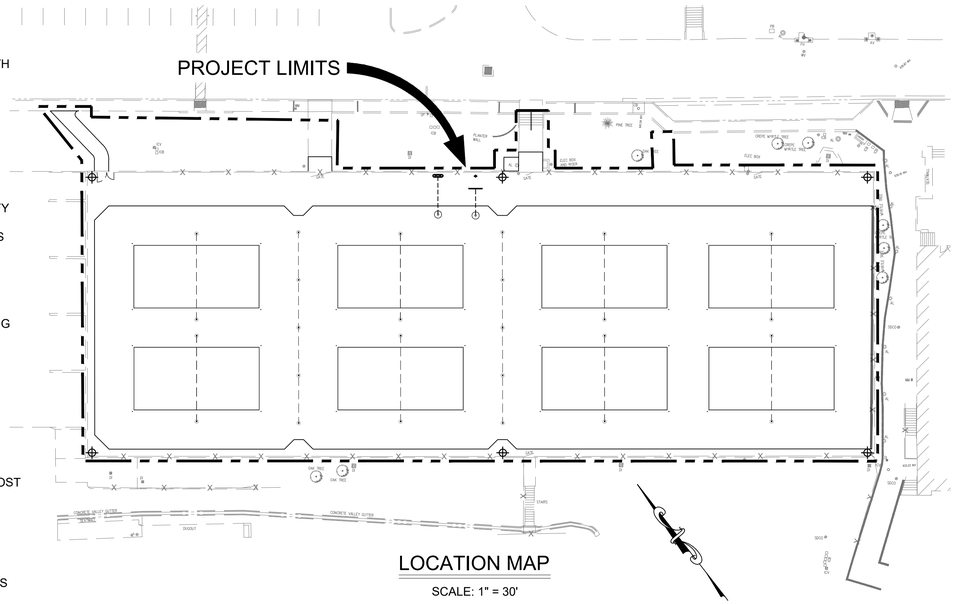
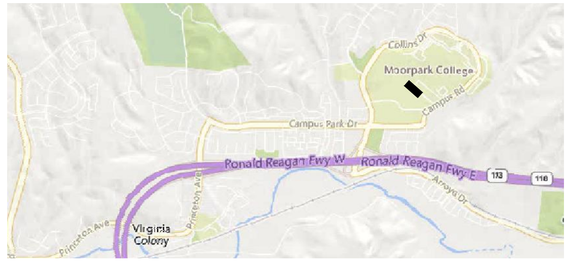
MOORPARK COLLEGE
BEACH VOLLEYBALL COURTS
MOORPARK CALIFORNIA



LOCATION MAP
SCALE: 1" = 30'



VICINITY MAP
N.T.S.

STANDARD ENGINEERING NOTES

1. THESE PLANS ARE SUBJECT TO THE INTERPRETATION OF INTENT BY THE ENGINEER. ALL QUESTIONS REGARDING THESE PLANS SHALL BE PRESENTED TO THE ENGINEER. ANYONE WHO TAKES UPON THEMSELVES THE INTERPRETATION OF THE DRAWINGS OR MAKES REVISIONS TO THE SAME WITHOUT CONFERRING WITH THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE CONSEQUENCES THEREOF.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS, REQUIREMENTS OF THE WORK AND EXCESS OR DEFICIENCY IN QUANTITIES. NO CLAIMS SHALL BE MADE AGAINST THE OWNER/DEVELOPER OR ENGINEER FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OR RELATIVE.
3. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR COORDINATING THE RELOCATION OF UTILITIES, LIGHTS, IRRIGATION ETC.
5. THE CONTRACTOR IS TO VERIFY THE LOCATION, ELEVATION, CONDITION, AND PAVEMENT CROSS-SLOPE OF ALL EXISTING SURFACES AT POINTS OF TIE-IN AND MATCHING, PRIOR TO COMMENCEMENT OF CONSTRUCTION. SHOULD EXISTING LOCATIONS, ELEVATIONS, CONDITION, OR PAVEMENT CONFLICT WITH ADA OR PLAYING FIELD REQUIREMENTS, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY FOR DIRECTION ON HOW TO PROCEED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR ACCEPTS RESPONSIBILITY FOR ALL COSTS ASSOCIATED WITH CORRECTIVE ACTION IF THESE PROCEDURES ARE NOT FOLLOWED.
6. ALL EXISTING UTILITIES MAY NOT BE SHOWN. CALL UNDERGROUND SERVICE ALERT PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ON THE SITE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER OR NOT SHOWN IN THE DRAWING, SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE. EXISTING SURFACE FEATURES AND FENCING SHALL BE REPLACED IN KIND.
7. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE, PRIOR TO CONSTRUCTION, ANY ALTERATION, OR VARIANCE FROM THESE PLANS. ANY VARIATIONS FROM THESE PLANS SHALL BE PROPOSED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE ENGINEER.
8. ANY INSPECTION BY ANY JURISDICTIONAL AGENCY, SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH APPLICABLE CODES AND AGENCY REQUIREMENTS.
9. ANY HAULING PERMITS REQUIRED ARE TO BE OBTAINED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
10. ANY CONSTRUCTION WATER ACCESS IS TO BE OBTAINED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. FIRE HYDRANT ACCESS MUST BE PERMITTED AND METERED BY THE LOCAL WATER DISTRICT AT NO ADDITIONAL COST TO THE OWNER.
11. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL STORM DRAIN PIPES AND DRAINAGE FACILITIES FROM DAMAGE DURING ALL STAGES OF CONSTRUCTION.
12. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.
13. WORK SHALL COMPLY WITH THE PROVISIONS OF CHAPTER 33 OF THE CBC & CFC, "FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION."

DSA PROJECT NOTES

1. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGED DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
2. A "DSA CERTIFIED" PROJECT CLASS 2 INSPECTOR EMPLOYED BY THE DISTRICT "OWNER" AND APPROVED BY THE DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.
3. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT "OWNER" SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
4. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(c), PART 1, TITLE 24, CCR)
5. COPIES OF TITLE 24, PARTS 1 - 5 SHALL BE KEPT ON SITE DURING THE DURATION OF CONSTRUCTION.
6. ALL ADDENDA TO THE CONTRACT DOCUMENTS MUST BE SIGNED BY THE ARCHITECT OR ENGINEER IN GENERAL RESPONSIBLE CHARGE AND APPROVED BY DSA PER SECTION 4-338, PART 1, TITLE 24.

Section 4216/4217 of the government code requires a dig alert identification number be issued before a "permit to excavate" will be valid.

Call (2) working days before you dig.

PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2023

2022 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
2022 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.
2022 CALIFORNIA REFERENCE STANDARDS, PART 12, TITLE 24 C.C.R.
TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHALL REGULATIONS
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

NOTES:
1. SOME CODES MAY NOT APPLY IF WORK REGULATED BY SUCH CODE IS NOT WITHIN THE SCOPE OF THIS PROJECT.

BENCHMARK

VENTURA COUNTY BENCHMARK M 1188 606.216 (NAVD88)

2.55 MILES EASTERLY ALONG THE SOUTHERN PACIFIC COMPANY RAILROAD FROM THE CROSSING OF STATE HIGHWAY 23 AT MOORPARK, IN SECTION 2, T2N, R19W, AT THE CROSSING OF STATE HIGHWAY 118, IN THE TOP AND 2.0 FEET WESTERLY FROM THE EAST END OF THE SOUTH CONCRETE HEADWALL OF A CONCRETE BOX CULVERT OVER THE VENTURA COUNTY FLOOD CONTROL DITCH. 21.0 FEET SOUTHERLY FROM THE CENTER OF THE HIGHWAY, 257.0 FEET WESTERLY FROM THE CENTER OF THE CROSSING.

PROVIDED BY BENNER AND CARPENTER, SANTA PAULA, CA.

SCOPE OF WORK

THE PROJECT SCOPE OF WORK INCLUDES CONSTRUCTION OF NEW BEACH VOLLEY COURTS.

THE EXISTING TENNIS COURTS WILL BE DEMOLISHED AND REPLACED WITH NEW SAND COURTS, CURBS, HARDSCAPE, FENCING, AND NETTING. ADDITIONALLY, THE PROJECT WILL INCLUDE GRADING AND DRAINAGE IMPROVEMENTS.

PROPOSED COURT ACCESS WILL HAVE PAVEMENT RENOVATIONS TO PROVIDE ACCESSIBLE PATHWAYS.

DESIGN ABBREVIATIONS

AL =	AREA LIGHT
AC =	ASPHALT
AD =	AREA DRAIN
BLCHR =	BLEACHER
BLDG =	BUILDING
BC =	BUILDING CORNER
BNCH =	BENCH
CB =	CATCH BASIN
CHDPE =	CORRUGATED HIGH DENSITY POLYETHELYNE
CLF =	CHAIN LINK FENCE
CL =	CENTER LINE
CTR =	CENTER
CO =	CLEAN OUT
COL =	COLUMN
CONC =	CONCRETE
COND =	CONDUIT
CNTNR =	CONTAINER
CULV =	CULVERT
DG =	DECOMPOSED GRANITE
EC =	EDGE OF CONCRETE
EP =	EDGE OF PAVEMENT
EOT =	EDGE OF TRACK
E =	ELECTRICAL
E PB =	ELECTRICAL PULL BOX
EQ =	EQUAL
EX =	EXISTING
FF ELEV =	FINISHED FLOOR ELEVATION
FG =	FINISHED GRADE LANDSCAPE
FOC=	FACE OF CURB
FS =	FINISHED PAVED SURFACE
FP =	FLAG POLE
GAL =	GALLON
GND =	GROUND
INV =	INVERT OF DRAIN/PIPE
IR =	IRRIGATION
ICV =	IRRIGATION CONTROL VALVE
JT =	JOINT TRENCH
LF =	LINEAR FEET
(N) =	NEW
O.C. =	ON CENTER
POC =	POINT OF CONNECTION
R =	RADIUS
RIM =	RIM OF DRAIN
RPS =	RUBBERIZED PLAY SURFACE
SS =	SANITARY SEWER
SSCO =	SANITARY SEWER CLEAN OUT
SD =	STORM DRAIN
SLE =	STREET LIGHT ELECTRICAL
STD =	STANDARD
TOP =	TOP OF BANK
TC =	TOP OF CURB
UNK =	UNKNOWN
VLT =	VAULT
W =	WATER
WF =	WATER FOUNTAIN
WD FNC =	WOOD FENCE

OWNER

MOORPARK COLLEGE
7075 CAMPUS ROAD
MOORPARK, CA 93021
JOHN SINUTKO, DIRECTOR OF FACILITY M&O
PH: (408) 239-9647

CIVIL ENGINEER

ANTHONY STEVENSON, PE
LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, AZ 85258
(602) 635-4226
EMAIL: astevenson@lloydengineers.com

SURVEYOR

BENNER AND CARPENTER INC.
CIVIL ENGINEERS / LAND SURVEYORS
506 E. MAIN STREET
SANTA PAULA, CA 93060
(805) 525-3396

STRUCTURAL ENGINEER

WILL LAMBERT, SE
ORION STRUCTURAL GROUP INC.
223 E. THOUSAND OAKS BLVD, #304
THOUSAND OAKS, CA 91360
(805) 750-8136
EMAIL: will@orionstructural.com

ELECTRICAL ENGINEER

KENNETH LUCCI, PE
LUCCI & ASSOCIATES
3251 CORTE MALPASO #511
CAMARILLO, CA 93012
(805) 389-6520
EMAIL: ken@luccilland.com

SHEET INDEX

TOTAL OF 34 PAGES

STATEMENT OF GENERAL CONFORMANCE

(Application No. 03-123023 File No. 56-C1)

The drawings or sheets listed on the cover or index sheet have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings in this state. It has been examined by me for:

1. design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
2. coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

The Statement of General Conformance "shall not be construed as relieving me of my rights, duties, and responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344" of Title 24, Part 1. (Title 24, Part 1, Section 4-317 (b)

I CERTIFY THAT ALL DRAWINGS LISTED ON THIS COVER/INDEX SHEET ARE IN GENERAL CONFORMANCE AND HAVE BEEN COORDINATED.

Signature — Date: 4/4/2023

Engineer designated to be in general responsible charge:

WILL LAMBERT
Print Name

SE# 5430 — License Number
06/30/2024 — Expiration Date

REGISTERED PROFESSIONAL ENGINEER
WILL A. LAMBERT
No. 5430
Exp. 06/30/2024
STRUCTURAL
STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
ANTHONY STEVENSON
NO. 71123
EXP. 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE
BEACH VOLLEYBALL COURTS
MOORPARK, CA

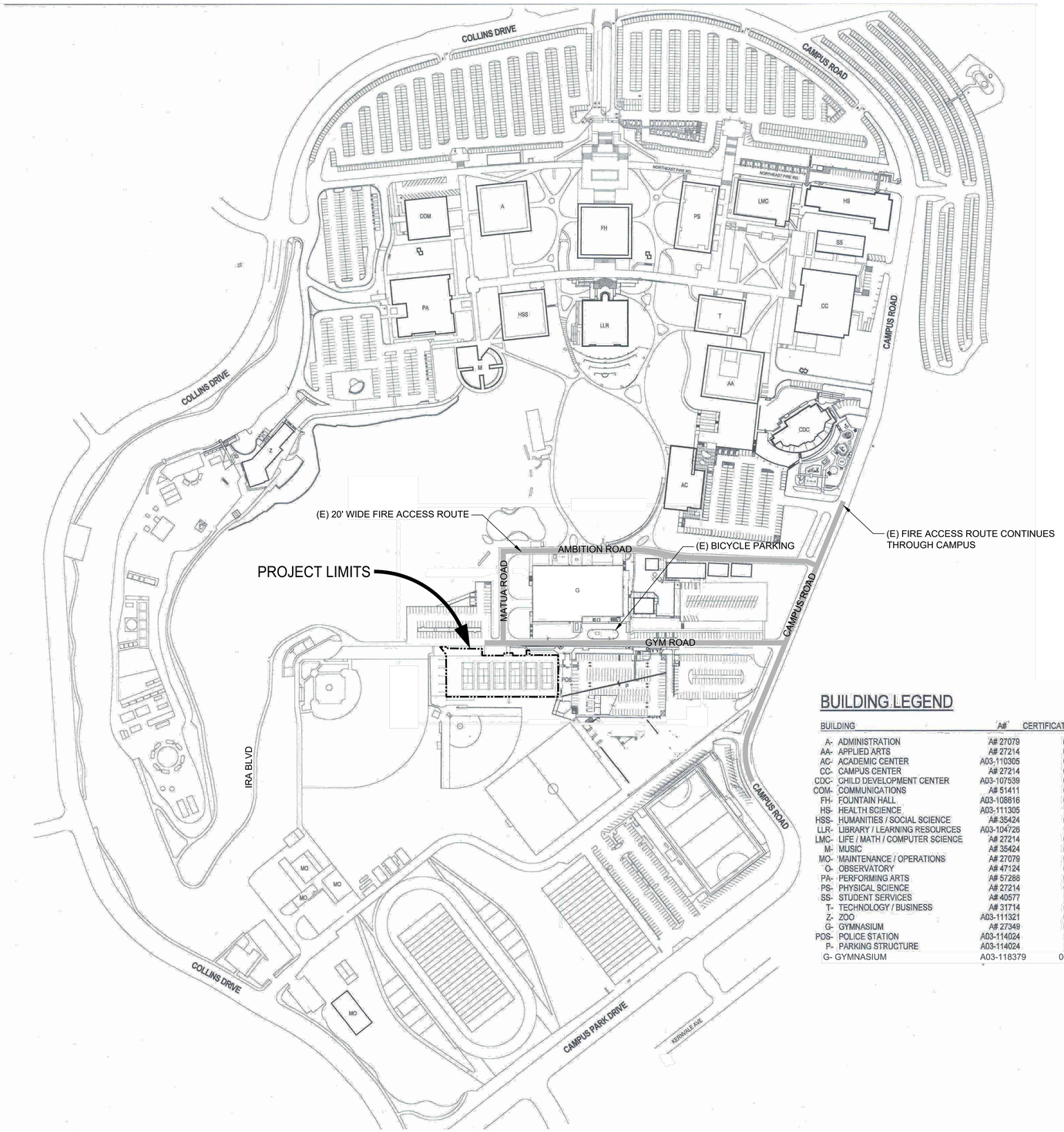
DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	1" = 30'

COVER SHEET

DWG. NO.
G-00

Z:\Shared\Project\21-152 Moorpark Volleyball\Construction Documents\21152-G00 Cover.dwg 4/5/2023 2:06 PM

A-REF: none



BUILDING LEGEND

BUILDING	A#	CERTIFICATION DATE
A- ADMINISTRATION	A# 27079	01/23/1979
AA- APPLIED ARTS	A# 27214	01/20/1969
AC- ACADEMIC CENTER	A03-110305	01/05/2015
CC- CAMPUS CENTER	A# 27214	01/20/1969
CDC- CHILD DEVELOPMENT CENTER	A03-107539	07/29/2010
COM- COMMUNICATIONS	A# 51411	02/09/1995
FH- FOUNTAIN HALL	A03-108616	07/03/2013
HS- HEALTH SCIENCE	A03-111305	12/12/2012
HSS- HUMANITIES / SOCIAL SCIENCE	A# 35424	02/05/1976
LLR- LIBRARY / LEARNING RESOURCES	A03-104726	11/20/2012
LMC- LIFE / MATH / COMPUTER SCIENCE	A# 27214	01/20/1969
M- MUSIC	A# 35424	02/05/1976
MO- MAINTENANCE / OPERATIONS	A# 27079	01/23/1969
O- OBSERVATORY	A# 47124	04/05/1989
PA- PERFORMING ARTS	A# 57288	08/08/1999
PS- PHYSICAL SCIENCE	A# 27214	01/20/1969
SS- STUDENT SERVICES	A# 40577	12/12/1978
T- TECHNOLOGY / BUSINESS	A# 31714	06/16/1971
Z- ZOO	A03-111321	05/23/2013
G- GYMNASIUM	A# 27349	08/21/1968
POS- POLICE STATION	A03-114024	11/15/2016
P- PARKING STRUCTURE	A03-114024	11/15/2016
G- GYMNASIUM	A03-118379	06/19/2018

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	SAW
PROJ.	21-152
SCALE:	

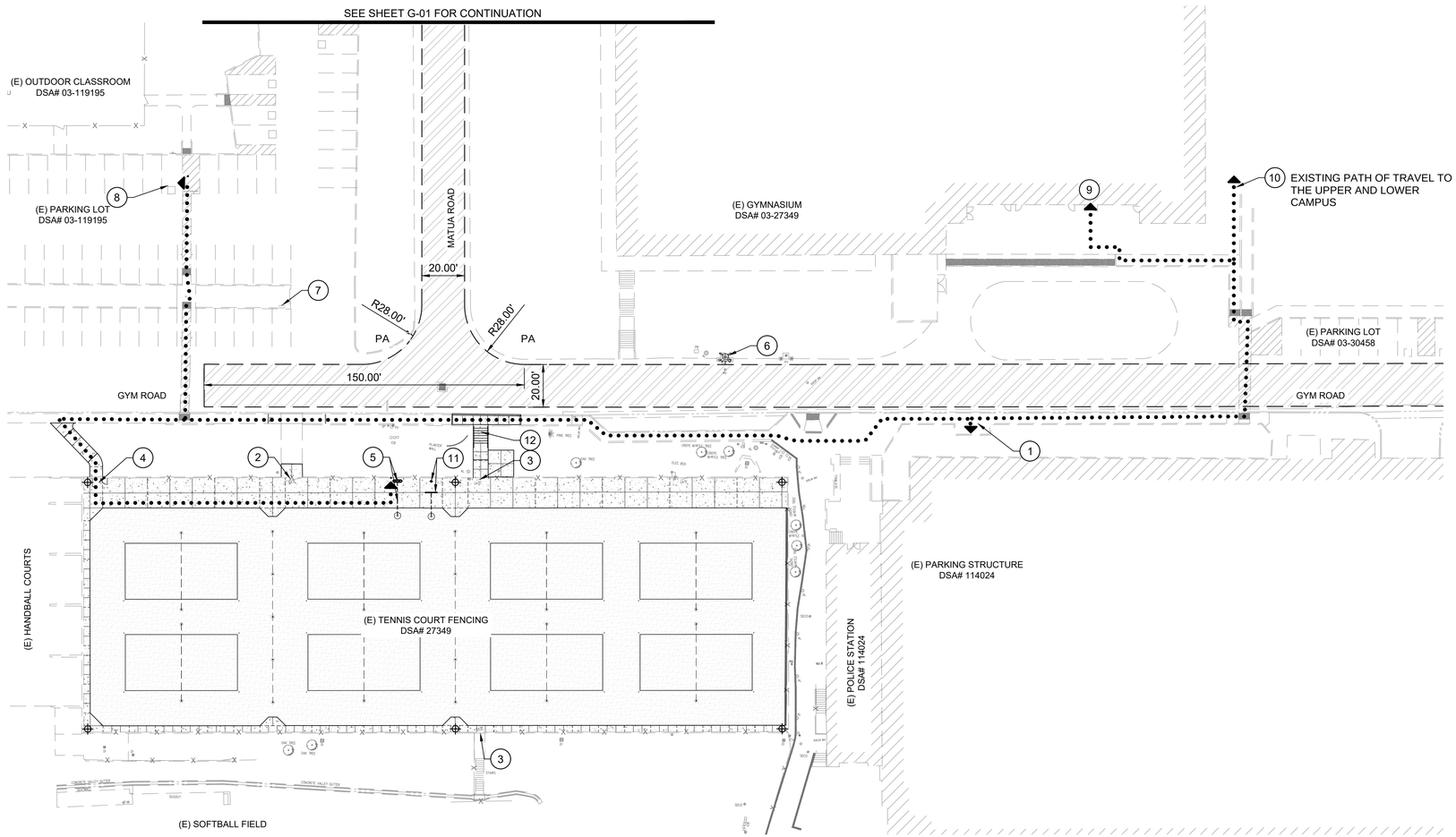
OVERALL CAMPUS MAP

DWG. NO.

G-01

XREF: none

(E) PARKING LOT CALCULATION - DSA# 03-119195	
REGULAR	49
ACCESSIBLE	5
TOTAL	54



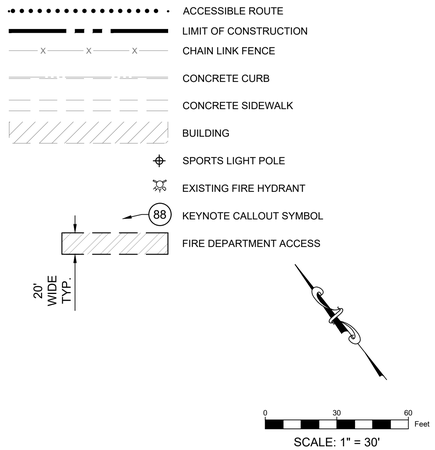
GENERAL NOTES:

1. CONTRACTOR TO VERIFY THAT ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED OR WILL BE REMOVED UNDER THIS PROJECT AND PATH OF TRAVEL COMPLIES WITH CBC 11B-206.
2. CONTRACTOR SHALL MAINTAIN FIRE LANE ACCESS THROUGHOUT PROJECT.
3. DO NOT INTERRUPT EXISTING UTILITY SERVICES SERVING OCCUPIED OR USED FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY AND COORDINATED WITH OWNER.
4. PROTECT EXISTING & NEW STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, TREES AND SHRUBS FROM DAMAGE DURING CONSTRUCTION.
5. REFER TO CIVIL AND ELECTRICAL DRAWINGS FOR EXTENT OF CIVIL AND ELECTRICAL WORK.
6. ACCESSIBLE PATH OF TRAVEL (P.O.T.) AS INDICATED ON PLAN IS A BARRIER-FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" IF BEVELED AT 1:2 MAX SLOPE, OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE, FIRM, AND SLIP RESISTANT. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5%, UNLESS OTHERWISE INDICATED. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80". ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE ROUTE OF TRAVEL.
7. DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT: THE P.O.T. IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE (CBC) ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE P.O.T. WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WERE DETERMINED TO BE NON-COMPLIANT (A) HAVE BEEN IDENTIFIED, AND (B) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NON-COMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF P.O.T. ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NON-CONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE.

KEY NOTES:

1. (E) PUBLIC BUS STOP
2. (E) 8' WIDE MAINTENANCE GATE, PER DETAIL 10 ON SHEET C3-02.
3. (E) 4' WIDE MAINTENANCE GATE, PER DETAIL 10 ON SHEET C3-02.
4. 3' WIDE MAINTENANCE AND 4' WIDE ACCESSIBLE PEDESTRIAN GATE, PER DETAIL 9 ON SHEET C3-02.
5. ACCESSIBLE DRINKING FOUNTAIN / BOTTLE FILLER PER DETAIL 1 ON SHEET C3-03.
6. (E) FIRE HYDRANT
7. (E) SITE ACCESSIBLE/TOW-AWAY SIGNAGE FOR PARKING LOT, SEE DETAIL 10 ON SHEET C3-03.
8. (E) ACCESSIBLE PARKING AND SIGNAGE PER DSA APPLICATION # 03-119195, SEE ENLARGEMENT DETAIL 11 ON SHEET C3-03.
9. (E) ACCESSIBLE PUBLIC RESTROOM
10. (E) EXISTING PATH OF TRAVEL TO THE UPPER AND LOWER CAMPUS
11. SAND WASH STATION, PER DETAIL 11 ON SHEET C3-02 AND UTILITY PLAN ON SHEET C7-01.
12. CONCRETE STAIR PER DETAIL 1 ON SHEET C1-00.

LEGEND



SCALE: 1" = 30'

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

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

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

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

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

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

PROJECT INFORMATION	
School District/Owner:	Moorpark College
Project Name/School:	Moorpark College Beach Volley Ball Courts
Project Address:	7075 Campus Road, Moorpark, CA 93021

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

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

School District Acceptance of Acceptable Design Alternates

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

Accepted by: _____ Title: _____

Signature: _____ Date: _____

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

LFA Reviewer's Signature: _____ Date: _____

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	1" = 30'

SITE ACCESS PLAN

DWG. NO.

G-02

DEMOLITION NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID SUBMITTAL IN ORDER TO DETERMINE THE EXTENT AND CONDITIONS OF SITE DEMOLITION AND TO FIELD VERIFY SITE CONDITIONS. THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES PRIOR TO BID.
2. THE CONTRACTOR SHALL PERFORM ALL CLEARING, DEMOLITION AND REMOVAL SITE PREPARATIONS NECESSARY FOR THE EXECUTION OF THE WORK CONTAINED IN THE CONTRACT DOCUMENTS.
3. EXISTING STORM DRAIN FACILITIES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED FROM CONSTRUCTION DEBRIS INTRUSION. THE CONTRACTOR SHALL FLUSH AND CLEAN EXISTING DRAINAGE SYSTEMS THAT ARE TO BE PROTECTED IN PLACE, WITHIN THE PROJECT LIMITS, TO THE POINT OF DISCHARGE. ALL CLEANING OF SITE AND DRAINAGE SYSTEMS SHALL MEET ALL CALIFORNIA SAFETY AND WATER QUALITY REQUIREMENTS SET BY THE STATE BOARD OF WATER RESOURCES.
4. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES, STRUCTURES, AND SERVICES BEFORE COMMENCING WORK. CONTRACTOR IS RESPONSIBLE FOR POT-HOLING AND UTILITY SURVEYS AS NECESSARY TO LOCATE EXISTING UTILITIES.
5. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BMP's AND PROTECTIONS TO DRAINS AND DRAINAGE SYSTEMS AS REQUIRED BY THE PROJECT SWPPP DOCUMENTS AND CALIFORNIA STATE WATER RESOURCES CONTROL BOARD PRIOR TO COMMENCING DEMOLITION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY EXISTING ITEMS DAMAGED OR DESTROYED BY CONSTRUCTION NOT IDENTIFIED FOR DEMOLITION OR REMOVAL. REPLACEMENT OR REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE AND ITEM RESTORED TO EQUAL OR BETTER CONDITION.
7. THE CONTRACTOR SHALL PROVIDE NECESSARY MEASURES TO CONTROL DUST AND SEDIMENT PER THE SWPPP DOCUMENTS AND AS REQUIRED BY THE STATE.
8. CONTRACTOR MUST REMOVE AND DISPOSE OF ALL WEEDS, AND LOOSE MATERIALS.
9. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING IRRIGATION WATER SERVICE AND AUTOMATIC CONTROL WIRE CONNECTIONS TO EXISTING LANDSCAPE MATERIAL TO REMAIN AND TO ADJACENT FIELDS BOTH DURING AND AFTER CONSTRUCTION.
10. THE CONTRACTOR MUST PROTECT IN PLACE ALL EXISTING UTILITIES.
11. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OR REPLACEMENT OF UTILITIES DAMAGED DURING CONSTRUCTION.
12. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING DEMOLITION.
13. CONTRACTOR SHALL NOTIFY USA 800-227-2600 PRIOR TO ANY DEMOLITION OR EXCAVATION.
14. SPRINKLER HEADS AND VALVES REMOVED DURING DEMOLITION ARE TO BE SALVAGED AND RETURNED TO OWNER. ANY EQUIPMENT DEEMED UNSALVAGEABLE BY THE OWNER MUST BE DISPOSED OF BY THE CONTRACTOR. DO NOT RE-INSTALL OR RELOCATED ANY EXISTING SPRINKLER HEADS, VALVES, REMOTE CONTROL VALVES, WIRE OR ANY PIPE FROM DESIGNATED DEMOLITION AREAS.

SURFACING NOTES:

1. THE CONTRACTOR SHALL VERIFY CRITICAL DIMENSIONS, REFERENCE POINTS AND BENCHMARKS AND NOTIFY THE OWNER PRIOR TO PLACEMENT OF CONCRETE AND PERMANENT ITEMS.
2. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTED ELEMENTS INCLUDING UTILITY LOCATIONS AND REQUIRED SLEEVING PRIOR TO INSTALLATION OF SURFACING MATERIALS.
3. TRANSITIONS IN BETWEEN PROPOSED IMPROVEMENTS TO THE EXISTING SITE SHALL CONFORM AND BE SMOOTH AND UNIFORM.
4. CONCRETE FINISHES SHALL BE AS NOTED AND SPECIFIED. THE CONTRACTOR SHALL PROVIDE MOCKUPS OF ALL FINISHES OF CONCRETE PER THE SPECIFICATIONS. REFER TO SURFACING PLANS AND DETAILS FOR JOINT SPACING.
5. THE CONTRACTOR SHALL PROVIDE A SHOP DRAWING OF THE CONCRETE JOINTS FOR REVIEW PRIOR TO PREPARATION OF MOCKUP OR INSTALLING CONCRETE PAVING.
6. CONTRACTOR SHALL VERIFY THAT FENCE POST LOCATIONS PRIOR TO INSTALLATION OF POSTS OR FOOTINGS AND NOTIFY THE OWNER, ENGINEER OR LANDSCAPE ARCHITECT OF ANY POTENTIAL MISALIGNMENT OR CLEARANCE ISSUES.
7. ALL CONCRETE SHALL BE PORTLAND CEMENT CONCRETE WITH MINIMUM 3000 PSI STRENGTH PER THE SPECIFICATIONS.

DRAINAGE NOTES:

1. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES, AND SERVICES SHOWN IN THE CONTRACT DOCUMENTS SHALL BE DEEMED TO BE APPROXIMATIONS ONLY. ALL DISCREPANCIES BETWEEN WHAT IS SHOWN AND THE ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE DISTRICT REPRESENTATIVE. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600 PRIOR TO ANY DEMOLITION OR EXCAVATION. UPON COMPLETION OF USA MARKING OPERATIONS, CONTRACTOR SHALL RECORD ALL UTILITY MARKINGS ON A SEPARATE SET OF DRAWINGS. THIS SET SHALL BE KEPT ON-SITE FOR REFERENCE FOR DURATION OF CONTRACT.
2. ALL EXISTING DRAINAGE STRUCTURES, BOXES, UTILITY VAULTS, ETC. TO REMAIN, SHALL BE BROUGHT TO FINAL FINISH GRADE PRIOR TO FINAL SURFACE TREATMENT.
3. THE CONTRACTOR IS TO PROTECT DRAINAGE SYSTEM FROM DEBRIS, INCLUDING SOIL, ROCK MATERIAL, AND TRASH FROM ENTERING THE PIPE DURING CONSTRUCTION. CONTRACTOR SHALL AVOID PLACING CONSTRUCTION VEHICLES OVER INSTALLED DRAINAGE TRENCHES TO PREVENT CRUSHING OF PIPE.
4. COORDINATE ALL SLEEVING AND UTILITY LOCATIONS AS SHOWN ON THE PLANS AND DETAILS CONTAINED WITHIN THESES CONTRACT DOCUMENTS.
5. THE CONTRACTOR IS TO ENSURE THAT ALL DRAINAGE AND UTILITY LINES (ACTIVE AND NEW) ARE PROTECTED AND UNDAMAGED FROM TRENCHING AND FOOTING EXCAVATIONS FOR NEW FOOTINGS, PARTICULARLY FOR NEW FENCING AND WALLS.
6. ALL ABANDONED STORM LINES SHALL BE REMOVED UNLESS OTHERWISE DIRECTED BY OWNER.
7. PRIOR TO ALL DRAINAGE AND UTILITY WORK, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL POTENTIAL DRAINAGE CONNECTIONS AND EXISTING UTILITY BY POTHOLING. IN ADDITION, ALL DOWNSTREAM CONNECTIONS TO EXISTING STRUCTURES SHALL BE THE START OF THESE OPERATIONS, AND GRADES SHALL BE VERIFIED. CONTRACTOR SHALL FLUSH AND RUN CAMERAS THROUGH EXISTING DRAINAGE SYSTEM TO REMAIN, WITHIN LIMIT OF WORK, TO VERIFY SYSTEM'S INTEGRITY.
8. LENGTHS OF DRAIN LINES BETWEEN PROPOSED AND EXISTING ELEMENTS AND INVERT ELEVATIONS OF PROPOSED DRAINAGE STRUCTURES ON EXISTING DRAIN LINES ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.

UTILITY NOTES

1. AN ACCESS INTERRUPTION NOTICE SHALL BE SECURED WHEN INTERRUPTING THE SITE OPERATION FOR UTILITY INSTALLATION.
2. THE SITE BACKFLOW ASSEMBLY NEEDS TO CARRY AN APPROVED LISTING BY USC OR ASSE. A CERTIFIED BACKFLOW TESTING AGENCY SHALL PROVIDE TEST AFTER INSTALLATION. BACKFLOW TESTING AGENCY SHALL PROVIDE COPY OF TEST RESULTS OF APPROVED SITE BACKFLOW PREVENTION ASSEMBLY TO ARCHITECT OR ENGINEER AND BUILDING INSPECTOR. UPC 603.4.2
3. WATER SERVICE PIPE SHALL CONFORM TO NSF 61 AND SHALL CONFORM TO ONE OF LISTED STANDARDS IN UPC TABLE 604.1.
4. FOR NONMETALLIC PIPE, PROVIDE UNDERGROUND LOCATING DEVICE, SUCH AS A TRACER WIRE, ARS 40-360.22
5. PROVIDE BACKFILL DETAIL OR SPECIFICATION, UPC 103.2.1
6. TEST ALL WATER PIPING PRIOR TO BACKFILL AND COVER. CALL FOR INSPECTION AND WITNESS TESTING PRIOR TO CONCEALING WATER PIPING, UPC 103.5.6
7. FLUSH ALL POTABLE WATER PIPING PRIOR TO OCCUPANCY, UPC 609.
8. PROVIDE COMPLETE AS-BUILTS AFTER INSTALLATION SHOWING PIPE SIZE, INSTALLATION, INVERTS, MANHOLES, AND TIE-IN TO PUBLIC SEWER SYSTEM. SUBMIT ALL REQUIRED DOCUMENTATION UNDER SEAL AND SIGNATURE OF THE PROFESSIONAL REGISTRANT.

DIMENSION NOTES

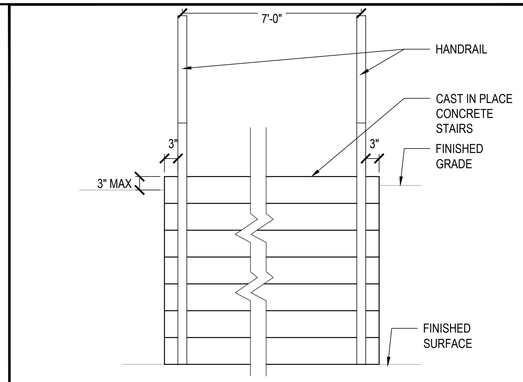
1. THE CONTRACTOR SHALL VERIFY CRITICAL DIMENSIONS, REFERENCE POINTS, AND BENCHMARKS, AND NOTIFY OWNER PRIOR TO PLACEMENT OF CONCRETE AND PERMANENT ITEMS.
2. EXISTING CONDITIONS MAY VARY FROM SHOWN DIMENSION. CONTRACTOR MUST NOTIFY OWNER PRIOR TO CONSTRUCTION IF DISCREPANCIES ARE FOUND.
3. ALL ELECTRICAL AND LOW VOLTAGE BOXES OR ENCLOSURES SHOWN ON THE ELECTRICAL PLAN ARE DIAGRAMMATIC AND FOR REFERENCE ONLY. ELECTRICAL AND LOW VOLTAGE BOXES SHALL BE INSTALLED PER LOCATION SHOWN ON DIMENSION PLAN AND DETAILS.

GENERAL GRADING NOTES:

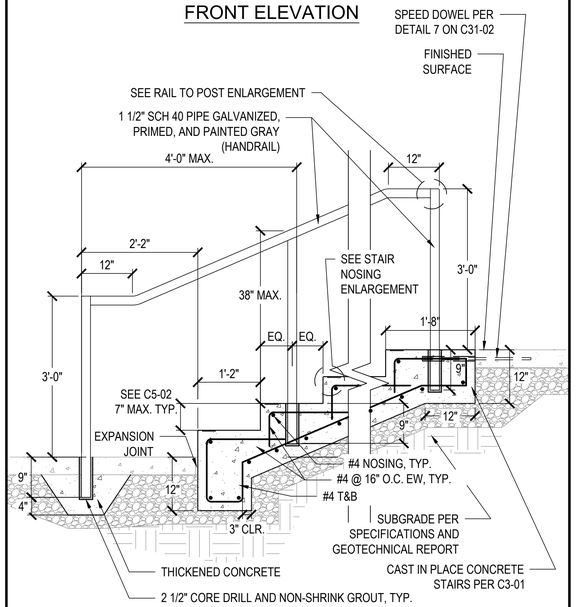
1. ELEVATIONS SHOWN ARE FINISHED GRADE, TOP OF PAVEMENT OR TOP OF SAND SURFACE.
2. CONTRACTOR MUST PROVIDE SMOOTH AND FLUSH SURFACE AT ALL FIELD ENTRANCES AND MATERIAL TRANSITIONS. NO DIPS, LIPS OR GAPS ARE ACCEPTED.
3. SUBGRADE MUST BE PREPARED AND COMPACTED IN ACCORDANCE WITH ALL RECOMMENDATIONS AND REQUIREMENTS PER GEOTECHNICAL REPORT PREPARED BY GEOTECHNIQUES, DATED JANUARY 31, 2023, AND SPECIFICATIONS.
4. ALL ACCESSIBLE PATHWAYS MUST BE INSTALLED IN ACCORDANCE WITH ADA REQUIREMENTS.

IRRIGATION NOTES

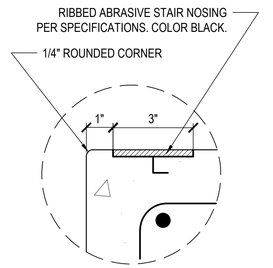
1. CONNECT TO EXISTING MAINLINE AT APPROXIMATE LOCATION SHOWN.
2. ALL IRRIGATION VALVE AND PIPE SYMBOL LOCATIONS ARE DIAGRAMMATIC. DO NOT INSTALL IRRIGATION EQUIPMENT IN DIRECT CONFLICT WITH UTILITY, LANDSCAPE OR HARDSCAPE ELEMENTS. COORDINATE LOCATION OF ALL ON FIELD UTILITIES INCLUDING CIVIL STORM DRAIN WITH OTHER TRADES PRIOR TO IRRIGATION INSTALLATION. CONTACT ENGINEER IMMEDIATELY IF CONFLICTS ARE LOCATED.
3. DO NOT INSTALL IRRIGATION MAINLINE IN JOINT TRENCH WITH DRAINAGE COLLECTOR LINE.
4. REFER TO SPECIFICATIONS FOR ALL PRESSURE TESTING AND FLUSHING REQUIREMENTS.
5. SEPARATE SLEEVES ARE REQUIRED FOR PIPE AND WIRE AT ALL HARDSCAPE AND WALL CROSSINGS. SLEEVES MUST BE 2X NOMINAL DIAMETER OF WATER SUPPLY PIPE. WIRE SLEEVE MUST BE 3" MINIMUM.
6. EXISTING UTILITIES SHOWN ARE FOR REFERENCE ONLY. ADDITIONAL UTILITIES MAY BE PRESENT. CONTRACTOR IS RESPONSIBLE FOR LOCATING REGARDLESS OF IF THEY APPEAR ON THESE PLANS OR NOT. ALL IRRIGATION LINES MUST BE TRENCHED WITH CAUTION. CONTRACTOR IS RESPONSIBLE TO REPAIR OR REPLACE ANY UTILITIES DAMAGED DURING CONSTRUCTION.
7. ALL VALVE BOXES MUST BE PURPLE FOR RECLAIMED WATER. QUICK COUPLER VALVES SPECIFICALLY CALLED OUT TO BE INSTALLED IN HARDSCAPE MUST BE IN CONCRETE BOXES WITH CONCRETE LIDS.
8. IRRIGATION VALVE NUMBERS ARE FOR PLAN REFERENCE ONLY. COORDINATE WITH OWNER TO DETERMINE FINAL VALVE CONTROLLER STATION NUMBERS. RECORD STATION NUMBERS ON AS-BUILTS AND CONTROLLER CHART.
9. THE CONTRACTOR SHALL COORDINATE ALL IRRIGATION MAIN AND PVC LATERAL LINES SO THAT THE ARE NOT PLANTED UNDER TREES AND KEPT A MINIMUM OF 36" FROM NEW AND EXISTING TREE TRUNKS.
10. CONTRACTOR MUST PROVIDE ALL NECESSARY EQUIPMENT, WIRES AND PROGRAMMING REQUIRED TO INCORPORATE NEW IRRIGATION CONTROLLER INTO EXISTING IRRIGATION CENTRAL CONTROL SYSTEM.
11. AVOID DAMAGE TO EXISTING TREE ROOT SYSTEMS. MAINTAIN 5' SEPARATION MINIMUM FROM TREE TRUNKS. NOTIFY ENGINEER PRIOR TO TRENCHING WHERE IRRIGATION AND TREE CONFLICTS EXIST.
12. ABOVE GRADE PIPE MUST BE COPPER. NO PVC PIPE MAY BE INSTALLED ABOVE GRADE.
13. CONTRACTOR MUST IDENTIFY PIPE SIZE OF MAINLINE AND LATERALS AT ALL CONNECTION POINTS TO EXISTING SYSTEM. IF AT ANY LOCATION THE EXISTING PIPE DOES NOT MATCH THE NOMINAL SIZE CALLED FOR ON NEW EXTENSION THEN THE CONTRACTOR MUST NOTIFY ENGINEER IMMEDIATELY.
14. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING IRRIGATION FLOW AND AUTOMATIC CONTROL TO ALL EXISTING VALVES TO REMAIN, INCLUDING VALVES OUTSIDE OF THE CONSTRUCTION AREA. AT THE START OF CONSTRUCTION THE CONTRACTOR MUST POTHOLE AND IDENTIFY CONTROL WIRE LOCATIONS AND DETERMINE WIRE COUNTS REQUIRED TO INSTALL NEW VALVES AND MAINTAIN EXISTING VALVES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER IF THERE IS A SHORTAGE OF WIRES OR CONTROL STATIONS AS NEEDED TO MAINTAIN EXISTING SYSTEM AND PROPOSED ADDITIONS.
15. ALL WIRE SPLICES MUST BE MADE IN DEDICATED VALVE BOXES LOCATED IN LANDSCAPE AREAS. CONTRACTOR MUST AS-BUILT ALL WIRE SPLICE LOCATIONS, STATION NUMBERS THAT ARE CONTAINED IN THE BOX AND SPARE WIRE COUNTS
16. ANY TRENCHES OR DAMAGE DONE TO GRASS AREAS TO REMAIN MUST BE REPAIRED WITH SOD, MATCHING THE EXISTING GRASS SPECIES.
17. CONTRACTOR MUST FULLY INVESTIGATE EXISTING IRRIGATION SYSTEM PRIOR TO CONSTRUCTION TO DETERMINE MAINLINE ROUTING TO ALL IRRIGATION VALVES TO REMAIN. EXTEND BOTH MAINLINE AND WIRES TO ANY REMAINING MAINLINE OR VALVES AS NEEDED TO MAINTAIN IRRIGATION WATER AND AUTOMATED CONTROL TO EXISTING IRRIGATION.



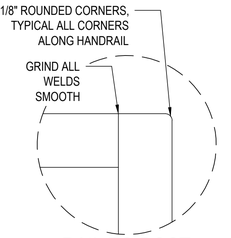
FRONT ELEVATION



SECTION



STAIR NOSING ENLARGEMENT



RAIL TO POST ENLARGEMENT

NOTES:
1. EMBED ALL NEW HAND RAILS A MINIMUM OF 6" INTO EXISTING CONCRETE STAIRS. CONTRACTOR TO VERIFY MINIMUM EMBEDMENT DEPTHS CAN BE MET PRIOR TO CORE DRILL.
2. INSTALL CONTRASTING STRIPES AT STAIR NOSE PER CBC 11B-504.4.1.
3. ALL HANDRAIL COMPONENTS SHALL BE HOT DIPPED GALVANIZED STEEL. COLD GALVANIZE ALL FIELD WELDS.
4. GRIND ALL WELDS SMOOTH.

1 CONCRETE STAIRS AND HANDRAIL
NTS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
ANTHONY M. LLOYD
NO. 71123
EXP. 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

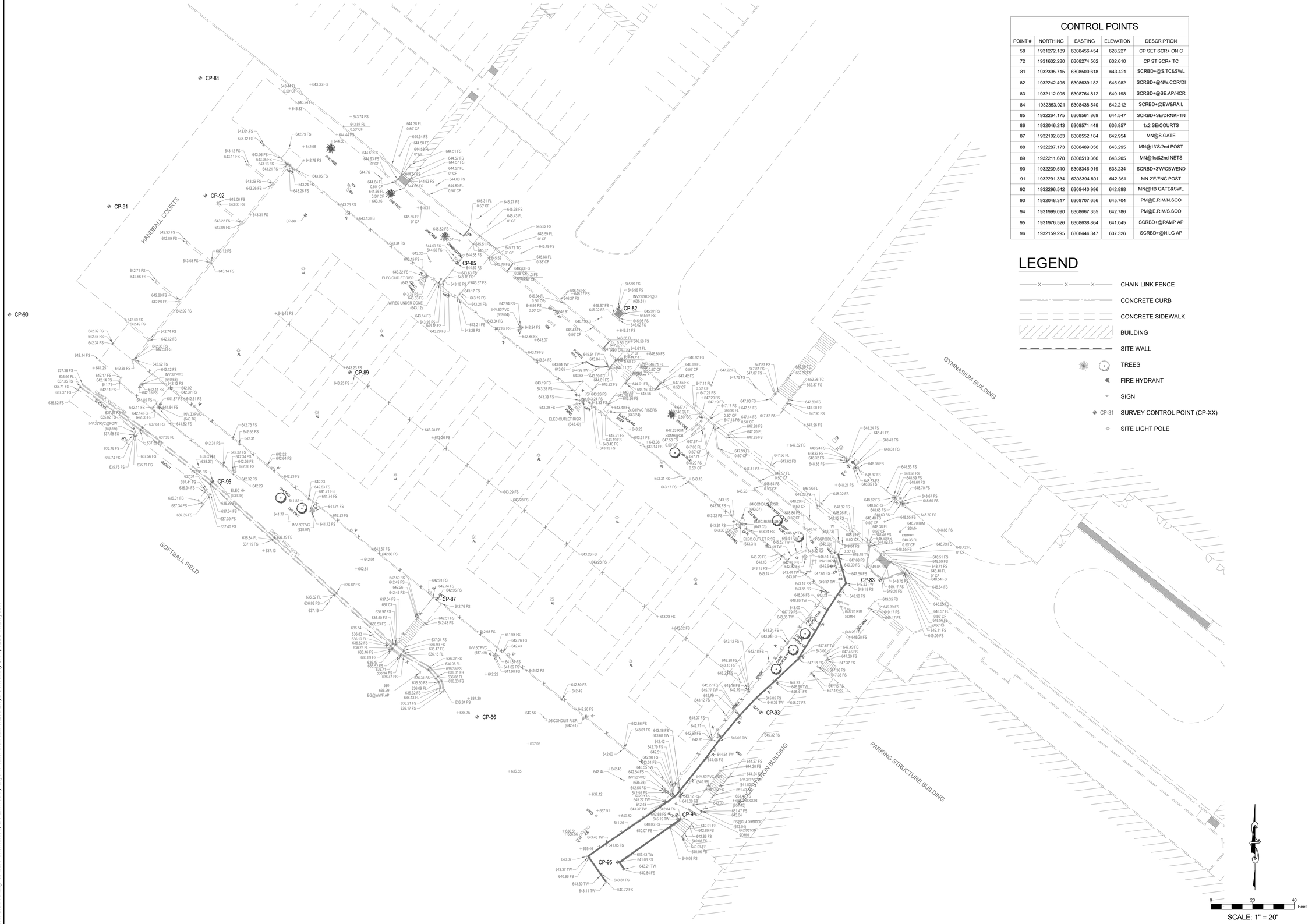
MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	N/A

GENERAL NOTES

DWG. NO.
C1-00

XREF: none



CONTROL POINTS

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
58	1931272.189	6308456.454	628.227	CP SET SCR+ ON C
72	1931632.280	6308274.562	632.610	CP ST SCR+ TC
81	1932395.715	6308500.618	643.421	SCRBD+@S.TC&SWL
82	1932242.495	6308639.182	645.982	SCRBD+@NW.COR/DI
83	1932112.005	6308764.812	649.198	SCRBD+@SE.AP/HCR
84	1932353.021	6308438.540	642.212	SCRBD+@EW&RAIL
85	1932264.175	6308561.869	644.547	SCRBD+SE/DRNKFTN
86	1932046.243	6308571.448	636.857	1x2 SE/COURTS
87	1932102.863	6308552.184	642.954	MN@S.GATE
88	1932287.173	6308489.056	643.295	MN@13'S/2nd POST
89	1932211.678	6308510.366	643.205	MN@1st&2nd NETS
90	1932239.510	6308346.919	638.234	SCRBD+3'W/CBWEND
91	1932291.334	6308394.801	642.361	MN 2'E/FNC POST
92	1932296.542	6308440.996	642.898	MN@HB GATE&SWL
93	1932048.317	6308707.656	645.704	PM@E.RIM/N.SCO
94	1931999.090	6308667.355	642.786	PM@E.RIM/S.SCO
95	1931976.526	6308638.864	641.045	SCRBD+@RAMP AP
96	1932159.295	6308444.347	637.326	SCRBD+@N.LG AP

LEGEND

- CHAIN LINK FENCE
- CONCRETE CURB
- CONCRETE SIDEWALK
- BUILDING
- SITE WALL
- TREES
- FIRE HYDRANT
- SIGN
- CP-31 SURVEY CONTROL POINT (CP-XX)
- SITE LIGHT POLE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD
SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
ANTHONY T. LLOYD
NO. 71123
EXP. 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

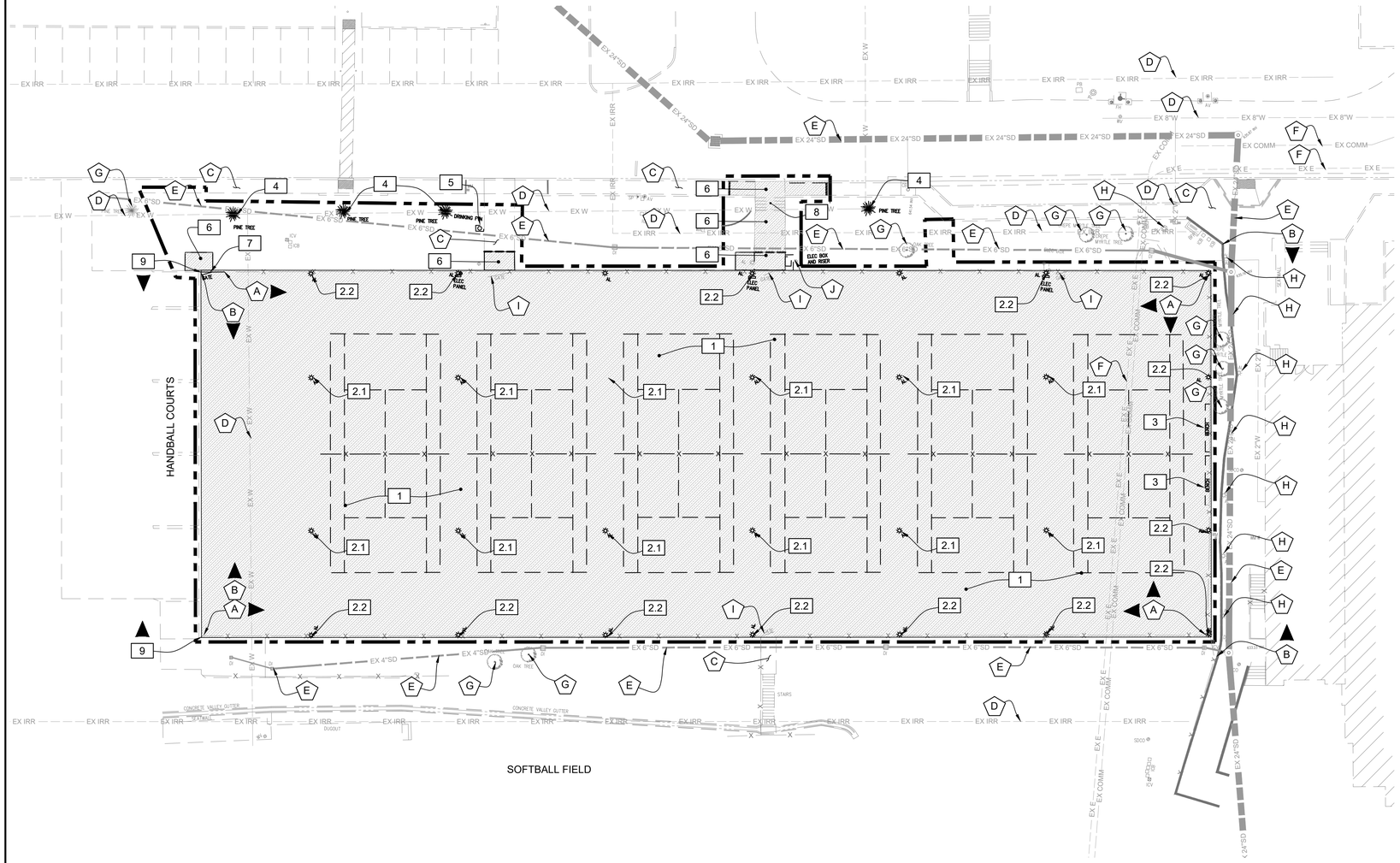
DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	1" = 20'

EXISTING CONDITIONS

DWG. NO.

C2-01

XREF: none



PROTECT IN PLACE KEYNOTES:

- A — PROTECT IN PLACE EXISTING CHAIN LINK FENCE POSTS AND PERIMETER CURB. MODIFICATIONS TO GATES AND REPLACEMENT OF CHAIN LINK FENCING FABRIC TO BE PROVIDED BY CONTRACTOR.
- B — PROTECT IN PLACE EXISTING CONCRETE WALL.
- C — PROTECT IN PLACE EXISTING CONCRETE/ASPHALT AREA.
- D — PROTECT IN PLACE EXISTING IRRIGATION/WATER LINES.
- E — PROTECT IN PLACE EXISTING STORM DRAIN PIPES AND INLETS.
- F — PROTECT IN PLACE EXISTING ELECTRICAL AND COMMUNICATION LINES.
- G — PROTECT IN PLACE EXISTING TREES.
- H — PROTECT IN PLACE EXISTING POWER/LIGHT POLE.
- I — PROTECT IN PLACE EXISTING ACCESS GATES.
- J — PROTECT IN PLACE EXISTING ELECTRICAL BOXES/VAULTS.

DEMOLITION KEYNOTES:

- 1 — REMOVE AND DISPOSE OF EXISTING ASPHALT/CONCRETE COURTS AND BASE. APPROXIMATE DEPTH OF ASPHALT/CONCRETE IS 9 INCHES. REMOVE ADDITIONAL DEPTH AS NECESSARY TO CLEAR EXCESSIVE BASE STONE OR OTHER UNSUITABLE MATERIAL.
- 2.1 — REMOVE AND SALVAGE EXISTING COURT LIGHT POLES, FIXTURES, AND RELATED CONTROL WIRES, BOXES AND ELECTRICAL PANELS WITHIN LIMIT OF WORK. RETURN EQUIPMENT TO OWNER. POLES AND BASES TO BE COMPLETELY REMOVED IN COURT AREA.
- 2.2 — REMOVE AND SALVAGE EXISTING COURT LIGHT POLES, FIXTURES, AND RELATED CONTROL WIRES, BOXES AND ELECTRICAL PANELS WITHIN THE SCOPE OF WORK. POLES ALONG PERIMETER TO BE CUT AT BASE AND BASE OF FOOTING TO REMAIN. FILL CAVITY OF REMAINING POLE WITH GROUT.
- 3 — SALVAGE AND RETURN TO OWNER EXISTING BENCHES.
- 4 — REMOVE AND DISPOSE OF EXISTING TREE.
- 5 — REMOVE AND DISPOSE OF EXISTING DRINKING FOUNTAIN.
- 6 — REMOVE AND DISPOSE OF EXISTING CONCRETE SIDEWALK CURB AND BASE.
- 7 — REMOVE AND DISPOSE OF EXISTING CHAIN LINK GATE AND FABRIC. PROTECT POSTS IN PLACE.
- 8 — REMOVE AND DISPOSE OF EXISTING CONCRETE STAIR SET AND HANDRAILS.
- 9 — UNBOLT & REMOVE EXISTING 6' TALL STEEL NET POSTS AND NETTING FROM TOP OF WALL.

LEGEND

- LIMITS OF CONSTRUCTION
- EXISTING CONCRETE/ASPHALT TO BE REMOVED
- CHAIN LINK FENCE LINE
- UNDERGROUND ELECTRICAL
- UNDERGROUND IRRIGATION
- UNDERGROUND WATER
- UNDERGROUND COMMUNICATION
- UNDERGROUND STORM SEWER
- SAWCUT LINE
- CHAIN LINK FENCE
- CONCRETE CURB
- CONCRETE SIDEWALK
- BUILDING
- SITE WALL

0 20 40 Feet

SCALE: 1" = 20'

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER ANTHONY TYSTER JOHNSON NO. 71123 EXP. 06/30/23 CIVIL STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

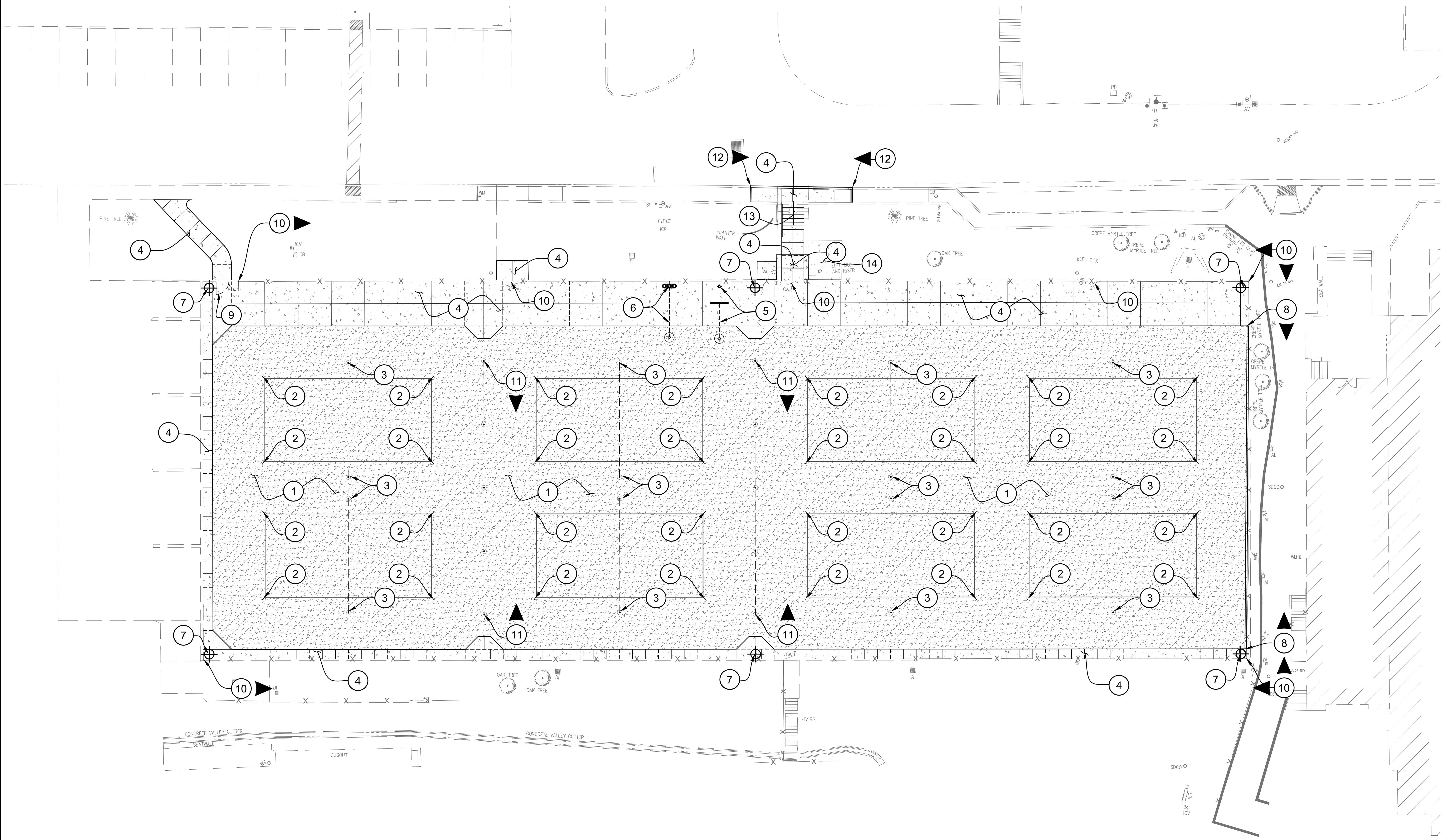
DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	1" = 20'

DEMOLITION PLAN

DWG. NO.
C2-02

Z:\Shared\Project\21-152 Moorpark Volleyball\Construction Documents\21152-C2-02 Demolition Plan.dwg 4/4/2023 2:21 PM

XREF: none



SURFACING KEYNOTES:

1. INSTALL VOLLEYBALL COURT SAND PROFILE PER SPECIFICATIONS AND DETAIL 1 ON SHEET C3-02.
2. INSTALL VOLLEYBALL BOUNDARY LINE ANCHOR PER SPECIFICATIONS AND DETAIL 2 ON SHEET C3-02. SET ANCHOR 12" OFF CORNER OF COURT LOCATION, TYP.
3. INSTALL VOLLEYBALL NET SLEEVE ON FOOTING PER SPECIFICATIONS AND DETAIL 3 ON SHEET C3-02. NET AND POST TO BE INSTALLED PER SPECIFICATIONS AND DETAIL.
4. INSTALL CONCRETE COURT EDGE WITH LIGHT BROOM FINISH PER SPECIFICATIONS AND DETAILS 5 AND 7 ON SHEET C3-02. CONTRACTOR TO PROVIDE FLUSH TRANSITIONS AT ALL ADJACENT PAVEMENT SURFACES.
5. INSTALL SAND WASH STATION WITH TRENCH DRAIN AND DRYWELL PER SPECIFICATIONS AND DETAIL 12 ON SHEET C3-02 AND DETAIL 3 ON SHEET C7-02.
6. INSTALL DRINKING FOUNTAIN WITH SIDE RAILS AND DRYWELL PER SPECIFICATIONS AND DETAIL 1 ON SHEET C3-03 AND DETAIL 3 ON SHEET C7-02.
7. INSTALL SPORTS LIGHTING POLES PER ELECTRICAL PLANS AND MUSCO SHOP DRAWINGS.
8. INSTALL CONCRETE CURB PER SPECIFICATIONS AND DETAIL 6 ON SHEET C3-02.
9. INSTALL 4' WIDE ACCESSIBLE GATE WITH 3' WIDE MAINTENANCE GATE AT EXISTING FENCE POSTS PER DETAIL 9 ON SHEET C3-02.
10. REPAIR EXISTING CHAIN LINK FABRIC, GATES, POSTS, AND RAILS AS NEEDED, AND ADJUST TO NEW BOTTOM RAIL ELEVATION. INSTALL NEW VINYL SCREEN TO REPLACE EXISTING, PER DETAIL 8 ON SHEET C3-02.
11. INSTALL 10' TALL BACKLINE NET, POSTS AND FOOTINGS PER SPECIFICATIONS, MANUFACTURER INSTALLATION INSTRUCTIONS, AND DETAILS 3 AND 4 ON SHEET C3-02. CONTRACTOR MUST PROVIDE MANUFACTURER PACKAGE SYSTEM THAT INCLUDES ALL SUPPORT AND FOOTING SHOP DRAWINGS SIGNED AND SEALED BY STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.
12. INSTALL NEW CURB & GUTTER PER DETAIL 6 ON SHEET C3-03.
13. INSTALL NEW CONCRETE STAIR SET WITH HANDRAILS PER DETAIL 1 ON SHEET C1-00.
14. INSTALL ELECTRICAL GEAR PAD PER DETAIL 1 ON SHEET E401.

SURFACING LEGEND

Symbol	Description
(sand hatch)	BEACH VOLLEYBALL SAND
EXP. JOINT / SCORE JOINT	CONCRETE SIDEWALK

0 20 40 Feet

SCALE: 1" = 20'

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
NO. 71123
EXP. 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

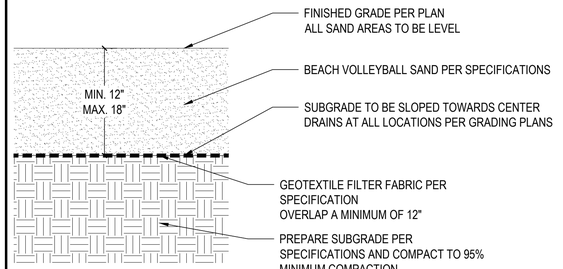
MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	1" = 20'

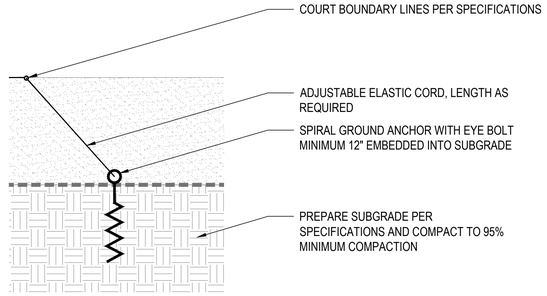
SURFACING PLAN

DWG. NO.

C3-01

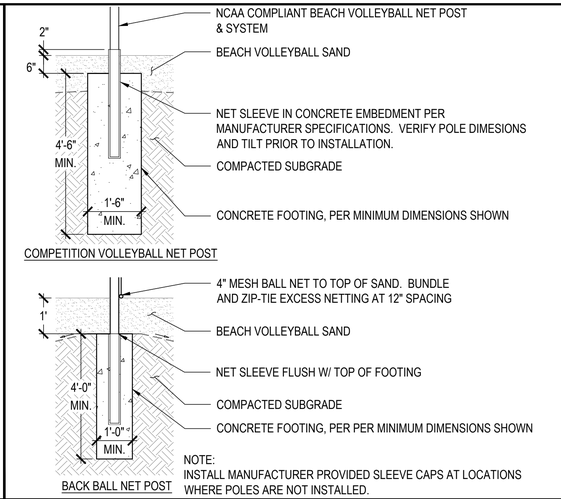


1 VOLLEYBALL COURT SAND PROFILE
NTS



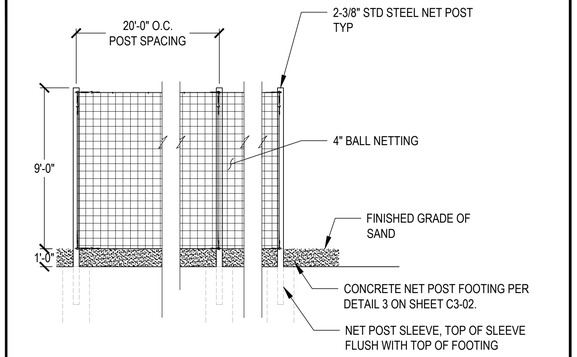
NOTES:
1. INSTALL ANCHORS FOR BOTH DOUBLES AND 6 PLAY COURT SIZES. A TOTAL OF 8 ANCHORS PER COURT IS REQUIRED.

2 VOLLEYBALL BOUNDARY LINE ANCHOR
NTS



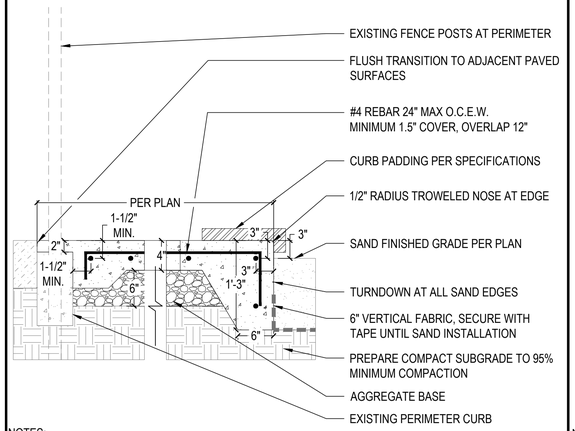
NOTE:
INSTALL MANUFACTURER PROVIDED SLEEVE CAPS AT LOCATIONS WHERE POLES ARE NOT INSTALLED.

3 VOLLEYBALL NET SLEEVE DETAIL
NTS



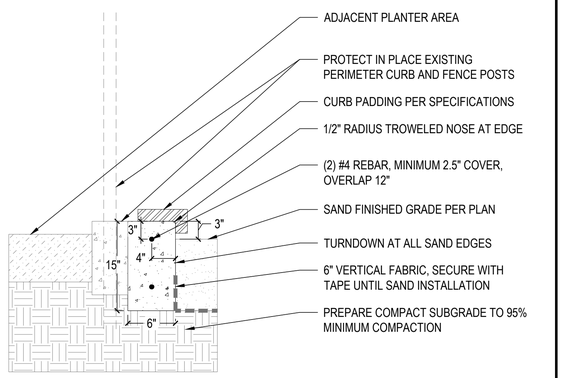
NOTE:
REFER TO SPECIFICATIONS FOR PREMANUFACTURED NET SYSTEM

4 10-FOOT TALL BACKLINE NET
NTS



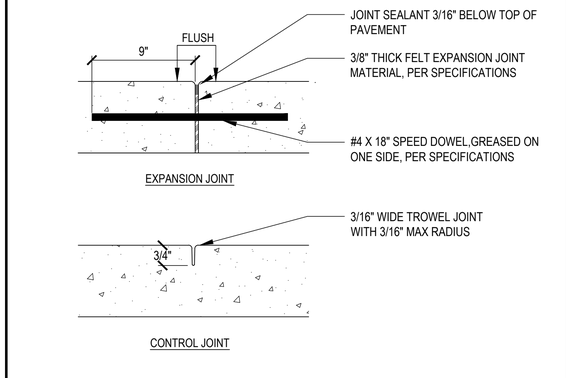
NOTES:
1. EXPANSION JOINTS TO BE USED BETWEEN POURS AND AT ALL BOXES OR VERTICAL STRUCTURES
2. CONTRACTION JOINTS TO BE INSTALLED AT 10'-0" ON CENTER, MAX.
3. REFER TO PLANS FOR JOINT LOCATIONS, AND DETAIL 7 ON SHEET C3-02.

5 CONCRETE COURT EDGE
NTS



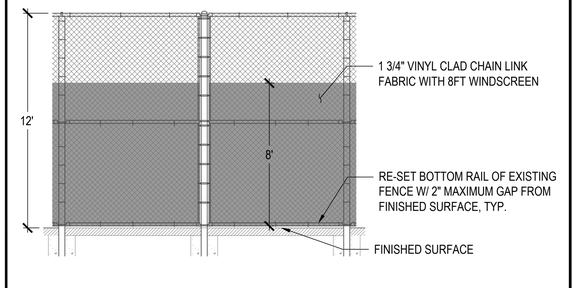
NOTES:
1. EXPANSION JOINTS TO BE USED BETWEEN POURS AND AT ALL BOXES OR VERTICAL STRUCTURES
2. CONTRACTION JOINTS TO BE INSTALLED AT 10'-0" ON CENTER, MAX.
3. REFER TO PLANS FOR JOINT LOCATIONS, AND DETAIL 7 ON SHEET C3-02.

6 CONCRETE CURB
NTS



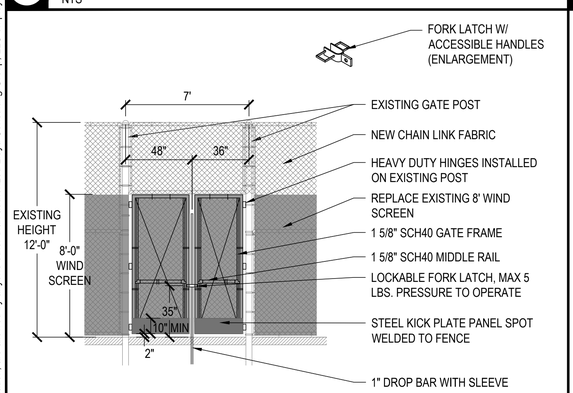
GENERAL CONCRETE JOINT NOTES:
1. EXPANSION JOINTS TO BE USED BETWEEN POURS.
2. EXPANSION JOINTS TO BE INSTALLED AT ALL JOINTS BETWEEN CONCRETE STRUCTURES AND VERTICAL STRUCTURES. STRUCTURES INCLUDE JUNCTION BOXES, VAULTS, BUILDINGS, SEAT WALLS, ETC.
3. AT CONCRETE AND ASPHALT JOINTS, TACK CONCRETE PRIOR TO ASPHALT PAVING.
4. CONTRACTION JOINTS TO BE INSTALLED SQUARE AT 10'-0" ON CENTER, MAX.

7 CONCRETE JOINT DETAIL
NTS



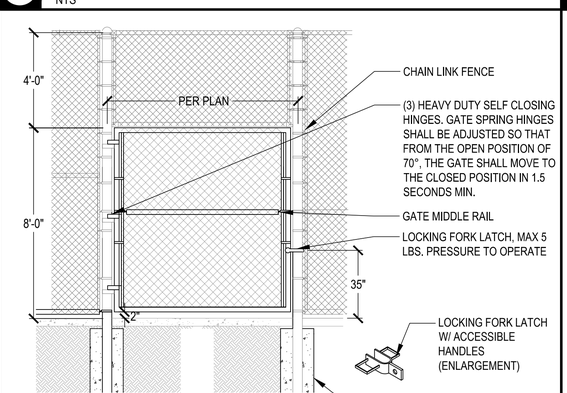
NOTES:
1. REFER TO SPECIFICATIONS FOR MATERIALS AND FINISHING INFORMATION.

8 EX. 12' TALL CHAIN LINK FENCE WITH WIND SCREN
NTS



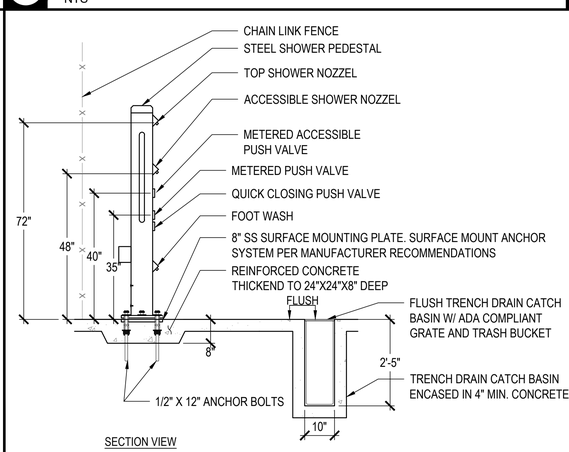
NOTES:
1. GATE HARDWARE SHALL BE ACCESSIBLE PER CBC 11B-404.2.7-9.
2. GATE SHALL BE GALVANIZED WITH GALVANIZED HARDWARE UNLESS OTHERWISE DIRECTED BY THE OWNER TO MATCH EXISTING FENCE.
3. ALL GATES MUST OPEN IN THE DIRECTION OF EGRESS.

9 12' TALL CHAIN LINK FENCE WITH DOUBLE GATE
NTS

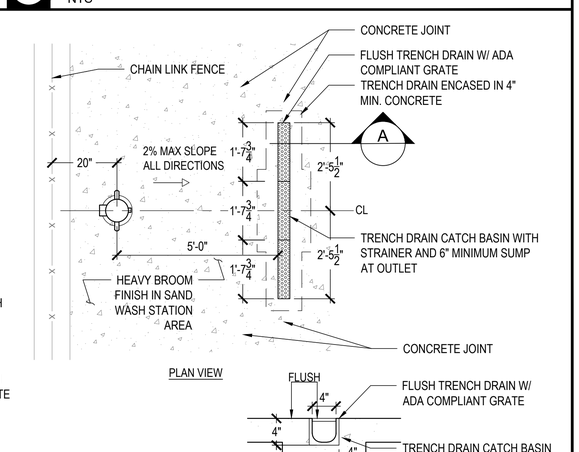


NOTES:
1. GATE HARDWARE SHALL BE ACCESSIBLE PER CBC 11B-404.2.8.
2. GATE SHALL BE BLACK VINYL CLAD WITH BLACK COATED HARDWARE UNLESS OTHERWISE DIRECTED BY THE OWNER TO MATCH EXISTING FENCE.

10 MAINTENANCE ACCESS CHAIN LINK FENCE GATE
NTS



NOTE:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.



11 SAND WASH STATION
NTS

LLOYD
SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REV.

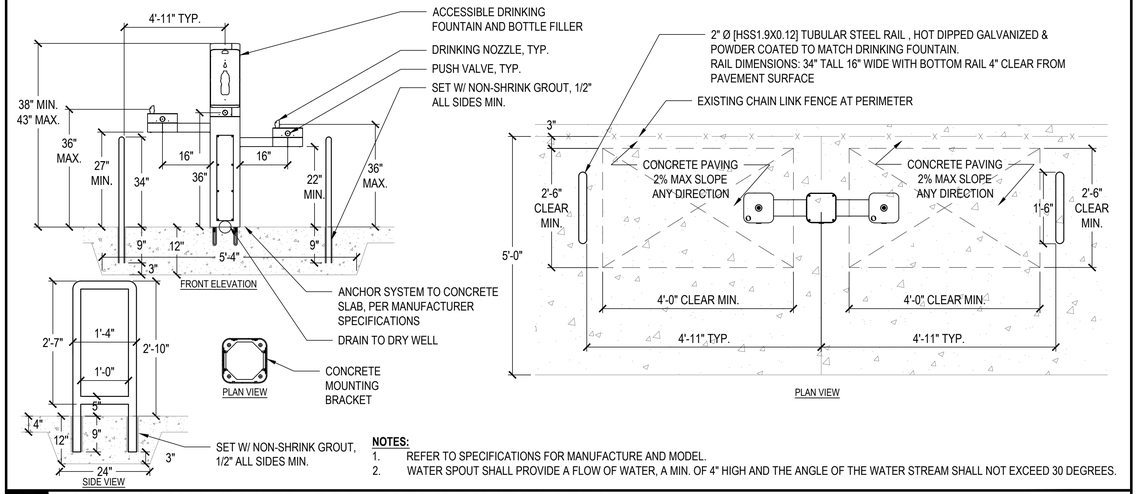
MOORPARK COLLEGE
BEACH VOLLEYBALL
COURTS

MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	

SURFACING AND
FENCING DETAILS

DWG. NO.
C3-02

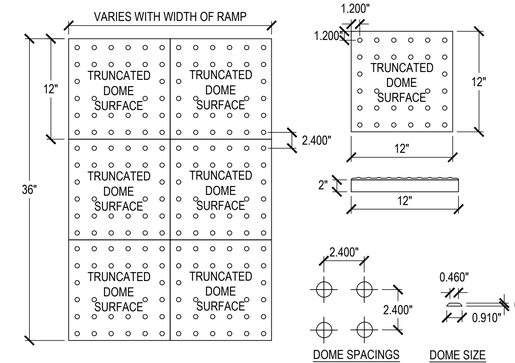


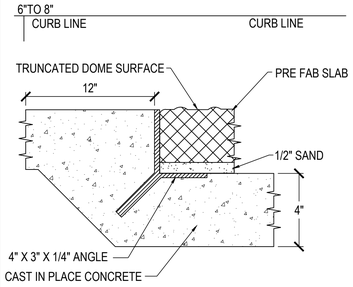
NOTES:

1. REFER TO SPECIFICATIONS FOR MANUFACTURE AND MODEL.
2. WATER SPOUT SHALL PROVIDE A FLOW OF WATER, A MIN. OF 4" HIGH AND THE ANGLE OF THE WATER STREAM SHALL NOT EXCEED 30 DEGREES.

1 DRINKING FOUNTAIN / BOTTLE FILLING STATION & SIDE RAILS

SCALE: NTS



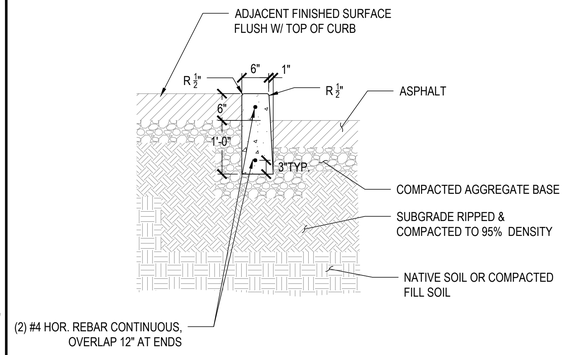


NOTES:

1. DETECTABLE WARNINGS SHALL CONSIST OF PRECAST CONCRETE DOMES MANUFACTURED BY WAUSAU TILE OR AN APPROVED EQUAL. DETECTABLE WARNINGS SHALL BE INSTALLED IN THE RAMP IN ACCORDANCE WITH THE MANUFACTURE'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
2. ALL DETECTABLE WARNINGS SHALL BE 6 TO 8 INCHES BACK OF THE CURB LINE, BE 36 INCHES IN DEPTH AND COVER THE COMPLETE WIDTH OF THE RAMP.
3. A 70% VISUAL CONTRAST SHALL BE OBTAINED COLOR. THE COLOR SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING MATERIAL.
4. DETECTABLE WARNINGS INSTALLED ON SIDEWALK RAMPS SHALL MODIFY THE SIDEWALK CONCRETE THICKNESS AT THE DETECTABLE WARNING TO PROVIDE A MINIMUM THICKNESS OF 4 INCHES. THE SIDEWALK BOTTOM SURFACE SHALL HAVE A MINIMUM TRANSITION TAPER LENGTH OF 12 INCHES BETWEEN THE THICKENED AND NORMAL SECTIONS OF SIDEWALK.

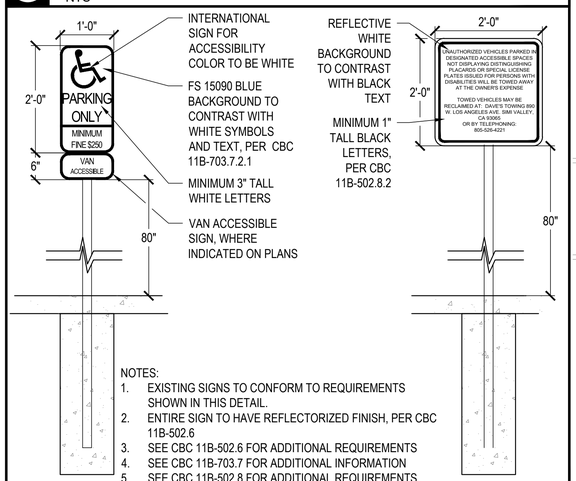
9 DETECTABLE WARNING STRIP FOR SIDEWALK ADA RAMP

SCALE: NTS



6 VERTICAL CONCRETE CURB

NTS

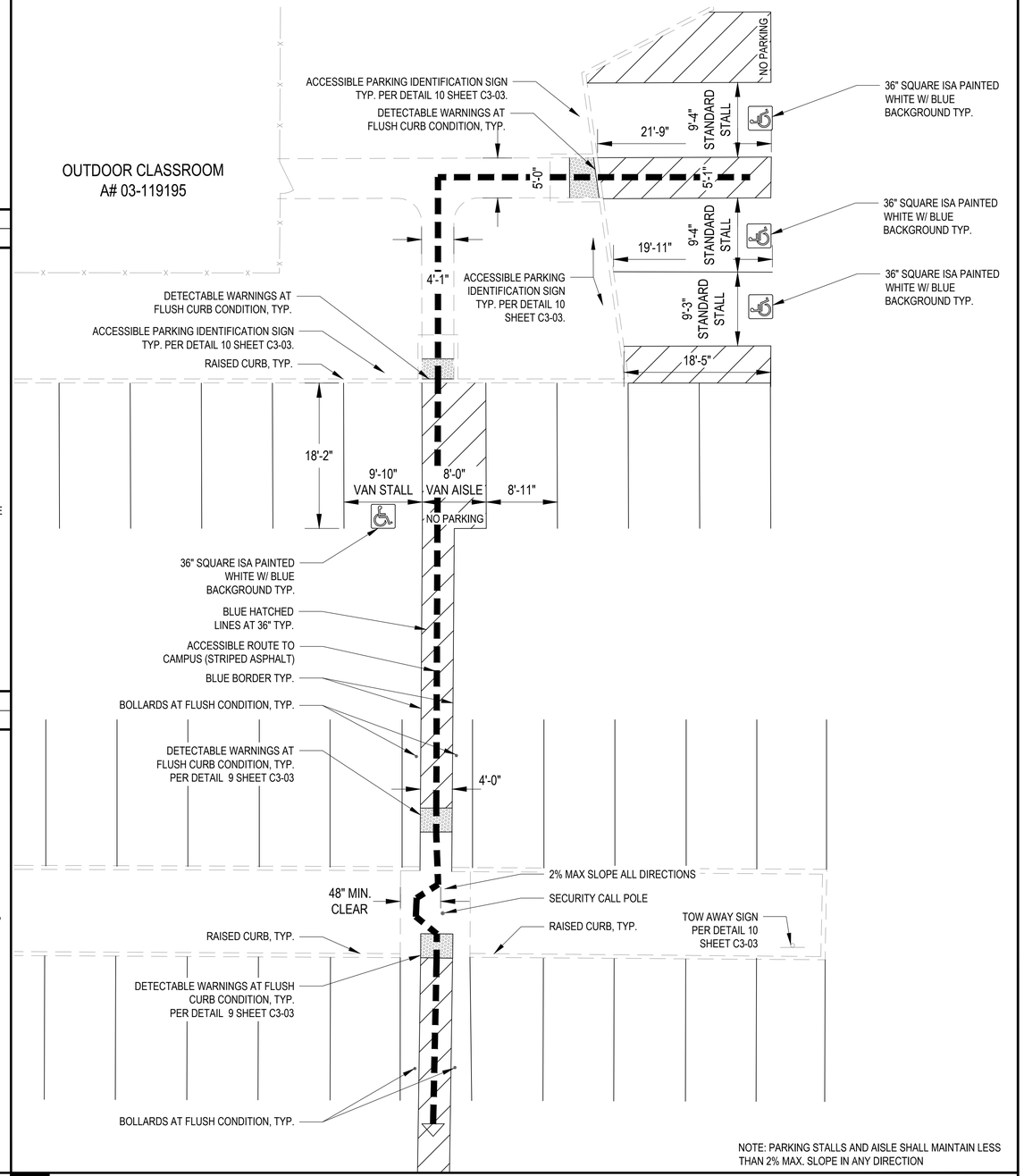


NOTES:

1. EXISTING SIGNS TO CONFORM TO REQUIREMENTS SHOWN IN THIS DETAIL.
2. ENTIRE SIGN TO HAVE REFLECTORIZED FINISH, PER CBC 11B-502.6
3. SEE CBC 11B-502.6 FOR ADDITIONAL REQUIREMENTS
4. SEE CBC 11B-703.7 FOR ADDITIONAL INFORMATION
5. SEE CBC 11B-502.8 FOR ADDITIONAL REQUIREMENTS

10 EXISTING ADA SIGNS

NTS



NOTE: PARKING STALLS AND AISLE SHALL MAINTAIN LESS THAN 2% MAX. SLOPE IN ANY DIRECTION

11 EXISTING ADA PARKING STALLS

1/8" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
ANTHONY W. LLOYD
NO. 71123
EXP. 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

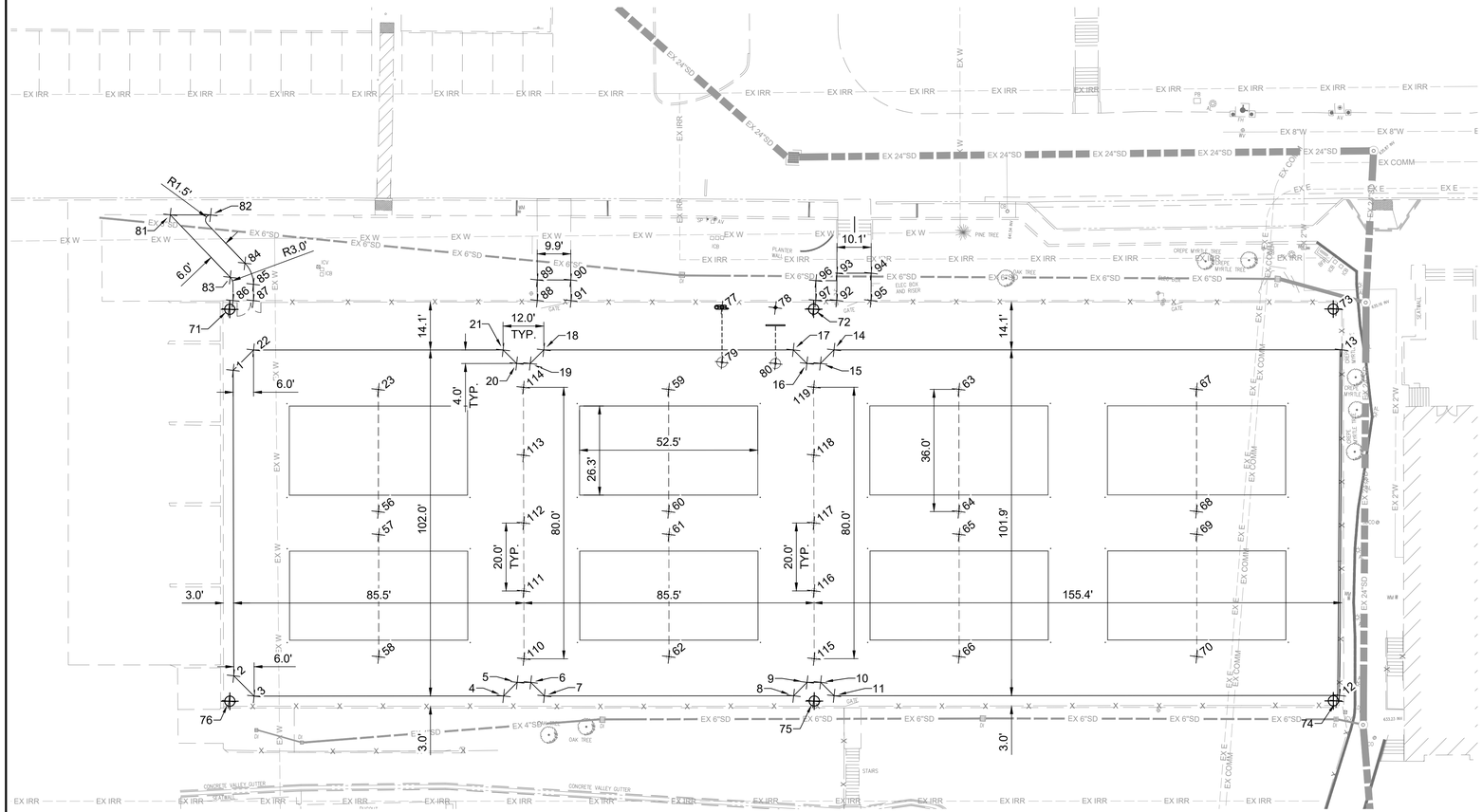
MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	SAW
PROJ.	21-152
SCALE:	

SURFACING AND FENCING DETAILS

DWG. NO.

C3-03



Point Table

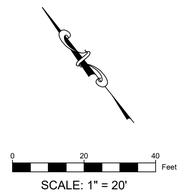
Point #	Description	Northing	Easting
1	EDGE OF SAND	1932293.37	6308471.18
2	EDGE OF SAND	1932222.77	6308415.33
3	EDGE OF SAND	1932214.35	6308416.31
4	EDGE OF SAND	1932168.68	6308473.90
5	EDGE OF SAND	1932169.33	6308479.52
6	EDGE OF SAND	1932166.84	6308482.65
7	EDGE OF SAND	1932161.22	6308483.30
8	EDGE OF SAND	1932115.59	6308540.84
9	EDGE OF SAND	1932116.24	6308546.40
10	EDGE OF SAND	1932113.75	6308549.53
11	EDGE OF SAND	1932108.19	6308550.17
12	EDGE OF SAND	1932015.69	6308666.82
13	EDGE OF SAND	1932095.04	6308730.68
14	EDGE OF SAND	1932188.03	6308613.54
15	EDGE OF SAND	1932187.38	6308607.92
16	EDGE OF SAND	1932189.87	6308604.79
17	EDGE OF SAND	1932195.49	6308604.14
18	EDGE OF SAND	1932241.19	6308546.58
19	EDGE OF SAND	1932240.54	6308540.96
20	EDGE OF SAND	1932243.03	6308537.83
21	EDGE OF SAND	1932248.65	6308537.18
22	EDGE OF SAND	1932294.34	6308479.61
23	NETPOST	1932262.34	6308501.17
56	NETPOST	1932234.14	6308478.79
57	NETPOST	1932228.82	6308474.64

Point Table

Point #	Description	Northing	Easting
58	NETPOST	1932200.62	6308452.26
59	NETPOST	1932209.19	6308568.14
60	NETPOST	1932180.99	6308545.76
61	NETPOST	1932175.67	6308541.61
62	NETPOST	1932147.47	6308519.23
63	NETPOST	1932156.04	6308635.11
64	NETPOST	1932127.85	6308612.73
65	NETPOST	1932122.52	6308608.58
66	NETPOST	1932094.32	6308586.20
67	NETPOST	1932112.53	6308689.94
68	NETPOST	1932084.33	6308667.57
69	NETPOST	1932079.01	6308663.41
70	NETPOST	1932050.81	6308641.04
71	SPORTSLIGHT	1932308.25	6308481.37
72	SPORTSLIGHT	1932201.22	6308616.23
73	SPORTSLIGHT	1932105.39	6308736.98
74	SPORTSLIGHT	1932014.93	6308665.19
75	SPORTSLIGHT	1932110.74	6308544.44
76	SPORTSLIGHT	1932217.78	6308409.57
77	FOUNTAIN	1932218.41	6308595.52
78	SHOWER	1932208.49	6308607.76
79	DRYWELL	1932205.68	6308585.42
80	DRYWELL	1932195.60	6308597.53
81	SIDEWALK	1932340.78	6308485.17
82	SIDEWALK	1932333.38	6308494.45

Point Table

Point #	Description	Northing	Easting
83	SIDEWALK	1932315.39	6308487.55
84	SIDEWALK	1932315.95	6308493.53
85	SIDEWALK	1932309.52	6308491.62
86	SIDEWALK	1932309.49	6308483.94
87	SIDEWALK	1932305.76	6308488.64
88	SIDEWALK	1932253.81	6308554.15
89	SIDEWALK	1932258.54	6308557.91
90	SIDEWALK	1932252.39	6308565.62
91	SIDEWALK	1932247.56	6308561.91
92	SIDEWALK	1932198.95	6308623.25
93	SIDEWALK	1932205.21	6308628.27
94	SIDEWALK	1932198.93	6308636.17
95	SIDEWALK	1932192.64	6308631.14
96	SIDEWALK	1932207.33	6308622.05
97	SIDEWALK	1932202.81	6308618.41
110	NET POST	1932173.53	6308485.39
111	NET POST	1932189.21	6308497.80
112	NET POST	1932204.94	6308510.24
113	NET POST	1932220.58	6308522.62
114	NET POST	1932236.27	6308535.02
115	NET POST	1932120.38	6308552.36
116	NET POST	1932136.07	6308564.77
117	NET POST	1932151.78	6308577.20
118	NET POST	1932167.44	6308589.59
119	NET POST	1932183.13	6308601.99



SCALE: 1" = 20'

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
ANTHONY M. LLOYD
NO. 71123
EXP. 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

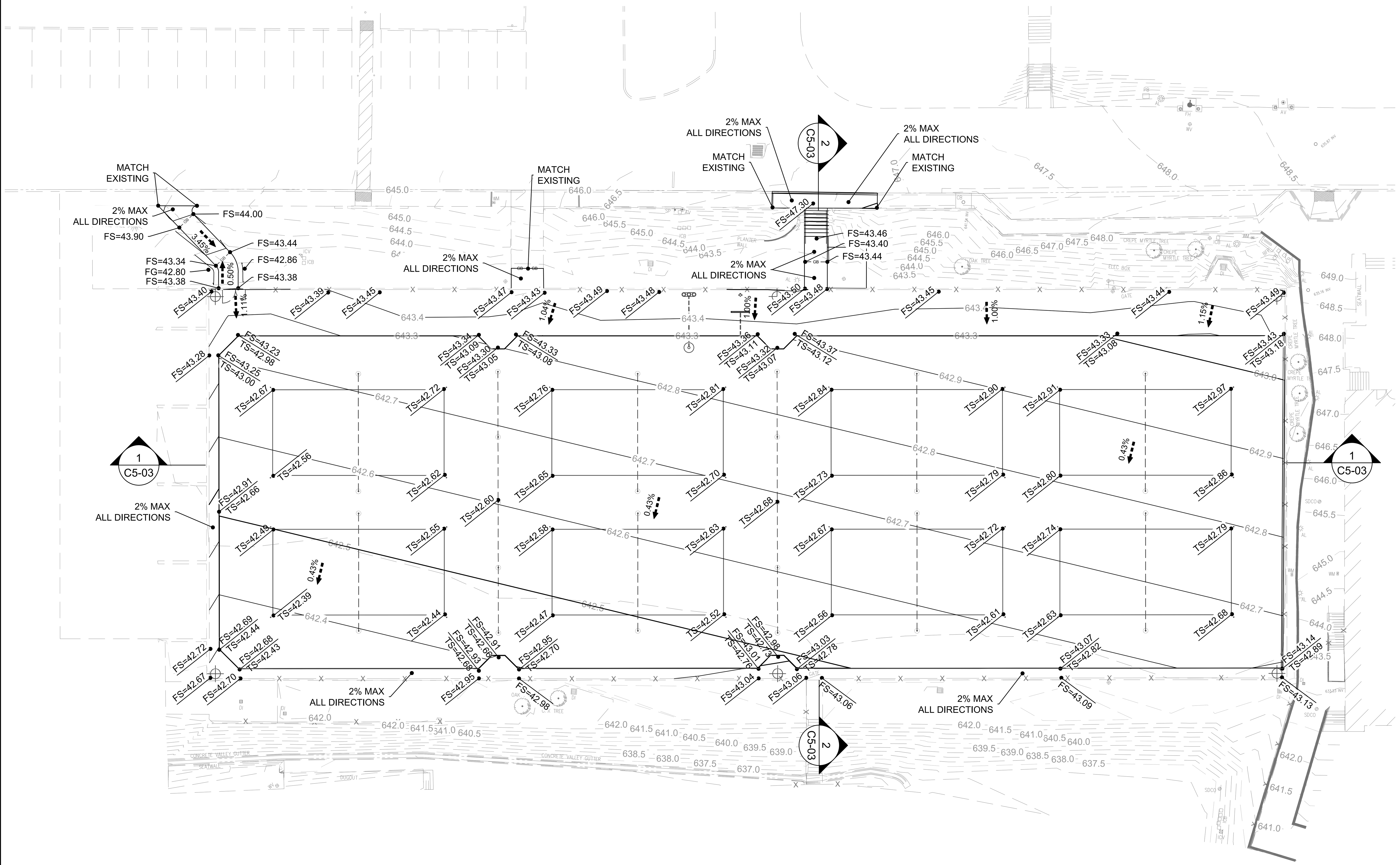
DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	1" = 20'

DIMENSION PLAN

DWG. NO.
C4-01

Z:\Shared\Project\21-152 Moorpark Volleyball\Construction Documents\21152-C4-01 Dimension Plan.dwg 4/4/2023 2:23 PM

PRINT: none



GRADING LEGEND:

FG	FINISHED GRADE
FS	FINISHED SURFACE
TS	TOP OF SAND
	0.1' PROPOSED CONTOUR
— GB — GB — GB —	GRADE BREAK
0.51%	SLOPE ARROW (PERCENT)

GRADING NOTES:

1. TOP OF SAND ELEVATIONS TO BE SET 3" BELOW ADJACENT CONCRETE SIDEWALK.
2. ELEVATIONS SHOWN ARE FINISHED GRADE, CONTRACTOR TO ACCOUNT FOR SURFACING SUCH AS LANDSCAPE FINISHING MATERIAL AND HARDSCAPE WHEN GRADING SUBGRADE.
3. EARTHWORK TO BE PERFORMED IN ACCORDANCE WITH SPECIFICATIONS AND GEOTECHNICAL REPORT.

EARTHWORK NOTES:

	CUT	FILL
EX. PAVEMENT REMOVAL	1,067 CY	
PROJECT EARTHWORK	1,647 CY	0 CY
TOTAL ESTIMATED EXPORT	2,714 CY	
COURT SAND IMPORT	2,023 CY	

NOTES:
1. THE ENGINEER MAKES NO REPRESENTATION OR GUARANTEE REGARDING EARTHWORK QUANTITIES OR THAT THE EARTHWORK FOR THIS PROJECT WILL BALANCE DUE TO THE VARYING FIELD CONDITIONS, CHANGING SOIL TYPES, ALLOWABLE CONSTRUCTION TOLERANCES AND CONSTRUCTION METHODS THAT ARE BEYOND THE CONTROL OF THE ENGINEER.
2. EARTHWORK QUANTITIES WERE CALCULATED USING EXISTING SURFACE ELEVATIONS AND PROPOSED SUBGRADE. IMPORTED MATERIALS FOR BASE OR SURFACING ARE NOT INCLUDED.
3. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR FOOTING AND FOUNDATION EXCAVATIONS, TRENCHING VOLUMES, OR RIP AND RE-COMPACT LOSSES.
4. EARTHWORK QUANTITIES DO NOT ACCOUNT FOR SHRINK OR SWELL FACTORS.
5. CONTRACTOR SHALL STOCKPILE EXPORT ON THE ADJACENT SITE AND AT A LOCATION ACCEPTABLE TO THE UNIVERSITY.
6. VOLUME OF COURT SAND SHOWN IS FOR REFERENCE AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL PERFORM THEIR OWN TAKE-OFFS TO DETERMINE QUANTITY OF COURT SAND REQUIRED FOR PROJECT.

SCALE: 1" = 20'

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD
SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
NO. 71123
EXP. 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

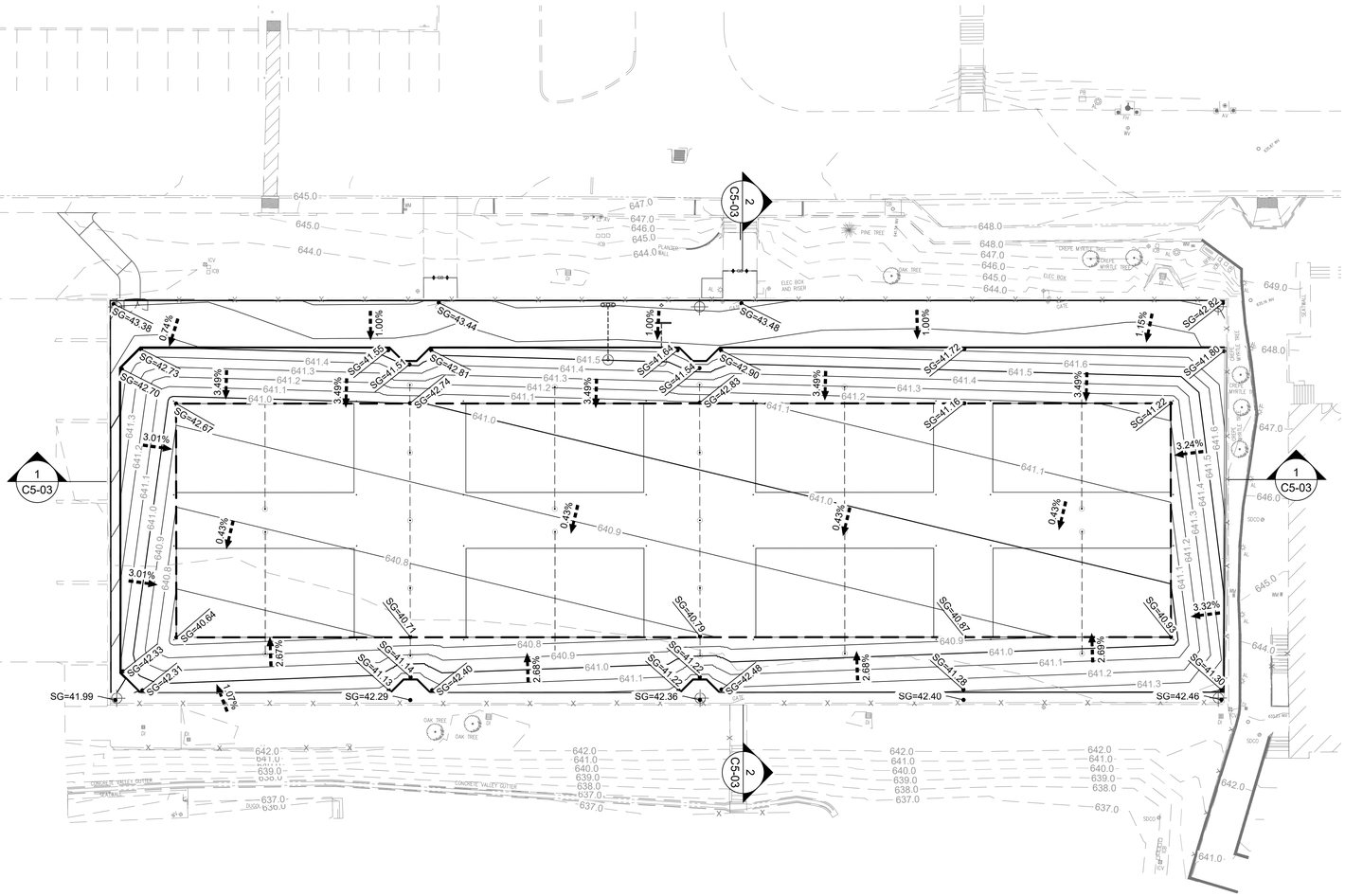
MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	1" = 20'

GRADING PLAN

DWG. NO.
C5-01

Z:\Shared\Project\21-152 Moorpark Volleyball\Construction Documents\21152-C5-01 Grading Plan.dwg 4/4/2023 2:24 PM



GRADING LEGEND:

SG	SUB GRADE
————	0.1' PROPOSED CONTOUR
— GB — GB — GB —	GRADE BREAK
0.51% ⇢	SLOPE ARROW (PERCENT)

GRADING NOTES:

1. TOP OF SAND ELEVATIONS TO BE SET 3" BELOW ADJACENT CONCRETE SIDEWALK.
2. ELEVATIONS SHOWN ARE FINISHED GRADE, CONTRACTOR TO ACCOUNT FOR SURFACING SUCH AS LANDSCAPE FINISHING MATERIAL AND HARDSCAPE WHEN GRADING SUBGRADE.
3. EARTHWORK TO BE PERFORMED IN ACCORDANCE WITH SPECIFICATIONS AND GEOTECHNICAL REPORT.

0 20 40 Feet

SCALE: 1" = 20'

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
ANTHONY M. LLOYD
NO. 71123
EXP. 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

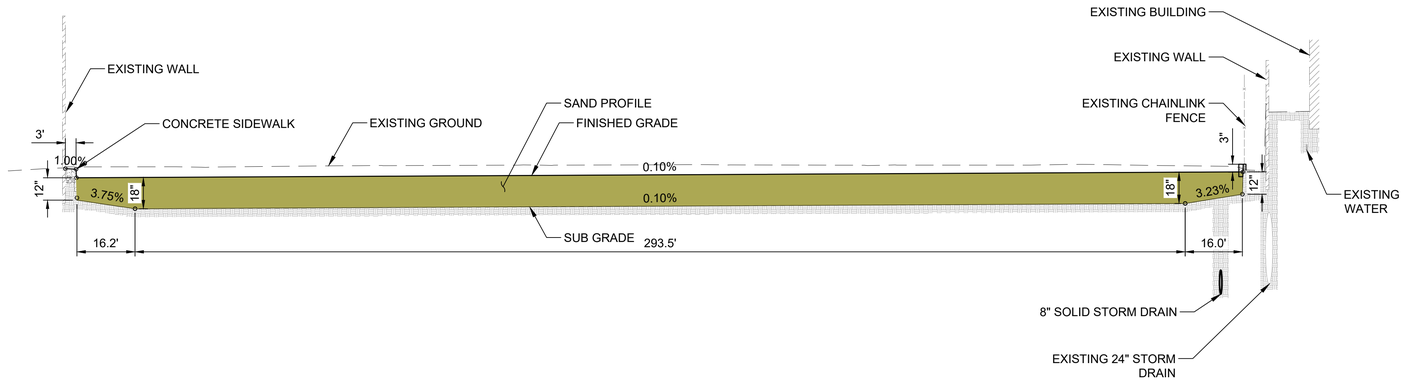
DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	1" = 20'

GRADING PLAN - SUBGRADE

DWG. NO.

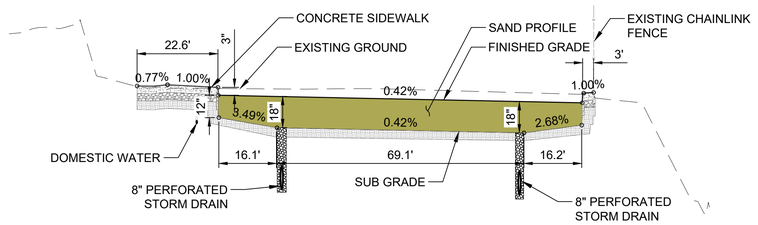
C5-02

Z:\Shared\Project\21-152 Moorpark Volleyball\Construction Documents\21152-C5-02 Grading Plan SG.dwg 4/4/2023 2:24 PM



1 SECTION 1

SCALE: 1" = 20' HORZ, 1" = 4' VERT



2 SECTION 2

SCALE: 1" = 20' HORZ, 1" = 4' VERT

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER ANTHONY T. LLOYD JR. NO. 71123 EXP. 06/30/23 CIVIL STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

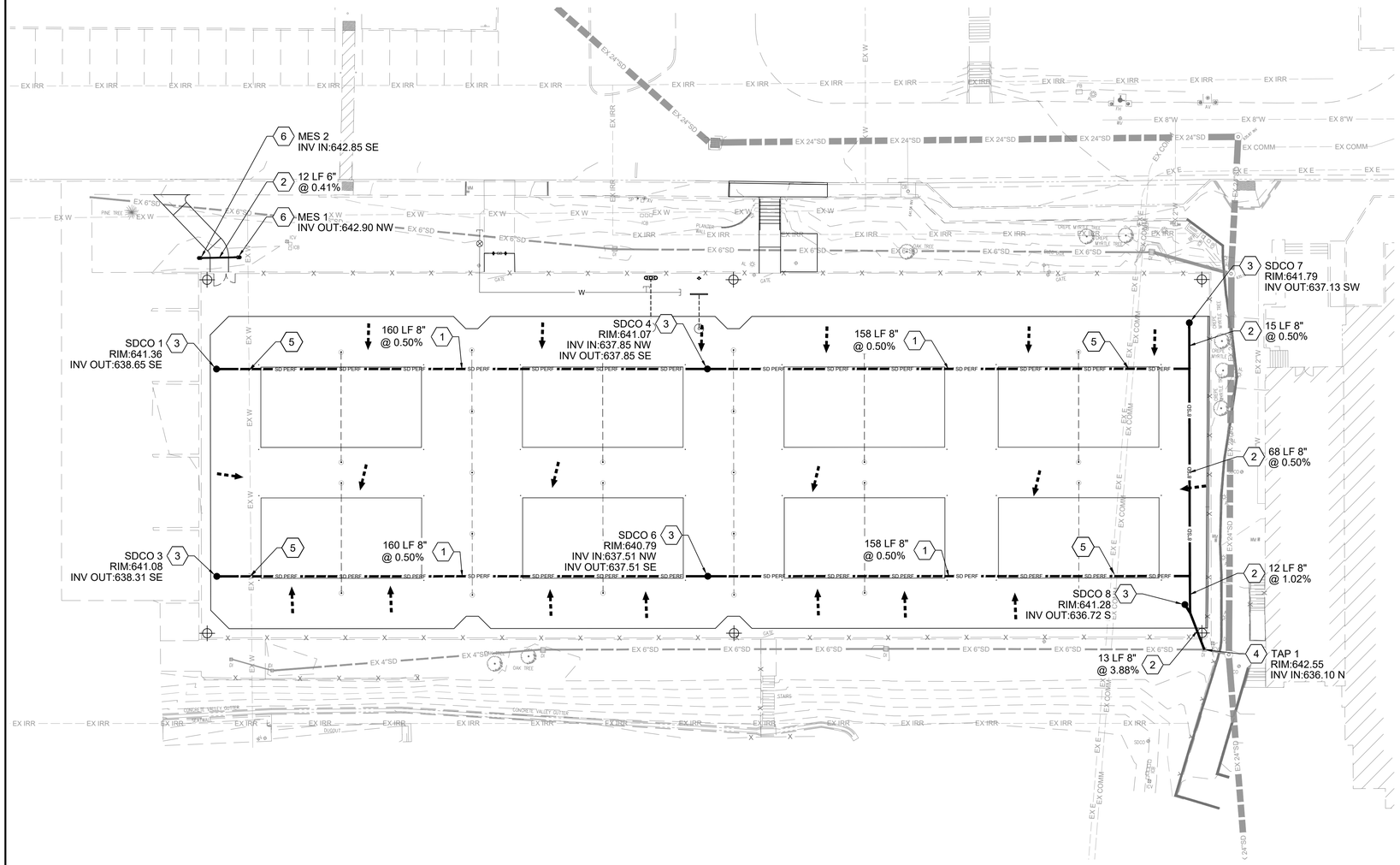
DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	

GRADING SECTIONS

DWG. NO.

C5-03

Z:\Shared\Project\21-152 Moorpark Volleyball\Construction Documents\21152-C5-03 Grading Sections.dwg 4/4/2023 2:25 PM



DRAINAGE KEYNOTES:

1. INSTALL PERFORATED CHDPE COLLECTOR PIPE, SIZE AND SLOPES PER PLAN. SEE DETAIL 1 ON SHEET C6-02.
2. INSTALL NON-PERFORATED CHDPE DRAIN PIPE, SIZE AND SLOPES PER PLAN. SEE DETAIL 2 ON SHEET C6-02.
3. INSTALL CLEANOUT, INVERT PER PLAN. RIM SET TO BOTTOM OF SAND.
4. CONNECT STORM DRAIN OUTLET TO EXISTING CATCH BASIN. INVERT PER PLAN. SEE DETAIL 4 ON SHEET C6-02.
5. CROSSING, CONTRACTOR TO VERIFY EXISTING UTILITY DEPTH PRIOR TO CONSTRUCTION. MAINTAIN 24" OF SEPARATION. CONTACT ENGINEER FOR ANY DISCREPANCIES.
6. INSTALL MITERED END SECTION, SIZE AND INVERT PER PLAN. SEE DETAIL 5 ON SHEET C6-02.

DRAINAGE LEGEND

●	SDCO (STORM DRAIN CLEANOUT)
8"SD	NON-PERFORATED CHDPE DRAIN PIPE
SD PERF	PERFORATED CHDPE DRAIN PIPE
➡	SURFACE FLOW DIRECTION
LF	LINEAR FEET
INV	INVERT
RIM	RIM ELEVATION
MES	MITERED END SECTION
CHPDE	CORRUGATED HIGH DENSITY POLYETHLENE PIPE

LLOYD
SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

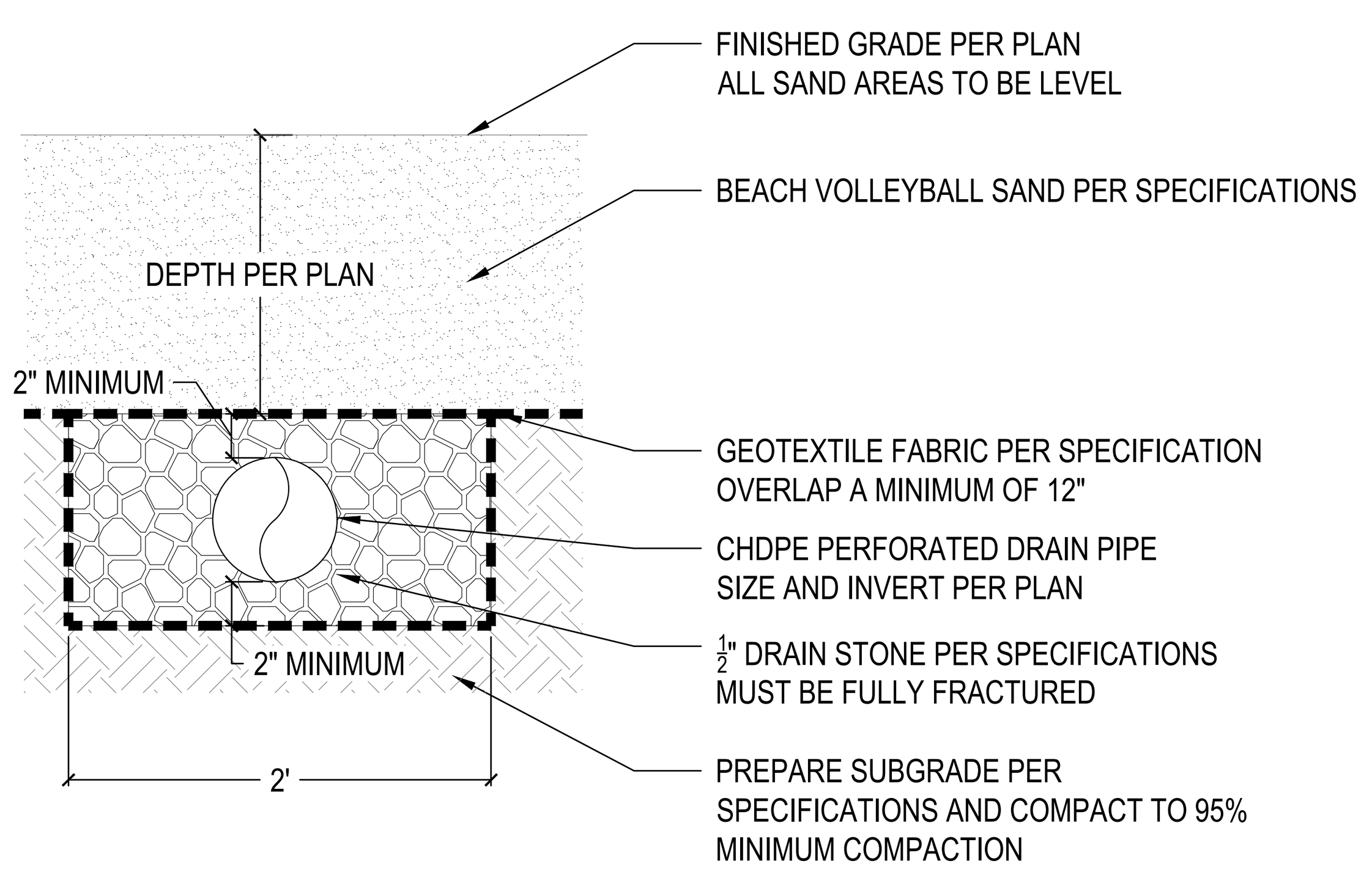
MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	1" = 20'

DRAINAGE PLAN

DWG. NO.

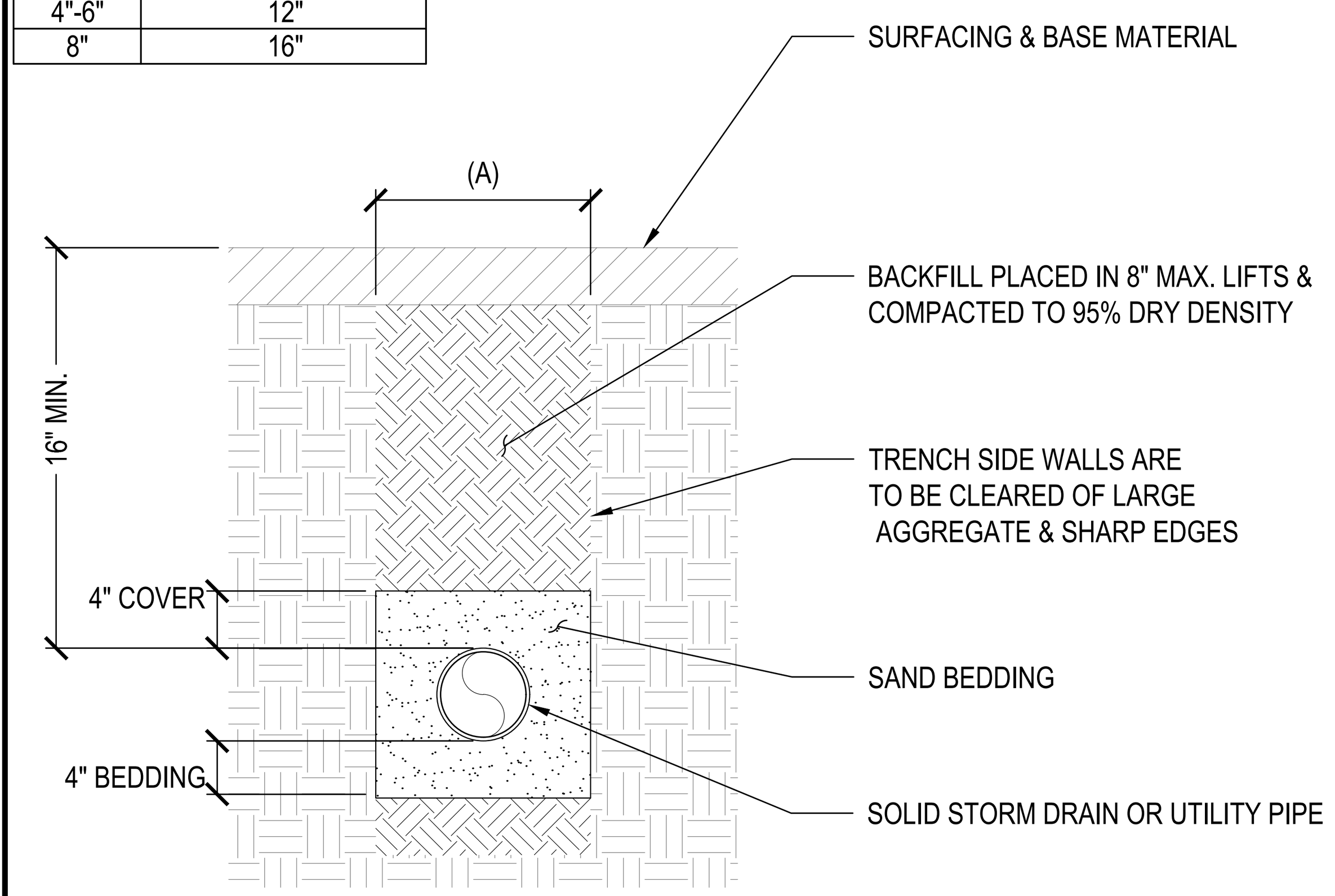
C6-01



NOTES:
1. CONTRACTOR MUST SUBMIT GRADATIONS FOR BOTH TRENCH STONE AND SAND FOR REVIEW. SAND/STONE BRIDGING MUST BE VERIFIED BY ENGINEER PRIOR TO CONSTRUCTION.

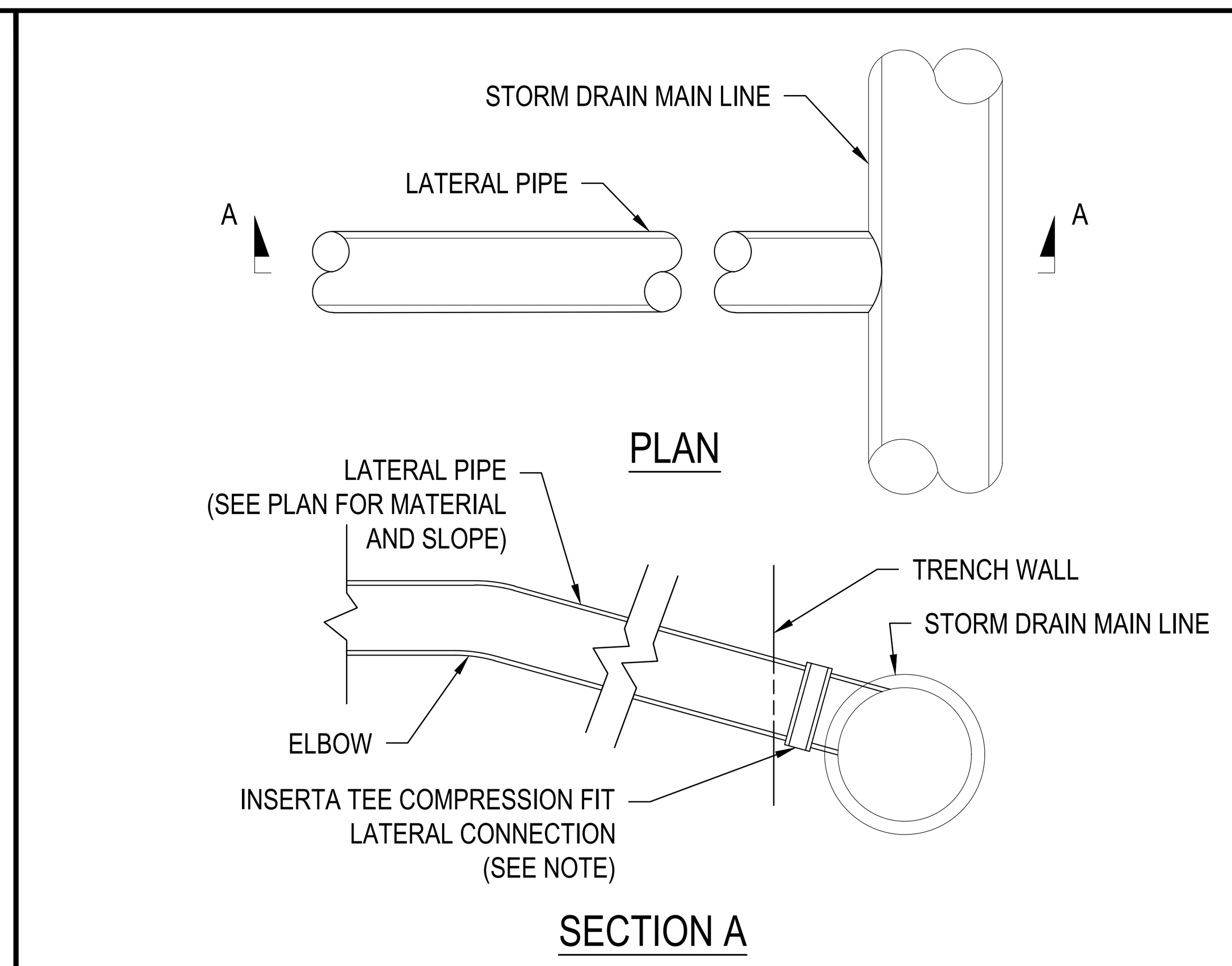
1 PERFORATED COLLECTOR PIPE
NTS

TRENCH WIDTH (A)	
PIPE DIA.	TRENCH WIDHT
4"-6"	12"
8"	16"



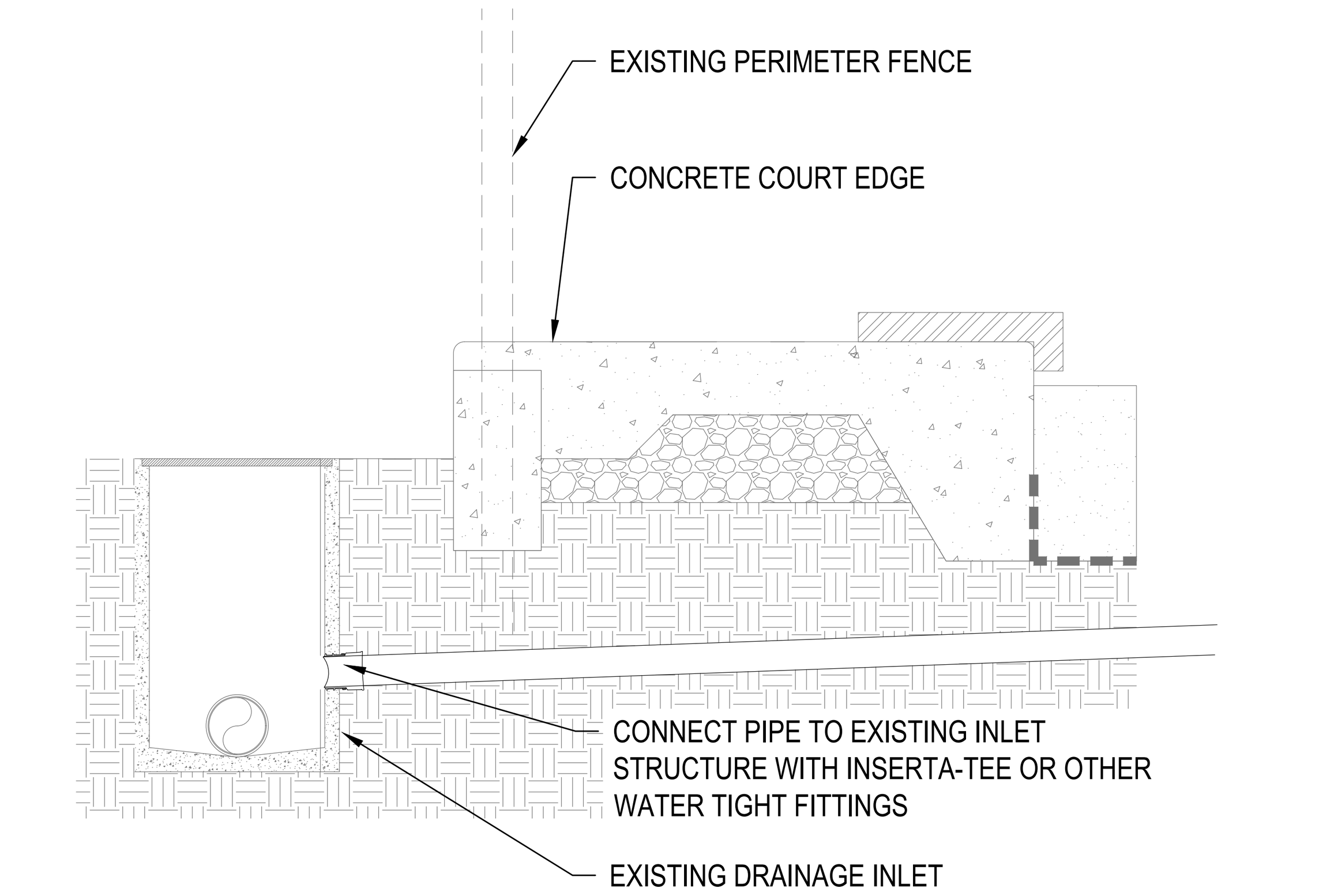
NOTES:
1. TRENCH WIDTH SHALL BE FROM THE BELL ENDS OR WIDEST DIAMETER OF THE PIPE.
2. REFER TO THE PROJECT GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION REGARDING TRENCHING, BACKFILL AND COMPACTION.

2 SOLID DRAIN & UTILITY PIPE TRENCH
NTS



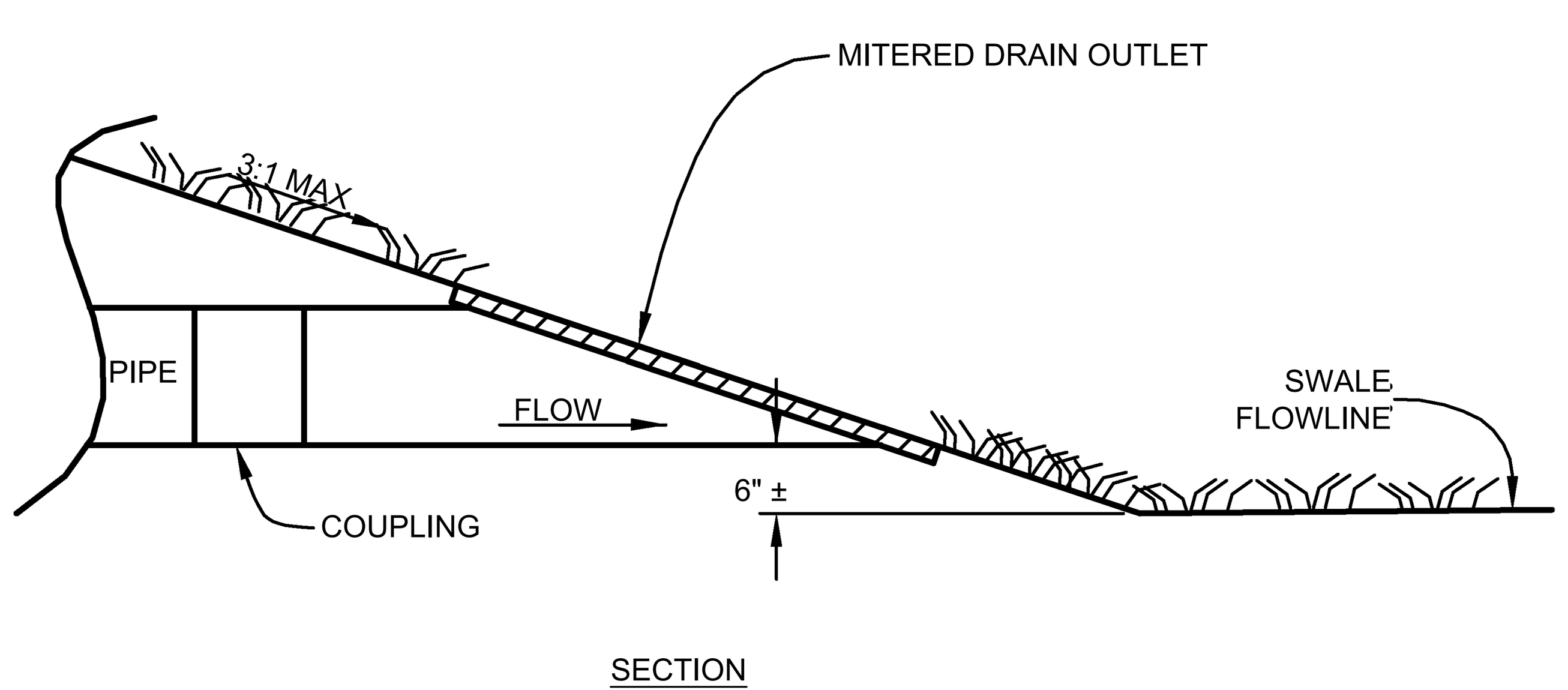
NOTES:
1. CONNECTION OF THE NEW LATERAL TO MAINLINE SHALL BE ACCOMPLISHED BY MEANS OF A COMPRESSION-FIT SERVICE CONNECTION. THE SERVICE CONNECTION SHALL INSERTA TEE AN MANUFACTURED BY ADS-PIPE.

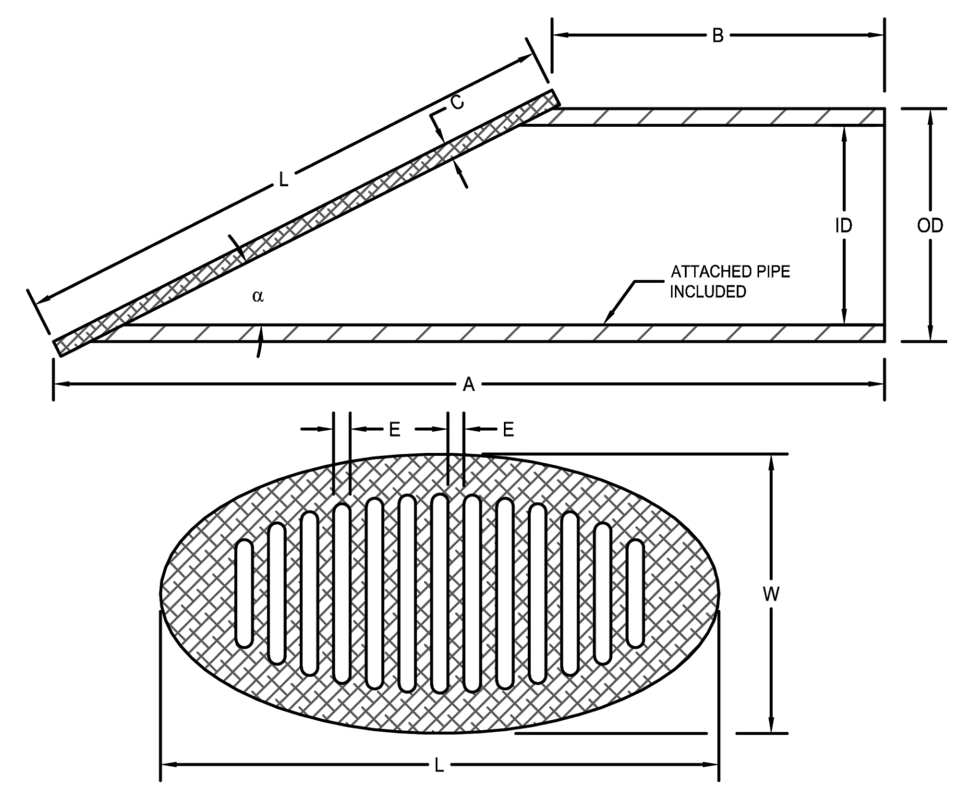
3 INSERTA-TEE LATERAL TO PVC MAIN CONNECTION
NTS



NOTES:
1. EXISTING FIELD STORM DRAIN INLET AND PIPE LOCATIONS ARE APPROXIMATE. CONTRACTOR MUST FIELD LOCATE ALL DRAIN INLETS PRIOR TO CONSTRUCTION.
2. NOTIFY ENGINEER IMMEDIATELY IF EXISTING DRAINAGE CAN NOT BE LOCATED OR IS IN SIGNIFICANTLY DIFFERENT LOCATIONS THAN SHOWN.
3. DO NOT INSTALL ANY DRAINAGE COMPONENTS WITH LESS THAN 0.5% SLOPE IN THE FLOW DIRECTION INDICATED ON THE PLANS.
4. DO NOT ALTER DRAINAGE PIPE LOCATIONS OR INVERTS WITHOUT ENGINEER CONSULTATION.

4 CONNECTED TO EXISTING DRAIN INLETS
NTS





DIMENSION TABLE *

PIPE SIZE	SLOPE	MODEL NO.	GRATE MATERIAL	ATTACHED MITERED PIPE MATERIAL	A(in.)	B(in.)	C(in.)	ID(in.)	OD(in.)	E(in.)	L(in.)	W (in.)	α	APPROX. WEIGHT (lbs.)	AREA OF GRATE OPENING (sq. in.)
6"	3:1	6MD3P	GRAY HDPE	C900-CL 200	30	8	0.75	5.85	6.9	0.50	22.4	7.5	18.5°	13	41.9

* ALL DIMENSIONS ARE IN INCHES AND ALL WEIGHTS ARE IN POUNDS, AND MAY VARY.

5 MITERED DRAIN OUTLET
NTS

7 NOT USED

8 NOT USED

9 NOT USED

10 NOT USED

11 NOT USED

12 NOT USED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD
SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REV.

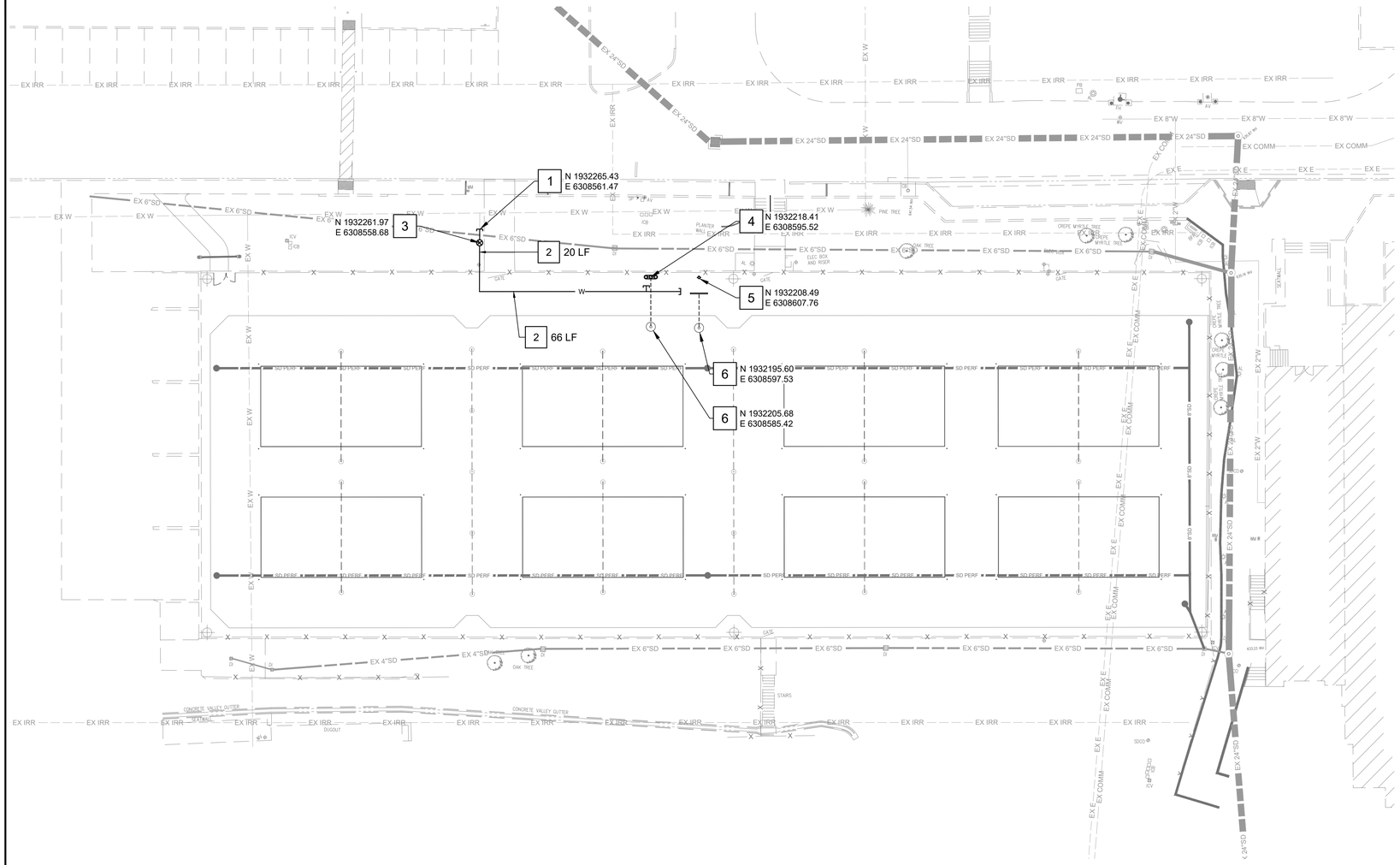
MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	

DRAINAGE DETAILS

DWG. NO.
C6-02



WATER KEYNOTES:

1. CONNECT TO EXISTING COPPER WATER LINE UPSTREAM OF EXISTING HOSE BIB AT THE APPROXIMATE LOCATION INDICATED.
2. INSTALL POLYWRAPPED TYPE K 3/4" POTABLE WATER LINE PER DETAIL 1 ON SHEET C7-02.
3. INSTALL BRONZE BALL VALVE WATER SHUTOFF IN CONCRETE VALVE BOX WITH STEEL LID PER DETAIL 2 ON SHEET C7-02.
4. INSTALL DRINKING FOUNTAIN PER MANUFACTURER'S REQUIREMENTS AND CONNECT TO NEW WATER LINE.
5. INSTALL SAND WASH STATION PER MANUFACTURER'S REQUIREMENTS AND CONNECT TO NEW WATER LINE. INSTALL TRENCH DRAIN AT PERIMETER PER DETAIL 3 AND 5 ON SHEET C7-02.
6. INSTALL PRE-MANUFACTURED DRYWELL AND CONNECT TO DRINKING FOUNTAIN AND SHOWER DRAIN PER DETAIL 4 ON SHEET C7-02.

UTILITY LEGEND

- W — 3/4" POTABLE WATER LINE
- DRINKING FOUNTAIN
- WATER VALVE
- PRE-MANUFACTURED DRYWELL

0 20 40 Feet

SCALE: 1" = 20'

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
ANTHONY M. LLOYD
NO. 71123
EXP. 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

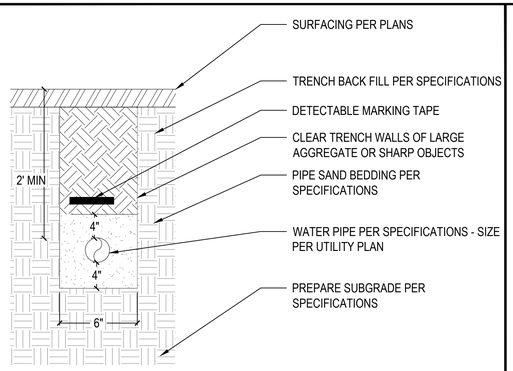
DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	1" = 20'

UTILITY PLAN

DWG. NO.
C7-01

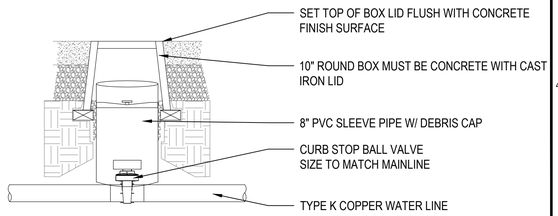
Z:\Shared\Project\21-152 Moorpark Volleyball\Construction Documents\21152-C7-01 Utility Plan.dwg 4/4/2023 2:26 PM

PREF: none



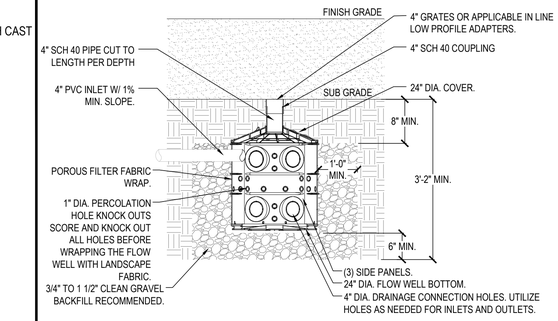
NOTES:
1. WRAP ALL PIPE IN POLYWRAP.

1 POTABLE WATER LINE
NTS



NOTES:
1. CONCRETE VALVE BOX CHRISTY G05 WITH CAST IRON LID MARKED WATER.

2 POTABLE ISOLATION BALL VALVE
NTS



NOTES:
1. MUST BE INSTALLED 10' AWAY FROM STRUCTUREOR FOUNDATION.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

3 24" PRE-MANUFACTURED DRYWELL
NTS

4 NOT USED

5 NOT USED

6 NOT USED

7 NOT USED

8 NOT USED

9 NOT USED

10 NOT USED

11 NOT USED

12 NOT USED

Z:\Shared\Project\21-152 Moorpark Volleyball\Construction Documents\21152-C7-02 Utility details.dwg 4/4/2023 2:26 PM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
ARIZONA
NO. 71123
EXP. 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

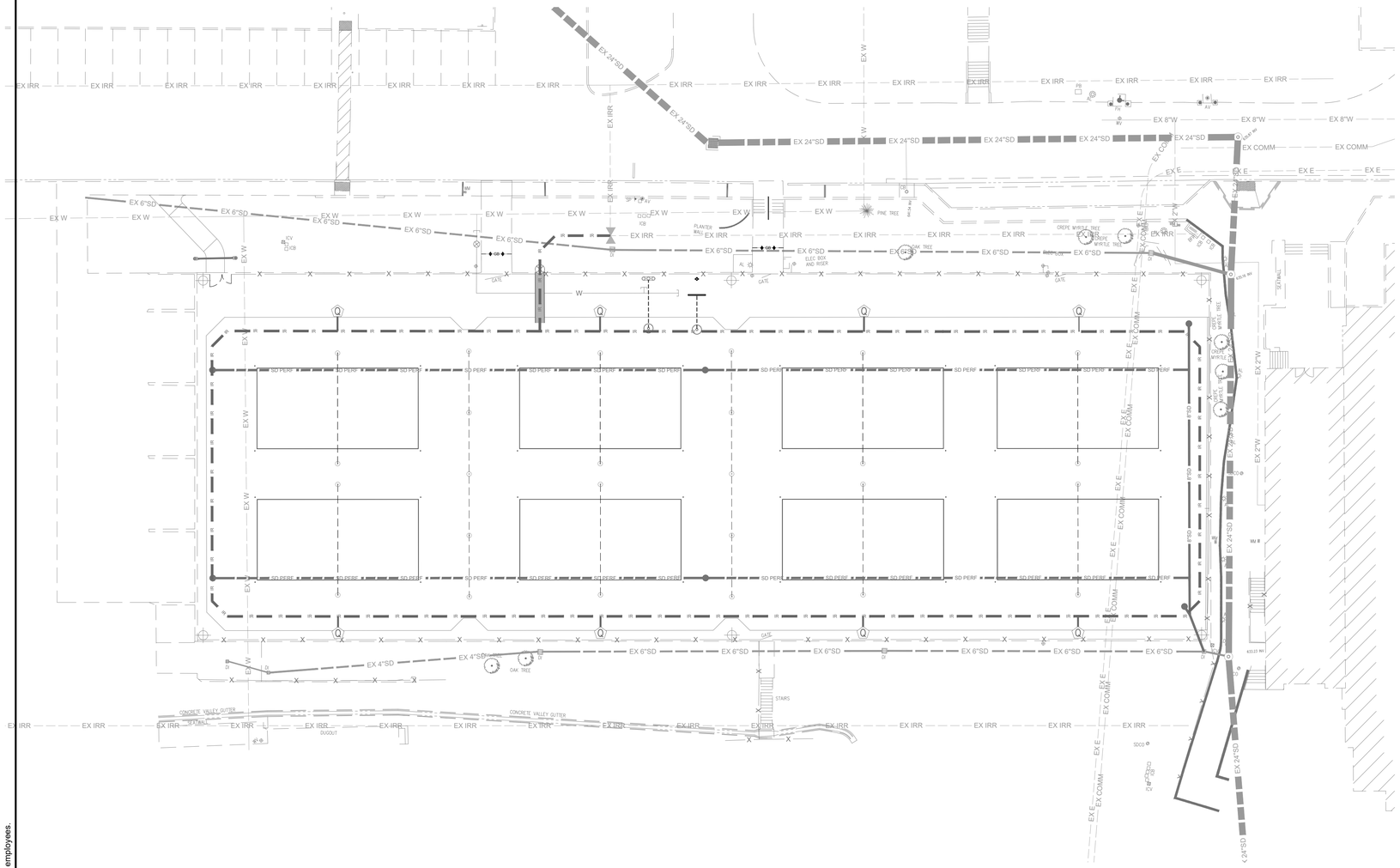
MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	

UTILITY DETAILS

DWG. NO.
C7-02



IRRIGATION PLAN LEGEND:

- EXISTING IRRIGATION MAINLINE
- CONNECT TO EXISTING IRRIGATION MAINLINE
- IRRIGATION MAINLINE 2" SOLVENT WELD SCH40 PVC W/ SCH 80 FITTINGS
- ISOLATION GATE VALVE (SIZE TO MATCH MAINLINE)
  NIBCO 619-RW-SON
- QUICK COUPLER VALVE
  RAINBIRD QR44 1-1/2" SIZE
  INSTALL QC ENCLOSURE IN CONCRETE SIDEWALK PER DETAIL.
- CLASS 200 PVC SLEEVE
  2X LARGER THAN CARRIER PIPE DIAMETER OR 3" MINIMUM
  SEPARATE SLEEVES FOR ALL PIPE AND WIRE BUNDLE

IRRIGATION NOTES:

1. CONNECT TO EXISTING MAINLINE AT THE APPROXIMATE LOCATIONS SHOWN. FLOW AND PRESSURE MUST BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. IF PRESSURE IS LESS THAN 65 PSI AT 100 GPM NOTIFY ENGINEER IMMEDIATELY.
2. REFER TO SPECIFICATIONS FOR ALL PRESSURE TESTING AND FLUSHING REQUIREMENTS.
3. ALL IRRIGATION VALVE AND PIPE SYMBOL LOCATIONS ARE DIAGRAMMATIC. DO NOT INSTALL IRRIGATION EQUIPMENT IN DIRECT CONFLICT WITH UTILITY, LANDSCAPE, OR HARDSCAPE ELEMENTS. COORDINATE LOCATION OF ALL NEW AND EXISTING UTILITIES PRIOR TO IRRIGATION INSTALLATION. CONTACT ENGINEER IMMEDIATELY IF CONFLICTS ARE LOCATED.
4. EXISTING UTILITIES SHOWN ARE FOR REFERENCE ONLY. ADDITIONAL UTILITIES MAY BE PRESENT. CONTRACTOR MUST UTILIZE UTILITY LOCATION SERVICE PRIOR TO CONSTRUCTION AND TRENCH WITH CAUTION. CONTRACTOR IS RESPONSIBLE TO REPAIR OR REPLACE ANY UTILITIES DAMAGED DURING CONSTRUCTION.
4. COORDINATE IRRIGATION COMPONENTS WITH PROPOSED FOOTINGS AND UTILITIES PRIOR TO CONSTRUCTION.

0 20 40 Feet

SCALE: 1" = 20'

Z:\Shared\Project\21-152 Moorpark Volleyball\Construction Documents\21152-L8-01 Irrigation Plan.dwg 4/4/2023 2:27 PM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
ANTHONY STEVEN LLOYD
NO. 71123
EXP. 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

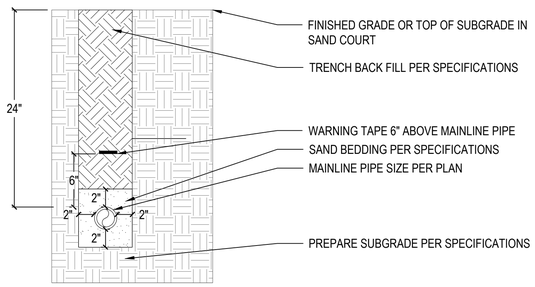
MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	1" = 20'

IRRIGATION PLAN

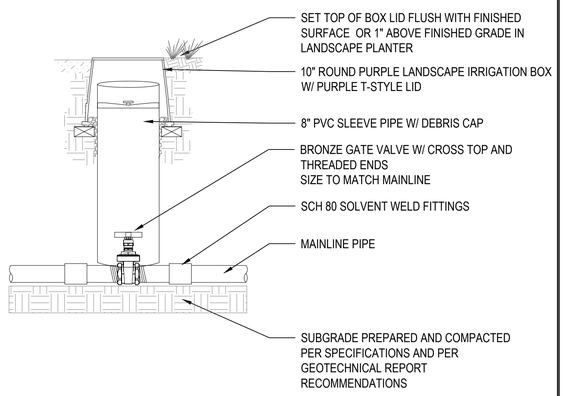
DWG. NO.

L8-01



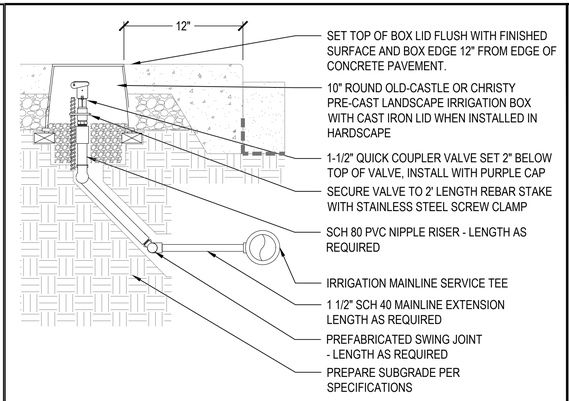
NOTES:
1. COMPACTION TESTING ON ALL TRENCHES BELOW PAVEMENT IS REQUIRED.
2. INSTALL SEPARATE PVC SLEEVES AT ALL HARDSCAPE OR UTILITY CROSSINGS.
3. INCREASE BURY DEPTH TO A MINIMUM OF 30" UNDER ALL PAVEMENT.

1 IRRIGATION TRENCH
NTS



NOTES:
1. DO NOT INSTALL ANY IRRIGATION VALVE WITHIN THE SYNTHETIC TURF AREA.

2 GATE VALVE - 2" AND SMALLER
NTS



NOTES:
1. INSTALL QUICK COUPLER SWING JOINT WITH MINIMUM ANGEL OF 25° AND A MAXIMUM ANGLE OF 45°. MAINLINE DEPTH WILL DETERMINE SWING JOINT LENGTH REQUIRED.
2. SET TOP OF VALVE 3" BELOW VALVE BOX LID TO ALLOW QUICK COUPLER KEY OUTLET TO SET ABOVE FINISHED GRADE.

3 QUICK COUPLER IN PAVEMENT AREA
NTS

4 NOT USED

5 NOT USED

6 NOT USED

7 NOT USED

8 NOT USED

9 NOT USED

10 NOT USED

11 NOT USED

12 NOT USED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

CONSTRUCTION DOCUMENTS

REGISTERED PROFESSIONAL ENGINEER
ANTHONY M. LLOYD
NO. 71123
EXP: 06/30/23
CIVIL
STATE OF CALIFORNIA
4/4/2023

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	BL
DATE:	APR 4, 2023
DRAWN:	TML
PROJ.	21-152
SCALE:	

IRRIGATION DETAILS

DWG. NO.

L8-02

Z:\Shared\Project\21-152 Moorpark Volleyball\Construction Documents\21152-L8-02 Irrigation details.dwg 4/4/2023 2:27 PM

DRSP none

GENERAL NOTES

A. GENERAL

1. SCOPE
THE DRAWINGS AND THESE GENERAL NOTES DESCRIBE THE SCOPE OF WORK AND SYSTEMS. THE MATERIAL REQUIRED FOR THE WORK SHALL BE CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED, UNLESS SPECIFICALLY NOTED OTHERWISE. THE WORK INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING PRINCIPAL SYSTEMS AND EQUIPMENT. ALL ITEMS NOTED ON THE PLAN WHICH ARE NOT EXPLICITLY STATED AS EXISTING SHALL BE NEW.

2. PERMITS AND CHARGES
OBTAIN AND PAY FOR ALL NECESSARY CONSTRUCTION PERMITS, INSPECTION FEES, AND OTHER CHARGES BY AGENCIES HAVING JURISDICTION.

3. REGULATIONS AND CODES
PROVIDE AND INSTALL ALL MATERIALS IN CONFORMANCE WITH DSA REQUIREMENT AND THE 2022 C.E.C., CALIFORNIA ADMINISTRATIVE CODE TITLE 8, AND OTHER CODES AND REGULATIONS HAVING JURISDICTION. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY AND THE MANUFACTURERS RECOMMENDATIONS.

4. VERIFYING EXISTING CONDITIONS
BEFORE SUBMITTING BID, BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS AT THE BUILDING. THE INTENT OF THE WORK IS SHOWN ON THE DRAWINGS AND DESCRIBED HEREINAFTER. BY THE ACT OF SUBMITTING A BID PROPOSAL FOR THE WORK, THE CONTRACTOR SHALL BE DEEMED TO HAVE MADE SUCH STUDY AND EXAMINATION AND TO ACCEPT ALL CONDITIONS PRESENT AT THE SITE. NO REQUEST FOR ADDITIONAL PAYMENT WILL BE CONSIDERED AS VALID, DUE TO FAILURE TO ALLOW FOR CONDITIONS WHICH MAY EXIST.

5. COORDINATION
COORDINATE ALL WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTION REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT. ELECTRICAL EQUIPMENT LOCATIONS INDICATED ARE SHOWN DIAGRAMMATICALLY, EXACT LOCATION SHALL BE VERIFIED. SCALING OFF OF DRAWINGS SHALL BE DONE AT CONTRACTORS RISK. DO NOT SCALE DEVICES, LIGHTING FIXTURES OR ANY EQUIPMENT FROM PLANS. LIGHTING FIXTURE QUANTITIES AND LENGTHS SHALL BE CONTRACTORS RESPONSIBILITY. FIXTURES ARE SHOWN FOR CIRCUITING ONLY. CONTRACTOR TO VERIFY SIZES & QUANTITIES PRIOR TO BID.

6. SERVICE CONTINUITY
UNINTERRUPTED EXISTING ELECTRICAL POWER SHALL BE MAINTAINED TO OTHER TRADES FOR TEMPORARY POWER AREAS OF THE SITE DURING CONSTRUCTION. PROVIDE ANY TEMPORARY SERVICES AS MAY BE REQUIRED. IDENTIFY AT BID TIME, ALL WORK TO BE DONE ON PREMIUM TIME AND THE TOTAL OVERTIME MAN-HOURS REQUIRED FOR COMPLETION.

7. AS BUILT
PROVIDE RECORD DRAWINGS IN ACAD TO THE OWNER WITH ALL CHANGES NOTED THEREON AT THE COMPLETION OF THE PROJECT. RECORD DRAWINGS SHALL BE SIGNED AND DATED BY CONTRACTOR PRIOR TO RELEASE OF FINAL RETENTION OF ALL MONIES.

8. GUARANTEE
CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE ALL LABOR AND MATERIALS ON ALL WORK AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR.

9. SHOP DRAWINGS
SUBMIT SHOP DRAWINGS AND MATERIAL LIST FOR REVIEW PRIOR TO COMMENCING ANY WORK. ALL EQUIPMENT TO BEAR U.L. LABEL OR THAT OF ANOTHER ACCEPTABLE TESTING LABORATORY. SHOP DRAWINGS MUST BE STAMPED BY THE CONTRACTOR FOR CONFORMANCE PRIOR TO SUBMITTAL. SUBMIT THREE HARD COPY SETS OF SHOP DRAWINGS FOR REVIEW PRIOR TO PURCHASING ALL BREAKER MOUNTING HARDWARE, DISCONNECT SWITCHES, FUSES, CONTROLLERS, LIGHTING FIXTURES, LIGHT SWITCHES, RECEPTACLES, ETC.

10. CONTRACTOR BID
CONTRACTOR'S BID SHALL BE BASED ON ALL WORK SHOWN ON THE PLANS AND AS SPECIFIED. IF CONTRACTOR PROPOSES TO SUBSTITUTE FOR EQUIPMENT SPECIFIED, HE SHALL SUBMIT HIS REQUEST FOR CONSIDERATION OF THE OWNER AND ENGINEER PRIOR TO BID IN WRITING. ALL SUBSTITUTIONS MUST BE REVIEWED BY THE ENGINEER IN WRITING. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS, AND THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS OWN EXPENSE FOR ANY CHARGES RESULTING FROM HIS PROPOSED SUBSTITUTIONS WHICH AFFECT OTHER PARTS OF HIS OWN WORK, THE OWNER, ENGINEER OF RECORD OR THE WORK OF OTHER CONTRACTORS.

B. MATERIAL AND INSTALLATION
ALL WORK AND MATERIAL SHALL CONFORM TO THE LATEST RULES OF THE GOVERNING ELECTRICAL CODE AND INSTALLATION SHALL BE OF THE LATEST INDUSTRY STANDARDS OF WORKMANSHIP.

ALL INSTALLED MATERIALS AND EQUIPMENT SHALL BE LISTED U.L., NRTL OR LISTED AND APPROVED BY AN APPROVED TESTING LABORATORY.

1. CONDUITS
CONDUIT SHALL BE EMT, PVC, IMC, RIGID OR FLEXIBLE STEEL TYPE. CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH UL-1. A GROUND WIRE IS REQUIRED IN ALL FLEXIBLE CONDUIT AND UNDERGROUND CONDUIT. BUSHINGS SHALL BE INSTALLED ON ALL COMMUNICATION, TELEPHONE & SPEAKER CONDUITS. PROVIDE 3/16" NYLON PULL STRING IN ALL EMPTY CONDUITS. NO MC, BX OR AC90 SHALL BE PERMITTED. FLEXIBLE STEEL CONDUIT RUNS SHALL BE LIMITED TO A MAXIMUM LENGTH OF 6 FOOT. ALL CONNECTIONS SHALL BE COMPRESSION & NOT SCREW TYPE.

2. SWITCHES AND RECEPTACLES
PROVIDE 20AMP NEMA RATED SWITCHES AND RECEPTACLES OF SPECIFICATION GRADE. ALL SWITCHES SHALL BE RATED FOR 120 AND/OR 277 VOLT AND RECEPTACLES SHALL BE NEMA 5-20R. IN ALL OFFICES AND OFFICE AREAS DEVICES SHALL BE DECORA SERIES TYPE WITH COLOR SELECTION BY CONTRACTOR/OWNERS REPRESENTATIVE.

3. FEEDERS AND BRANCH CIRCUITS IDENTIFICATION
IDENTIFY FEEDERS WITH THE CORRESPONDING CIRCUIT DESIGNATION AT THE OVER-CURRENT DEVICE, LOAD END, AND IN PULL BOXES WITH E-Z CODE OR OTHER APPROVED WIRE MARKER. IDENTIFY BRANCH CIRCUITS WITH I.D. MARKERS, THE CORRESPONDING CIRCUIT DESIGNATION AT THE OVER-CURRENT DEVICE, AT ALL SPLICES, IN JUNCTION BOXES, AND IN OUTLETS. USE PLASTIC COATED SELF-STICKING MARKERS SUCH AS THOMAS & BETTS E-Z CODE FOR IDENTIFICATION OF CONDUCTORS. IDENTIFY SIGNAL & COMMUNICATION CABLES AT TERMINAL AND OUTLET UNIQUELY WITH PERMANENT LABELING.

4. CONDUCTORS
DELIVER ALL CONDUCTORS TO THE JOB SITE IN ORIGINAL UNBROKEN CARTON OR REEL, PROPERLY TAGGED WITH U.L. LABEL, SIZE, TYPE, MANUFACTURER, TRADE NAME AND THE DATE OF MANUFACTURE. (MUST BE MANUFACTURED WITHIN 6 MONTHS) PROVIDE COPPER CONDUCTORS #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. PROVIDE STRANDED COPPER CONDUCTORS FOR ALL WIRING. USE CONDUCTORS WITH 90°C THHN/THWN 600 VOLTS INSULATION, UNLESS OTHERWISE NOTED. CONDUCTOR SIZE NO.1 AWG AND SMALLER WITH 90 DEGREE C INSULATION ARE TO USE THE 60 DEGREE COLUMN OF THE CODE, TABLE 310-16, TO DETERMINE AMPACITY. CONDUCTORS #1/0 AWG AND LARGER WITH 75 DEGREE AND 90 DEGREE INSULATION ARE TO USE THE 75 DEGREE COLUMN OF CODE, TABLE 310-16, TO DETERMINE AMPACITY. (110.14C) WHERE THE NUMBER OF CONDUCTORS IN A RACEWAY OR CABLE EXCEEDS THREE, THE ALLOWABLE AMPACITY OF EACH CONDUCTOR SHALL BE REDUCED PER TABLE 310.15(B)(3)(a).

5. LIGHTING FIXTURES
PROVIDE LIGHTING FIXTURES WITH ELECTRONIC DRIVERS PER SCHEDULE. NO SUBSTITUTIONS OF FIXTURES SHALL BE PROVIDED WITHOUT THE APPROVAL OF THE ENGINEER -OF-RECORD.

6. PANELBOARDS (BID SQUARE D; PROVIDE GE ALTERNATE BID)
DISTRIBUTION AND LIGHTING PANELBOARDS WITHIN PROJECT AREA SHALL BE OF THE COPPER BUS THREE PHASE, FOUR WIRE DISTRIBUTED PHASING TYPE. CIRCUITING SHALL BE ARRANGED TO PROVIDE, AS NEARLY AS POSSIBLE, AN EVENLY BALANCED LOAD ON ALL PHASES. PANELBOARDS SHALL BE BOLT-ON CIRCUIT BREAKER TYPE. AVAILABLE FAULT CURRENT IS STATED ON PANELBOARD SCHEDULE. PROVIDE PANEL IDENTIFICATION NAMEPLATE (ENGRAVED ON-ADHESIVE 1/2" MINIMUM LETTERS) AND TYPEWRITTEN LIST OF CIRCUITS IN THE DIRECTORY FRAME.

7. STRUCTURAL SUPPORT
EACH SECTION OF FLOOR MOUNTED SWITCHBOARD, DISTRIBUTION BOARD, MCC, ETC. SHALL BE BOLTED TO THE CONCRETE HOUSEKEEPING PAD PER E401 & E600 BOLTS AND CONICAL WASHERS TORQUED TO 70LB-FT. PROVIDE MINIMUM 4000 PSI STRENGTH CONCRETE BELOW ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT. TIE THE TOP OF ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT TO THE BUILDING STRUCTURE IN A SEISMICALLY APPROVED MANNER.

8. ELECTRICAL CERTIFICATION
"ELECTRICIANS" PERFORMING WORK ON THIS PROJECT SHALL BE CURRENTLY CERTIFIED IN ACCORDANCE WITH THE STATE OF CALIFORNIA AB931 AND THE DIVISION OF APPRENTISHIP STANDARDS SECTION 3099.

C. DEMOLITION
1. NOTIFY THE OWNER IMMEDIATELY WHEREVER EXISTING EQUIPMENT IS ENCOUNTERED WHICH MUST BE RELOCATED DUE TO THE NEW CONSTRUCTION, AND WHICH IS NOT INDICATED ON THE PLANS.
2. ALL REMOVED MATERIALS AND EQUIPMENT WHICH ARE SALVAGEABLE SHALL REMAIN THE PROPERTY OF THE OWNER. DELIVER SUCH SALVAGED MATERIALS AND EQUIPMENT ON THE PREMISES AS DIRECTED BY OWNER, AND NEATLY PILE OR STORE THEM AND PROTECT FROM DAMAGE. REMOVE FROM PREMISES AND DISPOSE OF ALL MATERIALS CONSIDERED BY THE OWNER TO BE SCRAP.
3. ALL DEVICES, CIRCUITS CONDUCTORS, FEEDERS ETC., WHEN NOTED TO BE REMOVED, SHALL BE REMOVED TO THE LAST ACTIVE DEVICE. ALL OVER-CURRENT PROTECTION AND DISCONNECT DEVICES NO LONGER UTILIZED BUT REMAINING AS LAST ACTIVE DEVICE SHALL BE LABELED AS 'SPARE'. COORDINATE ALL OUTAGES WITH OWNERS REPRESENTATIVE.
4. DISCONNECT AND MAKE SAFE ALL ELECTRICAL SYSTEMS ON SITE AND IN WALL, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.
5. REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.
6. REMOVE ABANDONED WIRING TO SOURCE OF SUPPLY AND RE-LABEL DEVICES AS SPARES.
7. REMOVE ABANDONED CONDUIT, INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILING FINISHES. CUT CONDUIT FLUSH WITH WALLS AND FLOOR, AND PATCH SURFACES.
8. DISCONNECT ABANDONED OUTLETS AND REMOVE DEVICES. REMOVE ABANDONED OUTLETS IF CONDUIT SERVICING THEM IS ABANDONED AND REMOVE. PROVIDE BLANK COVER FOR ABANDONED OUTLETS WHICH ARE NOT REMOVED.
9. DISCONNECT AND REMOVE ABANDONED LUMINAIRES. REMOVE BRACKETS, STEMS, HANGERS, AND OTHER
10. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK
11. MAINTAIN ACCESS TO EXISTING ELECTRICAL INSTALLATIONS WHICH REMAIN ACTIVE. MODIFY INSTALLATION OR PROVIDE ACCESS PANEL AS APPROPRIATE.
12. BEGINNING OF DEMOLITION MEANS CONTRACTOR ACCEPTS EXISTING CONDITIONS.

D. EXECUTION
1. CAREFULLY PROTECT ALL WALLS, TRIM, FLOORS, EQUIPMENT UTILITY LINES AND MATERIALS. WHEN WORKING ON FINISHED SURFACES, LIMIT DAMAGE TO THE CONFINES AS MUCH AS POSSIBLE AND RESTORE TO THE ORIGINAL CONDITION ALL SURFACES WHICH ARE DAMAGED BECAUSE OF THE INSTALLATION OF THIS WORK.
2. EQUIPMENT, MATERIALS AND SUPPLIES REMOVED FOR PROTECTION SHALL BE REPLACED IN ORIGINAL LOCATIONS. ANY MATERIALS DAMAGED SHALL BE REPLACED WITH NEW MATERIALS OF LIKE KIND AND QUALITY.
3. DO ALL DRILLING, CUTTING, CHANNELING AND PATCHING REQUIRED TO INSTALL ELECTRICAL WORK AS INDICATED OR HEREIN SPECIFIED. ALL HOLES, CURBS, ETC., IN FLOORS, CEILINGS AND WALLS SHALL BE PATCHED, UNLESS INDICATED OTHERWISE. PAINT ALL NEW ELECTRICAL RACEWAYS, CABINETS, ENCLOSURES AND FITTINGS PENETRATING INTO FIRE RATED ENVELOPES, SPACES, ETC.
4. ALL CONDUIT RUNS SHALL BE CONCEALED, UNLESS SHOWN OTHERWISE. PROVIDE A PULL WIRE IN ALL EMPTY CONDUITS.
5. EXISTING CONDITION SHOWN IS FROM AVAILABLE RECORD DRAWINGS AND VISUAL FIELD SURVEY AND SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY ACTUAL EXISTING CONDITION AT SITE.
6. ALL WORK SHOWN IS NEW UNLESS SPECIALLY INDICATED AS EXISTING (X). ALL ELECTRICAL EQUIPMENT MOUNTING AND ANCHORAGE MUST CONFORM WITH LOCAL AND STATE SEISMIC CODES.

E. NOT USED

F. GROUNDING & BONDING
FURNISH AND INSTALL COMPLETE BONDING AND GROUNDING SYSTEM AS REQUIRED BY CODES. CONTINUITY OF GROUNDING SHALL BE MAINTAINED MECHANICALLY AND ELECTRICALLY THROUGHOUT THE SYSTEM. A GREEN GROUNDING CODE SIZED CONDUCTOR SHALL BE CARRIED IN ALL CONDUITS.

G. INSTALLATION
1. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT A COMPLETE AND WORKABLE ELECTRICAL INSTALLATION BE PROVIDED FOR ALL THE EQUIPMENT DESCRIBED OR SHOWN AS BEING IN THIS CONTRACT. TOWARD THIS END FURNISH ALL LABOR AND TOOLS NECESSARY AND FURNISH AND INSTALL ALL APPARATUS, MATERIALS AND EQUIPMENT IN A FASHION COMPLYING WITH ALL APPLICABLE CODES, INCLUDING ITEMS REQUIRED BUT NOT NORMALLY SHOWN, SUCH AS LAMPS, COUPLINGS, HANGERS, BRACKETS, CLAMPS, BOXES, CONNECTORS AND HARDWARE. REFER ALSO TO WRITTEN SPECIFICATIONS FOR GENERAL, MECHANICAL AND ELECTRICAL SECTIONS.
2. PROCURE ALL PERMITS FROM LEGALLY CONSTITUTED AUTHORITIES, ARRANGE FOR ALL INSPECTIONS AND PAY ALL COSTS FOR FEES AND TESTS IN CONNECTION THEREWITH. COMPLY WITH CODES: NOTHING IN THESE PLANS AUTHORIZES DEVIATION FROM APPLICABLE CODES.
3. DETERMINE EXACT ROUTING OF CONCEALED FEEDERS AND BRANCH HOMERUNS IN COOPERATION WITH OTHER TRADES TO SIMPLIFY INSTALLATION WHEREVER POSSIBLE BUT SUBJECT TO APPROVAL OF ARCHITECT FOR VISUAL AND STRUCTURAL REASONS.
4. PROVIDE A CODE APPROVED DISCONNECT SWITCH OR BREAKER WITHIN SIGHT OF EVERY MOTOR AND FEED MOTORS NOT EQUIPPED WITH "BUILT IN" PROTECTION THROUGH A MAGNETIC OR MANUAL STARTER WITH OVERLOAD HEATERS SIZED TO COMPLY WITH MOTOR MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODES.
5. FOR CONNECTIONS TO EXHAUST FANS, PUMPS, COMPRESSORS, SPACE HEATERS, WATER HEATERS, AQUASTATS, SOLENOID VALVES AND OTHER MECHANICAL EQUIPMENT AND FOR CONDUITS AND WIRE REQUIRED BUT NOT NECESSARILY SHOWN ON THESE DRAWINGS REFER TO MECHANICAL PLANS AND DETERMINE EXACT LOCATIONS UNDER DIRECTION OF HEATING AND VENTILATING CONTRACTOR.
6. DO NOT RUN ANY CONDUIT IN SLAB IF ITS OUTSIDE DIAMETER EXCEEDS 1/3 THE THICKNESS OF THE SLAB. LOCATE CONDUITS WITHIN THE MIDDLE OF THE SLAB. WHERE CONDUITS ARE GROUPED IN PARALLEL RUNS, SPACE THEM 3" OR MORE APART. WHERE CONDUITS CROSS EACH OTHER, THICKEN SLAB PROPORTIONATELY OVER A HORIZONTAL AREA EQUAL TO TEN TIMES THE DIAMETER OF THE LARGEST CONDUIT. REFER ALSO TO DETAILS SHOWN..
7. SIZE OUTLET BOXES IN CONFORMITY WITH CODE FOR NUMBER AND GAUGE OF CONDUCTORS THEREIN, EXCEPT WHERE NOTED TO BE LARGER. MINIMUM BOX SIZE SHALL BE 4" SQUARE BY 1-1/2" DEEP.
8. ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. ALL CONDUIT SHALL BE CONCEALED WHERE POSSIBLE. EXPOSED CONDUIT SHALL BE IN STRAIGHT LINES PARALLEL WITH, OR AT RIGHT ANGLES TO, COLUMN LINES OR BEAMS AND SEPARATED BY AT LEAST THREE (3) INCHES FROM WATER LINES WHENEVER THEY RUN LONG SIDE OR ACROSS SUCH LINES. CONDUIT SHALL NOT BE RUN BELOW CABLE TRAYS OR LIGHT FIXTURES WITHOUT SPECIFIC APPROVAL OF THE OWNERS REPRESENTATIVE. HANGERS SHALL BE FASTENED TO STEEL, CONCRETE OR MASONRY, BUT NOT TO PIPING. HANGERS AND SUPPORT SYSTEMS ARE AN INTEGRAL PART OF THE VISUAL ENVIRONMENT. ALL HANGERS AND SUPPORTS EXPOSED TO PUBLIC VIEW MUST BE SHOWN IN DETAIL ON PLANS SUBMITTED TO ENGINEER FOR APPROVAL OF APPEARANCE. ALL HANGERS MUST BE UNIFORMLY SPACED AND NEATLY INSTALLED WITH NO EXCESS MATERIAL BEYOND WHAT IS REQUIRED FOR THE SUPPORT FUNCTION. CONTRACTOR SHALL SELECT ACCESSORIES AND HARDWARE WITH A SMOOTH, NEAT FINISHED APPEARANCE AND PAINT ALL EXPOSED CONDUIT HANGERS TO MATCH THE ADJACENT FINISHES.
9. ALL RECEPTACLES SHALL BE MOUNTED AT 18" PER ADA REQUIREMENTS UNLESS NOTED OTHERWISE, MEASURED FROM BOTTOM OF BOX.
10. ALL DISTRIBUTION BOARDS, SWITCHBOARDS AND TRANSFORMERS THAT ARE FLOOR MOUNTED SHALL BE MOUNTED ON 2" THICK HOUSEKEEPING PAD. TRANSFORMER SHALL BE ON VIBRATION ISOLATION PADS AND CONNECTED WITH FLEXIBLE CONDUIT.
11. CONTRACTOR SHALL EXAMINE PLANS AND VERIFY IN FIELD LOCATIONS OF ALL FIRE RATED WALLS, CEILINGS AND FLOORS. CONTRACTOR SHALL SEAL ALL ELECTRICAL SYSTEM PENETRATIONS THROUGH FIRE RATED WALLS, CEILINGS AND FLOORS WITH U.L. LISTED MATERIAL APPROVED BY THE AUTHORITY HAVING JURISDICTION.
12. ALL SWITCHES SHALL BE MOUNTED 36" TO 48" MEASURED FROM BOTTOM & TOP OF BOX RESPECTIVELY.
13. PANEL CIRCUIT DIRECTORY SHALL COMPLY WITH CEC 408.4.
14. PROVIDE 90% COMPACTION OR SAND SLURRY OVER ALL UNDERGROUND CONDUITS, USE ONLY CLEAN FILL.

H. ADDITIONAL NOTES
1. MARKING - UNDERGROUND SYSTEM SHALL BE LEGIBLY MARKED "UNDERGROUND SYSTEM" AT THE SOURCE OR FIRST DISCONNECTING MEANS OF THE SYSTEM. THE MARKING SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED. (250.21)(C)
2. PROVIDE SWITCH AND RECEPTACLE HEIGHTS PER STATE OF CALIFORNIA ACCESSIBLE REQUIREMENTS.
3. THE ISSUANCE OF A PERMIT SHALL NOT PREVENT THE BUILDING OFFICIAL FROM REQUIRING THE CORRECTION OF ERRORS ON THESE PLANS OR FROM PREVENTING ANY VIOLATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AND/OR REGULATIONS.
4. EACH MULTIWIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANELBOARD WHERE THE BRANCH CIRCUIT ORIGINATES. (210.4)
5. MULTIWIRE BRANCH CIRCUITS SUPPLYING POWER TO THE PARTITION SHALL BE PROVIDED WITH A MEAN TO DISCONNECT SIMULTANEOUSLY ALL UNGROUNDED CONDUCTORS AT THE PANELBOARD WHERE THE BRANCH CIRCUIT ORIGINATES. (605.7)
6. PROVIDE SEPARATE SUBMITTAL; OBTAIN ALL REQUIRED PERMITS, INSPECTIONS AND APPROVALS FOR ALL FIRE ALARM SYSTEM INSTALLATIONS AND/OR MODIFICATIONS FROM THE FIRE DEPARTMENT.
7. ALL NEW OVERCURRENT DEVICES INSTALLED IN EXISTING PANELS/SWITCHBOARDS SHALL MATCH THE MAKE, MODEL AND INTERRUPTING CAPACITY OF THE EXISTING OVERCURRENT DEVICES.
8. ALL 15-20 AMP 120 VOLTS, SINGLE PHASE RECEPTACLES WITHIN KITCHEN AND FOOD PREPARATION AREAS TO BE GFCI PER NEC 210.8.
9. PROVIDE LOCAL DISCONNECTS FOR ALL HARDWIRED EQUIPMENT THAT IS NOT "WITHIN SIGHT" OF THE SOURCE PANEL.
10. MULTIPLE RACEWAYS CONTAINING MORE THAN 3 CURRENT CARRYING CONDUCTORS SHALL COMPLY WITH [2016 CEC, 310.15(B)(2)(A)].
11. THE IDENTIFICATION OF EVERY CIRCUIT OF A PANEL BOARD AND SWITCHBOARD SHALL BE LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE AND SHALL INCLUDE SUFFICIENT DETAIL TO ALLOW EACH CIRCUIT TO BE DISTINGUISHED FROM ALL OTHERS. 2016 C.E.C 408.4 - PROVIDE MORE DETAIL ON PANEL SCHEDULE CIRCUIT DESCRIPTIONS.
12. A SINGLE RECEPTACLE INSTALLED ON AN INDIVIDUAL BRANCH CIRCUIT SHALL HAVE AN AMPERE RATING OF NOT LESS THAN THAT OF THE BRANCH CIRCUIT. INDICATE THE RECEPTACLE RATING. (210.21(B)(1))
13. PROVIDE RECEPTACLE OUTLETS WHEREVER CORD CONNECTED EQUIPMENT WILL BE USED. (210.50(B))
14. WHERE THE DISCONNECTS ARE NOT PROVIDED WITHIN SIGHT FROM THE EQUIPMENT IT SUPPLIES, THE SWITCH OR CIRCUIT BREAKER MUST INCLUDE PROVISIONS FOR ADDING A LOCK, AND THESE PROVISIONS MUST REMAIN WITH THE EQUIPMENT. THESE LOCKING PROVISIONS HAVE TO BE PART OF THE EQUIPMENT, EITHER INHERENT TO THE EQUIPMENT DESIGN OR AS A ACCESSORY FEATURE THAT CAN BE INSTALLED ON THE EQUIPMENT. [410.141(B), 422.31(B), 424.19, 440.14 EXCEPTION NO. 1, 600.6(A)(2)(3), 620.51(A) EXCEPTION NO. 1, 620.53, 620.55]
15. STANDARD NON-LOCKING STRAIGHT-BLADE RECEPTACLES IN 120- AND 250-VOLT CONFIGURATION AT WET/DAMP LOCATION ARE REQUIRED TO BE LISTED WEATHER-RESISTANT TYPE. [CEC 406.8(A)].

COLOR CODE FOR CONDUCTORS

PROVIDE CONDUCTOR COLOR CODE AS FOLLOWS:
120/208VAC,3Ø,4W: BLUE,BLACK,RED FOR PHASE CONDUCTORS AND WHITE FOR NEUTRAL, GREEN FOR GROUND.

277/480VAC,3Ø,4W: ORANGE,BROWN,YELLOW FOR PHASE CONDUCTORS AND WHITE FOR NEUTRAL, GREEN FOR GROUND.

SYMBOLS

- WP GFCI RECEPTACLE AT 18" AFF TO BOTTOM OF DEVICE
- (2)DATA OUTLETS, 2 GANG 4SD BOX WITH DEVICES AND 4 CAT 6 CABLES FROM JACK TO IDF. PROVIDE 1-1/4"C MINIMUM TO CABLE TRAY OR IDF IF NO CABLE TRAY IS PRESENT.
- SPECIAL OUTLET, TYPE AS REQUIRED BY EQUIPMENT.
- JUNCTION BOX (CEILING MTD.) SIZE PER TABLE AND NEC ARTICLE 370
- JUNCTION BOX (WALL MTD.) SIZE PER TABLE AND NEC ARTICLE 370
- TRANSFORMER
- BRANCH CIRCUIT PANELBOARD - 240/120V, 1Ø, 3W OR 3Ø, 3W, 240VAC OR 120/208VAC, 3Ø, 4W.
- BRANCH CIRCUIT PANELBOARD - 480/277V, 1Ø, 3W OR 3Ø, 3 OR 4W
- 4'X8'X3/4" TELEPHONE BACKBOARD, MARINE PLYWOOD AND PAINTED WITH FIRE RESISTANT PAINT, PER OWNERS REPRESENTATIVE.
- CONDUIT RUN CONCEALED ABOVE CEILING OR IN WALLS,
- CONDUIT RUN CONCEALED BELOW FLOOR OR UNDERGROUND
- C5 — LOW VOLTAGE CABLE & CONDUIT 3/4"C-1#CAT5 U.O.N. (PER nLIGHT REQUIREMENTS)
- E — EMERGENCY CIRCUIT
- P — POWER CONDUIT & CONDUCTORS
- FLEXIBLE CONDUIT (WITH GROUND CONDUCTOR, PROVIDE LIQUID TIGHT CONDUIT IN ALL EXPOSED AREAS)
- #10 — HASH MARKS INDICATE QUANTITY OF #12 CONDUCTORS. NO HASH MARKS INDICATE (2)#12AWG. (PROVIDE GROUND CONDUCTOR IN ALL CONDUITS.) WHERE NO NUMBER IS INDICATED, THE CONDUCTORS ARE #12AWG(MIN.) CONDUIT SIZE IS AS REQUIRED BY ELECTRICAL CODE. (3/4" CONDUIT MINIMUM).
- 2LA 1-3-5,7 — INDICATES A HOMERUN TO PNL 2LA, CKTS 1-3-5 WITH SHARED NEUTRAL & CKT 7 WITH DEDICATED NEUTRAL.
- 3/4"C-2#12 & 1#12 GND
- 3/4"C-3#12 & 1#12 GND
- 3/4"C-4#12 & 1#12 GND
- 3/4"C-5#12 & 1#12 GND
- #10 3/4"C-2#10 & 1#10 GND
- #10 3/4"C-3#10 & 1#10 GND
- #10 3/4"C-4#10 & 1#10 GND
- #10 3/4"C-5#10 & 1#10 GND
- (above conduit entries:) 1" CONDUIT MINIMUM IF UNDERGROUND (CONTRACTOR TO PROVIDE DEDICATED NEUTRALS FOR CIRCUITS WHICH DO NOT HAVE COMMON CIRCUIT HANDLE TIES ON BREAKERS FEEDING THE CIRCUITS)
- 1 — SEE KEY NOTE #1 AS INDICATED ON DRAWING
- $ P — SWITCH WITH PILOT LIGHT @ 42"AFF
- $ 3ab — 3-WAY SWITCH, a & b INDICATES LIGHT FIXTURE TO BE SWITCHED (EACH A 3-WAY) MOUNTED @ 42" AFF
- $ — SWITCH MOUNTED @ +42" AFF
- $ M — MOTOR RATED SWITCH
- $ a,b,c,d — CIRCUIT SWITCH LEGS; WALL SWITCHES
- 60AS 35AF 3P — DISCONNECT SWITCH, 60AMP SWITCH, 35 AMP FUSE, 3 POLE W/ OVERCURRENT PROTECTION U.O.N.
- M — 100A UTILITY METER (OR AS NOTED)
- 3P 100AS 60AF — FUSED DISCONNECT SWITCH 100AMP SWITCH RATING WITH 60 AMP FUSES, 3 POLE
- 200AF 150AT 3P — MOLDED CASE CIRCUIT BREAKER 200 AMP FRAME, 150 AMP TRIP RATING, 3 POLE
- J CAM — CCTV-VERIFY MOUNTING LOCATION AND REQUIREMENTS WITH CLIENT/OWNER.

APPLICABLE CODE: 2022 CBC

MEP COMPONENT ANCHORAGE NOTE

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

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

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

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

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

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2022 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G. HCAi OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

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

MP□ MD□ PP□ E OPTION 1 DETAILED ON APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS

MP□ MD□ PP□ E□ OPTION 2: SHALL COMPLY WITH HCAi (OSHPD) PREAPPROVAL (OPM#) #___________________.

LIST OF DRAWINGS

SHEET	DESCRIPTION	SHEET	DESCRIPTION
E100	GENERAL NOTES, ABBREVIATIONS, SYMBOLS & DRAWING LIST	E300	POWER & LIGHTING PLAN
E130	EXISTING ELECTRICAL COM CONDITIONS	E301	MUSCO LIGHTING CONTROL SYSTEM SUMMARY
E140	SITE ELECTRICAL DEMOLITION PLAN	E302	MUSCO CONTROL SYSTEM SUMMARY
E200	ELECTRICAL SINGLE LINE & PANEL SCHEDULES	E401	ELECTRICAL EQUIPMENT PAD
E201	ELECTRICAL PANEL SCHEDULE AND EM INVERTER	E600	DETAIL SHEETS

SCOPE OF WORK

PROVIDE DEMOLITION OF EXISTING TENNIS COURTS & PROVIDE NEW POWER/COM TO NEW VOLLEYBALL COURTS. NO STRUCTURES AND NO FIRE ALARM. LIGHTING POLES & SYSTEM PROVIDED BY MUSCO. POWER/COM ONLY TO POINT OF CONNECTION PER MUSCO PLANS.

LIST OF APPLICABLE CODES

LIST OF APPLICABLE CODES

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

APPLICABLE STANDARDS

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

ABBREVIATIONS

A	AMPERES	DWG	DRAWING	LCL	LONG CONTINUOUS LOAD	RGS	RIGID GALVANIZED STEEL CONDUIT
AF	AMP FRAME/AMP FUSE	ECD	ELECTRICAL CONTRACTOR	LV	LOW VOLTAGE	RM	ROOM
AFC	AVAILABLE FAULT CURRENT	EM	EMERGENCY LIGHT/FEEDER	M	METER	SN	SYSTEM NEUTRAL
AFF	ABOVE FINISHED FLOOR	EMT	ELECTRICAL METAL TUBING	MC	METAL CLAD	SPD	SURGE PROTECTION DEVICE
AIC	AMP INTERRUPTING CURRENT	EOR	ENGINEER OF RECORD	MDF	MAIN DISTRIBUTION FRAME	TC	TIME CLOCKS
ARCH	ARCHITECT	EPR	ETHYLENE PROPYLENE RUBBER	MIN.	MINIMUM	TTB	TELEPHONE TERMINAL BOARD
AS	AMP SWITCH	EVCS	ELECTRIC VEHICLE CHARGING STATION	MTD	MOUNTED	TTC	TELEPHONE TERMINAL CABINET
ASTM	AMERICAN SOCIETY OF TESTING MATERIAL(S)	(F)	FRONT	MTB	MAIN TELEPHONE BACKBOARD	TR	TRANSFORMER
AT	AMP TRIP	FA	FIRE ALARM	MTG	MOUNTING	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
ATS	AUTOMATIC TRANSFER SWITCH	FS	SHALLOW FLOOR BOX	MV	MEDIUM VOLTAGE	TYP	TYPICAL
AWG	AMERICAN WIRE GAGE	FT	FEET	MH	MAN HOLE	UG	UNDERGROUND
BKBD	BACKBOARD	GC	GENERAL CONTRACTOR	MFG	MANUFACTURER	UL	UNDERWRITERS LABORATORY
C	CONDUIT OR CEILING	GFI	GROUND FAULT INTERRUPTER	NEC	NATIONAL ELECTRICAL CODE	UON	UNLESS OTHERWISE NOTED
CB	CIRCUIT BREAKER	GND	GROUND	(N)	NEW	UNSW	UNSWITCHED
CONT	CONTINUATION	HP	HORSEPOWER	NIC	NOT IN CONTRACT	V	VOLTS/VOLTAGE
CKT	CIRCUIT	ID	IDENTIFICATION	NL	NIGHT LIGHT	VA	VOLT AMPS
CLG	CEILING	IDF	INTERMEDIATE DISTRIBUTION FRAME	NO	NORMALLY OPEN	VD	VOLTAGE DROP
CO	CONDUIT ONLY	IG	ISOLATED GROUND	NC	NORMALLY CLOSED	W	WATTS/WATTAGE OR WIRE
CTV	CABLE TELEVISION	JB	JUNCTION BOX	OH	OVERHEAD	WP	WEATHERPROOF
(CU)	COPPER	K	KILO	P	POWER OR POLE	W/	WITH
CW	COLD WATER PIPE	KVA	KILO VOLT AMPS=1000VA	PBO	PROVIDED BY OTHERS	(X)	EXISTING
DIS	DISCONNECT	LC	LIGHTING CONTACTOR	PNL	PANEL	ϕ	PHASE
DS	DISCONNECT SWITCH			PV	PHOTO VOLTAIC		
				(R)	REMOVED		

SITE/AREA MAP

N

PROJECT AREA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

LUCCI & ASSOCIATES INC.
CONSULTING ELECTRICAL ENGINEERS
3251 CORTE MALPASO, #511
CAMARILLO, CA 93012-8094
(805) 389-6520 FAX (805) 389-6519

DSA SUBMITTAL

REGISTERED PROFESSIONAL ENGINEER
KENNETH W. LUCCI
No. E 8340
Exp. 09/30/2024
ELECTRICAL
STATE OF CALIFORNIA

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	KL
DATE:	APRIL 4, 2023
DRAWN:	LK / DS
PROJ.	22-537
SCALE:	AS NOTED

SHEET TITLE
GENERAL NOTES, ABBREVIATIONS, SYMBOLS & DRAWING LIST

DWG. NO.
E100

G:\22\537\EL\Sheets\22-537E100.dwg 4/4/2023 3:40 PM

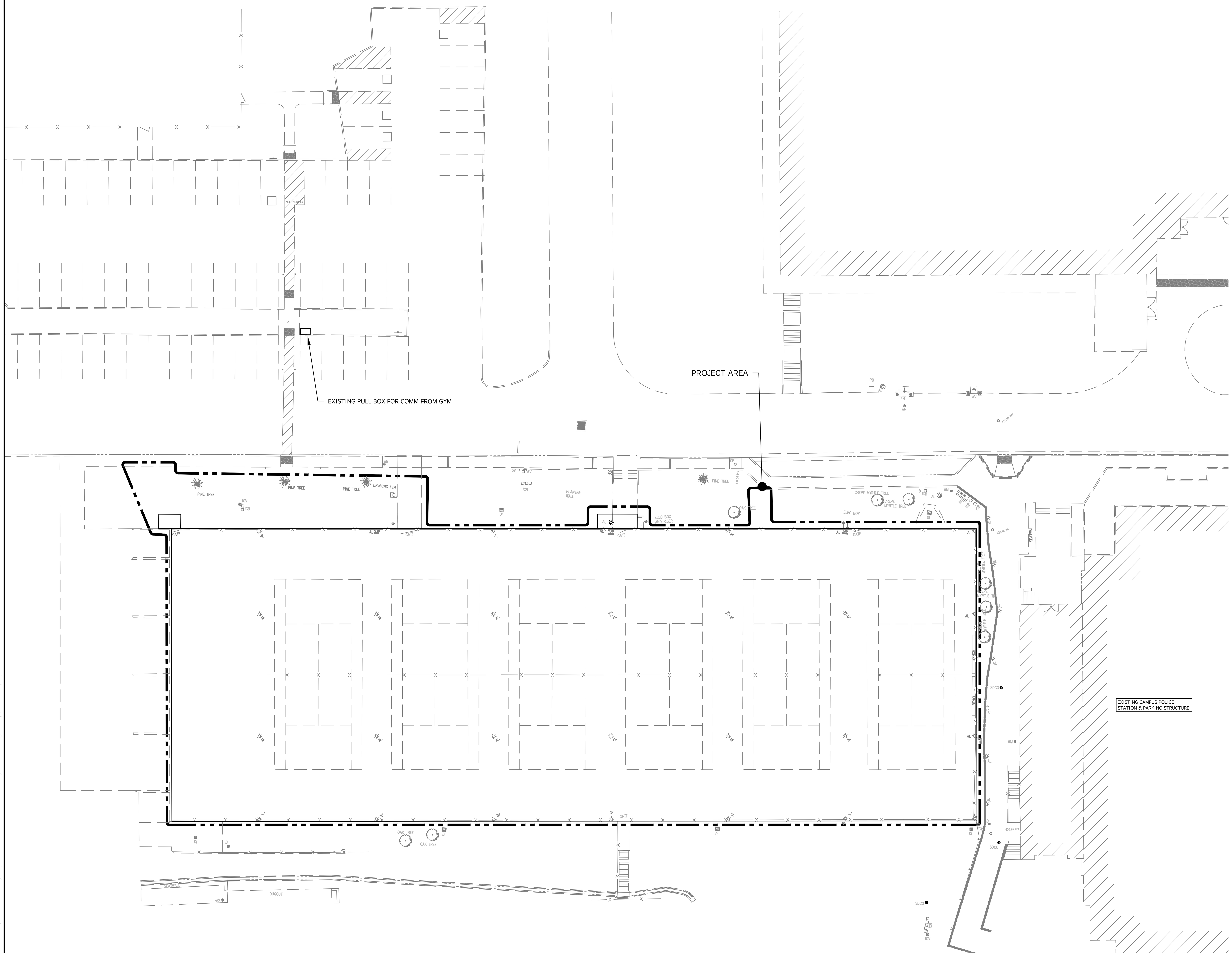
L.A.I.# 22-537 PAPER SIZE 36"x24"

TIME: 3:40 pm
DATE: 4 April 2023
PATHNAME: G:\22\537\EL\Sheets
DRAWING FILENAME: 22-537E100
DRAFTER: CM01

XREF: none
Drafter:CM01 Paper Size: 12.9
Drawing:G:\22\537\EL\Sheets\22-537E100.dwg
Apr 04, 2023, 3:40pm
Attached XREFS:
XREF:G:\22\537\EL\Xrefs\22-537TB.dwg

Drafter: CM01: G:\22\537\EL\Sheets\22-537E100.dwg; DATE: MAR 22, 2023 TIME: 11:39 AM

DRAFTER: CM01 DRAWING FILENAME: 22-537E130 PATHNAME: G:\22\537\EL\Sheets DATE: 4 April 2023 TIME: 3:40 pm



SCALE: 1"=20'
0 20 40

EXISTING ELECTRICAL COM CONDITIONS 1 / E130

SCALE: 1"=20'-0"

N

SHEET NOTES:

1. SCOPE: PROVIDE AND PERFORM DEMOLITION, PREPARATORY AND MISCELLANEOUS WORK IN AREAS AS INDICATED AND SPECIFIED, COMPLETE.
2. DEMOLITION AND REMOVAL OF EXISTING ELECTRICAL CONDUIT, WIRING AND EQUIPMENT REQUIRED TO COMPLETE THE PROJECT.
3. PREPARATION OF THE EXISTING BUILDING TO RECEIVE OR CONNECT THE NEW WORK.
4. MISCELLANEOUS DEMOLITION, CUTTING, ALTERATION, AND REPAIR WORK IN THE EXISTING BUILDING NECESSARY FOR THE COMPLETION OF THE ENTIRE PROJECT.
5. DISCONNECTING AND RECONNECTION OF ELECTRICAL EQUIPMENT AS REQUIRED BY THE CONSTRUCTION MODIFICATIONS.
6. EXISTING CONDITIONS: PRIOR TO BID MAKE A DETAILED SURVEY OF THE EXISTING CONDITIONS PERTAINING TO THE WORK. CHECK THE LOCATIONS OF ALL EXISTING STRUCTURES, EQUIPMENT AND WIRING (BRANCH CIRCUITING AND CONTROLS). CHECK FOR ANY HAZARDOUS MATERIALS WHICH MAY REQUIRE SPECIAL HANDLING.
7. SALVAGE AND DISPOSAL: ALL REMOVED MATERIAL OTHER THAN ITEMS TO BE REUSED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF IN ACCORDANCE WITH INSTRUCTIONS FROM THE OWNER'S REPRESENTATIVE. DISPOSAL SHALL BE DONE IN ACCORDANCE WITH EPA AND GOVERNING BODY REQUIREMENTS AND REGULATIONS. CONTRACTOR SHALL PAY ALL FEES AND CHARGES FOR DISPOSAL.
8. SCHEDULE ALL WORK AND OUTAGES WITH TENANTS AND OWNERS WRITTEN APPROVAL.
9. CONTRACTOR SHALL LEAVE ALL CIRCUITS ENERGIZED TO DEVICES IN AREAS OUTSIDE OF DEMOLITION AREA EVEN IF FEEDERS ARE ROUTED THROUGH DEMOLITION AREA.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

LUCCI & ASSOCIATES INC.
CONSULTING ELECTRICAL ENGINEERS
3251 CORTE MALPASO, #511
CAMARILLO, CA 93012-8094
(805) 389-6520 FAX (805) 389-6519

DSA SUBMITTAL

REGISTERED PROFESSIONAL ENGINEER KENNETH W. LUCCI Exp. 09/30/2024 ELECTRICAL STATE OF CALIFORNIA

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	KL
DATE:	APRIL 4, 2023
DRAWN:	LK / DS
PROJ.	22-537
SCALE:	AS NOTED

SHEET TITLE

EXISTING ELECTRICAL COM CONDITIONS

DWG. NO.

E130

G:\22\537\EL\Sheets\22-537E130.dwg 4/4/2023 3:40 PM

L.A.I.# 22-537 PAPER SIZE 36"x24"

DRAFTER: CM01
DRAWING FILENAME: 22-537E140
PATHNAME: G:\22\537\EL\Sheets
DATE: 4 April 2023
TIME: 3:40 pm

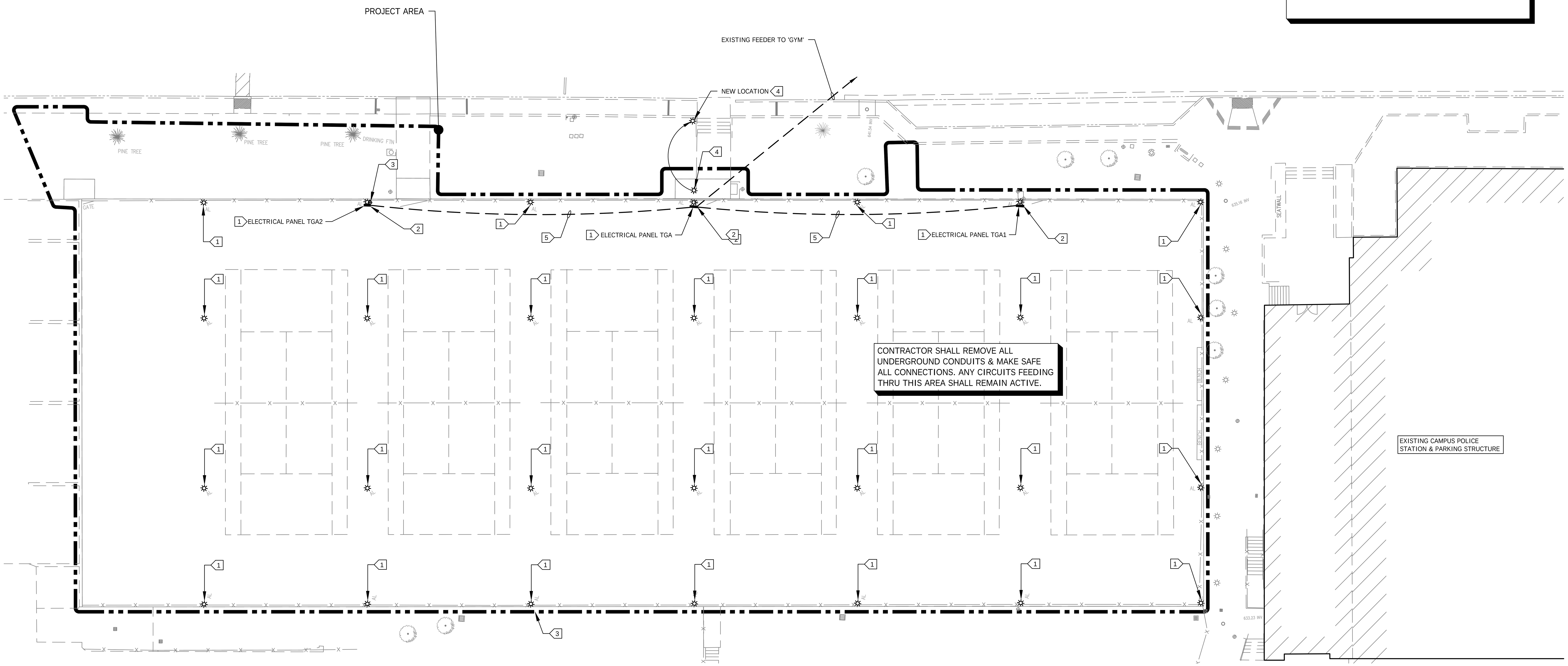
KEY NOTES:

1. REMOVE AND SALVAGE EXISTING COURT LIGHT POLES, FIXTURES, AND RELATED CONTROL WIRES, BOXES AND ELECTRICAL PANELS WITHIN LIMIT OF WORK. RETURN EQUIPMENT TO OWNER. IF OWNER DOES NOT WANT EQUIPMENT, CONTRACTOR SHALL PROPERLY DISPOSE OF THIS EQUIPMENT.
2. REMOVE AND SALVAGE ELECTRICAL PANELS, RECONNECT PER NEW POWER E200.
3. EXISTING RECEPTACLE, REMOVE AND MAKE SAFE.
4. RELOCATE 12' TALL EXISTING POLE LIGHT TO LOCATION NOTED, PROVIDE NEW POLE BASE 2'x2'x3' (D) WITH #4 BOTH WAYS ON 6" CENTERS WITH 3" MINIMUM COVER. RECONNECT TO EXISTING CIRCUIT, EXTEND AS REQUIRED.
5. POWER PANEL FEEDERS TO BE REMOVED.

SHEET NOTES:

1. SCOPE: PROVIDE AND PERFORM DEMOLITION, PREPARATORY AND MISCELLANEOUS WORK IN AREAS AS INDICATED AND SPECIFIED, COMPLETE.
2. DEMOLITION AND REMOVAL OF EXISTING ELECTRICAL CONDUIT, WIRING AND EQUIPMENT REQUIRED TO COMPLETE THE PROJECT.
3. PREPARATION OF THE EXISTING BUILDING TO RECEIVE OR CONNECT THE NEW WORK.
4. MISCELLANEOUS DEMOLITION, CUTTING, ALTERATION, AND REPAIR WORK IN THE EXISTING BUILDING NECESSARY FOR THE COMPLETION OF THE ENTIRE PROJECT.
5. DISCONNECTING AND RECONNECTION OF ELECTRICAL EQUIPMENT AS REQUIRED BY THE CONSTRUCTION MODIFICATIONS.
6. EXISTING CONDITIONS: PRIOR TO BID MAKE A DETAILED SURVEY OF THE EXISTING CONDITIONS PERTAINING TO THE WORK. CHECK THE LOCATIONS OF ALL EXISTING STRUCTURES, EQUIPMENT AND WIRING (BRANCH CIRCUITING AND CONTROLS). CHECK FOR ANY HAZARDOUS MATERIALS WHICH MAY REQUIRE SPECIAL HANDLING.
7. SALVAGE AND DISPOSAL: ALL REMOVED MATERIAL OTHER THAN ITEMS TO BE REUSED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF IN ACCORDANCE WITH INSTRUCTIONS FROM THE OWNER'S REPRESENTATIVE. DISPOSAL SHALL BE DONE IN ACCORDANCE WITH EPA AND GOVERNING BODY REQUIREMENTS AND REGULATIONS. CONTRACTOR SHALL PAY ALL FEES AND CHARGES FOR DISPOSAL.
8. SCHEDULE ALL WORK AND OUTAGES WITH TENANTS AND OWNERS WRITTEN APPROVAL.
9. CONTRACTOR SHALL LEAVE ALL CIRCUITS ENERGIZED TO DEVICES IN AREAS OUTSIDE OF DEMOLITION AREA EVEN IF FEEDERS ARE ROUTED THROUGH DEMOLITION AREA.

CONTRACTOR IS RESPONSIBLE FOR PROVIDING A SUBSURFACE STUDY TO VERIFY UNDERGROUND UTILITIES & SYSTEMS. CONTRACTOR SHALL REPAIR ALL DAMAGED SUBSURFACE SYSTEMS DAMAGED DURING CONSTRUCTION



SCALE: 1"=15'
0 15 30

SITE ELECTRICAL DEMOLITION PLAN 1 - E140
SCALE: 1"=15'-0"

N

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

LUCCI & ASSOCIATES INC.
CONSULTING ELECTRICAL ENGINEERS
3251 CORTE MALPASO, #511
CAMARILLO, CA 93012-8094
(805) 389-6520 FAX (805) 389-6519

DSA SUBMITTAL

REGISTERED PROFESSIONAL ENGINEER
KENNETH W. LUCCI
Exp. 09/30/2024
ELECTRICAL
STATE OF CALIFORNIA

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	KL
DATE:	APRIL 4, 2023
DRAWN:	LK / DS
PROJ.	22-537
SCALE:	AS NOTED

SHEET TITLE

SITE ELECTRICAL DEMOLITION PLAN

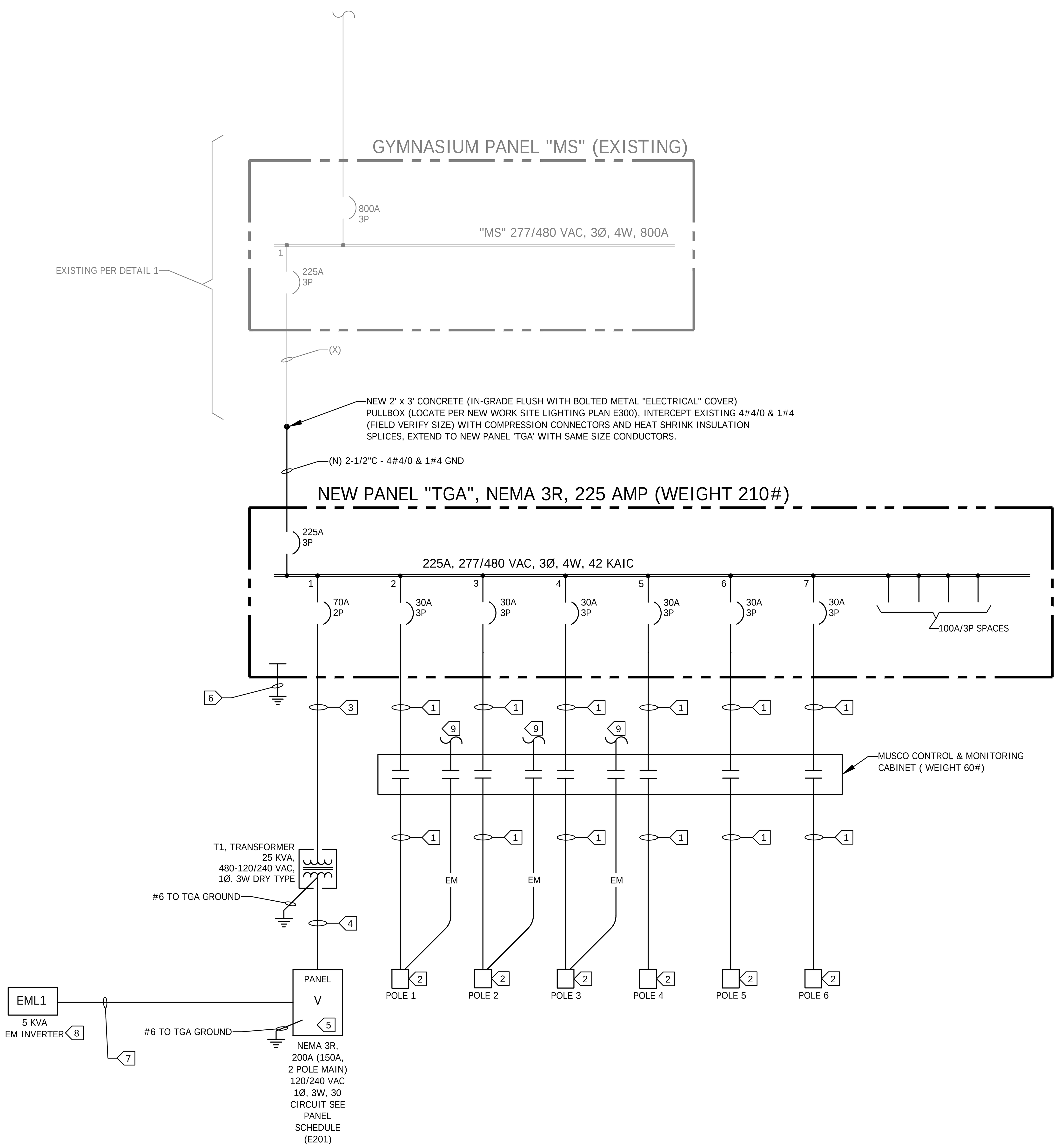
DWG. NO.

E140

G:\22\537\EL\Sheets\22-537E140.dwg 4/4/2023 3:40 PM

L.A.I.# 22-537 PAPER SIZE 36"x24"

ELECTRICAL ENGINEER HAS VERIFIED EXISTING POWER SOURCE IS SUFFICIENT FOR NEW PROJECT ELECTRICAL LOADS



REVISED ELECTRICAL SINGLE LINE DIAGRAM
2 - E200

SCALE: NONE — SAND VOLLYBALL COURTS

KEY NOTES:

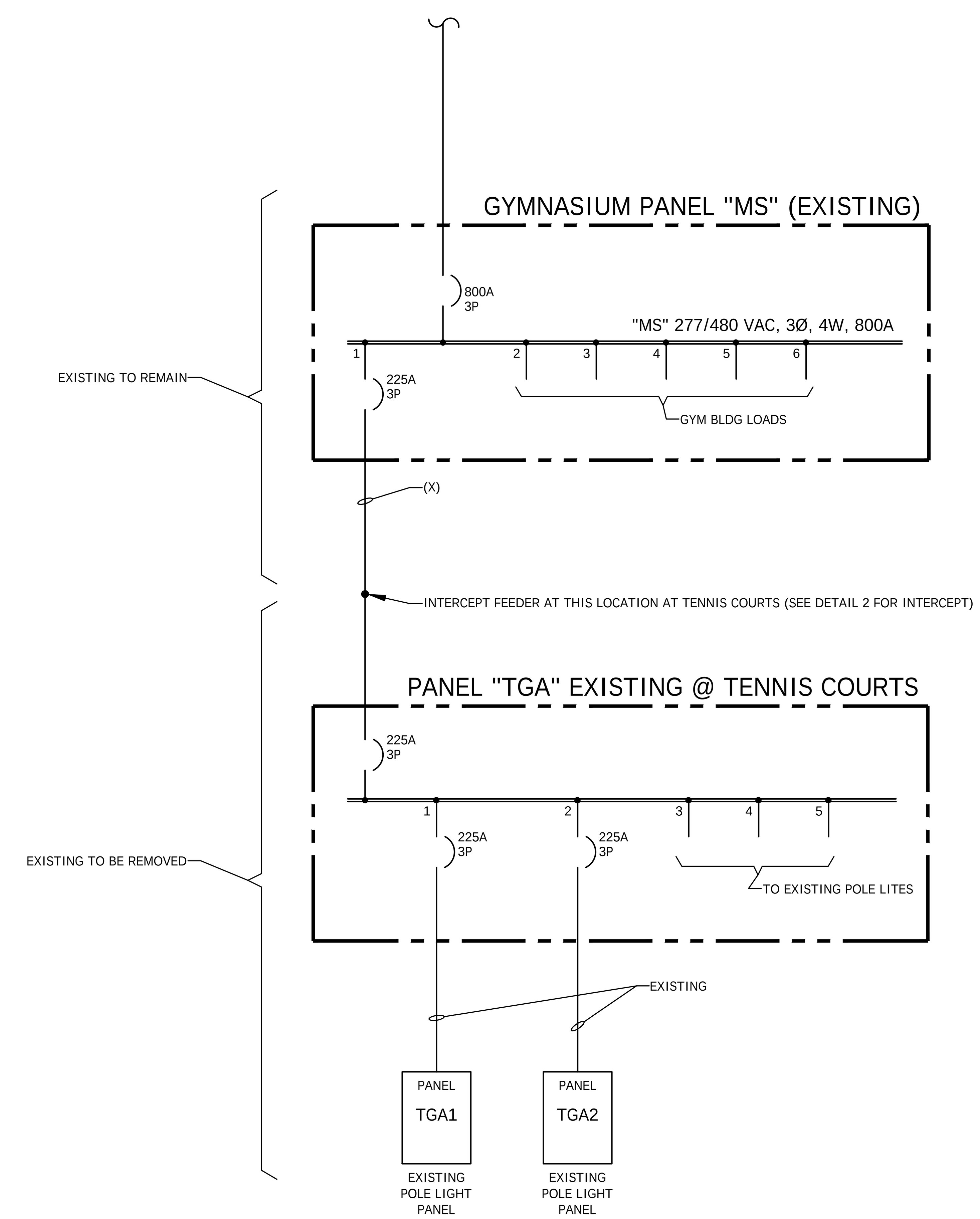
1. 1"C 4#6 & 1#10 GND
2. MUSCO ELECTRICAL COMPONENTS ENCLOSURE MOUNTED ON POLE AT APPROXIMATELY 10'-0" AFF, FEEDER SHALL BE ROUTED INTERNAL TO POLE VIA UNDERGROUND CONDUIT ENTRY
3. 1"C - 2#4 & 1#6 GND
4. 1-1/2"C - 3#2/0 & 1#6 GND
5. SEE PANEL SCHEDULE PER E201
6. #2 UFER & 1#2 WITH 3/4" x 10'-0" GROUND ROD
7. 1"C - 2#4 & 1#10 GND
8. SEE MANUFACTURER SPEC SHEET E201 FOR TECHNICAL REQUIREMENTS/WEIGHT
9. 1"C - 2#10 & 1#10 GROUND TO EML1 VIA CONTACTORS IN MUSCO CONTROL & MONITORING CABINET

MS LOAD SUMMARY CALCULATIONS

PANEL/LOAD		LOAD
MS	=	220 KVA
MS x 25%	=	55 KVA
VOLLEYBALL	=	40 KVA
TOTAL PROJECT LOAD (277/480 VAC)	=	315 KVA
IN AMPS AT 277/480 VAC, 3Ø, 4W	=	380 AMPS

SHEET NOTES:

1. VERIFY LOCATION OF ALL BUILDINGS AND APPENDITURES ON ARCHITECTURAL AND CIVIL PLANS.
2. CONTRACTOR SHALL VERIFY LOCATION & REQUIREMENTS OF ALL ELECTRICAL DEVICES PRIOR TO BID. ROUGH-IN & INSTALLATION.
3. FIELD VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO TRENCHING. SCHEDULE AND COORDINATE ALL SITE WORK WITH OWNER PRIOR TO ANY TRENCHING.
4. SEE MUSCO PLANS FOR EQUIPMENT CONNECTIONS, EQUIPMENT PROVIDED, INSTALLATION, & PROGRAMMING REQUIREMENTS



EXISTING ELECTRICAL SINGLE LINE DIAGRAM
1 - E200

SCALE: NONE — TENNIS COURTS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

LUCCI & ASSOCIATES INC.
CONSULTING ELECTRICAL ENGINEERS
3251 CORTE MALPASO, #511
CAMARILLO, CA 93012-8094
(805) 389-6520 FAX (805) 389-6519

DSA SUBMITTAL

REGISTERED PROFESSIONAL ENGINEER — KENNETH W. LUCCI — No. E16340 — Exp. 09/30/2024 — ELECTRICAL — STATE OF CALIFORNIA

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	KL
DATE:	APRIL 4, 2023
DRAWN:	LK / DS
PROJ.	22-537
SCALE:	AS NOTED

SHEET TITLE
ELECTRICAL SINGLE LINE AND PANEL SCHEDULES

DWG. NO.
E200

DRAFTER: CM01 DRAWING FILENAME: 22-537E200 PATHNAME: G:\22\537\EL\Sheets DATE: 4 April 2023 TIME: 3:40 pm

G:\22\537\EL\Sheets\22-537E200.dwg 4/4/2023 3:40 PM

 L.A.I.# 22-537 PAPER SIZE 36"x24"

ORDERING GUIDE

Example Model Number:
1-CR-4-S-BA2007-F-T-S-2YW

2 — VOLTAGE INPUT/OUTPUT [1]
- **1** - 120 - 120
- **2** - 120 - 120/277
- **3** - 208 - 120
- **4** - 240 - 120
- **5** - 277 - 120
- **6** - 277 - 277
- **7** - 277 - 277/120
- **Z** - Other Voltages[3]

CR — SYSTEM TYPE
- **CR** - Illuminator CR

5 — KVA / KW [2]
- **3** - 3.0
- **4** - 4.0
- **5** - 5.0
- **6** - 6.5
- **7** - 8.0

G — BATTERY TYPE
- **S** - Standard (VRLA)
- **G** - Long Life (10-YR)

RUNTIME[4] (Other Than 90 Minutes)
- **R120** - 120 Minutes

B A 20 5 — OUTPUT BREAKERS[5, 6]

EXAMPLE B A 20 07

Output
- **B** - Normally On
- **N** - Normally Off[7]

Pole
- **A** - 120, 1-Pole
- **B** - 208, 2-Pole
- **C** - 240, 2-Pole
- **D** - 277, 1-Pole

Amp Rating (Distribution Breakers)*
- **10, 16, 20, 25, 32, 40, 50, 63**

QTY
- **01-14[5]**

OPTIONS
- **A** - Remote Summary Alarm Panel
- **C** - Status Monitoring Dry Form C Contacts
- **F** - Fast Charge (12-hr)
- **H** - Heater (Battery)
- **I** - Inverter on Dry Form C Contacts
- **O** - Output Transfer Delay (Factory set at 3 seconds; adjustable 0-7.5 seconds)
- **P** - Remote Status Panel (Status Alarms, Requires C Option)
- **R** - Remote Meter Panel
- **SEA** - Serial to Ethernet Adapter
- **SS** - Stainless Steel Cabinet
- **T** - Output Trip (Supervised) Alarm[8]
- **V** - Variable Time Delay 15 Minutes (Requires Normally Off Circuit)

Pick 1
- **BAC** - BACnet Communications (MSTP)
- **BIP** - BACnet IP
- **IOT** - IoT Inverter Connect Cloud Software
- **MIP** - Modbus TCP/IP
- **MOD** - Modbus RTU

5YT TR — WARRANTY[7]
- **2YW** - Start Up & Same Day Training
- **2YWT** - Start Up, Same Day Training and Full Run Test
- **5YP** - 5-Year Preventative Maintenance Plan
- **5YW** - 5-Year Extended Electronics Warranty
- **TR** - Training If Required On Day Other Than Start Up

= Required feature for part number.
= Optional feature. Not required for part number. Contact factory.

1. Only single phase voltages available.
2. KVA= KW
3. Requires external NEMA 3R transformer cabinet.
4. Standard battery run time is 90 minutes. Optional 120-minute run time is not available on 8.0 kVA system.
5. Normally off load systems cannot exceed 20% of total kVA rating with any combination of HID loads.
6. Maximum output breakers available: 14 unsupervised (1-pole), 8 supervised (1-pole). A 2-pole breaker occupies 2 positions, and a 3-pole breaker occupies 3 positions. Breakers provided are 20 Amps unless specified otherwise. List all breaker requirements separately -- ex: BA2007-NA1001.
7. One-year warranty is standard.

DIMENSIONS

Model Reference	Electronics Module: Power Rating (kW / kVA)	# of Phases	Efficiency @ Full Load (Typical)	Audible Noise (dBA @ 1m)	Heat Loss (BTU)	Cabinet Dimensions: Width in/cm	Height in/cm	Depth in/cm	Weight lbs/kg	Batteries: Weight lbs/kg	Number of Batteries	Voltage (VDC)	Current (Amperes)	Run Time (mins)
CR-3	3.0	1	98	45	255	54/137	76/193	30/76	805/365	740/335	10	120	37	90
CR-4	4.0	1	98	45	340	54/137	76/193	30/76	805/365	888/403	12	144	40	90
CR-5	5.0	1	98	45	408	54/137	76/193	30/76	805/365	1184/538	15	180	40	90
CR-6	6.5	1	98	45	544	54/137	76/193	30/76	805/365	1480/672	20	240	39	90
CR-7	8.0	1	98	45	680	54/137	76/193	30/76	805/365	1776/806	24	144	82	90

MYERS emergency power systems
44 S. Commerce Way, Bethlehem, PA 18017 | 610-868-3500 | quotes@myerseps.com | www.myerseps.com
Specifications subject to change without notice.

C-112021

EM INVERTER 2
SCALE: NONE - E201 -

MYERS EMERGENCY POWER SYSTEMS

Illuminator CR
Outdoor-Rated Emergency Lighting Inverter System

Single Phase Systems 3KVA/KW to 8KVA/KW

SEE E401 FOR EQUIPMENT LOCATION

STANDARD FEATURES
- UL 924 Listed for Operating Temperatures 10° to 40°C (50° to 104°F)
- NEMA 3R Enclosure with Extra Variable Speed Temperature Controlled Fans for Forced Air Cooling.
- White, Exterior Grade, Baked Powder Coat Painted Steel Enclosure
- Conformal Coat all Printed Circuit Boards
- Maintenance Bypass (Internal) - **Make Before Break**
- Summary Dry Form C Contacts
- Seismic Bracing
- CORBIN - Corbin CAT60 Locks; 3-Point Lock

OPTIONAL FEATURES
- Enhanced Communications
  - Expanded Building Management Protocols
  - BACnet or Modbus Communications Interface
  - **NEW IoT Connect Cloud Software**
- Remote Meter Panel
- Output Circuit Breakers
- Extended Factory Warranty
- Factory Startup and Training
- Normally Off Output
- Output Trip Alarms
- Stainless Steel Cabinet
- Microprocessor-Controlled Convection Heater

SPECIFICATIONS
- Output Load Power Factor .5 Lag to .5 Lead
- Output Distortion Less Than 3% THD for Linear Loads
- Generator Compatibility
- 90 Minute Runtime Standard
- Compatible with Electronic and Magnetic Ballasts and LED Drivers
- Custom Voltages Available: 1-Phase Input 120V or 277V 2W+ Ground
- Output Load Power Factor .5 Lead to .5 Lag
- Temperature Controlled Forced Air Cooling, No Filters Required

MYERS emergency power systems
44 S. Commerce Way, Bethlehem, PA 18017 | 610-868-3500 | quotes@myerseps.com | www.myerseps.com
Specifications subject to change without notice.

PANEL NUMBER EML1 VOLTAGE 120 PHASE 1 WIRE 3
SOURCE INVERTER (PNL V-1) A.I.C. 100
PANEL LOCATION VOLLEY BALL ELECTRICAL PAD BUS AMPERE RATING .
■ NEMA 3R ■ COPPER BUSS ■ MAIN CIRCUIT BREAKER . ■ SURFACE MOUNTING

LCL	MISC	RCPT	LITE	CIRCUIT DESCRIPTION	LOAD (VA) A		BRKR POLE	BRKR AMP	CKT	PHASE A	CKT	BRKR AMP	BRKR POLE	LOAD (VA) A		CIRCUIT DESCRIPTION	MISC	RCPT	LITE	LCL
				POLE LIGHTS	1200		1	20	1		2	20	1	100		AL1C (EM)				
				SPARE	.				3		4			.		SPARE				
					.				5		6			.						
					.				7		8			.						
					.				9		10			.						
				TOTALS	1200									100		TOTALS				

L.C.L. VOLT AMPS: . PHASE A .
TOTAL VOLT AMPS: 1300 PHASE A 1300
TOTAL AMPS: 11 PHASE A 11

PANEL SCHEDULE EML1 INVERTER 3
SCALE: NONE - E201 -

NEW PANEL
PANEL NUMBER V VOLTAGE 120/240 PHASE 1 WIRE 3
SOURCE T1 A.I.C. 10,000
PANEL LOCATION VOLLEYBALL BUS AMPERE RATING 200
■ NEMA 3R ■ ALUMINUM BUSS ■ MAIN CIRCUIT BREAKER 150 ■ SURFACE MOUNTING

LCL	MISC	RCPT	LITE	CIRCUIT DESCRIPTION	LOAD(VA) A	LOAD(VA) B	BRKR POLE	BRKR AMP	CKT	PHASE A B	CKT	BRKR AMP	BRKR POLE	LOAD(VA) A	LOAD(VA) B	CIRCUIT DESCRIPTION	MISC	RCPT	LITE	LCL
				EML1 (EM)	3500		1	80	1		2	20	1	.		SPARE				
				RECEPTACLE		180	1	20	3		4	20	1		120	CONTROL POWER				
				SPARE	.		1	20	5		6	20	1	.		SPARE				
				RECEPTACLE		180	1	20	7		8	20	1		180	RECEPTACLE				
				SPARE	.		1	20	9		10	20	1	.		SPARE				
				RECEPTACLE		180	1	20	11		12	20	1		180	RECEPTACLE				
				SPARE	.		1	20	13		14	30		.		SPARE				
				RECEPTACLE		180	1	20	15		16		2		.					
				SPARE	.		1	20	17		18	30		.						
				RECEPTACLE		180	1	20	19		20		2		.					
				SPARE	.		1	20	21		22	20	1	.						
				RECEPTACLE		180	1	20	23		24	20	1		.					
				RECEPTACLE	180		1	20	25		26	20	1	300		IDF POWER				
				RECEPTACLE		180	1	20	27		28	20	1		180	RECEPTACLE				
				RECEPTACLE	180		1	20	29		30	20	1	180		RECEPTACLE				
				TOTALS	3860	1260								480	660	TOTALS				

L.C.L. VOLT AMPS: . PHASE A . PHASE B . .
TOTAL VOLT AMPS: 6260 PHASE A 4340 PHASE B 1920 .
TOTAL AMPS: 26 PHASE A 36 PHASE B 16 .

PANEL SCHEDULE 'V' 1
SCALE: NONE - E201 -

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

LUCCI & ASSOCIATES INC.
CONSULTING ELECTRICAL ENGINEERS
3251 CORTE MALPASO, #511
CAMARILLO, CA 93012-8094
(805) 389-6520 FAX (805) 389-6519

DSA SUBMITTAL

REGISTERED PROFESSIONAL ENGINEER KENNETH W. LUCCI No. E-13349 Exp. 09/30/2024 ELECTRICAL STATE OF CALIFORNIA

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	KL
DATE:	APRIL 4, 2023
DRAWN:	LK / DS
PROJ.	22-537
SCALE:	AS NOTED

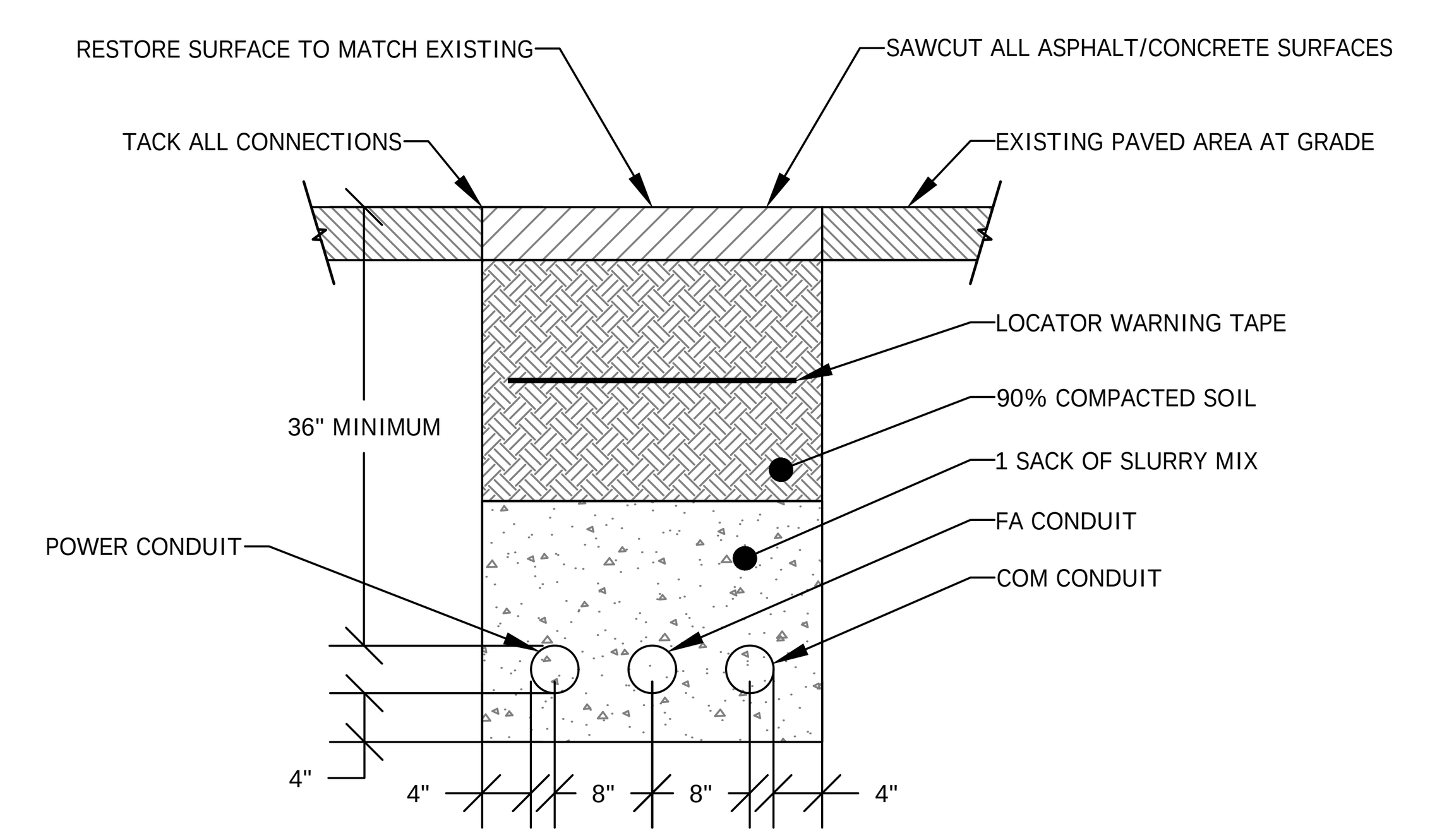
SHEET TITLE
ELECTRICAL PANEL SCHEDULE AND EM INVERTER

DWG. NO.
E201

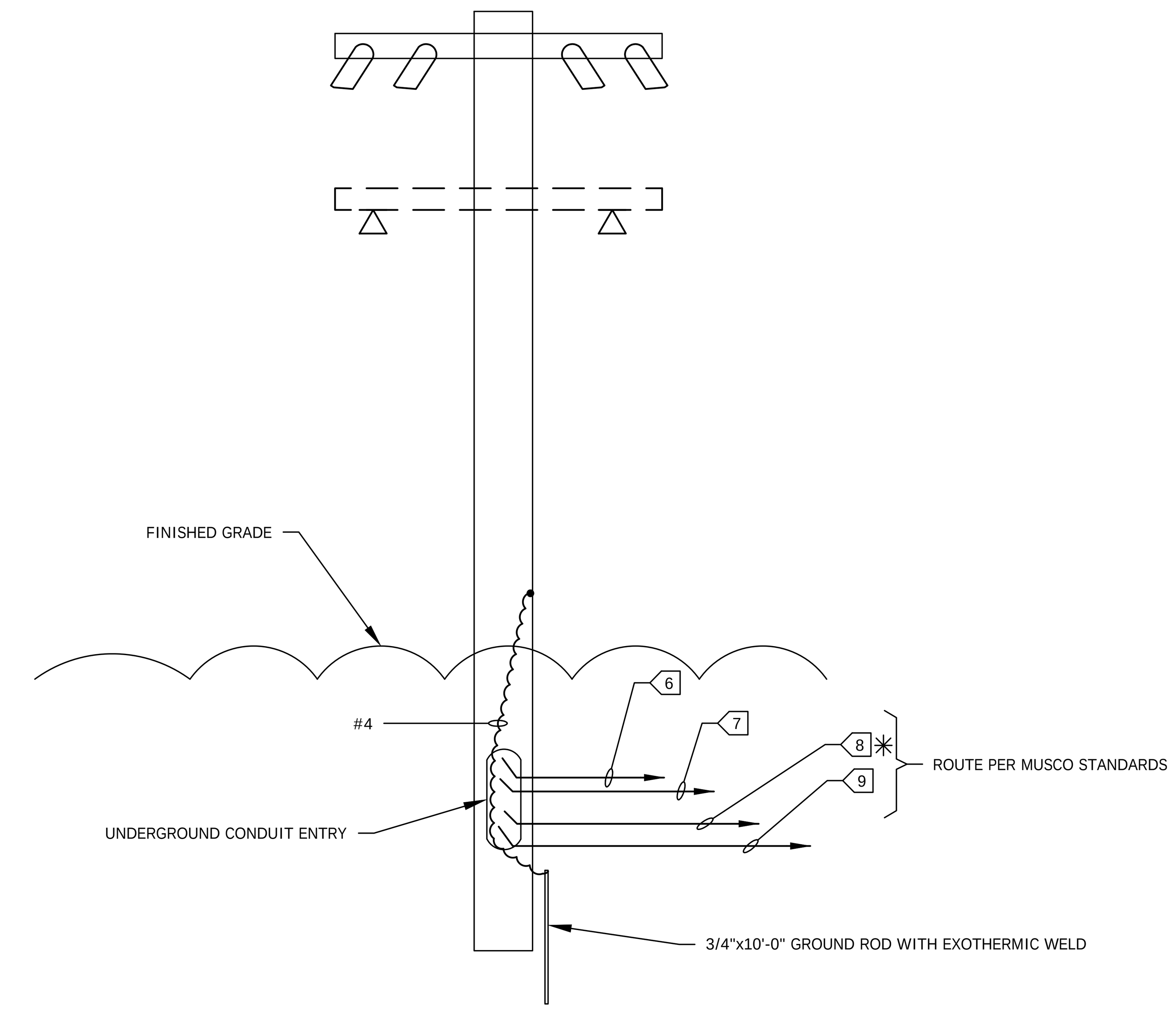
 L.A.I.# 22-537 PAPER SIZE 36"x24"

DETAIL NOTES:

1. ALL CONDUITS TO BE PROVIDED WITH METERED PULLWIRES THEIR ENTIRE LENGTH.
2. ALL CONDUITS BENDS SHALL BE FACTORY BENDS WITH MINIMUM 12 TIMES DIAMETER. BEND RADIUS.
3. ALL CONCRETE TO BE 5 SACK MIX OR 2000psi
4. ALL FEEDERS TO BE PER ELECTRICAL SINGLE LINE SHEET E200.



DUCTBANK SECTION 3
SCALE: NONE — E300



P1, P2, P3 LIGHT POLES 2
(✳ P2 & P5 HAVE (2) SET OF COURT FIXTURES WHICH IS (2) SETS OF 8)
SCALE: NONE IDENTICAL TO P4, P5,P6 EXCEPT FOR 7 NOT PRESENT — E300

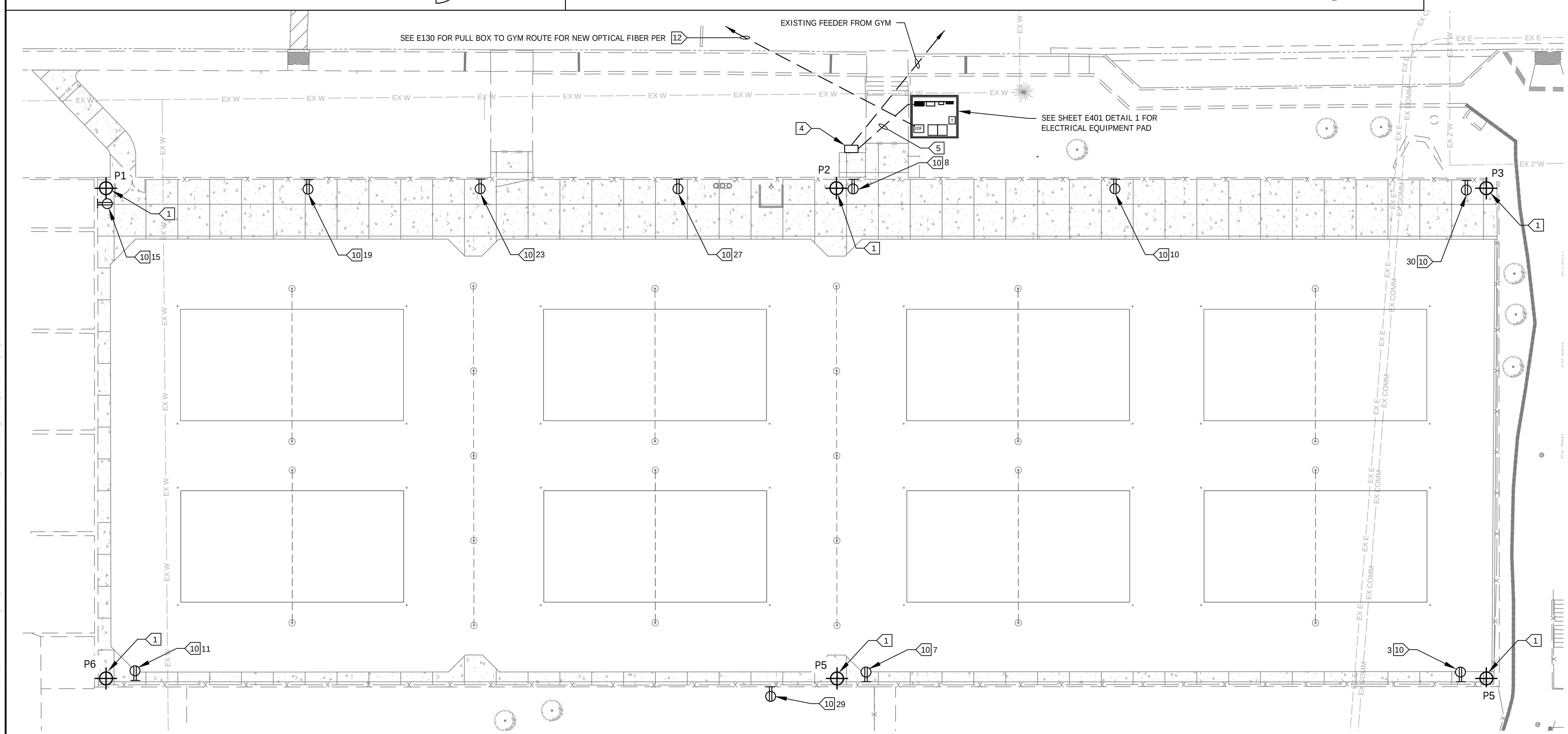
SHEET NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION, TRIM, AND REQUIREMENTS OF ALL LIGHT FIXTURES AND CONTROL PRIOR TO BID PROPOSAL, ROUGH-IN, AND FINISH INSTALLATION.
2. CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWING. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
3. CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
4. 3/4" CONDUIT MINIMUM UNLESS OTHERWISE NOTED, 1"C MINIMUM UNDERGROUND.

KEY NOTES:

1. MUSCO POLE (PROVIDED BY OTHERS) LOCATION: CONTRACTOR INSTALLED & CONNECTED PER MUSCO STANDARDS, SEE DETAIL 2 FOR CONNECTIONS
2. BLEACHERS.
3. NEW ELECTRICAL EQUIPMENT PAD BY CONTRACTOR. CONTRACTOR TO CONNECT ALL EQUIPMENT. CONTRACTOR TO PROVIDE AND CONNECT ALL EQUIPMENT, EXCEPT MUSCO WILL PROVIDE AL1C AND CONTROL AND MONITORING CABINET BUT CONTRACTOR TO INSTALL AND TERMINATE THESE ITEMS PER MUSCO STANDARDS.
4. INTERCEPT PULL BOX PER E200 DETAIL 2.
5. NEW FEEDER PER E200.
6. 1"C-2 CAT6 WET LOCATION FOR FROM CAMERA TO IDF.
7. 1"C-2#10 & 1#10 GROUND TO EML1 VIA AL1C CONTROLS FOR EM FIXTURE, ONE CIRCUIT PER EACH POLE PER E201 PANEL SCHEDULE
8. POWER TO POLE VIA E200 1"C-4#6 & 1#10 GROUND.
9. 1"C.O. SPARE TO ELECTRICAL EQUIPMENT PAD.
10. WP GFCI HOME RUN TO PANEL 'V', 1"C-2#10 & 1#10 GROUND (CIRCUIT AS NOTED).
11. 1"C.O. SPARE TO PANEL 'V' FROM 12"x18" LANDSCAPE BOX. PROVIDE PULL STRING.
12. 1"C-6 STRAND MULTI MODE WET LOCATION OPTICAL FIBER TO GYM MDF. TERMINATE PER COLLEGE STANDARDS AT GYM MDF & VOLLEYBALL IDF. VOLLEYBALL IDF SHALL PROVIDED WITH 24 PORT SWITCH, FAN, POWER DISTRIBUTION, GROUND BUS.

P1, P2, & P3 HAVE EM LIGHTING



SEE E600 FOR DUCT BANK SECTION FOR ALL UNDERGROUND CONDUITS SYSTEMS

SCALE: 1"=15'
0 15 30

POWER & LIGHTING PLAN 1
SCALE: 1"=15'-0" — E300

N

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

LUCCI & ASSOCIATES INC.
CONSULTING ELECTRICAL ENGINEERS
3251 CORTE MALPASO, #511
CAMARILLO, CA 93012-8094
(805) 389-6520 FAX (805) 389-6519

DSA SUBMITTAL

REGISTERED PROFESSIONAL ENGINEER — KENNETH W. LUCCI — No. E13348 — Exp. 09/30/2024 — ELECTRICAL — STATE OF CALIFORNIA

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	KL
DATE:	APRIL 4, 2023
DRAWN:	LK / DS
PROJ.	22-537
SCALE:	AS NOTED

SHEET TITLE
POWER & LIGHTING PLAN

DWG. NO.
E300

DRAFTER: CM01 DRAWING FILENAME: 22-537E300 PATHNAME: G:\22\537\EL\Sheets DATE: 4 April 2023 TIME: 3:40 pm

G:\22\537\EL\Sheets\22-537E300.dwg 4/4/2023 3:40 PM

L.A.I.# 22-537 PAPER SIZE 36"x24"

DRAFTER: CM01 DRAWING FILENAME: 22-537E301 PATHNAME: G:\22\537\EL\Sheets DATE: 4 April 2023 TIME: 3:40 pm

XREF: none
Drafter:CM01 Paper Size: 12.9
Drawing:G:\22\537\EL\Sheets\22-537E301.dwg
Apr 04, 2023, 3:40pm
Attached XREFS:
XREF:G:\22\537\EL\Xrefs\22-537TB.dwg

Control System Summary

Moorpark College Beach Volleyball / 224335 - 224335C
Moorpark College Volleyball - Page 3 of 4

SWITCHING SCHEDULE

Field/Zone Description	Zones
Volleyball 1-4	1
Volleyball 5-8	2
Egress	3

CONTROL POWER CONSUMPTION	
120V Single Phase	
VA loading of Musco Supplied Equipment	INRUSH: 1960.0
	SEALED: 208.0

CIRCUIT SUMMARY BY ZONE

POLE	CIRCUIT DESCRIPTION	# OF FIXTURES	# OF DRIVERS	*FULL LOAD AMPS	CONTACTOR SIZE (AMPS)	CONTACTOR ID	ZONE
P1	Volleyball 1-4	4	4	**7.2**	30	C1	1
P2	Volleyball 1-4	4	4	**7.8**	30	C2	1
P5	Volleyball 1-4	4	4	**7.2**	30	C3	1
P6	Volleyball 1-4	4	4	**7.2**	30	C4	1
P2	Volleyball 5-8	4	4	**7.2**	30	C5	2
P3	Volleyball 5-8	4	4	**7.2**	30	C6	2
P4	Volleyball 5-8	4	4	**7.2**	30	C7	2
P5	Volleyball 5-8	4	4	**7.8**	30	C8	2

*Full Load Amps based on amps per driver.

T:\224\224335P1V1-0127153720.pdf

Control System Summary

Project Specific Notes:

Moorpark College Beach Volleyball - 480V/3P, LED C&M, Powerline Comm, Single contactor per pole

Egress fixtures are controlled through Musco provided ALIC unit. Each fixture has a full load amp value of 1.2A.

Project Information

Project #:	224335
Project Name:	Moorpark College Beach Volleyball
Date:	01/27/23
Project Engineer:	Chris Hensley
Sales Representative:	Nicholas Cobb
Control System Type:	Control-Link™ Control and Monitoring System
Communication Type:	PowerLine-ST
Scan:	224335C
Document ID:	224335P1V1-0127153720
Distribution Panel Location or ID:	Moorpark College Volleyball
Total # of Distribution Panel Locations for Project:	1
Design Voltage/Hertz/Phase:	480/60/3
Control Voltage:	120

Equipment Listing

DESCRIPTION	APPROXIMATE SIZE
1.Control and Monitoring Cabinet	24 X 72

	QTY	SIZE (AMPS)
Total Contactors	8	30 AMP
Total Off/On/Auto Switches:	3	

Preliminary Plans: Confirm all Details - voltage, # of distribution panels, etc.

Materials Checklist

Contractor/Customer Supplied:

- ❑ A dedicated control circuit must be supplied per distribution panel location
  - — If the control voltage is NOT available, a control transformer is required
- ❑ Electrical distribution panel to provide overcurrent protection for circuits
  - — HID rated or D-curve circuit breaker sized per full load amps on Circuit Summary by Zone Chart
- ❑ Wiring
  - — See chart on page 2 for wiring requirements
  - — Equipment grounding conductor and splices must be insulated (per circuit)
  - — Lightning ground protection (per pole), if not Musco supplied
- ❑ Electrical conduit wireway system
  - — Entrance hubs rated NEMA 4, must be die-cast zinc, PVC, or copper-free die-cast aluminum
- ❑ Mounting hardware for cabinets
- ❑ Breaker lock-on device to prevent unauthorized power interruption to control power and powerline connection (if present)
- ❑ Anti-corrosion compound to apply to ends of wire, if necessary

Call Control-Link Central™ operations center at 877/347-3319 to schedule activation of the control system upon completion of the installation.

Note: Activation may take up to 1 1/2 hours.

IMPORTANT NOTES

1. Please confirm that the design voltage listed above is accurate for this facility. Design voltage/phase is defined as the voltage/phase being connected and utilized at each lighting pole's electrical components enclosure disconnect. Inaccurate design voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
2. In a 3 phase design, all 3 phases are to be run to each pole. When a 3 phase design is used Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
3. One contactor is required for each pole. When a pole has multiple circuits, one contactor is required for each circuit. All contactors are 100% rated for the published continuous load. All contactors are 3 pole.
4. If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
5. A single control circuit must be supplied per control system.
6. Size overcurrent devices using the full load amps column of the Circuit Summary By Zone chart- Minimum power factor is 0.9.

NOTE: Refer to Installation Instructions for more details on equipment information and the installation requirements.

T:\224\224335P1V1-0127153720.pdf

Control System Summary

Moorpark College Beach Volleyball / 224335 - 224335C
Moorpark College Volleyball - Page 4 of 4

PANEL SUMMARY

CABINET #	CONTROL MODULE LOCATION	CONTACTOR ID	CIRCUIT DESCRIPTION	FULL LOAD AMPS	DISTRIBUTION PANEL ID	CIRCUIT BREAKER POSITION
1	1	C1	Pole P1	7.18		
1	1	C2	Pole P2	7.79		
1	1	C3	Pole P5	7.18		
1	1	C4	Pole P6	7.18		
1	1	C5	Pole P2	7.18		
1	1	C6	Pole P3	7.18		
1	1	C7	Pole P4	7.18		
1	1	C8	Pole P5	7.79		

ZONE SCHEDULE

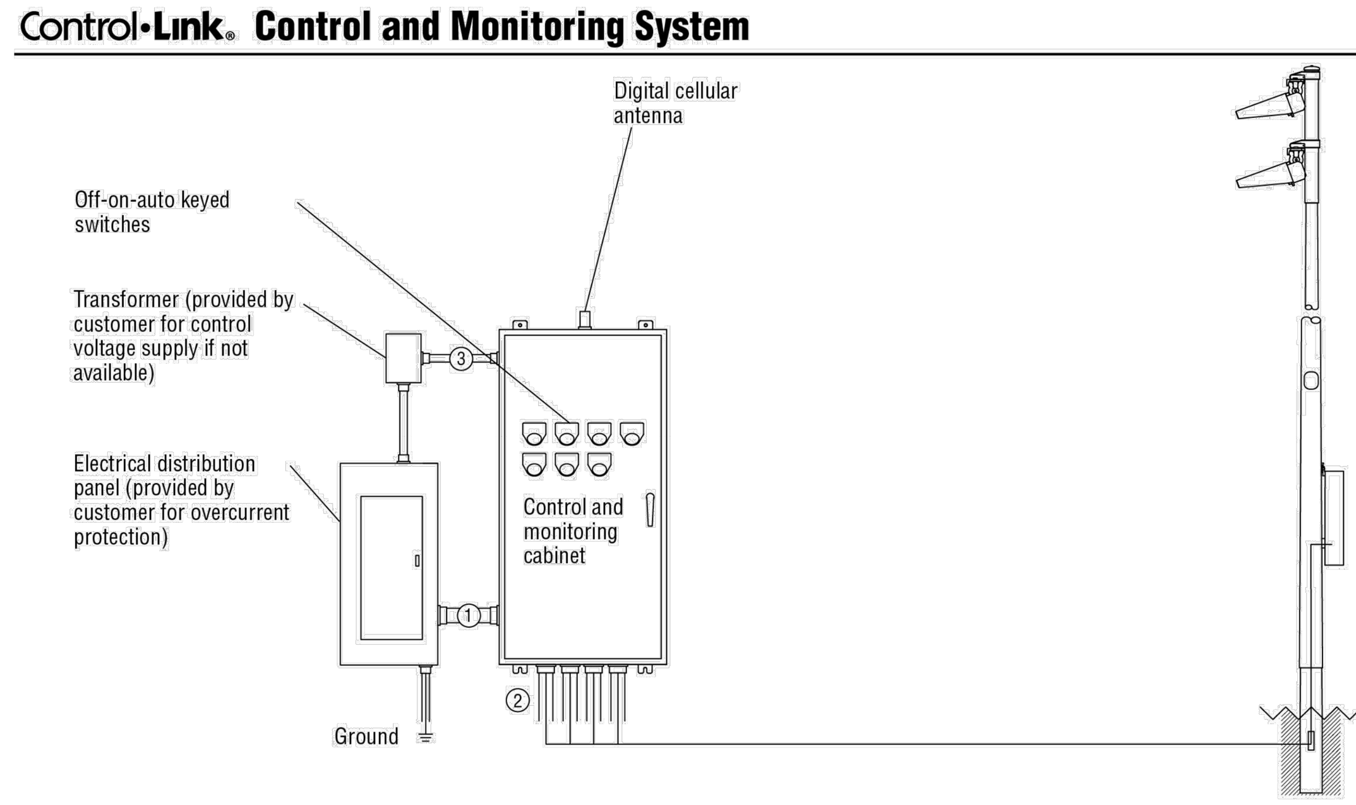
			CIRCUIT DESCRIPTION	
ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	POLE ID	CONTACTOR ID
Zone 1	1	Volleyball 1-4	P1 P2 P5 P6	C1 C2 C3 C4
Zone 2	2	Volleyball 5-8	P2 P3 P4 P5	C5 C6 C7 C8
Zone 3	3	Egress Grid (EM)	P1 P2 P3	

T:\224\224335P1V1-0127153720.pdf

Control System Summary

Moorpark College Beach Volleyball / 224335 - 224335C
Moorpark College Volleyball - Page 2 of 4

Control•Link® Control and Monitoring System



Conduit ID	Description	# of Wires	Wire (AWG)	Conduit (in)	Max. Wire Length (ft)	MUSCO Supplied	Notes
1	Line power to contactors, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
2	Load power to lighting circuits, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
3	Control power (dedicated, 20A)	3	12	*C	N/A	No	C,E

R60-100-00_B

* Notes:
A. See voltage and phasing per the notes on cover page.
B. Calculate per load and voltage drop.
C. All conduit diameters should be per code unless otherwise specified to allow for connector size.
D. Equipment grounding conductor and any splices must be insulated.
E. Refer to control and monitoring system installation instructions for more details on equipment information and the installation requirements.

IMPORTANT: Control wires (3) must be in separate conduit from line and load power wires (1, 2).

T:\224\224335P1V1-0127153720.pdf

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

LUCCI & ASSOCIATES INC.
CONSULTING ELECTRICAL ENGINEERS
3251 CORTE MALPASO, #511
CAMARILLO, CA 93012-8094
(805) 389-6520 FAX (805) 389-6519

DSA SUBMITTAL

REGISTERED PROFESSIONAL ENGINEER KENNETH W. LUCCI No. E 6340 Exp. 09/30/2024 ELECTRICAL STATE OF CALIFORNIA

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	KL
DATE:	APRIL 4, 2023
DRAWN:	LK / DS
PROJ.	22-537
SCALE:	AS NOTED

SHEET TITLE

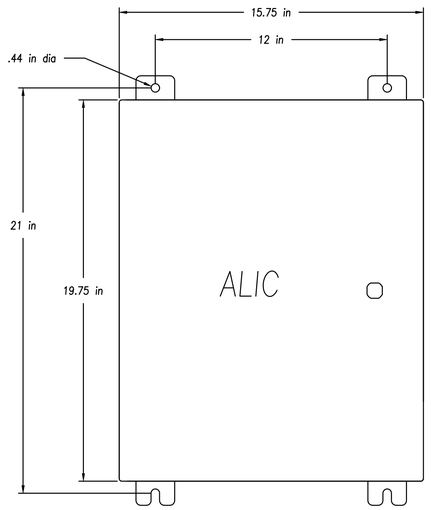
MUSCO LIGHTING CONTROL SYSTEM SUMMARY

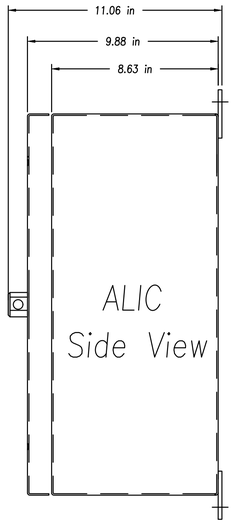
DWG. NO.

E301

G:\22\537\EL\Sheets\22-537E301.dwg 4/4/2023 3:40 PM

 L.A.I.# 22-537 PAPER SIZE 36"x24"



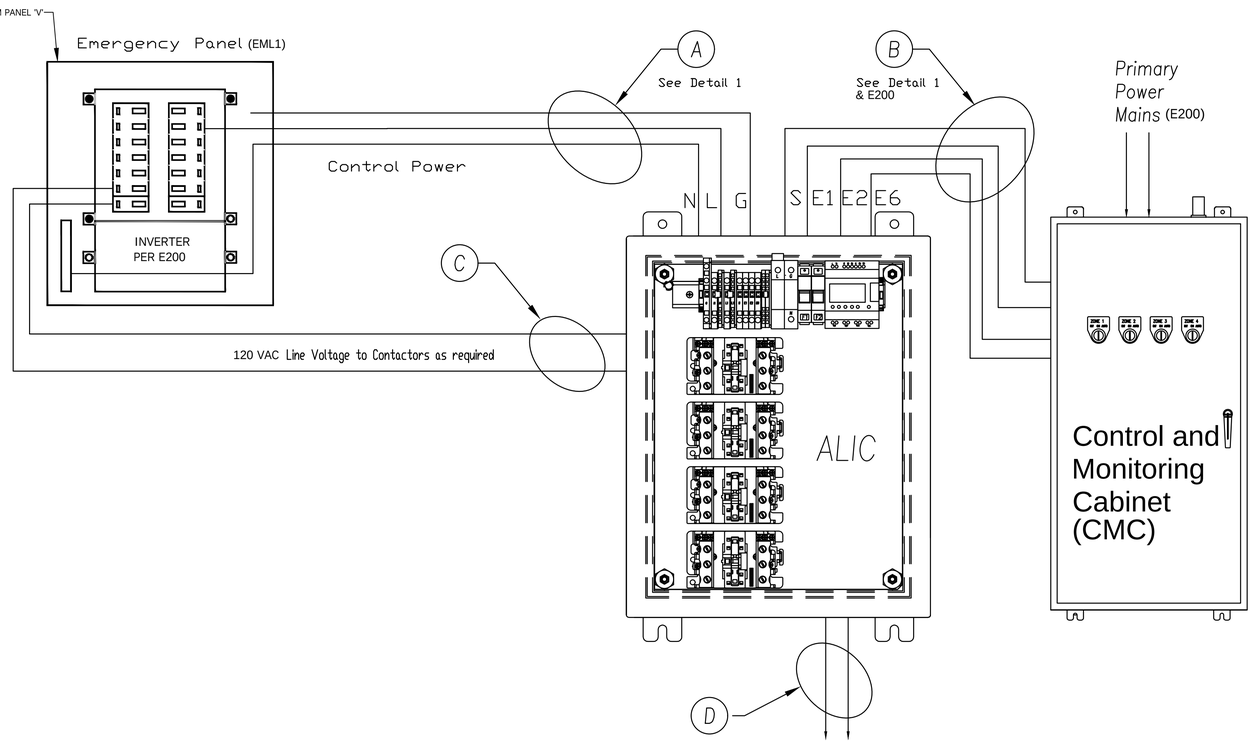


MUSCO:
Auxiliary Lighting Interface Cabinet (ALIC)
Standard Operation and Functionality

Functionality
The ALIC (UL924) provides monitoring of Controls and Monitoring Cabinet zones and primary 120V power. For the ALIC to work correctly, it and the emergency lighting fixtures will need to be powered from an Emergency Distribution Panel. This Emergency Distribution Panel is assumed to be powered from a UPS or automatic transfer switch, whose operation is to control the power source, either the generator or the mains.

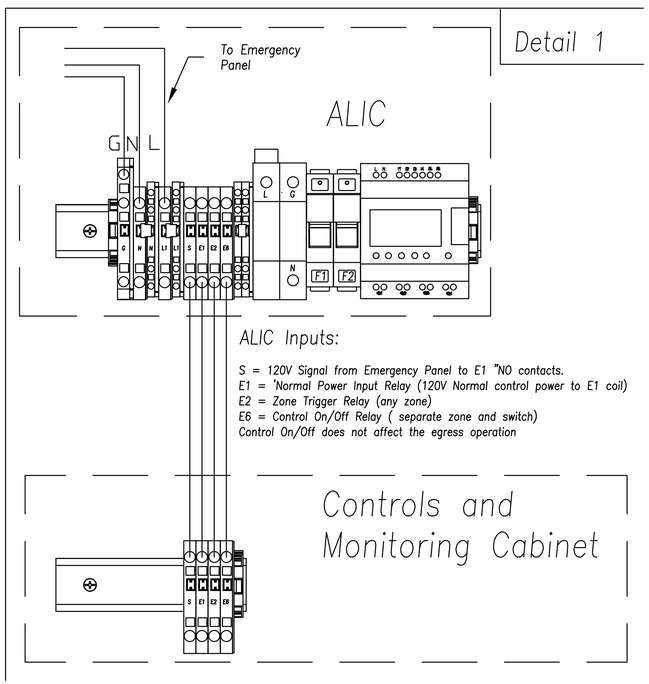
IMPORTANT: The 120 volt power (wire E1) from the Controls Monitoring Cabinet is being monitored as the mains or normal power. For best operation, the Controls and Monitoring Cabinet should be powered from the field lighting distribution panel or what is to be considered the main distribution panel.

Standard sequence of egress operation
1) The ALIC sends 120V over the S wire to the normally open (N.O.) contacts of the E1, E2 and E6 (if present) relays in the CMC.
   a) E1 is connected to the control circuit of the CMC to monitor Normal Power.
   b) E2 is connected to the monitored zone(s) to monitor when the zone(s) is on
   c) E6 is connected to the override zone if present. This zone can manually turn on or schedule the egress fixture. The manually override does not affect the egress operation
2) Normal power (the mains) has an interruption, either sustained or momentary.
3) E1 opens it's contacts cutting the monitored normal power input from the ALIC.
4) The ALIC checks the monitored zone input from E2.
   a) If the input was present the ALIC will output for egress. The ALIC will continue to output as long as the backup system provides power. Once normal power is restored and the ALIC receives an input from E1 the ALIC will delay off the egress output for 20min.
   b) If the input was not present the ALIC will not output for egress



Contractor Notes:

Contractor is responsible for providing (A,B,C,D) cables and installation of cables from emergency panel to ALIC and from ALIC to Controls and Monitoring Cabinet.



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD
SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

LUCCI & ASSOCIATES INC.
CONSULTING ELECTRICAL ENGINEERS
3251 CORTE MALPASO, #511
CAMARILLO, CA 93012-8094
(805) 389-6520 FAX (805) 389-6519

DSA
SUBMITTAL

REGISTERED PROFESSIONAL ENGINEER
KENNETH W. LUCCI
No. E-10749
Exp. 09/30/2024
ELECTRICAL
STATE OF CALIFORNIA

REV.

MOORPARK COLLEGE
BEACH VOLLEYBALL
COURTS

MOORPARK, CA

DESIGNED:	KL
DATE:	APRIL 4, 2023
DRAWN:	LK / DS
PROJ.	22-537
SCALE:	AS NOTED

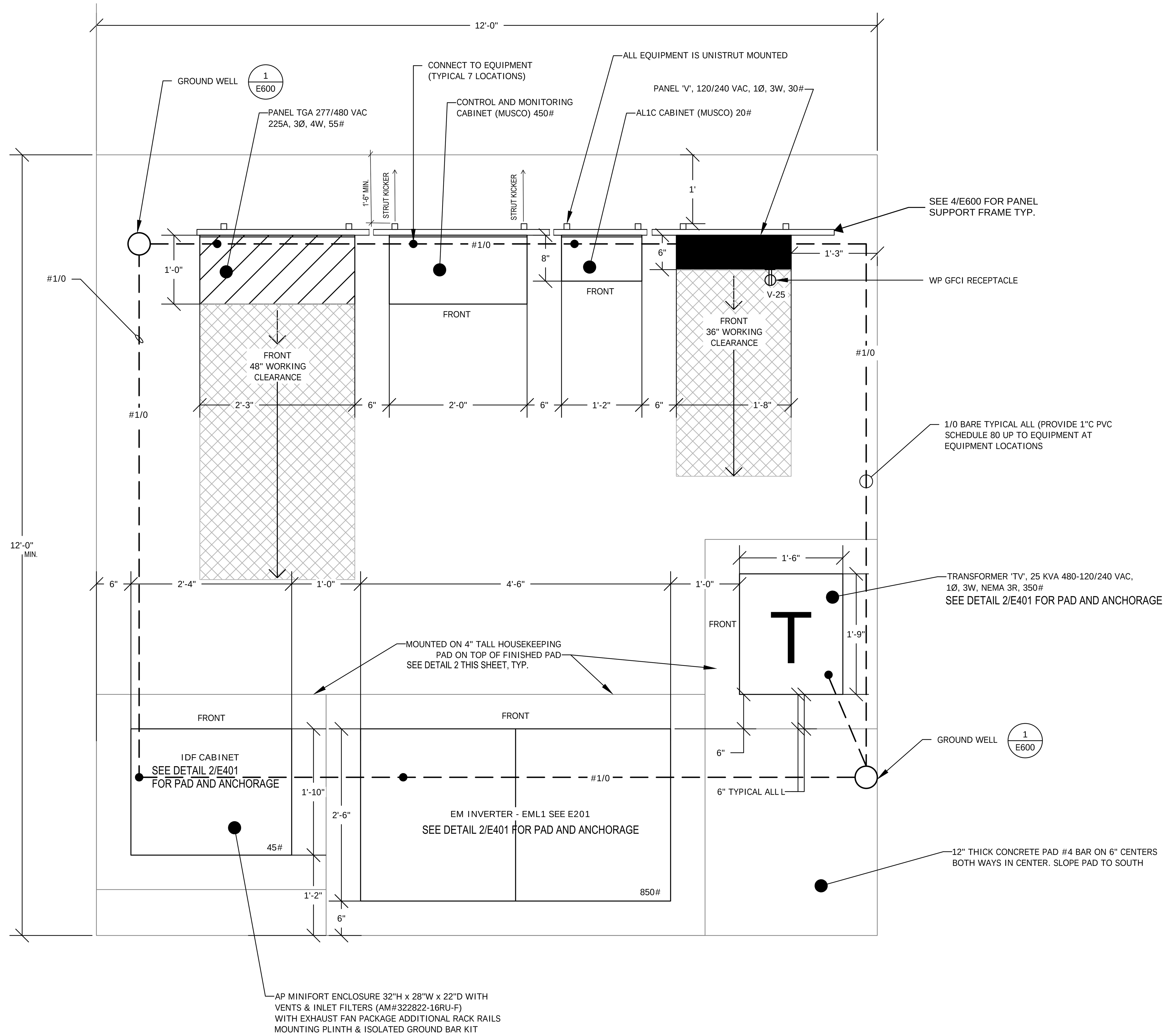
SHEET TITLE
MUSCO CONTROL
SYSTEM SUMMARY

DWG. NO.
E302

DRAFTER: CM01 DRAWING FILENAME: 22-537E302 PATHNAME: G:\22\537\EL\Sheets TIME: 3:40 pm DATE: 4 April 2023

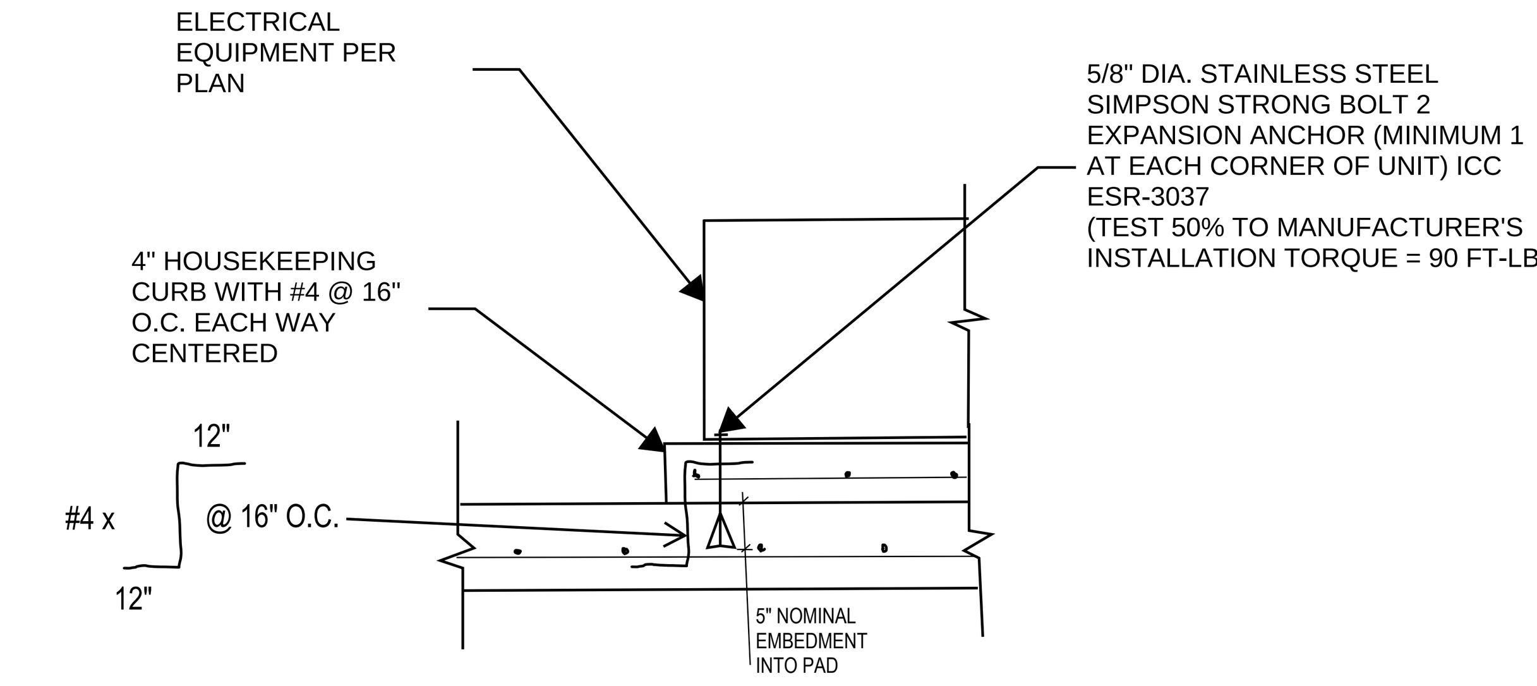
G:\22\537\EL\Sheets\22-537E302.dwg 4/4/2023 3:40 PM

 L.A.I.# 22-537 PAPER SIZE 36"x24"



ELECTRICAL EQUIPMENT PAD 1 E401

SCALE: 1"=1'-0"

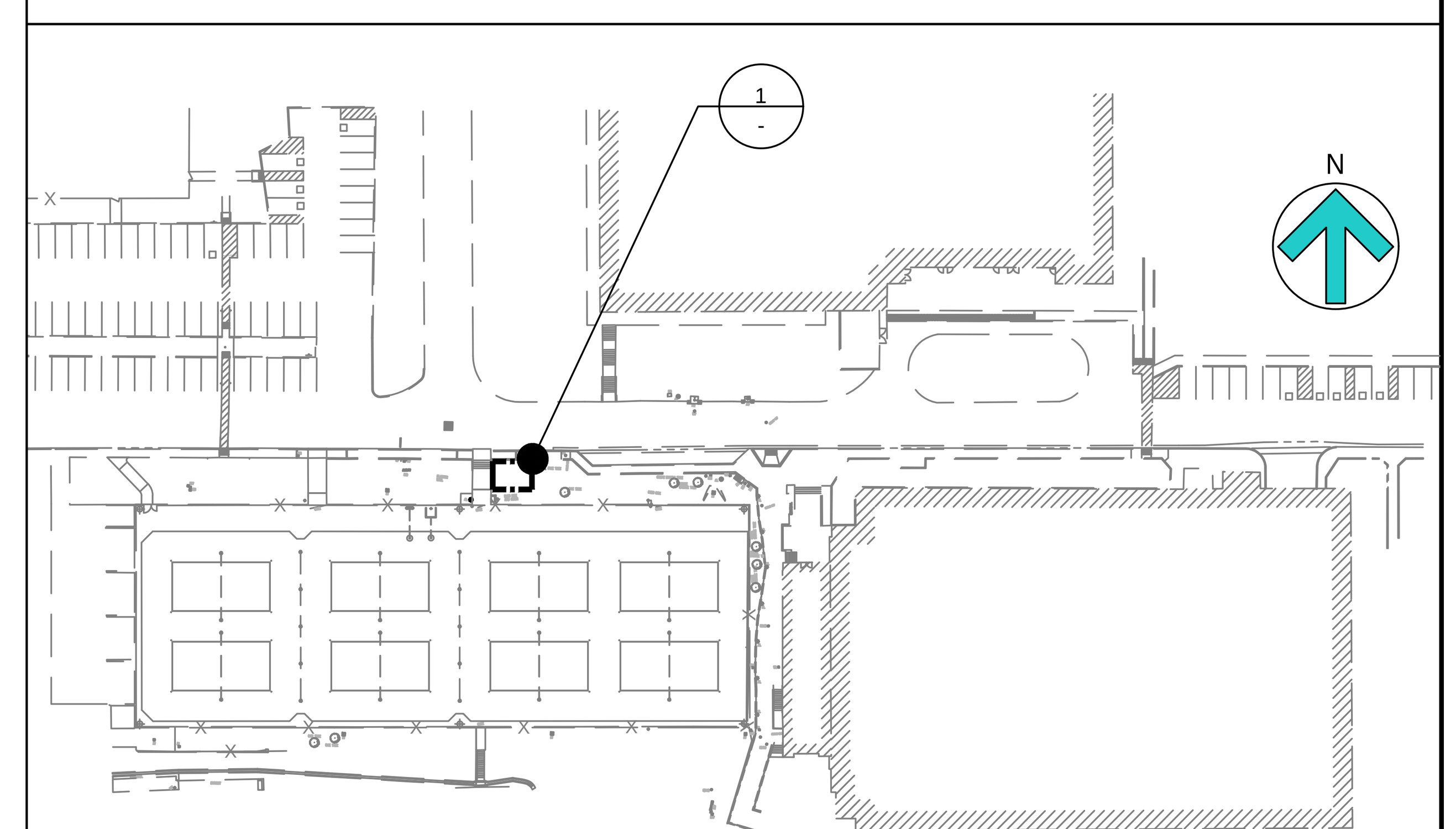


EQUIPMENT TO PAD ANCHORAGE DETAIL 2 E401

ALL GROUND CONNECTIONS SHALL BE EXOTHERMIC

EQUIPMENT SCHEDULE		
TAG	DIMENSION (H x W x D)	WEIGHT
PANEL 'TGA'	48" x 27" x 12"	#55
MUSCO CABINET	48" x 24" x 12"	#45
AL1C CABINET	24" x 14" x 8"	#20
PANEL 'V'	36" x 20" x 6"	#30
TRANSFORMER 'TV'	36" x 18" x 21"	#350
EM INVERTER	76" x 52" x 30"	#850
IDF CABINET	32" x 28" x 22"	#45

KEY MAP



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

LUCCI & ASSOCIATES INC.
CONSULTING ELECTRICAL ENGINEERS
3251 CORTE MALPASO, #511
CAMARILLO, CA 93012-8094
(805) 389-6520 FAX (805) 389-6519

DSA SUBMITTAL

REGISTERED PROFESSIONAL ENGINEER KENNETH W. LUCCI No. E13349 Exp. 09/30/2024 ELECTRICAL STATE OF CALIFORNIA

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	KL
DATE:	APRIL 4, 2023
DRAWN:	LK / DS
PROJ.	22-537
SCALE:	AS NOTED

SHEET TITLE

ELECTRICAL EQUIPMENT PAD

DWG. NO.

E401

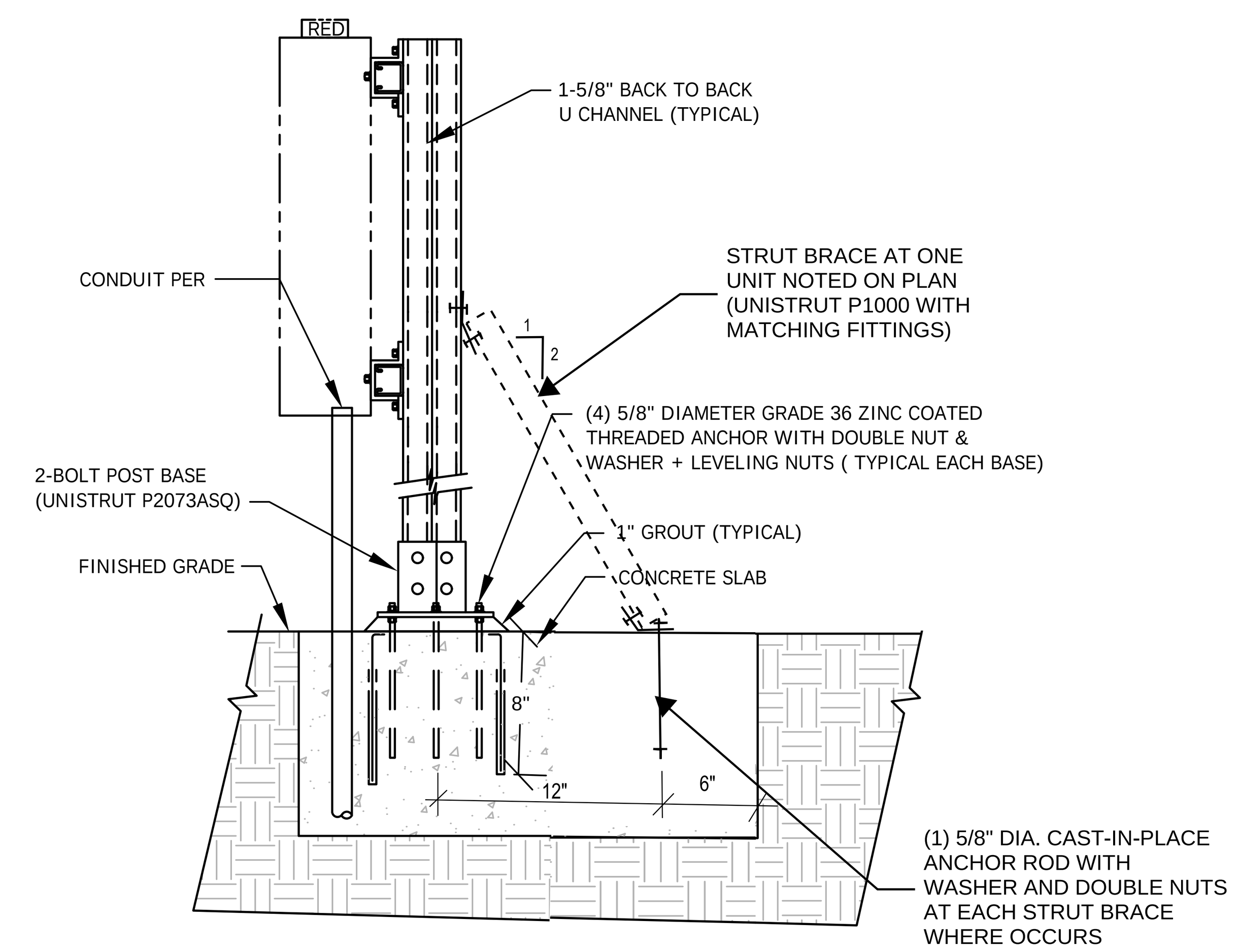
DRAFTER: CM01 DRAWING FILENAME: 22-537E401 PATHNAME: G:\22\537\EL\Sheets DATE: 4 April 2023 TIME: 3:40 pm

G:\22\537\EL\Sheets\22-537E401.dwg 4/4/2023 3:40 PM

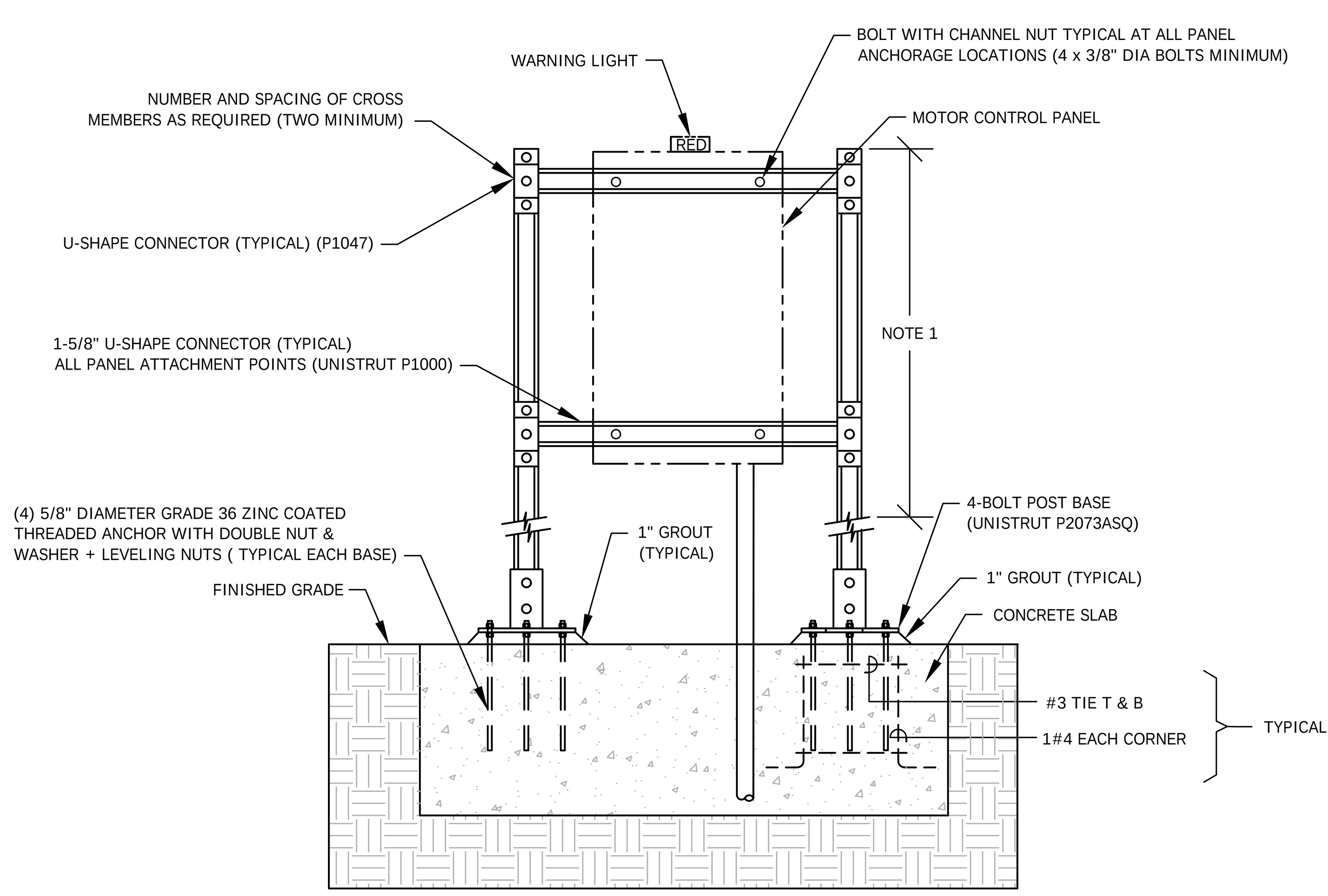
L.A.I.# 22-537 PAPER SIZE 36"x24"

NOTES:

1. MOUNT INDICATORS OR EQUIPMENT OPERATING HANDLES FOUR FEET ABOVE FLOOR OR PLATFORM.
2. MATERIAL AND HARDWARE PER SPECIFICATION DIVISION 26.



NEW CONCRETE SLAB



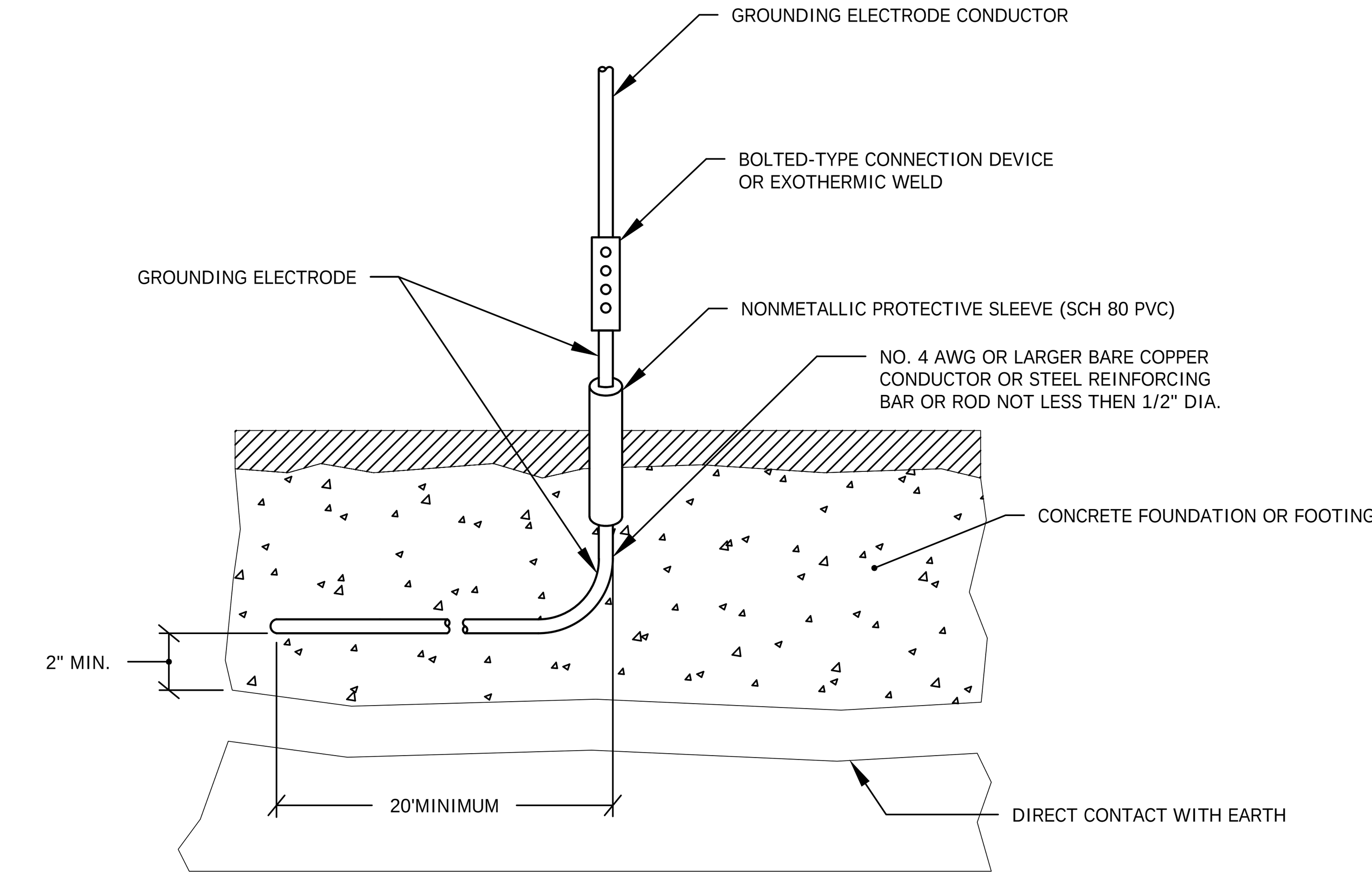
NEW CONCRETE SLAB

EQUIPMENT RACK MOUNTING DETAILS 4

SCALE: - E600

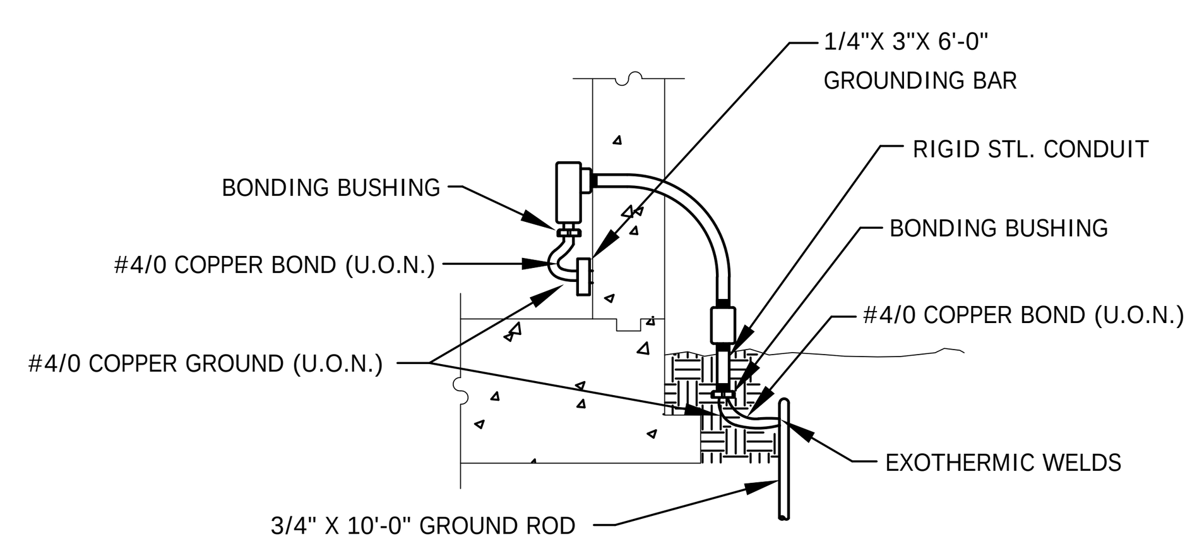
DETAIL NOTES:

1. CONCRETE-ENCASED ELECTRODE: AN ELECTRODE ENCASED BY AT LEAST 2 INCHES (50.8MM) OF CONCRETE. LOCATED WITHIN AND NEAR THE BOTTOM OF A CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH, CONSISTING OF AT LEAST 20 FEET (6.1 M) OF ONE OR MORE BARE OR ZINC GALVANIZED OR OTHER ELECTRICALLY CONDUCTIVE COATED STEEL REINFORCING BARS OR RODS OF NOT LESS THAN 1/2 INCH (12.7 MM) DIAMETER, OR CONSISTING OF AT LEAST 20 FEET (6.1 M) OF BARE COPPER CONDUCTOR NOT SMALLER THAN NO. 4, SEE PLANS FOR SIZE OF CONDUCTOR IF GREATER THEN #4.



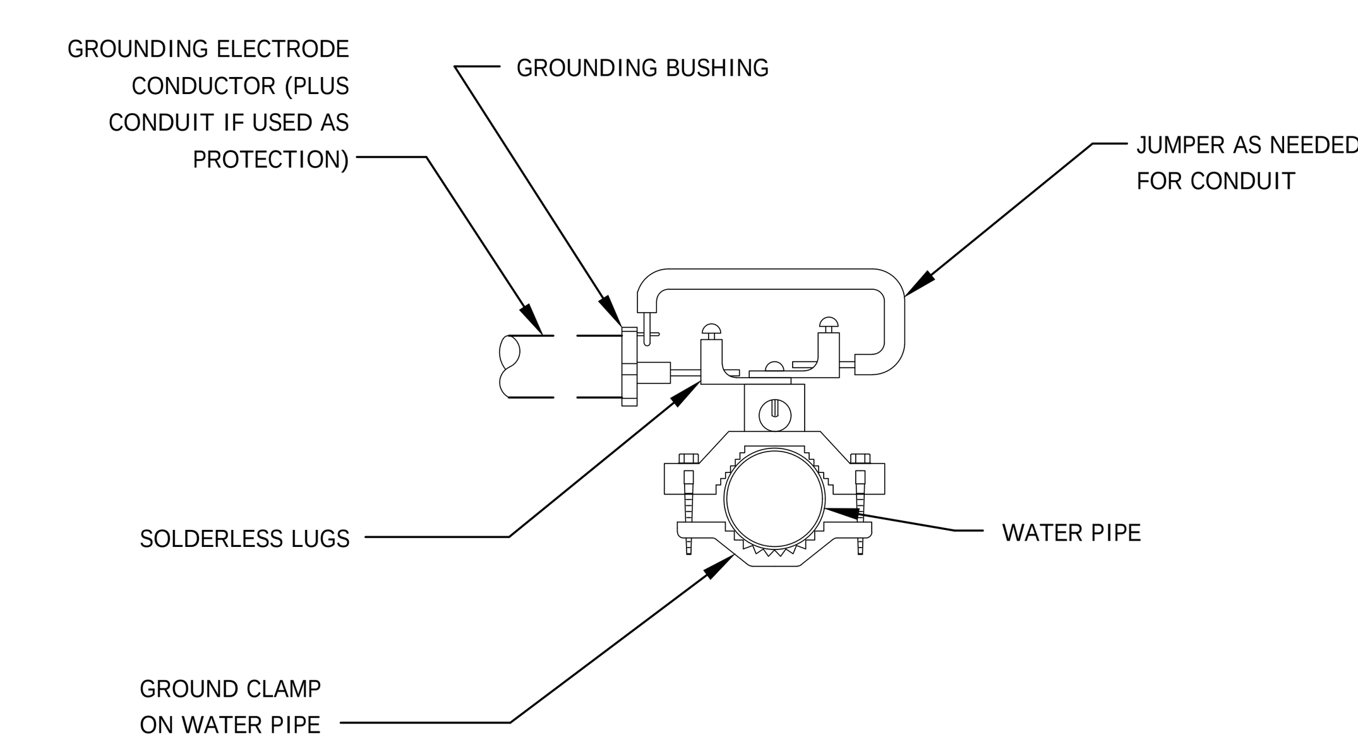
UFER GROUND DETAIL 3

SCALE: NONE - E600



GROUND ROD DETAIL 6

SCALE: NONE - E600

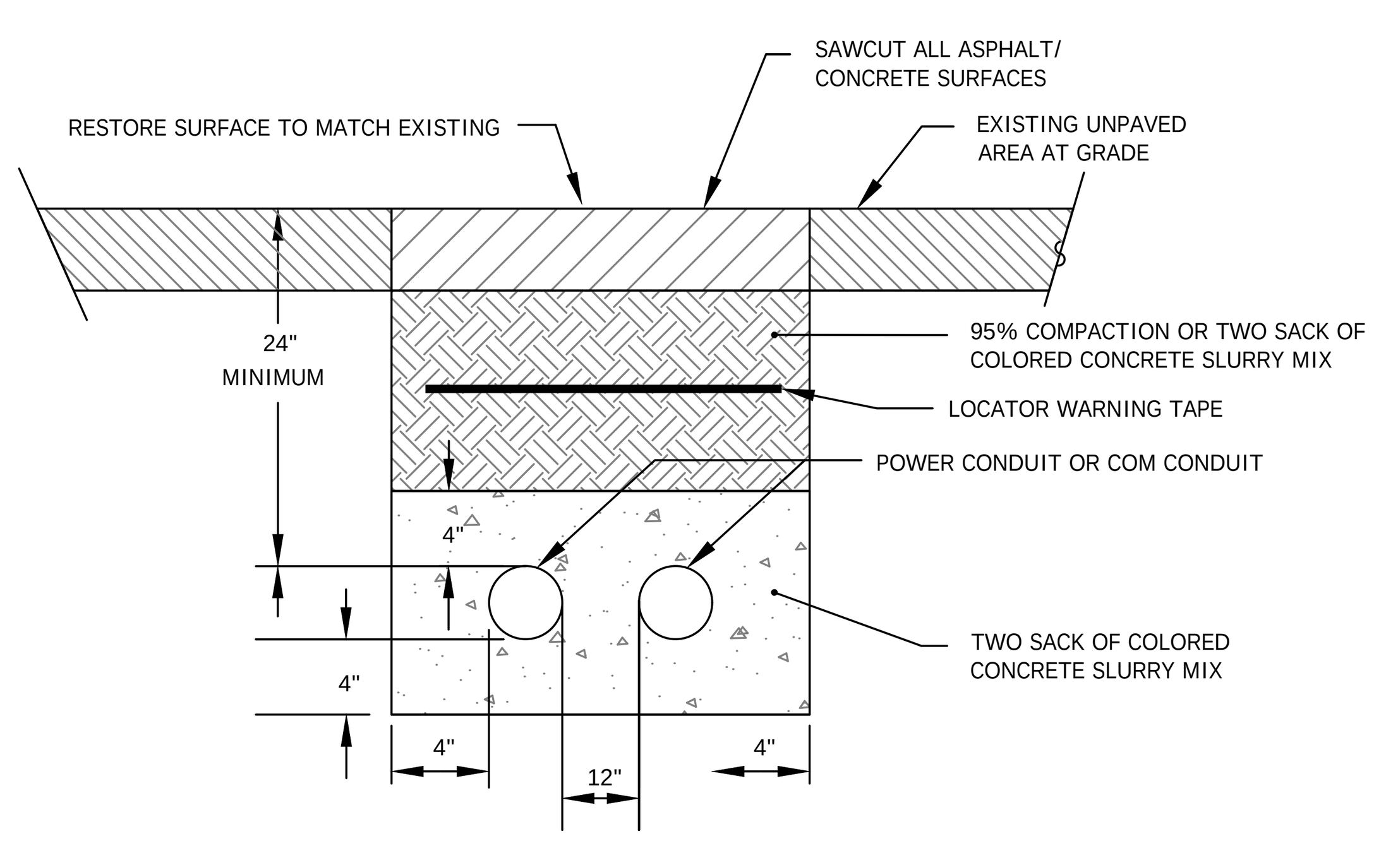


COLD WATER GROUND DETAIL 2

SCALE: NONE - E600

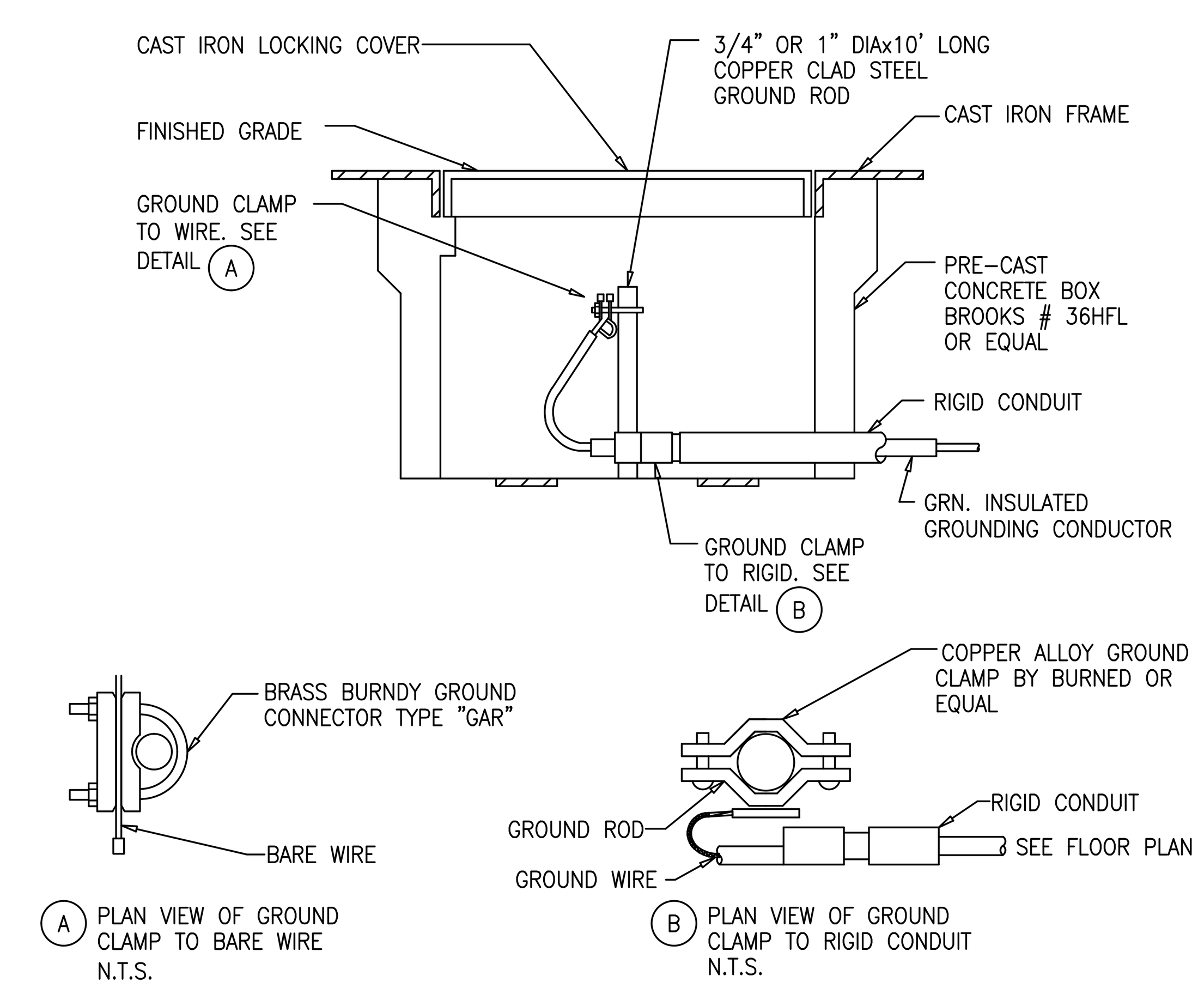
DETAIL NOTES:

1. ALL CONDUITS TO BE PROVIDED WITH LABELED METERED 3/16 PULLSTRINGS OR MULE TAPE THEIR ENTIRE LENGTH.
2. ALL CONDUITS BENDS SHALL BE FACTORY BENDS WITH MINIMUM 12 TIMES DIAMETER BEND RADIUS.
3. ALL FEEDERS TO BE PER ELECTRICAL SINGLE LINE.



DUCTBANK SECTION 5

SCALE: NTS TYPICAL - E600



GROUND ROD AND PRE-CAST CONCRETE BOX DETAIL 1

SCALE: NTS - E600

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

LLOYD SPORTS + ENGINEERING
7349 N. VIA PASEO DEL SUR
SUITE 515-324
SCOTTSDALE, ARIZONA 85258
PH 602.635.4226

LUCCI & ASSOCIATES INC.
CONSULTING ELECTRICAL ENGINEERS
3251 CORTE MALPASO, #511
CAMARILLO, CA 93012-8094
(805) 389-6520 FAX (805) 389-6519

DSA SUBMITTAL

REGISTERED PROFESSIONAL ENGINEER KENNETH W. LUCCI No. E16340 Exp. 09/30/2024 ELECTRICAL STATE OF CALIFORNIA

REV.

MOORPARK COLLEGE BEACH VOLLEYBALL COURTS

MOORPARK, CA

DESIGNED:	KL
DATE:	APRIL 4, 2023
DRAWN:	LK / DS
PROJ.	22-537
SCALE:	AS NOTED

SHEET TITLE

ELECTRICAL DETAILS

DWG. NO.

E600

DRAFTER: CM01 DRAWING FILENAME: 22-537E600 PATHNAME: G:\22\537\EL\Sheets DATE: 4 April 2023 TIME: 3:40 pm

G:\22\537\EL\Sheets\22-537E600.dwg 4/4/2023 3:40 PM

L.A.I.# 22-537 PAPER SIZE 36"x24"

GENERAL NOTES:

APPLICABLE BUILDING CODE

All construction and workmanship shall conform to the 2022 California Building Code, California Code of Regulations – Title 24, Parts 1 & 2.

This pole and foundation standard has been designed for lateral loads on the completed structure as follows:

Wind Design Data:
- Vult = 94 MPH (Exposure C); Vasd = 73 MPH (Exposure C)
- Risk Category = II
- See Pole Foundation Schedule for maximum pole wind forces.

Seismic Design Data:
- I_e = 1.0
- Risk Category = II (Self Supporting Poles)
- S_S = 1.985
- S_1 = 0.729
- Site Class = D–Default
- S_{DS} = 1.588
- S_{D1} = 0.826
- Seismic Design Category = D
- Basic Seismic–Force–Resisting System = Non–Building Structure, not similar to buildings
- Cs = 0.417 (STRENGTH LEVEL)
- R = 1.5
- Ω = 1.5
- Analysis Procedure = Equivalent Lateral Force Procedure
- See Pole Foundation Schedule for maximum pole seismic forces.

GENERAL CONSTRUCTION

These notes shall be used in conjunction with the plans and any discrepancies shall be brought to the attention of the Registered Design Professional (RDP) in Responsible Charge.

Contractor must check all dimensions, clearances and job conditions before starting work. The RDP in Responsible Charge shall be notified immediately of any discrepancies or possible deficiencies.

The drawings and specifications represent the finished structure. All bracing, temporary supports, shoring, etc., is the sole responsibility of the Contractor. Observation visits to the job site by the RDP in Responsible Charge do not include inspection of construction procedures. The Contractor is solely responsible for all construction methods and for safety conditions at the worksite. These visits by RDP in Responsible Charge shall not be construed as continuous and detailed inspections.

Design, material, equipment, and products other than those described below or indicated on the drawings may be considered for use, provided prior approval is obtained from the School District, the RDP in Responsible Charge, and DSA.

All changes to the approved plans after a contract for construction has been awarded, affecting structural, access or life–safety portions of the project, shall be made by means of construction change documents (CCD) approved by DSA, as required by Section 4–338, Part 1, Title 24, CCR. All CCD shall be prepared and signed by the RDP in general Responsible Charge.

Substitutions shall be considered as a CCD and shall be approved by DSA prior to fabrication or use.

A Class 1 or Class 2 Project Inspector employed by the School District (Owner) and approved by DSA shall provide continuous inspection of the work, the duties of the Inspector are defined In Section 4–342, Part 1, Title 24, CCR.

All Tests And Inspections shall be performed by an Independent lab employed by the School District and approved by DSA.

Reference pole location on the Architectural, Structural, and/or Electrical drawings for actual pole placement and site location. Pole shall be located 5'–0" min. from adjacent structures below 50'–0" A.G.L., unless noted otherwise.

LIGHT POLE FOUNDATIONS

Reference geotechnical report prepared by Geotechniques, Dated January 23, 2023; Project no. 1003.046

Allowable Vertical soil Capacity – 2,500 PSF (End Bearing) (Values may be increased ⅓ for wind and seismic loading.)

Allowable Lateral Bearing capacity: 300 PSF/FT to maximum 4,500 PSF. Neglect upper 2 feet of soil.

A representative of Geotechniques should be available at the time of the foundation installation to verify the soil design parameters and to provide assistance if any problems arise in foundation installation.

The Contractor must familiarize himself with the complete geotechnical report, and borings and contact the above firm to understand the soil conditions and the possibility of ground water pumping and excavation stabilization or bracing during the foundation installation and placement of concrete.

Soil formations that will require special design considerations or excavation procedures may exist. Pole foundations may need to be reanalyzed according to the soil conditions that exist.

If any discrepancies or inconsistencies arise, notify the RDP in Responsible Charge of such discrepancies.

All piers and concrete must bear on and against firm undisturbed soil as determined by the Geotechnical Engineer.

Place plywood collar around perimeter at the top of foundation excavation to prevent soil from entering.

All excavations must be free of loose soil, and debris prior to foundation installation and placement of concrete. Casing or drilling slurry may be required if caving occurs. Review and approval of the Geotechnical Engineer and DSA is required.

All excavations must be free of water or concrete shall be placed by the Tremie Method in accordance with ACI standard 336. Concrete placed by the Tremie Method shall have a minimum ultimate strength of 1,000 PSI greater than required under "Concrete Cast–In–Place' and a maximum slump of 8".

CONCRETE (CAST–IN–PLACE)

All concrete shall attain a minimum ultimate compressive strength at 28 day test of 3,000 psi. Batch plant inspection not required.

All concrete shall attain a minimum strength of 2,500 psi prior to steel pole erection.

Use Type II/V Portland cement or as directed by the Geotechnical Engineer.

Portland Cement ASTM C–150.

Aggregate ASTM C–33. 1" maximum aggregate size. ⅜" max agg. size not permitted.

Mix in conformance with ASTM C–94, ACI 318 SECTIONS 19.2 and 26.4.

Place concrete immediately after completion of excavation and inspection by the Geotechnical Engineer and the DSA Inspector. Under no circumstances shall piers be allowed to remain open for more than 12 hours without the approval of the Geotechnical Engineer. Excavations shall be covered and protected until filled with concrete.

Concrete shall be placed in one continuous operation (no construction joint) with special equipment to assure a maximum freefall of 5 ft and to prevent concrete from striking the sides of the excavation. Freefall of concrete is unacceptable through water or drilling slurry.

Vibrate concrete full depth, except for concrete with slump greater than 6", then vibrate only upper 10'–0". Concrete placed under water shall have a slump of 6"–8".

STEEL POLE

Steel pole sections conform to the California Code of Regulations T.24, Part 2, Chapter 22A.

All steel conforms to referenced ASTM specifications. (See Pole Data Table for each pole type).

All weldment conforms with AWS D1.1–15 specification for GMAW fillet utilizing E70S–X filler metal or SAW fillet utilizing F7XX–EXXX or F8XX–EXXX filler metal.
GMAW procedure conforms to AWS A5.18.
SAW procedure conforms to AWS A5.23.

Longitudinal seam welds for pole sections shall have 60% minimum penetration; Except longitudinal seam welds on the female section of telescopic field splices shall be full penetration groove welds for a length equal to the minimum splice length plus 6 inches. See drawing number MD1 for seam weld details.

Pole sections hot dipped galvanized to ASTM A123 latest standards.

All miscellaneous structural steel items conform to AISC 360–16.

Steel pole sections shall be assembled in the field by attaching two 1.5 ton "come alongs" to jacking ears, using full effort on each simultaneously, to ensure minimum overlaps as indicated on the "MS" sheet(s) and detail G/MD1.

PRECAST BASE

The precast concrete base conforms to California Code of Regulations, T.24, part 2, Chapter 19A and to Building Code Requirements for Reinforced Concrete, ACI 318–19.

See detail "A" on "MS" sheet(s) for material strengths and specifications.

TESTING AND INSPECTION

Testing and inspection in accordance with Title 24, Part 1 & Part 2 & project DSA 103 form.

EXCAVATIONS & FOUNDATIONS:
Inspection of cast–in–place deep foundations – 1705A.8 & Table 1705A.8

CONCRETE MATERIALS: 1903A.1
Portland cement – 1910A.1
Concrete aggregates – 1903A.5
Reinforcing bars – 1910A.2 & DSA IR 17–10
Prestressing steel and anchorages – 1910A.3

CONCRETE QUALITY:
Proportions of concrete – Reference ACI 318 Section 26.4.3.1 Through 26.4.4.1.
Strength tests of concrete – 1905A.1.15 and ACI 318 Section 26.12 & 26.5.3.2.

CONCRETE INSPECTION: 1705A.3 & Table 1705A.3
Job site – Reference ACI 318 Section 26.5.1,26.5.2.1(a) & (b),26.6.1.2(d), 26.11.1.1(a).
Batch Plant Inspection Not Required – 1705A.3.3.2
Prestressed concrete – 1704A.2.5, 1705A.3.4

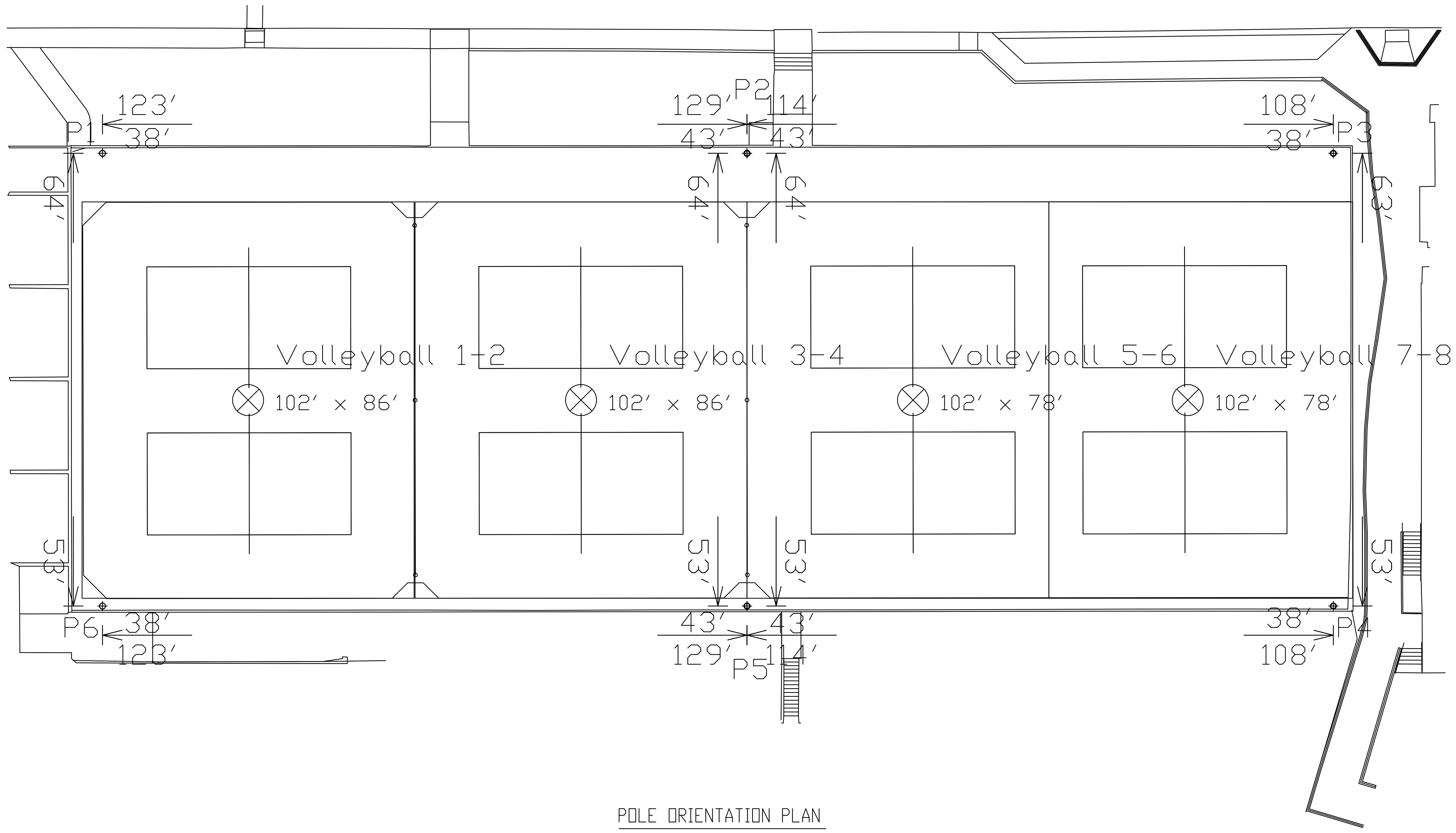
STEEL MATERIALS:
Structural steel – 2202A.1 & 2205A.1
Cold formed steel – 2210A.1
Identification – 2202A.1

STEEL QUALITY:
Tests of structural steel & cold formed steel – 2202A.1

STRUCTURAL STEEL INSPECTIONS: Table 1705A.2.1
Shop fabrication inspection – 1704A2.5
Welding – 1705A.2.5, DSA IR 17–3 and AWS D1.1.
(NOTE: ALL WELDING SHALL BE CONTINUOUSLY INSPECTED BY AN AWS CWI CERTIFIED INSPECTOR APPROVED BY DSA)

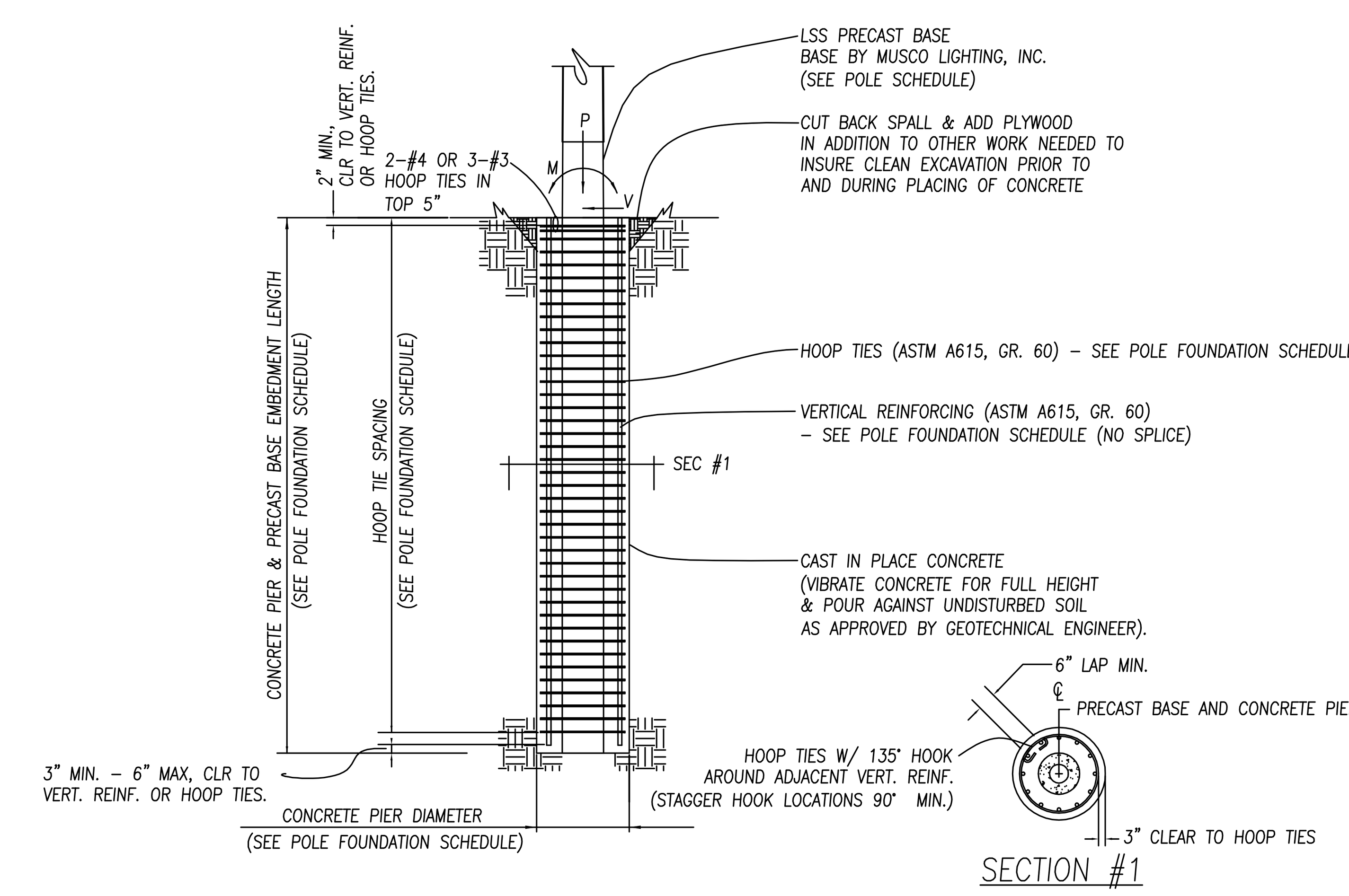
These plans are for construction approval. An application number and approval of these drawings by the Division of The State Architect of California must be secured to build from these plans.

INDEX OF SHEETS



POLE ORIENTATION PLAN
N.T.S.

NOTE: THIS PLAN IS A PICTORIAL REPRESENTATION OF THE SITE LAYOUT. REFERENCE APPROPRIATE ARCHITECTURAL SITE PLAN FOR ALL NECESSARY INFORMATION.



(A) REINFORCED FOUNDATION DETAIL
N.T.S. DSA–A2–CASFND_A

POLE FOUNDATION SCHEDULE

POLE TYPE–# OF FIXTURES (MAX) (LSS=LIGHT STRUCTURE)	MARK (SEE POLE ORIENTATION PLAN)	WIND OR SEISMIC (SEISMIC FORCE INCLUDES OVERSTRENGTH FACTOR=1.5)	ASD LEVEL FORCES (MAX)			C.I.P. DEEP FOUNDATION				PRECAST BASE
			MOMENT (M) FT–LBS*	SHEAR (V) LBS	VERTICAL (P) LBS**	DIAMETER INCHES	EMBEDMENT FEET (SEE NOTE BELOW)	VERTICAL REINFORCING (ASTM A615, GR 60)	HOOP TIE SIZE & SPACING (ASTM A615, GR 60)	EMBEDMENT FEET
LSS60B–8	P1–P6	SEISMIC	53,500	1,236	2,826	36"	12'–0"	8–#8	#4 @ 6" O.C. TOP 9'–0" & #4 @ 12" O.C. BELOW	12'–0"
		WIND	54,500	1,237	1,732					

*Moment (M) computed below grade at Shear (V) = 0.
**Vertical (P) load includes steel pole, light fixtures, and attachments. Vertical (P) load for wind is the dressed pole weight for erection purposes. Vertical (P) load for seismic also includes weight of precast base above groundline. Reference Detail "A" on MS Sheet(s) for precast base weight.
Note:
Final Embedment to be determined in the field by the Geotechnical Engineer of Record

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

Moorpark College BV
FIELD LIGHTING
Moorpark,CA

REGISTERED PROFESSIONAL ENGINEER ★ JOSH RANDALL No. 4506 Exp. 6–30–23 STRUCTURAL ★ STATE OF CALIFORNIA

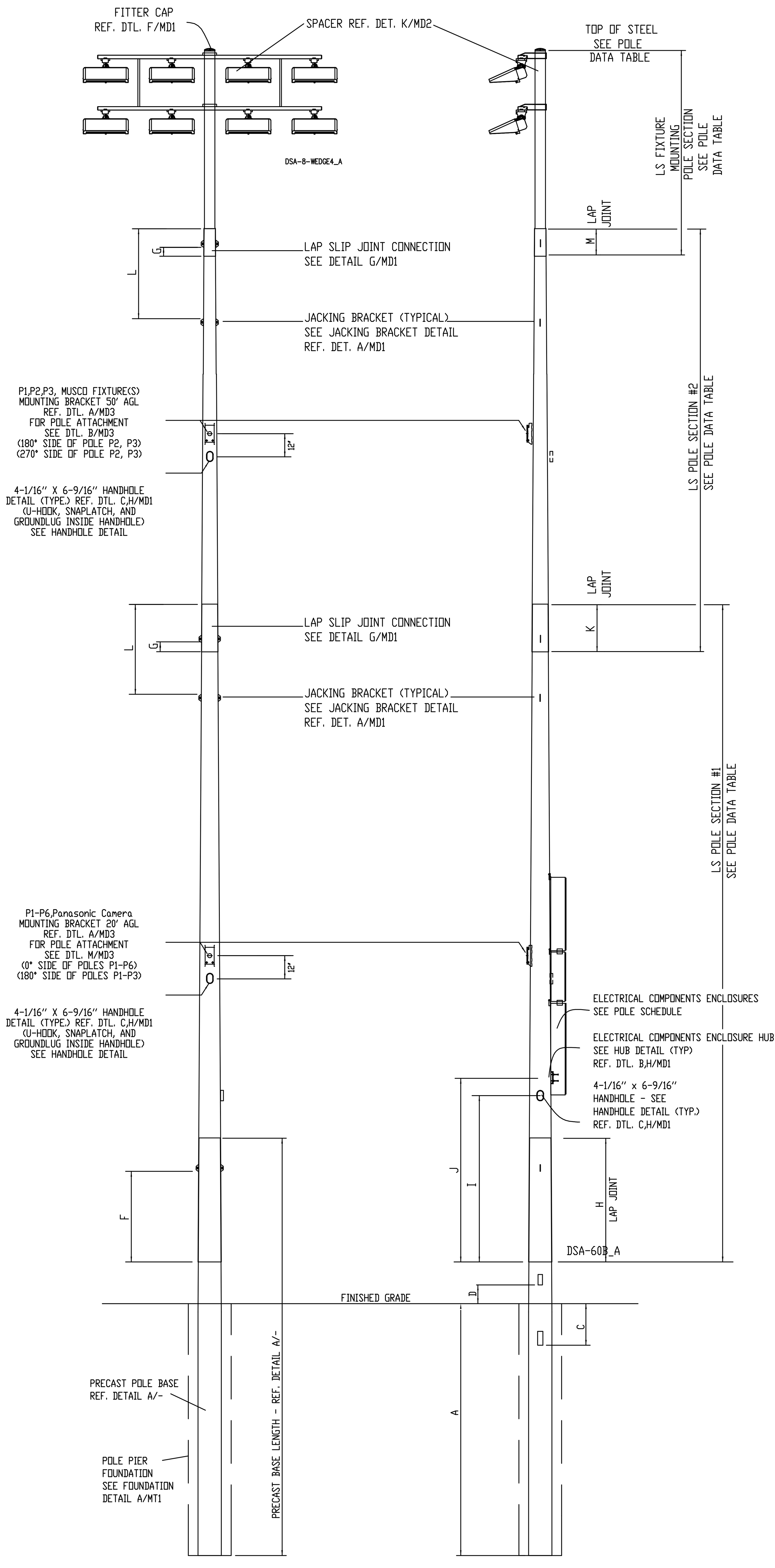
CONSULTANT
KNA STRUCTURAL ENGINEERS
9931 Muirlands Boulevard, Irvine, CA 92618
Tel (949) 462-3200 • Fax (949) 462-3201
www.KNAstructural.com
KNA JOB NO.: 463.172

MUSCO Lighting
CORPORATE OFFICE:
P.O. Box 808
100 1st Avenue West
Oskaloosa, Iowa 52577
800/825–6020

DRAWING TITLE: NOTES, FOUNDATION DETAIL
SCALE: SEE PLAN
REVISIONS:
REFERENCE:

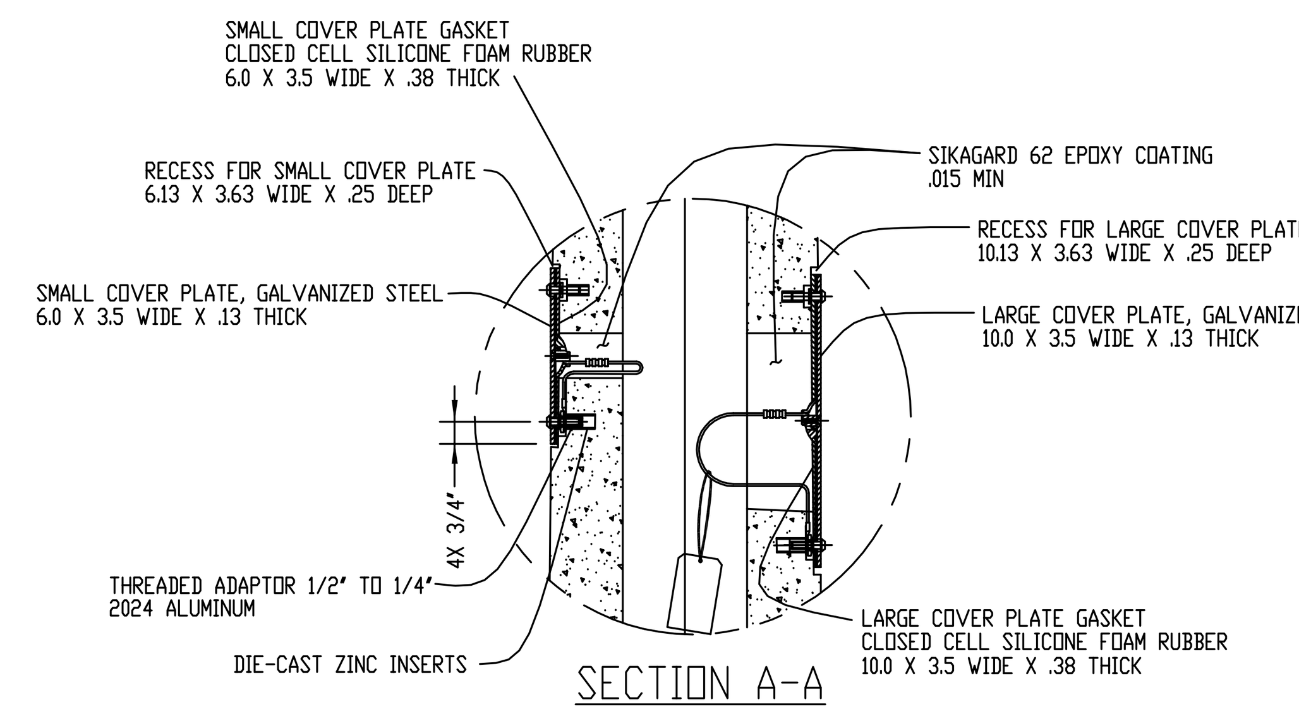
PROJECT NO. 224335
DATE: 04/04/2023
DRAWN BY: C.Hensley
DRAWING NO. MT1
1 OF 5

DSA–TITLE1_E

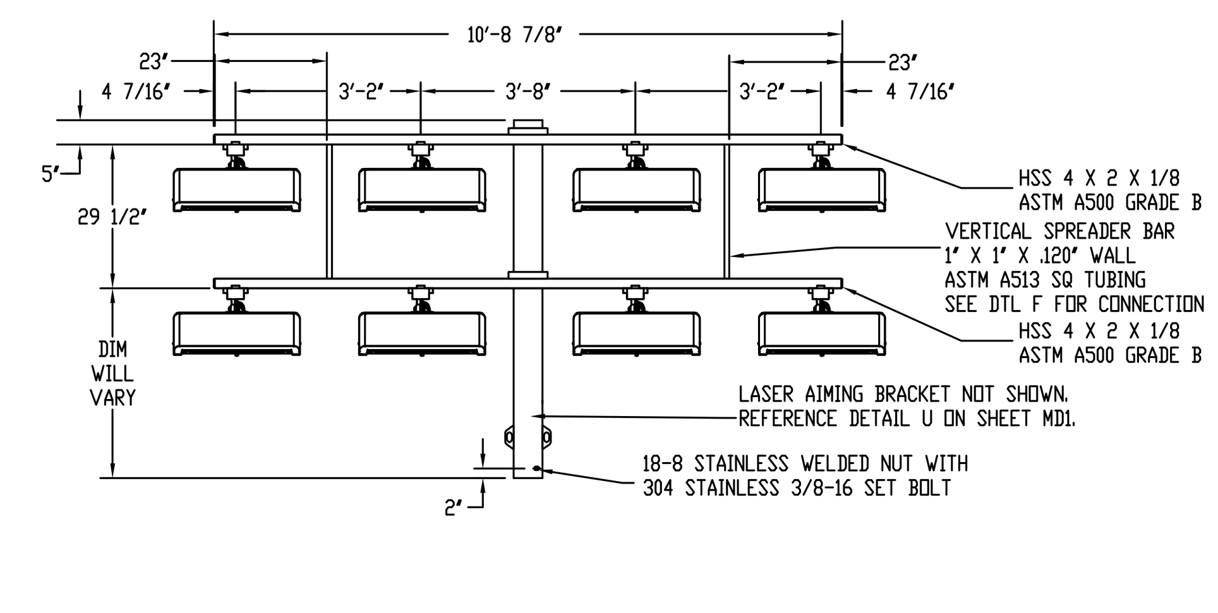


LSS60B POLE FRONT VIEW
N.T.S.

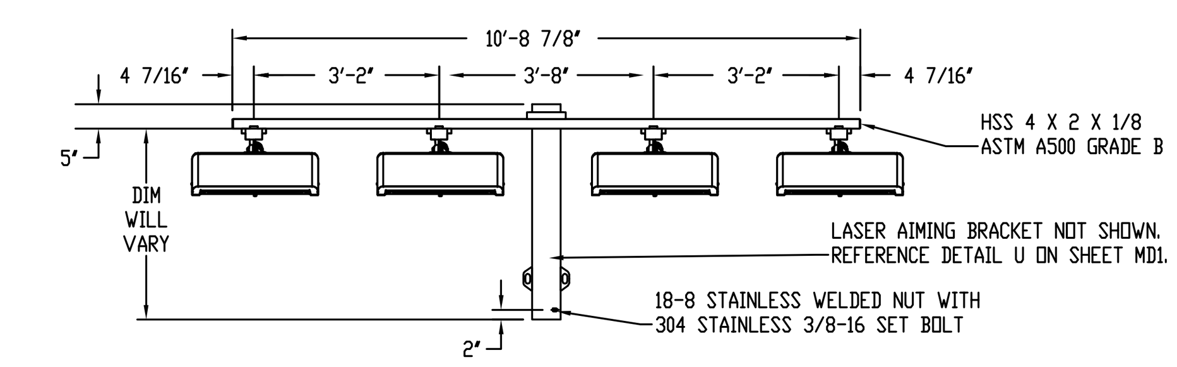
LSS60B POLE SIDE VIEW
N.T.S. DSA-60BBASE_A



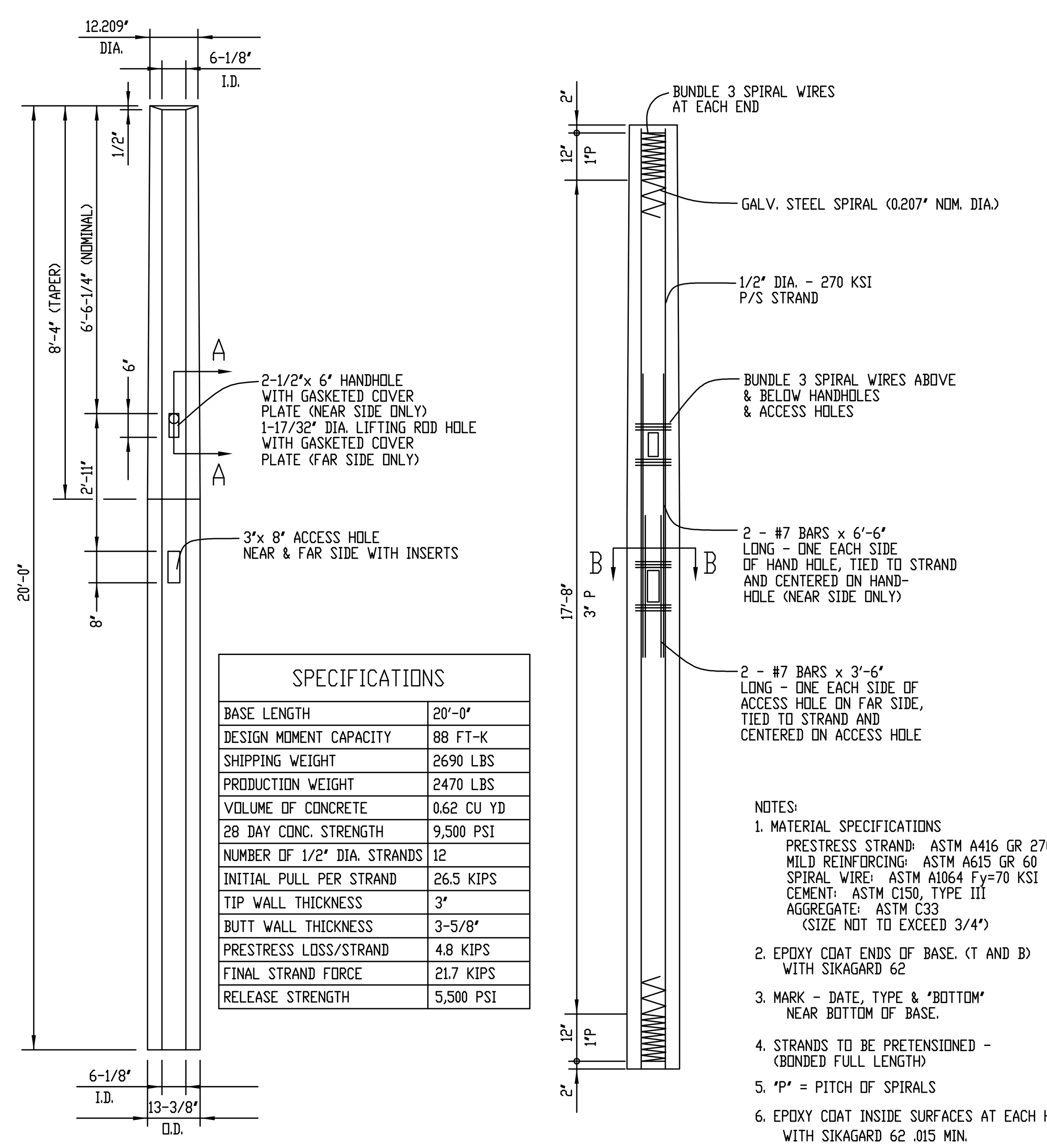
SECTION A-A
DSA-3Bconc_M



B 8 FIXTURE CONFIGURATION
N.T.S. DSA-8C-WEDGE4_A

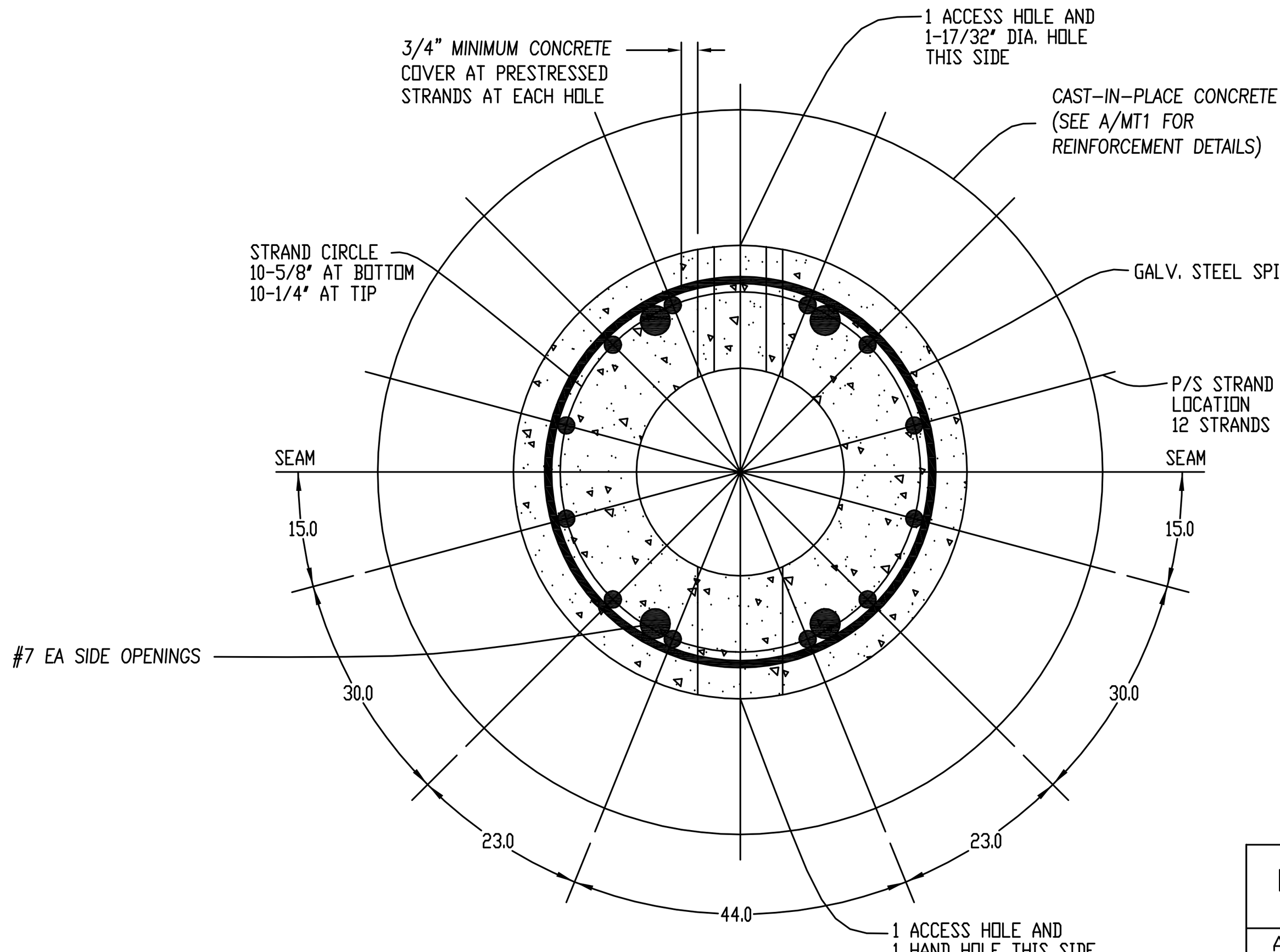


C 4 FIXTURE CONFIGURATION
N.T.S. DSA-4C-WEDGE4_A



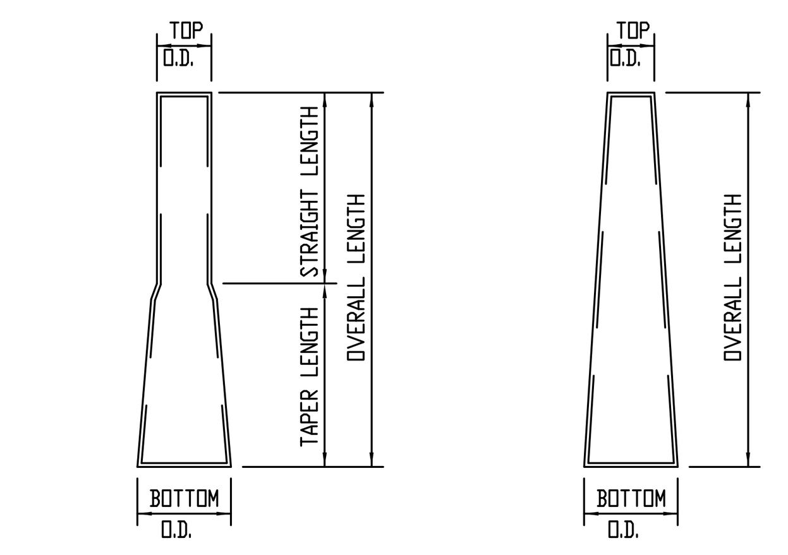
SPECIFICATIONS	
BASE LENGTH	20'-0"
DESIGN MOMENT CAPACITY	88 FT-K
SHIPPING WEIGHT	2690 LBS
PRODUCTION WEIGHT	2470 LBS
VOLUME OF CONCRETE	0.62 CU YD
28 DAY CONC. STRENGTH	9,500 PSI
NUMBER OF 1/2" DIA. STRANDS	12
INITIAL PULL PER STRAND	26.5 KIPS
TIP WALL THICKNESS	3"
BUTT WALL THICKNESS	3-5/8"
PRESTRESS LOSS/STRAND	4.8 KIPS
FINAL STRAND FORCE	21.7 KIPS
RELEASE STRENGTH	5,500 PSI

NOTES:
1. MATERIAL SPECIFICATIONS
   PRESTRESS STRAND: ASTM A416 GR 270 (LOW RELAXATION)
   MILD REINFORCING: ASTM A615 GR 60
   SPIRAL WIRE: ASTM A1064 Fy=70 KSI
   CEMENT: ASTM C150, TYPE III
   AGGREGATE: ASTM C33
   (SIZE NOT TO EXCEED 3/4")
2. EPOXY COAT ENDS OF BASE. (T AND B) WITH SIKAGARD 62
3. MARK - DATE, TYPE & 'BOTTOM' NEAR BOTTOM OF BASE.
4. STRANDS TO BE PRETENSIONED - (BONDED FULL LENGTH)
5. 'P' = PITCH OF SPIRALS
6. EPOXY COAT INSIDE SURFACES AT EACH HOLE WITH SIKAGARD 62 .015 MIN.



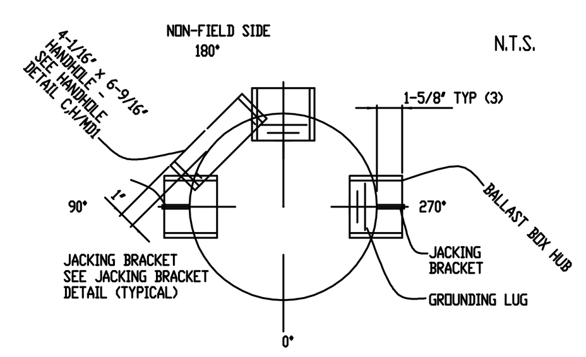
PLAN SECTION B-B

A TYPE 3B PRECAST BASE DETAIL
N.T.S. DSA-3Bconc_M

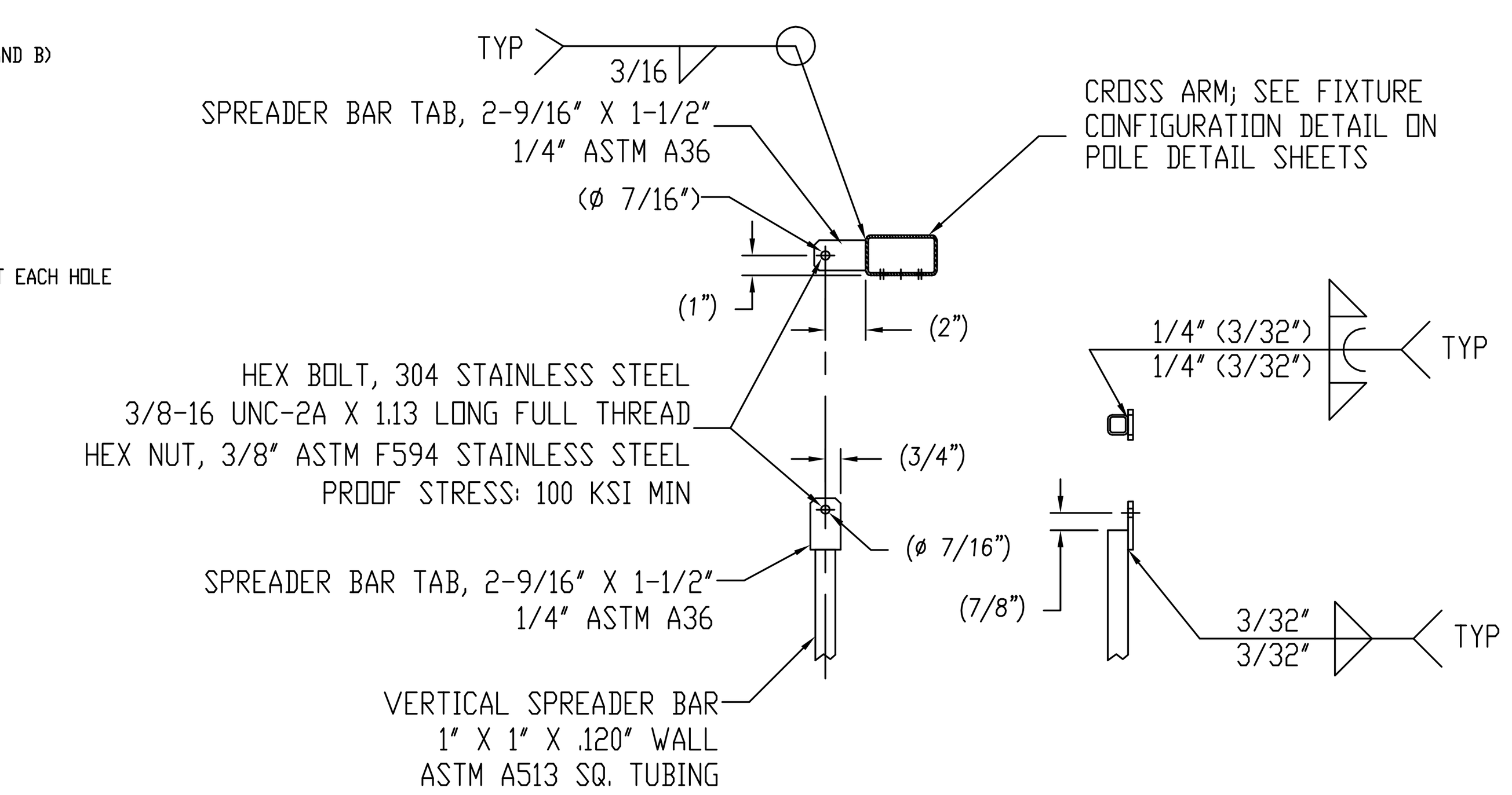


FIXTURE MOUNTING POLE SECTION

TOP/MIDDLE/BOTTOM POLE SECTION



POLE ORIENTATION
N.T.S.



F BOLT ON SPREADER BAR DETAIL
SCALE: N.T.S. DSA-SpreaderBarBoltOn-LED_A

NOTATION	DIMENSION LSS60B
A	12'-0"
C	2'-0" NOM.
D	1'-0" NOM.
F	4'-4" NOM.
G	1'-6"
H	5'-11 3/8" NOM. 5'-3 3/4" MIN.
I	7'-7 1/2" NOM.
J	8'-9 1/2" NOM.
K	3'-7 1/4" NOM. 1'-10 1/4" MIN.
L	4'-7" NOM.
M	1'-10" NOM. 1'-3" MIN.

1. CONTAINS COMBINED EPA OF LIGHT FIXTURES, CROSS ARM AND MISCELLANEOUS FIXTURE MOUNTING APPARATUS.

FIXTURE WEIGHT 57.8 LBS. THIS INCLUDES THE WEIGHT OF FIXTURE, CROSS ARM & MISC. MOUNTING APPARATUS. ELECTRICAL BALLAST BOX WEIGHT 20 LBS PER FIXTURE SERVICED

POLE SCHEDULE

SITE LOCATION	POLE MARK	REFERENCE LOCATION	POLE TYPE	FIXTURE CONFIGURATION	TOTAL EPA[1]	BALLAST BOX REQUIREMENTS
SEE SITE PLAN (BY OTHERS)	P1,P3	SEE POLE ORIENTATION PLAN	LSS60B	4 - SEE DETAIL B/MS1	24.7	SEE DETAIL P,O,/MD1
	P2	SEE POLE ORIENTATION PLAN	LSS60B	8 - SEE DETAIL C/MS1		SEE DETAIL P,P,O,/MD1
	P4,P6	SEE POLE ORIENTATION PLAN	LSS60B	4 - SEE DETAIL B/MS1		SEE DETAIL P,/MD1
	P5	SEE POLE ORIENTATION PLAN	LSS60B	8 - SEE DETAIL C/MS1		SEE DETAIL P,P,/MD1

DSA-POLESCHE_C

POLE DATA TABLE

POLE TYPE	PIECE MARK	MAX NUMBER of X-Arms	POLE SECTION	TOP O.D. (INCHES)	BTM. O.D. (INCHES)	OVERALL LENGTH	STRAIGHT LENGTH	TAPER LENGTH	THICKNESS (INCHES)	TOP OF STEEL NOMINAL	ASTM REFERENCE
LSS60B	LS-2009	2	FIXTURE MOUNTING	6.000"	6.505"	5'-3"	3'-5"	1'-10"	.120	59'-11 3/4"	A513 (Fy=38ksi)
	MP-1TTDSA-2		#2	5.980"	9.630"	26'-0 7/8"	-----	26'-0 7/8"	.120	-----	A595A (Fy=55 ksi) or A572, Gr 55 or 65
	MP-3BT-D		#1	8.886"	13.400"	32'-2 7/8"	-----	32'-2 7/8"	.179	-----	A595A (Fy=55 ksi) or A572, Gr 55 or 65
	MP-3BDSA		PRECAST BASE	FOR PRECAST MEMBER PROPERTIES SEE PRECAST BASE DETAIL A/-							

DSA-60BDT_J

DSA-60_A

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

Moorpark College BV FIELD LIGHTING Moorpark,CA

CONSULTANT

KNA STRUCTURAL ENGINEERS
KNA JOB NO.: 463.172

MUSCO Lighting
CORPORATE OFFICE:
P.O. Box 808
100 1st Avenue West
Oskaloosa, Iowa 52577
800/825-6020

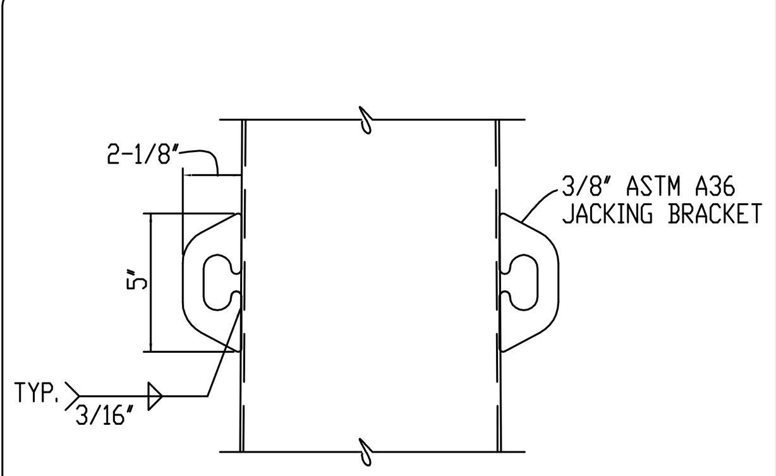
DRAWING TITLE: POLE DETAIL
SCALE: SEE PLAN
REVISIONS
REFERENCE:

PROJECT NO. 224335

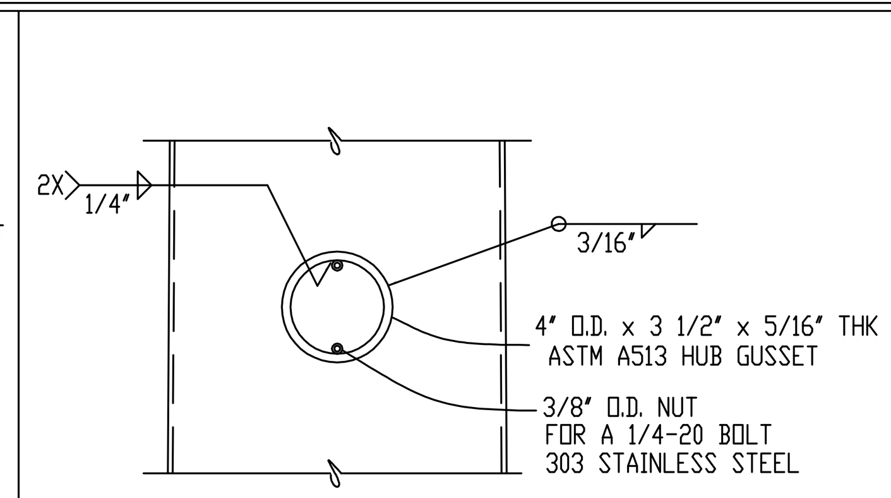
DATE: 04/04/2023

DRAWN BY: C.Hensley

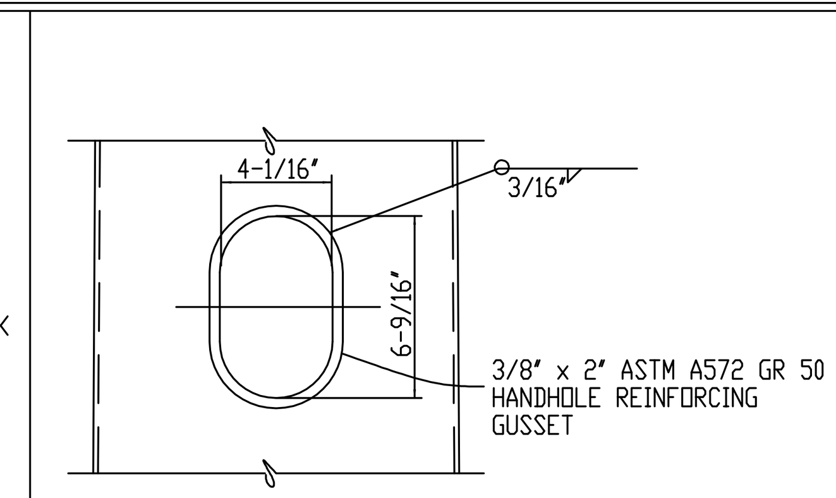
DRAWING NO. MS1
2 OF 5



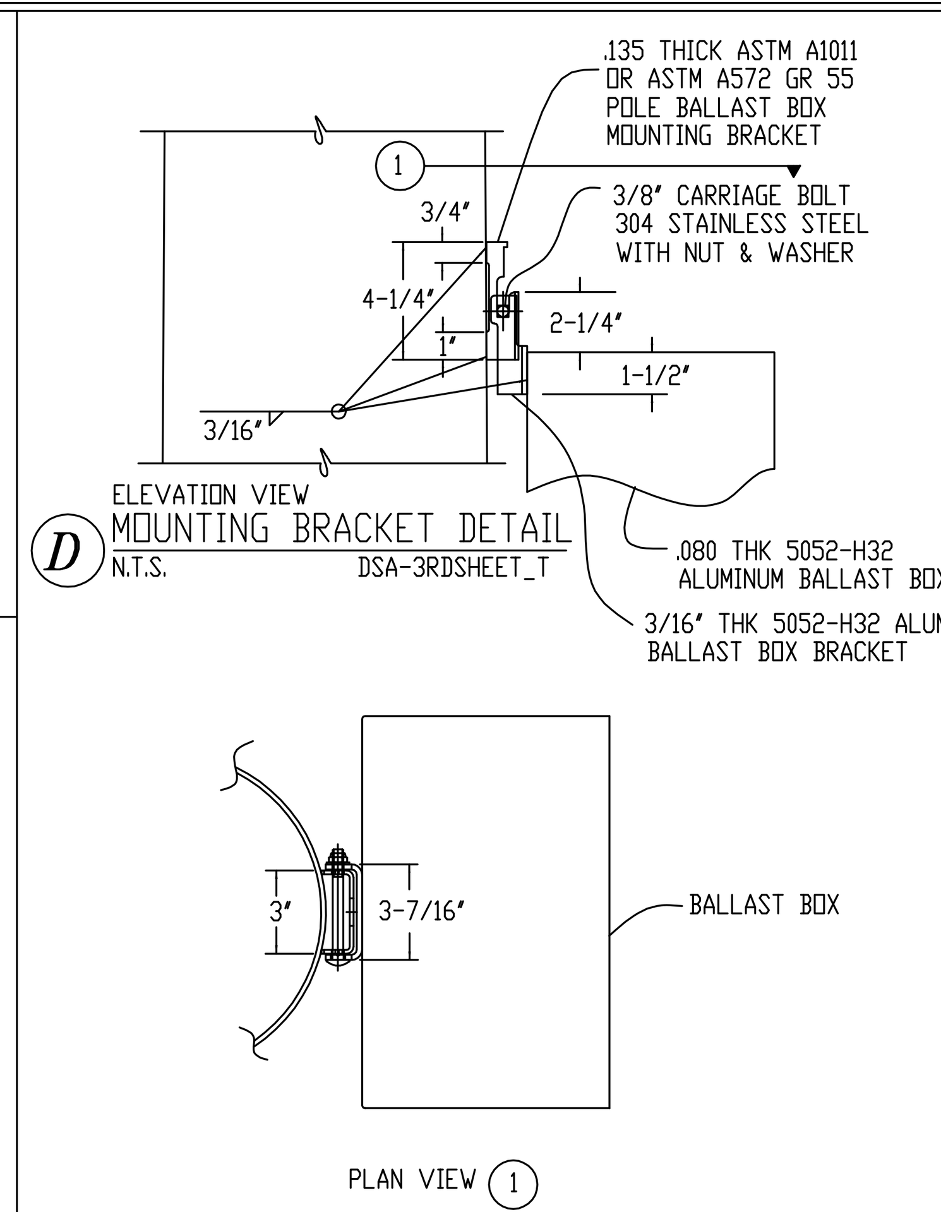
(A) JACKING BRACKET DETAIL
N.T.S. DSA-3RDSHEET_T



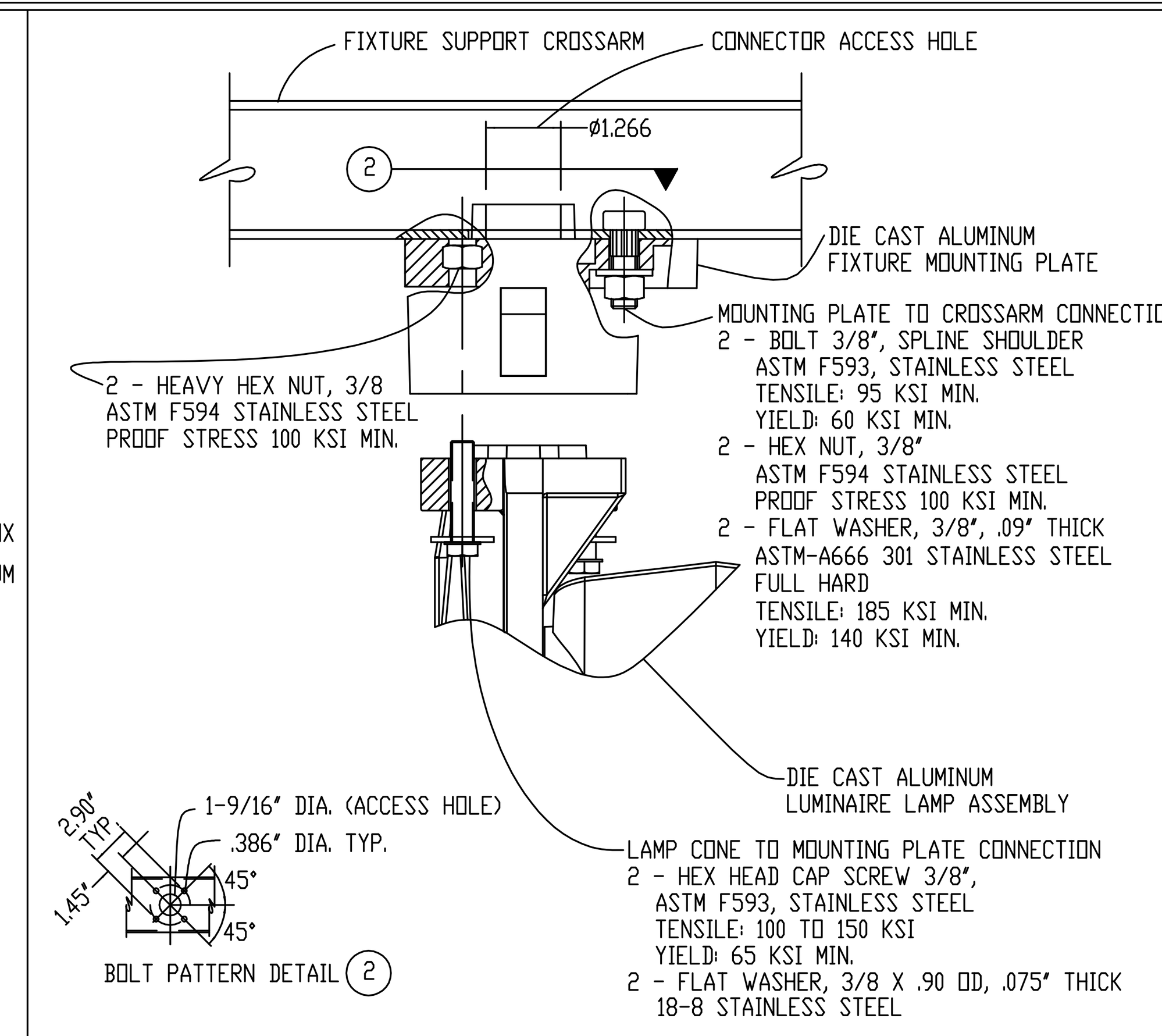
(B) HUB DETAIL
N.T.S. DSA-3RDSHEET_T



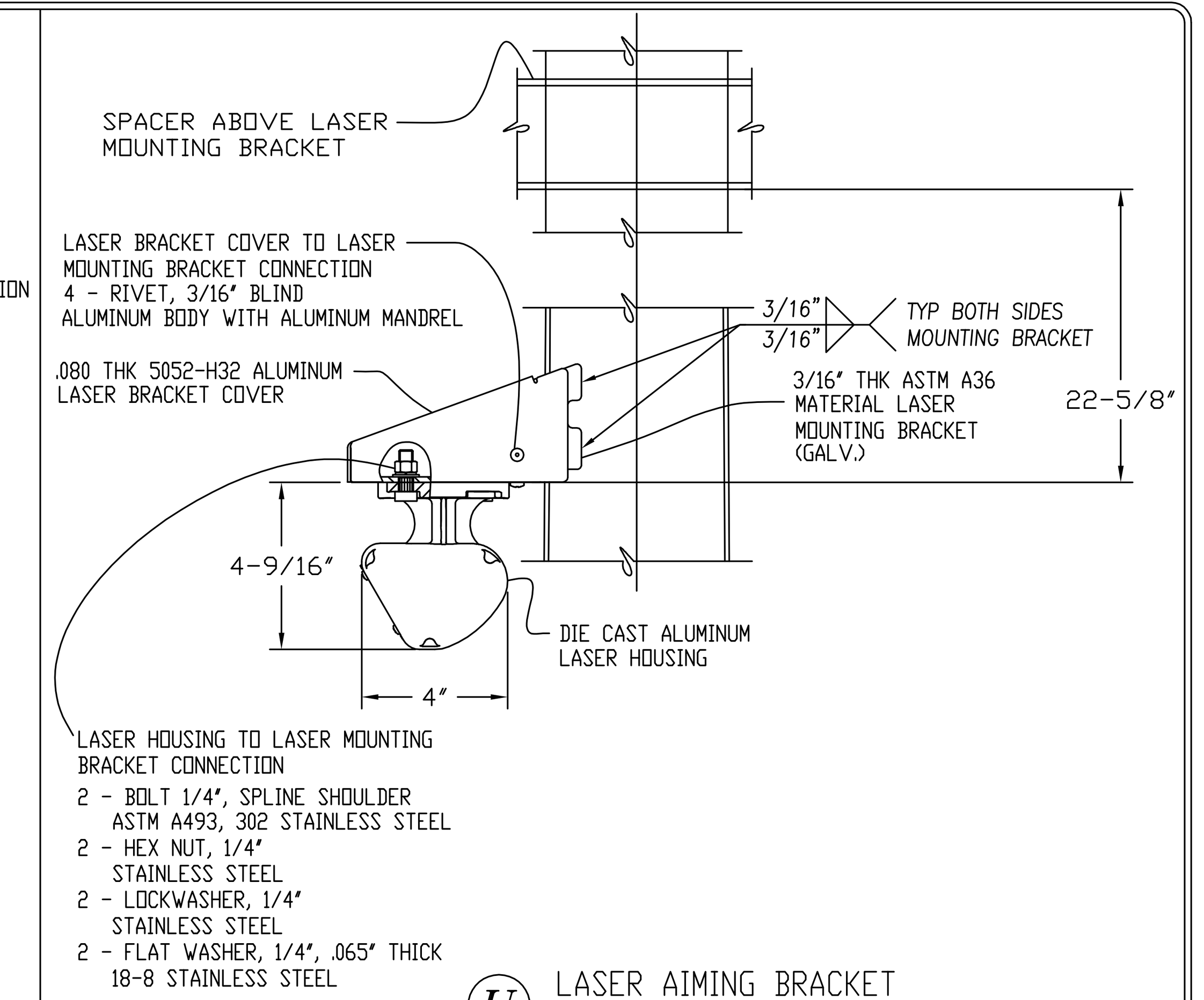
(C) HANDHOLE SLEEVE DETAIL
N.T.S. DSA-3RDSHEET_T



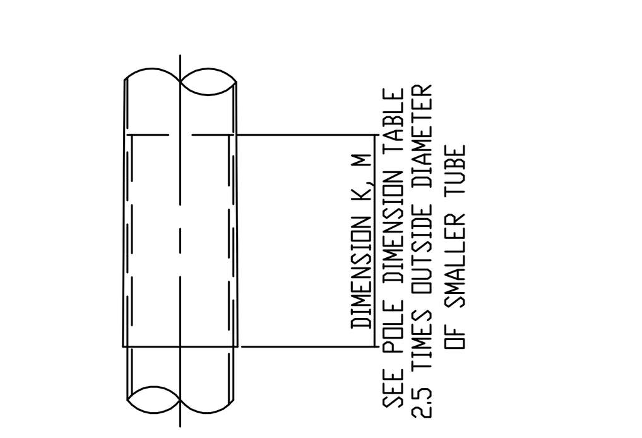
(D) MOUNTING BRACKET DETAIL
N.T.S. DSA-3RDSHEET_T



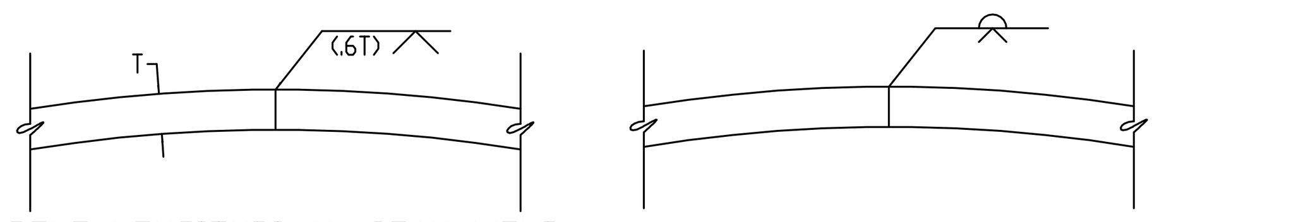
(E) LUMINAIRE ATTACHMENT DETAIL
N.T.S. DSA-3RDSHEET_T



(U) LASER AIMING BRACKET
N.T.S. DSA-3RDSHEET_T



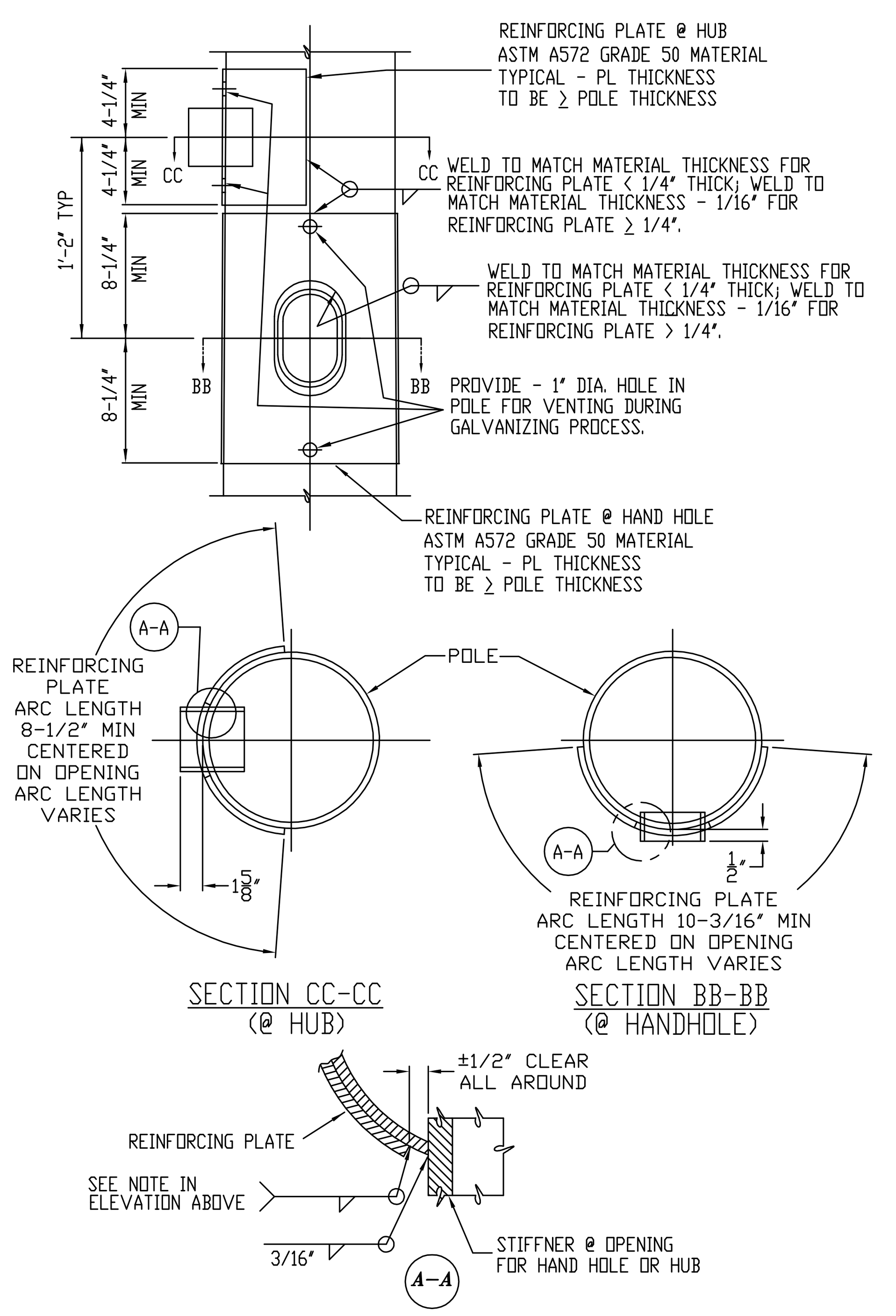
(G) SLIP JOINT CONNECTION DETAIL
N.T.S. DSA-LAP



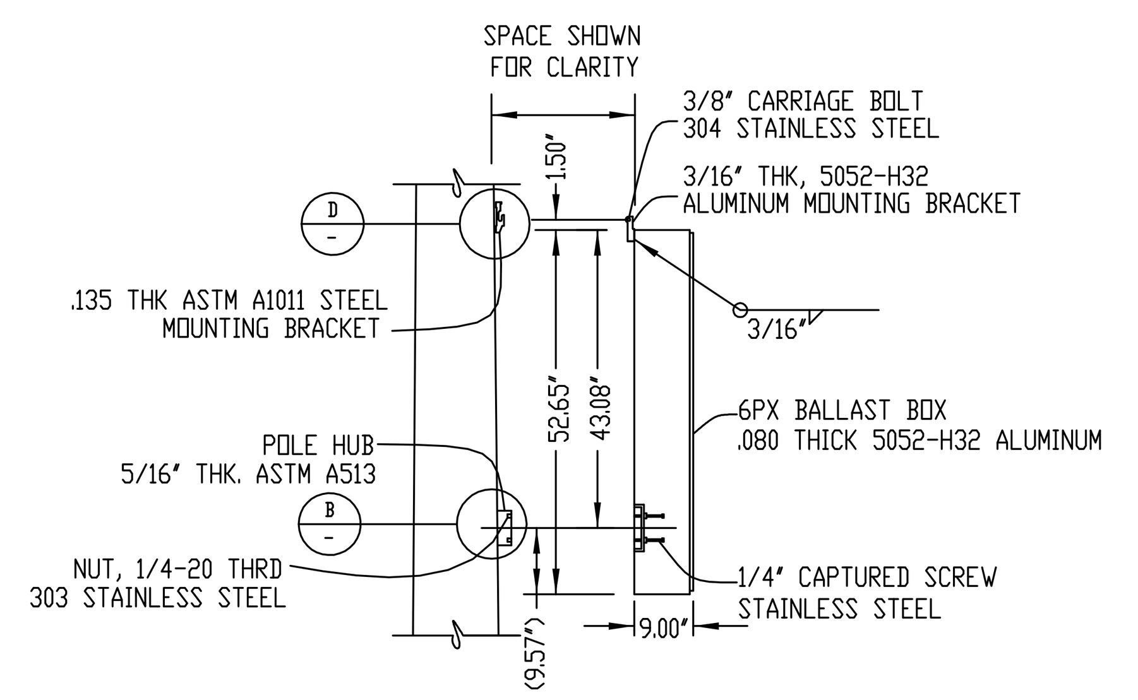
POLE LONGITUDINAL SEAM WELD DETAIL TYPICAL CONDITION *
N.T.S. DSA-3RDSHEET_T

POLE LONGITUDINAL SEAM WELD DETAIL AT LAP SPLICES (FEMALE END) *
N.T.S. DSA-3RDSHEET_T

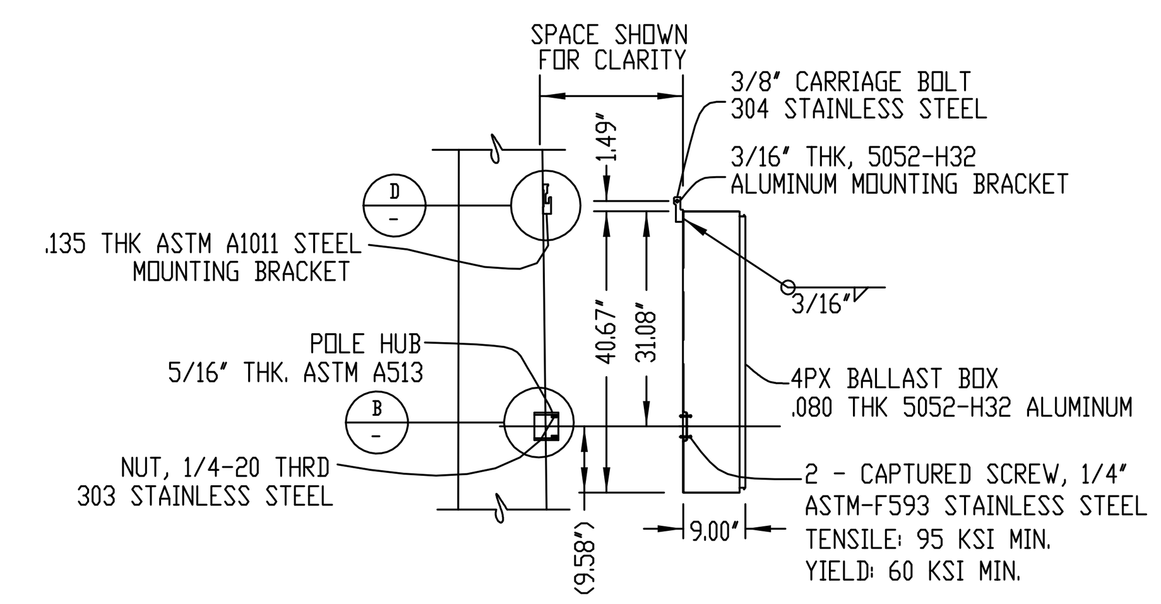
* NOTE- 100% PENETRATION SEAM WELDS MAY BE PROVIDED FULL LENGTH OF POLE SHAFTS PROVIDED WPS'S ARE QUALIFIED BY TEST.



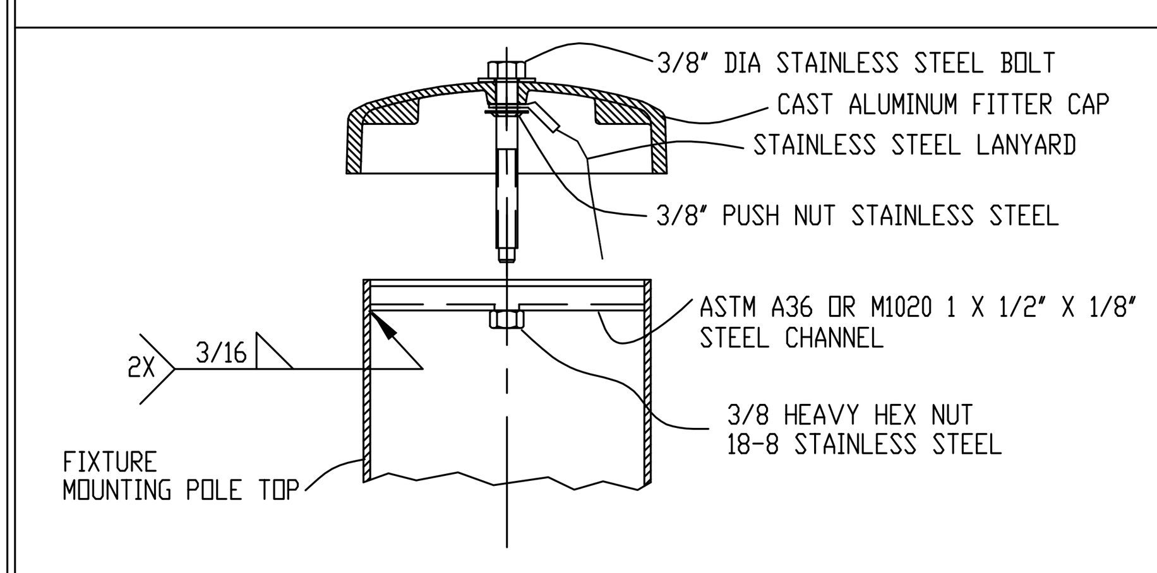
(H) HANDHOLE/HUB REINFORCING GUSSET
N.T.S.



6PX
(P) BALLAST BOX CONNECTION DETAIL
N.T.S. STRU-6PX_D



4PX
(O) BALLAST BOX CONNECTION DETAIL
N.T.S. STRU-4PX_E



(F) FITTER CAP DETAIL
N.T.S. DSA-3RDSHEET_T

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

Moorpark College BV
FIELD LIGHTING
Moorpark, CA

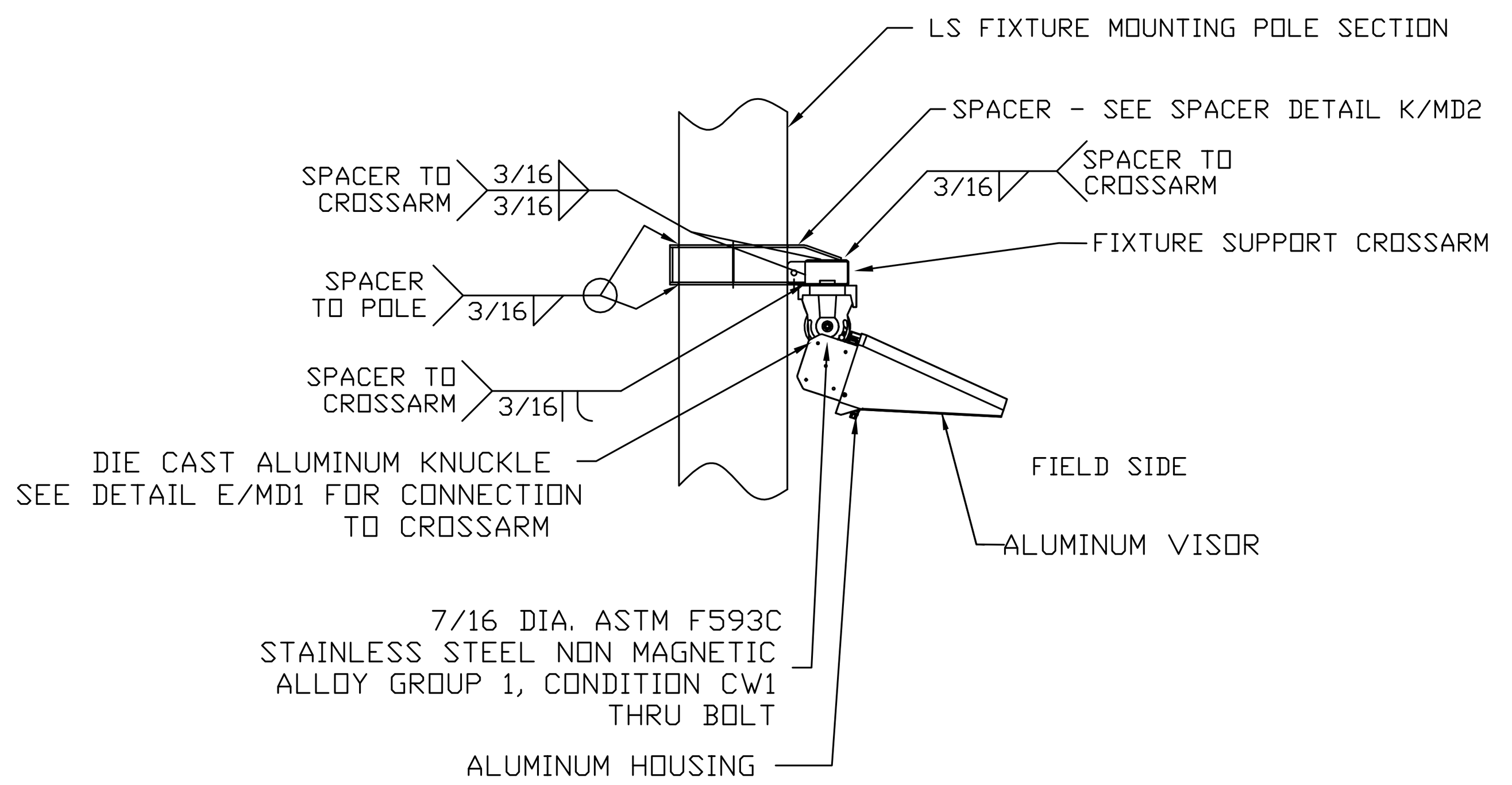
CONSULTANT
KNA STRUCTURAL ENGINEERS
KNA JOB NO.: 463.172
REGISTERED PROFESSIONAL ENGINEER No. 4506 Exp. 6-30-23 STRUCTURAL STATE OF CALIFORNIA

MUSCO Lighting
CORPORATE OFFICE:
P.O. Box 808
100 1st Avenue West
Oskaloosa, Iowa 52577
800/825-6020

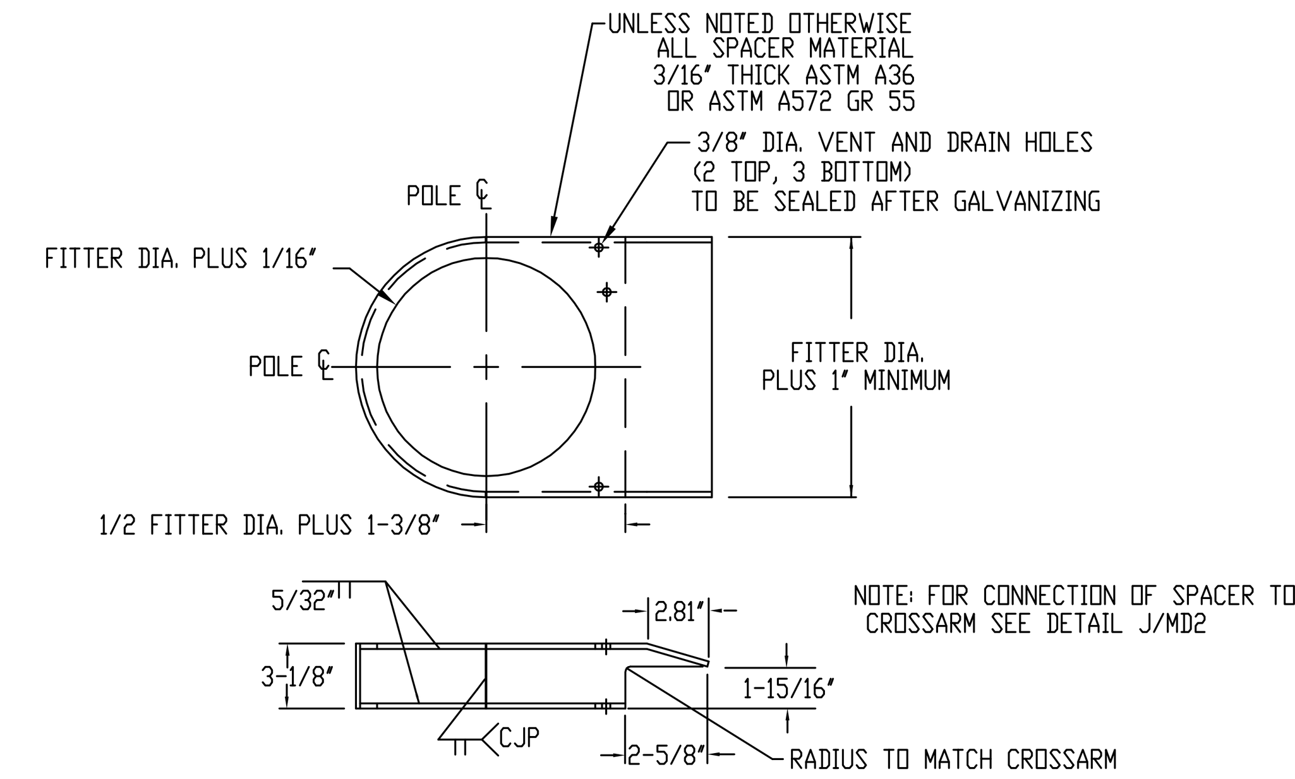
DRAWING TITLE: ATTACHMENT DETAILS
SCALE: SEE PLAN
REVISIONS:
REFERENCE:

PROJECT NO. 224335
DATE: 04/04/2023
DRAWN BY: C.Hensley
DRAWING NO. MD1
3 OF 5

STRU-MD1



J LIGHT FIXTURE (TYPICAL)
N.T.S. DSA-WEDGE4-WELDON_A



NOTE: FOR CONNECTION OF SPACER TO CROSSARM SEE DETAIL J/MD2

K SPACER DETAIL
N.T.S. DSA-SPACERWELDON_K

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

Moorpark College BV
FIELD LIGHTING
Moorpark, CA

REGISTERED PROFESSIONAL ENGINEER ★ STRUCTURAL ★ STATE OF CALIFORNIA
No. 4506
Exp. 6-30-23

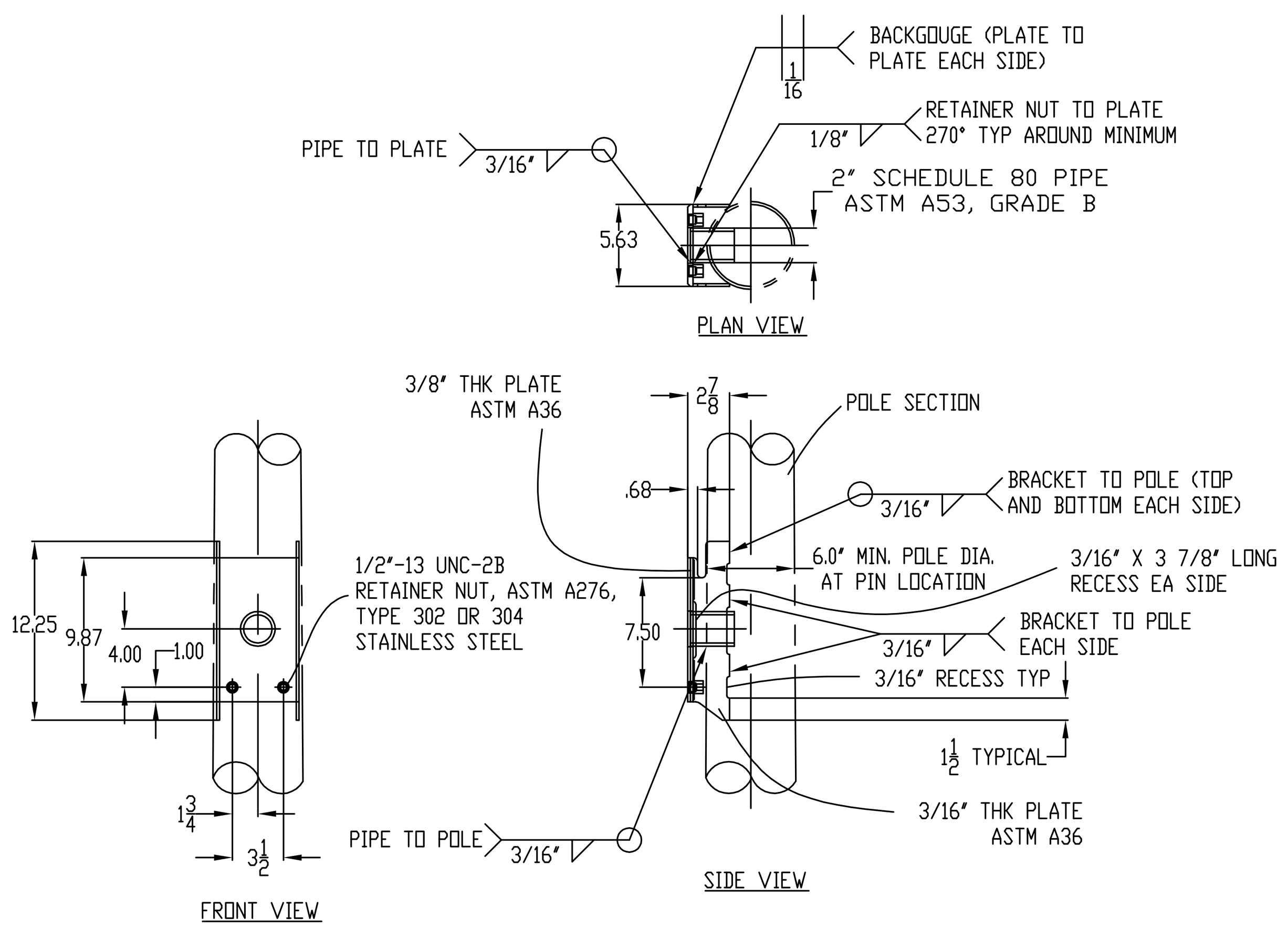
CONSULTANT
KNA STRUCTURAL ENGINEERS
9931 Muirlands Boulevard, Irvine, CA 92618
Tel: (949) 462-3200 • Fax: (949) 462-3201
www.KNAstructural.com
KNA JOB NO.: 463.172

musco Lighting
CORPORATE OFFICE:
P.O. Box 808
100 1st Avenue West
Oskaloosa, Iowa 52577
800/825-6020

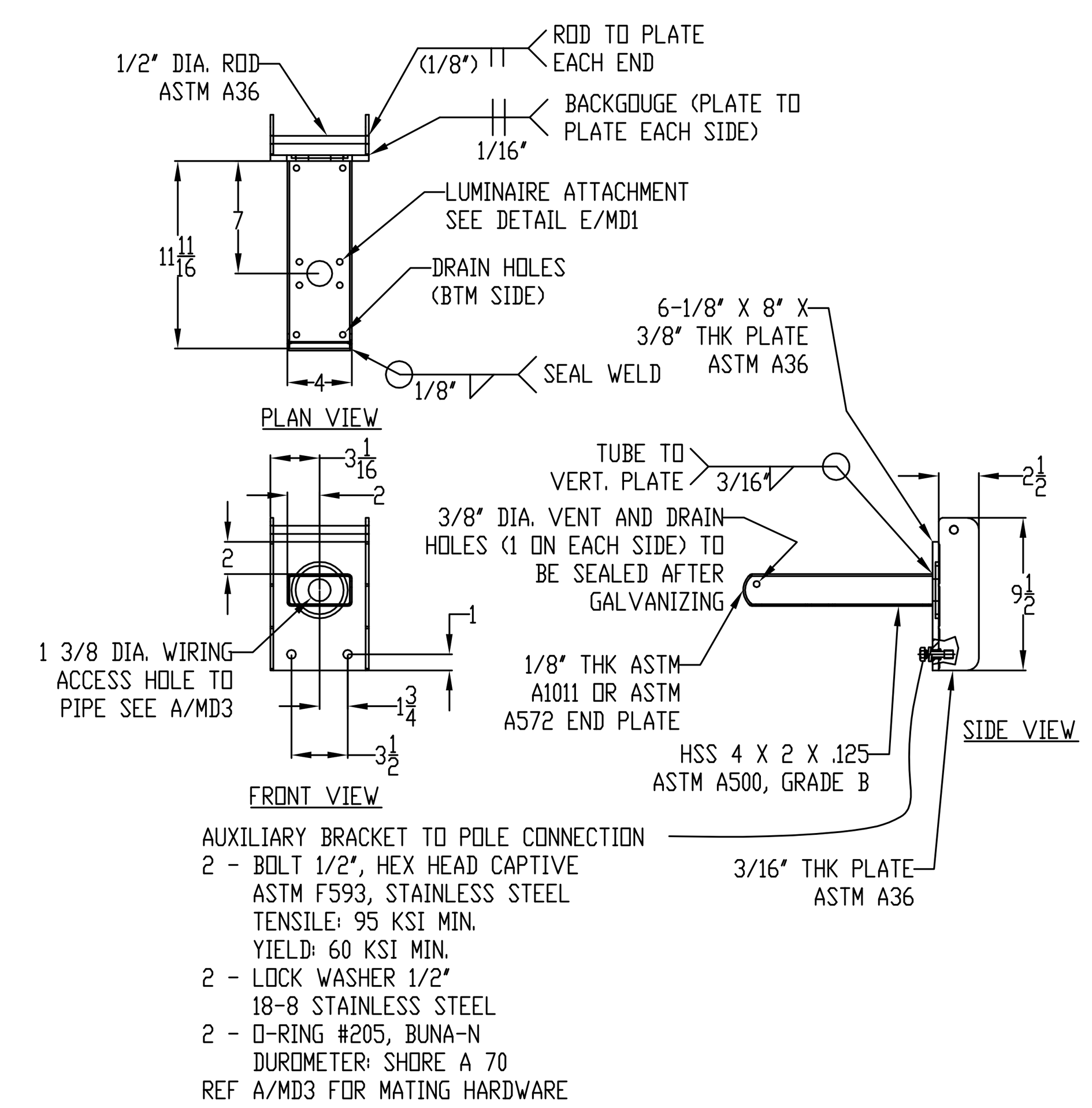
DRAWING TITLE: ATTACHMENT DETAILS
SCALE: SEE PLAN
REVISIONS:
REFERENCE:

PROJECT NO. 224335
DATE: 04/04/2023
DRAWN BY: C.Hensley
DRAWING NO. MD2
4 OF 5

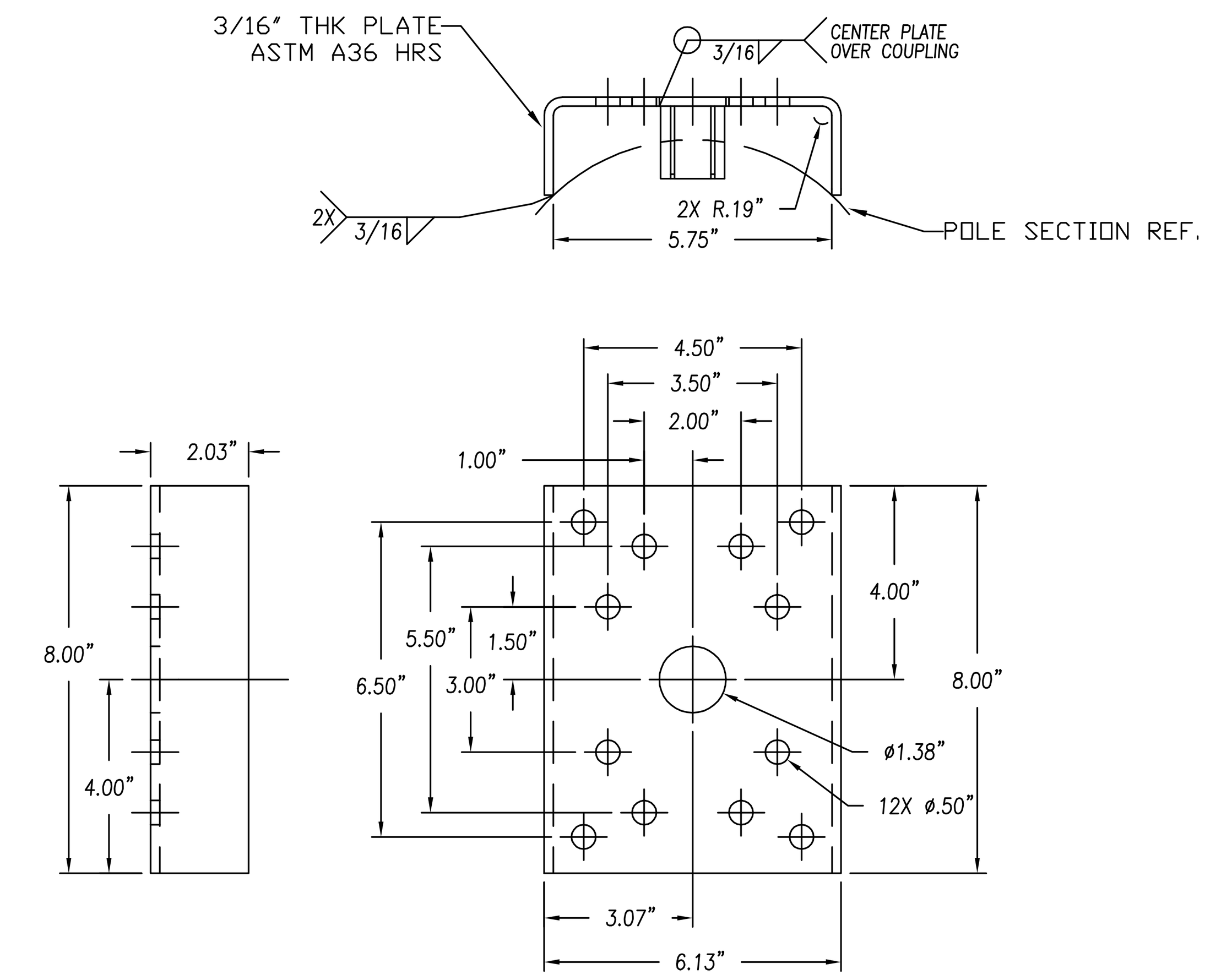
STRU-MD2



(A) BRACKET DETAIL
N.T.S. DSA-Brk-Dtl-L_A



(B) 1P AUXILIARY MOUNTING BRACKET
N.T.S. DSA-1P FIXTURE MOUNT_E



(M) 1P CAMERA CHANNEL
N.T.S.

Information contained herein is the confidential property of Musco Sports Lighting, LLC and/or its parent companies, affiliates, successors and assigns. Reproduction, distribution, or use of the information other than its limited, intended purpose without express written permission is prohibited. Musco products referenced or shown are protected by one or more of the following patents. U.S. Patents: 4947303; 4994718; 5075828; 5134557; 5161883; 5211473; 5229681; 5377611; 5398478; 5423281; 5426577; 5600537; 5794387; 5856721; 6036338; 6203176; 6250596; 6340790; 6398392; 6681110; 6833675; 6929385; 6969034; 6988697; 7059572; D337168; D353797; D353911; D411096. Other patents pending.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123023 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 04/19/2023

Moorpark College BV
FIELD LIGHTING
Moorpark,CA

CONSULTANT
KNA STRUCTURAL ENGINEERS
KNA JOB NO.: 463.172

CORPORATE OFFICE:
P.O. Box 808
100 1st Avenue West
Oskaloosa, Iowa 52577
800/825-6020

DRAWING TITLE: ATTACHMENT DETAILS
SCALE: SEE PLAN
REVISIONS:
REFERENCE:

PROJECT NO. 224335
DATE: 04/04/2023
DRAWN BY: C.Hensley
DRAWING NO. MD3
5 OF 5