Attachment B

MAMMOTH MULTIPURPOSE ARFF/SRE BUILDING - PEDC REVIEW SET 04/01/2025

1300 AIRPORT ROAD
MAMMOTH LAKES, CA 93546

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE ARFF/SRE BLUIDING

MAMMOTH, CALIFORNIA

Drawing Title
COVER SHEET

Scale
12" = 1'-0"

Project No.
IN2024-0022

Drawing No.
G00-00

1 A40-00 COLOR PERSPECTIVE VIEW
SCALE:

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Civil:
Landscape:
Architecture:
Structural:
Mechanical:
Electrical:

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	BIM Lead
Design Lead	Drawn: Author
Project Leader	Checked: Checker

OWNER

Project
MAMMOTH ARFF/SRE

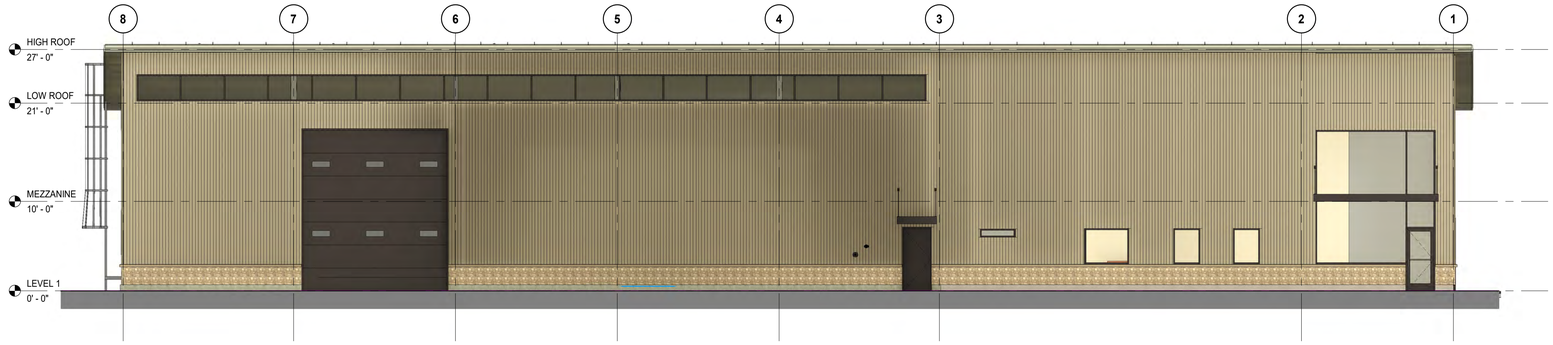
MAMMOTH, CALIFORNIA

Drawing Title
COLOR PERSPECTIVE VIEW

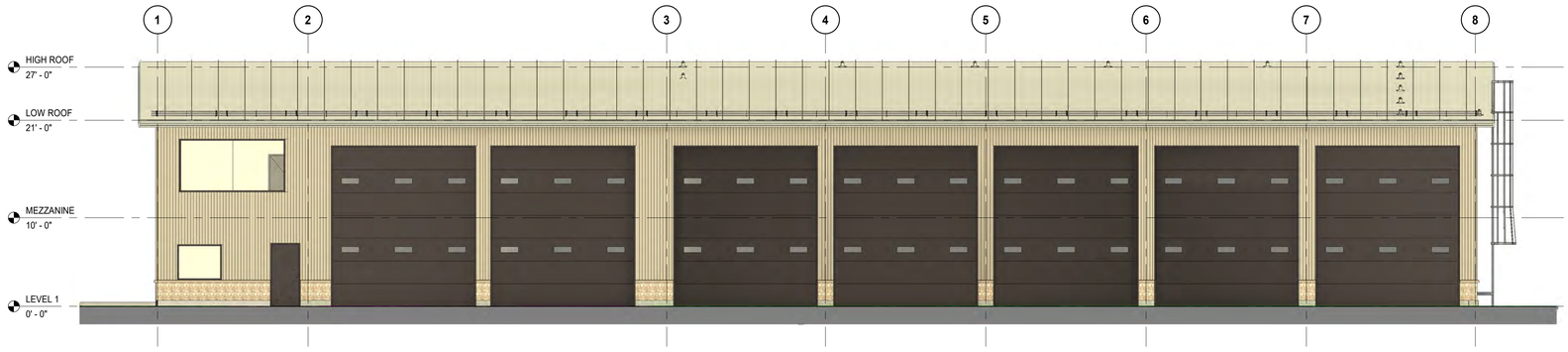
Scale:

Project No. XXXX00-0000

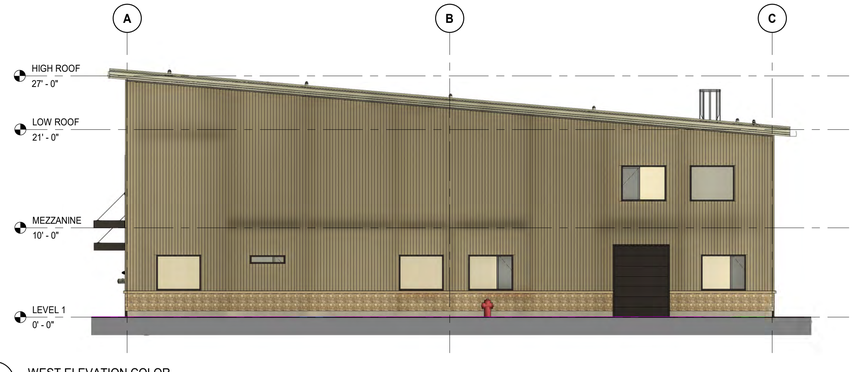
Drawing No.
A40-00



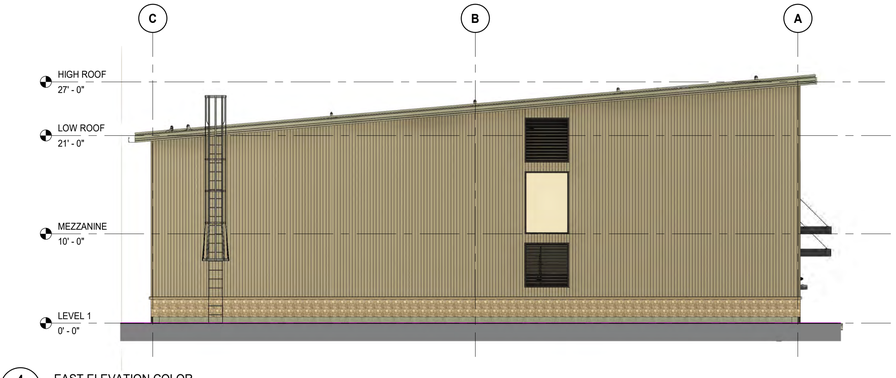
1 / A40-02 NORTH ELEVATION COLOR
SCALE: 1/8" = 1'-0"



2 / A40-02 SOUTH ELEVATION COLOR
SCALE: 1/8" = 1'-0"

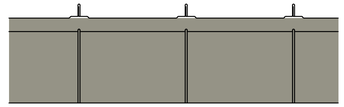


3 / A40-02 WEST ELEVATION COLOR
SCALE: 1/8" = 1'-0"



4 / A40-02 EAST ELEVATION COLOR
SCALE: 1/8" = 1'-0"

EXTERIOR FINISH LEGEND:



COOL ZINC GRAY
(STANDING SEAM ROOF ASSEMBLY)

COOL WEATHERED COPPER
(VERTICAL BOX RIB METAL WALL PANELS)

COOL EBONY
(DOORS, FRAMES AND TRIM)

FIELDLEDGE-PADOVA,
STONE VENEER

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey:
Civil:
Architecture: NORR
Structural:
Mechanical:
Electrical:
Interiors:
Landscape:

Seal(s)

NORR

NORR OFFICE ADDRESS

norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
OWNER

Project
MAMMOTH ARFF/SRE

MAMMOTH, CALIFORNIA

Drawing Title
BUILDING COLOR ELEVATIONS

Scale
As indicated

Project No.
XXXX00-0000

Drawing No.
A40-02

PRELIMINARY - NOT FOR CONSTRUCTION

KHA GENERAL CONSTRUCTION NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR THE LOCAL JURISDICTIONAL STANDARDS (LATEST ED ITION), AND ANY SPECIAL PROVISIONS ADOPTED BY THE LOCAL JURISDICTION, THE SUBDIVISION RULES AND REGULATIONS OF THE LOCAL JURISDICTION (LATEST EDITION), THE PROJECT SPECIFICATION BOOK, AND THESE CONSTRUCTION PLANS. THE LOCAL JURISDICTIONAL SPECIFICATIONS SHALL GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE OWNER AND ENGINEER SHALL BE CONTACTED PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS . THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS.
3. ALL EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME THE DRAWINGS WERE PREPARED AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE TOWN. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ACCURATE. THE LOCATIONS SHOWN ARE FOR BIDDING PURPOSES ONLY. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR ' S RESPONSIBILITY AND SHALL BE DONE BEFORE COMMENCEMENT OF ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR ' S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 72 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS PRIOR TO CONSTRUCTION.
6. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE TOWN , ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE TOWN AND NOTIFICATION TO THE ARCHITECT AND THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE TOWN , ENGINEER, AND OWNER WAS NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
7. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
8. CONTRACTOR SHALL VERIFY BENCHMARKS AND DATUMS PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS.
9. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
10. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION ADJUSTMENTS, RELOCATIONS AND INSTALLATIONS OF FRANCHISE UTILITIES NECESSARY FOR ON-SITE AND OFF-SITE CONSTRUCTION .
11. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION STAKING AND FIELD TESTING, UNLESS SPECIFIED OTHERWISE BY THE OWNER.
12. UNLESS NOTED OTHERWISE, CONTRACTOR SHALL REPLACE ANY EXISTING FEATURES TO REMAIN THAT ARE DESTROYED OR DAMAGED DUE TO CONSTRUCTION ACTIVITIES.
13. TRENCH SAFETY DESIGN WILL BE THE RESPONSIBILITY OF THE UTILITY CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED TRENCH SAFETY PLAN AND SUBMITTALS TO THE JURISDICTIONAL DEPARTMENT(S) FOR REVIEW AND APPROVAL PRIOR TO THE START OF ANY EXCAVATION.
14. ALL CONTRACTORS MUST CONFINE THEIR ACTIVITIES TO THE WORK AREA. NO ENCROACHMENTS ONTO DEVELOPED OR UNDEVELOPED AREAS WILL BE ALLOWED. ANY DAMAGE RESULTING THEREFROM SHALL BE CONTRACTOR'S RESPONSIBILITY TO REPAIR.
15. ALL AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY SITE CONSTRUCTION NOT INCLUDED WITH THIS SCOPE OF WORK SHALL BE RE-GRADED AND LANDSCAPED OR PAVED (TO WHATEVER CONDITION EXISTED BEFORE DISTURBANCE). ALL DISTURBED AREAS SHALL BE REPAIRED TO THE SAME OR BETTER CONDITION THAN BEFORE AREA WAS DISTURBED.
16. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, JURISDICTIONAL STANDARD DETAILS, EROSION CONTROL PLANS AND INSPECTION REPORTS (SWPPP).
17. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONTOURS SHOWN ON THE PLANS AND ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH THE CONSTRUCTION.
18. CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND POWER LINES.
19. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION . CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, OR LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES . CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND THE ESTABLISHMENT OF A STAND OF GRASS OR OTHER GROWTH TO PREVENT EROSION. CONTRACTOR IS RESPONSIBLE FOR FILING N.O.I. AND N.O.T. CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL MANDATED SWPPP SUBMITTALS, RECORD KEEPING, AND REPORTING. CONTRACTOR MUST SUBMIT COPIES OF N.O.I. AND N.O.T. TO THE LOCAL JURISDICTION.
20. CONTRACTOR TO DISPOSE OF ALL EXCESS EXCAVATION MATERIALS AS DIRECTED BY THE OWNER. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING NECESSARY PERMITS AND PAYING DUMP FEES.
21. ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED. UNUSABLE EXCAVATED MATERIAL SHALL BE DISPOSED OF OFF SITE BY THE GRADING CONTRACTOR AT HIS EXPENSE AS DIRECTED BY THE OWNER.
22. WATER LINES CROSSING STORM SEWER LINES AND SANITARY SEWER LINES SHALL BE IN CONFORMANCE WITH LOCAL JURISDICTIONAL SPECIFICATIONS.
23. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS NECESSARY FOR COMPLETE INSTALLATION OF THE UTILITIES. ALL PUBLIC PIPE STRUCTURES AND FITTINGS SHALL BE INSPECTED BY THE TOWN INSPECTOR PRIOR TO BEING COVERED. THE INSPECTOR MUST ALSO BE PRESENT DURING DISINFECTION AND PRESSURE TESTING OF ALL MAINS. THE CONTRACTOR'S BID PRICE SHALL INCLUDE ALL INSPECTION FEES.
24. PVC WATERLINES MUST BE PRESSURE TESTED IN ACCORDANCE WITH THE MOST CURRENT VERSION OF AWWA C605. (NAC 445A.67145.7)
25. ALL FIRE HYDRANTS, FITTINGS, VALVES, AND PIPE ENDS SHALL BE THRUST-BLOCKED WITH CONCRETE PER JURISDICTIONAL STANDARDS.
26. WHERE PROPOSED PAVEMENT ABUTS EXISTING PAVEMENT TO REMAIN, CONTRACTOR SHALL CONSTRUCT PROPOSED PAVEMENT TO MATCH EXISTING PAVEMENT WITH A SMOOTH, FLUSH, CONNECTION.
27. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, UTILITIES, AND OTHER FACILITIES TO REMAIN AND SHALL REPAIR ANY DAMAGES DUE TO THE CONSTRUCTION ACTIVITIES AT NO COST TO THE OWNER.
28. THESE PLANS, PREPARED BY KIMLEY-HORN AND ASSOCIATES, INC., DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE ENGINEER'S SEAL HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEM THAT MAY NOW OR HEREAFTER BE INCORPORATED IN THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ALL REQUIRED SAFETY PROCEDURES AND PROGRAMS.
29. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.
30. ALL APPURTENANCES INSTALLED IN PAVEMENT AREAS SHALL BE ADJUSTED AS REQUIRED TO BE FLUSH WITH FINISHED PAVEMENT.
31. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR COMPLETING AND IMPLEMENTING TRAFFIC CONTROL PLAN.
32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING "RECORD" PLANS TO THE ENGINEER SHOWING THE LOCATION OF WATER AND SEWER SERVICES AND ANY DEVIATIONS FROM PLANS MADE DURING CONSTRUCTION.
33. ELECTRICAL, TELEPHONE, CABLE TELEVISION AND COMMUNICATION FACILITIES ARE SHOWN SCHEMATICALLY ON THESE PLANS. THE DEVELOPER SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY FOR MAKING APPLICATION FOR THE DESIGN OF EACH UTILITY COMPANY'S FACILITY.

LEGEND

—— W ——	EXISTING WATER LINE
—— W ——	PROPOSED WATER LINE
—— SS ——	PROPOSED SANITARY SEWER LINE
—— SD ——	PROPOSED STORM DRAIN LINE
⊠	WATER METER
	BACKFLOW PREVENTER
°CO	SEWER CLEANOUT
	FIRE HYDRANT

GENERAL

1. **ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THESE STANDARDS, THE LATEST VERSION OF THE CALTRANS STANDARD SPECIFICATIONS (CSS), AND THE LATEST VERSION OF THE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION (SSPWC).**
2. **WORK SHALL BE DONE IN CONFORMANCE WITH THE MOST RECENT VERSION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STATE OF CALIFORNIA.**
3. **WORK ON WATER AND SEWER LINES WITHIN THE TOWN SHALL CONFORM TO THE PERMIT REQUIREMENTS**
4. **WORK IN STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION RIGHT OF WAY SHALL BE PERMITTED BY THE TOWN AND CALTRANS AND CONFORM TO THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION REQUIREMENTS.**

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

Mammoth Lakes CALIFORNIA | **REFERENCE STANDARDS** | STANDARD PLAN 001-2 | SHEET 1 OF 1

PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014

ABBREVIATIONS
ALSO REFER TO SECTION 1 OF THE CSS:

AC	ASPHALT CONCRETE	LF	LINEAR FEET
AD	ALGEBRAIC DIFFERENCE	LP	LOW POINT
AGC	ASSOCIATED GENERAL CONTRACTORS OF AMERICA	MAT'L	MATERIALS
		MJ	MECHANICAL JOINT
AGG	AGGREGATE	MLFPD	MAMMOTH LAKES FIRE PROTECTION DISTRICT
APWA	AMERICAN PUBLIC WORKS ASSOCIATION		
ASA	AMERICAN STANDARD ASSOCIATION	MCWD	MAMMOTH COMMUNITY WATER DISTRICT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	NEC	NATIONAL ELECTRIC CODE
		NIC	NOT IN CONTRACT
BC	BEGIN CURVE	NTS	NOT TO SCALE
BM	BENCH MARK	OC	ON CENTER
BOC	BACK OF CURB	PCC	PORTLAND CEMENT CONCRETE
BVCE	BEGIN VERTICAL CURVE ELEVATION	POCC	POINT ON COMPOUND CURVE
BVCS	BEGIN VERTICAL CURVE STATION	PERF	PERFORATED
CFS	CUBIC FEET PER SECOND	PL	PROPERTY LINE
CITY	TOWN OF MAMMOTH LAKES	PP	POWER POLE
CL	CENTERLINE	P.U.E.	PUBLIC UTILITY EASEMENT
CMP	CORRUGATED METAL PIPE	PVC	POINT ON VERTICAL CURVE
	CONSTRUCTION MANAGEMENT PLAN	POVC	POLYVINYL CHLORIDE
CMU	CONCRETE MASONRY UNIT	PVI	POINT OF VERTICAL INTERSECTION
CO	CLEAN OUT	PVMT	PAVEMENT
CONC.	CONCRETE	RCP	REINFORCED CONCRETE PIPE
CPP	CORRUGATED PLASTIC PIPE	REQMT'S	REQUIREMENTS
CS	CRAWL SPACE	ROW	RIGHT OF WAY
CSP	STATE OF CALIFORNIA DOT STANDARD PLANS, MOST RECENT EDITION	RR	RAILROAD
		SD	STORM DRAIN
CSP	CORRUGATED STEEL PIPE	SDN	SUBDRAIN
CSS	STATE OF CALIFORNIA DOT STANDARD SPECIFICATIONS, MOST RECENT EDITION	SDMH	STORM DRAIN MANHOLE
		SL	SEWER LATERAL
CU. FT, CF	CUBIC FEET	SQ.FT.,SF	SQUARE FEET
CY	CUBIC YARDS	SS	SANITARY SEWER
DI	DROP INLET	SSMH	SANITARY SEWER MANHOLE
DIA	DIAMETER	SSPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION, PREPARED BY SOUTHERN CALIFORNIA CHAPTERS OF AGC AND APWA
DIP	DUCTILE IRON PIPE		
EC	END CURVE		
EG	EXISTING GROUND		
EL,ELEV	ELEVATION		
EOR	ENGINEER OF RECORD	STA	STATION
EP	EDGE OF PAVEMENT	STND	STANDARD
EQ	EQUIVALENT	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
EX	EXISTING		
EVCE	END VERTICAL CURVE ELEVATION	TBM	TEMPORARY BENCH MARK
EVCS	END VERTICAL CURVE STATION	TC	TOP OF CURB
FF	FINISHED FLOOR	TF	TOP OF FOOTING
FG	FINISHED GRADE	TG	TOP OF GRATE
FH	FIRE HYDRANT	TOML	TOWN OF MAMMOTH LAKES
FL	FLOWLINE	TOWN	TOWN OF MAMMOTH LAKES
FM	FORCE MAIN	TW	TOP OF WALL
FPS	FIRE PROTECTION SERVICE FEET PER SECOND	TYP.	TYPICAL
		UG	UNDERGROUND
FS	FINISHED SURFACE	VC	VERTICAL CURVE
GB	GRADE BREAK	VLT	VAULT
GP	GATE POST	VCP	VITRIFIED CLAY PIPE
H	HEIGHT	WL	WATER LATERAL
HMA	HOT MIX ASPHALT	WS	WATER SERVICE
HP	HIGH POINT		
HDPE	HIGH DENSITY POLYETHYLENE		
I.FT.	INVERT ELEVATION		
INTX	INTERSECTION		
INV	INVERT		
JMF	JOB MIX FORMULA		

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

Mammoth Lakes CALIFORNIA | **ABBREVIATIONS AND DEFINITIONS** | STANDARD PLAN 002-2 | SHEET 1 OF 2

PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014

DEFINITIONS
ALSO REFER TO SECTION 1, "DEFINITIONS AND TERMS" OF THE CSS.

BIDDER:	ANY INDIVIDUAL, FIRM, PARTNERSHIP, CORPORATION, OR COMBINATION THEREOF, SUBMITTING A PROPOSAL FOR THE WORK CONTEMPLATED, ACTING DIRECTLY OR THROUGH A DULY AUTHORIZED REPRESENTATIVE.
DEPARTMENT:	PUBLIC WORKS DEPARTMENT, TOWN OF MAMMOTH LAKES.
DIRECTOR:	DIRECTOR OF PUBLIC WORKS DEPARTMENT, OR HIS DESIGNEE
DUE NOTICE:	A WRITTEN NOTIFICATION, GIVEN IN DUE TIME, OF A PROPOSED ACTION WHERE SUCH NOTIFICATION IS REQUIRED BY THE CONTRACT TO BE GIVEN A SPECIFIED INTERVAL OF TIME (USUALLY 48 HOURS OR TWO WORKING DAYS) PRIOR TO THE COMMENCEMENT OF THE CONTEMPLATED ACTION. NOTIFICATION MAY BE FROM ENGINEER TO CONTRACTOR OR FROM CONTRACTOR TO ENGINEER.
ENGINEER:	TOWN ENGINEERING DIVISION, ACTING EITHER DIRECTLY OR THROUGH RESIDENT ENGINEER. THE PUBLIC WORKS DIRECTOR ACTING WITHIN THE SCOPE OF THE PARTICULAR DUTIES ENTRUSTED TO THEM.
ENGINEER OF RECORD	DESIGN ENGINEER, ENGINEER RESPONSIBLE FOR THE SIGNING OF PLANS WILL ALSO SET DIRECTION OF DESIGN PROCESS
LABORATORY:	THE DESIGNATED LABORATORY AUTHORIZED BY THE TOWN TO TEST MATERIALS AND THE WORK INVOLVED IN THE CONTRACT.
PROMPT:	THE BRIEFEST INTERVAL OF TIME REQUIRED FOR A CONSIDERED REPLY, INCLUDING TIME REQUIRED FOR APPROVAL OF A GOVERNING BODY.
STATE:	THE STATE OF CALIFORNIA.
CALTRANS STANDARD PLANS (CSP):	STATE OF CALIFORNIA DOT STANDARD PLANS DATED 2010, OR MOST RECENT.
CALTRANS STANDARD SPECIFICATION (CSS):	STATE OF CALIFORNIA DOT STANDARD SPECIFICATIONS, DATED 2010, OR MOST RECENT.
TOWN COUNCIL:	THE BODY CONSTITUTING THE AWARDING AUTHORITY OF THE TOWN.
TOWN:	THE TOWN OF MAMMOTH LAKES
TOWN ENGINEER:	PUBLIC WORKS DIRECTOR
REPRESENTATIVE:	ENGINEERING DIVISION ACTING EITHER DIRECTLY OR THROUGH PROPERLY AUTHORIZED AGENTS ACTING WITHIN THE SCOPE OF THE PARTICULAR DUTIES ENTRUSTED TO THEM.
WORKING DAYS:	A WORKING DAY IS DEFINED AS ANY DAY, EXCEPT SUNDAYS, LEGAL HOLIDAYS AND DAYS WHEN WORK IS SUSPENDED BY THE ENGINEER, AS PROVIDED IN SECTION 8 OF THE CSS.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

Mammoth Lakes CALIFORNIA | **ABBREVIATIONS AND DEFINITIONS** | STANDARD PLAN 002-2 | SHEET 2 OF 2

PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014

DESCRIPTION	EXISTING	PROPOSED
MONUMENT	◉	o
POWER POLE		
PROPERTY LINE	PL	PL
GAS LINE	—P—,—S—	—P—,—S—
ROCK WALL		
SAND		
SANITARY SEWER w/SIZE & DIRECTION INDICATOR	8"SS	8"SS
STORM DRAIN w/SIZE & DIRECTION INDICATOR	18"SD	18"SD
SEWER LATERAL	—S—	—S—
SIGN		
STREET LIGHT (LUMINAIRE)	☼	☼
TRAFFIC SIGNAL	SIGNAL	SIGNAL
TREE - DECIDUOUS		
TREE - EVERGREEN		
TREE SIZE AND TYPE	◦ 12" P	◦ 12" P
TREE TO BE REMOVED		X 12" P
WATER LINE	10"W	10"W
WATER VALVE	⋈	⋈
WATTLES		
REVISION AND REVISION NUMBER		1 ⚠

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

Mammoth Lakes CALIFORNIA | **SYMBOLS** | STANDARD PLAN 003-2 | SHEET 2 OF 2

PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014

FEBRUARY 2025
95% CD

NO.	REVISIONS	DATE	BY

Kimley»Horn

7900 RANCHARRAH PARKWAY, SUITE 100, RENO, NV 89511
PHONE: 775-787-7552
WWW.KIMLEY-HORN.COM

KHA PROJECT 192350000
DATE 02/21/2025
SCALE N/A
DESIGNED BY AJY
DRAWN BY JWF
CHECKED BY THH

GENERAL NOTES, ABBREVIATIONS, & LEGEND

MAMMOTH YOSEMITE AIRPORT
MULTIPURPOSE BUILDING TO INCLUDE ARFF AND SRE COMPONENTS
MAMMOTH LAKES CALIFORNIA

SHEET NUMBER
G00-01
SHEET 1 OF 7

4/1/2025 2:53:21 PM

GENERAL NOTES

1. CONTRACTOR SHALL VISIT THE SITE, FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND REVIEW AND UNDERSTAND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS PRIOR TO BEGINNING ANY WORK AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCY. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORRECTIONS AND REPAIRS REQUIRED DUE TO HIS FAILURE TO PERFORM THE DUTIES LISTED ABOVE.

2. SOLELY AS A CONVENIENCE TO THE OWNER AND CONTRACTOR, THE ARCHITECT MAY INCLUDE DOCUMENTS PREPARED BY CERTAIN CONSULTANTS (OR INCORPORATE THE RECOMMENDATIONS OF SAID CONSULTANTS INTO DOCUMENTS PREPARED BY THE ARCHITECT) WITH THE SET OF DOCUMENTS ISSUED BY THE ARCHITECT. IT IS UNDERSTOOD THAT BY SUCH ISSUANCE, THE ARCHITECT ASSUMES NO LIABILITY FOR THE SERVICES OF SAID CONSULTANTS.

3. ALL WORK AND MATERIALS SHALL CONFORM TO THE LATEST ADOPTED BUILDING CODE AS AMENDED, THE MOST CURRENT ADOPTED FIRE CODE EDITION, ALL ORDINANCES AND REGULATIONS OF THE CITY, COUNTY, AND/OR STATE WITH JURISDICTION AND SPECIAL REQUIREMENTS INDICATED IN THE BUILDING SUMMARY OR THESE GENERAL NOTES.

4. UNLESS OTHERWISE INDICATED ON THESE DRAWINGS AND SPECIFICATIONS AS BEING N.I.C. OR EXISTING ALL ITEMS, MATERIALS, ETC. AND INSTALLATION OF THE SAME ARE A PART OF THE CONTRACT DEFINED BY THESE DRAWINGS AND SPECIFICATIONS.

5. ANY REVISION OR ADDITIONAL WORK REQUIRED BY FIELD CONDITIONS OR LOCAL GOVERNING AUTHORITIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER BEFORE PROCEEDING.

6. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS. CONTRACTOR MUST COMPLY WITH SAFETY REGULATIONS AND RESTRICTIONS AS REQUIRED FOR WORKERS, PEDESTRIANS AND VEHICULAR TRAFFIC DURING THE CONSTRUCTION OF THIS PROJECT. PROVIDE PROTECTION AS REQUIRED TO PREVENT ANY DAMAGE TO EXISTING CONSTRUCTION WITHIN AND ADJACENT TO JOB SITE. WHERE DAMAGE OCCURS, THE CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED AREA AND/OR MATERIAL AT NO ADDITIONAL COST TO THE OWNER. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS.

7. CONTRACTOR SHOULD PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, UTILITIES, OTHER SERVICES AND RELATED TASKS NECESSARY FOR PROPER EXECUTION OF THE CONSTRUCTION REQUIRED BY THE CONTRACT DOCUMENTS.

8. CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL EXISTING UTILITY LINES ADJACENT TO AND ON THE SITE, TO THE BUILDING(S) AS MY BE INDICATED, AS WELL AS CONNECTIONS EXISTING AND PROPOSED ON THE PLANS.

9. CONTRACTOR MUST NOTIFY OWNER IN WRITING OF ANY REVISION OR ADDITIONAL WORK REQUIRED BY FIELD CONDITIONS OR LOCAL GOVERNING AUTHORITIES PRIOR TO SAID WORK.

10. NO STRUCTURAL MEMBER SHALL BE CUT FOR PIPES, A.C. DUCTS, ETC., UNLESS SPECIFICALLY DETAILED.

11. WHERE LARGER STUDS, OR FURRING, ARE REQUIRED TO COVER DUCTS, PIPING, CONDUIT, ETC., THE LARGER SIZE STUD OR FURRING SHALL EXTEND THE FULL LENGTH OF THE SURFACE WHERE THE FURRING OCCURS.

12. ALL EXPOSED STEEL SHALL BE PAINTED, UON.

13. EXIT SIGNS SHALL MEET THE REQUIREMENTS OF THE EFFECTIVE BUILDING AND FIRE CODES. SEE ELECTRICAL SHEET FOR LOCATION OF EXIT SIGNS AND EMERGENCY EXIT LIGHTING. PROVIDE EXIT PATH LIGHTING WITH A VALUE OF 1 FOOT CANDLE POWERED FROM A SEPARATE CIRCUIT AND SEPARATE SOURCES, MINIMUM AT WALKING SURFACE. ILLUMINATED EXIT SIGNS SHALL BE PER SECTION1011 OF THE 2016 CBC. MEANS OF EGRESS ILLUMINATION SHALL BE PER SECTION 1006 OF THE 2016 CBC.

14. ALL PRODUCTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

15. DO NOT USE CADMIUM OR CADMIUM PLATED PRODUCTS OR PRODUCTS CONTAINING CADMIUM FOR WORK IN PLACE.

16. DO NOT USE ASBESTOS OR ASBESTOS CONTAINING PRODUCTS FOR WORK IN PLACE. CONTRACTOR SHALL NOT CUT, DRILL, REMOVE, OR OTHERWISE DISTURB ANY MATERIAL, EQUIPMENT, CONSTRUCTION, ETC., IF IT IS THOUGHT TO CONTAIN ANY HAZARDOUS MATERIAL. IF MATERIAL, EQUIPMENT, CONSTRUCTION, ETC., IS ENCOUNTERED THAT APPEARS TO, OR IS LIKELY TO CONTAIN HAZARDOUS MATERIALS, NOTIFY OWNER IMMEDIATELY.

17. ELECTRICAL EQUIPMENT SHALL BE CERTIFIED AS CONTAINING NO PCB'S.

18. ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE. ALL DIMENSIONS TO FACE OF MASONRY. CENTER LINE OF STRUCTURAL STEEL, FACE OF STUD WALL, CEILING HEIGHT DIMENSIONS ARE FROM FINISH FLOOR SLAB TO FINISH FACE OF CEILING, TYP. U.O.N. - ALL MASONRY DIMENSIONS INDICATED ARE NOMINAL DIMENSIONS.THE TERM "PROVIDE" AS USED HEREIN SHALL MEAN THAT THE CONTRACTOR SHALL FURNISH AND INSTALL SAID ITEM, CONSTRUCTION, EQUIPMENT, MATERIALS, ETC., FOR A COMPLETE, FINISHED INSTALLATION.

19. ALL LEGAL EXIT DOORS INDICATED ON THE PLANS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT AND SHALL BE LABELED, "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS" IN BLOCK LETTERS A MINIMUM OF 1 INCH HIGH ON A SPECIAL LOCKING DEVICE SHALL BE OF AN APPROVED TYPE. FLUSH BOLTS OR SURFACE BOLTS ARE NOT ALLOWED. MAXIMUM EFFORT TO OPERATE DOORS, 5 LBS. FOR INTERIOR DOORS AND 15 LBS. FOR FIRE RATED DOORS.

20. EXIT SIGNS SHALL BE PROVIDED AT ALL EXITS AS REQUIRED BY CODE. ALL DOOR SWINGS SERVING AN OCCUPANT LOAD OF 50 OR GREATER SHALL SWING IN THE DIRECTION OF EXT.

21. WHERE EXIT DOORS SWING OUT OVER A LANDING, THE LANDING SHALL NOT BE MORE THAN 1/4" BELOW THE THRESHOLD.

22. PERMITS - GENERAL CONTRACTOR TO APPLY FOR AND SECURE BUILDING PERMITS INCLUDING ELECTRICAL, MECHANICAL, PLUMBING, AND PAY ALL FEES AND DEPOSITS NECESSARY FOR PLAN CHECK PURPOSES. GC TO PROVIDE ALL PERTINENT INFORMATION REQUIRED BY THE JURISDICTION(S) HAVING AUTHORITY AS PART OF THE PERMITTING PROCESS. COORDINATE WITH AOR AS NECESSARY. ALL PERMITS AND FEES SHALL BE REIMBURSED TO THE GC BY OWNER.

23. THE TERM " PROVIDE" AS USED HEREIN SHALL MEAN THAT THE CONTRACTOR SHALL PURCHASE AND INSTALL THE SUBJECT ITEM, MATERIALS AND LABOR TO BE INCLUDED.

24. GC SHALL PROVIDE STORAGE CONTAINER FOR ALL CONSTRUCTION MATERIALS. ALL CONSTRUCTION MATERIAL TO BE KEPT IN THIS CONTAINER. NO ITEMS SHALL BE STORED IN THE PARKING LOT. GC SHALL VERIFY WITH JURISDICTION HAVING AUTHORITY IF SPECIAL PERMIT IS REQUIRED FOR ON-SITE STORAGE CONTAINER.

25. GC SHALL PROVIDE DUMPSTERS FOR ALL DEMOLITION/SCRAP & SEPARATED RECYCLABLE MATERIAL.

26. GC SHALL PROVIDE AND BE RESPONSIBLE FOR ALL SUBCONTRACTOR TRADES.

27. CONSTRUCTION SHALL TAKE PLACE IN A LIVE ENVIRONMENT AND AT NO TIME SHALL PEDESTRIANS BE ROUTED OVER CONSTRUCTION RELATED MATERIALS. ALL WORK DURING BUSINESS HOURS SHALL BE PROPERLY BARRICADED OFF FOR PEDESTRIAN AND TENANT PROTECTION.

28. REPAINT ONLY AS REQUIRED FOR PATCHING OUTSIDE OF PROJECT AREA.

29. CLEAN ALL LUMINAIRES THAT WILL REMAIN AND RE-LAMP AS NEEDED.

30. ALL NEW LUMINAIRES AND LAMPS SHALL BE PROVIDED BY THE GC.

31. NEW AND EXISTING ILLUMINATED EXIT SIGNS WITHIN THE SCOPE OF WORK SHALL MEET THE REQUIREMENTS OF C.B.C., SECTION 1013.

32. GC RESPONSIBLE FOR REMOVAL, DISPOSAL AND RECYCLE OF DEMOLITION AND CONSTRUCTION MATERIAL DEBRIS.

33. GC SHALL DEVELOP TIME AND ACTION PLAN AND PROVIDE TO OWNER. GC SHALL REVIEW ALL PERMITTED DOCUMENTS FOR HANDWRITTEN COMMENTS OR OTHER CONDITIONS OF APPROVAL. NOTIFY CLIENT OF ANY COMMENTS WHICH RESULT IN CHANGES TO PROJECT SCOPE.

34. CONTRACTORS SHALL NOT SCALE THESE DRAWINGS FOR CONSTRUCTION PURPOSES. IN THE EVENT OF OMISSION OF NECESSARY DIMENSIONS OR INFORMATION, CONTRACTOR SHALL NOTIFY ARCHITECT IN WRITING. FIGURED AND CALCULATED DIMENSION TAKES PRECEDENCE OVER SCALED MEASUREMENTS. DETAILED DRAWINGS AND LARGER SCALE DRAWINGS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS. ALL PLAN DETAILS AND WALL SECTIONS ARE ASSUMED TO BE TYPICAL CONDITIONS UNLESS DETAILED OR NOTED OTHERWISE.

35. ALL FINISHED FLOOR ELEVATIONS RE: TO ARCHITECTURAL DRAWINGS ONLY.

36. VERIFY ALL DIMENSIONS, CONDITIONS, AND GRADES AT JOB SITE. ALL CONTRACTORS SHALL COORDINATE THEIR WORK WITH OTHER TRADES AND REPORT DISCREPANCIES, PRIOR TO DEMOLITION OR CONSTRUCTION, TO THE ARCHITECT FOR REVIEW AND CLARIFICATION OR ACTION.

37. VERIFY SIZE, LOCATIONS AND CHARACTERISTICS OF ALL EQUIPMENT TO BE FURNISHED WITH MANUFACTURERS OR SUPPLIERS BEFORE BEGINNING CONSTRUCTION.

38. VERIFY SIZE AND LOCATION OF ALL OPENINGS FOR MECHANICAL AND ELECTRICAL EQUIPMENT AND RELATED WORK WITH CONTRACTORS INVOLVED AND EQUIPMENT TO BE FURNISHED. FOR CONSTRUCTION DETAILS NOT SHOWN, USE THE MANUFACTURER'S STANDARD DETAILS OR APPROVED SHOP DRAWINGS / DATA SHEETS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

39. CEILING HEIGHTS SCHEDULED ON THE ROOM FINISH SCHEDULE OR REFLECTED CEILING PLAN ARE TAKEN FROM THE FINISHED FLOOR ELEVATION.

40. VERIFY ALL ELEVATIONS AND DIMENSIONS OF STRUCTURAL ELEMENTS WITH ARCHITECTURAL DRAWINGS. IN CASE OF CONFLICT, NOTIFY ARCHITECT. THE CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR THEM. ALL DIMENSIONAL DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

41. CONTRACTOR TO CONTACT ANY AND ALL LOCAL UTILITIES TO SUBMIT ALL APPLICABLE PERMIT DOCUMENTS, QUALIFICATIONS, ETC., AND SHALL BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH PERMITS, UTILITY EXTENSIONS, TAP-INS, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UTILITY COORDINATION.

42. THE CONTRACTOR SHALL REMOVE ALL DEBRIS AS A RESULT OF THIS PROJECT DAILY, OR AS DIRECTED BY OWNER'S REPRESENTATIVE, AND SHALL DISPOSE OF SAID DEBRIS IN A LEGAL MANNER.

43. EACH SUBCONTRACTOR IS RESPONSIBLE TO COORDINATE AND SCHEDULE HIS WORK WITH THE GENERAL CONTRACTOR AND ALL OTHER CONTRACTORS WHOSE WORK SHALL BE AFFECTED.

44. PARKING AT THE SITE BY ALL CONSTRUCTION STAFF SHALL BE LIMITED TO ONLY THE AREAS DESIGNATED BY THE OWNER.

45. CONTRACTOR SHALL REVIEW ALL PERMIT DOCUMENTS FROM JURISDICTION(S) HAVING AUTHORITY FOR HANDWRITTEN COMMENTS AND OTHER REQUIREMENTS. FORWARD TO ARCHITECT.

46. SITE SHALL BE KEPT CLEAN AND FREE OF DEBRIS AND DUST DAILY.

47. GC TO LABEL PANEL DIRECTORIES IN ELECTRICAL CABINETS.

48. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.

49. GC/CONTRACTORS SHALL COORDINATE WITH THE JURISDICTION(S) HAVING AUTHORITY, ALL WORK AND PERMITTING FOR WORK INDICATED IN THE PLANS WHICH IS LOCATED IN THE PUBLIC RIGHT OF WAY.

50. SUMITTALS THAT DO NOT PROVIDE ADEQUATE DATA FOR THE PRODUCT EVALUATION WILL NOT BE CONSIDERED.

51. GC SHALL PROVIDE WRITTEN WARRANTIES FOR ALL PRODUCTS, MATERIALS AND SYSTEMS. WARRANTIES SHALL NOT DEPRIVE THE OWNER OF OTHER RIGHTS THE OWNER MAY HAVE UNDER OTHER PROVISIONS OF THE CONTRACT DOCUMENTS AND WILL BE IN ADDITION TO AND RUN CONCURRENT WITH OTHER WARRANTIES MADE BY THE CONTRACTOR UNDER THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

VICINITY MAP

DEFERRED SUBMITTAL

1. PRE-ENGINEERED METAL BUILDING DRAWINGS AND CALCULATIONS
2. PRE-FABRICATED AWNING ENGINEERING/ANCHORAGE
3. PROPANE TANK AND CONCRETE PAD
4. METAL STAIR ASSEMBLIES

NOTE; CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE ALL DEFERRED SUBMITTALS AND SUBMIT TO AHJ FOR REVIEW.

SEPARATE PERMIT

1. SITE WORK PERMIT BEYOND BUILDING PACKAGE'S AREA OF WORK

ABBREVIATIONS LEGEND

NOTE: ABBREVIATIONS ARE GENERAL AND MAY NOT BE APPLICABLE TO THIS PROJECT. ABBREVIATIONS IN DRAWINGS MAY OR MAY NOT USE PERIODS.

(M)	MODIFIED
(N)	NEW CONSTRUCTION
(E)	EXISTING CONSTRUCTION
(S)	SURPLUS
(R)	RELOCATED EQUIPMENT
@	AT
C	CENTERLINE
Ø	DIAMETER OR ROUND
AB	ANCHOR BOLT OR AIR BARRIER
ABV	ABOVE
A/C	AIR CONDITIONING
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AL, ALUM	ALUMINUM
ALT	ALTERNATIVE
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AUTO	AUTOMATIC
AVE	AVENUE OR AVERAGE
BB	BULLETIN BOARD
BD	BOARD
BLDG	BUILDING
BLK	BLOCK OR BLOCKING
BLVD	BOULEVARD
BM	BEAM
BO	BOTTOM OF
BOD	BASIS-OF-DESIGN OR BOTTOM OF DECK
BOF	BOTTOM OF FRAMING
BOC	BASE OF CURB
BOT	BOTTOM
BRG	BEARING
BTWN	BETWEEN
BU	BUILT-UP
CAB	CABINET
CC	CENTER TO CENTER
CEM	CEMENT
CFM	CUBIC FEET PER MINUTE
CFL	COUNTER FLASHING OR COMPACT FLUORESCENT LAMP
CFCI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
CFOI	CONTRACTOR FURNISHED/OWNER INSTALLED
CG	CORNER GUARD/CENTER OF GRAVITY
CHT	CEILING HEIGHT
CIP	CAST IN PLACE
CJ	CONTROL JOINT OR CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CMP	CORRUGATED METAL PIPE
CO	CONCRETE OPENING AND CLEAN-OUT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CORR	CORRIDOR
CPT	CARPET
CT	CERAMIC TILE
CW	CURTAIN WALL
CWT	CERAMIC WALL TILE
DBL	DOUBLE
DET/DTL	DETAIL
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DWG	DRAWING
E	EAST
EA	EACH
EB	EXPANSION BOLT
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EL, ELEV	ELEVATION
ELEC	ELECTRIC OR ELECTRICAL
EP	ELECTRICAL PANELBOARD
EST	ESTIMATE OR ESTIMATED
EQ	EQUAL OR EQUIVALENT
EQUIP	EQUIPMENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXP	EXPANSION
EXST	EXISTING
EXT	EXTERIOR
F	FLUSH
FA	FIRE ALARM
FD	FLOOR DRAIN
FDN	FOUNDATION
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FFE	FINISH FLOOR ELEVATION
FFL	FINISH FLOOR LEVEL
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FIN	FINISH (ED)
FLR	FLOOR (ING)
F.O.	FACE OF
F.O.C.	FACE OF CURB/CONCRETE
F.O.F.	FACE OF FINISH
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUDS
F.O.T.	FACE OF TREAD
FPWH	FROST-PROOF WALL HYDRANT
FRP	FIBER REINFORCED PLASTIC
FRT,	FIRE-RETARDANT TREATED WOOD
FS,	FIRE SERVICE

FT	FOOT OR FEET
FTG	FOOTING
FURR	FURRING
FWP	FABRIC WALL PANEL
G	GROUND AND NATURAL GAS
GA.	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GFI, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFRC	GLASS FIBER REINFORCED CONCRETE
GFRG	GLASS FIBER REINFORCED GYPSUM
GI	GALVANIZED IRON (STEEL)
GLB	GLUE-LAM BEAM
GND	GROUND
GSF	GROSS SQUARE FEET
GWB	GYPSUM WALL BOARD
GWT	GLASS WALL TILE
HB	HOSE BIBB
HC	HANDICAPPED
HD	HIGH DENSITY
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT AND HORSEPOWER
HR	HOUR
HT	HEIGHT
HVAC	HEATING VENTILATING AIR CONDITIONING
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IG	ISOLATED GROUND
IGU	INSULATED GLAZING UNIT
IN	INCH
INSUL	INSULATION
INT	INTERIOR AND INTERCOM
INV	INVERT
JAN	JANITOR
JC	JANITOR CLOSET
KIT	KITCHEN
KO	KNOCKOUT
LAM	LAMINATE
LAV	LAVATORY
LBS	POUNDS
LF	LINEAR FEET
LP	LOW POINT
LSF	LINOLEUM SHEET FLOORING
LTF	LINOLEUM TILE FLOORING
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MP	METAL PANEL
MRD	METAL ROOF DECK
MTD	MOUNTED
MTL	METAL
MWK	MILLWORK
N	NORTH OR NEUTRAL
NA	NOT APPLICABLE
NE	NORTHEAST
NIC	NOT IN CONTRACT
NO., #	NUMBER
NOM	NOMINAL
NR	NOT REQUIRED
NSF	NET SQUARE FEET
NTS	NOT TO SCALE
NW	NORTHWEST
OC	ON CENTER OR OVER COUNTER
OD	OUTSIDE DIAMETER
OFOI	OWNER FURNISHED/OWNER INSTALLED
OFCI	OWNER FURNISHED/CONTACTOR INSTALLED
O/H, OH	OVERHEAD
OPG	OPENING
OPH	OPPOSITE HAND
OPP	OPPOSITE
OSA	OUTSIDE AIR
OSB	ORIENTED STRAND BOARD
OTB	OUT TO BID
P	POLE
PC	PHOTO-CELL LIGHTING
PEF	POURED EPOXY FLOORING
PFT	PORCELAIN FLOOR TILE
PH	PHASE AND PHARMACY
P/L, PL	PROPERTY LINE
PL	PLATE
PLAM	PLASTIC LAMINATE
PLUMB	PLUMBING
PWD	PLYWOOD
PNL	PANEL
PROP	PROPOSED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PAINT OR PAINTED
PTD	PAPER TOWEL DISPENSER OR PAINTED
PTFR	PRESSURE TREATED FIRE RESISTIVE
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QSM	QUARTZ SURFACE MATERIAL
QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY

R	RADIUS
RA	RETURN AIR OR RELIEVING ANGLE
RD	ROAD, ROUND OR ROOF DRAIN
RE	REFERENCE, REFER TO
REFR	REFRIGERATION OR REFRIGERATOR
REINF	REINFORCEMENT
REQ'D	REQUIRED
REQ	REQUIRED
REV	REVISION
RF	RUBBER FLOORING
RFH	ROOF HATCH
ROW	RIGHT OF WAY
RM	ROOM
RO	ROUGH OPENING
RVS	REVERSE (SIDE)
S	SOUTH
SA	SUPPLY AIR
SAN	SANITARY SEWER
SC	SOLID CORE
SCD	SEAT COVER DISPENSER
S.D.C.	SEE CIVIL DRAWINGS
SCHED	SCHEDULE
SD	SMOKE DETECTOR, SOAP DISPENSER AND STORM DRAIN
S.E.D.	SEE ELECTRICAL DRAWINGS
SEAL	SEALANT
SECT/SEC	SECTION
SF	SQUARE FOOT/FEET
SFRM	SPRAYED FIRE-RESISTIVE MATERIAL
SE	SOUTHEAST
SHR	SHOWER
SHT	SHEET
SHTG	SHEETING
SIM	SIMILAR
SK	SKETCH
SL	SLOPE
SMS	SHEET METAL SCREW
S.M.D.	SEE MECHANICAL DRAWINGS
SND	SANITARY NAPKIN DISPENSER
SNR	SANITARY NAPKIN RECEPTACLE
SPEC	SPECIFICATION
SQ	SQUARE
SS	SANITARY SEWER, STAINLESS STEEL
S.S.D.	SEE STRUCTURAL DRAWINGS
SSM	SOLID SURFACE MATERIAL
SST	STAINLESS STEEL
SSWC	STAINLESS STEEL WALL CLADDING
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STRUC	STRUCTURAL
SUSP	SUSPENDED
SW	SOUTHWEST
SYM	SYMETRICAL
T	TREAD AND TRANSFORMER
TB	TOWEL BAR
TC	TOP OF CURB
T&G	TONGUE & GROOVE
TD	TOP OF DRAIN
TELE	TELEPHONE
TEMP	TEMPERATURE
TG	TEMPERED GLASS
THK	THICK(NESS)
THRES	THRESHOLD
TO	TOP OF
TOC	TOP OF CURB/CONCRETE OR TABLE OF CONTENTS
TOD	TOP OF DECK
TOF	TOP OF FRAMING
TOM	TOP OF MASONRY
TOP	TOP OF PAVEMENT/PARAPET
TOS	TOP OF SLAB
TOW	TOP OF WALL
TPD	TOILET PAPER DISPENSER
TS	TUBE STEEL AND TEMP SENSOR
TYP	TYPICAL
UDL	UNIFORM DISTRIBUTED LOAD
UF	UPHOLSTERY FABRIC
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
V	VOLTS AND VENT
VB	VAPOR BARRIER
VENT	VENTILATION
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VCT	VINYL COMPOSITION TILE
VR	VENT RISER
VTR	VENT THRU ROOF
VWC	VINYL WALL COVERING
W	WEST, WATTS AND WATER
W/	WITH
W/O	WITHOUT
WB	WALL BASE
WC	WATER CLOSET OR WALL COVERING
WD	WOOD
WGL	WIRE GLASS
WOM	WALK OFF MAT
WP	WATERPROOF OR WORK POINT
WR	WASTE RECEPTACLE
WRB	WEATHER-RESISTIVE BARRIER
WT	WINDOW TREATMENT
WV	WATER VALVE
WWF	WELDED WIRE FABRIC

PROJECT INFORMATION

CBC CHAPTER 3
MAMMOTH IS A MIXED USE FACILITY

CBC CHAPTER 5

CONSTRUCTION TYPE:	V-B TYPE - *(SPRINKLERED)*
OCCUPANCY:	S-1/B MIXED USE
TABLE 504.3	
ALLOWABLE HEIGHT:	45'-0" MAX
EXISTING HEIGHT:	27'-0"
TABLE 504.4	
ALLOWABLE STORIES:	3 STORIES
PROPOSED STORIES:	1 STORY + MEZZANINE
TABLE 506.2	
ALLOWABLE AREA:	27,000 SF
LEVEL 1:	10,740 GSF
MEZZANINE:	330 GSF
TOTAL AREA:	11,070 GSF
LANDSCAPE AREA:	GRAVEL COVER ONLY, NO LANDSCAPEING WITHIN THE BUILDING AREA OF WORK

CBC CHAPTER 6

FIRE RESISTIVE RATING
TABLE 601

PRIMARY STRUCTURAL FRAME	0 HR
BEARING WALLS	0 HR
EXTERIOR	0 HR
INTERIOR	0 HR
NON-BEARING WALLS & PARTITIONS - EXTERIOR	0 HR
NON-BEARING WALLS & PARTITIONS - INTERIOR	0 HR
FLOOR CONSTRUCTION & SECONDARY MEMBERS	0 HR
ROOF CONSTRUCTION & SECONDARY MEMBERS	0 HR
SEPARATION OF OCCUPANCIES *TABLE 602 F1/S2*	1 HR

PLUMBING FIXTURE CALCULATION:
SQUARE FOOTAGE OF OCCUPIED AREA: *15,230*SF
CALCULATION FACTOR (2019 CPC TABLE A):

GROUP A: 515 SF /30 = 0 OCCUPANTS
8.5 OCCUPANTS EACH GENDER
GROUP B: 3,540 SF/200 = 0 OCCUPANTS
9 OCCUPANTS EACH GENDER
GROUP S: 9,950 SF/5,000 = 0 OCCUPANTS
1 OCCUPANTS EACH GENDER
TOTAL OCCUPANTS EACH GENDER
FEMALE = 19
MALE = 19

TABLE 422.1 - B OCCUPANCY

WATER CLOSETS: REQUIRED	PROVIDED	LAVATORIES: REQUIRED	PROVIDED
1: 1-50 MALE	2	1: 1-75 MALE	3
1: 1-15 FEMALE	2	1: 1-50 FEMALE	3

URINALS: REQUIRED	PROVIDED
0	0

APPLICABLE CODES:

2022 CALIFORNIA BUILDING CODE
2022 CALIFORNIA GREEN STANDARDS CODE
2022 CALIFORNIA MECHANICAL CODE
2022 CALIFORNIA PLUMBING CODE
2022 CALIFORNIA ELECTRICAL CODE
2022 CALIFORNIA FIRE CODE
2022 CALIFORNIA ENERGY CODE
2022 CA BLDG STANDARDS ADMIN. CODE
CALGREEN COMPLIANCE
PER CALIFORNIA GREEN CODE THIS PROJECT MUST:
RECYCLE MIN 65% OF ALL CONSTRUCTION WASTE

OFF-STREET PARKING AND LOADING

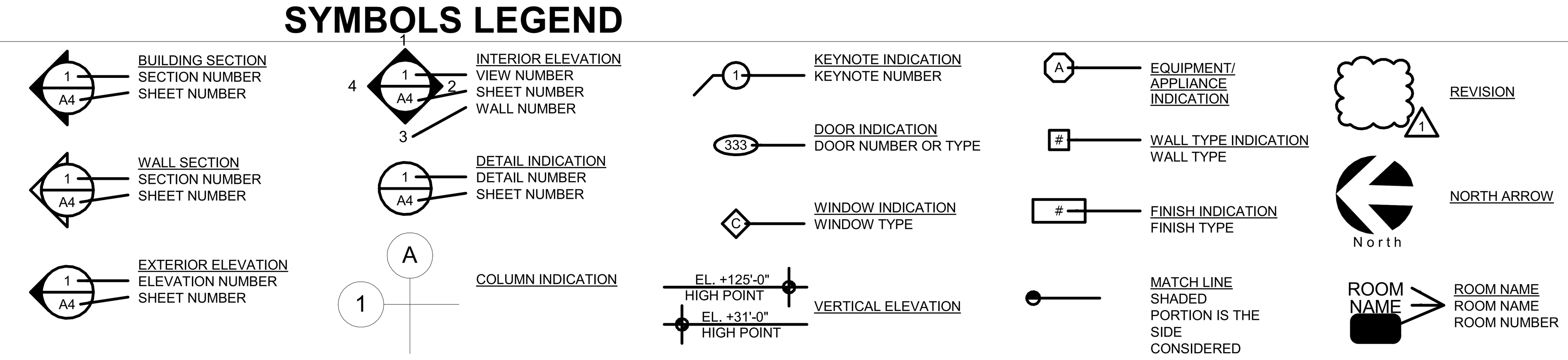
SITE PARKING:
STALLS -5
ACCESSIBLE - 0
ACCESSIBLE VAN - 1
EV - 0
TOTAL: 6

MULTIPURPOSE ARFF/SRE BUILDING INDEX PHASE 2

SHEET ORDER	Sheet Number	Sheet Name
GENERAL		
1	G00-00	COVER SHEET
2	G00-01	MULTI-PURPOSE BUILDING INCLUDE ARFF AND SRE COMONENETS
3	G01-01	GENERAL INFORMATION
4	G01-02	CONSTRUCTION SAFETY AND PHASING PLAN
5	G01-03	COORDINATION LAYOUT PLAN
6	G02-01	BUILDING CODE ANALYSIS
7	G02-02	CALIFORNIA GREEN BUILDING STANDARDS CODE CHECKLIST
8	G02-03	CALIFORNIA GREEN BUILDING STANDARDS CODE CHECKLIST
9	G02-04	CALIFORNIA GREEN BUILDING STANDARDS CODE CHECKLIST
10	G02-05	CALIFORNIA GREEN BUILDING STANDARDS CODE CHECKLIST
11	G03-01	ACCESSIBLE DETAILS
12	G03-02	PLUMBING ACCESSIBILITY DETAILS
13	G04-01	TYPICAL NON-BEARING FRAMING DETAILS
14	G04-02	TYPICAL FRAMING DETAILS
CIVIL		
1	C01-01	CIVIL SITE PLAN AND GENERAL NOTES
2	C01-02	TEST HOLE LOCATION PLANS
3	C01-03	TEST HOLE BORING LOGS
4	C02-01	DEMOLITION PLAN
5	C03-01	GRADING PLAN
6	C03-02	TYPICAL SECTIONS
7	C04-01	DRAINAGE PLAN AND PROFILE
8	C04-02	DRAINAGE DETAILS
9	C05-02	GENERAL NOTES, ABBREVIATIONS, & LEGEND
10	C05-03	UTILITY PLAN
11	C05-04	SANITARY SEWER PLAN & PROFILE
12	C05-05	UTILITY DETAILS
13	C05-06	UTILITY DETAILS
14	C05-07	UTILITY DETAILS
15	C06-01	MARKING PLAN
16	C06-02	MARKING AND SIGN DETAILS
17	C06-03	FENCE PLAN LAYOUT
18	C06-04	FENCE DETAILS
19	C07-01	ELECTRICAL PLAN
20	C07-02	ELECTRICAL DETAILS
21	C07-03	ARFF GATE ELECTRICAL DETAILS
ARCHITECTURE		
1	A05-01	DOOR, WINDOW & LOUVER SCHEDULES
2	A06-01	ROOM FINISH SCHEDULE
3	A10-01	SITE PLAN
4	A11-01	SITE DETAILS
5	A20-01	FLOOR PLANS
6	A20-03	ROOF PLAN
7	A22-01	EDGE OF SLAB PLANS
8	A40-01	ENLARGED FLOOR PLANS
9	A40-02	ENLARGED FLOOR PLANS AND ELEVATIONS
10	A40-03	ENLARGED FLOOR PLANS AND ELEVATIONS
11	A40-04	ENLARGED FLOOR PLANS AND ELEVATIONS
12	A40-05	ENLARGED FLOOR PLANS AND ELEVATIONS
13	A40-06	ENLARGED FLOOR PLANS AND ELEVATIONS
14	A41-01	OVERALL BUILDING ELEVATIONS
15	A42-01	OVERALL BUILDING SECTIONS
16	A44-01	WALL SECTIONS
17	A50-01	DOOR AND WINDOW DETAILS
18	A50-02	INTERIOR DETAILS
19	A50-03	EXTERIOR DETAILS
20	A51-01	STAIR PLANS, SECTIONS AND DETAILS
21	A60-01	REFLECTED CEILING PLAN - LEVEL 1
22	A61-01	CEILING DETAILS
STRUCTURAL		
1	S1.1	GENERAL NOTES
2	S1.2	GENERAL NOTES & TYPICAL DETAILS
3	S2.1	FOUNDATION & MEZZANINE FRAMING PLAN
4	S4.1	SECTIONS
5	S5.1	DETAILS
PLUMBING		
1	P01-001	PLUMBING NOTES & LEGENDS
2	P02-001	NEW PLUMBING FLOOR PLAN - CW, HW AND GAS
3	P02-002	NEW PLUMBING FLOOR PLAN - SS AND V
4	P03-001	PLUMBING ISOMETRIC - CW, HW, AND GAS
5	P03-002	PLUMBING ISOMETRIC - SS AND V
6	P04-001	PLUMBING SCHEDULE
7	P05-001	PLUMBING DETAILS
MECHANICAL		
1	M01-001	DRAWING LIST & LEGENDS
2	M02-001	MECHANICAL FLOOR PLAN
3	M02-002	MECHANICAL MEZZANINE PLAN
4	M03-001	MECHANICAL SCHEDULES
5	M04-001	MECHANICAL DETAILS
ELECTRICAL		
1	E01-01	DRAWING LIST & LEGENDS
2	E03-01	SINGLE LINES
3	E10-01	LEVEL 1 OVERALL POWER PLAN
4	E20-01	LEVEL 1 OVERALL LIGHTING PLAN
FIRE SPRINKLER		
1	FS1.0	SITE PLAN
2	FS2.0	FIRE SPRINKLER PLAN
3	FS3.0	FIRE SPRINKLER PLAN

Grand total: 81

SYMBOLS LEGEND



PROJECT TEAM

CONTRACTOR:
TBD

ARCHITECT:
NORR ASSOCIATES, INC.
1631 ALHAMBRA BLVD, STE 100
SACRAMENTO, CA 95816
PHONE: (916) 453-3809
CONTACT: MIKE NOVAK

MECHANICAL/PLUMBING:
NORR ASSOCIATES, INC.
1631 ALHAMBRA BLVD., SUITE 100
SACRAMENTO, CA 95816
PHONE: (916) 453-3825
CONTACT: BENJAMIN SPRINKLE

ELECTRICAL/FIRE ALARM/FIRE SUPPRESSION:
SACRAMENTO ENGINEERING CONSULTANTS
10555 OLD PLACERVILLE ROAD
SACRAMENTO, CA 95827
PHONE: (916) 368-4468
CONTACT:

STRUCTURAL:
BEVIER STRUCTURAL ENGINEERING
2479 SUNRISE BLVD.
GOLD RIVER, CA 95670
PHONE: (916) 631-3030
CONTACT:

DATE	ISSUED FOR	REV

This drawing has been prepared solely for the use of MAMMOTH YOSEMITE AIRPORT and there are no representations of any kind made by NORR to any party with whom NORR has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE ARFF/SRE BLUIDING
MAMMOTH, CALIFORNIA

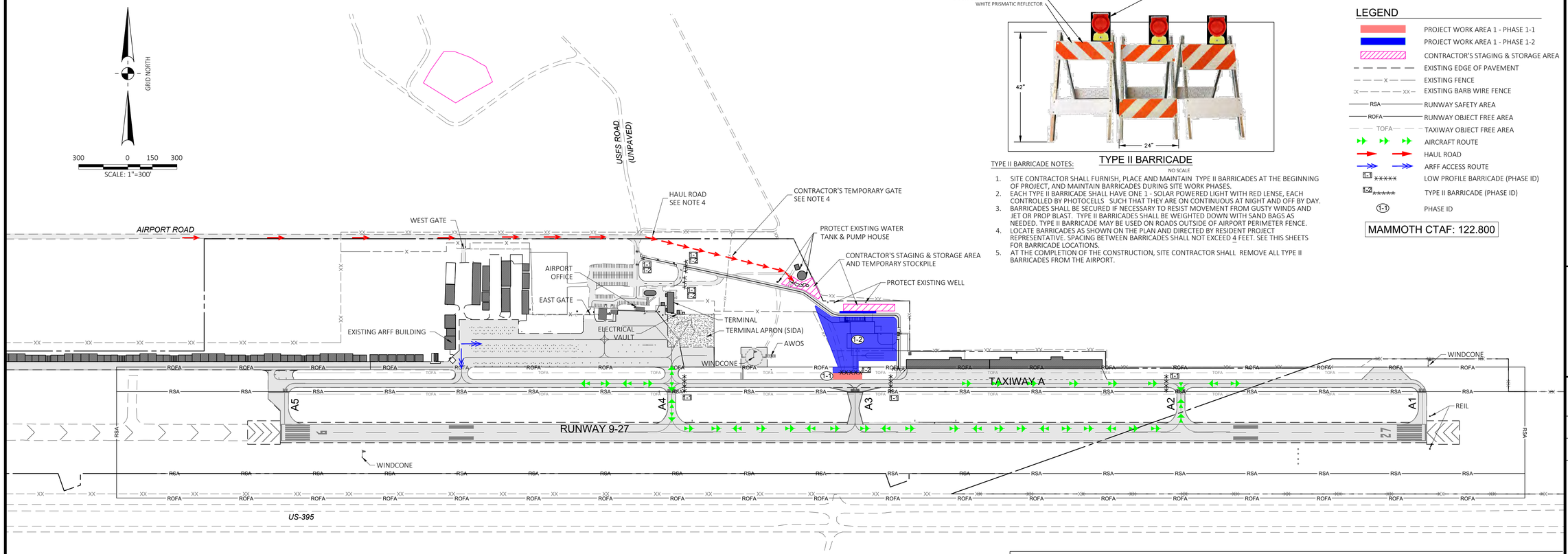
Drawing Title
GENERAL INFORMATION

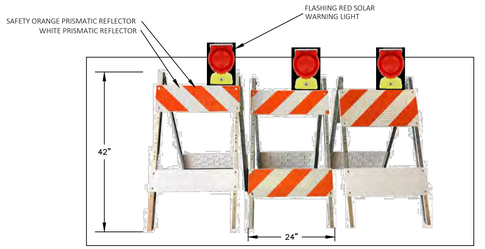
Scale: 12" = 1'-0"

Project No.: IN2024-0022

Drawing No.: **G01-01**

Autodesk Docs://Mammoth Phase 3/IN2024-0022_ARi_Mammoth Phase 3.rvt





TYPE II BARRICADE

NO SCALE

TYPE II BARRICADE NOTES:

1. SITE CONTRACTOR SHALL FURNISH, PLACE AND MAINTAIN TYPE II BARRICADES AT THE BEGINNING OF PROJECT, AND MAINTAIN BARRICADES DURING SITE WORK PHASES.
2. EACH TYPE II BARRICADE SHALL HAVE ONE 1 - SOLAR POWERED LIGHT WITH RED LENSE, EACH CONTROLLED BY PHOTOCELLS SUCH THAT THEY ARE ON CONTINUOUS AT NIGHT AND OFF BY DAY.
3. BARRICADES SHALL BE SECURED IF NECESSARY TO RESIST MOVEMENT FROM GUSTY WINDS AND JET OR PROP BLAST. TYPE II BARRICADES SHALL BE WEIGHTED DOWN WITH SAND BAGS AS NEEDED. TYPE II BARRICADE MAY BE USED ON ROADS OUTSIDE OF AIRPORT PERIMETER FENCE.
4. LOCATE BARRICADES AS SHOWN ON THE PLAN AND DIRECTED BY RESIDENT PROJECT REPRESENTATIVE. SPACING BETWEEN BARRICADES SHALL NOT EXCEED 4 FEET. SEE THIS SHEETS FOR BARRICADE LOCATIONS.
5. AT THE COMPLETION OF THE CONSTRUCTION, SITE CONTRACTOR SHALL REMOVE ALL TYPE II BARRICADES FROM THE AIRPORT.

LEGEND

- PROJECT WORK AREA 1 - PHASE 1-1
- PROJECT WORK AREA 1 - PHASE 1-2
- CONTRACTOR'S STAGING & STORAGE AREA
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING BARB WIRE FENCE
- RUNWAY SAFETY AREA
- RUNWAY OBJECT FREE AREA
- TAXIWAY OBJECT FREE AREA
- AIRCRAFT ROUTE
- HAUL ROAD
- ARFF ACCESS ROUTE
- LOW PROFILE BARRICADE (PHASE ID)
- TYPE II BARRICADE (PHASE ID)
- PHASE ID

MAMMOTH CTAF: 122.800

GENERAL NOTES:

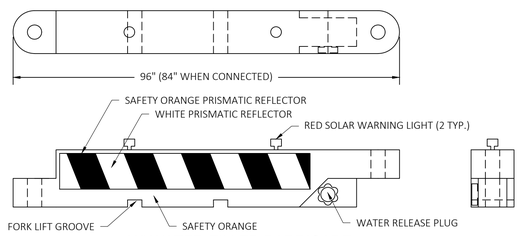
1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SECURITY AND CLEANLINESS OF THE WORK SITE AND CONTRACTOR'S STORAGE AREA AT ALL TIMES
2. CONTRACTOR SHALL MAINTAIN HAUL ROAD AND PAVED SURFACES CLEAN OF DEBRIS AT ALL TIMES. APRON AND TAXIWAYS SHALL BE MAINTAINED BROOM CLEAN.
3. CONTRACTOR SHALL ABIDE BY ALL AIRPORT REGULATIONS AND RESTRICTIONS. CONTRACTOR WILL REGISTER ALL PERSONNEL WITH AIRPORT AND DESIGNATE LEAD PERSONNEL FOR ACCESS BADGES MINIMUM OF 1 WEEK PRIOR TO START OF WORK.
4. CONTRACTOR SHALL CONSTRUCT A 24' HAUL ROAD FROM THE END OF AIRPORT ROAD TO THE CONTRACTOR'S STAGING AREA WEST OF THE WATER STORAGE TANK AND PUMP HOUSE. CONTRACTOR SHALL MAINTAIN THIS HAUL ROAD FOR ALL CONSTRUCTION EQUIPMENT AND MATERIAL DELIVERIES FOR DURATION OF THE PROJECT. CONTRACTOR AND AIRPORT SHALL COORDINATE THE LOCATION OF THE HAUL ROAD. THIS CONTRACTOR'S HAUL ROAD ACCESSES THE AIRPORT THROUGH A 4 STRAND BARB WIRE FENCE. CONTRACTOR SHALL INSTALL A TEMPORARY GATE AT THIS ENTRANCE TO AIRPORT PROPERTY.
5. CONTRACTOR WILL PROVIDE A QUALIFIED FLAGGER WITH RADIO TO MONITOR AIRPORT FREQUENCY, 122.80 MHZ AND OBSERVE AIRCRAFT OPERATIONS WHEN CONTRACTOR IS WORKING NEAR ACTIVE RUNWAYS, TAXIWAYS AND RESTRICTED AREAS.
6. WHEN CONSTRUCTION ACTIVITY IS WITHIN THE RUNWAY OBJECT FREE AREA OR TAXIWAY OBJECT FREE AREA, CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE, A MINIMUM OF ONE WEEK IN ADVANCE OF SUCH ACTIVITY AND VERIFY CLOSURE OF TAXIWAY OR RUNWAY 48 HOURS PRIOR TO PLACING BARRICADES. CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN BARRICADES TO CLOSE THAT PORTION OF TAXIWAY IN WHICH THE CONTRACTOR IS WORKING.
7. CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN LIGHTED BARRICADES DURING CLOSING OF THE ACCESS ROAD. CONTRACTOR PROVIDED BARRICADES SHALL BE FURNISHED AND INSTALLED AS SHOWN ON THE PLANS. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN 2 WEEKS BEFORE ANY WORK IN PHASE 1-2.
8. CONTRACTOR SHALL WORK WITH RPR AND OPERATIONS MANAGER TO MAINTAIN ACCESS TO THE WATER STORAGE TANK AND PUMP HOUSE.
9. CONTRACTOR SHALL NOT TRAVEL ON OR ACROSS ANY RUNWAY OR TAXIWAY PAVEMENT. CONTRACTOR SHALL ACCESS WORK AREA BY WAY OF THE DESIGNATED HAUL ROAD FROM AIRPORT ROAD.
10. CONTRACTOR'S STORAGE AREA SHALL BE DESIGNATED IN THE AREA SHOWN ON THE PLANS AND THE PERIMETER MARKED BY APPROVED BARRICADES OR FENCING. NO SEPARATE PAYMENT FOR CLEARING & GRADING.
11. CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS AND BENCH MARKS FROM DAMAGE.
12. CONTRACTOR SHALL VERIFY LOCATION AND PROTECT ALL EXISTING UTILITIES. SHOULD CONTRACTOR ENCOUNTER AND DAMAGE A WATERLINE ON THE AIRPORT, THEY SHALL IMMEDIATELY NOTIFY THE LOCAL FIRE DEPARTMENT AND THE AIRPORT.
13. IN CASE OF AN AIRCRAFT EMERGENCY THE AREA AROUND THE AIRCRAFT SHALL BE EVACUATED AND NOT REENTERED BY THE CONTRACTOR WITHOUT GIVEN PERMISSION EXCEPT FOR LIFESAVING ACTIVITIES.
14. ALL GATES USED BY THE CONTRACTOR SHALL REMAIN CLOSED AT ALL TIMES EXCEPT WHEN AUTHORIZED EQUIPMENT IS ACTUALLY ENTERING THE AIRPORT. DURING CONTINUOUS USE OF A GATE FOR DELIVERY OF EQUIPMENT OR MATERIALS, CONTRACTOR SHALL REQUEST THAT THE AIRPORT PLACE THE GATE IN A LOCKED OPEN STATE; CONTRACTOR SHALL PROVIDE A FLAGGER, TRAINED BY THE AIRPORT AND PLACE THE FLAGGER AT THE OPEN GATE TO KEEP UNAUTHORIZED PERSONNEL AND WILDLIFE FROM ENTERING THE AIRPORT.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR DUST AND EROSION CONTROL DURING THE DURATION OF THE PROJECT. CONTRACTOR SHALL ACQUIRE WATER PERMITS AS REQUIRED BY THE TOWN OF MAMMOTH LAKES OR MONO COUNTY PRIOR TO START OF ANY WORK ON THE AIRPORT.
16. CONTRACTOR SHALL PROVIDE MATERIAL BACKING TO EXISTING TAXIWAY PAVEMENT WITHIN ROFA AFTER EXCAVATION TO SUBGRADE. TAPER SHALL BE IN PLACE PRIOR TO OPENING TAXIWAY A. TAPER SHALL NOT EXCEED A 5% SLOPE.
17. ALL EQUIPMENT OPERATING DURING DAYLIGHT HOURS SHALL BE EQUIPPED WITH AN ORANGE AND WHITE CHECKERED FLAG OR FLASHING AMBER BEACON. EQUIPMENT OPERATING IN LOW VISIBILITY CONDITIONS, DAWN OR DUSK HOURS SHALL BE EQUIPPED AND USE AN AMBER FLASHING BEACON.
18. ALL TRASH SHALL BE PLACED IN WASTE CONTAINERS TO PREVENT THE ATTRACTION OF WILDLIFE. WASTE CONTAINERS SHALL BE EQUIPPED WITH LIDS AND SECURED AT ALL TIMES. NO TRASH OR DEBRIS SHALL BE LEFT ON SITE BY THE CONTRACTOR.
19. NO DISPOSAL SITES LOCATED ON AIRPORT PROPERTY. CONTRACTOR SHALL BE RESPONSIBLE FOR HAULING OFF SITE ALL EXISTING DEMOLISHED AND EXCAVATED MATERIALS NOT REUSED AS AGGREGATE SUBBASE OR SELECT FILL. CONTRACTOR SHALL SECURE A DISPOSAL SITE AND OBTAIN ALL PERMITS. NO SEPARATE PAYMENT FOR DISPOSAL SITE, DISPOSAL PERMIT OR HAULING OFFSITE.
20. CONTRACTOR SHALL INSTALL THE TEMPORARY BMP'S AS REQUIRED BY THE SWPPP AT THE TEMPORARY STOCKPILES LOCATED IN THE CONTRACTOR'S STORAGE AND STAGING AREA.
21. CONTRACTOR WILL BE REQUIRED BY THE SWPPP TO RESEED DISTURBED AREAS.
22. AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION WORK, THE CONTRACTOR SHALL CONTACT U.S.A. - UNDERGROUND SERVICE ALERT - AT (800) 642-2444 AND REQUEST THAT UTILITY OWNERS MARK OR OTHERWISE INDICATE THE LOCATION OF THEIR FACILITIES IN THE WORK SITE. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT ALL UTILITIES AND ALL STRUCTURES FOUND AT THE SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. UTILITIES SHOWN ARE FROM AVAILABLE RECORDS AND FIELD MEASUREMENTS.

CONSTRUCTION RESPONSIBILITY & CONSTRUCTION SCHEDULES:

1. CONSTRUCTION OF NEW BUILDING SITE, APRON AND ARFF ACCESS ROAD CONSISTS OF 1 WORK ZONE WITH TWO PHASES..
2. WORK ZONE 1, PHASE 1-1 IS THE CONSTRUCTION OF THE ARFF ACCESS ROAD WITHIN THE TAXIWAY OBJECT FREE AREA OF TAXIWAY A AND WILL REQUIRE THE CLOSURE OF A PORTION OF TAXIWAY A FROM TAXIWAY A2 TO A4. DURING THIS PHASE WORK AIRCRAFT WILL BE REQUIRED TO BACK TAXI ON THE RUNWAY. VEHICLE ACCESS TO THE HOT CREEK HANGARS ON TAXIWAY A WILL BE COORDINATED WITH AIRPORT OPERATIONS AND CONTROLLED BY CONTRACTOR FLAGGERS POSTED AT THE BARRICADES.
3. CLOSURE OF TAXIWAY A FOR PHASE 1-1 WILL ONLY BE IN PLACE DURING WORKING HOURS. CONTRACTOR WILL BE REQUIRED TO PROVIDE A TEMPORARY GRADE SLOPES OF NO GREATER THAN 5% OF ALL MATERIALS (EXISTING OR IMPORTED) WITHIN 25' OF PAVEMENT EDGE.
4. WORK ZONE 1 PHASE 1-2 IS THE CONSTRUCTION OF NEW BUILDING SITE, APRON AND ARFF ACCESS ROAD OUTSIDE OF THE TAXIWAY OBJECT FREE AREA. WORK IN PHASE 1-2 MAY OCCUR SIMULTANEOUSLY WITH PHASE 1-1.
5. WORK IN ZONE 1-2 WILL REQUIRE CLOSURE OF THE HANGAR ACCESS ROAD. ACCESS TO THE EAST HANGARS WILL BE COORDINATED WITH AIRPORT OPERATIONS, FBO AND CONTRACTOR . ROUTE TO HANGARS ACROSS THE APRON AND BY WAY OF TAXIWAY A WILL BE CONTROLLED BY FLAGGERS DURING PHASE 1-1 CLOSURES.
6. PHASE 1-1 WORK ADJACENT TO TAXIWAY A WILL REQUIRE A QUALIFIED FLAGGER. CONTRACTOR SHALL HAVE AN ON SITE VACUUM SWEEPER TO KEEP TAXIWAY 'A' CLEAN .
7. TAXIWAY CLOSURES WILL ONLY BE IN PLACE DURING WORKING DAYS AND WORKING HOURS ONLY. CONTRACTOR WILL BE REQUIRED TO PROVIDE TEMPORARY GRADED SLOPES OF NO GREATER THAN 5% OF ALL MATERIALS (EXISTING AND IMPORTED) WITHIN 25' OF PAVEMENT EDGE. A MAXIMUM VERTICAL EDGE OF 3 INCHES WILL BE ALLOWED TO REMAIN ONCE THE AGGREGATE BASE IS INSTALLED.

SITE WORK PHASE & WORK ZONES

WORK ZONE	WORK PHASE	CONTRACTOR'S WORK	CONTRACTOR'S WORK AREA	FACILITY CLOSURE	CLOSED FACILITY DAYS
1	1-1	CONSTRUCT NEW ARFF ACCESS ROAD	WORK AREA WITHIN TAXIWAY A OBJECT FREE AREA (TOFA)	TAXIWAY A FROM TAXIWAY A2 TO TAXIWAY A4	
	1-2	BUILDING SITE, PARKING AREA, APRON AND ARFF ACCESS ROAD	BUILDING SITE, APRON AND ARFF ACCESS	HANGAR ACCESS ROAD	



10" WATER-FILLED BARRICADE

NOT TO SCALE

BARRICADE NOTES:

1. AIRPORT OPERATIONS SHALL FURNISH AND CONTRACTOR PLACE PLASTIC LOW PROFILE LIGHTED BARRICADES FOR WORK INVOLVING CLOSURE OF THE RUNWAY AND TAXIWAYS. CONTRACTOR SHALL MAINTAIN BARRICADES WHILE ON SITE FOR ALL WORK PHASES. AIRPORT SHALL FURNISH A MAXIMUM OF 50 LOW PROFILE BARRICADES, CONTRACTOR SHALL PROVIDE ADDITIONAL LOW PROFILE BARRICADES AS NEEDED.
2. EACH BARRICADE SHALL HAVE 2 SOLAR-POWERED LIGHTS WITH RED LENSES EACH CONTROLLED BY PHOTOCELLS SUCH THAT THEY ARE ON CONTINUOUS AT NIGHT AND OFF BY DAY.
3. BARRICADES SHALL BE SECURED IF NECESSARY TO RESIST MOVEMENT FROM JET OR PROP BLAST. CONTRACTOR WILL FILL LOW PROFILE BARRICADES WITH WATER AS DIRECTED BY RPR AND AIRPORT OPERATIONS.
4. LOCATE BARRICADES AS SHOWN ON THE PLAN AND DIRECTED BY RESIDENT PROJECT REPRESENTATIVE. SPACING BETWEEN BARRICADES SHALL NOT EXCEED 4 FEET. SEE THIS SHEETS FOR BARRICADE LOCATIONS.
5. AT THE COMPLETION OF THE CONSTRUCTION, SITE CONTRACTOR SHALL DRAIN BARRICADES OF WATER AND DELIVER TO THE AIRPORT.

BRADLEY ENGINEERING
6125 KING ROAD, SUITE 201 · LOOMIS, CALIFORNIA 95650 · (916) 652-4725

ENGINEER OF RECORD

DRAFT
95% REVIEW

No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

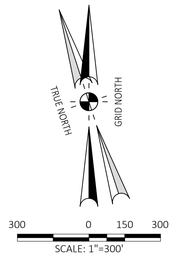
MULTIPURPOSE ARFF/SRE BUILDING

CONSTRUCTION SAFETY AND PHASING PLAN

DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.G01-02.CSPP
SCALE	1"=300'
SHEET No.	G01-02

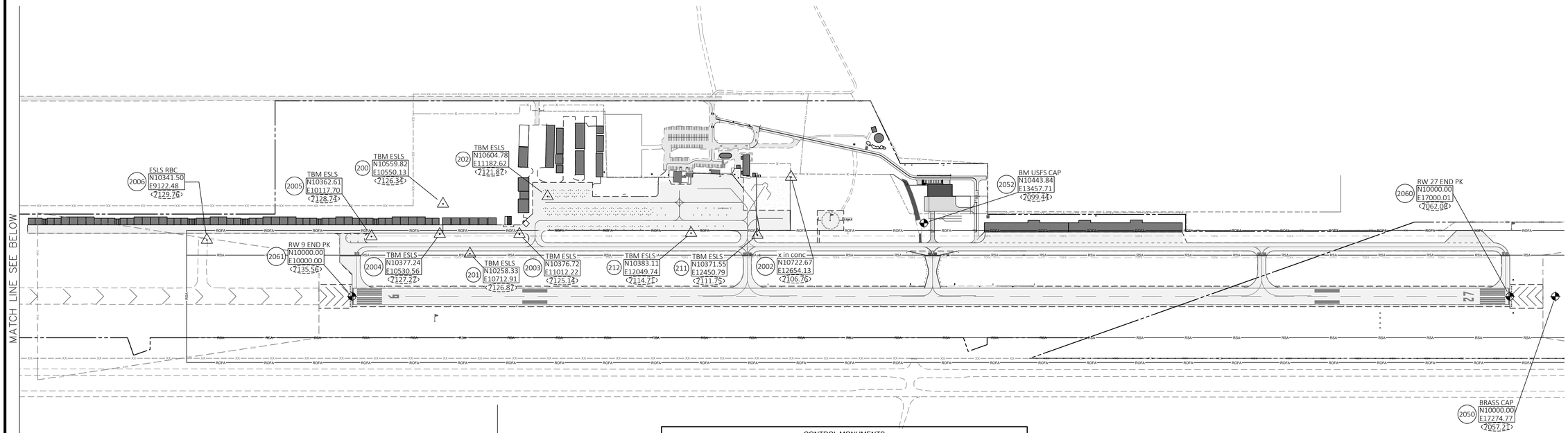
NOTES:

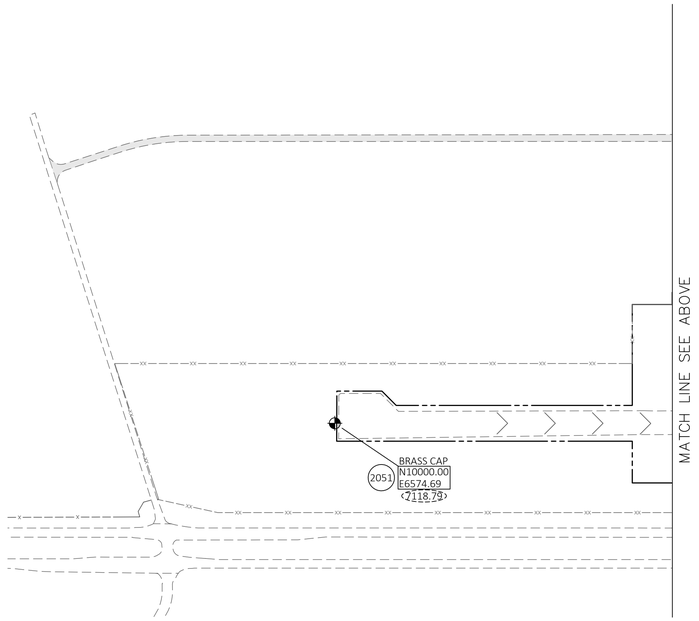
1. THE BASIS OF THE BEARING FOR THE AIRPORT COORDINATE SYSTEM IS THE CENTERLINE OF RUNWAY 9-27 WHICH BEARS EAST - WEST. THE RUNWAY 9 THRESHOLD IS ESTABLISHED AS N10000, E10000. STATIONING FOR THE RUNWAY CENTERLINE CORRESPONDS TO THE PROJECT GRID EASTING.
2. ALL MEASUREMENTS, PROJECT GRID COORDINATES, AND STATION VALUES SHOWN ARE GROUND DISTANCES. CONTROL POINTS ARE TIED TO THE STATE PLANE COORDINATE SYSTEM, NAD83, CALIFORNIA ZONE III AS SHOWN IN THE CONTROL POINT TABLE ON THIS SHEET.
3. THE BASIS FOR VERTICAL CONTROL SHALL BE POINT 2052 - USFS ALUM CAP, 7099.44'. ELEVATIONS BASED ON THE THE NORTH AMERICAN VERTICAL DATUM OF 1988, GEOID 12B.
4. TEMPORARY BENCHMARKS WERE SET JUNE AND DECEMBER 2020 BY EASTERN SIERRA LAND SURVEYING. CONTRACTOR SHALL VERIFY BENCHMARK LOCATION AND HEIGHT PRIOR TO USING AS LOCAL CONTROL.



LEGEND

- N9738.46 E13727.35 — AIRPORT GRID COORDINATE
- 67.00 — EXISTING GRADE ELEVATION
- EXISTING PAVEMENT
- NEW PAVEMENT
- PROJECT AREA
- EXISTING SURVEY MONUMENT
- TEMPORARY BENCHMARK





CONTROL MONUMENTS						
Point #	NORTHING	EASTING	NORTHING (NAD83)	EASTING (NAD83)	ELEVATION	DESCRIPTION
200	10559.82	10550.13			7126.34	TBM ESLS
201	10258.33	10712.91			7126.87	TBM ESLS
202	10604.78	11182.62			7121.87	TBM ESLS
211	10371.55	12450.79			7111.75	TBM ESLS
212	10383.11	12049.74			7114.71	TBM ESLS
2002	10722.67	12654.13			7106.76	x in conc
2003	10376.72	11012.22			7125.14	TBM ESLS
2004	10377.24	10530.56			7127.27	TBM ESLS
2005	10362.61	10117.70			7128.74	TBM ESLS
2006	10341.50	9122.48			7129.76	ESLS RBC
2050	10000.00	17274.77	2052800.57	7046347.73	7057.21	BRASS CAP
2051	10000.00	6574.69	2056094.29	7036171.75	7118.79	BRASS CAP
2052	10443.84	13457.71	2054397.64	7042854.26	7099.44	BM USFS CAP
2060	10000.00	17000.01	2052885.14	7046086.42	7062.08	RW 27 END PK
2061	10000.00	10000.00	2055039.90	7039429.29	7135.56	RW 9 END PK

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ENGINEER OF RECORD

DRAFT
95% REVIEW

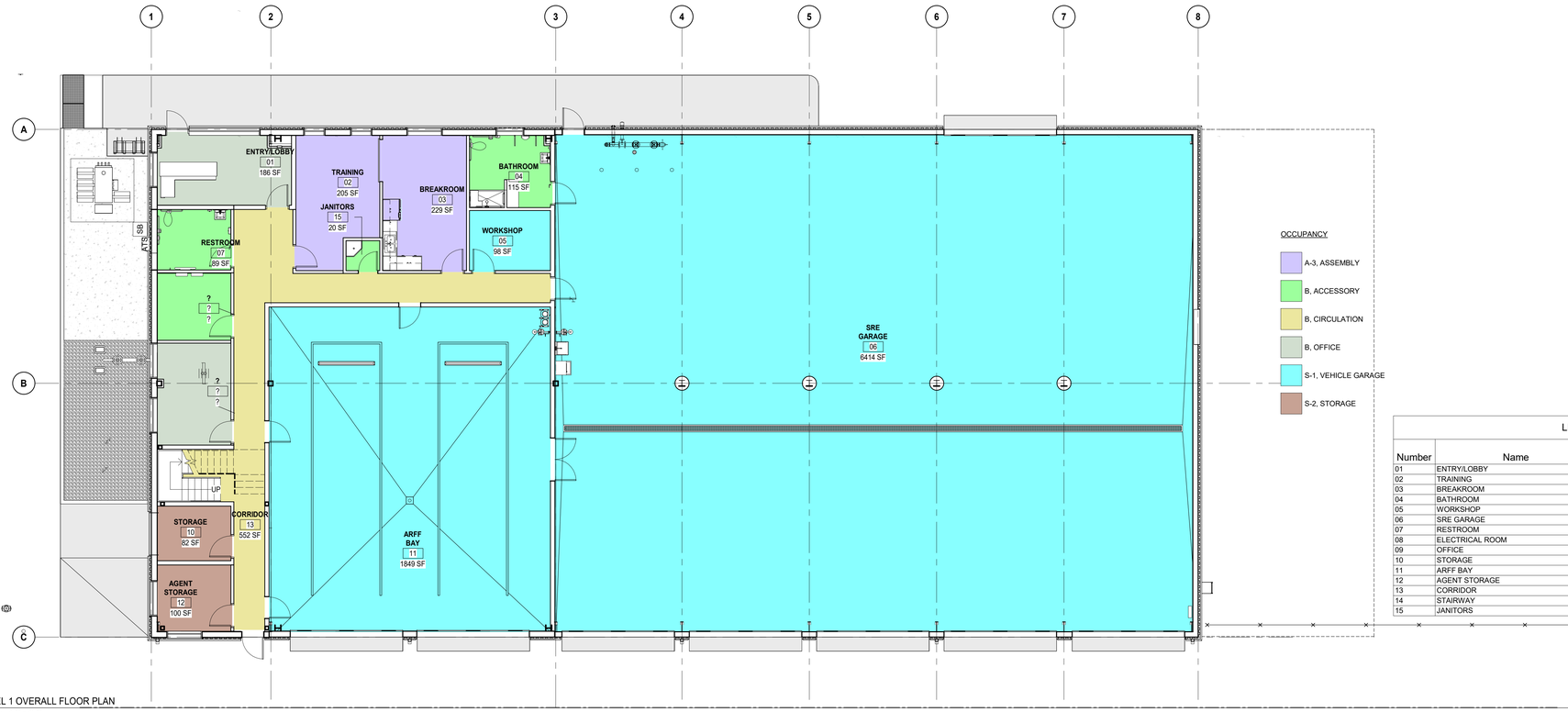
No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

MULTIPURPOSE ARFF/SRE BUILDING

COORDINATE LAYOUT PLAN

DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0102.COORD
SCALE	1"=300'
SHEET No.	G01-03



1 G02-01 LEVEL 1 OVERALL FLOOR PLAN

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

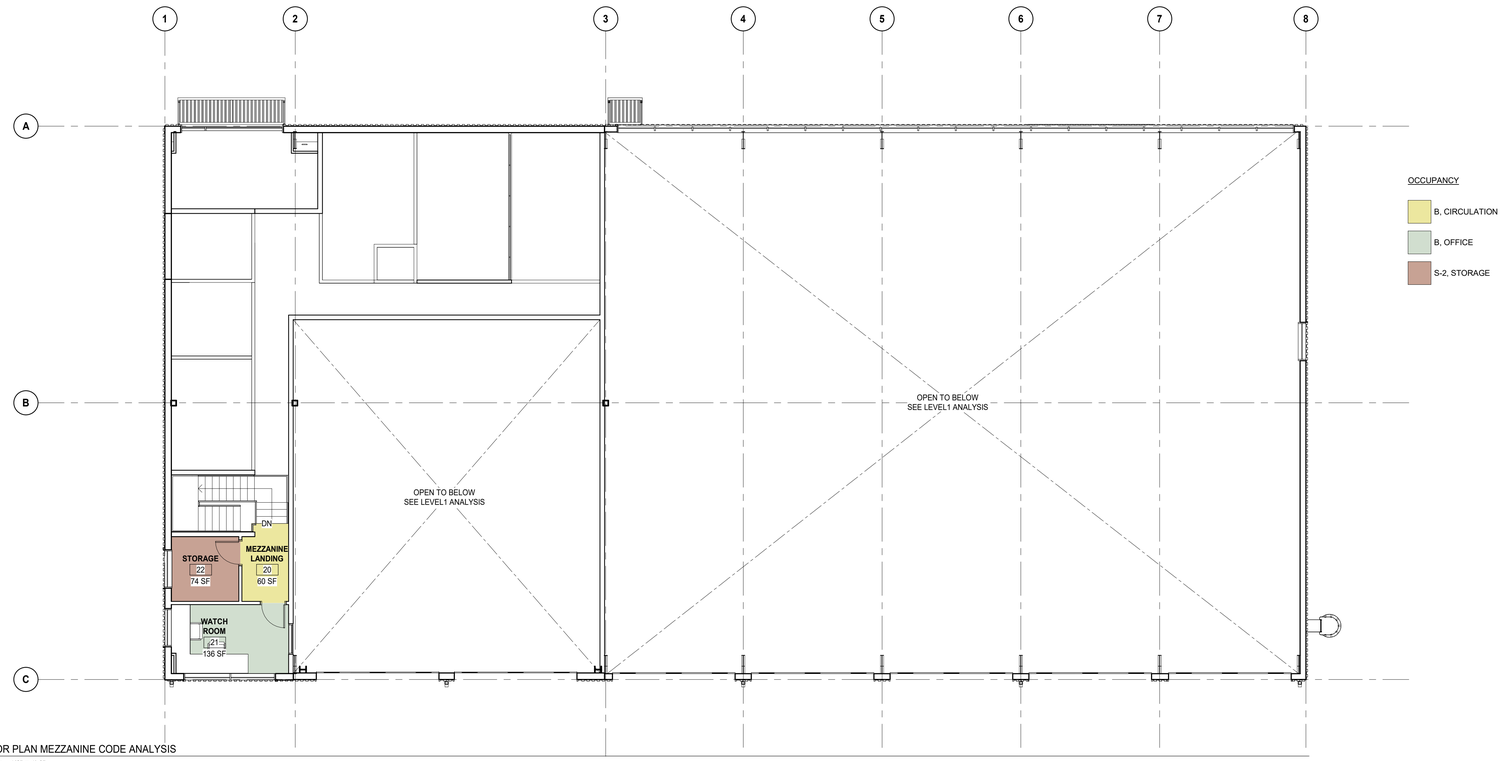
EXITING LEGEND

- PATH OF EGRESS FROM MOST REMOTE LOCATION
- ILLUMINATED EXIT SIGNAGE
- ## NUMBER OF OCCUPANTS EXITING
- FE FIRE EXTINGUISHER

1. CBC TABLE 1017.2.2 FOR S-2 OCCUPANCY WITH SPRINKLER SYSTEM, MAXIMUM EXIT ACCESS TRAVEL DISTANCE IS 250'-0'
2. CBC TABLE 1006.2.1 FOR OCCUPANCY S THE MAXIMUM OCCUPANT LOAD OF SPACE FOR ONE EXIT = 49 OCC.
3. >49 OCCUPANTS THEREFORE, 2 EXITS AREA REQUIRED.
4. (4) EXITS PROVIDED FOR EGRESS
5. MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE WITH SPRINKLER SYSTEM = 100'- 0" CBC 1006.2.1
6. MAX OF 75' TRAVEL DISTANCE TO FIRE EXTINGUISHER CABINET
7. THE MINIMUM NUMBER OF FIRE EXTINGUISHERS FOR CLASS A HAZARDS FOR EACH FLOOR OF A BUILDING SHALL BE DETERMINED BY DIVIDING THE TOTAL FLOOR AREA BY THE MAXIMUM AREA TO BE PROTECTED PER EXTINGUISHER.

LEVEL 1 OCCUPANCY SCHEDULE

Number	Name	Occupancy	Area	Load Factor	Occupant Load
01	ENTRY/LOBBY	B, OFFICE	186 SF		0
02	TRAINING	A-3, ASSEMBLY	205 SF		0
03	BREAKROOM	A-3, ASSEMBLY	229 SF		0
04	BATHROOM	B, ACCESSORY	115 SF		0
05	WORKSHOP	S-1, VEHICLE GARAGE	98 SF		0
06	SRE GARAGE	S-1, VEHICLE GARAGE	6414 SF		0
07	RESTROOM	B, ACCESSORY	89 SF		0
08	ELECTRICAL ROOM	B, ACCESSORY	100 SF		0
09	OFFICE	B, OFFICE	151 SF		0
10	STORAGE	S-2, STORAGE	82 SF		0
11	ARFF BAY	S-1, VEHICLE GARAGE	1849 SF		0
12	AGENT STORAGE	S-2, STORAGE	100 SF		0
13	CORRIDOR	B, CIRCULATION	552 SF		0
14	STAIRWAY		0 SF		0
15	JANITORS	B, ACCESSORY	20 SF		0
			10191 SF		0



2 G02-01 FLOOR PLAN MEZZANINE CODE ANALYSIS

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

LEVEL 2 OCCUPANCY SCHEDULE

Number	Name	Occupancy	Area	Load Factor	Occupant Load
20	MEZZANINE LANDING	B, CIRCULATION	60 SF		0
21	WATCH ROOM	B, OFFICE	136 SF		0
22	STORAGE	S-2, STORAGE	74 SF		0
			270 SF		0

DATE	ISSUED FOR	REV
08/09/2024	50% CD Review Set	1

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

MAMMOTH, CALIFORNIA

Drawing Title
BUILDING CODE ANALYSIS

Scale
1/8" = 1'-0"

Project No.
IN2024-0022

Drawing No.
G02-01

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
NONRESIDENTIAL MANDATORY MEASURES, SHEET 4 (July 2024 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie. ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.

5.504.4.3.1 Aerosol Paints and coatings. Aerosol paints and coatings shall meet the PWMR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of *California Code of Regulations*, Title 17, commencing with Section 94520, and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49.

TABLE 5.504.4.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	CURRENT VOC LIMIT
FLAT COATINGS	50
NONFLAT COATINGS	100
NONFLAT HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH-TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[1]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS:	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS.
2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.
3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:
1. Manufacturer's product specification
2. Field verification of on-site product containers

5.504.4.4 Carpet Systems.
All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specifications 01350)

See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specifications 01350)

See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1.

5.504.4.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in Table 5.504.4.5.

5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:
1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards.
5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS[1]

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12
2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM).

5.504.4.6 Resilient flooring systems. Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specifications 01350)

See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

5.504.4.7 Thermal insulation
Comply with the requirements of the California Department of Public Health, "Standard Method of the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, "Version 1.2, January 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.7.1 Verification of compliance.
Documentation shall be provided verifying that thermal insulation materials meet the pollutant emission limits.

5.504.4.8 Acoustical ceiling and wall panels.
Comply with the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, " Version 1.2, January 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs.

5.504.4.8.1 Verification of compliance. Documentation shall be provided verifying that acoustical finish materials meet the pollutant emission limits.

5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 13. MERV 13 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

Exceptions: Existing mechanical equipment.

5.504.5.3.1 Labeling. Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.

5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL. Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions.

SECTION 5.505 INDOOR MOISTURE CONTROL

5.505.1 INDOOR MOISTURE CONTROL. Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see Section 5.407.2 of this code.

SECTION 5.506 INDOOR AIR QUALITY

5.506.1 OUTSIDE AIR DELIVERY. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the *California Energy Code*, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

5.506.2 CARBON DIOXIDE (CO_2) MONITORING. For buildings or additions equipped with demand control ventilation, CO_2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120(c)(4).

5.506.3 Carbon dioxide (CO_2) monitoring in classrooms.
(DSA-SS) Each public K-12 school classroom, as listed in Table 120.1-A of the *California Energy Code*, shall be equipped with a carbon dioxide monitor or sensor that meets the following requirements:
1. The monitor or sensor shall be permanently affixed in a tamper-proof manner in each classroom between 3 and 6 feet (914 mm and 1829 mm) above the floor and at least 5 feet (1524 mm) away from door and operable windows.
2. When the monitor or sensor is not integral to an Energy Management Control System (EMCS), the monitor or sensor shall display the carbon dioxide readings on the device. When the sensor is integral to an EMCS, the carbon dioxide readings shall be available to and regularly monitored by facility personnel.
3. A monitor shall provide notification though a visual indicator on the monitor when the carbon dioxide levels in the classroom have exceeded 1,100ppm. A sensor integral to an EMCS shall provide notification to facility personnel through a visual and/or audible indicator when the carbon dioxide levels in the classroom have exceeded 1,100ppm.
4. The monitor or sensor shall measure carbon dioxide levels at minimum 15- minute intervals and shall maintain a record of previous carbon dioxide measurements of not less than 30 days duration.
5. The monitor or sensor used to measure carbon dioxide levels shall have the capacity to measure carbon dioxide levels with a range of 400ppm to 2000ppm or greater.
6. The monitor or sensor shall be certified by the manufacturer to be accurate within 75ppm at 1,000ppm carbon dioxide concentration and shall be certified by the manufacturer to require calibration no more frequently than once every 5 years.

SECTION 5.507 ENVIRONMENTAL COMFORT

5.507.4 ACOUSTICAL CONTROL. Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413 or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

Exception: [DSA-SS] For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

5.507.4.1 Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

1. Within the 65 CNEL noise contour of an airport.

Exceptions:

1. L_{dn} or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.
2. L_{dn} or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

2. Within the 65 CNEL or L_{dn} noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

5.507.4.1.1 Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB L_{eq} - 1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 or OITC 35, with exterior windows of a minimum STC of 40 or OITC 30.

5.507.4.2 Performance Method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (L_{eq}-1Hr) of 50 dBA in occupied areas during any hour of operation.

5.507.4.2.1 Site Features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

5.507.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record.

5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.

Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: www.toolbase.org/PDF/CaseStudies/stc_ioc_ratings.pdf

SECTION 5.508 OUTDOOR AIR QUALITY

5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.

5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.

5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area), and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO_2), and potentially other refrigerants.

5.509.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.

5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack.

5.508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.

5.508.2.1.2.1 Anchorage. One-fourth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.

Exception: Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.

5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.

5.508.2.2 Valves. Valves Valves and fittings shall comply with the *California Mechanical Code* and as follows.

5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

5.508.2.2.2 Access valves. Only Schrader access valves with a brass or steel body are permitted for use.

5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.

5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place.

5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit over the stem are required for valves designed to have seal caps.

Exception: Valves with seal caps that are not removed from the valve during stem operation.

5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel, or be coated to prevent corrosion from these substances

5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.

5.508.2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and charging.

5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.

5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.

5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.

5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.

5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.

5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.

5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC-CG] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

DISCLAIMER: *THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULE CODE.*

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE
MAMMOTH, CALIFORNIA

Drawing Title
CALIFORNIA GREEN BUILDING STANDARDS CODE CHECKLIST

Scale

Project No. IN2024-0022

Drawing No. **G02-02**

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
NONRESIDENTIAL MANDATORY MEASURES, SHEET 3 (July 2024 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie. ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y	N/A	RESPON. PARTY

5.409.2 Whole building life cycle assessment. Projects shall conduct a cradle-to-grave whole building life cycle assessment performed in accordance with ISO 14040 and ISO 14044, excluding operating energy, and demonstrating a minimum 10-percent reduction in global warming potential (GWP) as compared to a reference baseline building of similar size, function, complexity, type of construction, material specification, and location that meets the requirements of the California Energy Code currently in effect. Software used to conduct the whole building life cycle assessment, including reference baseline building, shall have a data set compliant with ISO 14044, and ISO 21930 or EN 15804, and the software shall conform to ISO 21931 and/or EN 15978. The software tools and data sets shall be the same for evaluation of both the baseline building and the proposed building.

Notes:

1. Software for calculating whole building life cycle assessment is available for free at Athena Sustainable Materials Institute (https://calculatelca.com/software/impact-estimator) and OneClick LCA-Planetary (www.oneclicklca.com/planetary). Paid versions include, but are not limited to, Sphera GaBi Solutions (gabi.sphera.com), SimaPro (simapro.com), One-Click LCA (www.oneclicklca.com) and Tally for Revit (apps.autodesk.com).

2. ASTM E2921-22 "Standard Practice for Minimum Criteria for Comparing Whole Building Life Cycle Assessments for Use with Building Codes, Standards, and Rating Systems" may be consulted for the assessment.

3. In addition to the required documentation specified in Section 5.409.2.3, Worksheet WS-9 may be required by the enforcing entity to demonstrate compliance with the requirements.

5.409.2.1 Building components. Building enclosure components included in the assessment shall be limited to glazing assemblies, insulation, and exterior finishes. Primary and secondary structural members included in the assessment shall be limited to footings and foundations, and structural columns, beams, walls, roofs, and floors.

5.409.2.2 Reference study period. The reference study period of the proposed building shall be equal to the reference baseline building and shall be 60 years.

5.409.2.3 Verification of compliance. A summary of the GWP analysis produced by the software and Worksheet WS-4 signed by the design professional of record shall be provided in the construction documents as documentation of compliance. A copy of the whole building life cycle assessment which includes the GWP analysis produced by the software, in addition to maintenance and training information, shall be included in the operation and maintenance manual and shall be provided to the owner at the close of construction. The enforcing agency may require inspection and inspection reports in accordance with Sections 702.2 and 703.1 during and at completion of construction to demonstrate substantial conformance. Inspection shall be performed by the design professional of record or third party acceptable to the enforcing agency.

5.409.3 Product GWP compliance—prescriptive path. Each product that is permanently installed and listed in Table 5.409.3 shall have a Type III environmental product declaration (EPD), either product-specific or factory-specific.

TABLE 5.409.3
PRODUCT GWP LIMITS

BUY CLEAN CALIFORNIA MATERIALS PRODUCT CATEGORY[1]	MAXIMUM ACCEPTABLE GWP VALUE (unfabricated) ($GWP_{allowed}$)	UNIT OF MEASUREMENT
Hot-rolled structural steel sections	1.77	MT CO_2e/MT
Hollow structural sections	3.00	MT CO_2e/MT
Steel plate	2.61	MT CO_2e/MT
Concrete reinforcing steel	1.56	MT CO_2e/MT
Flat glass	2.50	kg CO_2e/MT
Light-density mineral wool board insulation	5.83	kg CO_2e/MT
Heavy-density mineral wool board insulation	14.25	kg CO_2e/MT
Concrete, Ready-Mixed[2, 3]		
CONCRETE PRODUCT CATEGORY	**MAXIMUM GWP ALLOWED VALUE ($GWP_{allowed}$)**	**UNIT OF MEASUREMENT**
up to 2499 psi	450	kg CO_2e/m^3
2500–3499 psi	489	kg CO_2e/m^3
3500–4499 psi	568	kg CO_2e/m^3
4500–5499 psi	661	kg CO_2e/m^3
5500–6499 psi	701	kg CO_2e/m^3
6500 psi and greater	799	kg CO_2e/m^3
Concrete, Lightweight Ready-Mixed[2]		
CONCRETE PRODUCT CATEGORY	**MAXIMUM GWP ALLOWED VALUE ($GWP_{allowed}$)**	**UNIT OF MEASUREMENT**
up to 2499 psi	875	kg CO_2e/m^3
2500–3499 psi	958	kg CO_2e/m^3
3500–4499 psi	1039	kg CO_2e/m^3

1. The GWP values of the products listed in Table 5.409.3 are based on 175 percent of Buy Clean California Act (BCCA) GWP values, except for concrete products which are not included in the BCCA.
2. For concrete, 175 percent of the National Ready Mixed Concrete Association (NRMCA) 2022 version 3 Pacific Southwest regional benchmark values are used for the GWP allowed, except for High Early Strength.
3. Concrete High Early Strength ready-mixed shall be calculated at 130 percent of the ready-mixed concrete GWP allowed values for each product category.

5.409.3.1 Products shall not exceed the maximum GWP value specified in Table 5.409.3.

Exception: Concrete may be considered one product category to meet compliance with this section. A weighted average of the maximum GWP for all concrete mixes installed in the project shall be less than the weighted average maximum GWP allowed per Table 5.409.3 using Exception Equation 5.409.3.1. Calculations shall be performed with consistent units of measurement for the material quantity and the GWP value.

For the purposes of this exception, industry-wide EPDs are acceptable.

Exception EQUATION 5.409.3.1

$GWP_T \leq GWP_{allowed}$
where
$GWP_T = \Sigma\ (GWP_x)(v_x)$
and
$GWP_{allowed} = \Sigma\ (GWP_{allowed})(v_x)$
and
$_x$ = each concrete mix installed in the project
GWP_x = the GWP for concrete mix $_x$ per concrete mix EPD, in kg CO2e/m3
$GWP_{allowed}$ = the GWP potential allowed for concrete mix $_x$ per Table 5.409.3
v_x = the volume of concrete mix $_x$ installed in the project, in m3

5.409.3.2 Verification of compliance. Calculations to demonstrate compliance, Type III EPDs for products required to comply, if included in the project, and Worksheet WS-5 signed by the design professional of record shall be provided on the construction documents. Updated EPDs for products used in construction shall be provided to the owner at the close of construction and to the enforcement entity upon request. The enforcing agency may require inspection and inspection reports in accordance with Sections 702.2 and 703.1 during and at completion of construction to demonstrate substantial conformance. Inspection shall be performed by the design professional of record or third party acceptable to the enforcing agency.

SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS

5.410.1 RECYCLING BY OCCUPANTS. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code 42649.82 (a)(2)(A) et seq. shall also be exempt from the organic waste portion of this section.

5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site.

Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.

5.410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the *Public Resources Code*. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).

Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the CalRecycle's web site.

5.410.2 COMMISSIONING. [N] New buildings 10,000 square feet and over. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. For I-occupancies that are not regulated by OSHPD or for I-occupancies and L-occupancies that are not regulated y the California Energy Code Section 100.0 Scope, all requirements in Sections 5.410.2 through 5.410.2.6 shall apply.

Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements

Commissioning requirements shall include:

1. Owner's or Owner representative's project requirements.
2. Basis of design.
3. Commissioning measures shown in the construction documents.
4. Commissioning plan.
5. Functional performance testing.
6. Documentation and training.
7. Commissioning report.

Exceptions:

1. Unconditioned warehouses of any size.
2. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses.
3. Tenant improvements less than 10,000 square feet as described in Section 303.1.1.
4. Open parking garages of any size, or open parking garage areas, of any size, within a structure.

Note: For the purposes of this section, unconditioned shall mean a building, area or room which does not provide heating and/or air conditioning.

Informational Notes:

1. Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the *California Energy Code*.

5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:

1. Environmental and sustainability goals.
2. Building sustainable goals.
3. Indoor environmental quality requirements.
4. Project program, including facility functions and hours of operation, and need for after hours operation.
5. Equipment and systems expectations.
6. Building occupant and operation and maintenance (O&M) personnel expectations.

5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:

1. Renewable energy systems.
2. Landscape irrigation systems.
3. Water reuse system.

5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following:

1. General project information.
2. Commissioning goals.
3. Systems to be commissioned. Plans to test systems and components shall include:
   a. An explanation of the original design intent.
   b. Equipment and systems to be tested, including the extent of tests.
   c. Functions to be tested.
   d. Conditions under which the test shall be performed.
   e. Measurable criteria for acceptable performance.
4. Commissioning team information.
5. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included.

5.410.2.4 Functional performance testing. [N] Functional performance tests shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. Functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.

5.410.2.5 Documentation and training. [N] A Systems Manual and Systems Operations Training are required, including Occupational Safety and Health Act (OSHA) requirements in *California Code of Regulations* (CCR) Title 8, Section 5142, and other related regulations.

5.410.2.5.1 Systems manual. [N] Documentation of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The systems manual shall include the following:

1. Site information, including facility description, history and current requirements.
2. Site contact information.
3. Basic operations and maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log.
4. Major systems.
5. Site equipment inventory and maintenance notes.
6. A copy of verifications required by the enforcing agency or this code.
7. Other resources and documentation, if applicable.

5.410.2.5.2 Systems operations training. [N] A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and documented in the commissioning report and shall include the following:

1. System/equipment overview (what it is, what it does and with what other systems and/or equipment it interfaces).
2. Review and demonstration of servicing/preventive maintenance.
3. Review of the information in the Systems Manual.
4. Review of the record drawings on the system/equipment.

5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or representative.

5.410.4 TESTING AND ADJUSTING. New buildings less than 10,000 square feet. Testing and adjusting of systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.

5.410.4.2 (Reserved)

Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting system and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements and Sections 120.5, 120.6, 130.4, and 140.9(b)3 for additional testing requirements of specific systems.

5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:

1. Renewable energy systems.
2. Landscape irrigation systems.
3. Water reuse systems.

5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.

5.410.4.3.1 HVAC balancing. In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the enforcing agency.

5.410.4.4 Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.

5.410.4.5 Operation and maintenance (O & M) manual. Provide the building owner or representative with detailed operating and maintenance instructions and copies of guarantees/warranties for each system. O & M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.

5.410.4.5.1 Inspections and reports. Include a copy of all inspection verifications and reports required by the enforcing agency.

DIVISION 5.5 ENVIRONMENTAL QUALITY

SECTION 5.501 GENERAL

5.501.1 SCOPE. The provisions of this chapter shall outline means of reducing the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors.

SECTION 5.502 DEFINITIONS

5.502.1 DEFINITIONS. The following terms are defined in Chapter 2 (*and are included here for reference*)

ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route.

A-WEIGHTED SOUND LEVEL (dBA). The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made.

1 BTU/HOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, the amount of heat required to melt a ton (2,000 pounds) of ice at 32° Fahrenheit.

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a).

Note: See CCR, Title 17, Section 93120.1.

DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.).

DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the *California Electrical Code*, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.

ELECTRIC VEHICLE CHARGING STATION(S) (EVCS). One or more spaces intended for charging electric vehicles.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

ENERGY EQUIVALENT (NOISE) LEVEL (Leq). The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest.

EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections.

FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections.

GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference compound with a GWP of one.

GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995), or its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 2.14., the AR4 GWP values are found in column "100 yr" of Table 2.14.

HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a hydrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction with a radius 1.5 times the pipe diameter.

LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2–1999.

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O^3/g ROC).

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).

PSIG. Pounds per square inch, gauge.

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

SCHRADER ACCESS VALVES. Access fittings with a valve core installed.

SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction with a radius 1.0 times the pipe diameter.

SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units.

VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition included in that specific regulation is the one that prevails for the specific measure in question.

SECTION 5.503 FIREPLACES

5.503.1 FIREPLACES. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the *California Energy Code*, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances.

5.503.1.1 Woodstoves. Woodstoves and pellet stoves shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits.

SECTION 5.504 POLLUTANT CONTROL

5.504.1 TEMPORARY VENTILATION. The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy, or, if the building is occupied during alteration, at the conclusion of construction.

5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilation equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.

5.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.

5.504.4.1 Adhesives, sealants and caulks. Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards:

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as specified in subsection 2, below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with Section 94507.

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT[1,2]

Less Water and Less Exempt Compounds in Grams per Liter

ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168, www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF

TABLE 5.504.4.2 - SEALANT VOC LIMIT

Less Water and Less Exempt Compounds in Grams per Liter

SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

DISCLAIMER: *THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.*

DATE	ISSUED FOR	REV

This drawing has been prepared solely for the use of MAMMOTH YOSEMITE AIRPORT and there are no representations of any kind made by NORR to any party with whom NORR has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer

Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE
MAMMOTH, CALIFORNIA

Drawing Title
CALIFORNIA GREEN BUILDING STANDARDS CODE CHECKLIST

Scale

Project No.
IN2024-0022

Drawing No.
G02-03

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2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
NONRESIDENTIAL MANDATORY MEASURES, SHEET 2 (July 2024 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

5.106.5.6.2.1 Reduced number of EV capable spaces. The installation of such DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaces indicated in Table 5.106.5.6.1 by five and reduce proportionally the required electrical load capacity to the service panel or subpanel.

5.106.5.6.2.2 Multiple connectors. EVSE with multiple vehicle connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required by Section 5.106.5.6.1 for each EV capable space is accumulatively supplied to the EVSE.

5.106.5.6.2.3 Use of automatic load management systems (ALMS). ALMS shall be permitted for EVCS installed in accordance with Section 5.106.5.6.2. When ALMS is installed, the required electrical load capacity specified in Section 5.106.5.6.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each EVSE controlled by an ALMS shall deliver a minimum 30 amperes to an EV when charging one vehicle and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs.

5.106.5.6.3 EVCS alternative compliance. In lieu of compliance with Section 5.106.5.6.2, EVCS shall be provided with Level 1, low power Level 2, or Level 2, or any combination of Level 1, low power Level 2 or Level 2 EVSE such that the total power supplied by the combination of EVSE meets the minimum power indicated in Table 5.106.5.6.3, based on the total number of actual parking spaces in each parking facility.

TABLE 5.106.5.6.3

NUMBER OF PARKING SPACES IN A PARKING FACILITY	MINIMUM TOTAL POWER (KVA) REQUIRED FOR EVCS
0-9	0
10-25	7
26-50	14
51-75	20
76-100	27
101-150	40
151-200	60
201 AND OVER	Total required KVA = P × .05 × 8.6 Where P = Parking spaces in facility

5.106.5.6.4 EVCS for alterations of or additions to parking facilities. Alterations of or additions to parking facilities shall provide EVCS in compliance with Section 5.106.5.6.4. The installation of infrastructure for EV capable spaces required to be provided without EVSE shall not be required.

5.106.5.6.4.1 Alterations of and additions to parking facilities. EVCS shall be provided in accordance with the number indicated in Table 5.106.5.6.1 or minimum power indicated in Table 5.106.5.6.3 when the scope of work includes an increase in power supply to an electric panel serving light fixtures illuminating the parking area or when area containing parking spaces is added to a parking facility. The number of required EVCS shall be based on the total number of existing and new parking spaces in the parking facility.

5.106.5.6.4.2 Alterations consisting of the installation of photovoltaic systems. EVCS shall be provided in accordance with the number indicated in Table 5.106.5.6.1 or maximum power indicated in Table 5.106.5.6.3 when a new photovoltaic system is installed in an existing parking facility.

5.106.5.6.5 Requirement to install EVSE. Level 2 EVSE shall be provided in all existing EV capable spaces to create EVCS when a project is required by California Administrative Code Section 4-309 to be submitted for plan approval by the Division of the State Architect. When EVSE is installed in existing EV capable spaces, accessible EVCS shall be provided in accordance with California Building Code Chapter 11B.

Exception: Projects in which improvements in parking areas consist only of accessibility improvements are not required to comply with Section 5.106.5.6.5.

5.106.8 LIGHT POLLUTION REDUCTION. [N]. Outdoor lighting systems shall be designed and installed to comply with the following:

1. The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10, Section 10-114 of the California Administrative Code; and
2. Backlight (B) ratings as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8);
3. Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B in Chapter 8) and
4. Allowable BUG ratings not exceeding those shown in Table 5.106.5. [N] or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]

1. Luminaires that qualify as exceptions in Sections 130.2 (b) and 140.7 of the California Energy Code.
2. Emergency lighting.
3. Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6.
4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.
5. Luminaires with less than 6,200 initial luminaire lumens.

TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS 1,2

ALLOWABLE RATING	LIGHTING ZONE LZ0	LIGHTING ZONE LZ1	LIGHTING ZONE LZ2	LIGHTING ZONE LZ3	LIGHTING ZONE LZ4
MAXIMUM ALLOWABLE BACKLIGHT RATING 3					
Luminaire greater than 2 mounting heights (MH) from property line	N/A	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	N/A	B2	B3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	N/A	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	B0	B0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING (U)					
For area lighting 4	N/A	U0	U0	U0	U0
For all other outdoor lighting including decorative luminaires	N/A	U1	U2	U3	UR
MAXIMUM ALLOWABLE GLARE RATING 3 (G)					
MAXIMUM ALLOWABLE GLARE RATING 3 (G)	N/A	G1	G2	G3	G4
MAXIMUM ALLOWABLE GLARE RATING 3 (G)	N/A	G0	G1	G1	G2
MAXIMUM ALLOWABLE GLARE RATING 3 (G)	N/A	G0	G0	G1	G1
MAXIMUM ALLOWABLE GLARE RATING 3 (G)	N/A	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the *California Energy Code* and Chapter 10 of the *California Administrative Code*.
2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.
3. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaries located in these areas shall meet *U*-value limits for "all other outdoor lighting".

5.106.8.1 Facing- Backlight
Luminaries within 2MH of a property line shall be oriented so that the nearest property line is behind the fixture, and shall comply with the backlight rating specified in Table 5.106.8 based on the lighting zone and distance to the nearest point of that property line.

Exception: Corners. If two property lines (or two segments of the same property line) have equidistant point to the luminaire, then the luminaire may be oriented so that the intersection of the two lines (the corner) is directly behind the luminaire. The luminaire shall still use the distance to the nearest points(s) on the property lines to determine the required backlight rating.

5.106.8.2 Facing-Glare.
For luminaires covered by 5.106.8.1, if a property line also exists within or extends into the front hemisphere within 2MH of the luminaire then the luminaire shall comply with the more stringent glare rating specified in Table 5.106.8 based on the lighting zone and distance to the nearest point on the nearest property line within the front hemisphere.

Note: [N]
1. See also *California Building Code*, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.
2. Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table A-1, *California Energy Code* Tables 130.2-A and 130.2-B.
3. Refer to the *California Building Code* for requirements for additions and alterations.

5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales.
2. Water collection and disposal systems.
3. French drains.
4. Water retention gardens.
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

5.106.12 SHADE TREES [DSA-SS]. Shade Trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6.

5.106.12.1 Surface parking areas. Shade tree plantings, minimum #10 container size or equal, shall be installed to provide shade over 50 percent of the parking area within 15 years.

Exceptions: Surface parking area covered by solar photovoltaic shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu of shade tree planting.

5.106.12.2 Landscape areas. Shade tress plantings, minimum #10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years.

Exceptions: Playfields for organized sport activity are not included in the total area calculation.

5.106.12.3. Hardscape areas. Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade over 20 percent of the hardscape area within 15 years.

Exceptions:
1. Walks, hardscape areas covered by solar photovoltaic shade structures or shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu of shade tree planting.
2. Designated and marked play areas of organized sport activity are not included in the total area calculation.

DIVISION 5.2 ENERGY EFFICIENCY

SECTION 5.201 GENERAL

5.201.1 Scope [BSC-CG]. *California Energy Code [DSA-SS]*. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION

SECTION 5.301 GENERAL

5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors and in wastewater conveyance.

SECTION 5.302 DEFINITIONS

5.302.1 Definitions. The following terms are defined in Chapter 2 *(and are included here for reference)*

EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS]. An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which as two major influences on the amount of water that needs to be applied to the landscape.

FOOTPRINT AREA [DSA-SS]. The total area of the furthest exterior wall of the structure projected to natural grade, not including exterior areas such as stairs, covered walkways, patios and decks.

METERING FAUCET. A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjustable.

GRAYWATER. Pursuant to Health and Safety Code Section 17922.12: "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or dishwashers.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and climatological parameters.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). [HCD] The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and maintenance practices. Local agencies are required to adopt the updated MWELO, or adopt a local ordinance at least as effective as the MWELO.

POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards. See definition in the California Plumbing Code, Part 5.

POTABLE WATER. [HCD] Water that is satisfactory for drinking, culinary, and domestic purposes, and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards and the requirements of the Health Authority Having Jurisdiction.

RECYCLED WATER. Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water treated to remove waste matter attaining a quality that is suitable to use the water again.

SUBMETER. [HCD 1] A secondary device beyond a meter that measures water consumption of an individual rental unit within a multiunit residential structure or mixed-use residential and commercial structure. (See Civil Code Section 1954.202 (g) and Water code Section 517 for additional details.)

WATER BUDGET. is the estimated total landscape irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape Ordinance (MWELO).

SECTION 5.303 INDOOR WATER USE

5.303.1 METERS. Separate submeters or metering devices shall be installed for the uses described in Sections 503.1.1 and 503.1.2.

5.303.1.1 Buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows:

1. For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.
2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
   a. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s).
   b. Makeup water for evaporative coolers greater than 5 gpm (0.04 L/s).
   c. Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW).

5.303.1.2 Excess consumption. A separate submeter or metering device shall be provided for any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day.

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

5.303.3.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

5.303.3.2 Urinals.
5.303.3.2.1 Wall-mounted Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.

5.303.3.2.2 Floor-mounted Urinals. The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.

5.303.3.3 Showerheads. [BSC-CG]
5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.
Note: A hand-held shower shall be considered a showerhead.

5.303.3.3 Showerheads. [BSC-CG]
5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.
Note: A hand-held shower shall be considered a showerhead.

5.303.3.4 Faucets and fountains.
5.303.3.4.1 Nonresidential Lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.

5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than1.8 gallons per minute/20 [rim space (inches) at 60 psi]

5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle

5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches) at 60 psi]

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

5.303.3.4.6 Pre-rinse spray value
When installed, shall meet the requirements in the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7), and shall be equipped with an integral automatic shutoff.

FOR REFERENCE ONLY: The following table and code section have been reprinted from the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) and Section 1605.3 (h)(4)(A).

TABLE H-2

STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALUES MANUFACTURED ON OR AFTER JANUARY 28, 2019	
PRODUCT CLASS [spray force in ounce force (ozf)]	**MAXIMUM FLOW RATE (gpm)**
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

5.303.4 COMMERCIAL KITCHEN EQUIPMENT.

5.303.4.1 Food Waste Disposers. Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.
Note: This code section does not affect local jurisdiction authority to prohibit or require disposer installation.

5.303.5 AREAS OF ADDITION OR ALTERATION. For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new fixtures in additions or areas of alteration to the building.

5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code* and in Chapter 6 of this code.

SECTION 5.304 OUTDOOR WATER USE

5.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

Notes:
1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code of Regulations, Title 23, Chapter 2.7, Division 2.
2. MWELO and supporting documents, including a water budget calculator, are available at: https://www.water.ca.gov/.

5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. For public schools and community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, *California Code of Regulations*, except that the evapotranspiration adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35.

Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWELO.

5.304.6.1 Newly constructed landscapes. New construction projects with an aggregate landscape area equal to or greater than 500 square feet.

5.304.6.2 Rehabilitated landscapes. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet.

DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

SECTION 5.401 GENERAL

5.401.1 SCOPE. The provisions of this chapter specify the requirements of achieving material conservation, resource efficiency, and greenhouse gas (GHG) emission reduction through protection of buildings from exterior moisture, construction waste diversion, employment of techniques to reduce pollution through recycling of materials, the installation of products with lower GHG emissions and building commissioning or testing and adjusting.

SECTION 5.402 DEFINITIONS

5.402.1 DEFINITIONS. The following terms are defined in Chapter 2 *(and are included here for reference)*

ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust a damper.

BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, according to design quantities.

BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, tested, operated and maintained to meet the owner's project requirements.

BUY CLEAN CALIFORNIA ACT (BCCA). The Buy Clean California Act (BCCA) (Public Contract Code Sections 3500-3505) targets carbon emissions associated with the production of structural steel (hot-rolled sections, hollow structural sections, and plate), concrete reinforcing steel, flat glass, and mineral wool board insulation. The maximum acceptable global warming potential (GWP) limits are established by the Department of General Services (DGS), in consultation with the California Air Resources Board (CARB).

CRADLE-TO-GRAVE. Activities associated with a product or building's life cycle from the extraction stage through disposal stage, and covering modules A1 through C4 in accordance with ISO Standards 14025 and 21930.

ORGANIC WASTE. Food waste, green waste, landscape and pruning wste, nonhazardous wood waste, and food soiled paper waste that is mixed in with food waste.

REFERENCE STUDY PERIOD. The period of use for the building, in years, that will be assumed for life cycle assessment.

TEST. A procedure to determine quantitative performance of a system or equipment.

TYPE III ENVIRONMENTAL PRODUCT DECLARATION (EPD). A third-party verified report that summarizes how a product impacts the environment. Type III EPDs can be either product-specific, factory-specific, or industry-wide EPDs. See "Cradle-to-Gate."

FACTORY-SPECIFIC EPD. A product-specific Type III EPD in which the environmental impacts can be attributed to a single manufacturer and manufacturing facility.

INDUSTRY-WIDE EPD (IW-EPD). A Type III EPD in which the environmental impacts are an average of the typical manufacturing impacts for a range of products within the same product category for a group of manufacturers.

PRODUCT-SPECIFIC EPD. A Type III EPD in which the environmental impacts can be attributed to a product design and manufacturer across multiple facilities.

SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT

5.407.1 WEATHER PROTECTION. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 (Weather Protection), manufacturer's installation instructions or local ordinance, whichever is more stringent.

5.407.2 MOISTURE CONTROL. Employ moisture control measures by the following methods:

5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures.

5.407.2.2 Entries and openings. Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows:

5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:

1. An installed awning at least 4 feet in depth.
2. The door is protected by a roof overhang at least 4 feet in depth.
3. The door is recessed at least 4 feet.
4. Other methods which provide equivalent protection.

5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane.

SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

5.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65% of the non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.

5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan that:

1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.
2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
3. Identifies diversion facilities where construction and demolition waste material collected will be taken.
4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.

Note: The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.

Exceptions to Sections 5.408.1.1 and 5.408.1.2:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets.

5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement as approved by the enforcing agency.

5.408.1.4 Documentation. Documentation shall be provided to the enforcing agency which demonstrates compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen may be used to assist in documenting compliance with the waste management plan.
2. Mixed construction and demolition debris processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

5.408.2 UNIVERSAL WASTE. [A] Additions and alterations to a building or tenent space that meet the scoping provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste materials shall be included in the construction documents.

Note: Refer to the Universal Waste Rule link at: http://www.dtsc.ca.gov/universalwaste/

5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.

Exception: Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation.

Notes:

1. If contamination by disease or pest infestation is suspected, contact the County Agricultural Commissioner and follow its direction for recycling or disposal of the material.
2. For a map of know pest and/or disease quarantine zones: consult with the California Department of Food and Agriculture. (www.cdfa.ca.gov)

SECTION 5.409 LIFE CYCLE ASSESSMENT

5.409.1 SCOPE [BSC-CG]. Effective July 1, 2024, projects consisting of newly constructed building(s) with a combined floor area of 100,000 square feet or greater shall comply with either Section 5.409.2 or Section 5.409.3. Alteration(s) to existing building(s) where the combined altered floor area is 100,000 square feet or greater shall comply with either Section 5.105.2, 5.409.2, or 5.409.3. Addition(s) to existing building(s) where the total floor area combined with the existing building(s) is 100,000 square feet or greater shall comply with either Section 5.105.2, Section 5.409.2, or Section 5.409.3. Effective January 1, 2026, the combined floor area shall be 50,000 square feet or greater.

[DSA-SS] Projects consisting of newly constructed building(s) with a combined floor area of 50,000 square feet or greater shall comply with either Section 5.409.2 or Section 5.409.3. Alteration(s) to existing building(s) where the combined altered floor area is 50,000 square feet or greater shall comply with either Section 5.105.2, 5.409.2, or 5.409.3. Addition(s) to existing building(s) where the total floor area combined with the existing building(s) is 50,000 square feet or greater shall comply with either Section 5.105.2, Section 5.409.2, or Section 5.409.3.

DISCLAIMER: *THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.*

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn
	JON PRICE
Project Leader	Checked
	MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

MAMMOTH, CALIFORNIA

Drawing Title
CALIFORNIA GREEN BUILDING STANDARDS CODE CHECKLIST

Scale

Project No.
IN2024-0022

Drawing No.
G02-04

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (July 2024 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie. ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y	N/A	RESPON PARTY

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the applicable checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC-CG] The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of $200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and/or alterations [A]. When the code section applies to both, no banner will be used.

301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only:

Note: On and after January 1, 2014, certain commercial real property, as defined in Civil Code Section 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 et seq. for definitions, types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for ensuring compliance.

301.3.2 Waste Diversion. The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work.

301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC)
301.5 HEALTH FACILITIES. (see GBSC)

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

SECTION 303 PHASED PROJECTS

303.1 PHASED PROJECTS. For shell buildings and others constructed for future tenant improvements, only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply.

303.1.1 Initial Tenant improvements. The provisions of this code shall apply only to the initial tenant improvements to a project. Subsequent tenant improvements shall comply with the scoping provisions in Section 301.3 non-residential additions and alterations.

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 5
NONRESIDENTIAL MANDATORY MEASURES

DIVISION 5.1 PLANNING AND DESIGN
SECTION 5.101 GENERAL

5.101.1 SCOPE
The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties.

SECTION 5.102 DEFINITIONS

5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 (*and are included here for reference*)

CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire.

ELECTRIC VEHICLE (EV). [BSC-CG, HCD] An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the California Electrical Code, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats and the like, are not included.

ELECTRIC VEHICLE (EV) CAPABLE SPACE. [BSC-CG, DSA-SS and HCD] A vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways, both underground and/or surface mounted, to support EV charging.

ELECTRIC VEHICLE (EV) CHARGER. [BSC-CG, HCD] Off-board charging equipment used to charge an electric vehicle.

ELECTRIC VEHICLE CHARGING SPACE (EV SPACE). [HCD] A space intended for future installation of EV charging equipment and charging of electric vehicles

ELECTRIC VEHICLE CHARGING STATION (EVCS). [BSC-CG, DSA-SS, HCD] One or more electric vehicle charging spaces served by EVSE or receptacle(s).

ELECTRIC VEHICLE (EV) READY SPACE. [HCD] A vehicle space which is provided with a branch circuit, any necessary raceways, both underground and/or surface mounted, to accommodate EV charging, terminating in a receptacle or a charger.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE).[BSC-CG, DSA-SS and HCD] The conductors, including the ungrounded, grounded and equipment grounding conductors and the electric vehicle connectors, attachment plugs, personnel protection system, and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

SECTION 5.105 DECONSTRUCTION AND REUSE OF EXISTING STRUCTURES

5.105.1 Scope. [BSC-CG] Effective July 1, 2024, alteration(s) to existing building(s) where the combined altered floor area is 100,000 square feet or greater shall comply with either Section 5.105.2, 5.409.2, or 5.409.3. Addition(s) to existing building(s) where the total floor area combined with the existing building(s) is 100,000 square feet or greater shall comply with either Section 5.105.2, Section 5.409.2, or Section 5.409.3. Effective January 1, 2026, the combined floor area shall be 50,000 square feet or greater.

[DSA-SS] Alteration(s) to existing building(s) where the combined altered floor area is 50,000 square feet or greater shall comply with either Section 5.105.2, 5.409.2, or 5.409.3. Addition(s) to existing building(s) where the total floor area combined with the existing building(s) is 50,000 square feet or greater shall comply with either Section 5.105.2, Section 5.409.2, or Section 5.409.3.

Exception [BSC-CG, DSA-SS]: Combined addition(s) to existing building(s) of two times the area or more of the existing building(s) is not eligible to meet compliance with Section 5.105.2.

5.105.2 Reuse of existing building. An alteration or addition to an existing building shall maintain at a minimum 45 percent combined of the existing building's primary structural elements (foundations, columns, beams, walls, and floors; and lateral elements) and existing building enclosure (roof framing, wall framing and exterior finishes). Window assemblies, insulation, portions of buildings deemed structurally unsound or hazardous, and hazardous materials that are remediated as part of the project shall not be included in the calculation.

5.105.2.1 Verification of compliance. Documentation shall be provided in the construction documents to demonstrate compliance with Section 5.105.2.

Note: Sample Worksheet WS-3 in Chapter 8 may be used to assist in documenting compliance with this section.

5.105.3 Deconstruction (Reserved).

SECTION 5.106 SITE DEVELOPMENT

5.106.1 STORM WATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB LESS THAN ONE ACRE OF LAND. Newly constructed projects and additions which disturb less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction activities through one or more of the following measures:

5.106.1.1 Local ordinance. Comply with a lawfully enacted storm water management and/or erosion control ordinance.

5.106.1.2 Best Management Practices (BMPs). Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMPs.

1. Soil loss BMPs that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
   a. Scheduling construction activity during dry weather, when possible.
   b. Preservation of natural features, vegetation, soil, and buffers around surface waters.
   c. Drainage swales or lined ditches to control stormwater flow.
   d. Mulching or hydroseeding to stabilize disturbed soils.
   e. Erosion control to protect slopes.
   f. Protection of storm drain inlets (gravel bags or catch basin inserts).
   g. Perimeter sediment control (perimeter silt fence, fiber rolls).
   h. Sediment trap or sediment basin to retain sediment on site.
   i. Stabilized construction exits.
   j. Wind erosion control.
   k. Other soil loss BMPs acceptable to the enforcing agency.
2. Good housekeeping BMPs to manage construction equipment, materials, non-stormwater discharges and wastes that should be considered for implementation as appropriate for each project include, but are not limited to, the following.
   a. Dewatering activities.
   b. Material handling and waste management.
   c. Building materials stockpile management.
   d. Management of washout areas (concrete, paints, stucco, etc.).
   e. Control of vehicle/equipment fueling to contractor's staging area.
   f. Vehicle and equipment cleaning performed off site.
   g. Spill prevention and control.
   h. Other housekeeping BMPs acceptable to the enforcing agency.

5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND. Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development sale.

Note: Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of the larger common plan of development or sale must comply with the post-construction requirements detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board or the Lahontan Regional Water Quality Control Board (for projects in the Lake Tahoe Hydrologic Unit).

The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES permits emphasize runoff reduction through on-site stormwater use, interception, evapotranspiration, and infiltration through nonstructural controls, such as Low Impact Development (LID) practices, and conservation design measures. Stormwater volume that cannot be addressed using nonstructural practices is required to be captured in structural practices and be approved by the enforcing agency.

Refer to the current applicable permits on the State Water Resources Control Board website at www.waterboards.ca.gov/constructionstormwater. Consideration to the stormwater runoff management measures should be given during the initial design process for appropriate integration into site development.

5.106.4 BICYCLE PARKING. For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2

5.106.4.1 Bicycle parking. [BSC-CG] Comply with Sections 5.108.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.

5.106.4.1.1 Short-term bicycle parking. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.
Exception: Additions or alterations which add nine or less visitor vehicular parking spaces.

5.106.4.1.2 Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

5.106.4.1.3 For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicular parking spaces being added, with a minimum of one bicycle parking facility.

5.106.4.1.4 For new shell buildings in phased projects provide secure bicycle parking for 5 percent of the anticipated tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

5.106.4.1.5 Acceptable bicycle parking facility for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.108.4.1.4 shall be convenient from the street and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.

5.106.4.2 Bicycle parking. [DSA-SS] For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2

5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.
5.106.4.2.2 Staff bicycle parking. Provide permanent, secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

5.106.5.3 Electric vehicle (EV) charging. [N] [BSC-CG] Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5.106.5.3.1 EV capable spaces. Section 5.106.5.3.2 Electric vehicle charging stations and associated Table 5.106.5.3.1, or Section 5.106.5.3.6 Electric vehicle charging stations (EVCS)—Power allocation method and associated Table 5.106.5.3.6 and shall be provided in accordance with regulations in the *California Building Code* and the *California Electrical Code*.

Exceptions:
1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
   a. Where there is no local utility power supply
   b. Where the local utility is unable to supply adequate power.
   c. Where there is evidence suitable to the local enforcement agency substantiating the local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.
2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code section.

5.106.5.3.1 EV capable spaces. [N] EV capable spaces shall be provided in accordance with Table 5.106.5.3.1 and the following requirements:

1. Raceways complying with the California Electrical Code and no less than 1-inch (25 mm) diameter shall be provided and shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the EV capable and into a suitable listed cabinet, box,enclosure or equivalent. A common raceway may be used to serve multiple EV charging spaces.
2. A service panel or subpanel (s) shall be provided with panel space and electrical load capacity for a dedicated 208/240 volt, 40-ampere minimum branch circuit for each EV capable space, with delivery of 30-ampere minimum to an installed EVSE at each EVCS.
3. The electrical system and any on-site distribution transformers shall have sufficient capacity to supply full rated amperage at each EV capable space.
4. The service panel or subpanel circuit directory shall identify the reserved overcurrent protective devices space(s) as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."

Note: A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by an enforcement agency. See Vehicle Code Section 22511.2 for further details.

TABLE 5.106.5.3.1

TOTAL NUMBER OF ACTUAL PARKING SPACES	NUMBER OF REQUIRED EV CAPABLE SPACES	NUMBER OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE)[4,5]
0-9	0	0
10-25	2	0
26-50	8	2
51-75	13	3
76-100	17	4
101-150	25	6
151-200	35	9
201 AND OVER	20 percent of actual parking spaces[1]	25 percent of EV capable spaces[1]

1. Calculation for spaces shall be rounded up to the nearest whole number.
2. The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count toward the total number of required EV capable spaces shown in column 2.
3. At least one Level 2 EVSE shall be provided.

5.106.5.3.2 Electric vehicle charging stations (EVCS) EV capable spaces shall be provided with electric vehicle supply equipment (EVSE) to create EVCS in the number indicated in Table 5.106.5.3.1. The EVCS required by Table 5.106.5.3.1 shall be provided with Level 2 EVSE or DCFC as permitted in Section 5.106.5.3.2.1. At least one Level 2 EVSE shall be provided.

One EV charger with multiple connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required by Section 5.106.5.3.1 for each EV capable space is accumulatively supplied to this EV charger.

The installation of each DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaces without EVSE by five and reduce proportionally the required electrical load capacity to the service panel or subpanel.

5.106.5.3.2.1 The installation of each DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaces without EVSE or EVCS with Level 2 EVSE by five and reduce proportionally the required electrical load capacity to the service panel or subpanel.

5.106.5.3.2.2 The installation of two low power Level 2 EV charging receptacles shall be permitted to reduce the minimum number of required EV capable spaces without EVSE in Table 5.106.5.3.1 by one.

5.106.5.3.3 Use of automatic load management systems (ALMS).
ALMS shall be permitted for EVCS. When ALMS is installed, the required electrical load capacity specified in Section 5.106.5.3.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each EVSE controlled by an ALMS shall deliver a minimum 30 amperes to an EV when charging one vehicle and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs.

5.106.5.3.4 Accessible EVCS.
When EVSE is installed, accessible EVSC shall be provided in accordance with the *California Building Code*, Chapter 11B, Section 11B-228.3.

Note: For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

5.106.5.3.4 Accessible electric vehicle charging station (EVCS). When EVSE is installed, accessible EVCS shall be provided in accordance with the *California Building Code*, Chapter 11B, Section 11B-228.3.

5.106.5.3.5 Electric vehicle charging station signage. Electric vehicle charging stations shall be identified by signage or pavement markings in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

Power allocation method shall include the following:
1. Use any kVA combination of EV capable spaces, low power Level 2, Level 2 or DCFC EVSEs.
2. At least one Level 2 EVSE shall be provided.

5.106.5.3.6 Electric vehicle charging stations (EVCS)—power allocation method. The power allocation method may be used as an alternative to the requirements in Section 5.106.5.3.1, Section 5.106.5.3.2 and associated Table 5.106.5.3.1. Use Table 5.106.5.3.6 to determine the total power in kVA required based on the total number of actual parking spaces.

TABLE 5.106.5.3.6

TOTAL NUMBER OF ACTUAL PARKING SPACES	MINIMUM TOTAL kVA @ 6.6 kVA	TOTAL kVA REQUIRED IN ANY COMBINATION OF EV CAPABLE,3,4 LOW POWER LEVEL 2, LEVEL 2, 1, 2 OR DCFC
0-9	0	0
10-25	26.4	26.4
26-50	52.8	52.8
51-75	85.8	85.8
76-100	112.2	112.2
101-150	165	165
151-200	231	231
201 AND OVER	20 percent of actual parking spaces x 6.6	Total required kVA = P × 20 × 6.6 Where P = Parking spaces in facility

1. Level 2 EVSE @ 6.6 kVA minimum.
2. At least one Level 2 EVSE shall be provided.
3. Maximum allowed kVA to be utilized for EV capable spaces is 75 percent.
4. If EV capable spaces are utilized, they shall meet the requirements of Section 5.106.5.3.1 EV capable spaces.

5.106.5.4 Additions or alterations to existing buildings or parking facilities [A]. [BSC-CG] Existing buildings or parking facilities being modified by one of the following shall comply with Section 5.106.5.4.1 or 5.106.5.4.2. When EVSE is installed, accessible EVCS shall be provided in accordance with the *California Building Code*, Chapter 11B, Section 11B-228.3.

1. When the scope of construction work includes an increase in power supply to an electric service panel as part of a parking facility addition or alteration.
2. When a new photovoltaic system is installed covering existing parking spaces.
3. When additions or alterations to existing buildings are triggered pursuant to code Section 301.3 and the scope of work includes an increase in power supply to an electric service panel.

Exceptions:
1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
   a. Where there is no local utility power supply
   b. Where the local utility is unable to supply adequate power.
   c. Where there is evidence suitable to the local enforcement agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.
   d. Where demonstrated as impracticable excluding local utility service or utility infrastructure issues.
2. Remote parking facilities that do not have access to the building service panel.
3. Parking area lighting upgrades where no trenching is part of the scope of work.
4. Emergency repairs, including but not limited to water line break in parking facilities, natural disaster repairs, etc.

5.106.5.4.1 Existing buildings or parking areas without previously installed EV capable infrastructure [A]. When EV capable infrastructure does not exist at an existing parking facility or building, and the parking facility or building undergoes an addition or alteration listed in Section 5.106.5.4, construction shall include electric vehicle charging in compliance with either Section 5.106.5.3 and associated Table 5.106.5.3.1, or Section 5.106.5.3.6 and associated Table 5.106.5.3.6 for the total number of actual parking spaces being added or altered.

5.106.5.4.2 Existing buildings or parking areas with previously installed EV capable infrastructure [A]. When EV capable infrastructure is available at an existing parking facility or building, and the parking facility or building is undergoing an addition or alteration listed in Section 5.106.5.4, construction shall include electric vehicle charging in compliance with either Section 5.106.5.3 and associated Table 5.106.5.3.1, or Section 5.106.5.3.6 and associated Table 5.106.5.3.6 utilizing the existing EV capable allocated power and infrastructure for the total number of actual parking spaces being added or altered. If the area being added or altered exceeds the existing EV capable capacity, allocated power and infrastructure, provide additional EV charging as needed to comply with this section.

TABLE 5.106.5.5.1 RACEWAY CONDUIT AND PANEL POWER REQUIREMENTS FOR MEDIUM- AND HEAVY-DUTY EVSE [N]

BUILDING TYPE	BUILDING SIZE (SQ. FT.)	NUMBER OF OFF-STREET LOADING SPACES	ADDITIONAL CAPACITY REQUIRED (KVA) FOR RACEWAY & BUSWAY AND TRANSFORMER & PANEL
Grocery	10,000 to 90,000	1 or 2	200
		3 or Greater	400
	Greater than 90,000	1 or Greater	400
Manufacturing Facilities	10,000 to 50,000	1 or 2	200
	10,000 to 90,000	3 or Greater	400
	Greater than 50,000	1 or Greater	400
Office Buildings	10,000 to 135,000	1 or 2	200
	10,000 to 135,000	3 or Greater	400
	Greater than 135,000	1 or Greater	400
Retail	10,000 to 135,000	1 or 2	200
		3 or Greater	400
	Greater than 135,000	1 or Greater	400
Warehouse	20,000 to 256,000	1 or 2	200
		3 or Greater	400
	Greater than 256,000	1 or Greater	400

5.106.5.5 Electric vehicle (EV) charging: medium-duty and heavy-duty. [N] [BSG-CG] Construction shall comply with Section 5.106.5.5.1 to facilitate future installation of electric vehicle supply equipment (EVSE). Construction for warehouses, grocery stores and retail stores, office buildings, and manufacturing facilities with planned off-street loading spaces shall also comply with Section 5.106.5.5.1 for future installation of medium- and heavy-duty EVSE.

Exceptions:
1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
   a. Where there is no local utility power supply.
   b. Where the local utility is unable to supply adequate power.
   c. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.

When EVSE(s) is/are installed, it shall be in accordance with the *California Building Code*, the *California Electrical Code* and as follows:

5.106.5.5.1 Electric vehicle charging readiness requirements for warehouses, grocery stores, office buildings, and manufacturing facilities and retail stores with planned off-street loading spaces. [N]

In order to avoid future demolition when adding EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s) or subpanel(s) shall be installed at the time of construction in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

1. The transformer, main service equipment and subpanels shall meet the minimum power requirement in Table 5.106.5.5.1 to accommodate the dedicated branch circuits for the future installation of EVSE.
2. The construction documents shall indicate one or more location(s) convenient to the planned off-street loading space(s) reserved for medium- and heavy-duty ZEV charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and dispenser(s), as shown in Table 5.106.5.5.1.
3. Raceway(s) or busway(s) originating at a main service panel or a subpanel(s) serving the area where potential future medium- and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipment for medium- and heavy-duty vehicles.
4. The raceway(s) or busway(s) shall be of sufficient size to carry the minimum additional system load to the future location of the charging for medium- and heavy-duty ZEVs as shown in Table 5.106.5.5.1.

TABLE 5.106.5.6.1

TOTAL NUMBER OF ACTUAL PARKING SPACES	NUMBER OF REQUIRED EV CAPABLE SPACES	NUMBER OF REQUIRED EVCS[2]
0-9	0	0
10-25	4	1
26-50	8	2
51-75	13	3
76-100	17	4
101-150	25	6
151-200	35	9
201 AND OVER	20 percent of total spaces[1]	25 percent of EV capable spaces[1]

1. Calculation for spaces shall be rounded up to the nearest whole number.
2. Each EVCS shall reduce the number of required EV capable spaces by the same number.

5.106.5.6.2 Electric vehicle charging stations (EVCS). EV capable spaces shall be provided with EVSE to create EVCS in the number indicated in Table 5.106.5.6.1 and shall comply with Section 5.106.5.6.2. EVCS shall be serviced by Level 2 or Direct Current Fast Charging (DCFC) EVSE, or with EVSE in any combination of Level 2 and DCFC. Accessible EVCS shall be provided in accordance with *California Building Code* Chapter 11B

5.106.5.8 Electric vehicle (EV) charging at public schools and community colleges. [DSA-SS] Electric vehicle infrastructure and electric vehicle charging stations shall comply with Section 5.106.5.6 and shall be provided in accordance with regulations in the California Building Code and the California Electrical Code.

Exceptions:
1. On a case-by-case basis where compliance with this section has been demonstrated to be not feasible based upon one of the following conditions,and with concurrence by the Division of the State Architect (DSA), compliance with Section 5.106.5.6 shall not be required.
   a. Where there is no local utility power supply.
   b. Where the local utility is unable to supply adequate power.
   c. The installation of EVCS is impracticable.
2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with Section 5.106.5.6.

5.106.5.6.1 EV capable spaces. EV capable spaces shall be provided in accordance with Table 5.106.5.6.1 and the following requirements:

1. Raceways complying with the California Electrical Code and no less than 1-inch (25 mm) diameter shall be provided and shall originate at a service panel or a subpanel(s) serving the area and shall terminate in close proximity to the proposed location of the EV capable space and into a suitable listed cabinet, box, enclosure or equivalent. A common raceway may be used to serve multiple EV capable spaces.
2. A service panel or subpanel(s) shall be provided with panel space and electrical load capacity for a dedicated 208/240 volt, 40-ampere minimum branch circuit for each EV capable space, with delivery of 30-ampere minimum to an installed EVSE at each EVCS.
3. The electrical system and any on-site distribution transformers shall have sufficient capacity to supply full rated amperage at each EV capable space.
4. The service panel or subpanel circuit directory shall identify the reserved overcurrent protective device space(s) as "EV CAPABLE." The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."

DISCLAIMER: *THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.*

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn: JON PRICE
Project Leader	Checked: MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

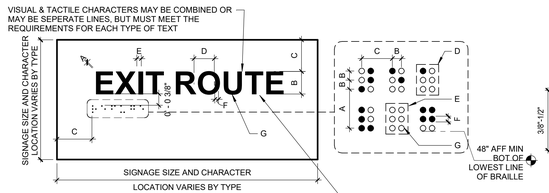
Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE
MAMMOTH, CALIFORNIA

Drawing Title
CALIFORNIA GREEN BUILDING STANDARDS CODE CHECKLIST

Scale

Project No.
IN2024-0022

Drawing No.
G02-05



RAISED CHARACTER REQUIREMENTS AND LEGEND:

A. CHARACTERS SHALL BE RAISED 1/32" MINIMUM ABOVE THEIR BACKGROUND.
B. CHARACTER HEIGHT SHALL BE A MINIMUM OF 5/8" AND A MAXIMUM OF 2" HIGH BASED ON THE UPPERCASE "I".
C. CHARACTERS SHALL BE SEPARATED FROM ANY RAISED BORDER OR DECORATIVE ELEMENT BY 3/8"
D. CHARACTER FONT PROPORTION WITH THE UPPERCASE 'O' WIDTH BEING 60 PERCENT MINIMUM TO 110 PERCENT MAXIMUM THE HEIGHT OF THE UPPERCASE 'I'.
E. CHARACTER STROKE THICKNESS OF THE UPPERCASE 'I' SHALL BE 15 PERCENT MAXIMUM THE HEIGHT OF CHARACTER.
F. CHARACTERS THAT HAVE RECTANGULAR CROSS SECTIONS MUST HAVE SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS 1/8" MIN. TO 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAX. CHARACTERS THAT HAVE OTHER (NON-RECTANGULAR) CROSS SECTIONS MUST HAVE SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS 1/16" MIN. TO 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAX. AT THE BASE OF THE CROSS SECTION AND 1/8" MIN. TO 4 TIMES THE STROKE WIDTH AT THE TOP OF THE CROSS SECTIONS.
G. RAISED CHARACTERS ARE TO HAVE EASED EDGES.
H. CHARACTERS AND SIGN FIELD TO HAVE NON-GLARE FINISH. SANS-SERIF, HORIZONTAL FORMAT, WITH FONTS PER CBC 11B-703.2

BRAILLE REQUIREMENTS AND LEGEND:

BRAILLE SHALL BE PER CBC 11B-703.3 INCLUDING, BUT NOT LIMITED TO THE FOLLOWING: DISTANCES IN INCHES, MIN TO MAX.

A. DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW: 0.395 TO 0.400
B. DISTANCE BETWEEN TWO DOTS IN THE SAME CELL : 0.100, MEASURED CENTER TO CENTER
C. DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS: 0.300
D. SINGLE BRAILLE CELL
E. BLANK CELL SPACE BETWEEN WORDS
F. BASE DIAMETER: 0.059 TO 0.063
G. NO RAISED DOT, BLANK CELL SPACE BETWEEN WORDS

BRAILLE TO BE CONTRACTED GRADE 2, AND DOT HEIGHT TO BE 0.025 TO 0.037. DOTS MUST BE DOMED OR ROUNDED. DOTS INDICATING UPPERCASE LETTER OR LETTERS MUST ONLY BE USED AT THE FIRST WORD OF SENTENCES, PROPER NOUNS AND NAMES, INDIVIDUAL LETTERS OF THE ALPHABET, INITIALS, AND/OR ACRONYMS.

4 G03-01 ACCESSIBLE TACTILE SIGN REQUIREMENTS
SCALE: 6" = 1'-0"

ENTRANCES AND DOORS:

1. IN NEW CONSTRUCTION, ALL PRIMARY ENTRANCES AND EXTERIOR GROUND FLOOR EXIT DOORS TO BUILDINGS AND FACILITIES SHALL BE ACCESSIBLE TO THE DISABLED.
2. IN EXISTING BUILDINGS WHERE NOT ALL ENTRANCES ARE ACCESSIBLE, ALL ACCESSIBLE ENTRANCES SHALL BE IDENTIFIED WITH AT LEAST ONE STANDARD INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, VISIBLE FROM APPROACHING PEDESTRIAN WAYS.
3. EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT LESS THAN 36 INCHES IN WIDTH, AND NOT LESS THAN 80 INCHES IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE MOUNTED SO THAT THE CLEAR WIDTH THE DOORWAY IS NOT LESS THAN 32 INCHES.
4. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE PART OF AN ACCESSIBLE ROUTE OR SPACE, SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS. OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.
5. HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 34 INCHES MINIMUM AND 44 INCHES MAXIMUM ABOVE THE FLOOR.
6. THE FLOOR OR LANDING LENGTH ON EACH SIDE OF AN ENTRANCE OR A PASSAGE DOOR SHALL BE LEVEL AND CLEAR AT LEAST 60 INCHES IN THE DIRECTION OF THE DOOR SWING AND AT LEAST 48 INCHES OPPOSITE THE DIRECTION OF THE DOOR SWING AS MEASURED AT RIGHT ANGLES TO THE FACE OF THE DOOR IN THE CLOSED POSITION. THE WIDTH OF THE LEVEL AND CLEAR AREA ON THE SIDE WHICH THE DOOR SWINGS SHALL EXTEND A MINIMUM OF 24 INCHES PAST THE STRIKE EDGE OF THE DOOR FOR DOORS WITH LATCH SIDE APPROACH AND 36 INCHES FOR DOORS REQUIRING HINGE SIDE APPROACH.
7. THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1/2 INCH LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGES IN LEVEL BETWEEN 1/4 INCH AND 1/2 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.
8. THE BOTTOM 10 INCHES 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 FRAME DOORS ARE USED, A 10 INCH 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.
9. THE MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS. FOR EXTERIOR OR 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 NOT EXCEED 15 LBS.
10. EACH GRADE-LEVEL EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE SIGN WITH THE WORD "EXIT". EACH EXIT DOOR THAT LEADS DIRECTLY TO GRADE-LEVEL EXTERIOR EXIT BY MEANS OF STAIRWAY OR RAMP IS IDENTIFIED BY A TACTILE SIGN THAT STATES "EXIT STAIR DOWN," "EXIT RAMP DOWN," "EXIT STAIR UP," OR "EXIT RAMP UP" AS APPROPRIATE. EACH EXIT DOOR THAT LEADS DIRECTLY TO GRADE-LEVEL EXTERIOR EXIT BY MEANS OF AN EXIT ENCLOSURE OR EXIT PASSAGEWAY IS IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT ROUTE." EACH ACCESS DOOR FROM AN INTERIOR ROOM OR AREA TO A CORRIDOR OR HALLWAY THAT IS REQUIRED TO HAVE A VISUAL EXIT SIGN IS IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT ROUTE". EACH DOOR THROUGH A HORIZONTAL EXIT IS IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "TO EXIT."

CLEAR FLOOR SPACE FOR WHEELCHAIRS

1. MINIMUM CLEAR FLOOR OR GROUND SPACE REQUIRED TO ACCOMMODATE A SINGLE, STATIONARY WHEELCHAIR AND OCCUPANT IS 30 INCHES BY 48 INCHES. MINIMUM CLEAR FLOOR OR GROUND SPACE FOR WHEELCHAIRS MAY BE POSITIONED FOR FORWARD OR PARALLEL APPROACH TO AN OBJECT, UNLESS RESTRICTED BY CODE. FLOOR OR GROUND SPACE FOR WHEELCHAIRS MAY BE PART OF THE KNEE SPACE REQUIRED UNDER SOME ELEMENTS AS ALLOWED BY CODE.
2. PROVIDE A MINIMUM CLEAR SPACE 60 INCHES WIDE AT ALCOVES GREATER THAN 15 INCHES DEEP AND DESIGNED FOR SIDE APPROACH.
3. PROVIDE A MINIMUM CLEAR SPACE 36 INCHES WIDE AT ALCOVES GREATER THAN 24 INCHES DEEP AND DESIGNED FOR FRONT APPROACH.

HAZARDOUS AND PROJECTING OBJECTS

1. OBJECTS PROJECTING FROM WALLS WITH THEIR LEADING EDGES BETWEEN 27 INCHES AND 80 INCHES ABOVE THE FINISHED FLOOR SHALL PROTRUDE NO MORE THAN 4" INTO WALKS, HALLS, CORRIDORS, PASSAGEWAYS, OR AISLES.
2. OBJECTS MOUNTED WITH THEIR LEADING EDGES AT OR BELOW 27 INCHES ABOVE THE FINISHED FLOOR MAY PROTRUDE ANY AMOUNT.
3. FREE-STANDING OBJECTS MOUNTED ON POSTS / PYLONS MAY OVERHANG 12 INCHES MAXIMUM FROM 27 INCHES TO 80 INCHES ABOVE THE GROUND OR FINISHED FLOOR.
4. PROTRUDING OBJECTS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE OR MANEUVERING SPACE.
5. ANY OBSTRUCTION OVERHANGING A PEDESTRIAN WAY SHALL BE A MINIMUM OF 80 INCHES ABOVE THE WALKING SURFACE AS MEASURED TO THE BOTTOM OF THE OBSTRUCTION.

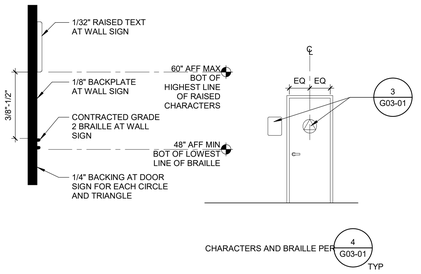
PARKING

1. SURFACE SLOPES OF ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 1/4 INCH PER FOOT (2% GRADIENT) IN ANY DIRECTION.
2. ACCESSIBLE PARKING SPACES SHALL BE LOCATED SO AS NOT TO REQUIRE USERS TO TRAVEL OR WALK BEHIND ANY PARKING SPACE OTHER THAN THEIR OWN.
3. IN EACH PARKING AREA, A BUMPER OR CURB SHALL BE PROVIDED AND LOCATED TO PREVENT ENCROACHMENT OF CARS OVER THE REQUIRED WIDTH OF WALKWAYS.
4. PARKING SPACES RESERVED FOR PERSONS WITH DISABILITIES SHALL BE IDENTIFIED BY A REFLECTORIZED SIGN PERMANENTLY POSTED IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE CONSISTING OF A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT, IN WHITE ON DARK BLUE BACKGROUND. THE SIGN SHALL NOT BE SMALLER THAN 70 INCHES IN AREA AND, WHEN IN AN ACCESSIBLE ROUTE, SHALL BE POSTED AT A MINIMUM HEIGHT OF 80 INCHES FROM THE BOTTOM OF THE SIGN TO THE PARKING SPACE FINISHED GRADE. SIGNS MAY ALSO BE MOUNTED ON THE WALL AT THE INTERIOR END OF THE PARKING SPACE AT A MINIMUM HEIGHT OF 60 INCHES FROM THE PARKING SPACE FINISHED GRADE, GROUND, OR WALK.

DISCREPANCIES

1. THE INFORMATION DEPICTED ON THIS SHEET REPRESENT BUILDING CODE REQUIREMENTS. NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES ON THIS PROJECT THAT WOULD CREATE A CONFLICT WITH THE PLANS OR ACCESS REQUIREMENTS.

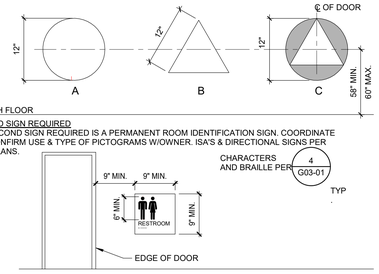
5 G03-01 ACCESSIBLE GENERAL NOTES
SCALE: 1/2" = 1'-0"



2 G03-01 RESTROOM SIGNAGE
SCALE: 1/4" = 1'-0"

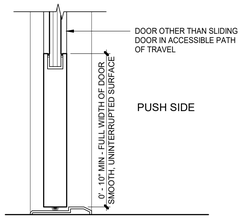
- PROVIDE SIGNAGE PER: CBC 11B-703
- SYMBOL IS TO BE OF CONTRASTING COLOR FROM THE DOOR. UNISEX SYMBOLS TO CONTRAST WITH EACH OTHER AND DOOR
- TO MEET THE CURRENT CALIFORNIA TITLE 24 CODE AND AMERICANS WITH DISABILITIES ACT, A COMBINATION OF THE TWO FOLLOWING SIGNS ARE REQ'D FOR RESTROOM IDENTIFICATION:

FIRST SIGN REQUIRED
THE 1/4" THICK 12" CIRCLE DESIGNATES THE WOMEN'S RESTROOM, THE 1/4" THICK 12" EQUILATERAL TRIANGLE DESIGNATES THE MEN'S RESTROOM. A UNISEX RESTROOM IS DESIGNATED BY A 12" CIRCLE WITH A SOLID TRIANGLE SUPERIMPOSED ON IT, BOTH 1/4" THICK, CENTERED SIGN 60" ABOVE THE FLOOR. THE EDGES OF THE SIGN MUST BE EASED OR ROUNDED @ 1/6" MIN OR CHAMFERED AT 1/8" MAX. VERTICES OF THE TRIANGLE MUST BE RADIUSED 1/8" MIN TO 1/4" MAX.

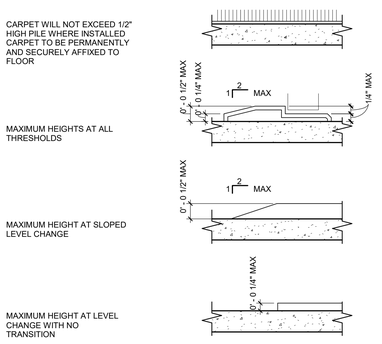


SECOND SIGN REQUIRED
THE SECOND SIGN REQUIRED IS A PERMANENT ROOM IDENTIFICATION SIGN. COORDINATE AND CONFIRM USE & TYPE OF PICTOGRAMS W/OWNER. ISA'S & DIRECTIONAL SIGNS PER SIGN PLANS.

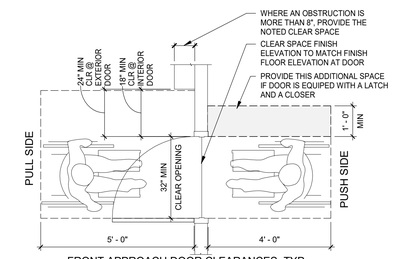
3 G03-01 RESTROOM SIGNAGE
SCALE: 3/16" = 1'-0"



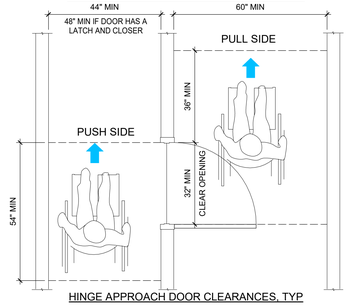
11 G03-01 ACC DOOR SURFACE REQ
SCALE: 3" = 1'-0"



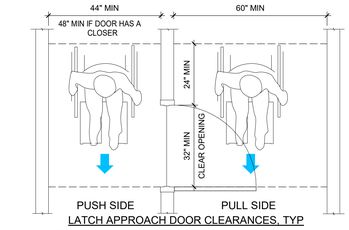
13 G03-01 FLOORING TRANSITIONS
SCALE: 6" = 1'-0"



FRONT APPROACH DOOR CLEARANCES, TYP



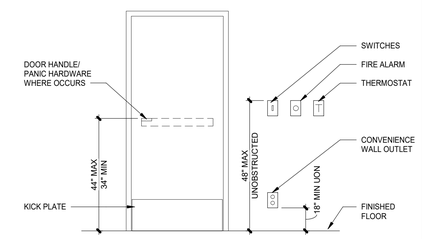
HINGE APPROACH DOOR CLEARANCES, TYP



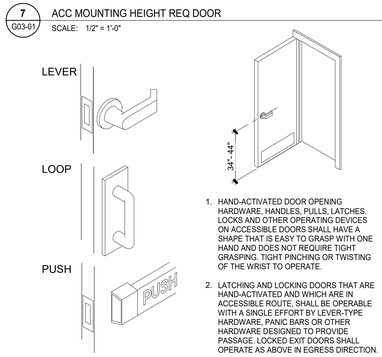
LATCH APPROACH DOOR CLEARANCES, TYP

NOTE: AREA MUST NOT EXCEED A SLOPE OF 2% IN ANY DIRECTION

1 G03-01 ACC DOOR CLEARANCES
SCALE: 1/2" = 1'-0"



7 G03-01 ACC MOUNTING HEIGHT REQ DOOR
SCALE: 1/2" = 1'-0"



1. HAND-ACTIVATED DOOR OPENING HARDWARE, HANDLES, PULLS, LATCHES. LOCKS AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE.
2. LATCHING AND LOCKING DOORS THAT ARE HAND-ACTIVATED AND WHICH ARE IN ACCESSIBLE ROUTE, SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER-TYPE HARDWARE. PANIC BARS OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE. LOCKED EXIT DOORS SHALL OPERATE AS ABOVE IN EGRESS DIRECTION.

10 G03-01 ACC DOOR HARDWARE REQ
SCALE: 1" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

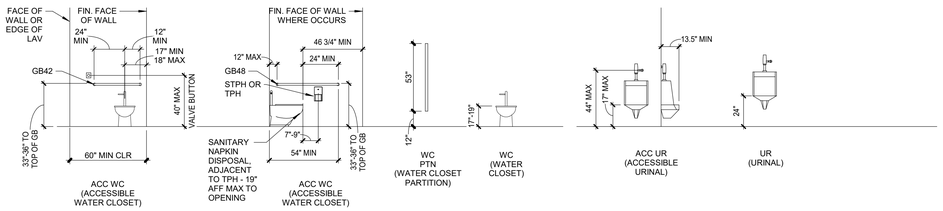
Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

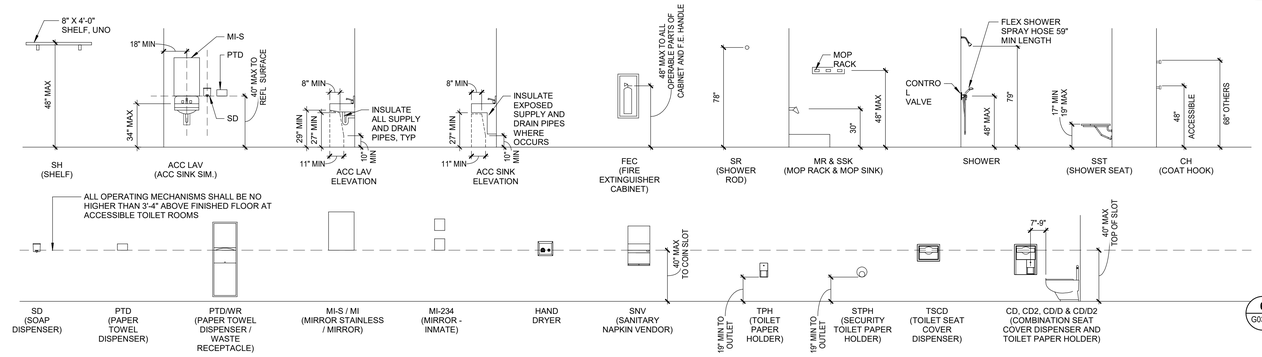
Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE
MAMMOTH, CALIFORNIA

Drawing Title
ACCESSIBLE DETAILS

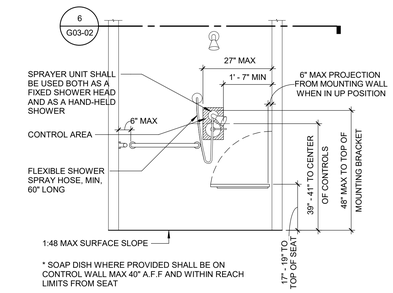
Scale: As indicated
Project No.: IN2024-0022
Drawing No.: **G03-01**



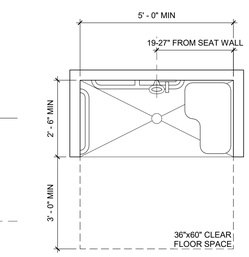


NOTE:
1. AT ACCESSIBLE TOILET STALLS, OPENING FOR PARTITION DOOR SHALL BE MIN. 34" CLEAR, DOOR SHALL BE SELF CLOSING, AND AN ACCESSIBLE DOOR PULL SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH.
2. PROVIDE BACKING FOR ALL WALL HUNG ACCESSORIES, SEE TYPICAL BACKING DETAIL
3. BACKING LOCATIONS SHALL BE COORDINATED W/ ANCHORAGE LOCATIONS, TYP.
4. SEE INTERIOR ELEVATIONS FOR DEFINITIONS OF ACCESSORY ABBREVIATIONS.
5. WHERE WALL MOUNTED EQUIPMENT IS LOCATED ABOVE COUNTER/WORK SURFACE, HEIGHT TO OPERABLE PART SHALL BE 46" MAX. FOR PARALLEL APPROACH.
6. WHERE WALL MOUNTED EQUIPMENT IS LOCATED ABOVE COUNTER/WORK SURFACE, HEIGHT TO OPERABLE PART FOR FORWARD APPROACH IS 48" MAX. WHEN COUNTER/WORK SURFACE IS A MAXIMUM OF 20" DEEP. WHEN REACH DEPTH IS BETWEEN 20" AND THE MAXIMUM ALLOWABLE OF 25", THE HEIGHT TO OPERABLE PARTS SHALL BE 44" MAX.
7. CONTRACTOR IS RESPONSIBLE FOR COORDINATING THAT MAXIMUM DIMENSIONS ARE NOT TO BE EXCEEDED AND MINIMUM CLEARANCES ARE NOT LESS THAN THE MINIMUM DIMENSIONS LISTED.

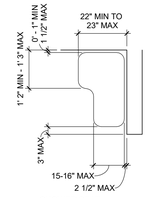
19 / G03-02 INTERIOR - ACCESSORIES - MOUNTING HEIGHTS & LOCATIONS
SCALE: 1/4" = 1'-0"

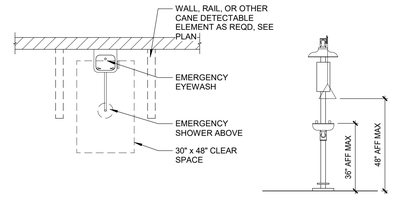


5 / G03-02 ACCESSIBLE SHOWER ELEVATION
SCALE: 1/2" = 1'-0"

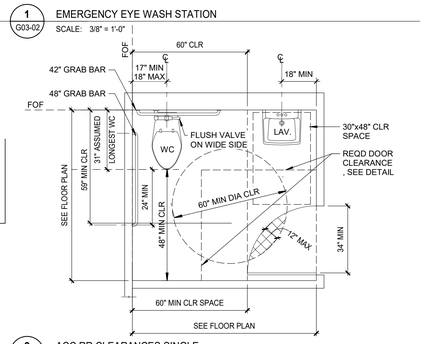


6 / G03-02 ACCESSIBLE SHOWER PLAN
SCALE: 1/2" = 1'-0"

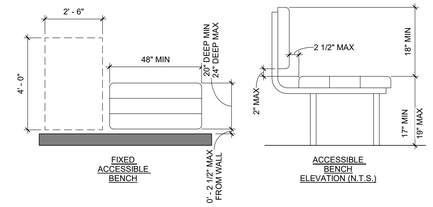




1 / G03-02 EMERGENCY EYE WASH STATION
SCALE: 3/8" = 1'-0"

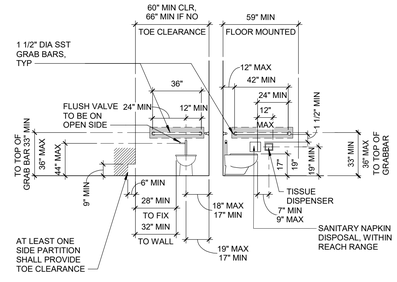


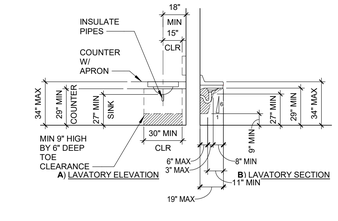
2 / G03-02 ACC RR CLEARANCES SINGLE
SCALE: 3/8" = 1'-0"



3 / G03-02 ACCESSIBLE RESTROOM BENCH
SCALE: 3/8" = 1'-0"

NOTES:
1. FOR WALL BACKING REQIUREMETS SEE 14 / G04-02 , 9 / G04-02 AND 16 / G04-02
2. DIMENSIONS ARE TO FACE OF FINISH.





4 / G03-02 TYP TOILET ROOM ACCESS REQ
SCALE: 1/4" = 1'-0"

DATE	ISSUED FOR	REV

This drawing has been prepared solely for the use of MAMMOTH YOSEMITE AIRPORT and there are no representations of any kind made by NORR to any party with whom NORR has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer

Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn
	JON PRICE
Project Leader	Checked
	MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

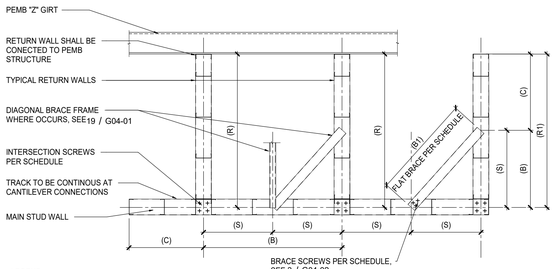
Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE
MAMMOTH, CALIFORNIA

Drawing Title
PLUMBING ACCESSIBILITY DETAILS

Scale: As indicated

Project No.: IN2024-0022

Drawing No.: **G03-02**



LEGEND:
(H) MAXIMUM WALL HEIGHT
(C) MAXIMUM LENGTH OF WALL CANTILIVER
(B) MINIMUM BACKSPAN LENGTH OF CANTILEVER
(B1) MAXIMUM LENGTH OF FLAT BRACE
(S) MAXIMUM LENGTH OF WALL BETWEEN SUPPORT POINTS
(R) MINIMUM RETURN WALL LENGTH TO BRACE MAIN WALL W/FREE END
(R1) MINIMUM RETURN WALL LENGTH TO BRACE MAIN WALL W/CONNECTED END

NOTE:
1. TRACK SPLICES ARE PROHIBITED WITHIN OR AT THE INTERSECTIONS CANTILEVER AND BACKSPANS LOCATIONS.
2. TRACK SPLICES ARE ACCEPTABLE AT ENDS OF SPANS (S).
3. THIS INFORMATION IS APPLICABLE WHERE GYPSUM WALL BOARD IS APPLIED AT ONE OR BOTH SIDES OF THE FRAMING ASSEMBLY.

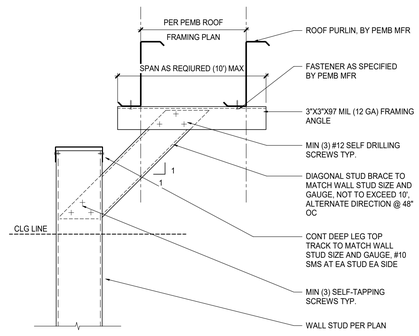
TOP TRACK SCHEDULE

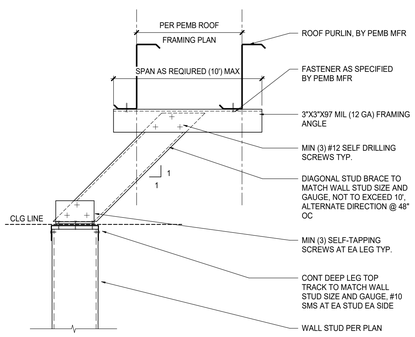
MAX WALL HEIGHT (H)	MAX TRACK SIZE	MAX CANTAVLVER (C)	MIN BACKSPAN (B)	MAX SPAN (S)	MIN RETURN (R)	MIN RETURN (R1)	SCREWS
6'-0"	250T125-27	4'-3"	8'-6"	8'-6"	10'-9"	6'-3"	(2)#10 SMS
	250T125-33	5'-0"	10'-0"	10'-0"	11'-9"	7'-3"	(2)#10 SMS
	250T125-43	6'-0"	12'-0"	12'-0"	12'-9"	8'-3"	(3)#10 SMS
	362T125-27	6'-3"	10'-6"	10'-6"	12'-0"	7'-6"	(2)#10 SMS
	362T125-33	6'-3"	12'-6"	12'-6"	13'-3"	8'-6"	(3)#10 SMS
	362T125-43	7'-3"	14'-6"	15'-3"	14'-3"	9'-3"	(3)#10 SMS
	400T125-27	5'-6"	11'-0"	11'-3"	12'-3"	7'-9"	(3)#10 SMS
	400T125-33	6'-6"	13'-0"	13'-3"	13'-6"	8'-9"	(3)#10 SMS
	400T125-43	7'-6"	15'-0"	16'-0"	14'-6"	9'-6"	(3)#10 SMS
	600T125-27	7'-0"	14'-0"	14'-3"	14'-0"	9'-3"	(3)#10 SMS
	600T125-33	8'-0"	16'-0"	16'-6"	15'-0"	10'-0"	(3)#10 SMS
	600T125-43	8'-9"	17'-6"	20'-3"	15'-0"	11'-0"	(4)#10 SMS
12'-0"	362T125-27	3'-9"	7'-6"	7'-6"	14-6"	9'-6"	(3)#10 SMS
	362T125-33	4'-3"	8'-6"	8'-9"	15'-3"	10'-6"	(3)#10 SMS
	362T125-43	5'-3"	10'-6"	10'-9"	17'-0"	12'-0"	(4)#10 SMS
	400T125-27	3'-9"	7'-6"	8'-0"	14'-6"	9'-6"	(3)#10 SMS
	400T125-33	4'-6"	9'-0"	9'-3"	15'-9"	11'-0"	(4)#10 SMS
	400T125-43	5'-6"	11'-0"	11'-3"	17'-6"	12'-6"	(4)#10 SMS
	600T125-27	5'-6"	11'-0"	11'-3"	12'-3"	7'-9"	(4)#10 SMS
	600T125-33	5'-9"	11'-6"	11'-9"	17'-9"	12'-9"	(5)#10 SMS
	600T125-43	7'-0"	14'-0"	14'-3"	19'-9"	14'-6"	(5)#10 SMS

FLAT BEACE SCHEDULE

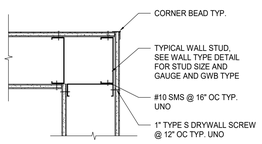
MAX WALL HEIGHT (H)	MAX BRACE SIZE	MAX BRACE SPAN (B1)	MAX SPAN (S)	SCREWS
6'-0"	250S125-30	9'-6"	10'-0"	(4)#10 SMS
	362S162-33	16'-0"		
	362S200-43	20'-0"		
	362S137-33	10'-0"	15'-0"	(5)#10 SMS
	400S200-43	20'-0"		
	600S250-54	30'-0"		
12'-0"	362S162-33	9'-6"	20'-3"	(7)#10 SMS
	362S200-43	20'-0"		
	600S200-68	30'-0"		
	362S137-33	9'-6"	8'-0"	(5)#10 SMS
	400S162-33	12'-6"		
	400S200-43	16'-0"		
	362S162-43	10'-0"	11'-0"	(7)#10 SMS
	362S200-54	16'-0"		
	600S250-43	22'-0"		
	362S162-43	10'-0"	14'-3"	(9)#10 SMS
	400S200-54	16'-0"		
	600S250-68	26'-0"		

18 G04-01 TYPICAL FREE STANDING WALL FRAMING
SCALE: 1/2" = 1'-0"

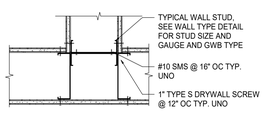




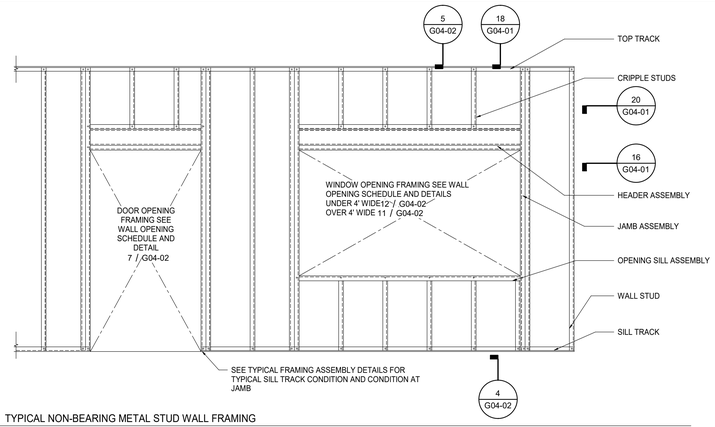
19 G04-01 DIAGONAL KICKER
SCALE: 1 1/2" = 1'-0"



20 G04-01 TYPICAL CORNER FRAMING
SCALE: 1 1/2" = 1'-0"

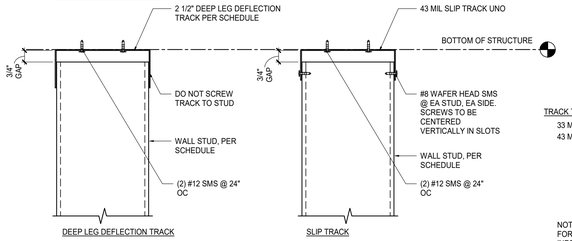


16 G04-01 TYPICAL INTERSECTION FRAMING
SCALE: 1 1/2" = 1'-0"



9 G04-01 TYPICAL NON-BEARING METAL STUD WALL FRAMING
SCALE: 3/4" = 1'-0"

TOP TRACK FRAMING :

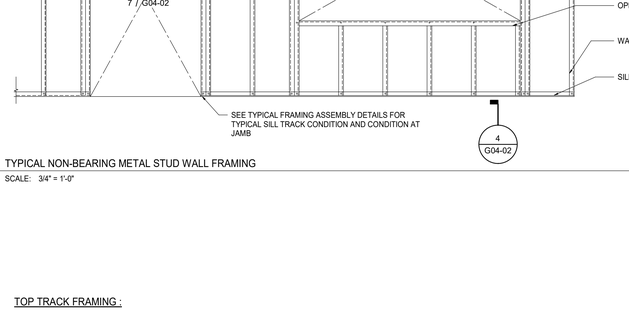


TRACK THICKNESS	MAX WALL HEIGHT
33 MILS	15'-0"
43 MILS	24'6"

NOTE:
FOR ADDITIONAL FRAMING INFORMATION SEE FRAMING SCHEDULES THIS SHEET

HEADER FRAMING :

JAMB FRAMING :



SILL FRAMING :

12 G04-01 TYPICAL FRAMING ASSEMBLY
SCALE: 3" = 1'-0"

WALL FRAMING NOTES:

A. NOTE ALL STEEL TO BE MIN. Fy = 33 KSI U.N.O.
B. METAL STUDS TO BE SSMA COLD-FORMED STEEL FRAMING, ICC-ESR #3064P
C. TYPICAL FASTENERS, U.N.O. REFER TO ANCHOR SCHEDULE BELOW
   a. STEEL TRACK TO CONCRETE
      - 0.177" DIA. SHANK, 1-1/2" MIN. PENETRATION, POWDER DRIVEN FASTENER, 24" O.C.
   b. STEEL STUD TO STEEL STUD OR TRACK
      - 20 GA. - #8 - 18 X 1/2" SELF-DRILLING SCREW WITH PHILIPS PAN HEAD, MIN. (2) PER CONNECTION
      - 18 GA. - 16 GA: #10 - 16 X 3/4" SELF-DRILLING SCREW WITH PHILIPS PAN HEAD, MIN. (3) PER CONNECTION
   c. STEEL STUD OR TRACK TO STRUCTURAL STEEL
      - 0.145" DIA SHANK, 5/8" MIN. LENGTH, POWDER DRIVEN FASTENER, MIN. (2) PER CONNECTION OR (2) ROWS AT 16" O.C. CONTINUOUS
   d. PLYWOOD TO STEEL STUDS
      - #10 - 24 X 1-1/4" SELF-DRILLING SCREWS, THIN WAFER HEAD, 12" O.C. PERIMETER, 24" O.C. FIELD
   e. GYPSUM BOARD TO STEEL STUD
      - #6 X 1-1/4" TYPE "S-12" BUGLE HEAD SCREW, SELF-DRILLING FOR ATTACHMENT TO STEEL STUD
      - BUTT JOINTS: 12" O.C.
      - FIELD: 12" O.C. CEILINGS, 24" O.C. WALLS
D. ALL COLD-FORMED METAL BRACING AND SUSPENDED COMPONENTS ARE FROM STRUCTURE (NOT FROM DECK)
E. WALLS TO BE BRACED TO STRUCTURE ABOVE USING ALTERNATING STUDS (362S162-33) MAX. UNBRACED LENGTH OF 4'-0". SEE CONNECTION DETAILS ON SHEET A122
F. ALL INTERIOR PARTITION WALLS TO BE DESIGN FOR A LATERAL LOAD OF 5 PSI.
G. ALL STUDS ARE ASSUMED TO HAVE 5/8" GYP BD. ON BOTH FACES FOR FULL HEIGHT OR ARE TO BE PROVIDED WITH BRIDGING AS REQUIRED
H. REFER TO WALL FINISH PLAN AND INTERIOR ELEVATIONS FOR WALL FINISH MATERIALS
I. PROVIDE CEMENT BOARD BEHIND ALL WALL TILE
J. GC TO FURNISH AND INSTALL INSULATION AS INDICATED
K. PROVIDE 3" DEEP SLIP TRACK CONNECTION AT TOP OF WALL TO ACCOMMODATE VERTICAL MOVEMENT
L. WALL STUD TABLE:

Interior Non-Bearing Partitions

Maximum Height for Metal Studs with Deflection Limit L/240

16" oc spacing	MAXIMUM HEIGHT				
THICKNESS	250S125	362S125	400S125	600S125	800S125
68 MILS	14'-10"	19'-11"	21'-7"	30'-0"	38'-2"
54 MILS	13'-11"	18'-7"	20'-1"	27'-11"	35'-2"
43 MILS	13'-0"	17'-7"	18'-10"	26'-1"	32'-9"
33 MILS	12'-0"	16'-0"	17'-3"	23'-9"	28'-8"
30 MILS	11'-7"	15'-5"	16'-8"	22'-11"	--
27 MILS	11'-3"	14'-11"	--	--	--
18 MILS	9'-7"	--	--	--	--
24" oc spacing	MAXIMUM HEIGHT				
THICKNESS	250S125	362S125	400S125	600S125	800S125
68 MILS	13'-0"	17'-5"	18'-10"	26'-2"	33'-4"
54 MILS	12'-2"	16'-3"	17'-7"	24'-5"	30'-9"
43 MILS	11'-5"	15'-2"	16'-5"	22'-10"	28'-8"
33 MILS	10'-6"	13'-11"	15'-1"	20'-6"	23'-5"
30 MILS	10'-2"	13'-6"	14'-7"	19'-0"	--
27 MILS	9'-10"	--	--	--	--
18 MILS	--	--	--	--	--

NOTE:
1. THIS CHART SHALL BE USED UNLESS STUD SIZE, GAUGE, AND SPACING ARE OTHERWISE NOTED BY ARCHITECTURAL OR STRUCTURAL. THE MOST RESTRICTIVE SPECIFICATION SHALL GOVERN.
2. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL STRUCTURAL STUD INFORMATION.

- COLD-FORMED STEEL SPECIFICATION IS IN ACCORDANCE WITH AISI S100.
- COLD-FORMED STEEL FRAMING OF NONSTRUCTURAL MEMBERS IS IN ACCORDANCE WITH AISI S220.
- TABLE VALUES PER STUD HEIGHT LIMITS WITH 5 PSF LOAD PER 2023 CBC

MEMBER DEPTH:	MEMBER TYPE:	FLANGE WIDTH:	THICKNESS:	
250 = 2 1/2"	S = STUD OR JOIST	137 = 1 3/8"	MILS	GAGE
350 = 3 1/2"	T = STRUCTURAL TRACK	125 = 1 1/4"	18	25
362 = 3 5/8"	F = FURRING CHANNEL	162 = 1 5/8"	27	22
400 = 4"	U = U-CHANNEL	200 = 2"	30	20 (INT)
600 = 6"		250 = 2 1/2"	33	20
800 = 8"		300 = 3"	43	18
			54	16
			68	14

MANUFACTURER	TYPE	ICC NUMBER
HILTI	KWIK-FLEX	ICC-ESR #2196
HILTI	X-U	ICC-ESR #2269
HILTI	DS	ICC-ESR #1663
SCREW PRODUCTS INC	CCTX	ICC-ESR #3654

NOTE:
ALTERNATE FASTENERS MUST MEET THE MINIMUM REQUIREMENTS OF THE SPECIFIED ICC NUMBERS

BRACE FRAMING SCHEDULE:

STUD SIZE	WALL BRACING SPACING	MAX HEIGHT	MIN TRACK SIZE	MIN BRACE SIZE	MIN BRACE SIZE
250S	5'-6"	10'-0"	250T125-30	362T125-43	(3) #10 SMS
	4'-0"	16'-0"	250T125-30	362T125-33	(2) #10 SMS
362S	6'-6"	10'-0"	362T125-30	362T125-43	(3) #10 SMS
	5'-5"	16'-0"	362T125-33	362T125-43	(3) #10 SMS
400S	7'-0"	10'-0"	400T125-30	362T125-33	(2) #10 SMS
	7'-0"	16'-0"	400T250-43	362T125-43	(3) #10 SMS
600S	6'-6"	10'-0"	600T125-30	362T125-43	(3) #10 SMS
	8'-0"	20'-0"	600T125-43	362T125-43	(4) #10 SMS
800S	10'-0"	10'-0"	800T125-43	362T125-43	(3) #10 SMS
	8'-6"	20'-0"	800T125-43	362T125-54	(5) #10 SMS

WALL OPENING FRAMING SCHEDULE:

WINDOW WIDTH	SILL TRACK SIZE	HEADER TRACK SIZE	HEADER STUD SIZE	MIN JAMB SIZE		
				SINGLE STUD	WELDED STUD	BUILT-UP
4'-0"	T125-27	T200-68	-	S250-54	(2) S137-33	S125-33 & T125-33
4'-0" TO 8'-0"	T125-27	T125-33	400S162-43	S300-54	(2) S137-43	S137-43 & T125-43
8'-0" TO 12'-0"	T125-43	T125-43	600S162-43	S300-97	(2) S137-54	S137-54 & T125-54

MATCH WALL STUD DEPTH WHERE NOT INDICATED

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

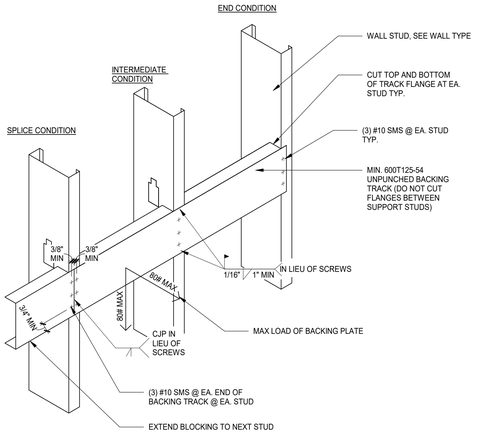
Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

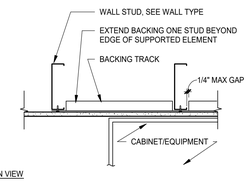
Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE
MAMMOTH, CALIFORNIA

Drawing Title
TYPICAL NON-BEARING FRAMING DETAILS

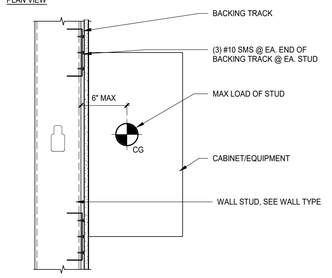
Scale: As indicated
Project No.: IN2024-0022
Drawing No.: **G04-01**



ISOMETRIC VIEW

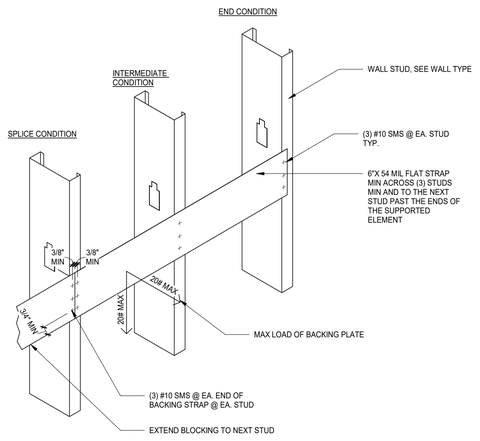


PLAN VIEW

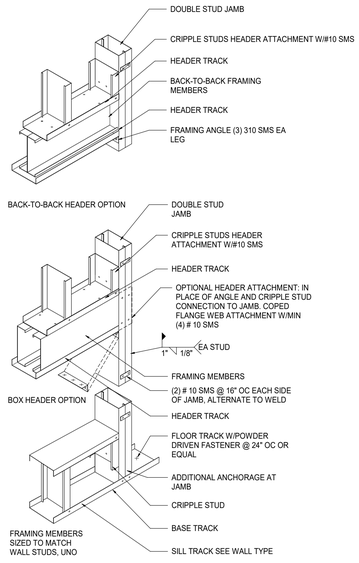


SECTION VIEW

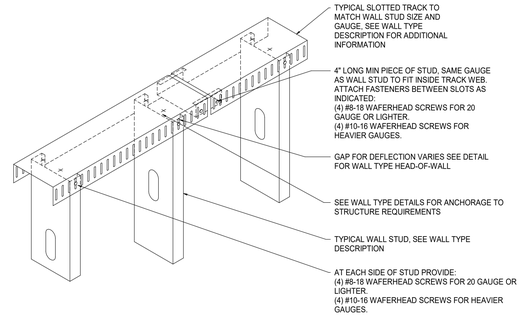
14 / G04-02 BACKING PLATE
SCALE: 1 1/2" = 1'-0"



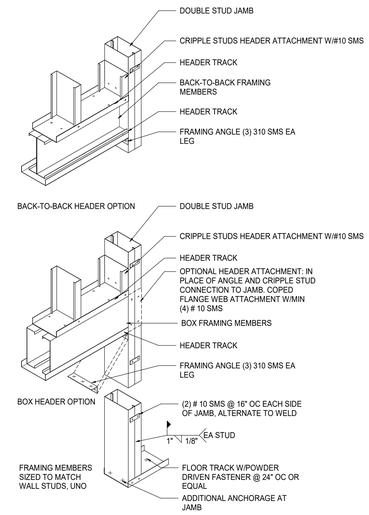
9 / G04-02 BACKING PLATE - LIGHT WEIGHT
SCALE: 1 1/2" = 1'-0"



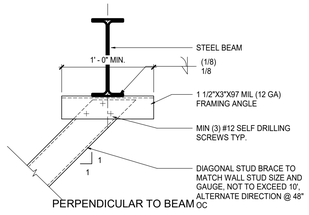
11 / G04-02 TYPICAL WINDOW OPENING FRAMING OVER 4'
SCALE: 1 1/2" = 1'-0"

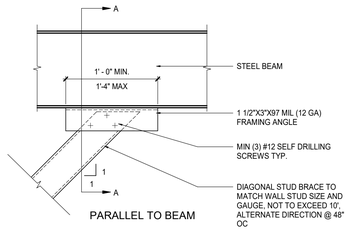


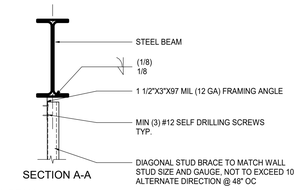
5 / G04-02 TYPICAL WALL SLIP TRACK
SCALE: 3/4" = 1'-0"



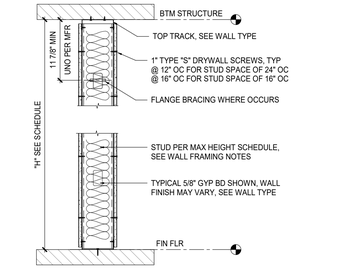
7 / G04-02 TYPICAL DOOR OPENING FRAMING
SCALE: 1 1/2" = 1'-0"



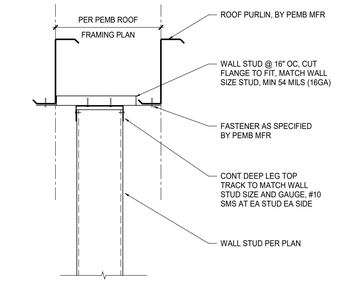




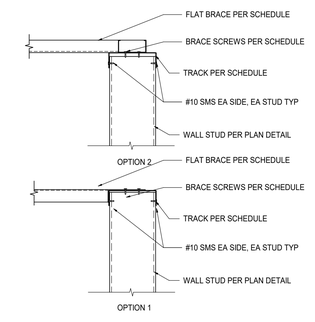
8 / G04-02 KICKER TO STEEL BEAM
SCALE: 1 1/2" = 1'-0"



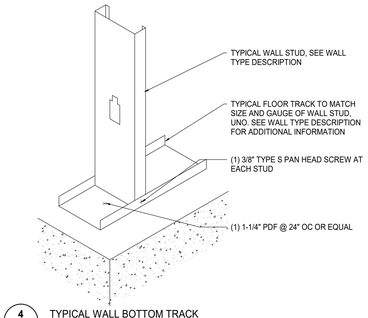
1 / G04-02 NON-BEARING STUD WALL FRAMING
SCALE: 1" = 1'-0"



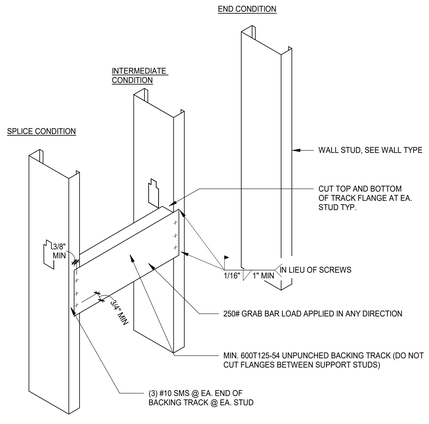
2 / G04-02 TYPICAL DEFLECTION TRACK
SCALE: 1 1/2" = 1'-0"



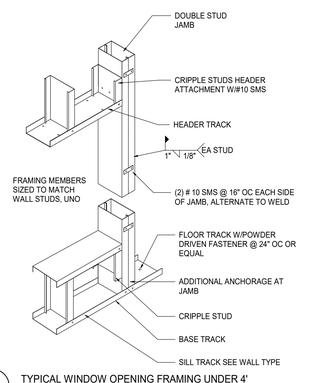
3 / G04-02 TOP OF WALL BRACING
SCALE: 1 1/2" = 1'-0"



4 / G04-02 TYPICAL WALL BOTTOM TRACK
SCALE: 1" = 1'-0"



16 / G04-02 BACKING PLATE - GRAB BAR
SCALE: 1 1/2" = 1'-0"



12 / G04-02 TYPICAL WINDOW OPENING FRAMING UNDER 4'
SCALE: 1 1/2" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

MAMMOTH, CALIFORNIA

Drawing Title
TYPICAL FRAMING DETAILS

Scale	As indicated
Project No.	IN2024-0022
Drawing No.	G04-02

E D C B A

GENERAL NOTES:

1. CONSTRUCTION OF THIS PROJECT SHALL BE IN ACCORDANCE WITH THE CONTRACT AGREEMENT, THESE PLANS, TECHNICAL SPECIFICATIONS, SPECIAL PROVISIONS, INFORMATION FOR BIDDERS, AND ALL APPLICABLE FAA STANDARDS, MUNICIPAL STANDARDS, AND OTHER REFERENCED DOCUMENTS. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL SAFETY AND ENVIRONMENTAL REGULATIONS. THE PROJECT IS SUBJECT TO INSPECTION OF THE OWNER AND THE RESIDENT PROJECT REPRESENTATIVE DESIGNATED BY THE OWNER, THE FEDERAL AVIATION ADMINISTRATION, AND ANY OTHER GOVERNING AGENCIES.

2. THIS PROJECT FOLLOWS AFTER THE MULTIPURPOSE BUILDING SITE WORK PHASE 1 - RECONSTRUCT AND EXTEND SERVICE ROAD, RELOCATE TAXIWAY A3. THIS PROJECT MAY BE ISSUED FOR BID BEFORE THE COMPLETION OF PHASE 1. PHASE 1 IMPROVEMENTS ARE DEPICTED SEPARATELY FROM EXISTING FEATURES ON THESE PLANS.

3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY STATE AND LOCAL PERMITS PRIOR TO CONSTRUCTION OF THIS PROJECT.

4. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING A MINIMUM OF 72 HOURS IN ADVANCE TO OBTAIN CLEARANCE FOR WORK.

5. THE CONTRACTOR'S SUPERINTENDENT SHALL BE ON THE CONSTRUCTION SITE AT ALL TIMES DURING WORKING HOURS WHILE THIS PROJECT IS IN PROGRESS. SUPERINTENDENT SHALL BE CONTRACTOR'S DESIGNATED RESPONSIBLE REPRESENTATIVE AND SHALL BE AVAILABLE IN CASE OF EMERGENCIES ON A 24-HOUR DAILY BASIS.

6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CLEANLINESS, SAFETY, AND SECURITY OF THE WORK, STAGING AND STORAGE AREAS AT ALL TIMES.

7. THESE PLANS SHOW ITEMS TO BE CONSTRUCTED UNDER THIS CONTRACT AND EXISTING FIELD CONDITIONS AT THE TIME THESE PLANS WERE PREPARED. THE EXISTING INFORMATION SHOWN ON THESE PLANS IS FROM THE BEST SOURCES AVAILABLE AT THE TIME OF COMPILATION. ACTUAL FIELD CONDITIONS, GRADES, LOCATIONS AND OTHER FEATURES MAY DIFFER FROM CONDITIONS INDICATED ON THESE DOCUMENTS. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO SATISFY HIMSELF THAT THE INFORMATION IS STILL CURRENT AT THE TIME OF CONSTRUCTION NOTICE TO PROCEED. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER OF ANY DISCREPANCIES OR CHANGES ENCOUNTERED.

8. ELECTRONIC FILES OF THESE PLANS MAY BE PROVIDED BY THE ENGINEER AS A CONVENIENCE TO THE CONTRACTOR. IF THERE ARE ANY DISCREPANCIES BETWEEN THE PLANS AND THE ELECTRONIC FILES, THE PLANS SHALL GOVERN. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES ARE ENCOUNTERED. EXISTING GRADES SHOWN ARE LIMITED BY THE ACCURACY OF SURVEYING METHODS AND INTERPOLATION BETWEEN SURVEY POINTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT THE PROJECT TO THE PRINTED PLANS AND SPECIFICATIONS AND IN ACCORDANCE WITH SOUND CONSTRUCTION PRACTICES.

9. THE LOCATION OF EXISTING UNDERGROUND UTILITIES, SERVICE LATERALS AND CONDUIT ("UTILITIES") IS BASED ON THE BEST AVAILABLE INFORMATION TO THE ENGINEER AND SHALL BE ASSUMED AS APPROXIMATE AND REQUIRING FIELD VERIFICATION. CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AND AVOIDING ALL UTILITIES AND FOR REPAIRING ALL DAMAGE THAT OCCURS TO DUE TO THE CONTRACTOR'S ACTIVITIES. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT PRIOR TO CONSTRUCTION, AND SHALL POTHOLE TO VERIFY LOCATION, DEPTH, AND SIZE OF UTILITIES WITHIN THE LIMITS OF CONSTRUCTION. NO EXTRA PAYMENT FOR POTHOLING.

10. EXERCISE EXTREME CARE WHEN USING ANY EQUIPMENT TO PREVENT CONTACT WITH ANY NEARBY POWER LINES AND POWER SOURCES. SAFE WORKING CLEARANCES SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

11. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND RPR ON THE PRECISE LOCATION AND LIMITS OF THE CONTRACTOR'S STAGING AND STORAGE AREA, AS WELL AS ANY SPECIAL REQUIREMENTS FOR FENCING, SECURITY OR ACCESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL UTILITIES AND HOOK-UPS NECESSARY FOR THE CONTRACTOR'S USE AND FOR ALL PROJECT FIELD OFFICES AS REQUIRED IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL USE THE STAGING AND STORAGE AREA FOR SHOP, MATERIAL AND EQUIPMENT STORAGE, AND OTHER PROJECT-RELATED ACTIVITIES INCLUDING EMPLOYEE PARKING. ALL COSTS ASSOCIATED WITH PREPARATION AND CLEANUP OF THE STAGING AREA SHALL BE BORNE BY THE CONTRACTOR.

12. ANY AND ALL REQUIRED UTILITIES FOR THE CONTRACTOR'S OPERATIONS SHALL BE ARRANGED FOR AND PAID FOR BY THE CONTRACTOR AND PAID DIRECTLY TO THE APPROPRIATE UTILITY. UTILITY ARRANGEMENTS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER AND RPR.

13. THE CONTRACTOR SHALL NOT ENTER ONTO ANY AREA OUTSIDE OF THE CONSTRUCTION LIMITS, STAGING AREA, OR DESIGNATED HAUL ROUTES WITHOUT APPROVAL OF THE OWNER AND RPR.

14. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE TRAFFIC REGULATIONS CONCERNING THE USE OF STREETS AND ROADWAYS FOR HAULING. ANY DAMAGE DONE TO THE ROADWAYS DUE TO THE CONTRACTOR'S EQUIPMENT OR HAULING OPERATIONS SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT NO COST TO THE OWNER.

15. NO MATERIAL SHALL BE WASTED OR STOCKPILED ON THE AIRPORT UNLESS APPROVED BY THE OWNER AND RPR. STOCKPILED MATERIAL SHALL MEET SWPPP REQUIREMENTS AND SHALL BE CONSTRAINED IN A MANNER TO PREVENT MOVEMENT AS A RESULT OF AIRCRAFT OPERATIONS OR WIND AND IN ACCORDANCE WITH FAA ADVISORY CIRCULARS.

16. THE CONTRACTOR SHALL INVESTIGATE THE AVAILABILITY OF AN ADEQUATE SUPPLY OF SUITABLE WATER AND PROVIDE NECESSARY FACILITIES TO FURNISH WATER FOR USE DURING CONSTRUCTION, SOLELY AT HIS EXPENSE. CONTRACTOR SHALL NOT DRAW WATER FROM ANY FIRE HYDRANT FOR USE ON THE WORK WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE AIRPORT, CONTROLLING FIRE DEPARTMENT OR UTILITY.

17. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FIRE HYDRANTS AND BACKFLOW PREVENTERS AT ALL TIMES.

18. ANY WASTE, CONSTRUCTION DEBRIS, OR SOIL MUST BE DISPOSED OF PROPERLY. DISPOSAL OF MATERIAL OFF-SITE SHALL BE DONE IN A LAWFUL MANNER AND AT A SITE HAVING CURRENT APPROVAL TO ACCEPT SOLID WASTE. DISPOSAL SITE AND PROCEDURES MUST BE IDENTIFIED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER AND RPR FOR APPROVAL PRIOR TO USE.

19. CONTRACTOR SHALL HAVE SPILL KITS AVAILABLE IN WORK AREAS AND SHALL CONTAIN ALL SPILLS IMMEDIATELY AND SHALL NOTIFY RPR. AT ANY SIGN OF CONTAMINATED SOIL, THE CONTRACTOR SHALL NOTIFY RPR AND OWNER FOR ASSESSMENT OF APPROPRIATE REMEDIATION.

20. ANY SOLVENT USED TO CLEAN TOOLS, EQUIPMENT, OR SPILLS MAY BE CONSIDERED A HAZARDOUS WASTE AND MUST BE PROPERLY MANAGED. NO SOLVENTS, CLEANING BY-PRODUCTS, WASTE, REFUSE, OR LEFTOVER PAINT MAY BE DISPOSED OF OR DISCHARGED INTO STORM DRAINS, DRYWELLS, OR ANY GROUND SURFACE, OR OTHERWISE BE PERMITTED TO REMAIN ON AIRPORT PROPERTY. ALL SUCH MATERIAL SHALL BE REMOVED OFF-SITE BY CONTRACTOR IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS.

21. THE CONTRACTOR SHALL CONDUCT THE FINAL CLEANING OF AFFECTED AIRPORT PAVEMENTS PRIOR TO REOPENING THE PAVEMENTS TO AIR TRAFFIC. CONTRACTOR TO PROTECT ALL EXISTING UTILITY VAULTS AND LIDS DURING CONSTRUCTION. CONTRACTOR SHALL ENSURE THAT ALL VAULT LIDS ARE OPERATIONAL FOLLOWING COMPLETION OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTINUOUS DAILY CLEAN-UP OF THE WORK AREA. NO WIRE OR METAL BRISTLES ARE ALLOWED.

22. AT THE CONCLUSION OF ALL WORK, CONTRACTOR SHALL SEED CONTRACTOR'S STORAGE, STAGING AND TEMPORARY STOCKPILE AREA AND ALL DISTURBED GRADING OR EMBANKMENT AREAS. LIMITS OF SEEDING SHALL BE VERIFIED BY RESIDENT ENGINEER. HYDROSEEDING SHALL BE A REQUIRED BMP TO BE INCLUDED IN THE SWPPP. NO ADDITIONAL PAYMENT FOR SURFACE PREPARATION OR SEEDING OF DISTURBED AREAS SHALL BE MADE, COST SHALL BE INCLUDED IN THE COST OF PREPARING AND IMPLEMENTING THE SWPPP. SEED MIX MUST MATCH LOCAL GRASSES, COMPLY WITH LOCAL REQUIREMENTS, AND BE SUITABLE FOR USE ON AIRPORTS. SEED MIX, MULCH, FERTILIZER, AND APPLICATION RATES SHALL BE APPROVED BY OWNER PRIOR TO USE. HYDROSEEDING MUST PRODUCE ADEQUATE GROWTH TO SATISFY THE STATE WATER BOARD SUCH THAT THE SWPPP CAN BE CLOSED OUT AFTER THE PROJECT IS COMPLETE.

23. THE CONTRACTOR SHALL COMPLETE CLEANUP AND RESTORATION OF THE ENTIRE PROJECT AREA, INCLUDING STAGING AND STORAGE AREAS AND BATCH PLANTS PRIOR TO PROJECT FINAL ACCEPTANCE.

ABBREVIATIONS:

AB	AGGREGATE BASE	LT	LEFT
ABND	ABANDONED	MAX	MAXIMUM
AC	ASPHALT CONCRETE	MH	MANHOLE
ALT	ALTERNATE	MIN	MINIMUM
APPROX	APPROXIMATE	MON	MONUMENT
ASB	AGGREGATE SUBBASE	N	NORTH
ATCT	AIR TRAFFIC CONTROL TOWER	NE	NORTHEAST
AWG	AMERICAN WIRE GAUGE	NIC	NOT IN CONTRACT
BNDY	BOUNDARY	No., #	NUMBER
BLD	BUILDING	NOTAM	NOTICE TO AIR MISSIONS
BM	BENCH MARK	NTS	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	NW	NORTHWEST
BVCE	BEGIN VERTICAL CURVE ELEVATION	OC	ON CENTER
BVCS	BEGIN VERTICAL CURVE STATION	OD	OUTSIDE DIAMETER
CBR	CALIFORNIA BEARING RATIO	PAPI	PRECISION APPROACH PATH INDICATOR
CL OR ℄	CENTERLINE	PB	PULL BOX
COMM	COMMUNICATION	PC	POINT OF CURVATURE
COORD	COORDINATE	PCC	PORTLAND CEMENT CONCRETE
CTAF	COMMON TRAFFIC ADVISORY FREQUENCY	PI	POINT OF INTERSECTION
CTPB	CEMENT TREATED PERVIOUS BASE	PL	PROPERTY LINE
CSPP	CONSTRUCTION SAFETY & PHASING PLAN	PT	POINT OF TANGENCY
CU YD OR CY	CUBIC YARD	PVI	POINT OF VERTICAL INTERSECTION
DIA	DIAMETER	PWR	POWER
DI	DROP INLET	R	RADIUS
DIP	DUCTILE IRON PIPE	RCP	REINFORCED CONCRETE PIPE
E	EAST	RPR	RESIDENT PROJECT REPRENTATIVE
EA	EACH	RT	RIGHT
EG	EXISTING GRADE (OR GROUND)	RW	RUNWAY
EVC	END VERTICAL CURVE	S	SOUTH, OR SLOPE
EVCE	END VERTICAL CURVE ELEVATION	SCH	SCHEDULE
EVCS	END VERTICAL CURVE STATION	SD	STORM DRAIN
EX, EXIST	EXISTING	SDR	STANDARD DIMENSION RATIO
EXC	EXCAVATION	SE	SOUTHEAST
FAA	FEDERAL AVIATION ADMINISTRATION	SPEC	SPECIFICATIONS
FBO	FIXED BASED OPERATOR	SS	SANITARY SEWER
FG	FINISHED GRADE (OR GROUND)	STA	STATION
FL	FLOW LINE	SQ.YD, SY	SQUARE YARD
FT	FEET	SW	SOUTHWEST
GAL	GALLON	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
GALV	GALVANIZED	TD	TOP OF DUCT
GB	GRADE BREAK	T/L	TAXILANE
GND	GROUND	T/W	TAXIWAY
HGR	HANGAR	TYP	TYPICAL
HH	HANDHOLE	UG	UNDERGROUND
HORZ	HORIZONTAL	VAR	VARIES (OR VARIABLE)
HP	HIGH POINT	VC	VERTICAL CURVE
ID	INSIDE DIAMETER	VOL	VOLUME
INV	INVERT	W/	WITH
kV	KILOVOLT	W	WEST, OR WIDTH, OR WATER
kVA	KILOVOLT AMPERE	WM	WATER METER
L	LENGTH	WV	WATER VALVE
LF	LINEAR FEET		

LEGEND

N9738.46
E13727.35 AIRPORT GRID COORDINATE

EXISTING BUILDING

NEW BUILDING

EXISTING PAVEMENT

NEW ROAD, PARKING, & APRON PAVEMENT

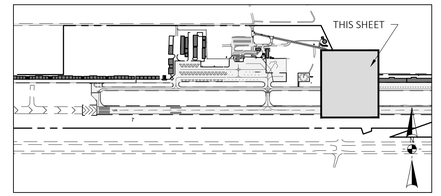
PROPERTY LINE

EX CHAIN LINK FENCE

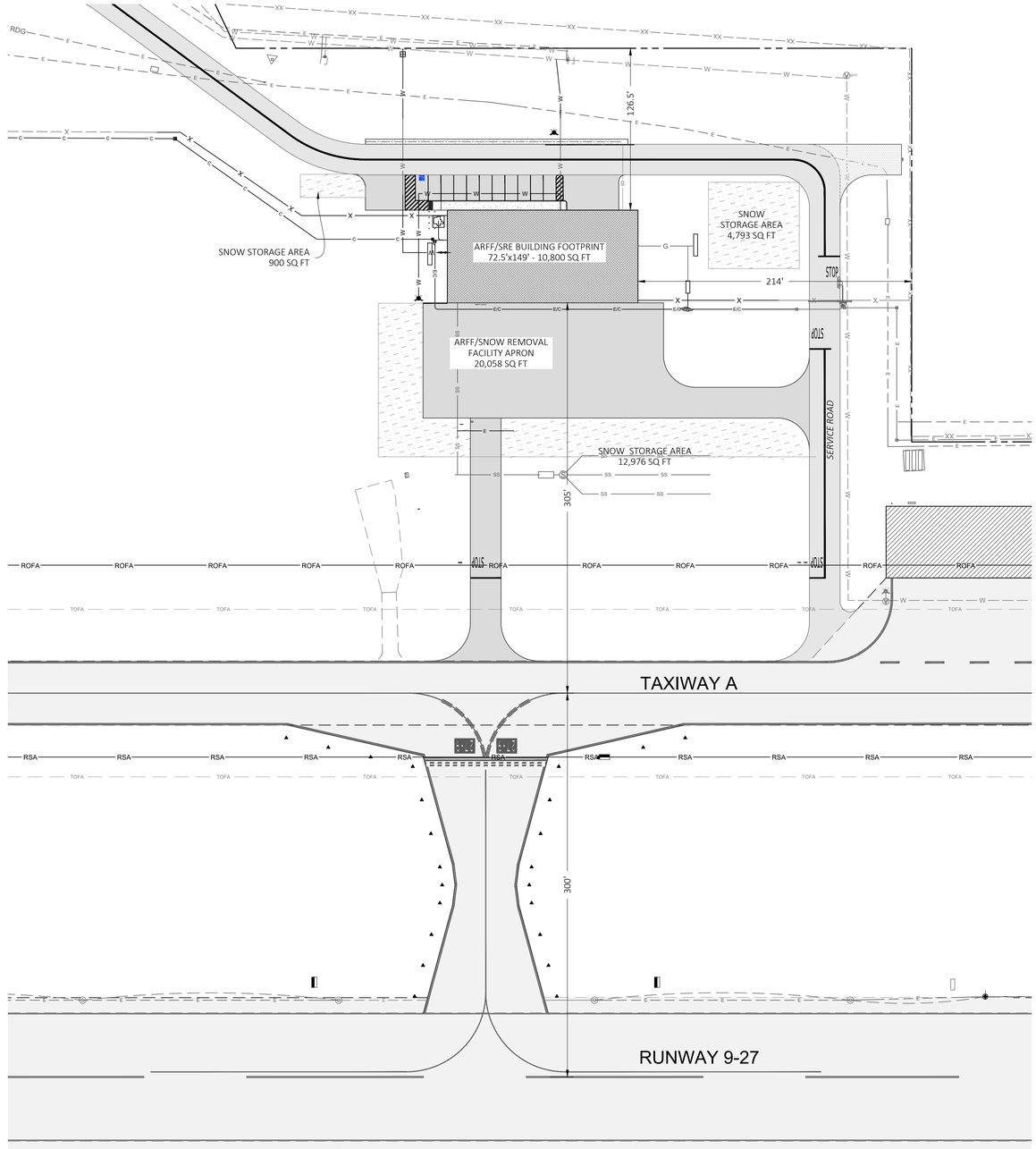
EX BARBED WIRE FENCE

NEW CHAIN LINK FENCE

LIMITS OF CONSTRUCTION



LOCATION MAP



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ENGINEER OF RECORD

DRAFT
95% REVIEW

No.	REVISIONS	BY	APR	DATE

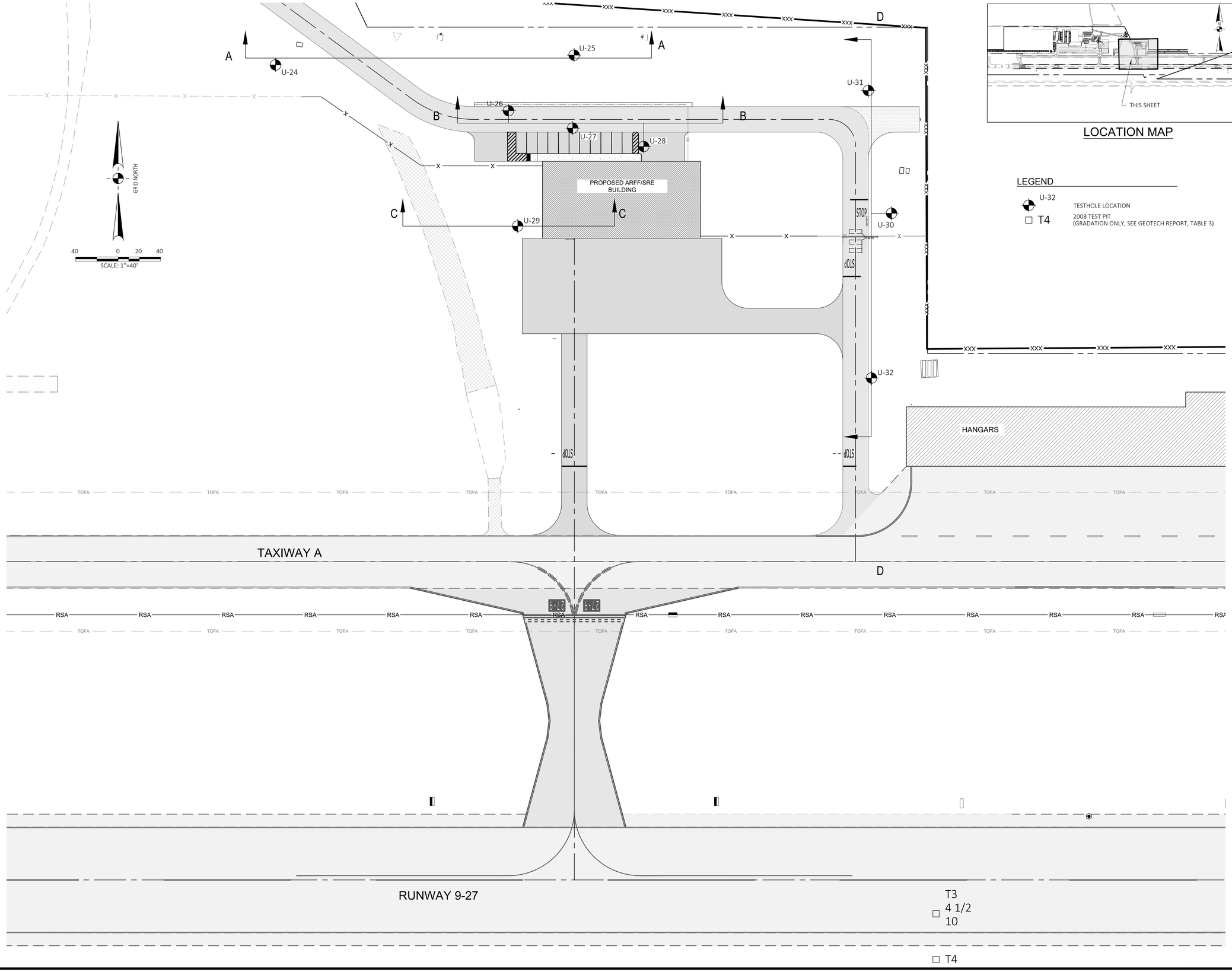
MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

MULTIPURPOSE ARFF/SRE BUILDING

CIVIL SITE PLAN & GENERAL NOTES

DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0101.Site
SCALE	1"=50'

SHEET No.
C01-01



LOCATION MAP

LEGEND

U-32 TESTHOLE LOCATION

T4 2008 TEST PIT (GRADATION ONLY, SEE GEOTECH REPORT, TABLE 3)

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ENGINEER OF RECORD

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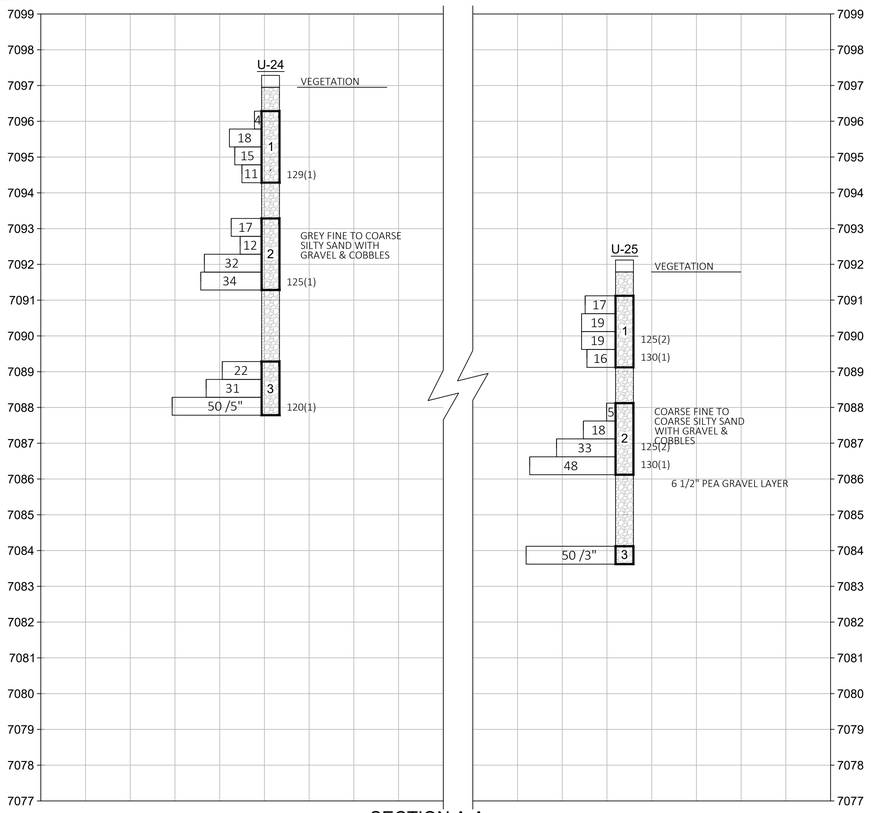
No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

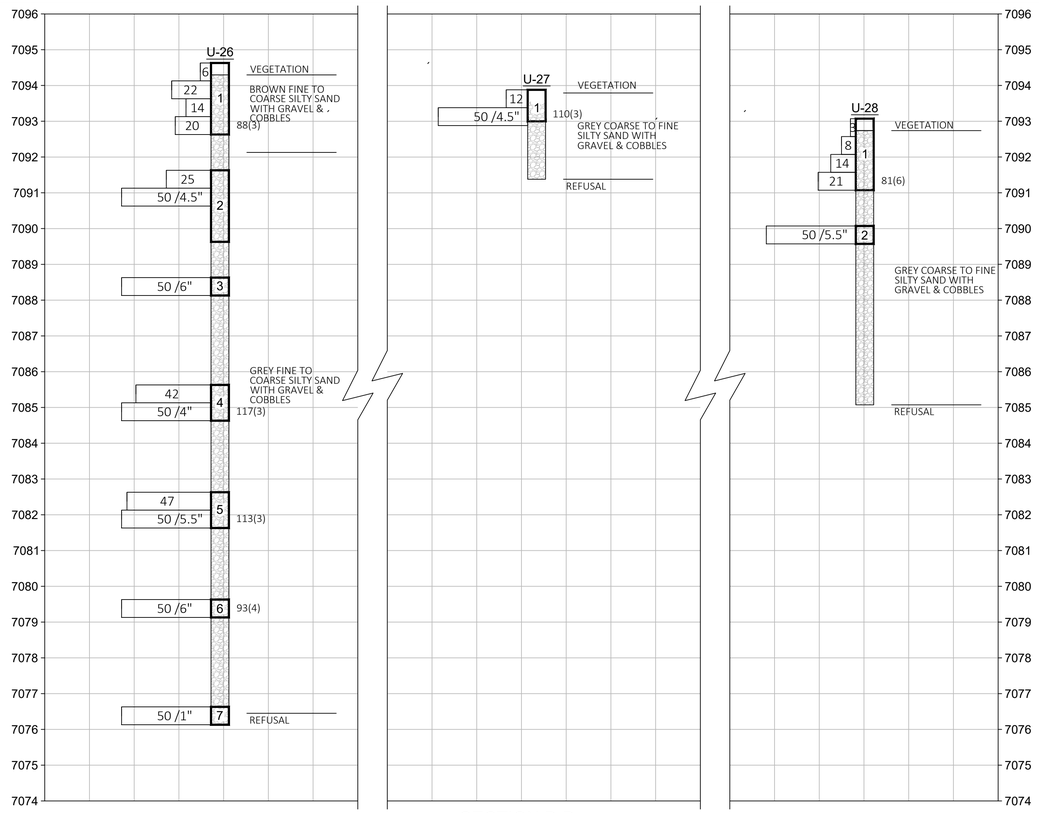
MULTIPURPOSE ARFF/SRE BUILDING

TESTHOLE LOCATION PLAN

DATE	3/28/2025
DRAWN	TS
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0103.Soils
SCALE	1"=40'
SHEET No.	C01-02



SECTION A-A



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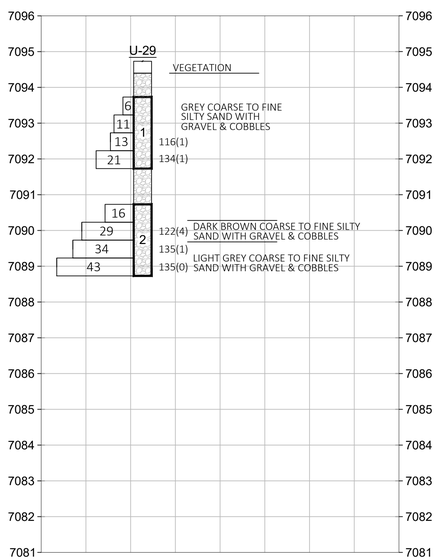

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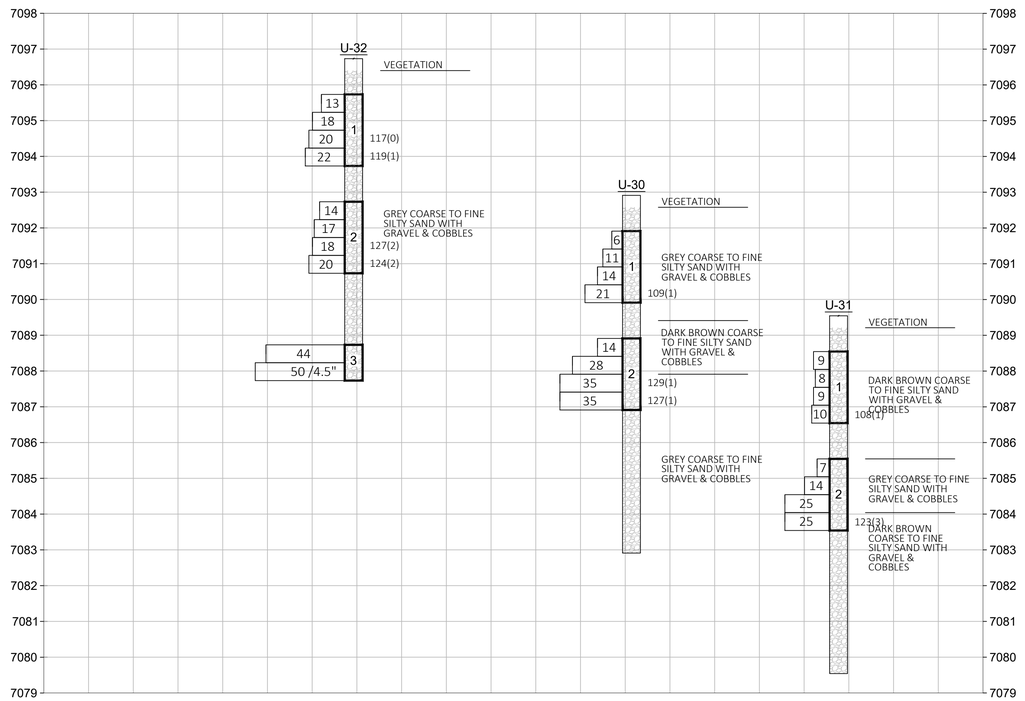
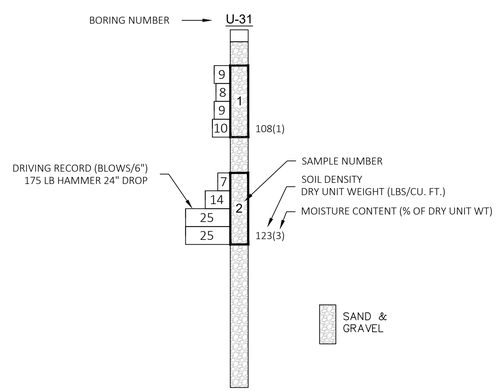


SECTION D-D

BORING LEGEND



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ENGINEER OF RECORD

DRAFT
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No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

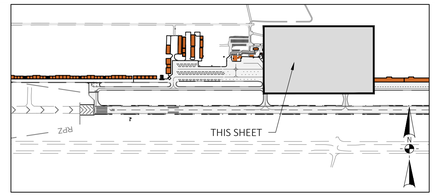
MULTIPURPOSE ARFF/SRE BUILDING

TESTHOLE BORING LOGS

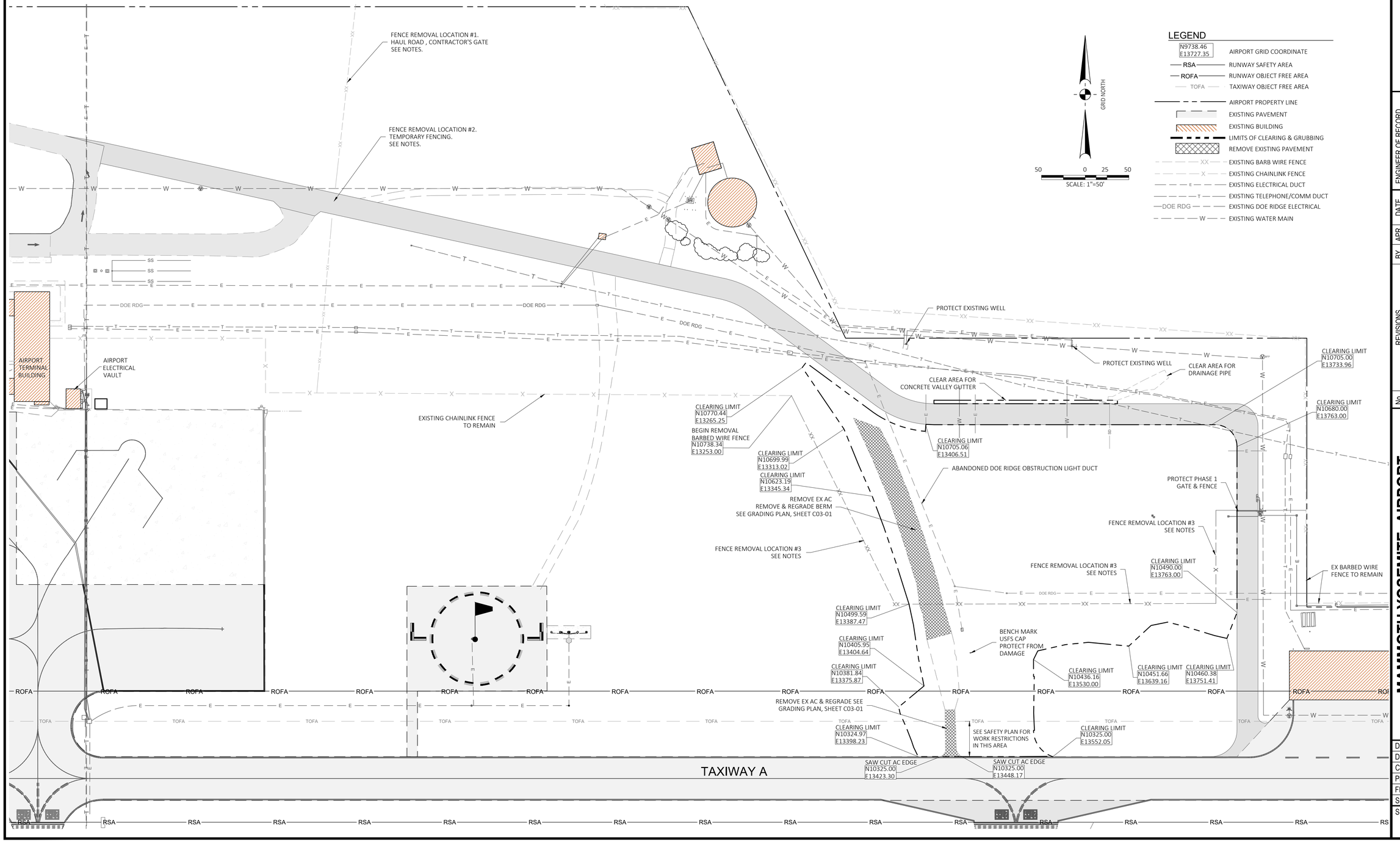
DATE	3/28/2025
DRAWN	TS
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0103.Soils
SCALE	NO SCALE
SHEET No.	C01-03

DEMOLITION NOTES:

1. REMOVED ASPHALT AND UNDERLYING PAVEMENT SECTION MATERIALS MAY BE REUSED AS EMBANKMENT. ANY MATERIALS REUSED AS FILL SHALL MEET THE GRADATION AND COMPACTION REQUIREMENTS OF P-101.
2. SAW CUT EXISTING AC PAVEMENT PRIOR TO PRIME COAT OF AGGREGATE BASE COURSE.
3. CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS AND BENCH MARKS FROM DAMAGE.
4. CONTRACTOR SHALL VERIFY LOCATION AND PROTECT ALL EXISTING UTILITIES. SHOULD CONTRACTOR ENCOUNTER AND DAMAGE A WATERLINE ON THE AIRPORT HE SHALL IMMEDIATELY NOTIFY THE LOCAL FIRE DEPARTMENT AND THE AIRPORT.
5. CONTRACTOR'S HAUL ROAD WILL REQUIRE THE REMOVAL OF THE EXISTING BARB WIRE FENCE AT LOCATION #1 AND INSTALLING A GATE . CONTRACTOR'S GATE SHALL REMAIN IN PLACE UNTIL THE END OF THE PROJECT. EXISTING FENCE SHALL BE RESTORED AT THE END OF THE PROJECT. SEE NOTE 9. NO EXTRA PAYMENT FOR FENCE REMOVAL OR RESTORATION.
6. CONTRACTOR WILL BE REQUIRED TO PROVIDE A FLAGGER OR TEMPORARY GATE AT LOCATION #2 TO PREVENT UNAUTHORIZED PERSONNEL AND WILDLIFE FROM ENTERING THE AIRPORT. CONTRACTOR WILL PLACE A TEMPORARY FENCING ACROSS LOCATION #2 AT THE END OF EACH WORKING DAY. TEMPORARY GATE OR FENCING SHALL BE INSTALLED PRIOR TO THE REMOVAL OF FENCE AT LOCATION #1. TEMPORARY GATE OR FENCING IN THIS LOCATION SHALL BE MAINTAINED UNTIL NEW FENCE LINE IS INSTALLED . TEMPORARY GATE AND FENCING SHALL BE REMOVED AT THE END OF THE PROJECT AFTER NEW FENCE IS INSTALLED AND NEW GATE IS OPERATIONAL. NO EXTRA PAYMENT FOR REMOVAL OF EXISTING FENCE OR TEMPORARY FENCE.
7. FENCE REMOVAL AT LOCATION #3 SHALL ONLY OCCUR WHEN TEMPORARY GATE, FENCING OR A FLAGGER IS STATIONED AT LOCATION #2. CONTRACTOR SHALL BACKFILL AND COMPACT ALL POST HOLES CREATED BY FENCE REMOVAL. CONTRACTOR SHALL USE MATERIAL FOR BACKFILL FROM NEW FENCE POST HOLE EXCAVATION OR AN APPROVED BORROW SITE.
8. REMOVAL OF EXISTING FENCE AS SHOWN ON THE PLAN SHALL BE INCIDENTAL TO THE NEW FENCE BID ITEMS. NO SEPARATE PAYMENT FOR REMOVAL OF FENCING, GATES OR FENCE EQUIPMENT. ALL DISPOSAL OF EXISTING FENCE AND DEBRIS SHALL BE OFF AIRPORT PROPERTY UNLESS OTHERWISE NOTED.
9. ALL GATES USED BY THE CONTRACTOR SHALL REMAIN CLOSED AT ALL TIMES EXCEPT WHEN AUTHORIZED EQUIPMENT IS ACTUALLY ENTERING THE AIRPORT. DURING CONTINUOUS USE OF A GATE FOR DELIVERY OF EQUIPMENT OR MATERIALS, CONTRACTOR SHALL REQUEST THAT THE AIRPORT PLACE THE GATE IN A LOCKED OPEN STATE; CONTRACTOR SHALL PROVIDE A FLAGGER, TRAINED BY THE AIRPORT AND PLACE THE FLAGGER AT THE OPEN GATE TO KEEP UNAUTHORIZED PERSONNEL AND WILDLIFE FROM ENTERING THE AIRPORT.
10. EXISTING DOE RIDGE OBSTRUCTION LIGHTS POWER DUCT AND CABLE TO BE ABANDONED IN PLACE.



LOCATION MAP



LEGEND

N9738.46 E13727.35	AIRPORT GRID COORDINATE
RSA	RUNWAY SAFETY AREA
ROFA	RUNWAY OBJECT FREE AREA
TOFA	TAXIWAY OBJECT FREE AREA
	AIRPORT PROPERTY LINE
	EXISTING PAVEMENT
	EXISTING BUILDING
	LIMITS OF CLEARING & GRUBBING
	REMOVE EXISTING PAVEMENT
XX	EXISTING BARB WIRE FENCE
X	EXISTING CHAINLINK FENCE
E	EXISTING ELECTRICAL DUCT
T	EXISTING TELEPHONE/COMM DUCT
DOE RDG	EXISTING DOE RIDGE ELECTRICAL
W	EXISTING WATER MAIN

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ENGINEER OF RECORD

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No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

MULTIPURPOSE ARFF/SRE BUILDING

DEMOLITION PLAN

DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7521.C0201.Demo
SCALE	1"=50'
SHEET No.	C02-01

PLOTTED BY Kevin Currey 3/30/2025 4:34 PM
G:\75 MAMMOTH\21-22 ARFF BLD\21-2 BLD SITE\7521.C0201.DEMO.DWG

SERVICE RD

GRID NORTH

20 0 10 20

SCALE: 1"=20'

LEGEND

N9738.46 E13727.35	AIRPORT GRID COORDINATE
7110.00	FINISHED GRADE ELEVATION
7110.00	EXISTING GRADE ELEVATION
	EXISTING PAVEMENT
	PHASE 1 PAVEMENT
	NEW PAVEMENT
7096	EXISTING GRADE CONTOUR
7096	PHASE 1 FG CONTOUR
7096	FINISHED GRADE CONTOUR
	MATCH EXISTING GRADE
	GRADE BREAK
12" SD	STORM DRAIN
	DROP INLET/ OIL WATER SEPARATOR
XX	EXISTING BARBED WIRE FENCE
X	EXISTING FENCE
E	EX ELECTRICAL DUCT
E	NEW ELECTRICAL DUCT
T	EX TELEPHONE/COMM DUCT
C	NEW FIBER DUCT
W	EXISTING WATER MAIN
W	NEW WATER SERVICE (BLD CONTRACTOR)
G	NEW GAS LINE (BLD CONTRACTOR)
SS	NEW SEPTIC LINE (BLD CONTRACTOR)

MATCH EX N10775.73 E13269.15 7097.00

N10731.00 E13416.00 7097.38

E13447.00 7097.30

DI/OW M1 N10731.00 E13618.00 GRT: 7096.59 INV: 7089.80

12" SD

MATCH PH 1 EP N10705.00 E13690.21 7096.25

MATCH PH 1 EP N10705.00 E13738.00 7094.68

N10705.38 E13406.82 7097.81

7097.90

7097.90

AC/C

N10685.00 E13465.00 7098.30

R: 10.00'

24'

7097.59

7097.29

7096.71

MATCH EX TOP OF BANK = NEW FL

MATCH EX N10699.99 E13313.02 7096.40

7097.37

7098.67

N10680.00 E13763.00 7094.23

N10677.50 E13416.00 7097.50

E13447.00 7098.10

N10677.50 E13480.00 7099.00

E13573.50 7099.00

E13614.00 7099.00

N10677.50 E13680.00 7097.75

N10677.50 E13734.53 7092.56

N10677.50 E13375.00 7095.39

N10677.50 E13628.96 7099.00

ARFF/SRE BLD FOOTPRINT
PAD AND FOUNDATION BY BUILDING CONTRACTOR

N10605.00 E13461.00 7098.50

E13480.00 7099.00

E13629.00 7099.00

E13649.00 7098.60

N10605.00 E13733.50 7092.50

N10605.00 E13416.00 7096.56

N10595.00 E13480.00 7098.75

E13629.00 7098.75

N10564.00 E13680.00 7096.12

N10564.00 E13733.50 7092.50

MATCH PH1 EP N10564.00 E13763.00 7095.55

N10564.00 7097.80

N10564.00 E13629.00 7098.13

45'

80'

10'

7098

N10541.03 E13664.13 7097.06

E13738.00 7095.70

E13674.00 7096.80

MATCH EXISTING GROUND @ W TOE OF BERM GRADE FROM TOE TO NEW FLOWLINE

N10515.00 E13461.00 7097.15

E13510.00 7097.15

7097.15

0.0%

E13629.00 7097.15

E13649.00 7097.03

E13674.00 7097.02

E13738.00 7096.18

7094.86

7096.03

0.0%

7096.03

7095.38

N10495.00 E13406.00 7094.70

70' VC

20'

10'

N10485.00 E13416.00 7095.36

N10485.00 E13758.00 7096.38

MATCH PH1 EP N10490.00 E13763.00 7097.11

N10460.38 E13751.41 7096.71

N10445.00 7098.53

PROTECT EX BENCHMARK
10:1 TO SHEET GRADING:
N10443.84
E13457.71
7099.4

MATCH @ FL OF EX SWALE N10405.95 E13404.64 7098.53

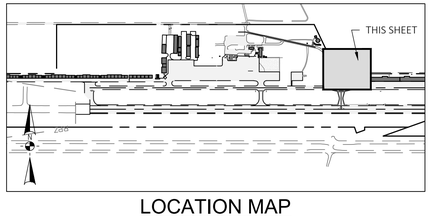
24'

MATCH EX N10325.00 E13510.00 7102.58

TAXIWAY A

NOTES:

1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES, SERVICE LATERALS AND CONDUIT ("UTILITIES") IS BASED ON THE BEST AVAILABLE INFORMATION TO THE ENGINEER AND SHALL BE ASSUMED AS APPROXIMATE AND REQUIRING FIELD VERIFICATION. CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AND AVOIDING ALL UTILITIES AND FOR REPAIRING ALL DAMAGE THAT OCCURS TO DUE TO THE CONTRACTOR'S ACTIVITIES. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT PRIOR TO CONSTRUCTION, AND SHALL POTHOLE TO VERIFY LOCATION, DEPTH, AND SIZE OF UTILITIES WITHIN THE LIMITS OF CONSTRUCTION.
2. BEFORE BEGINNING ANY EXCAVATION ALL WATERLINES AND UTILITY LINES SHALL BE POT HOLED AT 50 FT. CENTERS TO LOCATE DEPTH AND LOCATION OF LINES. NO SEPARATE PAYMENT SHALL BE MADE FOR POTHOLING. RESIDENT ENGINEER SHALL DETERMINE WHERE CONCRETE CAP OVER EXISTING UTILITY LINE IS NECESSARY. SEE CONCRETE CAP OVER EXISTING UTILITY DETAIL SHEET C03-02.
3. BUILDING SLAB TO BE 8" PCC. MIN 6" AGGREGATE BASE AND MINIMUM 6" AGGREGATE SUBBASE UNDER ALL PORTIONS OF SLAB. SEE DETAILED SLAB GRADES, SHEET A22-01.
4. SEE SHEET C02-01 FOR DEMOLITION PLAN.
5. SEE SHEET C03-02 FOR TYPICAL SECTIONS.
6. SEE SHEETS C01-02 TO C01-03 FOR TESTHOLE BORING PLANS.



LOCATION MAP

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ENGINEER OF RECORD

DRAFT
95% REVIEW

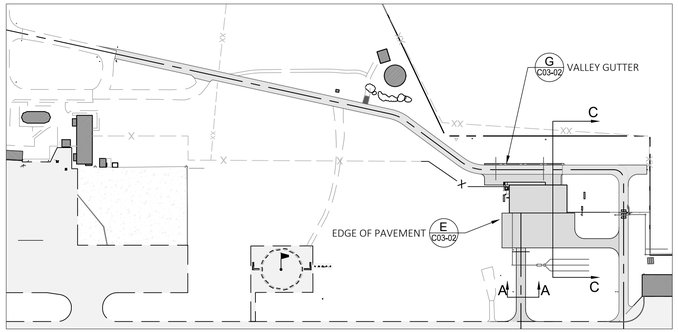
No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

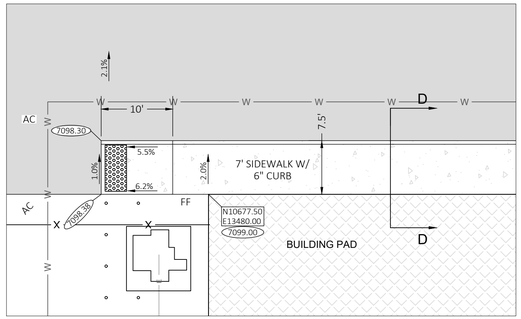
MULTIPURPOSE ARFF/SRE BUILDING

GRADING PLAN

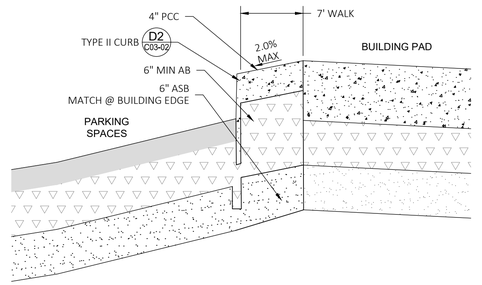
DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0301.GRAD
SCALE	1"=30'
SHEET No.	C03-01



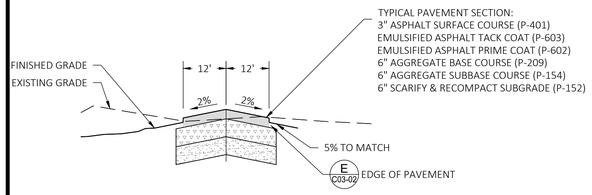
LOCATION MAP



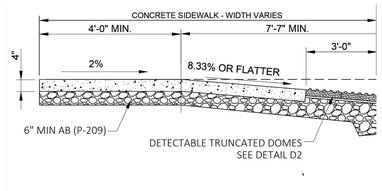
SIDEWALK PLAN VIEW



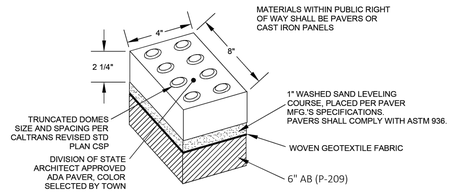
D-D SIDEWALK SECTION
NTS



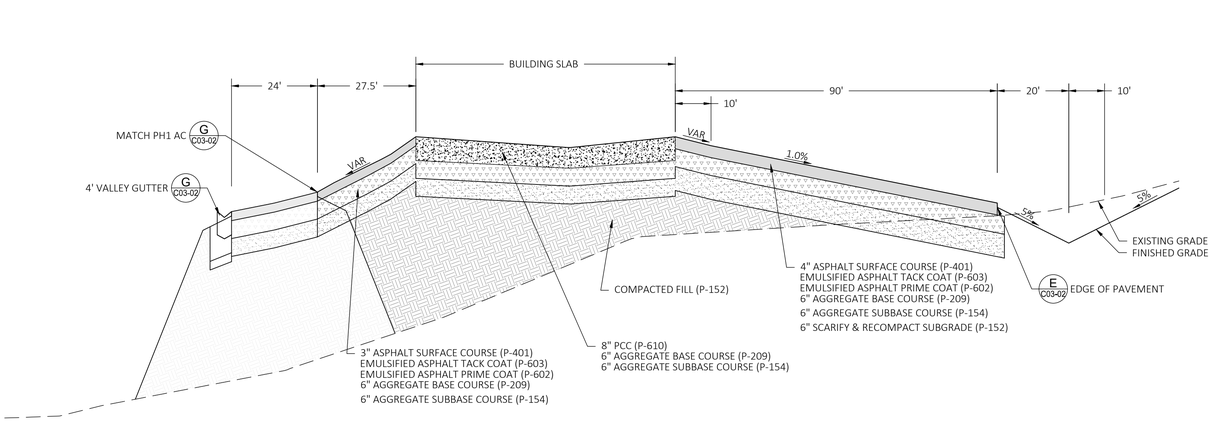
A-A ACCESS ROAD TYPICAL SECTION
NTS



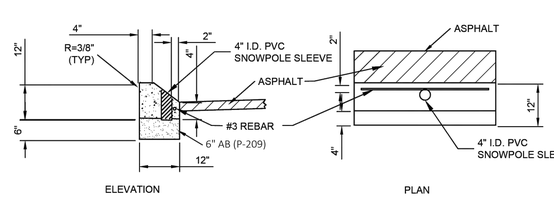
D1 PEDESTRIAN RAMP
NTS



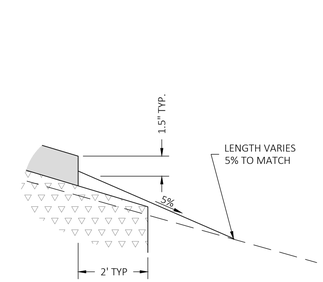
D2 DETECTABLE WARNING PAVER
NTS



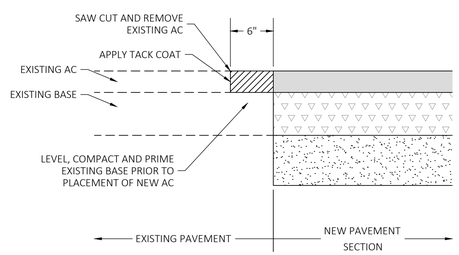
C-C BUILDING APRON & PARKING AREA
NTS



D3 TYPE II CURB
NTS

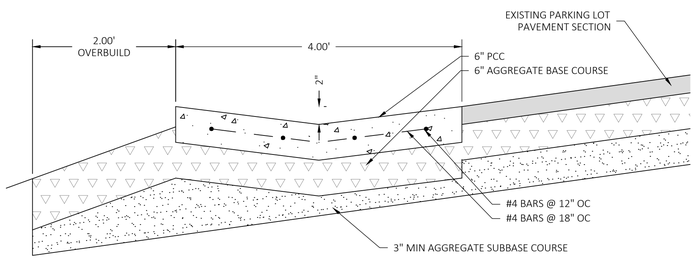


E EDGE OF NEW PAVEMENT
NTS

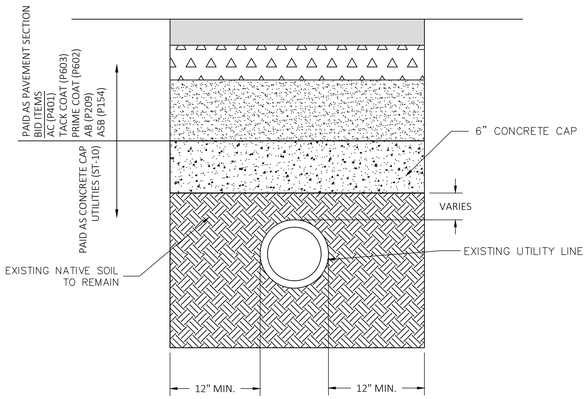


NOTES:
1. REMOVAL OF EXISTING AC SHALL NOT OCCUR UNTIL THE PLACEMENT OF NEW BASE COURSE HAS BEEN COMPLETED.
2. CONTRACTOR SHALL PROTECT SAW CUT FACE FROM DAMAGE. DAMAGED AREAS SHALL BE SAW CUT MAINTAINING A CONTINUOUS STRAIGHT EDGE AT THE CONTRACTOR'S EXPENSE.

F MATCH EXISTING AC
NTS



G VALLEY GUTTER
NTS



NOTES:

1. BEFORE BEGINNING ANY EXCAVATION ALL WATERLINES AND UTILITY LINES SHALL BE POT HOLED AT 50 FT. CENTERS TO LOCATE DEPTH AND LOCATION OF LINES. NO SEPARATE PAYMENT SHALL BE MADE FOR POTHOLING. RESIDENT ENGINEER SHALL DETERMINE WHERE CONCRETE CAP OVER EXISTING UTILITY LINE IS NECESSARY.
2. 6" SCARIFY AND RECOMPACT WILL BE DELETED IN AREAS WHERE NEW CONCRETE CAP IS PLACED.

CONCRETE CAP OVER EXISTING UTILITY
NOT TO SCALE

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ENGINEER OF RECORD

DRAFT
95% REVIEW

No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

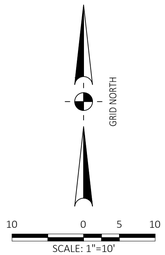
MULTIPURPOSE ARFF/SRE BUILDING

TYPICAL SECTIONS

DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0302.SECTN
SCALE	AS SHOWN
SHEET No.	C03-02

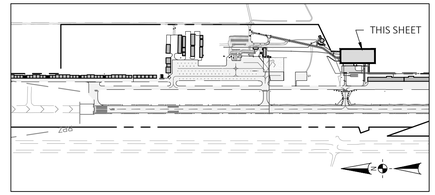
NOTES:

1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES, SERVICE LATERALS AND CONDUIT ("UTILITIES") IS BASED ON THE BEST AVAILABLE INFORMATION TO THE ENGINEER AND SHALL BE ASSUMED AS APPROXIMATE AND REQUIRING FIELD VERIFICATION. CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AND AVOIDING ALL UTILITIES AND FOR REPAIRING ALL DAMAGE THAT OCCURS TO DUE TO THE CONTRACTOR'S ACTIVITIES. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT PRIOR TO CONSTRUCTION, AND SHALL POTHOLE TO VERIFY LOCATION, DEPTH, AND SIZE OF UTILITIES WITHIN THE LIMITS OF CONSTRUCTION.
2. SEE SHEETS C03-01 FOR BUILDING SITE GRADING PLAN.
3. SEE SHEET C03-02 FOR TYPICAL SECTIONS.
4. SEE SHEET C04-02 FOR DRAINAGE DETAILS.
5. SEE SHEETS C01-02 TO C01-03 FOR TESTHOLE BORING PLANS.

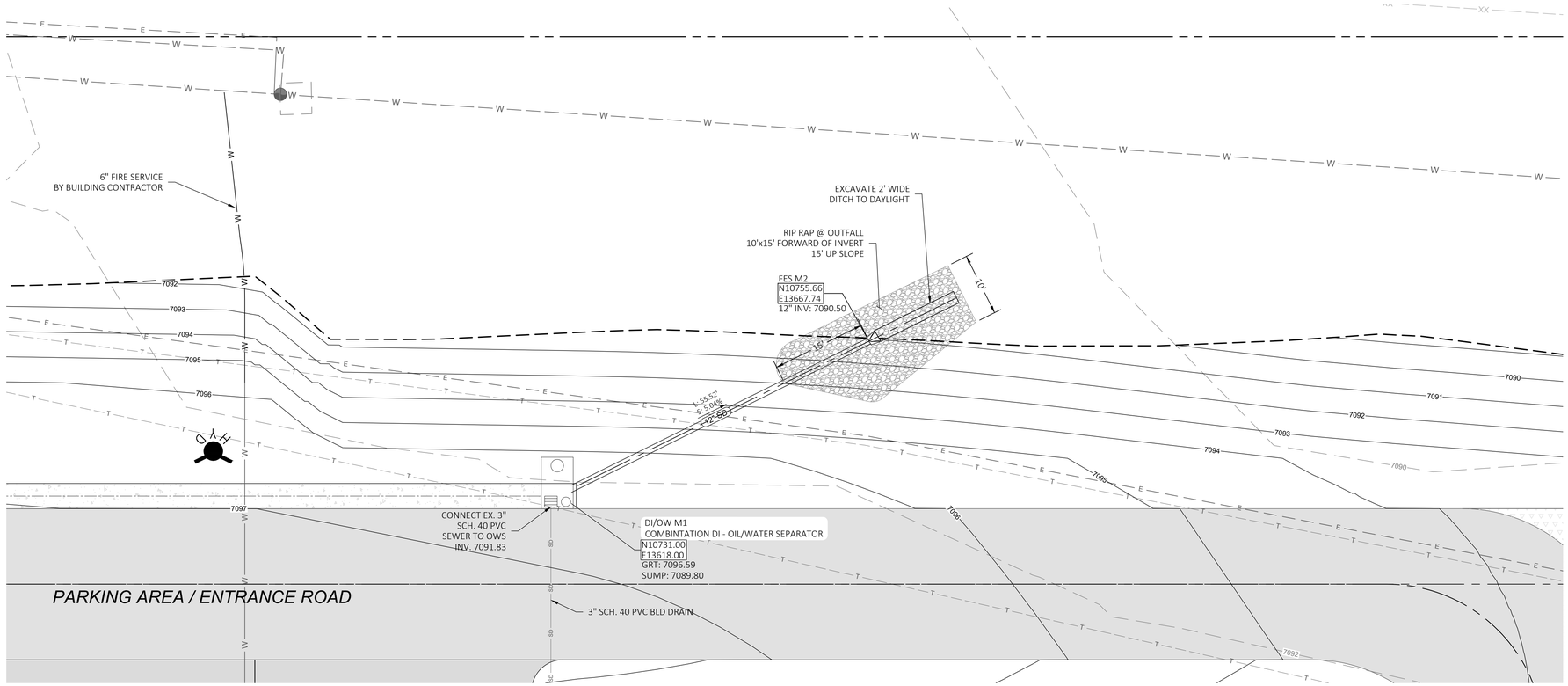


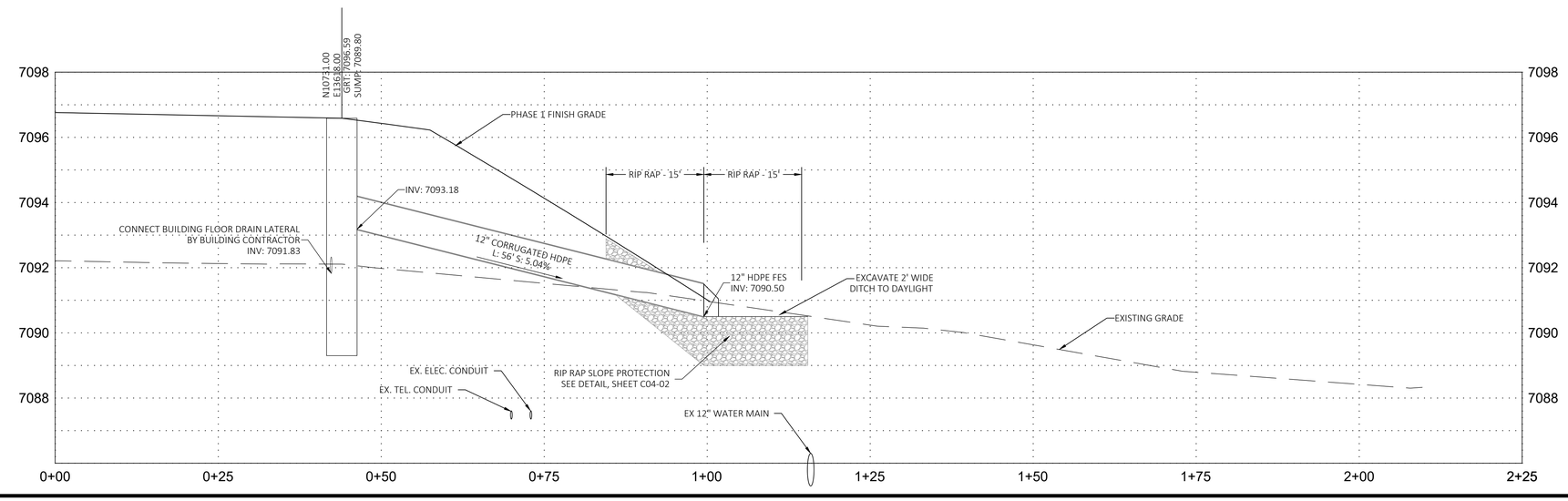
LEGEND

N9738.46 E13727.35	AIRPORT GRID COORDINATE
22.00	FINISHED GRADE ELEVATION
22.00	EXISTING GRADE ELEVATION
	EXISTING PAVEMENT
	NEW PAVEMENT
7096	FINISHED GRADE CONTOUR
7096	EXISTING GRADE CONTOUR
	MATCH EXISTING GRADE
	GRADE BREAK
12" SD	NEW STORM DRAIN
	NEW FLARED END
	DROP INLET/ OIL WATER SEPARATOR
	NEW RIP RAP
X	EXISTING FENCE
E	EX ELECTRICAL DUCT
T	EX TELEPHONE/COMM DUCT
W	EX WATER MAIN
W	NEW WATER SERVICE



LOCATION MAP





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ENGINEER OF RECORD

DRAFT
95% REVIEW

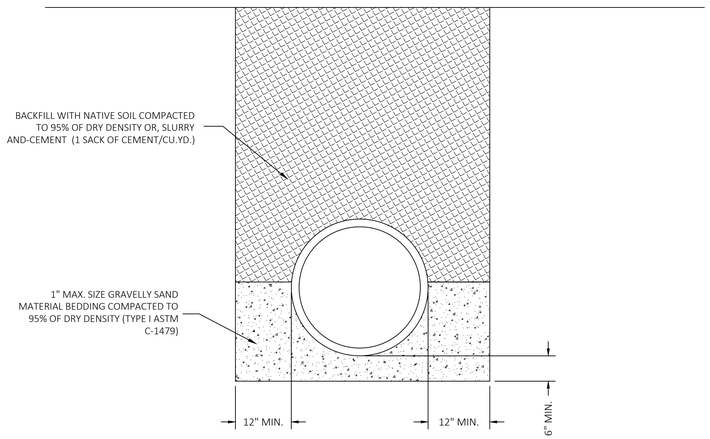
No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

MULTIPURPOSE ARFF/SRE BUILDING

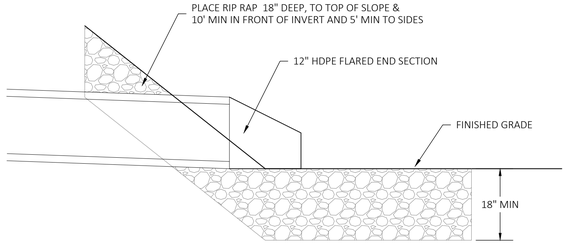
DRAINAGE PLAN & PROFILE

DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0401.STORM
SCALE	1"=10'
SHEET No.	C04-01



TYPICAL PIPE TRENCH

NOT TO SCALE

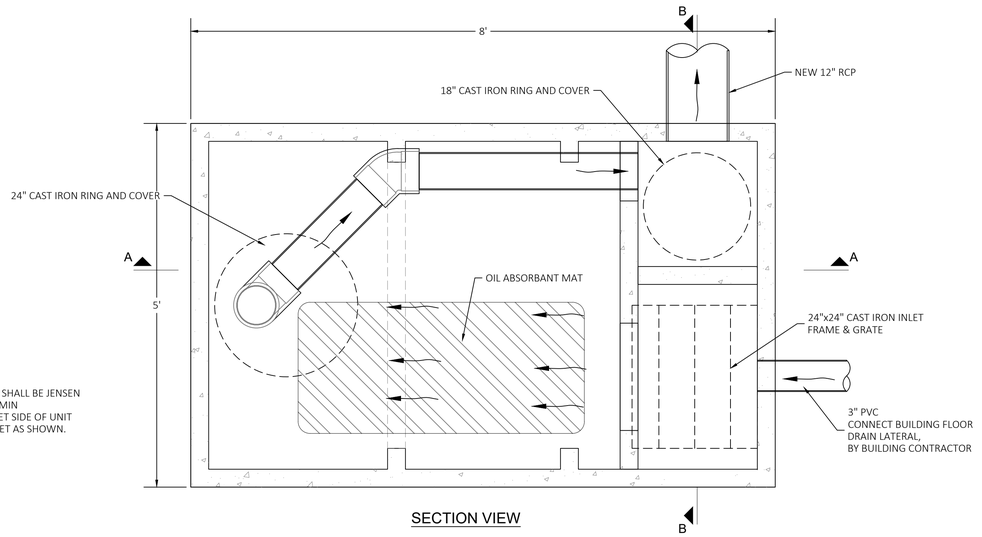


PIPE END & SLOPE PROTECTION

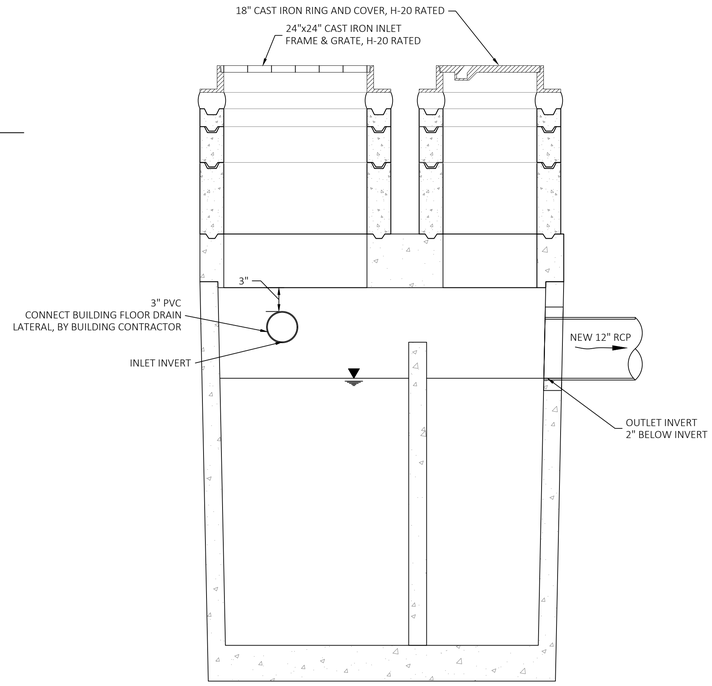
NOT TO SCALE

OW SEPARATOR NOTES

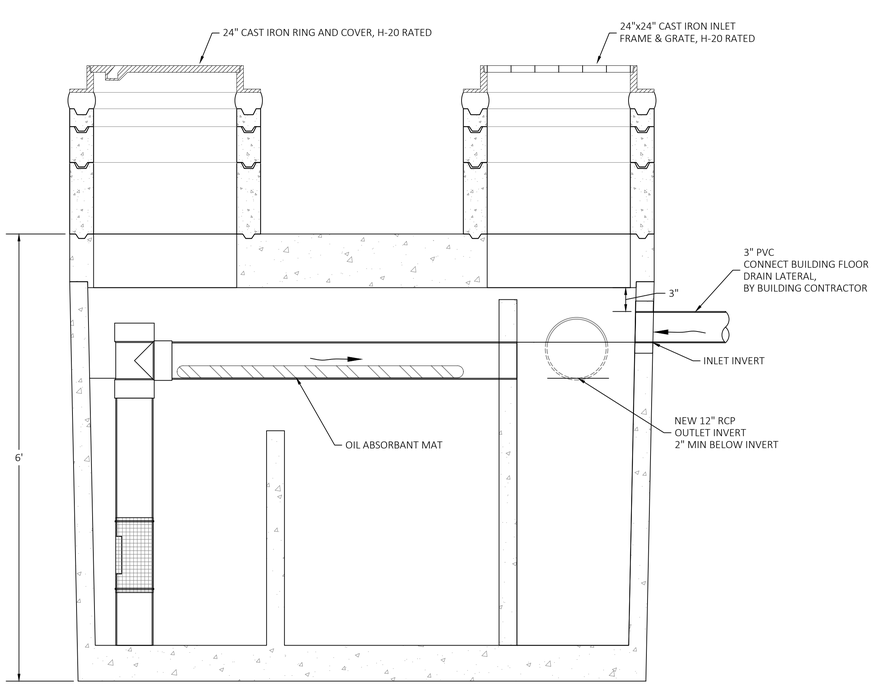
1. COMBINATION DROP INLET / OIL-WATER SEPARATOR SHALL BE JENSEN PRECAST JPHV-1000-IB, OR APPROVED EQUAL, WITH MIN RECOMMENDED TREATMENT FLOW OF 0.20 CFS. INLET SIDE OF UNIT SHALL BE CONSTRUCTED WITH CAST IRON GRATE INLET AS SHOWN.



SECTION VIEW



SECTION B-B



SECTION A-A

COMBINATION DROP INLET / OIL-WATER SEPARATOR

NOT TO SCALE

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ENGINEER OF RECORD

DRAFT
95% REVIEW

No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

MULTIPURPOSE ARFF/SRE BUILDING

DRAINAGE DETAILS

DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0401.STORM
SCALE	AS SHOWN

SHEET No.
C04-02

A. CONCRETE USED WITHIN TOWN RIGHT OF WAY SHALL MEET THE FOLLOWING REQUIREMENTS (UNLESS OTHERWISE SPECIFIED BY THE TOWN):

1. CONCRETE SHALL BE IN CONFORMANCE WITH THE MOST RECENT VERSION OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (CSS)SECTION 90.
2. PORTLAND CEMENT CONCRETE SHALL BE CLASS 1 IN ACCORDANCE WITH SECTION 90, " CONCRETE" OF THE CSS AND MIN 7.1 SACK TYPE II OR 1P CEMENT PER CUBIC YARD.
3. AGGREGATE USED FOR CONCRETE SHALL BE NON-REACTIVE OR TREATED IN AN APPROVED MANNER.
4. EXPOSED CONCRETE SHALL CONTAIN 5% ± 1.0% ENTRAINED AIR.
5. CONCRETE SHALL CONTAIN MIN 15% FLY ASH MAX 25%.
6. CONCRETE SHALL BE SEALED WITH A TOWN APPROVED SEALER.
7. FIBER MESH (POLYPROPYLENE) SHALL BE ADDED PER MANUFACTURER'S RECOMMENDATIONS TO ALL CONCRETE THAT HAS A WEARING SURFACE INCLUDING BUT NOT LIMITED TO CURB AND GUTTER, SIDEWALK, CROSSWALKS, EXPOSED UTILITY RIMS, VAULTS, VALLEY GUTTERS, AND AS SPECIFIED.
8. WEARING SURFACE COMPRESSIVE STRENGTH SHALL BE 5000 psi IN 28 DAYS OR AS APPROVED BY PUBLIC WORKS DIRECTOR. ALL OTHER CONCRETE SHALL BE MINIMUM 3600 psi IN 28 DAYS OR AS SPECIFIED ON PLANS.
9. CONCRETE SHALL BE TESTED FOR SLUMP & AIR FOR COMPLIANCE BEFORE THE PLACEMENT OF THE FIRST TRUCK LOAD AND EVERY 50 YARDS THERE AFTER OR AS DIRECTED BY ENGINEER. THE CONTRACTOR SHALL DOCUMENT THE RESULTS AND SUBMIT THESE AND JOB FIELD REPORTS TO THE TOWN ON A WEEKLY BASIS. IN THE EVENT THERE IS A TEST FAILURE, CORRECTIVE ACTIONS SHALL BE TAKEN TO REMEDY THE SITUATION AND THE ACTIONS DOCUMENTED. THE TOWN SHALL BE NOTIFIED IMMEDIATELY. CONCRETE CYLINDERS SHALL BE TAKEN MID LOAD AND EVERY 50 YARDS THEREAFTER.
10. COPIES OF THE BATCH TICKETS SHALL ACCOMPANY THE FIELD REPORTS AND TEST RESULTS.

B. CONCRETE BACKFILL SLURRY WITHIN TOWN RIGHT OF WAY SHALL MEET THE FOLLOWING REQUIREMENTS:

1. AGGREGATE USED SHALL HAVE A MINIMUM SAND EQUIVALENT (SE) OF 30.0
2. AT THE OPTION OF THE CONTRACTOR, AGGREGATE SHALL BE EITHER:

   A. SELECTED MATERIAL WHICH IS FREE OF ORGANIC MATERIAL AND OTHER DELETERIOUS SUBSTANCES AND CONFORMS TO THE FOLLOWING GRADING REQUIREMENTS:

SIEVE SIZES	PERCENTAGE BY WEIGHT PASSING SIEVE
1 1/2 INCH	100
1 INCH	80 - 100
3/4 INCH	60 - 100
3/8 INCH	50 - 100
NO. 4	40 - 100
NO. 100	2 - 40
NO. 200	2 - 15

   B. COMMERCIAL QUALITY CONCRETE SAND WHICH CONFORMS TO THE FOLLOWING GRADE REQUIREMENTS:

SIEVE SIZES	PERCENTAGE BY WEIGHT PASSING SIEVE
3/8 INCH	100
NO. 4	95 - 100
NO. 8	80 - 100
NO. 16	50 - 85
NO. 30	25 - 60
NO. 50	10 - 30
NO. 200	2 - 15

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

CONCRETE AND SLURRY STANDARDS — STANDARD PLAN 004-2 — SHEET 1 OF 2

PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014

3. MIXING:

   A. THE AGGREGATE, CEMENT AND WATER SHALL BE PROPORTIONED BY WEIGHT. 188 POUNDS OF CEMENT (2 SACK) SHALL BE USED FOR EACH CUBIC YARD OF MATERIAL PRODUCED. THE WATER CONTENT SHALL BE SUFFICIENT TO PRODUCE A FLUID, WORKABLE MIX THAT WILL FLOW AND CAN BE PUMPED WITHOUT SEGREGATION OF THE AGGREGATE WHILE BEING PLACED. STRUCTURAL CONCRETE SHALL NOT BE USED.

   B. MATERIALS FOR TRENCH SLURRY BACKFILL SHALL BE THOROUGHLY MACHINE MIXED IN A PUG MILL, ROTARY DRUM, OR OTHER APPROVED MIXER. MIXING SHALL CONTINUE UNTIL THE CEMENT AND WATER ARE THOROUGHLY DISPERSED THROUGHOUT THE MATERIAL. TRENCH SLURRY BACKFILL SHALL BE PLACED WITHIN ONE HOUR AFTER MIXING OR IT SHALL BE REJECTED.

4. COMPRESSIVE STRENGTH:

   A. 100 PSI IN 28 DAYS.

   B. NO LABORATORY TESTS ARE REQUIRED IF THE CONTRACTOR USES CONCRETE SAND AS AGGREGATE. CONTRACTOR WILL BE REQUIRED TO SUBMIT MIX DESIGN PRIOR TO PLACEMENT. THE INSPECTOR WILL USE THE BATCH TICKET AS PROOF OF THE SACK MIX. IF REQUIRED, OCCASIONAL COMPRESSIVE STRENGTH TESTS AND AGGREGATE GRADATIONS MAY BE PERFORMED.

   C. STRUCTURAL CONCRETE SHALL NOT BE USED AS SLURRY BACKFILL.

5. PLACING

   A. SLURRY SHALL BE PLACED AND VIBRATED BY MECHANICAL MEANS.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

CONCRETE AND SLURRY STANDARDS — STANDARD PLAN 004-2 — SHEET 2 OF 2

PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014

A. SPECIFICATIONS FOR BACKFILL AND DENSIFICATION

WHERE SPECIFIC RECOMMENDATIONS HAVE NOT BEEN PREPARED BY A GEOTECHNICAL INVESTIGATION THE FOLLOWING SHALL APPLY:

BACKFILL SHALL BE CONSIDERED AS STARTING ONE FOOT ABOVE THE PIPE OR CONDUIT, OR AT THE TOP OF CONCRETE BEDDING OVER THE PIPE OR CONDUIT. ALL MATERIAL BELOW THIS POINT SHALL BE CONSIDERED BEDDING. ROCKS GREATER THAN 3 INCHES IN ANY DIMENSION WILL NOT BE PERMITTED IN THE BACKFILL PLACED ABOVE ANY PIPE OR BOX WHEREVER THE TRENCH WIDTH IS 4 FEET OR NARROWER. WHEREVER TRENCH WIDTHS ARE GREATER THAN 4 FEET, ROCKS LARGER THAN 3 INCHES BUT LESS THAN 12 INCHES IN ANY DIMENSION WILL BE PERMITTED AS BACKFILL NO CLOSER THAN 2 FEET FROM THE TOP OF PIPE OR BOX AND 2 FEET BELOW FINISHED PAVEMENT SUB GRADE OR WITHIN 2 FEET OF RISERS, VALVES, MANHOLES, OR OTHER STRUCTURES, PROVIDING THE FOLLOWING CONDITIONS ARE MET.

1. **BACKFILL MATERIALS SHALL BE SCREENED OR "GRIZZLED" PRIOR TO BEING USED AS BACKFILL.**
2. ROCKS SHALL BE MIXED WITH SUFFICIENT VOLUME OF SUITABLE SOIL SO AS TO ELIMINATE NESTING OF ROCK AND VOIDS.
3. TRENCHES SHALL BE AT LEAST 4 FEET WIDE IF A COMPACTOR ON THE END OF A TRACK EXCAVATOR BOOM IS UTILIZED, OR AT LEAST 8 FEET WIDE IF A FULL SIZED ROLLER IS USED. A FULL SIZED ROLLER SHALL CONSIST OF A SHEEPSFOOT OR DRUM ROLLER HAVING METAL DRUMS OR SHELLS NOT LESS THAN 4 FEET IN DIAMETER. HAND TAMPING COMPACTORS OR ROLLERS WILL BE USED TO OBTAIN COMPACTION WITHIN 2 FEET OF RISERS, VALVES, MANHOLES, OR OTHER STRUCTURES, AND WILL ASSIST IN OBTAINING COMPACTION ALONG EDGES OF TRENCHES. HOWEVER, THEY WILL NOT BE PERMITTED TO BE USED IN LIEU OF THE EQUIPMENT SPECIFIED IF ROCK LARGER THAN 3 INCHES IN ANY DIMENSION IS USED AS BACKFILL.
4. THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER AND THE TESTING AGENCY THAT ADEQUATE COMPACTION CAN BE OBTAINED WITH THE MATERIALS, EQUIPMENT, AND PROCEDURES TO BE USED.
5. THE LOOSE THICKNESS OF EACH LAYER OF EMBANKMENT MATERIAL BEFORE COMPACTION SHALL NOT EXCEED 8 INCHES FOR HAND TAMPERS AND 12 INCHES FOR ROLLER COMPACTORS.
6. IF, IN THE OPINION OF THE ENGINEER AND/OR TESTING AGENCY, THE BACKFILL SOILS CANNOT BE SATISFACTORILY TESTED TO DETERMINE IF COMPACTION CRITERIA IS MET, THE TESTING AGENCY OR ENGINEER, MAY AT THEIR OPTION REQUEST THE CONTRACTOR TO MODIFY HIS MATERIALS AND PROCEDURES SO THE TESTING CAN BE PERFORMED OR MAY USE A METHOD SPECIFICATION BASED ON THE EQUIPMENT AND MATERIALS BEING USED TO VERIFY THAT THE ADEQUATE COMPACTION IS OBTAINED.
7. CONSTRUCTION SHALL NOT BE PERFORMED WHEN MATERIAL IS FROZEN OR A BLANKET OF SNOW PREVENTS PROPER COMPACTION

ALL BACKFILL MATERIALS SHALL BE COMPACTED IN 8" MAXIMUM LIFTS TO 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557-CURRENT EDITION. IN PLACE DENSITY SHALL BE TESTED AND CONFIRMED USING ASTM TEST METHOD D 6938.

B. MASS GRADING BACKFILL AND DENSIFICATION

1. ROCKS LARGER THAN 12 INCHES IN ANY DIMENSION SHALL NOT BE PERMITTED WITHOUT AUTHORIZATION OF THE ENGINEER AND ONLY AFTER A SATISFACTORY METHOD OF OBTAINING ADEQUATE COMPACTION HAS BEEN DEVELOPED AND AGREED TO.
2. WHERE ROCKS ARE USED IN THE BACKFILL, THEY SHALL BE MIXED WITH SUITABLE EXCAVATED MATERIALS SO AS TO ELIMINATE VOIDS.
3. AFTER PLACING OF BACKFILL HAS STARTED, THE CONTRACTOR SHALL PROCEED AS SOON AS PRACTICABLE WITH DENSIFICATION. ALL BACKFILL MATERIALS SHALL BE COMPACTED IN 8" MAXIMUM LIFTS TO 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557-CURRENT EDITION. IN PLACE DENSITY SHALL BE TESTED AND CONFIRMED USING ASTM TEST METHOD D 6938. BACKFILL IN NON-STRUCTURAL AREAS SHALL BE DENSIFIED TO AT LEAST 85% OF THE MATERIALS MAXIMUM DRY DENSITY.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

BACKFILL STANDARDS — STANDARD PLAN 005-2 — SHEET 1 OF 2

PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014

C. SPECIFICATIONS FOR TRENCH SLURRY BACKFILL:

1. TRENCH SLURRY BACKFILL SHALL CONSIST OF A FLUID, WORKABLE MIXTURE OF AGGREGATE, 2-SACK CEMENT AND WATER.
2. AT THE OPTION OF THE CONTRACTOR, TRENCH SLURRY BACKFILL MAY BE USED AS A STRUCTURAL BACKFILL FOR PIPE, EXCEPT THAT TRENCH SLURRY BACKFILL SHALL NOT BE USED AS STRUCTURAL BACKFILL FOR ALUMINUM OR ALUMINUM COATED PIPE.
3. WHEN TRENCH SLURRY BACKFILL IS USED FOR STRUCTURAL BACKFILL, THE WIDTH OF THE EXCAVATION SHOWN ON THE PLANS MAY BE REDUCED SO THAT THE SIDE CLEAR DISTANCE BETWEEN THE OUTSIDE OF THE PIPE AND THE SIDE OF THE EXCAVATION, ON EACH SIDE OF THE PIPE, IS A MINIMUM OF 6 INCHES FOR PIPES UP TO AND INCLUDING 42 INCHES IN DIAMETER OR SPAN, ONE FOOT FOR PIPES OVER 42 INCHES IN DIAMETER OR SPAN.
4. TRENCH SLURRY BACKFILL SHALL BE PLACED ONLY FOR THE PORTION OF THE STRUCTURAL BACKFILL BELOW THE ORIGINAL GROUND, THE GRADING PLANE OR THE TOP OF EMBANKMENT PLACED PRIOR TO EXCAVATING FOR THE PIPE. WHERE NECESSARY, EARTH PLUGS SHALL BE COMPACTED AS REQUIRED AT EACH END OF THE PIPE PRIOR TO PLACING BACKFILL IN A MANNER THAT WILL COMPLETELY CONTAIN THE SLURRY IN THE TRENCH.
5. TRENCH SLURRY BACKFILL SHALL BE PLACED IN A UNIFORM MANNER THAT WILL PREVENT VOIDS IN, OR SEGREGATION OF, THE BACKFILL, AND WILL NOT FLOAT OR SHIFT THE PIPE. FOREIGN MATERIAL WHICH FALLS INTO THE TRENCH PRIOR TO OR DURING PLACING OF THE TRENCH SLURRY BACKFILL SHALL BE IMMEDIATELY REMOVED.
6. BACKFILLING OR PLACING ANY MATERIAL OVER TRENCH SLURRY BACKFILL SHALL NOT COMMENCE UNTIL AT LEAST FOUR HOURS AFTER THE TRENCH SLURRY BACKFILL HAS BEEN PLACED, EXCEPT THAT WHEN CONCRETE SAND IS USED FOR THE AGGREGATE AND THE IN-PLACE MATERIAL IS FREE DRAINING, BACKFILLING MAY COMMENCE AS SOON AS THE SURFACE WATER IS GONE. TRENCH SLURRY BACKFILL MAY BE USED AS A SUBSTITUTE FOR AGGREGATE BASE WHEN APPROVED IN ADVANCE BY THE PUBLIC WORKS DIRECTOR.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

BACKFILL STANDARDS — STANDARD PLAN 005-2 — SHEET 2 OF 2

PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014

A. GENERAL CONSTRUCTION REQUIREMENTS WITHIN TOWN RIGHT OF WAY

1. UNLESS OTHERWISE SPECIFIED, ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THESE STANDARDS, THE LATEST VERSION OF THE CALTRANS STANDARD SPECIFICATIONS (CSS), AND THE LATEST VERSION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
2. WORK SHALL BE DONE IN CONFORMANCE WITH THE MOST RECENT VERSION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. THE TOWN'S REPRESENTATIVE AND ALL OTHER INTERESTED PARTIES SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE START OF WORK.
4. AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING CONSTRUCTION, UNDERGROUND SERVICE ALERT (USA) SHALL BE NOTIFIED AT THE REGIONAL NOTIFICATION CENTER, WITH A REQUEST THAT UTILITY OWNERS MARK OR OTHERWISE INDICATE THE LOCATION OF THEIR FACILITIES. ALL APPROPRIATE UTILITY COMPANIES SHALL ALSO BE CONTACTED. UTILITIES SHALL BE POT HOLED AT CROSSINGS AND TIE-INS PRIOR TO EXCAVATION WORK. ALL MEASURES SHALL BE TAKEN TO PROTECT UTILITIES AND STRUCTURES FOUND AT THE SITE.

   THE TOWN IS NOT PART OF U.S.A. DIG. CONTRACTOR SHALL CALL TOWN OF MAMMOTH LAKES PUBLIC WORKS DEPARTMENT AT 760-934-8989 FOR LOCATION OF TOWN FACILITIES.
5. PRIOR TO BEGINNING CONSTRUCTION ALL REQUIRED PERMITS MUST BE OBTAINED.
6. PRE CONSTRUCTION MEETINGS ARE REQUIRED BEFORE ANY WORK IS TO BEGIN, EXCEPT FOR THE IMPLEMENTATION OF THE EROSION CONTROL PLAN.
7. WORK IN TOWN OF MAMMOTH LAKES RIGHT OF WAY SHALL COMPLY WITH THE TERMS, CONDITIONS, AND REQUIREMENTS OF THE TOWN ENCROACHMENT PERMIT.
8. THE CONTRACTOR SHALL TAKE ALL SUCH MEASURES NECESSARY TO CONTROL DUST NUISANCE BY CLEANING, SWEEPING, AND SPRINKLING WITH WATER AND USING DUST FENCES OR OTHER METHODS AS DIRECTED BY THE TOWN'S REPRESENTATIVE THROUGHOUT THE CONSTRUCTION OPERATION. ALL EXPOSED SOIL SURFACES SHALL BE MOISTENED AS REQUIRED TO AVOID NUISANCE CONDITIONS AND INCONVENIENCES FOR LOCAL RESIDENTS AND TRAVELERS OF NEARBY ROADWAYS. SUFFICIENT WATER TRUCKS SHALL BE MADE AVAILABLE FOR DUST CONTROL PURPOSES.
9. ANY EVIDENCE OF THE HISTORICAL PRESENCE OF MAN FOUND DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE MAMMOTH LAKES PUBLIC WORKS DEPARTMENT AND CONSTRUCTION SHALL STOP UNTIL FURTHER NOTICE.
10. TREE REMOVAL SHALL BE PERFORMED BY A LICENSED TIMBER OPERATOR ONLY. TIMBER OPERATOR SHALL NOTIFY CALIFORNIA DEPARTMENT OF FORESTRY (714) 782-4140 PRIOR TO COMMENCING WORK. ALL TREE REMOVAL SHALL CONFORM TO THE APPROVED TIMBER HARVEST PLAN, IF REQUIRED, AND CALIFORNIA DEPARTMENT OF FORESTRY. STUMP SHALL BE TREATED WITH SODIUM BORATE WITHIN 8 HOURS OF BEING CUT TO PREVENT ROOT FUNGUS.
11. CONTRACTOR SHALL PROMPTLY CLEAN UP AREAS ADJACENT TO WORK OF ALL DEBRIS.

B. CONTROL OF WORK:

1. CONSTRUCTION SHALL BE LIMITED TO 7:00 AM TO 8:00 PM MONDAY THROUGH SATURDAY. OPERATIONS ON SUNDAYS, STATE AND FEDERAL HOLIDAYS, AND TOWN SPECIAL EVENTS ARE PERMITTED ONLY ON APPROVAL OF THE PUBLIC WORKS DIRECTOR AND LIMITED TO 9:00 AM TO 5:00 PM. A WRITTEN PERMIT IS REQUIRED FOR SUNDAY OR OFF HOURS WORK. PERMIT MUST BE LOCATED ON SITE AT ALL TIMES.
2. THE LIMITS OF CONSTRUCTION SHALL BE CAREFULLY AND FULLY FLAGGED PRIOR TO START OF CONSTRUCTION, AND POSTED SO AS TO PREVENT DAMAGE TO VEGETATION AND DISTURBANCE TO SOILS OUTSIDE OF THE AREA OF CONSTRUCTION.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

GENERAL CONSTRUCTION REQUIREMENTS WITHIN TOWN RIGHT OF WAY — STANDARD PLAN 007-2 — SHEET 1 OF 3

PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014

3. THE CONTRACTOR SHALL SO CONDUCT HIS OPERATIONS AS TO OFFER THE LEAST POSSIBLE OBSTRUCTION AND INCONVENIENCE TO THE PUBLIC, AND HE SHALL HAVE UNDER CONSTRUCTION NO GREATER LENGTH OR AMOUNT OF WORK THAN HE CAN PROSECUTE PROPERLY WITH DUE REGARD TO THE RIGHTS OF THE PUBLIC. CONVENIENT ACCESS TO DRIVEWAYS, HOUSES, AND BUILDINGS ALONG THE LINE OF WORK SHALL BE MAINTAINED AND TEMPORARY CROSSINGS SHALL BE PROVIDED AND MAINTAINED IN GOOD CONDITION. NO MORE THAN ONE CROSSING OR INTERSECTION STREET OR ROAD SHALL BE CLOSED AT ANY ONE TIME. ACCESS TO BUSINESSES AND RESIDENCES SHALL BE MAINTAINED AT ALL TIMES.

C. SAFETY:

1. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK, AND THE CONTRACTOR SHALL FULLY COMPLY WITH ALL STATE, FEDERAL, AND OTHER LAWS, RULES, REGULATIONS, AND ORDERS RELATING TO SAFETY OF WORKERS AND ALL OTHERS. THIS MAY INCLUDE THE ISSUANCE OF PERSONAL PROTECTIVE EQUIPMENT.
2. CONTRACTOR SHALL CONDUCT ALL GRADING OPERATIONS IN ACCORDANCE WITH THE TOWN OF MAMMOTH LAKES ORDINANCES AND STANDARDS AND IN CONFORMANCE OF INDUSTRIAL RELATIONS, DIVISION OF INDUSTRIAL SAFETY.
3. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF GENERAL OSHA STANDARDS FOR THE PROTECTION OF WORKMEN AND THE GENERAL PUBLIC. OSHA PERMITS ARE REQUIRED FOR TRENCHES OVER 5 FEET DEEP. A WORKER PROTECTION PLAN SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE TOWN FOR APPROVAL FOR ALL EXCAVATIONS GREATER THEN 4 FEET.
4. ALL OPERATIONS INVOLVING THE STORAGE AND HANDLING OF EXPLOSIVES SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF DIVISION II, PART I, OF THE CALIFORNIA HEALTH AND SAFETY CODE AND ALL OTHER APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL CODES AND REGULATIONS. DRILLING AND BLASTING SHALL ONLY BE DONE UNDER THE DIRECTION OF LICENSED PERSONNEL. ALL PRECAUTIONS NECESSARY FOR THE PROTECTION OF LIFE AND PROPERTY SHALL BE TAKEN DURING BLASTING OPERATIONS AND ADEQUATE WARNING SHALL BE GIVEN TO WORKERS, INSPECTORS, AND PROPERTY OWNERS THAT BLASTING IS IN PROGRESS. THE TOWN SHALL BE NOTIFIED PRIOR TO ANY BLASTING.

D. EXECUTION:

1. ALL CUT AND FILL SLOPES SHALL BE REVEGETATED AND/OR LANDSCAPED TO PREVENT EROSION.
2. CUT AND FILL SLOPES SHALL NOT EXCEED A STEEPNESS OF 3:1 (3 FEET HORIZONTAL TO 1 FOOT VERTICAL), UNLESS OTHERWISE NOTED, AND SHALL BE REVEGETATED TO CONTROL EROSION. STOCKPILED TOPSOIL WILL BE SPREAD EVENLY TO A DEPTH OF 4 INCHES MINIMUM OVER SLOPES AND DISTURBED AREAS, THEN LANDSCAPED OR SEEDED TO PREVENT EROSION WITH THE SEED MIXTURE INDICATED IN SECTION 20, "LANDSCAPE" OF THE CSS OR AS SUPPLIED BY THE TOWN. SEEDED SLOPES SHALL BE STABILIZED BY INSTALLATION OF AN EROSION CONTROL BLANKET, "NORTH AMERICAN GREEN SC150", GEOTEXTILES, JUTE MATTING OR APPROVED EQUAL, SECURED PER MANUFACTURES RECOMMENDATIONS.
3. THE CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID INJURY TO EXISTING IMPROVEMENTS OR FACILITIES, UTILITY FACILITIES, ADJACENT PROPERTY, TREES AND SHRUBBERY THAT ARE NOT TO BE REMOVED. ALL DAMAGE CAUSED TO PUBLIC STREET, INCLUDING HAUL ROUTES, ALLEYS, SIDEWALKS, CURBS, OR STREET FURNISHINGS, OR TO PRIVATE PROPERTY SHALL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE TOWN'S REPRESENTATIVE. ALL IMPROVEMENTS REMOVED AS A COURSE OF WORK SHALL BE REPLACED AS APPROVED BY THE OWNER AND TOWN REPRESENTATIVE.

E. MATERIALS:

1. SIGNS SHALL BE DESIGNED, SUPPLIED AND INSTALLED IN CONFORMANCE WITH THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN MANUAL, STANDARDS AND SPECIFICATIONS.
2. SIGN POSTS SHALL BE DESIGNED, SUPPLIED AND INSTALLED IN CONFORMANCE WITH THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN MANUAL, STANDARDS, AND SPECIFICATIONS
3. INSTALLATION OF TRAFFIC STRIPES AND PAVEMENT MARKINGS WILL BE IN CONFORMANCE WITH THE PROVISIONS OF SECTION 84, "TRAFFIC STRIPES AND PAVEMENT MARKINGS", OF THE CSS. DESIGN OF TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN MANUAL.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

GENERAL CONSTRUCTION REQUIREMENTS WITHIN TOWN RIGHT OF WAY — STANDARD PLAN 007-2 — SHEET 2 OF 3

PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014

F. INSPECTION:

1. CONTRACTOR SHALL NOTIFY THE TOWN OF MAMMOTH LAKES PUBLIC WORKS INSPECTOR AT (760) 934-2534, 48 HOURS IN ADVANCE FOR THE INSPECTION OF THE FOLLOWING:
   - -TRAFFIC CONTROL
   - -SHORING
   - -CONCRETE FORMS
   - -CONCRETE PLACEMENT
   - -REBAR PLACEMENT
   - -SUBGRADE
   - -FINAL GRADE - BASE COURSE
   - -LIGHT POLE FOOTINGS AND ANCHOR BOLTS PRIOR TO CONCRETE POUR
   - -HEATING TUBING IN SIDEWALKS PRIOR TO CONCRETE POUR OR INSTALLATION OF PAVERS
   - -UTILITY INSTALLATIONS PRIOR TO BACKFILL
   - -ADDITIONAL ITEMS AS DETERMINED BY TOWN
2. SOILS TESTING SHALL BE PERFORMED BY A STATE APPROVED INDEPENDENT TESTING LABORATORY. SHOULD ANY COMPACTION TEST FAIL TO MEET THE MINIMUM REQUIRED DENSITY AS SPECIFIED ON THE PLANS OR IN THE GEOTECHNICAL REPORT, THE DEFICIENCY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE SOILS ENGINEER. THE EXPENSE OF RETESTING SUCH AN AREA SHALL BE BORN BY THE CONTRACTOR, AT NO COST TO THE OWNER.

G. ENGINEERING CERTIFICATION:

1. ALL IMPROVEMENT PLANS AND THE SPECIFIC DETAILS AND SPECIFICATIONS THEREOF SHALL BE PREPARED BY, OR UNDER THE DIRECTION OF, AND SIGNED BY, A CIVIL ENGINEER LICENSED IN THE STATE OF CALIFORNIA AND SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF MAMMOTH LAKES PUBLIC WORKS DIRECTOR PRIOR TO CONSTRUCTION OF THE IMPROVEMENTS. IT IS RECOGNIZED THAT THERE MAY BE SITUATIONS WHERE THESE STANDARDS CANNOT BE REASONABLY APPLIED OR SITUATIONS NOT ADDRESSED HEREIN. IN EITHER CASE, IT SHALL BE THE SOLE RESPONSIBILITY OF THE PUBLIC WORKS DIRECTOR TO EXERCISE SOUND ENGINEERING JUDGMENT IN APPROVING ALTERNATE PROPOSALS IN THESE SITUATIONS.

H. SHOP DRAWINGS AND SUBMITTALS

1. SHOP DRAWING SUBMITTALS SHALL BE PROVIDED TO THE PUBLIC WORKS INSPECTOR AT LEAST 5 DAYS PRIOR TO MATERIAL USE FOR THE FOLLOWING:
   - -CLASS II BASE
   - -CONCRETE
   - -ASPHALT PAVING / (JMF) HMA DESIGN
   - -STREET LIGHTS, (SUGGESTED BEFORE ORDERING LIGHTS)
   - -ELECTRICAL
   - -DRAINAGE COMPONENTS
   - -SIGNAGE

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

GENERAL CONSTRUCTION REQUIREMENTS WITHIN TOWN RIGHT OF WAY — STANDARD PLAN 007-2 — SHEET 3 OF 3

PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014

FEBRUARY 2025
95% CD

No.	REVISIONS	DATE	BY

Kimley»Horn
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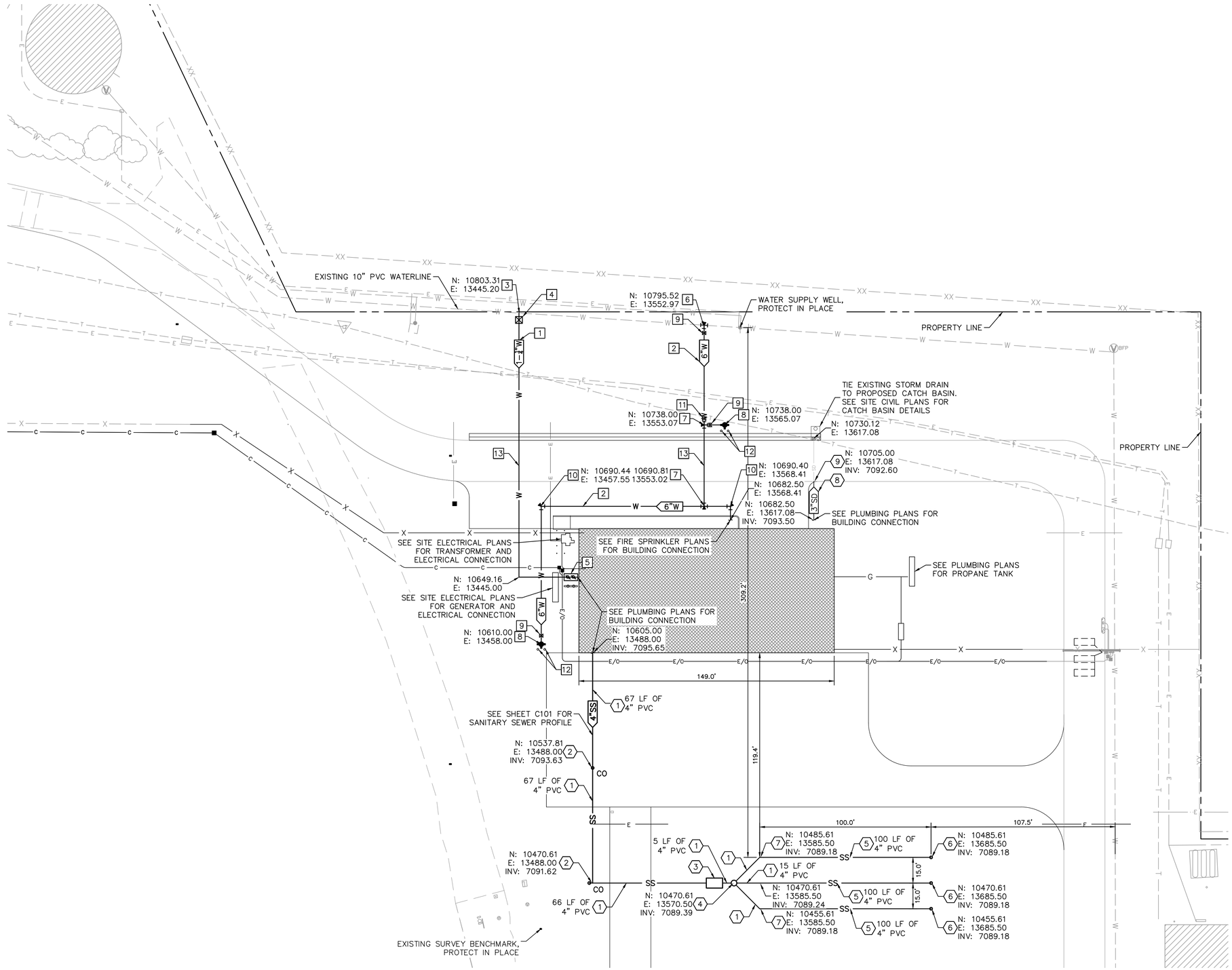
7900 RANCHARRAH PARKWAY, SUITE 100, RENO, NV 89511
PHONE: 775-787-7552
WWW.KIMLEY-HORN.COM

KHA PROJECT 192350000
DATE 02/21/2025
SCALE N/A
DESIGNED BY AJY
DRAWN BY JWF
CHECKED BY THH

GENERAL NOTES, ABBREVIATIONS, & LEGEND

MAMMOTH YOSEMITE AIRPORT
MULTIPURPOSE BUILDING TO INCLUDE ARFF AND SRE COMPONENTS
MAMMOTH LAKES CALIFORNIA

SHEET NUMBER
C05-02
SHEET 2 OF 7



NORTH

GRAPHIC SCALE IN FEET
0 15 30 60

LEGEND

—W—	EXISTING WATER LINE
—W—	PROPOSED WATER LINE
—SS—	PROPOSED SANITARY SEWER LINE
—SD—	PROPOSED STORM DRAIN LINE
⊠	WATER METER
	BACKFLOW PREVENTER
CO	SEWER CLEANOUT
	FIRE HYDRANT
⋈	WATER VALVE

WATER NOTES:

1. INSTALL 1-1/4" DOMESTIC WATER SERVICE LATERAL PER TOWN OF MAMMOTH LAKES DETAIL 202-1, SHEET C200
2. INSTALL 6" C900 WATER LINE PER TOWN OF MAMMOTH LAKES DETAIL 202-1, SHEET C200
3. INSTALL 1-1/4" SERVICE TAP PER DETAIL 2, SHEET C200
4. INSTALL 1-1/4" WATER METER PER DETAIL 3, SHEET C201
5. INSTALL BACKFLOW ASSEMBLY PER DETAIL 4, SHEET C201
6. INSTALL 10"X10"X6" TEE WITH THRUST BLOCK PER DETAIL 6 & 7, SHEET C201
7. INSTALL 6"X6"X6" TEE WITH THRUST BLOCK PER DETAIL 6 & 7, SHEET C201
8. INSTALL FIRE HYDRANT PER DETAIL 8, SHEET C201
9. INSTALL 6" GATE VALVE
10. INSTALL 6" PVC 90° BEND WITH THRUST BLOCK PER DETAIL 7, SHEET C201
11. INSTALL 6" DETECTOR CHECK VALVE
12. INSTALL BOLLARD PER DETAIL 13, SHEET C202
13. INSTALL WATERLINE THROUGH EXISTING UTILITY SLEEVE

SEWER NOTES:

1. INSTALL 4" SCH. 40 PVC SANITARY SEWER PIPE PER TOWN OF MAMMOTH LAKES DETAIL 202-1, SHEET C200
2. INSTALL SEWER CLEANOUT PER DETAIL 1, SHEET C200
3. INSTALL 1,500 GALLON SEPTIC TANK PER DETAIL 9, SHEET C202
4. INSTALL DISTRIBUTION BOX PER DETAIL 10, SHEET C202
5. INSTALL 4" SCH. 40 PVC PERFORATED PIPE WITH DRAIN ROCK PER DETAIL 11, SHEET C202
6. INSTALL 4" SCH. 40 PVC OBSERVATION PIPE PER DETAIL 12, SHEET C202
7. INSTALL 4" PVC 45° BEND
8. INSTALL 3" SCH. 40 PVC SEWER PIPE PER TOWN OF MAMMOTH LAKES DETAIL 202-1, SHEET C200
9. REMOVE CAP AND TIE INTO EXISTING STORM DRAIN

FEBRUARY 2025
95% CD

No.	REVISIONS	DATE	BY

Kimley»Horn
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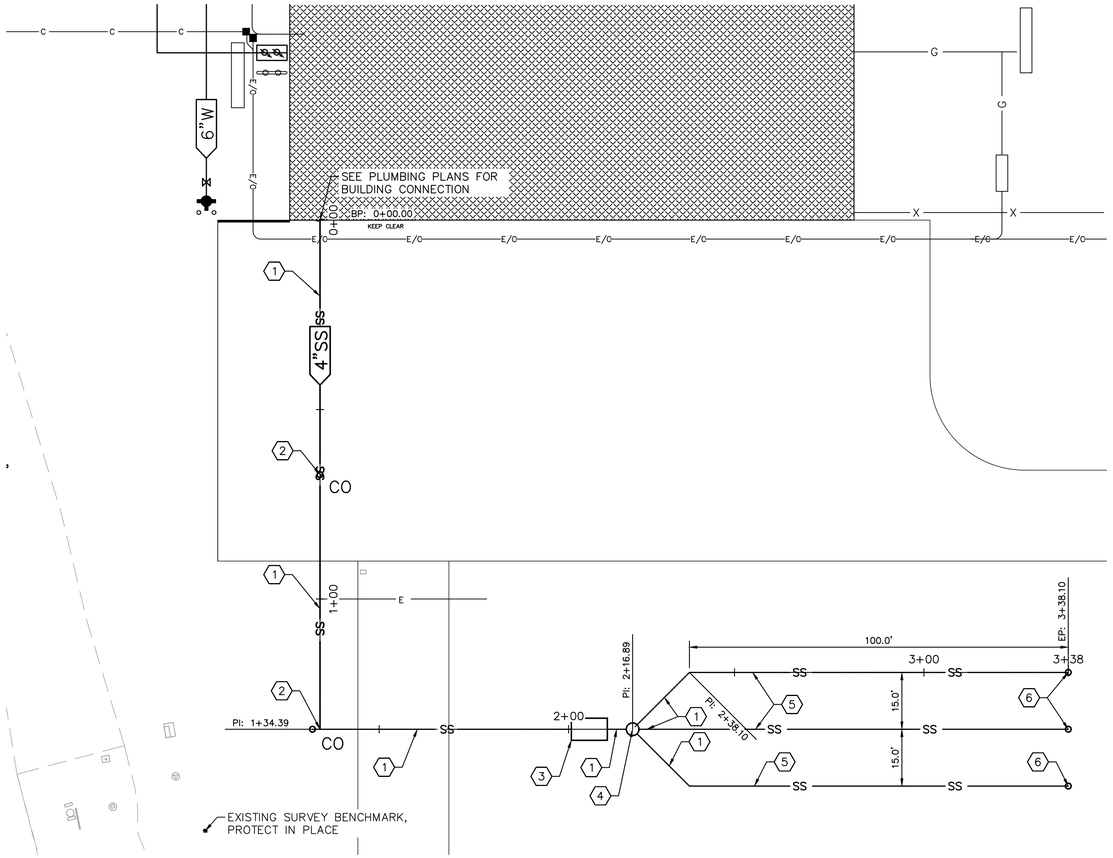
7900 RANCHARRAH PARKWAY, SUITE 100, RENO, NV 89511
PHONE: 775-787-7552
WWW.KIMLEY-HORN.COM

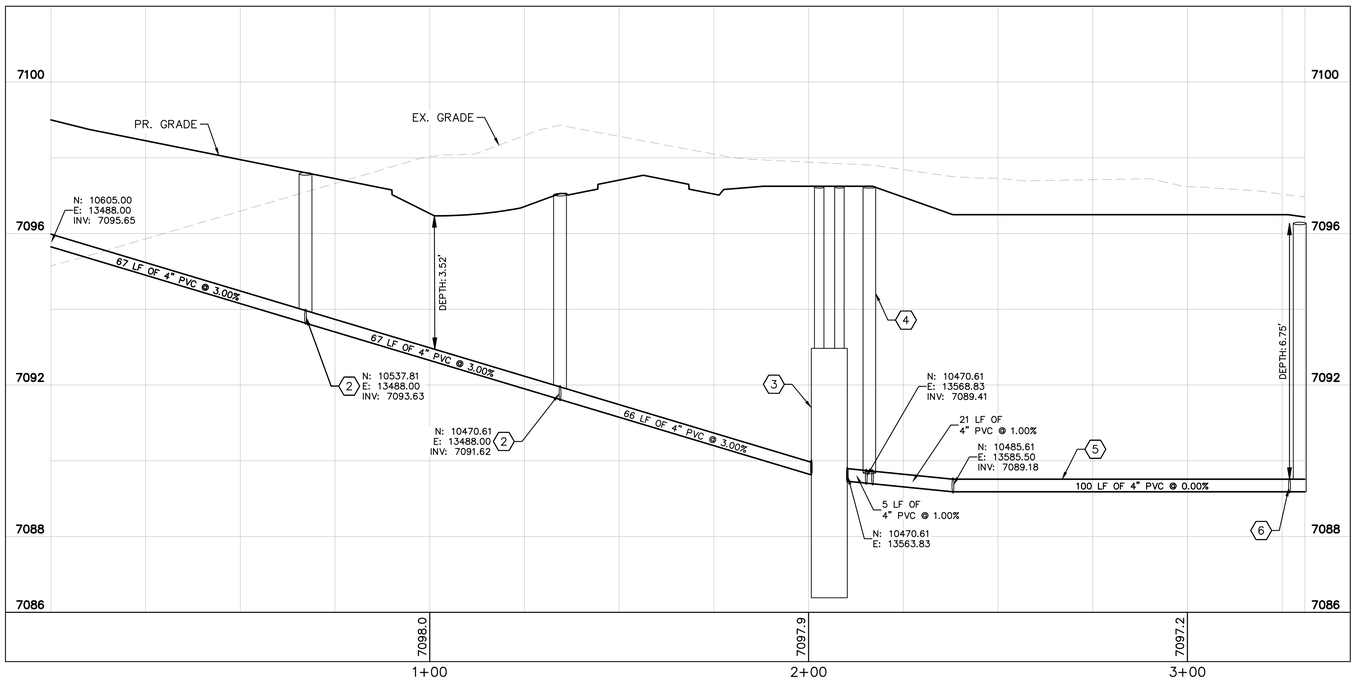
KHA PROJECT 192350000
DATE 02/21/2025
SCALE 1" = 30'
DESIGNED BY AJY
DRAWN BY JWF
CHECKED BY THH

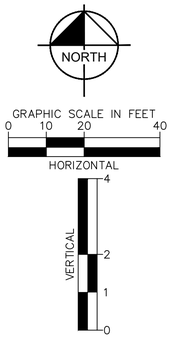
UTILITY PLAN

MAMMOTH YOSEMITE AIRPORT
MULTIPURPOSE BUILDING TO INCLUDE ARFF AND SRE COMPONENTS
MAMMOTH LAKES CALIFORNIA

SHEET NUMBER
C05-03
SHEET 3 OF 7







SEWER NOTES:

1. INSTALL 4" SCH. 40 PVC SANITARY SEWER PIPE PER TOWN OF MAMMOTH LAKES DETAIL 202-1, SHEET C200
2. INSTALL SEWER CLEANOUT PER DETAIL 1, SHEET C200
3. INSTALL 1,500 GALLON SEPTIC TANK PER DETAIL 9, SHEET C202
4. INSTALL DISTRIBUTION BOX PER DETAIL 10, SHEET C202
5. INSTALL 4" SCH. 40 PVC PERFORATED PIPE WITH DRAIN ROCK PER DETAIL 11, SHEET C202
6. INSTALL 4" SCH. 40 PVC OBSERVATION PIPE PER DETAIL 12, SHEET C202

No.	REVISIONS	DATE	BY

Kimley»Horn
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7900 RANCHARRAH PARKWAY, SUITE 100, RENO, NV 89511
PHONE: 775-787-7552
WWW.KIMLEY-HORN.COM

KHA PROJECT 192350000
DATE 02/21/2025
SCALE 1" = 20'
DESIGNED BY AJY
DRAWN BY JWF
CHECKED BY THH

SANITARY SEWER PLAN & PROFILE

MAMMOTH YOSEMITE AIRPORT
MULTIPURPOSE BUILDING TO INCLUDE ARFF AND SRE COMPONENTS
MAMMOTH LAKES CALIFORNIA

FEBRUARY 2025
95% CD

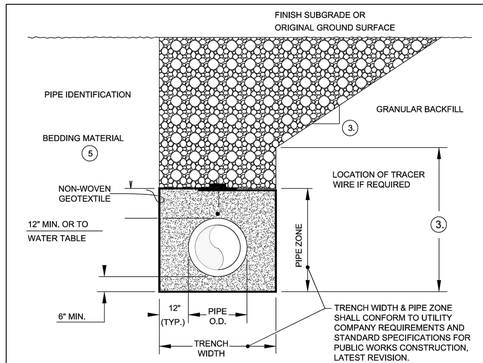
SHEET NUMBER
C05-04
SHEET 4 OF 7

MATERIALS

1. AGGREGATE BASE SHALL BE CBE PER TOWN STANDARD, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR
2. ASPHALT CONCRETE SHALL BE PER TOWN STANDARD, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR
3. CORRUGATED METAL PIPE CULVERTS SHALL CONFORM TO THE PROVISIONS IN SECTION 66, "CORRUGATED METAL PIPE", OF THE CSS AND SHALL BE 12 GAGE. CORRUGATED STEEL FLARED END SECTIONS SHALL CONFORM TO THE PROVISIONS IN SECTION 75, "MISCELLANEOUS METAL", AND SECTION 70, MISCELLANEOUS DRAINAGE FACILITIES" OF THE CSS.
4. PLASTIC PIPE CULVERTS SHALL CONFORM TO THE PROVISIONS IN SECTION 64, "PLASTIC PIPE" OF THE CSS.
5. SLURRY CEMENT BACKFILL SHALL CONFORM TO TOWN STANDARDS 005-0 AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR
6. CONCRETE SHALL BE PER TOWN STANDARD 004-0, AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
7. INSTALLATION OF TRAFFIC STRIPES AND PAVEMENT MARKINGS WILL BE IN CONFORMANCE WITH THE PROVISIONS OF SECTION 84, "TRAFFIC STRIPES AND PAVEMENT MARKINGS", OF THE CSS.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

	GENERAL REFERENCES UTILITIES	STANDARD PLAN 200-2
Mammoth Lakes CALIFORNIA	PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014	SHEET 1 OF 1

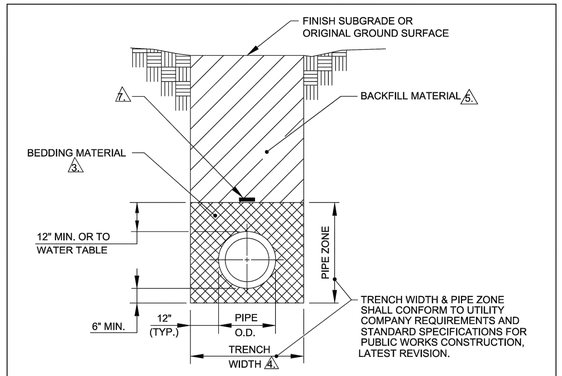


NOTES

1. A PERMIT MUST BE OBTAINED FROM THE PUBLIC WORKS DIRECTOR PRIOR TO COMMENCING WORK WITHIN ANY PUBLIC RIGHT-OF-WAY. 24 HOURS PRIOR TO TRENCH EXCAVATION, THE PERMITEE MUST NOTIFY THE TOWN PUBLIC WORKS INSPECTOR.
2. UNDERGROUND SERVICE ALERT AND TOWN OF MAMMOTH LAKES (760-934-BLDG) SHALL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO START OF WORK.
3. DEPTH, BENCHING, SLOPE, SHORING, ETC. SHALL COMPLY WITH ALL CURRENT O.S.H.A. AND CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS STANDARDS AND REGULATIONS. A PLAN SHALL BE SUBMITTED FOR ALL TRENCHES OVER 4 FEET IN DEPTH.
4. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH TOWN OF MAMMOTH LAKES REQUIREMENTS OR STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST REVISION. BEDDING MATERIAL SHALL CONFORM TO OWNING UTILITY REQUIREMENTS AS APPROVED BY THE TOWN OF MAMMOTH LAKES. FOR TOWN OWNED UTILITIES, BEDDING MATERIAL SHALL BE 3/4 INCH CLEAN CRUSHED AGGREGATE BELOW SPRING LINE AND APPROVED SCREENED 3 INCH MINUS BETWEEN SPRING LINE BOTTOM OF BACKFILL. FOR TRAFFIC/ELECTRICAL CONDUIT TRENCHES LESS THAN 12 INCHES IN WIDTH, INCLUDING VERMEER TRENCHES, BEDDING SHALL BE 3/4 INCH CLEAN CRUSHED AGGREGATE, CEMENT SLURRY BEDDING /BACK FILL MAY BE USED AS AN ALTERNATE MATERIAL WITH WRITTEN APPROVAL FROM THE PUBLIC WORKS DIRECTOR FOR EACH SPECIFIC APPLICATION.
5. WATER DENSIFIED BACK FILL AND TUNNELING IS NOT PERMITTED UNDER ANY CIRCUMSTANCES.
6. SEE STANDARD DETAIL NO. 005 FOR TRENCH BACK FILL SPECIFICATIONS.
7. PIPE TAPE IDENTIFICATION OF UTILITY SHALL BE INSTALLED DIRECTLY OVER CENTERLINE OF THE UTILITY.
8. TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION THE CALTRANS TRAFFIC MANUAL CHAPTER 5. TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE WORK ZONES, LATEST EDITION.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

	TRENCH EXCAVATION / BACKFILL	STANDARD PLAN 202-1
Mammoth Lakes CALIFORNIA	PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014	SHEET 1 OF 2



NOTES

1. A PERMIT MUST BE OBTAINED FROM THE PUBLIC WORKS DIRECTOR PRIOR TO CUTTING ANY PUBLIC RIGHT-OF-WAY. 24 HOURS PRIOR TO TRENCH EXCAVATION, THE PERMITTEE MUST NOTIFY THE TOWN PUBLIC WORKS DIRECTOR INSPECTOR OR APPLICABLE ENGINEER OF RECORD.
2. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST REVISION.

3. BEDDING MATERIAL SHALL CONFORM TO OWNING-UTILITY COMPANY REQUIREMENTS AS APPROVED BY THE TOWN. FOR TOWN-OWNED UTILITIES, BEDDING MATERIAL SHALL BE COMPACTED TO 90% MINIMUM. FOR TRAFFIC/ELECTRICAL CONDUIT TRENCHES LESS THAN 12 INCHES IN WIDTH, INCLUDING VERMIER TRENCHES, BEDDING SHALL BE APPROVED SCREENED 3" MINUS MATERIAL. BACKFILL SHALL BE CEMENT SLURRY (ONE SACK). CEMENT SLURRY BEDDING/BACKFILL MAY BE USED AS AN ALTERNATE BACKFILL MATERIAL WITH WRITTEN APPROVAL FROM THE TOWN ENGINEER FOR EACH SPECIFIC APPLICATION.

4. ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS. SHORING OR SLOPED CUT MAY BE NECESSARY, BUT THERE WILL BE NO PAYMENT FOR ADDITIONAL EXCAVATION, BEDDING, BACKFILL, OR SHORING.

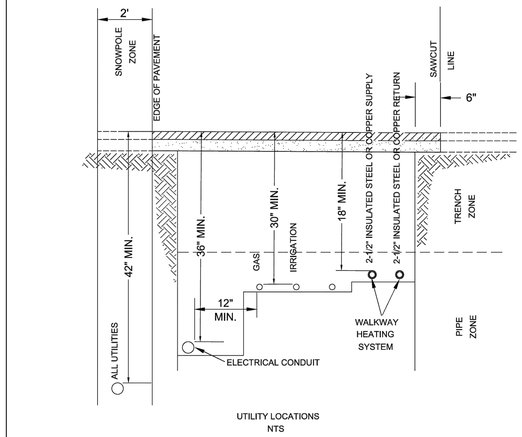
5. SEE TOWN STANDARD 005 FOR TRENCH BACKFILL SPECIFICATIONS.

6. EDGE OF 4 INCH ROCK WHEEL TRENCHES FOR CONDUIT SHALL BE LOCATED A MINIMUM OF 9 INCHES FROM GUTTER LIP.

7. PIPE TAPE IDENTIFICATION OF UTILITY SHALL BE INSTALLED.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

	TRENCH EXCAVATION / BACKFILL	STANDARD PLAN 202-1
Mammoth Lakes CALIFORNIA	PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014	SHEET 2 OF 2



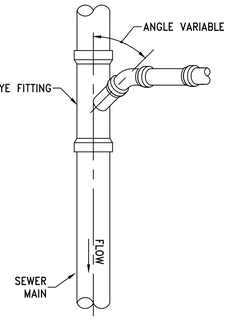
UTILITY LOCATIONS
NTS

GENERAL NOTES FOR UTILITY LOCATIONS

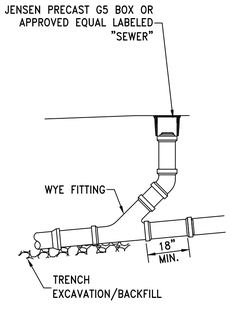
1. FOREIGN OBJECTS OR DEBRIS ARE NOT PERMITTED IN COMPLETED TRENCH.
2. NO ROCKS ARE ALLOWED WITHIN 12 INCHES OF DIRECT BURIED CABLES OR ANY DUCT WITHOUT CONCRETE ENCASEMENT. NATIVE BACKFILL CAPABLE OF PASSING THROUGH A 1/2 INCH MESH SCREEN SHALL BE CONSIDERED TO BE "ROCK-FREE".
3. ALL BACKFILL SHALL PASS THROUGH A 1/2 INCH SCREEN, OR PLACE IMPORTED SAND 3 INCHES BELOW AND 6 INCHES ABOVE BURIED CABLES (PIPE ZONE).
4. ALL NON-METALIC PIPES SHALL HAVE WIRE AND TAPE.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS

	UTILITY LOCATIONS	STANDARD PLAN 203-1
Mammoth Lakes CALIFORNIA	PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014	SHEET 1 OF 2



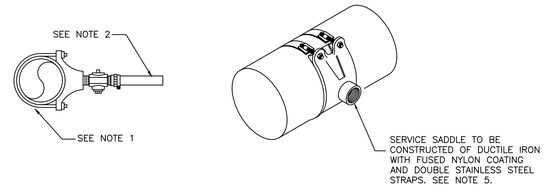
PLAN

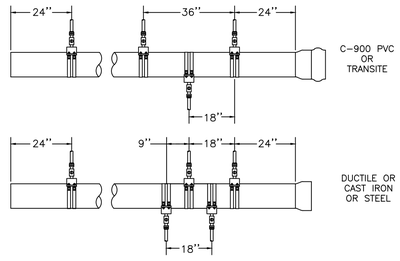


SECTION

1 C200 SEWER CLEANOUT
N.T.S.

NOTES:
1. SERVICE CLAMP SIZE IS DEPENDENT UPON THE SIZE AND TYPE OF MAIN.
2. SDR-9 CTS HDPE TUBING, LENGTH AND DIAMETER TO BE DETERMINED BY ENGINEER. REFER TO APPROVED PLAN.
3. STOP CORP IP THREAD INLET, COMPRESSION OUTLET, DIAMETER TO MATCH TAP SIZE AS SHOWN ON PLAN.
4. INSERT RIGID STAINLESS STEEL LINER TO SDR-9 CTS HDPE TUBING.
5. SERVICE TAPS OFF OF EXISTING PVC MAINS SHALL USE TAPPED FULL CIRCLE REPAIR CLAMP, MINIMUM LENGTH: 15". MANUFACTURER SHALL BE APPROVED BY MAMMOTH COMMUNITY WATER DISTRICT.





2 C200 SERVICE TAP
N.T.S.

FEBRUARY 2025
95% CD

No.	REVISIONS	DATE	BY

Kimley»Horn
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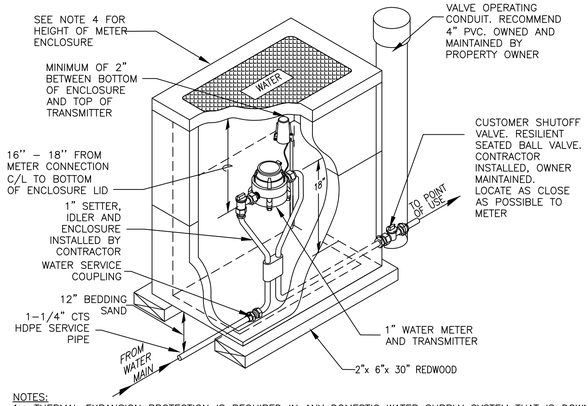
7900 RANCHARRAH PARKWAY, SUITE 100, RENO, NV 89511
PHONE: 775-787-7552
WWW.KIMLEY-HORN.COM

KHA PROJECT	192350000
DATE	02/21/2025
SCALE	N/A
DESIGNED BY	AJY
DRAWN BY	JWF
CHECKED BY	THH

UTILITY DETAILS

MAMMOTH YOSEMITE AIRPORT
MULTIPURPOSE BUILDING TO INCLUDE ARFF AND SRE COMPONENTS
MAMMOTH LAKES CALIFORNIA

SHEET NUMBER
C05-05
SHEET 5 OF 7

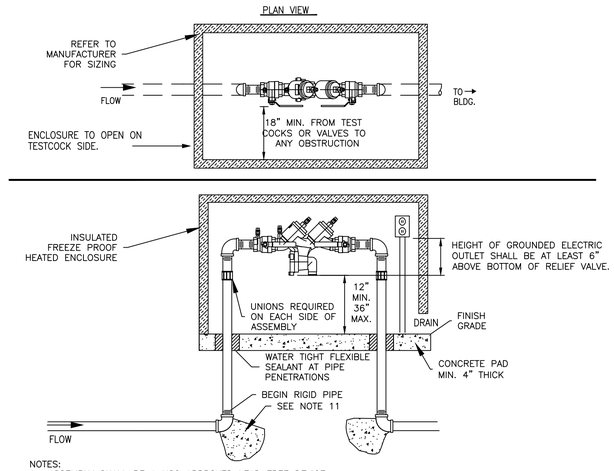


NOTES:
1. THERMAL EXPANSION PROTECTION IS REQUIRED IN ANY DOMESTIC WATER SUPPLY SYSTEM THAT IS DOWNSTREAM FROM A BACKFLOW PREVENTION DEVICE. REFERENCE: UNIFORM PLUMBING CODE.
2. NOT USED.
3. FOR DRIVEWAY OR TRAFFIC AREAS USE TRAFFIC RATED H/20 LOADING ENCLOSURE.
4. TOP OF METER ENCLOSURE SHALL BE SET 0.2 FEET ABOVE HIGHEST FINISHED GRADE SURROUNDING ENCLOSURE WITHIN LANDSCAPED AREAS, AND SHALL BE SET FLUSH WITH SURROUNDING FINISH GRADE IN TRAFFIC AREAS.
5. ENCLOSURE TO BE BACKFILLED WITH WATER PIPE BEDDING SAND ONLY, SEE TOWN OF MAMMOTH LAKES DETAIL 202–1.
6. BLANKET TO BE INSTALLED ABOVE METER AND BELOW TRANSMITTER.

MATERIAL LIST

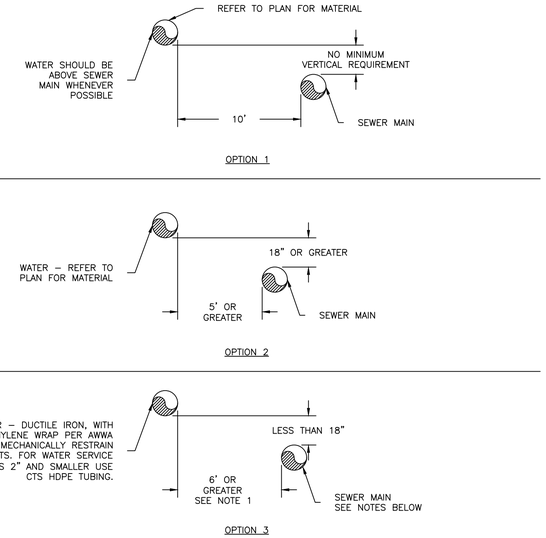
ITEM ID	QTY.	DESCRIPTION
MS–1.00	1.0	SETTER WATER METER, NEW 1" MIP ENDS
WSC–1.25x1.00–CTSxFIP	1.0	COUPLING SERVICE 1–1/4" CTS COMPRESSION X 1" FIP
SSL–1.25	1.0	LINER RIGID STAINLESS STEEL FOR 1–1/4" CTS HDPE TUBING
GSKT–1.00	2.0	GASKET–1" FOR WATER METER
WM–DISC–1.00	1.0	1" WATER METER
ENCL–13x24–NT	1.0	ENCLOSURE NON–TRAFFIC 13 X 24 WATER METERS, SEE NOTE 3
ENCL–13x24–LID–NT	1.0	COVER NON–TRAFFIC 13 X 24, SEE NOTE 3
ENCL–13x24–EXT–NT	1.0	EXTENSION BOX NON–TRAFFIC 13 X 24, SEE NOTE 3
INSL–BLKT–4x4	1.0	BLANKET INSULATION 4' X 4' FOR WATER METERS
RDWD–BRD–2x6x30	2.0	BOARD – REDWOOD 2" X 6" X 30"
IDLR–1.00	1.0	IDLER WATER METER 1" SETTER
ERT	1.0	REMOTE TRANSMITTER

3 C201 WATER METER
N.T.S.



NOTES:
1. ASSEMBLY SHALL BE A USC APPROVED LEAD FREE DEVICE.
2. THE RP SHALL BE INSTALLED ABOVE GRADE.
3. GROUNDED ELECTRIC SUPPLY SHALL BE A MINIMUM OF 6" ABOVE BOTTOM OF RELIEF VALVE AND STUBBED TO THE OUTSIDE.
4. NO STOP AND WASTE VALVES.
5. FREEZE PROOF INSULATED BOX AND 1 SOURCE OF HEAT ARE REQUIRED. 2 SOURCES OF HEAT ARE STRONGLY RECOMMENDED.
6. INSULATED BOX SHALL SWING CLEAR OF ASSEMBLY TO PROVIDE CLEARANCES SHOWN OR INSULATED BOX SHALL BE SIZED TO PROVIDE CLEARANCES SHOWN.
7. SPRING LOADED LID REQUIRED ON LARGE BOXES.
8. THERMAL EXPANSION PROTECTION IS REQUIRED IN ANY DOMESTIC WATER SUPPLY SYSTEM THAT IS DOWNSTREAM FROM A BACKFLOW PREVENTION DEVICE. REFERENCE: UNIFORM PLUMBING CODE & NAC 445A.67235.
9. INSPECTION BY MAMMOTH COMMUNITY WATER DISTRICT BACKFLOW PREVENTION GROUP PERSONNEL REQUIRED BEFORE METER IS SET OR SERVICE IS ACTIVATED.
10. IF INITIAL TEST DONE BY MAMMOTH COMMUNITY WATER DISTRICT FIELD PERSONNEL FAILS, RETESTING OF BACKFLOW ASSEMBLY IS REQUIRED WITHIN 7 DAYS AFTER METER IS SET OR SERVICE ACTIVATION. COPY OF TEST RESULTS TO BE FORWARDED TO MAMMOTH COMMUNITY WATER DISTRICT BACKFLOW PREVENTION GROUP BY A CERTIFIED ASSEMBLY TESTER WITHIN THAT SAME TIMEFRAME.
11. MINIMUM DIMENSIONS FOR THE THRUST BLOCK BEARING AREA FOR PIPE 2" AND SMALLER SHALL BE 8" X 8" AND 12" IN DEPTH. ALL OTHER SIZES TO BE DETERMINED BY ENGINEER.

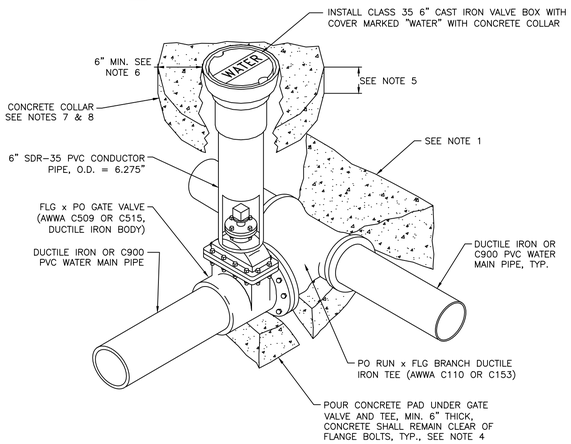
4 C201 BACKFLOW PREVENTION ASSEMBLY
N.T.S.



NOTES:
1. IF SEPARATION IS 10 FEET OR MORE USE OPTION 1.
2. NON–PRESSURIZED SEWER MAINS SHALL BE SDR 35 PVC. IF SEWER MAINS ARE NON SDR 35 PVC, SEWER MAINS SHALL BE ENCASED IN 4" OF EXCAVATABLE SLURRY, USE EXTERNAL JOINT SEALANT OR OTHER MITIGATION TO ENSURE JOINTS ARE WATERTIGHT. WHERE THE SEWER MAINS ARE PRESSURIZED, THE SEWER MAINS SHALL HAVE MECHANICALLY RESTRAINED JOINTS OR SHALL USE WELDED OR FUSED PIPE.
3. FOR STORM SEWER MAINS WITH A DIAMETER OF 24" OR LARGER, THE SEWER MAINS SHALL BE INSTALLED WITH WATER TIGHT JOINTS THAT USE JOINT SEALANTS OR JOINT GASKETS.

5 C201 WATER MAIN/SERVICE LATERAL PARALLEL TO SEWER MAIN
N.T.S.

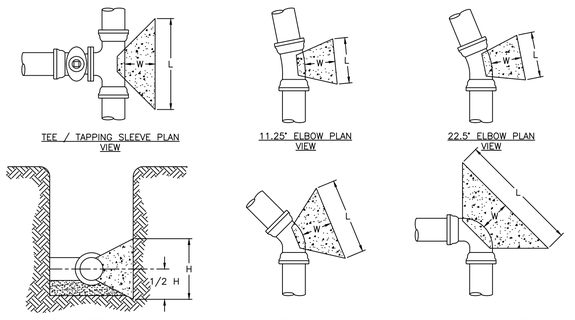
NOTES:
1. REFERENCE STANDARD DETAIL 7/C201 FOR THRUST BLOCK SIZING AND REQUIREMENTS.
2. ALL BOLTS AND EXPOSED METAL SHALL BE COATED WITH BRUSHED–ON MASTIC.
3. TEE, VALVES, FITTINGS, DUCTILE IRON PIPE AND OTHER METAL PARTS SHALL BE ENCASED WITH POLYETHYLENE WRAP PER AWWA C105.
4. CONCRETE FOR PADS SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AFTER 28 DAYS. BAG CONCRETE MIX IS NOT ACCEPTABLE.
5. CONCRETE COLLAR SHALL BE MINIMUM 6–INCHES THICK OR MATCH PAVEMENT THICKNESS, WHICHEVER IS GREATER, UNLESS OTHERWISE SPECIFIED BY THE JURISDICTIONAL AGENCY RESPONSIBLE FOR THE ROADWAY.
6. FOR MULTIPLE VALVE/RISER BOXES IN CLOSE PROXIMITY, A MONOLITHIC CONCRETE COLLAR MAY BE POURED.
7. CONTRACTOR AND/OR DESIGN ENGINEER SHALL CONSULT WITH THE JURISDICTIONAL AGENCY RESPONSIBLE FOR THE ROADWAY FOR REQUIREMENTS THAT MAY VARY FROM THIS STANDARD PRIOR TO CONSTRUCTION.
8. UNLESS OTHERWISE SPECIFIED BY THE JURISDICTIONAL AGENCY RESPONSIBLE FOR THE ROADWAY, PORTLAND CEMENT CONCRETE (P.C.C.) FOR CONCRETE COLLAR SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4,000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, MINIMUM 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAXIMUM WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. BAG CONCRETE MIX IS NOT ACCEPTABLE.



MATERIAL LIST

QTY.	DESCRIPTION
1	PO RUN x FLG BRANCH DUCTILE IRON TEE (AWWA C110 OR C153)
1	FLG x PO GATE VALVE WITH DUCTILE IRON BODY (AWWA C509 OR C515)
1	CLASS 35 6" CAST IRON VALVE BOX WITH COVER MARKED "WATER"
1	6" SDR–35 PVC CONDUCTOR PIPE SECTION, O.D. = 6.275"
–	CONCRETE BULK – THRUST BLOCKS, PADS, COLLARS

6 C201 MECHANICAL JOIN AND FLANGED TEES
N.T.S.



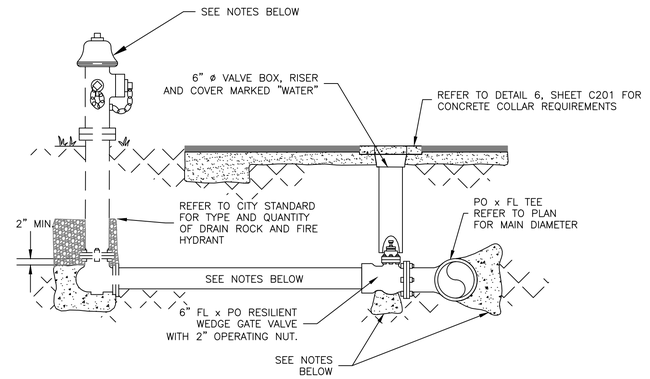
THRUST BLOCK DIMENSIONS																	
TEE, TAP, OR DEAD END					11.25° ELBOW			22.5° ELBOW			45° ELBOW			90° ELBOW		
BRANCH SIZE (INCHES)	L (FEET)	H (FEET)	W MIN. (FEET)	ELBOW SIZE (INCHES)	L (FEET)	H (FEET)	W MIN. (FEET)	L (FEET)	H (FEET)	W MIN. (FEET)	L (FEET)	H (FEET)	W MIN. (FEET)	L (FEET)	H (FEET)	W MIN. (FEET)
4	1.5	1	1	4	1	1	1	1	1	1	1.5	1	1	2	1	1
6	2	2	1	6	1	1	1	1.5	1	1	2	1.5	1	2.5	2	1
8	3	2	1	8	1.5	1	1	1.5	1.5	1	2.5	2	1	4	2	1
10	3.5	2.5	1	10	2	1	1	2	2	1	3	2.5	1	5	2.5	1
12	4.5	3	1	12	2	1.5	1	2.5	2	1	4	2.5	1	6	3	1

THRUST BLOCK DESIGN CRITERIA:

THRUST BLOCK SIZES HAVE BEEN CALCULATED USING THE METHOD AND EQUATIONS PUBLISHED IN *THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE, SIXTH EDITION 2006* BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) UTILIZING THE FOLLOWING DESIGN PARAMETERS: DESIGN PRESSURE = 150 PSI (SEE NOTE #4 BELOW), SOIL BEARING CAPACITY = 2,000 PSF (SEE NOTE #4 BELOW), SAFETY FACTOR = 1.5, AND NOMINAL PIPE DIAMETER

THRUST BLOCK NOTES:
1. CONCRETE FOR THRUST BLOCKS SHALL HAVE A MINIMUM 28–DAY COMPRESSIVE STRENGTH OF 3,000 PSI. BAG CONCRETE MIX IS NOT ACCEPTABLE.
2. ALL FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE WRAP PER AWWA C105. MASTIC (BRUSH–ON) SHALL BE APPLIED TO ALL BOLTS, ETC.
3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL. IN CASES WHERE THIS IS NOT PRACTICAL, BACKFILL AREA BEHIND WHERE THRUST BLOCK WILL BE POURED WITH TYPE 2, CLASS B AGGREGATE BASE COMPACTED TO 95% MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY PROCEDURES SET FORTH IN ASTM D 1557, CUT–BACK COMPACTED AGGREGATE BASE TO EXPOSE A FIRM SURFACE, THEN POUR THRUST BLOCK.
4. FOR SOIL BEARING CAPACITY LESS THAN 2,000 PSF AND/OR DESIGN PRESSURE IN EXCESS OF 150 PSI, INCREASE THRUST BLOCK BEARING AREAS ACCORDINGLY. REVISED THRUST BLOCK SCHEDULE FOR SPECIFIC CONDITIONS SHALL BE SUBMITTED BY THE DESIGN ENGINEER.

7 C201 THRUST BLOCK DETAIL
N.T.S.



NOTES:
1. REFERENCE JURISDICTIONAL FIRE AGENCY FOR REQUIRED PIPE MATERIALS. POLYETHYLENE WRAP TO BE USED ON ALL DUCTILE IRON PIPE AND FITTINGS PER AWWA C105.
2. REFER TO PLAN FOR ACTUAL DIAMETER AND LENGTH FOR HYDRANT LATERAL.
3. KEEP A MINIMUM OF 2" CLEARANCE BETWEEN FLANGES/BOLTS AND CONCRETE.
4. LOCATION OF FIRE HYDRANT TO BE DETERMINED BY APPROPRIATE GOVERNMENTAL FIRE AGENCY. FIRE HYDRANT AND BARREL EXTENSION TO BE SUPPLIED BY OTHERS.
5. REFER TO JURISDICTIONAL AGENCY'S ADOPTED FIRE CODE FOR HYDRANT TYPE, COLOR AND CONNECTION TYPES.
6. ALL EXPOSED METAL MUST BE COATED AND WRAPPED.
7. REFER TO CITY STANDARDS OR DETAIL 7, SHEET C201 FOR THRUST BLOCK REQUIREMENTS. USE THE MOST CONSERVATIVE.

8 C201 FIRE HYDRANT
N.T.S.

FEBRUARY 2025
95% CD

No.	REVISIONS	DATE	BY

Kimley»Horn

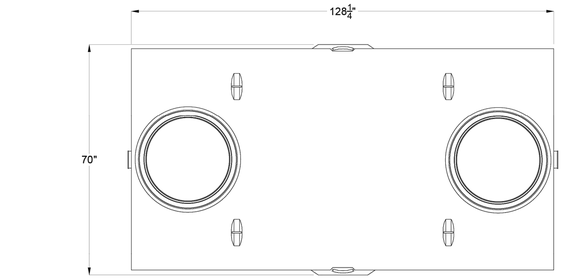
7900 RANCHARRAH PARKWAY, SUITE 100, RENO, NV 89511
PHONE: 775–787–7552
WWW.KIMLEY–HORN.COM

KHA PROJECT 192350000
DATE 02/21/2025
SCALE N/A
DESIGNED BY AJY
DRAWN BY JWF
CHECKED BY THH

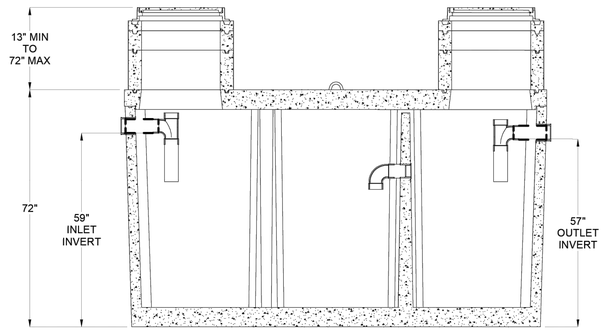
UTILITY DETAILS

MAMMOTH YOSEMITE AIRPORT
MULTIPURPOSE BUILDING TO INCLUDE ARFF AND SRE COMPONENTS
MAMMOTH LAKES CALIFORNIA

SHEET NUMBER
C05-06
SHEET 6 OF 7



PLAN VIEW

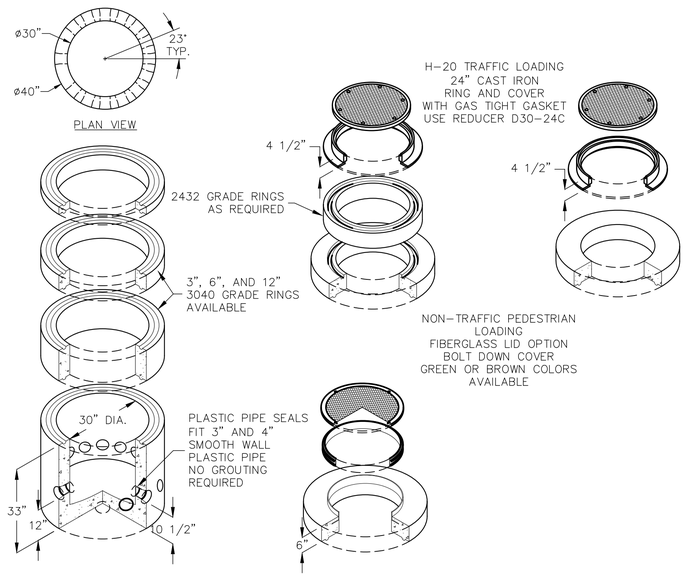


CROSS SECTION

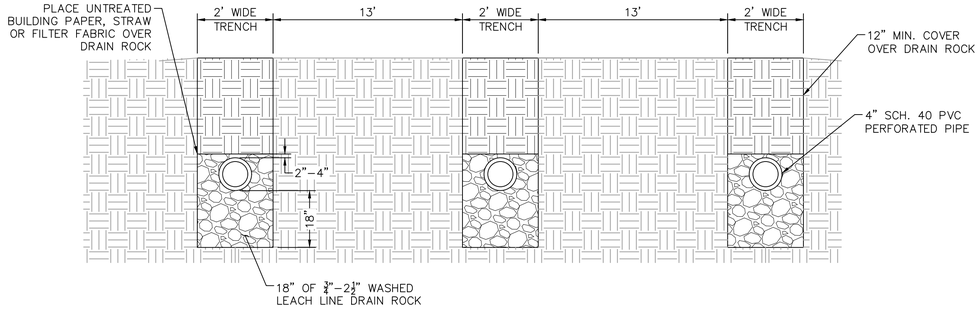
LIQUID CAPACITY: 1,500 GALLONS.

LOAD CONDITION: H-20 TRAFFIC WITH DRY SOIL CONDITIONS (WATER LEVEL BELOW TANK) AND 13 INCHES TO 14 FEET OF SOIL COVER.

9 C202 **1500 GALLON SEPTIC TANK**
N.T.S.



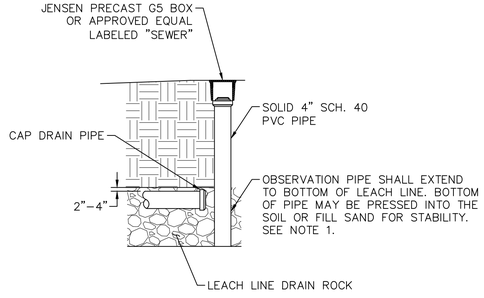
10 C202 **DISTRIBUTION BOX**
N.T.S.



NOTES:

1. THE BOTTOM OF TRENCH AND LEACH LINE DRAINAGE PIPING SHALL BE LEVEL WITH A MAXIMUM FALL OF 3 INCHES PER 100 FEET OF TRENCH.
2. IF ROCKS, BOULDERS, HEAVY CLAY OR OTHER IMPERMEABLE MATERIAL ARE ENCOUNTERED DURING THE TRENCH INSTALLATION, ADDITIONAL LEACH LINE SHALL BE INSTALLED TO COMPENSATE FOR THE LOSS OF ABSORPTION AREA.

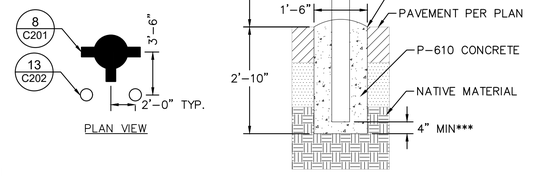
11 C202 **LEACH FIELD**
N.T.S.



NOTES:

1. THE PORTION OF THE PIPE IN THE DRAIN ROCK SHALL BE DRILLED OR SLOTTED TO PERMIT WASTEWATER FLOW INTO THE PIPE.

12 C202 **OBSERVATION PIPE**
N.T.S.



NOTE: CONTRACTOR SHALL POTHOLE LOCATION TO CHECK FOR EXISTING UTILITY CONFLICT BEFORE PLACING BOLLARD.

13 C202 **BOLLARD DETAIL**
N.T.S.

FEBRUARY 2025
95% CD

No.	REVISIONS	DATE	BY

Kimley»Horn
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7900 RANCHARRAH PARKWAY, SUITE 100, RENO, NV 89511
PHONE: 775-787-7552
WWW.KIMLEY-HORN.COM

KHA PROJECT	192350000
DATE	02/21/2025
SCALE	N/A
DESIGNED BY	AJY
DRAWN BY	JWF
CHECKED BY	TPH

UTILITY DETAILS

MAMMOTH YOSEMITE AIRPORT
MULTIPURPOSE BUILDING TO INCLUDE ARFF AND SRE COMPONENTS
MAMMOTH LAKES CALIFORNIA

SHEET NUMBER
C05-07
SHEET / OF /

NOTES:

1. MARKING LAYOUT SHALL BE VERIFIED BY RPR PRIOR TO PAINTING. CONTRACTOR SHALL WAIT A MINIMUM 14 DAYS TO ALLOW NEW PAVEMENT TO CURE BEFORE APPLYING ANY PAINT.
2. ALL AREAS TO RECEIVE REMARKING OR NEW MARKING SHALL BE SWEPT CLEAN BY CONTRACTOR PRIOR TO ANY APPLICATION OF PAINT.
3. ALL NEW MARKINGS SHALL RECEIVE 2 COATS OF PAINT, THE FINAL COAT WITH TYPE I BEADS. BLACK COLOR MARKINGS DO NOT RECEIVE BEADS.
4. ALL EXISTING MARKINGS TO BE REMARKED SHALL RECEIVE 1 COAT WITH TYPE I BEADS, BLACK COLOR MARKINGS DO NOT RECEIVE BEADS.
5. PARKING STALL MARKING DO NOT RECEIVE BEADS.
6. SEE SHEET C06-02 FOR MARKING DETAILS.

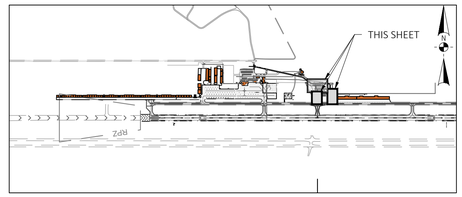
GRID NORTH

20 0 10 20

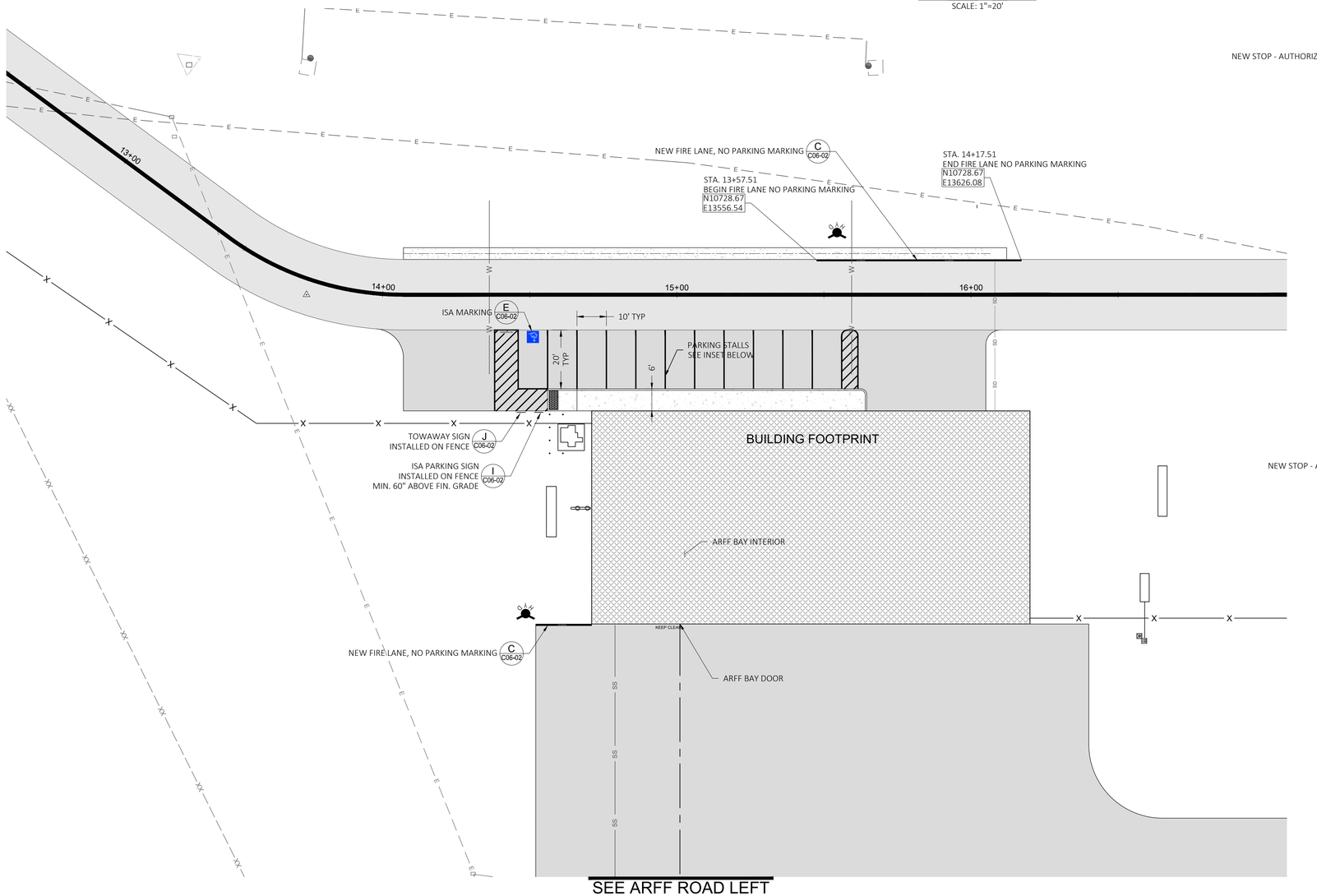
SCALE: 1"=20'

LEGEND

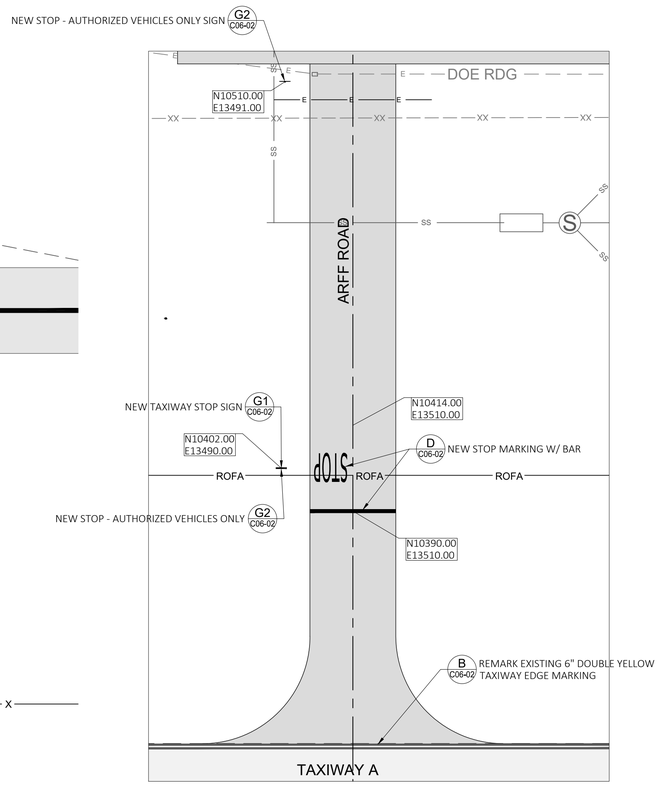
N9738.46 E13727.35	AIRPORT GRID COORDINATE
	EXISTING PAVEMENT
	NEW PAVEMENT
X	EXISTING FENCE
	EXISTING MARKING
	NEW MARKING
	SIGNAGE (EXISTING / NEW)



LOCATION MAP

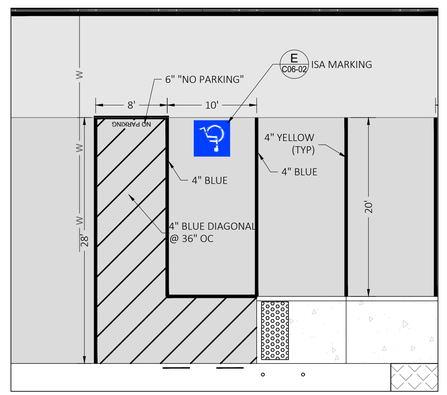


SEE ARFF ROAD LEFT



ARFF ROAD MARKINGS

SCALE: 1"=20'



PARKING SPACE MARKINGS

SCALE: 1"=8'

BRADLEY ENGINEERING
6125 KING ROAD, SUITE 201 · LOOMIS, CALIFORNIA 95650 · (916) 652-4725

ENGINEER OF RECORD

DRAFT
95% REVIEW

No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

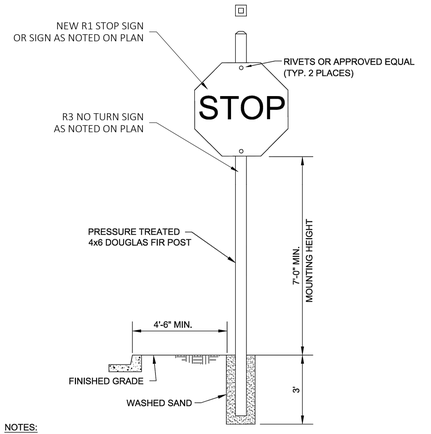
MULTIPURPOSE ARFF/SRE BUILDING

MARKING PLAN

DATE	3/28/2025
DRAWN	TS
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0601.Mark
SCALE	1"=20'
SHEET No.	C06-01

PLOTTED BY Kevin Currey 3/30/2025 4:35 PM

G:\75 MAMMOTH\21-22 ARFF BLD\21-2 BLD SITE\7522.C0601.MARK.DWG

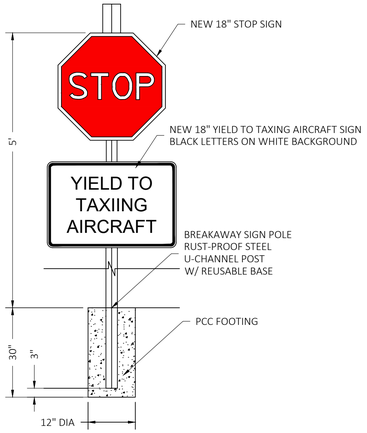


NOTES:

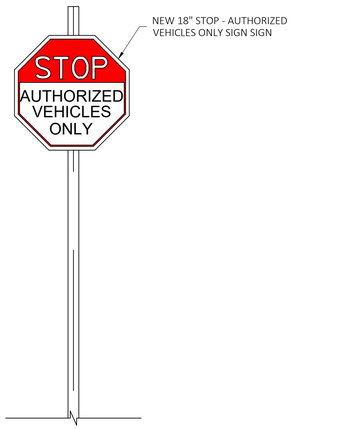
1. SIGN MATERIALS, CONSTRUCTION AND PLACEMENT SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. ON STREETS WHERE CURBING DOES NOT EXIST, SET SIGN 6' MINIMUM FROM PAVEMENT EDGE.
3. ALL REGULATORY SIGNS SHALL USE ASTM TYPE 3 INTENSITY SHEETING.
4. INSTALLATION REQUIRES APPROVAL OF PUBLIC WORKS DEPARTMENT. NOT FOR LOCATIONS WHERE SNOW IS BLOWN.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS		
Mammoth Lakes CALIFORNIA	**TRAFFIC SIGN INSTALLATION**	STANDARD PLAN 405-2
	PUBLIC WORKS DIRECTOR APPROVAL: _____ DATE: May 7, 2014	SHEET 1 OF 1

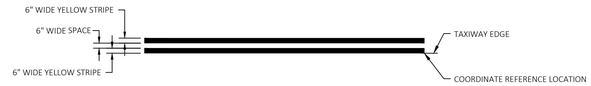
G STOP SIGN & TYPICAL SIGN POST
NTS



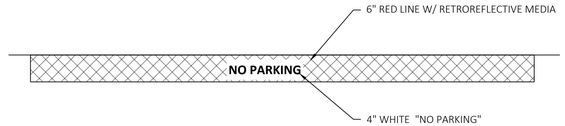
G1 TAXIWAY STOP SIGN
NTS



G2 STOP - AUTHORIZED VEHICLES ONLY SIGN
NTS



B TAXIWAY EDGE STRIPE DETAIL
NTS



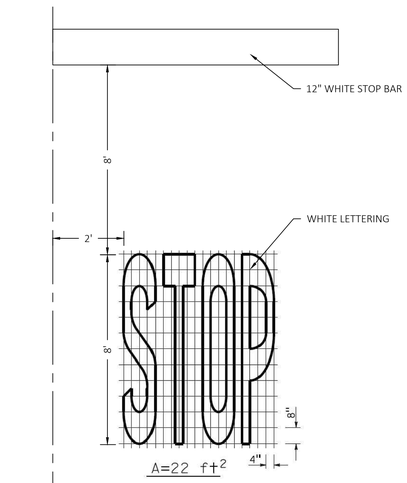
C FIRE LANE - NO PARKING
NTS

I ISA PARKING SIGN (CA K-4352-MOD)
NTS

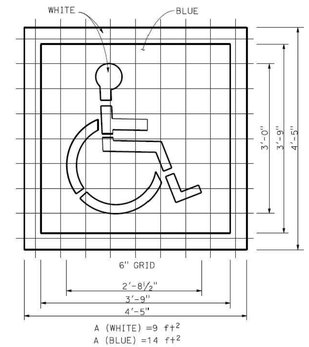
NOTE:
1. MINIMUM MOUNTING HEIGHT, 60" FROM BOTTOM OF SIGN TO GROUND.
2. FENCE MOUNTING HARDWARE SHALL INCLUDE 1.75" x 17" OR 23", 14 GUAGE STEEL BRACKET WITH 3/8" PRE-DRILLED HOLES FOR 2.5" LONG x 5/16" ZINC PLATED BOLTS WITH MATCHING NUTS, LOCK AND NYLON WASHERS.

J TOWAWAY SIGN (CA R100B)
NTS

NOTE:
1. MINIMUM MOUNTING HEIGHT, 60" FROM BOTTOM OF SIGN TO GROUND.
2. FENCE MOUNTING HARDWARE SHALL INCLUDE 1.75" x 17" OR 23", 14 GUAGE STEEL BRACKET WITH 3/8" PRE-DRILLED HOLES FOR 2.5" LONG x 5/16" ZINC PLATED BOLTS WITH MATCHING NUTS, LOCK AND NYLON WASHERS.



D STOP MARKING (CA A24D) W/ BAR
NTS



INTERNATIONAL SYMBOL
OF ACCESSIBILITY (ISA) MARKING

E ISA MARKING (CA A24C)
NTS

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ENGINEER OF RECORD

DRAFT
95% REVIEW

No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

MULTIPURPOSE ARFF/SRE BUILDING

MARKING AND SIGN DETAILS

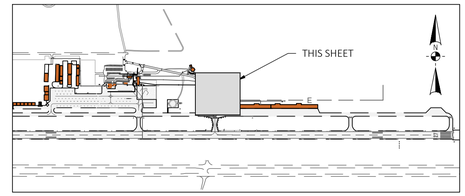
DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0601.Mark
SCALE	AS SHOWN
SHEET No.	C06-02

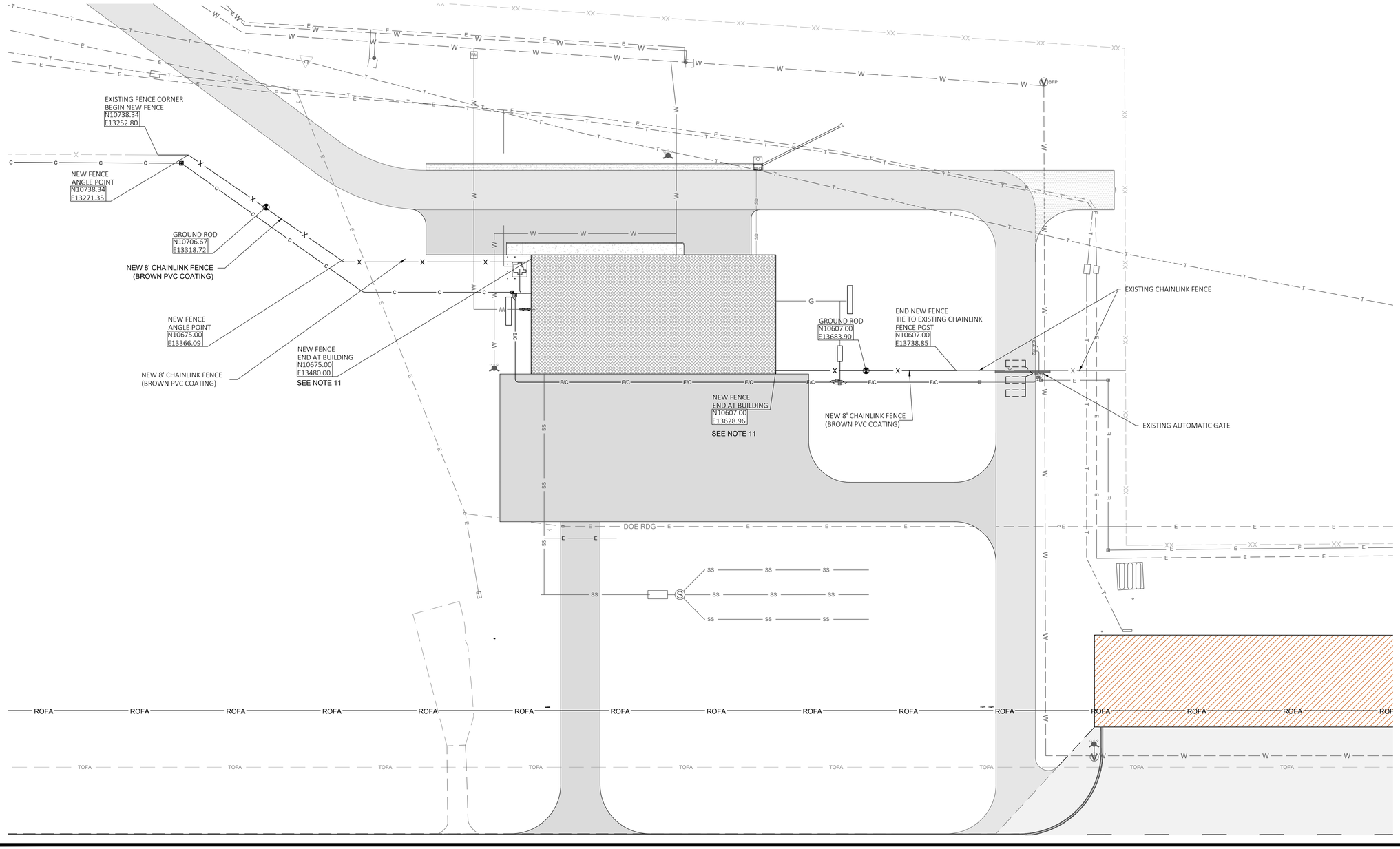
NOTES:

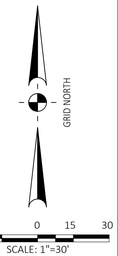
1. SEE DEMOLITION PLAN FOR FENCE REMOVAL, SEE SHEET C02-01 AND SHALL BE VERIFIED BY RESIDENT ENGINEER IN THE FIELD PRIOR TO THE CONSTRUCTION OF THE NEW FENCE IN THE AREA.
2. CONTRACTOR SHALL BACKFILL AND COMPACT ALL POST HOLES CREATED BY FENCE REMOVAL WITH NATIVE MATERIAL FROM DESIGNATED BORROW SITE OR EXCESS MATERIAL FROM PERIMETER FENCE AND TEMPORARY HAUL ROAD GRADING.
3. CONTRACTOR SHALL SCHEDULE WORK SUCH THAT EXISTING FENCE AND GATES SHALL NOT BE REMOVED UNTIL MATERIALS AND EQUIPMENT ARE AVAILABLE FOR CONSTRUCTING THE NEW FENCE OR GATES.
4. IN AREAS WHERE THE NEW FENCE IS NOT LOCATED IN THE SAME LOCATION AS THE EXISTING FENCE, THE EXISTING FENCE SHALL REMAIN IN PLACE TO PROVIDE SECURITY FOR THE AIRPORT UNTIL THE NEW FENCE IS INSTALLED.
5. CONTRACTOR SHALL USE TEMPORARY FENCING AND SWING GATES WITH PADLOCKS AS NEEDED TO MAINTAIN SECURITY OF THE AIRPORT AT NEW GATE LOCATIONS.
6. CONTRACTOR SHALL PROVIDE A WEEKLY PROGRESS SCHEDULE TO THE RESIDENT ENGINEER AND AIRPORT MANAGER, INCLUDING AREAS OF NEW FENCE POST HOLES EXCAVATED, NEW POSTS SET, CHAINLINK FABRIC INSTALLED AND GATES INSTALLED.
7. RECENT PROPERTY LINE SURVEYS HAVE BEEN CONDUCTED AND EXISTING PROPERTY CORNERS HAVE BEEN MONUMENTED. PROTECT MONUMENTS FROM DAMAGE.
8. CONTRACTOR SHALL CLEAR AND GRADE 5' ON THE OUTSIDE OF THE TOTAL NEW FENCE LINE AND 10' ON THE INSIDE OF THE NEW FENCE LINE. FENCE LINE SHALL BE GRADED SMOOTH WITH UNIFORM GRADE WITH NO ABRUPT CHANGES, SO THAT BOTTOM OF FENCE IS STRAIGHT LINE AT GROUND LEVEL WITH NO MORE THAN +/-1" FROM GRADE. NO SEPARATE PAYMENT FOR CLEARING OF NEW FENCE LINE IN ACCORDANCE WITH SPECIFICATIONS. NO SEPARATE PAYMENT FOR GRADING OF NEW FENCE LINE. SEE DETAIL SHEET C06-04.
9. 5/8" x 8' GROUND RODS SHALL BE INSTALLED AND CONNECTED TO THE NEW FENCELINE. GROUND RODS SHALL BE LOCATED APPROXIMATELY EVERY 500', AS SHOWN ON THE PLAN. SEE DETAIL SHEET C06-04.
10. SEE FENCE DETAILS SHEET C06-04.
11. FENCE CONTRACTOR SHALL COORDINATE LOCATION OF FENCE POST LOCATION WITH BUILDING CORNER LOCATION AND FOUNDATION. CONTRACTOR SHALL PROVIDE DETAIL OF FENCE TIE TO NEW BUILDING CORNER. DETAIL SHALL BE APPROVED BY ENGINEER.

LEGEND

N9738.46 E13727.35	AIRPORT GRID COORDINATE
	EXISTING PAVEMENT
	NEW PAVEMENT
X	EXISTING FENCE
X	NEW FENCE LINE
X	FENCE LINE GROUND ROD
E	EX ELECTRICAL DUCT
E	NEW ELECTRICAL DUCT
C	NEW COMM DUCT
W	EXISTING WATER MAIN
SS	NEW WATER SERVICE
G	NEW GAS LINE
SS	NEW SEPTIC LINE







30 0 15 30
SCALE: 1"=30'

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ENGINEER OF RECORD

DRAFT
95% REVIEW

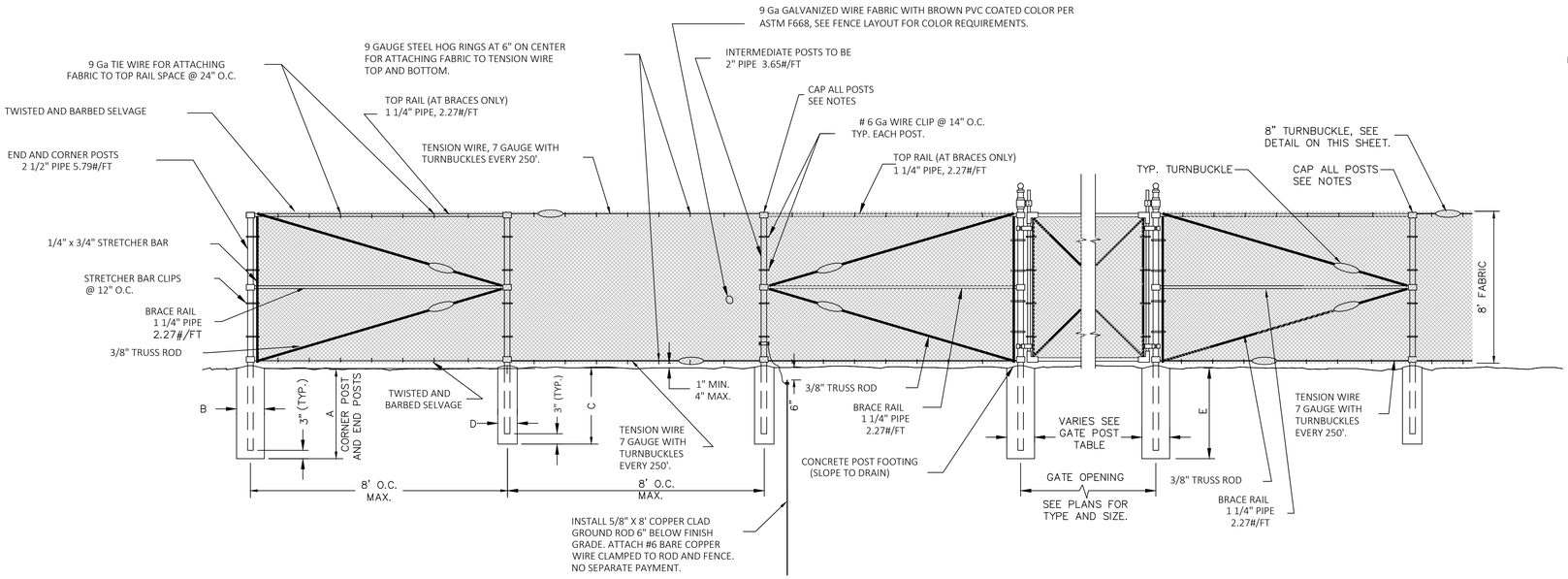
No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

MULTIPURPOSE ARFF/SRE BUILDING

FENCE LAYOUT PLAN

DATE	3/28/2025
DRAWN	TS
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0603.Fence
SCALE	1"=30'
SHEET No.	C06-03



NOTE:

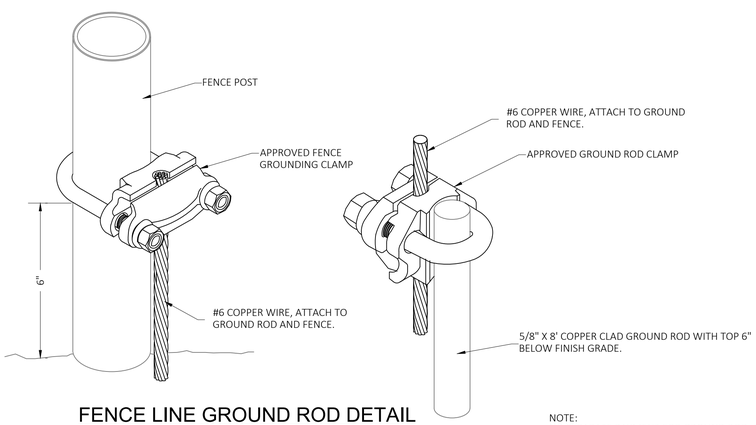
1. ALL MEMBERS TO BE HOT-DIPPED GALVANIZED, CONFORMING TO TYPE A OR GROUP 1C (HIGH STRENGTH PIPE), EXTERNAL COATING TYPE B & INTERNAL COATING TYPE B OR D. ALL MEMBERS SHALL BE PVC COATED COLOR BROWN; COLOR EXAMPLES SHALL BE SUBMITTED TO SPONSOR FOR APPROVAL. SEE LAYOUT PLANS FOR LOCATION OF NEW CHAINLINK FENCE.
2. FOR GATE POST SIZES SEE GATE DETAILS THIS SHEET.
3. FOR A STRAIGHT RUN OF THE FENCE LINE, BRACE POSTS AND BRACE RAILS SHALL BE INSTALLED AT INTERVALS NOT TO EXCEED 500 FEET. BRACE POSTS SHALL BE THE SAME POST AS A CORNER OR END POST. BRACE RAILS SHALL BE INSTALLED ON BOTH SIDES OF THE BRACE POST. INSTALL TOP RAIL AT ALL BRACE AND CORNER POST LOCATIONS.
4. BEFORE EXCAVATING THE NEW FENCE LINE POSTS, THE NEW FENCE LINE SHALL BE GRADED SMOOTH TO A UNIFORM GRADE SO THE GAP BETWEEN THE BOTTOM OF THE FENCE FABRIC AND THE GROUND IS 1" MINIMUM AND 4" MAXIMUM. FENCE POSTS SHALL BE LOCATED AS NEEDED TO ADJUST FENCE TO BREAKS IN THE GRADE. SEE DETAIL BELOW FOR LIMITS OF NEW FENCE LINE AND TEMPORARY ACCESS ROAD.
5. AFTER DEBRIS AND VEGETATION HAVE BEEN CLEARED, THE GRADED FENCE LINE SHALL BE MOISTENED AND RECOMPACTED TO A DEPTH OF 6" AND A RELATIVE COMPACTION OF 90% MINIMUM
6. TURNBUCKLES SHALL BE INSTALLED AT THE END, EACH CORNER OF THE FENCE LINE AND AT INTERMEDIATE LOCATIONS ON THE TENSION WIRES AT SPACING NOT TO EXCEED 250'. TURNBUCKLES SHALL BE GALVANIZED STEEL 1/2" WITH 4 1/2" MIN. ADJUSTMENT.
7. TENSION WIRE SHALL BE 7 GAUGE COILED SPRING STEEL WIRE COATED SIMILAR TO THE RESPECTIVE WIRE FABRIC BEING USED.
8. HOG RINGS SHALL BE 9 GAUGE GALVANIZED STEEL PLACED AT 6" MAXIMUM SPACING ON TOP AND BOTTOM TENSION WIRES.
9. 6 GAUGE WIRE CLIPS SHALL BE PLACED AT 14" MAXIMUM SPACING ON EACH FENCE POST.
10. ALL CHAINLINK FENCE POSTS AND GATE POSTS SHALL BE SUPPLIED WITH GALVANIZED POST CAPS. ALL POST CAPS SHALL BE FIRMLY ATTACHED TO POST.
11. CHAINLINK FENCE FABRIC WIRE SHALL BE PVC COATED, BROWN IN COLOR IN ACCORDANCE WITH ASTM F668 AND F934. CONTRACTOR SHALL HANDLE FENCE FABRIC WITH CARE. ANY DAMAGE TO FABRIC OR MEMBER COATING PRIOR TO AND DURING INSTALLATION SHALL BE REPAIR BY CONTRACTOR AT NO EXPENSE TO THE OWNER.
12. INSTALL NEW 5/8" x 8' COPPER CLAD GROUND ROD, WITH TOP OF ROD 6" BELOW FINISH GRADE, AT 500' INTERVALS AT LOCATIONS OR AS SHOWN ON THE PLANS. USE #6 BARE COPPER WIRE CLAMPED TO FENCE POST AND GROUND ROD. NO SEPERATE PAYMENT FOR FENCE GROUNDING. SEE DETAIL THIS SHEET.
13. CONCRETE FOR ALL FENCE WORK SHALL BE 3000 PSI AND MEET P610 SPECIFICATIONS. NO CONCRETE WASH OUT IN FENCE POST HOLES. CONTRACTOR SHALL BUILD LINED RETENTION BASIN FOR CLEANOUT OR CONCRETE TRUCKS SHALL BE SELF CONTAINED.
14. ALL FENCE AND GATE POSTS SHALL BE PROVIDED SUCH THAT MATCHING POST TOP CAP CAN BE REMOVED AND REPLACED WITH OUTRIGGER EITHER HORIZONTAL OR 45 DEG ANGLE, DESIGNED TO SUPPORT 3 BARB WIRES.

CHAIN LINK FENCE DETAIL

NTS

FENCE MEMBER DIMENSIONS				
PIPE SIZE DESIGNATION	OUTSIDE DIA INCHES	THICKNESS INCHES	WEIGHT lb/ft	USE
2 1/2"	2.875	0.203	5.79	CORNER AND END POST
2"	2.375	0.154	3.65	LINE POSTS
1 1/4"	1.660	0.140	2.27	TOP AND BRACE RAILS

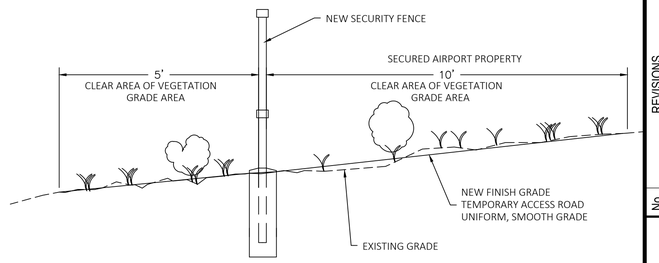
FENCE POST FOUNDATION DIMENSIONS		
DIMENSION DESIGNATION	FENCE POST TYPE	DIMENSION
DEPTH (A)	END & CORNER	42"
DIAMETER (B)	END & CORNER	12"
DEPTH (C)	LINE	36"
DIAMETER (D)	LINE	8"
DEPTH (E)	GATE	42"



FENCE LINE GROUND ROD DETAIL

NTS

NOTE:
NO SEPARATE PAYMENT FOR GROUND ROD, COPPER WIRE OR CLAMPS.



FENCE LINE AND SERVICE ROAD GRADING DETAIL

NO SCALE

NOTES:

1. ALL EXISTING FENCE TO BE REMOVED, AS SHOWN ON THE PLANS, SHALL INCLUDE POSTS, CONCRETE FOOTINGS, WIRE, FABRIC AND GATES. ALL MATERIALS SHALL BE REMOVED FROM THE AIRPORT. ALL VEGETATION SPOILS SHALL BE REMOVED FROM AIRPORT PROPERTY OR MULCHED BY APPROVED METHODS AND SPREAD OVER WORK AREA AFTER FENCE LINE IS COMPLETED.
2. CONTRACTOR SHALL BACKFILL ALL POST HOLES WITH NATIVE MATERIAL FROM DESIGNATED BORROW SITE OR EXCESS MATERIAL SOIL FROM PERIMETER FENCE TEMPORARY HAUL ROAD GRADING.
3. CONTRACTOR SHALL CLEAR AND GRADE 5' ON THE OUTSIDE OF THE TOTAL NEW FENCE LINE AND 10' ON THE INSIDE OF THE NEW FENCE LINE. FENCE LINE SHALL BE GRADED SMOOTH WITH UNIFORM GRADE WITH NO ABRUPT CHANGES, SO THAT BOTTOM OF FENCE IS STRAIGHT LINE AT GROUND LEVEL WITH NO MORE THAN 1" MINIMUM AND 4" MAXIMUM FROM GRADE. NO SEPARATE PAYMENT FOR CLEARING OF NEW FENCE LINE IN ACCORDANCE WITH SPECIFICATIONS. SEE DETAIL ABOVE.

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ENGINEER OF RECORD

DRAFT
95% REVIEW

No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

MULTIPURPOSE ARFF/SRE BUILDING

FENCE DETAILS

DATE	3/28/2025
DRAWN	TS
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0603.Fence
SCALE	AS SHOWN
SHEET No.	C06-04

NOTES:

1. EXACT LOCATION OF NEW PULLBOXES MAY BE ADJUSTED IN THE FIELD AS NEEDED AND APPROVED BY RPR.
2. LOCATION OF NEW DUCT" INTO NEW BUILDING TO BE FIELD VERIFIED BY CONTRACTOR.
3. ALL CAT6 UTP CABLE AND GATE CONTROL WIRE ARE CONSIDERED INCIDENTAL TO CAMERA AND SECURITY GATE INSTALLATION. NO SEPARATE PAYMENT FOR CAT6 CABLE AND GATE CONTROL WIRE. ALL CAT6 CABLE SHALL BE CMX RATED.
4. NEW 2W-3", 1W-2" ELEC AND 1W-2" COMM DUCT TO CROSS NEW 4" BUILDING SEPTIC LINE. MAINTAIN 24" MINIMUM COVER. SWEEP UP LOWER 3" CONDUIT PARALLEL TO UPPER CONDUIT AS NECESSARY TO MAINTAIN 6" VERTICAL CLEARANCE FROM SEPTIC LINE.
5. SEE SHEET C07-02 FOR ELECTRICAL DETAILS.

CALLOUT NOTES

(1) NON-ENCASED 2W-2" CONDUIT
2" COMM: (1) 6-STRAND SMF
2" ELECT. : (3) #4 600V THWN
(1) #6 600V TWHN GROUND

(2) CONCRETE-ENCASED 2W-3", 2W-2" CONDUIT
3" ELECT: GENERATOR WIRES
3" ELECT: GENERATOR WIRES

2" ELECT: (3) #4 600V THWN
(1) #6 600V THWN GROUND
2" COMM: (1) 6 STRAND SMF

(3) NON-ENCASED 2W-3", 2W-2" CONDUIT
3" ELECT: GENERATOR WIRES
3" ELECT: GENERATOR WIRES

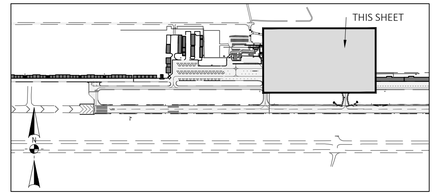
2" ELECT: (3) #4 600V THWN
(1) #6 600V THWN GROUND
2" COMM: (1) 6 STRAND SMF

GRID NORTH

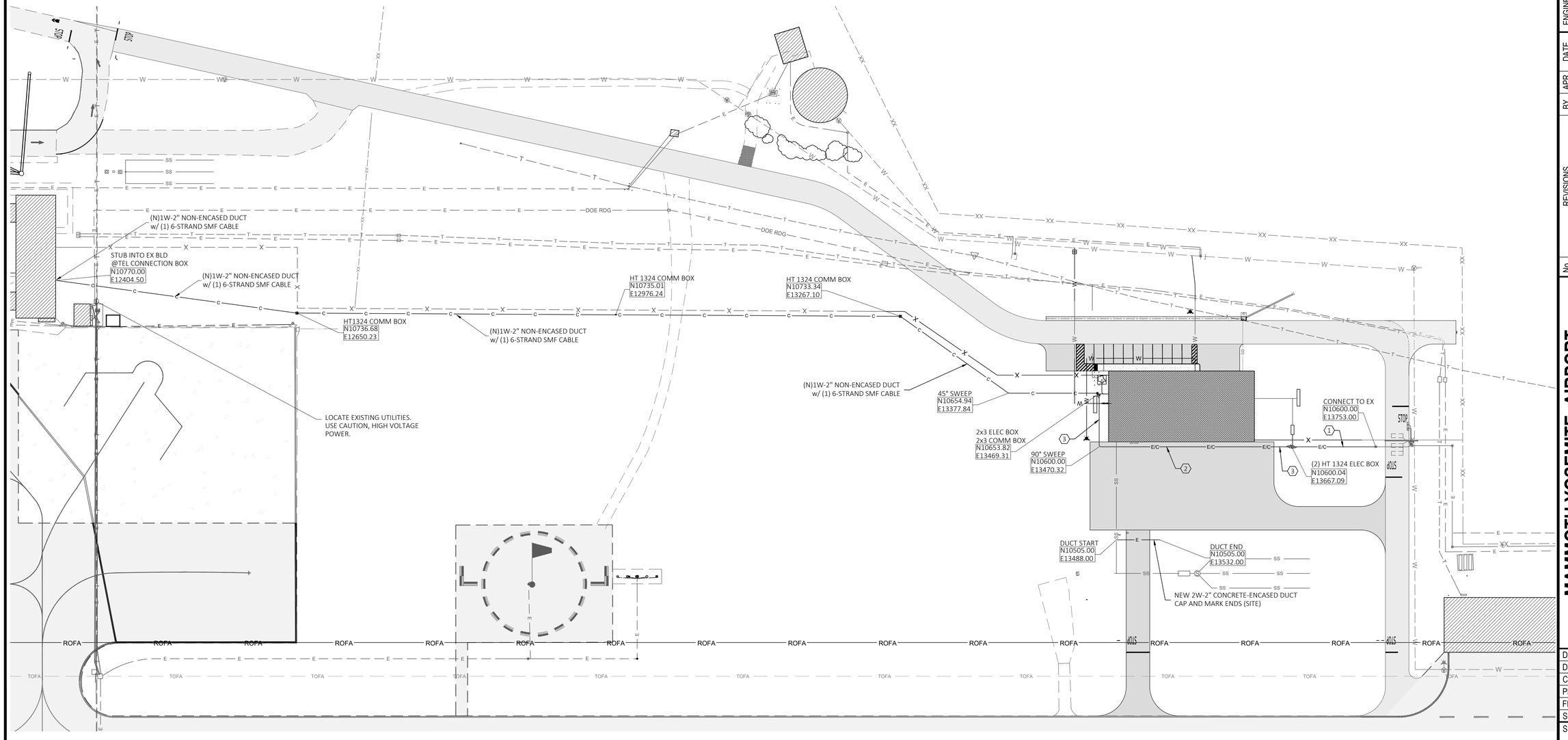
50 0 25 50
SCALE: 1"=50'

LEGEND

N9738.46 E13727.35	AIRPORT GRID COORDINATE
	EXISTING PAVEMENT
	NEW PAVEMENT
X	EXISTING FENCE
E	EX ELECTRICAL DUCT
E E	NEW ELECTRICAL DUCT
C C	NEW COMM DUCT
E/C	NEW JOINT ELECTRICAL & COMM DUCTS
E	NEW ELEC JUNCTION BOX, SIZE PER PLAN
E	EX DOE RIDGE OBSTRUCTION LIGHT POWER DUCT (ABANDON)
T	EX UNDERGROUND TELEPHONE
W	EXISTING WATER MAIN
SS	NEW WATER SERVICE
G G	NEW GAS LINE
SS	NEW SEPTIC LINE



LOCATION MAP



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ENGINEER OF RECORD

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No.	REVISIONS	BY	APR	DATE

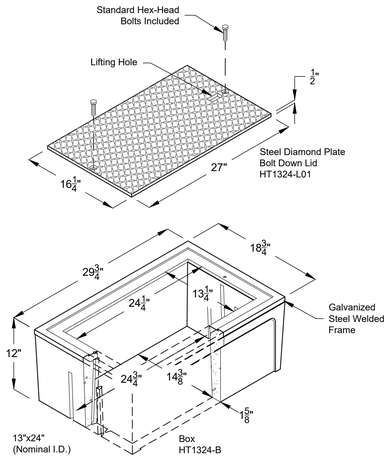
MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

MULTIPURPOSE ARFF/SRE BUILDING

ELECTRICAL PLAN

DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0701.Elect
SCALE	1"=50'
SHEET No.	C07-01

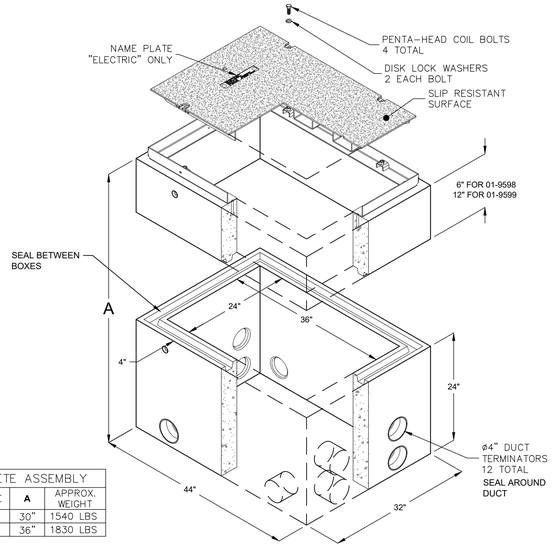
PLOTTED BY Kevin Curray 3/30/2025 4:36 PM
G:\75 MAMMOTH\21-22 ARFF BLD\21-2 BLD SITE\7522.C0701 ELECT.DWG



PART NO.	PRODUCT	DESCRIPTION	APPROX. WEIGHT	QTY. PER PALLET
HT1324-B	BOX	13"x24"x12" Concrete Traffic Rated Box (Comes Standard With Hex Bolts)	172	12
HT1324-E	EXTENSION	13"x24"x12" Concrete Extension	174	12
HT1324-L01	LID	Steel Diamond Plate Bolt Down Lid	67	
HT1324-L03	LID	® Steel Traxplate Bolt Down Slip Resistant Lid	67	
GALVANIZING AVAILABLE ON ALL STEEL LIDS				

HT1324 JUNCTION BOX

NOT TO SCALE

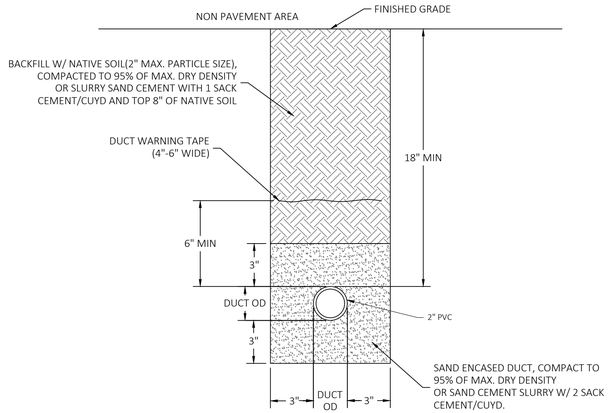


COMPLETE ASSEMBLY		
PG&E CODE	A	APPROX. WEIGHT
01-9598	30"	1540 LBS
01-9599	36"	1830 LBS

MATERIAL LIST		
PG&E CODE	DESCRIPTION	WEIGHT (LBS)
043518	ENCLOSURE, 2'x3'x2'-0" PG&E	1060
043519	RISER 2'x3'x6" PG&E	480
043524	RISER 2'x3'x12" PG&E	770

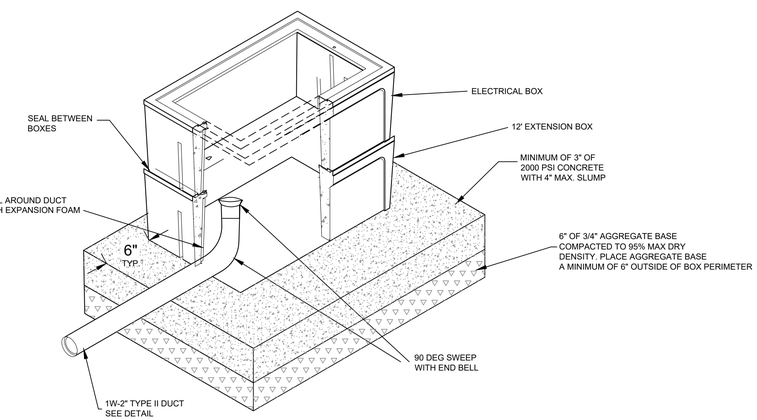
2x3 JUNCTION BOX

NOT TO SCALE



NON-ENCASED 1W-2" CONDUIT

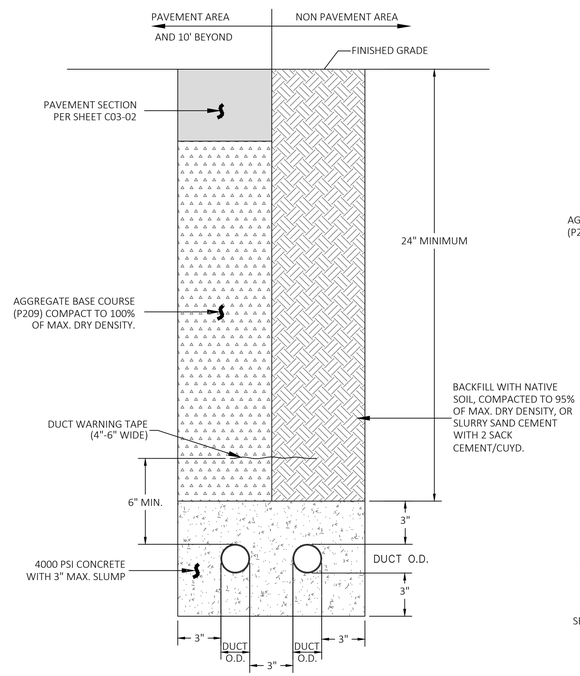
NO SCALE



JUNCTION BOX BASE

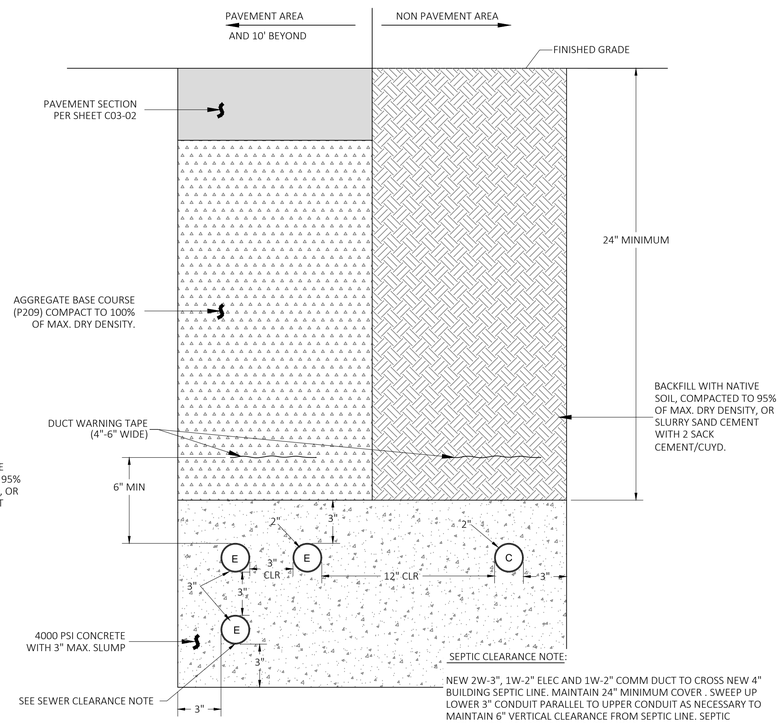
NOT TO SCALE

NOTE:
JUNCTION BOX BASE SHALL BE INSTALLED AT ALL HT1324 AND 2X3 JUNCTION BOXES. NO SEPARATE PAYMENT FOR BASE.



CONCRETE ENCASED 2W-2" CONDUIT

NO SCALE



CONCRETE ENCASED 2W-3", 1W-2" ELEC. AND 1W-2" COMM. CONDUIT

NO SCALE

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ENGINEER OF RECORD

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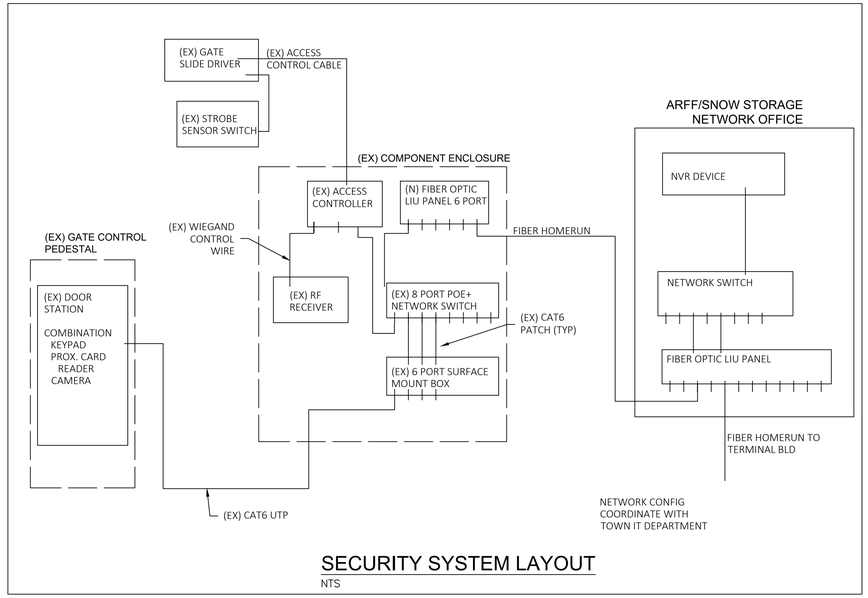
No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

MULTIPURPOSE ARFF/SRE BUILDING

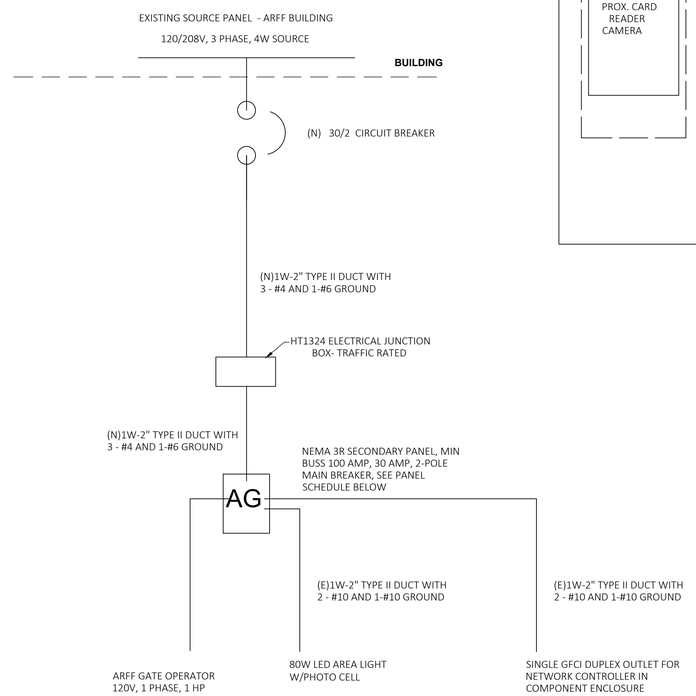
ELECTRICAL DETAILS

DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0701.Elect
SCALE	AS SHOWN
SHEET No.	C07-02



SECURITY SYSTEM LAYOUT

NTS



GATE POWER ONE-LINE DIAGRAM

NTS

ARFF GATE PANEL

PANEL:	MANF:	EATON	MAIN:	**30A**/2P	SERVICE:	MOUNTING:	ENCLOSURE: NEMA 3R	10K	AIC
AG	TYPE:	PRL1	BUSS:	100 AMP	120 /208 VOLT	SURFACE	WIDTH: 20"	100%	NEUT.
			FEEDER RATING:	**30** AMP	1 Ø, 3W		DEPTH: 8"		

AØ	BØ	DIRECTORY	BRKR	CKT		CKT	BRKR	DIRECTORY	AØ	BØ
		SURGE PROTECTION [3]	30/2	1	•	2	**20/2**	**ARFF GATE**	**915**	
		SPACE	PFB	3	•	4		**1 HP, 8.8 FLA @ 208V, 1ø**		**915**
		SPACE	PFB	5	•	6	20/1	LIGHT	80	
		SPACE	PFB	7	•	8	20/1	RECPT- NETWK CNTRL & HTR		370
		SPACE	PFB	9	•	10	20/1	LIGHT		
		SPACE	PFB	11	•	12	PFB	SPACE		

AØ = 995 VA
BØ = 1285 VA

TOTAL CONNECTED LOAD
2280 VA
10.7 AMPS

NOTES:

1. PROVIDE COPPER BUSSING, INCLUDING GROUND BUSS.
2. PROVIDE DOOR-IN-DOOR CONSTRUCTION WITH LOCKING T-HANDLES. ALL KEYS FOR PROJECT TO MATCH.
3. PROVIDE INTEGRAL SURGE PROTECTION DEVICE (SPD), EATON 50KA SURGE CAPACITY PER PHASE OR EQUAL. LOCATE SPD BREAKER ON BUSSING RELATIVE TO INCOMING FEED. LOCATE AT TOP OF BUSSING FOR TOP FED PANELS AND AT BOTTOM OF BUSSING FOR BOTTOM FED PANELS.
4. EQUIP PANEL WITH BOLT-ON STYLE BREAKERS.

BRADLEY ENGINEERING
6125 KING ROAD, SUITE 201 · LOOMIS, CALIFORNIA 95650 · (916) 652-4725

ENGINEER OF RECORD

DRAFT
95% REVIEW

No.	REVISIONS	BY	APR	DATE

MAMMOTH YOSEMITE AIRPORT
MAMMOTH LAKES CALIFORNIA

MULTIPURPOSE ARFF/SRE BUILDING

ARFF GATE ELECTRICAL DETAILS

DATE	3/28/2025
DRAWN	KDC
CHECKED	MSB
PROJECT No.	75.21
FILE	7522.C0603.Fence
SCALE	AS SHOWN

SHEET No.
C07-03

3/7/2025 11:32:24 PM

DOOR & FRAME SCHEDULE

DOOR NO.	TYPE	DOOR PARAMETERS DIMENSIONS WIDTH	HEIGHT	THK	MATL	GLASS TYPE	FINISH	FRAME PARAMETERS FRAME TYPE	FINISH	Head Detail	Jamb Detail	SILL	HDWR GROUP	Fire Rating	COMMENTS
01	SF	3' - 0"	7' - 0"	1 3/4"	ALUM	CLR	ANOD	ALUM	ANOD	4/A05-01	6/A05-01	7/A50-01	4A		
01A	NL	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01	-	6	60	
02	NL	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01		6	60	
02A	B	6' - 0"	6' - 8"	2"	WD	-	STAIN		-	1/A5-01	1/A50-01	1/A50-01			
03	NL	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01		6	60	
04A	F	3' - 0"	7' - 0"	1 3/4"	HM	-	PTD	HM	PTD	14/A05-01	15/A05-01		2A	60	
05	NL	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01		6	60	
06	F	3' - 0"	7' - 0"	1 3/4"	HM	-	PTD	HM	STAIN	14/A05-01	15/A05-01		2A	60	
06A	FP	6' - 0"	7' - 0"	1 3/4"	HM	-	PTD	HM	PTD	14/A05-01	15/A05-01		2B	60	
06B	OH	16' - 0"	18' - 0"	1 1/2"	HM	CLR	PTD	STL	PTD						
06C	OH	16' - 0"	18' - 0"	1 1/2"	HM	CLR	PTD	STL	PTD						
06D	OH	16' - 0"	18' - 0"	1 1/2"	HM	CLR	PTD	STL	PTD						
06E	OH	16' - 0"	18' - 0"	1 1/2"	HM	CLR	PTD	STL	PTD						
06F	OH	16' - 0"	18' - 0"	1 1/2"	HM	CLR	PTD	STL	PTD						
06G	OH	16' - 0"	18' - 0"	1 1/2"	HM	CLR	PTD	STL	PTD						
06H	NL	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	1/A05-01	2/A05-01	3/A05-01	2		
07	F	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01		3		
08	F	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01		4		
09	F	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01		6		
10	F	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01		4		
11A	F	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01		2A	60	
11B	F	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01		2A	60	
11C	F	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01		2A	60	
11D	OH	16' - 0"	18' - 0"	1 1/2"	HM	-	PTD	STL	PTD						
11E	OH	16' - 0"	18' - 0"	1 1/2"	HM	-	PTD	STL	PTD						
12	F	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	14/A05-01	15/A05-01		4		
15	F	2' - 8"	7' - 0"	1 3/4"	HM	-	PTD	HM	PTD	14/A05-01	15/A05-01		6		
21	F	3' - 0"	6' - 8"	1 3/4"	HM	-	PTD	HM	PTD	14/A05-01	15/A05-01		6		
22	F	3' - 0"	6' - 8"	1 3/4"	HM	-	PTD	HM	PTD	14/A05-01	15/A05-01		4		
23	NL	3' - 0"	7' - 0"	1 3/4"	HM	CLR	PTD	HM	PTD	1/A05-01	2/A05-01	3/A05-01	2		

HARDWARE GROUPS:

#1 - OFFICE

3-HINGES	5BB1 4.5x4.5/652/IVE
1-CLOSER	4111/689/LCN
1-ENTRY/OFFICE LOCK	L9496 /626/SCH
1-FLOOR STOP	FS434630/IVE
3-SIDES- SILENCER	SR64GRY/IVE
1-THRESHOLD	346/689/IVE

#2 - UTILITY ROOMS

3-HINGES	5BB1 4.5x4.5/652/IVE
1-CLOSER	4111/689/LCN
1-ENTRY/OFFICE LOCK	L9496 /626/SCH
1-FLOOR STOP	FS434630/IVE
3-SIDES-SILENCER	SR64GRY/IVE
1-ARMOR PLATE	8400 10X2/630/IVE
1-THRESHOLD	346/689/IVE

#2A - SHOP ROOMS

3-HINGES	5BB1 4.5x4.5/652/IVE
1-CLOSER	4111/689/LCN
1-ENTRY	L9496 /626/SCH
1-FLOOR STOP	FS434630/IVE
3-SIDES-SILENCER	SR64GRY/IVE
1-ARMOR PLATE	8400 10X2/630/IVE
1-THRESHOLD	346/689/IVE

#2B - ARFF

6-HINGES	5BB1 4.5x4.5/652/IVE
2-CLOSER	4111/689/LCN
1-ENTRY	L9496 /626/SCH
2-FLOOR STOP	FS434630/IVE
6-SIDES-SILENCER	SR64GRY/IVE
1-ARMOR PLATE	8400 10X2/630/IVE
1-THRESHOLD	346/689/IVE

#3 - RESTROOM

3-HINGES	5BB1 4.5x4.5/652/IVE
1-CLOSER	4111/689/LCN
1-ENTRY/OFFICE LOCK	L9496 /626/SCH
1-FLOOR STOP	FS434630/IVE
3-SIDES-SILENCER	SR64GRY/IVE
1-KICK PLATE	8400 10X2/630/IVE
1-THRESHOLD	346/689/IVE

#4 EXTERIOR

3-HINGES	5BB1 4.5x4.5/652/IVE
1-CARD READER	HID MINIPROX/-/AA
1-ELECTRIC STRIKE	7100 SERIES/-/AR
1-CLOSER	4111/689/LCN
1-FLOOR STOP	FS434630/IVE
3-SIDES-SILENCER	SR64GRY/IVE
1-FLOOR SWEEP	18100/-/PEM
1-DOOR POSITION SWITCH	3287/-/SGT
1-THRESHOLD	346/689/IVE
1-PANIC BAR	8000 SERIES/689/DMA

#4A EXTERIOR

3- HINGES	5BB1 4.5x4.5/652/IVE
1-CLOSER	4111/689/LCN
1-PANIC BAR	8000 SERIES/689/DMA
1-FLOOR STOP	FS434630/IVE
3-SIDES-SILENCER	SR64GRY/IVE
1-FLOOR SWEEP	18100/-/PEM
1-DOOR POSITION SWITCH	3287/-/SGT
1-THRESHOLD	346/689/IVE

#5 SECTIONAL DOOR

1-POWERED OPERATOR BY MFR
1-DOOR POSITION SWITCH

#6 - OFFICE

3-HINGES	5BB1 4.5x4.5/652/IVE
1-PASSAGE LATCH	L9496/626/SCH
1-FLOOR STOP	FS434630/IVE
3-SIDES-SILENCER	SR64GRY/IVE

DOOR / FRAME LEGENDS & ABBREVIATIONS

LEGEND / ABBREVIATIONS

ALUM ALUMINUM
ANOD ANODIZED
CLR CLEAR
DCRON DURACRON
DNAR DURANAR
EXT EXTERIOR
F FRAME
G ( ) GLASS (type)
GA GLAZED ALUMINUM
GALV GALVANIZED
GWG GEORGIAN WIRE GLASS
HCW HOLLOW CORE WOOD
HM HOLLOW METAL
HR HOUR
INSUL INSULATED
MIN MINUTE
N/A NOT APPLICABLE
NF NO FRAME (FRAMELESS)
PC POWDER COAT
PS PRESSED STEEL
PTD PAINTED
SCW SOLID CORE WOOD
SS STAINLESS STEEL
STL STEEL
TSG TEMPERED SAFETY GLASS
WD WOOD
WV WOOD VENEER

DUTY LEGEND

MED MEDIUM
STD STANDARD
HVY HEAVY
X-HVY EXTRA HEAVY

DOOR TYPES LEGEND

BF BIFOLD DOOR
CD COILING DOOR
CS COUNTER SHUTTER
DD DOUBLE SWING DOOR
GA GLAZED ALUMINUM DOOR
GL GLASS DOOR
HD HANGAR DOOR
ID IMPACT DOOR
OH OVERHEAD DOOR
RE REVOLVING DOOR
RO ROLLING DOOR
RR RAPID ROLL DOOR
SD SINGLE SWING DOOR
SL SLIDING DOOR
SP SPECIAL DOOR (define and detail)

CORE LEGEND

GYP GYPSUM
HC HOLLOW CORE
HO HONEY-COMB
ISO POLYISOCYANURATE
MF MINERAL FIBRE
PO POLYSTYRENE
SC SOLID CORE
UR POLYURETHANE

DOOR AND FRAME GENERAL NOTES

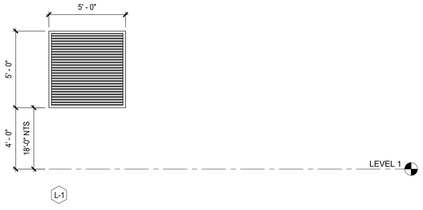
1. REFER TO SPECIFICATIONS OR FINISH IDENTIFICATION SCHEDULE FOR DESCRIPTION OF FINISHES AND COLOURS

WINDOW SCHEDULE

Type Mark	Count	Window Type	Glazing Type	Width	Height	Description	Frame Material	Comments

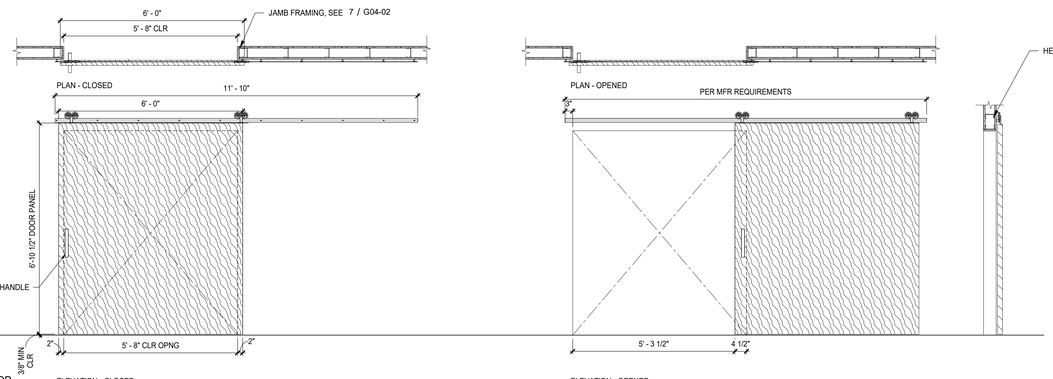
LOUVER SCHEDULE

Type Mark	Count	Louver Type	Width	Height	FRAME MATERIAL	Comments
L-1	2		5' - 0"	5' - 0"		



LOUVER LEGEND

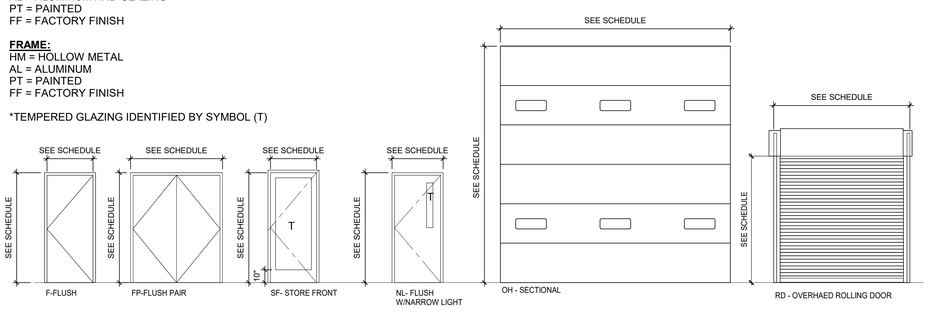
SCALE: 1/4" = 1'-0"



DOOR/WINDOW:
WD = WOOD
AL = ALUMINUM AND GLAZING*
PT = PAINTED
FF = FACTORY FINISH

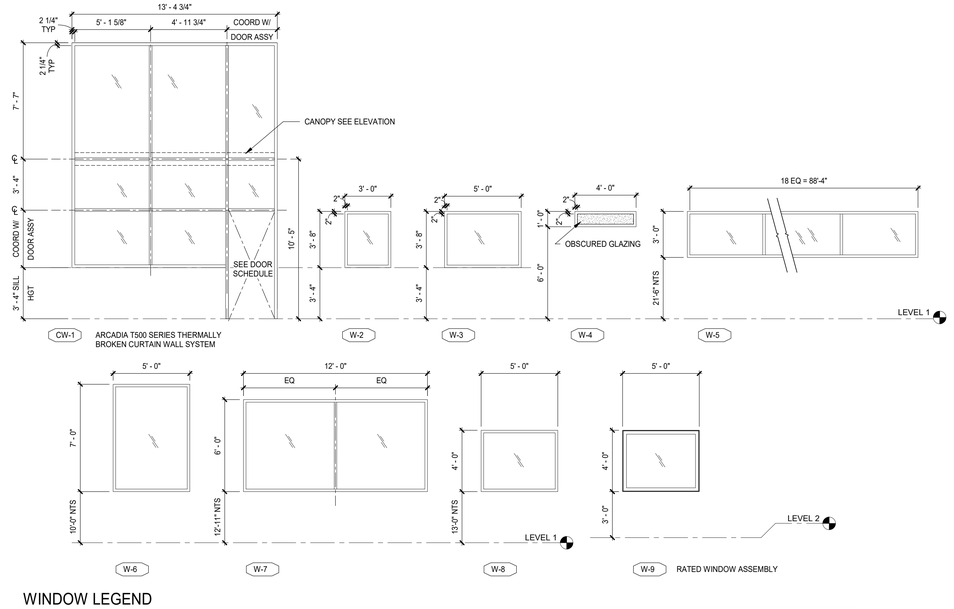
FRAME:
HM = HOLLOW METAL
AL = ALUMINUM
PT = PAINTED
FF = FACTORY FINISH

*TEMPERED GLAZING IDENTIFIED BY SYMBOL (T)



DOOR LEGEND

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



WINDOW LEGEND

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

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE
MAMMOTH, CALIFORNIA

Drawing Title
DOOR, WINDOW & LOUVER SCHEDULES

Scale	As indicated
Project No.	IN2024-0022
Drawing No.	**A05-01**

ROOM FINISH SCHEDULE

ROOMS		FLOORS		WALLS				CEILINGS		
NUMBER	NAME	FINISH	BASE	NORTH	EAST	SOUTH	WEST	MATERIAL	FINISH	COMMENTS
01	ENTRY/LOBBY	CPT	RB	P2	P2	P4	P2	ACT	ACT	
02	TRAINING	CPT	RB	P2	P3	P2	P2	ACT	ACT	
03	BREAKROOM	LVT	RB	P5	P2	P2	P2	ACT	ACT	
04	BATHROOM	CT1	CB	CWT1/P2	CWT1/P2	CWT1/P2	CWT1/P2	GWB	P1	FLOOR TILE GROUT - GRT1, WALL GROUT - GRT2
05	WORKSHOP	P7	RB	P2	P2	P2	P2	GWB	P1	
06	SRE GARAGE	P8		P2	P2	P2	P2			
07	RESTROOM	CT1	CB	CWT1/P2	CWT1/P2	CWT1/P2	CWT1/P2	GWB	P1	FLOOR TILE GROUT - GRT1, WALL GROUT - GRT2
08	ELECTRICAL ROOM	P7	RB	PT	PT	PT	PT	GWB	P1	
09	OFFICE	CPT	RB	P2	P2	P2	P2	ACT	ACT	
10	STORAGE	P7	RB	P2	P2	P2	P2	GWB	P1	
11	ARFF BAY	P8	RB	FRP	FRP	FRP	FRP			
12	AGENT STORAGE	P7	RB	P2	P2	P2	P2	GWB	P1	
13	CORRIDOR	VCT	RB	P2	P2	P2	P2			
14	STAIRWAY	VCT	RB	P2		P2	P2			
15	JANITORS	P7	RB	FRP	FRP	FRP	FRP	GWB	P1	
20	MEZZANINE LANDING	VCT	RB	P2	P2	P2	P2			
21	WATCH ROOM	CPT	RB	P2	P2	P2	P2	ACT	ACT	
22	STORAGE	P7	RB	P2	P2	P2	P2	GWB	P1	

P1) SHERWIN WILLIAMS - SW 7005 - PURE WHITE

P2) SHERWIN WILLIAMS - SW 7011 - NATURAL CHOICE

P3) SHERWIN WILLIAMS - SW 9038 - CUCUZZA VERDE

P4) SHERWIN WILLIAMS - SW 6433 - INVERNESS

P5) SHERWIN WILLIAMS - SW 9097 - SOFT FAWN

P5) SHERWIN WILLIAMS - SW 9114 - FALLEN LEAVES

LVT) MILLIKEN - WOOD KAKUTAN LVT PLANK

PLAM-1) WILSONART - FIELD ELM

PLAM-2) FORMICA - 7481 NATURAL BIRCH (TO MATCH DOOR LAMINATE)

SSM) CORIAN - SAGEBRUSH

CPT) BENLEY -.400076 - FREE DAY/TOTE BAG

RB) ROPPE - 100 - BLACK (4" BASE)

FRP) CRANE COMPOSITE - SEQUENTIA - 1130 FLAT WHITE (CLASS A)

SV) FORBO FLOORING - ETERNAL (COLOR TBD)

CT1) DALTILE - VL72 - INTENSITY PEBBLE FLOOR TILE (12"X24")

CB) (6"X12")

CWT1) DALTILE - MU16 - MULTITUDE/ORIGAMI WHITE, FIELD TILE (12"X24")

CWT2) DALTILE - MU16 - MULTITUDE/ORIGAMI WHITE-HEXAGON 12"X24"

GROUT - CUSTOM BUILDING PRODUCTS - NATURAL GRAY #9 (SEAL GROUT, NON-SAND)

GROUT - CUSTOM BUILDING PRODUCTS - BLEACHED WOOD #545 (SEAL GROUT, NON-SAND)

FINISH LEGEND

PAINT:
P1) SHERWIN WILLIAMS - SW 7005 = PURE WHITE
P2) SHERWIN WILLIAMS - SW 7011 = NATURAL CHOICE
P3) SHERWIN WILLIAMS - SW 9038 = CUCUZZA VERDE
P4) SHERWIN WILLIAMS - SW 6433 = INVERNESS
P5) SHERWIN WILLIAMS - SW 9097 = SOFT FAWN
P6) SHERWIN WILLIAMS - SW 9114 = FALLEN LEAVES
P7) H&C - WATER BASED CONCRETE WATERPROOF
P8) SHERWIN WILLIAMS - DOT CONCRETE SEALER

LVT:
LVT) MILLIKEN - WOOD KAKUTAN LVT PLANK

PLASTIC LAMINATE:
PLAM) WILSONART FIELD ELM

SOLID SURFACE:
SSM) CORIAN SAGEBRUSH

CARPET:
CPT) BENTLEY - 400076 = FREE DAY / TOTE BAG

BASE:
RB) ROPPE - 100 = BLACK (4")

FIBERGLASS REINFORCED PANEL:
FRP) CRANE COMPOSITE - SEQUENTIA - 1130 FLAT WHITE (CLASS A)

SHEET VINYL:
SV) FORBO FLOORING - ETERNAL - (COLOR TBD)

PLASTIC LAMINATE:
PLAM) FORMICA - 7481 NATURAL BIRCH (TO MATCH DOOR LAMINATE)

DOORS:
CLEAR FINISH BIRCH VENEER DOORS

ACOUSTICAL CEILING:
ACT)
ARMSTRONG - OPTIMA TEGULAR 9/16"
ARMSTRONG - SUPER FINE = BLAZE WHITE

CERAMIC TILE:
FLOOR:
CT1) DALTILE - VL72 = INTENSITY PEBBLE (12"X24")
WALL, FIELD TILE: PATTERN TBD
CWT1) DATILE - MU16 = MULTITUDE/ORIGAMI WHITE FLAT (12"X24")
WALL, ACCENT TILE: PATTERN TBD
CWT2) DALTILE - MU16 = MULTITUDE/ORIGAMI WHITE (HEXAGON, 12"X24")
COVE BASE:
CB) DALTILE - VL72 = INTENSITY PEBBLE (6"X12")

GROUT:
FLOOR:
GRT1) CUSTOM BUILDING PRODUCTS - #9 = NATURAL GRAY
WALL:
GRT2) CUSTOM BUILDING PRODUCTS - #545 = BLEACHED WOOD

TOILET PARTITION
ASI - COLOR-THRU PHENOLIC - 3010 DOVE GRAY

LOCKERS:
ASI - PHENOLIC TRADITIONAL - 3010 DOVE GRAY (DOUBLE TIER)

TOILET PARTITION
ASI - COLOR-THRU PHENOLIC - 3010 DOVE GRAY

DOORS
CLEAR FINISH BIRCH VENEER

FURNITURE MATRIX

LEVEL 1:

NEW/INC. IN BID: Contractor shall furnish and assemble the following furniture.
- Lobby waiting chairs and desk chair @ Town's Expense
- First Aid/Medical room desk and chair @ Town's Expense

MOVING OVER/TOWN FUNISHED: Owner will furnish and assemble/install the following furniture
- Lobby reception desk (40"x70"x42"H), copier (42"w x 30"d)
- Storage next to Lobby door in Vehicle Bay storage cabinet (19"d x 42"w x 53" h)

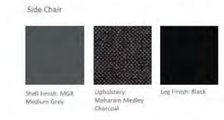
LEVEL 2:

NEW/INC. IN BID:
- Dayroom couch, chair, and table @ Town's Expense
- Conference/Training room 8 chairs, 4 tables (or one large table), large white board, new tv screen @ Town's Expense
- Kitchen wall mounted bar top, cabinets, sink, dishwater, oven @ FAA's Expense
- Kitchen table, chairs, refrigerator, recycle center @ Town's Expense
- Restroom lockers, changing benches @ Town's Expense
- Watch/Alarm Room radio shelving mounted on wall @ FAA's Expense
- Watch/alarm room desk and two chairs @ Town's Expense
- ARFF Chief Office desk and one storage cabinet @ Town's Expense
- ARFF Deputy Office guest chair, and storage cabinet @ Town's Expense
- Computer Training desk and two chairs @ Town's Expense

MOVING OVER/TOWN FUNISHED:
- Dayroom TV
- Conference/Training room phone
- Watch/Alarm Room plotter (28"d x 65"w), AWOS equipment (30"w x 25"d x 38"h)
- ARFF Chief Office chairs and guest table
- ARFF Deputy Office desk (30"x72"), personal chair, and bookshelf (11"x22" x42"H)
- Computer Training copier
- Dorms beds and nightstands

FINISH ABBREVIATIONS

ACT = ACOUSTICAL CEILING TILE
CPT = CARPET
CT = CERAMIC TILE
FF = FACTORY FINISH
FRP = FIBERGLASS REINFORCED PANEL
GRT = TILE GROUT
GWB = GYPSUM WALL BOARD
MP = METAL PANEL
PLAM = PLASTIC LAMINATE
P = PAINT
PWD = PLYWOOD
RB = RUBBER BASE
SSM = SOLID SURFACE
SV = SHEET VINYL
SVW = STONE VENEER WAINSCOT
VCT = VINYL COMPOSITE TILE



DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

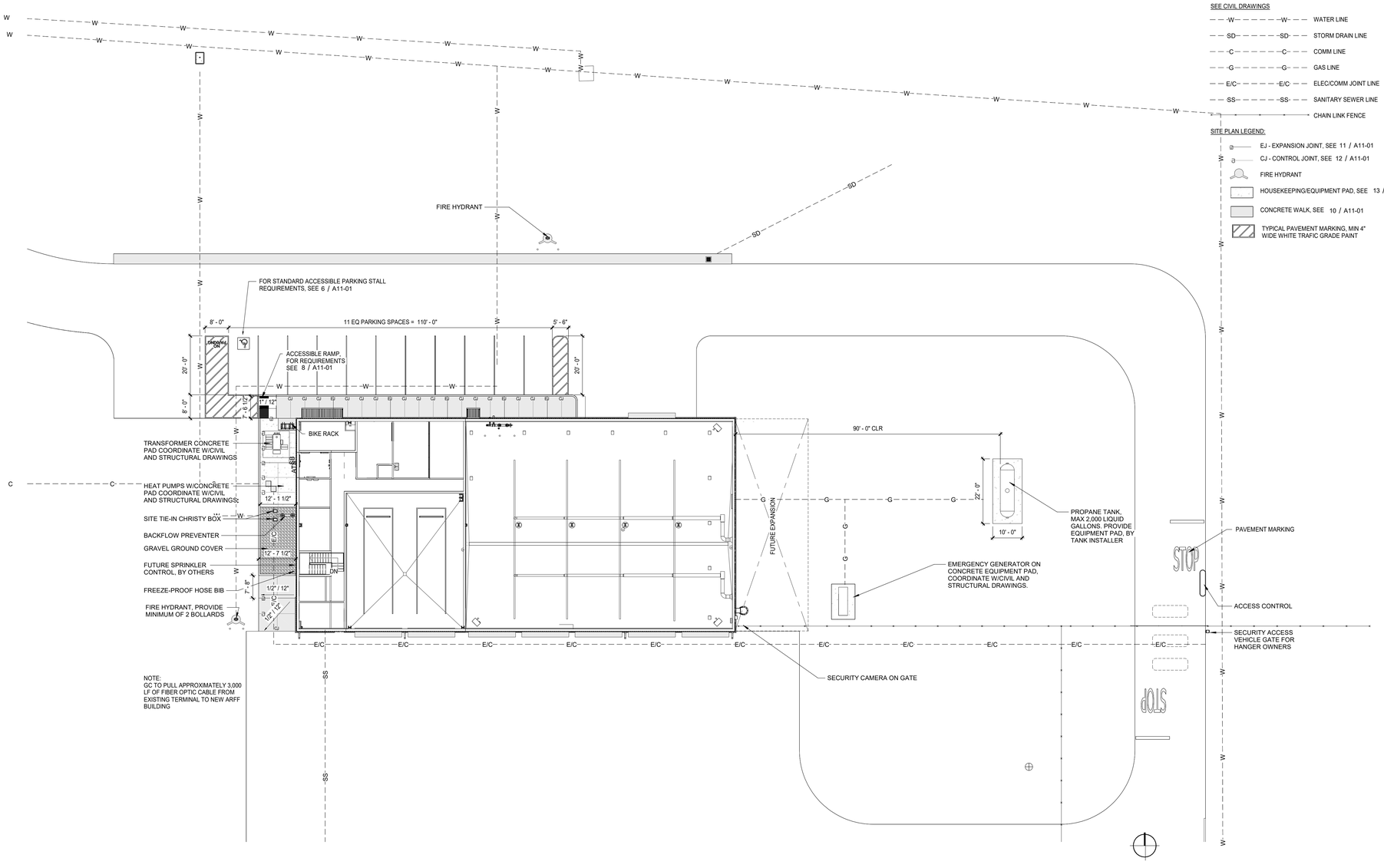
MAMMOTH, CALIFORNIA

Drawing Title
ROOM FINISH SCHEDULE

Scale
As indicated

Project No.
IN2024-0022

Drawing No.
A06-01



1 A10-01 SITE PLAN
SCALE: 1/16" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR
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1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

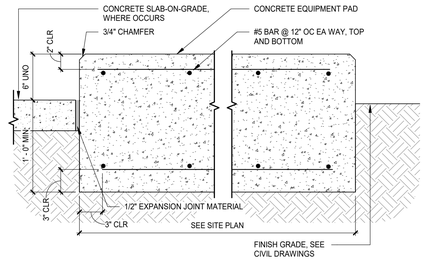
Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE
MAMMOTH, CALIFORNIA

Drawing Title
SITE PLAN

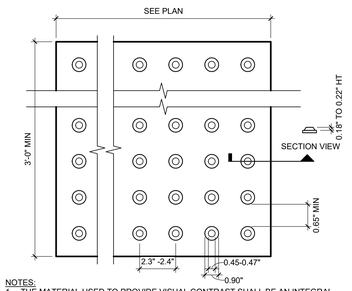
Scale: 1/16" = 1'-0"

Project No.: IN2024-0022

Drawing No.: **A10-01**

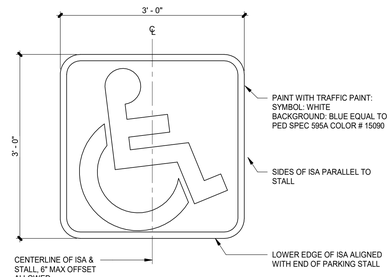


13 A11-01 EQUIPMENT PAD
SCALE: 1 1/2" = 1'-0"

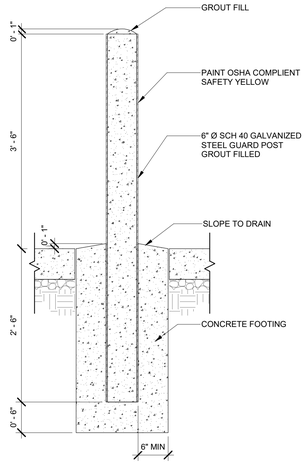


NOTES:
1. THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE SURFACE.
2. DETECTABLE WARNING SURFACES SHALL BE YELLOW AND APPROXIMATE FS 33538 OF FEDERAL STANDARD 595C.
3. DETECTABLE WARNING SURFACES SHALL PROVIDE A 70% MIN VISUAL CONTRAST WITH ADJACENT WALKING SURFACES. IF VISUAL CONTRAST IS NOT AVAILABLE SEE 11B-705.1.1.3.2
4. WHERE INSTALLED IN A RADIAL PATTERN, DOMES SHALL HAVE A CENTER TO CENTER SPACING OF 1.6-2.4 INCHES.
5. DETECTABLE WARNING SURFACES MUST DIFFER FROM ADJOINING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT.

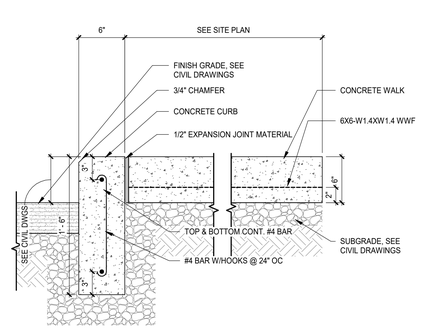
9 A11-01 ACCESSIBLE PARKING SIGNAGE
SCALE: 3" = 1'-0"



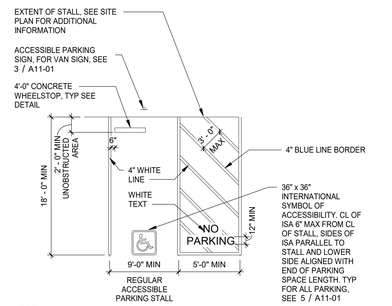
5 A11-01 ISA PARKING SYMBOL
SCALE: 1" = 1'-0"



1 A11-01 BOLLARD DETAIL
SCALE: 1" = 1'-0"

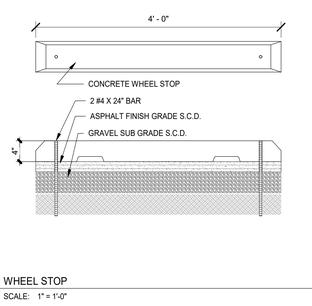


10 A11-01 CONCRETE WALK AND CURB
SCALE: 1 1/2" = 1'-0"



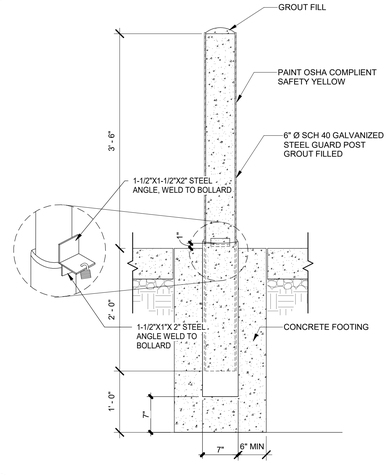
NOTE:
2% MAX SLOPE IN ANY DIRECTION FOR ACCESSIBLE STALLS AND ACCESS AISLES

6 A11-01 ACCESSIBLE PARKING STALL
SCALE: 1/8" = 1'-0"

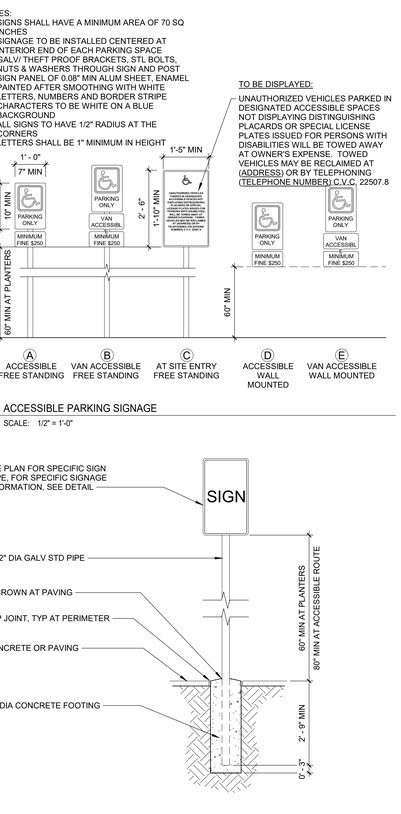


2 A11-01 WHEEL STOP
SCALE: 1" = 1'-0"

11 A11-01 CONCRETE EXPANSION JOINT
SCALE: 1 1/2" = 1'-0"

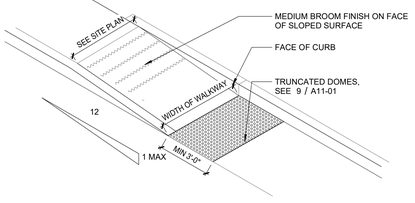


7 A11-01 REMOVABLE BOLLARD DETAIL
SCALE: 1" = 1'-0"



3 A11-01 ACCESSIBLE PARKING SIGNAGE
SCALE: 1/2" = 1'-0"

12 A11-01 CONCRETE CONTROL JOINT
SCALE: 1 1/2" = 1'-0"



8 A11-01 ACCESSIBLE RAMP
SCALE: 1/4" = 1'-0"

4 A11-01 ACCESSIBLE PARKING SIGNAGE
SCALE: 1/2" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn: JON PRICE
Project Leader	Checked: MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE
MAMMOTH, CALIFORNIA

Drawing Title
SITE DETAILS

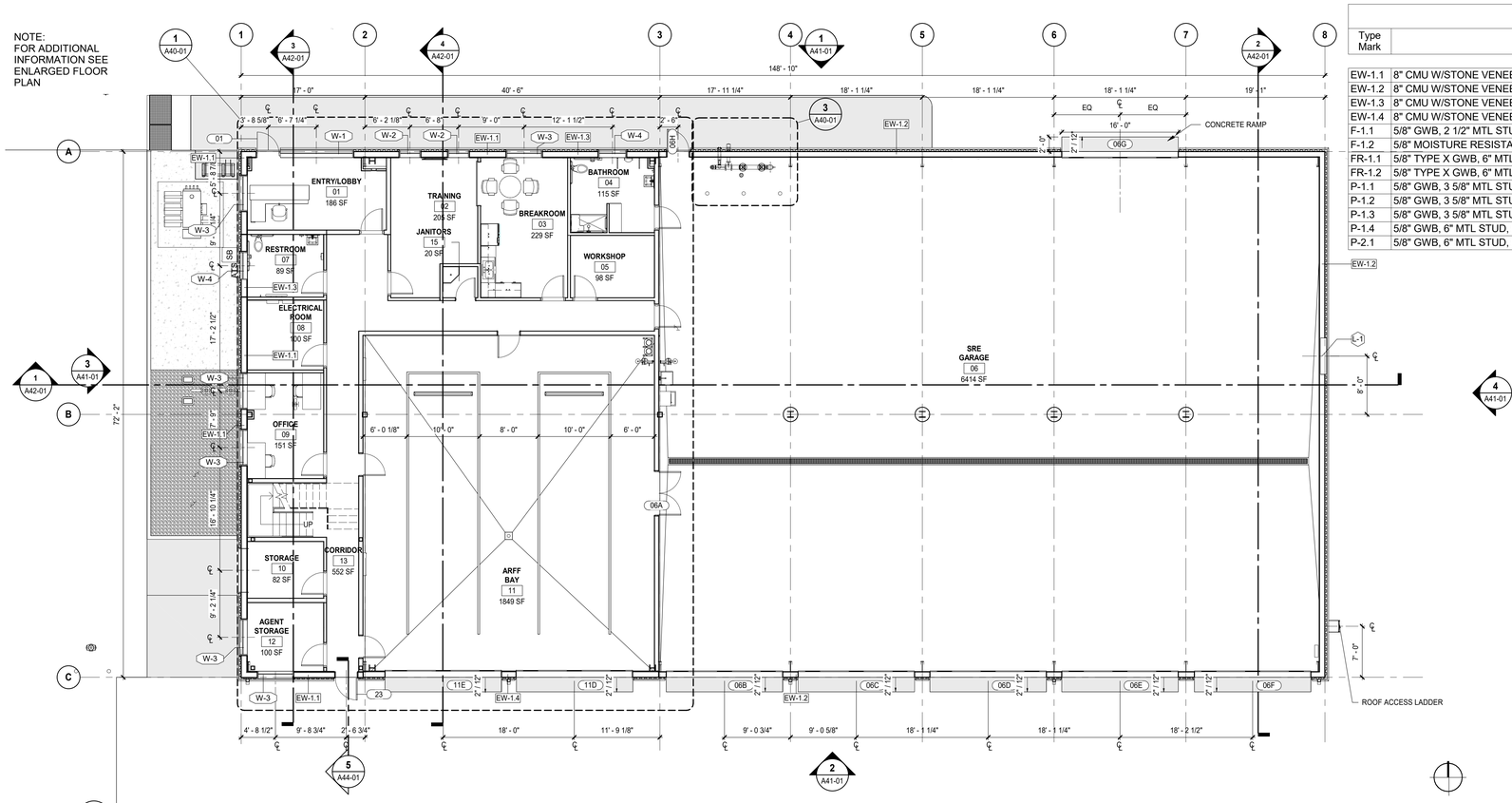
Scale: As indicated

Project No.: IN2024-0022

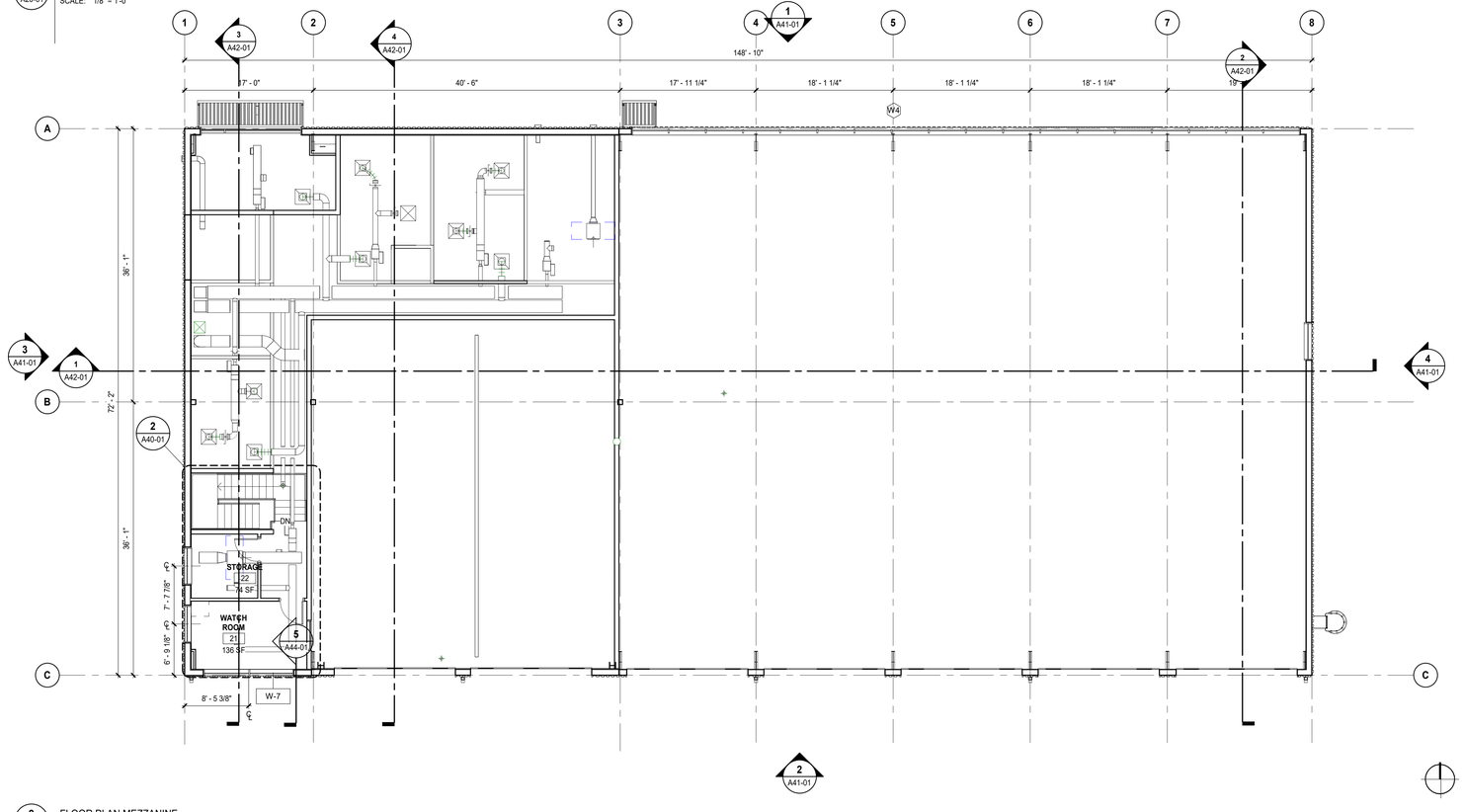
Drawing No.: **A11-01**

3/7/2025 11:32:33 PM

NOTE:
FOR ADDITIONAL INFORMATION SEE ENLARGED FLOOR PLAN



1 A20-01 LEVEL 1 OVERALL FLOOR PLAN
SCALE: 1/8" = 1'-0"



2 A20-01 FLOOR PLAN MEZZANINE
SCALE: 1/8" = 1'-0"

Wall Schedule

Type Mark	Discription	Fire Rating	Function
EW-1.1	8" CMU W/STONE VENEER, TECH 4 WALL PANEL, 8.5" Z-GIRT, 1" Z-FURRING, 5/8" GWB	N/A	Exterior
EW-1.2	8" CMU W/STONE VENEER, TECH 4 WALL PANEL, 8.5" Z-GIRT, 1" Z-FURRING, 5/8" PLYWD SHEATHING	N/A	Exterior
EW-1.3	8" CMU W/STONE VENEER, TECH 4 WALL PANEL, 8.5" Z-GIRT, 1" Z-FURRING, 5/8" MOISTURE RESISTANT GWB	N/A	Exterior
EW-1.4	8" CMU W/STONE VENEER, TECH 4 WALL PANEL, 8.5" Z-GIRT, 1" Z-FURRING, 5/8" ABUSE RESISTANT GWB	N/A	Exterior
F-1.1	5/8" GWB, 2 1/2" MTL STUD	--	Interior
F-1.2	5/8" MOISTURE RESISTANT GWB, 2 1/2" MTL STUD	--	Interior
FR-1.1	5/8" TYPE X GWB, 6" MTL STUD, 5/8" TYPE X ABUSE RESISTANT GWB	60 MIN.	Interior
FR-1.2	5/8" TYPE X GWB, 6" MTL STUD, 5/8" TYPE X MOISTURE RESISTANT GWB	60 MIN.	Interior
P-1.1	5/8" GWB, 3 5/8" MTL STUD, 5/8" GWB	--	Interior
P-1.2	5/8" GWB, 3 5/8" MTL STUD, 5/8" MOISTURE RESISTANT GWB	--	Interior
P-1.3	5/8" GWB, 3 5/8" MTL STUD, 5/8" ABUSE RESISTANT GWB	--	Interior
P-1.4	5/8" GWB, 6" MTL STUD, 5/8" ABUSE RESISTANT GWB	--	Interior
P-2.1	5/8" GWB, 6" MTL STUD, 5/8" GWB	--	Interior

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

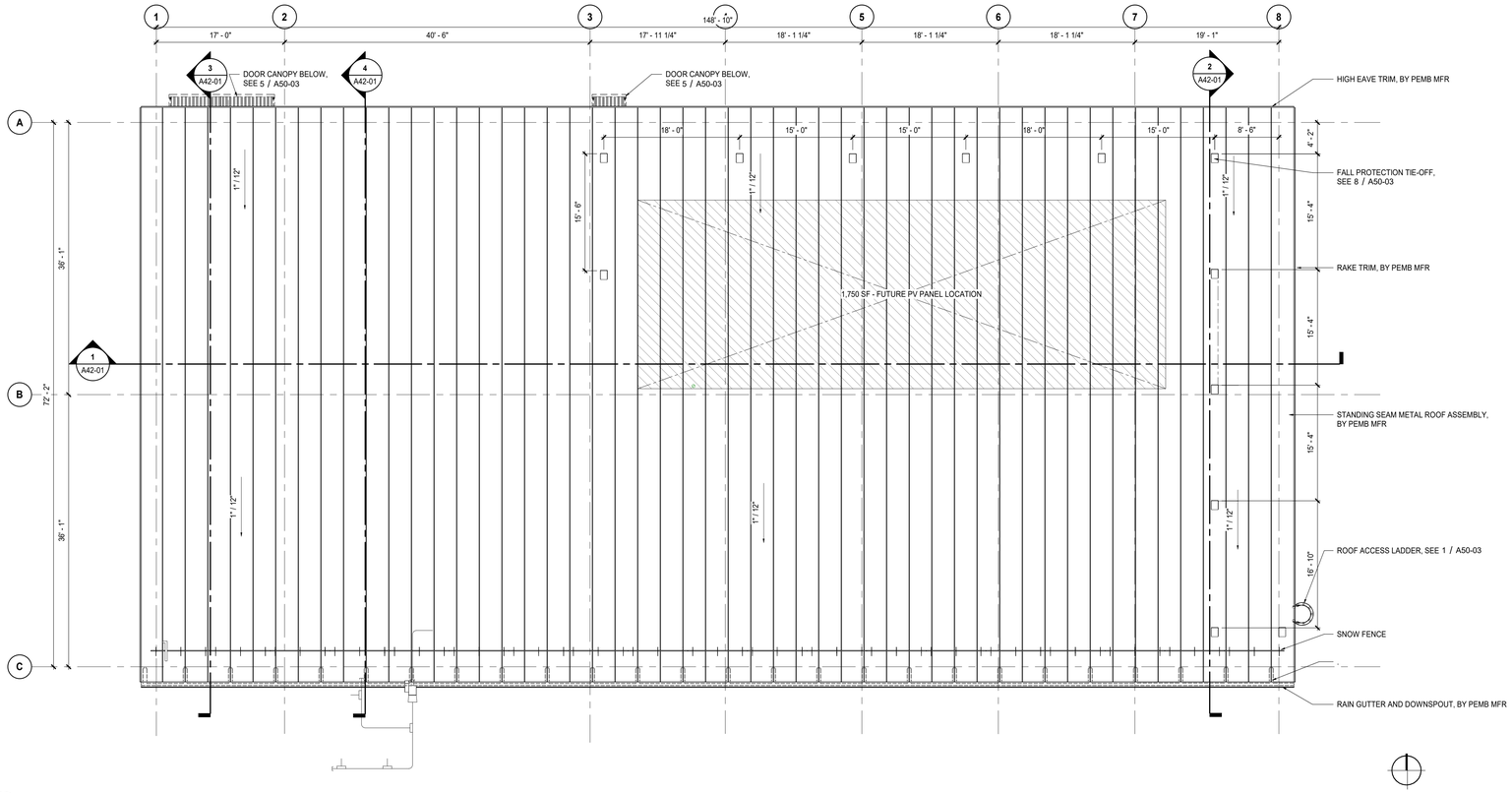
MAMMOTH, CALIFORNIA

Drawing Title
FLOOR PLANS

Scale
1/8" = 1'-0"

Project No.
IN2024-0022

Drawing No.
A20-01



1 / A20-03 ROOF PLAN

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

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn: Author
Project Leader	Checked: Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

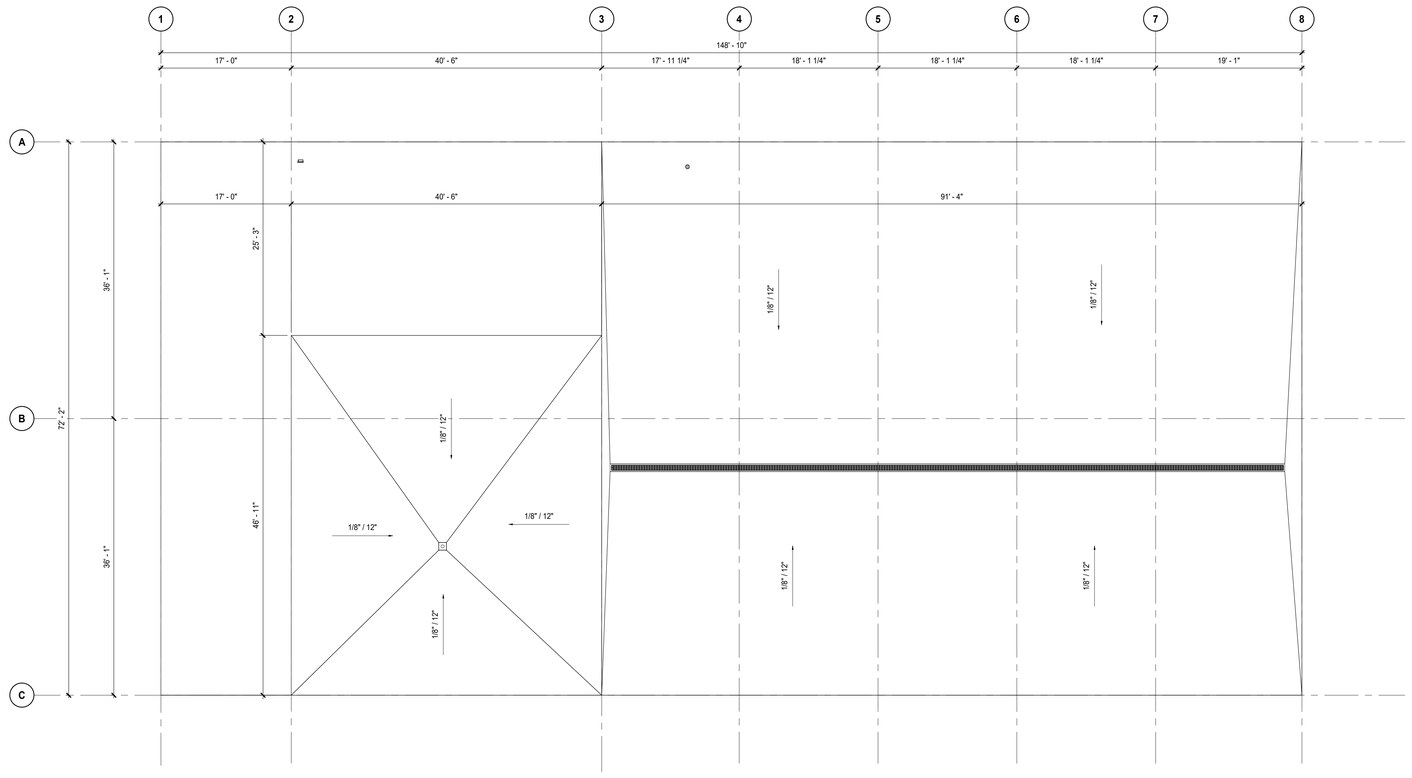
MAMMOTH, CALIFORNIA

Drawing Title
ROOF PLAN

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

Project No.: IN2024-0022

Drawing No.: **A20-03**



1 A22-01 LEVEL 1 OVERALL FLOOR PLAN

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

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn
	JON PRICE
Project Leader	Checked
	MIKE NOVAK

Client

MAMMOTH YOSEMITE AIRPORT

Project

MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

MAMMOTH, CALIFORNIA

Drawing Title

EDGE OF SLAB PLANS

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

Project No.: IN2024-0022

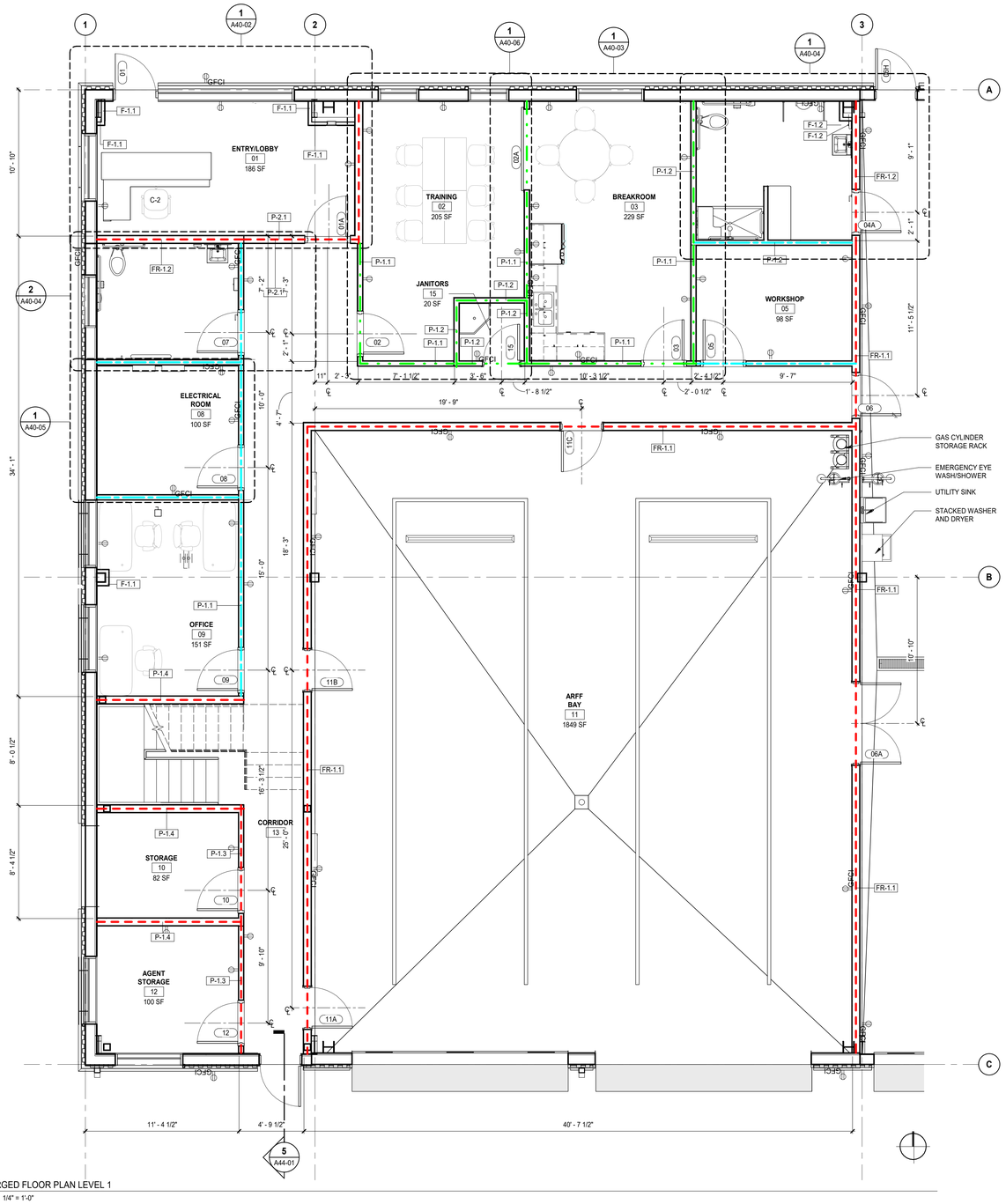
Drawing No.: **A22-01**

WALL HEIGHT LEGEND

PARTIAL HEIGHT TO 12'-0" AFF

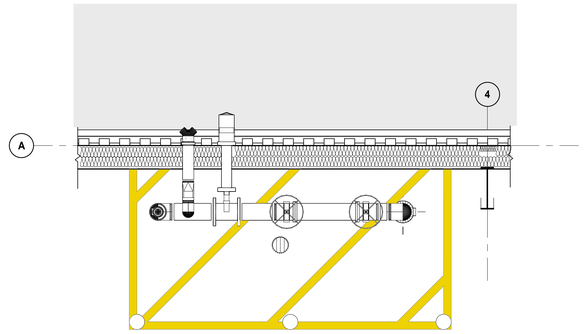
PARTIAL HEIGHT TO 13'-0" AFF

FULL HEIGHT TO STRUCTURE ABOVE



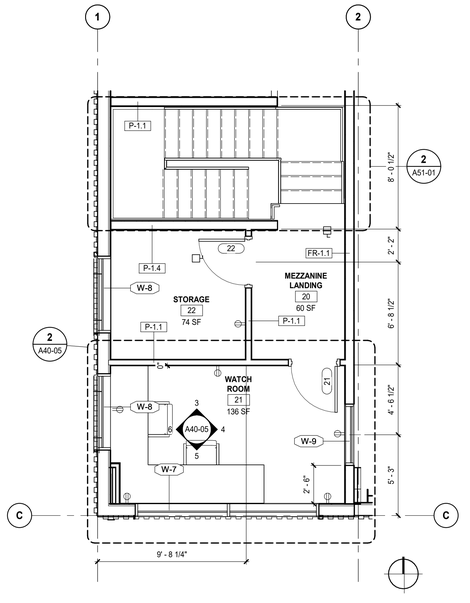
1 A40-01 ENLARGED FLOOR PLAN LEVEL 1

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



3 A40-01 FLOOR PLAN LEVEL 1 - Callout 1

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



2 A40-01 ENLARGED FLOOR PLAN MEZZANINE

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

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

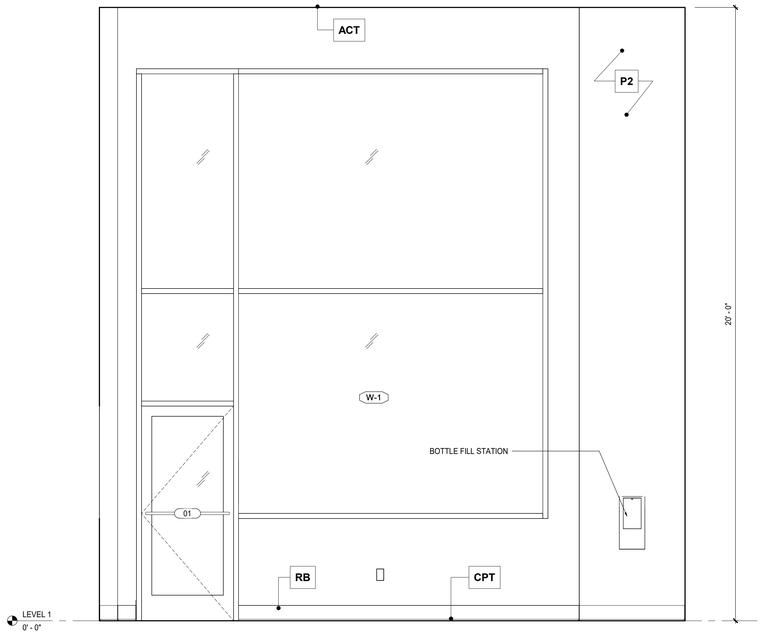
MAMMOTH, CALIFORNIA

Drawing Title
ENLARGED FLOOR PLANS

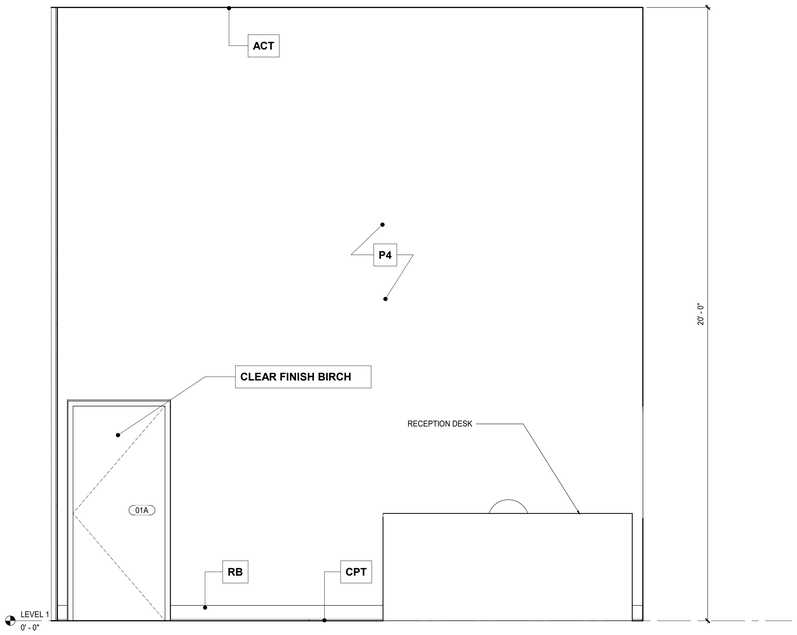
Scale: As indicated

Project No.: IN2024-0022

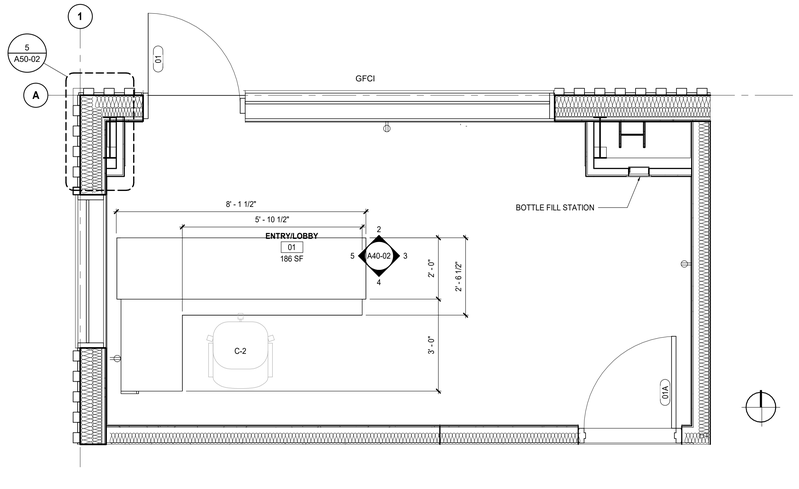
Drawing No.: **A40-01**



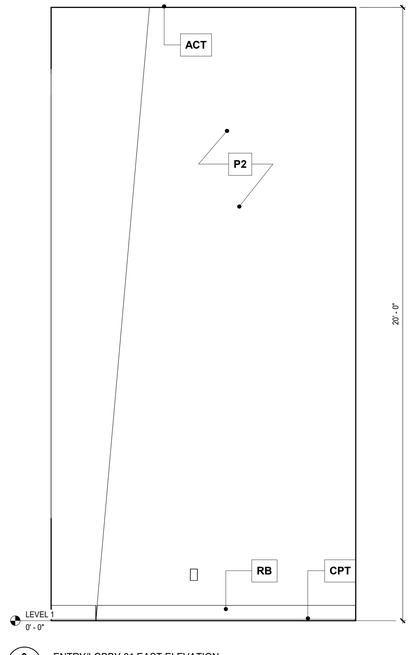
2 A40-02 ENTRY/LOBBY 01 NORTH ELEVATION
SCALE: 1/2" = 1'-0"



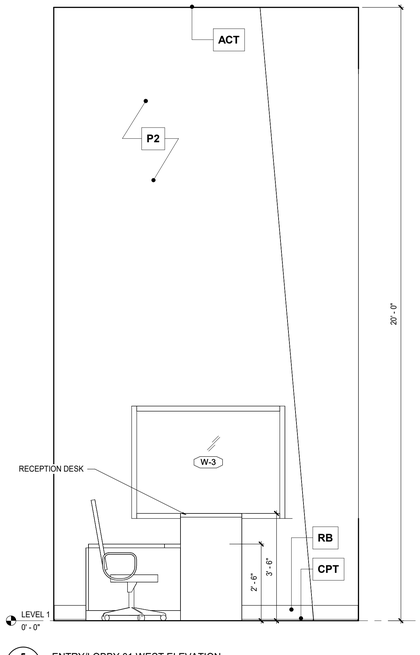
4 A40-02 ENTRY/LOBBY 01 SOUTH ELEVATION
SCALE: 1/2" = 1'-0"



1 A40-02 ENLARGED FLOOR PLAN ENTRY/LOBBY 01
SCALE: 1/2" = 1'-0"



3 A40-02 ENTRY/LOBBY 01 EAST ELEVATION
SCALE: 1/2" = 1'-0"



5 A40-02 ENTRY/LOBBY 01 WEST ELEVATION
SCALE: 1/2" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn
	JON PRICE
Project Leader	Checked
	MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

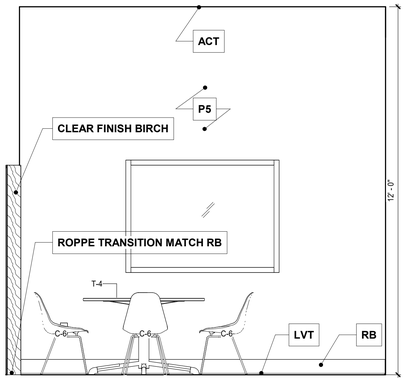
MAMMOTH, CALIFORNIA

Drawing Title
ENLARGED FLOOR PLANS AND ELEVATIONS

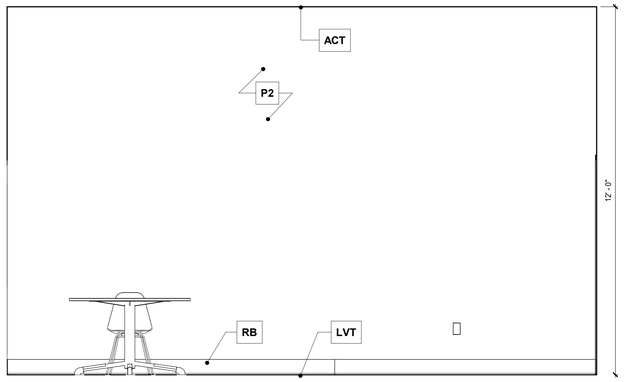
Scale: 1/2" = 1'-0"

Project No.: IN2024-0022

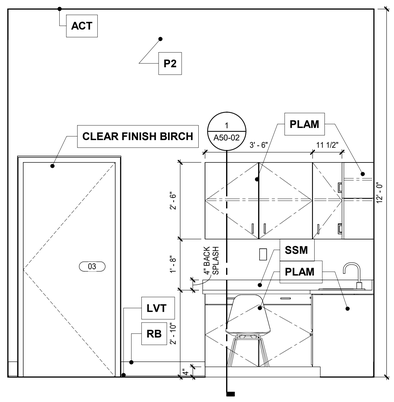
Drawing No.: **A40-02**



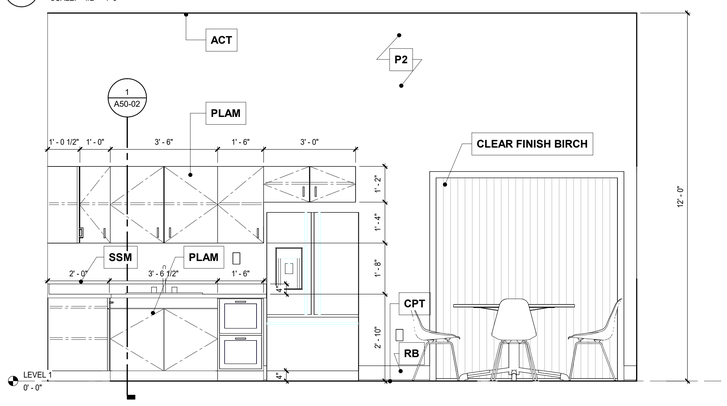
2 A40-03 BREAKROOM 03 NORTH ELEVATION
SCALE: 1/2" = 1'-0"



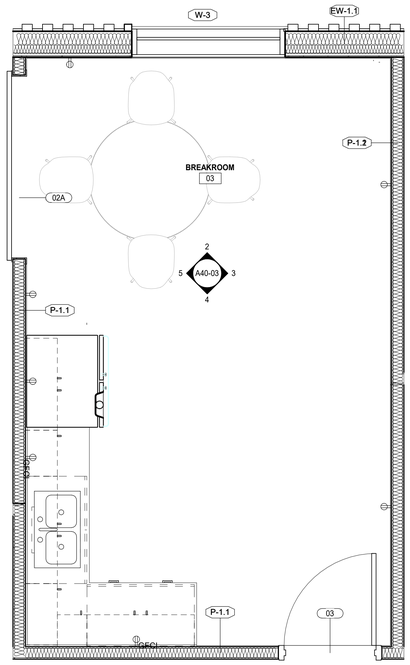
3 A40-03 BREAKROOM 03 EAST ELEVATION
SCALE: 1/2" = 1'-0"



4 A40-03 BREAKROOM 03 SOUTH ELEVATION
SCALE: 1/2" = 1'-0"



5 A40-03 BREAKROOM 03 WEST ELEVATION
SCALE: 1/2" = 1'-0"



1 A40-03 ENLARGED FLOOR PLAN BREAKROOM 03
SCALE: 1/2" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn: JON PRICE
Project Leader	Checked: MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

MAMMOTH, CALIFORNIA

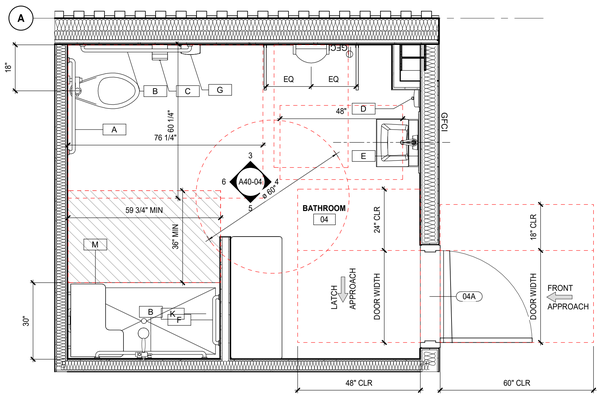
Drawing Title
ENLARGED FLOOR PLANS AND ELEVATIONS

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

Project No.: IN2024-0022

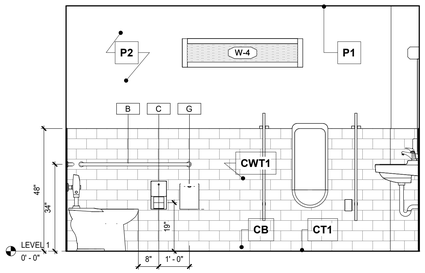
Drawing No.: **A40-03**

3/18/2025 9:01:09 AM



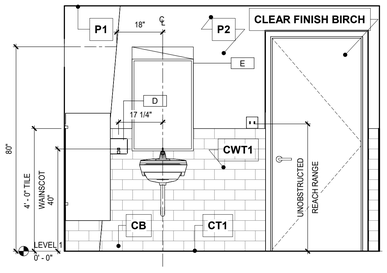
1 A40-04 ENLARGED FLOOR PLAN - BATHROOM 04

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



3 A40-04 BATHROOM 04 NORTH ELEVATION

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

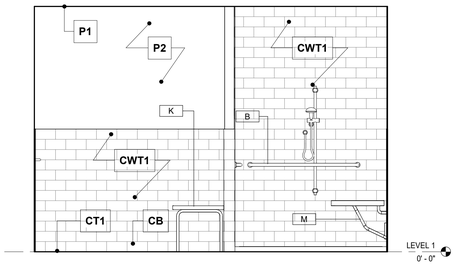


4 A40-04 BATHROOM 04 EAST ELEVATION

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

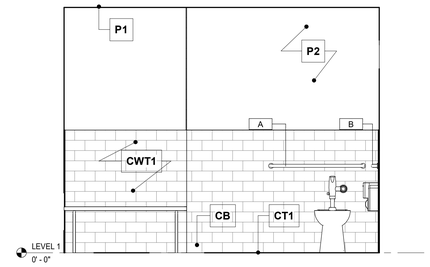
Specialty Equipment Schedule				
Type Mark	Description	Count	Manufacturer	Comments
A	Bobrick B-6806 36" Stainless Steel Grab Bar	2	Bobrick Washroom Equipment, Inc.	
B	Bobrick B-6806 42" Stainless Steel Grab Bar	3	Bobrick Washroom Equipment, Inc.	
C	Bobrick B-2888 Classic Series Surface Mounted Multi-roll Toilet Tissue Dispenser	2	Bobrick Washroom Equipment, Inc.	
D	Bobrick B-4112 Contura Series Surface Mounted Soap Dispenser	2	Bobrick Washroom Equipment, Inc.	
E	Bobrick B-2908 2436 Tempered Glass Welded Frame Mirror	2	Bobrick Washroom Equipment, Inc.	
F	Bobrick B-6806 18" Stainless Steel Grab Bar	1	Bobrick Washroom Equipment, Inc.	
G	Bobrick B-270 Contura Series Surface Mounted Sanitary Napkin Disposal	2	Bobrick Washroom Equipment, Inc.	
H	Bobrick B-262 Classic Series Surface Mounted Paper Towel Dispenser	1	Bobrick Washroom Equipment, Inc.	
J	Koala Kare KB301 Baby Changing Station	1	Koala Kare	
K	Tufftec Benches 20"x48" HDPE	1	Scranton Products	
M	Bobrick B-5181 Accesible Shower Seat	1	Bobrick Washroom Equipment, Inc.	

NOTE:
1. FOR ADDITIONAL ACCESSIBLE FIXTURE REQUIREMENTS SEE SHEETS
2. FOR ADDITIONAL INTERIOR FINISHES INFORMATION SEE SHEETS



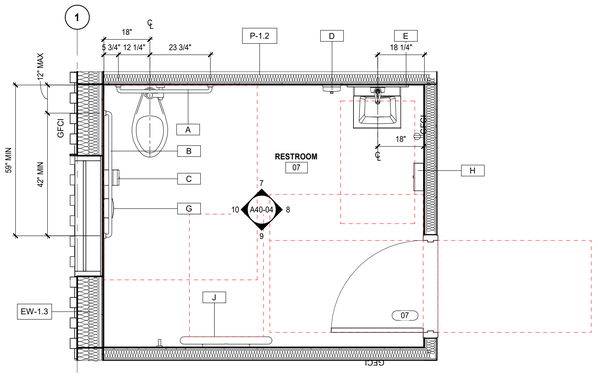
5 A40-04 BATHROOM 04 SOUTH ELEVATION

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



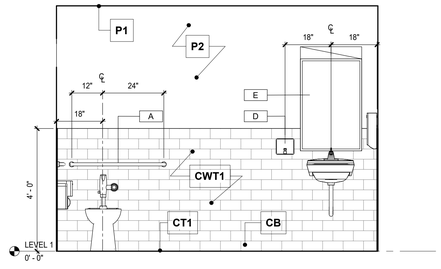
6 A40-04 BATHROOM 04 WEST ELEVATION

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



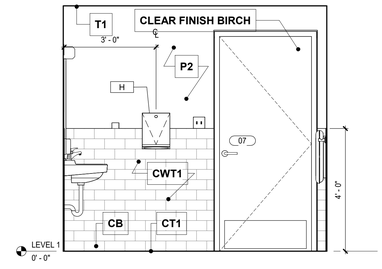
2 A40-04 ENLARGED FLOOR PLAN - RESTROOM 07

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



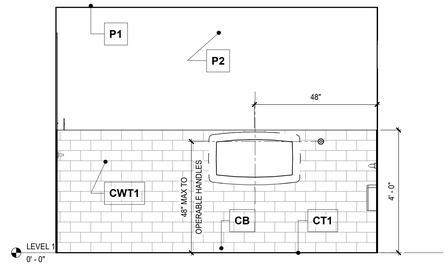
7 A40-04 RESTROOM 07 NORTH ELEVATION

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



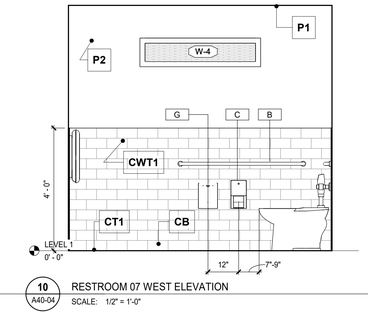
8 A40-04 RESTROOM 07 EAST ELEVATION

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



9 A40-04 RESTROOM 07 SOUTH ELEVATION

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



10 A40-04 RESTROOM 07 WEST ELEVATION

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

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

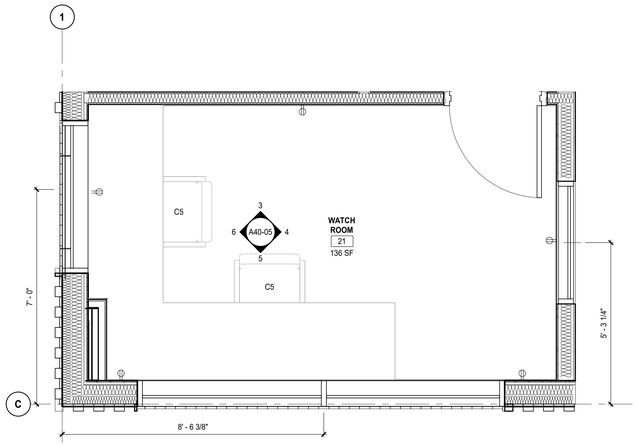
MAMMOTH, CALIFORNIA

Drawing Title
ENLARGED FLOOR PLANS AND ELEVATIONS

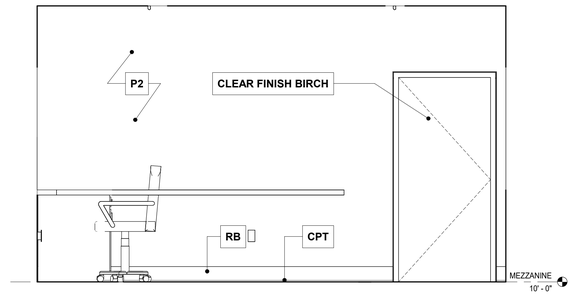
Scale
1/2" = 1'-0"

Project No.
IN2024-0022

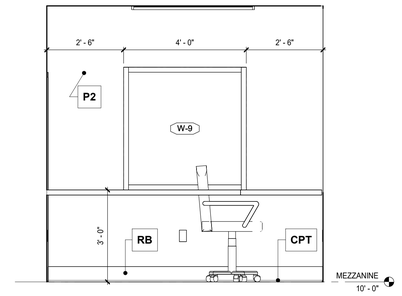
Drawing No.
A40-04



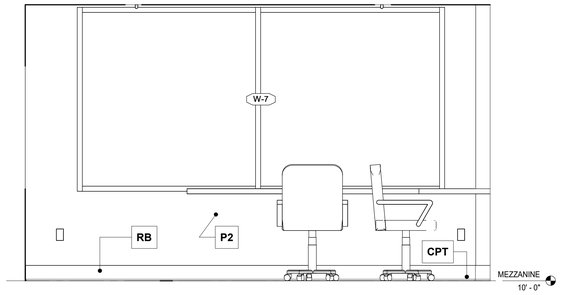
2 A40-05 ENLARGED FLOOR PLAN WATCHROOM 21
SCALE: 1/2" = 1'-0"



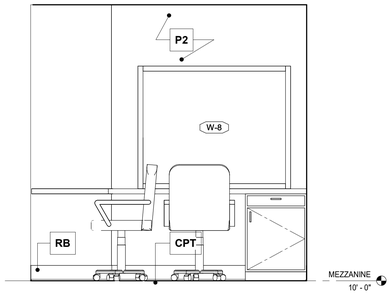
3 A40-05 WATCHROOM 21 NORTH ELEVATION
SCALE: 1/2" = 1'-0"



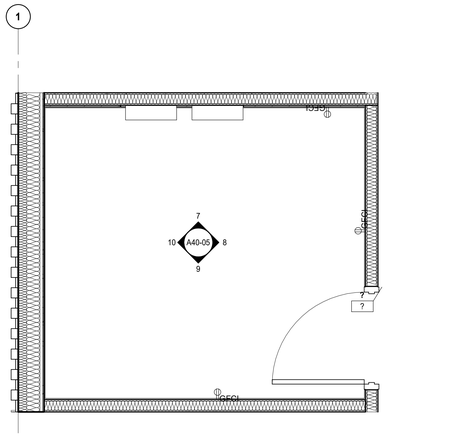
4 A40-05 WATCHROOM 21 EAST ELEVATION
SCALE: 1/2" = 1'-0"



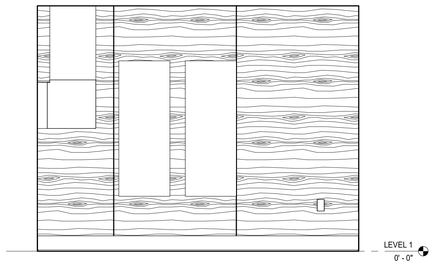
5 A40-05 WATCHROOM 21 SOUTH ELEVATION
SCALE: 1/2" = 1'-0"



6 A40-05 WATCHROOM 21 WEST ELEVATION
SCALE: 1/2" = 1'-0"



1 A40-05 ENLARGED FLOOR PLAN - ELECTRICAL ROOM 08
SCALE: 1/2" = 1'-0"



7 A40-05 ELECTRICAL ROOM 08 NORTH ELEVATION
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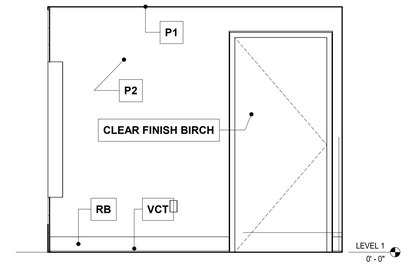
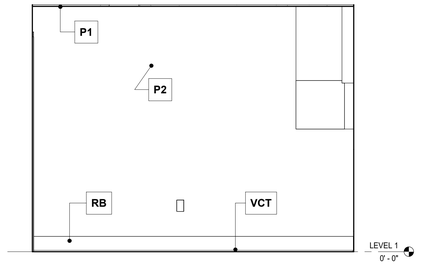
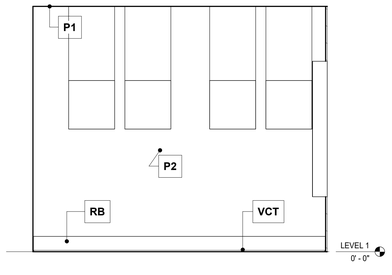


8 A40-05 ELECTRICAL ROOM 08 EAST ELEVATION
SCALE: 1/2" = 1'-0"



9 A40-05 ELECTRICAL ROOM SOUTH ELEVATION
SCALE: 1/2" = 1'-0"



10 A40-05 ELECTRICAL ROOM 08 WEST ELEVATION
SCALE: 1/2" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

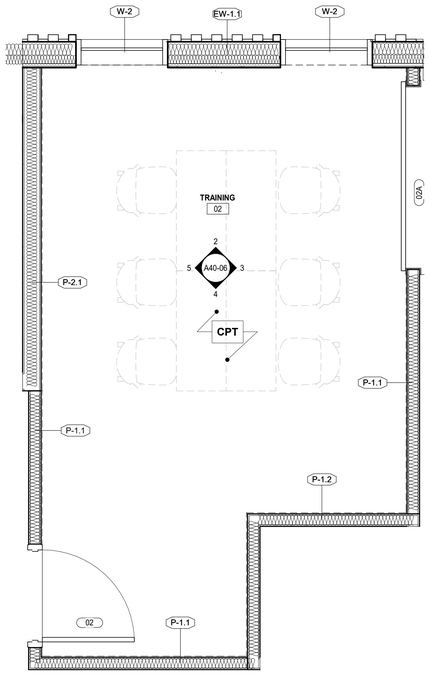
MAMMOTH, CALIFORNIA

Drawing Title
ENLARGED FLOOR PLANS AND ELEVATIONS

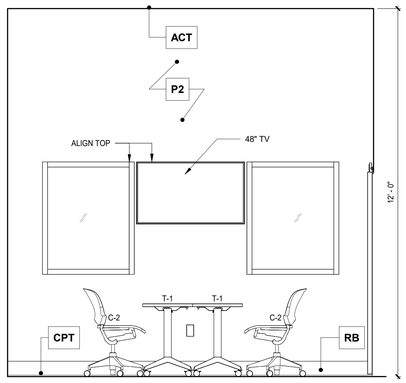
Scale: 1/2" = 1'-0"

Project No.: IN2024-0022

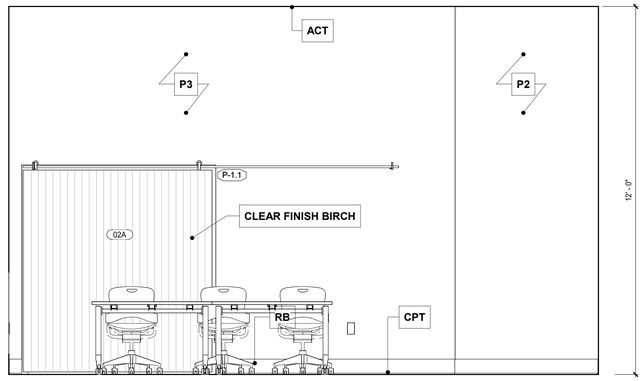
Drawing No.: **A40-05**



1 A40-06 ENLARGED FLOOR PLAN - TRAINING 02
SCALE: 1/2" = 1'-0"



2 A40-06 TRAINING 02 NORTH ELEVATION
SCALE: 1/2" = 1'-0"



3 A40-06 TRAINING 02 EAST ELEVATION
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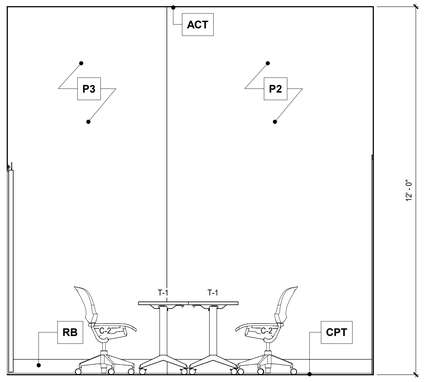
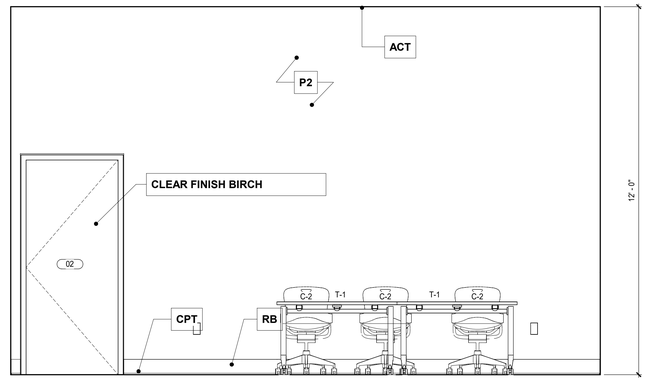


4 A40-06 TRAING 02 SOUTH ELEVATION
SCALE: 1/2" = 1'-0"



5 A40-06 TRAINING 02 WEST ELEVATION
SCALE: 1/2" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

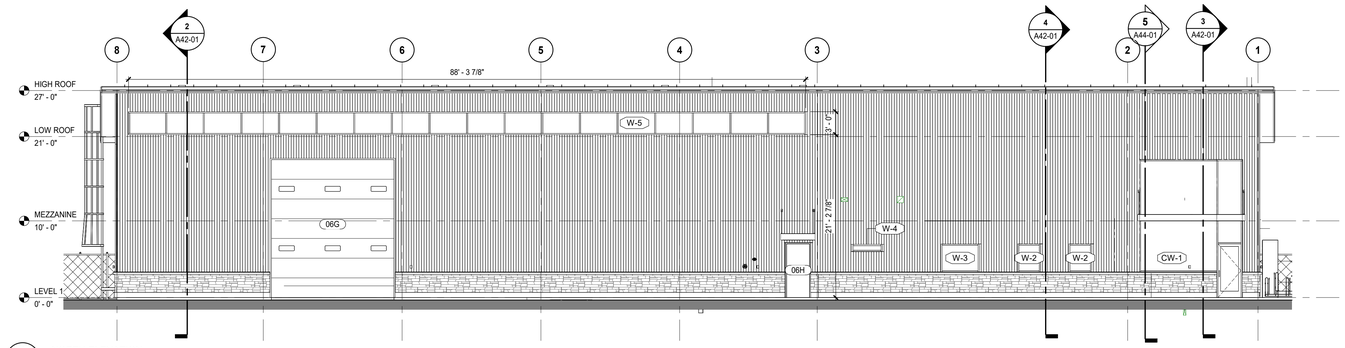
MAMMOTH, CALIFORNIA

Drawing Title
ENLARGED FLOOR PLANS AND ELEVATIONS

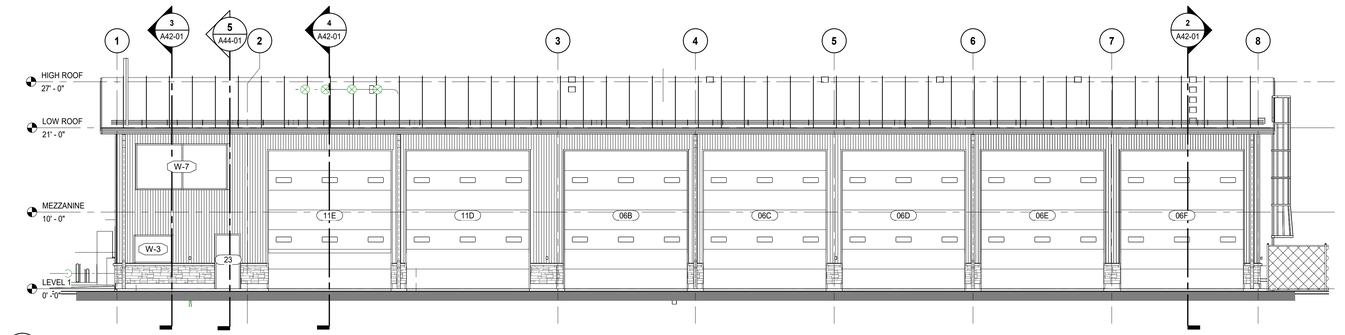
Scale
1/2" = 1'-0"

Project No.
IN2024-0022

Drawing No.
A40-06



1 A41-01 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



2 A41-01 SOUTH ELEVATION
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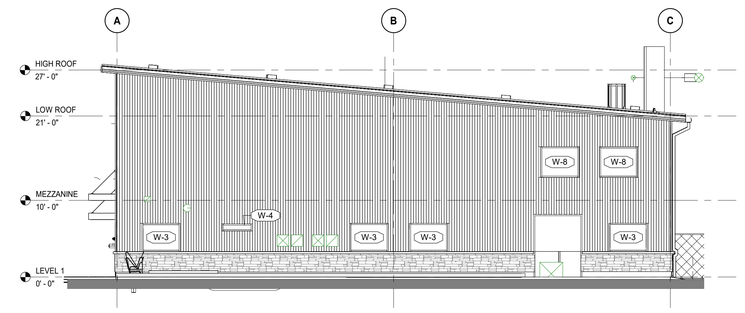
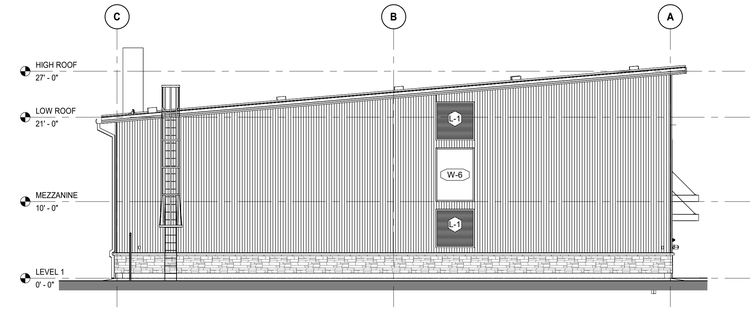


3 A41-01 WEST ELEVATION
SCALE: 1/8" = 1'-0"



4 A41-01 EAST ELEVATION
SCALE: 1/8" = 1'-0"

DATE	ISSUED FOR	REV

This drawing has been prepared solely for the use of MAMMOTH YOSEMITE AIRPORT and there are no representations of any kind made by NORR to any party with whom NORR has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer

Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

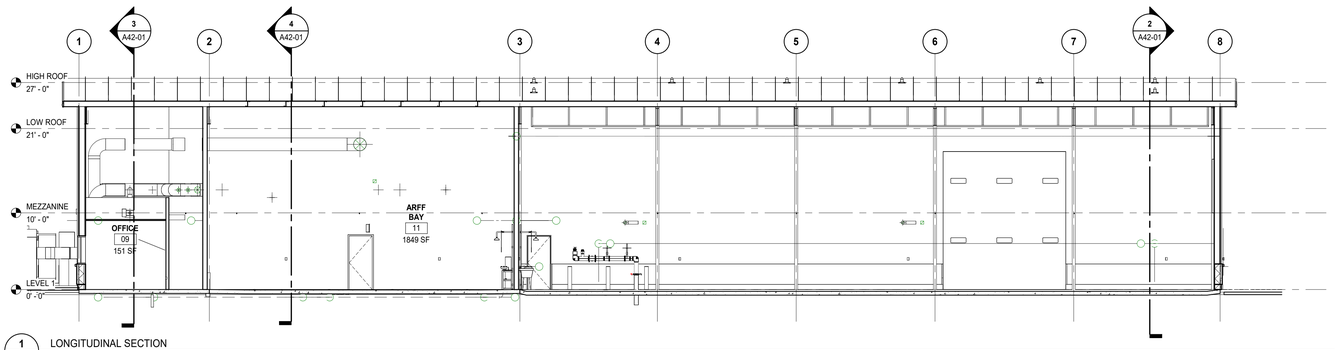
MAMMOTH, CALIFORNIA

Drawing Title
OVERALL BUILDING ELEVATIONS

Scale
1/8" = 1'-0"

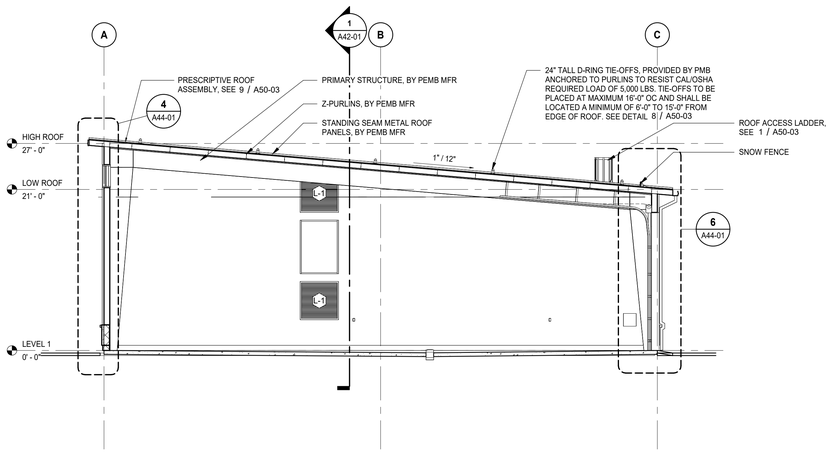
Project No.
IN2024-0022

Drawing No.
A41-01



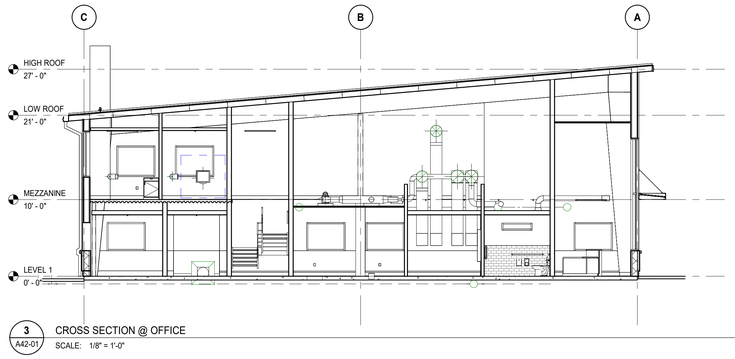
1 A42-01 LONGITUDINAL SECTION

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



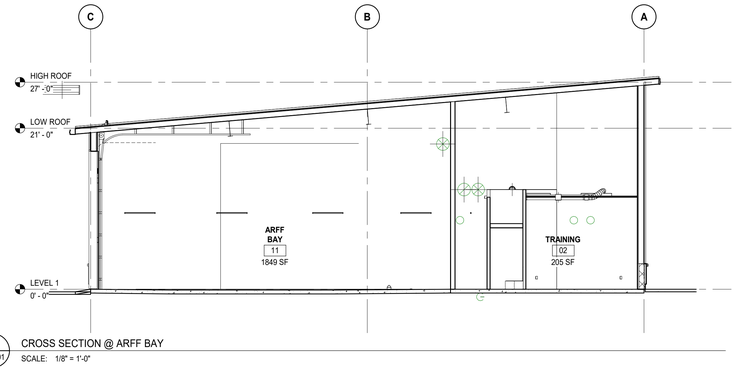
2 A42-01 CROSS SECTION @ SRE BAY

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



3 A42-01 CROSS SECTION @ OFFICE

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



4 A42-01 CROSS SECTION @ ARFF BAY

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

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn: JON PRICE
Project Leader	Checked: MIKE NOVAK

Client

MAMMOTH YOSEMITE AIRPORT

Project

MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

MAMMOTH, CALIFORNIA

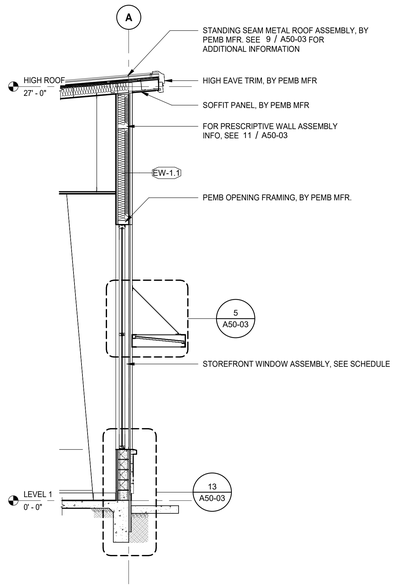
Drawing Title

OVERALL BUILDING SECTIONS

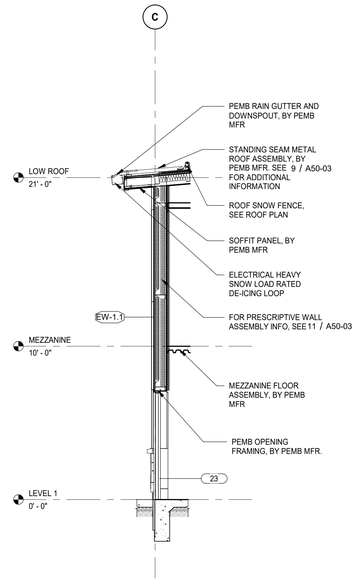
Scale: 1/8" = 1'-0"

Project No.: IN2024-0022

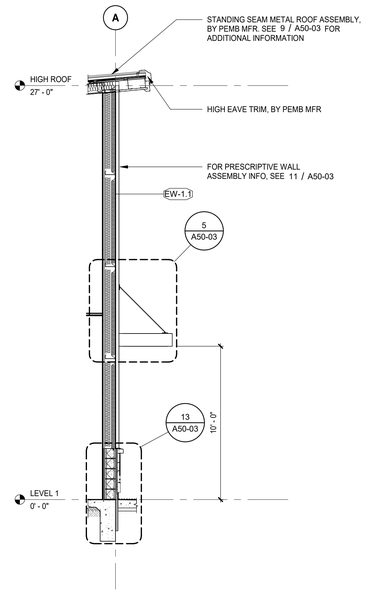
Drawing No.: **A42-01**



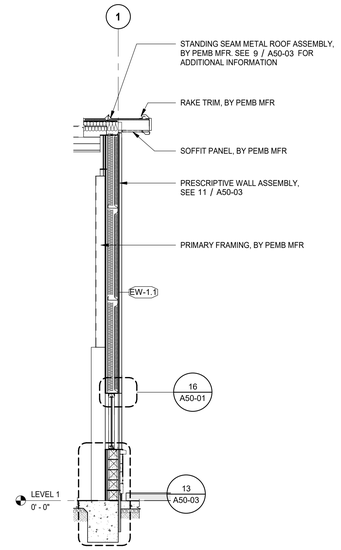
7 A44-01 WALL SECTION @ FRONT ENTRY
SCALE: 1/4" = 1'-0"



5 A44-01 TYP WALL SECTION @ GRID C - MAN DOOR
SCALE: 1/4" = 1'-0"



3 A44-01 TYP WALL SECTION @ GRID A - OFFICE
SCALE: 1/4" = 1'-0"



1 A44-01 TYP WALL SECTION @ GRID 1 - OFFICE
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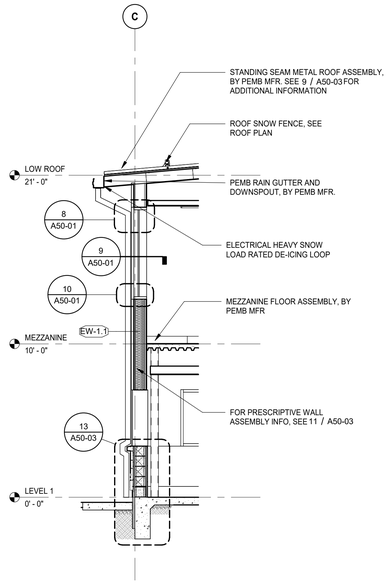
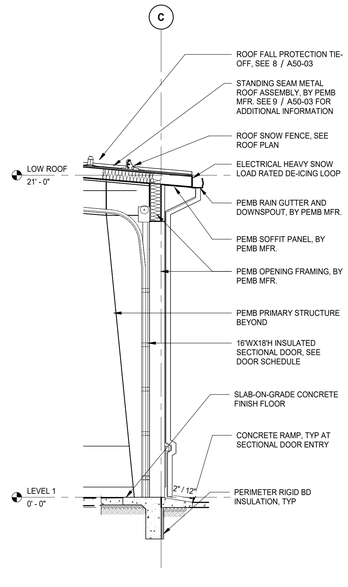
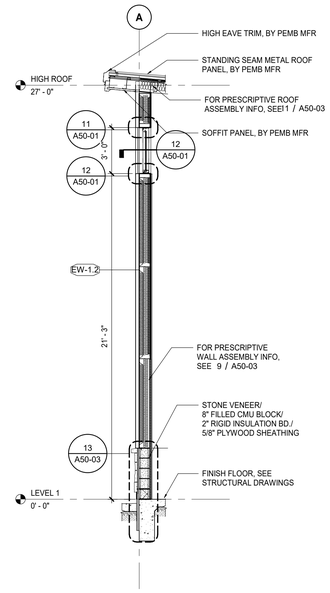


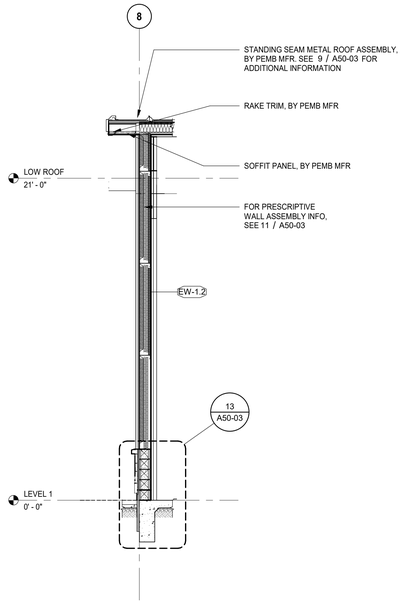
8 A44-01 WALL SECTION @ GRID C - MEZZANINE
SCALE: 1/4" = 1'-0"



6 A44-01 TYP WALL SECTION @ GRID C - SECTIONAL DOOR
SCALE: 1/4" = 1'-0"



4 A44-01 TYP WALL SECTION @ GRID A - SRE BAY
SCALE: 1/4" = 1'-0"



2 A44-01 TYP WALL SECTION @ GRID 8 - SRE BAY
SCALE: 1/4" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

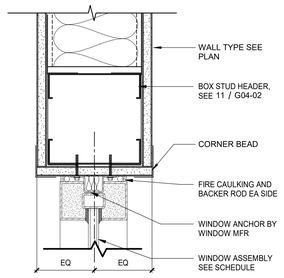
Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE
MAMMOTH, CALIFORNIA

Drawing Title
WALL SECTIONS

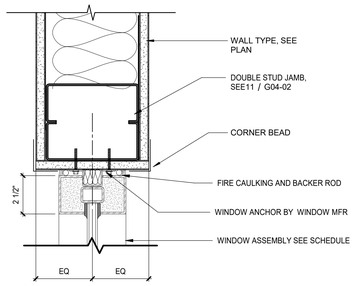
Scale: 1/4" = 1'-0"

Project No.: IN2024-0022

Drawing No.: **A44-01**

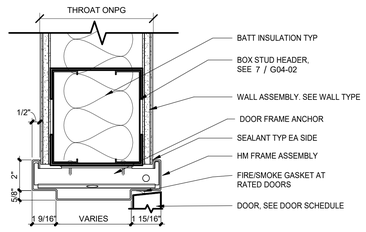


18 A50-01 RATED WINDOW HEAD
SCALE: 3" = 1'-0"

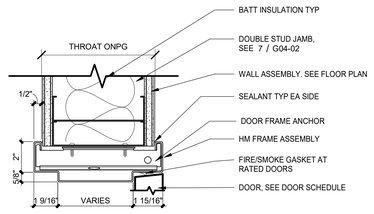


19 A50-01 RATED WINDOW JAMB
SCALE: 3" = 1'-0"

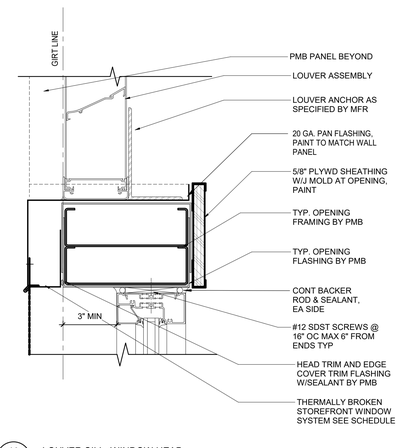
20 A50-01 RATED WINDOW SILL
SCALE: 3" = 1'-0"



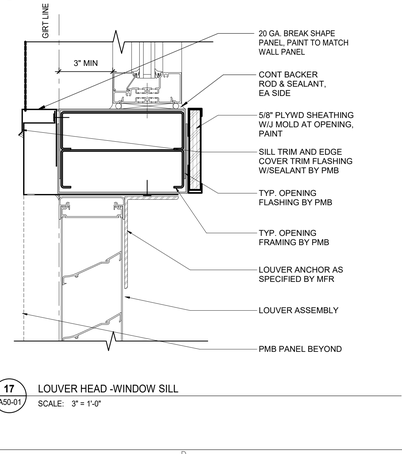
14 A50-01 DOOR HEAD @ GWB WALL
SCALE: 3" = 1'-0"



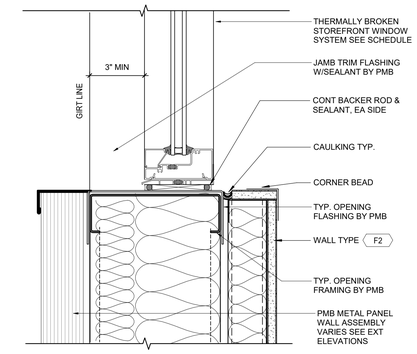
15 A50-01 DOOR JAMB @ GWB WALL
SCALE: 3" = 1'-0"



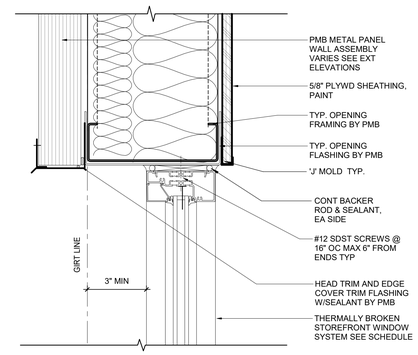
16 A50-01 LOUVER SILL -WINDOW HEAD
SCALE: 3" = 1'-0"



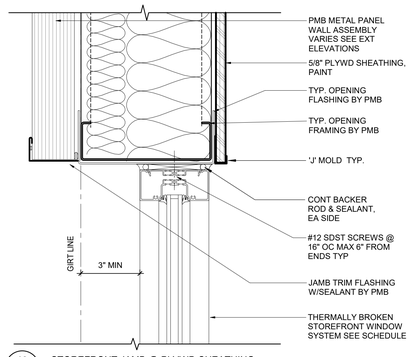
17 A50-01 LOUVER HEAD -WINDOW SILL
SCALE: 3" = 1'-0"



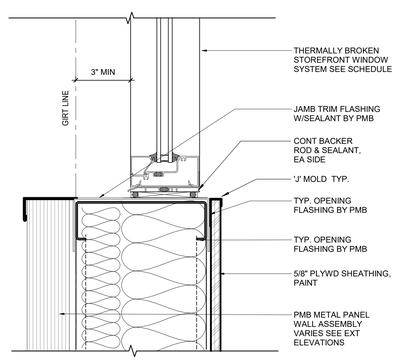
10 A50-01 STOREFRONT SILL @ PEMB
SCALE: 3" = 1'-0"



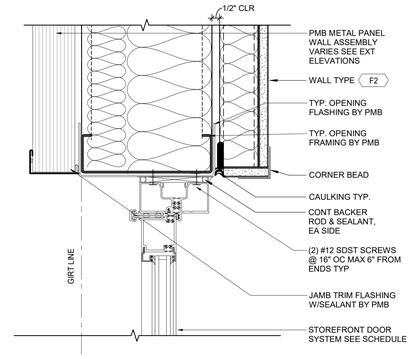
11 A50-01 STOREFRONT HEAD @ PLYWD SHEATHING
SCALE: 3" = 1'-0"



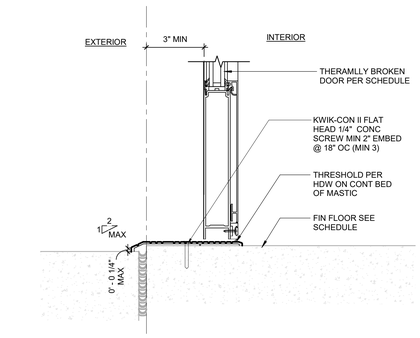
12 A50-01 STOREFRONT JAMB @ PLYWD SHEATHING
SCALE: 3" = 1'-0"



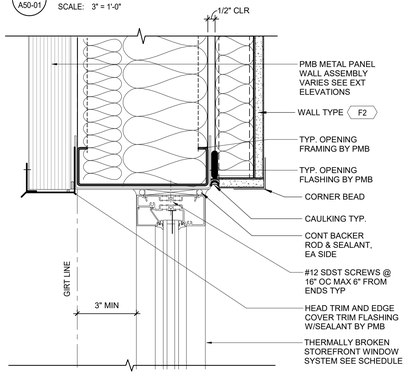
13 A50-01 STOREFRONT SILL @ PMB /PLYWD SHEATHING
SCALE: 3" = 1'-0"



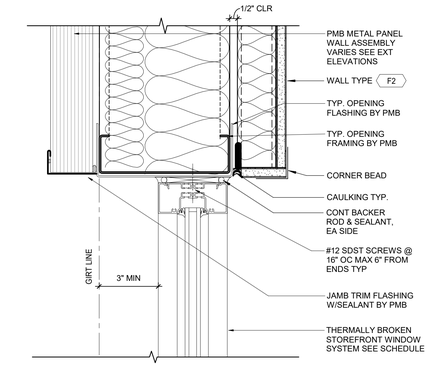
6 A50-01 DOOR JAMB AT PMB
SCALE: 3" = 1'-0"



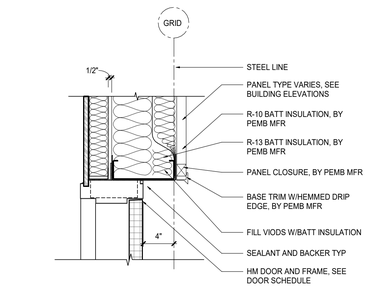
7 A50-01 STOREFRONT DOOR SILL
SCALE: 3" = 1'-0"



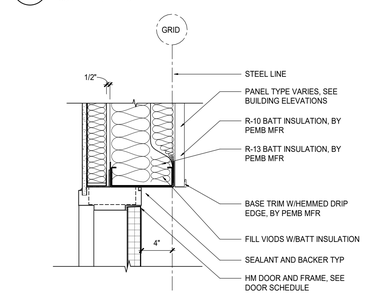
8 A50-01 STOREFRONT HEAD
SCALE: 3" = 1'-0"



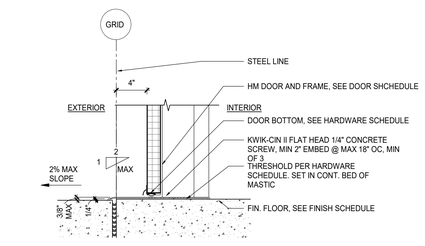
9 A50-01 STOREFRONT JAMB
SCALE: 3" = 1'-0"



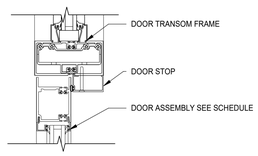
1 A50-01 EXTERIOR DOOR HEAD
SCALE: 1 1/2" = 1'-0"



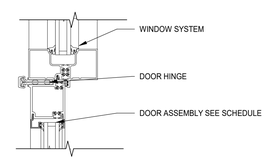
2 A50-01 EXTERIOR DOOR JAMB
SCALE: 1 1/2" = 1'-0"



3 A50-01 EXTERIOR DOOR THRESHOLD
SCALE: 1 1/2" = 1'-0"



4 A50-01 DOOR HEAD WITH TRANSOME
SCALE: 3" = 1'-0"



5 A50-01 DOOR JAMB AT FRAME
SCALE: 3" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

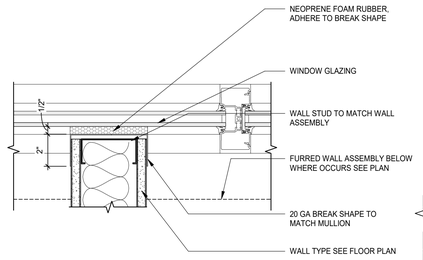
Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

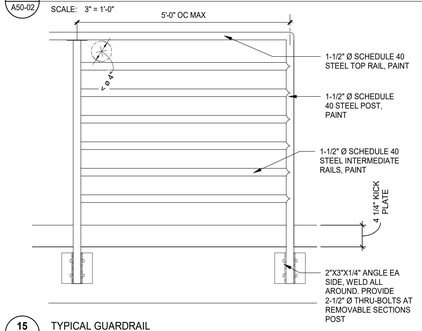
MAMMOTH, CALIFORNIA

Drawing Title
DOOR AND WINDOW DETAILS

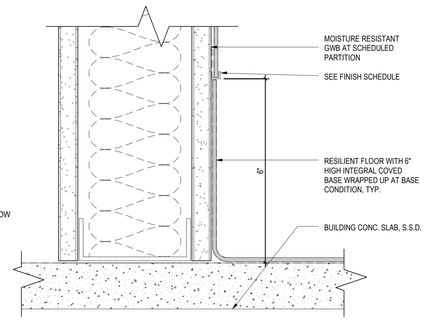
Scale	As indicated
Project No.	IN2024-0022
Drawing No.	**A50-01**



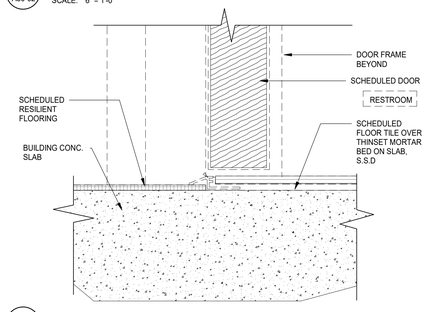
14 A50-02 OFFSET WALL AT STOREFRONT
SCALE: 3" = 1'-0"



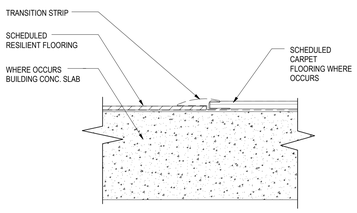
15 A50-02 TYPICAL GUARDRAIL
SCALE: 1" = 1'-0"



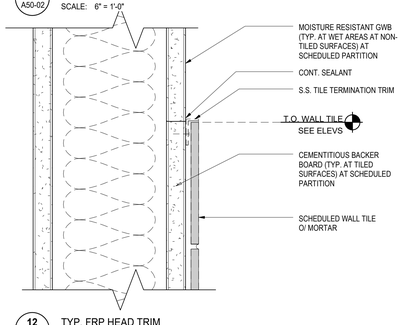
9 A50-02 TYP. SHEET VINYL FLOOR AND BASE
SCALE: 6" = 1'-0"



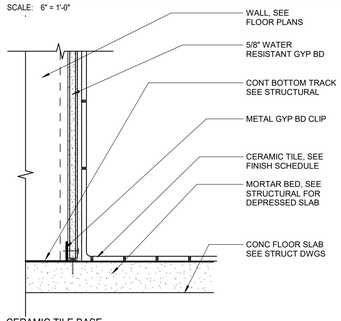
10 A50-02 TYP. THRESHOLD RESIL. FLOOR TO CONC.
SCALE: 6" = 1'-0"



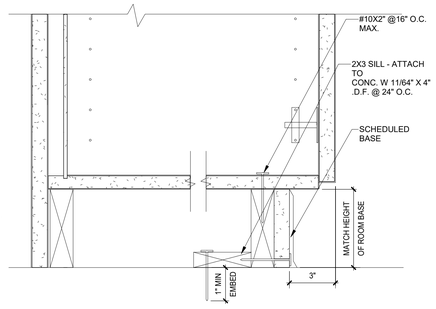
11 A50-02 TYP. THRESHOLD RESIL. FLR TO CARPET
SCALE: 6" = 1'-0"



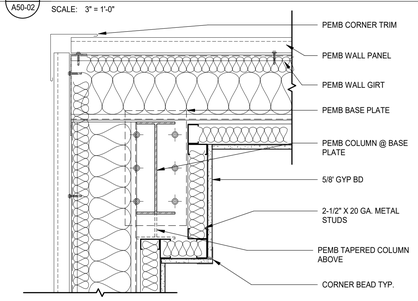
12 A50-02 TYP. FRP HEAD TRIM
SCALE: 6" = 1'-0"



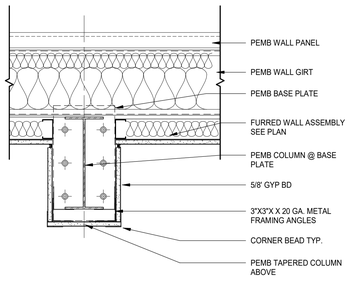
13 A50-02 CERAMIC TILE BASE
SCALE: 3" = 1'-0"



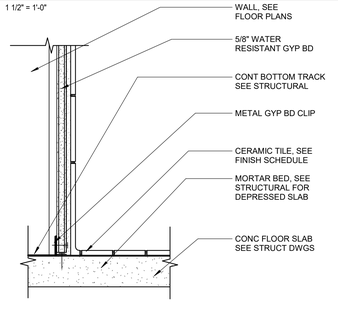
4 A50-02 LOWER CASEWORK ANCHORAGE
SCALE: 3" = 1'-0"



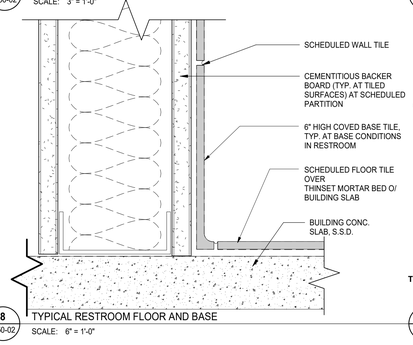
5 A50-02 PEMB COLUMN @ CORNER
SCALE: 1 1/2" = 1'-0"



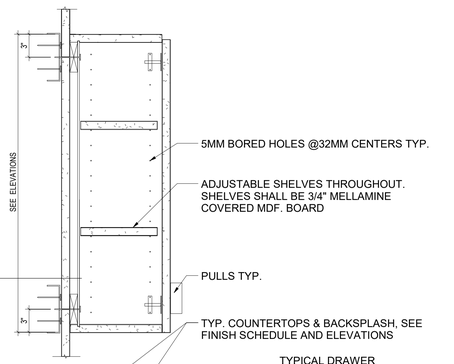
6 A50-02 PEMB INTERIOR COLUMN COVER
SCALE: 1 1/2" = 1'-0"



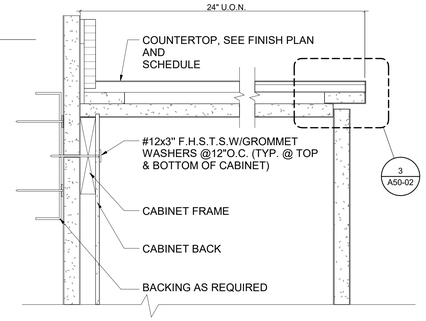
7 A50-02 TILE DETAIL
SCALE: 3" = 1'-0"



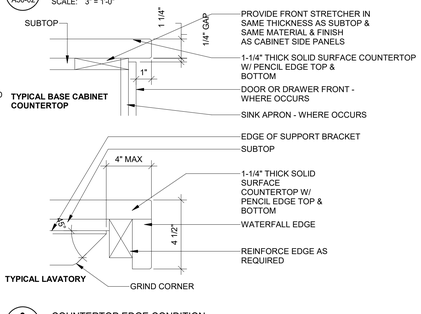
8 A50-02 TYPICAL RESTROOM FLOOR AND BASE
SCALE: 6" = 1'-0"



1 A50-02 CASEWORK - TYPICAL
SCALE: 1 1/2" = 1'-0"



2 A50-02 COUNTERTOP ANCHORAGE, TYP.
SCALE: 3" = 1'-0"



3 A50-02 COUNTERTOP EDGE CONDITION
SCALE: 3" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

MAMMOTH, CALIFORNIA

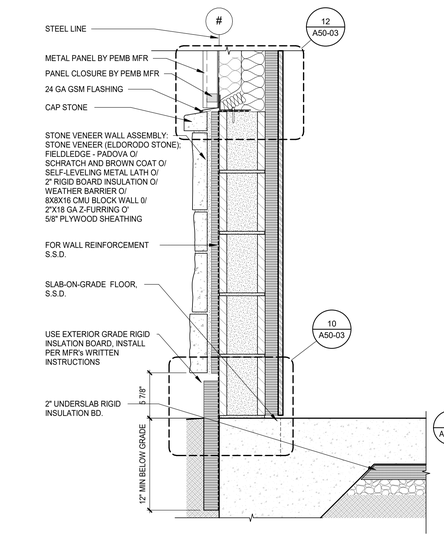
Drawing Title
INTERIOR DETAILS

Scale: As indicated

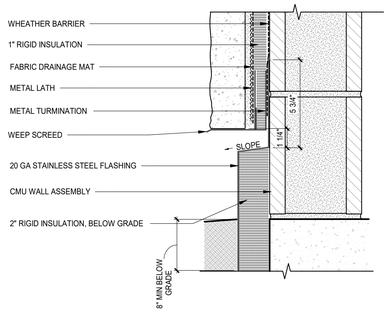
Project No.: IN2024-0022

Drawing No.: **A50-02**

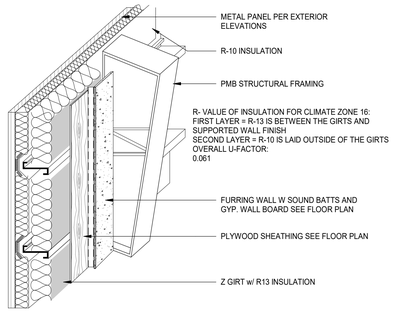
3/7/2025 11:32:27 PM



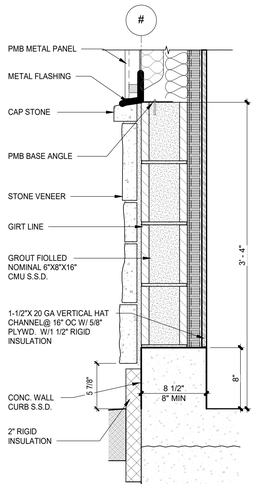
13 A50-03 EXTERIOR STONE VENEER WALL ASSEMBLY
SCALE: 1 1/2" = 1'-0"



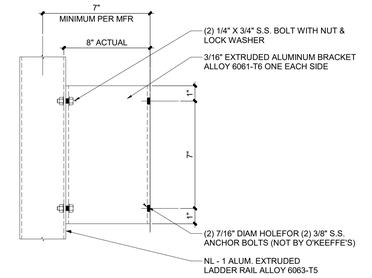
10 A50-03 BASE FLASHING AT STONE VENEER
SCALE: 3" = 1'-0"



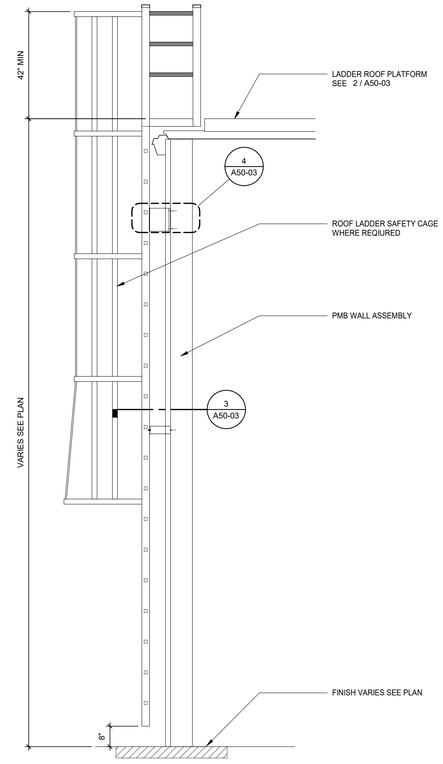
11 A50-03 EXTERIOR WALL PRESCRIPTIVE REQUIREMENTS
SCALE: 1/2" = 1'-0"



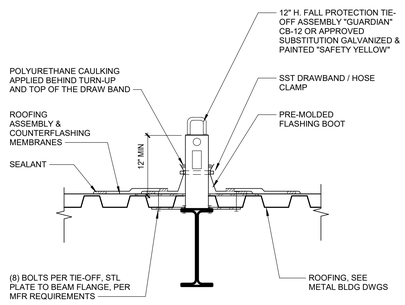
7 A50-03 STONE VENEER WALL ASSEMBLY AT VEHICLE BAY
SCALE: 1 1/2" = 1'-0"



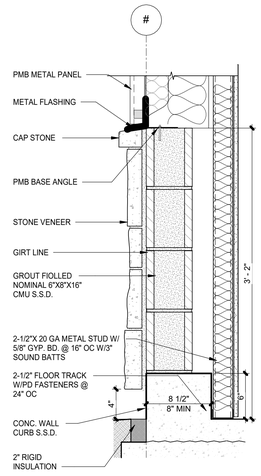
4 A50-03 LADDER BRACKET SIDE VIEW
SCALE: 3" = 1'-0"



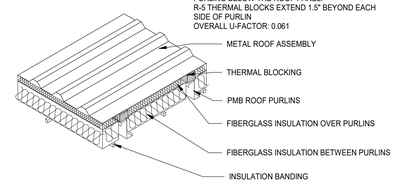
1 A50-03 LADDER SIDE ELEVATION
SCALE: 1/2" = 1'-0"



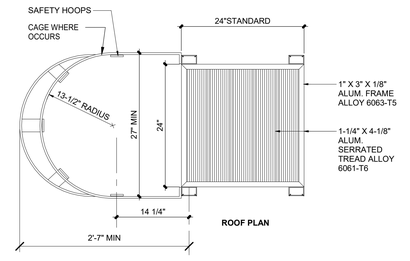
8 A50-03 FALL PROTECTION TIE OFF ASSMEBLY
SCALE: 1 1/2" = 1'-0"



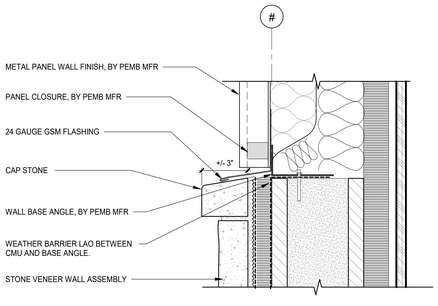
6 A50-03 STONE VENEER WALL
SCALE: 1 1/2" = 1'-0"



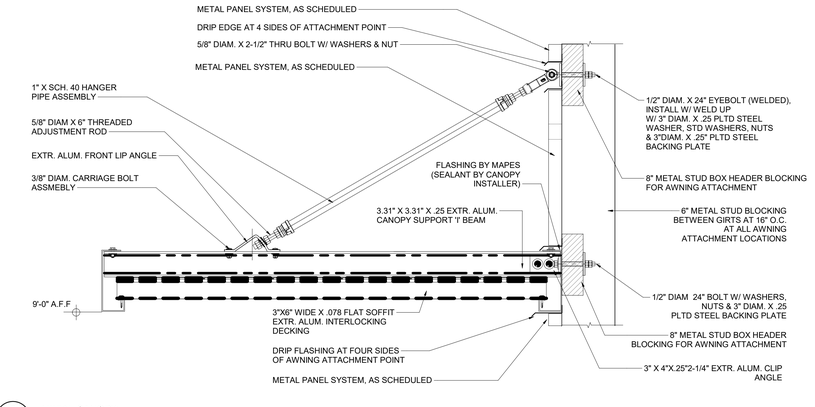
9 A50-03 ROOF PRESCRIPTIVE ENVELOP REQUIREMENTS
SCALE: 1/2" = 1'-0"



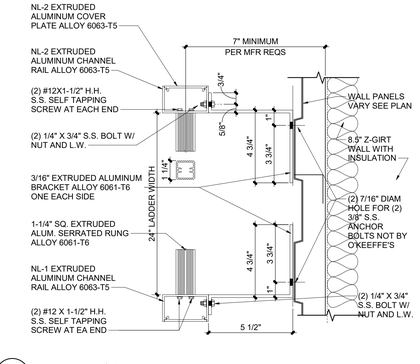
2 A50-03 LADDER ROOF PLATFORM
SCALE: 1" = 1'-0"



12 A50-03 FLASHING AT CAP STONE
SCALE: 3" = 1'-0"



5 A50-03 METAL CANOPY
SCALE: 1 1/2" = 1'-0"



3 A50-03 LADDER BRACKET PLAN VIEW
SCALE: 3" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

MAMMOTH, CALIFORNIA

Drawing Title
EXTERIOR DETAILS

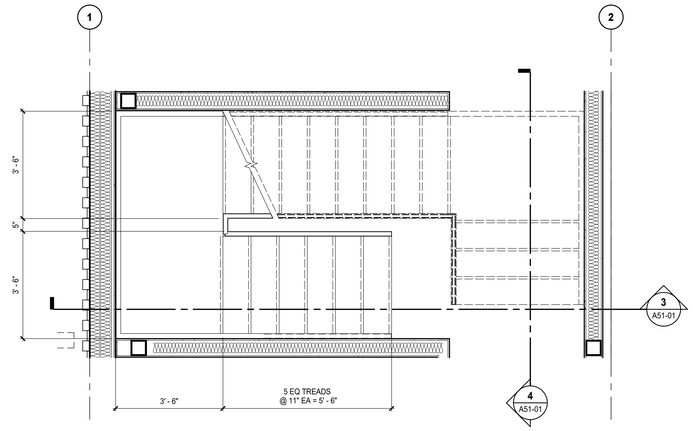
Scale: As indicated

Project No.: IN2024-0022

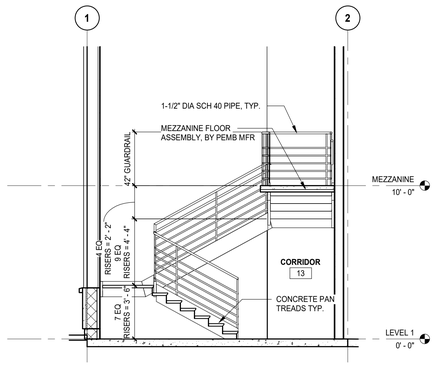
Drawing No.: **A50-03**

E D C B A

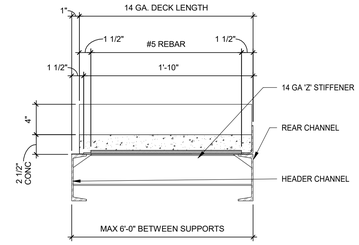
4 3 2 1



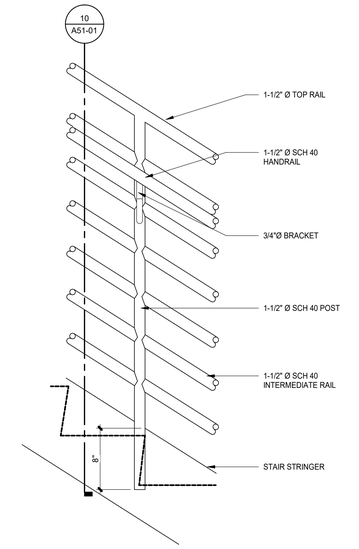
1 A51-01 STAIR PLAN LEVEL 1
SCALE: 1/2" = 1'-0"



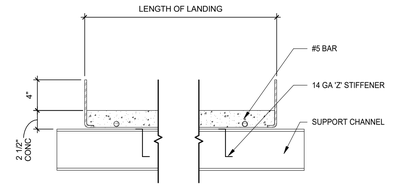
3 A51-01 STAIR SECTION 1
SCALE: 1/4" = 1'-0"



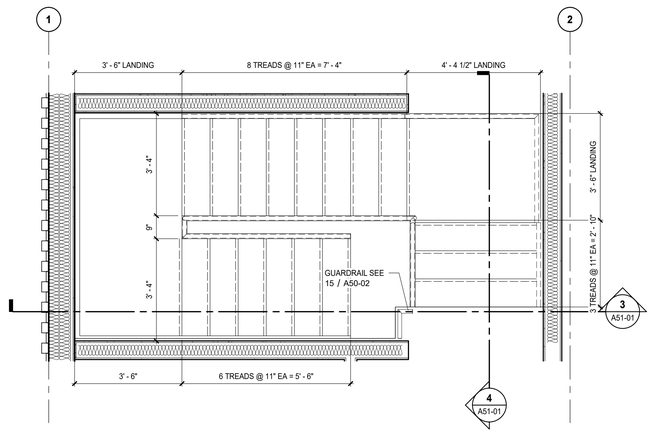
5 A51-01 METAL PAN LANDING DEPTH SECTION
SCALE: 1 1/2" = 1'-0"



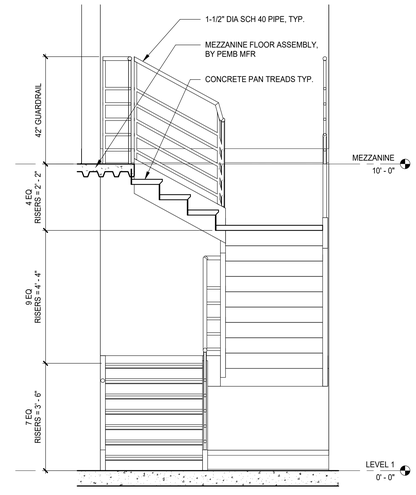
9 A51-01 STAIR GUARDRAIL
SCALE: 1 1/2" = 1'-0"



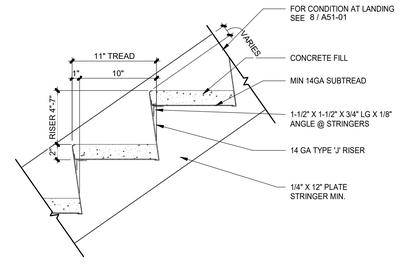
6 A51-01 METAL PAN LANDING WIDTH SECTION
SCALE: 1 1/2" = 1'-0"



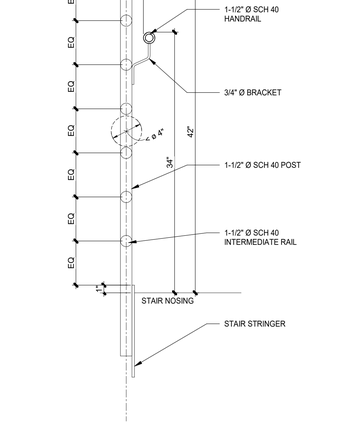
2 A51-01 STAIR PLAN MEZZANINE
SCALE: 1/2" = 1'-0"



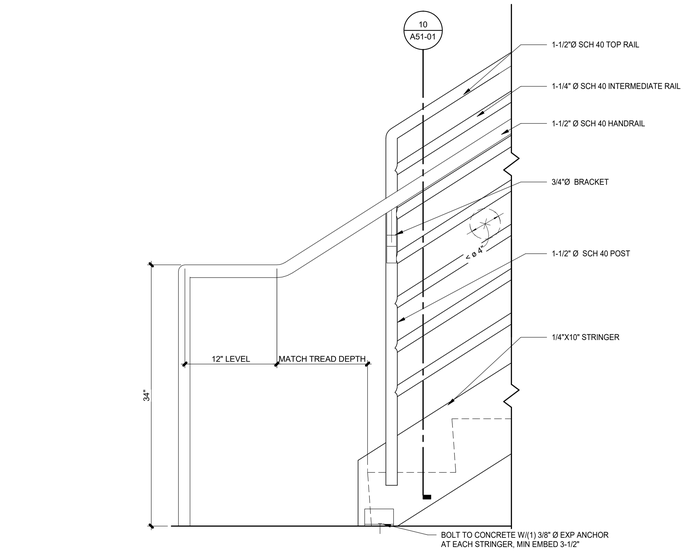
4 A51-01 STAIR SECTION 2
SCALE: 1/2" = 1'-0"



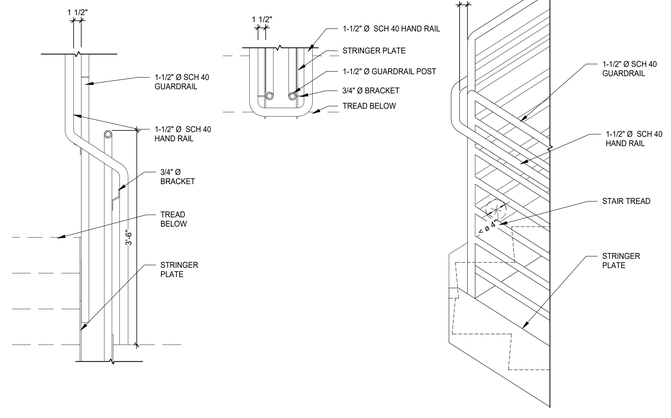
7 A51-01 METAL PAN TREAD
SCALE: 1 1/2" = 1'-0"



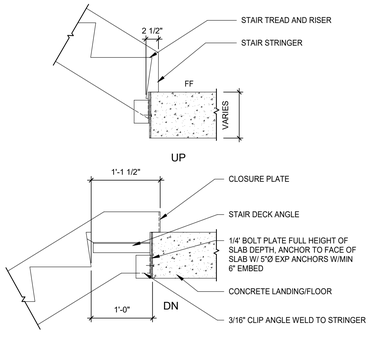
10 A51-01 STAIR GUARDRAIL SECTION
SCALE: 1 1/2" = 1'-0"



11 A51-01 STAIR RAIL AT BOTTOM
SCALE: 1 1/2" = 1'-0"



12 A51-01 STAIR RAIL AT LANDING
SCALE: 1" = 1'-0"



8 A51-01 STAIR CONNECTION AT CONCRETE LANDING
SCALE: 1" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn
	Author
Project Leader	Checked
	Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

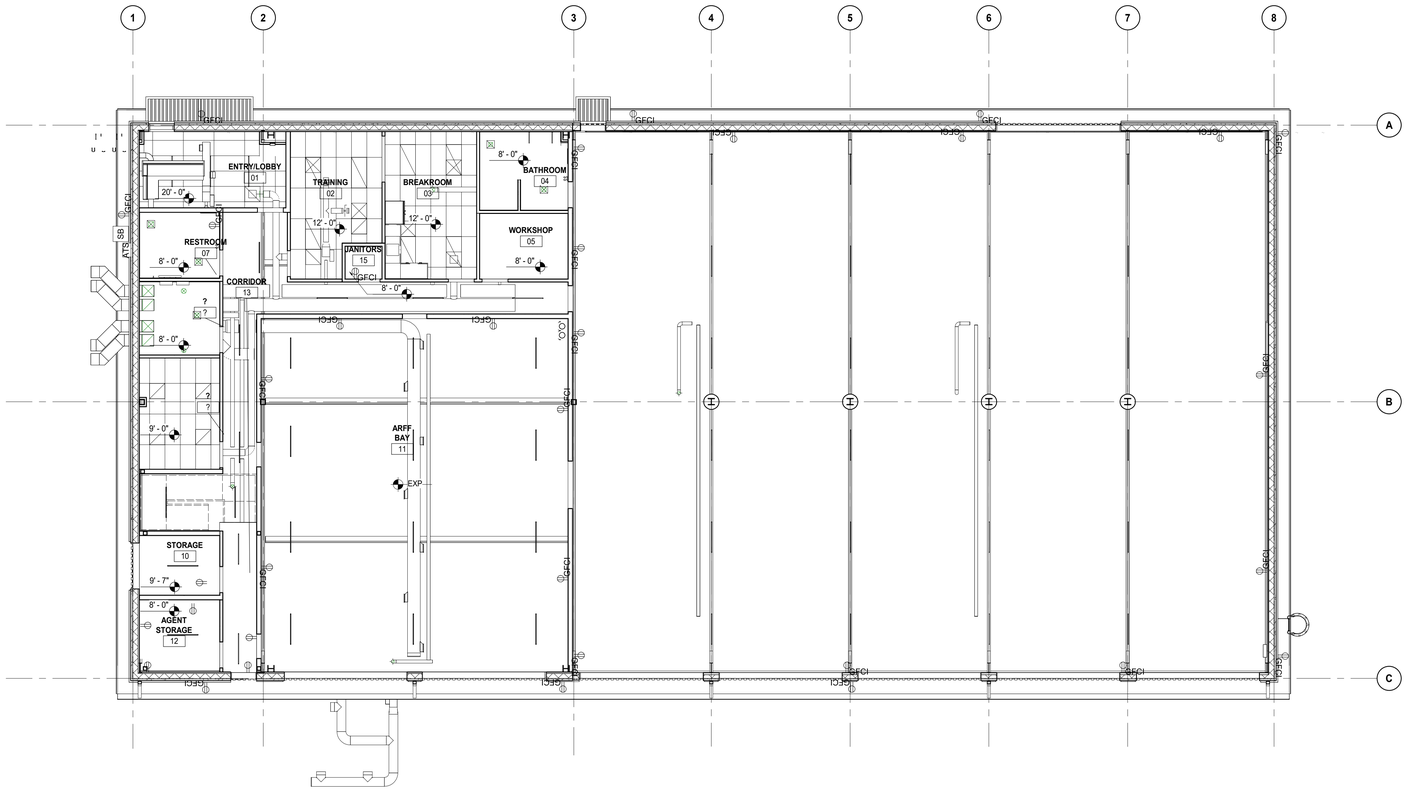
MAMMOTH, CALIFORNIA

Drawing Title
STAIR PLANS, SECTIONS AND DETAILS

Scale: As indicated

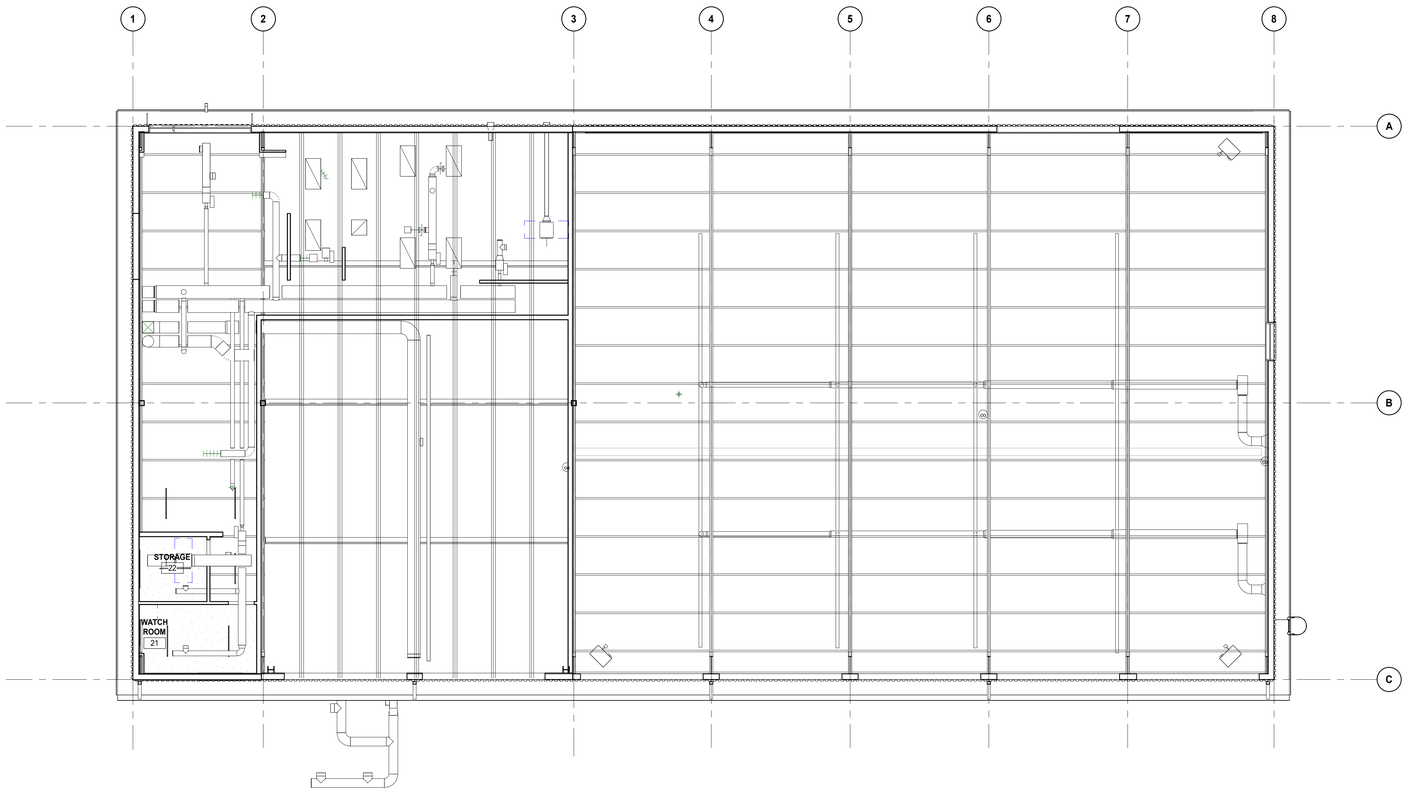
Project No.: IN2024-0022

Drawing No.: **A51-01**



1 A60-01 LEVEL 1 REFLECTED CEILING PLAN

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



2 A60-01 LEVEL 2 REFLECTED CEILING PLAN

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

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client

MAMMOTH YOSEMITE AIRPORT

Project

MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

MAMMOTH, CALIFORNIA

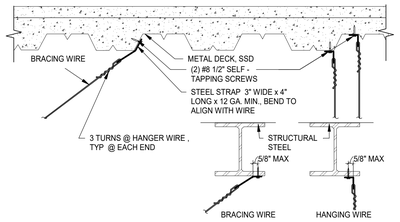
Drawing Title

REFLECTED CEILING PLAN - LEVEL 1

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

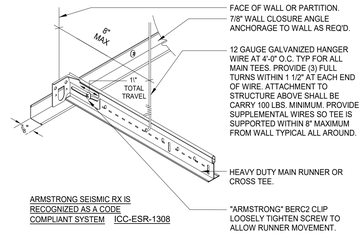
Project No.: IN2024-0022

Drawing No.: **A60-01**



13 A61-01 CEILING WIRE CONNECTION, TYP.1

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



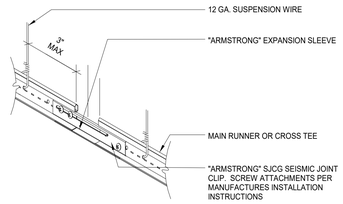
ARMSTRONG SEISMIC RX IS RECOGNIZED AS A CODE COMPLIANT SYSTEM ICC-ESR-1308

FREE END AT TWO ADJACENT WALLS OR PARTITIONS

NOTE : CEILING DETAIL BASED ON IBC CATEGORY D, E AND F APPROVED SEISMIC INSTALLATION USING THE "ARMSTRONG" SEISMIC RX SYSTEM. CONTRACTOR TO VERIFY INSTALLATION DETAILS WITH CEILING SYSTEM VENDOR.

9 A61-01 UNRESTRAINED1

SCALE: 3" = 1'-0"

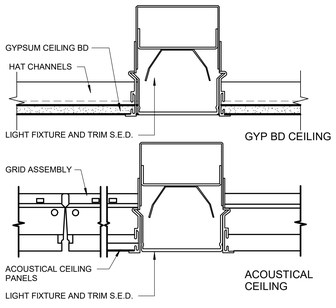


NOTE: CEILING DETAIL BASED ON IBC CATEGORY D, E AND F APPROVED SEISMIC INSTALLATION USING THE "ARMSTRONG" SEISMIC RX SYSTEM. CONTRACTOR TO VERIFY INSTALLATION DETAILS W/ CEILING SYSTEM VENDOR

ARMSTRONG SEISMIC RX IS RECOGNIZED AS A CODE COMPLIANT SYSTEM ICC-ESR-1308

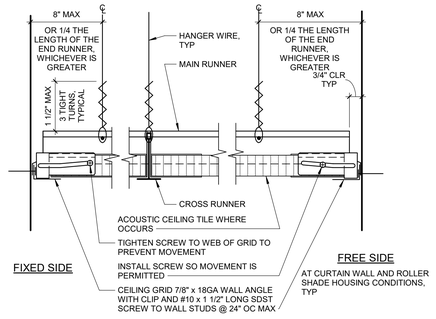
10 A61-01 SEISMIC JOINT1

SCALE: 3" = 1'-0"



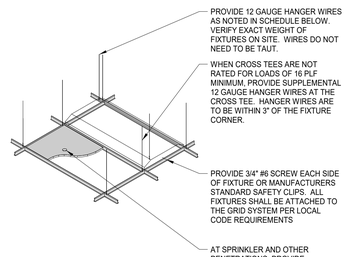
15 A61-01 SECTION THROUGH LIGHTING FIXTURE1

SCALE: 3" = 1'-0"



12 A61-01 ACOUSTICAL CEILING EDGE

SCALE: 6" = 1'-0"



LIGHT FIXTURE WEIGHT	# OF WIRES
LESS THAN 10 LBS.	(1) 12 GAUGE WIRE
GREATER THAN 10 LBS. - LESS THAN 56 LBS.	(2) 12 GAUGE WIRE
GREATER THAN 56 LBS.	DIRECT SUPPORT FROM STRUCTURE ABOVE
PENDANT HUNG FIXTURES THAT PENETRATE LAY-IN CEILINGS.	(1) 9 GAUGE WIRE + LATERAL BRACING

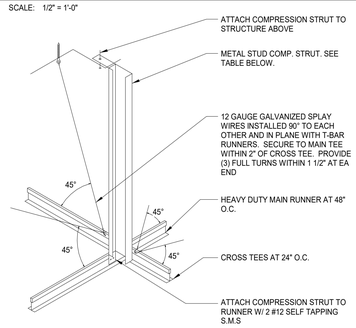
F.P. & HVAC WEIGHT	# OF WIRES
LESS THAN 20 LBS.	NONE
GREATER THAN 20 LBS. - LESS THAN 56 LBS.	(2) 12 GAUGE WIRE
GREATER THAN 56 LBS.	DIRECT SUPPORT FROM STRUCTURE ABOVE

NOTE: THE ARMSTRONG CEILING GRID SYSTEM IS RATED FOR 16 PLF. IN EXISTING CONDITIONS WHERE THE GRID LOAD RATING CANNOT BE VERIFIED, PROVIDE THE SUPPLEMENTAL HANGER WIRES ON THE CROSS TEES AT EACH LIGHT AND MECHANICAL FIXTURE.

NOTE: . LIGHT FIXTURES TO COMPLY W/ ALL CODES. FIXTURES SHALL BE MOUNTED IN CONFORMANCE TO ASCE 7-10 SECTION 13-5-6 AND AS MODIFIED BY CBC 1616A 1.20. SEE ELECTRICAL.

6 A61-01 SUSPENDED LIGHT FIXTURE1

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



ALTERNATIVE STRUTS	MAX LENGTH
• 3/4" x 1/2" x 0.059" CHANNEL	• 26"
• (2) 3/4" x 1/2" x 0.059" CHANNEL BACK TO BACK	• 39"
• 1 1/2" x 9/16" x 0.059" CHANNEL	• 33"
• 1 1/2" x 9/16" x 0.059" CHANNEL BACK TO BACK	• 44"
• 1 5/8" x 1 1/4" x 0.0197" CHANNEL	• 106"
• (2) 1 5/8" x 1 1/4" x 0.0197" CHANNEL BACK TO BACK	• 141"
• 1/2" DIAMETER EMT CONDUIT. 0.042" WALL THICKNESS	• 47"
• 3/4" DIAMETER EMT CONDUIT. 0.049" WALL THICKNESS	• 61"
• 1" DIAMETER EMT CONDUIT. 0.057" WALL THICKNESS	• 78"
• 1 1/4" DIAMETER EMT CONDUIT. 0.065" WALL THICKNESS	• 102"
• 1 1/2" DIAMETER EMT CONDUIT. 0.065" WALL THICKNESS	• 118"
• 2" DIAMETER EMT CONDUIT. 0.065" WALL THICKNESS	• 150"
• 3 5/8" 20 GAUGE C-STUD (33KSI)	• 144"
• 3 5/8" 18 GAUGE C-STUD (33KSI)	• 168"
• 3 5/8" 16 GAUGE C-STUD (33KSI)	• 168"
• USG TELESCOPING STRUT - VSA 18/30	• 18"-30"
• USG TELESCOPING STRUT - VSA 30/48	• 30-48"
• USG TELESCOPING STRUT - VSA 48/84	• 48-84"
• USG TELESCOPING STRUT - VSA 84/102	• 84"-102"
• USG TELESCOPING STRUT - VSA 102/120	• 102"-120"
• USG TELESCOPING STRUT - VSA 120/144	• 120"-144"

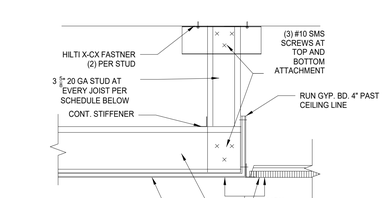
NOTE: CEILING (RESTRAINED) SEISMIC DETAIL BASED ON IBC CATEGORY D, E AND F APPROVED SEISMIC INSTALLATION USING THE "ARMSTRONG" SEISMIC RX SYSTEM. SDC-D, ASTM C635, C636, AND E580. CONTRACTOR TO VERIFY INSTALLATION DETAILS WITH CEILING SYSTEM VENDOR. CEILING TO COMPLY WITH ASCE 7-10 13-5-6 AND AS MODIFIED BY CBC 1616A 1.20

NOTE: COMPRESSION STRUTS AND SPLAY WIRES SHALL BE INSTALLED AT 12' O.C. MAXIMUM. PERIMETER STRUTS SHALL BE INSTALLED WITHIN 6' OF EACH WALL.

ARMSTRONG SEISMIC RX IS RECOGNIZED AS A CODE COMPLIANT SYSTEM ICC-ESR-1308

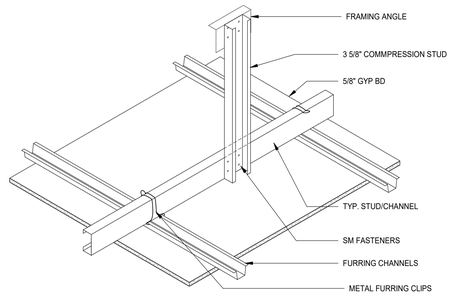
8 A61-01 COMPRESSION STRUT1

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



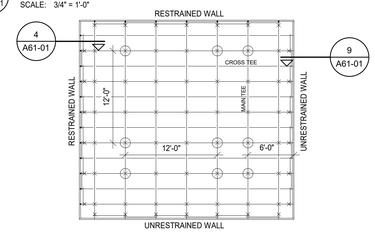
1 A61-01 CEILNG TRANSITION1

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



2 A61-01 GYP. BD. CEILING1

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

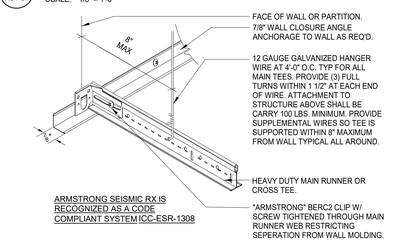


• PERIMETER SEISMIC CLIP.
× 12 GAUGE HANGER WIRE.
COMPRESSION STRUT. SEE DETAIL 2
NOTCHED STABILIZER ANGLE.

NOTE: COMPRESSION STRUTS AND SPLAY WIRES SHALL BE INSTALLED AT 12' O.C. MAXIMUM. PERIMETER STRUTS SHALL BE INSTALLED WITHIN 6' OF EACH WALL.

3 A61-01 T BAR LAYOUT1

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



ARMSTRONG SEISMIC RX IS RECOGNIZED AS A CODE COMPLIANT SYSTEM ICC-ESR-1308

FIXED END AT TWO ADJACENT WALLS

NOTE: CEILING DETAIL BASED ON IBC CATEGORY D, E AND F APPROVED SEISMIC INSTALLATION USING THE "ARMSTRONG" SEISMIC RX SYSTEM. CONTRACTOR TO VERIFY INSTALLATION DETAILS W/ CEILING SYSTEM VENDOR

4 A61-01 RESTRAINED1

SCALE: 3" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:	Brandley Engineering
Civil:	Kimley-Horn
Architecture:	NORR
Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler:	Sacramento Engineering Consultants

Seal(s)

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH MULTIPURPOSE BLDG - ARFF/SRE

MAMMOTH, CALIFORNIA

Drawing Title
CEILING DETAILS

Scale: As indicated

Project No.: IN2024-0022

Drawing No.: **A61-01**

General

1. Interpretation of drawings & specifications
   A) For convenience, specifications have been prepared for this project and are arranged in several sections, but such separation shall not be considered as the limits of the work required by any separate trade. The terms and conditions of such limitations are wholly between the contractor and his subcontractors.
   B) In general, the working details will indicate dimensions, positions and kind of construction, and the specifications will indicate qualities and methods. Any work indicated on the working details mentioned but not in the specifications, or vice versa, shall be furnished as though fully set forth in both. Work not particularly detailed, marked, or specified, shall be the same as similar parts that are detailed, marked, or specified. If conflicts occur between drawings and specifications, the most expensive materials or methods will prevail.
   C) Should an error appear in the working details or specifications or in work done by others affecting this work, the contractor shall notify the architect at once and in writing. If the Contractor proceeds with the work so affected without having given such written notice and without receiving the necessary approval, decision or instruction in writing from the owner, then he shall have no valid claim against the owner, for the cost of so proceeding and shall make good any resulting damage or defect. No verbal approval, decision, or instruction shall be valid or be the basis for any claim against the owner, its officers, employees or agents. The foregoing includes typical errors in the specifications or notational errors in the working details where the interpretation is doubtful or where the error is sufficiently apparent as to place a reasonably prudent contractor on notice that, should he elect to proceed, he is doing so at his own risk.
2. Construction shall conform to all applicable codes and regulations.
3. Shop Drawing Note:
   A) Shop drawings shall be submitted in the form of one reproducible and two copies of each sheet.
   B) The purpose of shop drawing submittals by the Contractor is to demonstrate to the Structural Engineer that he understands the design concept by indicating which materials he intends to furnish and install, and by detailing the fabrication and installation methods he intends to use.
   C) Prior to fabrication, shop drawings shall be submitted for review to the Structural Engineer. Shop drawing submittals shall include, but are not necessarily limited to structural steel, reinforcing steel, glued laminated beams, and pre-fabricated wood roof framing items such as I-joists and trusses.
   D) Prior to submission the Contractor shall review all submittals for conformance with the contract documents and shall stamp submittals as being "Reviewed for Conformance".
   E) Shop drawing submittals processed by the Structural Engineer are not change orders.
   F) Any detail on the shop drawing that deviates from the contract documents shall clearly be marked with the note "This is a Change".
   G) Shop drawings or calculations submitted for review that require a third resubmittal for re-review shall be billed hourly for such time to the General Contractor. Re-review will not proceed without written approval from the General Contractor for additional engineering review services.
4. Safety Note:
   A) It is the Contractors responsibility to comply with the pertinent sections, as they apply to this project, of the "Construction Safety Orders" issued by the State of California latest edition, and all OSHA requirements.
   B) The owner and the Structural Engineer do not accept any responsibility for the Contractor's failure to comply with these requirements.
   C) The Contractor shall be responsible for adequate design and construction of all forms and shoring required.
5. The Contractor shall notify the Architect and Structural Engineer where a conflict or a discrepancy occurs between the structural drawings and any other portion of the contract documents or existing field conditions. Such notification shall be given in due time so as not to affect the construction schedule. In case of a conflict between structural drawings and specifications, the more restrictive condition shall take precedence unless written approval has been given for the least restrictive. Contractor shall verify all dimensions with architectural and structural drawings prior to commencing any work.
6. Where no specific detail is shown, the construction shall be identical or similar to that indicated for like cases of construction on this project. Should there be any question, contact the Architect and Structural Engineer prior to proceeding.
7. When construction attaches to an existing building, a complete set of drawings of the existing building shall be kept on the job site. Contractor to obtain these drawings from the owner.
8. Any substitutions for structural members, hardware, or details shall be reviewed by the Architect and Structural Engineer. Such review will be billed on a time and materials basis to the General Contractor with no guarantee that the substitution will be allowed.
9. Do not scale drawings. Contact the Architect or Structural Engineer for any dimensions not shown.
10. These drawings are not complete until reviewed and accepted by the local building official and signed by the owner and the Structural Engineer.
11. All drawings and written material appearing herein constitutes the original and unpublished work of the Structural Engineer and the same may not be duplicated, used or disclosed without written consent of the Structural Engineer.
12. The structure shown on these drawings is structurally sound only in its completed form. The stability of this structure depends on the diaphragms and the bracing members shown. The Contractor is to provide for the design and construction of shoring for all earth, forms, concrete, steel, wood, and masonry to resist gravity, earth, wind, seismic, and construction loads. Shoring shall remain in place until all diaphragms and lateral resisting elements are in place in their entirety. Construction materials shall be spread out if placed on framed floors or roofs. Load shall not exceed the design live load per square foot.

Design Criteria

1. Code: 2022 California Building Code (CBC)
2. Design Live Loads:

Area	Live Load	Remarks
Roof		
A) Flat to < 4:12	L_r = 20 psf	Reducible per code
B) 4:12 to ≤ 12:12	L_r = 12-20 psf	Reducible per code

3. Snow Design Parameters:
   - Ground Snow Load — P_g = 100 psf
   - Flat-Roof Snow Load — P_f = 76 psf
   - Snow Exposure Factor — C_e = 0.90
   - Snow Load Importance Factor — I_s = 1.20
   - Thermal Factor — C_t = 1.0
4. Wind Design Parameters:
   - Basic Design Wind Speed (3-sec gust) — V = 110 mph
   - Nominal Design Wind speed (3-sec gust) — V_{asd} = 86 mph
   - Risk Category — IV
   - Exposure Category — C
   - Internal Pressure Coefficient — ±0.18
   - Analysis Method — Directional Procedure
5. Earthquake Design Parameters:
   - 5.1. Seismic Importance Factor — I_E = 1.5
   - Risk Category — IV
   - 5.2. Soil Site Classification — 'D'
   - 5.3. Seismic Design Category — 'D'
   - 5.4. Mapped Spectral Response Accel
     - A) Short period — S_s = 1.798g
     - B) 1-sec period — S_1 = 0.610g
   - 5.6 Design Spectral Response Accel
     - A) Short Period — S_{DS} = 1.439g
     - B) 1-sec period — S_{D1} = 0.691g
   - 5.7 Seismic Force Resisting System — By Others
   - 5.8 Seismic Base Shear — By Others
   - 5.9 Seismic Response Coefficient — By Others
   - 5.10 Component Response Modification Factor — By Others
   - 5.11 Analysis Procedure — Equivalent Lateral Force

Foundations

1. Foundation design is based on the geotechnical report by Brandley Engineering, dated October 27th, 2022.
2. All building pad preparation and foundation work shall be done in accordance with the requirements of the geotechnical report. Copies of the report may be obtained from the engineer upon request.
3. The Geotechnical Engineer shall observe all footing excavations prior to placement of reinforcing steel and concrete.
4. Foundation depths indicated on plans are for estimating purposes only. Actual depths are to be determined by the Geotechnical Engineer on the jobsite as required.
5. When structural observation is required, structural engineer shall observe footing reinforcing steel prior to concrete placement. Provide 48 hours notice to structural engineer prior to concrete placement.
6. The contractor shall be solely responsible for all excavation procedures including, but not limited to, lagging, shoring and protection of adjacent property, structures, streets, and utilities in accordance with the local building department.
7. Foundation type: conventional spread footings
   - Spread footing design values:
     - Allowable Bearing Pressures
       - DL + LL — 2,000 psf
       - DL + LL + wind or seismic — 2,666 psf
     - Lateral Resistance
       - Passive Pressure — 450 pcf
       - Coefficient of friction — 0.25
     - Minimum footing dimensions
       - depth = 36"
       - width = 36" (spread footings)

Prefabricated Metal Building

1. Design and fabrication shall conform to the 2022 California Building Code (CBC), and the latest editions of AISC "Specifications for the Design, Fabrication, and Erection of Structural Steel Buildings", and AISC "Specifications for the Design of Cold-Formed Steel Structural Members".
2. Metal Building Manufacturer (MBM) shall be AISC category 'MB' certified.
3. Drawings, calculations and engineering data on structural sections for all components shall be submitted to the Owner for review prior to fabrication. See Design Criteria Notes for loading information.
4. Calculations and drawings shall be signed by a Civil or Structural Engineer registered in the state in which the project is located.
5. Building manufacturer shall provide plan drawing showing column locations and anchor bolt locations prior to fabrication. Anchor bolt sizes, numbers, and locations are to be designed and detailed by MBM. MBM shall furnish required anchor bolts and setting templates.
6. Contractor shall verify all dimensions with Architectural drawings and MBM column layout prior to foundation construction.
7. All hardware required for connecting building components shall be designed, detailed and provided by building manufacturer.
8. Contractor shall provide temporary erection bracing as required.
9. Building designer shall account for the weight of all mechanical equipment in the design of all building components which support such units.
10. Foundation design is based on preliminary evaluation of metal building reactions. Final building reactions are to be submitted to the Owner for validation of foundations prior to construction. The foundation design may need to be revised to meet the final building reactions.

Structural Deferred Submittals

1. Deferred submittals shall conform to the 2022 CBC.
2. The following are structural deferred submittal items:
   A. Prefabricated Metal Building
   B. Stairs
   C. Sprinklers
   D. Canopies
   E. Foundation Design (Foundation Plan shown for bidding purposes only)
   F. Generator Pad
3. The submittal shall include but shall not be limited to layout drawing, any necessary sections and/or details, and design calculations stamped and signed by a Professional Engineer licensed in the State of California.
4. Submittal documents for deferred submittal items shall be submitted to the Architect or Engineer of Record for review prior to submission to the Building Official.
5. Ten working days shall be allowed for the Architect or the Engineer to review each deferred submittal.
6. The deferred submittal items shall not be installed until their design and submittal documents have been approved by the Building Official.
7. Deferred submittals shall be made for enough in advance such that no delay in construction occurs.

Lightgauge Metal Framing

1. All metal framing shall be formed from corrosion resistant steel conforming to ASTM A653 or ASTM A1011 with minimum yield strength of 33 ksi for 18 ga and lighter and 50 ksi for 16 ga and heavier.
2. Metal framing shown on the structural drawings shall have channel type sections with stiffened flanges.
3. Metal tracks shall be the same gauge as framing which it supports, unless noted otherwise, with minimum flange width of 1¼".
4. Galvanized coating must meet the ASTM C955 specification.
5. Factory punch-outs to be located along the centerline of the webs of the members and have a minimum center-to-center spacing of 24". Punch-outs to have a maximum width=1½", and a maximum length=4". Lightgauge framing members shall be cut such that the minimum distance between the end of the member and the near edge of the web punch-out=10".
6. All header members shall be un-punched.
7. Design properties of metal framing studs, channels & tracks shall conform to (or exceed) the Steel Stud Manufacturer's Association (SSMA) Product Technical Information catalog & ICC Report # ESR-3064P.

Concrete Masonry

1. 28-day compressive strength of concrete masonry (f'm) shall be f'm = 2000psi for all uses. Full masonry stresses are used in design.
2. Concrete block units shall conform to ASTM C-90. Units shall be lightweight with a maximum unit weight of 105 pcf.
3. Mortar shall be Type S.
4. Grout shall comply with ASTM C476. All cells to fully-grouted unless specified otherwise on plan.
5. Compliance with the requirements for the specified compressive strength of masonry, f'm shall be in accordance with section S1.4B of the TMS402/602-16. For unit strength method see table below for required 28-day compressive strength of the concrete block units, grout, and mortar.

	required 28-day compressive strength		
specified f'm	conc block units (psi)	grout (psi)	mortar (psi)
2000	2000	2000 min	1800
2250	2600	2250 min	1800
2500	3250	2500 min	1800

   Unit strength method shall not be used for specified compressive strengths in excess of 2500 psi.
6. Reinforcing steel shall conform to ASTM A615-grade 60 for #4 and larger, grade 40 for #3 and smaller.
7. All reinforcement shall be continuous. Stagger splices where possible. Lap bars 48 diameters minimum, unless noted otherwise.
8. Vertical reinforcing shall be held in position at top and bottom and at intervals not to exceed 200 bar diameters.
9. Each vertical bar in walls shall lap 48 diameters with a dowel of the same size extending into the foundation. Carry each dowel to within 3" of the bottom of the foundation and terminate with 90° hook. Dowels shall be straight and plumb.
10. Place all horizontal bars in bond beam units. When 2 bars are used, stagger laps a minimum of 5'-0".
11. Provide 2-#5 bars (full height of wall at jamb and extending a minimum of 2'-6" past edges of openings at head and sill) each side of all openings and each end of all walls, unless noted otherwise on drawings.
12. Before block is placed on concrete, thoroughly clean concrete and remove all laitance and loose material. Roughen concrete surface to 1/16" amplitude.
13. Concrete block masonry shall be built to preserve the unobstructed vertical continuity of the cells. All head and bed joints shall be solidly filled with mortar for a distance in from the face of the unit not less than the thickness of the face shell. Bond shall be provided by lapping successive courses or by equivalent mechanical anchorage.
14. Vertical cells shall have vertical alignment sufficient to maintain a clear unobstructed continuous vertical cell measuring not less than 2"x3".
15. Low Lift (lift height up to 5'-4")
    All cells shall be filled solidly with grout. Grout shall be placed in a continuous pour in lifts not exceeding 5'-4" where cleanouts are not provided. All grouting shall be done under the continuous observation of the owner's testing laboratory.
16. High Lift (lift height greater than 5'-4" and up to 12'-8")
    Cleanout openings shall be provided in the bottom course of wall to be filled at each lift or pour of grout where such lift or pour of grout is in excess of 5'-4" in height. Maximum lift or pour height shall not exceed 12'-8". Cleanouts shall be provided at each cell. However, if the course at the bottom of the pour is constructed entirely of inverted open-end bond beam units, cleanout openings need only be provided at reinforced cells. Maximum cleanout spacing shall not exceed 32"cc. The cleanouts shall be sealed after inspection and before grouting.
17. Thoroughly clean all cells and bond beams of mortar projections, mortar droppings, or other foreign material before grouting.
18. All grout shall be thoroughly consolidated by mechanical vibration during placement in a manner to provide solidly grouted spaces.
19. When grouting is stopped for one hour or longer, horizontal construction joints shall be formed by stopping the pour of grout 1½" below the top of the uppermost unit.
20. All embedded items (bolts, etc.) shall be securely positioned prior to grouting. Provide a minimum of 1" grout around all bolts in masonry. See Typical Details Sheet.
21. Pipes and electrical conduits shall not be embedded in concrete masonry except where specifically approved by the structural engineer.
22. Use open end block for all stack bond construction.

Concrete

1. Structural concrete shall attain 28-day compressive strength as required in note #30. Maximum slump shall not exceed 4".
2. Concrete mix designs shall be prepared by a registered Civil Engineer, reviewed by Owner's testing laboratory and submitted to the Structural Engineer for review. Selection of concrete mix proportions shall be per ACI 318-14 Section 26.4.3. & 26.4.4.
3. Concrete mix design shall conform to technical specification section P-610.
4. Cementitious materials:
   Cement shall conform to ASTM C-150 type I or II.
   Fly ash shall conform to ASTM C-618. Max quantity of fly ash shall be as given in specs (15% max u.n.o.)
5. Concrete aggregates shall conform to ASTM C-33 for normal weight concrete and ASTM C-330 for light weight concrete.
6. Water shall be clean and free from injurious amounts of oils, acids, alkalis, salts, organic materials or other substances deleterious to concrete or reinforcement.
7. Non-shrink grout or drypack shall consist of a premixed nonmetallic formula. See note #27 for additional information.
8. Reinforcing steel shall conform to ASTM A615-grade 60 for #4 and larger, and ASTM A615-grade 40 for #3 and smaller, except reinforcing steel to be welded shall conform to ASTM A706. Contractor shall submit rebar mill certificates.
9. Welded Wire fabric shall conform to ASTM A-1064.
10. All preheating and welding of reinforcing bars shall be done in accordance with AWS D1.4 latest edition and shall be continuously inspected by a qualified laboratory. Contractor shall furnish WPS for all rebar welding to the laboratory.
11. Reinforcing steel shall be fabricated according to "Manual of Standard Practice for Reinforced Concrete Construction".
12. Dimensions shown for location of reinforcing are to the face of bars listed and denote clear coverage. Non-prestressed, cast-in-place concrete coverage shall be as follows, u.n.o.:
    - Cast against earth (except slabs) — 3"
    - Cast in forms and exposed to earth or weather
      - #6 & larger — 2"
      - #5 & smaller — 1½"
    - Beams & columns (ties) — 1½"
    - Beams & columns (main reinf) — 2"
    - Cast-in-place walls (exterior face & soil side) — see above
    - Cast-in-place walls (interior face - #11 & smaller) — ¾"
    - Tilt-up walls — see details
    - Slabs (on forms) — ¾"
    - Slabs (on ground) — 2" clr from top u.n.o.
13. Splices in continuous reinforcement shall be lapped u.n.o., lap bars per note 31 u.n.o.. Splices in adjacent bars shall be greater than 5'-0" apart. Splice continuous bars in soil-bearing grade beams, structural slabs on grade and mat foundations as follows u.n.o.: top bars at centerline of support; bottom bars at mid-span. Splice continuous bars in elevated slabs and beams, etc. as follows u.n.o.: top bars at mid-span; bottom bars at centerline of support. All bars size #14 and larger shall be continuous for full length shown or spliced with mechanical couplers as noted in details. Splices in WWF shall overlap 2 squares minimum.
14. The minimum clear spacing between parallel bars in a layer shall not be less than the larger of bar diameter, 1", or 33% greater than the maximum aggregate size (nominal), whichever is greatest. This requirement also applies to the clear spacing between different layers of parallel bars and to the clear distance between a contact lap splice and adjacent splices or bars.
15. All hooks shall be standard hooks unless otherwise shown or noted. At walls, provide hooks at ends of all reinforcing ends, corners and intersections, u.n.o.
16. Provide construction/control joints @ all slabs on grade as noted on plan. Proposed joint plan shall be submitted to the Structural Engineering for approval prior to construction. Concrete surface at construction joints shall be thoroughly cleaned and laitance removed. Where indicated on drawings, roughen concrete surface to ¼" amplitude. Concrete may be roughened by chipping the entire surface, sand blasting, or raking the surface to provide ¼" deep deformations.
17. Remove all debris from forms before casting any concrete.
18. Reinforcing, dowels, bolts, anchors, sleeves, etc., to be embedded in concrete shall be securely positioned in forms before placing concrete.
19. Pipes and electrical conduits shall not be embedded in structural concrete or concrete fill over metal decking except where specifically approved by the Structural Engineer.
20. Anchor bolts (AB's) cast in concrete or masonry for wall sill and ledger/ applications shall be headed bolts with cut threads conforming to ASTM A307 or F1554 u.n.o. Refer to "Wood notes" for additional requirements for bolts in contact with pressure treated or fire retardant material. Refer to 'Structural steel' note for requirements for anchor rods cast in concrete for column base plate and steel embed applications.
21. Walls shall be cast in horizontal layers of 2'-0" maximum depth.
22. Concrete in walls, piers or columns shall set at least 2 hours before placing concrete in beams, spandrels, or slabs supported thereon.
23. Consolidate concrete placed in forms by mechanical vibrating equipment supplemented by hand-spading, rodding or tamping. Use equipment and procedures for consolidation of concrete in accordance with the recommended practices of ACI 309 to suit the type of concrete and project conditions. Concrete shall not be dropped through reinforcing steel (as in walls) so as to cause segregation of aggregates. In such cases hoppers and chutes or trunks of variable lengths shall be used so that the free unconfined fall of concrete shall not exceed 6 feet.
24. Drill through steel columns, beams and plates to pass continuous reinforcing, u.n.o.
25. No wood spreaders allowed. No wood stakes allowed in areas to be concreted.
26. Additional reinforcing in precast or tilt-up panels required for lifting stresses shall be supplied by Contractor.
27. Provide #5x4'-0" diagonal reinforcing at mid-depth of slab at all re-entrant corners typical. This applies to slab on grade, concrete over metal deck, and elevated structural slab conditions.
28. Place non-shrink grout under base plates, sill plates, etc as indicated on the drawings. Non-shrink grout shall be Masterflow 928 Grout by Master Builders Technologies or approved equal with a minimum f'c of 7500 psi @ 28 days.
29. All saw cutting shall be done after initial set has occurred to avoid tearing or damage by the saw blade, but before initial shrinkage has occurred.
30. Notify Structural Engineer a minimum of 48 hours before placing any concrete.
31. Concrete strength: (max slump = 4")

Use	f'c @ 28 days	Max Aggregate Size	Density (lbs/ft^3)	Max W/C Ratio
All Concrete	4000 psi	1"	145	0.45

32. Development lengths shall be provided per the table below unless noted otherwise.

Straight Bars			With Standard Hooks		
Bar	f'c 3000 psi	f'c 4000 psi	Bar	f'c 3000 psi	f'c 4000 psi
#3	15"	21"	#3	6"	6"
#4	29"	25"	#4	11"	10"
#5	36"	31"	#5	14"	12"
#6	43"	37"	#6	17"	15"
#7	63"	54"	#7	20"	17"
#8	72"	62"	#8	22"	19"
#9	80"	70"	#9	25"	22"
#10	89"	78"	#10	28"	24"
#11	98"	85"	#11	31"	26"

33. Concrete finish shall be as required by the airport. A hard trowel finish is desired inside the building. Contractor shall note that the concrete mix requires 2% ± 0.5% entrained air for interior hard trowel finish areas. Contractor shall exercise extreme caution so that the finishing operations do not cause surface delamination or other defects. Any defective surface finish shall be repaired or replaced by the contractor at no cost to the owner.
34. Areas of concrete located outside of the building shall have 5% ± 1.2% air entrainment and shall have a broom finish.
35. Concrete slab shall not be constructed and left exposed over the winter. The building shell but be completed and closed in over the slab prior to winter and freezing temperatures to protect the slab from freezing.

Structural Steel

1. Fabrication, erection and materials shall conform to the specifications and standards of the AISC, as contained in the "AISC 360-16 Specifications of Structural Steel Buildings" & the "AISC Manual of Steel Construction", 15th edition and California Building Code latest edition.
2. Structural steel shall conform to the following specifications, u.n.o.:

Shapes	
Wide Flanges (W, WT)	ASTM A992
Wide Flanges (S, M), Angles (L)	ASTM A572
Channels (C), Misc Channels (MC)	ASTM A36 (<8"), ASTM A992 (≥8")
Hollow Structural Steel (HSS)	ASTM A500, Gr. C (F_y = 50 ksi)
Steel Circular Pipes (P)	ASTM A53, Type E or S, Gr. B
Plates & Bars	
Column Base Plates	ASTM A36
Brace Gusset Plates	ASTM A36
Beam Shear Connection Plates	ASTM A36
Column Continuity Plates	ASTM A572, Gr. 50
Beam Stiffener Plates	ASTM A36
Deck Closure Plates	ASTM A36
Stainless Steel Plates & Bars	ASTM A276
Other	ASTM A36
Nuts, Bolts, Rods, & Washers	
General Bolts	ASTM F3125, Gr A325-N
Slip Critical Bolts (see note #4 below)	ASTM F3125, Gr A325-SC
High Strength Bolts	ASTM F3125, Gr A325-N or Gr A490
Machine Bolts (general use)	ASTM A307
Bent & Headed Anchor Bolts	ASTM F1554, Gr. 36, 55, or 105
Partial & Fully Threaded Anchor Rods	ASTM F1554, Gr. 36, 55, or 105
Fully Threaded Rod (general use)	ASTM A36 (A307 Gr. A for ⅜"Φ)
Welded Shear Connectors	ASTM A108, Gr. 1015 thru 1020
Welded Threaded Studs	ASTM A108, Gr. 1015 thru 1020
Nuts for Bolts & Machine Bolts	ASTM A563
Hardened Washers	ASTM F436
Unhardened Washers	ASTM F844
Plain Washers	ASTM B18.22.1
Beveled Washers	ASTM B18.23.1

3. Bolted connections shall consist of unfinished bolts per the table above unless noted otherwise. Anchor bolts cast in concrete or masonry shall be headed bolts with cut thread, full diameter body style conforming to ASTM F1554 u.n.o.. Unless noted otherwise, anchor bolts/rods shall be grade 36 except that welded anchor bolts shall be grade 55 per S1 Supplementary requirements. All bolted connections and base plates shall have standard cut washers unless noted otherwise. Washers at base plates shall be placed at top and bottom of plate.
4. "Slip-critical" bolted connections:
   A) "Slip-critical" connections (A325-SC design values with special inspection) are required at all braced frame connections, at all connections along chord lines and drag lines (as noted on plans), and u.n.o., at all bolts in oversized or slotted holes.
   B) The special inspector must be present during installation and tightening operation of "slip-critical" connections.
5. All structural steel shall receive minimum of one shop coat of red primer with a minimum dry film thickness of 2.0 mils. Do not shop prime or paint areas to be field welded, fireproofed, galvanized, to receive slip-critical high strength bolts, or to be embedded in concrete. Prior to priming or painting, clean structural steel in accordance with Steel Structures Painting Council (SSPC) recommendations & as required by the primer & paint manufacturer. Provide additional painting as noted in the specifications.
6. All structural steel shall be erected plumb and true to line. Temporary bracing shall be installed and shall be left in place until other means are provided to adequately brace the structure. Contractor responsible for reviewing all base plate and support conditions during erection and bracing as required. See AISC and OSHA requirements.
7. Place non-shrink grout under all base plates before adding vertical load. See Concrete Notes for non-shrink grout requirements.
8. Structural steel below grade shall have 3" minimum of concrete cover.
9. Provide ½"Φ stitch bolts and ring fills, space at not more than 24" cc for all double angle members.
10. At wood to steel parallel contact, attach with ½"Φ welded threaded studs at maximum 32"cc. & 6" from ends of wood member, typical unless noted otherwise.
11. Holes for unfinished bolts shall be of the same nominal diameter of the bolt plus 1/16". Use standard AISC gage and pitch for bolts except as noted otherwise. Holes for anchor bolts embedded in concrete shall be of the same nominal bolt diameter plus 3/16" unless noted otherwise.
12. Welding shall be done by the electric arc process in accordance with American Welding Society standards, using only certified welders. All groove welds shall have complete penetration unless noted otherwise. All exposed welds shall be ground smooth. All welding to be done using E70xx electrodes. In addition, welding of ASTM A572 grade 50 steel and ASTM A992 steel shall be done with electrodes capable of depositing weld metal with a maximum diffusible hydrogen content of 16ml/100g (H16). Weld lengths called for on plans are the net effective lengths required.
13. Minimum fillet welds:
    - 3/16" @ t < ½"
    - ¼" @ t < ¾"
    - 5/16" @ t > ¾"
14. Welding Procedure Specifications (WPS) for shop and field pre-qualified weld joints and weld joints qualified by test shall be prepared for review prior for fabrication. All welding procedures that meet there requirements of AWS D1.1 Sec. 5.1 shall be considered as pre-qualified. Qualification testing is required when the depth of a partial penetration or complete penetration weld is 2" or greater.
15. Structural steel & fasteners that are permanently exposed to weather shall be either primed and painted or hot dipped galvanized in accordance with ASTM A123 & A153. Repair galvanizing after welding in accordance with ASTM A780.
16. When structural steel & connections will be exposed to view in the completed building, they shall be fabricated, erected & finished in compliance with Architecturally Exposed Structural Steel (AESS) guidelines & Section 10 of the AISC 303-22 "Code of Standard Practice for Steel Buildings and Bridges".

DATE	ISSUED FOR	REV
08/09/2024	50% CD Review Set	1
03/06/2025	95% CD Review Set	

Project Component

Key Plan

Consultants
- Survey: Brandley Engineering
- Civil: Kimley-Horn
- Architecture: NORR
- Structural: Bevier Structural Eng
- Mechanical: NORR
- Electrical: NORR
- Interiors: NORR
- Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

PRELIMINARY NOT FOR CONSTRUCTION

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

BEVIER
2479 Sunrise Blvd.
Gold River, CA 95670
Tel: (916) 631-3030
Fax: (916) 631-8996
Web: www.bevier.net
Bevier Job No:240424

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRE

MAMMOTH, CALIFORNIA

Drawing Title
GENERAL NOTES

Scale

Project No. IN2024-0022

Drawing No. **S1.1**

PRELIMINARY - NOT FOR CONSTRUCTION

Test and Inspections

1. Tests and Inspections shall be provided as required below and shall conform to the requirements of 2022 CBC, Chapter 17.
2. All Test and Inspections shall be performed by a certified special inspector from an established Testing & Inspection Company, unless noted otherwise. Jobsite visits by the Structural Engineer do not constitute inspections and are not a substitute for special inspection.
3. The special inspector shall observe the work indicated for conformance with the approved construction documents.
4. The special inspector shall furnish inspection reports to the building department, the engineer or architect of record, and other designated persons. All discrepancies shall be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the proper design authority and to the building department.
5. The special inspector shall submit a final signed report stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved construction documents and the applicable workmanship provisions of the 2022 CBC.
6. It is the contractor's sole responsibility to see that these tests and inspections are performed.
7. Required Tests and Inspections are indicated below with a solid filled rectangle " ■ ".
8. Continuous notation indicates the full-time observation of work requiring special inspection by an approved special inspector who is present at the work area. Periodic notation indicates the intermittent observation of work.

Tests & Documentation/Certification Required

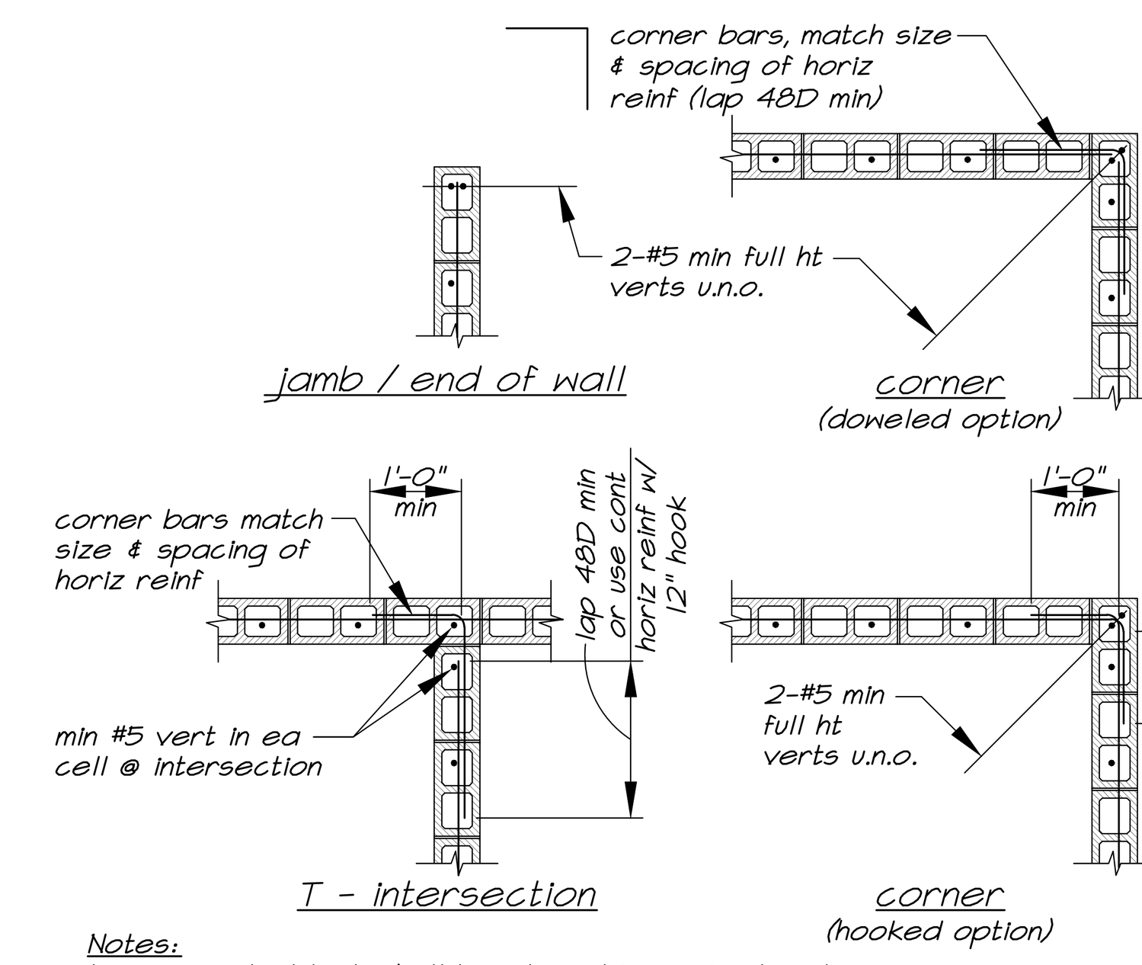
Note: Coordinate with building department Test & Inspection form.

□	A. Compact fill
■	B. Concrete mix design, cement, aggregates & admixtures
■	C. Concrete strength f'c test
■	D. Reinforcing steel mill certification
□	E. Structural steel mill certification
□	F. Structural steel, cold formed steel, and anchor bolt sampling & testing (if not properly identified)
□	G. Non-destructive weld test for all complete penetration groove welds by Ultrasonic testing or Radiography
□	H. Masonry strength f'm
□	I. Masonry mortar, grout proportion, aggregates, additives
■	J. Post installed anchors: Expansion / Epoxy Anchors
□	K. High strength bolts, nuts and washers
□	L. End-welded studs
□	M. Buckling Restrained Brace (Load Test)
□	N. Beam to column moment connection
□	O. Veneer bond strength test
□	P. Concrete prestressing tendons and anchorage
□	Q. Shotcrete preconstruction test
□	R. Shotcrete strength & core test
□	S. Prefabricated items
□	T. Test to support alternative designs
□	U. Isolator unit prototype & production testing

	Verification and Inspection	Continuous	Periodic
	A. STEEL		
■	1. Material verification of high-strength bolts, nuts & washers	○	●
■	2. Inspection of high-strength bolting, bearing & typical connections	○	●
	3. Inspection of Welding Structural Steel: (field/shop)		
■	Complete & partial penetration groove welds	●	○
□	Multi-pass fillet welds	●	○
□	Single-pass fillet welds > 5/16"	●	○
■	Single-pass fillet welds ≤ 5/16"	○	●
□	Floor and roof deck welds	○	●
□	4. Inspection of Steel Frame Joint Details for Compliance with Approved Construction Documents	○	●
□	5. Automatic end-weld stud shear connectors	○	●
	B. CONCRETE		
■	1. Concrete Placement	●	○
■	2. Inspection of reinforcing steel & placement	○	●
■	3. Inspection of anchors cast in concrete	○	●
□	4. Precast concrete attachments & inserts	○	●
□	5. Erection of precast concrete members	○	●
	C. WOOD		
□	1. Verify grade and thickness of sheathing	○	●
□	2. Verify nominal size of framing members at adjoining panel edges	○	●
□	3. Verify nail diameter and length, number of fastener lines, spacing between fasteners in each line and at edge margins	○	●
□	4. Verify positive connection of wood members supporting balcony or deck connections to exterior walls prior to concealment	○	●
	D. MASONRY PLACEMENT & GROUTING	○	●
	Note: refer to TMS 602-16 Tables 3 & 4		
□	1. Level 2 masonry inspection (Risk Categories I, II, III)		
■	2. Level 3 masonry inspection (Category IV, DSA, OSHPD)		
	E. SOIL (by Geotechnical Engineer)		
■	1. Footing excavation	○	●
□	2. Pile/Pier foundation	●	○
■	3. Material verification below footing	○	●
■	4. Excavation verification to proper depth	○	●
■	5. Placement and compaction of controlled fill	●	○
■	6. Site preparation prior to placement of controlled fill	○	●
	F. POST INSTALLED ANCHORS		
■	1. Expansion anchor installation	○	●
□	2. Epoxy anchor installation	●	○

Abbreviations

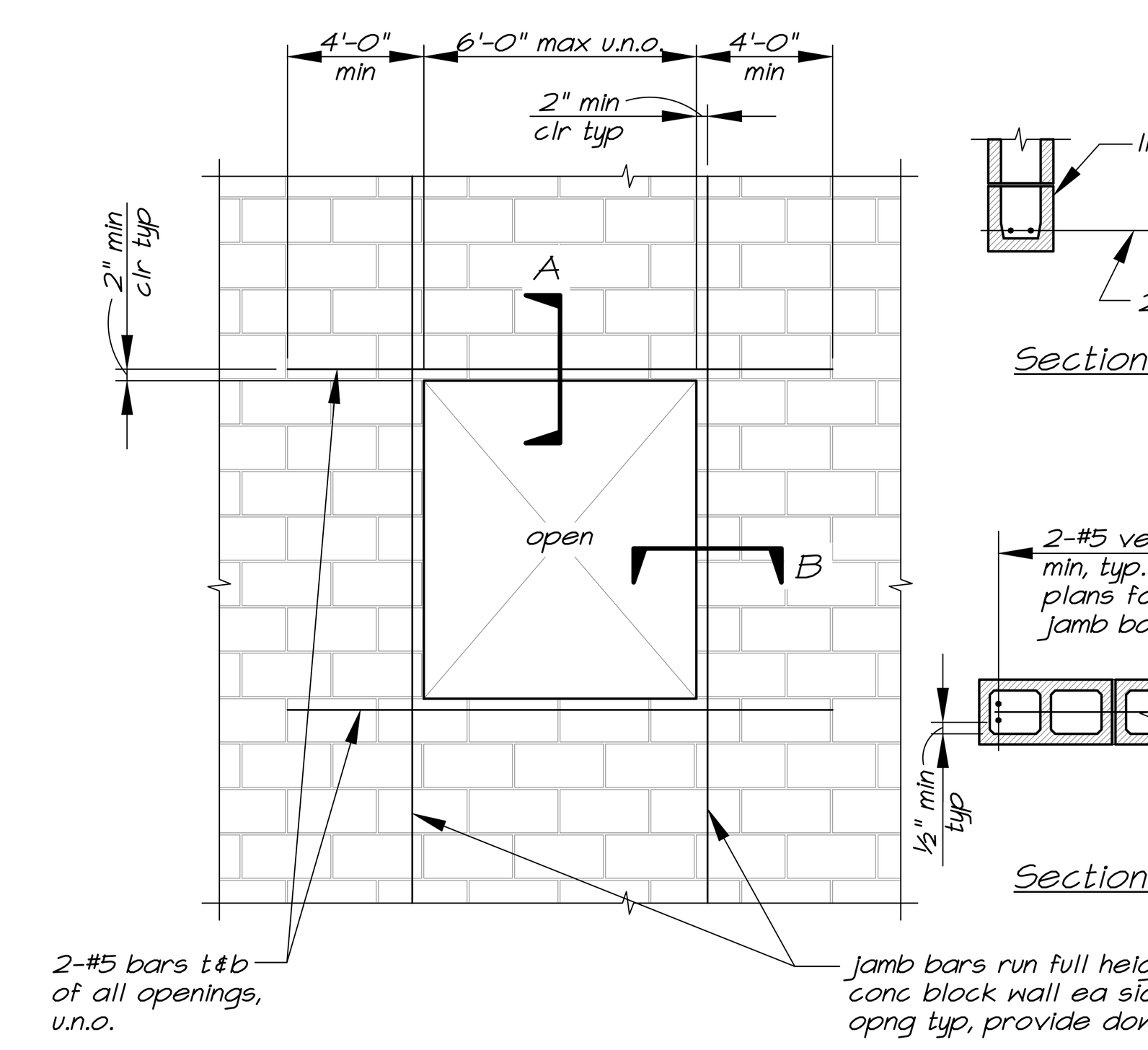
Abbr.	Meaning	Abbr.	Meaning
addl	Additional	LLH	Long leg horizontal
alt	Alternate	LLV	Long leg vertical
AISC	American Institute of Steel Construction	LVL	Laminated Veneer Lumber
APA	American Plywood Association	MB	Machine bolt
ASTM	American Society for Testing and Materials	mfr	Manufacturer
AWS	American Welding Society	max	Maximum
AB	Anchor bolt	mech	Mechanical
&	And	MI	Malleable iron
arch	Architect/Architectural	min	Minimum
@	At	misc	Miscellaneous
b.o.	Bottom of	mtl.	Metal
bm	Beam	N.I.C.	Not in contract
brg	Bearing	(n)	New
btr	Better	nts	Not to scale
btwn	Between	#	Number or pounds
blkg	Blocking	o/	Over
B.S.	Both sides	oc	On center
bott	Bottom	OWJ	Open web joist
BN	Boundary nail	opng	Opening
clg	Ceiling	opp	Opposite
cc	Center to center	O.H.	Opposite Hand
℄	Center line	o.d.	Outside diameter
clr	Clear	PP	Partial penetration
col	Column	pc	piece
CP	Complete Penetration	ℙ	Plate
conc	Concrete	ply, plywd	Plywood
CMU	Concrete masonry unit	pcf	Pounds per cubic foot
conn	Connection	psf	Pounds per square foot
CJ	Construction Joint	psi	Pounds per square inch
cont	Continuous	PAF	Powder Actuated Fasteners
csk	Countersink	PTDF	Pressure Treated Douglas Fir
CTJ	Control Joint	r, rad	Radius
DL	Dead Load	RDWD	Redwood
det	Detail	reinf	Reinforcing
diag	Diagonal	req'd	Required
dia	Diameter	rf	Roof
do	Ditto	R.O.	Rough opening
D.F.	Douglas Fir	Φ	Round or diameter
dbl	Double	sched	Schedule
dn	Down	S.A.D.	See architectural drawings
dwg	Drawing	S.E.D.	See electrical drawings
ea	Each	S.M.D.	See mechanical drawings
E.F.	Each Face	SMS	Sheet Metal Screws
embed	Embedment	SDS	Simpson Strong-Drive Screw
EN	Edge Nail	SDSTS	Self drilling self tapping screw
E.W.	Each Way	SC	shear connector ¾"Φ u.n.o.)
elev, el	Elevation	shtg	Sheathing
eq	Equal	sht	Sheet
equip	Equipment	SMS	Sheet metal screw
(e)	Existing	sim	Similar
EJ	Expansion Joint	s.o.g.	Slab on grade
FC	Face of Concrete	#	square
FB	Face of Block	stagg	Staggered
FM	Face of Masonry	std	Standard
FP	Face of Plywood/Sheathing	stl	Steel
FS	Face of Stud	sstl	Stainless Steel
fin	Finish	stfnr	Stiffener
F.F.	Finish floor	struct	Structural
F.G.	Finish grade	SP	structural plywood
flr	Floor	SPEN	structural plywood edge nailing
ftg	Footing	symm	Symmetrical
fnd	Foundation	TN	Toe nail
f.o.	Face of	t&b	Top & bottom
frmg	Framing	t.o.c.	Top of concrete
galv	Galvanized	t.o.f.	Top of framing
ga	Gauge	t.o.ℙ	Top of plate
glb	Glued-laminated beam	t.o.s.	Top of Steel
g.l.	Grid Line	t.o.w.	Top of Wall
hgr	Hanger	t&g	Tongue & Groove
hdr	Header	TS	Tube Steel
ht	Height	typ	Typical
HSB	High strength bolt	u.n.o.	Unless noted otherwise
HSS	Hollow Steel Section	vert	Vertical
hk	Hook	v.i.f.	Verify in field
horiz	Horizontal	w/	With
i.d.	Inside diameter	w/in	Within
int	Interior	w/o	Without
inv	Inverted	WS	Wood screw
jst	Joist	W.P.	Working point
jh	Joist hanger	WHS	Welded headed studs
LS	Lag screw	WWF	Welded wire fabric
lt. wt.	Light weight	WCLIB	West Coast Lumber Inspection Bureau
LL	Live Load		



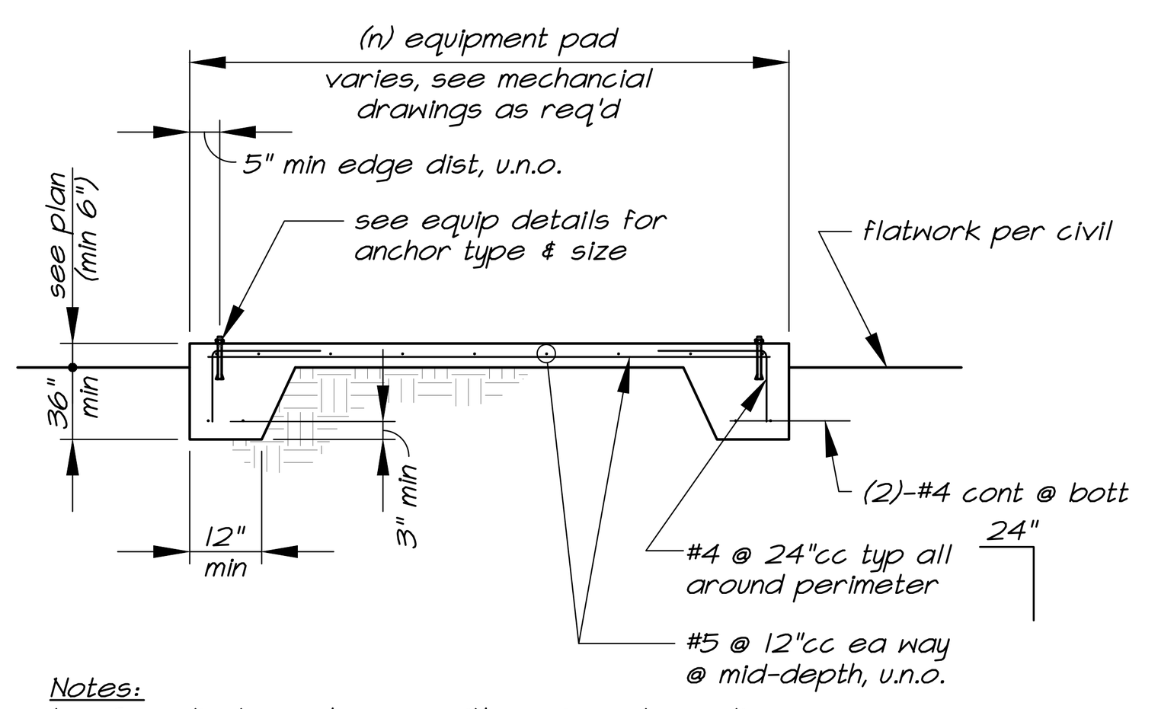
Notes:
1. Concrete block shall be placed in running bond u.n.o.
2. Size and spacing of reinforcing is shown elsewhere on drawings.
3. 'D' equals diameter of horizontal reinforcing.
4. Provide dowels to foundation at all vertical bars.

9 / S1.2 Typ Block Wall Corner & Intersection Reinforcing

single curtain

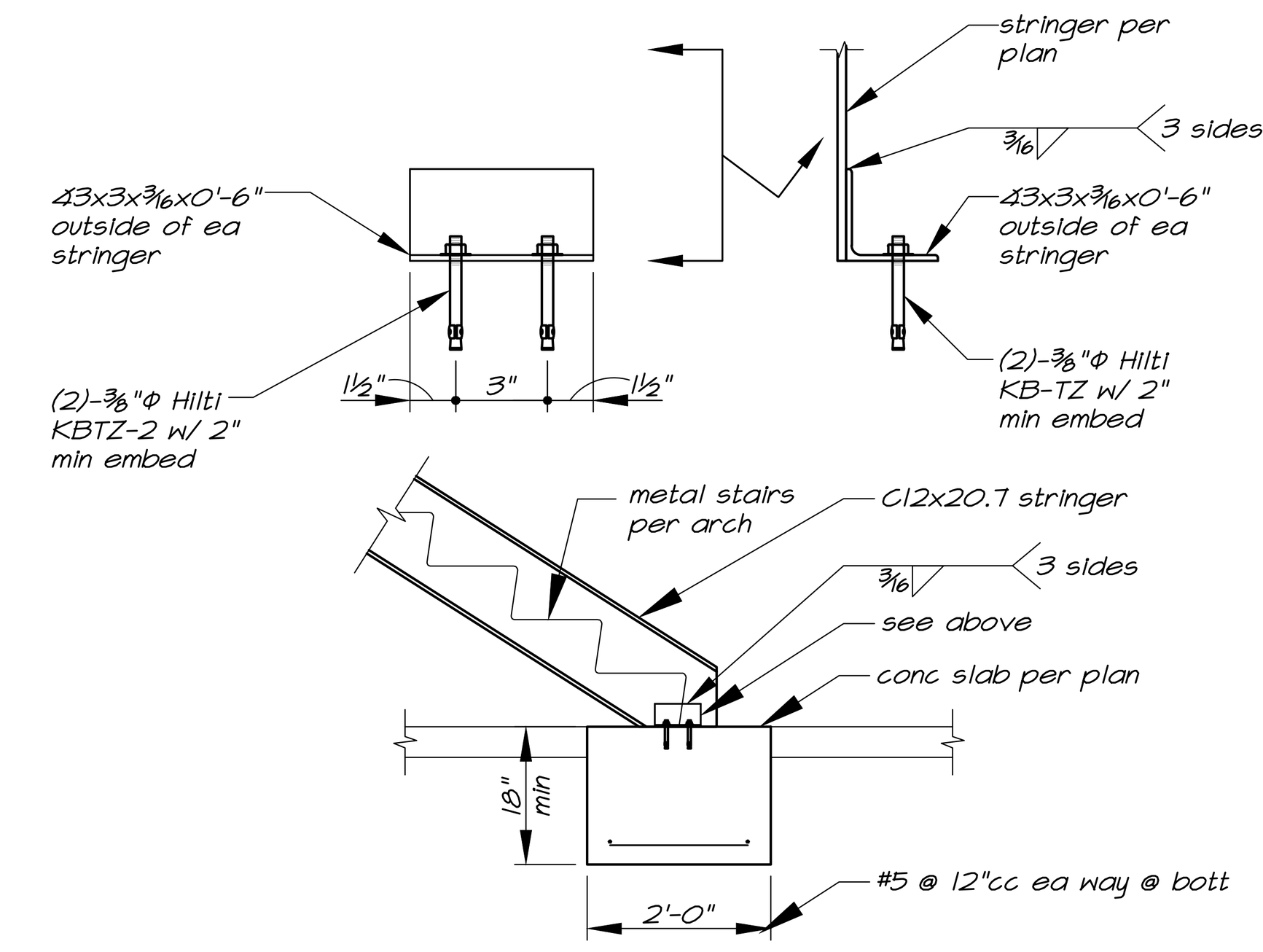


10 / S1.2 Wall Opening Reinforcing



Notes:
1. Coordinate anchorage with equipment supplier.
2. Refer to General Notes sheet for installation & testing criteria for Expansion Anchors and Epoxy rebars.

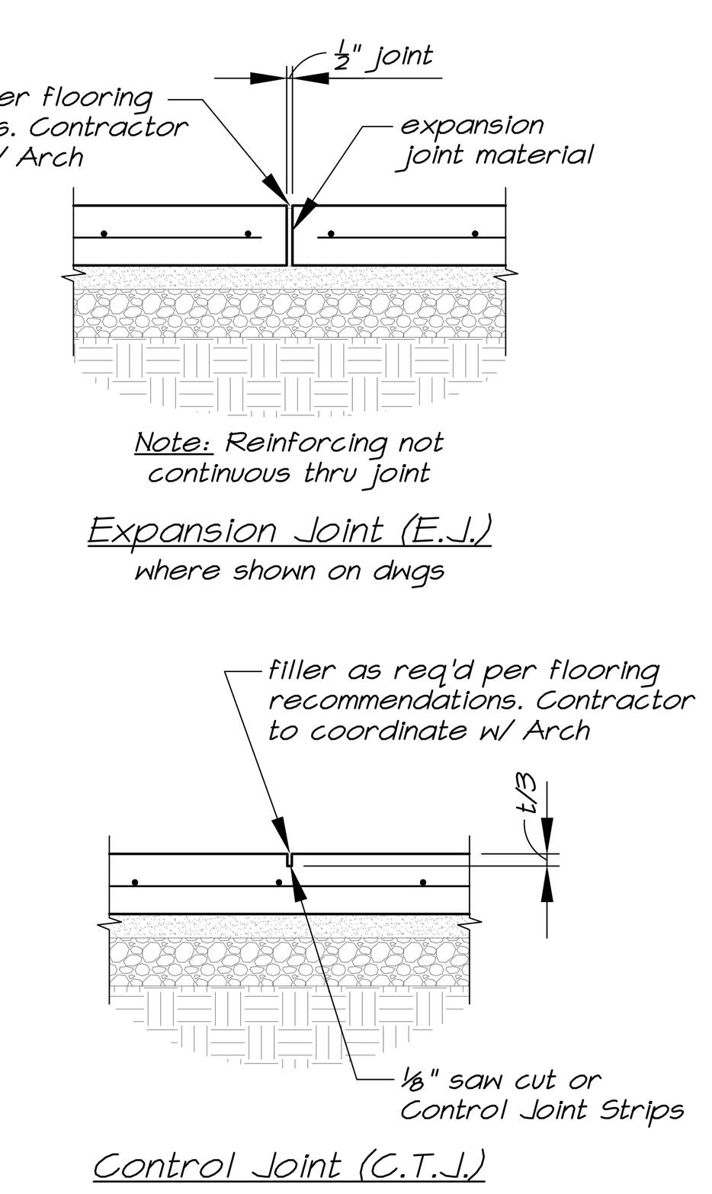
7 / S1.2 Conc Housekeep Pad on Grade



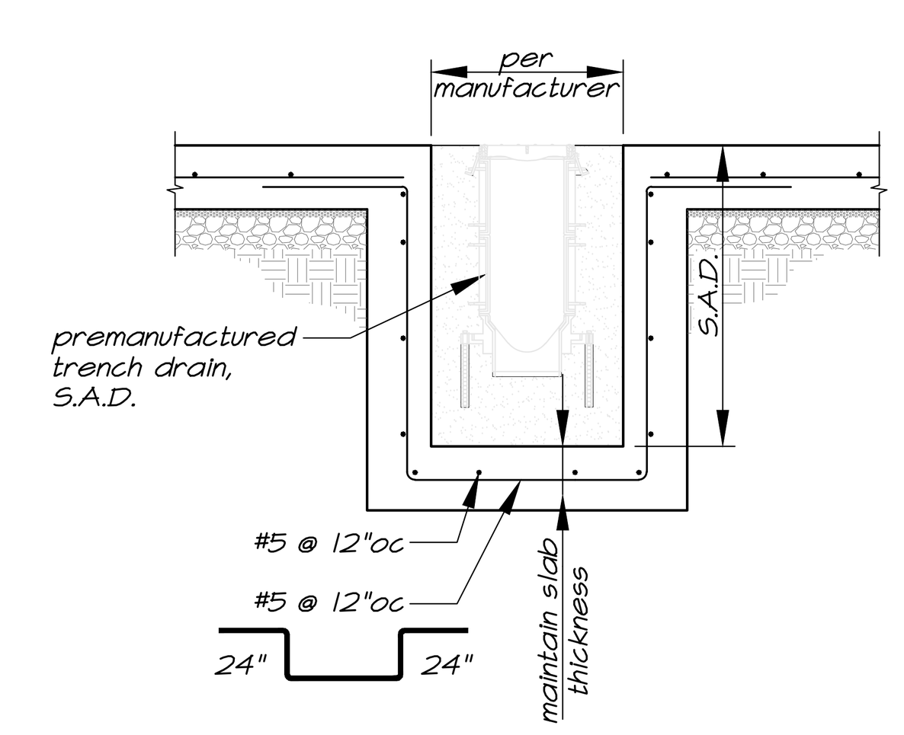
8 / S1.2 Detail

½"=1'-0"

Note:
Construction joints & control joints shall have spacing not exceeding 30 times the slab thickness without reentrant corners & with length to width ratios not exceeding 1½ to 1. Contractor shall submit layout plan showing proposed control and construction joint locations.

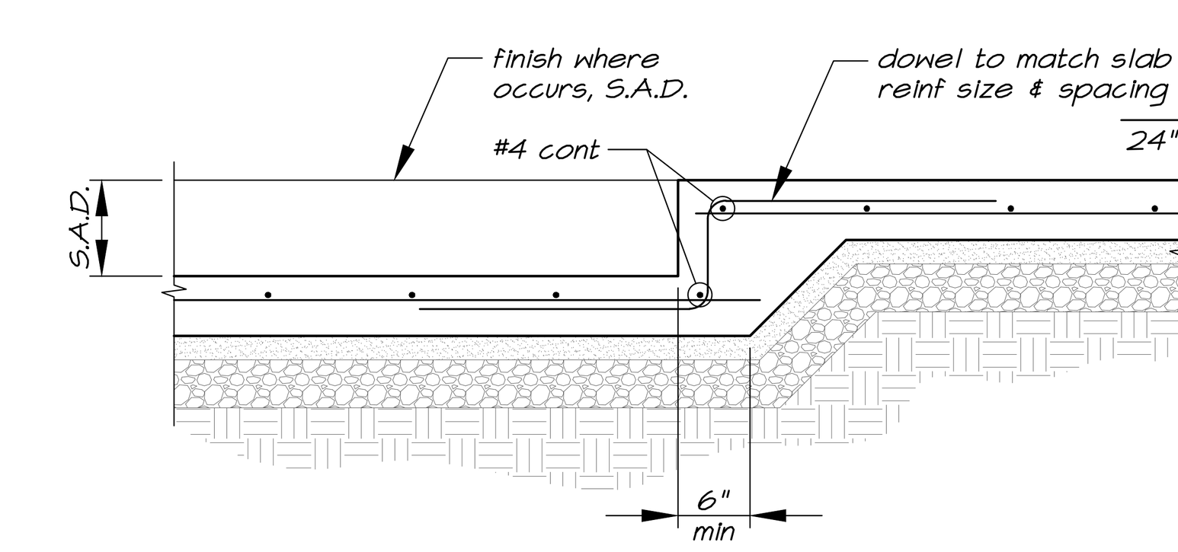


4 / S1.2 Slab-on-Grade Joints

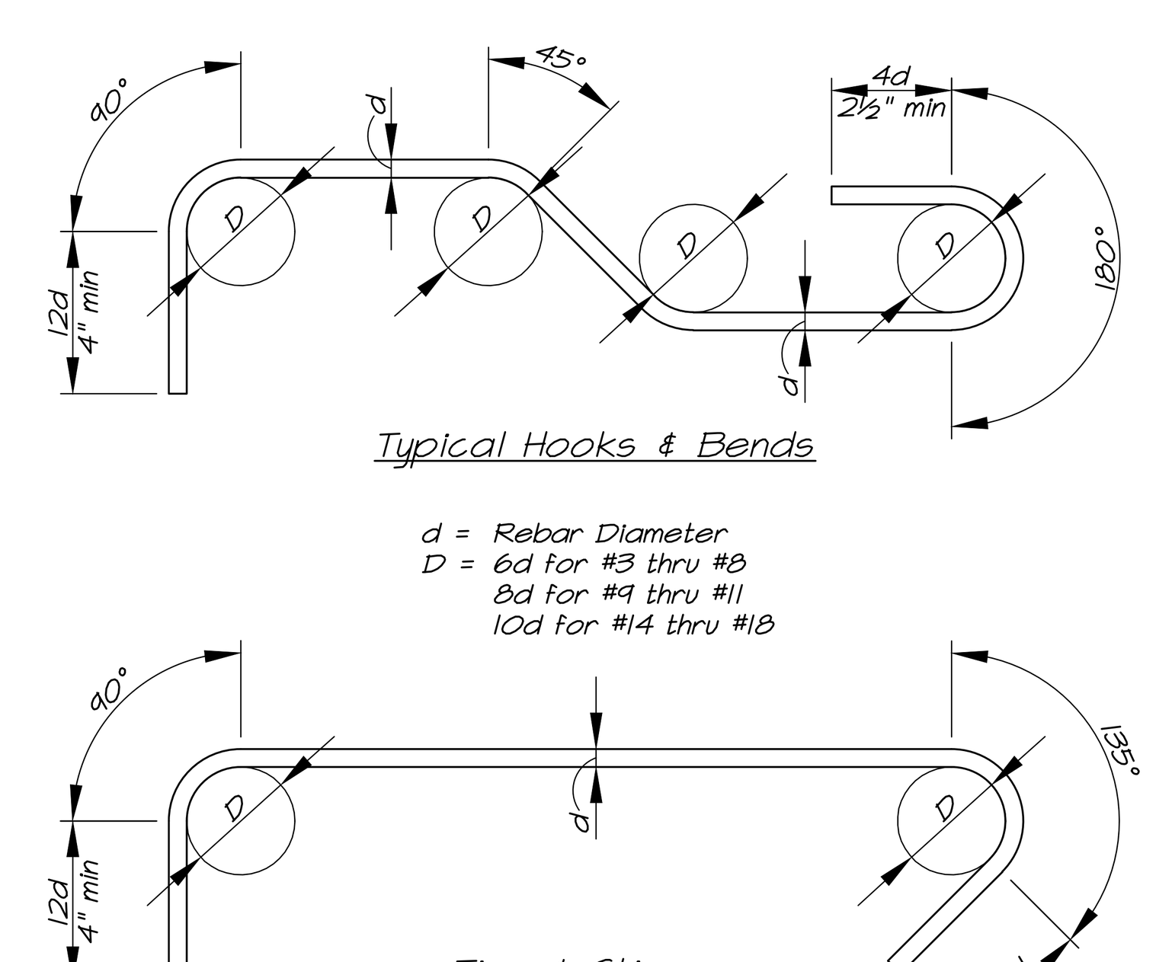


5 / S1.2 Detail

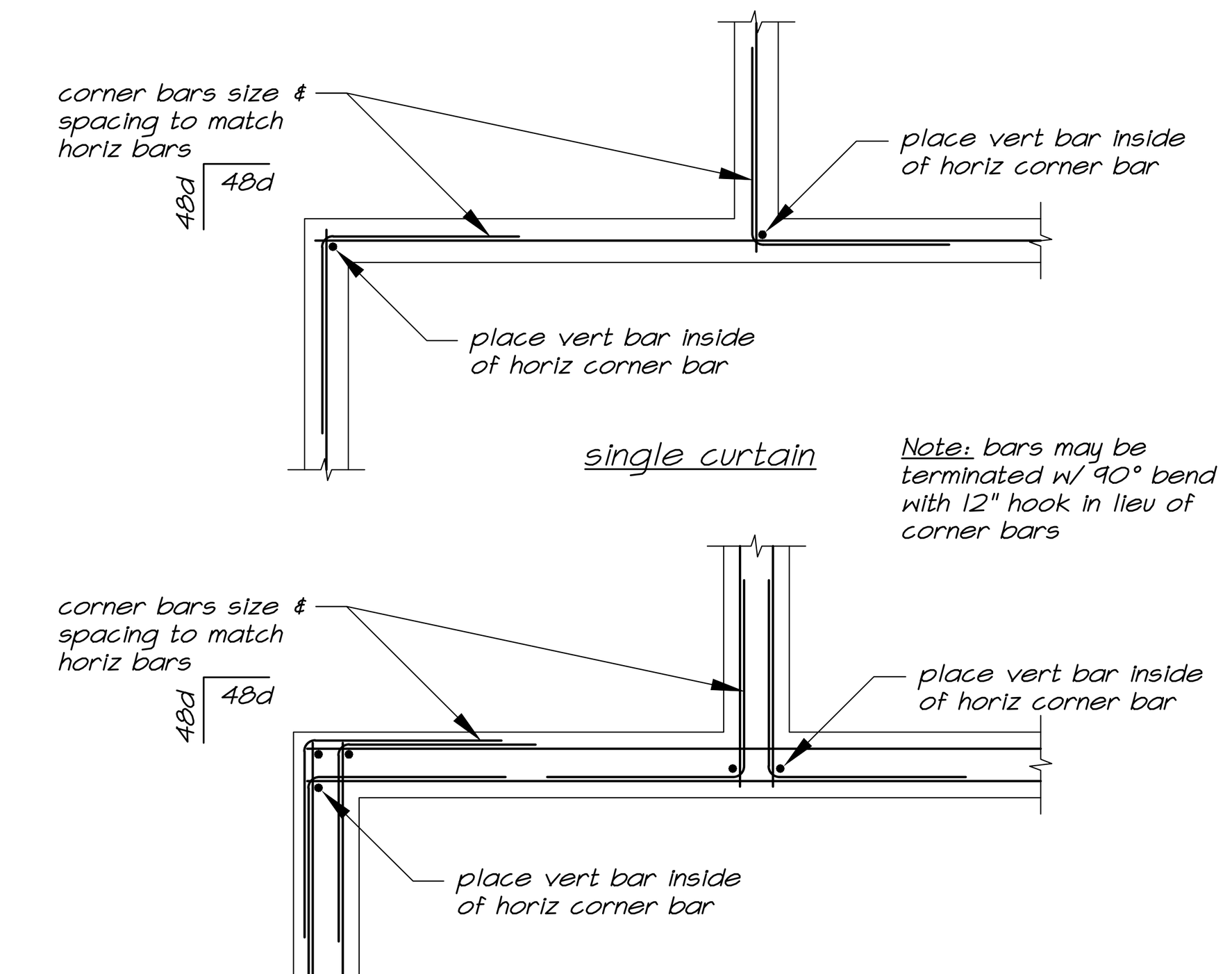
½"=1'-0"



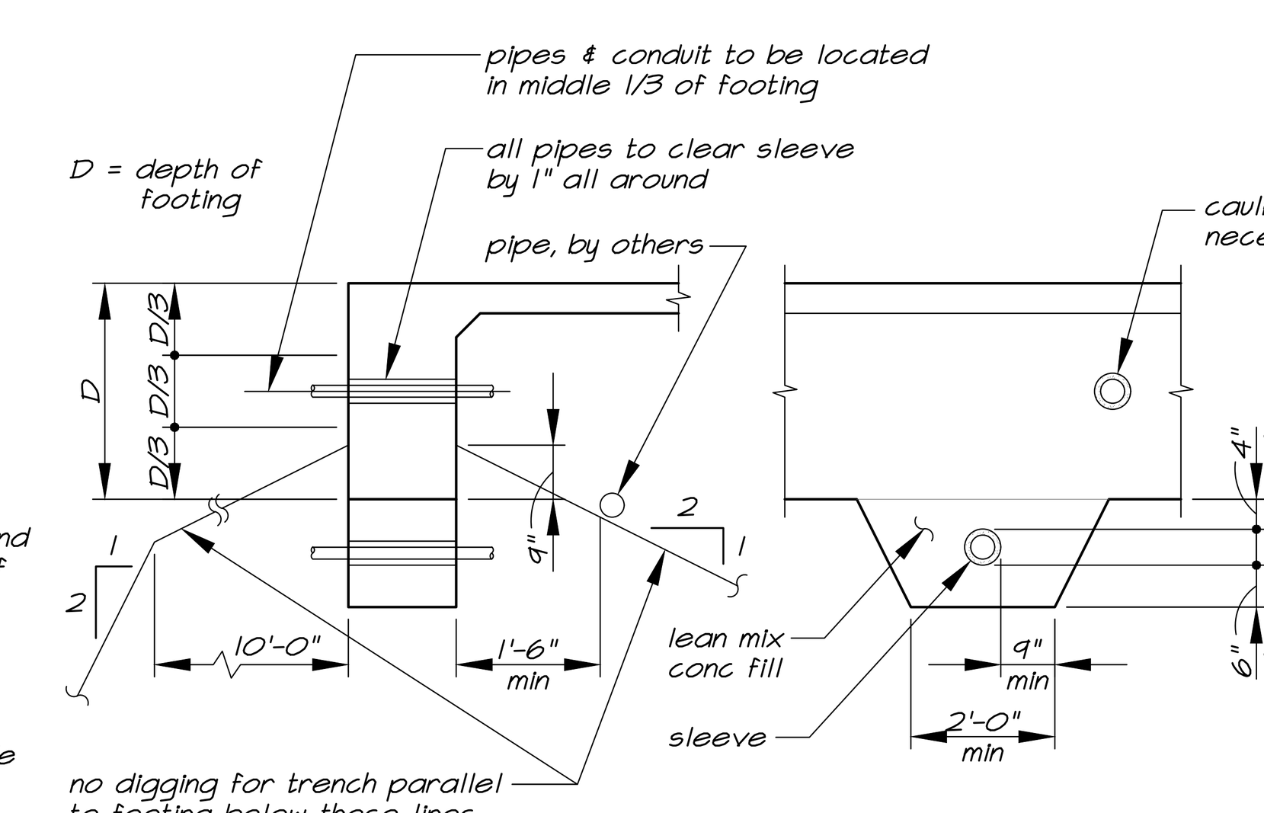
6 / S1.2 Typical Slab Depression



1 / S1.2 Rebar Hooks & Bends



2 / S1.2 Typical Corner Reinforcing



Notes:
1. Lean mix conc fill to be placed before footing is cast. Make same width as footing and full width of pipe trench. Step footing if pipe is more than 2'-6" below bottom of footing.
2. No pipes shall be placed below spread footing, typ.
3. If pipe is in place prior to casting concrete, wrap pipe w/ glass wool insulation (1" min all around) in lieu of sleeve.
4. Conduits to be placed so as not to cross other conduits when turned up.

3 / S1.2 Concrete Footing @ Pipes & Conduits

DATE	ISSUED FOR	REV
08/09/2024	50% CD Review Set	1
03/06/2025	95% CD Review Set	

Project Component

Key Plan

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Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

REGISTERED PROFESSIONAL ENGINEER JEFFREY R KOVACH No:5652 STRUCTURAL STATE OF CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

BEVIER STRUCTURAL ENGINEERING, INC.
2479 Sunrise Blvd.
Gold River, CA 95670
Tel: (916) 631-3030
Fax: (916) 631-8996
Web: www.bevier.net
Bevier Job No:240424

Project Manager	Drawn: JON PRICE
Project Leader	Checked: MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRE

MAMMOTH, CALIFORNIA

Drawing Title
GENERAL NOTES & TYPICAL DETAILS

Scale

Project No. IN2024-0022

Drawing No. **S1.2**

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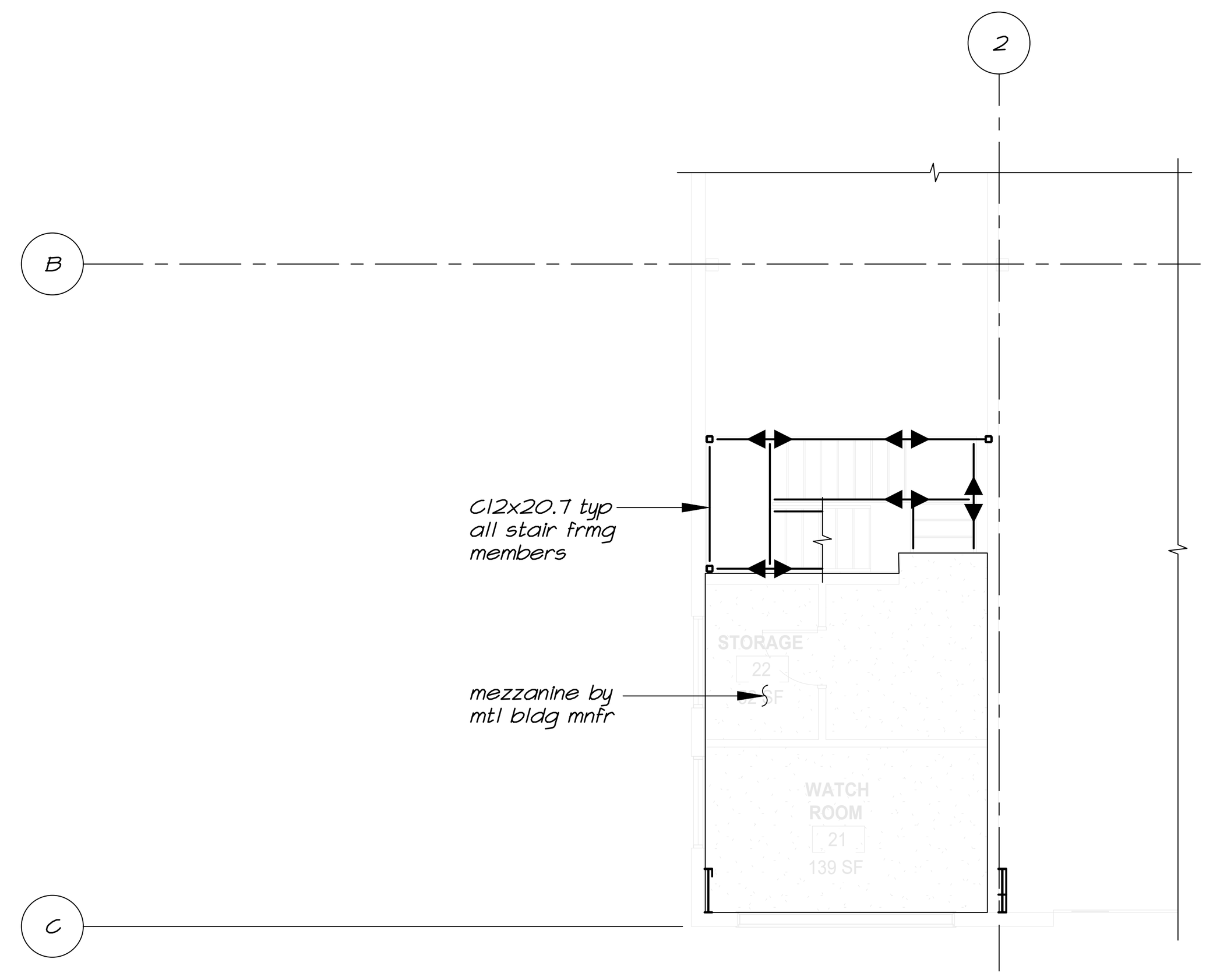
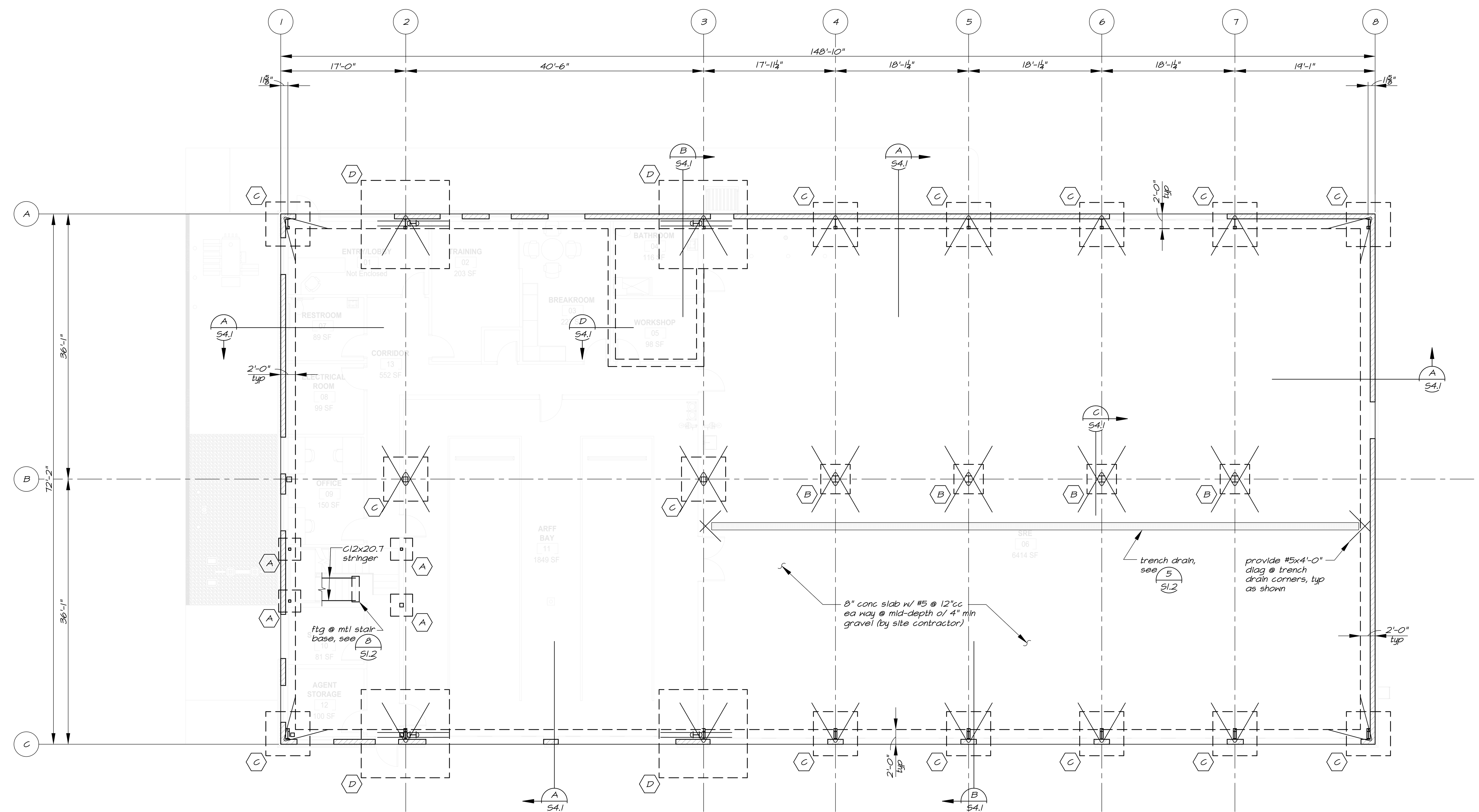


B / S2.1 **Mezzanine Framing Plan**
1/8"=1'-0"

North

Stair Framing Notes

1. For typical beam to beam connections, see 6/S5.1 & 7/S5.1
2. For typical beam to column connections, see 2/S5.1
3. ◄ ► Indicates splice connection per 4/S5.1
4. ▢ Indicates HSS column. See Foundation Plan for size.



A / S2.1 **Foundation Plan**
1/8"=1'-0"

North

1/S2.1 Footing Schedule			
Mark	Size	min depth (thickness)	Reinforcing
A	3'-0" sq	24"	3-#5 ea way @ bott
B	4'-0" sq	24"	4-#5 ea way @ t&b
C	6'-0" sq	24"	6-#5 ea way @ t&b
D	12'-0" sq	24"	12-#5 ea way @ t&b

Note:
1. Anchor bolts cast in concrete shall be headed bolts with cut thread, full diameter body style conforming to ASTM F1554 Gr. 36.
2. Coordinate column size/base PL/orientation/anchor bolts w/ metal building manufacturer.

Foundation Notes

1. Site preparation and building pad construction shall be done in accordance with the recommendations in the geotechnical report referenced in the "Foundations" note on sheet S1.1.
2. Verify all dimensions with architectural drawings. Notify Architect immediately of any discrepancies for resolution prior to proceeding.
3. Dimensions are to face of concrete (FC) or column centerlines, typical u.n.o.
4. Spread Footings are centered on columns and braced frames, typical u.n.o.
5. Top of concrete slab = reference elevation +0'-0".
6. Top of footing elevation = -1'-0" below reference elevation +0'-0" typical u.n.o.
7. Provide 3" concrete cover minimum @ base PL, anchor bolts, and columns typical.
8. For typical reinforcing bends and corner reinforcing, see 1/S1.2 & 2/S1.2
9. For pipe penetrations through continuous footings, see 3/S1.2
10. +X'-X" t.o.f. Indicates top of footing elevation below reference elevation +0'-0"
11. ⟨X⟩ Indicates footing type, see schedule 1/S2.1
12. Indicates hairpin with 60° splay, per 1/S4.1
13. Indicates hairpin with 0° splay, per 1/S4.1
14. Indicates CMU pony wall per A/S4.1
15. Coordinate column size/base PL/orientation w/ building manufacturer. See footing schedule for anchor bolt embedment.
16. Verify concrete finish requirements with architectural drawings and specifications.
17. See specifications for specific air entrainment requirements. Interior slab to have specific air entrainment percentage.
18. ▢ Indicates HSS4x4x3/8 column u.n.o. on plan

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03/06/2025	95% CD Review Set	

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Project Component

Key Plan

Consultants
Survey: Brandley Engineering
Civil: Kimley-Horn
Architecture: NORR
Structural: Bevier Structural Eng
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

Seal(s)

PRELIMINARY - NOT FOR CONSTRUCTION

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

BEVIER
2479 Sunrise Blvd.
Gold River, CA 95670
Tel: (916) 631-3030
Fax: (916) 631-8996
Web: www.bevier.net
Bevier Job No:240424

Project Manager | Drawn: JON PRICE
Project Leader | Checked: MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

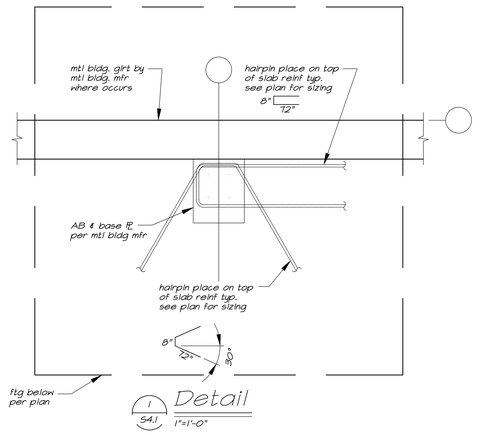
Project
MAMMOTH ARFF/SRE
MAMMOTH, CALIFORNIA

Drawing Title
FOUNDATION PLAN

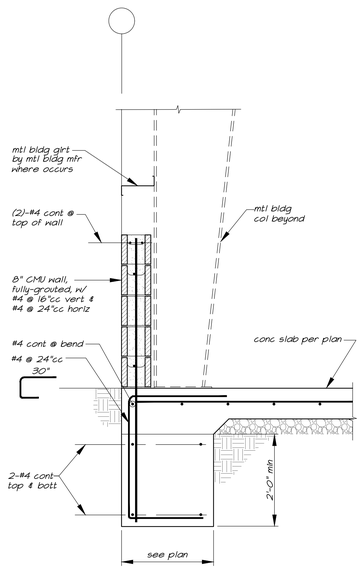
Scale

Project No. IN2024-0022

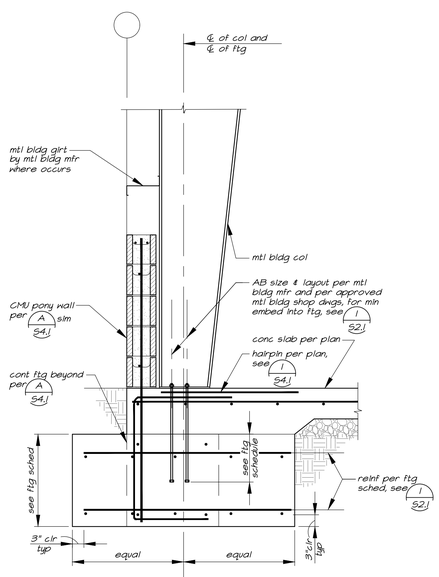
Drawing No. **S2.1**



1 S4.1 Detail 1"=1'-0"



A S4.1 Section 3/4"=1'-0"



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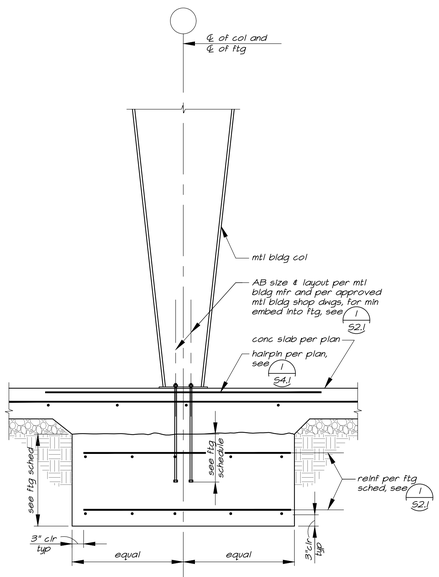
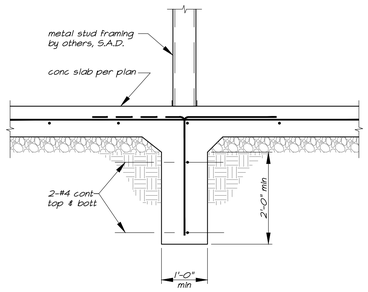


C S4.1 Section 3/4"=1'-0"



D S4.1 Section 3/4"=1'-0"

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Project Component

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Structural:	Bevier Structural Eng
Mechanical:	NORR
Electrical:	NORR
Interiors:	NORR
Fire Sprinkler	Sacramento Engineering Consultants

Seal(s)

NORR

The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

BEVIER STRUCTURAL ENGINEERING INC.
2479 Sunrise Blvd.
Gold River, CA 95670
Tel: (916) 631-3030
Fax: (916) 631-8996
Web: www.bevier.net
Bevier Job No:240424

Project Manager	Drawn JON PRICE
Project Leader	Checked MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRE

MAMMOTH, CALIFORNIA

Drawing Title
SECTIONS

Scale

Project No.
IN2024-0022

Drawing No.
S4.1

4 3 2 1

E D C B A

DATE	ISSUED FOR	REV
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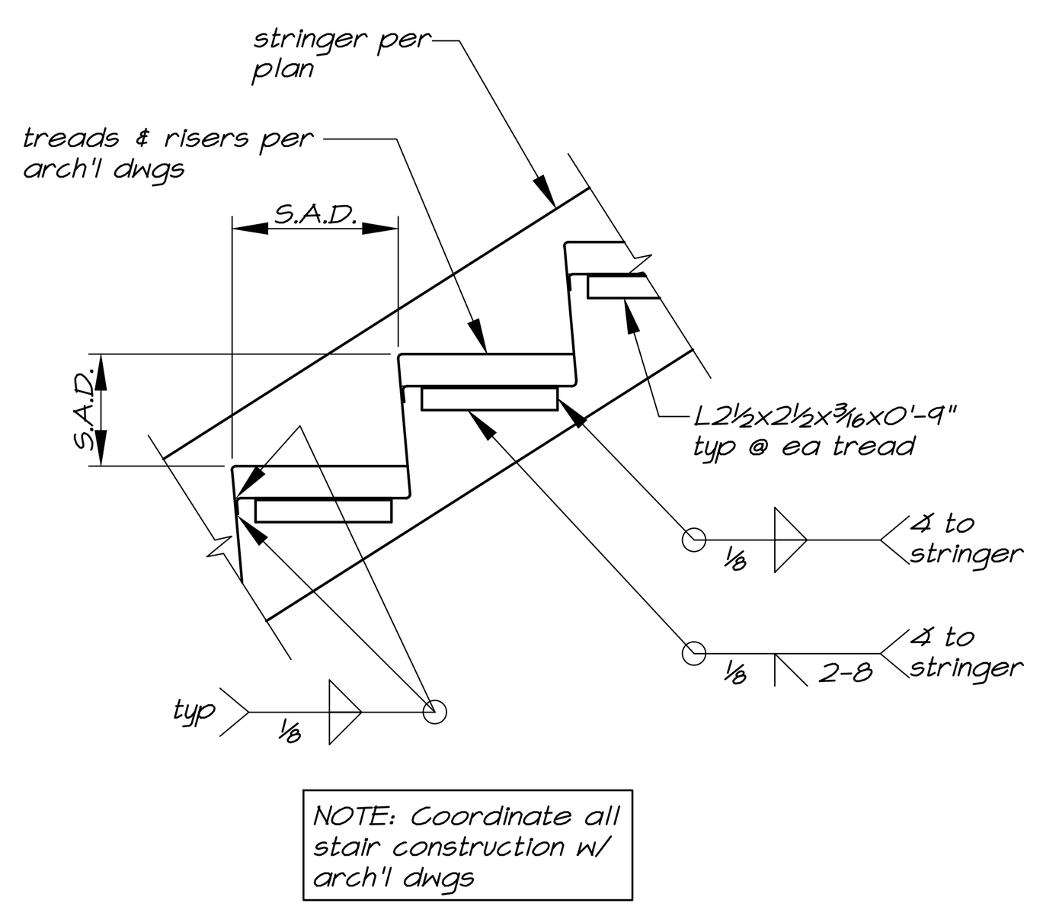
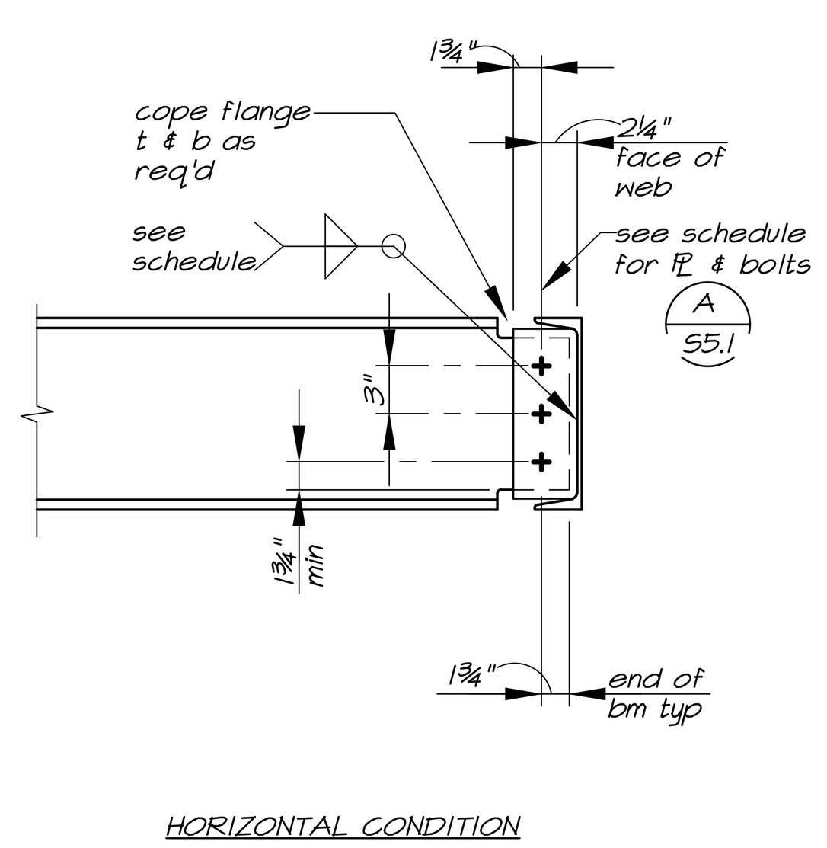
bm size	No. & Dia. A325-N Bolts per row, u.n.o.	shear ℄ thickness	W (weld)
C6, C8 & C10	2 - 7/8"Φ	1/4"	1/4"
W8 & W10	2 - 7/8"Φ	1/4"	1/4"
C12, W12 & W14	3 - 7/8"Φ	5/16"	1/4"
W16	4 - 7/8"Φ	3/8"	1/4"
W18	5 - 7/8"Φ	3/8"	1/4"
W21	5 - 7/8"Φ	3/8"	5/16"
W24	6 - 7/8"Φ	1/2"	5/16"
W27	7 - 7/8"Φ	1/2"	5/16"
W30	7 -7/8"Φ	1/2"	3/8"
W33	8 - 7/8"Φ	1/2"	3/8"

Note:
1. Use A325-N bolts at connections, typ. A325 SC group A bolts are to be used at specific locations as indicated on framing plans. Use multiple rows of no. & dia. shown in schedule to achieve total number of bolts specified on plans. All slip critical connections shall have full-depth shear plates.

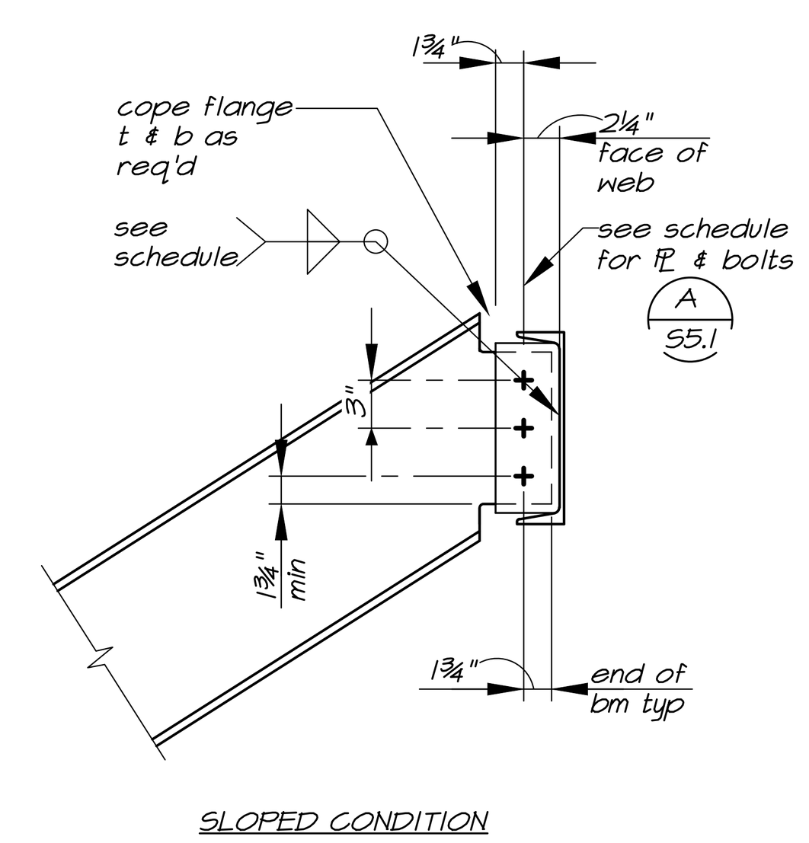
A / S5.1 Connection Schedule
n.t.s.



5 / S5.1 Detail
1"=1'-0"



6 / S5.1 Detail
1"=1'-0"



7 / S5.1 Detail
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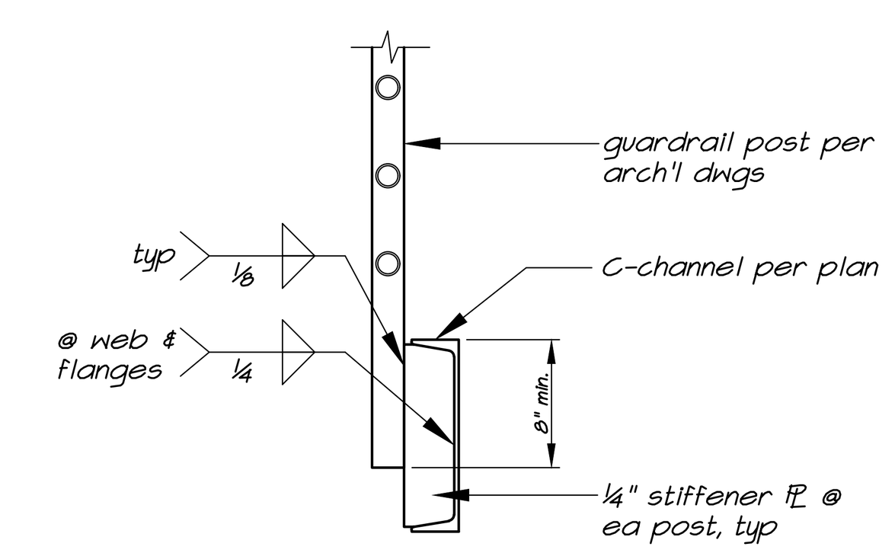
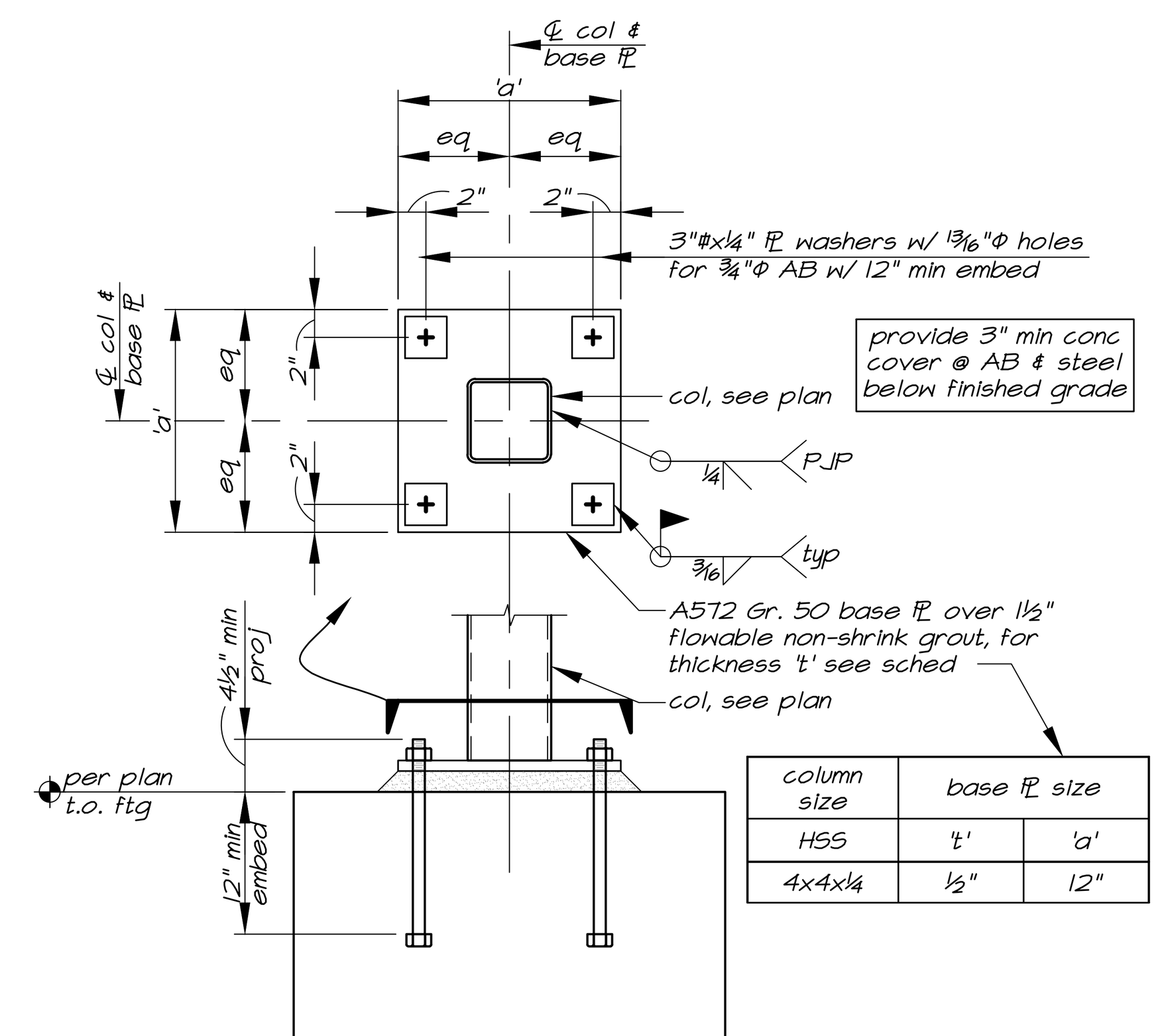
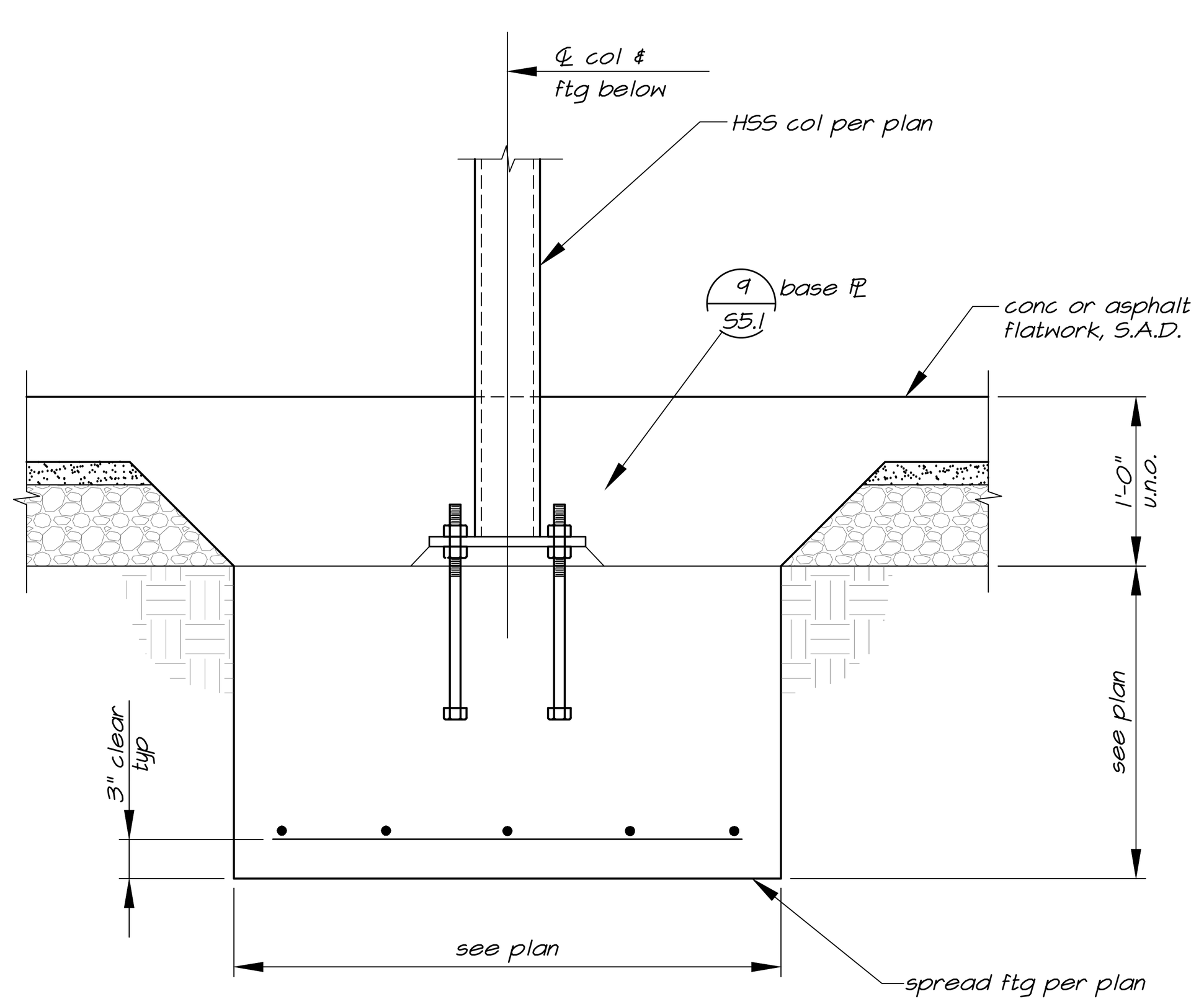


8 / S5.1 Detail
1"=1'-0"

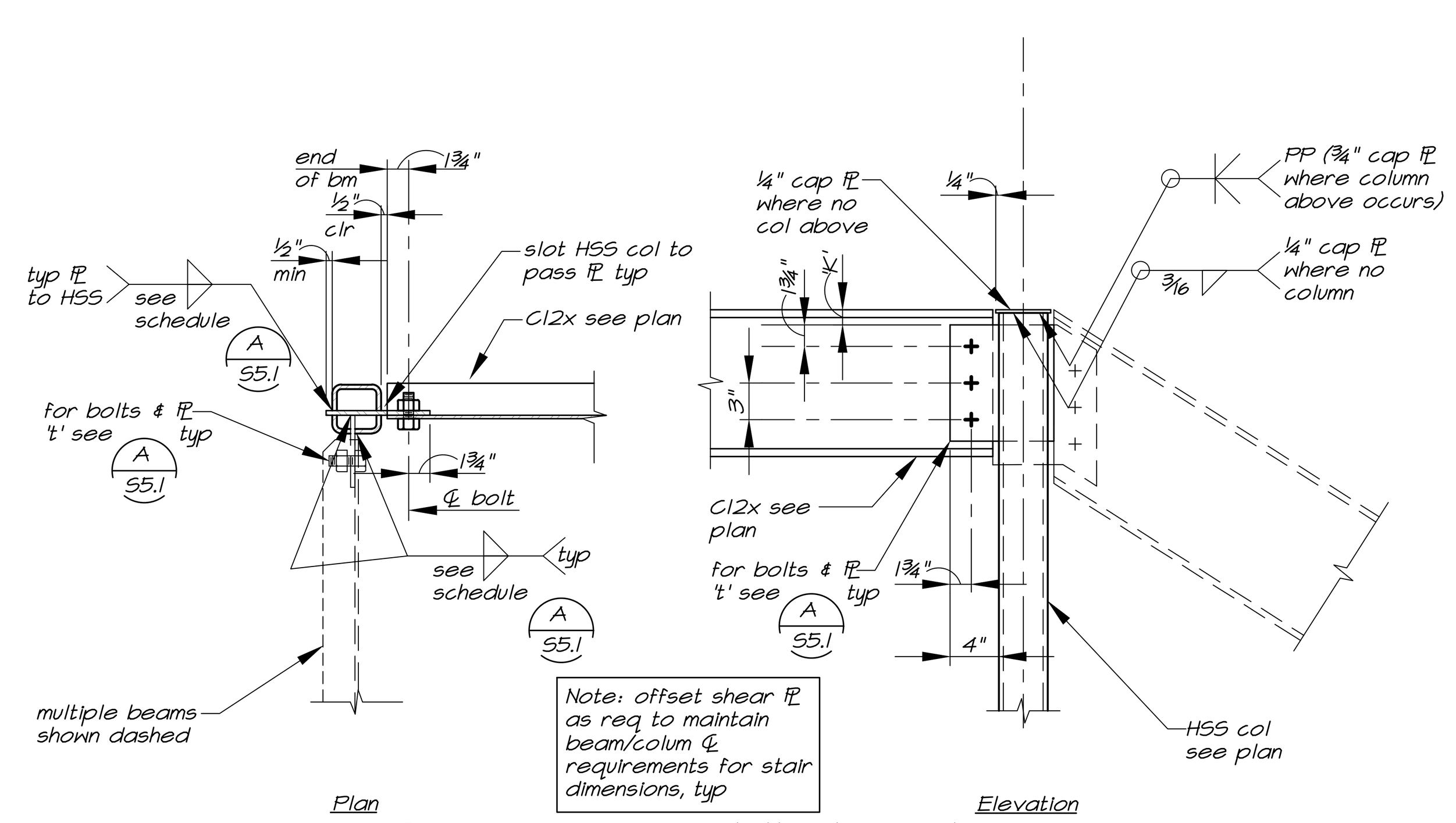


Increase footing depth as required to accommodate anchor bolts

9 / S5.1 Base ℄
1"=1'-0" @ cant'l cols

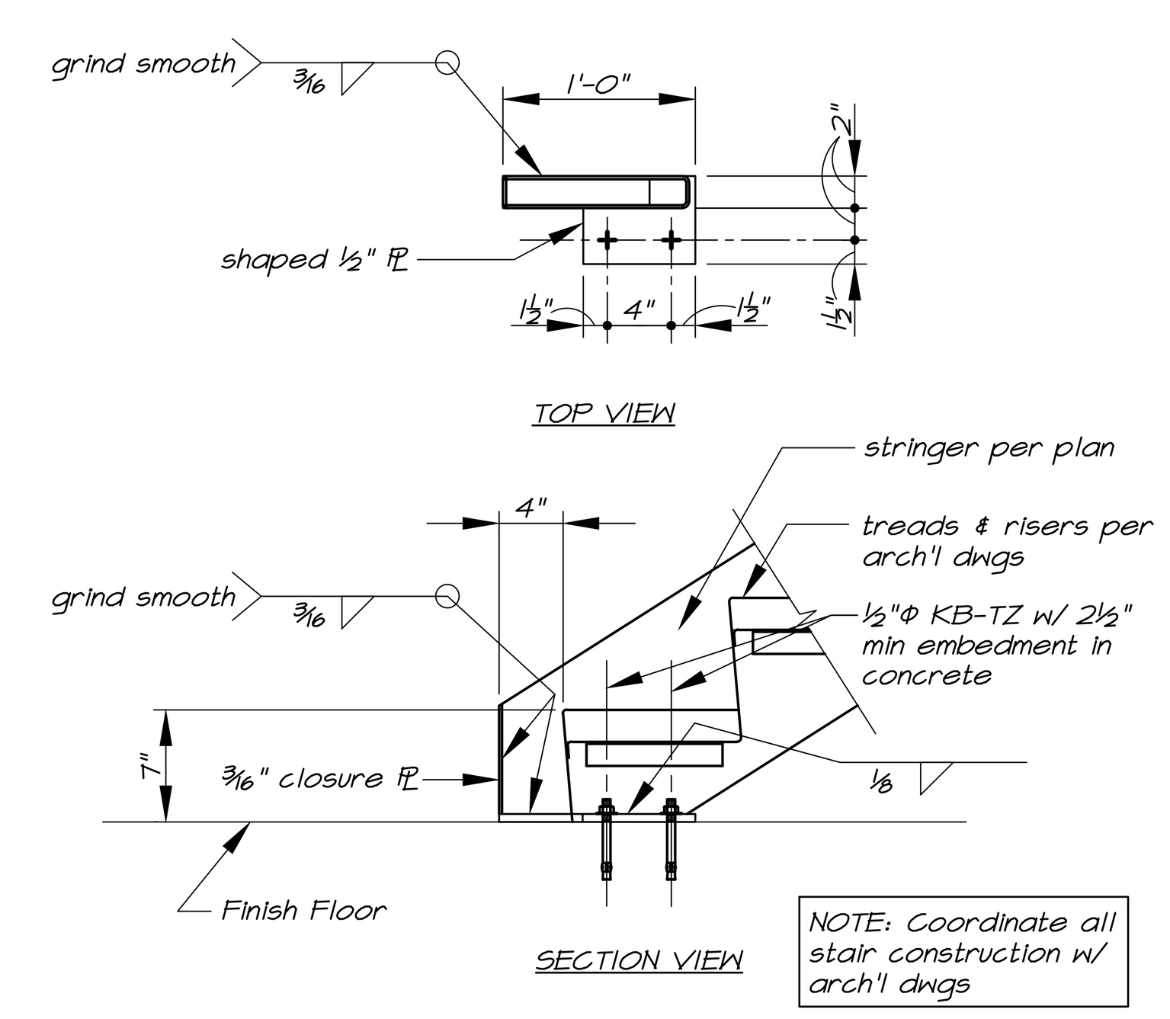


1 / S5.1 Detail
1"=1'-0"



Beam One or Multiple Sides

2 / S5.1 Detail
1"=1'-0"



3 / S5.1 Detail
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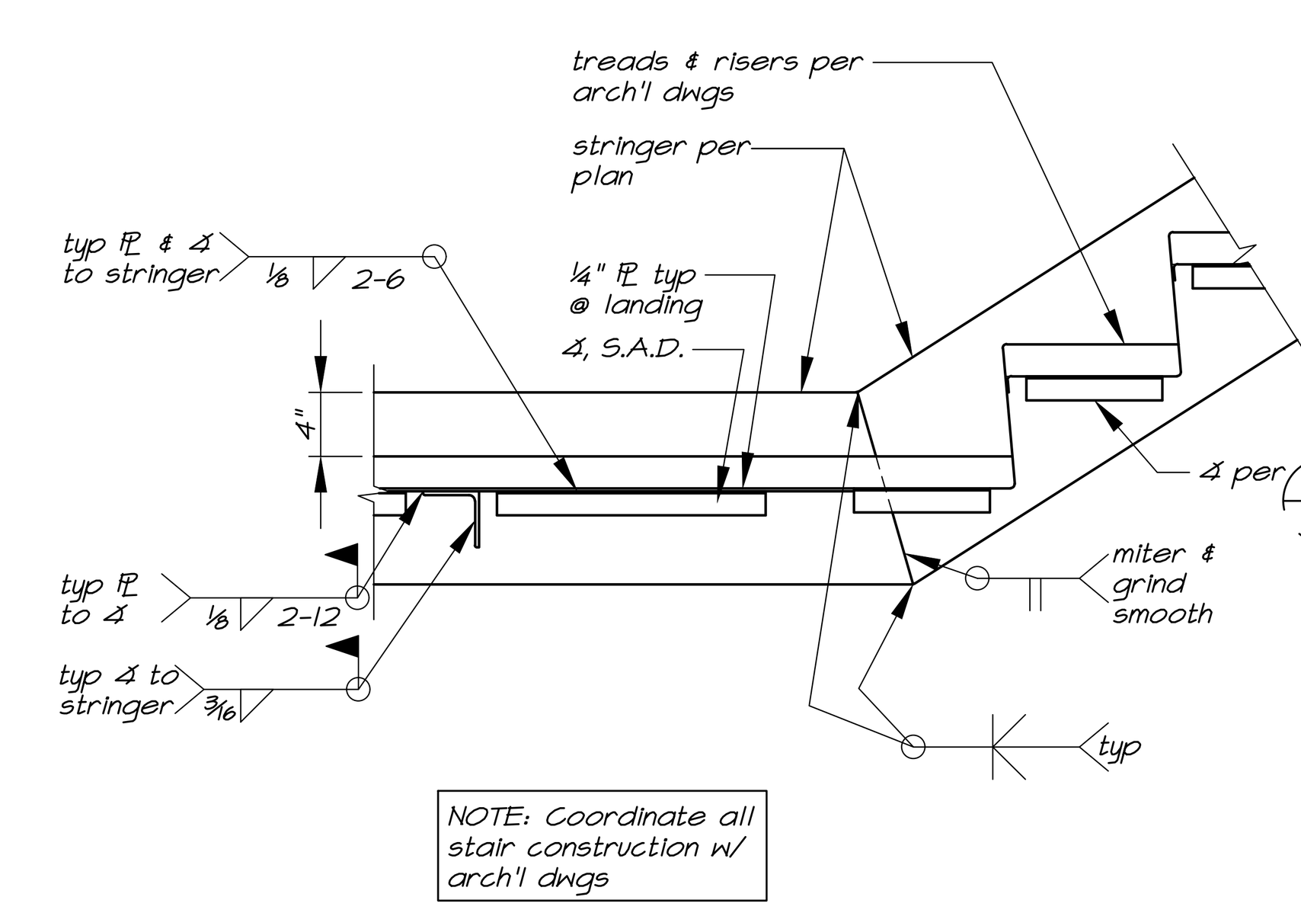

4 / S5.1 Detail
1"=1'-0"

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Project Component

Key Plan

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Interiors: NORR
Fire Sprinkler: Sacramento Engineering Consultants

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1631 Alhambra Blvd., Suite 100
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norr.com

BEVIER
2479 Sunrise Blvd.
Gold River, CA 95670
Tel: (916) 631-3030
Fax: (916) 631-8996
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Project Manager	Drawn: JON PRICE
Project Leader	Checked: MIKE NOVAK

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRE

MAMMOTH, CALIFORNIA

Drawing Title
DETAILS

Scale

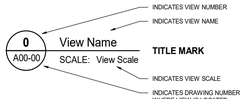
Project No.
IN2024-0022

Drawing No.
S5.1

3/6/2025 10:24:28 PM

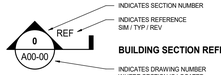
SYMBOL LEGEND

ANNOTATION SYMBOLS

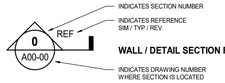


TITLE MARK

PLAN DETAIL REFERENCE

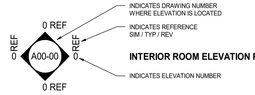


BUILDING SECTION REFERENCE



WALL / DETAIL SECTION REFERENCE

EXTERIOR ELEVATION REFERENCE



INTERIOR ROOM ELEVATION REFERENCE

GRID TAG

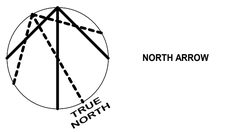
LEVEL TAG

HEIGHT ELEVATION TAG

SPOT ELEVATION TAG

ROOM TAG

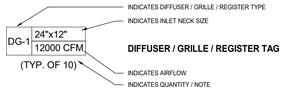
REVISION TAG



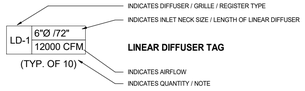
NORTH ARROW

MECHANICAL TAG LEGEND

MECHANICAL TAG SYMBOLS



DIFFUSER / GRILLE / REGISTER TAG

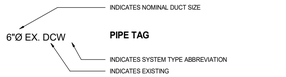


LINEAR DIFFUSER TAG

MECHANICAL EQUIPMENT TAG

DUCT TAG

DUCT ACCESSORY TAG



PIPE TAG

PIPE ACCESSORY TAG

ABBREVIATIONS - MECHANICAL

AAV	AUTOMATIC AIR VENT
AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CHILLER
ACD	AUTOMATIC CONTROL DAMPER
AD	ACCESS DOOR
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFMS	AIRFLOW MEASURING STATION
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
ALD	ACOUSTICALLY LINED DUCTWORK
AO	ANALOG OUTPUT
AP	ACCESS PANEL
ARCH	ARCHITECT
AS	AIR SEPARATOR
ATC	AUTOMATIC TEMPERATURE CONTROL
ATD	AIR TERMINAL DEVICE
AVC	AUTOMATIC CONTROL VALVE
AVG	AVERAGE
AVS	AIR VOLUME TRAVERSE STATION
AW	ACID WASTE
B	BOILER
BT	BATH TUB
BAS	BUILDING AUTOMATIC SYSTEM
BBH	BASE BOARD HEATER
BD	BALANCING DAMPER
BD	BIDET
BDD	BACK DRAFT DAMPER
BFF	BELOW FINISHED FLOOR
BFL	BOTTLE FILLER
BFP	BACK FLOW PREVENTOR
BHP	BREAK HORSEPOWER
BI	BACKWARD INCLINED
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BPB	BYPASS BOX
BSMT	BASEMENT
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
BWV	BACKWATER VALVE
C/W	COMPLETE WITH
CB	CHILLED BEAM
CB	CATCH BASIN
CBV	CIRCUIT BALANCING VALVE
CC	COOLING COIL
CCT	CONDENSATE COOLER TANK
CF	CEILING FAN
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHW	CHILLED WATER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CL	CENTERLINE
CLAP	CLEAN AGENT PANEL
CLG	CEILING
CO	CLEANOUT
COL	COLUMN
CONC	CONCRETE
CONTR	CONTRACTOR
CORR	CORRIDOR
CR	COOLING WATER RETURN
CRAC	COMPUTER ROOM AIR CONDITIONER
CS	COOLING WATER SUPPLY
CT	COOLING TOWER
CTBD	COOLING TOWER BLOW DOWN
CTE	CONNECT TO EXISTING
CTK	COMPRESSION TANK
CU	CONDENSING UNIT
CUF	CUBIC FEET
CUH	CABINET UNIT HEATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
D	DRAIN
DB	DRY BULB TEMPERATURE
DB	DRAIN BOX
DC	DRY COOLER
DCV	DEMAND CONTROL VENTILATION
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DCW	DOMESTIC COLD WATER
DDC	DIRECT DIGITAL CONTROL
DF	DRINKING FOUNTAIN
DG	DOOR GRILLE
DH	DUCT HEATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRCULATION
DI	DIGITAL INPUT
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN (PENETRATES FLOOR SLAB)
DO	DIGITAL OUTPUT
DOV	DRAIN OFF VALVE
DPAV	DRY PIPE ALARM VALVE
DPS	DIFFERENTIAL PRESSURE SWITCH
DWDI	DOUBLE WIDTH DOUBLE INLET
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWSI	DOUBLE WIDTH SINGLE INLET
DX	DIRECT EXPANSION
EA	EACH
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ECUH	ELECTRIC CABINET UNIT HEATER
EDH	ELECTRIC DUCT HEATER
EEW	EMERGENCY EYE WASH
EF	EXHAUST AIR FAN
EFF	EFFICIENCY
EG	EXHAUST AIR GRILLE
EJDIS	EJECTOR DISCHARGE
ELEC	ELECTRICAL
ELEV	ELEVATION
EMCS	ENERGY MANAGEMENT AND CONTROL SYSTEM
ENT	ENTERING
EP	ELECTRO-PNEUMATIC SWITCH
EQUIP	EQUIPMENT

ABBREVIATIONS - MECHANICAL

ERV	ENERGY RECOVERY VENTILATOR
ESH	EMERGENCY SHOWER
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EWF	EMERGENCY EYE FACE WASH
EWSH	EMERGENCY EYE WASH AND SHOWER STATION
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
F	FAN
FA	FROM ABOVE
FAS	FIRE ALARM SENSOR
FB	FROM BELOW
FC	FORWARD CURVED
FCO	FLOOR CLEANOUT
FCU	FAN COIL UNIT
FCV	FLOW CONTROL VALVE
FD	FIRE DAMPER
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FFD	FUNNEL FLOOR DRAIN
FFE	FINISHED FLOOR ELEVATION
FFH	FORCED FLOW HEATER
FHC	FIRE HOSE CABINET
FLEX	FLEXIBLE
FLR	FLOOR
FLTR	FILTER
FP	FIRE PROTECTION
FPB	FAN POWERED BOX
FPI	FINS PER INCH
FPM	FEET PER MINUTE
FPHB	FROST PROOF HOSE BIBB
FPWS	FROST PROOF WALL HYDRANT
FS	FLOW SWITCH
FSD	FIRE & SMOKE DAMPER
FSU	FIRE SUPRESSION UNIT
FT	FEET
FT/SEC	FEET PER SECOND
FTR	FINNED TUBE RADIATION
FU	FIXTURE UNIT
FURN	FURNANCE
FVC	FIRE VALVE CABINET
G	GAS
GAL	GALLONS
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GD	GARBAGE DISPOSAL
GM	GAS METER
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GW	GREY WATER
H	HEIGHT
H	HUMIDIFIER
HB	HOSE BIBB CONNECTION WITH CHAINED CAP
HC	HEATING COIL
HD	HEAD
HD	HUB DRAIN
HP	HORSEPOWER
HP	HEAT PUMP
HR	HOUR
HRCH	HEAT RECOVERY CHILLER
HRV	HEAT RECOVERY VENTILATOR
HU	HUMIDISTAT
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
HZ	HERTZ
ID	INSIDE DIAMETER
IM	ICE MAKER
IMWB	ICE MAKER WALL BOX
IN	INCHES
INSUL	INSULATION
INV	INVERT
IW	INDIRECT WASTE
JS	JANITOR SINK
KPH	KILOMETER PER HOUR
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
L	LENGTH
L	LITRES
L	LAVATORY
L/s	LITRES PER SECOND
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LD	LINEAR DIFFUSER
LF	LINEAR FEET
LPH	LITRES PER HOUR
LPS	LITRES PER SECOND
LVG	LEAVING
LWT	LEAVING WATER TEMPERATURE
M	METER
M	ONE THOUSAND
MAU	MAKEUP AIR UNIT
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
MCA	MINIMUM CIRCUIT AMPS
MCC	MOTOR CONTROL CENTER
MCD	MOTORIZED CONTROL DAMPER
MD	MANUAL DAMPER
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MAN HOLE
MIN	MINIMUM
ML	MILLILITRE
MM	MILLIMETER
MS	MOP SINK

ABBREVIATIONS - MECHANICAL

MTD	MOUNTED
MU	MAKEUP WATER
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NFHB	NON FREEZE HOSE BIBB
NFWH	NON FREEZE WALL HYDRANT
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OB	OCTAVE BAND
OBD	OPPOSED BLADE DAMPER
OFD	OVERFLOW DRAIN
OD	OUTSIDE DIAMETER
OD	OUTSIDE DIAMETER
ODP	OPEN DRIP PROOF
OED	OPEN END DUCT
OV	OUTLET VELOCITY
P	PUMP
PAC	PRE-ACTION CABINET
PACP	PRE-ACTION CONTROL PANEL
PCF	POUNDS PER CUBIC FOOT
PCHWR	PRIMARY CHILLED WATER RETURN
PCHWS	PRIMARY CHILLED WATER SUPPLY
PD	PRESSURE DROP
PH	PHASE
PHC	PREHEAT COIL
PHX	PLATE HEAT EXCHANGER
PLBG	PLUMBING
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GUAGE
PVC	POLYVINYL CHLORIDE
RA	RETURN AIR
RD	ROOF DRAIN
REQD	REQUIRED
RET	RETURN
RF	RETURN AIR FAN
RG	RETURN AIR GRILLE
RH	RELATIVE HUMIDITY
RH	REHEAT COIL
RLF	RELIEF
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RPZA	REDUCED PRESSURE ZONE ASSEMBLIES
RR	RETURN AIR REGISTER
RTU	ROOF TOP UNIT
RWL	RAIN WATER LEADER
S	SINK
SA	SUPPLY AIR
SAN	SANITARY PIPE
SATT	SOUND ATTENUATOR
SCHWR	SECONDARY CHILLED WATER RETURN
SCHWS	SECONDARY CHILLED WATER SUPPLY
SCR	SCREEN
SD	SMOKE DAMPER
SD	SCUPPER DRAIN
SEA	SANITARY EXHAUST AIR
SEF	SMOKE EXHAUST FAN
SF	SUPPLY AIR FAN
SH	SHOWER
SL	SILENCER
SP	STATIC PRESSURE
SP	SUMP PUMP
SPECS	SPECIFICATIONS
SQ	SQUARE
SQFT	SQUARE FEET
SR	SUPPLY AIR REGISTER
SRV	SAFETY RELIEF VALVE
SS	STAINLESS STEEL
SS	SERVICE SINK
SST	SOIL STACK
ST	STORM PIPE
STD	STANDARD
STDBY	STANDBY
STV	STACK VENT
SUP	SUPPLY
SV	SUPERVISED VALVE
SWDI	SINGLE WIDTH DOUBLE INLET
SWSI	SINGLE WIDTH SINGLE INLET
TA	TRANSFER AIR
TA	TO ABOVE
TAD	TRANSFER AIR DUCT
TB	TO BELOW
TD	TRENCH DRAIN
TEMP	TEMPERATURE
TMV	THERMOSTATIC MIXING VALVE
TOD	TOP OF DUCT
TOP	TOP OF PIPE
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
U	URINAL
U/C	UNDER CUT
UH	UNIT HEATER
UP	UP (PENETRATES FLOOR SLAB)
V	VENT PIPE
VAV	VARIABLE VOLUME BOX
VB	VACUUM BREAKER
VD	VOLUME DAMPER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
VSD	VARIABLE SPEED DRIVE

ABBREVIATIONS - MECHANICAL

VST	VENT STACK
VTR	VENT THROUGH ROOF
VVE	VARIABLE VOLUME EXHAUST BOX
W	WIDTH
W&V	WASTE & VENT
W/	WITH
W/O	WITHOUT
WB	WET BULB TEMPERATURE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WALL FIN
WFS	WATER FLOW SWITCH
WG	WATER GUAGE
WH	WATER HEATER
WHA	WATER HAMMER ARRESTOR
WM	WATER METER
WMS	WIRE MESH SCREEN
WPAV	WET PIPE ALARM VALVE
WS	WATER SOFTENER
WST	WASTE STACK
(D)	EXISTING TO BE DEMOLISHED
(E)	EXISTING
(ER)	EXISTING TO BE REMOVED
(N)	NEW
(R)	EXISTING TO BE RELOCATED
(RE)	RELOCATED EXISTING

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Structural:
Mechanical: NORR
Electrical:
Interiors:
Landscape:

Seal(s)

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MN	JL
Project Leader	Checked
MN	BMS

Client

MAMMOTH YOSEMITE AIRPORT

Project

MAMMOTH ARFF/SRE

MAMMOTH, CA

Drawing Title

PLUMBING NOTES & LEGENDS

Scale

12" = 1'-0"

Project No.

IN2024-0022

Drawing No.

P01-001

PRELIMINARY - NOT FOR CONSTRUCTION

Autodesk Docs://Mammoth Phase 3/IN2024-0022_ME_Mammoth Phase 3_R23.rvt

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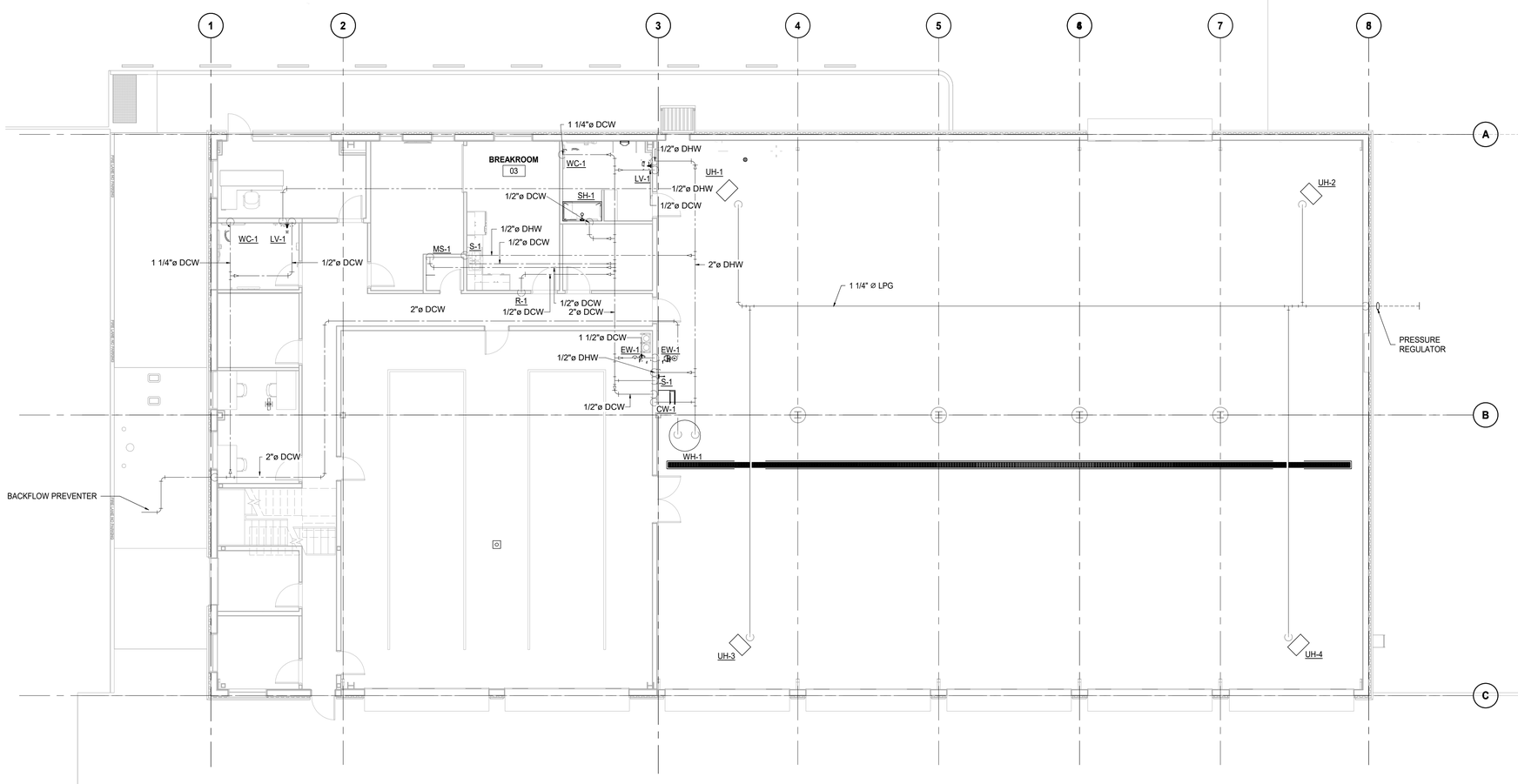

1 NEW PLUMBING FLOOR PLAN - CW, HW, AND GAS
P02-001 SCALE: 1/8" = 1'-0"

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Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRE

MAMMOTH, CA

Drawing Title
PLUMBING FLOOR PLAN - CW, HW AND GAS

Scale
1/8" = 1'-0"

Project No.
IN2024-0022

Drawing No.
P02-001

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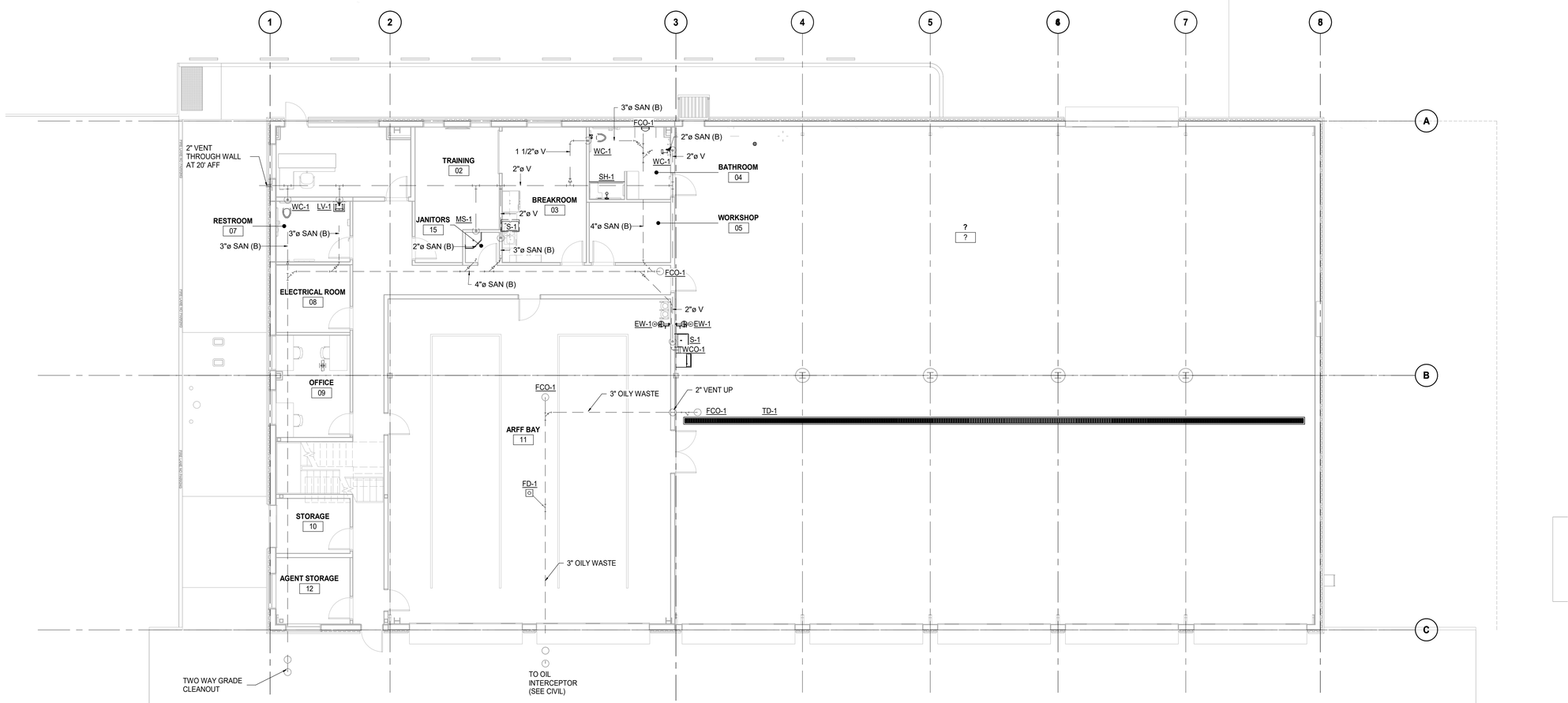

1 P02-002 NEW PLUMBING FLOOR PLAN - SS AND V

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

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Client

MAMMOTH YOSEMITE AIRPORT

Project

MAMMOTH ARFF/SRE

MAMMOTH, CA

Drawing Title

PLUMBING FLOOR PLAN - SS AND V

Scale

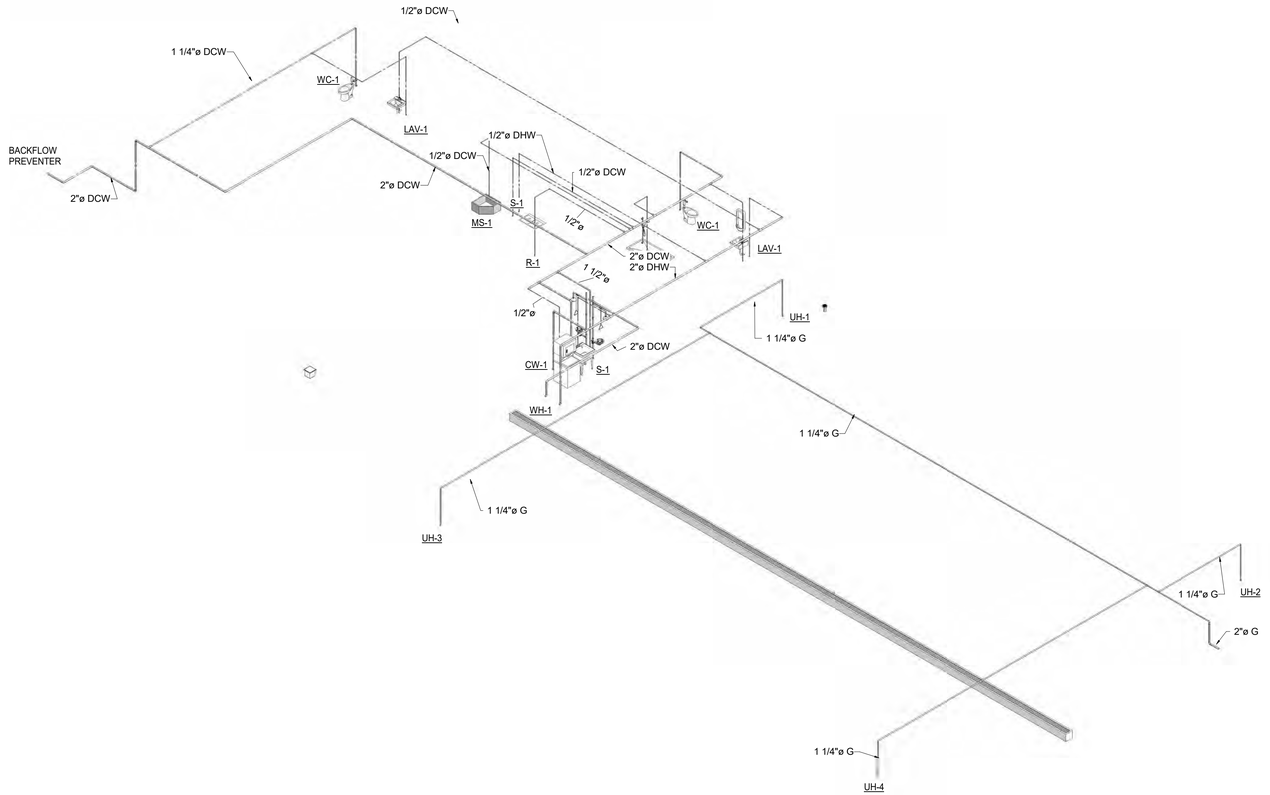
1/8" = 1'-0"

Project No.

IN2024-0022

Drawing No.

P02-002



1 P03-001 PLUMBING ISOMETRIC CW, HW, AND GAS

SCALE:

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MAMMOTH, CA

Drawing Title
PLUMBING ISOMETRICS - CW, HW, AND GAS

Scale

Project No.
IN2024-0022

Drawing No.
P03-001

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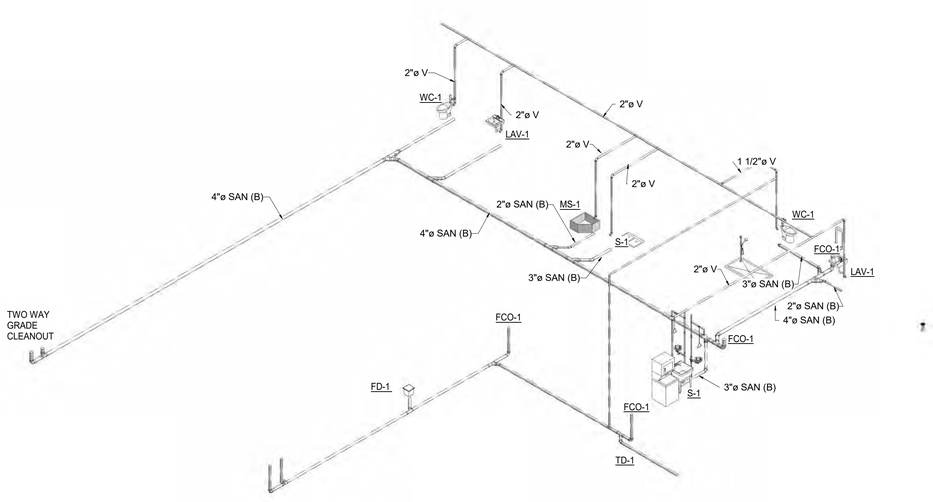

1 P03-002 DRAINAGE ISOMETRIC - SS AND V

SCALE:

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Project

MAMMOTH ARFF/SRE

MAMMOTH, CA

Drawing Title

PLUMBING ISOMETRICS - SS AND V

Scale

Project No.

IN2024-0022

Drawing No.

P03-002

PRELIMINARY - NOT FOR CONSTRUCTION

PLUMBING FIXTURE SCHEDULE		
TAG	MANUFACTURER	REMARKS AND SPECIFICATIONS
WC-1	ZURN	MODEL Z5561: TWO PIECE PRESSURE-ASSIST FLOOR MOUNTED FLUSH TANK TOILET. ADA HEIGHT, ELONGATED BOWL, OPEN FRONT SEAT. 1.1 GPF.
LV-1	ZURN: #Z5110 Z8743-PC GRID STRAINER, Z8700 P-TRAP, Z8946-1-NT ADA TRAP	LAVATORY: VITREOUS CHINA DROP-IN LAVATORY. FAUCET HOLES ON 4" CENTERS, FRONT OVERFLOW: FAUCET: DELTA #501 LF-HGMHDF, WITH RP330 POLISHED CHROME AERATOR; LESS POP-UP DRAIN AND LIFT HOLE IN POLISHED CHROME. 1-1/4" TAILPIECE. PROVIDE 3/8" WALL SUPPLIES WITH GRID STRAINER, P-TRAP, ADA TRAP, STOP AND SUPPLY PROTECTORS. ALT: FURNISH AND INSTALL "LAVGUARD" #102 TRAP WRAP BY TRUEBRO FOR PF-2H. TRUEBRO TEL: (800) 340-5969.
SH-1	-	
S-1	JUST	MODEL J-127 STAINLESS STEEL LAUNDRY TUB WITH LEGS. PROVIDE DELTA 55C1513 WALL-MOUNT FAUCET WITH PULL-DOWN SPRAY HEAD.
EW-1	GUARDIAN EQUIPMENT	MODEL: G1902P EYEWASH COMBINATION EYEWASH AND EMERGENCY SHOWER.
FD-1	J.R. SMITH	FLOOR DRAIN MODEL: 2005Y-A, DUCO CAST IRON BODY WITH FLASHING COLLAR, ADJUSTABLE STRAINER AND ROUND TOP.
WCO-1	J.R SMITH	WALL CLEAN OUT: MODEL 4420 TAPER THREAD LUG WITH ROUND COVER.
WH-1	AO SMITH	MODEL: DRE-52-18 GOLD SERIES. ELECTRIC WATER HEATER. 50 GALLONS. HEAVY-DUTY INCOLOY SHEATHING ELEMENTS AND TEMPERATURE CONTROLS LOCATED BEHIND HINGED CONTROL COMPARTMENT.

PLUMBING FIXTURE CONNECTION SIZE SCHEDULE						
TAG	FIXTURE TYPE	LINE SIZES				
		WASTE	TRAP	VENT	COLD	HOT
WC-1	WATER CLOSET	3"	-	1/2"	1 1/4"	-
LV-1	LAVATORY	2"	1/2"	1/2"	1/2"	1/2"
LS-1	LAUNDRY SINK	2"	1/2"	1/2"	1/2"	1/2"
MS-1	MOP SINK	2"	1/2"	1/2"	1/2"	1/2"
CW-1	CLOTHES WASHER	2"	1/2"	1/2"	1/2"	1/2"
FD-1	FLOOR DRAIN	2"	1/2"	1/2"	1/2"	1/2"
KS-1	KITCHEN SINK	2"	1/2"	1/2"	1/2"	1/2"

WATER SUPPLY FIXTURE UNIT			
NO. FIXTURES	FIXTURE TYPE	FU/FIX	TOTAL F.U
2	WATER CLOSET (FV)	5.0	10.0
2	LAVATORY	1.0	2.0
1	LAUNDRY SINK	1.5	1.5
1	MOP SINK	3	3
1	CLOTHES WASHER	4	4
1	KITCHEN SINK	1.5	1.5
		TOTAL	22.0

DRAINAGE FIXTURE UNIT			
NO. FIXTURES	FIXTURE TYPE	FU/FIX	TOTAL F.U
2	WATER CLOSET	4	8
2	LAVATORY	1	2
1	KITCHEN SINK	2	2
1	LAUNDRY SINK	2	2
1	MOP SINK	3	3
1	CLOTHES WASHER	3	3
-	FLOOR DRAIN	2	-
		TOTAL	20

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MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRE

MAMMOTH, CA

Drawing Title
PLUMBING SCHEDULES

Scale

Project No.
IN2024-0022

Drawing No.
P04-001

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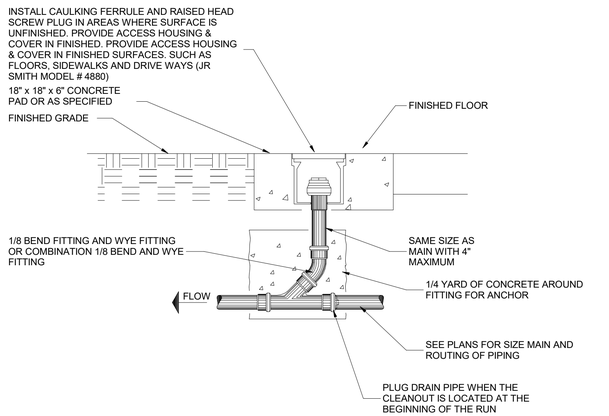
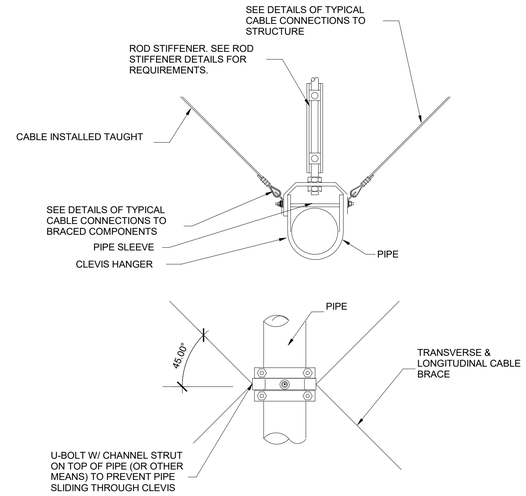
E D C B A



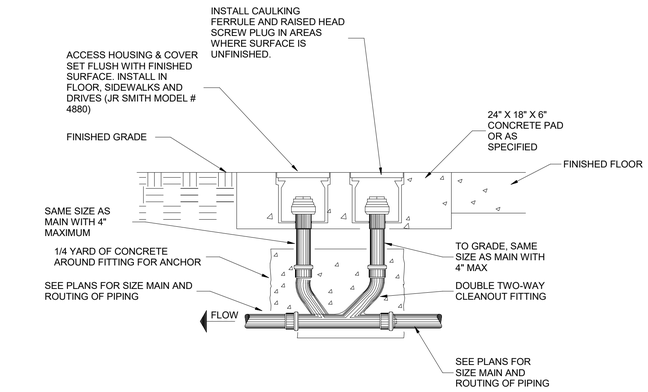
1 P05-001 CLEANOUT

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



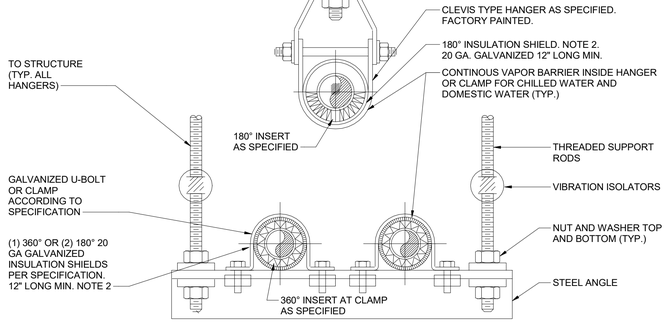
2 P05-001 TRANSVERSE-LONGITUDINAL PIPE HANGER

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



3 P05-001 TWO WAY CLEANOUT

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

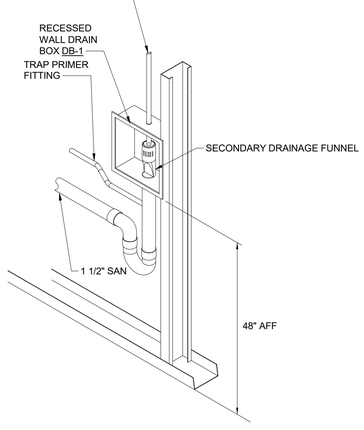


NOTE:

1. SUBMIT ANCHORING METHOD TO STRUCTURAL ENGINEER FOR APPROVAL.
2. 180° INSULATION SHIELDS MUST BE BANDED. USE STAINLESS STEEL OR PLENUM RATED NYLON. 2 PIECES EACH.
3. SEE SPECIFICATION FOR PAINT REQUIREMENTS ON SUPPORTS

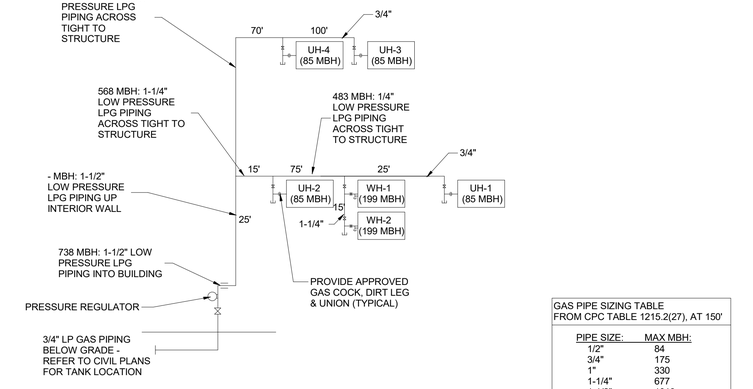
4 P05-001 TYPICAL WATER PIPE HANGER DETAIL

SCALE: 12" = 1'-0"



5 P05-001 WALL DRAIN BOX DETAIL

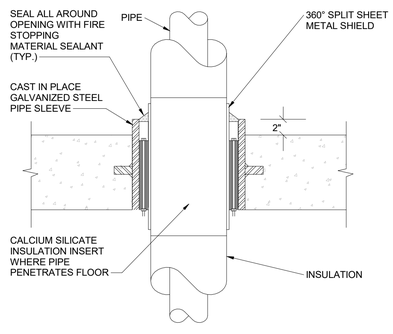
SCALE: 1/8" = 1'-0"



GAS PIPE SIZING TABLE FROM CPC TABLE 1215.2(27), AT 150'	
PIPE SIZE:	MAX MBH:
1/2"	84
3/4"	175
1"	330
1-1/4"	677
1-1/2"	1010
2"	1950

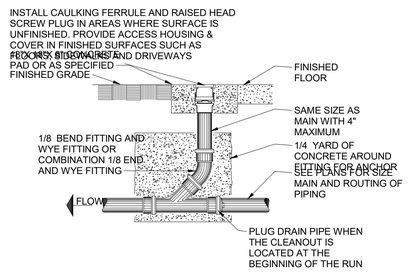
6 P05-001 LP GAS RISER DIAGRAM

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



7 P05-001 SLAB ON GRADE FLOOR PIPE PENETRATION

SCALE: 12" = 1'-0"



8 P05-001 FLOOR CLEANOUT DETAIL

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

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MAMMOTH YOSEMITE AIRPORT

Project

MAMMOTH ARFF/SRE

MAMMOTH, CA

Drawing Title

PLUMBING DETAILS

Scale

As indicated

Project No.

IN2024-0022

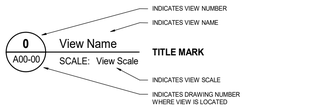
Drawing No.

P05-001

PRELIMINARY - NOT FOR CONSTRUCTION

SYMBOL LEGEND

ANNOTATION SYMBOLS



TITLE MARK

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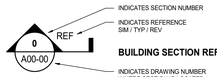
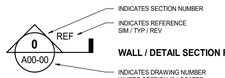
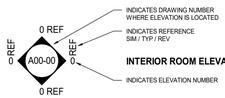


BUILDING SECTION REFERENCE



WALL / DETAIL SECTION REFERENCE

EXTERIOR ELEVATION REFERENCE



INTERIOR ROOM ELEVATION REFERENCE

GRID TAG

LEVEL TAG

HEIGHT ELEVATION TAG

SPOT ELEVATION TAG

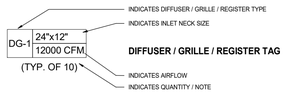
ROOM TAG

REVISION TAG

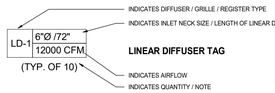
NORTH ARROW

MECHANICAL TAG LEGEND

MECHANICAL TAG SYMBOLS



DIFFUSER / GRILLE / REGISTER TAG



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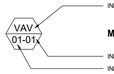
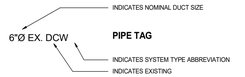


MECHANICAL EQUIPMENT TAG

DUCT TAG

DUCT ACCESSORY TAG



PIPE TAG

PIPE ACCESSORY TAG

ABBREVIATIONS - MECHANICAL

AAV	AUTOMATIC AIR VENT
AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CHILLER
ACD	AUTOMATIC CONTROL DAMPER
AD	ACCESS DOOR
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFMS	AIRFLOW MEASURING STATION
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
ALD	ACOUSTICALLY LINED DUCTWORK
AO	ANALOG OUTPUT
AP	ACCESS PANEL
ARCH	ARCHITECT
AS	AIR SEPARATOR
ATC	AUTOMATIC TEMPERATURE CONTROL
ATD	AIR TERMINAL DEVICE
AVC	AUTOMATIC CONTROL VALVE
AVG	AVERAGE
AVS	AIR VOLUME TRAVERSE STATION
AW	ACID WASTE
B	BOILER
BT	BATH TUB
BAS	BUILDING AUTOMATIC SYSTEM
BBH	BASE BOARD HEATER
BD	BALANCING DAMPER
BD	BIDET
BDD	BACK DRAFT DAMPER
BFF	BELOW FINISHED FLOOR
BFL	BOTTLE FILLER
BFP	BACK FLOW PREVENTOR
BHP	BREAK HORSEPOWER
BI	BACKWARD INCLINED
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BPB	BYPASS BOX
BSMT	BASEMENT
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
BWV	BACKWATER VALVE
C/W	COMPLETE WITH
CB	CHILLED BEAM
CB	CATCH BASIN
CBV	CIRCUIT BALANCING VALVE
CC	COOLING COIL
CCT	CONDENSATE COOLER TANK
CF	CEILING FAN
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHW	CHILLED WATER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CL	CENTERLINE
CLAP	CLEAN AGENT PANEL
CLG	CEILING
CO	CLEANOUT
COL	COLUMN
CONC	CONCRETE
CONTR	CONTRACTOR
CORR	CORRIDOR
CR	COOLING WATER RETURN
CRAC	COMPUTER ROOM AIR CONDITIONER
CS	COOLING WATER SUPPLY
CT	COOLING TOWER
CTBD	COOLING TOWER BLOW DOWN
CTE	CONNECT TO EXISTING
CTK	COMPRESSION TANK
CU	CONDENSING UNIT
CUF	CUBIC FEET
CUH	CABINET UNIT HEATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
D	DRAIN
DB	DRY BULB TEMPERATURE
DB	DRAIN BOX
DC	DRY COOLER
DCV	DEMAND CONTROL VENTILATION
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DCW	DOMESTIC COLD WATER
DDC	DIRECT DIGITAL CONTROL
DF	DRINKING FOUNTAIN
DG	DOOR GRILLE
DH	DUCT HEATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRCULATION
DI	DIGITAL INPUT
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN (PENETRATES FLOOR SLAB)
DO	DIGITAL OUTPUT
DOV	DRAIN OFF VALVE
DPAV	DRY PIPE ALARM VALVE
DPS	DIFFERENTIAL PRESSURE SWITCH
DWDI	DOUBLE WIDTH DOUBLE INLET
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWSI	DOUBLE WIDTH SINGLE INLET
DX	DIRECT EXPANSION
EA	EACH
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ECUH	ELECTRIC CABINET UNIT HEATER
EDH	ELECTRIC DUCT HEATER
EEW	EMERGENCY EYE WASH
EF	EXHAUST AIR FAN
EFF	EFFICIENCY
EG	EXHAUST AIR GRILLE
EJDIS	EJECTOR DISCHARGE
ELEC	ELECTRICAL
ELEV	ELEVATION
EMCS	ENERGY MANAGEMENT AND CONTROL SYSTEM
ENT	ENTERING
EP	ELECTRO-PNEUMATIC SWITCH
EQUIP	EQUIPMENT
ERV	ENERGY RECOVERY VENTILATOR
ESH	EMERGENCY SHOWER
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EWF	EMERGENCY EYE FACE WASH
EWSH	EMERGENCY EYE WASH AND SHOWER STATION
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
F	FAN
FA	FROM ABOVE
FAS	FIRE ALARM SENSOR
FB	FROM BELOW
FC	FORWARD CURVED
FCO	FLOOR CLEANOUT
FCU	FAN COIL UNIT
FCV	FLOW CONTROL VALVE
FD	FIRE DAMPER
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FFD	FUNNEL FLOOR DRAIN
FFE	FINISHED FLOOR ELEVATION
FFH	FORCED FLOW HEATER
FHC	FIRE HOSE CABINET
FLEX	FLEXIBLE
FLR	FLOOR
FLTR	FILTER
FP	FIRE PROTECTION
FPB	FAN POWERED BOX
FPI	FINS PER INCH
FPM	FEET PER MINUTE
FPHB	FROST PROOF HOSE BIBB
FPWS	FROST PROOF WALL HYDRANT
FS	FLOW SWITCH
FSD	FIRE & SMOKE DAMPER
FSU	FIRE SUPRESSION UNIT
FT	FEET
FT/SEC	FEET PER SECOND
FTR	FINNED TUBE RADIATION
FU	FIXTURE UNIT
FURN	FURNANCE
FVC	FIRE VALVE CABINET
G	GAS
GAL	GALLONS
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GD	GARBAGE DISPOSAL
GM	GAS METER
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GW	GREY WATER
H	HEIGHT
H	HUMIDIFIER
HB	HOSE BIBB CONNECTION WITH CHAINED CAP
HC	HEATING COIL
HD	HEAD
HD	HUB DRAIN
HP	HORSEPOWER
HP	HEAT PUMP
HR	HOUR
HRCH	HEAT RECOVERY CHILLER
HRV	HEAT RECOVERY VENTILATOR
HU	HUMIDISTAT
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
HZ	HERTZ
ID	INSIDE DIAMETER
IM	ICE MAKER
IMWB	ICE MAKER WALL BOX
IN	INCHES
INSUL	INSULATION
INV	INVERT
IW	INDIRECT WASTE
JS	JANITOR SINK
KPH	KILOMETER PER HOUR
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
L	LENGTH
L	LITRES
L	LAVATORY
L/s	LITRES PER SECOND
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LD	LINEAR DIFFUSER
LF	LINEAR FEET
LPH	LITRES PER HOUR
LPS	LITRES PER SECOND
LVG	LEAVING
LWT	LEAVING WATER TEMPERATURE
M	METER
M	ONE THOUSAND
MAU	MAKEUP AIR UNIT
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
MCA	MINIMUM CIRCUIT AMPS
MCC	MOTOR CONTROL CENTER
MCD	MOTORIZED CONTROL DAMPER
MD	MANUAL DAMPER
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MAN HOLE
MIN	MINIMUM
ML	MILLILITRE
MM	MILLIMETER
MS	MOP SINK
MTD	MOUNTED
MU	MAKEUP WATER
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NFHB	NON FREEZE HOSE BIBB
NFWH	NON FREEZE WALL HYDRANT
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OB	OCTAVE BAND
OBD	OPPOSED BLADE DAMPER
OFD	OVERFLOW DRAIN
OD	OUTSIDE DIAMETER
OD	OUTSIDE DIAMETER
ODP	OPEN DRIP PROOF
OED	OPEN END DUCT
OV	OUTLET VELOCITY
P	PUMP
PAC	PRE-ACTION CABINET
PACP	PRE-ACTION CONTROL PANEL
PCF	POUNDS PER CUBIC FOOT
PCHWR	PRIMARY CHILLED WATER RETURN
PCHWS	PRIMARY CHILLED WATER SUPPLY
PD	PRESSURE DROP
PH	PHASE
PHC	PREHEAT COIL
PHX	PLATE HEAT EXCHANGER
PLBG	PLUMBING
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GUAGE
PVC	POLYVINYL CHLORIDE
RA	RETURN AIR
RD	ROOF DRAIN
REQD	REQUIRED
RET	RETURN
RF	RETURN AIR FAN
RG	RETURN AIR GRILLE
RH	RELATIVE HUMIDITY
RH	REHEAT COIL
RLF	RELIEF
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RPZA	REDUCED PRESSURE ZONE ASSEMBLIES
RR	RETURN AIR REGISTER
RTU	ROOF TOP UNIT
RWL	RAIN WATER LEADER
S	SINK
SA	SUPPLY AIR
SAN	SANITARY PIPE
SATT	SOUND ATTENUATOR
SCHWR	SECONDARY CHILLED WATER RETURN
SCHWS	SECONDARY CHILLED WATER SUPPLY
SCR	SCREEN
SD	SMOKE DAMPER
SD	SCUPPER DRAIN
SEA	SANITARY EXHAUST AIR
SEF	SMOKE EXHAUST FAN
SF	SUPPLY AIR FAN
SH	SHOWER
SL	SILENCER
SP	STATIC PRESSURE
SP	SUMP PUMP
SPECS	SPECIFICATIONS
SQ	SQUARE
SQFT	SQUARE FEET
SR	SUPPLY AIR REGISTER
SRV	SAFETY RELIEF VALVE
SS	STAINLESS STEEL
SS	SERVICE SINK
SST	SOIL STACK
ST	STORM PIPE
STD	STANDARD
STDBY	STANDBY
STV	STACK VENT
SUP	SUPPLY
SV	SUPERVISED VALVE
SWDI	SINGLE WIDTH DOUBLE INLET
SWSI	SINGLE WIDTH SINGLE INLET
TA	TRANSFER AIR
TA	TO ABOVE
TAD	TRANSFER AIR DUCT
TB	TO BELOW
TD	TRENCH DRAIN
TEMP	TEMPERATURE
TMV	THERMOSTATIC MIXING VALVE
TOD	TOP OF DUCT
TOP	TOP OF PIPE
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
U	URINAL
U/C	UNDER CUT
UH	UNIT HEATER
UP	UP (PENETRATES FLOOR SLAB)
V	VENT PIPE
VAV	VARIABLE VOLUME BOX
VB	VACUUM BREAKER
VD	VOLUME DAMPER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
VSD	VARIABLE SPEED DRIVE
VST	VENT STACK
VTR	VENT THROUGH ROOF
VVE	VARIABLE VOLUME EXHAUST BOX
W	WIDTH
W&V	WASTE & VENT
W/	WITH
W/O	WITHOUT
WB	WET BULB TEMPERATURE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WALL FIN
WFS	WATER FLOW SWITCH
WG	WATER GUAGE
WH	WATER HEATER
WHA	WATER HAMMER ARRESTOR
WM	WATER METER
WMS	WIRE MESH SCREEN
WPAV	WET PIPE ALARM VALVE
WS	WATER SOFTENER
WST	WASTE STACK
(D)	EXISTING TO BE DEMOLISHED
(E)	EXISTING
(ER)	EXISTING TO BE REMOVED
(N)	NEW
(R)	EXISTING TO BE RELOCATED
(RE)	RELOCATED EXISTING

SHEET LIST INDEX	
M01-001	MECHANICAL NOTES AND LEGEND
M02-001	MECHANICAL FLOOR PLAN
M02-002	MECHANICAL MEZZANINE
M03-001	MECHANICAL SCHEDULES
M04-001	MECHANICAL DETAILS
P01-001	PLUMBING NOTES AND LEGEND
P02-001	PLUMBING FLOOR PLAN - CW, HW AND GAS
P02-002	PLUMBING FLOOR PLAN - SS AND V
P03-001	PLUMBING SCHEDULES - CW, HW, AND GAS
P03-002	PLUMBING ISOMETRICS - SS AND V
P05-001	PLUMBING SCHEDULES
P06-001	PLUMBING DETAILS

DATE	ISSUED FOR	REV
08/09/2024	50% CD REVIEW SET	1

Project Component

Key Plan

Consultants

Survey:
Civil:
Architecture:
Structural:
Mechanical: NORR
Electrical:
Interiors:
Landscape:

Seal(s)

NORR

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Project Manager MN	Drawn JL
Project Leader MN	Checked BMS

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRE

MAMMOTH, CA

Drawing Title
MECHANICAL NOTES AND LEGEND

Scale
12" = 1'-0"

Project No.
IN2024-0022

Drawing No.
M01-001

PRELIMINARY - NOT FOR CONSTRUCTION

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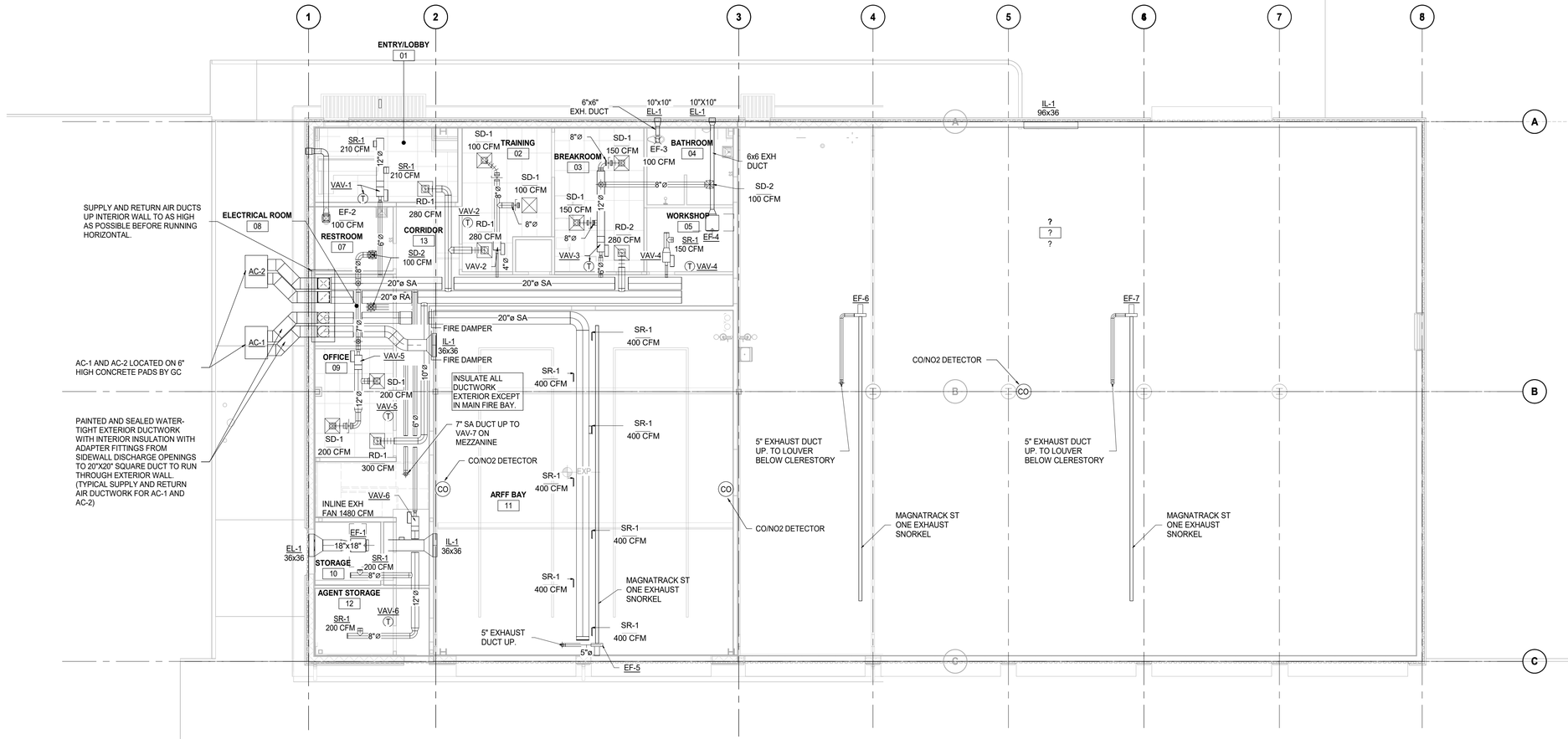

1 M02-001 OVERALL HVAC PLAN - LEVEL 1

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

DATE	ISSUED FOR	REV
08/09/2024	50% CD REVIEW SET	1

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Key Plan

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Architecture:
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Project

MAMMOTH ARFF/SRE

MAMMOTH, CA

Drawing Title

MECHANICAL FLOOR PLAN

Scale

1/8" = 1'-0"

Project No.

IN2024-0022

Drawing No.

M02-001

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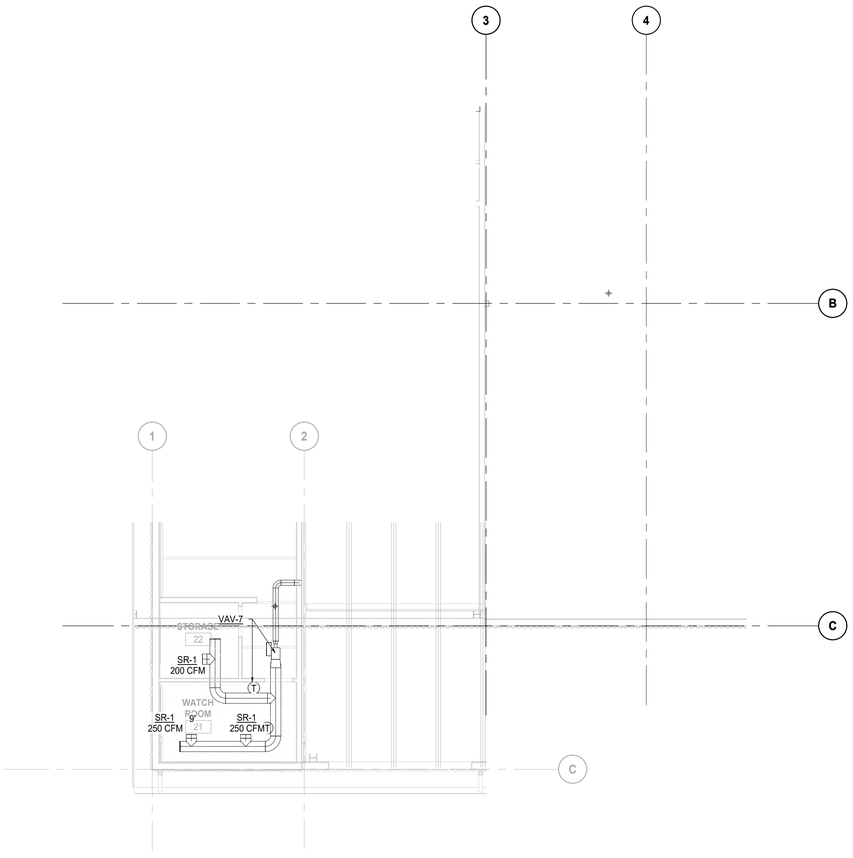

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Project Component

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Landscape:

Seal(s)

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Project

MAMMOTH ARFF/SRE

MAMMOTH, CA

Drawing Title

MECHANICAL MEZZANINE PLAN

Scale

1/8" = 1'-0"

Project No.

IN2024-0022

Drawing No.

M02-002

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VARIABLE AIR VOLUME BOX SCHEDULE				
EQUIPMENT TAG	AREA SERVED	UNIT SIZE	MODEL NUMBER	BRAND
VAV-1	ENTRY/LOBBY	6"	35EC3300L06	CARRIER
VAV-2	TRAINING	4"	35EC3300L04	CARRIER
VAV-3	BREAKROOM BATHROOM	6"	35EC3300L06	CARRIER
VAV-4	WORKSHOP	4"	35EC3300L04	CARRIER
VAV-5	OFFICE, RR ELECTRIC ROOM	7"	35EC3300L07	CARRIER
VAV-6	STORAGE AGENT STORAGE	6"	35EC3300L06	CARRIER
VAV-7	WATCH ROOM STORAGE	7"	35EC3300L07	CARRIER

NOTES:

1. PRESSURE INDEPENDENT CONTROL. ALL CONTROLS SHALL BE FACTORY CALIBRATED AND WITHIN THE ABOVE FLOW RANGE.

2. UNIT COMPLETE WITH ATTENTUATOR

VENTILATION EXHAUST FAN SCHEDULE									
EQUIPMENT TAG	MANUFACTURER	MODEL #	CFM	ESP (IN.)	SERVICE ROOM	ELECTRICAL VOLT PHASE	HP	WEIGHT	NOTES
EF-1	GREENHECK	BDF-100	1480		-	120V/1PH	1/60		24/7 OPERATION
EF-2	GREENHECK	CSP-A390-VG	100	0.4	RR 07	120V/1PH	1/60		TURN ON/OFF WITH LIGHT SWITCH
EF-3	GREENHECK	CSP-A390-VG	100	0.4	RR 04	120V/1PH	1/60		TURN ON/OFF WITH LIGHT SWITCH
EF-4	GREENHECK	AER-24-02-0310	100	0.3	-	120V/1PH	1/60		WALL SWITCH
EF-5	NEDERMAN	N24 #14510122	883	-	ARRF BAY 11	208V/1PH	1	37	SEE VE SCHEDULE
EF-6	NEDERMAN	N24 #14510122	883	-	ARRF BAY 11	208V/1PH	1	37	SEE VE SCHEDULE
EF-7	NEDERMAN	N24 #14510122	883	-	ARRF BAY 11	208V/1PH	1	37	SEE VE SCHEDULE
PROVIDE WITH: GRAVITY BACKDRAFT DAMPER.									

PACKAGED GAS/ELECTRIC HVAC UNIT SCHEDULE								
EQUIPMENT TAG	MANUFACTURER	MODEL #	CFM	ESP (IN.)	SERVICE ROOM	ELECTRICAL VOLT PHASE	COOLING (TOTAL/ SENSIBLE) MBH	HEATING INPUT/ OUTPUT MBH (LPG)	NOTES
AC-1	CARRIER	48GCFJ06A 3M5-0A3A0	2200	1.05	ARFF BAY	208V/3PH	54.9 TC / 47.5 SC	102 IN / 81.6 OUT	2,3,4,5,6,7,8
AC-2	CARRIER	48LCDB08A 3M5-1A3A0	3000	1.2	ALL OTHER ROOMS	208V/3PH	88.6 TC / 56.6 SC	102 IN / 81.6 OUT	1, 2,3,4,5,6,7,8
PROVIDE WITH FACTORY OPTIONS: 1. MODULATING POWER EXHAUST (AC-2 ONLY - AC-1 RELIEF AIR IS VIA EF-1) 2. HIGH STATIC BELT DRIVE WITH VFD CONTROLLER 3. LOUVERED HAIL GUARDS 4. HINGED ACCESS PANELS 5. VAV-RTU OPEN CONTROLLER PROVIDE WITH FIELD-INSTALLED ACCESSORIES: 6. MERV-13 FILTERS 7. HORIZONTAL LOW LEAKAGE ECONOMIZER. 8. PROPANE AND HIGH ALTITUDE CONVERSION KIT CONTROLS: PROVIDE DDC CONTROL PANEL IN WATCH ROOM, WITH VAV CONTROLLERS, RTU TEMPERATURE SENSORS, OUTSIDE AIR SENSOR, AND ALL OTHER ACCESSORIES FOR A COMPLETE AND OPERATIONAL SYSTEM.								

VEHICLE EXHAUST EXTRACTION SCHEDULE									
TAG	RAIL		MAX EXHAUST TEMP	ELECTRICAL				MODEL NUMBER	ACCESSORIES
	LENGTH (FT)	CAPACITY # VEHICLE		VOLT	PHASE	AMP	EXHAUST FAN HP		
VE-1	38	2	600	-	-	-	-	MAGNARAIL	(2) EXTRACTION UNITS
VE-2	54	2	600	-	-	-	-	MAGNARAIL	(2) EXTRACTION UNITS
VE-3	62	2	600	-	-	-	-	MAGNARAIL	(2) EXTRACTION UNITS
VEF-1	-	-	-	208	3	16.7	5.5		SUPPORT RAIL
VEF-2	-	-	-	208	3	16.7	5.5		SUPPORT RAIL
VEF-3	-	-	-	208	3	16.7	5.5		SUPPORT RAIL
NOTE: 1. ALL MODEL NUMBERS ARE NEDERMAN UNLESS OTHERWISE NOTED. 2. INCLUDES COMPLETE SYSTEM INCLUDING: HB NOZZLES, OUTLET CONNECTION, RADIO RECEIVER AND TRANSMITTER, EXHAUST FAN WITH VFD.									

GRILLE/REGISTER/DIFFUSER SCHEDULE				
TAG	MANUFACTURER	MODEL NUMBER	SIZE	
SD-1	TITUS	MCD	SEE PLANS	24X24 MODULE, WITH BORDER TYPE 3 (LAY-IN), 4 WAY ADJUSTABLE CORE
SD-2	TITUS	MCD	SEE PLANS	24X24 MODULE, WITH BORDER TYPE 3 (LAY-IN), PROVIDE TRM FRAME FOR DRYWALL LOCATIONS
RD-1	TITUS	PAR	SEE PLANS	
EG-1	TITUS	PAR	SEE PLANS	24X24 MODULE, WITH BORDER TYPE 3 (LAY-IN), PROVIDE TRM FRAME FOR DRYWALL LOCATIONS
EG-2	TITUS	PAR	SEE PLANS	12X12 MODULE, WITH BORDER TYPE 1 (SURFACE MOUNT), PROVIDE TRM FRAME FOR DRYWALL LOCATIONS
SR-1	TITUS	300RS	6x6	SIDEWALL SUPPLY DIFFUSER. DOUBLE DEFLECTION BLADES. PROVIDE FACE-ADJUSTABLLE OPPOSED BLADE DAMPERS.

LOUVER SCHEDULE				
TAG	MANUFACTURER	MODEL NUMBER	SIZE	
IL-1	RUSKIN	ELF375DX	PER PLAN	ALUMINUM DRAINABLE INTAKE LOUVER. PROVIDE WITH GRAVITY BACKDRAFT DAMPERS
EL-1	RUSKIN	ELF375DX	PER PLAN	ALUMINUM DRAINABLE EXHAUST LOUVER. PROVIDE WITH GRAVITY BACKDRAFT DAMPERS
FINISH TO MATCH ADJACENT EXTERIOR WALL SURFACE. PROVIDE INTGRAL 1-1/2" FLANGE.				

GAS DETECTION MONITOR SCHEDULE						
EQUIPMENT TAG	AREA SERVED	ELECTRICAL VOLT	1	PART NUMBER	MODEL NUMBER	REMARKS
CO/NO2	VEHICLE BAYS	120	1	04652-0601-0000	GSM-60	
NOTE: 1. ALL MODEL NUMBERS ARE ENMET UNLESS OTHERWISE NOTED. 2. INCLUDES: INSTRUMENT WITH CO AND NO2 SENSORS, WALL MOUNTED ENCLOSURE, LCD DIGITAL DISPLAY, AUDIBLE AND VISUAL ALARMS, INTERNAL MOTORIZED SAMPLE PUMP WITH FLOW SWITCH AND ALARMS, AUXILIARY RELAYS, PARTICLE FILTER, INLET AND OUTLET PORTS, 4-20ma OUTPUT SENSOR.						

MODINE UNIT HEATER SCHEDULE									
TAG	MODEL NUMBER	SERVICE ROOM	BTU/HR INPUT	BTU/HR OUTPUT	ELECTRICAL VOLT PHASE	AMPS	HP	CFM	NOTES
UH - 1,2,3,4	GREENHECK	G-060-DGE117XQD	85,000	79,050	120V/1PH	4.35	1/8	1650	
PROVIDE WITH FIELD INSTALLED ACCESSORIES FROM MANUFACTURER: VERTICAL DEFLECTOR BLADES, NATURAL GAS TO PROPANE CONVERSION KIT, SINGLE STAGE ROOM THERMOSTAT, CONDENSATE PUMP, CONDENSATE PUMP SUSPENSION KIT, CONDENSATE PH NEUTRALIZING KIT, HORIZONTAL CONCENTRIC VENT KIT. PROVIDE AND INSTALL ON CONTRACTOR-SUPPLIED THREADED ROD SUSPENSION WITH DIAGONAL BRACING.									

DATE	ISSUED FOR	REV
08/09/2024	50% CD REVIEW SET	1

Project Component

Key Plan

Consultants
Survey:
Civil:
Architecture:
Structural:
Mechanical: NORR
Electrical:
Interiors:
Landscape:

Seal(s)

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MN	JL
Project Leader	Checked
MN	BMS

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRE

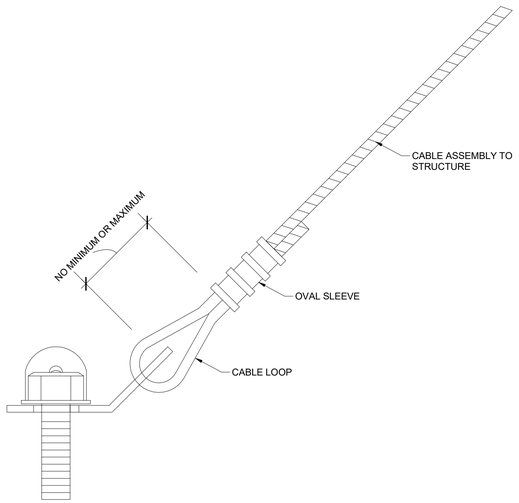
MAMMOTH, CA

Drawing Title
MECHANICAL SCHEDULES

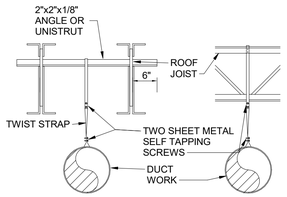
Scale
3/32" = 1'-0"

Project No.
IN2024-0022

Drawing No.
M03-001



1 M04-001 CABLE CONNECTIONS
SCALE: 3/32" = 1'-0"

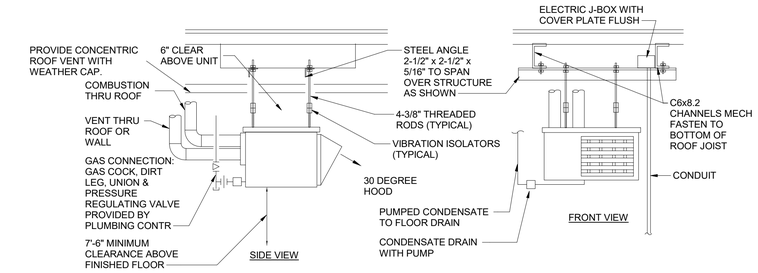


RECTANGULAR DUCTS SIMILAR.

HANGER DETAIL NOTES:
THE FOLLOWING GUIDELINES SHALL BE FOLLOWED WHEN ATTACHING ITEMS TO BAR JOISTS:

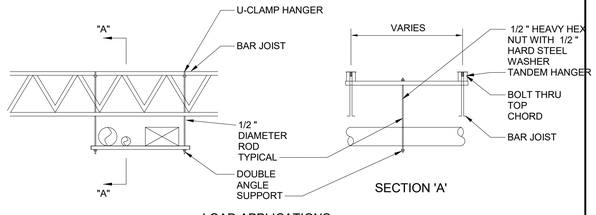
1. DO NOT HANG ANY TYPE OF CRANE OR HOIST FROM BAR JOISTS.
2. OBTAIN CONCENTRATED LOADS FROM CERTIFIED EQUIPMENT DRAWINGS AND MANUFACTURER'S DATA.
3. DO NOT HANG ANY LOAD OVER 50 POUNDS FROM JOIST BRACES.
4. DO NOT HANG ANY LOADS OVER 50 POUNDS FROM THE TOP OR BOTTOM CHORD OF THE BAR JOIST BETWEEN JOINTS. ALWAYS HANG OVER A DIAGONAL-TO-CHORD JOINT.
5. DO NOT DRILL OR WELD ANY PART OF THE BAR JOIST.
6. DO NOT HANG ANY LOAD OVER 50 POUNDS FROM ONE SIDE OF THE BAR JOIST CHORD. THIS ECCENTRICITY CAN SERIOUSLY IMPAIR THE MEMBER'S STRUCTURAL PERFORMANCE.
7. DO NOT HANG LOAD GREATER THAN 100 POUNDS FROM ONLY ONE JOIST BECAUSE OF HANGER DEFICIENCY. HANG BETWEEN TWO JOISTS TO DISTRIBUTE THE LOAD AND GIVE A STRONGER, MORE STABLE HANGING SYSTEM.
8. DO NOT HANG ANY LOAD OVER 10 POUNDS/LINEAR FOOT CONTINUOUSLY ALONG ONE BAR JOIST UNLESS THAT JOIST IS CAPABLE OF CARRYING THE APPLIED LOAD IN ADDITION TO THE REQUIRED BUILDING LIVE LOAD.
9. COORDINATE HANGER LOADS WITH THE GENERAL CONTRACTOR CONSTRUCTION MANAGEMENT.
10. LOCATION OF HANGER LOADS SHALL BE APPROVED BY GENERAL CONTRACTOR.
11. ALL DUCTS & SUPPORTS PER SMACNA STANDARDS.

2 M04-001 DUCT HANGER DETAIL
SCALE: 3/32" = 1'-0"



3 M04-001 GAS FIXED UNIT HEATER
SCALE: 1/8" = 1'-0"

LOAD APPLICATIONS



LOAD APPLICATIONS

(PERPENDICULAR AND PARALLEL TO BAR JOISTS)

4 M04-001 HANGER DETAIL
SCALE: 1/8" = 1'-0"

MAX. ROD LENGTH W/O STIFFENER	
ROD DIA.	MAX. LENGTH
3/8"	16"
1/2"	22"
5/8"	28"
3/4"	34"
7/8"	40"
1"	46"
1 1/8"	52"
1 3/4"	55"

MAX. SPACING OF ROD STIFFENER CLIPS	
ROD DIA.	MAX. LENGTH
3/8"	13"
1/2"	18"
5/8"	23"
3/4"	28"
7/8"	33"
1"	38"
1 1/8"	43"
1 1/4"	45"

MAXIMUM LENGTH OF 12 GO. 1-5/8" X 1 5/8" ROD STIFFENER STRUT IS 9 FT.

5 M04-001 ROD STIFFENER DETAIL
SCALE: 1/8" = 1'-0"

DATE	ISSUED FOR	REV
08/09/2024	50% CD REVIEW SET	1

Project Component

Key Plan

Consultants
Survey:
Civil:
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Electrical:
Interiors:
Landscape:

Seal(s)

NORR

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MN	BMS

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRE

MAMMOTH, CA

Drawing Title
MECHANICAL DETAILS

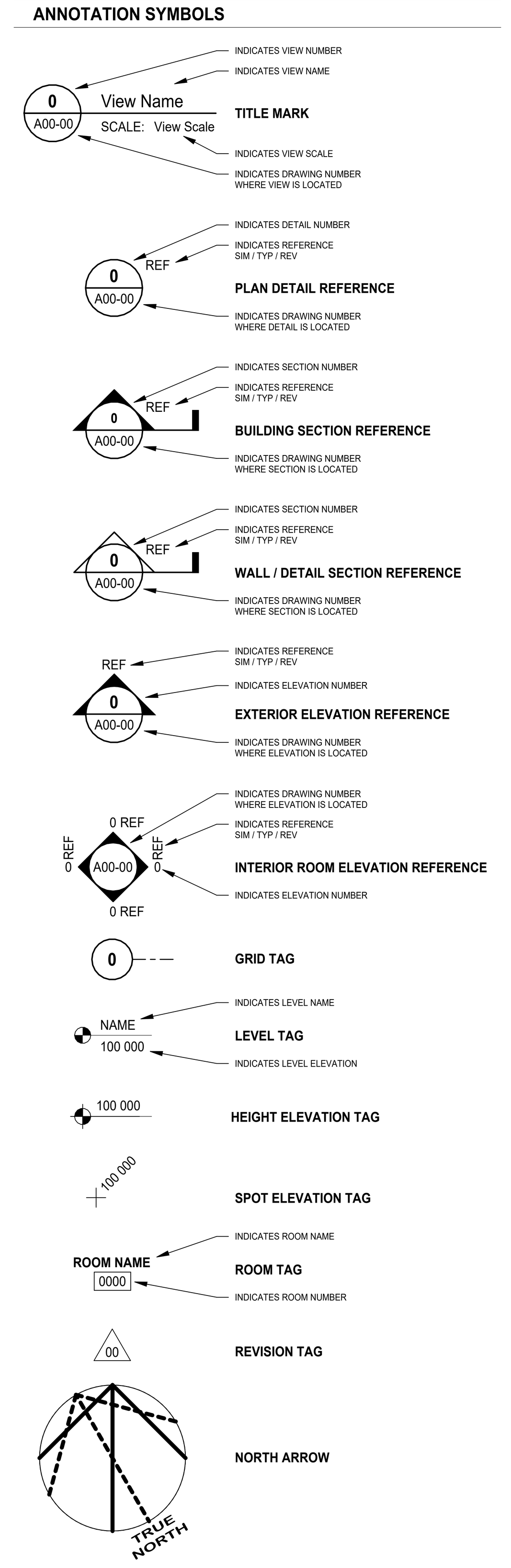
Scale
As indicated

Project No.
IN2024-0022

Drawing No.
M04-001

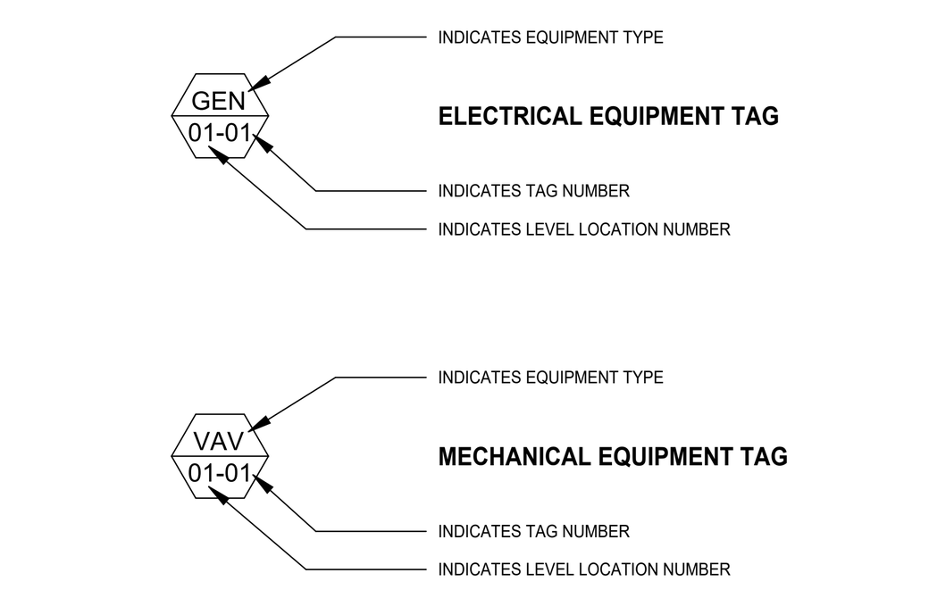
SYMBOL LEGEND

ANNOTATION SYMBOLS



SYMBOL LEGEND

ELECTRICAL TAG ANNOTATION SYMBOLS



ABBREVIATIONS - ELECTRICAL

A	AMPERE
AC	ABOVE COUNTER
ACT	ALTERNATING CURRENT, ARMOR-CLAD
ADD	ADDENDUM
AF	AMPERES, FRAME (BREAKER RATING)
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AG	ABOVE GROUND
AIC	AMPERE INTERRUPTING SHORT CIRCUIT CURRENT
AL	ALUMINUM
AM	AMMETER
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AS	AMMETER SWITCH
ASR	AUTOMATIC SPRINKLER RISER
AT	AMPERE TRIP (BREAKER SETTING)
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AV	AUDIO-VISUAL
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BC	BOTTOM CHORD
BD	BUS DUCT
BLDG	BUILDING
C	CONDUIT
CAS	CONTROLLED ACCESS SYSTEM
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CLF	CURRENT LIMITING FUSE
CLG	CEILING
COAX	COAXIAL CABLE
COL	COLUMN
CONT	CONTINUATION (CONTINUOUS)
CP	CONTROL PANEL
CT	CURRENT TRANSFORMER
CTB	CURRENT TEST BLOCK
CU	COPPER
DC	DIRECT CURRENT
DEG	DEGREE
DEPT	DEPARTMENT
DET	DETAIL
DIA	DIAMETER
DISC	DISCONNECT
DN	DOWN
DT	DOUBLE THROW
DWG	DRAWING
EA	EACH
EDP	EMERGENCY POWER DISTRIBUTION PANEL
EF	EXHAUST FAN
EL	ELEVATION
ELEC	ELECTRIC (ELECTRICAL)
ELP	EMERGENCY LIGHTING PANEL
ELR	END-OF-LINE RESISTOR
EM	EMERGENCY
EMCC	EMERGENCY MOTOR CONTROL CENTER
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
EPO	EMERGENCY POWER OFF
EQPT	EQUIPMENT
ERP	EMERGENCY RECEPTACLE PANEL
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FB	FLOOR BOX (AT JB)
FDR	FEEDER
FIN	FINISH
FLR	FLOOR
FPT	FURNITURE POKE-THRU (AT JB)
FU	FUSE
FUT	FUTURE
FWB	FURNITURE WALL BOX (AT JB)
G	GROUND
GFB	GROUND FAULT BREAKER
GEN	GENERATOR
GFI/GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GRS	GALVANIZED RIGID STEEL
HID	HIGH INTENSITY DISCHARGE
HOR	HORIZONTAL
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HT	HEIGHT
HTR	HEATER
HV	HIGH VOLTAGE
HVAC	HEATING VENTILATING AND AIR CONDITIONING
IAC	INTERLOCKING ARMOR CABLE
IC	INTERCOM
INC	INCANDESCENT, INCORPORATE
INV	INVERT ELEVATION
ISC	INTERRUPTING SHORT CIRCUIT CURRENT
ISN	ISOLATED NEUTRAL
JB	JUNCTION BOX
kcmil	THOUSAND CIRCULAR MIL(S) (MCM)
kV	KILOVOLT
kVA	KILOVOLT-AMPERES
kVAR	KILOVOLT-AMPERES REACTIVE
kW	KILOWATT
kWH	KILOWATT-HOUR
LA	LIGHTING ARRESTOR
LDP	LIGHTING DISTRIBUTION PANEL
LP	LIGHTING PANEL
LT	LIGHT
LTG	LIGHTING
LV	LOW VOLTAGE
M	METER

ABBREVIATIONS - ELECTRICAL

MA	MILLIAMPERE
MAX	MAXIMUM
MC	METAL-CLAD (CABLE)
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MEZZ	MEZZANINE
MFG	MANUFACTURING
MFR	MANUFACTURER
MH	MANHOLE, METAL HALIDE, MOUNTING HEIGHT
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUG ONLY
MO	MOTOR OPERATED
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N	NEUTRAL, NORMAL
NC	NORMALLY CLOSED
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NF	NOT FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN, NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OFCI	OWNER-FURNISHED, CONTRACTOR-INSTALLED
OFF	OFFICE
OL	OVERLOAD
OPNG	OPENING
OS	OCCUPANCY SENSOR
P	POLE
PA	PUBLIC ADDRESS SYSTEM
PB	PULL BOX
PDP	POWER DISTRIBUTION PANEL
PF	POWER FACTOR
PH	PHASE
PIV	POST INDICATOR
PL	PILOT LIGHT
PLUMB	PLUMBING
PNL	PANEL
PP	POWER PANEL
PR	PAIR
PRI	PRIMARY
PS	PULL SWITCH
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PWR	POWER
RC	REMOTE CONTROL
RCPT	RECEPTACLE
RMC	RIGID METAL CONDUIT
RP	RECEPTACLE PANEL
RSC	RIGID STEEL CONDUIT
SD	SMOKE DETECTOR
SEC	SECONDARY
SFB	SURFACE FLOOR BOX
SHLD	SHIELDED
SHT	SHEET
SIG	SIGNAL
SP	SINGLE POLE
SPEC	SPECIFICATION
SPKR	SPEAKER
SS	SECTION SWITCH
ST	SINGLE THROW
STP	SHIELDED TWISTED PAIR
STP/OS	SHIELDED TWISTED PAIR W/ OVERALL SHIELD
STRUCT	STRUCTURAL
SUBST	SUBSTATION
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYS	SYSTEM
T	THERMOSTAT
TB	THERMAL BREAKER
TEL	TELEPHONE
TL	TWIST LOCK
TOS	TOP OF STEEL
TRP	POWER FACTOR TRANSDUCER
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR
UTP/OS	UNSHIELDED TWISTED PAIR W/ OVERALL SHIELD
V	VOLT OR VOLTAGE
VD	VOICE-DATA
VERT	VERTICAL
VIF	VERIFY IN FIELD
VM	VOLTMETER
VP	VAPOR PROOF
VS	VOLTMETER SWITCH
VTR	VOLTAGE TRANSDUCER
W	WATT
W/	WITH
W/O	WITHOUT
WH	WATT-HOUR METER
WHD	WATT-HOUR DEMAND METER
WP	WEATHER PROOF
WR	WELDING RECEPTACLE
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
(E)	EXISTING FIXTURE/EQUIPMENT TO REMAIN
(ER)	EXISTING FIXTURE/EQUIPMENT TO BE RELOCATED
(N)	NEW (DEVICE)
(R)	EXISTING FIXTURE/EQUIPMENT TO BE REMOVED
(RE)	RELOCATED EXISTING FIXTURE/EQUIPMENT

DRAWING LIST - ELECTRICAL

E01-01	DRAWING LIST & LEGENDS
E02-01	SITE PLAN
E03-01	SINGLE LINES
E10-01	LEVEL 1 OVERALL POWER PLAN
E20-01	LEVEL 1 OVERALL LIGHTING PLAN

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey:
Civil:
Architecture: NORR
Structural:
Mechanical:
Electrical: NORR
Interiors:
Landscape:

Seal(s)

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Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRF

MAMMOTH, CALIFORNIA

Drawing Title
DRAWING LIST & LEGENDS

Scale 12" = 1'-0"

Project No. XXXX00-0000

Drawing No. **E01-01**

BRANCH PANEL: PANEL A

LOCATION: RESTROOM 07 | **VOLTS:** 120/208 Wye | **A.I.C. RATING:** 65k
SUPPLY FROM: | **PHASES:** 3 | **MAINS TYPE:**
MOUNTING: Surface | **WIRES:** 4 | **BUS RATING:** 400 A
ENCLOSURE: Type 1 | **MCB RATING:** 400 A

NOTES:

CKT	LG	CIRCUIT DESCRIPTION	TRIP	POLE	A (VA)		B (VA)		C (VA)		POLE	TRIP	CIRCUIT DESCRIPTION	LG	CKT
1		EXTERIOR GFCI RECEPT.	20 A	1	900	720					1	20 A	EXTERIOR GFCI RECEPT.		2
3		SRE GARAGE GFCI RECEPT.	20 A	1			720	540			1	20 A	ENTRY/LOBBY RECEPT.		4
5		RESTROOM/ELEC. RM. GFCI RECPT.	20 A	1					720	900	1	20 A	OFFICE RECEPT.		6
7		STORAGE RECEPT.	20 A	1	720	900					1	20 A	TRAINING RECEPT.		8
9		BREAKROOM RECEPT.	20 A	1			720	180			1	20 A	REFRIGERATOR RECEPT.		10
11		COUNTERTOP GFCI RECEPT.	20 A	1					360	180	1	20 A	JANITOR GFCI RECEPT.		12
13		WORKSHOP RECEPT.	20 A	1	540	1080					1	20 A	ARFF BAY GFCI RECEPT.		14
15		SRE GARAGE GFCI RECPT.	20 A	1			1260	1080			1	20 A	MEZZANINE/WATCHROOM RECEPT.		16
17		BATHROOM GFCI RECEPT	20 A	1					180	680					18
19		LEVEL 1 LIGHTING	20 A	1	883	0					3	100 A	GEN PANEL		20
21		LEVEL 1 LIGHTING	20 A	1			574	0							22
23		LEVEL 1 LIGHTING	20 A	1					480	960	1	20 A	LEVEL 1 LIGHTING		24
25		LEVEL 1 LIGHTING	20 A	1	240	288					1	20 A	EXTERIOR LIGHTING		26
27															28
29										0	1	20 A	SPARE		30
31		SPARE	20 A	1	0	0					1	20 A	SPARE		32
33		SPARE	20 A	1			0	0			1	20 A	SPARE		34
35		SPARE	20 A	1					0	--	1	--	SPACE		36
37		SPACE	--	1	--	--					1	--	SPACE		38
39		SPACE	--	1			--	--			1	--	SPACE		40
41		SPACE	--	1					--	--	1	--	SPACE		42
				LOAD:	6271 VA		5074 VA		4460 VA						
				AMPS:	53 A		43 A		37 A						

LEGEND (LG):
A - ARC FAULT BREAKER, E - EXISTING BREAKER, EL - EXISTING LOAD AND BREAKER, G - GROUND FAULT BREAKER, L - LOCKED-ON BREAKER, S - SHUNT TRIP BREAKER

NOTES:

PANEL TOTALS	
TOTAL CONN. LOAD:	15805 VA
TOTAL CONN.:	44 A

BRANCH PANEL: PANEL B

LOCATION: RESTROOM 07 | **VOLTS:** 120/208 Wye | **A.I.C. RATING:** 65k
SUPPLY FROM: | **PHASES:** 3 | **MAINS TYPE:**
MOUNTING: Surface | **WIRES:** 4 | **BUS RATING:** 400 A
ENCLOSURE: Type 1 | **MCB RATING:** 400 A

NOTES:

CKT	LG	CIRCUIT DESCRIPTION	TRIP	POLE	A (VA)		B (VA)		C (VA)		POLE	TRIP	CIRCUIT DESCRIPTION	LG	CKT
1		VAV-9	20 A	1	0	0					1	20 A	EF-11		2
3		VAV-6	20 A	1			0	0							4
5									0	0	3	50 A	AC-2		6
7		AC-1	50 A	3	0	0									8
9							0								10
11															12
13															14
15															16
17															18
19															20
21															22
23															24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
				LOAD:	0 VA		0 VA		0 VA						
				AMPS:	0 A		0 A		0 A						

LEGEND (LG):
A - ARC FAULT BREAKER, E - EXISTING BREAKER, EL - EXISTING LOAD AND BREAKER, G - GROUND FAULT BREAKER, L - LOCKED-ON BREAKER, S - SHUNT TRIP BREAKER

NOTES:

PANEL TOTALS	
TOTAL CONN. LOAD:	0 VA
TOTAL CONN.:	0 A

BRANCH PANEL: GEN PANEL

LOCATION: | **VOLTS:** 120/208 Wye | **A.I.C. RATING:** 14k
SUPPLY FROM: PANEL A | **PHASES:** 3 | **MAINS TYPE:**
MOUNTING: Recessed | **WIRES:** 4 | **BUS RATING:** 100 A
ENCLOSURE: Type 1 | **MCB RATING:** MLO

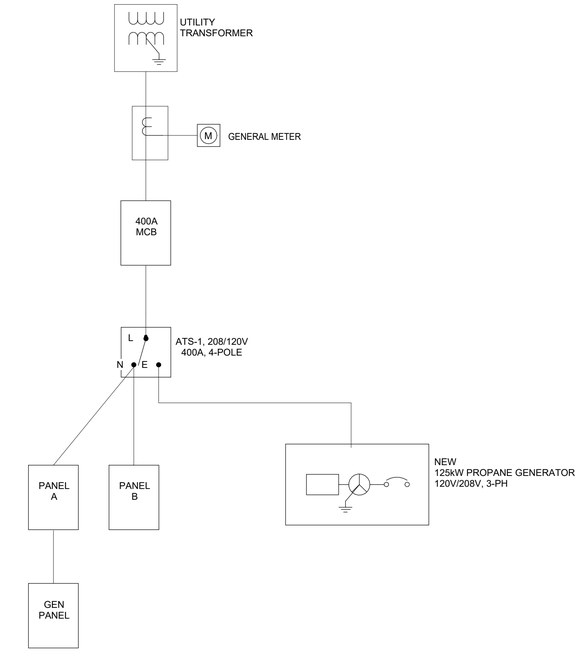
NOTES:

CKT	LG	CIRCUIT DESCRIPTION	TRIP	POLE	A (VA)		B (VA)		C (VA)		POLE	TRIP	CIRCUIT DESCRIPTION	LG	CKT
1		GENERATOR BATTERY CHARGER	20 A	1	500	180					1	20 A	WP GFCI RECEPTACLE		2
3		SPARE	20 A	1			0	0			1	20 A	SPARE		4
5		SPARE	20 A	1					0	0	1	20 A	SPARE		6
7		SPACE	--	1	--	--					1	--	SPACE		8
9		SPACE	--	1			--	--			1	--	SPACE		10
11		SPACE	--	1					--	--	1	--	SPACE		12
13		SPACE	--	1	--	--					1	--	SPACE		14
15		SPACE	--	1			--	--			1	--	SPACE		16
17		SPACE	--	1					--	--	1	--	SPACE		18
19		SPACE	--	1	--	--					1	--	SPACE		20
21		SPACE	--	1			--	--			1	--	SPACE		22
23		SPACE	--	1					--	--	1	--	SPACE		24
25		SPACE	--	1	--	--					1	--	SPACE		26
27		SPACE	--	1			--	--			1	--	SPACE		28
29		SPACE	--	1					--	--	1	--	SPACE		30
				LOAD:	680 VA		0 VA		0 VA						
				AMPS:	6 A		0 A		0 A						

LEGEND (LG):
A - ARC FAULT BREAKER, E - EXISTING BREAKER, EL - EXISTING LOAD AND BREAKER, G - GROUND FAULT BREAKER, L - LOCKED-ON BREAKER, S - SHUNT TRIP BREAKER

NOTES:

PANEL TOTALS	
TOTAL CONN. LOAD:	680 VA
TOTAL CONN.:	2 A



1 E03-01 Single Line Diagram
SCALE: 1/8" = 1'-0"

CIRCUIT CONDUIT & CONDUCTOR SCHEDULE

FUSE/CIRCUIT BREAKER - AMP/POLE	PHASE/NEUTRAL (NOTE 3)	GROUND	CONDUIT
15A/1P & 20A/1P	2 - 12 AWG	1 - 12 AWG	3/4"
15A/2P & 20A/2P	2 OR 3 - 12 AWG	1 - 12 AWG	3/4"
15A/3P & 20A/3P	3 OR 4 - 12 AWG	1 - 12 AWG	3/4"
25A/1P & 30A/1P	2 - 10 AWG	1 - 10 AWG	3/4"
25A/2P & 30A/2P	2 OR 3 - 10 AWG	1 - 10 AWG	3/4"
25A/3P & 30A/3P	3 OR 4 - 10 AWG	1 - 10 AWG	3/4"
35A/1P & 40A/1P	2 - 8 AWG	1 - 10 AWG	3/4"
35A/2P & 40A/2P	2 OR 3 - 8 AWG	1 - 10 AWG	3/4"
35A/3P & 40A/3P	3 OR 4 - 8 AWG	1 - 10 AWG	3/4"
40A/1P & 45A/1P	2 - 8 AWG	1 - 10 AWG	3/4"
40A/2P & 45A/2P	2 OR 3 - 8 AWG	1 - 10 AWG	3/4"
40A/3P & 45A/3P	3 OR 4 - 8 AWG	1 - 10 AWG	3/4"
60A/1P	2 - 6 AWG	1 - 10 AWG	3/4"
60A/2P	2 OR 3 - 6 AWG	1 - 10 AWG	3/4"
60/3P	3 OR 4 - 6 AWG	1 - 10 AWG	1"
70A/1P	2 - 4 AWG	1 - 8 AWG	1"
70A/2P	2 OR 3 - 4 AWG	1 - 8 AWG	1"
70A/3P	3 OR 4 - 4 AWG	1 - 8 AWG	1 1/4"
80A/2P	2 OR 3 - 4 AWG	1 - 8 AWG	1"
80A/3P	3 OR 4 - 4 AWG	1 - 8 AWG	1 1/4"
90A/2P	2 OR 3 - 3 AWG	1 - 8 AWG	1 1/4"
90A/3P	3 OR 4 - 3 AWG	1 - 8 AWG	1 1/4"
100A/2P	2 OR 3 - 3 AWG	1 - 8 AWG	1 1/4"
100A/3P	3 OR 4 - 3 AWG	1 - 8 AWG	1 1/4"
110A/2P	2 OR 3 - 2 AWG	1 - 6 AWG	1 1/4"
110A/3P	3 OR 4 - 2 AWG	1 - 6 AWG	1 1/4"
125A/2P	2 OR 3 - 1 AWG	1 - 6 AWG	1 1/4"
125A/3P	3 OR 4 - 1 AWG	1 - 6 AWG	1 1/2"
150A/2P	2 OR 3 - 1/0 AWG	1 - 6 AWG	1 1/2"
150A/3P	3 OR 4 - 1/0 AWG	1 - 6 AWG	2"
175A/2P	2 OR 3 - 2/0 AWG	1 - 6 AWG	2"
175A/3P	3 OR 4 - 2/0 AWG	1 - 6 AWG	2"
200A/2P	2 OR 3 - 3/0 AWG	1 - 6 AWG	2"
200A/3P	3 OR 4 - 3/0 AWG	1 - 6 AWG	2"
225A/2P	2 OR 3 - 4/0 AWG	1 - 4 AWG	2"
225A/3P	3 OR 4 - 4/0 AWG	1 - 4 AWG	2 1/2"
250A/2P	2 OR 3 - 250 MCM	1 - 4 AWG	2 1/2"
250A/3P	3 OR 4 - 250 MCM	1 - 4 AWG	3"
300A/2P	2 OR 3 - 350 MCM	1 - 3 AWG	3"
300A/3P	3 OR 4 - 350 MCM	1 - 3 AWG	3"
350A/2P	2 OR 3 - 500 MCM	1 - 3 AWG	3 1/2"
350A/3P	3 OR 4 - 500 MCM	1 - 3 AWG	3 1/2"
400A/2P	2 OR 3 - 500 MCM	1 - 3 AWG	3 1/2"
400/3P	3 OR 4 - 500 MCM	1 - 3 AWG	3 1/2"

NOTES:
1. PROVIDE CIRCUIT CONDUCTOR AND CONDUIT SIZES INDICATED ABOVE UNLESS OTHERWISE NOTED.
2. CONDUCTOR SIZING BASED UPON 75C THWN INSULATED COPPER CONDUCTOR
3. FOR TWO AND THREE POLE CIRCUITS PROVIDE NEUTRAL CONDUCTOR IF REQUIRED BY EQUIPMENT SERVED.

LIGHTING FIXTURE SCHEDULE

LIGHT FIXTURE TAG	DESCRIPTION	MANUFACTURER	MANUFACTURER	INITIAL COLOR TEMPERATURE	MOUNTING	REMARKS
A1	2X4 LED SWITCHABLE LUMEN FLAT PANEL	LITHONIA LIGHTING	CPANL-2X4-AL06-SWW7-M2	4000 K	RECESSED	
A2	2X2 LED SWITCHABLE LUMEN FLAT PANEL	LITHONIA LIGHTING	CPANL-2X2-AL01-SWW7-M4	4000 K	RECESSED	
B1	48" LOW-PROFILE LED STRIP LIGHT	LITHONIA LIGHTING	ZL1N-L48-3500LM-FST-MVOLT-40K-80CRI-WH	3500 K	MOUNTED	
B2	24" LOW-PROFILE LED STRIP LIGHT	LITHONIA LIGHTING	ZL1N-L24-3500LM-FST-MVOLT-40K-80CRI-WH	3500 K	MOUNTED	
W1	WPX LED WALL PACK	LITHONIA LIGHTING	WPX1-LED-P2-40K-MVOLT-ODBXD-M4	2900 K	MOUNTED	
X1	LED QUANTUM EXIT SIGNS	LITHONIA LIGHTING	LQM-S-W-3-R-120/277-M6		MOUNTED	

DATE	ISSUED FOR	REV

This drawing has been prepared solely for the use of MAMMOTH YOSEMITE AIRPORT and there are no representations of any kind made by NORR to any party with whom NORR has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer

Project Component

Key Plan

Consultants
Survey:
Civil:
Architecture: NORR
Structural:
Mechanical:
Electrical: NORR
Interiors:
Landscape:

Seal(s)

NORR
NORR OFFICE ADDRESS
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRF
MAMMOTH, CALIFORNIA

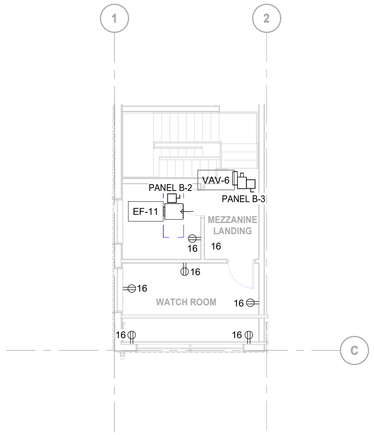
Drawing Title
SINGLE LINES

Scale
1/8" = 1'-0"

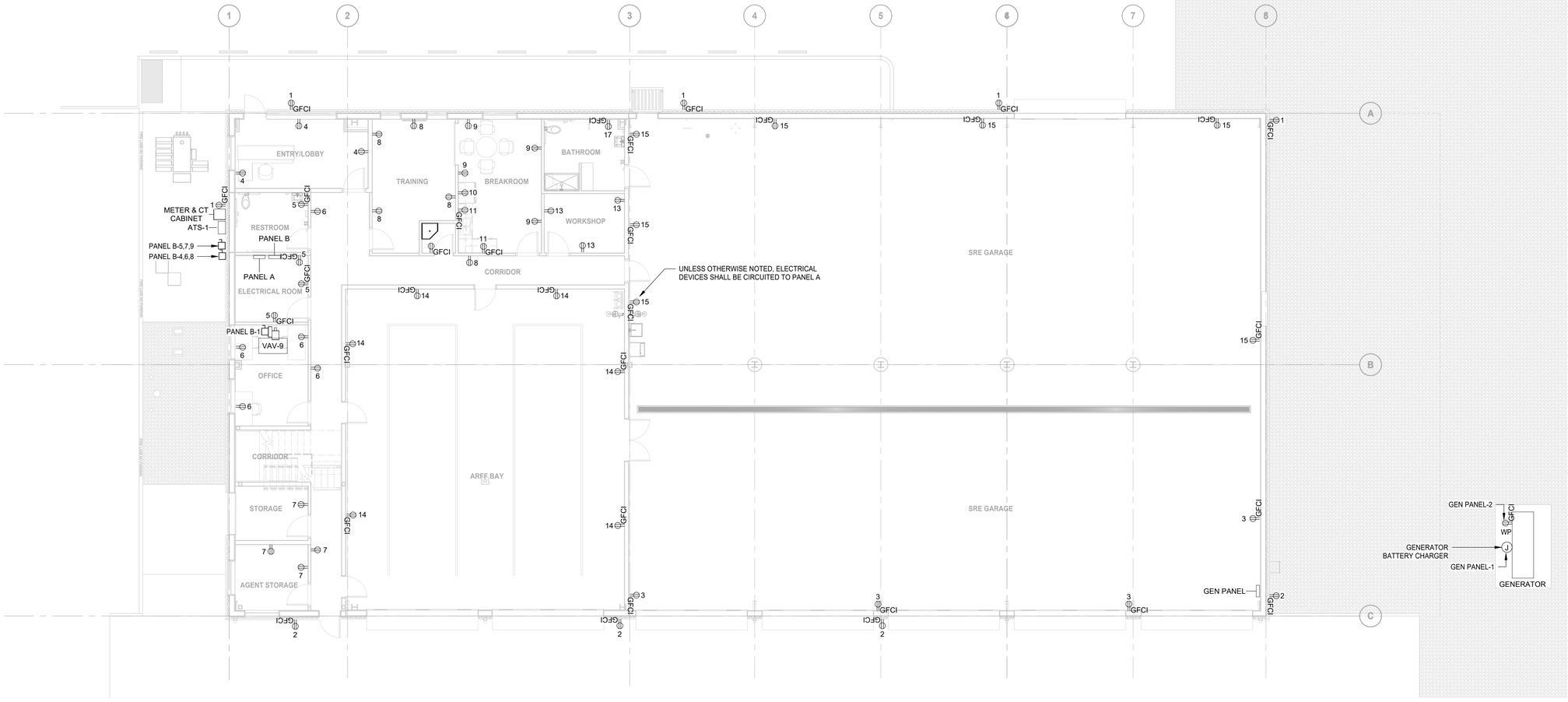
Project No.
XXXX00-0000

Drawing No.
E03-01

PRELIMINARY - NOT FOR CONSTRUCTION



2 E10-01 MV_E10 POWER FLOOR PLANS_MEZZANINE
SCALE: 1/8" = 1'-0"



1 OVERALL POWER PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey:
Civil:
Architecture: NORR
Structural:
Mechanical:
Electrical: NORR
Interiors:
Landscape:

Seal(s)

NORR
NORR OFFICE ADDRESS
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRF

MAMMOTH, CALIFORNIA

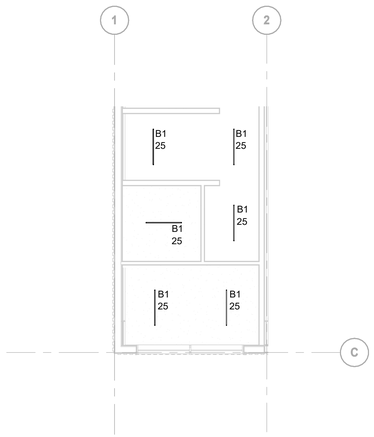
Drawing Title
LEVEL 1 OVERALL POWER PLAN

Scale
1/8" = 1'-0"

Project No.
XXXX00-0000

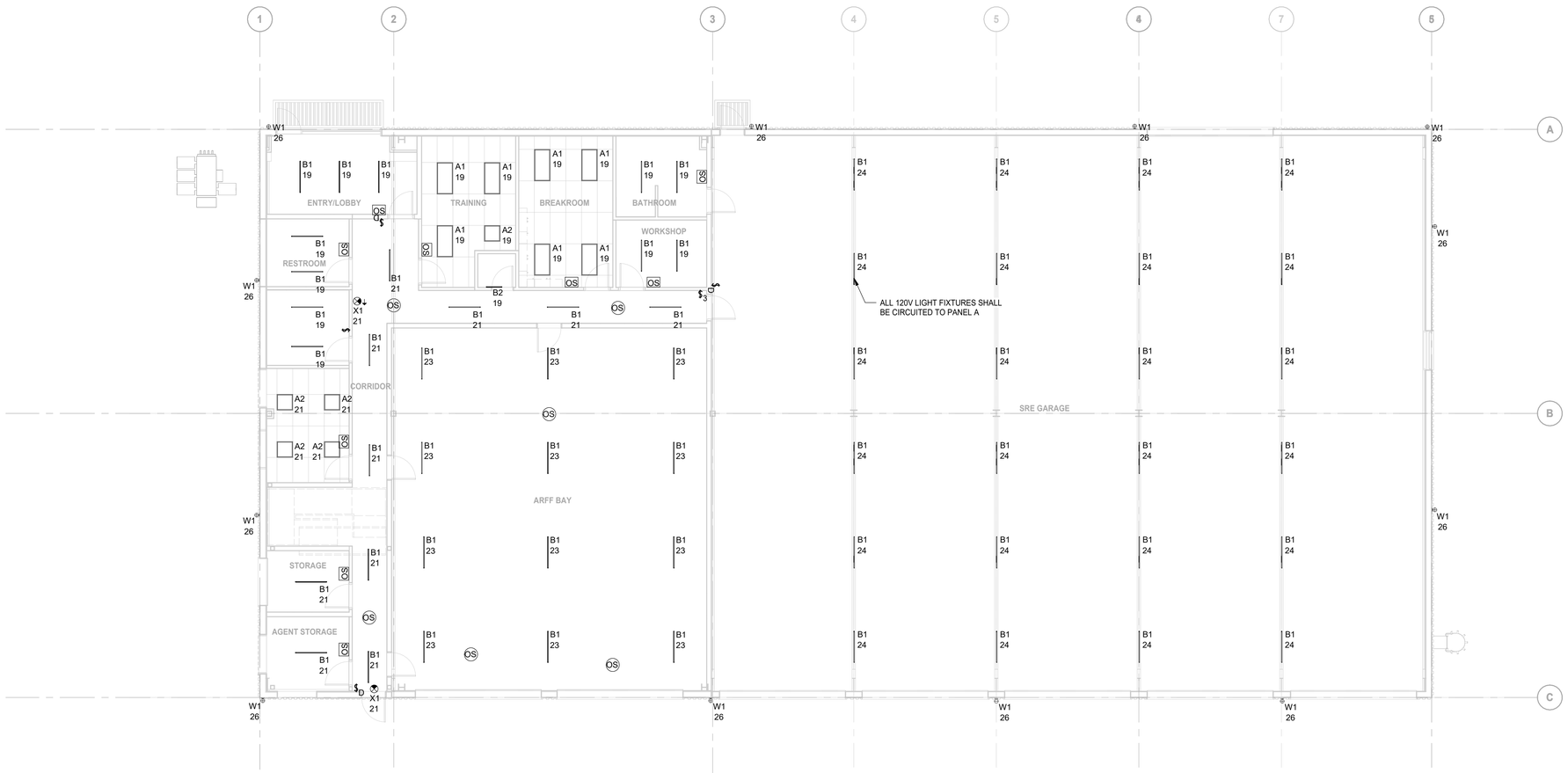
Drawing No.
E10-01

PRELIMINARY - NOT FOR CONSTRUCTION



2 E20-01 LIGHTING REFLECTED CEILING PLANS MEZZANINE

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



1 OVERALL LIGHTING PLAN - LEVEL 1

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

DATE	ISSUED FOR	REV

This drawing has been prepared solely for the use of MAMMOTH YOSEMITE AIRPORT and there are no representations of any kind made by NORR to any party with whom NORR has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer

Project Component

Key Plan

Consultants

Survey:
Civil:
Architecture: NORR
Structural:
Mechanical:
Electrical: NORR
Interiors:
Landscape:

Seal(s)

NORR

NORR OFFICE ADDRESS
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	Drawn Author
Project Leader	Checked Checker

Client
MAMMOTH YOSEMITE AIRPORT

Project
MAMMOTH ARFF/SRF

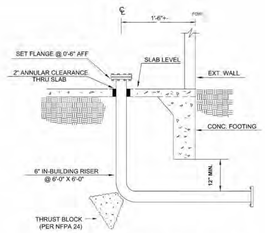
MAMMOTH, CALIFORNIA

Drawing Title
LEVEL 1 OVERALL LIGHTING PLAN

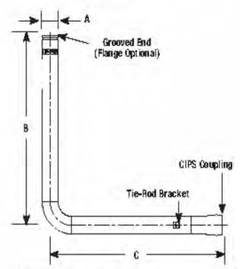
Scale
1/8" = 1'-0"

Project No.
XXXX00-0000

Drawing No.
E20-01

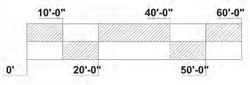


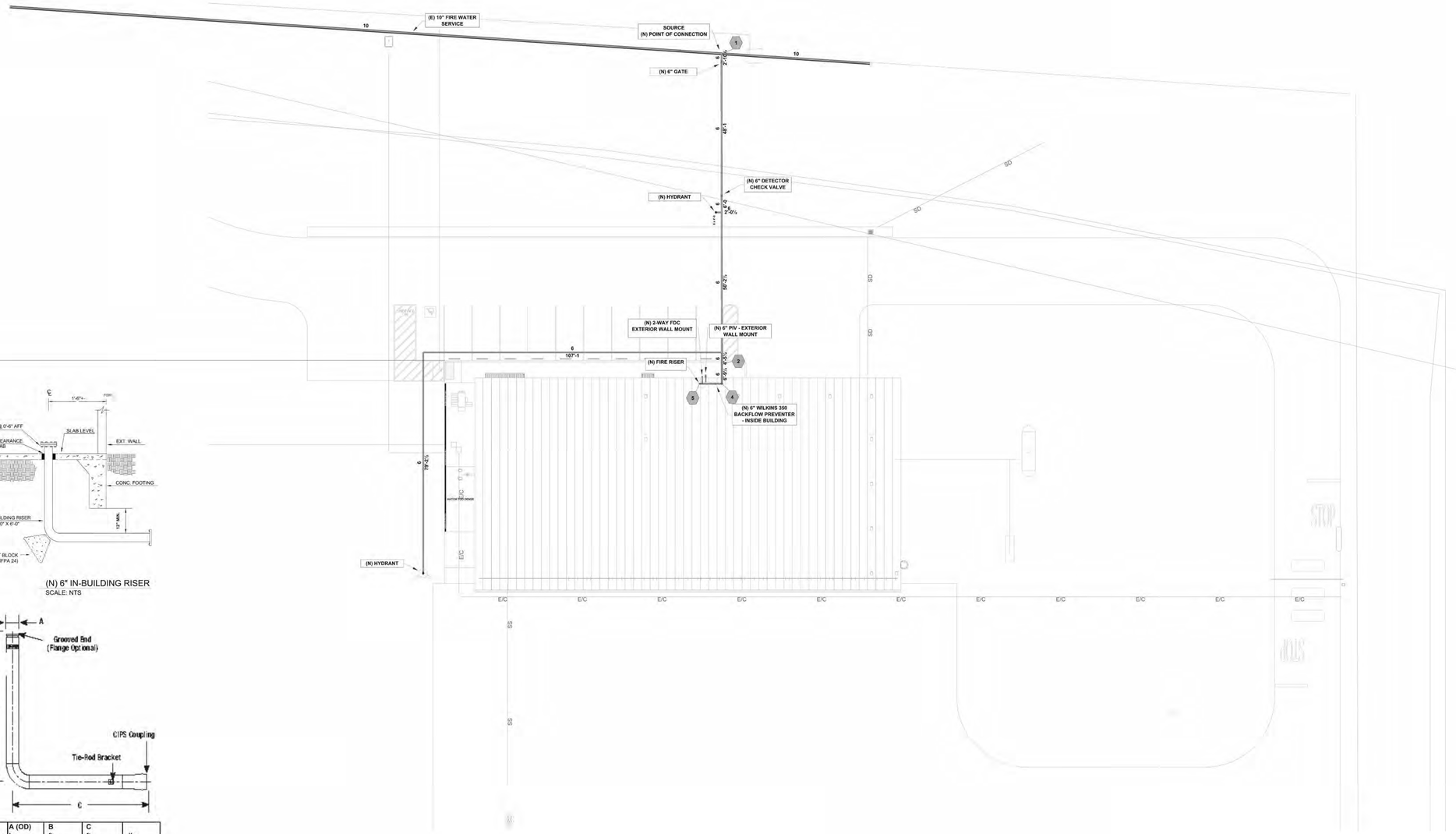
(N) 6" IN-BUILDING RISER
SCALE: NTS



in.	A (OD) in.	B ft.	C ft.	lbs.
4	4 1/2	6'-0"	6'-0"	71.0
4	4 1/2	8'-6"	6'-0"	85.0
6	6 5/8	6'-0"	6'-0"	98.0
6	6 5/8	8'-6"	6'-0"	122.0
8	8 5/8	6'-0"	6'-0"	129.0
8	8 5/8	8'-6"	6'-0"	163.0
10	10 3/4	6'-0"	6'-0"	202.0

(N) 6" IN-BUILDING RISER DETAIL
SCALE: NTS.





SITE PLAN
SCALE: 1" = 20'-0"

THIS PLAN IS FOR HYDRAULIC REFERENCE ONLY AND SHALL NOT BE USED FOR CONSTRUCTION.

DATE	ISSUED FOR	REV
08/09/24	50% CD Review Set	1
03/06/25	95% CD Review Set	

Project Component
CONSTRUCTION DOCUMENTS

Key Plan

Consultants
Civil: -
Landscape:
Architecture: NORR AEP
Structural: -
Mechanical:
Electrical: -

Seal(s)

SACRAMENTO ENGINEERING CONSULTANTS
10555 Old Placerville Road
Sacramento, CA 95827-2503
Phone: (916) 368-4468
Fax: (916)368-4490
www.saceng.com
Job No. 22356

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	BIM Lead
Design Lead	Drawn: GG
Project Leader	Checked: RH

MAMMOTH YOSEMITE AIRPORT

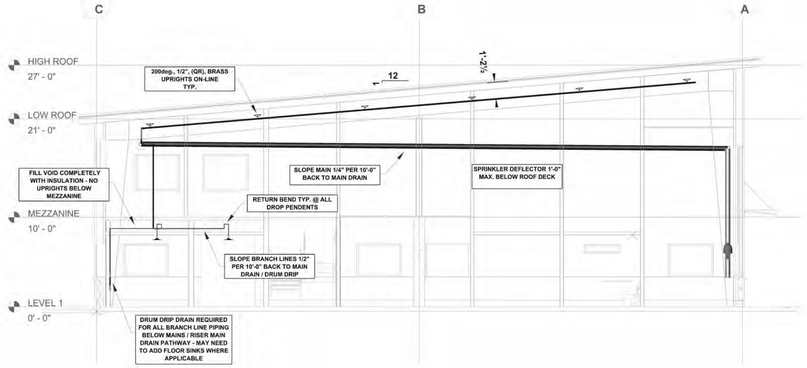
Project
MAMMOTH ARFF / SRE

1300 Airport Rd.,
Mammoth Lake CA.

Drawing Title
SITE PLAN

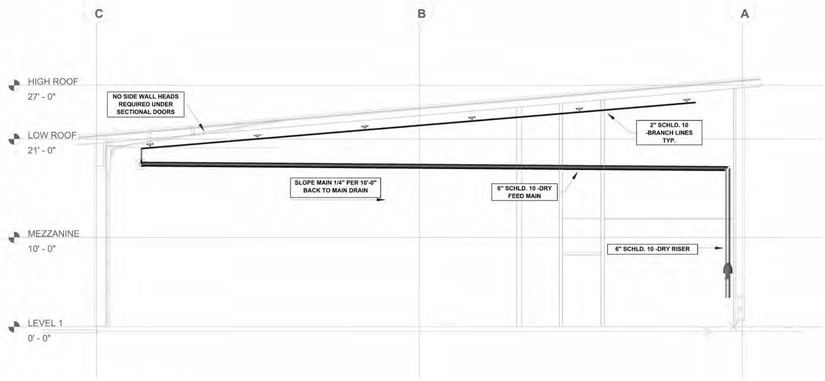
Scale: AS-NOTED
Project No. IN2024-0022
Drawing No. FS1.0

PRELIMINARY - NOT FOR CONSTRUCTION



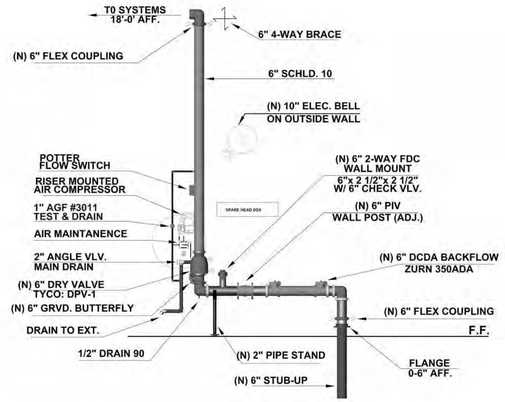
SECTION - A DETAIL

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



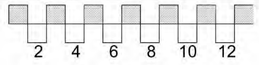
SECTION - B DETAIL

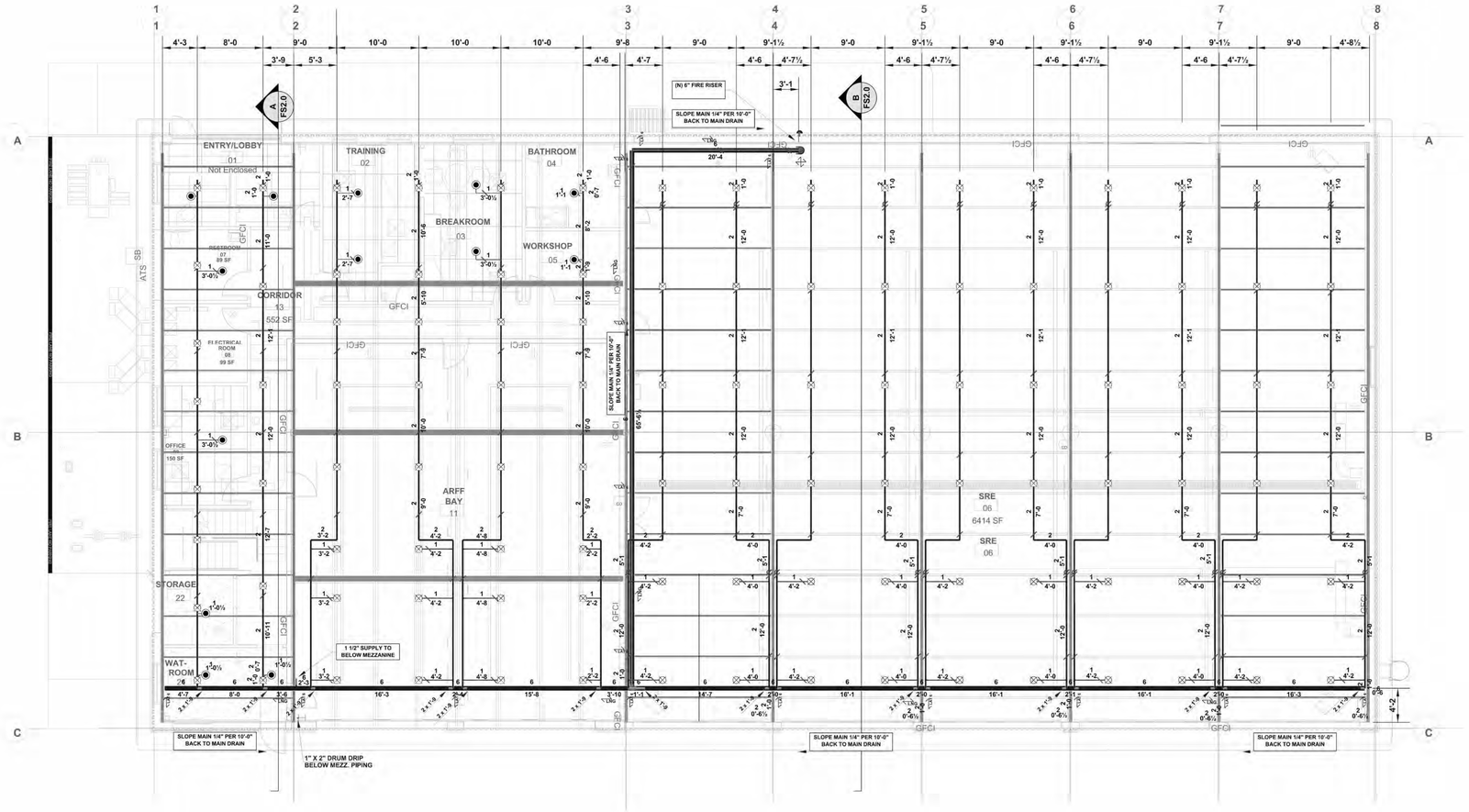
SCALE: 1/8" = 1'-0"



6" DRY VALVE RISER DETAIL

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

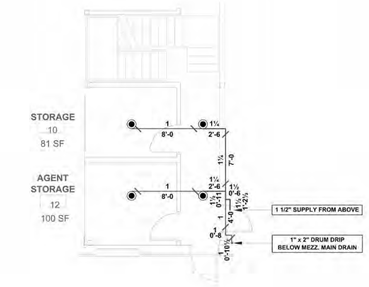




FIRE SPRINKLER PLAN

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

2 4 6 8 10 12 14 16 18 20 22 24



FIRE SPRINKLER PLAN- BELOW MEZZANINE

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

SYMBOL LEGEND

	PIPE HANGER
	PIPE RESTRAINT
	4-WAY SEISMIC BRACE
LAT	LATERAL SEISMIC BRACE
LNG	LONGITUDINAL SEISMIC BRACE
	NEW PIPING
	EXISTING PIPING

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
⊗	Tyco	TY-3131	TY-FRB	196	5.6	Upright	½	Quick	Brass	200°F	ROOF LEVEL
●	Tyco	TY-3231	TY-FRB	17	5.6	Pendent	½	Quick	Chrome	155°F	BELOW CEILING
⊗	Tyco	TY-3131	TY-FRB	12	5.6	Upright	½	Quick	Brass	200°F	NEW/ADD LOWER LEVEL
●	Tyco	TY-3231	TY-FRB	4	5.6	Pendent	½	Quick	Brass	200°F	BELOW CEILING
				Total = 139							

DATE	ISSUED FOR	REV
08/09/24	50% CD Review Set	1
03/06/25	95% CD Review Set	

Project Component
CONSTRUCTION DOCUMENTS

Key Plan

Consultants
Civil: -
Landscape:
Architecture: NORR AEP
Structural: -
Mechanical:
Electrical: -

Seal(s)

SACRAMENTO ENGINEERING CONSULTANTS
10555 Old Placerville Road
Sacramento, CA 95827-2503
Phone: (916) 368-4468
Fax: (916)368-4490
www.saceng.com
Job No. 22356

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	BIM Lead
Design Lead	Drawn GG
Project Leader	Checked RH

MAMMOTH YOSEMITE AIRPORT

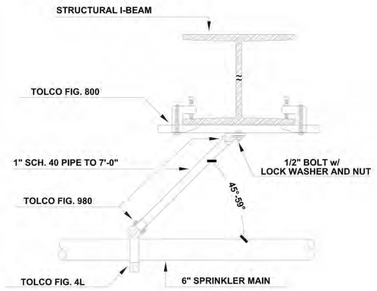
Project
MAMMOTH ARFF / SRE

1300 Airport Rd.,
Mammoth Lake CA.

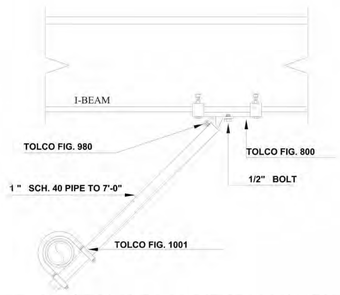
Drawing Title
FIRE SPRINKLER PLAN

Scale: AS-NOTED
Project No. IN2024-0022
Drawing No. FS2.0

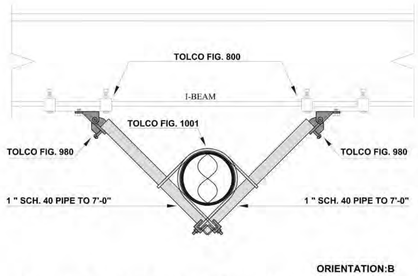
PRELIMINARY - NOT FOR CONSTRUCTION



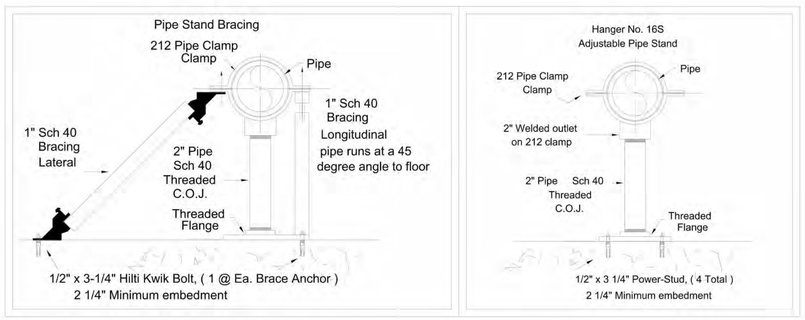
SEISMIC SWAY BRACE ASSEMBLY
LONGITUDINAL



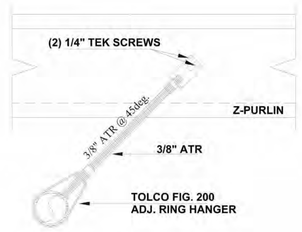
SEISMIC SWAY BRACE ASSEMBLY
LATERAL



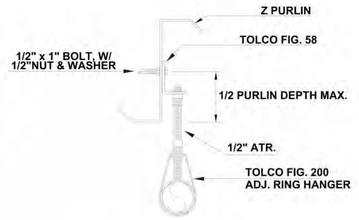
SEISMIC SWAY BRACE ASSEMBLY
4-WAY @ 6" RISER



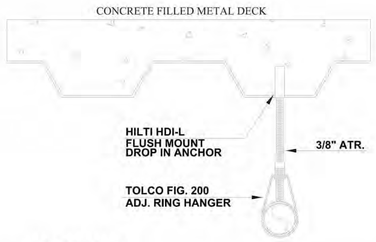
TOLCO FIG. 58
SIDE BEAM BRACKET
1" - 2" LINE HANGER



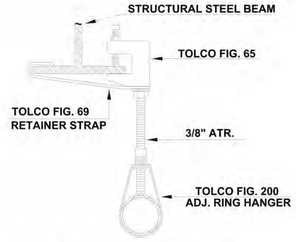
TOLCO FIG. 58
BRANCH LINE RESTRAINT **SYMBOL:**



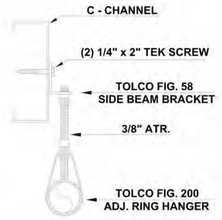
TOLCO FIG. 51
SIDE BEAM BRACKET
6" MAIN HANGER



HILTI HDI-L
FLUSH MOUNT DROP IN ANCHOR
SUPPORTING UP TO 4" PIPE



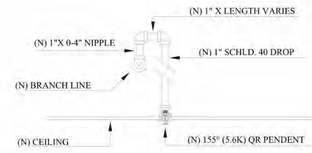
TOLCO FIG. 65 DETAIL
BOTTOM FLANGE LOCATION
6" MAIN HANGER



TOLCO FIG. 58
SIDE BEAM BRACKET

NFPA 13 2022 TABLE 17.4.2.1 (a)	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8
STEEL PIPE (except threaded lightwall)	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0
STEEL PIPE (threaded lightwall)	12-0	12-0	12-0	12-0	12-0	N/A	N/A	N/A	N/A	N/A	N/A

HANGING NOTE:
PER 2022 NFPA 13 SEC. 17.4.3.2.1 THERE SHALL NOT BE LESS THAN ONE HANGER FOR EACH SECTION OF PIPE HANGERS FOR MAINS SHALL BE IN ACCORDANCE WITH TABLE 17.4.2.1(a) OR BETWEEN EACH BRANCH LINE, WHICHEVER IS THE LESSER DIMENSION. PER NFPA 13 2022, SEC. 17.4.4.1



TOLBrace™ Seismic Bracing Calculations V8.6.138

Project Address: Mammoth ARFF, 1300 Airport Road, Mammoth lakes, CA. Job # 22356
Contractor: Sacramento Engineering Cor. Address: 10555 Old Placerville Road Sacramento, ca. Phone: License:
Calculations based on 2022 NFPA Pamphlet #13

Brace Information

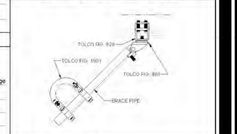
Maximum Brace Length	7' 0" (2.134 m)
Diameter of Brace	1"
Type of Brace	Sch.40
Angle of Brace	45° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	1310 lbs (594 kg)

TOLCO™ Brace Components

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 1001 Clamp	2000 lbs (907 kg)	1414 lbs (641 kg)
Fig.980 - 3/4" Universal Swivel	2100 lbs (953 kg)	1485 lbs (674 kg)
Fig.828 Along 1/2" - 7/8" Thick	1370 lbs (621 kg)	968 lbs (439 kg)

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Seismic Brace Assembly Detail



Fastener Information

Orientation to Connecting Surface	NFPA Type B
Fastener	
Type	Fig.828 Along 1/2" - 7/8" Thick Flange
Diameter	N/A
Length	N/A
Maximum Load	1370 lbs (621 kg)
Prying Factor	N/A

Brace Identification on Plans RISER-4-WAY
Brace Type Lateral [ ] Longitudinal [ ] 4-Way [X]

Sprinkler System Load Calculation (Fpw = CpWp) Cp = 0.83

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
6" (150 mm)	Sch. 10	18 ft (5.5 m)	18 ft (5.5 m)	23.03 lb/ft (34.27 kg/m)	415 lbs (188 kg)

Subtotal Weight 415 lbs (188 kg)
Wp (incl. 15%) 477 lbs (216 kg)
Total (Fpw) 396 lbs (180 kg)
Maximum Fpw per 18.6.5.2 (if applicable) N/A

Main Size	Type/Sch.	Spacing (ft)
6"	Sch. 10	18

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TOLBrace™ Seismic Bracing Calculations V8.6.138

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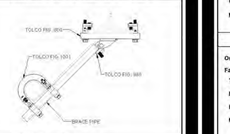
Max Horizontal Load	1310 lbs (594 kg)

TOLCO™ Brace Components

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 1001 Clamp	2000 lbs (907 kg)	1414 lbs (641 kg)
Fig.980 - 3/4" Universal Swivel	2100 lbs (953 kg)	1485 lbs (674 kg)
Fig.800 - Across 4" - 12" Wide	1400 lbs (635 kg)	990 lbs (449 kg)

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Seismic Brace Assembly Detail



Fastener Information

Orientation to Connecting Surface	NFPA Type B
Fastener	
Type	Fig.800 - Across 4" - 12" Wide
Diameter	N/A
Length	N/A
Maximum Load	1400 lbs (635 kg)
Prying Factor	N/A

Brace Identification on Plans LAT.
Brace Type Lateral [X] Longitudinal [ ] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp) Cp = 0.83

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
6" (150 mm)	Sch. 10	20 ft (6.1 m)	20 ft (6.1 m)	23.03 lb/ft (34.27 kg/m)	461 lbs (209 kg)
2" (50 mm)	Sch. 10	120 ft (36.6 m)	120 ft (36.6 m)	4.22 lb/ft (6.28 kg/m)	506 lbs (230 kg)

Subtotal Weight 967 lbs (439 kg)
Wp (incl. 15%) 1112 lbs (504 kg)
Total (Fpw) 823 lbs (419 kg)
Maximum Fpw per 18.6.5.2 (if applicable) 4039 lb (1832 kg)

Main Size	Type/Sch.	Spacing (ft)
6"	Sch. 10	20

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TOLBrace™ Seismic Bracing Calculations V8.6.138

Project Address: Mammoth ARFF, 1300 Airport Road, Mammoth lakes, CA. Job # 22356
Contractor: Sacramento Engineering Cor. Address: 10555 Old Placerville Road Sacramento, ca. Phone: License:
Calculations based on 2022 NFPA Pamphlet #13

Brace Information

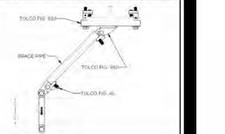
Maximum Brace Length	7' 0" (2.134 m)
Diameter of Brace	1"
Type of Brace	Sch.40
Angle of Brace	45° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	1310 lbs (594 kg)

TOLCO™ Brace Components

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 4L Clamp	2000 lbs (907 kg)	1414 lbs (641 kg)
Fig.980 - 3/4" Universal Swivel	2100 lbs (953 kg)	1485 lbs (674 kg)
Fig.800 - Across 4" - 12" Wide	1400 lbs (635 kg)	990 lbs (449 kg)

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Seismic Brace Assembly Detail



Fastener Information

Orientation to Connecting Surface	NFPA Type B
Fastener	
Type	Fig.800 - Across 4" - 12" Wide
Diameter	N/A
Length	N/A
Maximum Load	1400 lbs (635 kg)
Prying Factor	N/A

Brace Identification on Plans LNG.
Brace Type Lateral [ ] Longitudinal [X] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp) Cp = 0.83

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
6" (150 mm)	Sch. 10	40 ft (12.2 m)	40 ft (12.2 m)	23.03 lb/ft (34.27 kg/m)	921 lbs (418 kg)

Subtotal Weight 921 lbs (418 kg)
Wp (incl. 15%) 1059 lbs (480 kg)
Total (Fpw) 879 lbs (399 kg)
Maximum Fpw per 18.6.5.2 (if applicable) N/A

Main Size	Type/Sch.	Spacing (ft)
6"	Sch. 10	40

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2 4 6 8 10 12 14 16 18 20 22 24

FIRE SPRINKLER GENERAL NOTES

1. THIS PROJECT DESIGN IS FOR A NEW STEEL CONSTRUCTED BUILDING FOR A FUTURE OFFICE AND SNOW REMOVAL EQUIPMENT STORAGE.

2. FIRE SPRINKLER SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 13 (2022) AND THE AUTHORITY HAVING JURISDICTION FORLIGHT HAZARD AND ORDINARY GRP. 2 HAZARD OCCUPANCY. MAXIMUM STORAGE HEIGHT IS 12'-0" TOP OF PRODUCT. DESIGN AREA FOR ORDINARY HAZARD GROUP 2 OCCUPANCY FOR A DRY SYSTEM HAS BEEN INCREASED TO 1950sq./ft.

3. PIPING TYPE SHALL BE SCHLD. 10 FOR GROOVED/WELDED PIPING AND SCHLD. 40 FOR THREADED PIPING. NEW INSTALLED PIPE SHALL BE BLACK, UL LISTED AND APPROVED FOR FIRE SERVICE.

4. HANGERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 (2022) AND MANUF. REQUIREMENTS.

5. SEISMIC BRACING SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 13 (2022) AND MANUF. REQUIREMENTS.

6. BRANCH LINE RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 (2022) AND MANUF. REQUIREMENTS.

7. THIS FIRE SPRINKLER SYSTEM IS A DRY PIPE SYSTEM. ALL PIPE SHALL BE SLOPED TOWARDS DRAINS PER NFPA 13.

8. SYSTEMS SHALL BE HYDRO-STATICALLY TESTED @ 200 PSI FOR 2 HOURS - PER NFPA. # 13.

9. 24 HOUR SUPERVISION BY A CENTRAL STATION SHALL BE PROVIDED BY OTHERS.

10. ALL ELECTRICAL, PAINTING OF PIPE, ACCESS PANELS, IF REQUIRED. ARE BY OTHERS.

11. ALL DROP SPRINKLER HEADS SHALL BE INSTALLED WITH A RETURN BEND FROM THE BRANCH LINE. SEE DETAIL SHT. # FS3.0

12. ALL PENETRATIONS OF RATED ASSEMBLIES SHALL BE FIRE CAULKED PER UL GUIDELINES. FIRE CAULKING IS BY OTHERS. DETAILS FOR FIRE STOPPING TO BE SUBMITTED TO THE A.H.J. FOR APPROVAL PRIOR TO INSTALLATION

13. ALL MECHANICAL TEE FITTINGS, (IF USED), SHALL ATTACH RETRIEVABLE DISC ON OR NEAR FITTING FOR INSPECTION.

14. ALL SPRINKLERS SHALL BE NEW, UL LISTED AND APPROVED FOR FIRE SERVICE.

15. LOW POINTS OF THE SYSTEM SHALL BE PROVIDED WITH A MEANS OF DRAINING TRAPPED WATER.

16. ALL AUXILIARY DRAINS SHALL USE A 1" X 2" X 1" DRUM DRIP.

DATE	ISSUED FOR	REV
08/09/24	50% CD Review Set	1
03/06/25	95% CD Review Set	

Project Component
CONSTRUCTION DOCUMENTS

Key Plan

Consultants
Civil: -
Landscape:
Architecture: NORR AEP
Structural: -
Mechanical:
Electrical: -

Seal(s)

SACRAMENTO ENGINEERING CONSULTANTS
10555 Old Placerville Road
Sacramento, CA 95827-2503
Phone: (916) 368-4468
Fax: (916)368-4490
www.saceng.com

Job No. 22356

NORR
The Cannery
1631 Alhambra Blvd., Suite 100
Sacramento, CA, US 95816
norr.com

Project Manager	BIM Lead
Design Lead	Drawn GG
Project Leader	Checked RH

Project
MAMMOTH YOSEMITE AIRPORT

1300 Airport Rd.,
Mammoth Lake CA.

Drawing Title
FIRE SPRINKLER PLAN

Scale: AS-NOTED
Project No. IN2024-0022
Drawing No. FS3.0

PRELIMINARY - NOT FOR CONSTRUCTION