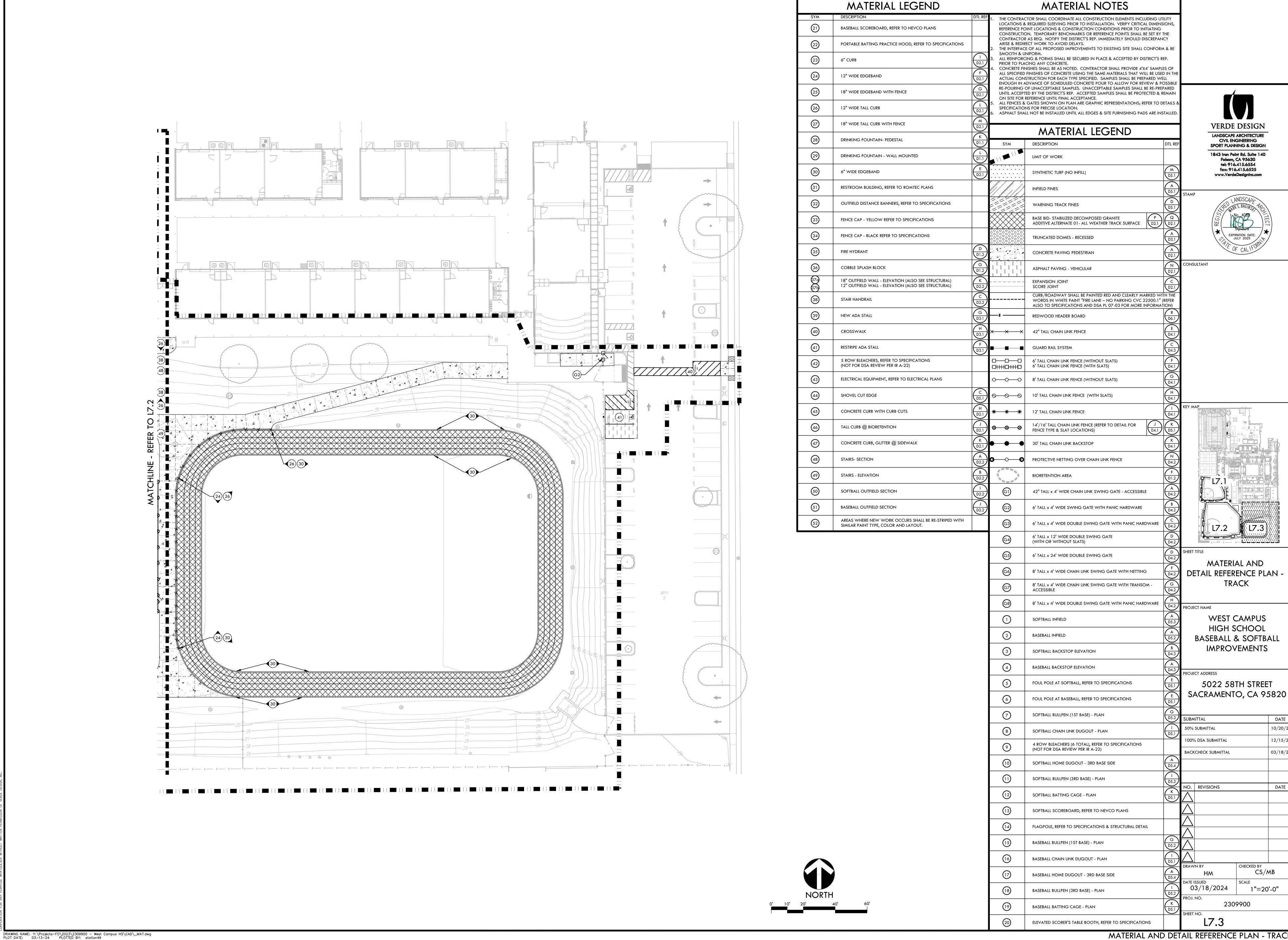
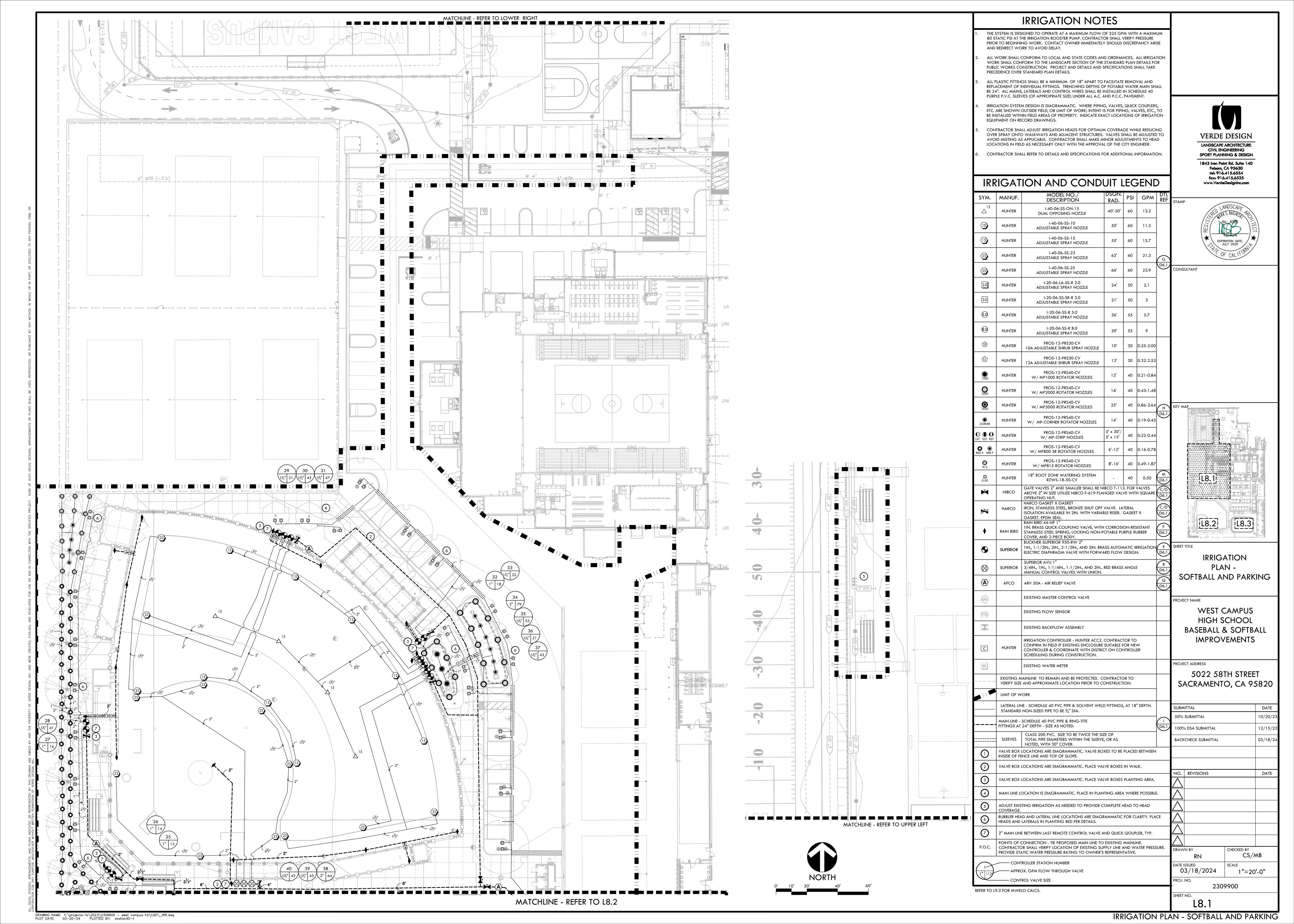


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PLOT DATE: 03-13-24 PLOTTED BY: station49

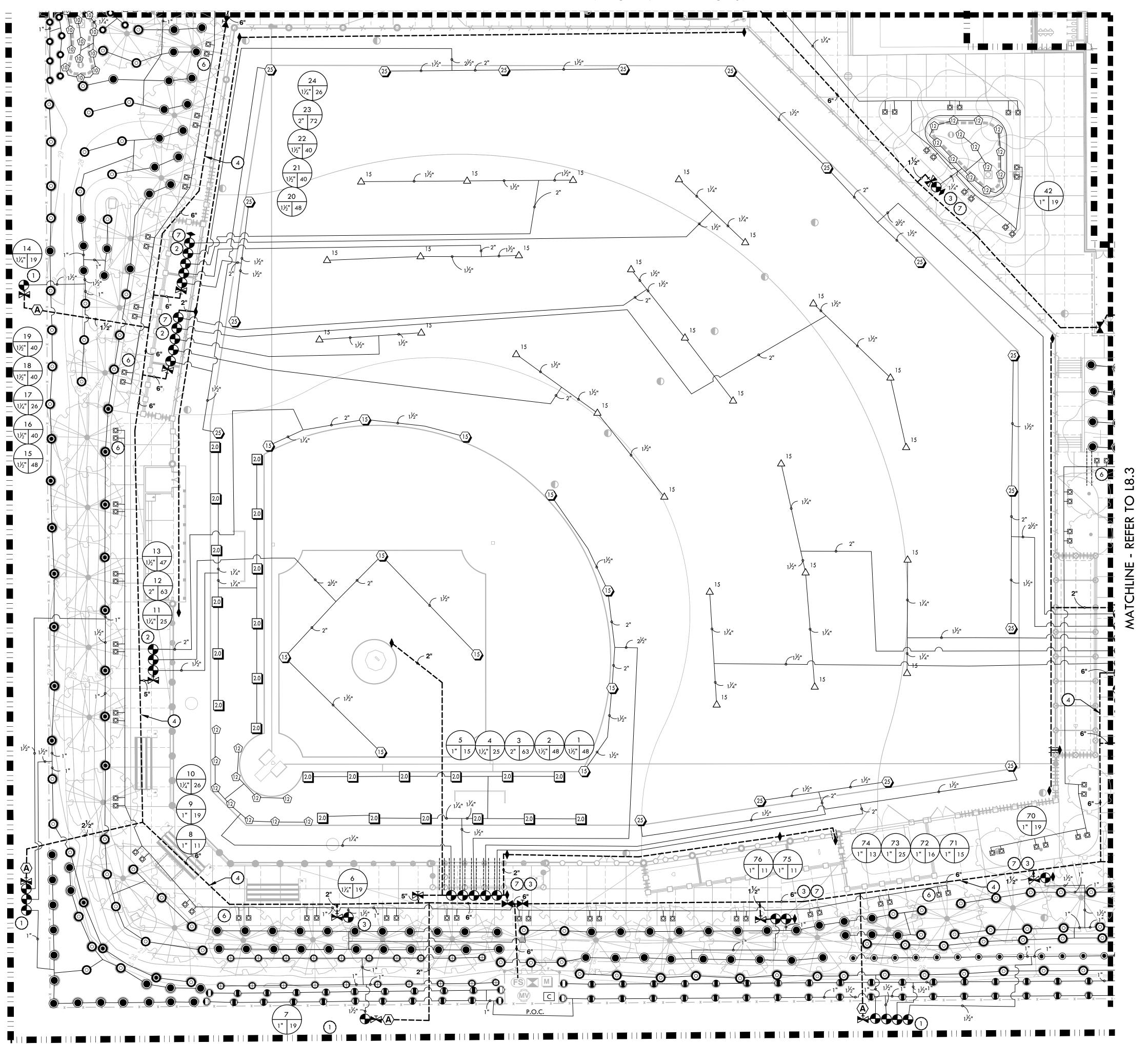
MATERIAL AND DETAIL REFERENCE PLAN - BASEBALL

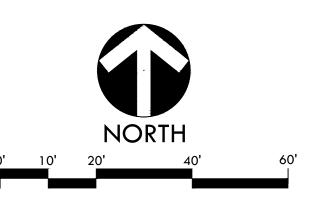


MATERIAL AND DETAIL REFERENCE PLAN - TRACK



MATCHLINE - REFER TO L8.1





IRRIGATION NOTES

THE SYSTEM IS DESIGNED TO OPERATE AT A MAXIMUM FLOW OF 325 GPM WITH A MAXIMUM 80 STATIC PSI AT THE IRRIGATION BOOSTER PUMP. CONTRACTOR SHALL VERIFY PRESSURE PRIOR TO BEGINNING WORK. CONTACT OWNER IMMEDIATELY SHOULD DISCREPANCY ARISE AND REDIRECT WORK TO AVOID DELAY.

ALL WORK SHALL CONFORM TO LOCAL AND STATE CODES AND ORDINANCES. ALL IRRIGATION WORK SHALL CONFORM TO THE LANDSCAPE SECTION OF THE STANDARD PLAN DETAILS FOR PUBLIC WORKS CONSTRUCTION. PROJECT AND DETAILS AND SPECIFICATIONS SHALL TAKE PRECEDENCE OVER STANDARD PLAN DETAILS.

ALL PLASTIC FITTINGS SHALL BE A MINIMUM OF 18" APART TO FACILITATE REMOVAL AND REPLACEMENT OF INDIVIDUAL FITTINGS. TRENCHING DEPTHS OF POTABLE WATER MAIN SHALL BE 24". ALL MAINS, LATERALS AND CONTROL WIRES SHALL BE INSTALLED IN SCHEDULE 40 PURPLE P.V.C. SLEEVES (OF APPROPRIATE SIZE) UNDER ALL A.C. AND P.C.C. PAVEMENT.

IRRIGATION SYSTEM DESIGN IS DIAGRAMMATIC. WHERE PIPING, VALVES, QUICK COUPLERS, ETC. ARE SHOWN OUTSIDE FIELD, OR LIMIT OF WORK; INTENT IS FOR PIPING, VALVES, ETC., TO BE INSTALLED WITHIN FIELD AREAS OF PROPERTY. INDICATE EXACT LOCATIONS OF IRRIGATION EQUIPMENT ON RECORD DRAWINGS.

CONTRACTOR SHALL ADJUST IRRIGATION HEADS FOR OPTIMUM COVERAGE WHILE REDUCING OVER SPRAY ONTO WALKWAYS AND ADJACENT STRUCTURES. VALVES SHALL BE ADJUSTED TO AVOID MISTING AS APPLICABLE. CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO HEAD LOCATIONS IN FIELD AS NECESSARY ONLY WITH THE APPROVAL OF THE CITY ENGINEER.

CONTRACTOR SHALL REFER TO DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

IRRIGATION AND CONDUIT LEGEND

40'-50' 60

10' 30 0.25-2.00

12' | 30 |0.32-2.52|

5' x 15'

8'-16' | 40 |0.49-1.87

MODEL NO./ DESCRIPTION

I-40-06-SS-ON-15

DUAL OPPOSING NOZZLE

I-40-06-SS-10

I-40-06-SS-15

I-40-06-SS-23

I-40-06-SS-25

ADJUSTABLE SPRAY NOZZLE

I-20-06-LA-SS-R 2.0 ADJUSTABLE SPRAY NOZZLE

I-20-06-SS-SR-R 3.0

ADJUSTABLE SPRAY NOZZLE

I-20-06-SS-R 5.0

ADJUSTABLE SPRAY NOZZLE

I-20-06-SS-R 8.0

ADJUSTABLE SPRAY NOZZLE

PROS-12-PRS30-CV 10A ADJUSTABLE SHRUB SPRAY NOZZLE

PROS-12-PRS30-CV

PROS-12-PRS40-CV W/MP1000 ROTATOR NOZZLES

PROS-12-PRS40-CV W/MP2000 ROTATOR NOZZLES

PROS-12-PRS40-CV

W/ MP3000 ROTATOR NOZZLES

PROS-12-PRS40-CV W/ MP-CORNER ROTATOR NOZZLES

PROS-12-PRS40-CV

W/ MP-STRIP NOZZLES

PROS-12-PRS40-CV W/ MP800 SR ROTATOR NOZZLES

PROS-12-PRS40-CV

W/MP815 ROTATOR NOZZLES

18" ROOT ZONE WATERING SYSTEM RZWS-18-50-CV

HARCO GASKET X GASKET

COVER, AND 2-PIECE BODY BUCKNER-SUPERIOR 950-RW 2"

EXISTING MASTER CONTROL VALVE

EXISTING BACKFLOW ASSEMBLY

SCHEDULING DURING CONSTRUCTION.

EXISTING MAINLINE TO REMAIN AND BE PROTECTED. CONTRACTOR TO

LATERAL LINE - SCHEDULE 40 PVC PIPE & SOLVENT WELD FITTINGS, AT 18" DEPTH.

POINTS OF CONNECTION - TIE PROPOSED MAIN LINE TO EXISTING MAINLINE.

PROVIDE STATIC WATER PRESSURE RATING TO OWNER'S REPRESENTATIVE.

VERIFY SIZE AND APPROXIMATE LOCATION PRIOR TO CONSTRUCTION.

APCO ARV 50A - AIR RELIEF VALVE

EXISTING FLOW SENSOR

EXISTING WATER METER

STANDARD NON-SIZED PIPE TO BE $\frac{3}{4}$ " DIA.

BUBBLER HEAD AND LATERAL LINE LOCATIONS ARE DIA HEADS AND LATERALS IN PLANTING BED PER DETAILS.

CONTROLLER STATION NUMBER

—— CONTROL VALVE SIZE

REFER TO L9.3 FOR MWELO CALCS.

APPROX. GPM FLOW THROUGH VALVE

FITTINGS AT 24" DEPTH - SIZE AS NOTED.

GATE VALVES 2" AND SMALLER SHALL BE NIBCO T-113. FOR VALVES ABOVE 2" IN SIZE UTILIZE NIBCO F-619 FLANGED VALVE WITH SQUARE

1 IN. BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT

ELECTRIC DIAPHRAGM VALVE WITH FORWARD FLOW DESIGN.

3/4IN., 1IN., 1-1/4IN., 1-1/2IN., AND 2IN.. RED BRASS ANGLE MANUAL CONTROL VALVES WITH UNION.

IRRIGATION CONTROLLER - HUNTER ACC2. CONTRACTOR TO CONFIRM IN FIELD IF EXISTING ENCLOSURE SUITABLE FOR NEW CONTROLLER & COORDINATE WITH DISTRICT ON CONTROLLER

IRON, STAINLESS STEEL, BRONZE SHUT OFF VALVE. LATERAL ISOLATION AVAILABLE IN 2IN. WITH VARIABLE RISER. GASKET X

RAIN BIRD | STAINLESS STEEL SPRING, LOCKING NON-POTABLE PURPLE RUBBER

12A ADJUSTABLE SHRUB SPRAY NOZZLE

ADJUSTABLE SPRAY NOZZLE

ADJUSTABLE SPRAY NOZZLE

ADJUSTABLE SPRAY NOZZLE

SYM. MANUF.

HUNTER



1843 Iron Point Rd. Suite 140 Folsom, CA 95630 tel: 916.415.6554 fax: 916.415.6525 www.VerdeDesignInc.com



CONSULTANT

1 In., 1-1/2In., 2In., 2-1/2In., and 3In. brass automatic irrigation \triangle E \triangle Sheet title **IRRIGATION**

PLAN -

BASEBALL WEST CAMPUS HIGH SCHOOL **BASEBALL & SOFTBALL**

PROJECT ADDRESS 5022 58TH STREET SACRAMENTO, CA 95820

IMPROVEMENTS

	MAIN LINE -	SCHEDULE 40 PVC PIPE & RING-TITE	/ $ $ $ $		
	FITTINGS AT 24" DEPTH - SIZE AS NOTED.				DSA SUBMITTAL
==	SLEEVES	CLASS 200 PVC. SIZE TO BE TWICE THE SIZE OF TOTAL PIPE DIAMETERS WITHIN THE SLEEVE, OR AS NOTED, WITH 30" COVER.		BACKCHECK SUBMITTAL	
		LOCATIONS ARE DIAGRAMMATIC. VALVE BOXES TO BE PLACED BETWEEN NCE LINE AND TOP OF SLOPE.			
	VALVE BOX	LOCATIONS ARE DIAGRAMMATIC. PLACE VALVE BOXES IN WALK.			
				NO.	REVISIONS
	VALVE BOX	LOCATIONS ARE DIAGRAMMATIC. PLACE VALVE BOXES PLANTING AREA.		\triangle	
	MAIN LINE LO	OCATION IS DIAGRAMMATIC. PLACE IN PLANTING AREA WHERE POSSIBLE	•		
	ADJUST EXIS	TING IRRIGATION AS NEEDED TO PROVIDE COMPLETE HEAD TO HEAD		\triangle	
	I -	D AND LATERAL LINE LOCATIONS ARE DIAGRAMMATIC FOR CLARITY. PLAC LATERALS IN PLANTING BED PER DETAILS.	CE		
	2" MAIN LINI	E BETWEEN LAST REMOTE CONTROL VALVE AND QUICK QOUPLER, TYP.		\triangle	

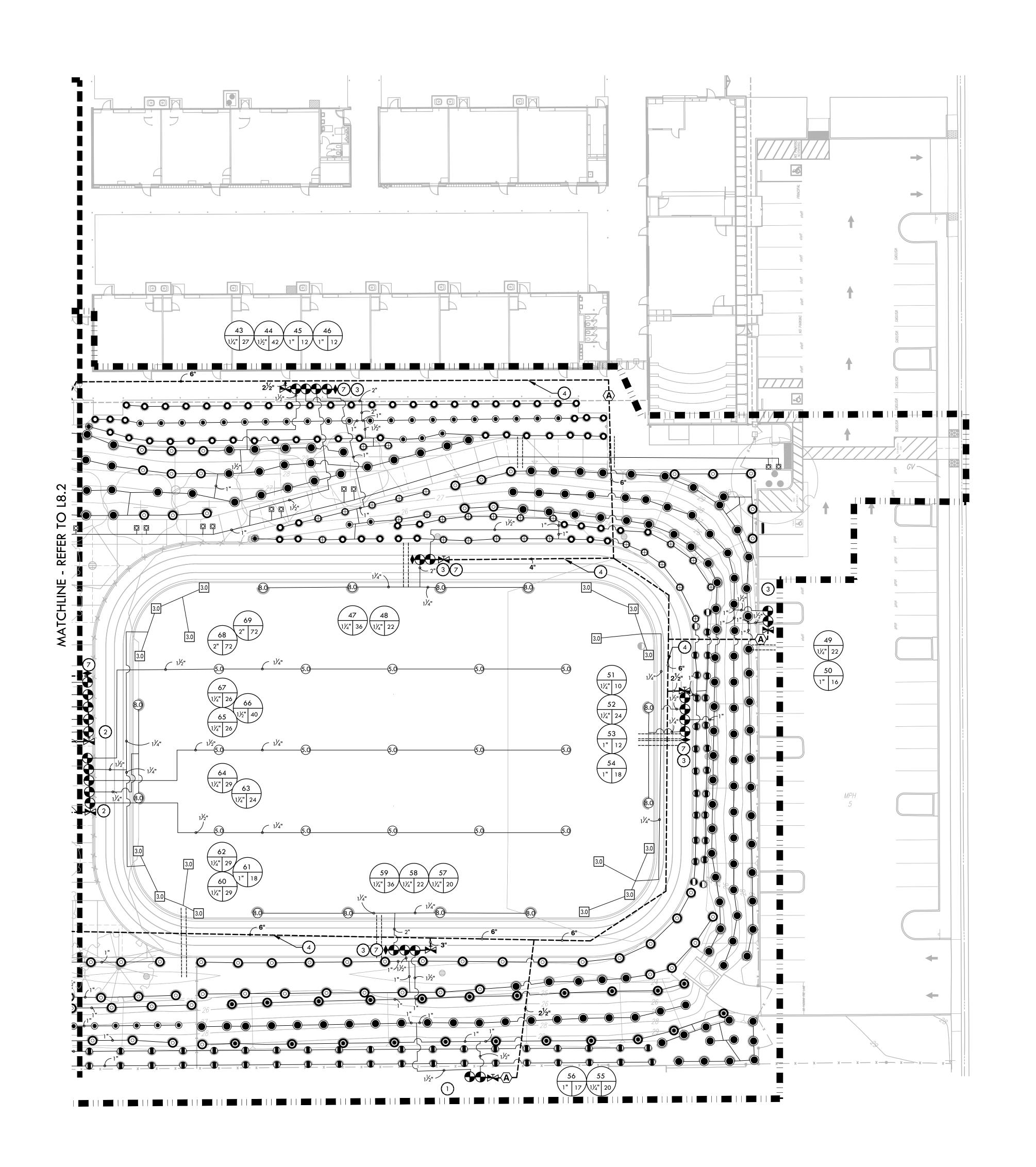
50% SUBMITTAL

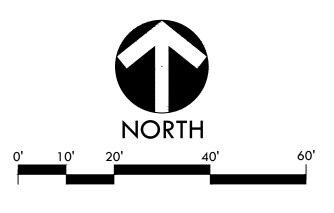
P.O.C. | CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SUPPLY LINE AND WATER PRESSURE. CS/MB DATE ISSUED 03/18/2024 1"=20'-0"

> PROJ. NO. 2309900

DRAWING NAME: Y:\projects-fo\2023\2309900 - west campus hs\CAD_IRR.dwg
PLOT DATE: 03-20-24 PLOTTED BY: station40-t

IRRIGATION PLAN - BASEBALL





IRRIGATION NOTES

- THE SYSTEM IS DESIGNED TO OPERATE AT A MAXIMUM FLOW OF 325 GPM WITH A MAXIMUM 80 STATIC PSI AT THE IRRIGATION BOOSTER PUMP. CONTRACTOR SHALL VERIFY PRESSURE PRIOR TO BEGINNING WORK. CONTACT OWNER IMMEDIATELY SHOULD DISCREPANCY ARISE AND REDIRECT WORK TO AVOID DELAY.
- ALL WORK SHALL CONFORM TO LOCAL AND STATE CODES AND ORDINANCES. ALL IRRIGATION WORK SHALL CONFORM TO THE LANDSCAPE SECTION OF THE STANDARD PLAN DETAILS FOR PUBLIC WORKS CONSTRUCTION. PROJECT AND DETAILS AND SPECIFICATIONS SHALL TAKE PRECEDENCE OVER STANDARD PLAN DETAILS.
- ALL PLASTIC FITTINGS SHALL BE A MINIMUM OF 18" APART TO FACILITATE REMOVAL AND REPLACEMENT OF INDIVIDUAL FITTINGS. TRENCHING DEPTHS OF POTABLE WATER MAIN SHALL BE 24". ALL MAINS, LATERALS AND CONTROL WIRES SHALL BE INSTALLED IN SCHEDULE 40 PURPLE P.V.C. SLEEVES (OF APPROPRIATE SIZE) UNDER ALL A.C. AND P.C.C. PAVEMENT.
- IRRIGATION SYSTEM DESIGN IS DIAGRAMMATIC. WHERE PIPING, VALVES, QUICK COUPLERS, ETC. ARE SHOWN OUTSIDE FIELD. OR LIMIT OF WORK: INTENT IS FOR PIPING. VALVES, ETC., TO BE INSTALLED WITHIN FIELD AREAS OF PROPERTY. INDICATE EXACT LOCATIONS OF IRRIGATION EQUIPMENT ON RECORD DRAWINGS.
- CONTRACTOR SHALL ADJUST IRRIGATION HEADS FOR OPTIMUM COVERAGE WHILE REDUCING OVER SPRAY ONTO WALKWAYS AND ADJACENT STRUCTURES. VALVES SHALL BE ADJUSTED TO AVOID MISTING AS APPLICABLE. CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO HEAD LOCATIONS IN FIELD AS NECESSARY ONLY WITH THE APPROVAL OF THE CITY ENGINEER.
- CONTRACTOR SHALL REFER TO DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

IRRIGATION AND CONDUIT LEGEND

40'-50' 60

10' 30 0.25-2.00

12' | 30 |0.32-2.52|

12' | 40 | 0.21-0.84

16' | 40 |0.43-1.48|

8'-16' | 40 | 0.49-1.87

5' x 15'

MODEL NO./ DESCRIPTION

I-40-06-SS-ON-15

DUAL OPPOSING NOZZLE

I-40-06-SS-10

I-40-06-SS-15

I-40-06-SS-23

I-40-06-SS-25

ADJUSTABLE SPRAY NOZZLE

I-20-06-LA-SS-R 2.0 ADJUSTABLE SPRAY NOZZLE

I-20-06-SS-SR-R 3.0

ADJUSTABLE SPRAY NOZZLE

I-20-06-SS-R 5.0

ADJUSTABLE SPRAY NOZZLE

I-20-06-SS-R 8.0

ADJUSTABLE SPRAY NOZZLE

PROS-12-PRS30-CV

PROS-12-PRS30-CV

PROS-12-PRS40-CV

W/MP1000 ROTATOR NOZZLES

PROS-12-PRS40-CV

W/MP2000 ROTATOR NOZZLES

PROS-12-PRS40-CV

W/MP3000 ROTATOR NOZZLES

PROS-12-PRS40-CV W/ MP-CORNER ROTATOR NOZZLES

> PROS-12-PRS40-CV W/ MP-STRIP NOZZLES

PROS-12-PRS40-CV W/ MP800 SR ROTATOR NOZZLES

PROS-12-PRS40-CV

W/MP815 ROTATOR NOZZLES

18" ROOT ZONE WATERING SYSTEM RZWS-18-50-CV

OPERATING NUT.

APCO ARV 50A - AIR RELIEF VALVE

HARCO GASKET X GASKET

COVER, AND 2-PIECE BODY BUCKNER-SUPERIOR 950-RW 2"

EXISTING MASTER CONTROL VALVE

EXISTING BACKFLOW ASSEMBLY

SCHEDULING DURING CONSTRUCTION.

EXISTING MAINLINE TO REMAIN AND BE PROTECTED. CONTRACTOR TO VERIFY SIZE AND APPROXIMATE LOCATION PRIOR TO CONSTRUCTION.

LATERAL LINE - SCHEDULE 40 PVC PIPE & SOLVENT WELD FITTINGS, AT 18" DEPTH.

EXISTING FLOW SENSOR

EXISTING WATER METER

STANDARD NON-SIZED PIPE TO BE $\frac{3}{4}$ " DIA.

FITTINGS AT 24" DEPTH - SIZE AS NOTED.

MAIN LINE - SCHEDULE 40 PVC PIPE & RING-TITE

LIMIT OF WORK

GATE VALVES 2" AND SMALLER SHALL BE NIBCO T-113. FOR VALVES ABOVE 2" IN SIZE UTILIZE NIBCO F-619 FLANGED VALVE WITH SQUARE

1IN. BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT

1 In., 1-1/2In., 2In., 2-1/2In., and 3In. brass automatic irrigation \angle

ELECTRIC DIAPHRAGM VALVE WITH FORWARD FLOW DESIGN.

3/4IN., 1IN., 1-1/4IN., 1-1/2IN., AND 2IN.. RED BRASS ANGLE MANUAL CONTROL VALVES WITH UNION.

IRRIGATION CONTROLLER - HUNTER ACC2. CONTRACTOR TO CONFIRM IN FIELD IF EXISTING ENCLOSURE SUITABLE FOR NEW CONTROLLER & COORDINATE WITH DISTRICT ON CONTROLLER

IRON, STAINLESS STEEL, BRONZE SHUT OFF VALVE. LATERAL ISOLATION AVAILABLE IN 2IN. WITH VARIABLE RISER. GASKET X

RAIN BIRD STAINLESS STEEL SPRING, LOCKING NON-POTABLE PURPLE RUBBER

12A ADJUSTABLE SHRUB SPRAY NOZZLE

10A ADJUSTABLE SHRUB SPRAY NOZZLE

ADJUSTABLE SPRAY NOZZLE

ADJUSTABLE SPRAY NOZZLE

ADJUSTABLE SPRAY NOZZLE

SYM. MANUF.

HUNTER

8.0



1843 Iron Point Rd. Suite 140 Folsom, CA 95630 tel: 916.415.6554 fax: 916.415.6525 www.VerdeDesignInc.com



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IRRIGATION PLAN -TRACK

PROJECT NAME WEST CAMPUS HIGH SCHOOL **BASEBALL & SOFTBALL IMPROVEMENTS**

PROJECT ADDRESS	
5022 58TH STREE SACRAMENTO, CA 93	· -
SUBMITTAL	DATE
50% SUBMITTAL	10/20/23

		• • · · · · · · · · · · · · · · · · · ·					
	FITTINGS AT 24" DEPTH - SIZE AS NOTED.				6 DSA SUBMITTAL		1
==	SLEEVES	CLASS 200 PVC. SIZE TO BE TWICE THE SIZE OF TOTAL PIPE DIAMETERS WITHIN THE SLEEVE, OR AS NOTED, WITH 30" COVER.		BACK	CHECK SUBMITTAL	(0
		LOCATIONS ARE DIAGRAMMATIC. VALVE BOXES TO BE PLACED BETWEEN NCE LINE AND TOP OF SLOPE.					
	VALVE BOX I	LOCATIONS ARE DIAGRAMMATIC. PLACE VALVE BOXES IN WALK.		\10	DEVICIONE		
	VALVE BOX I	LOCATIONS ARE DIAGRAMMATIC. PLACE VALVE BOXES PLANTING AREA.		NO.	REVISIONS		_

DATE ISSUED

PROJ. NO.

03/18/2024

,	INSIDE OF FENCE LINE AND TOP OF SLOPE.			
)	VALVE BOX LOCATIONS ARE DIAGRAMMATIC. PLACE VALVE BOXES IN WALK.			
		NO.	REVISIONS	
)	VALVE BOX LOCATIONS ARE DIAGRAMMATIC. PLACE VALVE BOXES PLANTING AREA.	\bigwedge		
)	MAIN LINE LOCATION IS DIAGRAMMATIC. PLACE IN PLANTING AREA WHERE POSSIBLE.	$\overline{\triangle}$		

- ADJUST EXISTING IRRIGATION AS NEEDED TO PROVIDE COMPLETE HEAD TO HEAD BUBBLER HEAD AND LATERAL LINE LOCATIONS ARE DIAGRAMMATIC FOR CLARITY. PLACE HEADS AND LATERALS IN PLANTING BED PER DETAILS.
- 2" MAIN LINE BETWEEN LAST REMOTE CONTROL VALVE AND QUICK QOUPLER, TYP. POINTS OF CONNECTION - TIE PROPOSED MAIN LINE TO EXISTING MAINLINE. P.O.C. | CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SUPPLY LINE AND WATER PRESSURE. PROVIDE STATIC WATER PRESSURE RATING TO OWNER'S REPRESENTATIVE.
- CONTROLLER STATION NUMBER APPROX. GPM FLOW THROUGH VALVE —— CONTROL VALVE SIZE

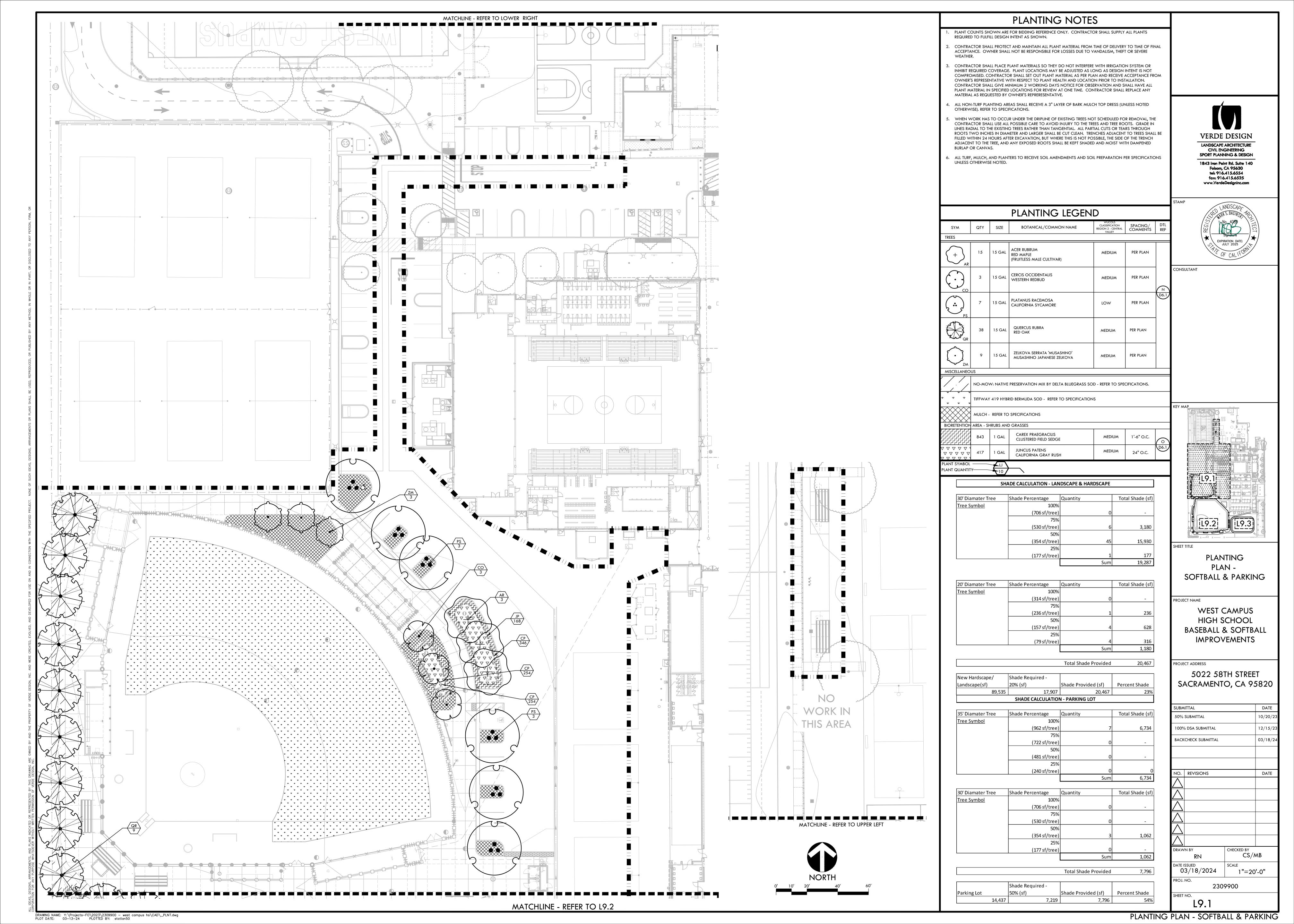
REFER TO L9.3 FOR MWELO CALCS.

2309900

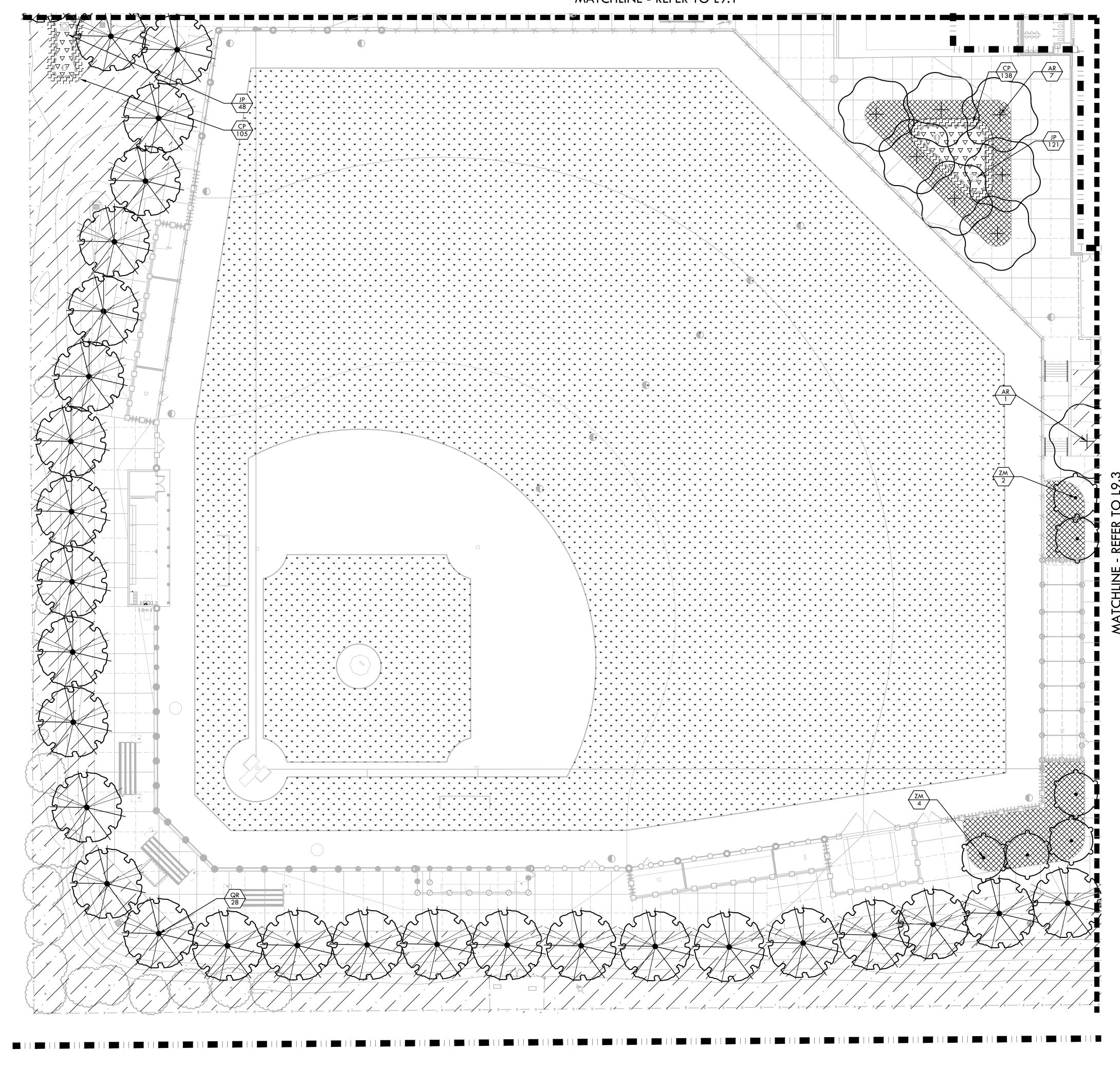
IRRIGATION PLAN - TRACK

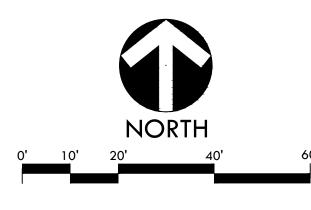
CS/MB

1"=20'-0"



MATCHLINE - REFER TO L9.1





PLANTING NOTES

- PLANT COUNTS SHOWN ARE FOR BIDDING REFERENCE ONLY. CONTRACTOR SHALL SUPPLY ALL PLANTS REQUIRED TO FULFILL DESIGN INTENT AS SHOWN.
- 2. CONTRACTOR SHALL PROTECT AND MAINTAIN ALL PLANT MATERIAL FROM TIME OF DELIVERY TO TIME OF FINAL ACCEPTANCE. OWNER SHALL NOT BE RESPONSIBLE FOR LOSSES DUE TO VANDALISM, THEFT OR SEVERE
- 3. CONTRACTOR SHALL PLACE PLANT MATERIALS SO THEY DO NOT INTERFERE WITH IRRIGATION SYSTEM OR INHIBIT REQUIRED COVERAGE. PLANT LOCATIONS MAY BE ADJUSTED AS LONG AS DESIGN INTENT IS NOT COMPROMISED. CONTRACTOR SHALL SET OUT PLANT MATERIAL AS PER PLAN AND RECEIVE ACCEPTANCE FROM OWNER'S REPRESENTATIVE WITH RESPECT TO PLANT HEALTH AND LOCATION PRIOR TO INSTALLATION. CONTRACTOR SHALL GIVE MINIMUM 2 WORKING DAYS NOTICE FOR OBSERVATION AND SHALL HAVE ALL PLANT MATERIAL IN SPECIFIED LOCATIONS FOR REVIEW AT ONE TIME. CONTRACTOR SHALL REPLACE ANY MATERIAL AS REQUESTED BY OWNER'S REPRERESENTATIVE.
- 4. ALL NON-TURF PLANTING AREAS SHALL RECEIVE A 3" LAYER OF BARK MULCH TOP DRESS (UNLESS NOTED OTHERWISE). REFER TO SPECIFICATIONS.
- 5. WHEN WORK HAS TO OCCUR UNDER THE DRIPLINE OF EXISTING TREES NOT SCHEDULED FOR REMOVAL, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO THE TREES AND TREE ROOTS. GRADE IN LINES RADIAL TO THE EXISTING TREES RATHER THAN TANGENTIAL. ALL PARTIAL CUTS OR TEARS THROUGH ROOTS TWO INCHES IN DIAMETER AND LARGER SHALL BE CUT CLEAN. TRENCHES ADJACENT TO TREES SHALL BE FILLED WITHIN 24 HOURS AFTER EXCAVATION, BUT WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE, AND ANY EXPOSED ROOTS SHALL BE KEPT SHADED AND MOIST WITH DAMPENED BURLAP OR CANVAS.
- 6. ALL TURF, MULCH, AND PLANTERS TO RECEIVE SOIL AMENDMENTS AND SOIL PREPARATION PER SPECIFICATIONS UNLESS OTHERWISE NOTED.



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PLANTING LEGEND

SYM	QTY	SIZE	BOTANICAL/COMMON NAME	CLASSIFICATION REGION 2 - CENTRAL VALLEY	SPACING/ COMMENTS	RE
TREES						
+ AR	15	15 GAL	ACER RUBRUM RED MAPLE (FRUITLESS MALE CULTIVAR)	MEDIUM	PER PLAN	
	3	15 GAL	CERCIS OCCIDENTALIS WESTERN REDBUD	MEDIUM	PER PLAN	<u> </u>
	7	15 GAL	PLATANUS RACEMOSA CALIFORNIA SYCAMORE	LOW	PER PLAN	De
TANGR OR	38	15 GAL	QUERCUS RUBRA RED OAK	MEDIUM	PER PLAN	
₹ ZM	9	15 GAL	ZELKOVA SERRATA 'MUSASHINO' MUSASHINO JAPANESE ZELKOVA	MEDIUM	PER PLAN	
MISCELLANEOUS						

NO-MOW: NATIVE PRESERVATION MIX BY DELTA BLUEGRASS SOD - REFER TO SPECIFICATIONS.

TIFFWAY 419 HYBRID BERMUDA SOD - REFER TO SPECIFICATIONS

MULCH - REFER TO SPECIFICATIONS

[L9.2]

PLANTING PLAN -BASEBALL

PROJECT NAME

WEST CAMPUS
HIGH SCHOOL
BASEBALL & SOFTBALL
IMPROVEMENTS

PROJECT ADDRESS

50% SUBMITTAL

SHEET NO.

100% DSA SUBMITTAL

5022 58TH STREET SACRAMENTO, CA 95820

10/20/23

12/15/23

BACKCHECK SUBMITTAL

03/18/2

NO. REVISIONS

DATE

DATE

CHECKED BY
CS/MB

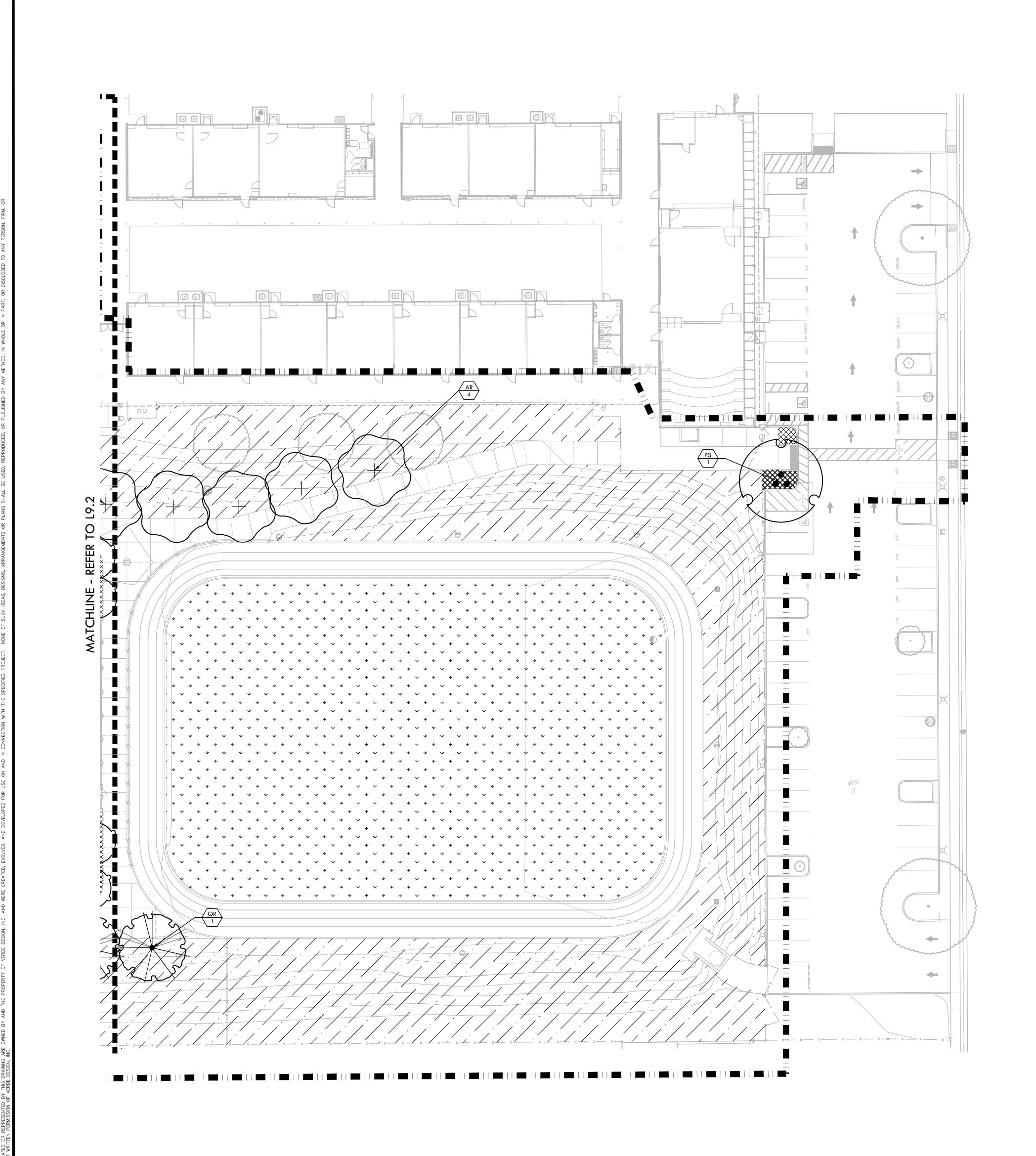
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03/18/2024

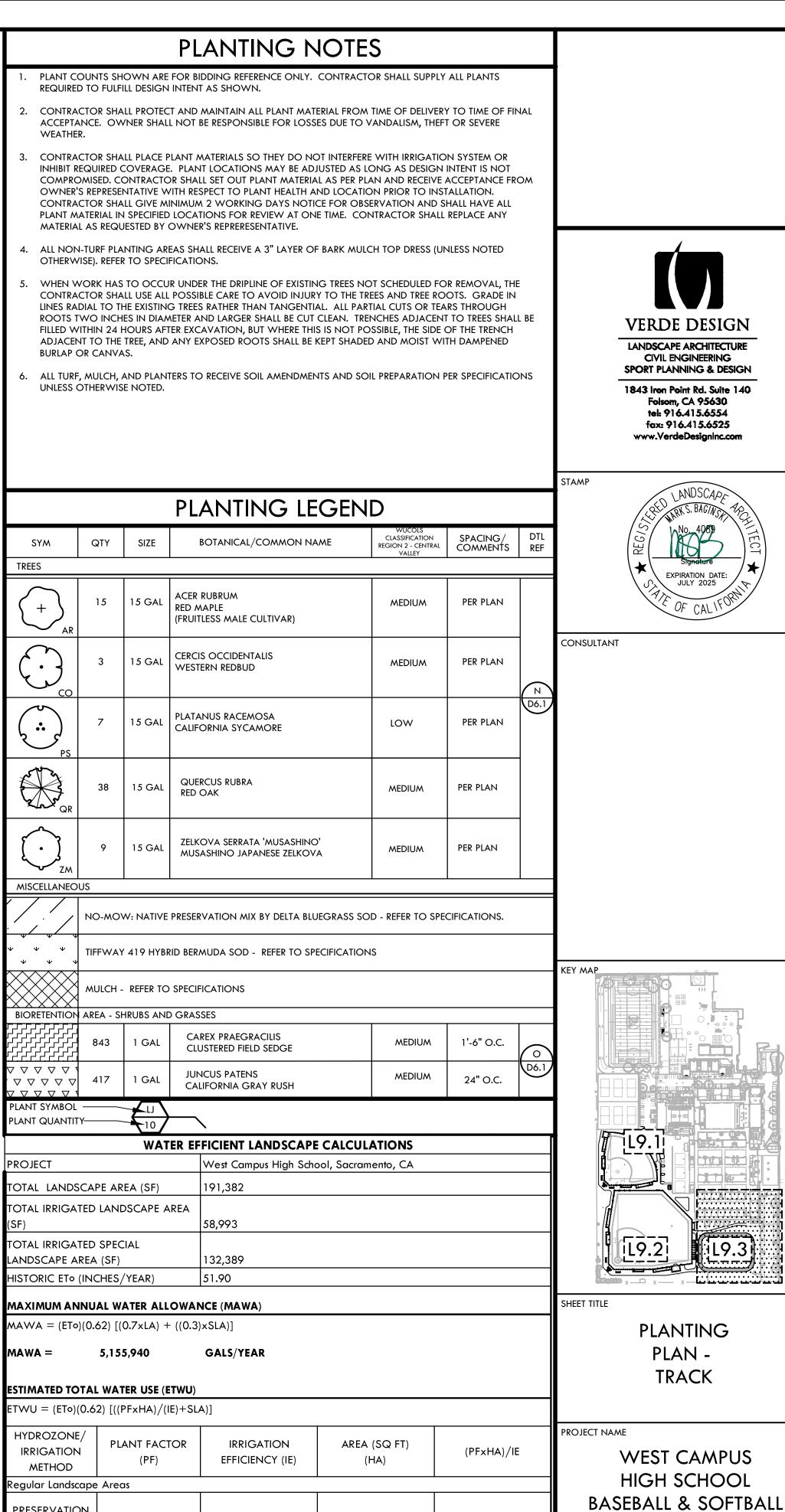
PROJ. NO.

2309900

PLANTING PLAN - BASEBALL

DRAWING NAME: Y:\Projects-F0\2023\2309900 - west campus hs\CAD_PLNT.dwg
PLOT DATE: 03-13-24 PLOTTED BY: station50





PRESERVATION 0.75 58,993 MIX - OVERHEAD TRESS - DRIP 0.81 2,880 MEDIUM 58,993 Special Landscape Areas

50% SUBMITTAL 100% DSA SUBMITTAL 128,750 N/A **RECREATIONAL** BACKCHECK SUBMITTAL **BIOFILTRATION** 3,639 OVERHEAD -N/A NO. REVISIONS TOTAL 132,389

23,597

1*,77*8

25,375

5,076,529 ETWU = UNDER MAWA = 79,411

GAL/YEAR GALS/YEAR

2309900

DATE ISSUED

PROJ. NO.

SHEET NO.

03/18/2024

CHECKED BY

CS/MB

1"=20'-0"

PLANTING

PLAN -

TRACK

WEST CAMPUS

HIGH SCHOOL

IMPROVEMENTS

5022 58TH STREET

SACRAMENTO, CA 95820

10/20/23

12/15/23

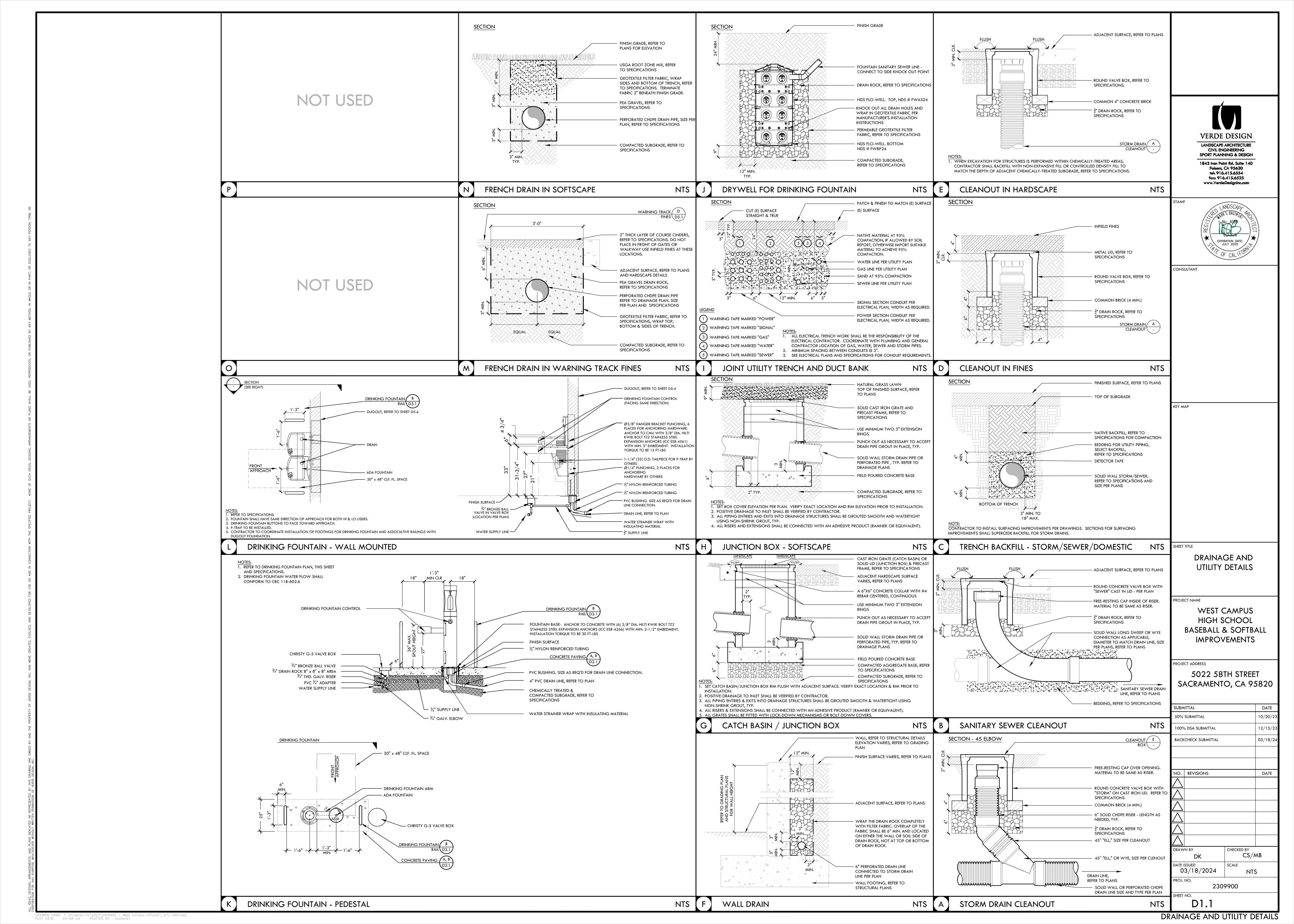
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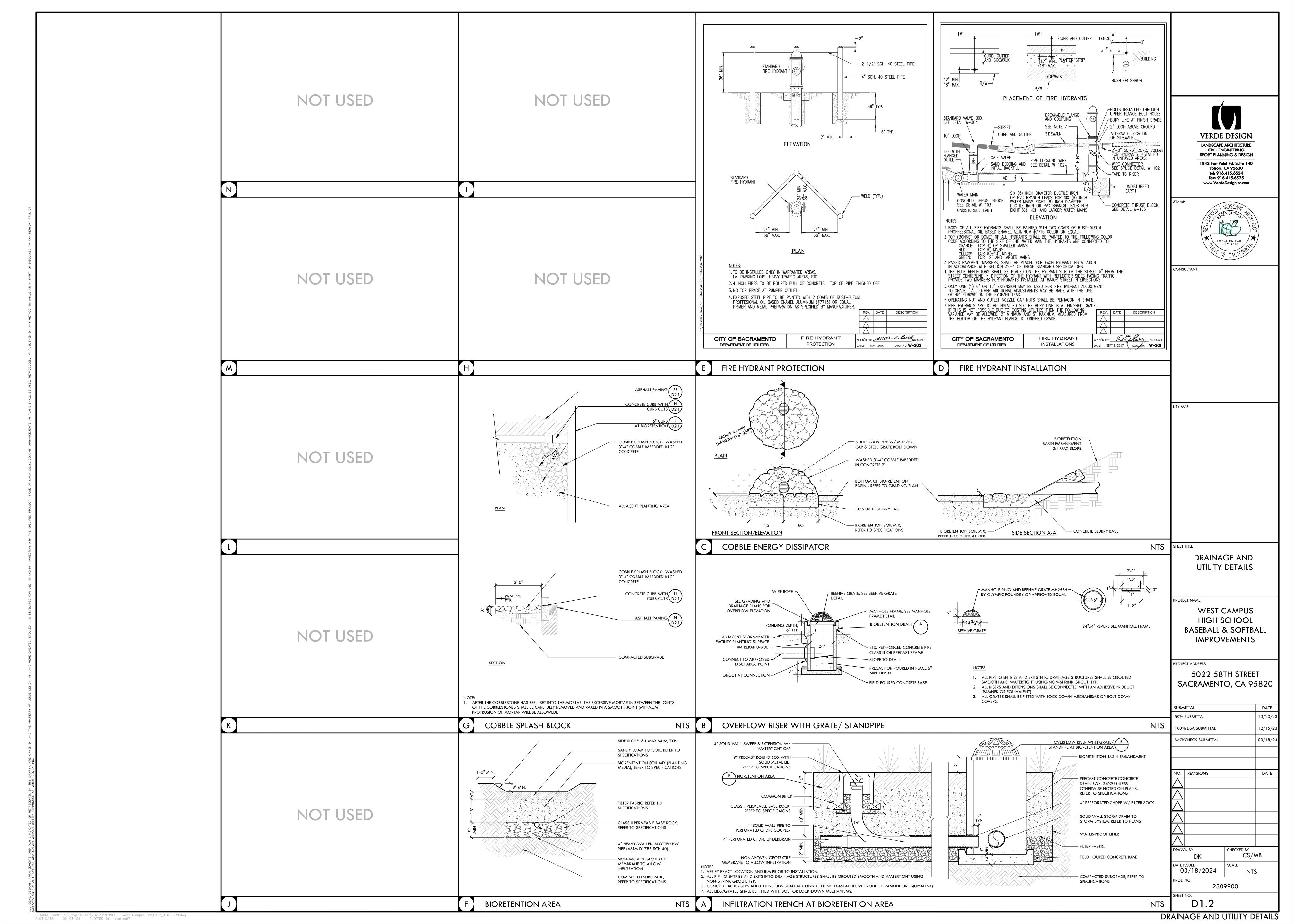
CIVIL ENGINEERING SPORT PLANNING & DESIGN

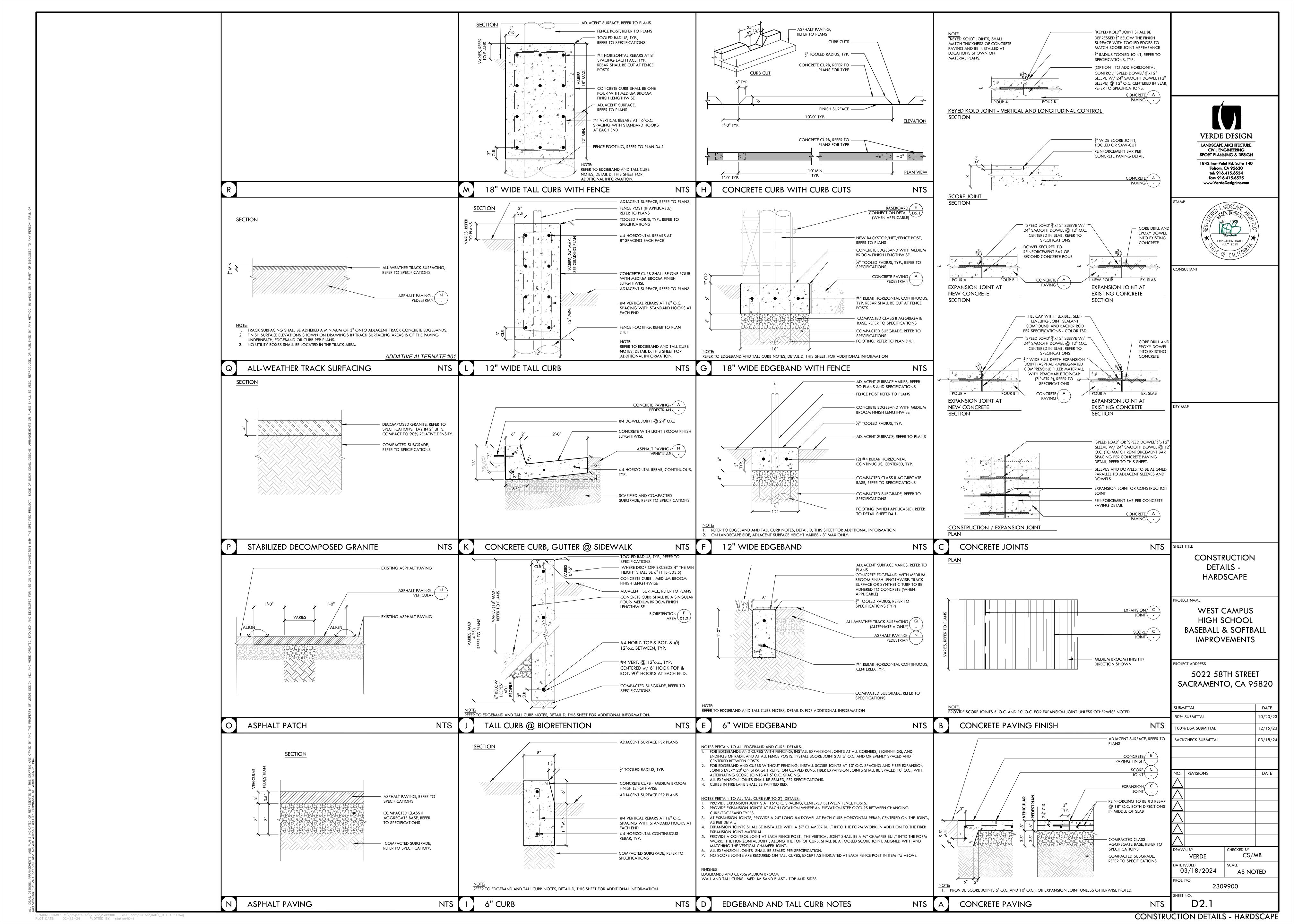
1843 Iron Point Rd. Suite 140 Folsom, CA 95630 tel: 916.415.6554 fax: 916.415.6525 www.VerdeDesignInc.com

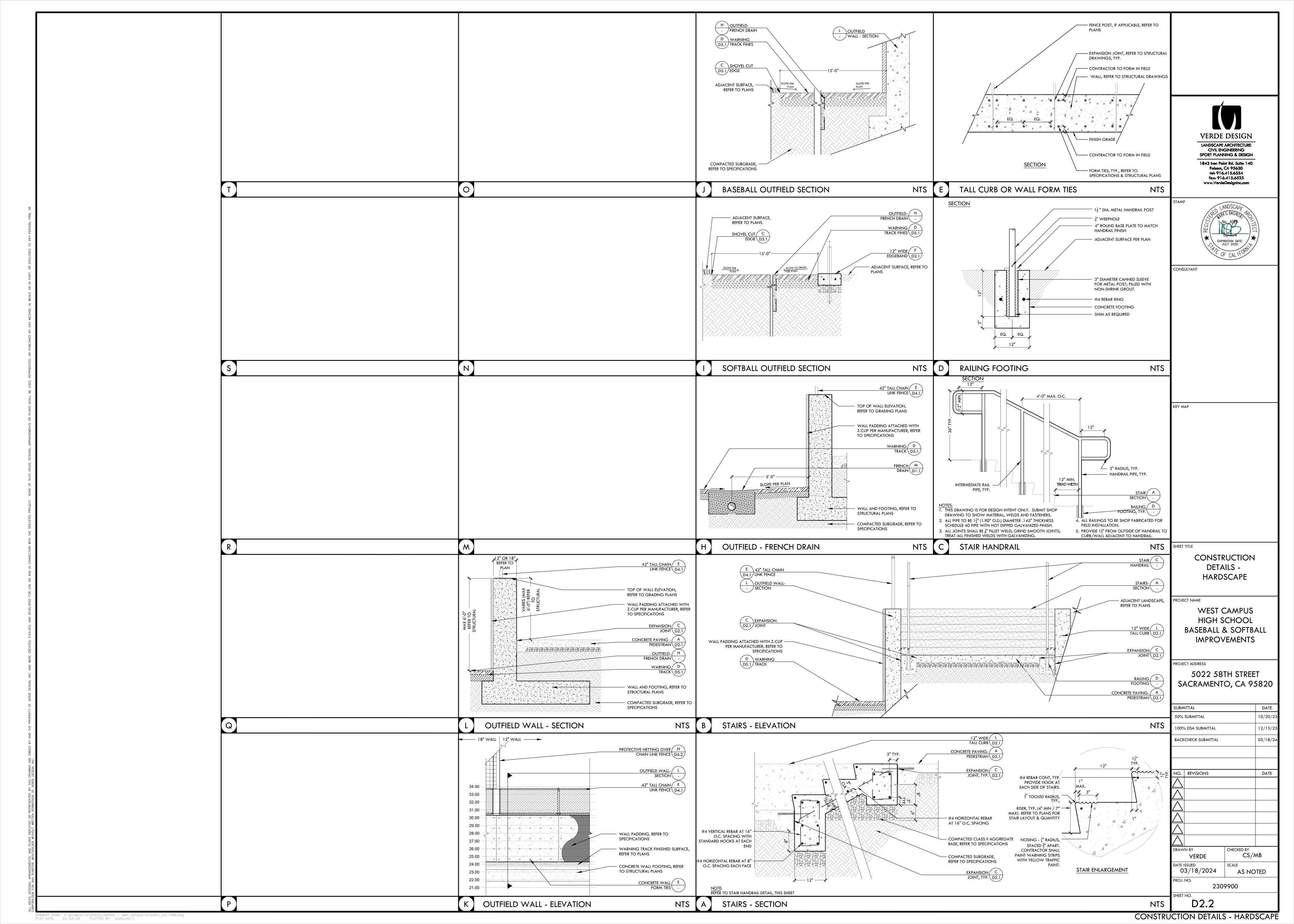
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PLOT DATE: 03-13-24 PLOTTED BY: station50

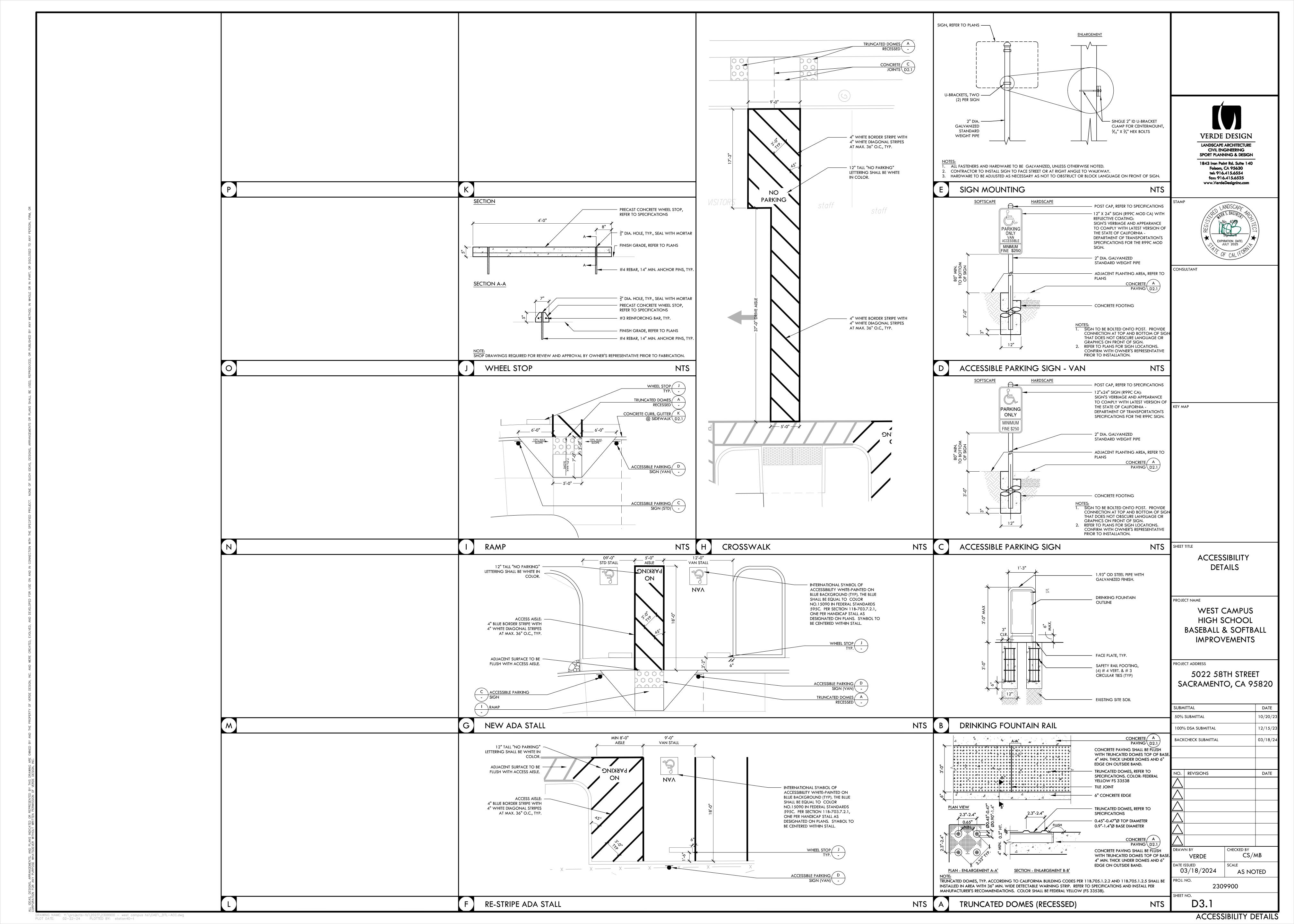
PLANTING PLAN - TRACK

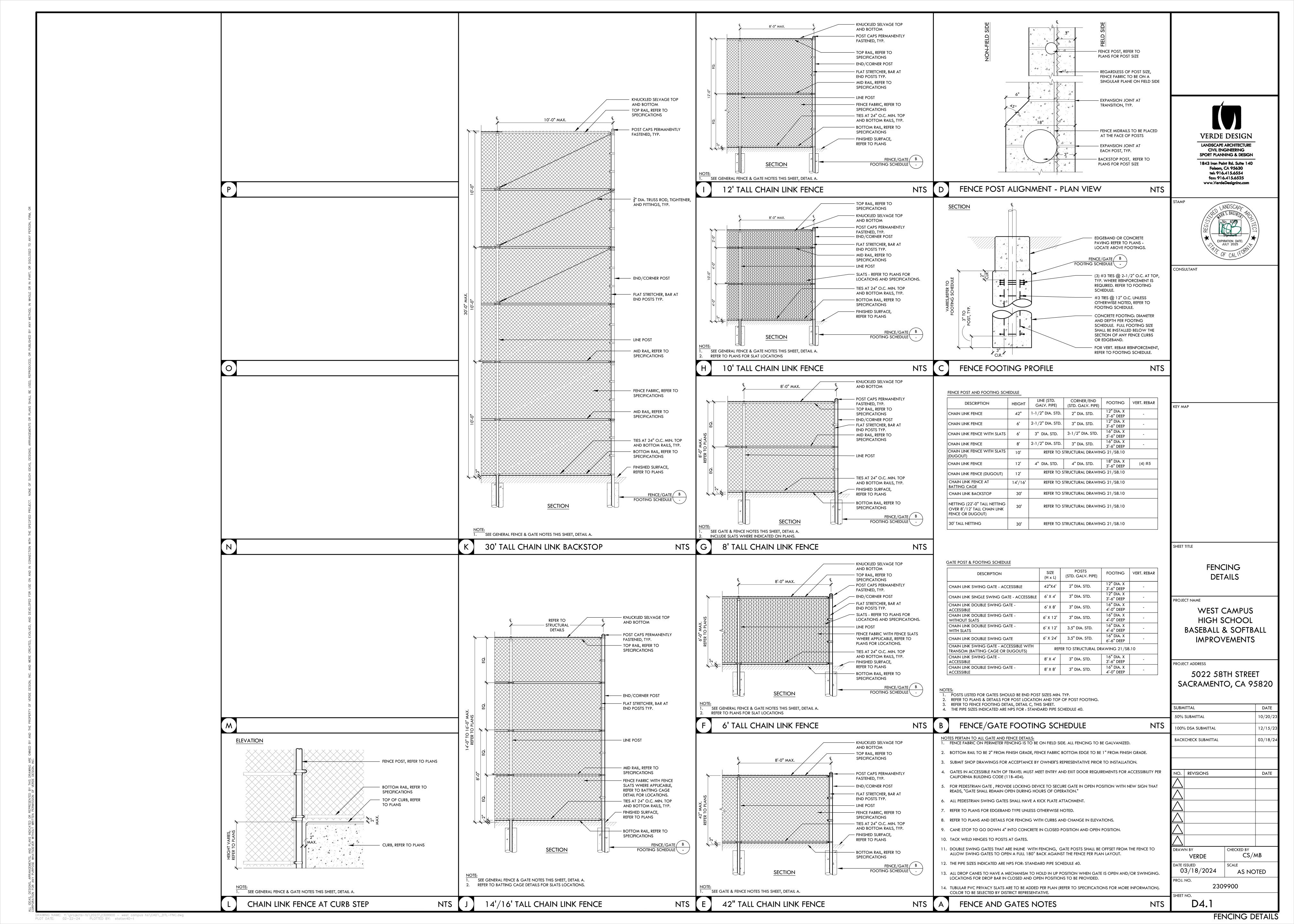


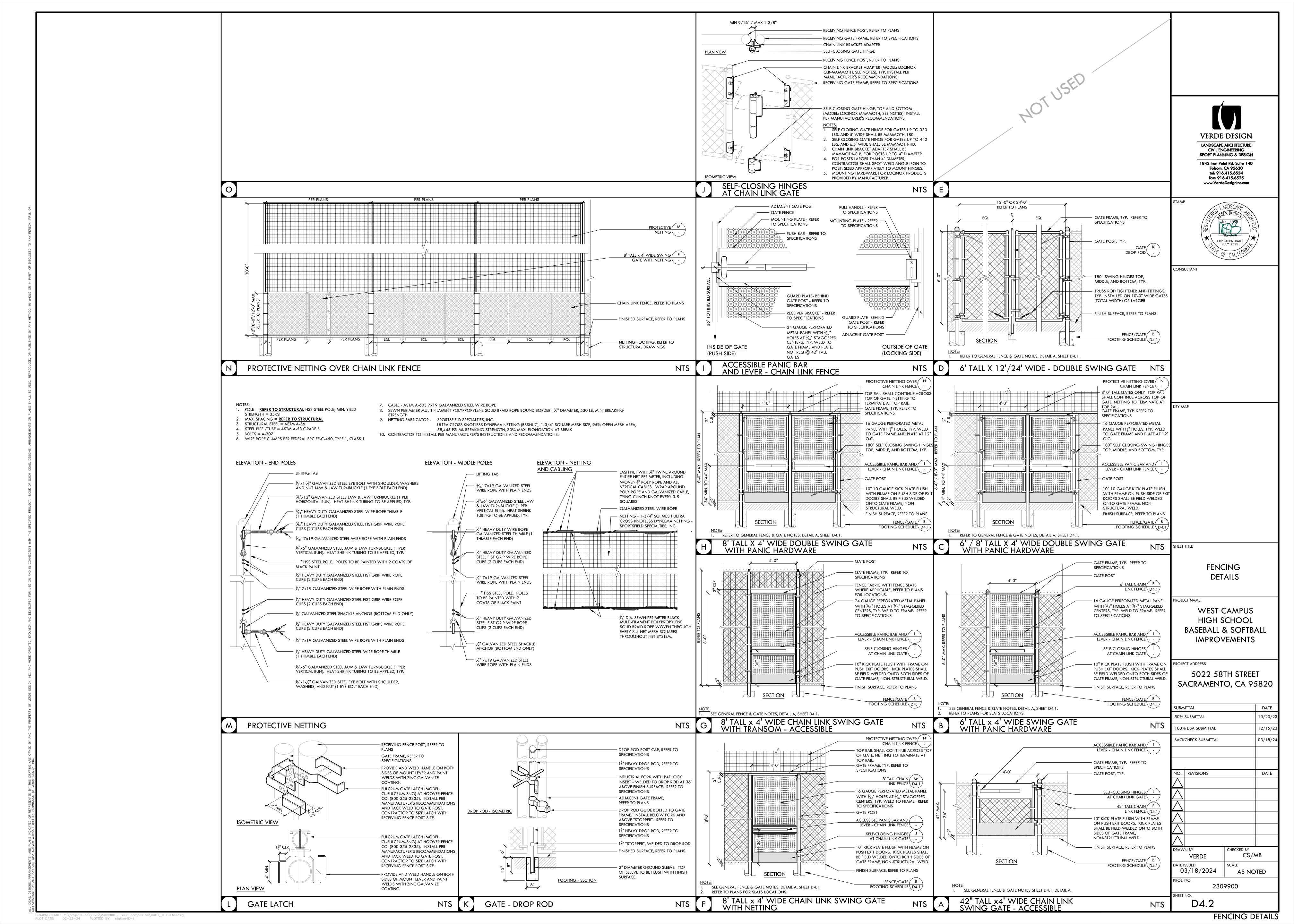


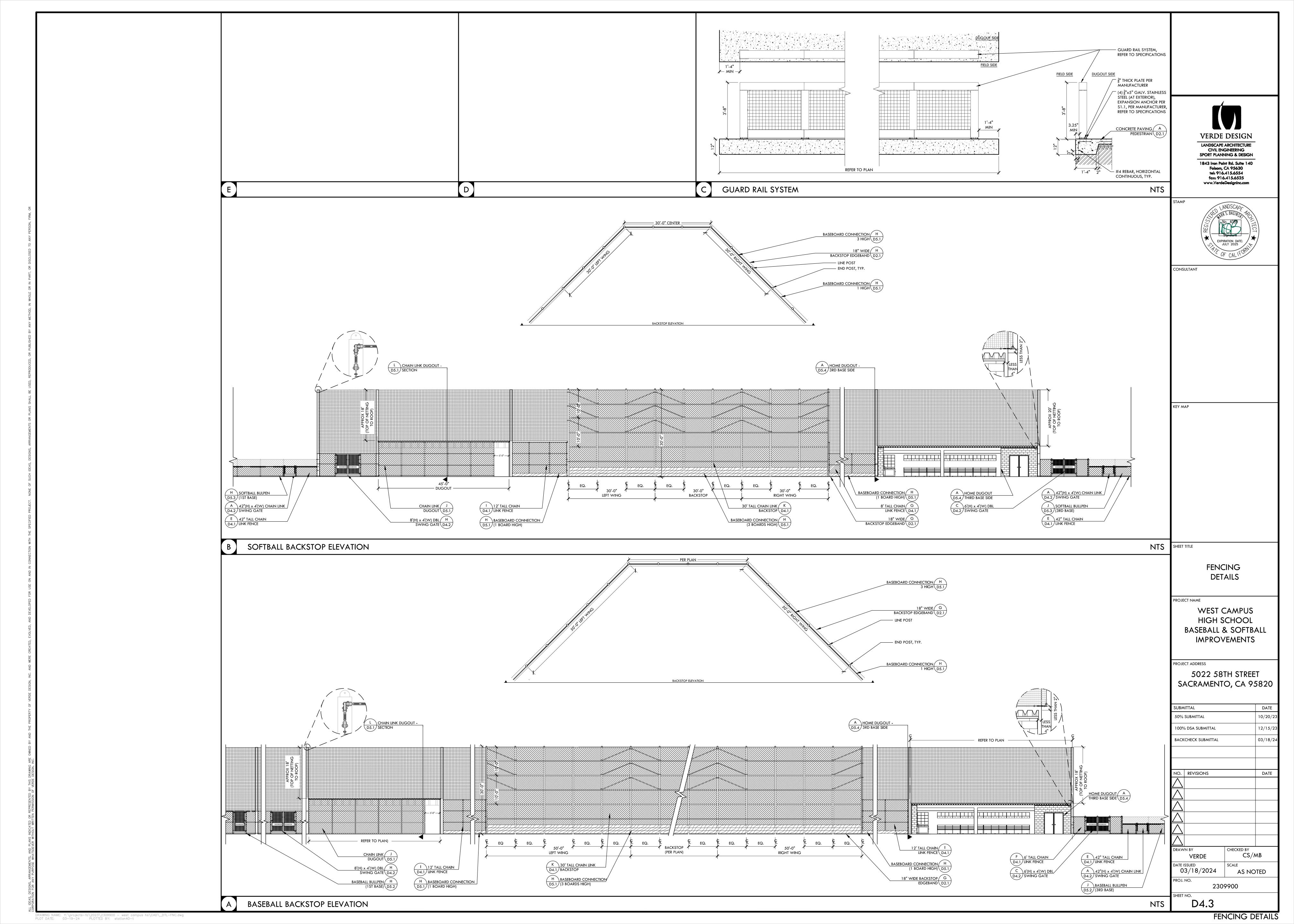


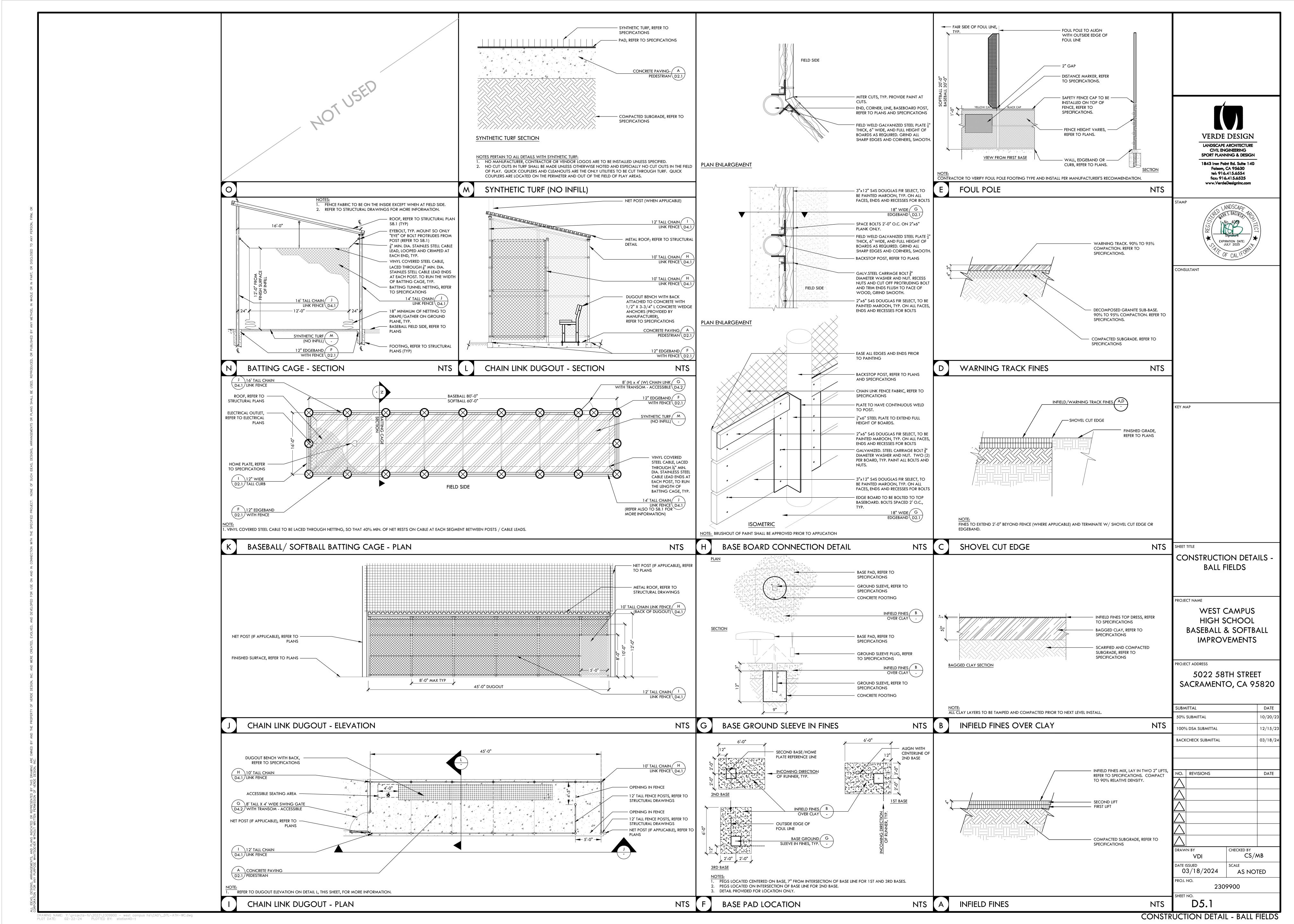


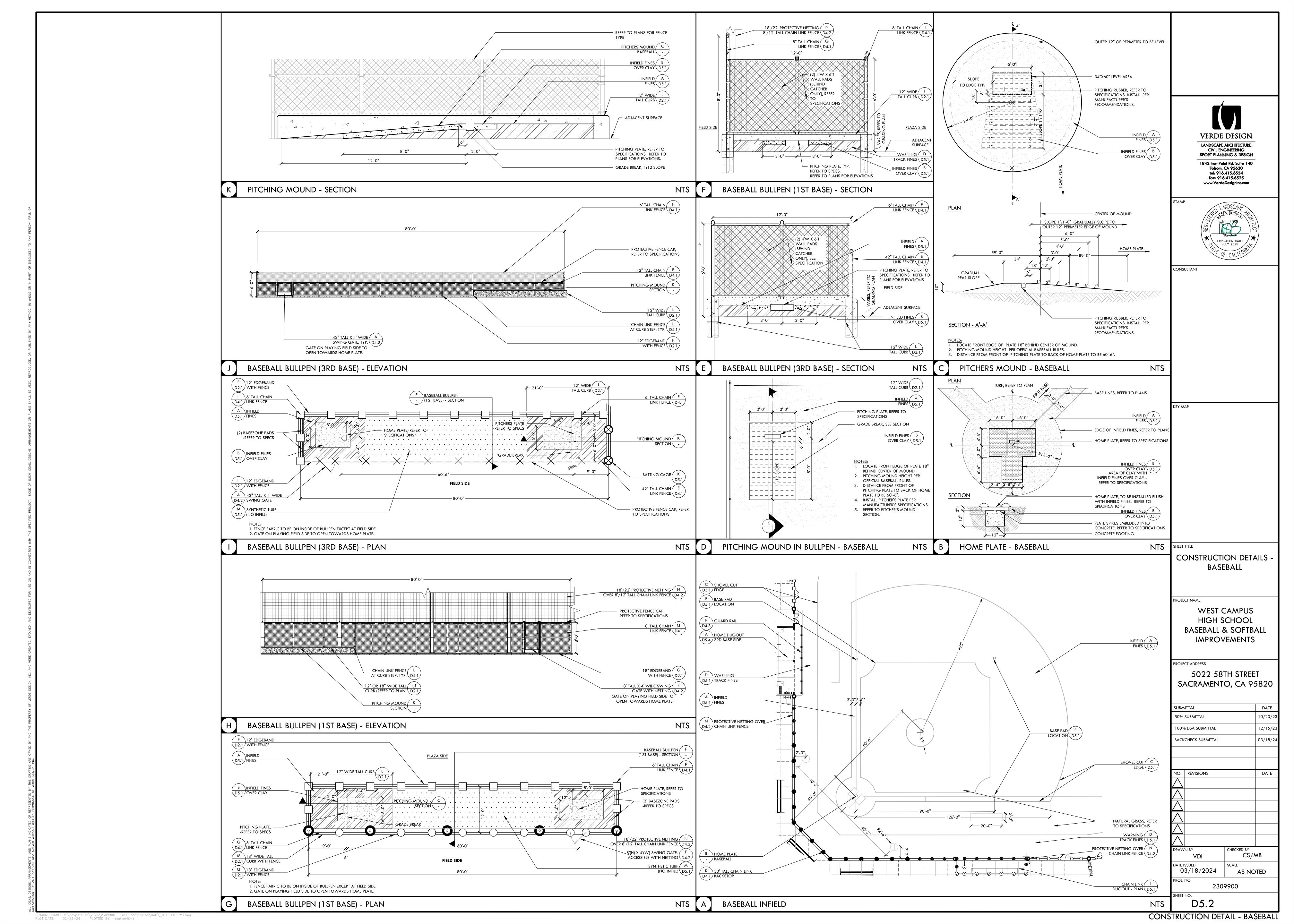


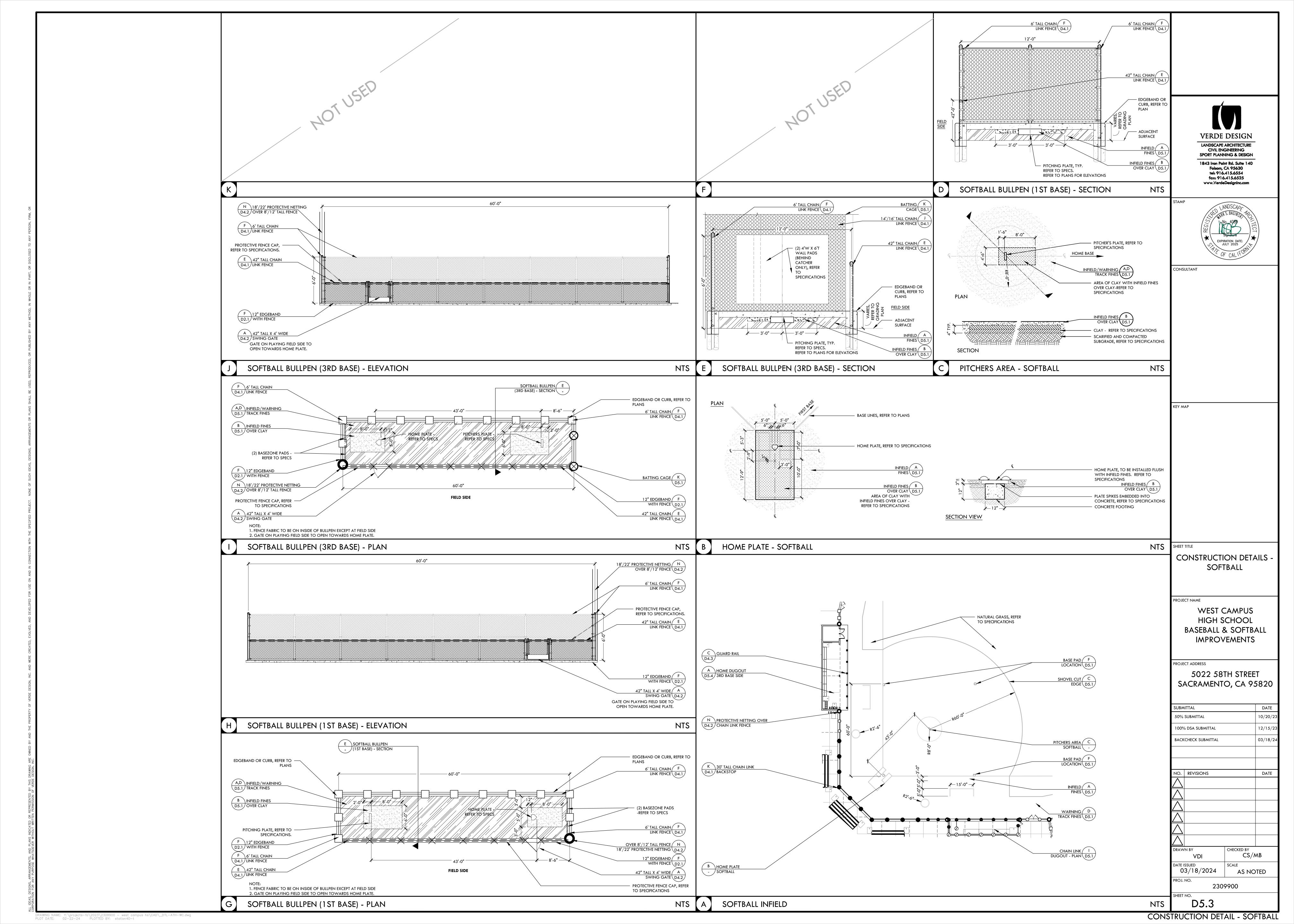


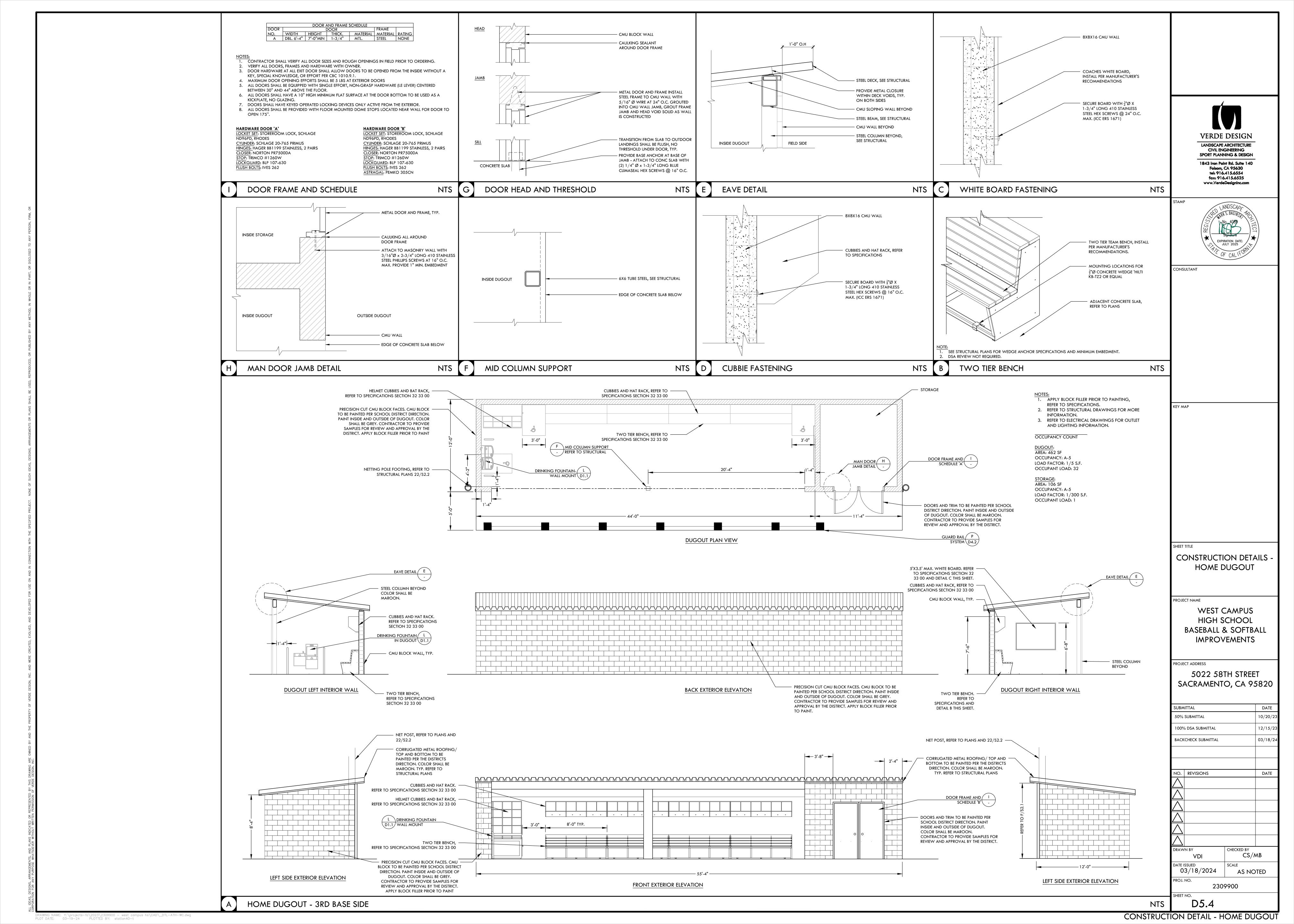


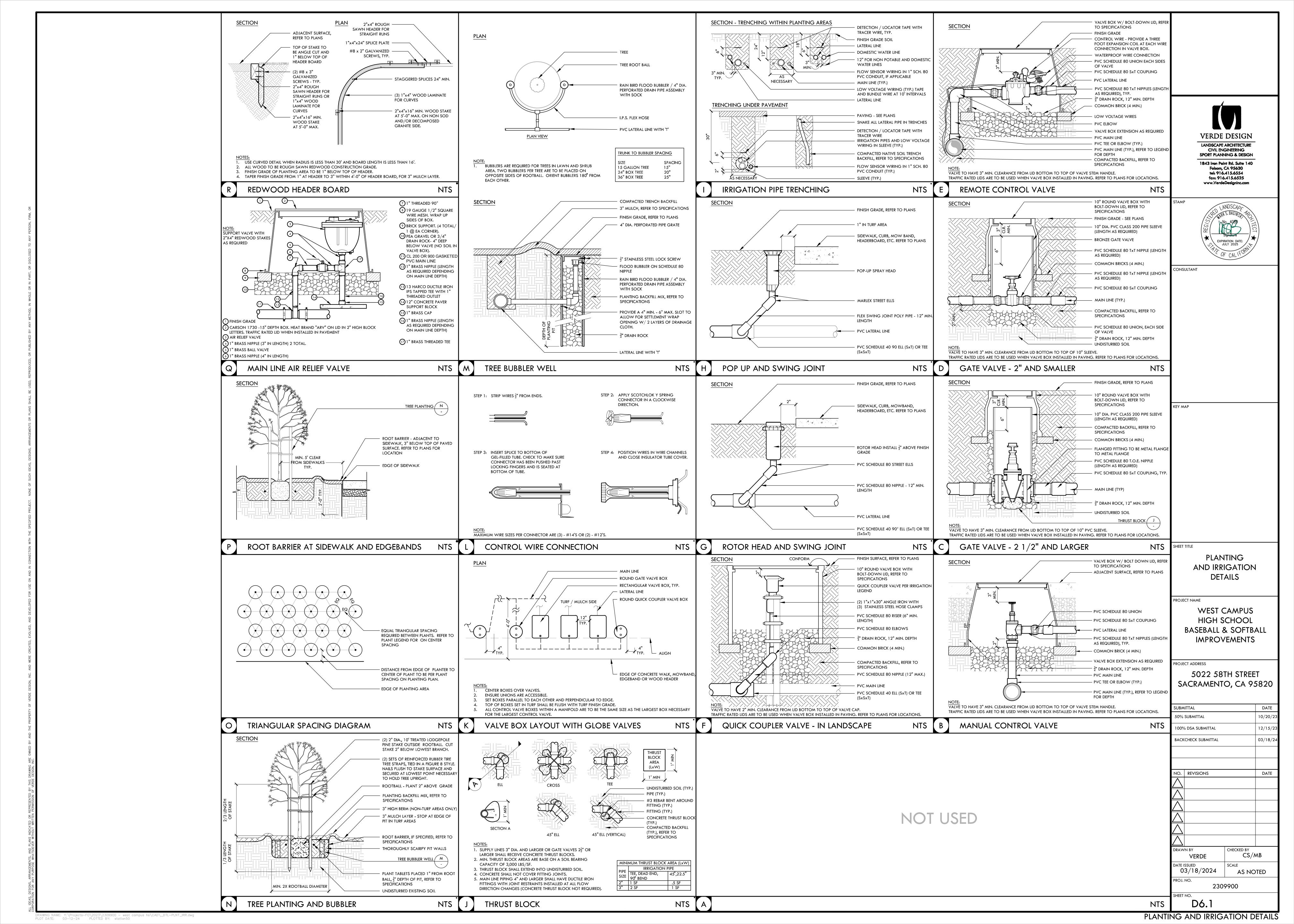












2. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER FOR DIRECTION PRIOR TO PROCEEDING.

3. DETAILS OF CONSTRUCTION ARE TYPICAL, UNLESS NOTED OTHERWISE, AND SHALL APPLY AT ALL LOCATIONS OF SIMILAR CONSTRUCTION. TYPICAL DETAILS ARE NOT CUT AT EVERY APPLICABLE LOCATION ON THE PLANS.

4. DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION.

5. SHORING, TEMPORARY BRACING AND OTHER METHODS AND MEANS OF CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR, AND IS NOT INCLUDED IN THE SCOPE OF THE STRUCTURAL DRAWINGS.

6. THE FOLLOWING NOTES ARE FOR GENERAL MATERIAL GRADES AND PROCEDURES. SEE SPECIFICATIONS AND REMAINDER OF DRAWINGS FOR COMPLETE REQUIREMENTS. ITEMS NOTED IN PLANS, SECTIONS AND DETAILS TAKE PRECEDENCE OVER GENERAL NOTES.

A) LIVE: ROOF: 20 PSF (REDUCIBLE)

BUILDING RISK CATEGORY II EXPOSURE C, 95 MPH BASIC WIND SPEED

DIRECTIONAL PROCEDURE G=0.85, Cf=1.45, Kzt=1.00, Kd=0.85, Ke=1.0 Kz=0.85, HEIGHT=15 FT, qh=20.6 (STRENGTH), 12.3 PSF (ALLOWABLE STRESS) Kz=0.90, HEIGHT=15-20 FT, qh=21.8 (STRENGTH), 13.1 PSF (ASD) Kz=0.94, HEIGHT=20-25 FT, qh=22.8 (STRENGTH), 13.7 PSF (ASD) Kz=0.98, HEIGHT=25-30 FT, qh=23.7 (STRENGTH), 14.2 PSF (ASD) G=1.14, Cf=1.20, Kzt=1.00, Kd=0.95, Ke=1.0 Kz=0.90, HEIGHT=15-20 FT. ah=27.0 (STRENGTH), 16.2 PSF (ASD)

Kz=0.94, HEIGHT=20-25 FT, qh=28.2 (STRENGTH), 16.9 PSF (ASD)

Kz=0.98, HEIGHT=25-30 FT, qh=29.4 (STRENGTH), 17.7 PSF (ASD)

C) SEISMIC: BUILDING RISK CATEGORY II

EQUIVALENT LATERAL FORCE PROCEDURE (ASCE 7-16 SECTION 12.8) LATITUDE: 38.5491, LONGITUDE: -121.4943 SEISMIC DESIGN CATEGORY (SDC) D

SITE CLASS D $S_s=0.546$, $S_t=0.247$; $F_0=1.363$, $F_v=2.000$; $S_{MS}=0.744$, $S_{M1}=0.494$; $S_{DS}=0.496$, $S_{D1}=0.329$ IMPORTANCE FACTOR: l_e=1.00

R=5 FOR SPECIAL REINFORCED (CMU) SHEAR WALLS R=3 FOR SIGNS AND BILLBOARDS (FIELD EQUIPMENT) R=1.5 FOR STEEL POLES R=1.25 FOR ALL OTHER SELF-SUPPORTING STRUCTURES C_S =0.099 (STRENGTH), 0.071 (ALLOWABLE STRESS) FOR CMU SHEAR WALLS

C_S=0.165 (STRENGTH), 0.118 (ALLOWABLE STRESS) FOR SIGNS & BILLBOARDS C_c=0.331 (STRENGTH), 0.236 (ALLOWABLE STRESS) FOR STEEL POLES C_s =0.397 (STRENGTH), 0.284 (ALLOWABLE STRESS) FOR ALL OTHER STRUCTURES C_V =0.099 (STRENGTH), 0.071 (ALLOWABLE STRESS).

D) LOAD COMBINATIONS FOR DESIGN: CONCRETE: PER ASCE 7 SECTION 2.3 FOR STRENGTH DESIGN. FOUNDATIONS: PER CBC SECTION 1605A.2 FOR ALLOWABLE STRESS DESIGN. ALL OTHERS: PER ASCE 7 SECTION 2.4 FOR ALLOWABLE STRESS DESIGN.

HORIZONTAL

HIGH STRENGTH

HIGH STRENGTH BOLT

HOLLOW STEEL SECTION

HOUR

STRUCTURAL ABBREVIATIONS						
	A.B. ADJ APPROX	ANCHOR BOLT ADJACENT APPROXIMATE	I.D. IN INT	INSIDE DIAMETER INCH INTERIOR		
	ARCH	ARCHITECTURAL	LAM	LAMINATE		
	BLDG BLK BLKG	BUILDING BLOCK BLOCKING	LBS KSI	POUNDS KIPS PER SQ. IN.		
	BM B.N. BOT	BEAM BOUNDARY NAILING BOTTOM	MAX M.B.	MAXIMUM MACHINE BOLT		
	BP BRG	BASEPLATE BEARING	MECH MFR	MECHANICAL MANUFACTURER		
	B.S.	BOTH SIDES	MIN MISC	MINIMUM MISCELLANEOUS		
	C TO C C.B.	CENTER TO CENTER CARRIAGE BOLT	<n></n>	NEW NEW		
	CJ C.I.	CONTROL JOINT OR CONSTRUCTION JOINT CAST IRON	N.S. N.I.C. NO.	NEAR SIDE NOT IN CONTRACT NUMBER		
	CL CLG	CENTERLINE CEILING	NTS	NOT TO SCALE		
	CMU COL CONC	CONCRETE MASONRY UNIT COLUMN CONCRETE	0.C. 0.D. 0PP	ON CENTER OUTSIDE DIAMETER OPPOSITE		
	CONT C.P. CTRD	CONTINUOUS COMPLETE PENETRATION	PERP PL	PERPENDICULAR STEEL PLATE		
	CTSK	CENTERED COUNTERSINK	P.P. P.YWD	PARTIAL PENETRATION PLYWOOD		
	<d> DBL DIA OR Ø</d>	DEMO DOUBLE DIAMETER	PSF PSI	POUNDS PER SQ. FT. POUNDS PER SQ. IN.		
	DIAG DO DWG	DIAGONAL DITTO DRAWING	RAD REINF REQD	RADIUS REINFORCING REQUIRED		
	EA E.F.	EACH EACH FACE	REV R.O. RWD	REVISION ROUGH OPENING REDWOOD		
	ELEC ELEV	ELECTRICAL ELEVATION	S.A.D	SEE ARCH'L DRAWINGS		
	E.N. EQ	EDGE NAILING EQUAL	S.M.D. S.L.D.	SEE MECH'L DRAWINGS SEE LANDSCAPE DRAWINGS		
	E.W. EXIST OR <e> EXTER</e>	EACH WAY EXISTING EXTERIOR	S.F. SIM SPEC	SQUARE FEET SIMILAR SPECIFICATION		
	<f></f>	FUTURE	SQ STD	SQUARE STANDARD		
	F.D. FHWS FIN	FLOOR DRAIN FLAT HEAD WOOD SCREW FINISH	STGRD STIFF SYM	STAGGERED STIFFENER SYMMETRICAL		
	F.O.B. F.O.C. F.O.F.	FACE OF BLOCK FACE OF CONCRETE FACE OF FINISH	T&G THRD	TONGUE & GROOVE THREADED		
	F.O.S. F.P.	FACE OF STUD FULL PENETRATION	T.O.C. T.O.F.	TOP OF CONCRETE TOP OF FRAMING		
	F.S. FT FTG	FAR SIDE FOOT OR FEET FOOTING	T.O.S. TS TYP	TOP OF STEEL TUBE STEEL TYPICAL		
	GA GALV	GAGE GALVANIZED	U.N.O.	UNLESS NOTED OTHERWISE		
	G.I. GLB	GALVANIZED IRON GLUE—LAMINATED BEAM	VERT	VERTICAL		
	GYP.BD. HDR	GYPSUM BOARD HEADER	W/ W/O	WITH WITHOUT		
	HORI7	HORIZONTAL	WT	WEIGHT OR STEEL		

GEOTECHNICAL & FOUNDATIONS

1. GEOTECHNICAL CRITERIA USED FOR FOUNDATION DESIGN: A) GEOTECHNICAL REPORT BY UNIVERSAL ENGINEERING SERVICES, WEST SACRAMENTO, CA. REPORT NO. 4630.2300077.0016, DATED 11-1-23 & SUPPLEMENTAL LETTER, GEOTECHNICAL REPORT SHALL BE CONSIDERED PART OF CONSTRUCTION DOCUMENTS. ALL RECOMMENDATIONS DESCRIBED THEREIN SHALL BE IMPLEMENTED IN PROJECT'S CONSTRUCTION, INCLUDING GRADING, STRIPPING OF EXISTING MATERIAL, LOCATION, TYPE AND INSTALLATION OF FILL MATERIAL, AND COMPACTION.

B) CONTINUOUS & SPREAD FOOTINGS: MINIMUM WIDTH: 24" (CONTINOUS FOOTINGS) & 24" (SPREAD FOOTINGS) MINIMUM EMBEDMENT BELOW LOWEST ADJACENT FINISHED GRADE: 18"

C) ALLOWABLE SOIL PRESSURES USED FOR FOUNDATION DESIGN: DEAD PLUS LIVE LOAD: 2000 PSF TOTAL LOAD W/ SEISMIC OR WIND: 2667 PSF (2000 + 1/3 INCREASE FOR SHORT TERM LOADS WHERE ALLOWED BY CODE. ALLOWABLE FRICTION COEFFICIENT: 0.490 ALLOWABLE PASSIVE PRESSURE: 300 PCF

PIER/PILE ALLOWABLE LATERAL PRESSURE: 400 PCF PLUS 1/3 INCREASE FOR SHORT TERM LOADS WHERE ALLOWED BY CODE. IGNORE 1 FT. AT TOP. EFFECTIVE PIER WIDTH: 1 DIAMETER. MINIMUM PIER SPACING: 3 DIAMETERS

D) CANTILEVERED RETAINING WALL (PER CBC TABLE 1610A.1 FOR TYPE CL SOIL - NO INFO ON GEOTECH REPORT PROVIDED): ACTIVE PRESSURE: 60 PCF

E) ENGINEERED FILL AND COMPACTION: PER GEOTECHNICAL REPORT RECOMMENDATIONS.

STRUCTURAL CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO CHAPTER 19A OF THE 2022 CALIFORNIA BUILDING CODE (CBC) AND 2019 ACI STANDARD 318 AND ASTM C94. SPECIFICATION FOR READY-MIX CONCRETE. CEMENT SHALL BE PORTLAND CEMENT TYPE II AND SHALL COMPLY WITH ASTM C150. CALCIUM CHLORIDE SHALL NOT BE USED. COARSE AND FINE AGGREGATE SHALL COMPLY WITH ASTM C33. CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO AND APPROVED BY TESTING AGENCY PRIOR TO ORDERING CONCRETE.

2. ALL STRUCTURAL CONCRETE MIXES SHALL HAVE MIN. FIVE (5) SACKS CEMENT PER CU. YARD AND MAX. WATER-TO-CEMENT RATIO OF 0.60. CONCRETE MIX PROPERTIES SHALL BE

AS FOLLOWS: A) SLABS-ON-GRADE & CONCRETE WALLS: 28-DAY COMP. STRENGTH: 3,000 PSI LARGE AGGREGATE SIZE: 1/2" - 1" MAX. SLUMP: 4"

> DENSITY: 145 - 150 PCF (NORMAL WEIGHT, HARD ROCK AGGREGATE) EXPOSURE CLASS: C1, S0 (ACI 318 TABLE 19.3.1.1)

B) FOOTINGS & GRADE BEAMS: 28-DAY COMP. STRENGTH: 3,000 PSI LARGE AGGREGATE SIZE: 1" - 1-1/2" MAX. SLUMP: 4"

> DENSITY: 145 - 150 PCF (NORMAL WEIGHT, HARD ROCK AGGREGATE) EXPOSURE CLASS: C1, S0 (ACI 318 TABLE 19.3.1.1)

C) C.I.D.H. PIER FOOTINGS: 28-DAY COMP. STRENGTH: 3,000 PSI LARGE AGGREGATE SIZE: 1/2" - 1" MAX. SLUMP: 4" DENSITY: 145 - 150 PCF (NORMAL WEIGHT, HARD ROCK AGGREGATE)

EXPOSURE CLASS: C1, S0 (ACI 318 TABLE 19.3.1.1) C) NON-STRUCTURAL CONCRETE WALKS ON GRADE: 28-DAY COMP. STRENGTH: 2,500 PSI

LARGE AGGREGATE SIZE: 3/8" - 3/4"

DENSITY: 145 - 150 PCF (NORMAL WEIGHT, HARD ROCK AGGREGATE) 3. STEEL REINFORCING BARS SHALL CONFORM TO ASTM A615, GR. 60 U.N.O. WELDED WIRE

FABRIC SHALL CONFORM TO ASTM A1064. 4. GROUT SHALL BE NON-SHRINK GROUT U.N.O. CONFORMING TO ASTM C1107. GROUT SHALL HAVE A 7-DAY COMPRESSIVE STRENGTH 5,000 PSI MIN. GROUT SHALL BE MASTER BUILDERS "MASTERFLOW 928", SIKA SIKAGROUT 212, OR APPROVED EQUAL, FOLLOW

MANUFACTURER'S SURFACE PREPARATION RECOMMENDATIONS. 5. BONDING AGENT SHALL BE MASTER BUILDERS "MASTEREMACO ADH 326", SIKA ARMATEC 110 EPOCEM, OR APPROVED EQUAL, AND SHALL BE APPLIED PER MANUFACTURER'S

6. CURING COMPOUND SHALL BE APPROVED BY ENGINEER, AND APPLIED PER MANUFACTURER'S RECOMMENDATIONS.

7. CONSTRUCTION JOINTS SHALL BE ROUGHENED TO FULL 1/4" AMPLITUDE (ICRI CSP 9) WITH BUSH HAMMER OR OTHER APPROVED METHOD. SURFACES SHALL BE CLEANED OF DUST AND DEBRIS IMMEDIATELY PRIOR TO PLACEMENT OF NEWER CONCRETE.

8. REINFORCING STEEL SHALL BE CONTINUOUS WHERE POSSIBLE. SPLICE WITH CONTACT LAP-SPLICES. STAGGER ALL SPLICES. SPLICE LENGTHS SHALL BE 57 BAR-DIAMETERS MINIMUM. WELDED WIRE FABRIC SHALL BE LAPPED TWO (2) FULL SQUARES, BUT NOT LESS THAN 12".

9. EXTEND HORIZONTAL BARS IN FOUNDATIONS AND WALLS INTO INTERSECTING FOUNDATIONS AND WALLS WITH BEND AND 30 BAR DIAMETER EXTENSION, BUT NOT LESS THAN 24" EXTENSION.

10. WELDING OF REINFORCING SHALL NOT BE ALLOWED

11. SEE STRUCTURAL STEEL NOTES FOR ANCHOR BOLTS CAST IN CONCRETE. 12. ANCHOR BOLT PROJECTION SHALL BE ADEQUATE FOR FULL ENGAGEMENT OF PLATES, WASHERS, NUTS, ETC. AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO PLACEMENT OF

CONCRETE OR GROUT. ANCHOR BOLTS SHALL BE FIRMLY SECURED TO FORMS TO PREVENT

THEIR MOVEMENT DURING CONCRETE PLACEMENT. WET-SETTING OF ANCHOR BOLTS IS NOT

13. MAINTAIN THE FOLLOWING MINIMUM CONCRETE COVER FOR REBAR: WHERE CONC. IS PLACED AGAINST EARTH = 3" WHERE CONCRETE IS FORMED AND EXPOSED TO EARTH OR WEATHER = 2"

WHERE CONCRETE IS NOT EXPOSED TO EARTH OR WEATHER = 1-1/2" SLABS ON GRADE = 1-1/2"

14. WHERE SIDES OF FOUNDATIONS (FOOTINGS, GRADE BEAMS OR WALLS) ARE CAST AGAINST EARTH WITHOUT FORMS, FOUNDATION SHALL BE WIDENED 1" AT EACH SUCH

15. EXCAVATION FOR FOOTINGS BELOW DEPTHS SHOWN ON DRAWINGS SHALL BE BACKFILLED 16. NOTIFY ENGINEER, PROJECT INSPECTOR, AND DSA-SS AT LEAST 48 HOURS BEFORE ANY CONCRETE IS TO BE PLACED OR FORMS CLOSED TO ALLOW FOR INSPECTION OF EXCAVATIONS

17. CONTRACTOR SHALL, PRIOR TO EXCAVATION, VERIFY FOOTING CONDITIONS AND FINISH GRADE/PAVING ELEVATIONS AT PERIMETER OF BUILDING. VERIFY THAT FOOTINGS HAVE SPECIFIED MINIMUM DEPTH BELOW ADJACENT GRADE AND THAT FOOTINGS DO NOT "DAYLIGHT" OR OTHERWISE INTERFERE WITH INTENDED EXTERIOR CONDITIONS. NOTIFY ENGINEER IF SUCH INTERFERENCE EXISTS PRIOR TO EXCAVATION.

AND REINFORCING PLACEMENT. SEE ALSO SPECIAL INSPECTION REQUIREMENTS.

18. IF LOADING OF CONCRETE ELEMENTS PRIOR TO 28-DAY AGE IS ANTICIPATED, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO SUBMITTAL OF CONCRETE MIX DESIGNS IN ORDER TO ALLOW SPECIFYING PROVISIONS FOR SUCH. PROVISIONS MAY INCLUDE COMPRESSION TEST CYLINDERS BE FIELD-CURED IN CONDITIONS MATCHING SUBJECT CONCRETE ELEMENTS, PLUS USE OF CEMENT TYPES AND/OR ADMIXTURES IN MIX DESIGNS TO PROVIDE THE REQUIRED COMPRESSIVE STRENGTHS AT ANTICIPATED AGES LESS THAN 28 DAYS. LOADING OF CONCRETE ELEMENTS BEFORE CURING FOR 28 DAYS WILL NOT BE APPROVED WITHOUT THESE PROVISIONS BEING SPECIFIED, AND MET BY CONTRACTOR.

CAST-IN-DRILLED-HOLE (CIDH) PIER FOUNDATIONS:

REBAR CAGES, EMBEDDED POLES (AS REQUIRED) AND CONCRETE SHALL BE INSTALLED IN DRILLED HOLES AS SOON AFTER EXCAVATION AS POSSIBLE. WHERE SOIL TYPES AND/OI WATER TABLE ELEVATIONS ARE EXPECTED TO RESULT IN CAVING OF DRILLED PIER HOLES, SLEEVING OF PIER HOLES OR OTHER MEANS OF MITIGATION SHALL BE EMPLOYED.

2. WHERE SLEEVING OF PIER HOLES IS EMPLOYED: PIER HOLES ARE SLEEVED WITH TEMPORARY SLEEVE (TYPICALLY STEEL) THUS: AFTER DRILLING TO DEPTH AND INSERTION OF SLEEVE, ACCUMULATED WATER AND CAVED SPOILS SHALL BE PUMPED OUT OF HOLE. REBAR CAGE AND EMBEDDED POLE (AS REQUIRED) SHALL BE INSTALLED AS SOON AFTER AS POSSIBLE, FOLLOWED BY PUMPING CONCRETE INTO EXCAVATION USING TREMIE WHERE DIRECTED BY GEOTECHNICAL ENGINEER. SLEEVE SHALL BE LIFTED FROM HOLE AS CONCRETE IS PLACED TO ALLOW CONCRETE TO FLOW TO SIDES OF EXCAVATION, DISPLACING ACCUMULATED WATER AS HOLE FILLS WITH CONCRETE. THIS PROCESS SHALL BE CONFIRMED BY GEOTECHNICAL ENGINEER, CONTRACTOR AND PROJECT INSPECTOR PRIOR TO PROCEEDING, AND SHALL BE INSPECTED BY GEOTECHNICAL ENGINEER AND LAB/SPECIAL INSPECTOR DURING ENTIRE PROCESS.

CONCRETE MASONRY

REQUIREMENTS.

2,000 PSI AT 28 DAYS, CONFORMING TO ASTM C476.

1. ALL CONCRETE UNIT MASONRY WORK SHALL CONFORM TO CHAPTER 21A OF THE 2022 CALIFORNIA BUILDING CODE (CBC) AND 2016 EDITIONS OF TMS 402/602-16.

2. ALL BLOCK UNITS SHALL BE NORMAL OR MEDIUM WEIGHT UNITS, WITH MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI, CONFORMING TO ASTM C90. MORTAR SHALL BE TYPE "S", CONFORMING TO ASTM C270. GROUT SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF

3. DESIGN OF MASONRY IS BASED ON COMPRESSIVE STRENGTH OF MASONRY I'M OF 2,000 PSI. SPECIAL INSPECTION IS REQUIRED. SEE INSPECTION NOTES FOR ADDITIONAL

4. f'm COMPLIANCE SHALL BE VERIFIED BY THE "UNIT STRENGTH METHOD" PER TMS 402/602-16 ARTICLE 1.4B.2 AND MORTAR AND GROUT TESTS PER CBC SECTION 2105A.3 (DSA-SS). TEST UNITS PRIOR TO CONSTRUCTION. MORTAR AND GROUT SHALL BE TESTED DURING CONSTRUCTION FOR EVERY 5,000 SQ. FEET OF WALL AREA. VERIFY MORTAR TYPE.

5. REINFORCING SHALL BE AS SPECIFIED FOR CONCRETE. 6. LAP ALL BARS 72 BAR-DIAMETERS, BUT NOT LESS THAN 24" AT ALL SPLICES. PROVIDE

BEND PLUS 48 BAR-DIAMETERS EXTENSION ON HORIZONTAL BARS AT ALL WALL INTERSECTIONS. 7. SEE CONCRETE NOTES FOR BOLTS EMBEDDED IN MASONRY. ALL ANCHOR BOLTS

THROUGH FACE SHELLS OF MASONRY UNITS SHALL BE GROUTED IN PLACE WITH AT LEAST 1" OF GROUT BETWEEN BOLT AND SHELL, ALL AROUND BOLT. 8. REINFORCING BARS AND TIES SHALL BE HELD AT LEAST ONE BAR DIAMETER OR MINIMUM 1/2" CLEAR FROM MASONRY UNIT FACE SHELLS, EXCEPT BARS MAY BEAR ON CROSS WEBS OF BOND BEAM UNITS. PARALLEL BARS SHALL BE HELD AT LEAST 1" CLEAR BETWEEN,

9. UNITS SHALL BE LAYED IN RUNNING BOND. USE OF OPEN-END UNITS THROUGHOUT IS ENCOURAGED. USE OF SPEED-BLOCK (NON-GROUTED OPEN-END UNITS) IS NOT ALLOWED. IF OPEN-END UNITS ARE NOT USED. ALL LINTEL HEAD JOINTS SHALL BE FILLED SOLID WITH

10. ALL STARTER (BOTTOM) COURSE UNITS SHALL BE INVERTED DOUBLE OPEN-END BOND-BEAM UNITS, TYPICAL THROUGHOUT. TOPS OF FOOTINGS RECEIVING MASONRY UNITS AND GROUT SHALL BE ROUGHENED TO FULL 1/8" AMPLITUDE (1/4" PEAK-TO-VALLEY), FOR FULL WIDTH OF UNITS.

11. GROUT ALL CELLS SOLID UNLESS NOTED OTHERWISE ON DRAWINGS. NO ITEMS OTHER THAN REBAR, STEEL CONDUIT AND ANCHOR BOLTS SHALL BE EMBEDDED IN CMU. ALL HOLES CREATED FOR EXTRACTION OF TESTING/SAMPLE CORES SHALL BE FILLED SOLID WITH APPROVED NON-SHRINK GROUT AND FINISHED TO MATCH TEXTURE OF ADJACENT FACE SHELL.

12. GROUTING OF MASONRY UNITS UTILIZING THE HIGH-LIFT GROUTING SHALL COMPLY WITH ALL REQUIREMENTS OF DSA IR 21-2.13, INCLUDING, BUT NOT LIMITED TO, MAXIMUM HEIGHTS OF POURS AND LIFTS, CLEANOUTS, TESTING AND INSPECTIONS.

13. IF LOADING OF CONCRETE MASONRY ELEMENTS PRIOR TO 28-DAY AGE IS ANTICIPATED, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO SUBMITTAL OF GROUT AND/OR MORTAR MIX DESIGNS IN ORDER TO ALLOW SPECIFYING PROVISIONS FOR SUCH. PROVISIONS MAY INCLUDE COMPRESSION TEST CYLINDERS TO BE FIELD-CURED IN CONDITIONS MATCHING SUBJECT MASONRY ELEMENTS, PLUS USE OF CEMENT TYPES AND/OR ADMIXTURES IN MIX DESIGNS TO PROVIDE THE REQUIRED COMPRESSIVE STRENGTHS AT ANTICIPATED AGES LESS THAN 28 DAYS. LOADING OF MASONRY ELEMENTS BEFORE CURING FOR 28 DAYS WILL NOT BE APPROVED WITHOUT THESE PROVISIONS BEING SPECIFIED, AND MET BY CONTRACTOR.

STRUCTURAL STEEL

EXCEPT AT CONTACT LAP SPLICES.

1. ALL STEEL AND MISC. IRON SHALL BE FABRICATED AND ERECTED IN CONFORMANCE WITH AISC 360 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.

2. STEEL MATERIAL SHALL BE AS FOLLOWS: W SHAPES: ASTM A992 PLATES, CHANNELS & ANGLES: ASTM A36 UNLESS NOTED OTHERWISE RECTANGULAR TUBES (TS OR HSS): ASTM A500 GRADE B, Fy=46 KSI PIPES (STD., X-STRG. & XX-STRG.): ASTM A53 GRADE B, Fy=35 KSI

ROUND TUBES (HSS): ASTM A500 GRADE B, Fy=42 KSI STEEL POSTS SUPPORTING NETTING & METAL CHAIN-LINK FABRIC UP TO 10 FT. HIGH SHALL BE GALVANIZED PIPES COMPLYING WITH ASTM F1083, REGULAR GRADE 30 KSI YIELD STRENGTH, SCHEDULE 40. HOT-DIP ZINC GALVANIZING SHALL COMPLY WITH ASTM A123, WITH MIN. OF 1.8 OZ./SQ. FT. OUTSIDE AND INSIDE.

STEEL POSTS SUPPORTING NETTING & METAL CHAIN-LINK FABRIC <u>OVER</u> 10 FT. HIGH SHALL BE GALVANIZED PIPES PER ASTM A53 (GR. B, Fy=35 KSI) OR ROUND TUBES PER ASTM A500 (GR. B., Fy=42 KSI) HOT-DIP ZINC GALVANIZED PER ASTM A123, WITH MIN. OF 1.8 OZ./SQ. FT. OUTSIDE AND INSIDE. HEADED STUDS: ASTM A108 TYPE B, Fy=51 KSI

MACHINE BOLTS (M.B.): ASTM A307 GRADE A, A563 FOR NUTS, F844 FOR WASHERS ANCHOR BOLTS/RODS (A.B.): ASTM F1554 GRADE 36 THREADED RODS: ASTM A307 OR A36 (MAY BE THREADED FOR ENTIRE LENGTH) WELDING ELECTRODES: E70XX

UNLESS NOTED OTHERWISE, ANCHOR BOLTS, MACHINE BOLTS AND THREADED ANCHOR RODS THROUGH STEEL AND EMBEDDED IN CONCRETE SHALL CONFORM TO ASTM F1554. ANCHOR BOLTS/RODS SHALL HAVE A STANDARD BOLT HEAD OR TIGHTENED DOUBLE NUTS. THREADED RODS SHALL HAVE TIGHTENED DOUBLE NUTS AT END. ANCHOR BOLT PROJECTION SHALL BE ADEQUATE FOR FULL ENGAGEMENT OF PLATES, WASHERS, NUTS, ETC. AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO PLACEMENT OF CONCRETE OR GROUT.

4. ALL WELDING ON STRUCTURAL STEEL SHALL CONFORM WITH AWS D1.1 CODE AND SHALL BE PRE-QUALIFIED WELDS CONFORMING TO AWS D1.1. UNLESS SPECIFICALLY INDICATED AS FIELD WELDING, ALL WELDS MAY BE PERFORMED IN SHOP OR FIELD.

HEADED STUDS SHALL BE WELDED WITH AUTOMATICALLY TIMED STUD WELDING EQUIPMENT. STUDS SHALL NOT BE FILLET- OR BUTT-WELDED UNLESS SPECIFICALLY SHOWN AS SUCH ON

6. ALL COMPLETE AND FULL PENETRATION GROOVE WELDS (DESIGNATED BY "C.P." OR "F.P.") SHALL USE BACK-UP PLATES UNLESS NOTED OTHERWISE. ALL PARTIAL-PENETRATION WELDS (DESIGNATED BY "P.P.") SHALL HAVE LARGEST EFFECTIVE THROAT ALLOWED BY AWS. GROOVE WELDS NOT NOTED WITH "C.P.", "F.P." OR "P.P" SHALL BE COMPLETE PENETRATION

7. WELDING PROCEDURE SPECIFICATIONS SHALL BE SUBMITTED TO THE ARCHITECT AND THE TEST AND INSPECTION AGENCY'S WELDING INSPECTOR FOR REVIEW AND APPROVAL PRIOR TO START OF FABRICATION.

. MINIMUM SPACING OF ALL BOLTS, 7/8"0 AND SMALLER IN STEEL SHALL BE 3" o.c. AND THE MINIMUM EDGE DISTANCE FROM CENTERLINE OF HOLE TO EDGE OF PLATE OR MEMBER SHALL BE 1-1/2", UNLESS NOTED OTHERWISE ON DRAWINGS. WHERE BOLTS ARE INSTALLED THROUGH FLANGES OF "W" OR SIMILAR SHAPES, THE BOLT GAGE SHALL BE AS RECOMMENDED BY AISC.

9. HOLES FOR BOLTS IN STEEL SHALL BE 1/16" MAXIMUM LARGER IN DIAMETER THAN BOLTS. HOLES FOR ANCHOR BOLTS SHALL NOT BE MORE THAN 5/16" LARGER FOR A.B.'S UP TO 1"Ø, AND NOT MORE THAN 1/2" LARGER FOR A.B.'S OVER 1"Ø. ALL HOLES SHALL BE DRILLED OR PUNCHED. BURNING OF HOLES IS NOT ALLOWED, WHETHER IN FIELD OR

10. ALL STRUCTURAL STEEL IN EXTERIOR SPACES OR EXPOSED TO VIEW IN INTERIOR SPACES SHALL BE PAINTED WITH TWO (2) COATS OF ALKYD RED OXIDE PRIMER, COMPLYING WITH SSPC-PAINT 25 OR U.S. FEDERAL SPEC TT-P-645, WITH MIN. DRY THICKNESS OF 2 MILS. SEE ARCHITECTURAL SPECS FOR FINISH PAINTING. STRUCTURAL STEEL IN ENCLOSED SPACES AND NOT EXPOSED TO WEATHER NEED NOT BE PAINTED OR PRIMED UNLESS NOTED OTHERWISE. STEEL TO BE EMBEDDED IN CONCRETE SHALL NOT BE PAINTED.

11. ALL NON-PAINTED STEEL FASTENERS EXPOSED TO WEATHER OR IN UNENCLOSED SPACES SHALL BE HOT-DIPPED GALVANIZED, UNLESS NOTED OTHERWISE. GALVANIZED BOLTS

AND NUTS SHALL BE PROVIDED BY SAME MANUFACTURER. 12. ALL STRUCTURAL STEEL SPECIFIED ON DRAWINGS TO BE GALVANIZED SHALL BE HOT-DIPPED ZINC GALVANIZED WITH MIN. 1.8 OZ./SQ. FT. ON ALL SURFACES. GALVANIZING SHALL BE TOUCHED UP AT FIELD-WELDED CONNECTIONS, FIELD-DRILLED HOLES, OR FIELD-CUT EDGES WITH A HIGH-ZINC DUST-CONTENT PAINT.

POST-INSTALLED ANCHORS & DOWELS

***NOTE: POST-INSTALLED ANCHORS PROVIDED IN THE EVENT THAT REBAR OR CAST-IN-PLACE ANCHOR BOLTS ARE MISSED OR INCORRECTLY PLACED, CONTRACTOR SHALL NOTIFY PROJECT INSPECTOR & SEOR ENGINEER FOR DIRECTIONS PRIOR TO PROCEEDING WITH INSTALLATION.

A. GENERAL - APPLICABLE TO ALL ANCHORS: . ANCHORS SHALL BE INSTALLED ONLY WHERE SPECIFIED ON DRAWINGS, PER MANUFACTURER'S INSTRUCTIONS, USING MANUFACTURER'S EQUIPMENT, WHERE APPLICABLE. INSTALLER SHALL HAVE ON SITE A COPY OF MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ICC-ES OR IAPMO-UES REPORT.

ANCHORS SHALL BE INSTALLED ONLY INTO CURED CONCRETE OR MASONRY GROUT THAT HAS ATTAINED THE MIN. DESIGN COMPRESSIVE STRENGTH AT MIN. 28 DAY AGE, EXCEPT AS NOTED BELOW FOR ADHESIVE ANCHORS. IF INSTALLATION OF ANCHORS INTO CONCRETE OR MASONRY ELEMENTS PRIOR TO 28-DAY AGE IS ANTICIPATED, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO INSTALLATION IN ORDER TO ALLOW SPECIFYING PROVISIONS FOR SUCH. PROVISIONS MAY INCLUDE COMPRESSION TEST CYLINDERS BE FIELD-CURED IN CONDITIONS MATCHING SUBJECT CONCRETE OR MASONRY ELEMENTS, PLUS USE OF CEMENT TYPES AND/OR ADMIXTURES IN MIX DESIGNS TO PROVIDE THE REQUIRED COMPRESSIVE STRENGTHS AT ANTICIPATED AGES LESS THAN 28 DAYS. INSTALLATION OF ANCHORS INTO CONCRETE OR MASONRY GROUT BEFORE CURING FOR 28 DAYS WILL NOT BE APPROVED WITHOUT THESE PROVISIONS BEING SPECIFIED, AND MET BY CONTRACTOR.

. WHERE POST-INSTALLED ANCHORS ARE USED TO MITIGATE OMITTED OR MISPLACED CAST-IN-PLACE ANCHORS, ADDED SPECIAL INSPECTION AND TESTING COSTS ASSOCIATED WITH THE POST-INSTALLED ANCHORS WILL BE PAID FOR BY THE DISTRICT, HOWEVER, SUCH COSTS WILL BE BACK-CHARGED TO THE CONTRACTOR.

4. PRIOR TO DRILLING HOLES FOR ANY POST-INSTALLED ANCHORS INTO NEW OR EXISTING CONCRETE OR MASONRY, ALL REINFORCING BARS IN AREA OF NEW ANCHORAGE HOLES SHALL BE LOCATED WITH PACHOMETER OR OTHER SUITABLE DEVICE AND CLEARLY MARKED IN THE FIELD. NEW ANCHORS SHALL BE INSTALLED NOT LESS THAN 1" CLEAR FROM REINFORCING. WHERE REINFORCING BARS CANNOT BE LOCATED, CARE SHALL BE TAKEN WHILE DRILLING HOLES SO THAT REINFORCING BARS ARE NOT CUT OR DAMAGED AND HOLES SHALL BE REPAIRED & RELOCATED AS REQUIRED. USE OF DRILLS WITH GROUND FAULT INTERRUPTERS (GFI) IS RECOMMENDED.

5. PROVIDE TESTING AND INSPECTIONS OF ANCHOR INSTALLATIONS PER TESTING AND SPECIAL INSPECTION NOTES, THIS SHEET.

ANCHORS OTHER THAN THOSE SPECIFIED BELOW MAY BE USED ONLY WHEN CURRENT ICC-ES OR IAPMO-UES REPORT FOR SUCH IS SUBMITTED FOR REVIEW AND APPROVAL IN WRITING. ANCHORS SHALL NOT BE INSTALLED UNTIL ANCHORS ARE APPROVED BY STRUCTURAL ENGINEER AND DSA, AND TEST LOADS ARE DETERMINED AND ISSUED.

7. ANCHORS IN CONTACT WITH PRESERVATIVE—TREATED AND FIRE—RETARDANT—TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL. ANCHORS EXPOSED TO WEATHER OR REQUIRED TO BE CORROSION RESISTANT SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL.

EXPANSION ANCHORS SHALL BE WEDGE TYPE ANCHORS ONLY AND SHALL HAVE ICC-ES OR IAPMO-UES APPROVAL, INCLUDING APPROVAL FOR RESISTANCE TO SEISMIC AND WIND LOADS. PASSING ICC-ES CRITERIA AC193 (CONCRETE) & ACO1 (MASONRY). USE ONE OF THE FOLLOWING ICC-ES OR IAPMO-UES APPROVED SYSTEMS:

a) HILTI KWIK BOLT TZ2 (ESR-4266), (TYP. ANCHOR SPECIFIED U.N.O.) a) HILTI KWIK BOLT TZ2 (ESR-4561), (TYP. ANCHOR SPECIFIED U.N.O.) NOTE: OTHER EXPANSION ANCHORS MAY BE USED ONLY WHEN ICC-ES OR IAPMO-UES REPORT FOR SUCH IS SUBMITTED TO AND APPROVED BY ENGINEER AND DSA AND TEST LOADS

2. EXPANSION ANCHORS SHALL HAVE EMBEDMENT NOT LESS THAN EIGHT (8) ANCHOR DIAMETERS, OR AS OTHERWISE SPECIFIED IN DETAILS. TORQUE ANCHORS DURING INSTALLATION TO THE RECOMMENDED INSTALLATION TORQUE VALUES SPECIFIED IN MANUFACTURER'S ICC-ES OR IAPMO-UES REPORT.

C. CHEMICAL ADHESIVE ANCHORS AND DOWELS: . ALL THREADED RODS AND REBAR DOWELS INSTALLED IN HARDENED CONCRETE OR MASONRY GROUT WITH "ADHESIVE" SHALL BE A TWO-PART NOZZLE-MIXED ICC-ES OR IAPMO-UES APPROVED CHEMICAL ADHESIVE SYSTEM, PASSING ICC-ES CRITERIA AC308 (CONCRETE) & AC58 (MASONRY). USE ONE OF THE FOLLOWING ICC-ES OR IAPMO-UES APPROVED SYSTEMS:

a) HILTI "HIT-RE 500-V3" ADHESIVE ANCHOR SYSTEM (ESR-3814), (SPECIFIED U.N.O.) MASONRY: a) HILTI "HIT" SYSTEM WITH HY-270 ADHESIVE (ESR-4143),(SPECIFIED U.N.O.) NOTE: OTHER CHEMICAL ADHESIVE ANCHOR SYSTEMS MAY BE USED ONLY WHEN ICC-ES OR IAPMO-UES REPORT FOR SUCH IS SUBMITTED TO AND APPROVED BY ENGINEER AND DSA AND

ANCHORS SHALL BE INSTALLED ONLY INTO CURED CONCRETE OR MASONRY GROUT OF MIN. 21 DAY AGE. IF INSTALLATION OF ANCHORS INTO CONCRETE OR MASONRY ELEMENTS PRIOR TO 21-DAY AGE IS ANTICIPATED, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO INSTALLATION

3. INSTALLATION OF CHEMICAL ADHESIVE ANCHORS IN HORIZONTAL OR OVERHEAD APPLICATIONS SHALL BE INSTALLED BY AN ACI/CSRI CERTIFIED ADHESIVE ANCHOR INSTALLER. 4. HOLES SHALL BE DRILLED 1/8" TO 1/4" LARGER IN DIAMETER THAN ROD OR BAR OUTER

DIAMETER, AS SPECIFIED IN ICC-ES OR IAPMO-UES REPORT. BARS/RODS SHALL HAVE EMBEDMENT IN ADHESIVE NOT LESS THAN TEN (10) NOMINAL BAR/ROD DIAMETERS IN CONCRETE AND NINE (9) NOMINAL BAR/ROD DIAMETERS IN MASONRY. OR AS OTHERWISE SPECIFIED IN DETAILS.

6. INSTALLATION TORQUE FOR ALL ANCHORS SHALL BE REDUCED ACCORDING TO MANUFACTURER'S RECOMMENDATION DUE TO THE VICINITY OF ANCHOR TO EDGE OF CONCRETE. 7. THE BOND STRESSES AS SPECIFIED IN ICC-ES OR IAPMO-UES REPORT SHALL BE BASED ON LONG TERM ELEVATED TEMPERATURES OF NOT LESS THAN 110 DEGREES F.

METAL ROOF DECK

THICKNESS: 16 GA.

TEST LOADS ARE DETERMINED AND ISSUED.

B. EXPANSION ANCHORS:

ARE DETERMINED AND ISSUED.

1. METAL DECK SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND ICC-ES OR IAPMO REPORT.

2. METAL DECK SHALL BE AS MANUFACTURED BY VERCO MANUFACTURING CO. (ER-2018), WITH THE FOLLOWING PROPERTIES: DUGOUTS & BATTING CAGE: PROFILE: 3" DEEP, N-24, WITH STANDARD INTERLOCKING SIDELAP

STEEL GRADE: GRADE 50, Fy = 50 KSI, Fu = 65 KSI FINISH: <u>G90</u> GALVANIZED WITH PRIMER ON <u>BOTH</u> SIDES. ATTACHMENT TO SUPPORTING FRAMING AT HOME DUGOUTS: USE 15/16" PUDDLE WELDS (1/2" FF. DIA.) THUS: TO PERPENDICULAR SUPPORTS: FOUR (4) PW PER 24" SHEET TO PARALLEL SUPPORTS: PW @ 12" o.c. & 3" - 6" FROM ENDS

(DO NOT USE VSC/PUNCHLOK SYSTEM) 4. PROVIDE STEEL UNDERSIDE CLOSURE BELOW DECKING AT ALL EXTERIOR WALLS AT DUGOUTS, AND WHERE SPECIFIED BY ARCHITECTURAL DRAWINGS, PER DETAIL 31/S2.1.

PER-FOOT PROPERTIES: I = 1.647 + S = 0.950, -S = 1.005

5. TOUCH-UP: ALL WELDS SHALL BE TOUCHED UP WITH SPRAY-ON ZINC GALVANIZING AS RECOMMENDED BY MANUFACTURER PRIOR TO RE-APPLICATION OF PRIMER AND PAINT.

ALONG SIDELAPS: BUTTON PUNCH @ 12" o.c. & 3" - 6" FROM ENDS.

6. LAYOUT: DECK SHALL BE LAID OUT SUCH THAT A DOWN-FLUTE IS CENTERED OVER EVERY CMU WALL PARALLEL TO DECK FLUTES. USE ONE-PIECE SHEETS OVER ENTIRE TRANSVERSE DIMENSION OF BUILDINGS. NO SHEET LAPS/SPLICES ARE ALLOWED WITHIN 6" OF CMU FLUTES PARALLEL TO FLUTES.

TESTING AND SPECIAL INSPECTIONS

A) ALL TESTS AND SPECIAL INSPECTIONS SHALL CONFORM TO APPLICABLE REQUIREMENTS OF 2022 CALIFORNIA BUILDING CODE (CBC) CHAPTER 17A AND APPROVED FORM DSA-103, "LISTING OF STRUCTURAL TESTS AND SPECIAL

B) ALL TESTS OF MATERIALS AND TESTING LABORATORY SHALL BE IN ACCORDANCE WITH 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC) SECTION 4-335. C) THE OWNER SHALL EMPLOY AND PAY THE INSPECTION/TESTING LABORATORY. COSTS OF RE-TESTING MAY BE BACK-CHARGED TO THE CONTRACTOR.

D) INSPECTOR SHALL BE APPROVED BY DSA. INSPECTIONS SHALL BE IN ACCORDANCE WITH CAC SECTION 4-333(b), AND THE DUTY OF THE INSPECTOR SHALL BE IN ACCORDANCE WITH CAC SECTION 4-342. E) COPIES OF ALL TEST/INSPECTION REPORTS SHALL BE SUBMITTED TO ARCHITECT,

STRUCTURAL ENGINEER, PROJECT INSPECTOR, AND DSA-SSS.

2. FOUNDATIONS (DRILLED PIERS, FOOTINGS, GRADE BEAMS), WALLS AND SLABS-ON-GRADE: A) NOTIFY ENGINEER AND PROJECT INSPECTOR 48 HOURS BEFORE CONCRETE IS TO BE PLACED OR FORMS CLOSED TO ALLOW FOR INSPECTION OF EXCAVATIONS AND REINFORCING PLACEMENT. B) SPECIAL INSPECTION IS REQUIRED PER CBC SECTION 1705A.3, 1705A.6 & 1705A.8.

C) THE TESTING AGENCY SHALL PERFORM THE FOLLOWING: * REVIEW ALL CONCRETE MIX DESIGNS. ALL DESIGNS SHALL BE SUBMITTED TO AND APPROVED BY TESTING AGENCY PRIOR TO ORDERING * FOR EACH CONCRETE MIX PLACED, AGENCY SHALL CAST (4)

TEST CYLINDERS IN ACCORDANCE WITH ASTM C31 FOR EACH 50 CUBIC YARDS OR 2000 SQUARE FEET, OR FRACTION THEREOF, OF CONCRETE PLACED EACH DAY, AND TRANSPORT CYLINDERS TO LAB. TEST CYLINDERS IN ACCORDANCE WITH ASTM C39. TEST (1) CYLINDER AT 7 DAYS AND (2) CYLINDERS AT 28 DAYS. HOLD LAST TEST CYLINDER FOR 60 DAYS.

* INSPECT FINAL PLACEMENT OF ALL REINFORCING AND STEEL EMBEDS AS INDICATED ON DETAILS PRIOR TO CONCRETE PLACEMENT. * CONTINUOUS INSPECTION OF CONCRETE PLACEMENT FOR ALL DRILLED PIERS AND GRADE BEAM FOOTINGS.

D) SEE ITEM 8 BELOW FOR INSPECTIONS BY GEOTECHNICAL ENGINEER. CONCRETE UNIT MASONRY:

A) SPECIAL INSPECTION IS REQUIRED PER CBC SECTION 1705A.4.

B) TESTING LAB SHALL PERFORM THE FOLLOWING: * REVIEW MASONRY GROUT MIX DESIGNS. ALL DESIGNS SHALL BE SUBMITTED TO AND APPROVED BY TESTING AGENCY PRIOR TO ORDERING GROUT. * VERIFY I'M COMPLIANCE PER UNIT STRENGTH METHOD PER CBC 2105A.6. * CAST AND TEST GROUT CYLINDERS AS REQUIRED. * INSPECT UNIT PLACEMENT AND GROUT SPACES. * VERIFY REINFORCING PLACEMENT.

4. POST-INSTALLED ANCHORS IN CONCRETE AND CONCRETE MASONRY: A) <u>GENERAL — APPLICABLE TO ALL ANCHORS AND DOWELS:</u> 1) ALL EXPANSION ANCHORS, SCREW ANCHORS AND ADHESIVE ANCHOR SYSTEMS USED SHALL HAVE ICC-ES OR IAPMO-UES APPROVAL. 2) PERIODIC SPECIAL INSPECTION IS REQUIRED FOR ALL ANCHORS.

B) <u>EXPANSION ANCHORS IN CONCRETE & MASONRY:</u> 1) PULL-TEST OR TORQUE-TEST 100% OF ANCHORS EXCEPT AS NOTED; PULL-TEST OR TORQUE-TEST 10% OF SILL PLATE ANCHOR BOLTS AND 50% OR ALTERNATE ANCHORS FOR EQUIPMENT ANCHORAGE AND IN NON-STRUCTURAL APPLICATIONS. 2) PULL-TEST LOAD VALUES SPECIFIED BELOW ARE BASED ON (1-1/4) TIMES THE MAXIMUM DESIGN TENSION STRENGTHS AS PROVIDED IN THE ICC-ES REPORT FOR HILTI KWIK-BOLT TZ2 (ESR-4266) IN CONCRETE, IN ACCORDANCE WITH CBC SECTION 1910A.5.4, AND (2) TIMES THE MAXIMUM ALLOWABLE TENSION LOADS AS

PROVIDED IN THE ICC-ES REPORT FOR HILTI KWIK-BOLT TZ2 (ESR-4561) IN MASONRY.

3) PULL-TEST ANCHORS IN TENSION WITH CALIBRATED HYDRAULIC RAM TO VALUES SPECIFIED BELOW. ANCHOR NOMINAL EMBEDMENT CONC. TENSION MASONRY TENSION <u>DIAMETER (CONC./MASONRY) TEST LOAD (LBS.) TEST LOAD (LBS.)</u> 1180*(790**) 2½" / 2½"* 1955 1000*(770**) 3¾" / 3¾"*(3¾"**) 4050 1280*(970**) 4½" / 4½"*(4½"**) 5525 1880*(1730**)

5½"/5½"* 7150 CONC. INSTALLATION CMU INSTALATION <u>TORQUE (FT.-LBS.)</u> TORQUE (FT.-LBS.) 30(C.S. & S.S.) 15(C.S. & S.S.) 50(C.S.) & 40(S.S.) 25(C.S. & S.S.) 40(C.S.) & 60(S.S.) 30(C.S.) & 35(S.S.) 110(C.S.) & 125(S.S.) 50(C.S. & S.S.)

** - AT ANCHOR INSTALLED IN THE TOP OF GROUT-FILLED MASONRY 4) ALTERNATIVELY, TORQUE-TEST ANCHORS WITH CALIBRATED TORQUE WRENCH TO VALUES SPECIFIED IN MANUFACTURER'S ICC-ES OR IAPMO-UES REPORT FOR RECOMMENDED INSTALLATION TORQUE WITHIN 1/4 TURN OF THE NUT FOR 3/8"ø SLEEVE ANCHOR ONLY AND WITHIN 1/2 TURN OF THE NUT FOR ALL OTHER ANCHORS.

* - AT ANCHOR INSTALLED IN THE FACE OF GROUT-FILLED MASONRY

B) RODS & DOWELS WITH CHEMICAL ADHESIVE IN CONCRETE & MASONRY:) PULL-TESTING OF RODS INSTALLED IN CHEMICAL ADHESIVE IS REQUIRED FOR ALL ANCHORS. TESTING OF REBAR USED ONLY AS SHEAR DOWELS ACROSS COLD JOINTS IN SLABS-ON-GRADE, WHERE SLAB IS NOT PART OF THE LATERAL FORCE-RESISTING SYSTEM, IS NOT REQUIRED. 2) PULL-TEST LOAD VALUES SPECIFIED BELOW ARE BASED ON (1-1/4) TIMES THE

MAXIMUM DESIGN TENSION STRENGTHS AS PROVIDED IN THE ICC-ES REPORT FOR HILTI HIT-RE 500-V3 (ESR-3814) IN CONCRETE, IN ACCORDANCE WITH CBC SECTION 1910A.5.4, AND (2) TIMES THE MAXIMUM ALLOWABLE TENSION LOADS AS PROVIDED IN THE ICC-ES REPORT FOR HILTI HIT HY-270 (ESR-4143) IN MASONRY.

3) PULL-TEST ANCHORS IN TENSION WITH CALIBRATED HYDRAULIC RAM TO VALUES SPECIFIED BELOW, BASED ON MIN. EMBEDMENT OF 100 IN CONCRETE & 90 IN MASONRY, U.N.O.

ANCHOR/BAR MIN. EMBEDMENT CONC. TEST MASONRY TEST <u>DIAMETER</u> (CONC./MASONRY) LOAD (LBS.) LOAD (LBS.) 3%", #3 3¾" / 4¾"* 2910 1280* 5", #4 5" / 5"*(5"**) 5165 1300*(1300**) %", #5 6¼" / N/A*(N/A**) 8245 N/A*(N/A**) ′₄", #6 7½" / N/A*(N/A**) 10150 N/A*(N/A**) * - AT ANCHOR INSTALLED IN THE FACE OF GROUT-FILLED MASONRY ** - AT ANCHOR INSTALLED IN THE TOP OF GROUT-FILLED MASONRY

5. WELDING OF STRUCTURAL STEEL. TESTING LAB SHALL: A) VERIFY CERTIFICATION OF WELDERS AT START OF WORK. B) REVIEW WELDING PROCEDURE SPECIFICATIONS SUBMITTED BY FABRICATOR. PROVIDE CONTINUOUS INSPECTION OF ALL COMPLETE AND PARTIAL PENETRATION GROOVE WELDS, AND ALL FILLET WELDS 3/8" AND LARGER.)) PROVIDE PERIODIC INSPECTION OF ALL FILLET WELDS 5/16" AND SMALLER. E) TEST WELDS AS DEEMED NECESSARY BY THE INSPECTION AGENCY TO ENSURE ADEQUACY OF WELDS AND CONFORMANCE TO THE DRAWINGS AND SPECIFICATIONS.

6. ADDITIONAL INSPECTIONS BY STRUCTURAL ENGINEER: ARCHITECT AND ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE FOLLOWING TO ALLOW FOR INSPECTION OF THE RESPECTIVE WORK PRIOR TO **ENCLOSING IN FINISHES:**

A) AT SUBSTANTIAL COMPLETION OF ANY AREA OF FOUNDATION WORK PRIOR TO CLOSING OF FORMS OR PLACEMENT OF CONCRETE. B) AT SUBSTANTIAL COMPLETION OF ANY AREA OF STRUCTURAL STEEL FRAMING.

7. INSPECTIONS BY GEOTECHNICAL ENGINEER: A) PROVIDE PERIODIC INSPECTION OF SITE PREPARATION & GRADING — STRIPPING OR DISCING OPERATIONS. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL. PRIOR TO PLACEMENT OF COMPACTED FILL. OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY. B) PROVIDE CONTINUOUS INSPECTION OF ENGINEERED FILL OPERATIONS. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL

PROVIDE CONTINUOUS INSPECTION OF EXCAVATIONS FOR DRILLED PIER FOOTINGS.

VERIFY PLACEMENT LOCATIONS, PLUMBNESS, DIAMETERS AND LENGTHS. RECORD

E) CONCRETE MASONRY GROUT MIX DESIGN (SUBMIT TO TESTING/INSPECTION AGENCY)

SHOP DRAWING SUBMITTALS

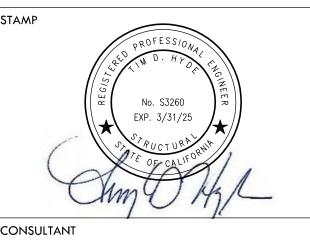
F) STRUCTURAL STEEL AND MISC. METALS

CONCRETE VOLUMES.

1. PROVIDE SHOP DRAWINGS FOR THE FOLLOWING MATERIALS/PRODUCTS: A) CONCRETE MIX DESIGNS (SUBMIT TO TESTING/INSPECTION AGENCY) B) CONCRETE & MASONRY REINFORCING C) CONCRETE SLAB AND WALL CONTROL/CONSTRUCTION JOINT LAYOUT D) CONCRETE MASONRY UNITS

2. SEE SPECIFICATIONS FOR OTHER SUBMITTALS AND SUBMITTAL PROCEDURE.





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KEY MAP

STRUCTURAL NOTES &

MATERIAL GRADES

PROJECT NAME WEST CAMPUS HIGH SCHOOL

BASEBALL & SOFTBALL

IMPROVEMENTS

50% SUBMITTAL

SHEET NO.

STRUCTURAL NOTES & MATERIAL GRADES

5022 58TH STREET SACRAMENTO, CA 95820

100% DSA SUBMITTAL 12/15/23 03/18/24 BACKCHECK SUBMITTAL NO. REVISIONS DATE CHECKED BY TDH DATE ISSUED 03/18/2024 PROJ. NO.

2309900

10/20/23

DRAWING NAME: P:\Verde Design\M23—047 West Campus HS Fields SCUSD\Dwgs\Structural\S1.1 Structural Notes.dwg PLOT DATE: 03—13—24 PLOTTED BY: jose

WT SECTION

WELDED WIRE FABRIC

