE 2000, AND SHALL BE FABRICATED FROM POLYETHYLENE MATERIALS. MINIMUM SEAM LENGTH 3/4".

2.- THE FABRIC SHALL RETAIN 80% OF ITS TENSILE AND TEARING STRENGTH AFTER ULTRAVIOLET EXPOSURE PER ASTM G53 USING A 313 NM LIGHT SOURCE FOR 500 HOURS WHILE MOISTENED FOR 1 HOUR EVERY 12 HOURS.

3.- PROVIDE CERTIFICATION BY MANUFACTURER AND STATE FIRE MARSHAL TO SCHOOL'S DISTRICT INSPECTOR OF RECORD AT SITE SPECIFIC INSTALLATION. COPY OF FIRE CERTIFICATION SHALL BE SENT TO DSA.

4.- FABRIC SHALL REQUIRE ANNUAL INSPECTION AND MAINTENANCE BY THE DISTRICT. FIRE TEST ON FABRIC: NFPA 701 TEST 2 AND ASTM E 84 EXTENDED 30 MINUTES TEST. FLAME SPREAD INDEX (FSI): 10. SMOKE DEVELOPED INDEX (SDI): 50. FABRIC IS ACCEPTABLE FOR USE IN WILDLIFE URBAN INTERFACE AREA.

5.- FABRIC TOP NEEDS TO BE REMOVED IF SNOW EXCEEDING 5 PSF ARE ANTICIPATED, FABRIC TOP NEEDS TO BE REMOVED IF WINDS EXCEEDING 115 MPH ARE ANTICIPATED.

6.- A VISUAL INSPECTION LOOKING FOR TEAR AND ABNORMAL WEAR IN FABRIC MATERIAL AND THREAD IS REQUIRED PRIOR TO RE-INSTALLATION. USA SHADE & FABRIC STRUCTURES SHALL BE NOTIFIED IF SIGNIFICANT DAMAGE IS PRESENT BEFORE RE-INSTALLATION.

AIRCRAFT CABLE

1.- FOR FABRIC ATTACHMENT USE 3/8" 7x19 GALV. CABLE PER ASTM A1023/A1023M, WITH A BREAKING STRENGTH VALUE OF 14,400 LBS. CABLE SHALL BE TENSIONED TO 300 LBS MINIMUM AND 500 LBS MAXIMUM.THE MAXIMUM CALCULATED CABLE ALLOWABLE CAPACITY IS Sa=4,909 LB.

2.- CABLES SHALL BE FED THROUGH THE FABRIC SLEEVES AROUND THE PERIMETER OF THE CANOPY AND TENSIONED UNTIL THE FABRIC PANELS (DESIGNED PURPOSELY UNDERSIZED) REACH A TAUT APPEARANCE. ANY LONG TERM CABLE SAG SHALL BE MINIMIZED DURING THE MAINTENANCE RE-TIGHTING VISITS AS REQUIRED.

MAXIMUM OCCUPANT LOAD (PER CBC 2022 TABLE 1604A.5)

-K-12:	250 PERSONS
-PUBLIC ASSEMBLY:	300 PERSONS
-EDUCATIONAL OCCUPANCIES ABOVE 12TH GRADE:	500 PERSONS

CBC PC DESIGN NOTES

BUILDING CODE	CBC 2022 (BASED ON IBC 2021)	
FLOOR LIVE LOAD	N/A	
ROOF LIVE LOAD	RLL	5 PSF

ALLOWABLE SOIL PRESSURE:
DL + LL (CONC FTG) 1500 PSF
DL + LL + SEISMIC (CONC FTG) 1500 PSF
LATERAL BEARING DESIGN VALUE 100 PSF/FT BELOW NATURAL GRADE, PER TABLE 1806A.2

TWO TIMES THE TABULAR VALUE IS USED (200 PSF/FT) PER CBC SECTION 1806A.3.4.
ALLOWABLE PIER FRICTIONAL RESISTANCE 250 PSF MAXIMUM BASED ON SECTION 1810A.3.3.1.4 (ONE-SIXTH OF THE BEARING VALUE).
UPLIFT FRICTIONAL RESISTANCE HAVE A SAFETY FACTOR OF 3.

ROOF SNOW LOAD		5 PSF
ICE LOAD		ZERO PSF
FLOOD HAZARD AREA		ZONE X
WHEN A SITE SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED AND SIGNED FROM A SOILS ENGINEER IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN THE PC ARE STILL APPLICABLE.		

WIND DESIGN DIRECTIONAL PROCEDURE: ASCE 7-16, SECTION 27.3.2
NOTE:WIND DESIGN IS LIMITED TO UNOBSTRUCTED CLEAR FLOW CONDITION

-BASIC DESIGN WIND SPEED (3 SEC GUST)	V	115 MPH
-ASD WIND LOAD (CBC 2022 SEC. 1603A.1.4)	V_{ASD}	90 MPH
-WIND EXPOSURE FACTOR	C	
-TOPOGRAPHIC FACTOR	Kzt	1
-RISK CATEGORY	II	
-VELOCITY PRESSURE EXPOSURE COEFFICIENT	Kz	0.90
-VELOCITY PRESSURE	qz	25.90 PSF

SEISMIC DESIGN:

-SITE CLASS		D
NOTE: UNLESS A SITE-SPECIFIC GROUND MOTION HAZARD ANALYSIS IS PERFORMED, THE SM1 VALUE INCREASED BY 50% SHALL BE LESS THAN THE DESIGN CRITERIA STATED HEREIN.		
	SS	3.00g
	S1	1.389g
-SPECTRAL RESPONSE COEFFICIENTS	SDS	2.00
	SD1	1.39
-LATERAL FORCE RESISTING SYSTEM G.2 ORDINARY CANTILEVERED COLUMN SYSTEM.		
-SEISMIC IMPORTANCE FACTOR	Ie	1.0
-DESIGN BASE SHEAR AT BASE	V	18483 LB
-SEISMIC RESPONSE COEFFICIENTS	Cs	1.6
-RESPONSE MODIFICATION FACTOR	R	1.25
-ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE	
-RISK CATEGORY	II	
-SEISMIC DESIGN CATEGORY		E
-SITE COEFFICIENT CATEGORY	Fa	1.2
	Fv	1.5
-REDUNDANCY FACTOR	ρ	1.3

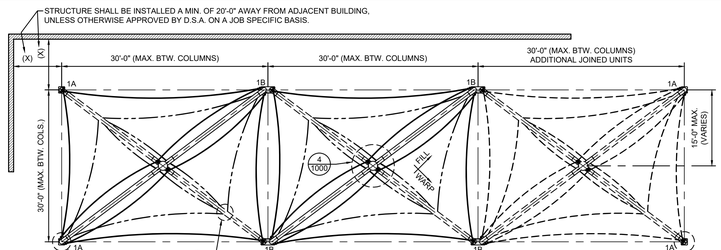
GEOHAZARD REPORT IS NOT REQUIRED FOR OPEN FABRIC STRUCTURES 1,600 SQF OR LESS COMPLYING WITH THE REQUIREMENTS OF IR A-4 SECTION 3.1.1. OPEN FABRIC SHADE STRUCTURES GREATER THAN 1,600 SQUARE FEET UP TO A MAXIMUM OF 4,000 SQUARE FEET AND COMPLYING WITH THE REQUIREMENTS NOTED IN IR A-4 SECTION 3.1.1 DO NOT REQUIRE A GEOHAZARD REPORT PROVIDED A GEOTECHNICAL REPORT INDICATES THAT NO LIQUEFACTION POTENTIAL EXISTS.

ARCHITECT OF RECORD TO DETERMINE IF SPECIFIC SITE IS IN GEOLOGIC HAZARD ZONE. GEOHAZARD REPORT REQUIREMENTS PER DSA IR A-4.

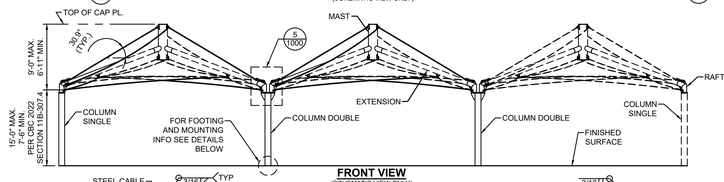
PC OPTIONS SHALL NOT INCLUDE LIQUEFIABLE SOIL (EXCEPTION: OPEN FABRIC SHADE STRUCTURES 1,600 SQUARE FEET OR LESS COMPLYING WITH REQUIREMENTS OF IR A-4 SECTION 3.1.1) IF STRUCTURE IS LOCATED IN AN AREA WITH LIQUEFIABLE SOIL OR SITE CLASS F, OVER-THE-COUNTER SUBMITTAL IS NOT ALLOWED AND REGULAR PROJECT SUBMITTAL IS REQUIRED. IF SITE IS NOT IN A MAPPED LIQUEFACTION HAZARD ZONE, IT MAY BE PRESUMED THAT NO LIQUEFACTION HAZARD EXISTS ON THAT SITE UNLESS A SITE-SPECIFIC GEOTECHNICAL REPORT IDENTIFIES SUCH HAZARD.

MINIMUM FOUNDATION SETBACK LIMIT IN ADJACENT SLOPE: THE DEPTH OF REQUIRED PIER EMBEDMENT SHALL START FROM AN ELEVATION THAT CORRESPONDS WITH A HORIZONTAL CLEAR DISTANCE OF 17'-6" FEET THAT INTERSECT WITH THE SLOPE (DAYLIGHTING). IF SETBACK LIMITS ARE SMALLER THAN CBC REQUIRES, A SITE-SPECIFIC SOILS REPORT IS REQUIRED.

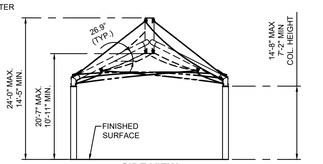
MINIMUM CLASS 2 PROJECT INSPECTOR REQUIRED.



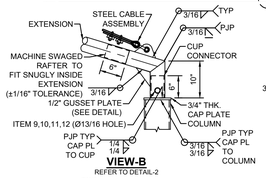
TOP VIEW
(SCHEMATIC VIEW ONLY)



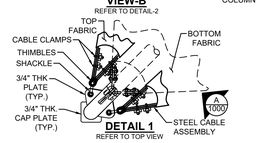
FRONT VIEW
(SCHEMATIC VIEW ONLY)



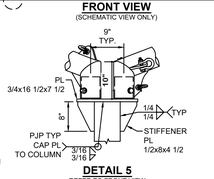
SIDE VIEW
(SCHEMATIC VIEW ONLY)



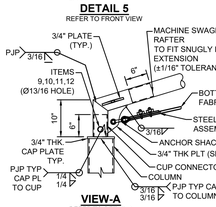
VIEW-B
REFER TO DETAIL-2



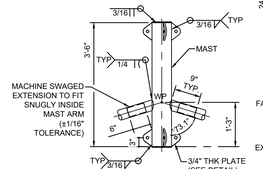
DETAIL 1
REFER TO TOP VIEW



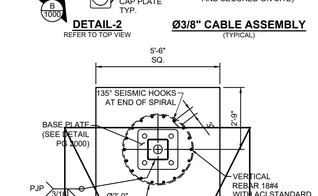
DETAIL 5
REFER TO FRONT VIEW



VIEW-A
REFER TO DETAIL-1

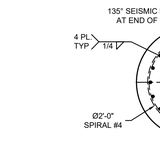


VIEW C-C
REFER TO DETAIL 4

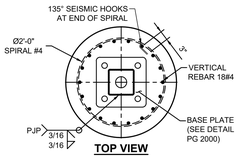


DETAIL-2
REFER TO TOP VIEW

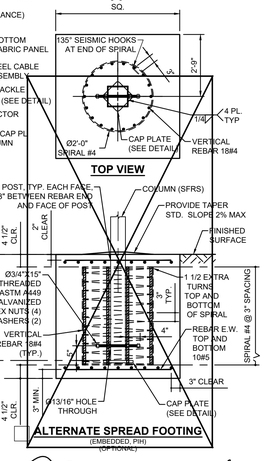
Ø3/8" CABLE ASSEMBLY
(TYPICAL)



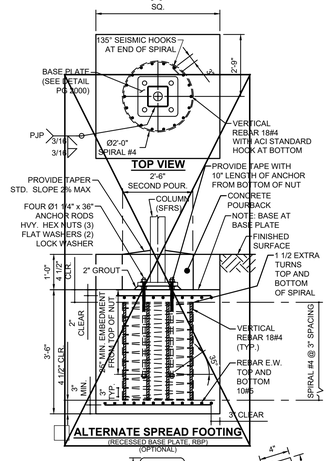
TOP VIEW



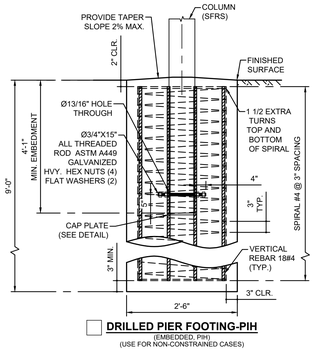
TOP VIEW



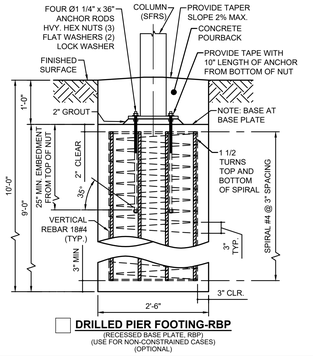
ALTERNATE SPREAD FOOTING
(EMBEDDED, PIH)
(OPTIONAL)



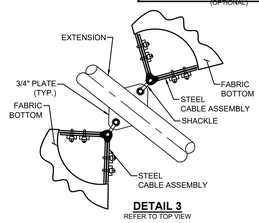
ALTERNATE SPREAD FOOTING
(RECESSED BASE PLATE, RBP)
(OPTIONAL)



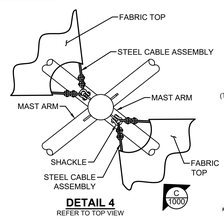
DRILLED PIER FOOTING-PIH
(EMBEDDED, PIH)
(USE FOR NON-CONSTRAINED CASES)



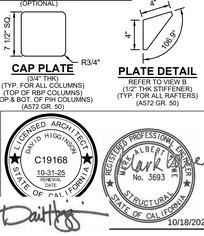
DRILLED PIER FOOTING-RBP
(RECESSED BASE PLATE, RBP)
(USE FOR NON-CONSTRAINED CASES)
(OPTIONAL)



DETAIL 3
REFER TO TOP VIEW



DETAIL 4
REFER TO TOP VIEW



CAP PLATE
(3/4" THK.)
(TYP. FOR ALL COLUMNS)
(TOP OF RBP COLUMNS)
(TOP & BOT. OF PIH COLUMNS)
(A572 GR. 50)

PLATE DETAIL
REFER TO VIEW B
(1/2" THK STIFFNER)
(TYP. FOR ALL RAFTERS)
(A572 GR. 50)

LIST OF MATERIALS

ITEM	QTY	DESCRIPTION	MATERIAL
1A	TBD	COLUMN SINGLE	HSS 7 x 7 x 0.250
1B	TBD	COLUMN DOUBLE	HSS 7 x 7 x 0.250
2	TBD	CUP CONNECTOR (6" LG)	HSS 5.0 x 0.375
2A	TBD	RAFTER M1	HSS 5.563 x 0.258
2B	TBD	RAFTER M2	HSS 5.563 x 0.258
3A	TBD	EXTENSION M1	HSS 5.563 x 0.258
3B	TBD	EXTENSION M2	HSS 5.563 x 0.258
4	TBD	MAST	HSS 10.75 x 0.375
5A	TBD	TOP FABRIC PANEL	FR COLOURSHADE 190/F5
5B	TBD	TOP FABRIC PANEL	FR COLOURSHADE 190/F5
6A	TBD	BOTTOM FABRIC PANEL	FR COLOURSHADE 190/F5
6B	TBD	BOTTOM FABRIC PANEL	FR COLOURSHADE 190/F5
7A	TBD	Ø3/8" CABLE (TOP FABRIC)	GALVANIZED STEEL
7B	TBD	Ø3/8" CABLE (BOTTOM FABRIC)	GALVANIZED STEEL
8	TBD	Ø3/8" CABLE CLAMP	GALVANIZED STEEL
9	TBD	Ø3/4"-10NC x 7" HEX BOLT (ST)	316 SS
10	TBD	Ø3/4"-10NC HEX NUT	316 SS
11	TBD	Ø3/4" SPLIT LOCK WASHER	316 SS
12	TBD	Ø3/4" FLAT WASHER	316 SS
13	TBD	3/4" ANCHOR SHACKLE	GALVANIZED
14	TBD	Ø1/2" THIMBLE	GALVANIZED

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

USASHADE & Fabric Structures
CORPORATE HEADQUARTERS
2580 ESTERS BLVD. SUITE 100
DFW AIRPORT, TX, 75261
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Lakeside Union School District

PROJECT NAME:
Lakeside School

LOCATION:
14535 Old River Road
Bakersfield, CA 93361

MODEL NUMBER:
DSA407J3060-22

APPROVED
DIV. OF THE STATE ARCHITECT
DSA
APPLICATION NO. 03-119
DATE: 10/30/2023

STRUCTURE TYPE:
MARINER PEAK JOINED DSA

SIZE: MAXIMUM
30' x 133' x 15'e MAX.

SCALE : NONE

DRAWING SIZE:
D

PRE-CHECK (PC) DOCUMENT
Code : 2022 CBC
A separate project application for construction is required.

Eng. By :	HH	12/01/22
Design By :	OS	12/01/22
Approved By :	MB	12/01/22

DRAWING DESCRIPTION:
PRODUCT INFORMATION

DWG.
DSA407J3060-22

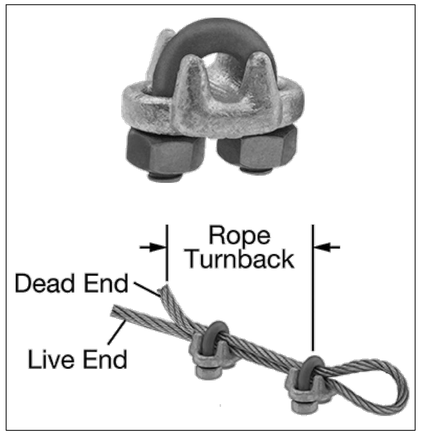
SHEET
19.1-1000

REV.
NC

LICENSED ARCHITECT DAVID HIGHTOWER C19168 10-31-25 RENEWAL DATE STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER ALBERT CLARK No. 3693 STRUCTURAL STATE OF CALIFORNIA

10/18/2023



FORGED WIRE ROPE CLAMP

FITTING TYPE ROPE CLAMP
FABRICATION: FORGED
MATERIAL: GALVANIZED STEEL
FOR WIRE ROPE DIAMETER 3/8"
NUMBER OF CLAMPS REQUIRED: 2
ROPE TURNBACK: 6 1/2"
FOR WIRE ROPE CONSTRUCTION 7 × 19
ATTACHMENT TYPE: LOOP
CLAMP WIDTH 2", HEIGHT 1 15/16", THICKNESS 1 11/16"
REQUIRED INSTALLATION TOOL TORQUE WRENCH
REQUIRED TORQUE 45 FT.-LBS.
CAPACITY 80% OF THE ROPE'S CAPACITY
SPECIFICATIONS MET ASME B30.26, FED. SPEC. FF-C-450

FLAME RETARDANT

Fabric Registration

LICENSE NUMBER: F-052001

COLOURSHADE 190/F5

Product Marketed by:

MULTIKNIT (PTY) LTD
BOX 798 WHITE RIVER 1240
MPUMALANGA SOUTH AFRICA, ,

Issue Date : 05/08/2023
Expiration Date : 06/30/2024

This product meets the minimum requirements of flame resistance established by the California State Fire Marshal for products identified in Section 13115, California Health and Safety Code. The scope of the approved use of this product is provided in the current edition of the CALIFORNIA APPROVED LIST OF FLAME RETARDANT CHEMICALS AND FABRICS, GENERAL AND LIMITED APPLICATIONS CONCERNS published by the California State Fire Marshal.

Issued By Cortney Walker
Fire Engineering License Manager
Fire Engineering & Investigations Division

Reviewed and Approved By Patricia Setter
Deputy State Fire Marshal III
Fire Engineering & Investigations Division

OFFICE OF THE STATE FIRE MARSHAL

Please visit calfire.govmotus.org for more information on Licensing and Permitting with CAL FIRE

Page 1 of 1

Aircraft Cable

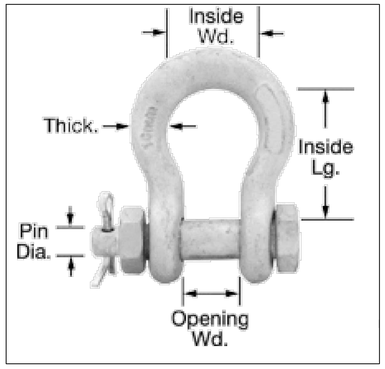
Preformed, made in accordance with commercial specifications military and federal specification rope available.

Carbon Steel (Aircraft Cable) - Galvanized cable has the highest strength and greatest fatigue life of the materials offered. It has good to fair corrosion resistance in rural to industrial atmosphere environments. This material is most widely used for small diameter cables. Tin over galvanized cable offers greater corrosion resistance and reduced friction over pulleys.



7 x 19

7 x 19		
Dia. (In)	Approx. Wt 1000 Ft/lbs	Galvanized Min. Breaking Strengths (lbs)
3/32	17.	1,000
1/8	29.	2,000
5/32	45.	2,800
3/16	65.	4,200
7/32	86.	5,600
1/4	110.	7,000
9/32	139.	8,000
5/16	173.	9,800
3/8	243.	14,400



3/4" GALVANIZED STEEL SAFETY-PIN SHACKLE

MATERIAL: GALVANIZED STEEL
THICKNESS: 3/4"
OPENING WIDTH: 1 1/4"
PIN DIAMETER" 29/32"
INSIDE LENGTH: 2 13/16"
INSIDE WIDTH: 2"
CAPACITY: 10,400 LBS.
FABRICATION: FORGED
PIN TYPE: SAFETY
SPECIFICATIONS MET ASME B30.26, FED. SPEC. RR-C-271F
FITTING TYPE: SHACKLE
APPLICATION: FOR LIFTING
ATTACHMENT TYPE: CLEVIS

A BOLT FASTENED WITH A NUT AND COTTER PIN MAKES THESE SHACKLES MORE SECURE THAN SCREW-PIN SHACKLES. ALSO KNOWN AS ANCHOR AND BOW SHACKLES, THE WIDE BODY PROVIDES ROOM TO ATTACH MULTIPLE CONNECTORS.

GALVANIZED STEEL SHACKLES HAVE A THICK COATING FOR CORROSION RESISTANCE.

Multiknit INTERNATIONAL

190/F5 Fire rated specifications

Standard range

Revision 0 28-Oct-12

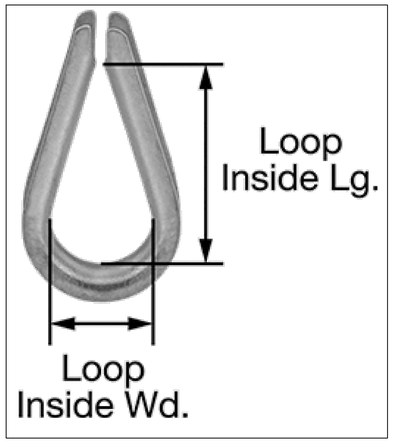
Colour	Shade %	UV Block %	Average GSM	Average Warp break strength kgs	Average Elongation %	Average Weft break strength kgs	Average Elongation %	Average Burst Kpa	Average Burst to Mass ratio
Desert Sand	80	92	185	50	40	72	73	156	0.84
Blue	80	85	185	50	40	72	73	156	0.84
Brown	85		185	50	40	72	73	156	0.84
Green	80	85	185	50	40	72	73	156	0.84
Red	80	86	185	50	40	72	73	156	0.84
Silver	80	81	185	50	40	72	73	156	0.84
Terracotta	75	82	185	50	40	72	73	156	0.84
Yellow	80	89	185	50	40	72	73	156	0.84
				110 LB		159 LB		3258 PSF	

CONVERSION TO IMPERIAL UNITS:
185 GSM = .0378 psf
50 KGS = 110 Lb
72 KGS = 159 Lb
156 Kpa = 3258 psf

Notes:
- 190/F5 conforms to The California State Fire Marshal Title 19 Test for Small scale Fabrics
- Tear tests are done using a 50mm wide strip and a cross head speed of 500mm/min
- This report has been compiled using the mean results from all tests conducted on the given sample by our Quality Control Laboratory. the information provided is considered to be a good reflection of the relevant properties of the fabric tested. These results must only be used as an indication of the quality and characteristics of the fabric tested.
- Company cannot be held responsible or liable in any way whatsoever should this information differ to that of a registered testing institution.

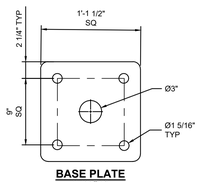
PP
Deon Joubert
General Manager - Multiknit (Pty) Ltd

Tommy Rogers
Managing Director - Multiknit (Pty) Ltd

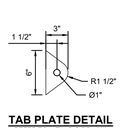


WIRE ROPE THIMBLE

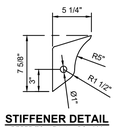
FITTING TYPE: THIMBLE
MATERIAL: GALVANIZED STEEL
FOR WIRE ROPE DIAMETER: 1/2"
LOOP
INSIDE LENGTH: 1 7/8"
INSIDE WIDTH: 1 1/8"
SPECIFICATIONS MET FED. SPEC. FF-T-276B



BASE PLATE
(1 1/4" THK)
(TYP. FOR RBP COLUMNS)



TAB PLATE DETAIL
REFER TO VIEW C-C PG 1000
(3/4" THK PLATE)
(A572 GR. 50)



STIFFENER DETAIL
REFER TO VIEW A-A PG 1000
(3/4" THK PLATE)
(A572 GR. 50)

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USASHADE & Fabric Structures
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2580 ESTERS BLVD. SUITE 100
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CERTIFICATIONS:
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CUSTOMER:
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PROJECT NAME:
Lakeside School

LOCATION:
14535 Old River Road
Bakersfield, CA 93361

MODEL NUMBER:
DSA407J3060-22

APPROVED
DIV. OF THE STATE ARCHITECT
ACCESS COMPLIANCE
EXEMPT PER CBC 1.9.1.5
DSA-AC
DEPARTMENT OF GENERAL SERVICES
DATE: 10/30/2023

STRUCTURE TYPE:
MARINER PEAK JOINED DSA

SIZE: **MAXIMUM**
30' x 133' x 15'e MAX.

SCALE : NONE

DRAWING SIZE:
D

PRE-CHECK (PC) DOCUMENT
Code : 2022 CBC
A separate project application for construction is required.

Eng. By :	HH	12/01/22
Design By :	OS	12/01/22
Approved By :	MB	12/01/22

DRAWING DESCRIPTION:
SPECIFICATIONS

DWG.
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SHEET
19.2-2000

REV.
NC

LICENSED ARCHITECT
DAVID HIGGINBOTHAM
C19168
10-31-25
RENEWAL DATE
STATE OF CALIFORNIA

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10/18/2023