

FIRE SPRINKLER NOTES

1. PIPING SHOWN ON THESE DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT SITE PRIOR TO COMMENCING WORK, AND REPORT ANY DISCREPANCIES TO THE ARCHITECT OF RECORD IN WRITING. DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON DRAWINGS. NOTIFY ARCHITECT OF RECORD WHERE DISCREPANCIES OCCUR BETWEEN DRAWINGS. GENERAL NOTES AND SPECIFICATIONS. ALL SYSTEM PIPING SHALL BE INSTALLED BY A LICENSED C-16 CONTRACTOR. A COMPLETE SET OF SHOP DRAWINGS SHALL BE SUBMITTED BY C-16 CONTRACTOR FOR APPROVAL PRIOR TO START OF WORK.
2. C16 CONTRACTOR SHALL COORDINATE FINAL PIPE AND SPRINKLER LOCATIONS WITH STRUCTURAL, ARCHITECTURAL, PLUMBING, MECHANICAL AND ELECTRICAL TRADES PRIOR TO START OF WORK.
3. ALL SYSTEM CONTROL VALVES SHALL BE FITTED WITH A UL LISTED OR FM APPROVED TAMPER SWITCH TO BE MONITORED BY THE FIRE ALARM SYSTEM.
4. A SYSTEM FLOW SWITCH SHALL BE INSTALLED TO SEND WATER FLOW ALARM SIGNAL TO THE FIRE ALARM PANEL AND EXTERIOR ALARM BELL.
5. 1" TO 2" PIPING SHALL BE SCHEDULE 40 ASTM A-53 BLACK STEEL ERW.
6. 2 1/2" AND LARGER PIPING SHALL BE SCHEDULE 10 ASTM A-795 BLACK STEEL ERW.
7. ALL THREADED FITTINGS SHALL BE 175 PSI WWP, MALLEABLE IRON BLACK ANSI-B16.3 OR APPROVED EQUAL.
8. ALL GROOVED FITTINGS SHALL BE 175 PSI WWP, DUCTILE IRON ASTM A-536 OR APPROVED EQUAL.
9. ALL WELDING SHALL BE IN ACCORDANCE WITH ANSI B31.9.
10. ALL PIPING PENETRATIONS INTO RATED ENCLOSURES SHALL BE SEALED WITH FIRE STOPPING MATERIAL TO ENSURE ENCLOSURE RATING IS MAINTAINED. SEE SHEET FPG-004 FOR SLEEVE AND FIRE STOPPING DETAILS.
11. SYSTEMS DESIGN CRITERIA:

THE SYSTEMS ARE HYDRAULICALLY CALCULATED TO PROVIDE MINIMUM DENSITIES AS FOLLOWS:

A. LIGHT HAZARD (10 GPM / SQ.FT. FOR 1500 SQ.FT.)
- REMOTE AREA REDUCTION ALLOWED FOR USE OF QUICK RESPONSE SPRINKLERS

12. ALL SPRINKLERS SHALL BE QUICK RESPONSE AND ORDINARY TEMPERATURE EXCEPT WHERE INTERMEDIATE TEMPERATURE IS REQUIRED BY NFPA 13.

FIRE SPRINKLER SCOPE

1. PROVIDE AUTOMATIC WET FIRE SPRINKLER SYSTEMS THROUGHOUT NEW BUILDING V FIELD HOUSE AND BUILDING W FIELD HOUSE.
2. FURNISH AND INSTALL ALL PIPE, SPRINKLERS, VALVES AND APPRENTICES TO PROVIDE A FULLY FUNCTIONAL SPRINKLER SYSTEM.
3. FURNISH AND INSTALL ALL FLOW AND TAMPER SWITCHES, WIRING, EXTERIOR ELECTRIC BELL, ELECTRICAL CONDUIT AND CONNECTIONS TO FIRE ALARM SYSTEM BY ELECTRICAL CONTRACTOR.
4. C16 CONTRACTOR POINT OF CONNECTION SHALL BE AT FIRST FLANGE INSIDE THE BUILDING. UNDERGROUND PIPE AND LEAD IN CONNECTIONS BY CIVIL / UTILITIES CONTRACTOR.

APPLICABLE CODES

TITLE 24 CCR, PART 1 - 2019 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE

TITLE 24 CCR, PART 2 - 2019 CALIFORNIA BUILDING CODE (2019 INTERNATIONAL BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH CALIFORNIA AMENDMENTS)

TITLE 24 CCR, PART 3 - 2019 CALIFORNIA ELECTRICAL CODE (2014 NATIONAL ELECTRIC CODE OF THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA)

TITLE 24 CCR, PART 4 - 2019 CALIFORNIA MECHANICAL CODE, (2015 UNIFORM MECHANICAL CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)

TITLE 24 CCR, PART 5 - 2019 CALIFORNIA PLUMBING CODE (2015 UNIFORM PLUMBING CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)

TITLE 24 CCR, PART 6 - 2019 CALIFORNIA ENERGY CODE

TITLE 24 CCR, PART 7 - CURRENTLY VACANT

TITLE 24 CCR, PART 8 - 2019 CALIFORNIA HISTORICAL CODE

TITLE 24 CCR, PART 9 - 2019 CALIFORNIA FIRE CODE, (2015 INTERNATIONAL FIRE CODE OF THE INTERNATIONAL CODE COUNCIL)

TITLE 24 CCR, PART 10 - 2019 CALIFORNIA EXISTING BUILDING CODE (2015 INTERNATIONAL EXISTING BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH AMENDMENTS)

TITLE 24 CCR, PART 11 - 2019 CALIFORNIA GREEN BUILDING CODE STANDARDS (CALGreen CODE)

TITLE 24 CCR, PART 12 - 2019 CALIFORNIA REFERENCED STANDARDS CODE

NFPA 13 (2016) - STANDARD FOR THE INSTALLATION OF FIRE SPRINKLER SYSTEMS (CA AMENDED)

NFPA 14 (2016) - STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS (CA AMENDED)

NFPA 17 (2017) - STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS

NFPA 17A (2017) - STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS

NFPA 20 (2016) - STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION

NFPA 22 (2013) - STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION

NFPA 24 (2016) - STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES (CA AMENDED)

NFPA 72 (2016) - NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED)

NFPA 80 (2016) - STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES

NFPA 2001 (2015) - STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS (CA AMENDED)

UL 300 (2005 R2010) - STANDARD FOR FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION OF COMMERCIAL COODING EQUIPMENT

UL 464 (2003) - AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES

UL 521 (1999) - STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS

US 1971 (2002 R2012) - STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED

ICC 300 (2017) - STANDARD FOR BLEACHERS, FOLDING AND TELESOPING SEATING, AND GRANDSTANDS

BUILDING CODE ANALYSIS

BUILDING V - FIELD HOUSE

BUILDING DESIGNATION - CONCESSIONS / RESTROOM / STORAGE

OCCUPANCY GROUP: B / E / S-2, NON-SEPARATED

(B - MOST RESTRICTIVE)

CONSTRUCTION TYPE: VB SPRINKLERED

ALLABLE BUILDING HEIGHT: 40', 1 STORY

ACTUAL BUILDING HEIGHT: 18'-0", 1 STORY

ALLOWABLE BUILDING AREA: 36,000 SF

ACTUAL BUILDING AREA: 2,122 SF

BUILDING W - FIELD HOUSE

BUILDING DESIGNATION - CONCESSIONS / RESTROOM / STORAGE

OCCUPANCY GROUP: B / E / S-2, NON-SEPARATED

(B - MOST RESTRICTIVE)

CONSTRUCTION TYPE: VB SPRINKLERED

ALLABLE BUILDING HEIGHT: 40', 1 STORY

ACTUAL BUILDING HEIGHT: 18'-0", 1 STORY

ALLOWABLE BUILDING AREA: 36,000 SF

ACTUAL BUILDING AREA: 2,122 SF

DSA NOTES

1. UNDERGROUND PIPING SIZE IS NOT THE RESPONSIBILITY OF DSA AND THE DESIGNERS TAKE FULL LIABILITY FOR UNDERSIZED PIPING.
2. THE DESIGNER SHALL INDICATE ON THE PLANS ANY INTERIOR OR EXTERIOR PIPING SUBJECT TO FREEZING (WHERE WATER TEMPERATURE CANNOT BE MAINTAINED ABOVE 40 DEGREES FAHRENHEIT) AND PROVIDE PROTECTION PER NFPA 13.
3. UNDERGROUND MAINS AND LEAD-IN CONNECTIONS TO SYSTEM RISERS SHALL BE COMPLETELY FLUSHED BEFORE CONNECTION IS MADE TO OVERHEAD SPRINKLER PIPING. WHERE UNDERGROUND PIPING IS FLUSHED AND NOT IMMEDIATELY CONNECTED TO THE OVERHEAD PIPING, THE RISER SHALL BE CAPPED OR OTHERWISE PROTECTED TO PREVENT DEBRIS, DIRT, OR ANIMALS FORM ENTERING INTO THE UNDERGROUND PIPING (WITNESSED BY THE PROJECT INSPECTOR).
4. ARCHITECT OF RECORD, MECHANICAL ENGINEER & FIRE PROTECTION CONTRACTOR (C-16) SHALL AFFIX THEIR SEAL AND STAMP & SIGN SUBMITTAL DRAWINGS, OR PROVIDE DOCUMENTATION PER DSA IR A-18.
5. A COPY OF COMPLETED AND SIGNED CONTRACTOR'S MATERIALS & TEST CERTIFICATE FOR UNDERGROUND PIPING SHALL BE INCLUDED IN THE SUBMITTAL.
6. ALL PIPING AND ATTACHED APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI, OR 50 PSI IN EXCESS OF THE SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR 2 HOURS. (WITNESSED BY THE PROJECT INSPECTOR).
7. PROVIDE SPARE SPRINKLER HEAD CABINET, SPRINKLER WRENCH, AND NO FEWER THAN 6 SPARE SPRINKLER HEADS MATCHING THE TYPES AND TEMPERATURE RATING IN EACH PROTECTED AREA FOR SYSTEMS LESS THAN 300 SPRINKLERS, (12 SPARE SPRINKLER HEADS FOR SYSTEMS 300 TO 1,000 SPRINKLER).
8. THE END SPRINKLER ON EACH LINE SHALL BE RESTRAINED AGAINST EXCESSIVE VERTICAL AND LATERAL MOVEMENT.
9. THE INSPECTOR'S TEST VALVE LOCATION SHALL BE INSTALLED AT THE END OF THE MOST HYDRAULICALLY REMOTE SYSTEM WITH A PIPE SIZE OF NO LESS THAN 1 INCH, WITH A SMOOTH BORE, CORROSION-RESISTANT ORIFICE, GIVING THE FLOW EQUIVALENT TO ONE SPRINKLER OF A TYPE HAVING THE SMALLEST ORIFICE INSTALLED WITHIN THE SYSTEM. THE DISCHARGE SHALL BE TO THE EXTERIOR OF THE BUILDING.
10. THE SPRINKLER FLOW SWITCH SHALL BE TESTED TO CONFIRM THAT WHEN THE INSPECTOR'S TEST VALVE IS ACTIVATED AND ALARM WILL SOUND NO MORE THAN 90 SECONDS AFTER INITIAL FLOW. (WITNESSED BY THE PROJECT INSPECTOR).
11. CONNECTIONS TO PROTECTED PREMISES AND SUPERVISING STATION FIRE ALARM SYSTEMS SHALL BE TESTED TO VERIFY PROPER IDENTIFICATION AND TRANSMISSION OF ALARMS FROM AUTOMATIC FIRE EXTINGUISHING SYSTEMS.
12. SIGNAGE SHALL BE PROVIDED AS REQUIRED.
13. THE MAIN FIRE ALARM PANEL VALVE MONITORING AND WATER-FLOW ALARM AND TROUBLE SIGNALS SHALL BE DISTINCTLY DIFFERENT AND SHALL BE AUTOMATICALLY TRANSMITTED TO AN APPROVED CENTRAL STATION MONITORING COMPANY.
14. A PERMANENT DESIGN DATA PLACARD SHALL BE ATTACHED TO EACH RISER.
15. FLOW SWITCH SHALL BE CONNECTED TO A 10 INCH OUTSIDE ALARM BELL AT EACH RISE. APPROVED IDENTIFICATION SIGNS SHALL BE PROVIDED TO OUTSIDE ALARM BELL, "SPRINKLER FIRE ALARM - WHEN BELL RINGS CALL 911 / FIRE DEPARTMENT".
16. A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM WITH THE DATE OF THE SERVICE AND/OR DATE OF INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.
17. SPRINKLER CONTRACTOR SHALL COMPLETE AND SIGN CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR THE ABOVEGROUND PIPING. THIS FORM SHALL BE GIVEN TO THE PROJECT INSPECTOR WHO WILL FORWARD TO DSA FOR FLING IN PROJECT RECORDS.
18. REQUEST FOR FINAL INSPECTION SHALL INCLUDE SUBMITTAL OF COMPLIANCE STATEMENT.
19. RECORD (AS-BUILT) DRAWINGS AND TEST SHALL BE RETAINED ON SITE FOR A MINIMUM OF 3 YEARS.

FIRE SPRINKLER SYMBOL LEGEND

	PIPE RISE UP
	PIPE BEND DOWN
	PIPE HANGER
	TWO WAY SEISMIC BRACE
	FOUR WAY SEISMIC BRACE
	BRANCH LINE RESTRAINT
	FIRE HOSE VALVE
	GATE VALVE
	GLOBE VALVE
	BUTTERFLY VALVE WITH TAMPER SWITCH
	CHECK VALVE
	OS AND Y VALVE WITH TAMPER SWITCH
	BACKFLOW DEVICE
	FLOW SWITCH
	TAMPER SWITCH
	INSULATING FLANGE
	DRAIN VALVE
	PENDENT SPRINKLER
	HORIZONTAL SIDEWALL SPRINKLER
	UPRIGHT SPRINKLER
	FIRE DEPARTMENT CONNECTION
	HYDRAULIC CALCULATION NODE POINT

FIRE SPRINKLER ABBREVIATIONS

ABV	ABOVE
AFB	ABOVE FINISH FLOOR
BFP	BACKFLOW PREVENTER
CHK VLV	CHECK VALVE
CONT	CONTINUATION
DEL	DELUGE
DET	DETAIL
DIM	DIMENSION
DISCH	DISCHARGE
DN	DOWN
EC	EXTENDED COVERAGE
EL	ELEVATION
ELEV	ELEVATOR
EMB	EMBEDDED
ESC	ESCALATOR
FDC	FIRE DEPARTMENT CONNECTION
FHC	FIRE HOSE CABINET
FHV	FIRE HOSE VALVE
FS	FLOW SWITCH
FW	FIRE WATER
HD	HEAD
JP	JOCKEY PUMP
NO	NUMBER
PA	PRE-ACTION
PEND	PENDANT
POC	POINT OF CONNECTION
PSP	PRE-ACTION SPRINKLER PIPE
PTH	PUMP TEST HEADER
RM	ROOM
SP	SPRINKLER PIPE
SUCT	SUCTION
SW	SIDEWALL
TOR	TOP OF RAIL
TS	TAMPER SWITCH
TYP	TYPICAL
UPRT	UPRIGHT
VLV	VALVE
WSP	WET STANDPIPE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-120551 INC:
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒
DATE: 01/11/2021

REVISIONS

CONSULTANT
LINK-NILSEN CORPORATION
130 E. SANTA CLARA ST.
ARCADIA, CA 91006
626-445-3414

CONTACT:
MICHAEL GLASOW



NORWALK LA MIRADA UNIFIED SCHOOL DISTRICT
LA MIRADA HIGH SCHOOL NEW
FOOTBALL STADIUM PROJECT
13520 ADELFA DRIVE, LA MIRADA, CA 90638

DSA # 03-120551

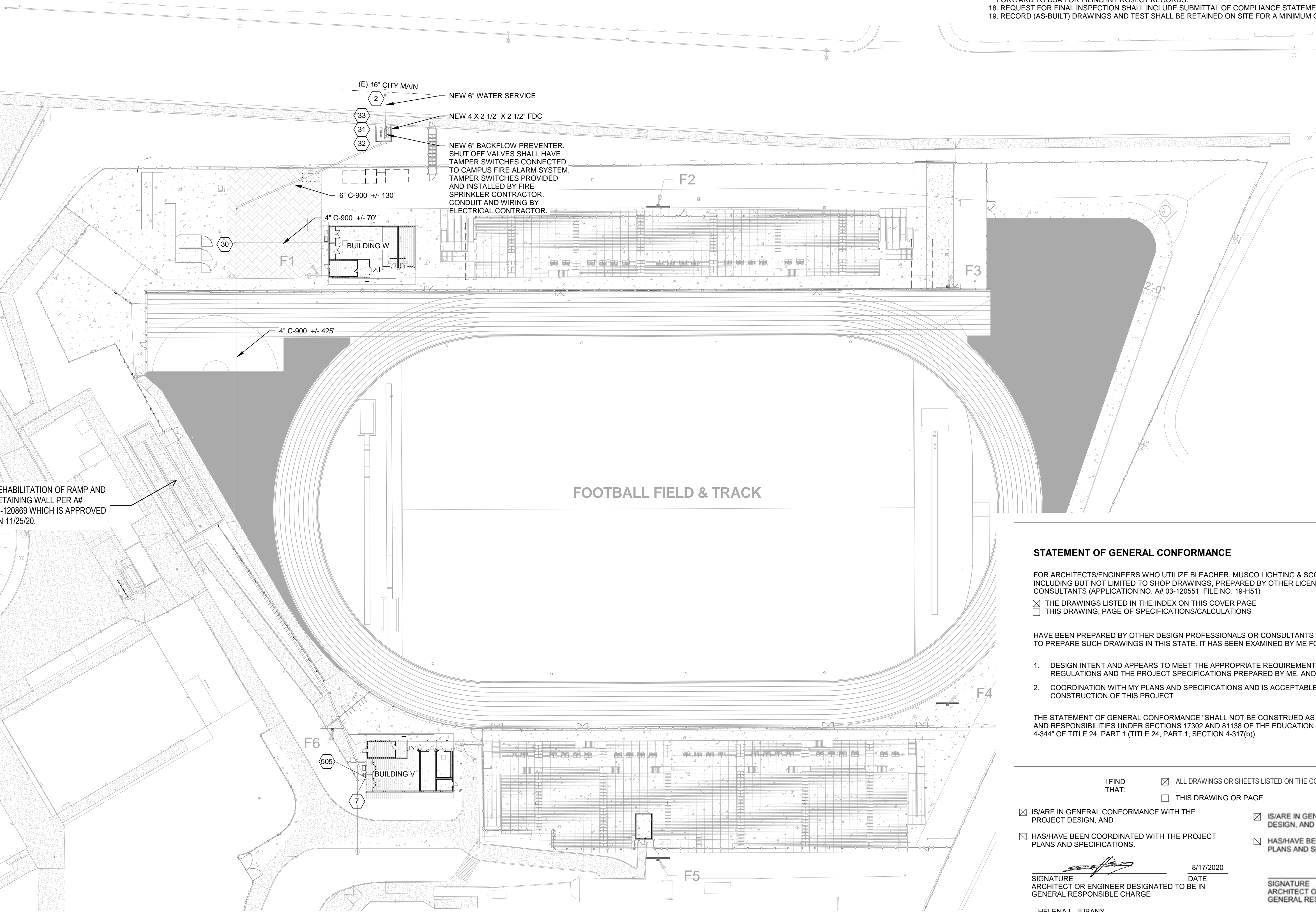
NAC
ARCHITECTURE

NAC NO. 161-19015
DATE 12/10/2020

DSA BACKCHECK
SUBMISSION

FIRE SPRINKLER NOTES,
LEGEND AND SITE PLAN

FP0.01



1 SITE PLAN
1" = 40'-0"



NOTE:
UNDERGROUND PIPING SHOWN ON THIS DRAWING IS FOR REFERENCE ONLY.
REFER TO DRAWING C5.01 FOR DESIGN AND DETAILS.

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE BLEACHER, MUSCO LIGHTING & SCOREBOARD DRAWINGS/PLANS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS (APPLICATION NO. AF 03-120551 FILE NO. 19-H51)

- ☒ THE DRAWINGS LISTED IN THE INDEX ON THIS COVER PAGE
☐ THIS DRAWING, PAGE OF SPECIFICATIONS/CALCULATIONS

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

- ☒ IS/ARE IN GENERAL CONFORMANCE WITH THE PROJECT DESIGN, AND

- ☒ HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS.

SIGNATURE
DATE 8/17/2020
ARCHITECT OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE

HELENA L. JUBANY
PRINT NAME

C-22214
LICENSE NUMBER
05/31/2021
EXPIRATION DATE

- ☒ IS/ARE IN GENERAL CONFORMANCE WITH THE PROJECT DESIGN, AND

- ☒ HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS.

SIGNATURE
DATE 12/21/2020
ARCHITECT OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE

PRINT NAME
FP-693
LICENSE NUMBER
12/31/2021
EXPIRATION DATE

PART II-A INFORMATION ON FIRE FLOW AVAILABILITY
(To be completed by Water Purveyor)

Location SOUTH SIDE OF FOSTER RD 173' WEST OF STERN AVE

Distance from Hydrant Number 2428
Nearest Property Line @ P/L Size of Hydrant 6-inch Size of Water main 16" AC
Static PSI 42 Residual PSI 40 Orifice size 4.0 Pitot 20
Fire Flow at 20 PSI 5000 GPM Duration 4 Hrs Flow Test Date / Time 11/13/2019 10:25 AM

Distance from Hydrant Number
Nearest Property Line Size of Hydrant Size of Water main

Static PSI Residual PSI Orifice size Pitot

Fire Flow at 20 PSI Duration Flow Test Date / Time

Distance from Hydrant Number
Nearest Property Line Size of Hydrant Size of Water main

Static PSI Residual PSI Orifice size Pitot

Fire Flow at 20 PSI Duration Flow Test Date / Time

Distance from Hydrant Number
Nearest Property Line Size of Hydrant Size of Water main

Static PSI Residual PSI Orifice size Pitot

Fire Flow at 20 PSI Duration Flow Test Date / Time

PART II-B SPRINKLERED BUILDINGS/PRIVATE FIRE HYDRANTS ONLY

Detector Location (check one) ☐ Above Grade ☐ Below Grade ☐ Either

Backflow Protection Required (Fire Sprinklers/Private Hydrant) (check one) ☐ Yes ☐ No

Minimum Type of Protection Required (check one) ☐ Single Check Detector Assembly

☐ Double Check Detector Assembly ☐ Reduced Pressure Principle Detector Assembly

Suburban Water Systems

Water Purveyor

November 14, 2019

Date

Signature

Engineering Manager

Title

This Information is Considered Valid for Twelve Months

Fire Department approval of building plans shall be required prior to the issuance of a Building Permit by the jurisdictional Building Department. Any deficiencies in water systems will need to be resolved by the Fire Prevention Division only prior to this department's approval of building plans.