NEEDHAM ELEMENTARY SCHOOL - ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

LODI, CA

Abbreviations:

&	And	F.R.P.	Fiberglass Reinforced Plastic	P.D.F.	Power Driven Fastener
∠	Angle			PT.	Paint
@	At	F.V.	Field Verify	PR.	Pair
℄	Centerline	FIN.	Finish	PTN./PART.	Partition
°	Degree	F.F.E.	Finish Floor Elevation	PEN.	Penetration
PREP./⊥	Perpendicular	F.G.	Finish Grade	PERF.	Perforated
℄	Property Line	F.A.	Fire Alarm	P.LAM.	Plastic Laminate
		F.E.	Fire Extinguisher	PL.	Plate
A.F.F.	Above Finish Floor	F.E.C.	Fire Extinguisher Cabinet	P.V.	Plumbing Vent
ACOUS.	Acoustical	FLASH.	Flashing	PLYWD.	Plywood
ADJ.	Adjustable	F.H.M.B.	Flat Head Machine Bolt	LBS./#	Pound
AGGR.	Aggregate	F.H.M.S.	Flat Head Machine Screw	PREFAB.	Prefabricated
A.B.	Aggregate Base	F.H.W.S.	Flat Head Wood Screw	P.M.F.	Pressed Metal Frame
ALUM./AL.	Aluminum	FL./FLR.	Floor	P.T./P.T.D.F	Pressure Treated
AD	Area Drain	F.D.	Floor Drain		Douglas Fir
A.C.	Asphalt Concrete	FT.	Foot/Feet		
A.V.	Audio Visual	FTG.	Footing	R.	Radius/Riser
AUTO.	Automatic	FND.	Foundation	R.W.L.	Rain Water Leader
		FURR.	Furring	RDWD.	Redwood
BM.	Beam			REF.	Refrigerator
BLK.	Block	GALV.	Galvanized	REINF.	Reinforced
BLKG.	Blocking	G.I.	Galvanized Iron	REQ'D	Required
BD	Board	G.S.M.	Galvanized Sheet Metal	RET.	Return
BOT.	Bottom	G.W.H.	Gas Water Heater	R.D.	Roof Drain
BLDG.	Building	GA.	Gauge	RM.	Room
		GLU.LAM./G.L.B.	Glue Laminated (Beam)	R.O.	Rough Opening
CAB.	Cabinet	G.B.	Grab Bar	R.H.W.S.	Round Head Wood Screw
CATV	Cable T.V.	GR.	Grade	R.B.	Rubber Base
C.I.	Cast Iron	GYP.	Gypsum		
C.B.	Catch Basin	GYP.BD.	Gypsum Wallboard	SECT.	Section
CLKG.	Caulking			S.SK.	Service Sink
CLG.	Ceiling	HDWR.	Hardware	SHT.	Sheet
CNTR./CTR.	Center	HDWD.	Hardwood	S.M.	Sheet Metal
CER.	Ceramic	HDR.	Header	S.M.S.	Sheet Metal Screw
C.L.	Chain Link	HVAC	Heating/Ventilating Air Conditioning	S.V.	Sheet Vinyl
CB	Chalkboard			SHR./SHWR.	Shower
C.R.	Classroom	H./HT.	Height	SIM.	Similar
CLR.	Clear	H.M.	Hollow Metal	S.C.	Solid Core
C.W.	Cold Water	HOR./ HORIZ.	Hortizontal	S.	South
COL.	Column	H.B.	Hose Bib	Spec.	Specification
CONC.	Concrete	HR.	Hour (Fire Rating)	SQ.	Square
C.M.U.	Concrete Masonry Unit			SST./S.S.	Stainless Steel
CONN.	Connection	IN.	Inch	STD./STND.	Standard
CONST.	Construction	INFO.	Information	STL.	Steel
C.J.	Construction Joint/ Control Joint	I.D.	Inside Diameter	STOR.	Storage
		INSUL.	Insulation	S.D.	Storm Drain
CONT.	Continous	INT.	Interior	S.D.S.T.	Self-Drilling Self-Tapping
CONTR.	Contractor	INV.	Invert	S.F.	Square Feet
CORR.	Corridor			STRUCT.	Structural
C.M.P.	Corrugated Metal Pipe	JAN.	Janitor	SUSP.	Suspended
C.Y.	Cubic Yard	JT.	Joint	SYM.	Symbol
CUST.	Custodian	JST.	Joist		
				TB.	Tackboard
D.	Deep/Depth	KP.	Kickplate	TEL./TELE.	Telephone
DET./ DTL.	Detail	KIT.	Kitchen	T.V.	Television
DIAG.	Diagonal			T.CLR.	Tempered Clear
DIA./ Ø	Diameter	LAM.	Laminate	T.L.T.	Tempered Low Transmission
DIM.	Dimension	LAV.	Lavatory	THK	Thick
DIM.PT.	Dimension Point	LT.WT.	Light Weight	THRES.	Threshold
D.A.	Disable Accessible	L.F.	Lineal Feet	THRU.	Through
DW.	Dishwasher			T./TLT.	Toilet
DR.	Door	M.B.	Machine Bolt	T&G	Tongue & Groove
DBL.	Double	MH.	Manhole	T.O.	Top of
DN.	Down	MFR.	Manufacturer	T.O.C.	Top of Curb
DS.	Downspout	M.O.	Masonry Opening	T.O.P.	Top of Pavement
D.I.	Drain Inlet	MAT'L.	Material	T.O.W.	Top of Wall/Top of Walk
DWG.	Drawing	MAX.	Maximum	T.S.	Tube Steel
D.F.	Drinking Fountain	MECH.	Mechanical	TYP.	Typical
		MEMB.	Membrane		
EA.	Each	MTL.	Metal	U.O.N.	Unless Otherwise Noted
E.	East	MEZZ.	Mezzanine		
ELEC.	Electrical	MIN.	Minimum	VERT.	Vertical
E.W.C.	Electric Water Cooler	MISC.	Miscellaneous	V.G.D.F.	Vertical Grain Douglas Fir
E.W.H.	Electric Water Heater	M.P.	Multipurpose	V.W.C.	Vinyl Wall Covering
EL./ELEV.	Elevation				
EMER.	Emergency	(N)	New	WSCT.	Wainscot
ENCL.	Enclosure	NOM.	Nominal	W.C.	Water Closet
EQ.	Equal	N.	North	W.H.	Water Heater
E.F.	Exhaust Fan	N.I.C.	Not in Contract	WT.	Weight
(E)/EXIST.	Existing	N.T.S.	Not to Scale	W.W.M.	Welded Wire Mesh
EXP.	Expansion	NO./#	Number	W.	West/Width
E.J.	Expansion Joint			WDW	Window
EXT.	Exterior	O.F.O.I.	Owner Furnish, Owner Installed	W.G.	Wire Glass
				W/	With
F.O.C.	Face of Concrete/Curb	O.F.C.I.	Owner Furnish, Contractor Installed	W/O	Without
F.O.F.	Face of Finish			WD.	Wood
F.O.S.	Face of Studs	O.C.	On Center		
FB.	Fiberboard	OPP.	Opposite	YD.	Yard
F.R.L.	Fiberglass Reinforced Laminate	O.H.	Opposite Hand	Y.D.	Yard Drain
		O.D.	Outside Diameter		
		O.H.W.S.	Oval Head Wood Screw		
		O/	Over		
		OA.	Overall		

Symbol Legend:

SHEET NUMBERING SYSTEM

A2.6.3
- Discipline Designation
- Drawing Type Designation
- Sheet Sequence Beyond Zero
- Building Unit Designation

ROOM NAME and NUMBERING REFERENCE

ROOM NAME / A102
- Room Number
- Building Designation

KEYNOTE REFERENCE
(All items indicated with a keynote are new)

3.02

SHEET NOTE REFERENCE

SN.01

DEMOLITION NOTE REFERENCE

DN. 01

DETAIL REFERENCE

1 / A101
- Detail Number
- Sheet Number

BUILDING SECTION REFERENCE

1 / A101 — 1 / A101
- Section Number
- Sheet Number

WALL SECTION REFERENCE

1 / A101
- Section Number
- Sheet Number

STRUCTURAL GRID IDENTIFIER
(center of framing)

AX
- Grid Designation
- Building Unit Designation

STRUCTURAL GRID IDENTIFIER
(face of framing, concrete or CMU)

AX
- Grid Designation
- Building Unit Designation

CENTERLINE

WORK POINT CONTROL

REVISION

1
- Revision Number

RADIUS

R=92'-4" (1)
- Radius Point Number
- Radius Dimension

EXTERIOR ELEVATION REFERENCE

1 / A101
- Elevation Number
- Sheet Number

SPECIAL ELEVATION REFERENCE

1 / A101

Architect:

Rainforth Grau Architects
2101 Capitol Ave, Suite 100
Sacramento, CA 95816
916.368.7990

Contact: KEVIN ARWOOD

Owner:

LODI UNIFIED SCHOOL DISTRICT
1305 E VINE STREET
LODI, CA 95240
209.953.8000

Contact: VICKIE BRUM

Consultants:

CIVIL ENGINEER:
WARREN CONSULTING ENGINEERS
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762
916.985.1870
ATTN: ANTHONY TASSANO

ELECTRICAL ENGINEER:
THE ENGINEERING ENTERPRISE
1125 HIGH STREET
AUBURN, CA 95603
530.886.8556
ATTN: DANNY MCKEVITT

MECHANICAL ENGINEER:
NEELEY MECHANICAL ENGINEERS, INC.
4240 CRAZY HORSE ROAD
CAMERON PARK, CA 95682
916.878.9741
ATTN: MARK NEELEY

Project Information:

SITE LOCATION
420 S. Pleasant Ave
Lodi, CA 95240
209.331.7375

Sheet Index

GENERAL
A0.1 COVER SHEET

CIVIL
C0.1 CIVIL COVER SHEET
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C0.3 PARTIAL TOPOGRAPHIC SURVEY
C1.1 PARTIAL DEMOLITION PLAN
C1.2 PARTIAL DEMOLITION PLAN
C1.3 ENGINEERED FILL PLAN
C2.1 PARTIAL GRADING PLAN
C2.2 PARTIAL GRADING PLAN
C3.1 PARTIAL DRAINAGE AND SEWER PLAN
C3.2 PARTIAL DRAINAGE AND SEWER PLAN
C4.1 DOMESTIC WATER AND FIRE PROTECTION PLAN
C5.1 PAVING PLAN
C6.1 EROSION CONTROL PLAN
C7.1 DETAILS AND SECTIONS
C7.2 DETAILS AND SECTIONS
C8.0 OFF-SITE COVER SHEET
C8.1 OFF-SITE GENERAL NOTES
C8.2 PLEASANT AVENUE IMPROVEMENT PLAN
C8.3 CHURCH STREET IMPROVEMENT PLAN
C8.4 CHESTNUT STREET IMPROVEMENT PLAN

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A1.0.1 LOCAL FIRE AUTHORITY SITE PLAN
A1.0.2 CODE INFORMATION SITE PLAN
A1.1.1 OVERALL SITE PLAN
A1.1.2 ENLARGED SITE PLANS
A1.1.3 ENLARGED RAMP PLANS AND ELEVATIONS
A1.3.1 SITE DETAILS
A1.3.2 SITE DETAILS
A1.3.3 SITE DETAILS

PLUMBING
P0.1 PLUMBING SCHEDULES
P1.1.1 PLUMBING SITE PLAN

ELECTRICAL
E0.1 SYMBOLS LIST, DETAILS, & DRAWING INDEX
E1.0 ELECTRICAL SITE DEMOLITION PLAN
E1.1 ELECTICAL SITE PLAN
Grand total: 34

Applicable Codes:

CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING CODES AND STANDARDS:

TITLE 19, CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
TITLE 24, CCR, PART 1, 2016 CALIFORNIA ADMINISTRATIVE CODE
TITLE 24, CCR, PART 2, 2016 CALIFORNIA BUILDING CODE, VOL. 1 & 2
TITLE 24, CCR, PART 3, 2016 CALIFORNIA ELECTRICAL CODE
TITLE 24, CCR, PART 4, 2016 CALIFORNIA MECHANICAL CODE
TITLE 24, CCR, PART 5, 2016 CALIFORNIA PLUMBING CODE
TITLE 24, CCR, PART 6, 2016 CALIFORNIA ENERGY CODE
TITLE 24, CCR, PART 9, 2016 CALIFORNIA FIRE CODE
TITLE 24, CCR, PART 10, 2016 CALIFORNIA EXISTING BUILDING CODE
TITLE 24, CCR, PART 11, 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE
TITLE 24, CCR, PART 12, 2016 CALIFORNIA REFERENCED STANDARDS CODE

NFPA 13, 2016 EDITION, INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDMENTS)
NFPA 72, 2016 EDITION, NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDMENTS)

UL 464, 2003 AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES
UL 521 7TH EDITION 1999 HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS.
CONTRACTOR SHALL COMPLY WITH CHAPTER 33 OF THE 2016 CAL FIRE FIRE SAFETY CODE DURING CONSTRUCTION.
THE CONTRACTOR SHALL KEEP TITLE 24, CCR, PARTS 1-5 ON THE BUILDING SITE AT ALL TIMES.

DSA Procedures:

1. ADDENDA MUST BE STAMPED AND SIGNED BY THE ARCHITECT OF RECORD AND APPROVED BY DSA IN ACCORDANCE WITH CCR TITLE 24, PART 1.
2. THE CONTRACTOR SHALL BE FAMILIAR WITH, AND PERFORM THE DUTIES IN ACCORDANCE WITH DSA PROCEDURE 13-01, CONSTRUCTION OVERSIGHT PROCESS.
3. CHANGES TO THE STRUCTURAL, ACCESSIBILITY, OR FIRE AND LIFE-SAFETY PORTIONS OF THE APPROVED PLANS AND SPECIFICATIONS AFTER THE WORK HAS BEEN LET SHALL BE MADE BY A CONSTRUCTION CHANGE DOCUMENT AS REQUIRED IN TITLE 24, PART 1, 4-338 AND CONSTRUCTION CHANGE DOCUMENTS SHALL BE PREPARED AND SUBMITTED TO DSA IN ACCORDANCE WITH DSA IR A-6.
4. SUBSTITUTIONS AFFECTING DSA REGULATED ITEMS WILL BE CONSIDERED AS CHANGES TO THE APPROVED PLANS AND / OR SPECIFICATIONS. THEY ARE TO BE TREATED AS CONSTRUCTION CHANGE DOCUMENTS AND WILL REQUIRE DSA'S APPROVAL PRIOR TO FABRICATION AND INSTALLATION IN ACCORDANCE WITH TITLE 24, PART 1, 4-338 AND DSA IR A-6.
5. THE PROJECT INSPECTOR MUST BE EMPLOYED BY THE OWNER AND APPROVED BY THE ARCHITECT, STRUCTURAL ENGINEER, AND DSA IN ACCORDANCE WITH TITLE 24, PART 1, 4-341.
6. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NONCOMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE DSA APPROVED DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CHANGE CONSTRUCTION DOCUMENT OR SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK.

Scope of Work

INCREMENT 1 - SITE WORK

1. PAVING
2. FENCING
3. UTILITIES
4. BUILDING PADS
5. ALL OTHER WORK AS INDICATED IN DRAWINGS AND SPECIFICATIONS.

INCREMENT 2 - CLASSROOMS

1. BUILDINGS C AND D - MODULAR CLASSROOMS BUILDINGS

INCREMENT 3 - MULTIPURPOSE

1. BUILDING B -MODULAR MULTIPURPOSE BUILDING

INCREMENT 4 - SHADE STRUCTURES

1. (2) PC SHADE STRUCTURES
2. (1) TRASH ENCLOSURE COVER
3. STORM RETENTION SYSTEM

Statement of General Conformance

THE FOLLOWING 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 4-338, 4-341, AND 4-344" OF TITLE 24, PART 1. (TITLE 24, PART 1, SECTION 4-317 (b))

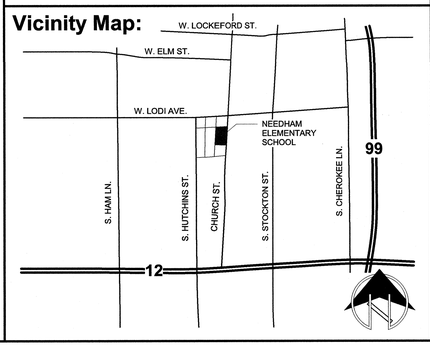
SIGNATURE — 12-18-19 DATE

ARCHITECT OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE
JEFFREY GRAU
PRINT NAME
C 14648 — 5-31-21
LICENSE NUMBER — EXPIRATION DATE

LIST COMPLETELY, ITEMS REVIEWED AND ACCEPTED:

CIVIL, MECHANICAL AND ELECTRICAL

Vicinity Map:



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
02 118063
AC ___ FLS ___ SS ___
DATE 12-19-19

rainforth grau architects

LICENSED ARCHITECT
JEFFREY A. GRAU
C-14648
05/31/21
RENEWAL DATE
STATE OF CALIFORNIA

NEEDHAM ELEMENTARY SCHOOL - ADDITIONS INCREMENT 1
LODI UNIFIED SCHOOL DISTRICT
LODI, CA

Revision

COVER SHEET

PROJECT NO. 18-1366
DATE: 12/19/19
SHEET **A0.1**

CIVIL IMPROVEMENT PLANS FOR:

CLYDE W. NEEDHAM ELEMENTARY SCHOOL

420 S PLEASANT AVENUE
LODI, CA 95240

ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS MAY BE USED ON THESE PLANS.

AB	AGGREGATE BASE
AC	ASPHALTIC CONCRETE
AD	AREA DRAIN
APN	ASSESSOR'S PARCEL NUMBER
ARV	AIR RELEASE VALVE
ASB	AGGREGATE SUB-BASE
BO	BLOW-OFF VALVE
BV	BUTTERFLY VALVE
BW	BACK OF WALK
C/L	CENTERLINE
CB	CATCH BASIN
CL	CLASS
CMP	CORRUGATED METAL PIPE
CATV	CABLE TELEVISION
CO	CLEANOUT
COMM	COMMUNICATION
CONC.	CONCRETE
CONST.	CONSTRUCT
CR	CURB RETURN
CS	CONCRETE SURFACE
DC	DOUBLE CHECK VALVE
DDC	DOUBLE DETECTOR CHECK VALVE
DG	DECOMPOSED GRANITE
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
DS	DOWNSPOUT
E	ELECTRIC
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EX	EXISTING
FS	FIRE SERVICE LINE
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FL	FLOWLINE
FM	SANITARY SEWER FORCE MAIN
FF	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
G	GAS
GB	GRADE BREAK
GR	GRATE ELEVATION
GRD	GRADE ELEVATION
GV	GATE VALVE
HB	HOSE BIBB
HBD	HEADER BOARD
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
INV	PIPE INVERT ELEVATION
JP	JOINT UTILITY POLE
LF	LINEAL FEET
LIP	LIP OF GUTTER
LT	LEFT
MS	MOWSTRIP
NTS	NOT TO SCALE
OH	OVERHEAD
PAD	BUILDING PAD
PCC	PORTLAND CEMENT CONCRETE
PD	PLANTER DRAIN
PIV	POST INDICATOR VALVE
P/L	PROPERTY LINE
PP	POWER POLE
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
R	RADIUS
RIM	MANHOLE RIM ELEVATION (SOLID COVER)
RP	REDUCED PRESSURE BACKFLOW PREVENTER
RW	RIGHT OF WAY
SCH	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SG	SUBGRADE ELEVATION
SP	FIRE SPRINKLER SERVICE
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
S/W	SIDEWALK
T	TELEPHONE
TC	TOP OF CURB
TD	TRENCH DRAIN
TDCB	TRENCH DRAIN CATCH BASIN
TP	TELEPHONE POLE
TRW	TOP OF RETAINING WALL
TSW	TOP OF SEAT WALL
TW	TOP OF WALK ELEVATION
U	UTILITY
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
VCP	VITRIFIED CLAY PIPE
W	WATER
W/	WITH
W/O	WITHOUT
WV	WATER VALVE

LEGEND

NOTE: NOT ALL SYMBOLS MAY BE USED ON THESE PLANS.

PROPOSED GRADING & DRAINAGE SYMBOLS:

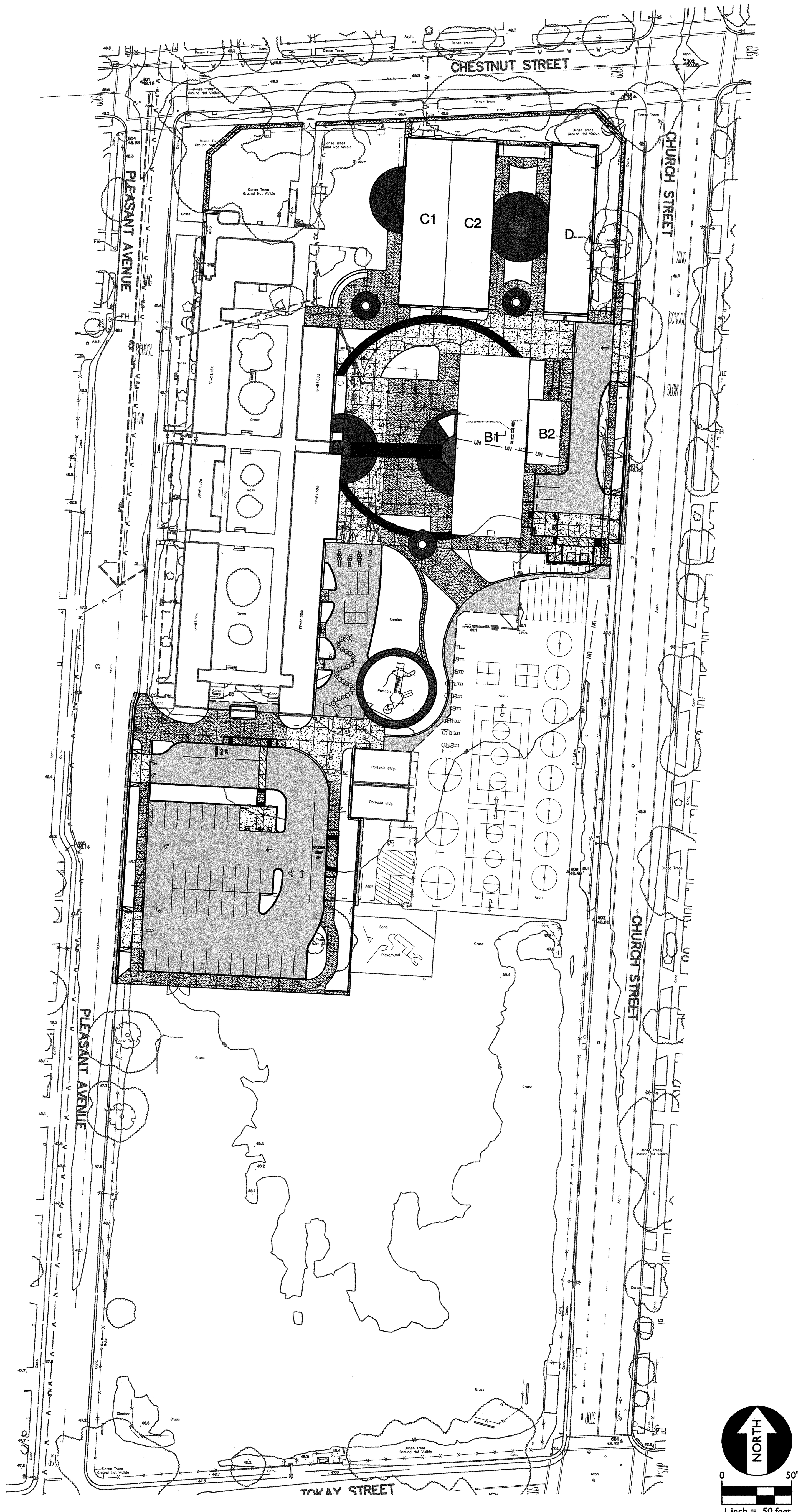
- STORM DRAIN LINE (SIZE AND FLOW SHOWN)
- STORM DRAIN MANHOLE (SDMH)
- CATCH BASIN (CB)
- DROP INLET (DI)
- AREA DRAIN (AD)
- PLANTER DRAIN (PD) OR FLOOR DRAIN (FD)
- CO — STORM DRAIN CLEANOUT
- 99.99 — ELEVATION
- FF=100.00 — FINISHED FLOOR ELEVATION
- PAD=99.33 — BUILDING PAD ELEVATION
- CONCRETE SIDEWALK
- GRADED DIRECTION FOR DRAINAGE FLOW
- SWALE
- SLOPE
- TREE TO BE REMOVED
- RETAINING WALL

PROPOSED SANITARY SEWER SYMBOLS:

- SANITARY SEWER LINE (SIZE AND FLOW SHOWN)
- SANITARY SEWER MANHOLE (SSMH)
- CO — SEWER CLEANOUT FLUSHER BRANCH

PROPOSED WATER SYMBOLS:

- 8" W — WATER LINE & SIZE
- 8" FS — FIRE LINE & SIZE
- 8" DW — DOMESTIC WATER LINE & SIZE
- 8" RW — RECLAIMED WATER LINE & SIZE
- 8" IRR — IRRIGATION SERVICE LINE & SIZE
- 8" NP — NON POTABLE WATER LINE & SIZE
- 8" SP — FIRE SPRINKLER SERVICE LINE & SIZE
- GATE VALVE
- M — WATER METER
- FH — FIRE HYDRANT ASSEMBLY
- FDC — FIRE DEPARTMENT CONNECTION
- DC — DETECTOR CHECK VALVE
- DDC — DOUBLE DETECTOR CHECK VALVE
- RP — REDUCED PRESSURE BACKFLOW PREVENTER
- BUTTERFLY VALVE
- 1" — AIR RELEASE VALVE + SIZE
- 1" — BLOW-OFF VALVE + SIZE
- PIV — POST INDICATOR VALVE



PROJECT LOCATION

SCALE: 1"=50'

SHEET LEGEND

SHEET	DESCRIPTION
	CIVIL ON-SITE
C0.1	CIVIL COVER SHEET
C0.2	PARTIAL TOPOGRAPHIC SURVEY
C0.3	PARTIAL TOPOGRAPHIC SURVEY
C1.1	PARTIAL DEMOLITION PLAN
C1.2	PARTIAL DEMOLITION PLAN
C1.3	ENGINEERED FILL PLAN
C2.1	PARTIAL GRADING PLAN
C2.2	PARTIAL GRADING PLAN
C3.1	PARTIAL DRAINAGE AND SEWER PLAN
C3.2	PARTIAL DRAINAGE AND SEWER PLAN
C4.1	DOMESTIC WATER AND FIRE PROTECTION PLAN
C5.1	PAVING PLAN
C6.1	EROSION CONTROL PLAN
C7.1	DETAILS AND SECTIONS
C7.2	DETAILS AND SECTIONS
	CIVIL OFF-SITE
C8.0	OFF-SITE COVER SHEET
C8.1	OFF-SITE GENERAL NOTES
C8.2	PLEASANT AVENUE IMPROVEMENT PLAN
C8.3	CHURCH STREET IMPROVEMENT PLAN
C8.4	CHESTNUT STREET IMPROVEMENT PLAN

GENERAL NOTES:

1. THE TYPES, LOCATIONS, SIZES, AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, WARREN CONSULTING ENGINEERS CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY MEMBERS OF UNDERGROUND SERVICE ALERT (USA) TWO (2) WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK BY CALLING TOLL FREE 1-800-227-2600, OR 811.

811 Know what's **below.** **Call** before you dig.

2. WARREN CONSULTING ENGINEERS, INC. (WCE) ASSUMES NO RESPONSIBILITY FOR ERRORS IN PHYSICAL LOCATION OF IMPROVEMENTS, HORIZONTAL OR VERTICAL, IF STAKED BY OTHERS. IN ADDITION, ANY SUCH ERRORS IN PHYSICAL LOCATION MAY AFFECT THE INTENDED DESIGN OF SUCH IMPROVEMENTS AND WCE CANNOT BE HELD RESPONSIBLE FOR SUCH CONDITIONS WHICH ARE A RESULT OF ERRORS IN SURVEYING, OR IMPROPER CONSTRUCTION.

3. IF SUBSURFACE CULTURAL RESOURCES, REMAINS, AND/OR ARTIFACTS ARE UNCOVERED DURING PROJECT CONSTRUCTION, ALL WORK IN THE VICINITY SHALL BE STOPPED UNTIL SUCH ITEMS CAN BE ASSESSED BY AN APPROPRIATE MEMBER OF THE COUNTY ENVIRONMENTAL IMPACT SECTION STAFF.

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

5. THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY FOR ALL EXCAVATIONS OF 5 FEET OR MORE IN DEPTH.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ALL NECESSARY PRE-BID AND PRE-CONSTRUCTION SITE INSPECTION, AND/OR OBSERVATIONS ON THE SITE TO PRE-DETERMINE ALL HIS/HER MEANS AND METHODS NECESSARY TO COMPLETE THE IMPROVEMENTS SHOWN ON THESE PLANS AND PER THE PROJECT SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE, AND INCLUDE IN HIS/HER CONTRACT, ALL MEANS AND METHODS NECESSARY TO PERFORM A COMPLETE AND ACCEPTABLE JOB.

7. WHERE IMPROVEMENTS LIE WITHIN AN EXISTING DEVELOPED AREA, CONTRACTOR SHALL USE CAUTION WHEN ACCESSING THE SITE THROUGH THESE EXISTING IMPROVEMENTS. IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT ANY SUCH EXISTING IMPROVEMENTS OUTSIDE THE PROJECT BOUNDARY, OR EXISTING IMPROVEMENTS WITHIN THE BOUNDARY WHICH ARE TO REMAIN. PROPER PRECAUTIONS SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION. ANY DAMAGE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP DETAILED RECORDS OF MINOR CHANGES OR ADJUSTMENTS MADE DURING CONSTRUCTION (WHICH WERE NOT FORMALLY ISSUED). UPON PROJECT COMPLETION, THESE RECORDS AND/OR INFORMATION SHALL BE PROVIDED TO THE OWNER AND WARREN CONSULTING ENGINEERS, INC. UNLESS AN OFFICIAL "AS-BUILT" SET OF PLANS IS A REQUIREMENT OF THE CONTRACT. IF AS-BUILT PLANS ARE A REQUIREMENT OF THE CONTRACT, REFER TO SPECIFICATIONS FOR AS-BUILT DELIVERABLE REQUIREMENTS.

9. IN VEHICULAR PATHWAYS, EXISTING ASPHALTIC AND/OR CONCRETE SURFACES SHALL BE CUT TO A NEAT AND STRAIGHT LINE, PARALLEL OR PERPENDICULAR TO THE VEHICULAR TRAVELED PATH. THIS IS TYPICALLY THE ROADWAY CENTERLINE, BUT MAY VARY. THAT SAWCUT EDGE SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION SO A CLEAN EDGE REMAINS FOR PATCH BACK.. IF EDGE IS DAMAGED, A NEW SAW CUT WILL BE REQUIRED. THE EXPOSED EDGE SHALL BE "TACKED" WITH EMULSION PRIOR TO PAVING.

10. NO BURNING OR BLASTING SHALL BE ALLOWED ONSITE UNLESS SPECIFICALLY ADDRESSED ON PLANS, OR SPECIFICALLY APPROVED AND COORDINATED WITH THE ARCHITECT, ENGINEER, AND LOCAL AGENCY OR OTHER ADMINISTRATIVE AUTHORITY.

11. SUBGRADE AND RESULTING FINISHED GRADE SHALL BE CONSTRUCTED SMOOTH AND UNIFORM BETWEEN SPOT ELEVATIONS, CONTOURS OR OTHER STRUCTURE ELEVATIONS SHOWN ON GRADING OR OTHER PLANS. NO MOUNDS, RUTS, DEPRESSIONS OR OTHER GRADING DEFICIENCIES WILL BE ALLOWED UNLESS SPECIFICALLY SHOWN ON PLANS.

12. ON NEW WATER SYSTEMS, SERVICE LATERALS SHALL BE MADE USING APPROPRIATE "TEE" AND "WYE" FITTINGS. SADDLE TAPS WILL ONLY BE ALLOWED WHEN MAKING CONNECTIONS TO EXISTING WATER MAINS.

13. CURING COMPOUND SHALL BE APPLIED IN A CONTINUOUS SOLID WET FLOWING COAT. ANY "SPOTTY" APPLICATIONS SHALL BE RECOATED IMMEDIATELY. APPLICATION SHALL BE INSPECTED BY PROJECT INSPECTOR DURING APPLICATION.

14. EMBEDMENT OF FEATURES IN CONCRETE PAVING, CURBS, OR WALLS, SUCH AS SQUARE OR ROUND TUBING, POSTS, OR COLUMNS, STEEL BOLTED PLATES, OR OTHER STRUCTURES, SHALL REQUIRE ADDITIONAL SCORE OR EXPANSION JOINTS TO PREVENT UNCONTROLLED CRACKING. THOSE ADDITIONAL JOINTS MAY OR MAY NOT BE SPECIFICALLY SHOWN ON PLANS BUT SHALL BE PROVIDED BY THE CONTRACTOR.

15. EMBEDMENT OF FEATURES IN CONCRETE PAVING, CURBS, OR WALLS, SUCH AS SQUARE OR ROUND TUBING, POSTS, OR COLUMNS, STEEL BOLTED PLATES, OR OTHER STRUCTURES, SHALL REQUIRE A MINOR ADJUSTMENT OF REBAR WITHIN CONCRETE TO ALLOW FOR SUCH STRUCTURE. THAT REBAR ADJUSTMENT MAY NOT BE SPECIFICALLY SHOWN ON PLANS.

16. NO MORE THAN 1 GALLON OF WATER PER YARD OF CONCRETE CAN BE ADDED TO THE TRUCK AFTER ARRIVAL TO PROJECT SITE. THE ADDITION OF WATER CAN ONLY BE ADDED UNDER THE SUPERVISION OF THE CONCRETE INSPECTOR OR LABORATORY TECHNICIAN.

17. WHEN PUMPING CONCRETE FOR PLACEMENT, ABSOLUTELY NO WATER IS TO BE ADDED TO PUMP HOPPER. ANY WATER ADDED TO HOPPER WILL BE REASON FOR CONCRETE REJECTION AT THE CONTRACTORS EXPENSE.

18. ALL CONTRACTION/CONSTRUCTION JOINTS "CJ" SHALL BE 1/4 THE SLAB THICKNESS DEEP, BUT NO LESS THAN 1" FOR CONTROLLING OF CRACKING. CONTRACTOR SHALL EXERCISE CAUTION WHEN FINAL TROWELING OF CONCRETE SO AS NOT TO FILL IN THESE JOINTS WITH CONCRETE CREAM. ANY CRACKS OUTSIDE OF JOINTS WHICH WERE CONSTRUCTED LESS THAN 1" DEEP, SHALL BE CAUSE FOR CONCRETE SLAB(S) TO BE REMOVED AND REPLACE AT CONTRACTORS EXPENSE.

19. ANY SCREED BOARDS SET WITHIN CONCRETE SLABS SHALL BE AN "OVERHEAD SCREED" SO THERE IS NO INTERFERENCE WITH THE PLACEMENT AND ALIGNMENT OF SLAB REINFORCING.

20. 3-1/2" FELT JOINTS WILL NOT BE ACCEPTED. PROVIDE A FULL 4" FELT JOINT FOR 4" SLAB CONSTRUCTION, AND A 6" FELT JOINT FOR A 6" SLAB SLAB CONSTRUCTION.

21. SHOULD ANY SHRINKAGE CRACKS OCCUR OUTSIDE OF EITHER THE EXPANSION JOINTS OR CRACK CONTROL JOINTS, THEN THE CONCRETE SLAB SHALL BE SAWCUT AT THE NEAREST JOINTS ON EACH SIDE OF THE CRACK AND THE CONCRETE SECTION SHALL BE, REMOVED AND REPLACED. NEW CONCRETE SHALL BE DOWELED INTO EXISTING CONCRETE PER DRAWING DETAIL.

22. ALL AREAS DISTURBED BY GRADING OPERATIONS WHETHER SHOWN ON THE DRAWINGS OR NOT SHALL BE HYDRO SEEDED UNLESS OTHERWISE NOTED. HYDRO SEEDING SHALL CONFORM TO LOCAL CITY/COUNTY STANDARDS.

23. REPAIR OR PATCHING OF GALVANIZED METALS, SUCH AS AFTER WELDING GALVANIZED COMPONENTS, SHALL BE MADE USING A ZINC COMPOSITION "HOT STICK" APPLICATION PER ASTM A 780-01. GALVANIZING PAINTS WILL NOT BE ALLOWED.

GENERAL PAVING SURFACE NOTES:

1. PROVIDE EQUIVALENT OF MEDIUM BROOM FINISH AT SLOPES UP TO 5.99%, TYPICAL. PROVIDE EQUIVALENT OF HEAVY BROOM FINISH AT SLOPES 6% AND GREATER. REFER TO SPECIFICATIONS.

2. ALL NEW PEDESTRIAN WALKWAYS (NON-RAMP) SHALL BE SLOPED NO GREATER THAN 2.0%, AND NO LESS THAN 0.75% IN ANY DIRECTION, UNLESS SPECIFICALLY LABELED OTHERWISE. ALL CONCRETE SHALL MEET THE FOLLOWING SLOPE REQUIREMENTS:
   - NO GREATER THAN 5% SLOPE IN THE DIRECTION OF TRAVEL.
   - NO GREATER THAN 2% SLOPE CROSSING THE DIRECTION OF TRAVEL.
   - NO GREATER THAN 2% SLOPE IN ANY DIRECTION IN COURTYARD OR PLAZA AREAS.

IDENTIFICATION STAMP
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DATE 12/19/19

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REGISTERED PROFESSIONAL ENGINEER
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STATE OF CALIFORNIA

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NEEDHAM ELEMENTARY SCHOOL- ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

CIVIL
COVER SHEET

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C0.1

FILENAME:I:\19-065\CIVIL\DWG\19-065-C01.DWG

SURVEY CONTROL STATEMENT

COORDINATES, BEARINGS, AND DISTANCES ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83) CONVERTED TO THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3, SURVEY FEET UNITS. AS REFERENCED BY AVAILABLE CITY OF LODI GPS CONTROL MONUMENTS PER RECORD OF SURVEY FILE D IN BOOK 37 OF SURVEYS, PAGE 50, SAN JOAQUIN COUNTY. ALL COORDINATES ARE GRID WITH A 2007.00 EPOCH DATE ADJUSTMENT. A CONVERGENCE ANGLE OF −0°28'31 AND THE COMBINED SCALE FACTOR WERE ARE BASED AT PONT 601. GROUND DISTANCES MUST BE MULTIPLIED BY 0.999953285 TO OBTAIN GRID DISTANCES, MULTIPLY GRID DISTANCES BY 1.00004572 TO OBTAIN GROUND DISTANCES. ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AS PER CITY OF LODI BENCHMARK 1115 ELEVATION 48.06 FEET, LOCATED AT THE NORTHWEST CORNER OF TOKAY STREET AND CHURCH STREET.

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
301	2234552.66	6338235.39	49.16	SET MAGS PAINTED PX
302	2234565.32	6338625.24	50.08	SET MAGS PAINTED PX
304	2233521.96	6338156.03	48.08	SET MAGS PAINTED PX
601	2233576.33	6338578.44	48.42	SET MAGS PAINTED PX
602	2233950.72	6338559.34	48.91	SET CUTX IN CNC
603	2234541.91	6338589.19	49.39	SET CUTX IN CNC
604	2234514.96	6338218.54	48.98	SET CUTX IN CNC
605	2234001.50	6338181.78	48.14	SET CUTX IN CNC
606	2233480.31	6338196.52	47.42	SET CUTX IN CNC
607	2234004.57	6338379.89	49.09	SET MAGS PAINTED PX
608	2234163.37	6338388.15	50.15	SET MAGS IN AC
609	2233985.04	6338540.64	48.40	SET MAGS IN AC
610	2234292.16	6338396.25	50.60	SET MAGS IN AC
611	2234439.93	6338382.19	51.41	SET CUTX IN CNC
612	2234275.71	6338584.26	48.92	SET MAGS IN AC

GRAPHIC SCALE

20' 0 10' 20' 40'

(IN FEET) 1 inch = 20 feet

NORTH

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

02-118063

rainforth grau architects

ANTHONY J. TASSANO NO. C74696 REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA

WCE

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NEEDHAM ELEMENTARY SCHOOL- ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

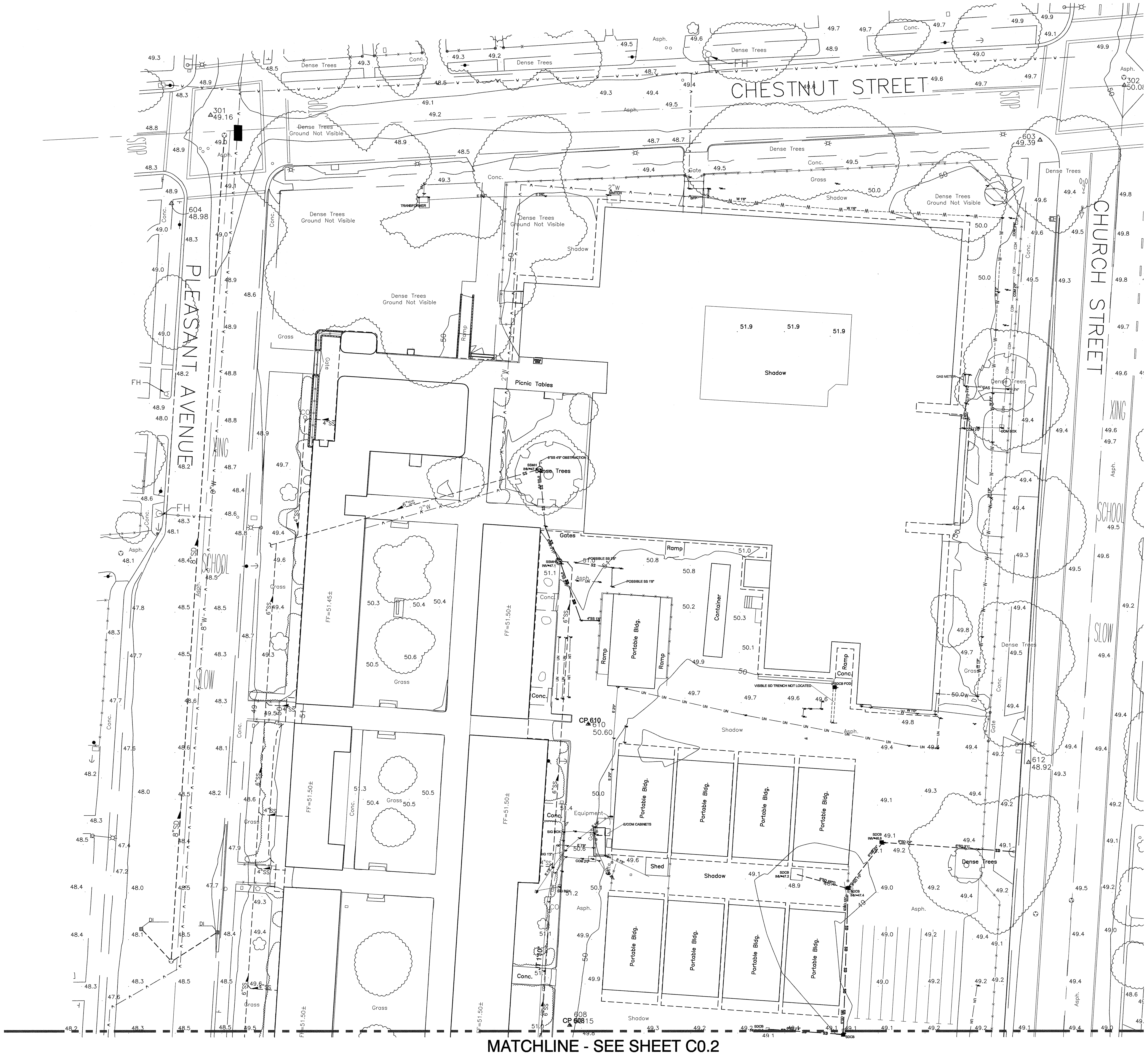
PARTIAL TOPOGRAPHIC SURVEY

PROJECT NO. 18-1366

DATE: 12/19/19

SHEET C0.2

FILENAME:I:\19-065\CIVIL\DWG\19-065-C02-C03.DWG



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NEEDHAM ELEMENTARY SCHOOL-ADDITIONS
INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

PARTIAL TOPOGRAPHIC SURVEY

GRAPHIC SCALE
20' 0 10' 20' 40'
(IN FEET)
1 inch = 20 feet
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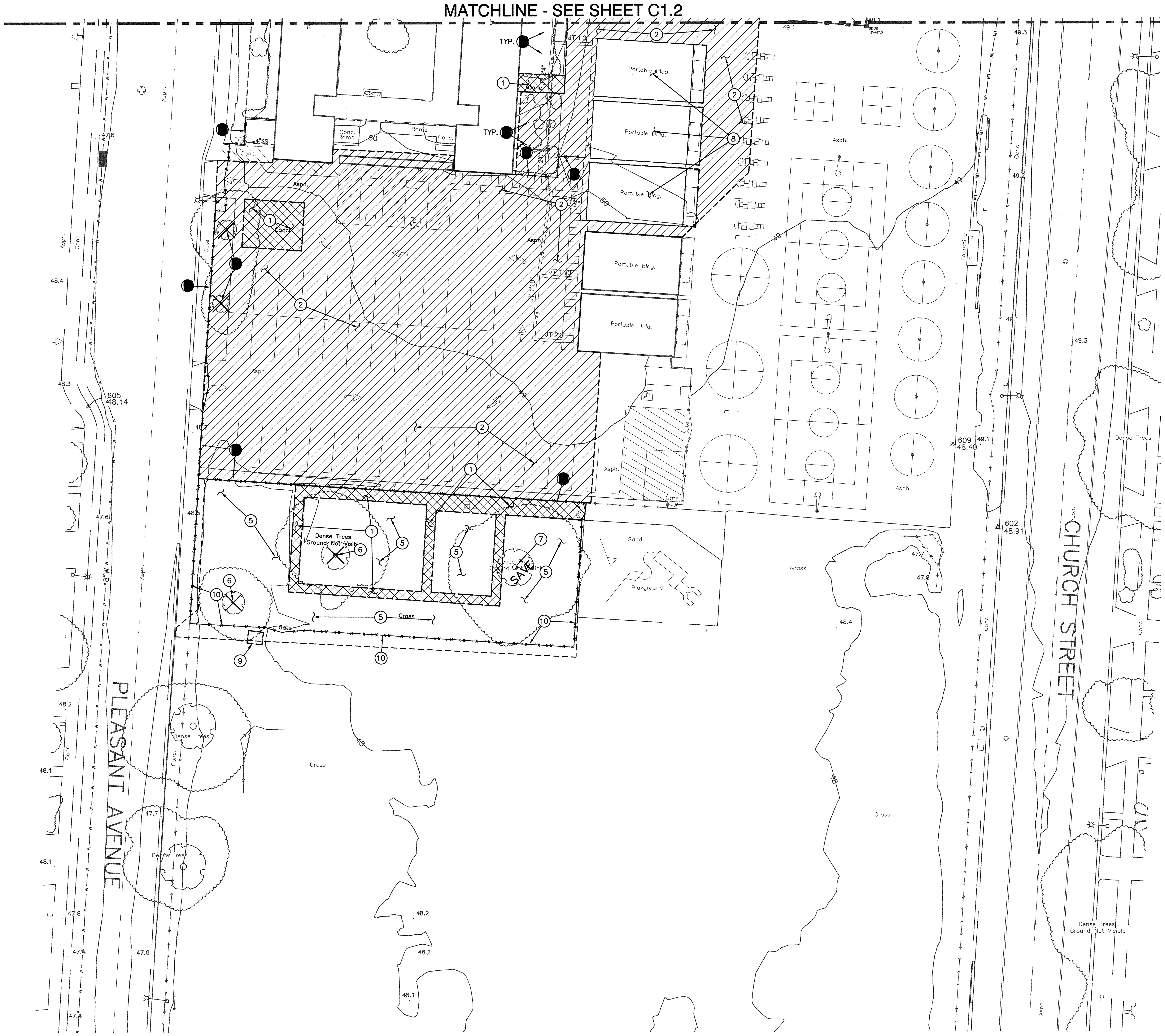
NORTH

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C0.3

FILENAME:I:\19-065\CIVIL\DWG\19-065-C02-C03.DWG



NOTE: NOT ALL NOTES SHOWN ARE USED ON THIS SHEET.

DEMOLITION NOTES

1. REMOVE EXISTING CONCRETE PAVING AND AGGREGATE BASE. WHERE SAWCUTS ARE NECESSARY, THEY SHALL BE A NEAT STRAIGHT LINE. CUT SHALL BE MADE AT NEAREST EXISTING JOINT TO LOCATION SHOWN.
2. REMOVE EXISTING ASPHALT PAVING AND AGGREGATE BASE. WHERE SAWCUT EDGES ARE SHOWN, THEY SHALL BE A NEAT STRAIGHT LINE. MAINTAIN CLEAN STRAIGHT CUT EDGE UNTIL NEW PAVING PLACED.
3. REMOVE AND DISPOSE OF EXISTING SIDEWALK OVERHEAD STRUCTURE AND ASSOCIATED FOOTINGS.
4. EXISTING BUILDING TO BE REMOVED BY OTHERS.
5. LIMITS OF CLEAR AND GRUB.
6. REMOVE AND DISPOSE OF EXISTING TREE, STUMP ROOTS, BUSHES AND VEGETATION.
7. EXISTING TREE TO REMAIN.
8. REMOVE AND DISPOSE OF EXISTING PORTABLE BUILDING, RAMP AND HANDRAILS.
9. REMOVE AND DISPOSE OF EXISTING UTILITY VAULT.
10. REMOVE AND DISPOSE OF EXISTING FENCE, GATE, POSTS AND ASSOCIATED FOOTINGS.
11. REMOVE AND DISPOSE OF EXISTING SHED.
12. REMOVE AND DISPOSE OF EXISTING CONTAINER.
13. REMOVE AND DISPOSE OF EXISTING WATER LINE TO EXTENT SHOWN.
14. REMOVE AND DISPOSE OF EXISTING STORM DRAIN LINE TO EXTENT SHOWN.
15. REMOVE AND DISPOSE OF EXISTING SEWER LINE TO EXTENT SHOWN.
16. REMOVE AND DISPOSE OF EXISTING SEWER MANHOLE.

DEMOLITION GENERAL NOTES

1. IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT COVERED BY THE GEOTECHNICAL INVESTIGATION REPORT OR ARE ENCOUNTERED DURING GRADING OPERATIONS THE GEOTECHNICAL ENGINEER AND THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTIONS.
2. NO BURNING OR BLASTING SHALL BE PERMITTED.
3. ADDITIONAL DEMOLITION INFORMATION MAY BE SHOWN ON THE GRADING, DRAINAGE, AND UTILITY PLANS, AND THOSE PLANS PREPARED BY OTHER DISCIPLINES FOR THIS PROJECT.
4. ALL DEMOLISHED ITEMS SHALL BE DISPOSED OF OFFSITE AT A SUITABLE, LEGAL, DUMP SITE OR OTHER FACILITY.
5. ALL DISPOSED OF MATERIALS SHALL BE RECYCLED IF POSSIBLE.
6. THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN IN THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, WARREN CONSULTING ENGINEERS CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY THE DISTRICT TWO (2) WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK IN ORDER TO VERIFY TO THE GREATEST EXTENT POSSIBLE THE EXISTING UTILITY LINES, CONFLICTS AND PROPOSED UTILITY CONNECTION POINTS.
7. THE SCHOOL DISTRICT SHALL HAVE SALVAGE RIGHTS TO ANY DEMOLISHED ITEMS SHOWN HEREON. THE CONTRACTOR SHALL GIVE THE DISTRICT NOTICE 7 DAYS PRIOR TO THE START OF DEMOLITION. THE DISTRICT SHALL MOVE ANY RETAINED ITEMS OUT OF THE CONTRACTORS WORK AREA, UNLESS ANOTHER ARRANGEMENT IS MADE WITH THE CONTRACTOR. ANY REMAINING ITEMS BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE. ANY ITEMS NOT SHOWN FOR REMOVAL SHALL REMAIN AND SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION TO A REASONABLE EXTEND.
8. EXISTING UTILITY STRUCTURES IN AREAS OF NEW PAVING SHALL BE REMOVED AND REPLACED WITH NEW BOX/COVER AT NEW GRADE UNLESS SPECIFICALLY NOTED OTHERWISE.
9. ITEMS OUTSIDE THE LIMITS OF DEMOLITION SHALL REMAIN AND BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
10. EXISTING UTILITY STRUCTURES AND PIPING NOT SHOWN ON DEMOLITION PLAN TO BE REMOVED SHALL REMAIN AND BE PROTECTED.

CONCRETE SAWCUT NOTE

SAWCUTS AND SUBSEQUENT PATCH BACK OF CONCRETE WALKS, SHALL BE TO THE EXISTING CONCRETE JOINT BEYOND THE NEAREST LOCATION OF DEMOLITION AS SHOWN. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE, SHOW AND COORDINATE WITH EXISTING JOINTS, HOWEVER IF FIELD CONDITIONS ARE OTHERWISE, IT IS UNDERSTOOD TO REMOVE AND PATCH BACK TO THE NEAREST JOINTS BEYOND DEMOLITION.

UTILITY VERIFICATION NOTE

PRIOR TO THE START OF CONSTRUCTION, LOCATE AND POTHOLE ALL UTILITY POINTS OF CONNECTION FOR LOCATION, DEPTH, AND SIZE. IF CONFLICT IS FOUND, CONTACT THE ENGINEER IMMEDIATELY FOR DIRECTION.

GRAPHIC SCALE

20' 0 10' 20' 40'

(IN FEET) 1 inch = 20 feet

NORTH

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

FILENAME:I:\19-065\CIVIL\DWG\19-065-C11-C12.DWG

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
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DATE 12/19/19

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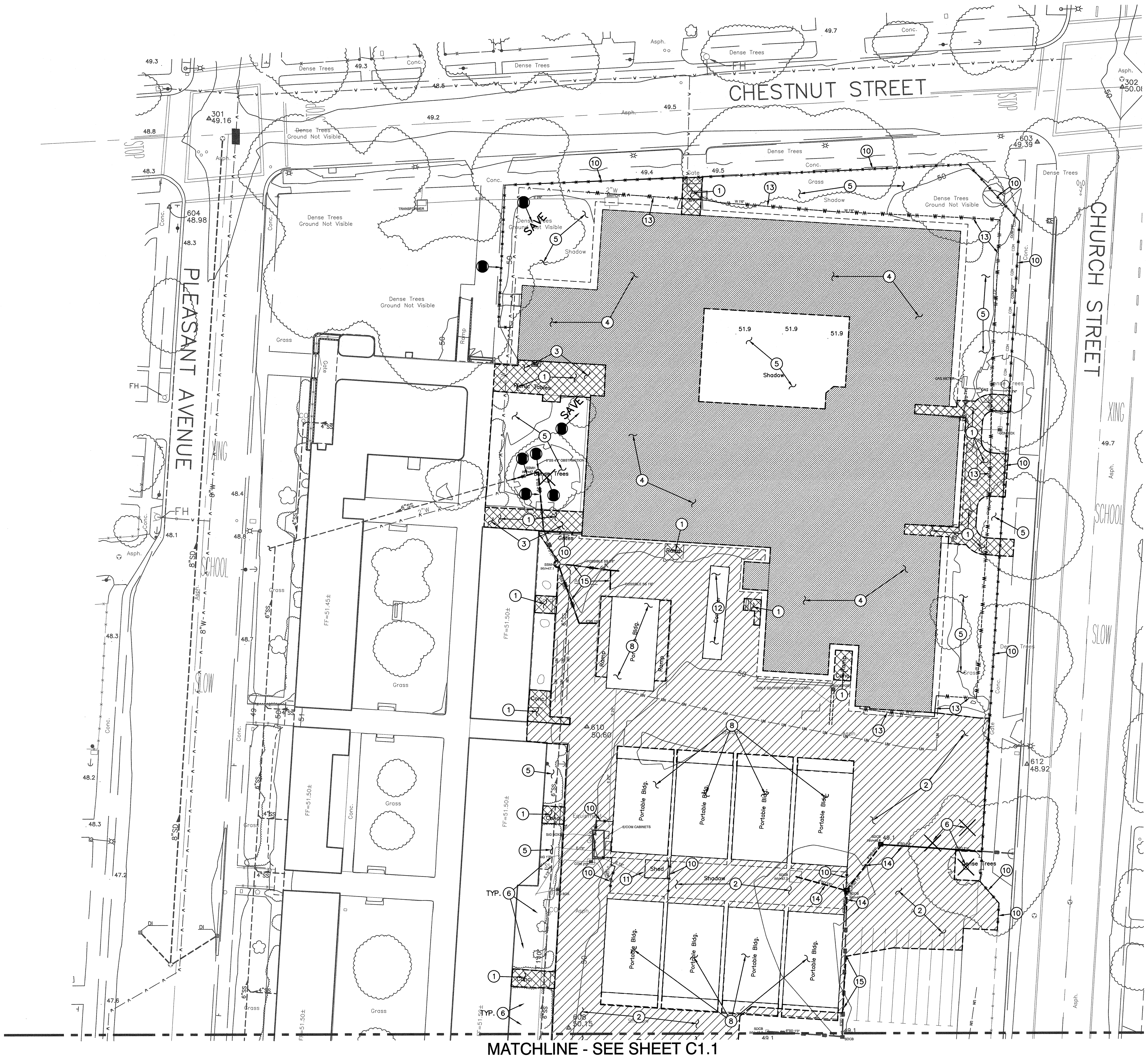
NEEDHAM ELEMENTARY SCHOOL-ADDITIONS
INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

PARTIAL DEMOLITION PLAN

PROJECT NO. 18-1366
DATE: 12/19/19
SHEET C1.1



MATCHLINE - SEE SHEET C1.1

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5. LIMITS OF CLEAR AND GRUB.
6. REMOVE AND DISPOSE OF EXISTING TREE, STUMP ROOTS, BUSHES AND VEGETATION.
7. EXISTING TREE TO REMAIN. (SAVE)
8. REMOVE AND DISPOSE OF EXISTING PORTABLE BUILDING, RAMP AND HANDRAILS.
9. REMOVE AND DISPOSE OF EXISTING UTILITY VAULT.
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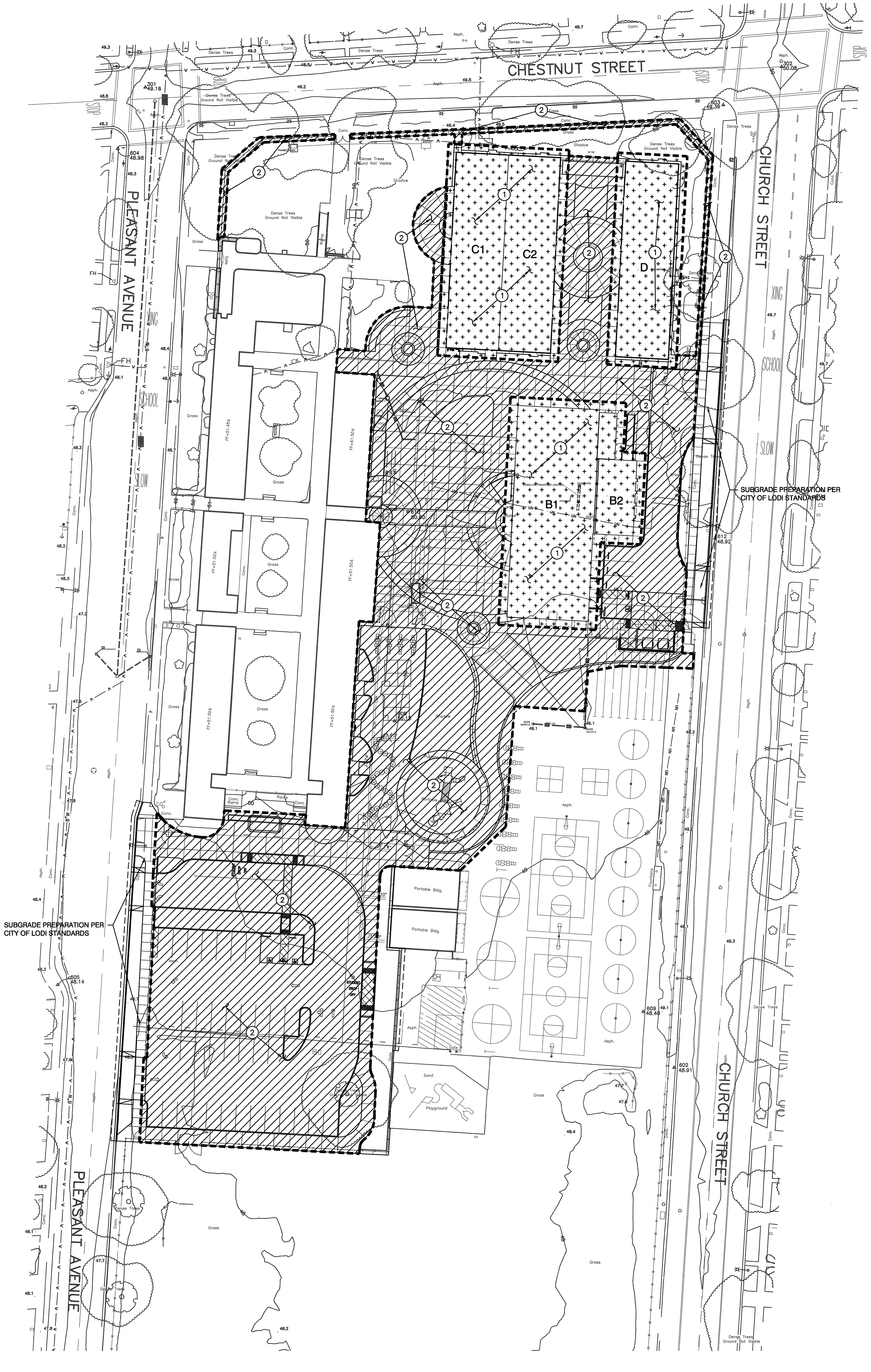
NEEDHAM ELEMENTARY SCHOOL- ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

PARTIAL DEMOLITION PLAN

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C1.2

FILENAME:I:\19-065\CIVIL\DWG\19-065-C11-C12.DWG



SUBGRADE PREPARATION

BUILDING PAD PREPARATION

1. FOLLOWING SITE DEMOLITION ACTIVITIES, THE EXPOSED SURFACE SOILS SHALL BE OVER–EXCAVATED TO A DEPTH OF AT LEAST FIVE (5) FEET BELOW EXISTING GRADES OR AT LEAST THREE (3) FEET BELOW THE BOTTOM OF PROPOSED FOUNDATIONS, WHICHEVER IS DEEPER. THE SUB–EXCAVATION SHALL EXTEND AT LEAST 5 FEET BEYOND THE PROPOSED EXTERIOR EDGE OF PERIMETER FOUNDATIONS AND SHALL INCLUDED ANY EXTERIOR COLUMNS.

   FOLLOWING OVER–EXCAVATION, THE EXPOSED SOILS SHALL BE SCARIFIED TO A DEPTH OF AT LEAST 12 INCHES, THOROUGHLY MOISTURE CONDITIONED TO AT LEAST THE OPTIMUM MOISTURE CONTENT AND UNIFORMLY COMPACTED TO AT LEAST 95 PERCENT OF THE ASTM D1557 MAXIMUM DRY DENSITY. PLACE A LAYER OF GEOGRID REINFORCEMENT (TENSAR BX1100 OR APPROVED EQUAL) ON COMPACTED SUBGRADE. THE GEOGRID SHALL BE COVERED WITH AT LEAST 6 INCHES OF CLASS 2 AGGREGATE BASE COMPACTED TO 90 PERCENT OF THE ASTM D1557 MAXIMUM DRY DENSITY.

   FOLLOWING AGGREGATE BASE PLACEMENT, ENGINEERED FILL SHALL BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 6 INCHES IN COMPACTED THICKNESS. EACH LIFT SHALL BE THOROUGHLY MOISTURE CONDITIONED TO AT LEAST THE OPTIMUM MOISTURE CONTENT AND UNIFORMLY COMPACTED TO AT LEAST 90 PERCENT OF THE ASTM D1557 MAXIMUM DRY DENSITY. PLACE FILL MATERIAL AS REQUIRED TO PROPOSED SUBGRADE ELEVATIONS. THE UPPER 12 INCHES OF FINAL BUILDING PAD SUBGRADES SHALL BE BROUGHT TO AT LEAST THE OPTIMUM MOISTURE CONTENT AND UNIFORMLY COMPACTED TO NOT LESS THAN 90 PERCENT OF THE MAXIMUM DRY DENSITY.

   THE ON–SITE SOILS ARE SUITABLE FOR USE AS ENGINEERED FILL IF THE MATERIALS ARE AT A WORKABLE MOISTURE CONTENT AND FREE OF RUBISH, RUBBLE, DEBRIS, ROOTS AND ORGANICS AND HAVE A MAXIMUM PARTICLE SIZE OF 3 INCHES OR LESS.

ASPHALT AND FLATWORK SUBGRADE PREPARATION

2. FOLLOWING SITE CLEARING, STRIPPING AND DEMOLITION ACTIVITIES:

   FOR AREAS TO BE CUT TO ACHIEVE SUBGRADE, EXCAVATE DOWN TO ROUGH SUBGRADE ELEVATION, SCARIFY THE EXISTING SOILS TO A MINIMUM DEPTH OF 12 INCHES AND UNIFORMLY MOISTURE CONDITION TO AT LEAST THE OPTIMUM MOISTURE CONTENT AND COMPACT TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557.

   FOR AREAS TO BE FILLED TO ACHIEVE SUBGRADE, SCARIFY EXPOSED SOILS TO A MINIMUM DEPTH OF 12 INCHES AND UNIFORMLY MOISTURE CONDITION TO AT LEAST THE OPTIMUM MOISTURE CONTENT AND COMPACT TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557. FILL MATERIAL SHALL BE PLACED IN LEVEL LAYERS NOT EXCEEDING 6 INCHES IN COMPACTED THICKNESS. FILL SHALL BE COMPACTED TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557.

   THE UPPER 6 INCHES OF SUBGRADE SUPPORTING ASPHALT PAVING AND VEHICULAR CONCRETE SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY.

   SUBGRADE PREPARATION SHALL EXTEND AT LEAST 2 FEET BEYOND EDGE OF PROPOSED ASPHALT AND CONCRETE PAVING WHEN NOT ABUTTING EXISTING PAVING..

GENERAL NOTES

1. IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT COVERED BY THE GEOTECHNICAL INVESTIGATION REPORT OR ARE ENCOUNTERED DURING GRADING OPERATIONS THE GEOTECHNICAL ENGINEER AND THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTIONS.
2. NO BURNING SHALL BE PERMITTED.
3. THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLAN WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, WARREN CONSULTING ENGINEERS CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY THE DISTRICT TWO (2) WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK IN ORDER TO VERIFY TO THE GREATEST EXTENT POSSIBLE THE EXISTING UTILITY LINES, CONFLICTS AND PROPOSED UTILITY CONNECTION POINTS.

GRAPHIC SCALE

30' 0 15' 30' 60'

(IN FEET) 1 inch = 30 feet.

NORTH

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

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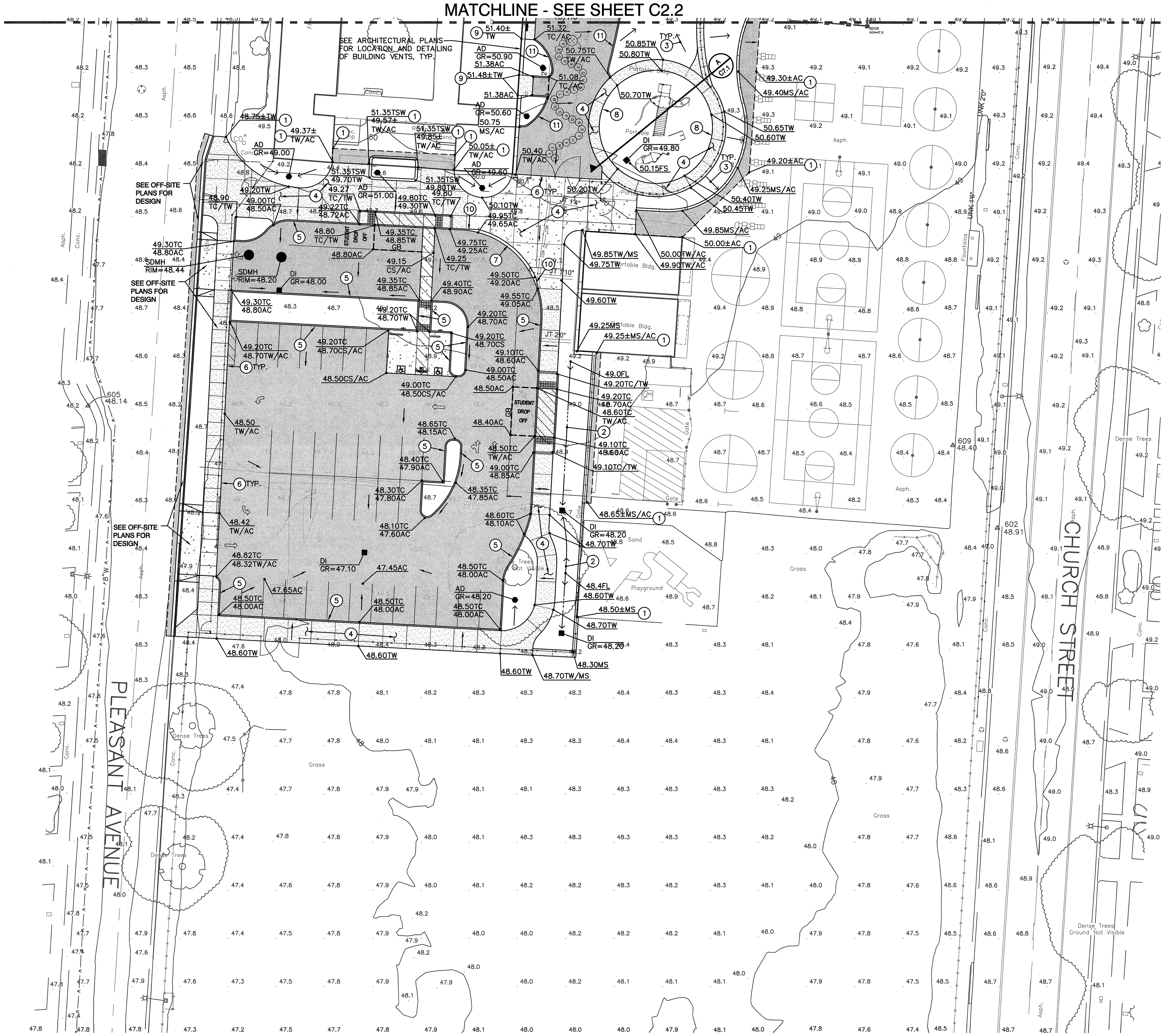
NEEDHAM ELEMENTARY SCHOOL- ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

ENGINEERED FILL PLAN

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C1.3

FILENAME:I:\19-065\CIVIL\DWG\19-065-C13.DWG



ACCESSIBILITY NOTES:

1. FOR ACCESSIBLE PATH OF TRAVEL REQUIREMENTS SEE ARCHITECTURAL SHEETS.
2. PERCENT OF SLOPE SHOWN ON ARROWS ARE MAXIMUM SLOPES AND NOT INTENDED TO SUPERCEDE SLOPES DEFINED BY SPOT ELEVATIONS. 0.0% MAX
3. WITHIN THE LIMITS OF ACCESSIBLE PARKING AREA AND ACCESSIBLE DROP OFF ZONE THE SLOPE OF PAVEMENT SHALL NOT EXCEED 1.8% IN ANY DIRECTION.

GRADING NOTES

1. MATCH EXISTING GRADE/ELEVATION.
2. CONSTRUCT SWALE.
3. GRADE UNIFORMLY TO SWALE AND/OR INLET.
4. CONSTRUCT CONCRETE SIDEWALK PER 1/C7.1
5. CONSTRUCT CONCRETE CURB PER 2/C7.1
6. PROVIDE SMOOTH/FLUSH TRANSITION BETWEEN ASPHALT AND CONCRETE PER 3/C7.1
7. CONSTRUCT ROLLED CURB AND SIDEWALK PER 4/C7.1
8. CONSTRUCT EDGE AT SYNTHETIC TURF AND CONCRETE PAVING PER 5/C7.1
9. PROPOSED SIDEWALK ELEVATION SHALL MEET FLUSH WITH EXISTING FINISH FLOOR.
10. TRANSITION FROM VERTICAL CURB TO ROLLED CURB.
11. CONSTRUCT FLUSH CONCRETE CURB PER 15/C7.1

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NEEDHAM ELEMENTARY SCHOOL-ADDITIONS
INCREMENT 1

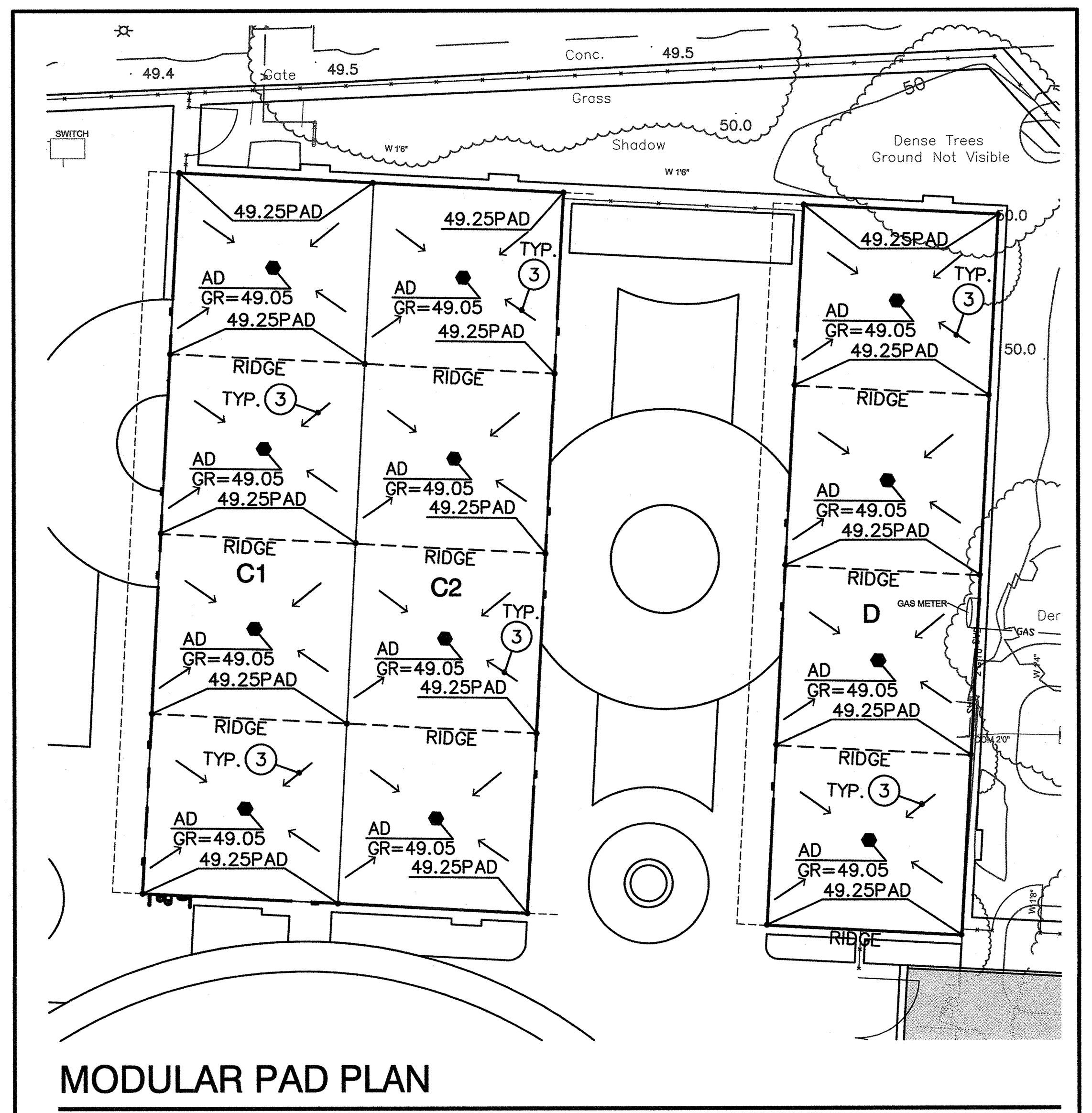
LODI UNIFIED SCHOOL DISTRICT

PARTIAL
GRADING PLAN

GRAPHIC SCALE
20' 0 10' 20' 40'
(IN FEET) 1 inch = 20 feet
NORTH
THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

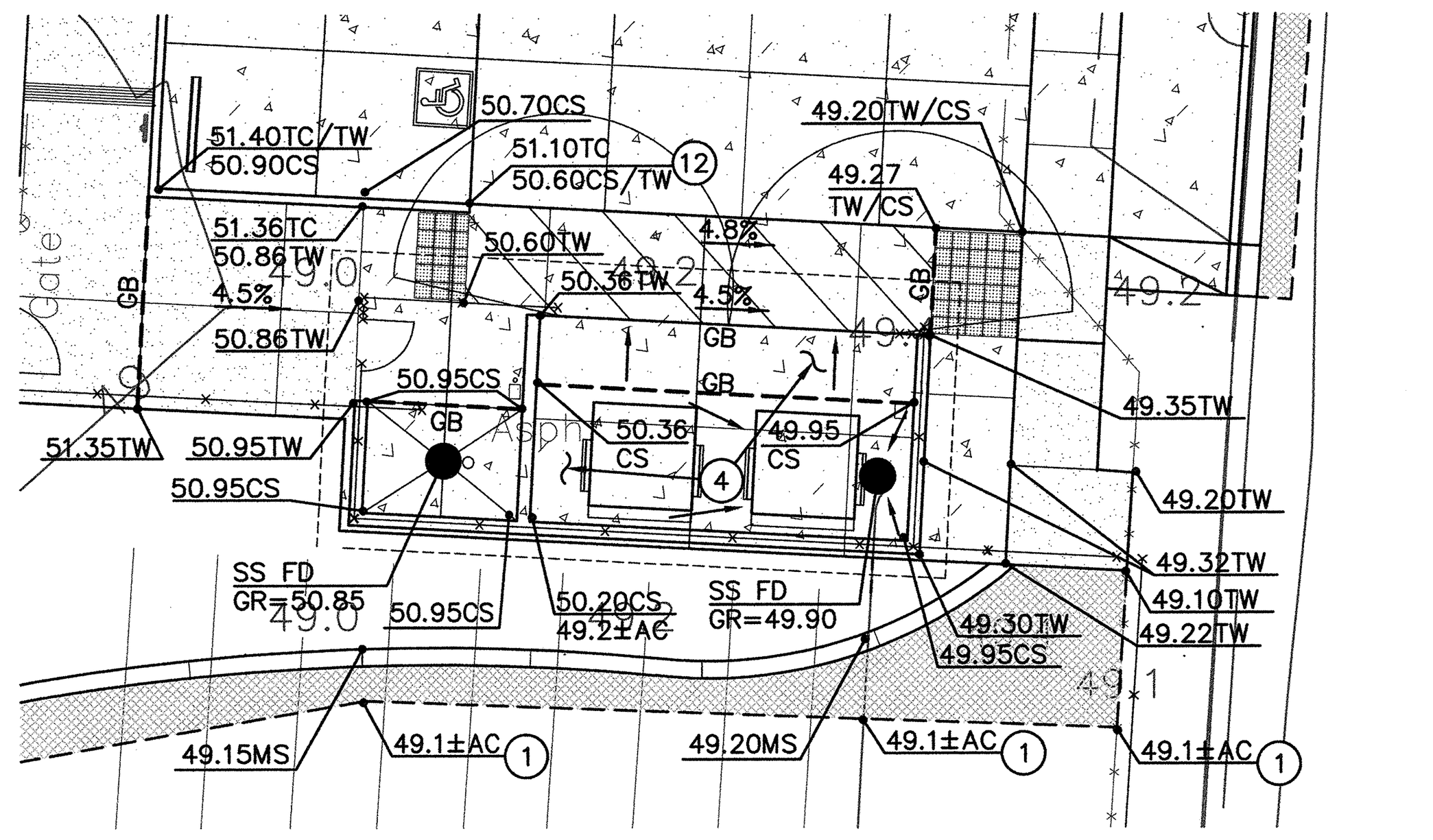
PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C2.1

FILENAME:I:\19-065\CIVIL\DWG\19-065-C21-C22.DWG



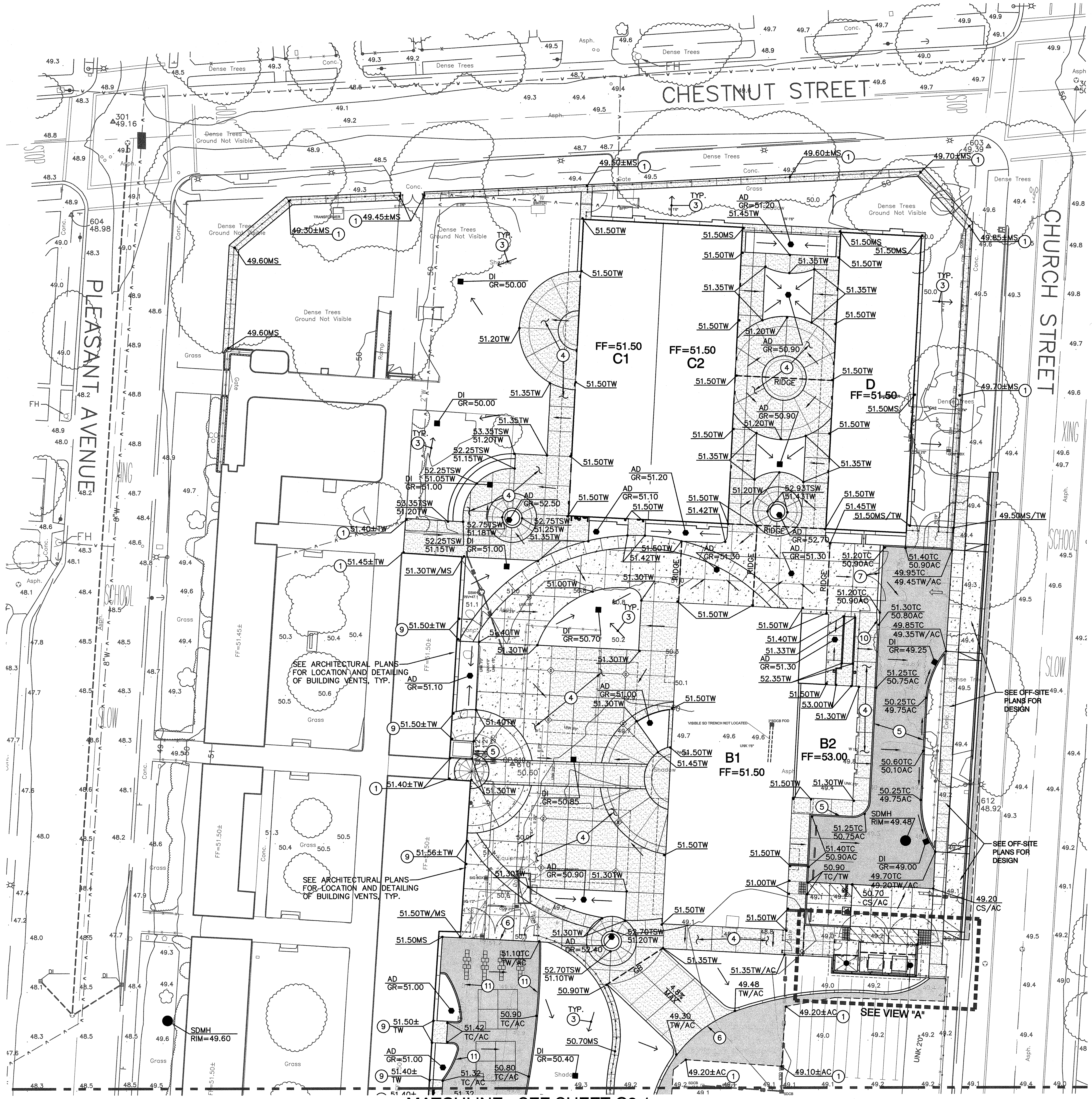
MODULAR PAD PLAN

SCALE 1"=20'



VIEW "A"

SCALE 1"=10'



MATCHLINE - SEE SHEET C2.1

ACCESSIBILITY NOTES:

1. FOR ACCESSIBLE PATH OF TRAVEL REQUIREMENTS SEE ARCHITECTURAL SHEETS.
2. PERCENT OF SLOPE SHOWN ON ARROWS ARE MAXIMUM SLOPES AND NOT INTENDED TO SUPERCEDE SLOPES DEFINED BY SPOT ELEVATIONS. (0.0% MAX)
3. WITHIN THE LIMITS OF ACCESSIBLE PARKING AREA AND ACCESSIBLE DROP OFF ZONE THE SLOPE OF PAVEMENT SHALL NOT EXCEED 1.8% IN ANY DIRECTION.

GRADING NOTES

1. MATCH EXISTING GRADE/ELEVATION.
2. CONSTRUCT SWALE.
3. GRADE UNIFORMLY TO SWALE AND/OR INLET.
4. CONSTRUCT CONCRETE SIDEWALK PER 1/C7.1
5. CONSTRUCT CONCRETE CURB PER 2/C7.1
6. PROVIDE SMOOTH/FLUSH TRANSITION BETWEEN ASPHALT AND CONCRETE PER 3/C7.1
7. CONSTRUCT ROLLED CURB AND SIDEWALK PER 4/C7.1
8. CONSTRUCT EDGE AT SYNTHETIC TURF AND CONCRETE PAVING PER 5/C7.1
9. PROPOSED SIDEWALK ELEVATION SHALL MEET FLUSH WITH EXISTING FINISH FLOOR.
10. TRANSITION FROM VERTICAL CURB TO ROLLED CURB.
11. CONSTRUCT FLUSH CONCRETE CURB PER 15/C7.1
12. TAPER LAST 6" OF CURB TO FLUSH WITH ADJACENT GRADE.

GRAPHIC SCALE

(IN FEET) 1 inch = 20 feet

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NEEDHAM ELEMENTARY SCHOOL-ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

PARTIAL GRADING PLAN

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C2.2

FILENAME:I:\19-065\CIVIL\DWG\19-065-C21-C22.DWG

DRAINAGE NOTES

31. CONSTRUCT DROP INLET PER 6/C7.1
32. CONSTRUCT CURB INLET PER 7/C7.1
33. CONSTRUCT STORM DRAIN MANHOLE PER 8/C7.1
34. CONSTRUCT AREA DRAIN PER 9/C7.1
35. CONSTRUCT STORM DRAIN CLEANOUT PER 12/C7.1
36. PLACE 4" STORM DRAIN PER
37. PLACE 6" STORM DRAIN PER
38. PLACE 8" STORM DRAIN PER
39. PLACE 12" STORM DRAIN PER 10/C7.1
~~40. CONSTRUCT HYDROSTOR HS-180 STORMWATER STORAGE SYSTEM (UNIT 2) PER~~ 7/C7.2 — TO BE INCLUDED AS PART OF INC. 4.
44. PROVIDE DROP INLET AT ARTIFICIAL PLAY TURF PER 6/C7.1 A/C7.1

SEWER NOTES

57. CONSTRUCT DRYWELL AT DRINKING FOUNTAIN PER 14/C7.1

GRAPHIC SCALE

20' 0 10' 20' 40'

(IN FEET) 1 inch = 20 feet

NORTH

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FILENAME:I:\19-065\CIVIL\DWG\19-065-C31-C32.DWG

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02-118063
AC FLS SS
DATE 12-16-19

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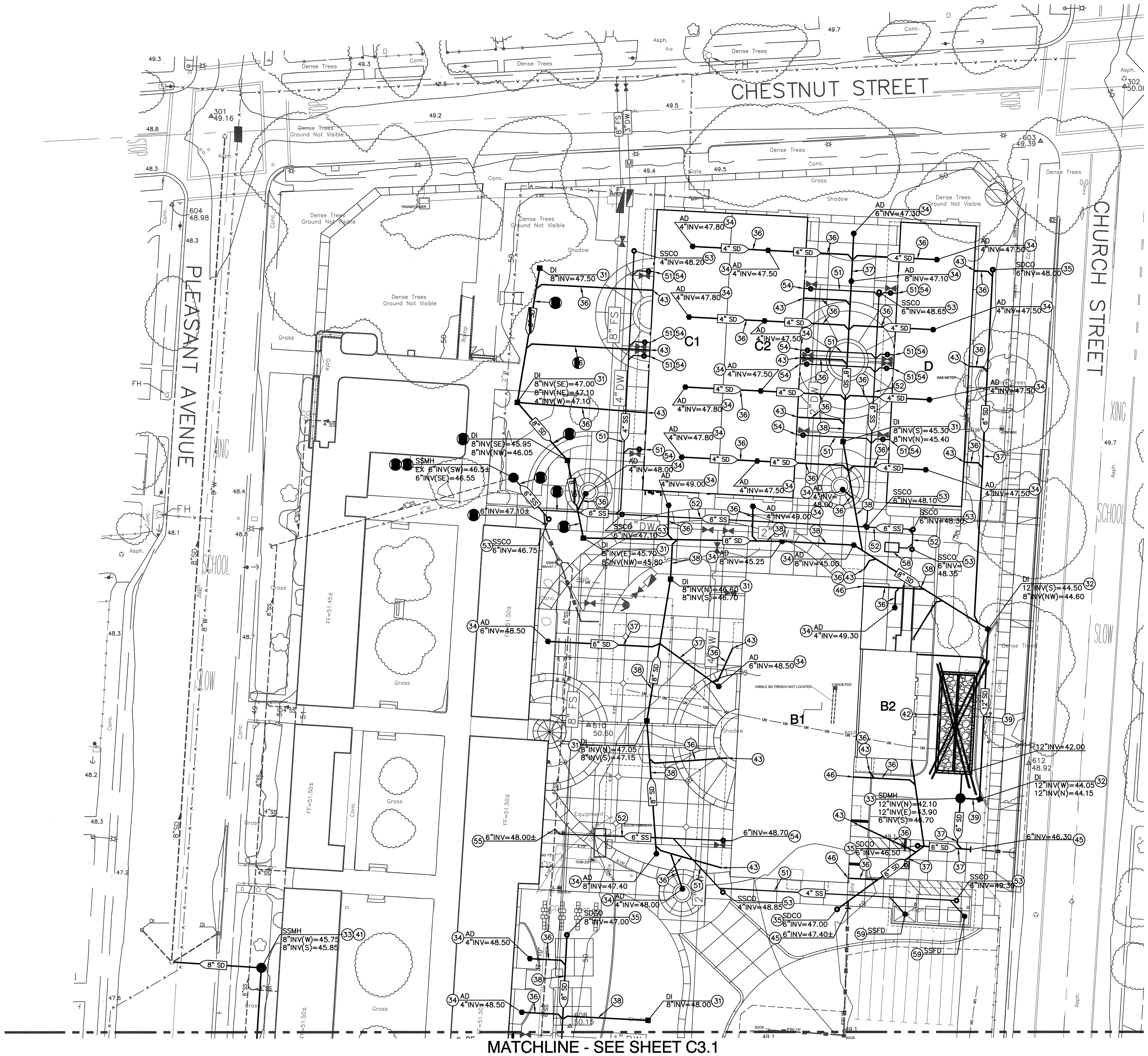
NEEDHAM ELEMENTARY SCHOOL-ADDITIONS
INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

PARTIAL DRAINAGE AND SEWER PLAN

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C3.1



DRAINAGE NOTES

31. CONSTRUCT DROP INLET PER 6/C7.1
32. CONSTRUCT CURB INLET PER 7/C7.1
33. CONSTRUCT STORM DRAIN MANHOLE PER 8/C7.1
34. CONSTRUCT AREA DRAIN PER 9/C7.1
35. CONSTRUCT STORM DRAIN CLEANOUT PER 12/C7.1
36. PLACE 4" STORM DRAIN PER 10/C7.1
37. PLACE 6" STORM DRAIN PER 10/C7.1
38. PLACE 8" STORM DRAIN PER 10/C7.1
39. PLACE 12" STORM DRAIN PER 10/C7.1
41. REFER TO OFF-SITE IMPROVEMENT PLANS FOR CONTINUATION.
42. ~~CONSTRUCT HYDROSTOR HS 180 STORMWATER STORAGE SYSTEM (UNIT 1) PER~~ 6/C7.2 — TO BE INCLUDED AS PART OF INC. 4.
43. PROVIDE DOWNSPOUT CONNECTION PER 11/C7.1
45. CONNECT TO EXISTING STORM DRAIN. FIELD VERIFY EXACT DEPTH, LOCATION AND CONDITION PRIOR TO TRENCHING. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
46. CONNECT TO BUILDING ROOF DRAIN. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.

SEWER NOTES

51. PLACE 4" SEWER PER 10/C7.1
52. PLACE 6" SEWER PER 10/C7.1
53. CONSTRUCT SEWER CLEANOUT PER 12/C7.1
54. CONNECT TO BUILDING SEWER SERVICE. REFER TO PLUMBING PLANS FOR EXACT DEPTH AND LOCATION. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION. PROVIDE 2-WAY CLEANOUT PER 13/C7.1
55. CONNECT TO EXISTING SEWER. POTHOLE TO FIELD VERIFY FOR EXACT DEPTH, AND LOCATION AND CONDITION PRIOR TO TRENCHING.
56. CONSTRUCT SEWER MANHOLE PER 8/C7.2
58. CONNECT TO PROPOSED GREASE INTERCEPTOR. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
59. PLACE JR SMITH 2510 SEWER FLOOR DRAIN WITH INTEGRAL TRAP AND CLEANOUT PER 9/C7.2

GRAPHIC SCALE
(IN FEET) 1 inch = 20 feet
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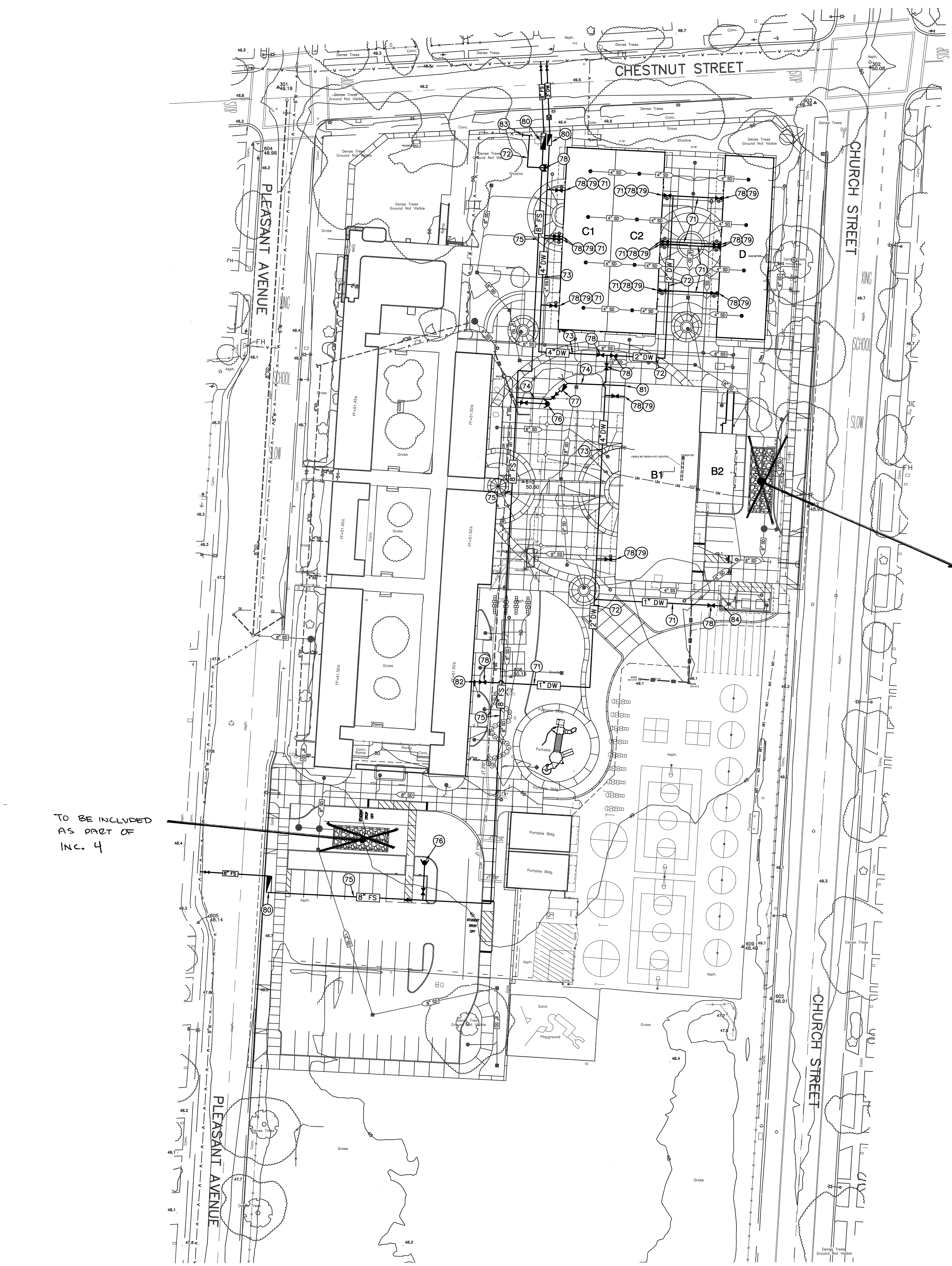
NEEDHAM ELEMENTARY SCHOOL-ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

PARTIAL DRAINAGE AND SEWER PLAN

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C3.2

FILENAME:I:\19-065\CIVIL\DWG\19-065-C31-C32.DWG



GENERAL THRUST BLOCK NOTE

1. ALL JUNCTION AND BENDS ON WATER MAIN PIPES 4" OR LARGER IN DIAMETER, VERTICAL AND HORIZONTAL SHALL BE PROTECTED WITH THRUST BLOCKS PER DETAIL 4/C7.2

WATER NOTES

71. PLACE 1" WATER PER 1/C7.2
72. PLACE 2" WATER PER 1/C7.2
73. PLACE 4" WATER PER 1/C7.2
74. PLACE 6" WATER PER 1/C7.2
75. PLACE 8" WATER PER 1/C7.2
76. CONSTRUCT FIRE HYDRANT ASSEMBLY WITH GUARD POSTS PER CITY OF LODI STD. DTL. W-401. 5/C7.2
77. CONSTRUCT FIRE DEPARTMENT CONNECTION, POST INDICATOR VALVE WITH TAMPER SWITCH AND CHECK VALVE. COORDINATE TAMPER SWITCH CONNECTION TO FIRE ALARM WITH ELECTRICAL PLANS. 2/C7.2
78. PLACE GATE VALVE AND VALVE BOX. SIZE TO MATCH LINE SIZE. 3/C7.2
79. CONNECT TO BUILDING DOMESTIC WATER SERVICE. REFER TO PLUMBING PLANS FOR EXACT DEPTH AND LOCATION, PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
80. REFER TO OFF-SITE IMPROVEMENT PLANS FOR CONTINUATION.
81. CONNECT TO BUILDING FIRE SPRINKLER SERVICE. REFER TO FIRE PROTECTION PLANS FOR EXACT DEPTH AND LOCATION, PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
82. CONNECT TO DRINKING FOUNTAIN DOMESTIC WATER SUPPLY.
83. CONNECT TO EXISTING DOMESTIC WATER PIPE. FIELD VERIFY EXACT DEPTH, LOCATION AND CONDITION PRIOR TO TRENCHING. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
84. CONNECT TO PROPOSED INSTA-HOT HYDRANT. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.

GRAPHIC SCALE
30' 0 15' 30' 60'
(IN FEET)
1 inch = 30 feet
NORTH
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IDENTIFICATION STAMP
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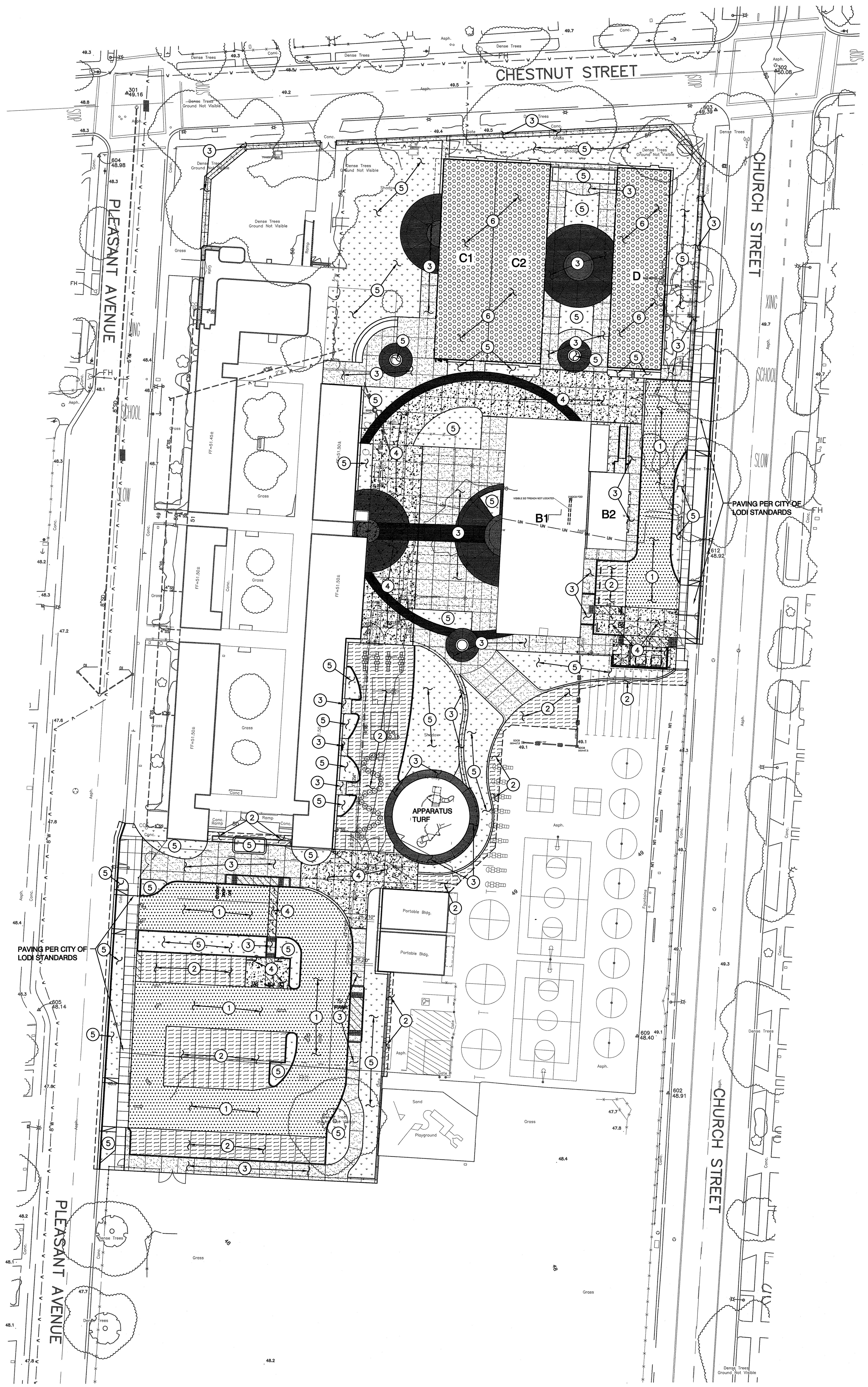
NEEDHAM ELEMENTARY SCHOOL-ADDITIONS
INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

DOMESTIC WATER AND FIRE PROTECTION PLAN

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C4.1

FILENAME:I:\19-065\CIVIL\DWG\19-065-C41.DWG



PAVING GENERAL NOTES:

1. ASPHALT MIX SHALL MEET CALTRANS SPECIFICATIONS FOR TYPE B ASPHALTIC CONCRETE. REFERENCE CALTRANS SPECIFICATION SECTION 39, AND PROJECT SPECIFICATIONS
2. AGGREGATE BASE SHALL MEET CALTRANS SPECIFICATIONS FOR CLASS II AGGREGATE BASE. REFERENCE CALTRANS SPECIFICATION SECTION 26 AND PROJECT SPECIFICATIONS
3. ALL AGGREGATE BASE SHALL BE MOISTURE CONDITIONED TO, OR SLIGHTLY ABOVE, OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% RELATIVE COMPACTION.
4. RECYCLED ASPHALT MAY BE USED AS CONCRETE AND ASPHALT BASE MATERIAL PROVIDED IT MEETS CALTRANS SPECIFICATIONS FOR CLASS II AB, REFERENCE CALTRANS SPECIFICATION SECTION 26–1.02A.
5. PAVEMENT SUBGRADE PREPARATION, I.E. SCARIFICATION, MOISTURE CONDITIONING, LIME/CEMENT TREATMENT, AND COMPACTION SHALL BE PERFORMED AFTER;
   A. POT HOLING ALL EXISTING UTILITIES.
   B. THE INSTALLATION OF UNDERGROUND UTILITIES AND TRENCHES BACKFILLED IN ACCORDANCE WITH THESE PLANS.
6. ALL AREAS DISTURBED BY GRADING, DEMOLITION, OR CONSTRUCTION ACCESS, WHICH ARE NOT SURFACED BY THIS SET OF PLANS, OR LANDSCAPE PLANS, SHALL BE RESTORED. PROVIDE SOD AT AREAS WHERE EXISTING TURF HAS BEEN DAMAGED AND DECOMPOSED GRANITE AT TRACK SURFACES DISTURBED BY CONSTRUCTION ACTIVITIES.
7. REFER TO GRADING PLANS FOR CURBS, CURB GUTTERS, VALLEY GUTTERS, AND OTHER CONCRETE STRUCTURES AND PAVING FEATURES NOT SPECIFICALLY NOTED ON THIS PLAN.
8. ADJUST TO FINISH GRADE ALL BOXES, FRAMES, COVERS SLEEVES, POST HOLES, GRATES, ETC. FOUND IN NEW ASPHALT OR CONCRETE PAVING AREAS, WHICH ARE NOT NOTED FOR REMOVAL. CLEAN/OR REPLACE AS NECESSARY TO ENSURE PROPER SEATING.

SEALCOAT GENERAL NOTES

1. CONTRACTOR TO NOTIFY ENGINEER 24 HOURS PRIOR TO ANY PAVING WORK AND SEALCOAT APPLICATION.
   A. PLACE 2 COATS OF SEALCOAT ON ALL NEW ASPHALT PAVING PER SPECIFICATION SECTION 321200.

   SEAL COAT SHALL NOT BE PLACED UNTIL A MINIMUM OF 30 DAYS FOLLOWING ASPHALT PLACEMENT AND BE COMPLETED ON DAYS THAT DO NOT INTERFERE WITH EVERYDAY SCHOOL OPERATIONS.

PAVING LEGEND

(1) TYPE 1 PAVING

PLACE 3" AC OVER 14" COMPACTED CLASS II AB ON COMPACTED SUBGRADE.

(2) TYPE 2 PAVING

PLACE 2.5" AC OVER 8" COMPACTED CLASS II AB ON COMPACTED SUBGRADE.

(3) TYPE 3 PAVING

PLACE 5" PCC WITH #4 REBAR AT 24" O.C.E.W. OVER 4" COMPACTED CLASS II AB ON COMPACTED SUBGRADE. SEE ARCHITECTURAL PLANS FOR DECORATIVE CONCRETE LOCATIONS.

(4) TYPE 4 PAVING

PLACE 6" PCC WITH #4 REBAR AT 18" O.C.E.W. OVER 6" COMPACTED CLASS II AB ON COMPACTED SUBGRADE. SEE ARCHITECTURAL PLANS FOR DECORATIVE CONCRETE LOCATIONS.

(5) TYPE 5 SURFACING

PLACE 12" NATIVE TOP SOIL, TO ACHIEVE FINISH GRADES AS SHOWN ON GRADING PLAN FOR ALL AREAS TO RECEIVE PLANTING. SUBGRADE TO BE GRADED TO PROVIDE SLOPE AND SMOOTH LINES CONSISTENT WITH FINISH GRADES TO ALLOW FOR UNIFORM THICKNESS OF TOP SOIL.

(6) TYPE 4 PAVING

PLACE 2" THICK 2-SACK CONCRETE SLURRY SLAB AT MODULAR CRAWL SPACE.

GRAPHIC SCALE

30' 0 15' 30' 60'

(IN FEET) 1 inch = 30 feet

NORTH

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IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

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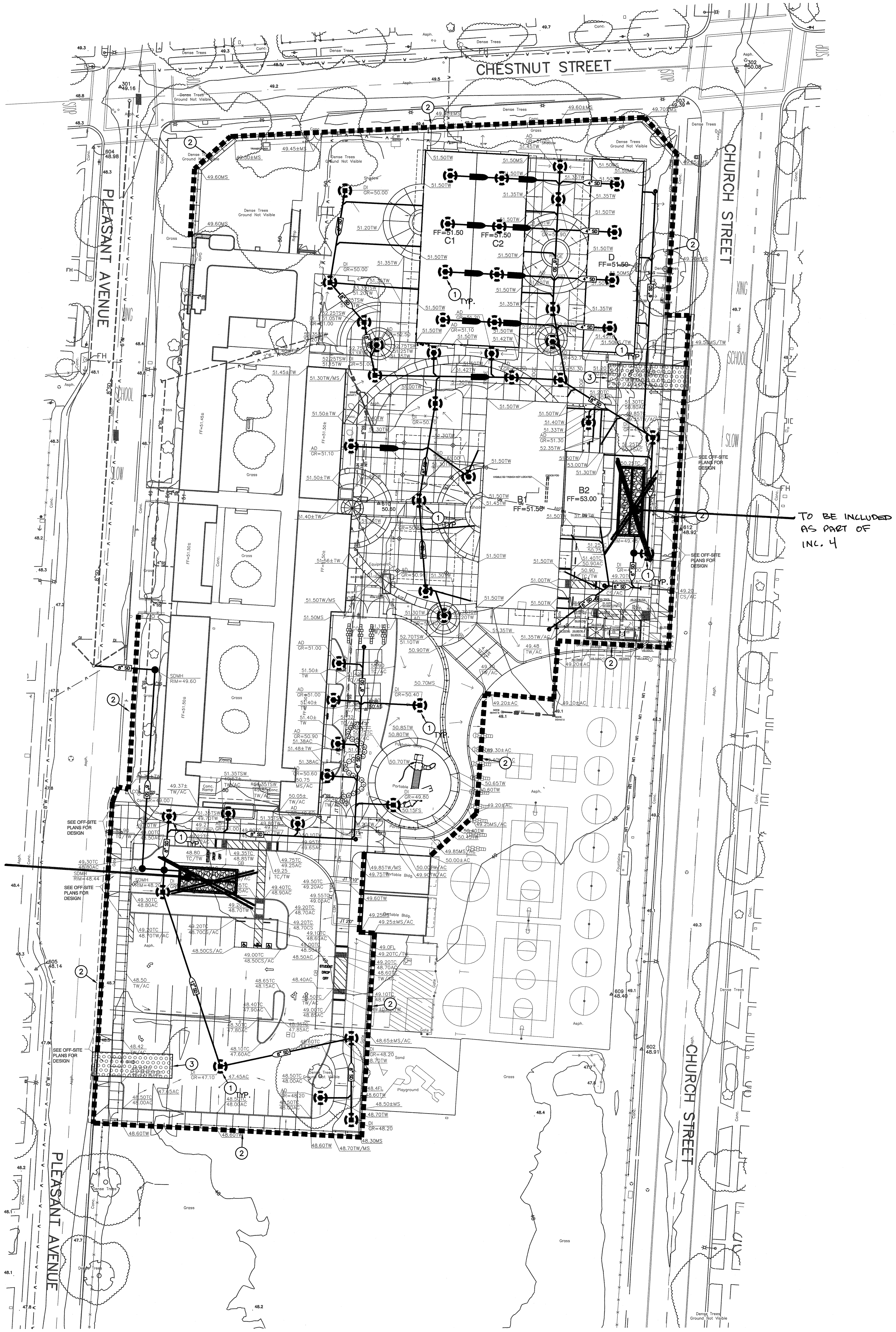
NEEDHAM ELEMENTARY SCHOOL- ADDITIONS INCREMENT 1

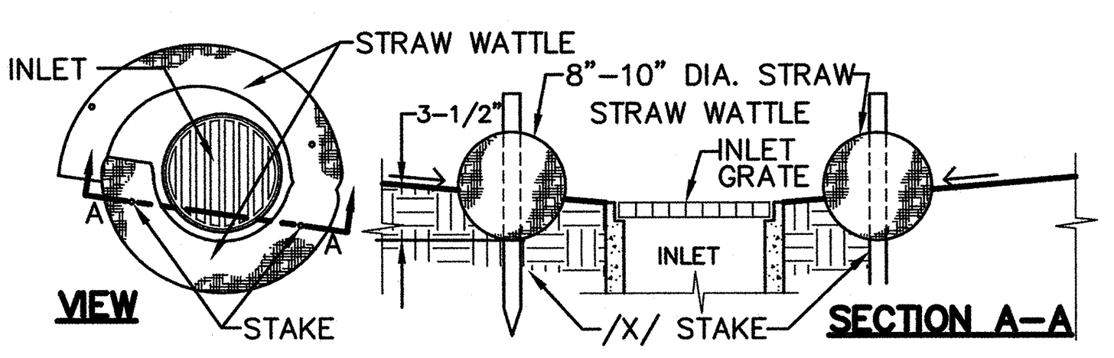
LODI UNIFIED SCHOOL DISTRICT

PAVING PLAN

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C5.1

FILENAME:I:\19-065\CIVIL\DWG\19-065-C51.DWG

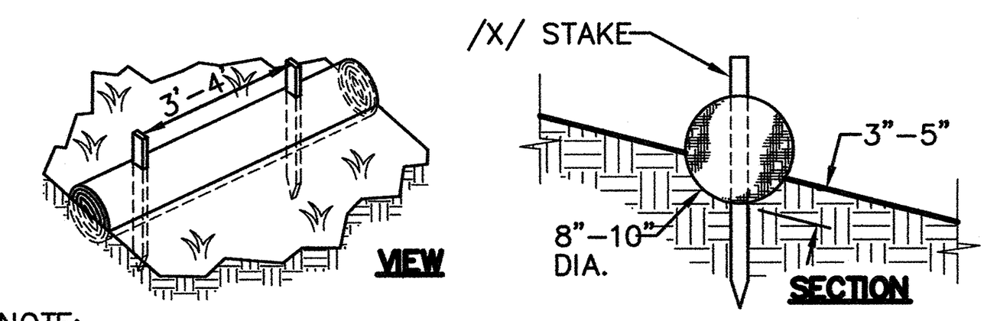




NOTE: STRAW WATTLE INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE WATTLE IN A TRENCH, 3-1/2" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.

1/C6.1 STRAW WATTLE INLET FILTER

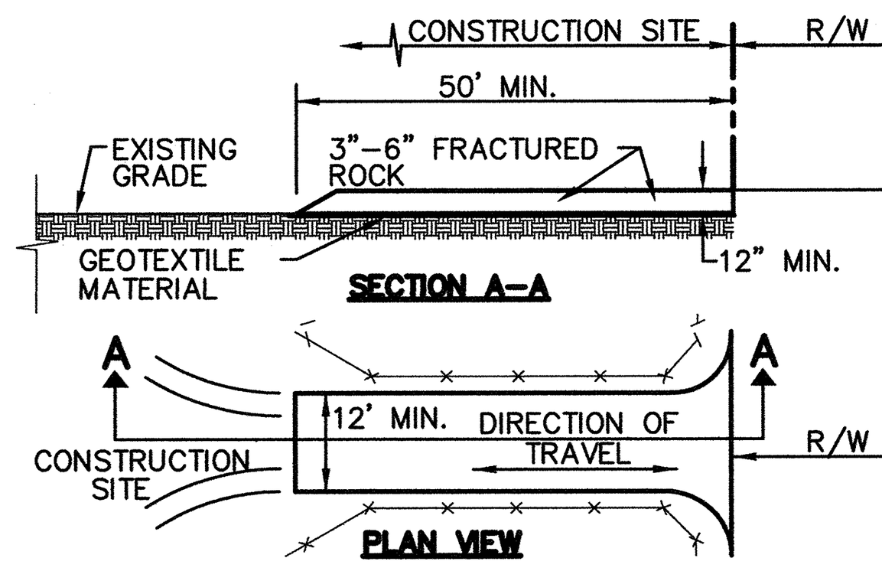
NO SCALE



NOTE:
STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"-5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.

2/C6.1 STRAW ROLLS

NO SCALE



NOTES:

1. STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 3"-6" ANGULAR ROCK MATERIAL CONFORMING TO SECTION 26 OF STATE SPECIFICATIONS PLACED OVER GEOTEXTILE MATERIAL. ROCK SHALL BE PLACED TO A MINIMUM THICKNESS OF SIX INCHES. THE METHOD OF PLACING, SPREADING AND COMPACTING ROCK SHALL CONFORM TO SECTION 26 OF THE STATE SPECIFICATIONS.
2. LENGTH OF SITE ACCESS SHALL BE A MINIMUM LENGTH OF FIFTY FEET. WIDTH SHALL BE A MINIMUM WIDTH OF TWELVE FEET OR AS NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS.
3. THE SITE ACCESS SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING.

3/C6.1 STABILIZED CONSTRUCTION SITE ACCESS

NO SCALE

LEGEND

(#) EROSION CONTROL NOTES

NOTE: EXACT LOCATION WILL BE COORDINATED BY CONTRACTOR AND PROJECT QSP.

1. CONTRACTOR SHALL PROVIDE STRAW WATTLE BARRIER AT ALL INLETS (NEW AND/OR EXIST.) IN AREAS OF ON-SITE WORK PER THE DETAIL PROVIDED. IN ADDITION TO WATTLE, PROVIDE FILTER BAG AT EACH INLET. STRAW WATTLES NOT REQUIRED AT INLETS IN PAVED AREAS, ONLY FILTER BAG. (1/C6.1)
2. CONTRACTOR SHALL PROVIDE STRAW WATTLES AT PERIMETER OF SITE PER DETAIL (2/C6.1)
3. CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION SITE ACCESS PER DETAIL (3/C6.1)

WCE EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. IF CERTAIN SOIL TYPES (E.G. COLLOIDAL SOILS) ARE DETECTED, THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL TREATMENT MEASURES PRIOR TO DISCHARGE.
2. CONTRACTOR IS RESPONSIBLE FOR THE DEWATERING AND REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES JUST PRIOR TO THE COMMENCING OF THE FINAL GRADING AND PAVING OPERATIONS. ONLY CLEAR WATER IS TO BE DISCHARGED INTO THE EXISTING DRAINAGE SYSTEM. IF PUMPING IS NECESSARY, FILTERS WILL BE REQUIRED TO ENSURE THAT ONLY CLEAR WATER IS DISCHARGED FROM THE SITE, PER SACRAMENTO COUNTY STANDARDS. THE CONTRACTOR SHALL VERIFY THE DISCHARGE POINT WITH THE COUNTY INSPECTOR. THE CONTRACTOR SHALL VERIFY THAT THE POINT OF DISCHARGE CAN HANDLE THE VELOCITY AND QUANTITY OF FLOW.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THE SITE TO MINIMIZE DUST CREATED DURING CONSTRUCTION.
4. PRIOR TO PLACEMENT OF LANDSCAPING AND/OR FINISHED GROUND SEEDING. REMOVE TEMPORARY EROSION CONTROL MEASURES (STRAW WATTLE FENCE AND TRACKED LOOSE STRAW).
5. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR COMPLIANCE WITH STATE WATER RESOURCES CONTROL BOARD REQUIREMENTS.
6. ALL MATERIALS STORED ON-SITE SHALL HAVE PROPER ENCLOSURES AND/OR COVERINGS.
7. CONTRACTOR SHALL MAINTAIN ALL WATTLE OR SILT FENCES AND OTHER STORM WATER POLLUTION PREVENTION DEVICES THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL INSPECT ALL EROSION CONTROL DEVICES WEEKLY AS WELL AS BEFORE, DURING, AND AFTER A STORM EVENT. CONTRACTOR SHALL REMOVE ALL EROSION CONTROL AND POLLUTION PREVENTION DEVICES AT THE END OF CONSTRUCTION AS REQUIRED. REFER TO SPECIFICATIONS AND S.W.P.P.P. PLAN FOR ADDITIONAL REQUIREMENTS.
8. CONTRACTOR SHALL PROVIDE AND MAINTAIN CONSTRUCTION FENCING THROUGHOUT THE PROJECT. THIS FENCING SHALL DETER CHILDREN AND NON-CONSTRUCTION RELATED PERSONNEL FROM ENTERING THE CONSTRUCTION SITE AREA TO THE GREATEST POSSIBLE EXTEND, THE CONTRACTOR SHALL COORDINATE THIS FENCING LAYOUT WITH SCHOOL DISTRICT PERSONNEL PRIOR TO ANY FENCING PLACEMENT SO AS TO NOT SIGNIFICANTLY INTERFERE WITH SCHOOL OPERATION.

10. CONTRACTOR SHALL ADEQUATELY PREVENT EXCESSIVE AMOUNTS OF MUD, SAND, DIRT, AND OTHER DEBRIS FROM BEING TRACKED THROUGH THE SCHOOL AND ONTO THE STREET FROM CONSTRUCTION VEHICLE MOVEMENT. PROVIDE WASHING FACILITIES AT CONSTRUCTION ENTRANCE IF NECESSARY.
10. ALL DISTURBED AREAS NOT BEING PAVED/LANDSCAPED, SHALL BE HYDROSEEDED.
11. EROSION CONTROL MEASURES TO BE PLACED ON ALL EXPOSED AREAS DISTURBED BY CONSTRUCTION PRIOR TO ANY RAIN EVENT, I.E. BLANKETS, SOIL STABILIZERS, ETC.

GRAPHIC SCALE

30' 0 15' 30' 60'

(IN FEET) 1 inch = 30 feet

NORTH

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
02 118063
AC FLS SS
DATE 12-19-19

rainforth grau architects

REGISTERED PROFESSIONAL ENGINEER ANTHONY J. TASSANO NO. C74696 CIVIL STATE OF CALIFORNIA

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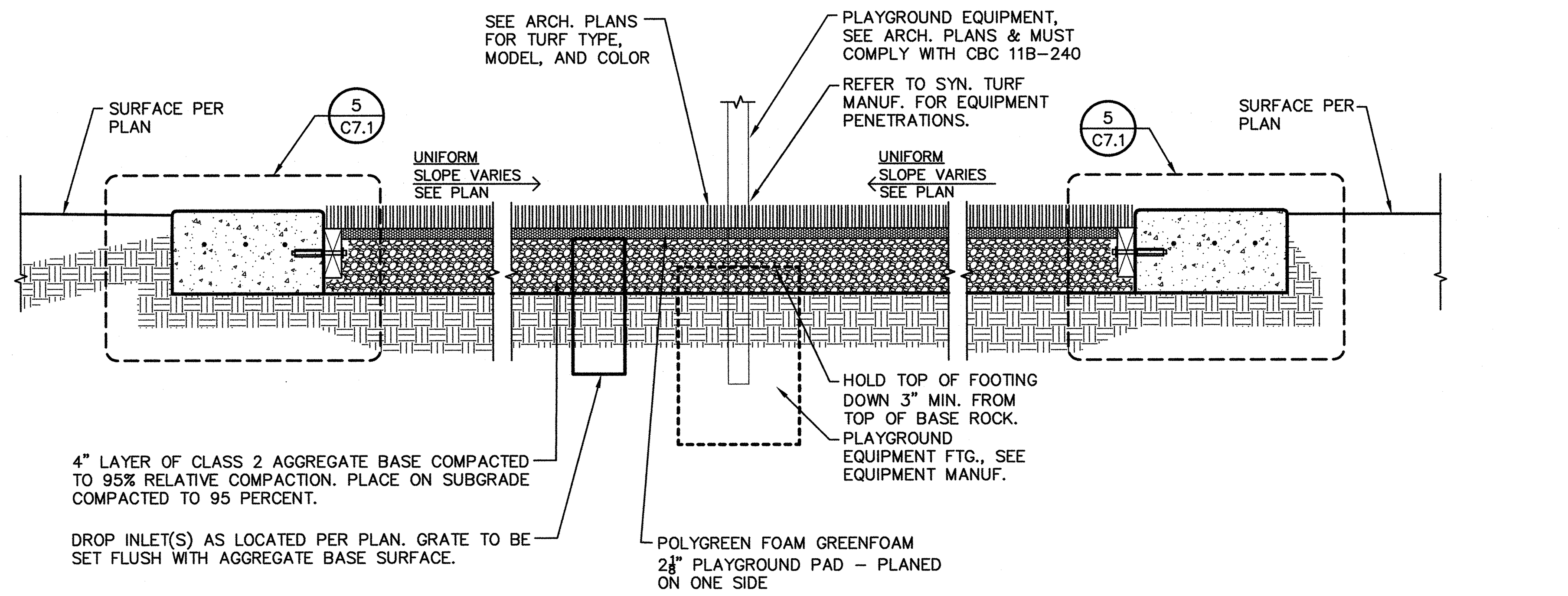
NEEDHAM ELEMENTARY SCHOOL-ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

EROSION CONTROL PLAN

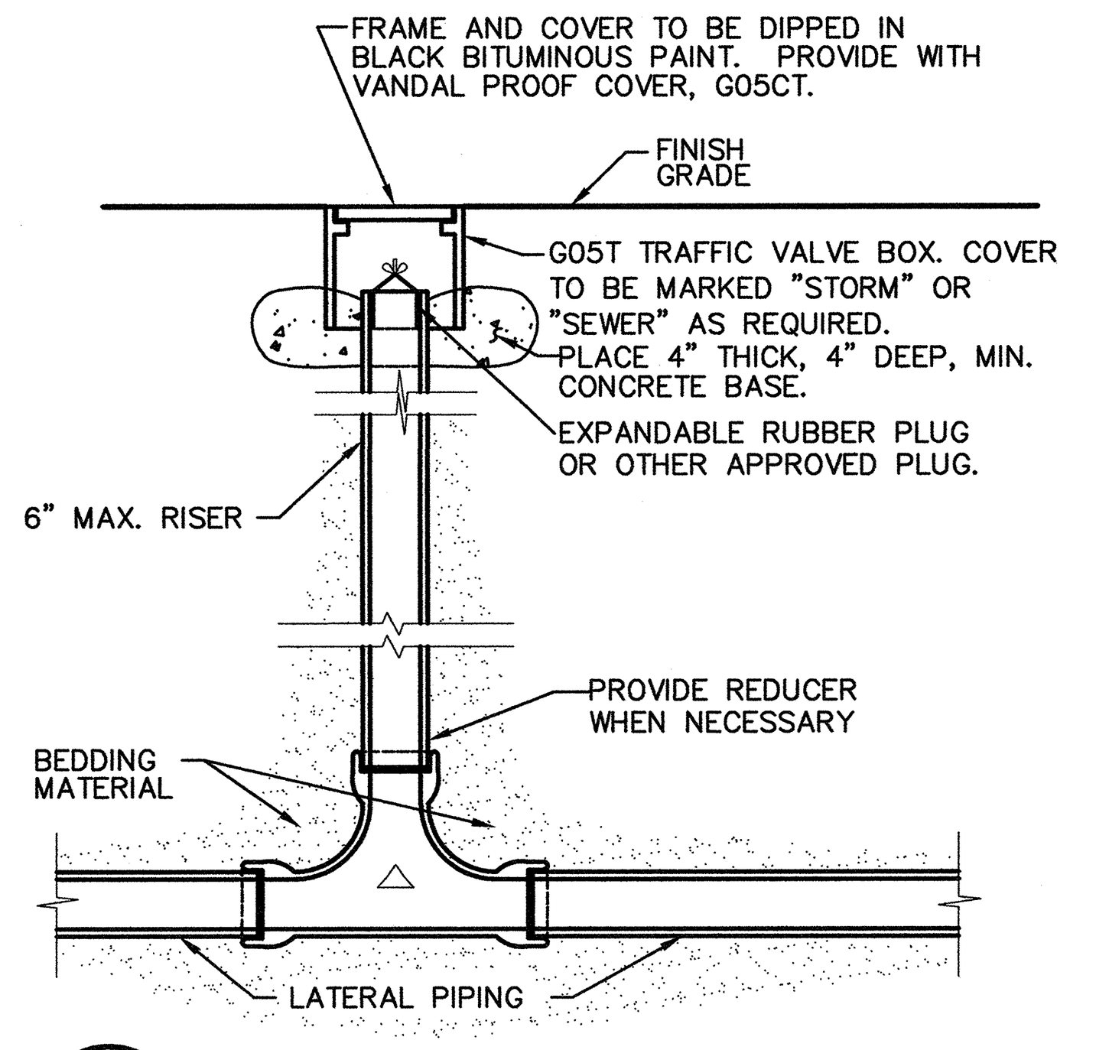
PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C6.1

FILENAME:I:\19-065\CIVIL\DWG\19-065-C61.DWG



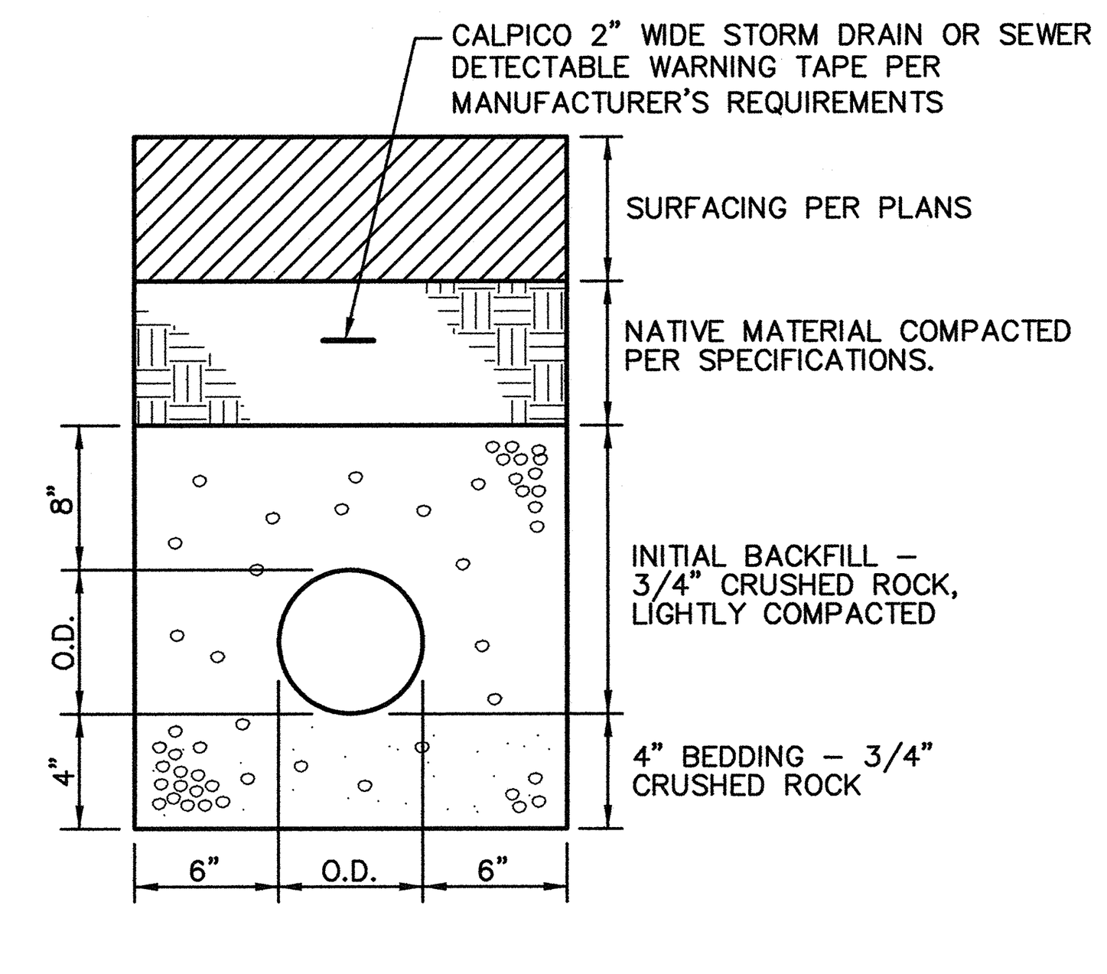
A C7.1 SYNTHETIC TURF CROSS SECTION

NO SCALE



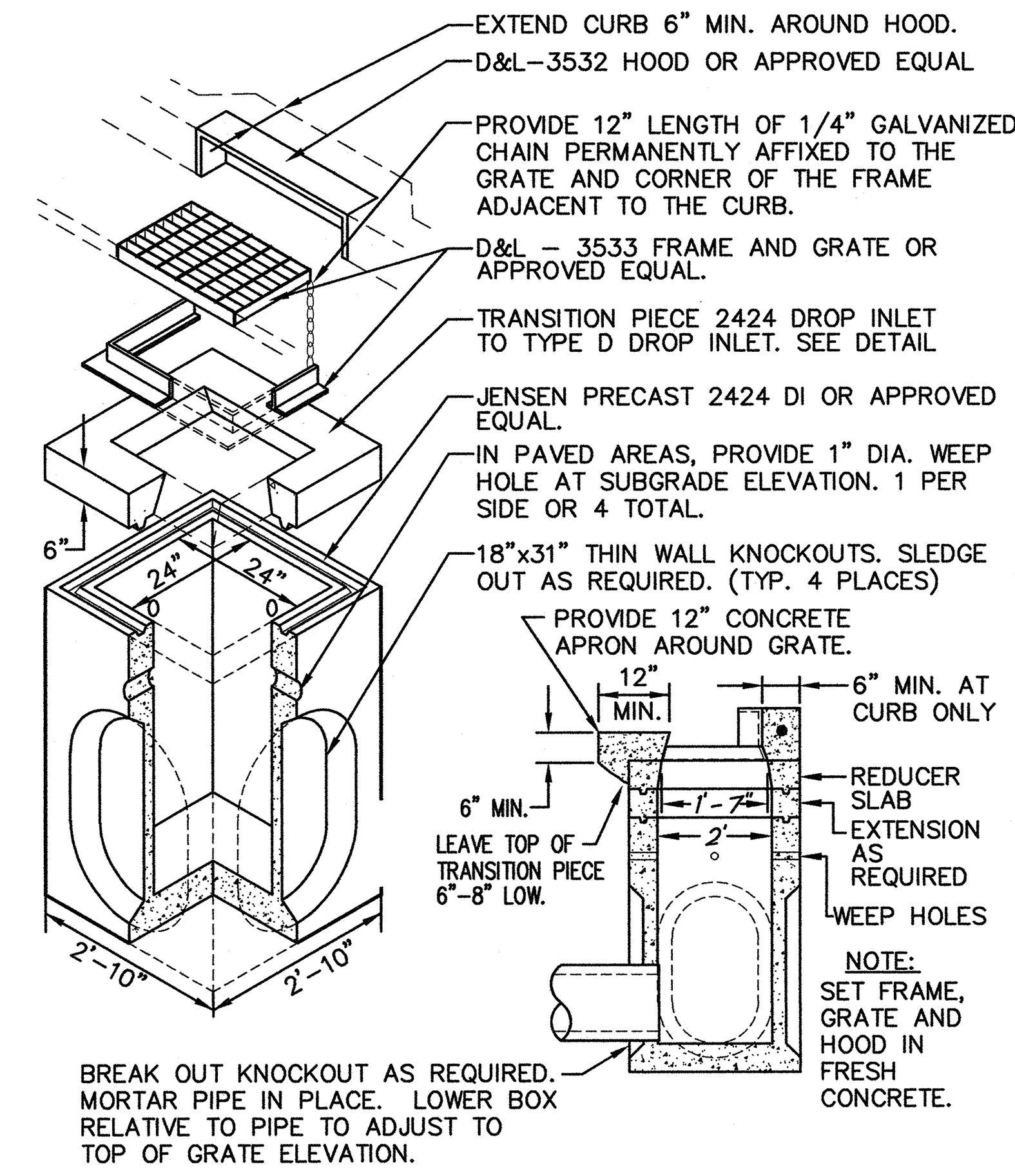
13 C7.1 2-WAY CLEANOUT

NO SCALE



10 C7.1 STORM DRAIN AND SEWER TRENCH

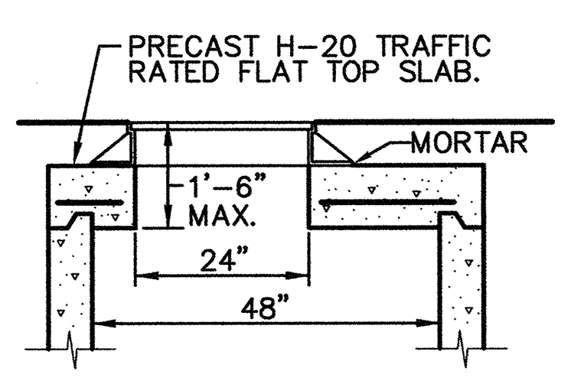
NO SCALE



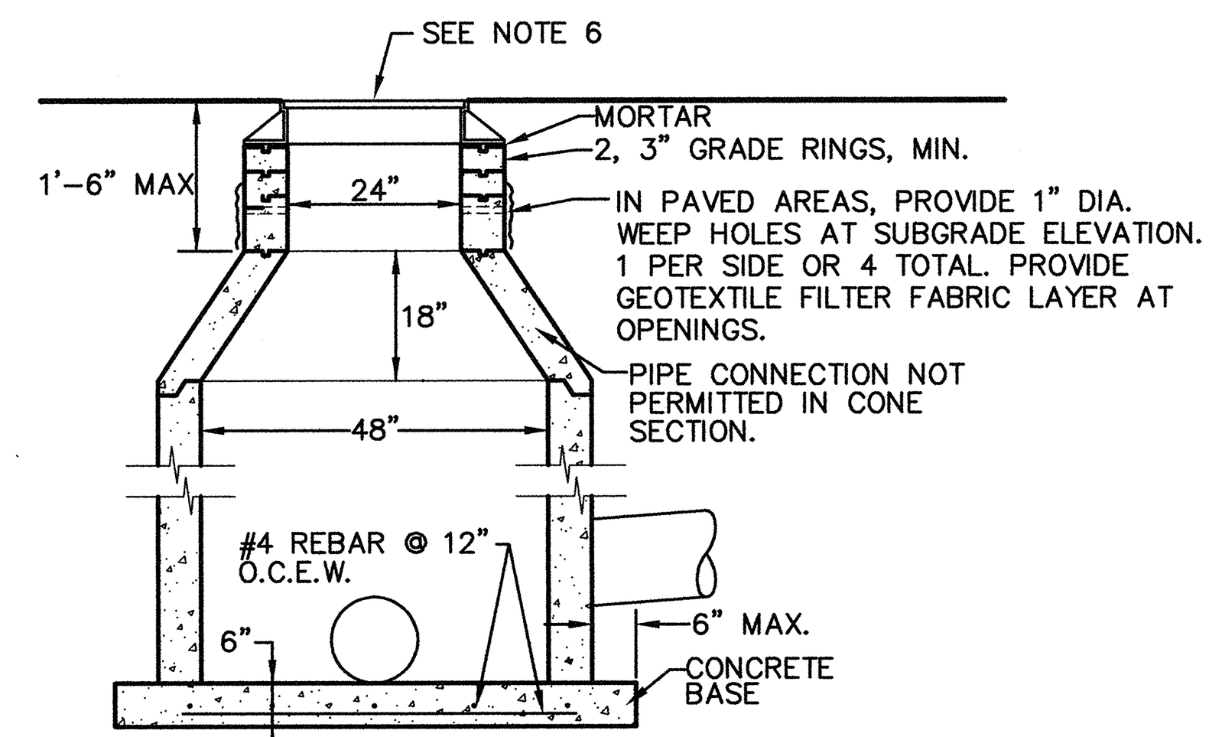
7 C7.1 CURB INLET

BOX DESIGN LOAD: H-20 TRAFFIC

NO SCALE



FLAT SLAB SECTION

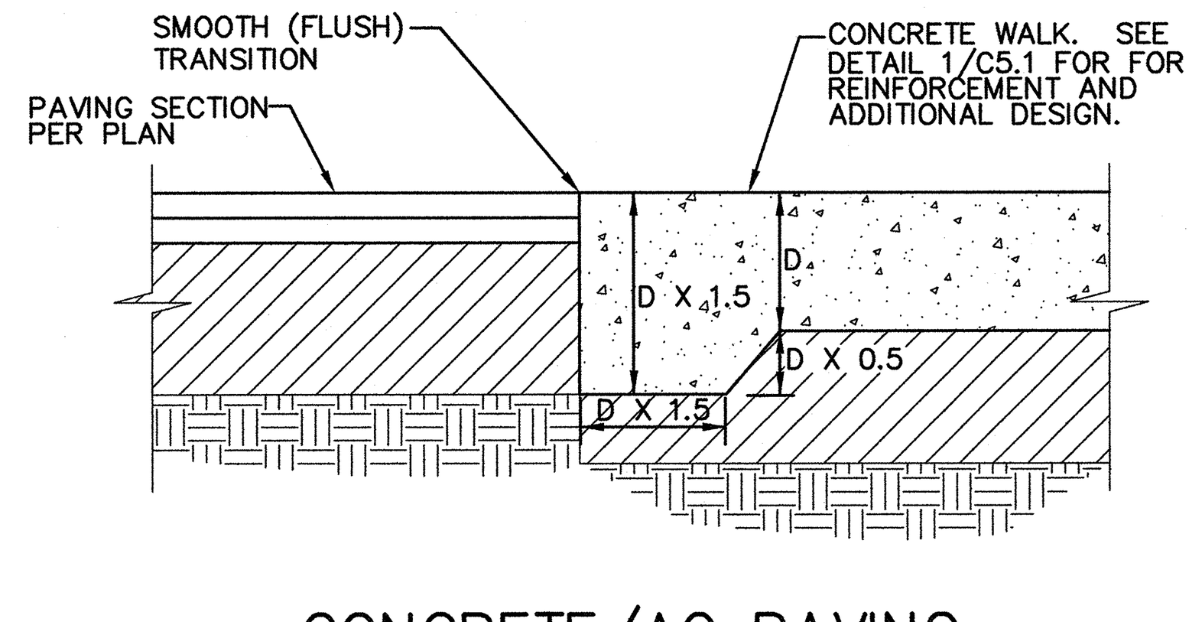


NOTES:

1. RISER SECTIONS, CONES, AND ADJUSTING RING SHALL CONFORM TO ASTM DESIGNATION C-478.
2. FRAME SHALL BE SECURED TO RISER OR FLAT SLAB TOP WITH CEMENT MORTAR.
3. THE CONTRACTOR MAY AT HIS OPTION, CAST THE LOWER PORTION OF MANHOLE IN PLACE. THE CAST-IN-PLACE PORTION SHALL NOT BE PLACED HIGHER THAN 6 INCHES ABOVE THE OUTSIDE TOPS OF THE MAIN INCOMING AND OUTGOING PIPES.
4. ALL JOINTS SHALL BE SEALED WITH GROUT AND INSIDE OF MANHOLE SHALL BE GROUTED SMOOTH.
5. FLAT SLAB SHALL BE USED WHEN DEPTH DOES NOT PERMIT USE OF TAPER UNIT. FLAT TOP SLAB TO BE TRAFFIC RATED.
6. SLOTTED CAST IRON GRATE AND FRAME SHALL BE D&L C2669 (C2669ADA IN PAVED AREAS) OR APPROVED EQUAL. PROVIDE WITH TWO (2) BOLTS TO BOLT COVER/GRATE TO FRAME. ALL CASTINGS TO BE MARKED "STORM DRAIN". ALL CASTINGS TO BE DIPPED IN BLACK BITUMINOUS PAINT.

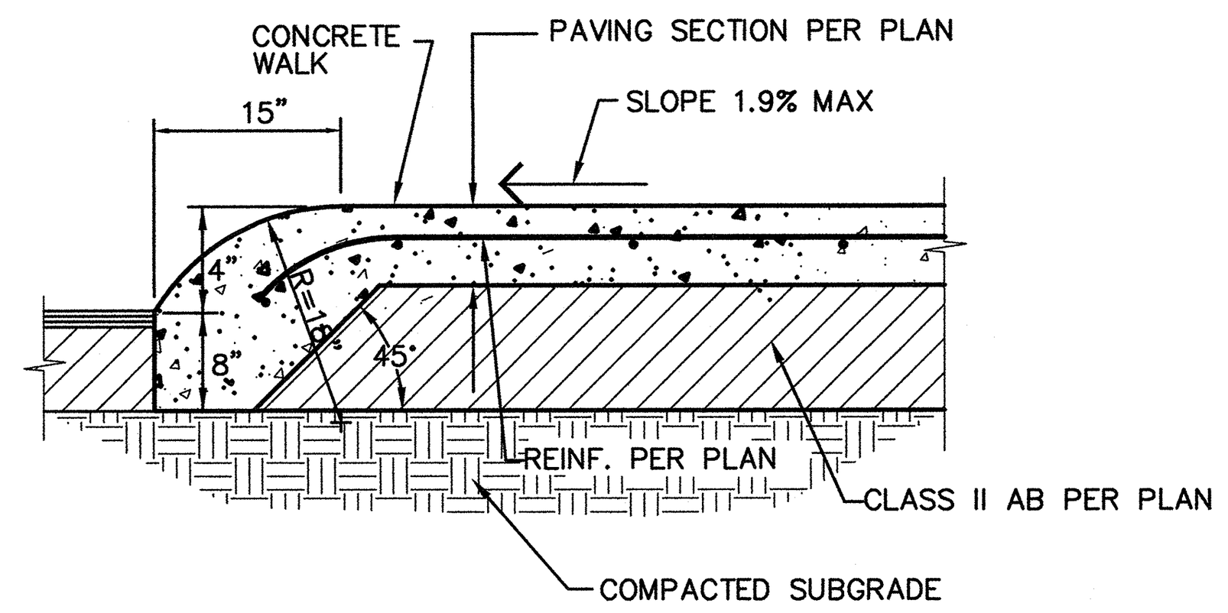
8 C7.1 STORM DRAIN MANHOLE

NO SCALE



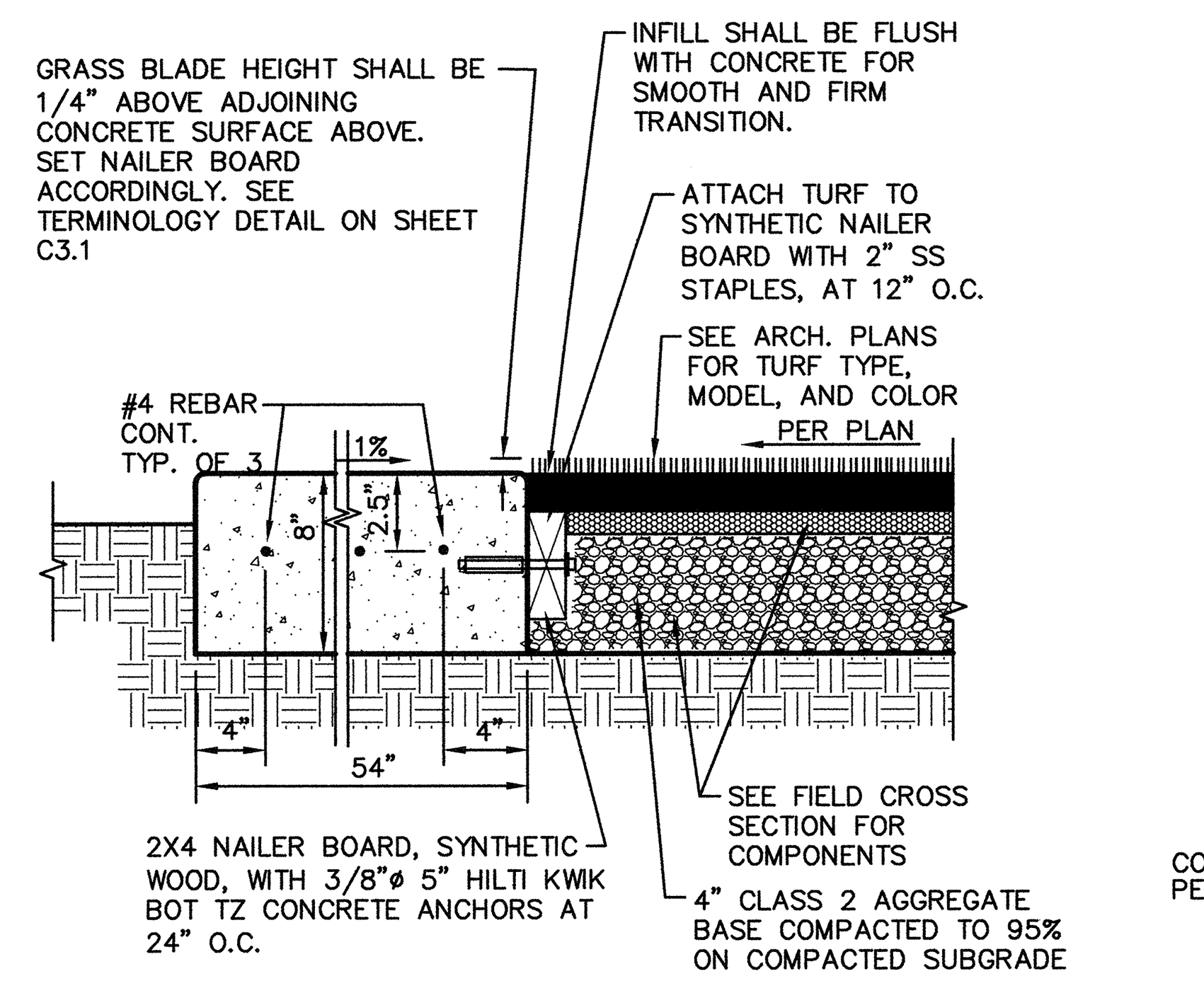
3 C7.1 CONCRETE/AC PAVING TRANSITION

NO SCALE



4 C7.1 ROLLED CURB AND SIDEWALK

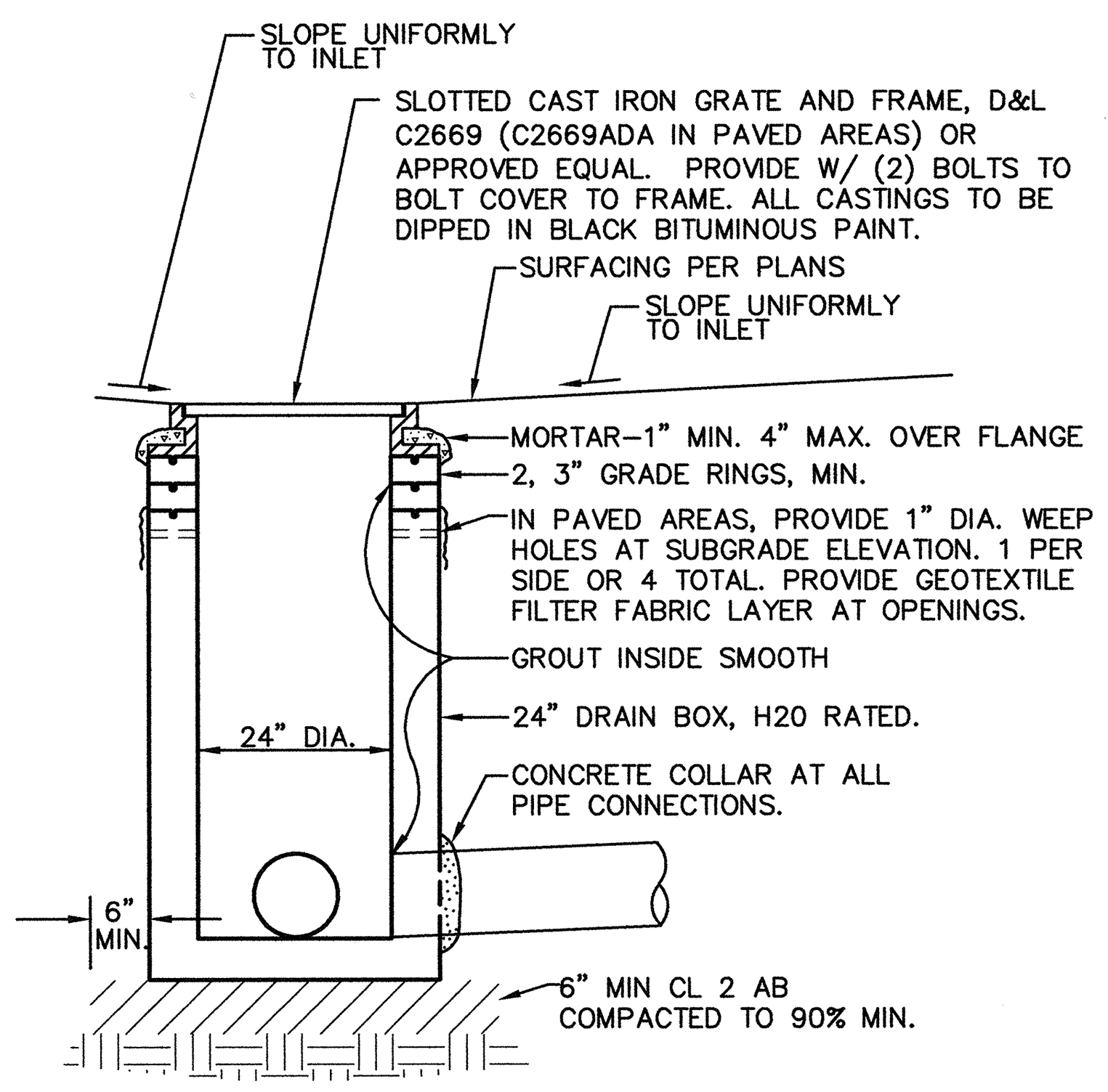
NO SCALE



JOINTS: PROVIDE FELT EXPANSION JOINT EVERY 15 FEET. PROVIDE TOOLED CONCRETE JOINT EVERY 5 FEET BETWEEN.

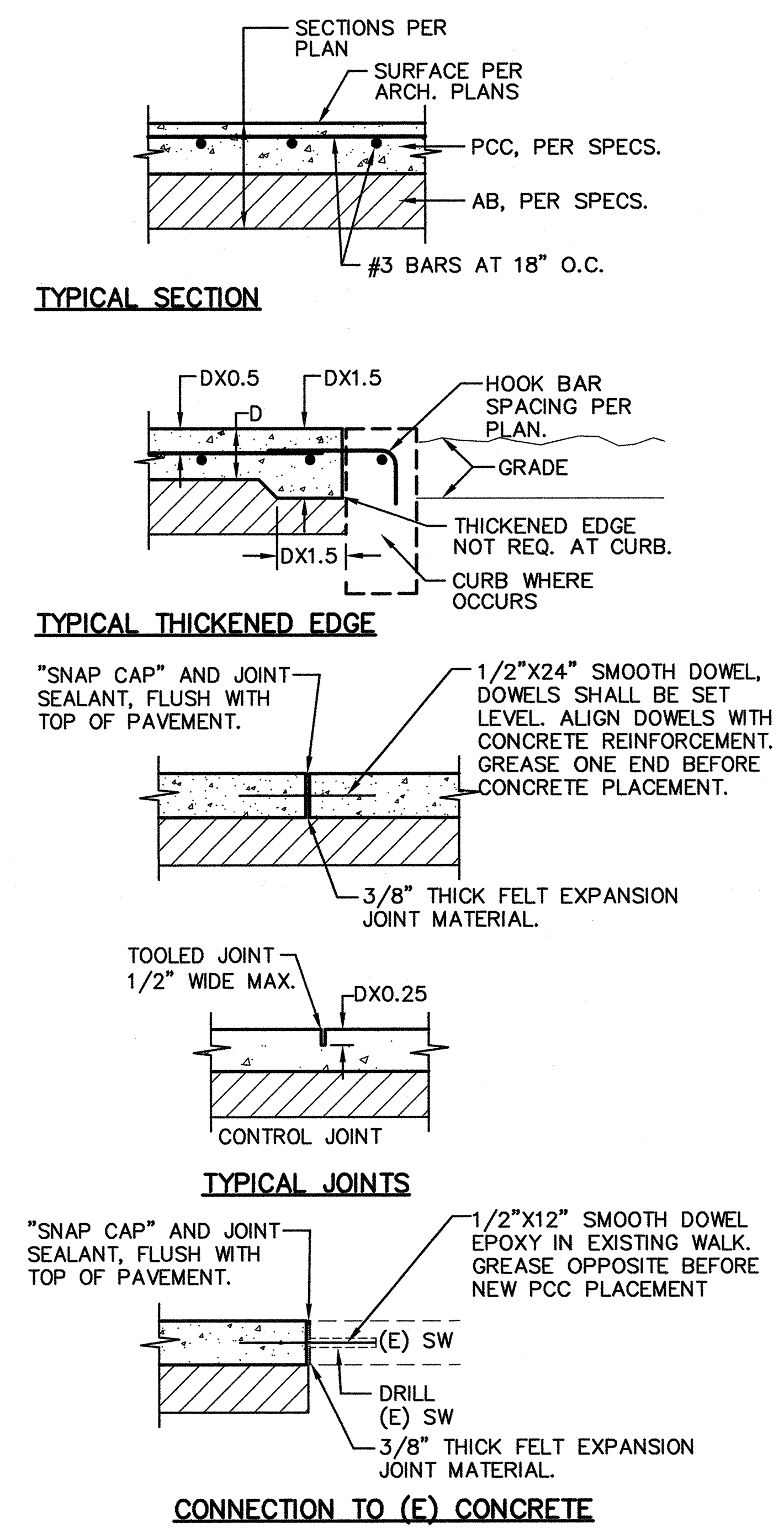
5 C7.1 SYNTHETIC TURF EDGE

NO SCALE



6 C7.1 DROP INLET

NO SCALE

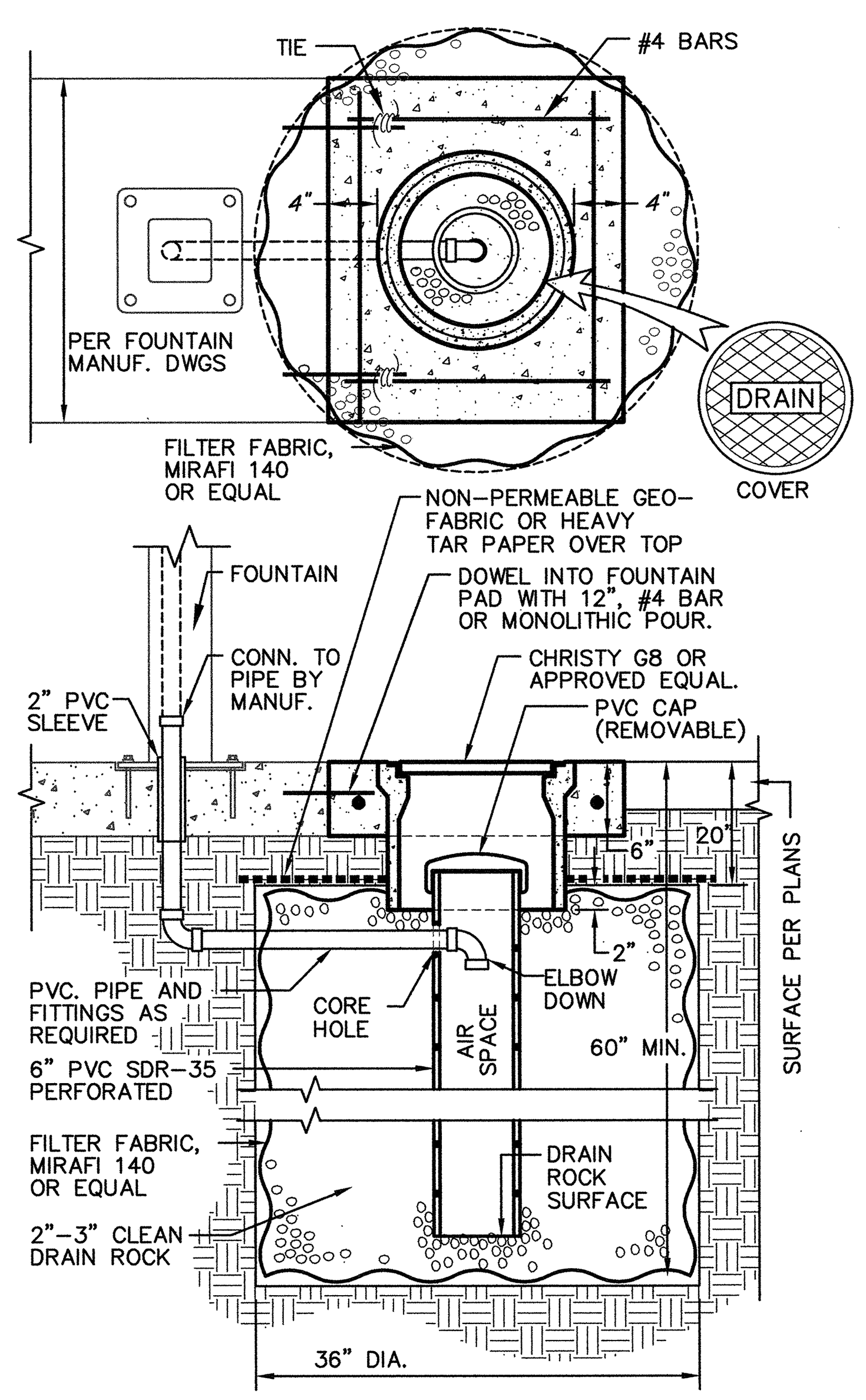


NOTES:

1. PROVIDE FELT EXPANSION JOINTS AT 20 FEET O.C. MIN.
2. PROVIDE CONTROL JOINTS AT 10 FEET O.C. MIN.
3. EXPANSION OR CONTROL JOINTS SHALL NOT EXCEED 1/2" IN SURFACE WIDTH.

1 C7.1 CONCRETE SIDEWALK

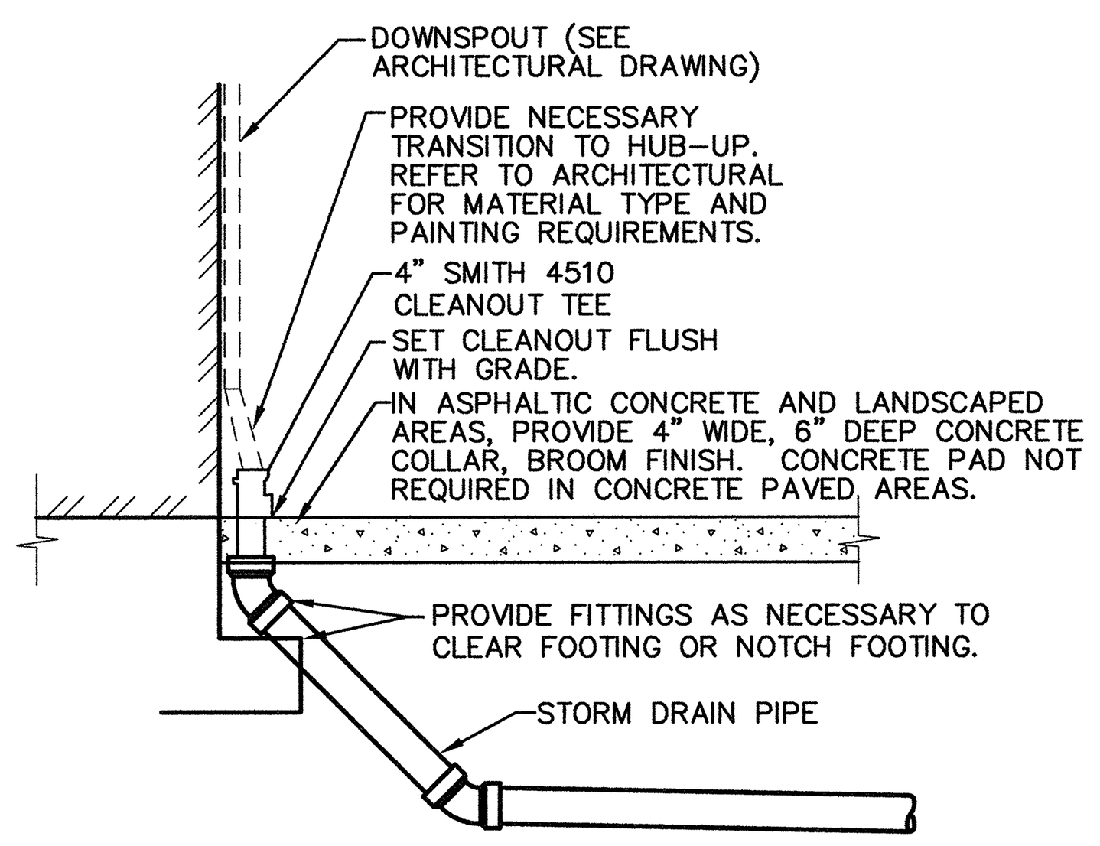
NO SCALE



14 C7.1 DRINKING FOUNTAIN DRYWELL

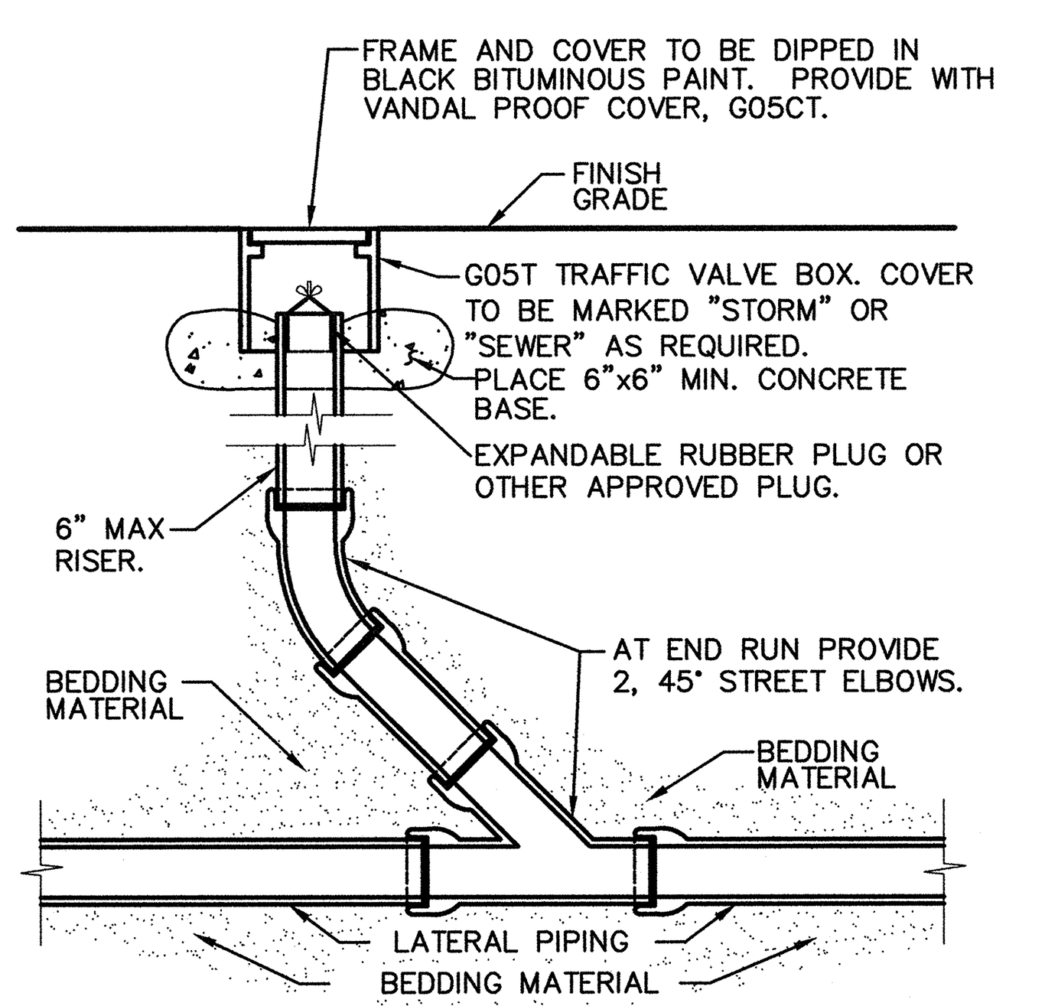
FOR DRINKING FOUNTAIN ONLY

NO SCALE



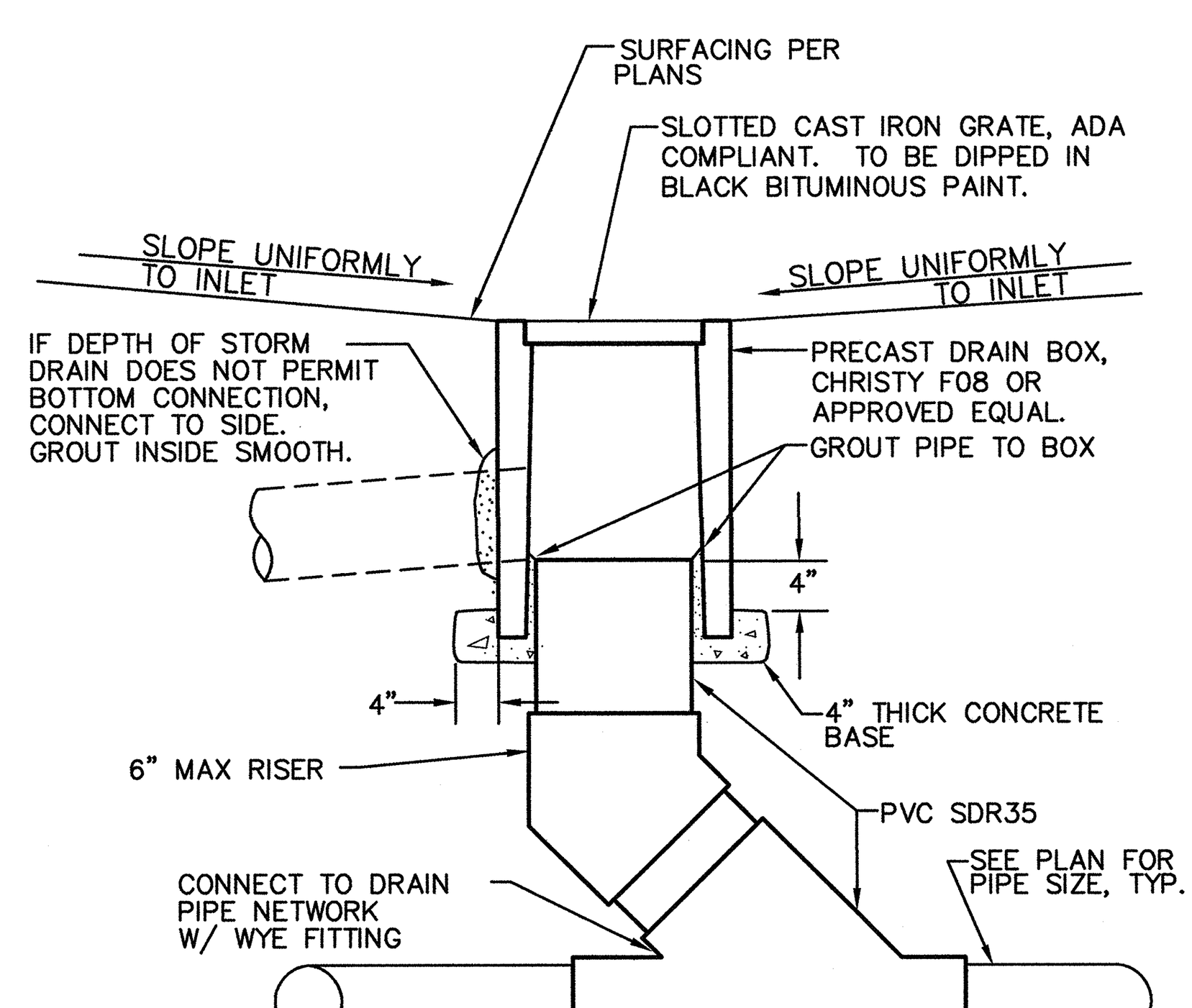
11 C7.1 DOWNSPOUT CONNECTION

NO SCALE



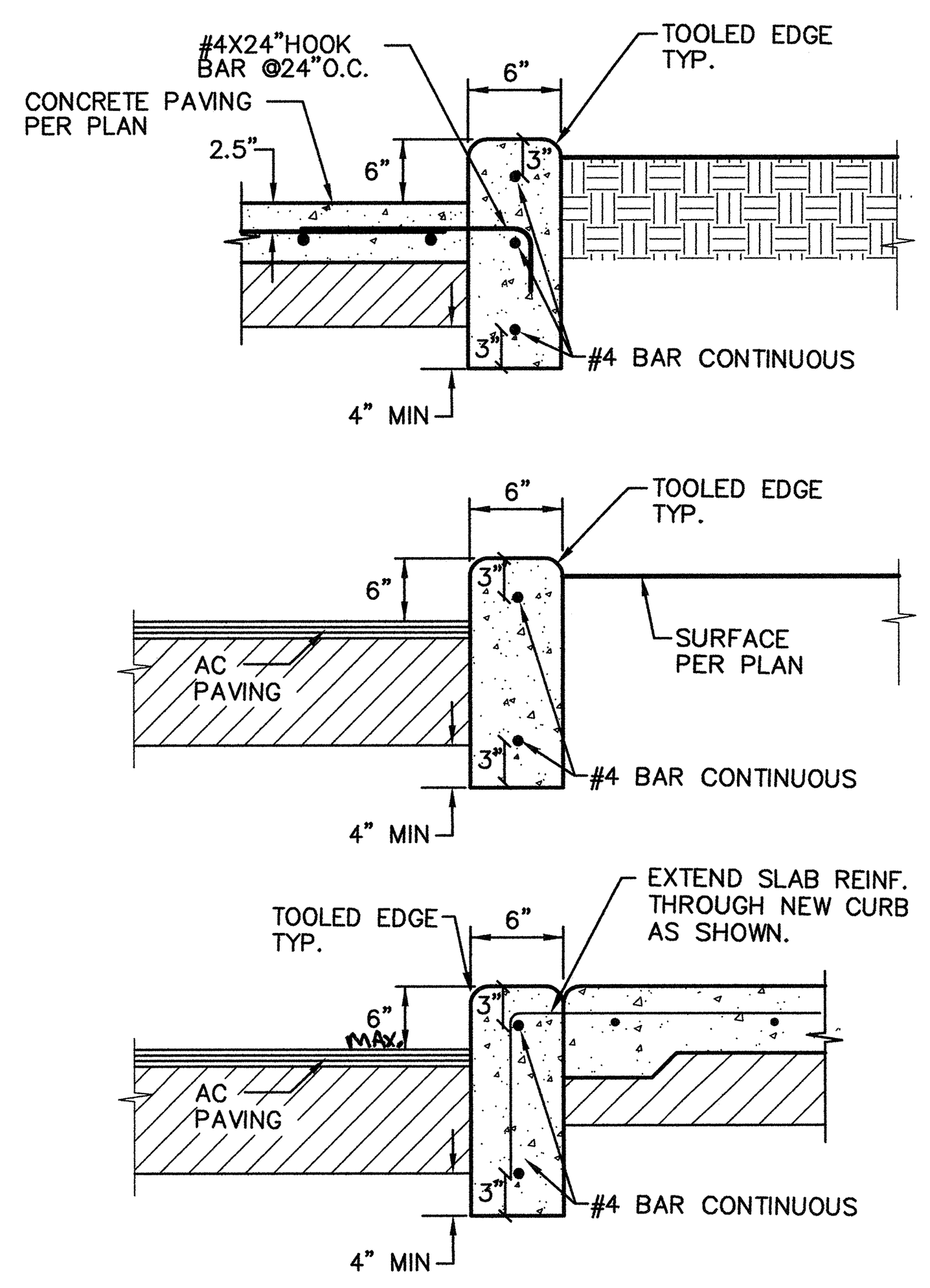
12 C7.1 CLEANOUT

NO SCALE



9 C7.1 AREA DRAIN

NO SCALE

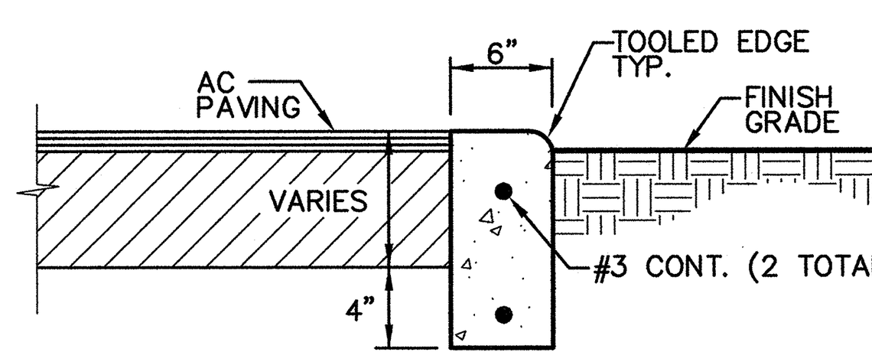


NOTES:

1. PROVIDE FELT EXPANSION JOINTS (E.J.) AT 60 FEET O.C. PROVIDE CONTROL JOINTS AT 10 FEET O.C.
2. AT E.J. USE 1/2"X24" SMOOTH DOWELS, ALIGN WITH REBAR, GREASE 1/2 THE LENGTH BEFORE CONCRETE PLACEMENT.

2 C7.1 CONCRETE CURB

NO SCALE



NOTES:

1. PROVIDE FELT EXPANSION JOINTS (E.J.) AT 60 FEET O.C. PROVIDE CONTROL JOINTS AT 10 FEET O.C., EXCEPT WHEN PLACING ADJACENT TO CONCRETE WALKS THE EXPANSION JOINTS SHALL ALIGN WITH THE EXPANSION JOINTS SHOWN FOR THE CONCRETE WALKS.
2. AT E.J. USE 1/2"X24" SMOOTH DOWELS, ALIGN WITH REBAR,GREASE 1/2 THE LENGTH BEFORE CONCRETE PLACEMENT.

15 C7.1 FLUSH CONCRETE CURB

NO SCALE

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
02 118063 AC FLS SS DATE 12-19-19

rga rainforth grau architects

REGISTERED PROFESSIONAL ENGINEER ANTHONY J. TASSANO NO. C74696 CIVIL STATE OF CALIFORNIA

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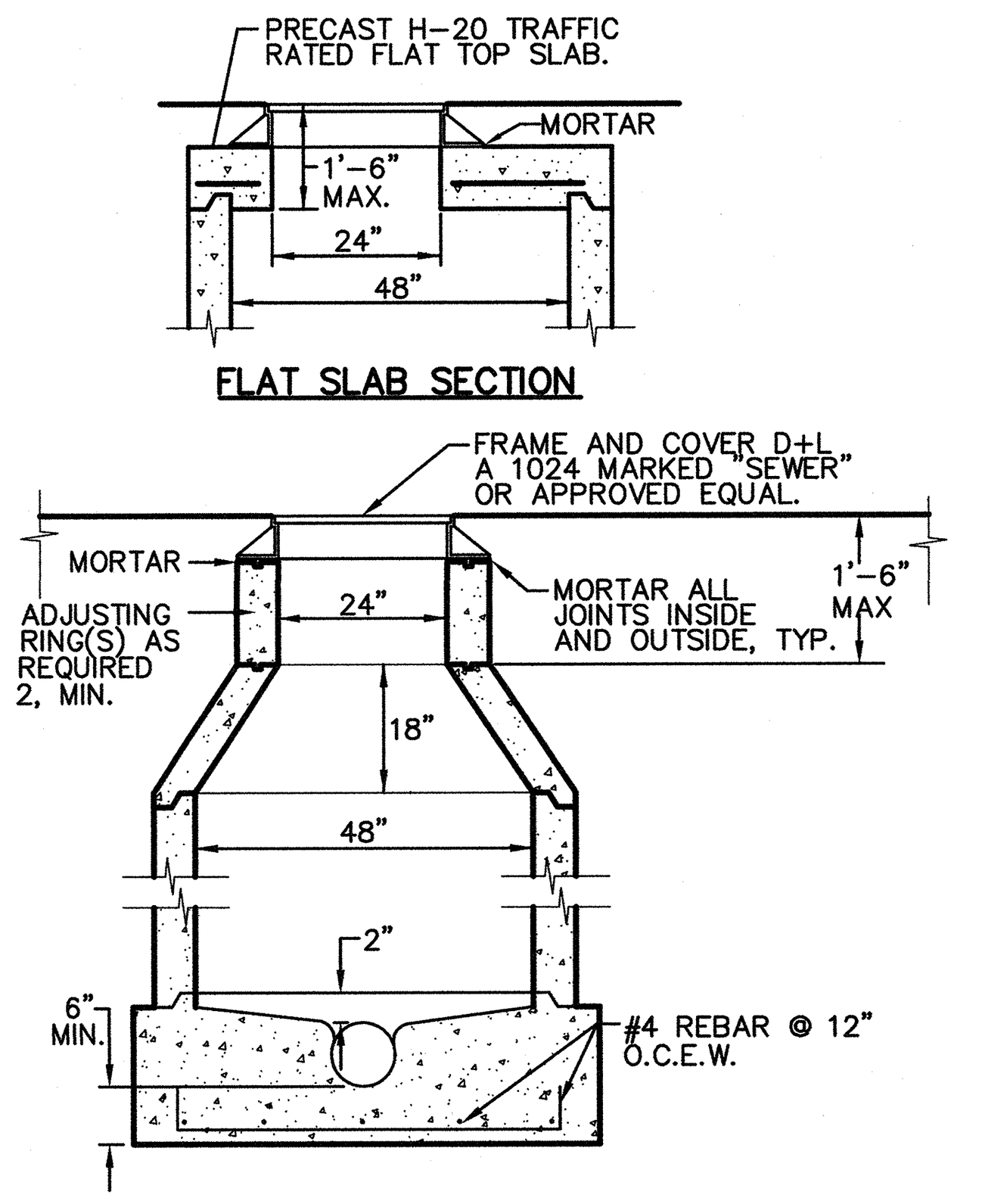
NEEDHAM ELEMENTARY SCHOOL-ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

DETAILS AND SECTIONS

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C7.1

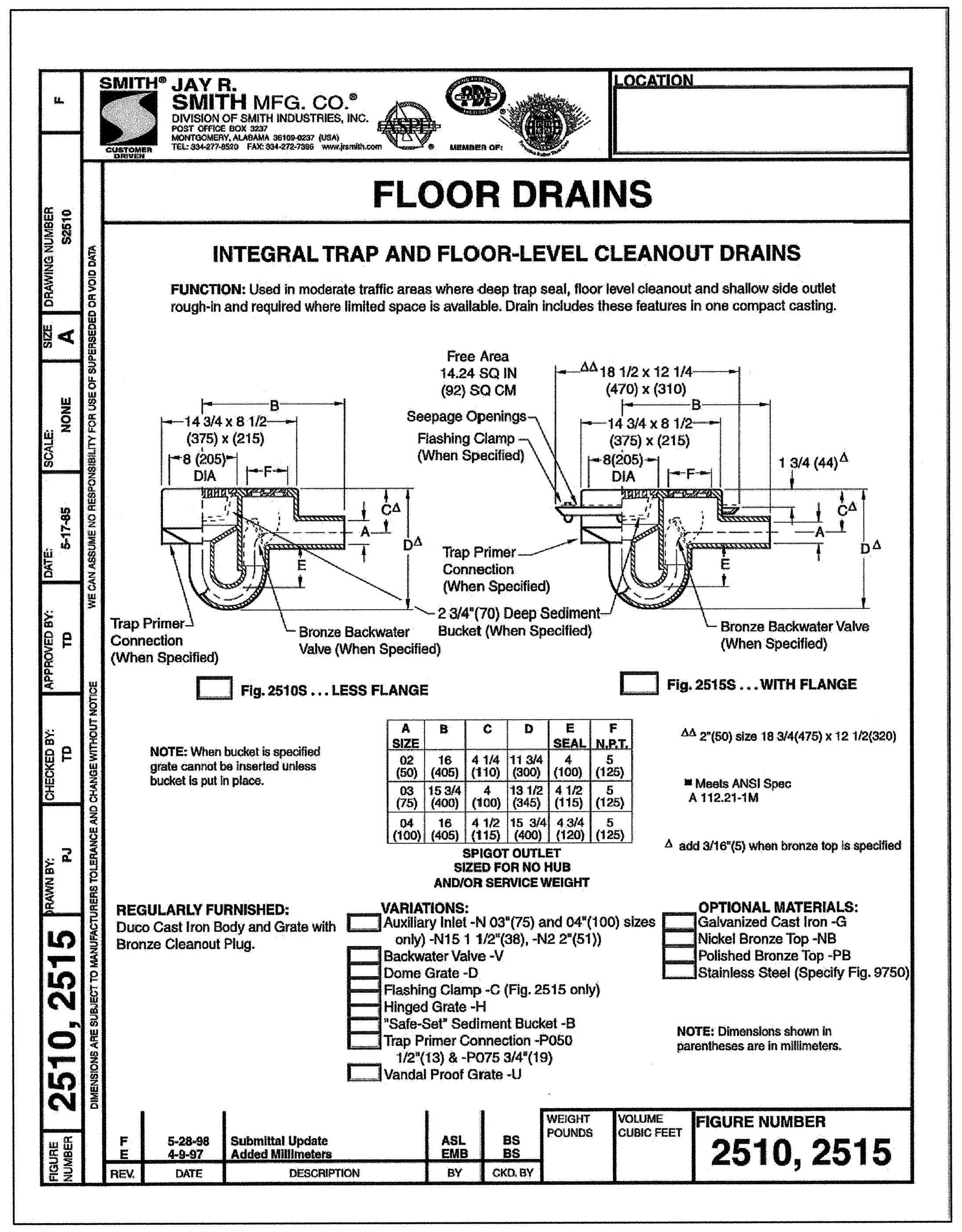
FILENAME:I:\19-065\CIVIL\DWG\19-065-C71-C72.DWG



NOTES:

1. RISER SECTIONS, CONES, AND ADJUSTING RING SHALL CONFORM TO ASTM DESIGNATION C-478.
2. FRAME SHALL BE SECURED TO RISER OR FLAT SLAB TOP WITH CEMENT MORTAR.
3. CONCRETE BASE MAY BE CAST-IN-PLACE AND POURED AGAINST UNDISTURBED MATERIAL OR PRE-CAST CONCRETE BASE ON 4" MIN. 3/4" CRUSHED ROCK PLACED ON UNDISTURBED MATERIAL.
4. ALL JOINTS SHALL BE SEALED WITH GROUT AND INSIDE OF MANHOLE SHALL BE GROUTED SMOOTH.
5. FLEXIBLE CONNECTORS SHALL BE INSTALLED ON BOTH INFLOW AND OUTFLOW PIPES PER CA. PLUMBING CODE 719.6.
6. FLAT SLAB SHALL BE USED WHEN DEPTH DOES NOT PERMIT USE OF TAPER UNIT. FLAT SLAB SHALL BE TRAFFIC RATED.

8 / C7.2 SANITARY SEWER MANHOLE
NO SCALE


SMITH® JAY R. SMITH MFG. CO.®
DIVISION OF SMITH INDUSTRIES, INC.

LOCATION

FLOOR DRAINS

INTEGRAL TRAP AND FLOOR-LEVEL CLEANOUT DRAINS

FUNCTION: Used in moderate traffic areas where deep trap seal, floor level cleanout and shallow side outlet rough-in and required where limited space is available. Drain includes these features in one compact casting.

Fig. 2510S . . . LESS FLANGE
Fig. 2515S . . . WITH FLANGE

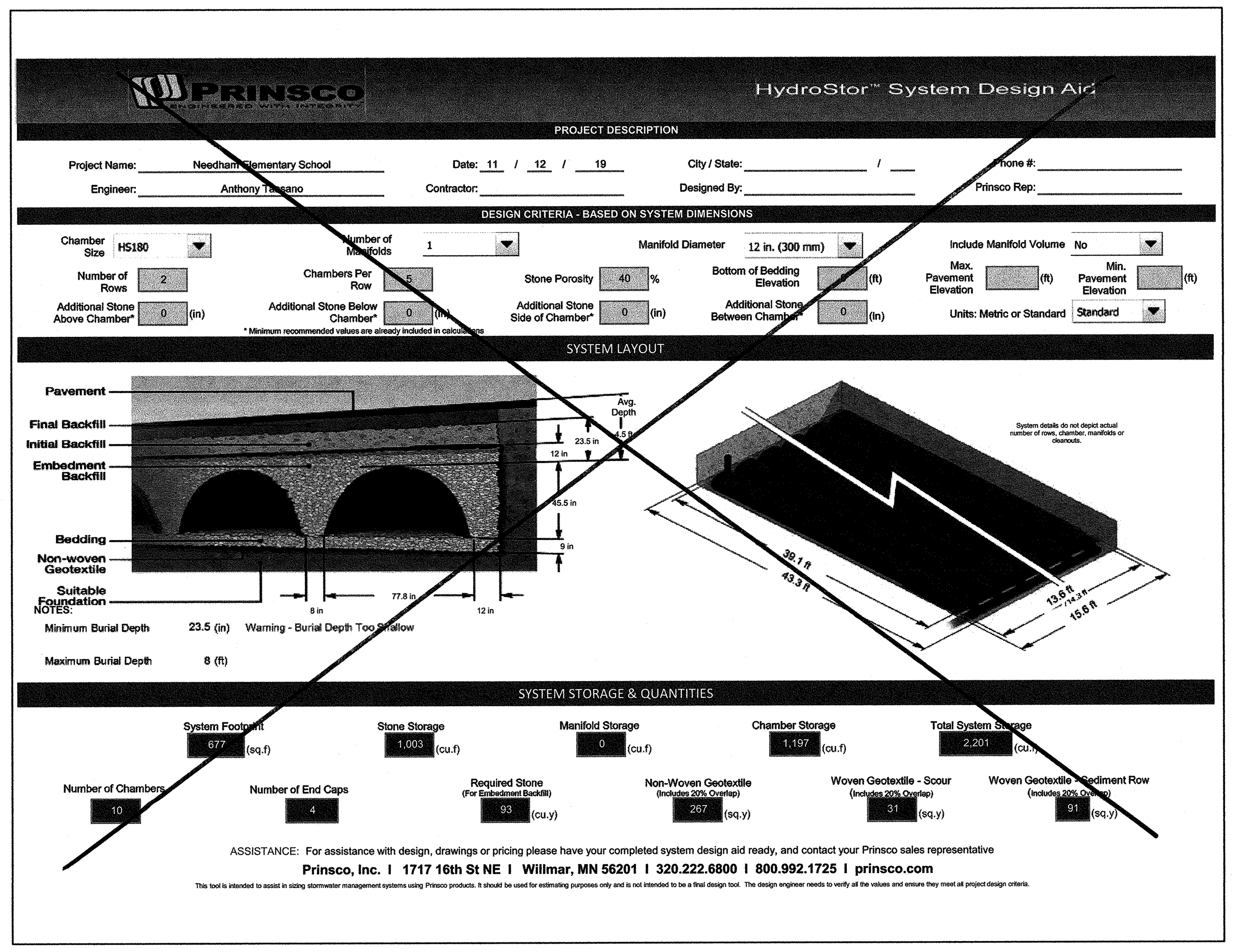
REGULARLY FURNISHED:
Duco Cast Iron Body and Grate with Bronze Cleanout Plug.

VARIATIONS:
Auxiliary Inlet -N 03"(75) and 04"(100) sizes only) -N15 1 1/2"(38), -N2 2"(51))
Backwater Valve -V
Dome Grate -D
Flashing Clamp -C (Fig. 2515 only)
Hinged Grate -H
"Safe-Set" Sediment Bucket -B
Trap Primer Connection -P050 1/2"(13) & -P075 3/4"(19)
Vandal Proof Grate -U

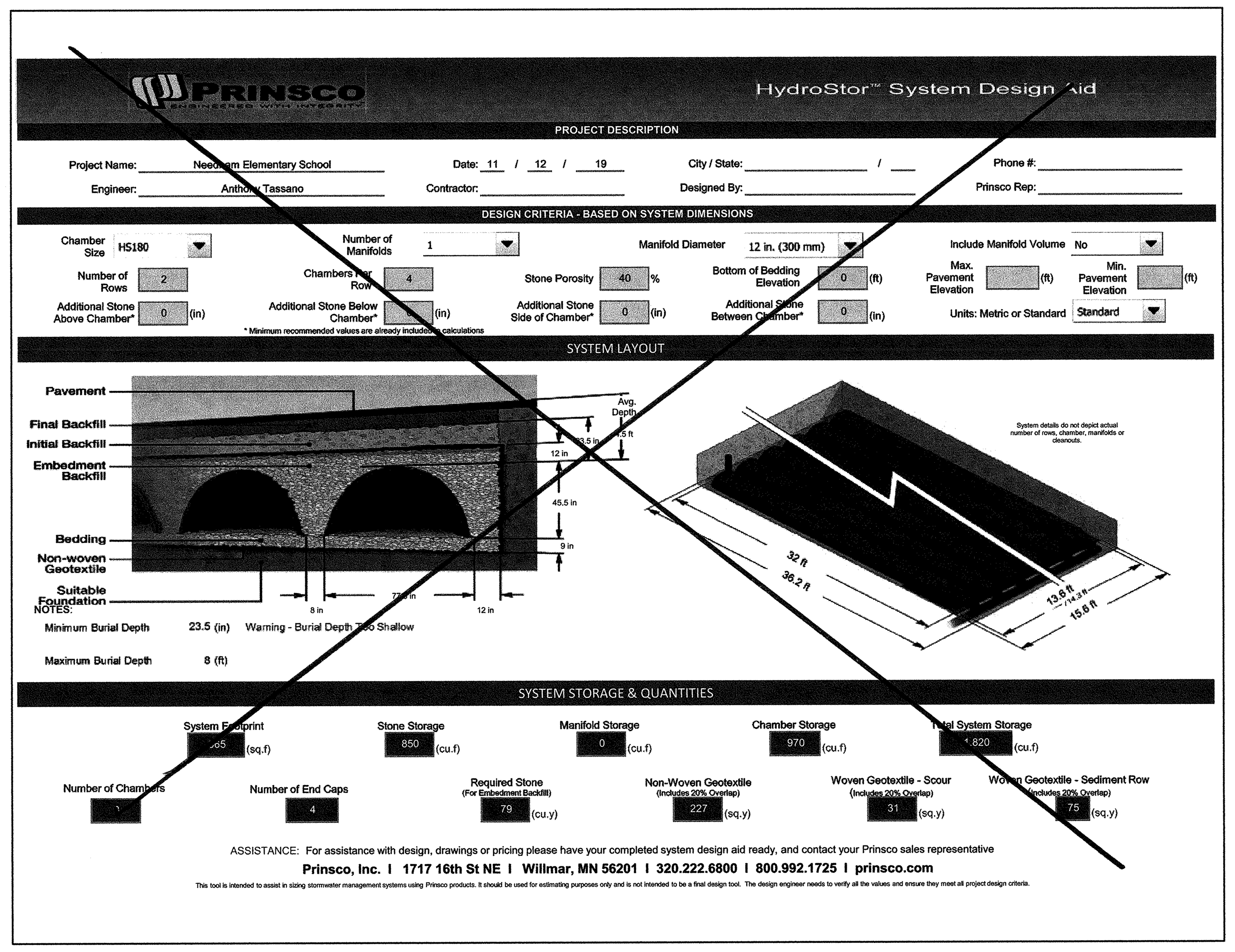
OPTIONAL MATERIALS:
Galvanized Cast Iron -G
Nickel Bronze Top -NB
Polished Bronze Top -PB
Stainless Steel (Specify Fig. 9750)

NOTE: Dimensions shown in parentheses are in millimeters.

FIGURE NUMBER 2510, 2515



6 / C7.2 HYDROSTOR HS180 UNIT 1 * TO BE INCLUDED AS PART OF INC. 4
NO SCALE



7 / C7.2 HYDROSTOR HS180 UNIT 2 * TO BE INCLUDED AS PART OF INC. 4
NO SCALE

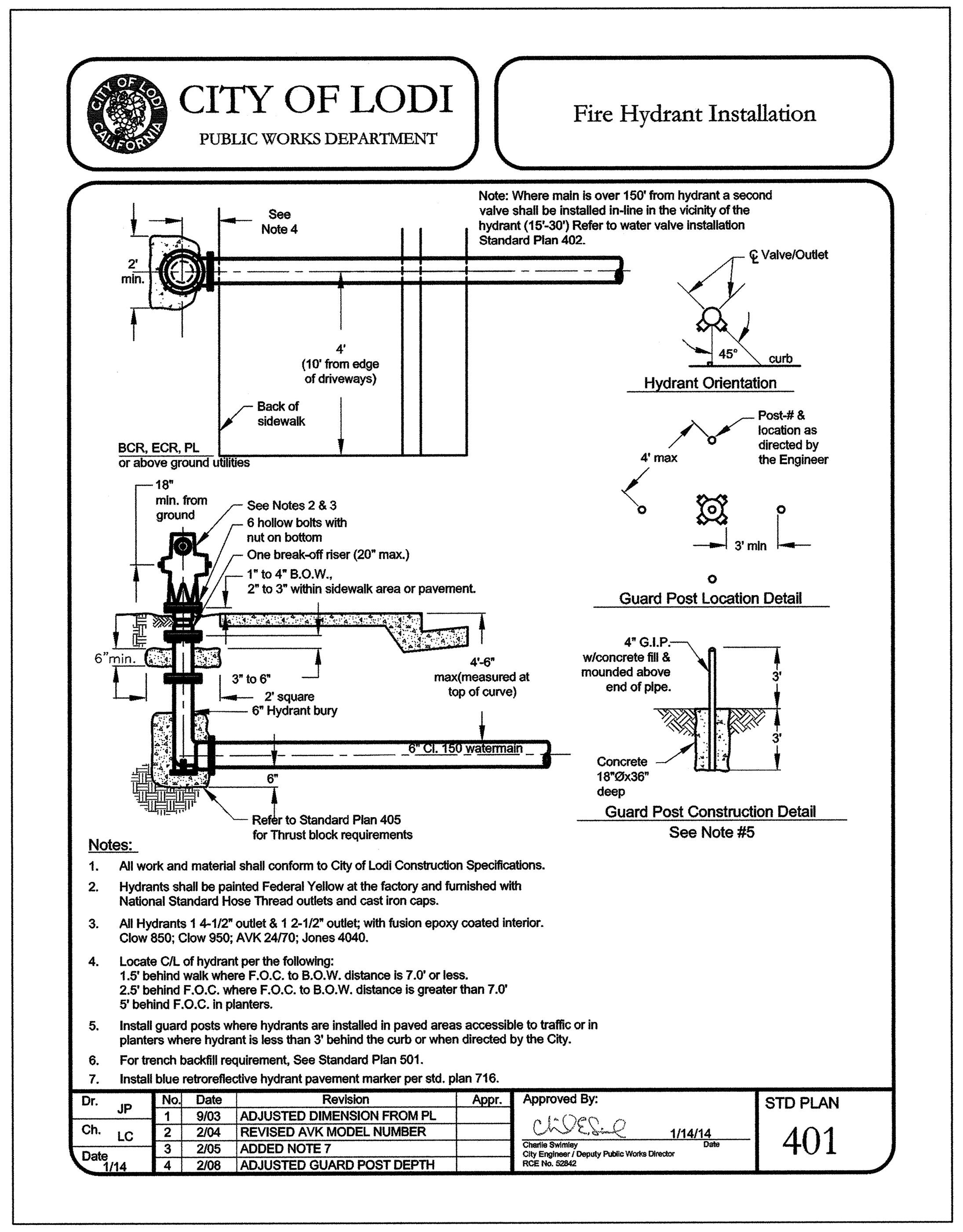
REQUIRED BEARING AREAS IN SQ. FT.

INSTALLATION	FITTING TYPE	PIPE SIZES 4"	6"	8"	10"	12"
	90° ELL	5	11	19	28	39
	45° ELL	3	6	10	15	21
	22.5° ELL	2	3	5	8	11
	11.25° ELL	1	2	3	4	6
	TEE	4	8	13	20	28
	DEAD END	4	8	13	20	28
GATE VALVE 4" OR LARGER						
#4 BARS, TRENCH, KEY 6" MIN.		4	8	13	20	28

NOTES

1. THRUST BLOCKS ARE TO BE CONSTRUCTED OF 2500 PSI CONCRETE MIN.
2. AREAS IN TABLE HAVE BEEN DERIVED USING A WATER PRESSURE OF 200 POUNDS PER SQUARE INCH (13.8 BARS) AND SOIL RESISTANCE OF 1500 POUNDS PER SQUARE FOOT (137.9 BARS).
3. BLOCKING TO BE POURED AGAINST UNDISTURBED SOIL, 12 INCH THICK MINIMUM.
4. THRUST BLOCKS ARE TO BE FREE, SEPARATE AND INDEPENDENT OF ADJACENT OR NEARBY THRUST BLOCKS.
5. WRAP ALL FITTINGS BEFORE PLACING CONCRETE.

4 / C7.2 THRUST BLOCKS
NO SCALE


CITY OF LODI
PUBLIC WORKS DEPARTMENT

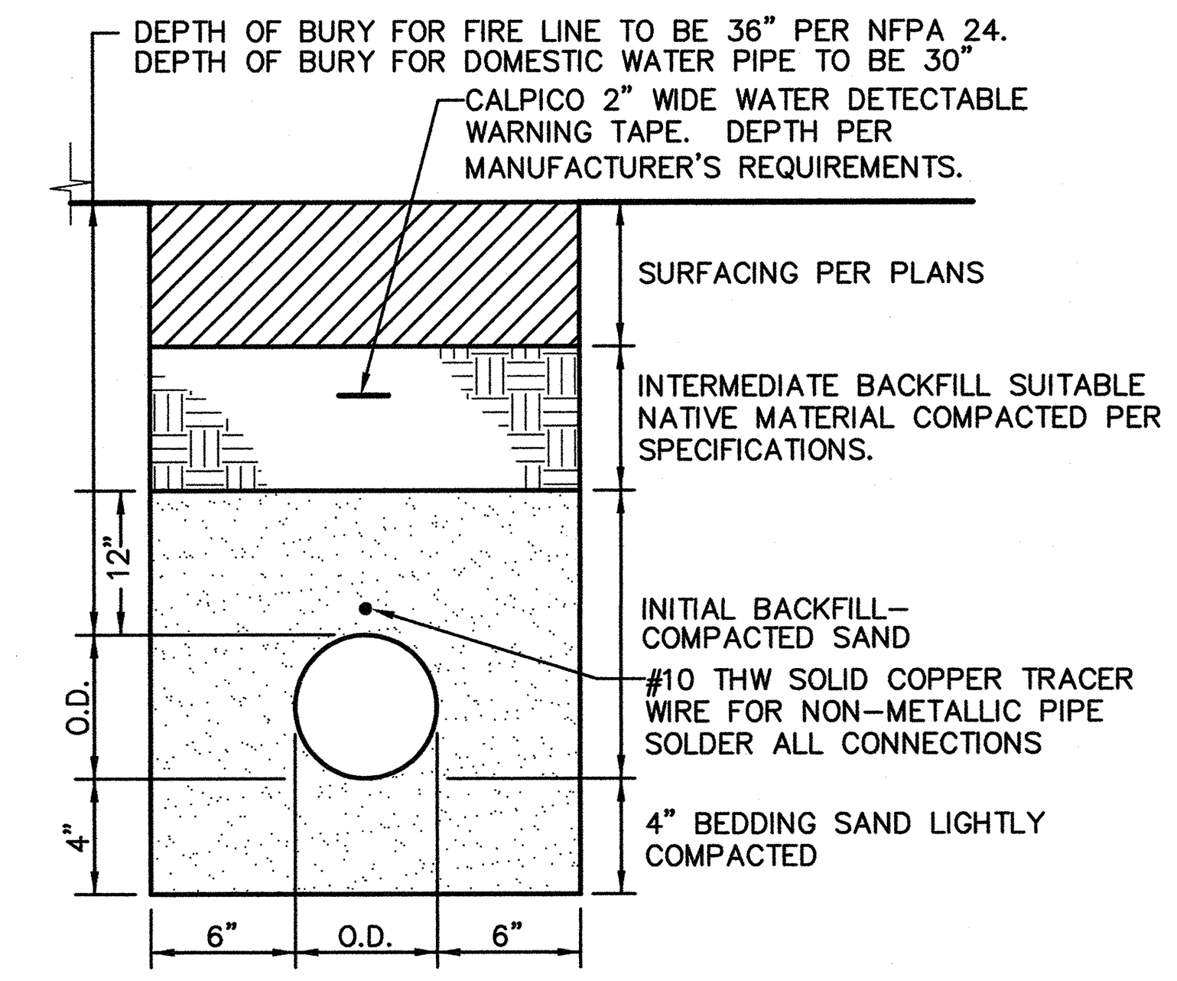
Fire Hydrant Installation

Notes:
1. All work and material shall conform to City of Lodi Construction Specifications.
2. Hydrants shall be painted Federal Yellow at the factory and furnished with National Standard Hose Thread outlets and cast iron caps.
3. All Hydrants 1-4-1/2" outlet & 1 2-1/2" outlet; with fusion epoxy coated interior. Clow 850; Clow 950; AVK 24/70; Jones 4040.
4. Locate C/L of hydrant per the following: 1.5' behind walk where F.O.C. to B.O.W. distance is 7.0' or less. 2.5' behind F.O.C. where F.O.C. to B.O.W. distance is greater than 7.0' 5' behind F.O.C. in planters.
5. Install guard posts where hydrants are installed in paved areas accessible to traffic or in planters where hydrant is less than 3' behind the curb or when directed by the City.
6. For trench backfill requirement, See Standard Plan 501.
7. Install blue retroreflective hydrant pavement marker per std. plan 716.

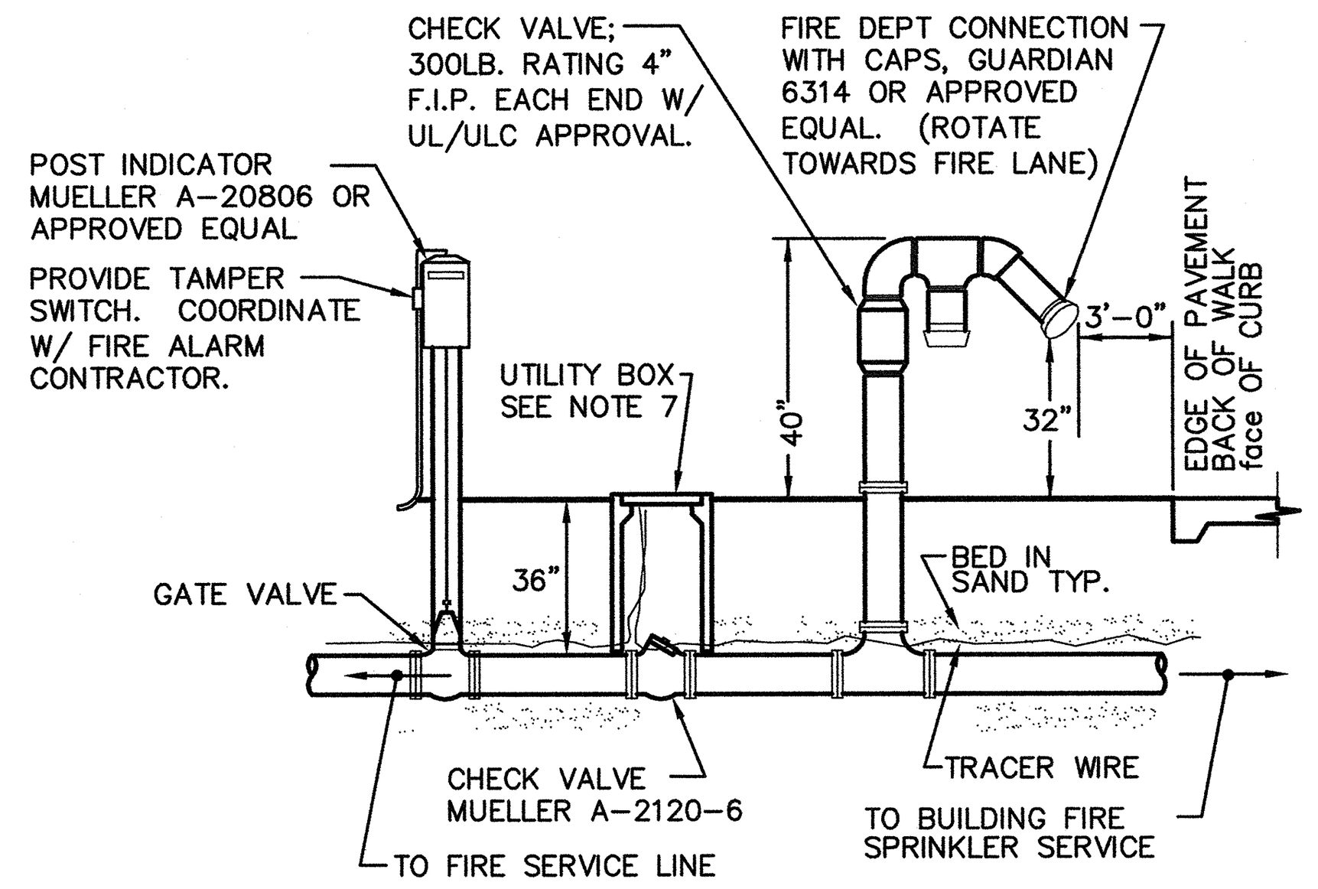
No.	Date	Revision
1	9/03	ADJUSTED DIMENSION FROM PL
2	2/04	REVISED AVK MODEL NUMBER
3	2/05	ADDED NOTE 7
4	2/08	ADJUSTED GUARD POST DEPTH

STD PLAN 401

5 / C7.2 FIRE HYDRANT INSTALLATION
NO SCALE



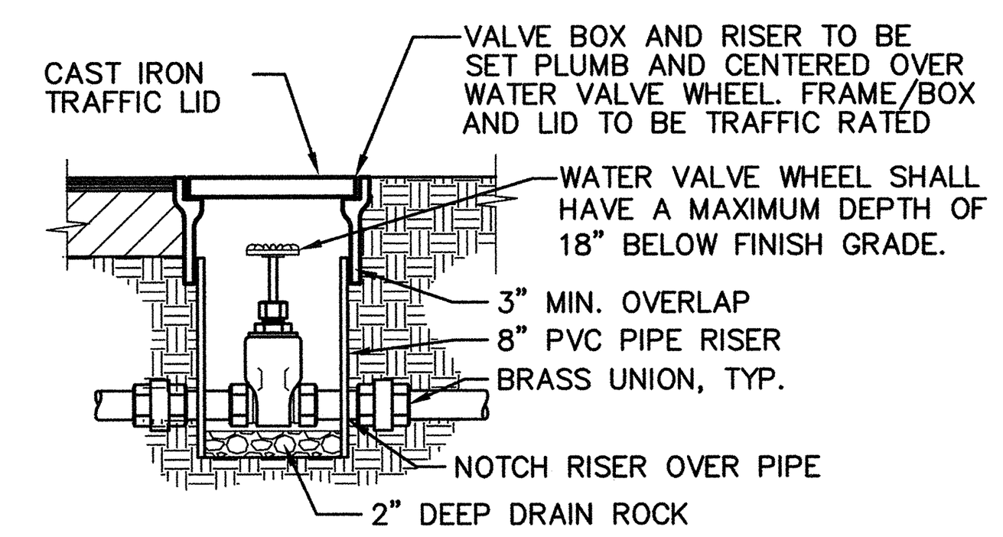
1 / C7.2 WATER TRENCH
NO SCALE



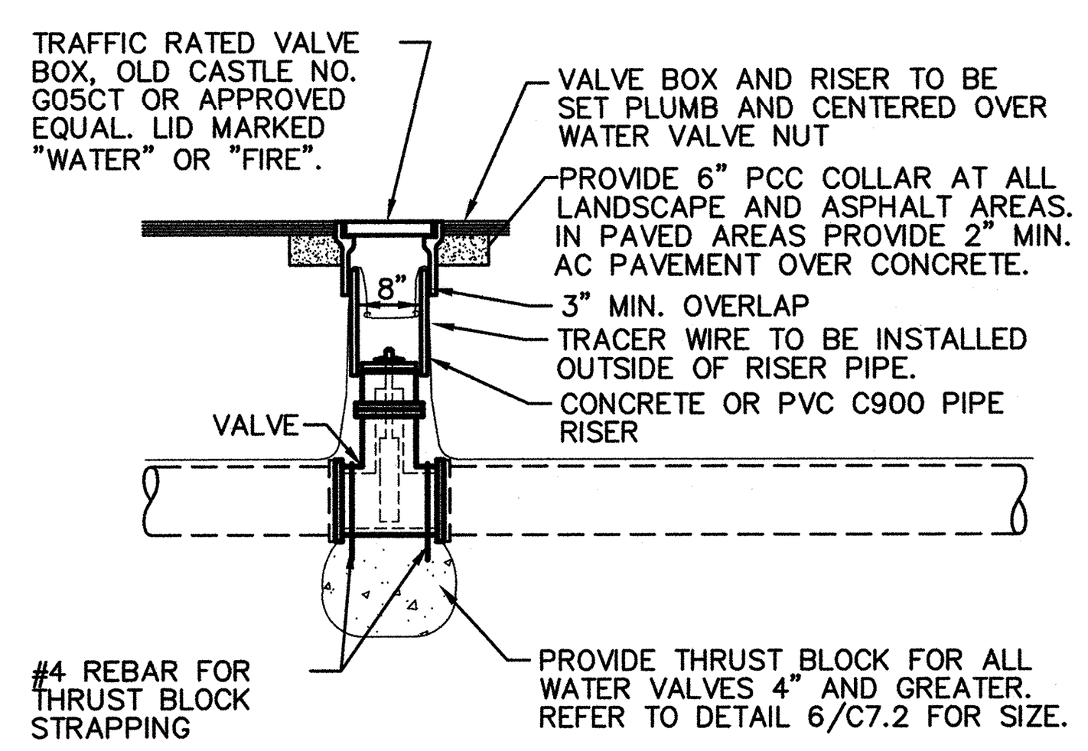
FIRE DEPARTMENT NOTES

1. THE INSTALLATION OF ALL ON-SITE FIRE PROTECTION SYSTEMS SHALL BE IN ACCORDANCE WITH N.F.P.A. 24 AND FIRE DEPARTMENT STANDARDS.
2. ALL ON-SITE FIRE PROTECTION SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF N.F.P.A. 24 AND SHALL BE WITNESSED BY THE FIRE DEPARTMENT. UNDERGROUND PIPING SHALL BE FLUSHED PER NFPA13 AND RISER STUB-UP IMMEDIATELY CAPPED.
3. THE INSTALLING CONTRACTOR, OR SUBCONTRACTOR, FOR ALL ON-SITE FIRE PROTECTION SYSTEMS SHALL NOTIFY THE FIRE DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF REQUESTING A DATE AND TIME FOR INSPECTIONS.
4. IF PLASTIC PIPE IS INSTALLED FOR FIRE PROTECTION SYSTEMS, THE PIPE SHALL BE C-900 CLASS 200.
5. AFTER INSTALLATION, RODS, NUTS, BOLTS, WASHERS, CLAMPS, AND OTHER RESTRAINING DEVICES, EXCEPT THRUST BLOCKS, USED ON ON-SITE FIRE PROTECTION SYSTEMS SHALL BE CLEANED AND THOROUGHLY COATED WITH A BITUMINOUS OR OTHER ACCEPTABLE CORROSION-RETARDING MATERIAL.
6. ALL PIPES AND FITTINGS SHALL BE WRAPPED PER N.F.P.A. 24 AND BEDDED IN SAND.
7. PROVIDE UTILITY BOX. FOR 4" - 6" VALVE CHRISTY N48, FOR 8"+ CHRISTY N52 OR APPROVED EQUAL. PROVIDE 12" MIN CHAIN WELDED TO LIDS AND BOLTED TO INSIDE OF BOX. LID SHALL BE TRAFFIC RATED IF WITHIN A TRAFFIC AREA.

2 / C7.2 FIRE DEPARTMENT CONNECTION ASSEMBLY
NO SCALE



WATER VALVE 1/2"-3"
NO SCALE



WATER VALVE 4" OR GREATER
NO SCALE

3 / C7.2 WATER VALVE
NO SCALE

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AC FLS SS
DATE 12-19-19

rga rainforth grau architects

ANTHONY J. TASSANO NO. C74696 CIVIL STATE OF CALIFORNIA REGISTERED PROFESSIONAL ENGINEER

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NEEDHAM ELEMENTARY SCHOOL- ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

DETAILS AND SECTIONS

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	C7.2

FILENAME:I:\19-065\CIVIL\DWG\19-065-C71-C72.DWG

CIVIL IMPROVEMENT PLANS FOR:

CLYDE W. NEEDHAM ELEMENTARY SCHOOL

420 S PLEASANT AVENUE
LODI, CA 95240

ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS MAY BE USED ON THESE PLANS.

AB	AGGREGATE BASE
AC	ASPHALTIC CONCRETE
AD	AREA DRAIN
APN	ASSESSOR'S PARCEL NUMBER
ARV	AIR RELEASE VALVE
ASB	AGGREGATE SUB-BASE
BO	BLOW-OFF VALVE
BV	BUTTERFLY VALVE
BW	BACK OF WALK
C/L	CENTERLINE
CB	CATCH BASIN
CL	CLASS
CMP	CORRUGATED METAL PIPE
CATV	CABLE TELEVISION
CO	CLEANOUT
COMM	COMMUNICATION
CONC.	CONCRETE
CONST.	CONSTRUCT
CR	CURB RETURN
CS	CONCRETE SURFACE
DC	DOUBLE CHECK VALVE
DDC	DOUBLE DETECTOR CHECK VALVE
DG	DECOMPOSED GRANITE
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
DS	DOWNSPOUT
E	ELECTRIC
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EX	EXISTING
FS	FIRE SERVICE LINE
FDC	FIRE DEPARTMENT CONNECTION
FL	FLOWLINE
FM	SANITARY SEWER FORCE MAIN
FF	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
G	GAS
GB	GRADE BREAK
GR	GRATE ELEVATION
GRD	GRADE ELEVATION
GV	GATE VALVE
HB	HOSE BIBB
HBD	HEADER BOARD
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
INV	PIPE INVERT ELEVATION
JP	JOINT UTILITY POLE
LF	LINEAL FEET
LIP	LIP OF GUTTER
LT	LEFT
MS	MOWSTRIP
NTS	NOT TO SCALE
OH	OVERHEAD
PAD	BUILDING PAD
PCC	PORTLAND CEMENT CONCRETE
PD	PLANTER DRAIN
PIV	POST INDICATOR VALVE
P/L	PROPERTY LINE
PP	POWER POLE
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
R	RADIUS
RIM	MANHOLE RIM ELEVATION (SOLID COVER)
RP	REDUCED PRESSURE BACKFLOW PREVENTER
RW	RIGHT OF WAY
SCH	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SG	SUBGRADE ELEVATION
SP	FIRE SPRINKLER SERVICE
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
S/W	SIDEWALK
T	TELEPHONE
TC	TOP OF CURB
TD	TRENCH DRAIN
TDCB	TRENCH DRAIN CATCH BASIN
TP	TELEPHONE POLE
TRW	TOP OF RETAINING WALL
TSW	TOP OF SEAT WALL
TW	TOP OF WALK ELEVATION
U	UTILITY
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
VCP	VITRIFIED CLAY PIPE
W	WATER
W/	WITH
W/O	WITHOUT
WV	WATER VALVE

LEGEND

NOTE: NOT ALL SYMBOLS MAY BE USED ON THESE PLANS.

PROPOSED GRADING & DRAINAGE SYMBOLS:

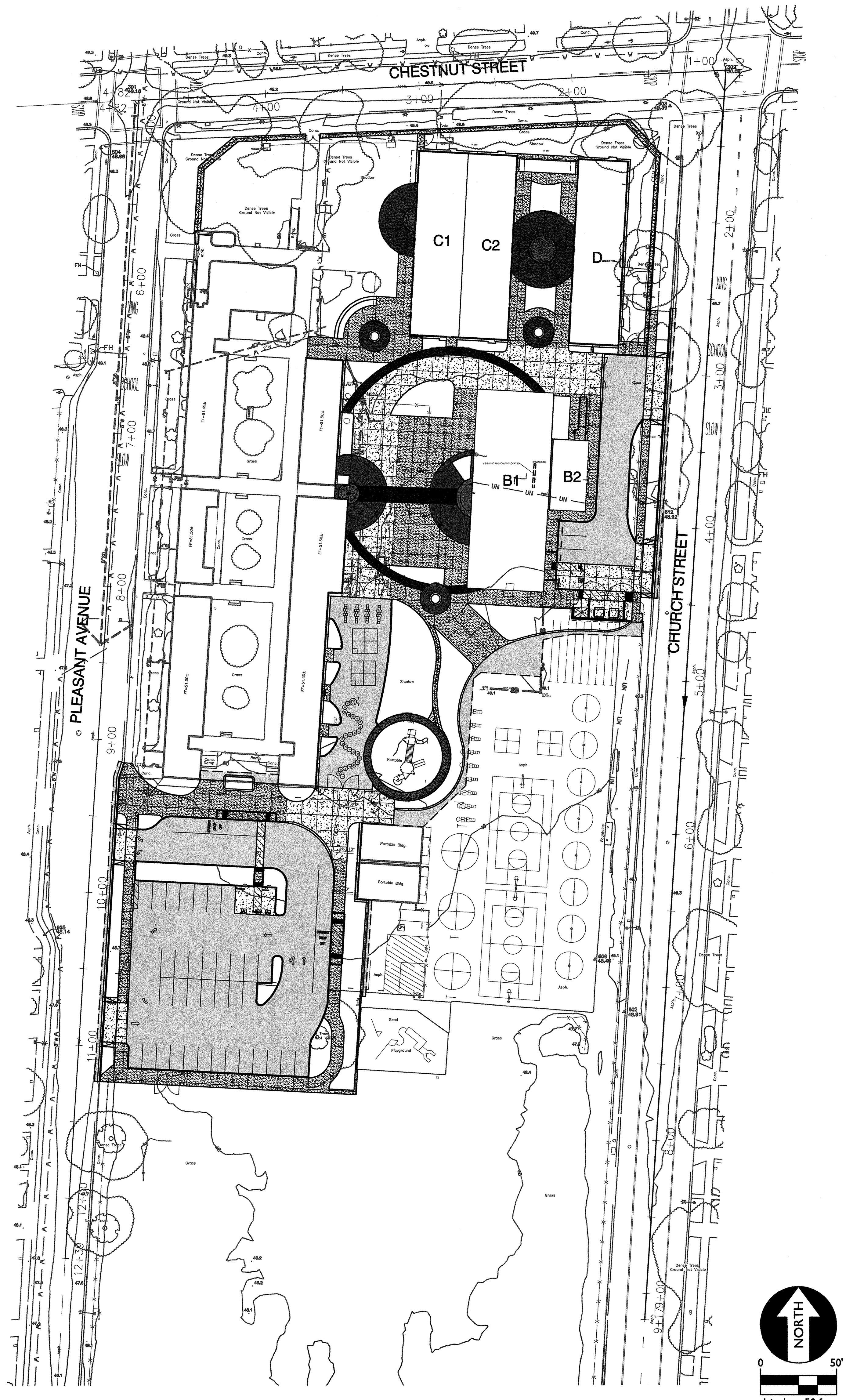
Symbol	Description
	STORM DRAIN LINE (SIZE AND FLOW SHOWN)
	STORM DRAIN MANHOLE (SDMH)
	CATCH BASIN (CB)
	DROP INLET (DI)
	AREA DRAIN (AD)
	PLANTER DRAIN (PD) OR FLOOR DRAIN (FD)
CO	STORM DRAIN CLEANOUT
99.99	ELEVATION
FF=100.00	FINISHED FLOOR ELEVATION
PAD=99.33	BUILDING PAD ELEVATION
	CONCRETE SIDEWALK
	GRADED DIRECTION FOR DRAINAGE FLOW
	SWALE
	SLOPE
	TREE TO BE REMOVED
	RETAINING WALL

PROPOSED SANITARY SEWER SYMBOLS:

Symbol	Description
	SANITARY SEWER LINE (SIZE AND FLOW SHOWN)
	SANITARY SEWER MANHOLE (SSMH)
CO	SEWER CLEANOUT FLUSHER BRANCH

PROPOSED WATER SYMBOLS:

Symbol	Description
8" W	WATER LINE & SIZE
8" FS	FIRE LINE & SIZE
8" DW	DOMESTIC WATER LINE & SIZE
8" RW	RECLAIMED WATER LINE & SIZE
8" IRR	IRRIGATION SERVICE LINE & SIZE
8" NP	NON POTABLE WATER LINE & SIZE
8" SP	FIRE SPRINKLER SERVICE LINE & SIZE
	GATE VALVE
M	WATER METER
FH	FIRE HYDRANT ASSEMBLY
FDC	FIRE DEPARTMENT CONNECTION
DC	DETECTOR CHECK VALVE
DDC	DOUBLE DETECTOR CHECK VALVE
RP	REDUCED PRESSURE BACKFLOW PREVENTER
	BUTTERFLY VALVE
1"	AIR RELEASE VALVE + SIZE
1"	BLOW-OFF VALVE + SIZE
PIV	POST INDICATOR VALVE



PROJECT LOCATION

SCALE: 1"=50'

VICINITY MAP — NOT TO SCALE

SURVEY CONTROL STATEMENT

COORDINATES, BEARINGS, AND DISTANCES ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83) CONVERTED TO THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3, SURVEY FEET UNITS. AS REFERENCED BY AVAILABLE CITY OF LODI GPS CONTROL MONUMENTS PER RECORD OF SURVEY FILE D IN BOOK 37 OF SURVEYS, PAGE 50, SAN JOAQUIN COUNTY. ALL COORDINATES ARE GRID WITH A 2007.00 EPOCH DATE ADJUSTMENT. A CONVERGENCE ANGLE OF −0°28'31 AND THE COMBINED SCALE FACTOR WERE ARE BASED AT PONT 601. GROUND DISTANCES MUST BE MULTIPLIED BY 0.999953285 TO OBTAIN GRID DISTANCES, MULTIPLY GRID DISTANCES BY 1.00004572 TO OBTAIN GROUND DISTANCES. ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AS PER CITY OF LODI BENCHMARK 1115 ELEVATION 48.06 FEET, LOCATED AT THE NORTHWEST CORNER OF TOKAY STREET AND CHURCH STREET.

SHEET LEGEND

SHEET	DESCRIPTION
C8.0	OFF-SITE COVER SHEET
C8.1	OFF-SITE GENERAL NOTES
C8.2	PLEASANT AVENUE IMPROVEMENT PLAN
C8.3	CHURCH STREET IMPROVEMENT PLAN
C8.4	CHESTNUT STREET IMPROVEMENT PLAN

A.P.N. 045-020-310-000

HORIZONTAL SCALE: AS NOTED
VERTICAL SCALE: AS NOTED
JOB NO.: 18-083

DESIGNED: AT
DRAWN: ML
CHECKED: AT
DATE: 11-12-19

TITLE: OFF-SITE COVER SHEET

PROJECT: NEEDHAM ELEMENTARY SCHOOL IMPROVEMENT PLANS
420 S PLEASANT AVE.
LODI, CA 95240
SAN JOAQUIN CO. CALIFORNIA

PLAN SET 1 OF 5
SHEET NO. C8.0

WARREN CONSULTING ENGINEERS, INC.
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

ANTHONY J. TASSANO NO. C74696

rainforth grau architects

NEEDHAM ELEMENTARY SCHOOL- ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

OFF-SITE COVER SHEET

PROJECT NO. 18-1366
DATE: 12/19/19
SHEET C8.0

FILENAME:I:\19-065\CIVIL\DWG\19-065-C80.DWG

GENERAL NOTES:

1. WORK SHALL CONFORM TO CITY OF LODI PUBLIC IMPROVEMENT DESIGN STANDARDS, CONSTRUCTION SPECIFICATIONS AND STANDARD PLANS UNLESS SPECIFICALLY SHOWN OTHERWISE ON THESE PLANS.
2. STANDARD PLANS APPLICABLE TO THIS PROJECT INCLUDE 111, 114, 132A, 135, 203, 301, 303, 304, 307, 308, 309, 313, 401, 402, 405, 406, 407, 408, 409, 412, 413, 415–A, 415–B, 501A, 501B, 502, 503, 505, 506, AND 612.
3. CONSTRUCTION STAKING FOR CURB AND GUTTER, WASTE WATER LINES, STORM DRAINS, WATER LINES, STREET CENTERLINES, PAVING EDGES AND OTHER PUBLIC FACILITIES AS DIRECTED BY THE CITY SHALL BE DONE BY A REGISTERED CIVIL ENGINEER OR LICENSED LAND SURVEYOR.
4. CENTERLINE AND PROPERTY LINE DATA SHALL BE PROVIDED BY FOR THIS PROJECT.
5. EXISTING UNDERGROUND UTILITIES SHALL BE PROTECTED . UTILITY AGENCIES SHALL BE NOTIFIED AND ALLOWED TO MARK THEIR UTILITIES IN THE FIELD AT LEAST 48 HOURS BEFORE EXCAVATION. COMPLETENESS AND ACCURACY OF EXISTING UTILITY LOCATIONS SHOWN IN THESE PLANS ARE NOT GUARANTEED. CALL "USA" (800) 227–2600.
6. STREET GRADING SHALL BE DONE BEFORE UNDERGROUND WORK.
7. UNDERGROUND UTILITIES IN THE STREET AND SIDEWALK AREA SHALL BE INSTALLED BEFORE CONSTRUCTION OF CURB, GUTTER OR SIDEWALK. THESE UTILITIES INCLUDE SERVICES, FIRE HYDRANT, LATERALS, STREET LIGHT CONDUIT, ELECTRIC, GAS, CABLE TV AND TELEPHONE LINES.
8. EXCAVATION SAFETY REQUIREMENTS INCLUDE SUBMITTING A CAL OSHA PERMIT OR LETTER OF NOTIFICATION TO THE CITY BEFORE COMMENCING EXCAVATIONS OVER FIVE FEET DEEP. REFER TO CITY CONSTRUCTION SPECIFICATION 6–19.04 "EXCAVATION SAFETY" FOR ADDITIONAL REQUIREMENTS.

ADDITIONAL CONSTRUCTION NOTES:

11. A PRE–CONSTRUCTION MEETING SHALL BE SCHEDULED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CITY INSPECTOR AND ALL UTILITY AGENCIES AT LEAST ONE WEEK PRIOR TO THE DATE OF THE MEETING. THE CONTRACTOR'S JOB SUPERINTENDENT, AND ALL MAJOR SUBCONTRACTORS SHALL ATTEND.
12. BEDDING FOR ALL PIPE LINES SHALL CONFORM TO CITY OF LODI STANDARD PLAN 501, 501–A, 501–B AND 501–C UNLESS OTHERWISE SHOWN. REFER TO TRENCH DETAILS – THIS SHEET.
13. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY FOR ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
14. WATER USED IN ANY PHASE OF CONSTRUCTION, SUCH AS BACKFILL COMPACTION, DUST CONTROL, TESTING OR OTHER WORK HEREIN REQUIRED, SHALL BE INCLUDED IN THE UNIT PRICE OR LUMP SUM BID FOR THE RESPECTIVE ITEM OF CONSTRUCTION OR ITEMS OF WORK.
15. ENGINEER SHALL SET ALL SURVEY CONTROLS AND CONSTRUCTION STAKES AS NECESSARY FOR COMPLETION OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL SURVEY AND CONSTRUCTION STAKES. SURVEY AND CONSTRUCTION STAKES THAT ARE LOST OR DESTROYED DUE TO CONTRACTOR'S NEGLIGENCE WILL BE SET BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
16. CONTRACTOR SHALL GIVE ENGINEER A MINIMUM OF 48 HOURS NOTICE WHEN REQUESTING CONSTRUCTION STAKING.
17. TRAFFIC FLOW AND ACCESS ENTRYWAY SHALL BE MAINTAINED.
18. PUBLIC ROADWAYS SHALL REMAIN OPEN AT ALL TIMES. TRAFFIC CONTROL PER CALTRANS TRAFFIC CONTROL MANUAL 1995. NO OPEN TRENCHES EXCEPT AT THE TIME OF WORK. USE STEEL PLATES OR BACKFILL WITH A.C. CAP. ONE–WAY TRAFFIC REQUIRES FLAGGER PRESENT AT ALL TIMES. REFER TO NOTE 36.
19. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO KEEP DUST TO A MINIMUM COST TO BE INCLUDED IN OTHER ITEMS OF WORK. SEE SHEET 004D015–11 FOR EROSION AND DUST CONTROL NOTES.
20. A PROJECT IDENTIFICATION SIGN SHALL BE INSTALLED AS SHOWN ON THE PLANS, PRIOR TO GRADING.
    THE SIGN SHALL HAVE:
    DEVELOPER:
    ENGINEER:
    CONTRACTOR:
    LETTERING: BLUE OR BLACK ON WHITE (OR EQUIVALENT CONTRAST) 2" HIGH. INSTALL PRIOR TO ROUGH GRADING.
21. THE CONTRACTOR IS TO VERIFY THE DEPTH AND/OR LOCATION IN THE FIELD OF ALL EXISTING UTILITIES BEFORE THE START OF CONSTRUCTION.
22. THE DEVELOPER IS RESPONSIBLE FOR REPLACEMENT OF MISSING AND DAMAGED FILTER SCREENS UNTIL PROJECT IS ACCEPTED. A ROUTINE MAINTENANCE SCHEDULE IS TO BE MAINTAINED. FILTER SCREENS SHALL BE SECURED TO THE CATCH BASINS DURING THIS PERIOD.
23. ABANDONED IRRIGATION PIPES SHALL BE REMOVED.
24. WASTE WATER GENERATED BY CONCRETE WORK TO BE CAPTURED AND VACUUMED PRIOR TO ENTERING CITY STORM DRAIN SYSTEM.
25. THE CONTRACTOR SHALL PERFORM AT HIS EXPENSE ALL TESTS SPECIFIED OR REQUIRED BY THE CITY OF LODI QUALITY ASSURANCE PROGRAM TO ASSURE THAT CONSTRUCTION PROJECTS ARE IN CONFORMANCE WITH THE CITY OF LODI CONSTRUCTION SPECIFICATIONS. THE CONTRACTOR SHALL FURNISH ALL FACILITIES, LABOR AND MATERIALS REASONABLY REQUIRED FOR PERFORMING SAFE AND CONVENIENT TESTS AS ARE REQUIRED BY THE QUALITY ASSURANCE PROGRAM AND CONSTRUCTION SPECIFICATIONS. RESULTS OF THE TESTING PROCEDURES WILL BE PRESENTED TO THE CITY OF LODI PUBLIC WORKS INSPECTOR IN A TIMELY FASHION SO AS NOT TO DELAY THE CONTINUATION OF WORK. ANY SUCH DELAY SHALL SOLELY BE THE RESPONSIBILITY OF THE CONTRACTOR. AT COMPLETION OF CONSTRUCTION, A FINAL REPORT CONTAINING ALL TEST RESULTS PRESENTED IN AN ORDERLY MANNER SHALL BE PROVIDED PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. A COPY OF THE QUALITY ASSURANCE PROGRAM IS ON FILE IN THE CITY OF LODI PUBLIC WORKS DEPARTMENT.
26. STREETS ADJACENT TO THE PROJECT SITE SHOULD BE SWEPT AS NEEDED TO REMOVE SILT WHICH MAY HAVE ACCUMULATED FROM CONSTRUCTION ACTIVITIES. DAILY IF NEEDED.
27. UTILITY PIPE HORIZONTAL AND VERTICAL CLEARANCES SHALL COMPLY WITH STATE HEALTH STANDARDS.

CLEARING AND GRADING NOTES:

28. ALL SITE VEGETATION, EXISTING TREES, STUMPS AND ETC. SHALL BE STRIPPED FROM BUILDING AND PAVEMENT AREA.
29. A SOILS INVESTIGATION HAS BEEN PREPARED BY WALLACE KUHL ASSOCIATES FILE NO. 12150.01P, DATED AUGUST 7, 2019. ALL SOILS WORK WILL STRICTLY ADHERE TO RECOMMENDATIONS AND REQUIREMENTS WITHIN THAT REPORT.
30. CONTRACTOR TO REMOVE ANY SEDIMENTATION DEPOSITED ON EXISTING PAVED ROADWAYS PRIOR TO LEAVING THE SITE, IF POSSIBLE, AND IN ALL CASES WITHIN 24 HOURS.

DUST CONTROL REQUIREMENTS:

31. ALL MATERIAL EXCAVATED OR GRADED SHOULD BE SUFFICIENTLY WATERED TO PREVENT EXCESSIVE AMOUNT OF DUST. WATERING SHOULD OCCUR AT LEAST TWICE A DAY WITH COMPLETE COVERAGE, PREFERABLY IN THE LATE MORNING AND AFTER WORK IS DONE FOR THE DAY.
32. ALL CLEARING, GRADING, EARTH MOVING OR EXCAVATION ACTIVITIES SHALL CEASE DURING PERIODS OF HIGH WINDS GREATER THAN 20 MPH AVERAGE OVER ONE HOUR.
33. ALL AREAS WITH VEHICLE TRAFFIC SHOULD BE WATERED PERIODICALLY FOR STABILIZATION OF DUST EMISSIONS.
34. STREETS ADJACENT TO THE PROJECT SITE SHOULD BE SWEPT AS NEEDED TO REMOVE SILT WHICH MAY HAVE ACCUMULATED FROM CONSTRUCTION ACTIVITIES.
35. THE AREA DISTURBED BY CLEARING, EARTH MOVING OR EXCAVATION ACTIVITIES SHOULD BE MINIMIZED AT ALL TIMES.
36. ALL MATERIAL TRANSPORTED ON OR OFF–SITE SHALL EITHER BE SUFFICIENTLY WATERED OR SECURELY COVERED TO PREVENT EXCESSIVE AMOUNT OF DUST.
37. ALL INTERNAL COMBUSTION ENGINE DRIVEN EQUIPMENT SHOULD BE PROPERLY MAINTAINED AND WELL TUNED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
38. DUST CONTROL IS THE CONTRACTORS SOLE RESPONSIBILITY WHEN WORKING ON–SITE. THE ABOVE WORK SHALL BE INCLUDED IN THE BID. THE CONTRACTOR SHALL ALSO WATER THE SITE, AS AN EXTRA, WHEN REQUESTED BY THE CITY OR THE OWNER. STOCKPILE AREA TO BE INCLUDED UNDER BID DUST CONTROL.
39. ON–SITE VEHICLE SPEEDS SHALL BE LIMITED TO 15 MPH.
40. ALL OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT.
41. WHEN CONDITIONS ARE DRY, ALL MATERIAL EXCAVATED OR GRADED SHOULD BE SUFFICIENTLY WATERED TO PREVENT EXCESSIVE AMOUNT OF DUST. WATERING SHOULD OCCUR AT LEAST TWICE A DAY WITH COMPLETE COVERAGE, PREFERABLY IN THE LATE MORNING AND AFTER WORK IS DONE FOR THE DAY.

WINTERIZATION NOTES:

42. EROSION CONTROL. ALL CATCH BASINS SHALL BE SEALED UNTIL THE COMPLETION OF THE PROJECT. IF SITE WORK EXTENDS INTO THE RAINY SEASON, OTHER MEASURES MAY BE TAKEN AS REQUIRED BY THE CITY AND ARCHITECT AT NO ADDITIONAL COST TO THE OWNER. ALL STORM DRAINAGE TRAPS SHALL BE CLEANED PRIOR TO ACCEPTANCE.
43. COST OF EROSION CONTROL AND OTHER ITEMS OF WINTERIZATION SHALL BE INCLUDED IN THE ITEM ENTITLED "EROSION CONTROL AND WINTERIZATION".
44. CONTRACTOR WILL BE REQUIRED TO CLEAN EXISTING STORM DRAIN DOWNSTREAM OF THIS PROJECT AS NECESSARY. DETERMINE EXISTING CONDITION WITH CITY INSPECTOR PRIOR TO CONSTRUCTION.
45. CONTRACTOR SHALL REMOVE ANY IRRIGATION LINES ENCOUNTERED.
46. NO WELLS, SEPTIC TANKS OR OTHER UNDERGROUND TANKS ARE KNOWN TO EXIST ON THIS SITE.

EROSION AND SEDIMENT CONTROL NOTES:

47. NOTICE OF INTENT (NOI) FOR STATE GENERAL NPDES CONSTRUCTION PERMIT IS REQUIRED PRIOR TO SITE WORK.
48. REFERENCE WDID #
49. INSTALL AND MAINTAIN A BRICK–WEIR PLUG IN THE CONSTRUCTED 24" STORM DRAIN IN THE MANHOLE IN BECKMAN RD. AT STATION 22+30± UNTIL COMPLETION OF PROJECT. WEIR SHALL BE 21 INCHES HIGH MINIMUM. ALL STORM DRAINS SHALL BE CLEANED PRIOR TO REMOVING THE WEIR. CONTRACTOR SHALL PERIODICALLY REMOVE SILT AS NECESSARY TO MAINTAIN EFFECTIVENESS OF THE WEIR.
50. ALL CATCH BASINS SHALL BE SEALED UNTIL THE COMPLETION OF THE PROJECT. IF SITE WORK EXTENDS INTO THE RAINY SEASON, OTHER MEASURES MAY BE TAKEN AS REQUIRED BY THE CITY AND ARCHITECT AT NO ADDITIONAL COST TO THE OWNER. ALL STORM DRAINAGE TRAPS SHALL BE CLEANED PRIOR TO ACCEPTANCE.
51. COST OF EROSION CONTROL AND OTHER ITEMS OF WINTERIZATION SHALL BE INCLUDED IN THE ITEM ENTITLED "EROSION CONTROL AND WINTERIZATION"
52. CONTRACTOR WILL BE REQUIRED TO CLEAN EXISTING STORM DRAIN DOWNSTREAM OF THIS PROJECT AS NECESSARY. DETERMINE EXISTING CONDITION WITH ENGINEER AND CITY INSPECTOR PRIOR TO CONSTRUCTION. PUMPED WATER TO BE DISCHARGED TO THE SOUTH.

A.P.N. 045-020-310-000

HORIZONTAL SCALE: AS NOTED
VERTICAL SCALE: AS NOTED
JOB NO.: 18–083

REVISIONS NO.	DESCRIPTION	DATE	AGENCY APPROVAL BY	DATE

DESIGNED: AT
DRAWN: ML
CHECKED: AT
DATE: 11–12–19

REGISTERED PROFESSIONAL ENGINEER ★ ANTHONY J. TASSANO NO. C74696 CIVIL ★ STATE OF CALIFORNIA 12/13/2019

WCE
WARREN CONSULTING ENGINEERS, INC.
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

TITLE: OFF-SITE GENERAL NOTES
PROJECT: NEEDHAM ELEMENTARY SCHOOL IMPROVEMENT PLANS
420 S PLEASANT AVE.
LODI, CA 95240
SAN JOAQUIN CO. CALIFORNIA

PRINT DATE
PLAN SET 2 OF 5
SHEET NO. C8.1
DRAWING NO.

FILENAME: I:\19-065\CIVIL\DWG\19-065-C81.DWG

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
02 118063
AC FLS SS
DATE 12-19-19

rga rainforth grau architects

REGISTERED PROFESSIONAL ENGINEER ANTHONY J. TASSANO NO. C74696 ★ STATE OF CALIFORNIA

WCE
WARREN CONSULTING ENGINEERS, INC.
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

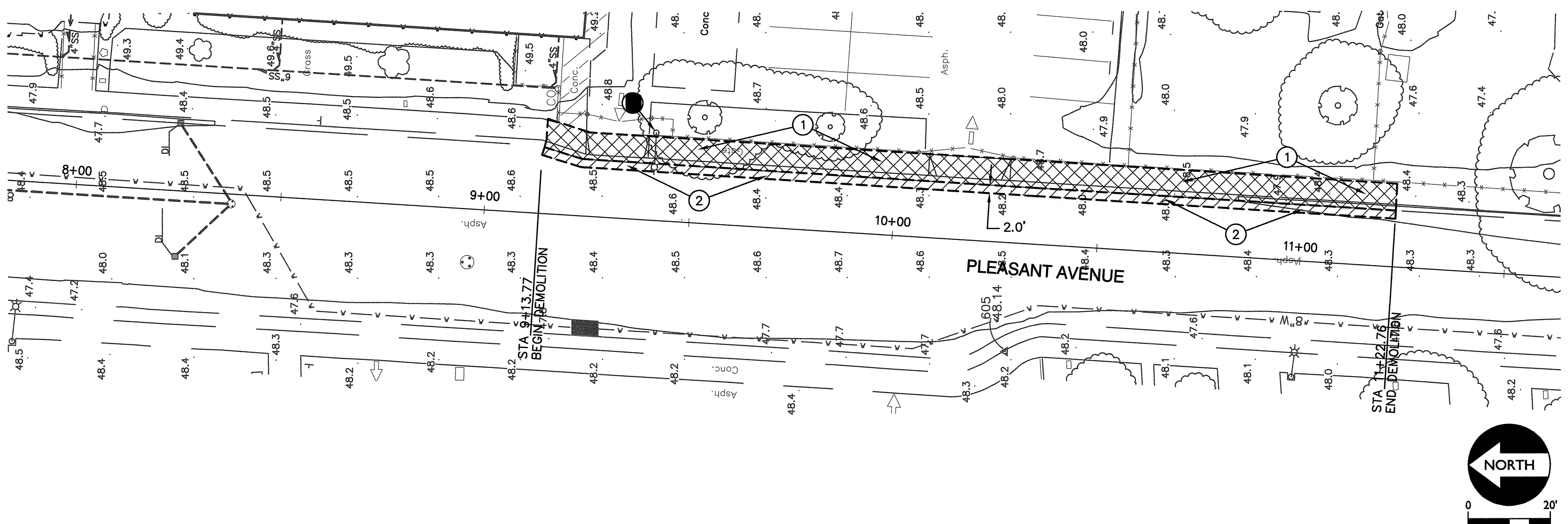
NEEDHAM ELEMENTARY SCHOOL-
ADDITIONS
INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

OFF-SITE
GENERAL NOTES

PROJECT NO. 18-1366
DATE: 12/19/19
SHEET C8.1

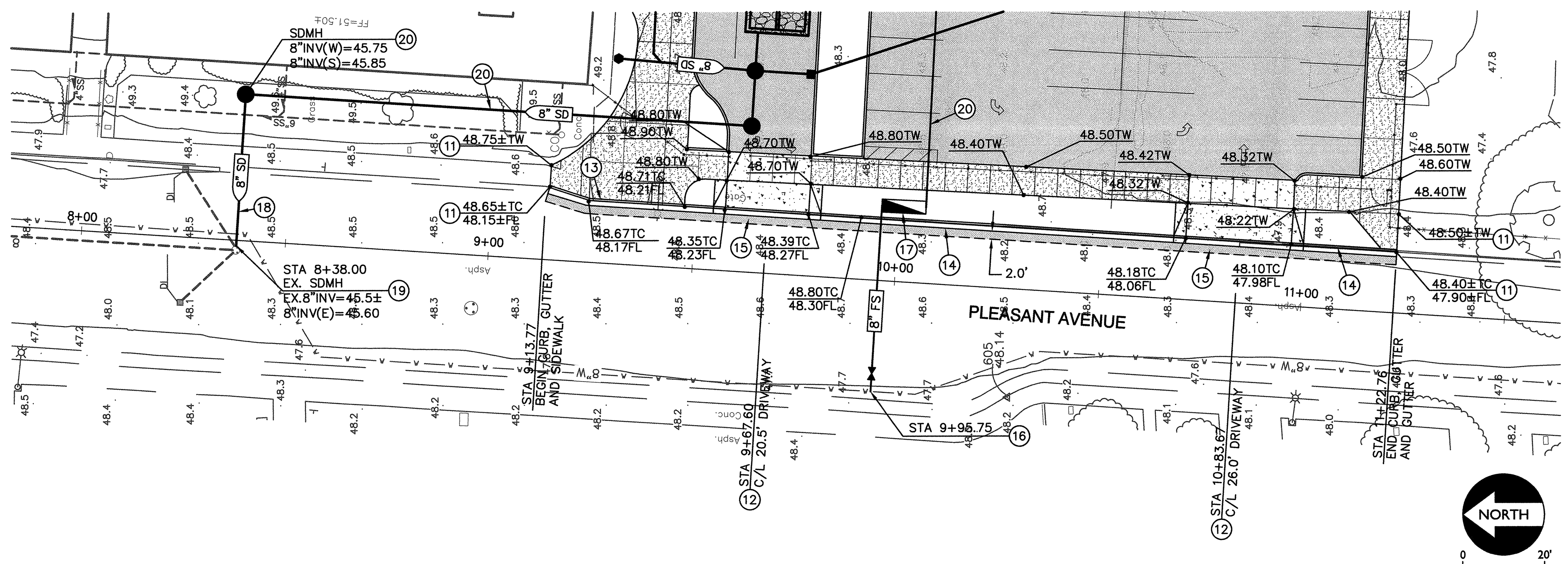
FILENAME:I:\19-065\CIVIL\DWG\19-065-C81.DWG



PLEASANT AVENUE - DEMOLITION PLAN

DEMOLITION NOTES

1. REMOVE AND DISPOSE OF EXISTING CURB, GUTTER AND SIDEWALK PER CITY OF LODI STANDARDS AND SPECIFICATIONS.
2. SAWCUT, REMOVE AND DISPOSE OF EXISTING ASPHALT PAVING PER CITY OF LODI STANDARDS AND SPECIFICATIONS.
3. EXISTING LIGHT POLE TO REMAIN.



PLEASANT AVENUE - IMPROVEMENT PLAN

CONSTRUCTION NOTES

11. MATCH EXISTING GRADE/ELEVATION.
12. CONSTRUCT SIDEWALK AND DRIVEWAY WITH PLANTER STRIP PER CITY OF LODI STD. PLAN 121.
13. CONSTRUCT VERTICAL CURB, GUTTER AND SIDEWALK PER CITY OF LODI STD. PLAN 135.
14. CONSTRUCT VERTICAL CURB WITH DETACHED SIDEWALK PER CITY OF LODI STD. PLANS 121 AND 135.
15. ASPHALT PAVING AND BASE PER CITY OF LODI STANDARDS.
16. PLACE 8" FIRE SERVICE PER CITY OF LODI STD. PLAN 407.
17. PLACE 8" ABOVE GROUND DOUBLE CHECK DETECTOR PER CITY OF LODI STD. PLAN 411.
18. PLACE 8" STORM DRAIN PER CITY OF LODI STANDARDS AND SPECIFICATIONS.
19. CONNECT TO EXISTING STORM DRAIN MANHOLE PER CITY OF LODI STANDARDS AND SPECIFICATIONS.
20. SEE ON-SITE PLANS FOR DESIGN.

A.P.N. 045-020-310-000

HORIZONTAL SCALE: AS NOTED

VERTICAL SCALE: AS NOTED

JOB NO.: 18-083

DESIGNED: AT | DRAWN: ML | CHECKED: AT | DATE: 11-12-19

TITLE: PLEASANT AVENUE IMPROVEMENT PLAN

PROJECT: NEEDHAM ELEMENTARY SCHOOL IMPROVEMENT PLANS
420 S PLEASANT AVE.
LODI, CA 95240
SAN JOAQUIN CO. CALIFORNIA

PRINT DATE

PLAN SET 3 OF 5

SHEET NO. C8.2

DRAWING NO.

WARREN CONSULTING ENGINEERS, INC.
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

ANTHONY J. TASSANO NO. C74696 CIVIL, STATE OF CALIFORNIA, 12/13/2019

rainforth grau architects

NEEDHAM ELEMENTARY SCHOOL-ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

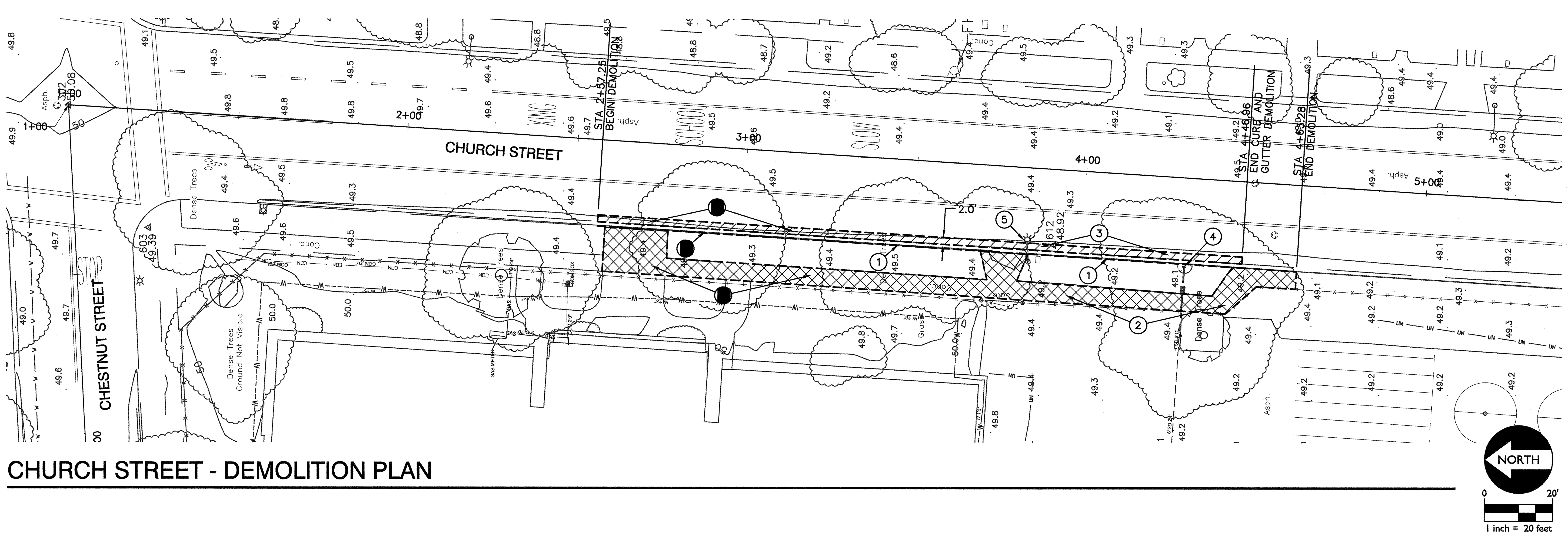
PLEASANT AVENUE IMPROVEMENT PLAN

PROJECT NO. 18-1366

DATE: 12/19/19

SHEET C8.2

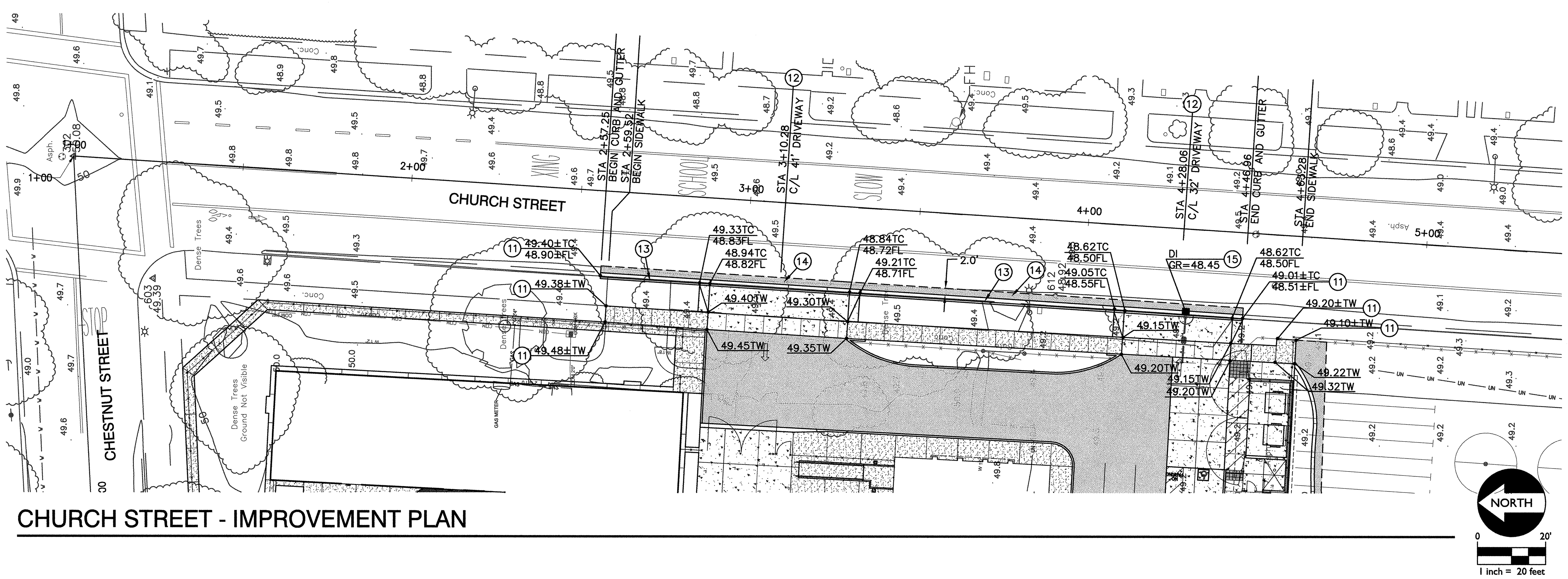
FILENAME:I:\19-065\CIVIL\DWG\19-065-C82.DWG



CHURCH STREET - DEMOLITION PLAN

DEMOLITION NOTES

1. REMOVE AND DISPOSE OF EXISTING CURB AND GUTTER PER CITY OF LODI STANDARDS AND SPECIFICATIONS.
2. REMOVE AND DISPOSE OF EXISTING DETACHED SIDEWALK PER CITY OF LODI STANDARDS AND SPECIFICATIONS.
3. SAWCUT, REMOVE AND DISPOSE OF EXISTING ASPHALT PAVING PER CITY OF LODI STANDARDS AND SPECIFICATIONS.
4. REMOVE AND DISPOSE OF EXISTING CURB INLET.
5. EXISTING LIGHT POLE TO REMAIN.



CHURCH STREET - IMPROVEMENT PLAN

CONSTRUCTION NOTES

11. MATCH EXISTING GRADE/ELEVATION.
12. CONSTRUCT SIDEWALK AND DRIVEWAY WITH PLANTER STRIP PER CITY OF LODI STD. PLAN 121.
13. CONSTRUCT VERTICAL CURB WITH DETACHED SIDEWALK PER CITY OF LODI STD. PLANS 121 AND 135.
14. ASPHALT PAVING AND BASE PER CITY OF LODI STANDARDS.
15. CONSTRUCT DROP INLET PER CITY OF LODI STD. DWG. PLAN 304. CONNECT TO EXISTING STORM DRAIN PIPES.

A.P.N.: 045-020-310-000
HORIZONTAL SCALE: AS NOTED
VERTICAL SCALE: AS NOTED
JOB NO.: 18-083
DESIGNED: AT
DRAWN: ML
CHECKED: AT
DATE: 11-12-19

TITLE: CHURCH STREET IMPROVEMENT PLAN
PROJECT: NEEDHAM ELEMENTARY SCHOOL IMPROVEMENT PLANS
420 S PLEASANT AVE.
LODI, CA 95240
SAN JOAQUIN CO. CALIFORNIA

WARREN CONSULTING ENGINEERS, INC.
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

PLAN SET 4 OF 5
SHEET NO. C8.3
DRAWING NO.

FILENAME:I:\19-065\CIVIL\DWG\19-065-C83.DWG

NEEDHAM ELEMENTARY SCHOOL-ADDITIONS INCREMENT 1

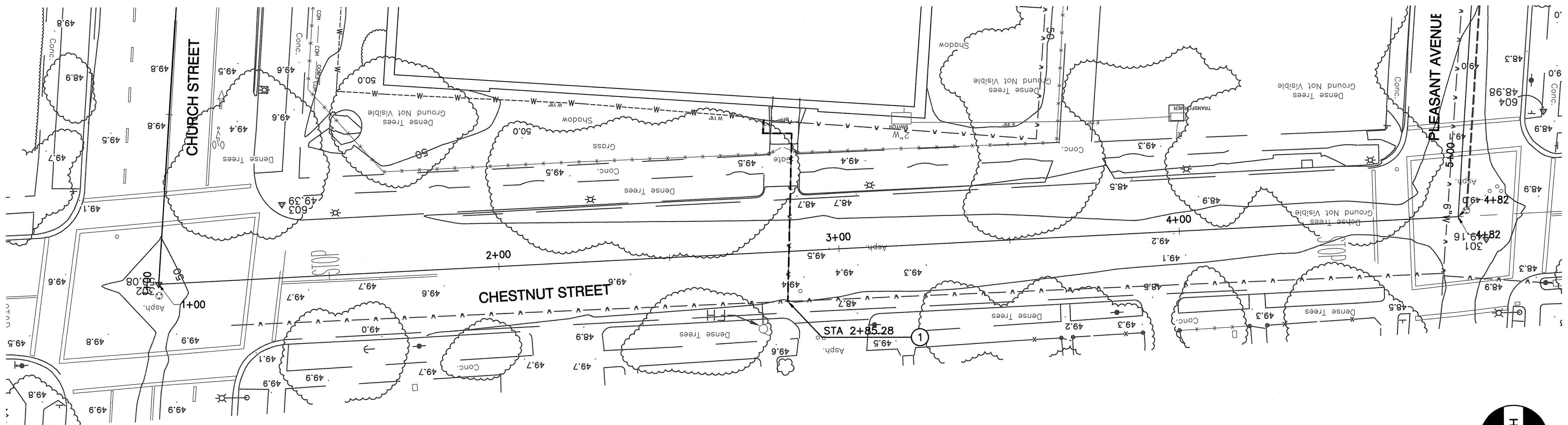
LODI UNIFIED SCHOOL DISTRICT

rainforth grau architects

CHURCH STREET IMPROVEMENT PLAN

PROJECT NO. 18-1366
DATE: 12/19/19
SHEET C8.3

FILENAME:I:\19-065\CIVIL\DWG\19-065-C83.DWG

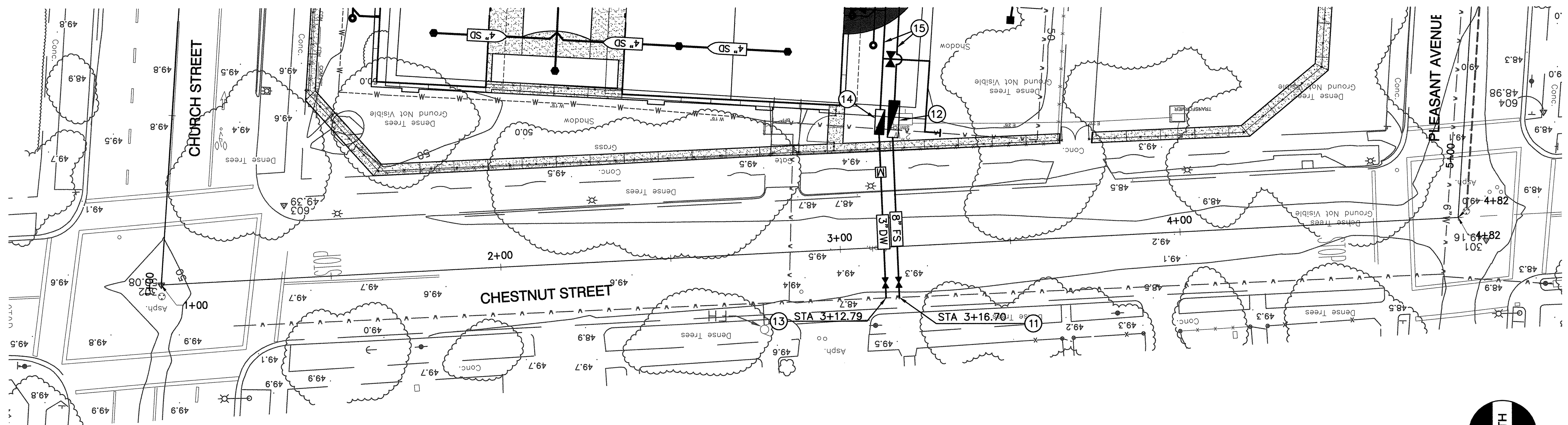


CHESTNUT STREET - DEMOLITION PLAN

NORTH
0 20'
1 inch = 20 feet

DEMOLITION NOTES

1. REMOVE EXISTING 2" WATER SERVICE PER CITY OF LODI STANDARDS AND SPECIFICATIONS.



CHESTNUT STREET - IMPROVEMENT PLAN

NORTH
0 20'
1 inch = 20 feet

CONSTRUCTION NOTES

11. PLACE 8" FIRE SERVICE PER CITY OF LODI STD. PLAN 407.
12. PLACE 8" ABOVE GROUND DOUBLE CHECK DETECTOR PER CITY OF LODI STD. PLAN 411.
13. PLACE 3" DOMESTIC WATER SERVICE PER CITY OF LODI STD. PLAN 406.
14. PLACE 3" REDUCED PRESSURE ASSEMBLY PER CITY OF LODI STD. PLAN 413.
15. SEE ON-SITE PLANS FOR DESIGN.

A.P.N.	045-020-310-000
HORIZONTAL SCALE:	AS NOTED
VERTICAL SCALE:	AS NOTED
JOB NO.:	18-083

REVISIONS NO.	DESCRIPTION	DATE	AGENCY APPROVAL BY	DATE

DESIGNED: AT
DRAWN: ML
CHECKED: AT
DATE: 11-12-19

REGISTERED PROFESSIONAL ENGINEER ANTHONY J. TASSANO NO. C74696 CIVIL STATE OF CALIFORNIA 12/13/2019

WARREN CONSULTING ENGINEERS, INC.
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

TITLE: CHESTNUT STREET IMPROVEMENT PLAN

PROJECT: NEEDHAM ELEMENTARY SCHOOL IMPROVEMENT PLANS
420 S PLEASANT AVE.
LODI, CA 95240
SAN JOAQUIN CO. CALIFORNIA

PRINT DATE

PLAN SET 5 OF 5

SHEET NO. C8.4

DRAWING NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
02 118063
AC FLS SS
DATE 12/19/19

rga rainforth grau architects

REGISTERED PROFESSIONAL ENGINEER ANTHONY J. TASSANO NO. C74696 CIVIL STATE OF CALIFORNIA

WARREN CONSULTING ENGINEERS, INC.
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

NEEDHAM ELEMENTARY SCHOOL-ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT

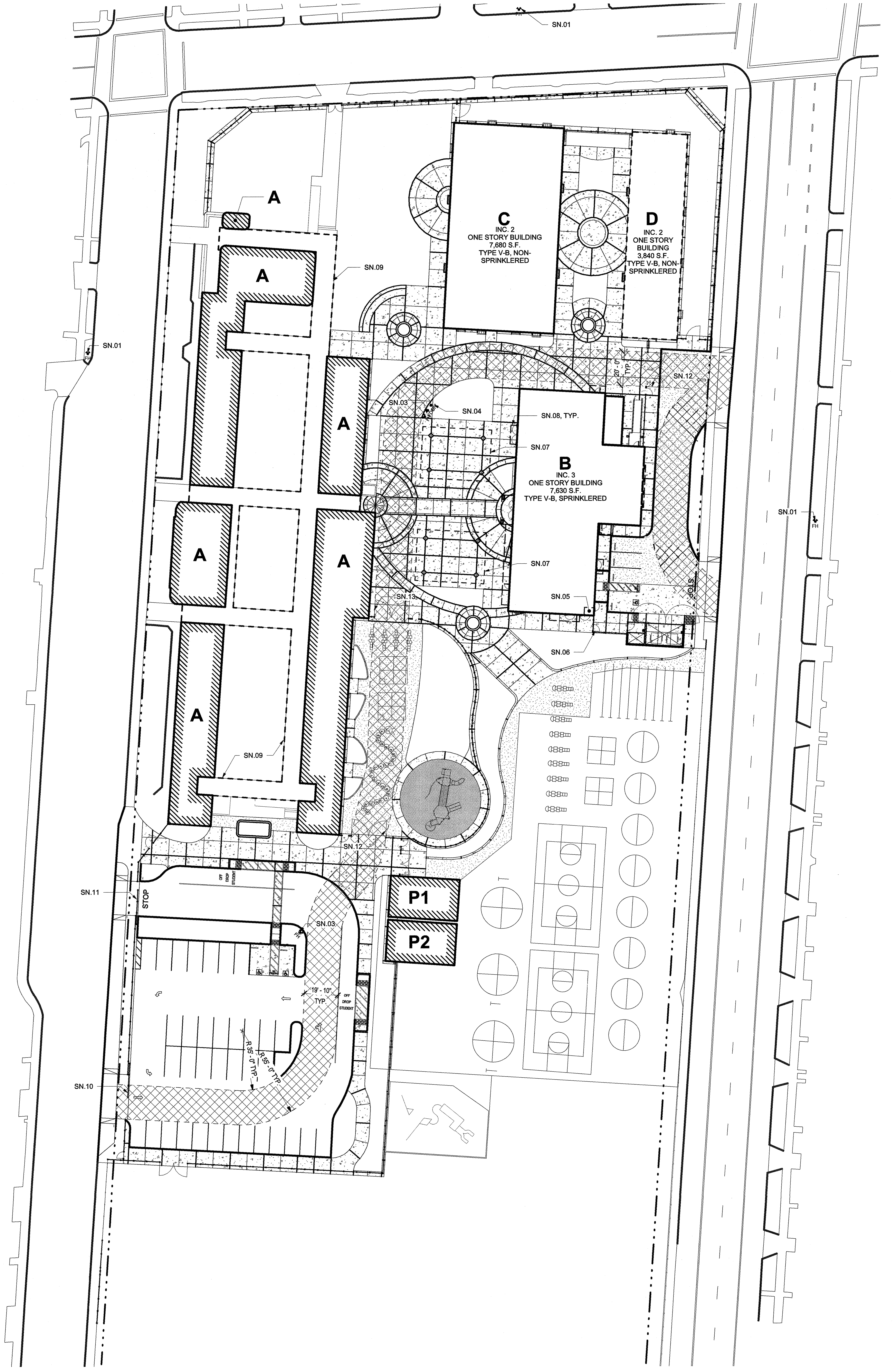
CHESTNUT STREET IMPROVEMENT PLAN

PROJECT NO. 18-1366
DATE: 12/19/19
SHEET C8.4

FILENAME:I:\19-065\CIVIL\DWG\19-065-C84.DWG

FILENAME:I:\19-065\CIVIL\DWG\19-065-C84.DWG

1363 Galt HS - Core Mod AG_CTE ADDITIONS_titleblock_detached.rvt



1 FIRE MARHSALL SITE PLAN
1" = 30'-0"

LEGEND

- PROPERTY LINE
- ALTERNATE CONST. U.O.N.
- UNIT DESIGNATION NEW BUILDINGS
- UNIT DESIGNATION EXISTING BUILDINGS
- UNIT DESIGNATION FUTURE BUILDINGS
- CONCRETE WALK / PAVING
- EMERGENCY ACCESS LANE
- ASPHALT CONCRETE PAVING
- DECOMPOSED GRANITE
- CHAIN LINK FENCE
- ORNAMENTAL FENCE
- FIRE HYDRANT (NTS)
- FIRE DEPARTMENT CONNECTION (NTS)
- POST INDICATOR VALVE (NTS)

DSA-810 FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

PROJECT INFORMATION

School District:	LODI UNIFIED SCHOOL DISTRICT
Project name / school:	NEEDHAM ELEMENTARY SCHOOL
Project address:	420 S. PLEASANT AVE., LODI, CA 95240

FIRE & LIFE SAFTEY INFORMATION		ALTERNATE ACCEPTED	
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 serverity zone as established by Cal-Fire? ***(If yes, indicate fire hazard zone classification below)***	Yes ☐	No ☒
	Refer to the following for fire hazard zone locations: ***www. fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps***	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		Yes	No	N/A	N/R
4.	Emergency vehicle access roadways do not meet CFC requirements				
4a.	**Acceptable Alternative:** Emergency vehicle and personel access as proposed by the 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 Alternative:** Number of fire hydrants and spacing as proposed by the 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 Alternative:** 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 system or standpipe system does not meet CFC requirements.				
7a.	**Acceptable Alternative:** 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 of 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: ____________

Note: FIRE HYDRANT FLOW TEST TO BE PROVIDED IN INC. 2.

SHEET NOTES

SN.01 (E) FIRE HYDRANT
SN.02 NOT USED
SN.03 (N) FIRE HYDRANT
SN.04 (N) FIRE DEPARTMENT CONNECTION
SN.05 FIRE RISER ROOM
SN.06 KNOX PADLOCKS/LOCKS
SN.07 SHADE STRUCTURE PER INC. 4. 30' - 0" X 40'- 0". 1200 SQFT.
SN.08 ROOF OVERHANG
SN.09 COVERED WALKWAY
SN.10 26'-0" W X 6'-0" H ROLLING GATE WITH KNOX LOCK
SN.11 20'-0" W X 6'-0" H ROLLING GATE WITH KNOX LOCK
SN.12 PR 10'-0" W X 6'-0" H CHAINLINK GATE WITH KNOX LOCK
SN.13 PR 10'-0" W X 4'-0" H CHAINLINK GATE WITH KNOX LOCK

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
02-118063
AC FLS SS
DATE 12/19/19

rga rainforth grau architects

LICENSED ARCHITECT JEFFREY ALAN GRAU C-14648 RENEWAL DATE 1/31/21 STATE OF CALIFORNIA

NEEDHAM ELEMENTARY SCHOOL - ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT
LODI, CA

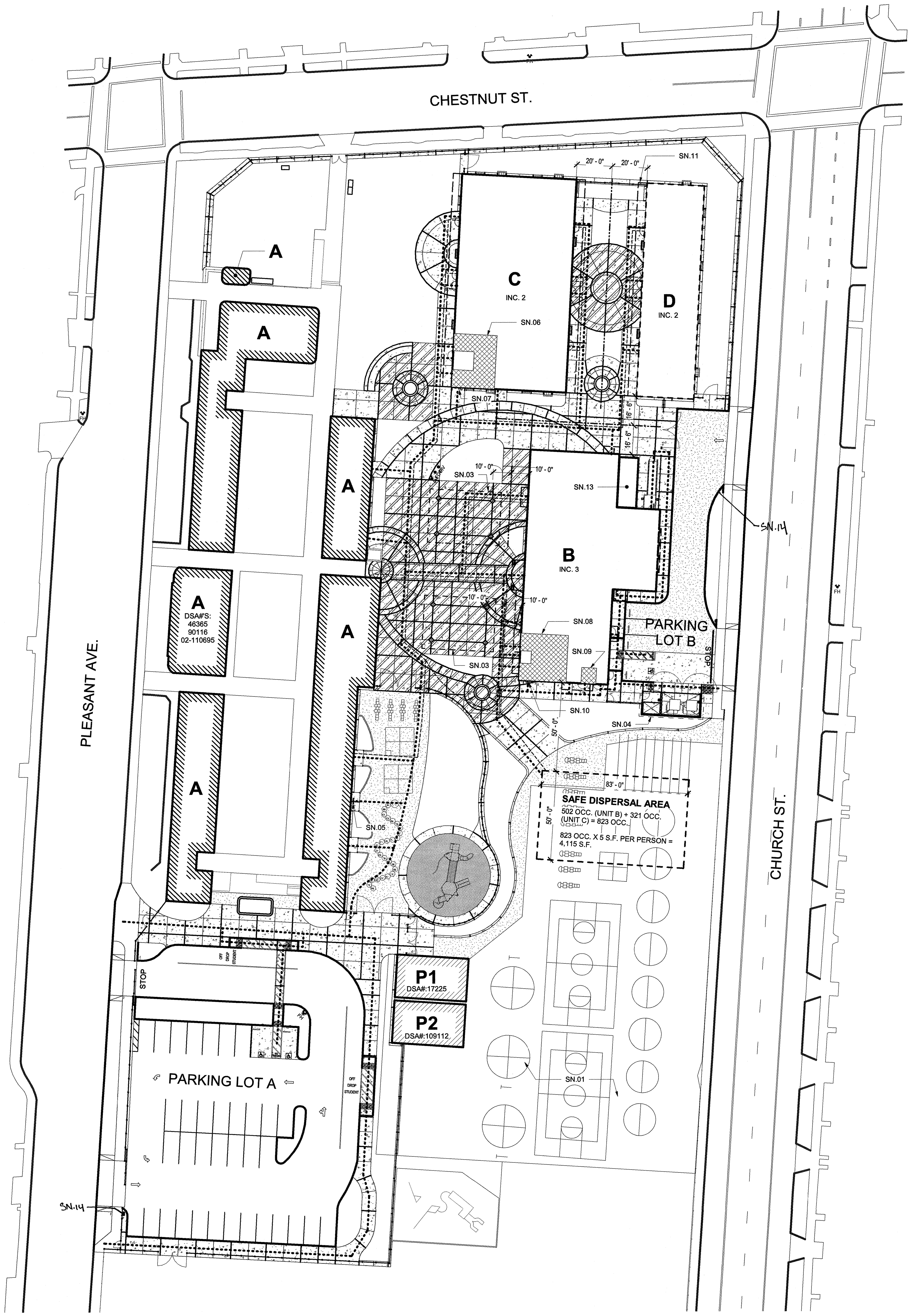
Revision

LOCAL FIRE AUTHORITY SITE PLAN

SEE OTHER SHEETS FOR CONSTRUCTION

THIS PLAN INCLUDES CODE INFORMATION ONLY, INCLUDING ACCESSIBLE FEATURES ALONG THE PATH OF TRAVEL. REFER TO OTHER SHEETS FOR SITE CONSTRUCTION DETAILS.

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	A1.0.1



1 CODE INFORMATION SITE PLAN
1" = 30'-0"

EXISTING PATH OF TRAVEL (POT): ARCHITECT STATEMENT

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE IN CHARGE STATEMENT: THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR **PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS**. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NON-COMPLIANT

1) HAVE BEEN IDENTIFIED AND
2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS, AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS.

ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT 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 POT 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 TO COMPLIANCE WITH THE CBC AS PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

BUILDING DATA AND ALLOWABLE AREA ANALYSIS

BUILDING	OCCUPANCY	CONSTRUCTION TYPE	ALLOWABLE AREA (TABLE 503)	ACTUAL BLDG. AREA	BLDG. HEIGHT
BLDG. B MULTIPURPOSE/ PHYSICAL EDUCATION/ KITCHEN	A-3 / E /F-1	V-B, SPRINKLERED	24,000 SQ.FT.	B1: 4,015 B2: 3,615 O[1]: 691 8,321	ALLOWABLE: 60' - 0" ACTUAL: 28' - 6"
BLDG. C MODULAR CLASSROOMS	E	V-B, NON-SPRINKLERED	9,500 SQ.FT.	C1: 3,840 C2: 3,840 O[1]: 1,200 8,880	ALLOWABLE: 40' - 0" ACTUAL: 11' - 6"
BLDG. D MODULAR CLASSROOMS	E	V-B, NON-SPRINKLERED	9,500 SQ.FT.	D: 3,840 O[1]: 600 4,440	ALLOWABLE: 40' - 0" ACTUAL: 11' - 6"

FOOT NOTES:
1. OVERHANG OR COVERED WALKWAY.

ACCESSIBLE PARKING STALL CALCULATION

PARKING LOT A

TOTAL PARKING STALL COUNT:	39 STALLS
ACCESSIBLE PARKING STALLS	(TABLE 11B-208.2)
REQUIRED ACCESSIBLE STALLS:	2 (26-50 TOTAL STALLS)
REQUIRED VAN ACCESSIBLE STALLS:	1 (1-6 ACCESSIBLE STALLS)
ACCESSIBLE STALLS PROVIDED:	1 STANDARD & 1 VAN

PARKING LOT B

TOTAL PARKING STALL COUNT:	4 STALLS
ACCESSIBLE PARKING STALLS	(TABLE 11B-208.2)
REQUIRED ACCESSIBLE STALLS:	1 (1-25 TOTAL STALLS)
REQUIRED VAN ACCESSIBLE STALLS:	1 (1-6 ACCESSIBLE STALLS)
ACCESSIBLE STALLS PROVIDED:	1 VAN

NOTE: REQUIRED FIRE FLOW = 2,500 G.P.M @ 20 P.S.I.

LEGEND

- ASSUMED PROPERTY LINE
- UNIT DESIGNATION — NEW BUILDINGS
- UNIT DESIGNATION — EXISTING BUILDINGS
- UNIT DESIGNATION — ALTERNATE BUILDINGS
- EXPANSION JOINT — CONCRETE WALK / PAVING — CONTROL JOINT
- PLAZA AREA TO BE 1.8% MAX SLOPE IN ANY DIRECTION. PATH OF TRAVEL SHOWN DOES NOT INDICATE ONLY AREA TO BE COMPLIANT; PLEASE SEE GRADING PLAN.
- ASPHALT CONCRETE PAVING
- CHAIN LINK FENCE
- CMU WALL
- TRUNCATED DOMES
- PATH OF EXIT DISCHARGE
- ACCESSIBLE PATH OF TRAVEL

1. ACCESSIBLE PATH OF TRAVEL (P.O.T.):
   SITE WALKWAYS SHALL PROVIDE A BARRIER-FREE P.O.T. ABRUPT CHANGES IN LEVEL ALONG ANY P.O.T. ARE ALLOWED UP TO 1/2". ONLY ABRUPT CHANGES IN ELEVATION UP TO 1/4" ARE ALLOWED TO HAVE A VERTICAL TRANSITION. ABRUPT CHANGES IN ELEVATION BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1-UNIT VERTICAL TO 2-UNITS HORIZONTAL.
2. WALKWAYS SHALL BE FREE OF GRATINGS WHEREVER POSSIBLE. GRATING WHICH OCCUR WITHIN THE P.O.T. SHALL HAVE OPENINGS WHICH DO NOT EXCEED 1/2" IN THE DIRECTION OF TRAVEL PER CBC SECTION 11B-302.3.
3. AN ABRUPT DROP-OFF CHANGE IN ELEVATION AT THE EDGE OF ANY WALK INTO AN ADJACENT PLANTER SHALL NOT EXCEED 4".
4. SLOPES IN THE DIRECTION OF THE P.O.T. GREATER THAN 1-UNIT VERTICAL TO 20-UNITS HORIZONTAL SHALL BE CONSIDERED A RAMP AND WILL REQUIRE HANDRAILS ON BOTH SIDES PER CBC SECTION 11B-505 SLOPES IN THE DIRECTION OF THE P.O.T. ALONG WALKWAYS SHALL NOT EXCEED 5%. CROSS SLOPES IN THE P.O.T. ALONG WALKWAYS SHALL NOT EXCEED 2%.
5. ALL WALKWAYS WITHIN THE P.O.T. SHALL BE A MINIMUM OF 48" IN WIDTH. SURFACES WITH A SLOPE OF 5% OR LESS SHALL BE AT LEAST AS SLIP-RESISTANT AS THAT PROVIDED BY A LIGHT BROOM FINISH. SURFACES WITH A SLOPE OF MORE THAN 5% SHALL BE AT LEAST AS SLIP-RESISTANT AS THAT PROVIDED BY A MEDIUM BROOM FINISH.
6. OBJECTS PROTRUDING INTO THE P.O.T. SHALL NOT REDUCE THE CLEAR WIDTH OR MANEUVERING SPACE WITHIN THE P.O.T. PER CBC SECTION 11B-307.

SHEET NOTES

SN.01 (E) HARD COURTS TO REMAIN
SN.02 NOT USED
SN.03 SHADE STRUCTURE PER INC. 4. 30' - 0" X 40'- 0". 1200 SQ. FT. EACH
SN.04 TRASH ENCLOSURE COVER PER INC. 4. 36'-0" X 17'-0", 635 SQ. FT.
SN.05 ACCESSIBLE DRINKING FOUNTAIN PER THIS APPLICATION
SN.06 ACCESSIBLE STUDENT RESTROOMS PER INC. 2
SN.07 ACCESSIBLE DRINKING FOUNTAIN PER INC. 2
SN.08 ACCESSIBLE STUDENT RESTROOMS PER INC. 3
SN.09 ACCESSIBLE STAFF RESTROOM PER INC. 3
SN.10 ACCESSIBLE DRINKING FOUNTAIN PER INC. 3
SN.11 PROJECTION LINE, TYPICAL AT EACH BUILDING
SN.12 NOT USED
SN.13 EXTERIOR WALK-IN COOLER, PER INCREMENT 3
SN.14 PARKING LOT ENTRANCE SIGN 5/A1.3

rga rainforth grau architects

NEEDHAM ELEMENTARY SCHOOL - ADDITIONS INCREMENT 1
LODI UNIFIED SCHOOL DISTRICT
LODI, CA

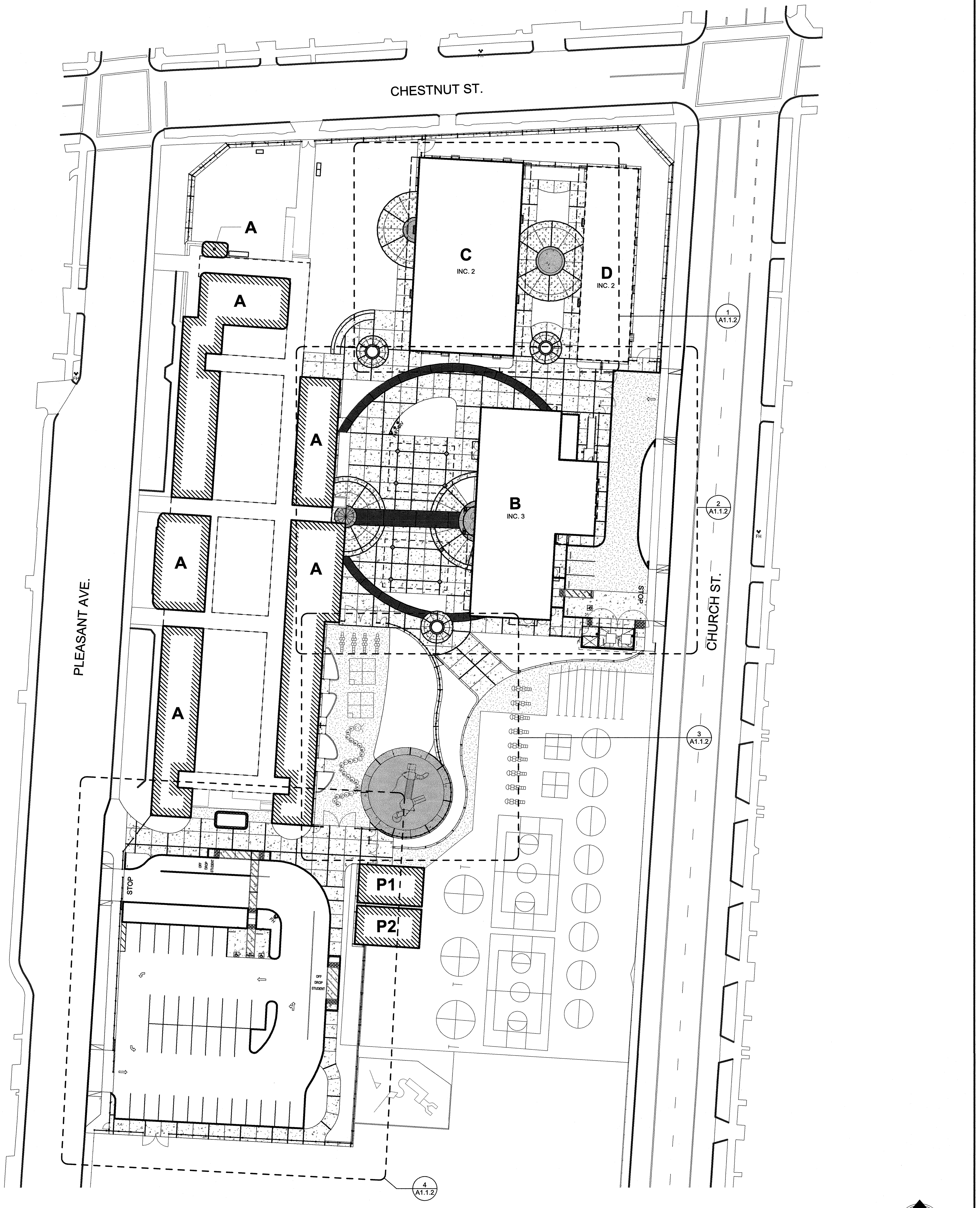
Revision

CODE INFORMATION SITE PLAN

SEE OTHER SHEETS FOR CONSTRUCTION

THIS PLAN INCLUDES CODE INFORMATION ONLY, INCLUDING ACCESSIBLE FEATURES ALONG THE PATH OF TRAVEL. REFER TO OTHER SHEETS FOR SITE CONSTRUCTION DETAILS.

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	A1.0.2



1 OVERALL SITE PLAN
1" = 30'-0"

LEGEND

- ASSUMED PROPERTY LINE
- UNIT DESIGNATION NEW BUILDINGS
- UNIT DESIGNATION EXISTING BUILDINGS
- UNIT DESIGNATION ALTERNATE BUILDINGS
- EXPANSION JOINT
- CONCRETE WALK / PAVING
- CONTROL JOINT
- ASPHALT CONCRETE PAVING
- CHAIN LINK FENCE
- CMU WALL
- TRUNCATED DOMES
- PATH OF EXIT DISCHARGE

GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING DURING CONSTRUCTION TO SECURE ENTIRE AREA OF WORK.
2. TEMPORARY CONSTRUCTION FENCING IDENTIFIED IS FOR SPECIFIC SITE LOCATION REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE REMAINDER OF THE PROJECT'S TEMPORARY CONSTRUCTION FENCING PER SPECIFICATIONS.
3. CONTRACTOR SHALL COMPLY WITH THE 2016 CALIFORNIA FIRE CODE CHAPTER 33, FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION, THROUGHOUT THE ENTIRE PROJECT.
4. FENCE GRAPHICS AS SHOWN IN THE LEGEND ARE SCHEMATIC. ACTUAL FENCE POST LOCATIONS ARE TO BE COORDINATED BY THE CONTRACTOR.
5. WHERE WALKS CONNECT TO DOOR OPENINGS, SEE 6/A1.3.3
6. PARKING STALLS SHALL BE STRIPED USING WHITE PAINT (U.O.N.). STRIPES SHALL BE 4" WIDE.
7. PROVIDE 3/4" CHAMFER AT EXPOSED EDGES OF CONCRETE, UNLESS OTHERWISE INDICATED.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
02 118963

rga rainforth grau architects

LICENSED ARCHITECT
C-4648
STATE OF CALIFORNIA

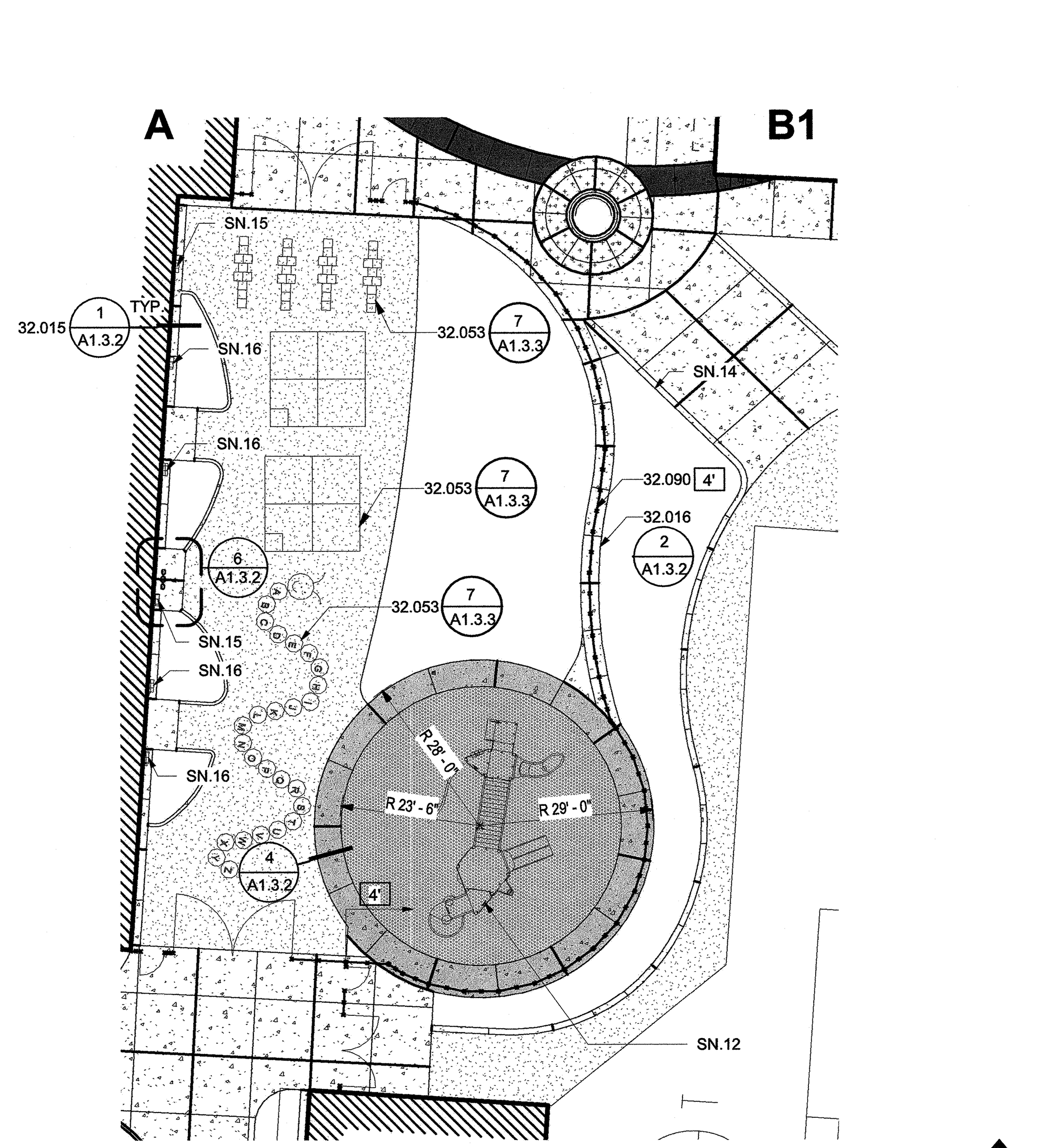
NEEDHAM ELEMENTARY SCHOOL - ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT
LODI, CA

Revision

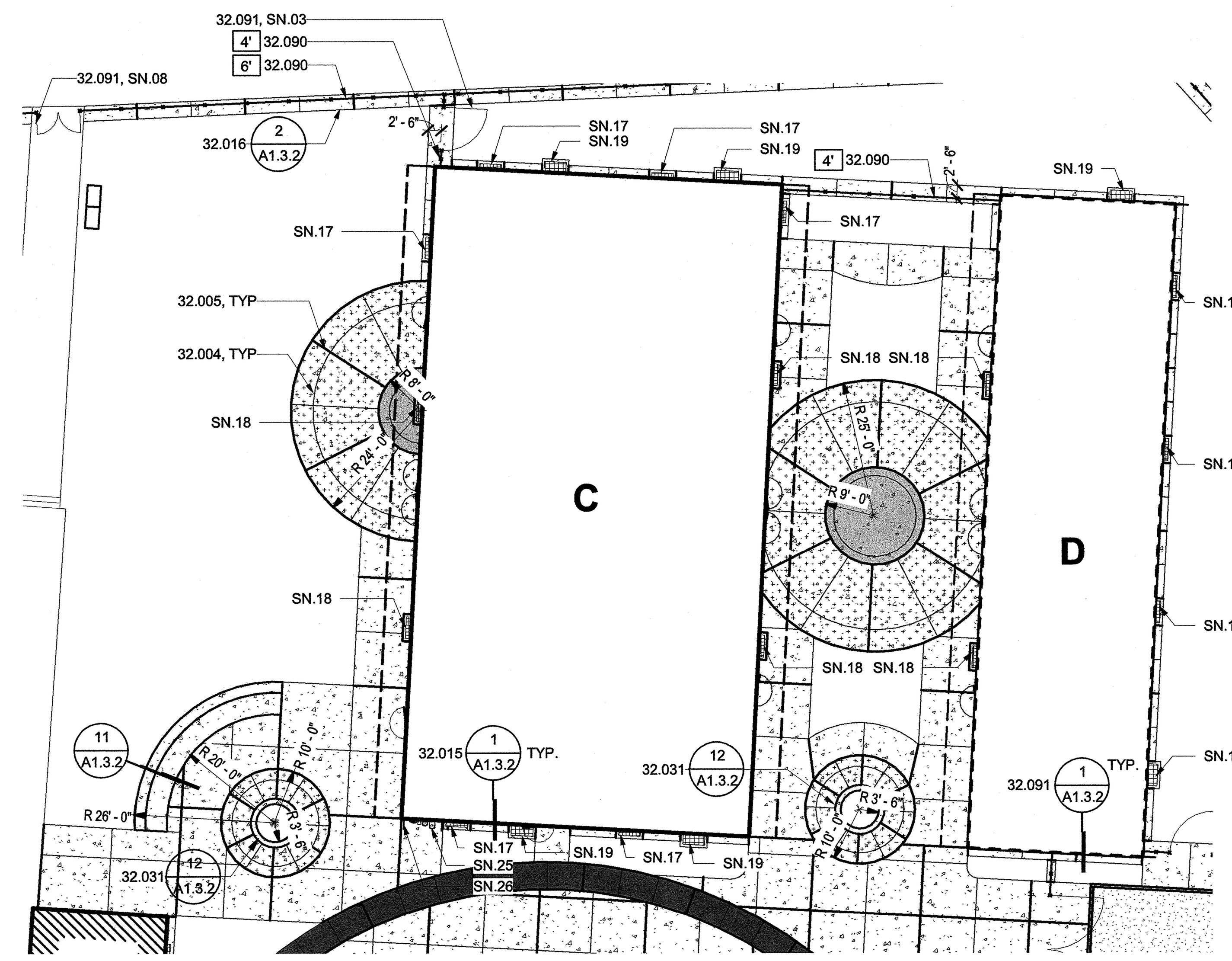
OVERALL SITE PLAN

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	A1.1.1



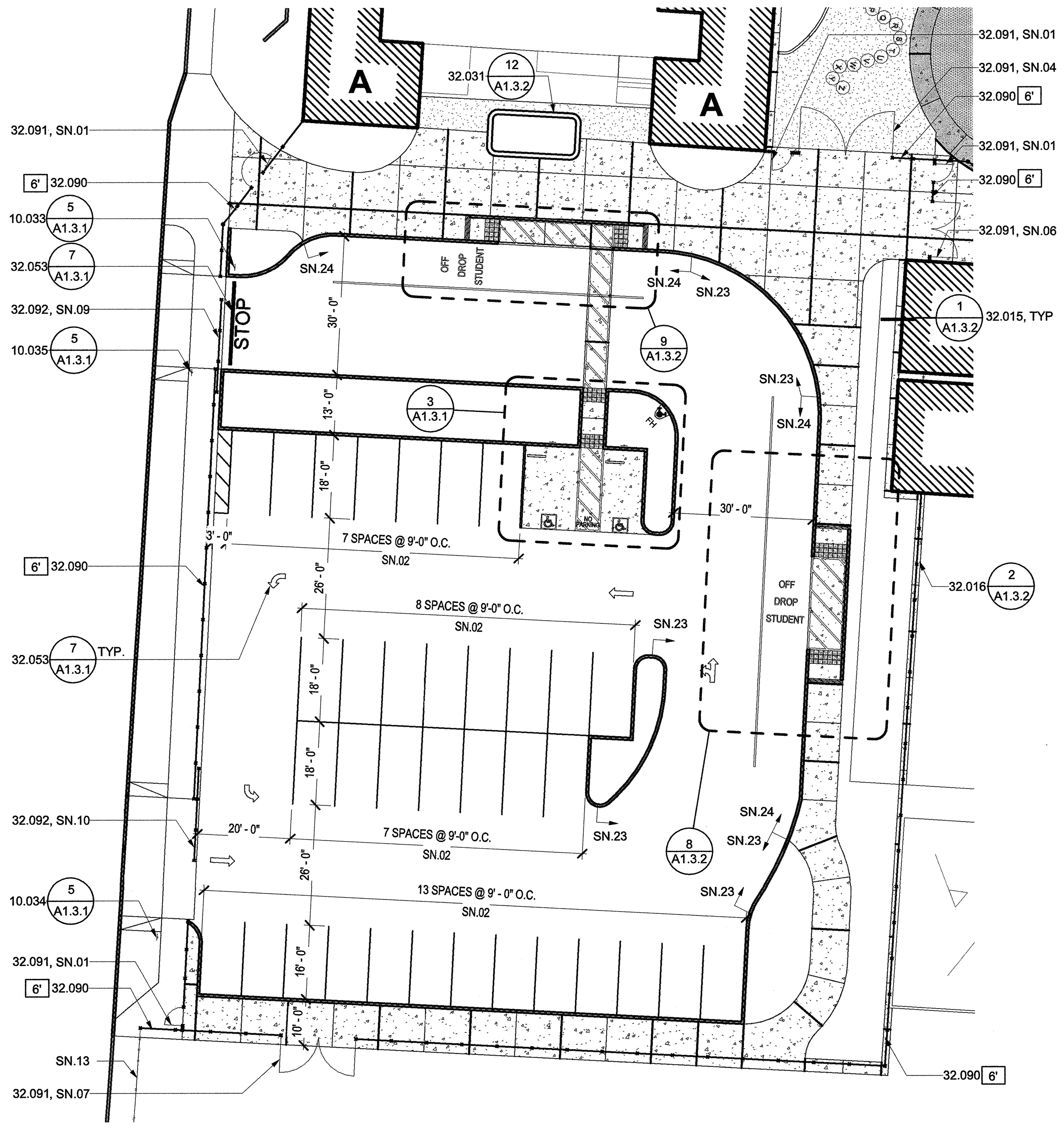
3 ENLARGED SITE PLAN - KINDER YARD

1" = 20'-0"



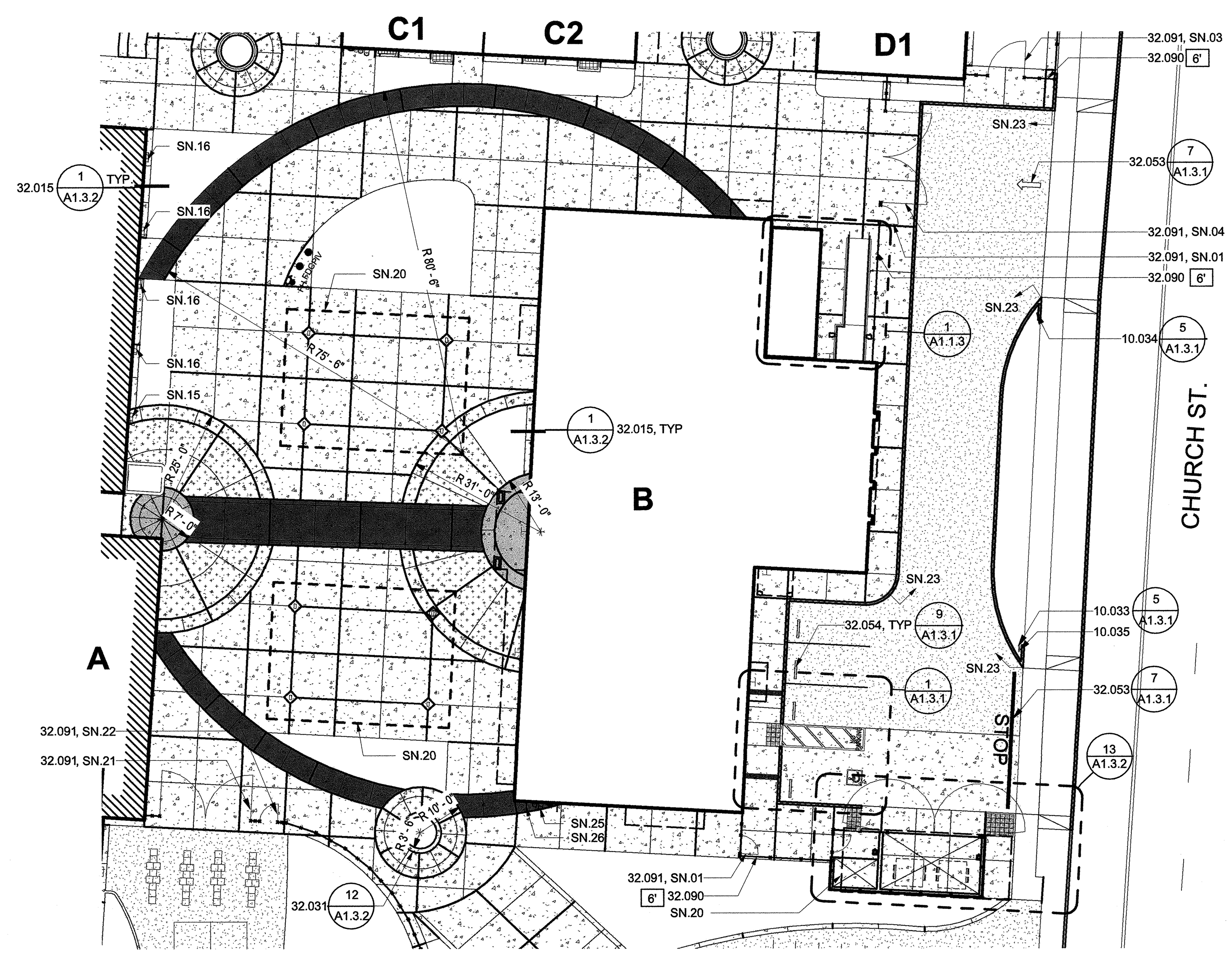
1 ENLARGED SITE PLAN - CLASSROOMS

1" = 20'-0"



4 ENLARGED SITE PLAN - PARKING

1" = 20'-0"



2 ENLARGED SITE PLAN - YARD

1" = 20'-0"

LEGEND

- UNIT DESIGNATION — NEW BUILDINGS
- UNIT DESIGNATION — EXISTING BUILDINGS
- EXPANSION JOINT (20'-0" MAX. SPACING) — CONCRETE WALK / PAVING — CONTROL JOINT (10'-0" MAX. SPACING)
- EXPOSED AGGREGATE CONCRETE PAVING
- INTEGRAL COLORED CONCRETE PAVING COLOR (1)
- INTEGRAL COLORED CONCRETE PAVING COLOR (2)
- ASPHALT CONCRETE PAVING
- CHAIN LINK FENCE
- X' — FENCE OR WALL HEIGHT
- TRUNCATED DOMES
- FH — FIRE HYDRANT (NTS)
- FDC — FIRE DEPARTMENT CONNECTION (NTS)
- PIV — POST INDICATOR VALVE (NTS)

GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING DURING CONSTRUCTION TO SECURE ENTIRE AREA OF WORK.
2. TEMPORARY CONSTRUCTION FENCING IDENTIFIED IS FOR SPECIFIC SITE LOCATION REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE REMAINDER OF THE PROJECT'S TEMPORARY CONSTRUCTION FENCING PER SPECIFICATIONS.
3. CONTRACTOR SHALL COMPLY WITH THE 2016 CALIFORNIA FIRE CODE CHAPTER 33, FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION, THROUGHOUT THE ENTIRE PROJECT.
4. FENCE GRAPHICS AS SHOWN IN THE LEGEND ARE SCHEMATIC. ACTUAL FENCE POST LOCATIONS ARE TO BE COORDINATED BY THE CONTRACTOR.
5. WHERE WALKS CONNECT TO DOOR OPENINGS, SEE 6/A1.3.3
6. PARKING STALLS SHALL BE STRIPED USING WHITE PAINT (U.O.N.). STRIPES SHALL BE 4" WIDE.
7. PROVIDE 3/4" CHAMFER AT EXPOSED EDGES OF CONCRETE, UNLESS OTHERWISE INDICATED.

SHEET NOTES

SN.01 4'-0" W X 6'-0" H CHAINLINK GATE 5/A1.3.3
SN.02 DIMENSION IS TO CENTERLINE OF STRIPING
SN.03 8'-0" W X 4'-0" H CHAINLINK GATE
SN.04 PR 10'-0" W X 6'-0" H CHAINLINK GATE WITH KNOX LOCK
SN.05 NOT USED
SN.06 PR 6'-0" W X 6'-0" H CHAINLINK GATE
SN.07 PR 8'-0" W X 6'-0" H CHAINLINK GATE
SN.08 PR 4'-0" W X 6'-0" H
SN.09 20'-0" W X 6'-0" H ROLLING GATE WITH KNOX LOCK
SN.10 26'-0" W X 6'-0" H ROLLING GATE WITH KNOX LOCK
SN.11 NOT USED
SN.12 PLAY APPARATUS
SN.13 (E) FENCE TO REMAIN
SN.14 CONCRETE STRIP SEPARATING PLANTER AND ASPHALT
SN.15 (E) FOUNDATION VENT. PROVIDE ADA COMPLIANT WELL WITH GRATE TO ALLOW FOR VENTILATION. FIELD VERIFY LOCATION AND SIZE. 9/A1.3.3
SN.16 (E) FOUNDATION VENT. PROVIDE WELL WITH GRATE TO ALLOW FOR VENTILATION. FIELD VERIFY LOCATION AND SIZE. 9/A1.3.3
SN.17 4'-0" X 1'-0" FOUNDATION VENT WITH GRATE 8/A1.3.3
SN.18 4'-0" X 1'-0" FOUNDATION VENT WITH ADA COMPLIANT GRATE. 8/A1.3.3
SN.19 4'-0" X 2'-0" ACCESS VENT WITH GRATE 8/A1.3.3
SN.20 SHADE STRUCTURE PER INC. 4
SN.21 PR 10'-0" W X 4'-0" H CHAINLINK GATE WITH KNOX LOCK
SN.22 4'-0" W X 4'-0" H CHAINLINK GATE 1/A1.3.3
SN.23 RED PAINTED FIRE CURB - "NO PARKING FIRE LANE"
SN.24 YELLOW PAINTED CURB - "LOADING ZONE"
SN.25 DRINKING FOUNTAIN AND BOTTLE FILL STATION, BY OTHERS PER INC. 2
SN.26 DRINKING FOUNTAIN GUARDRAIL, PER 12/A1.3.3

KEYNOTES

10.033	SIGNAGE: ON-SITE STOP SIGN
10.034	SIGNAGE: PARKING LOT ENTRANCE
10.035	SIGNAGE: PARKING LOT EXIT ONLY
32.004	CONCRETE (SITE): CONTROL JOINT
32.005	CONCRETE (SITE): EXPANSION JOINT
32.015	CONCRETE APRON
32.016	CONCRETE MOWSTRIP
32.031	CONCRETE SEAT WALL
32.053	PAVEMENT MARKING
32.054	PRECAST CONCRETE BUMPER
32.090	CHAIN LINK FENCE
32.091	CHAIN LINK GATE: SWING
32.092	CHAIN LINK GATE: ROLLING

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
02 118063

rga rainforth grau architects

LICENSED ARCHITECT
C-14648
STATE OF CALIFORNIA

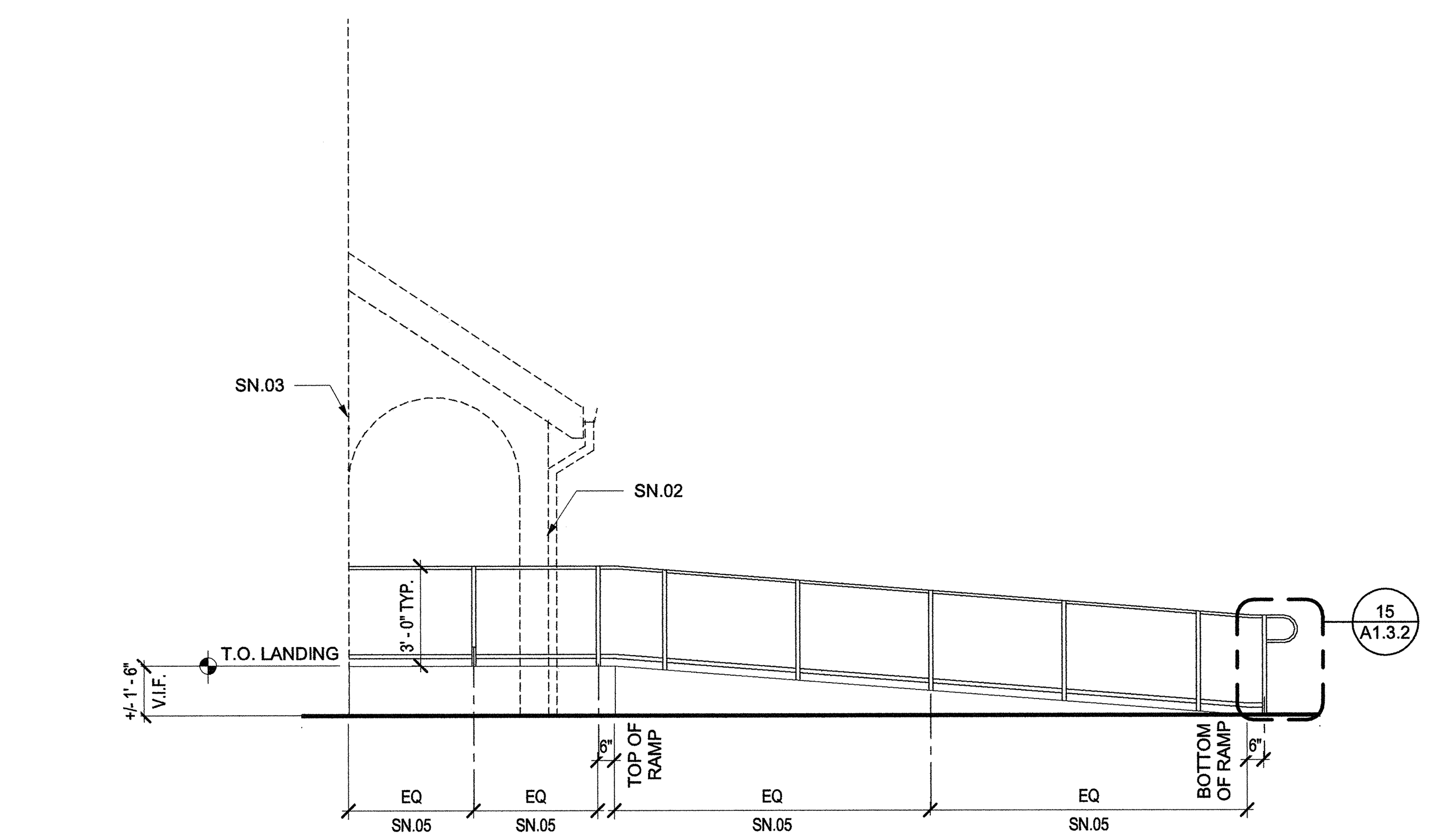
NEEDHAM ELEMENTARY SCHOOL - ADDITIONS
INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT
LODI, CA

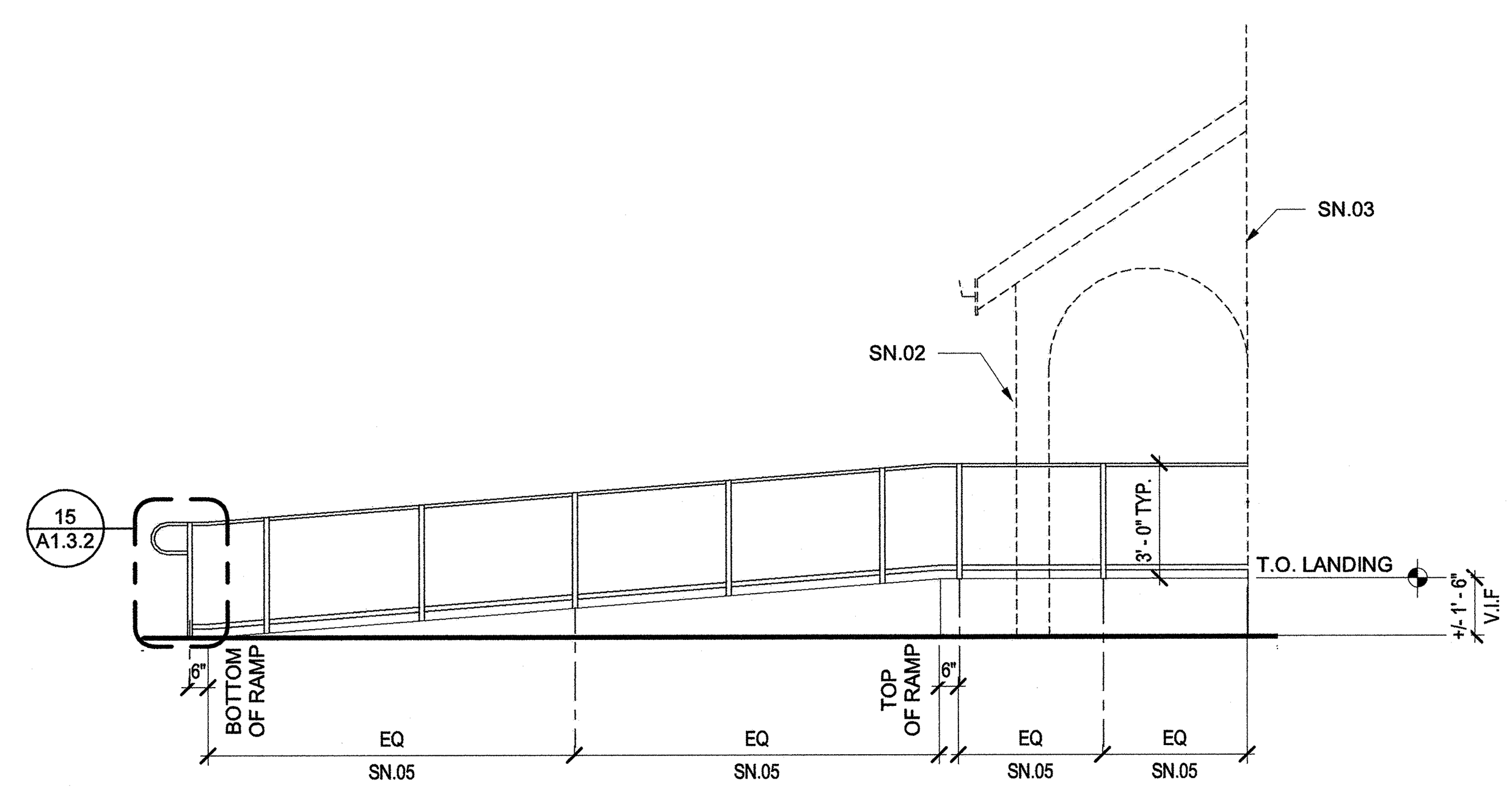
Revision

ENLARGED SITE PLANS

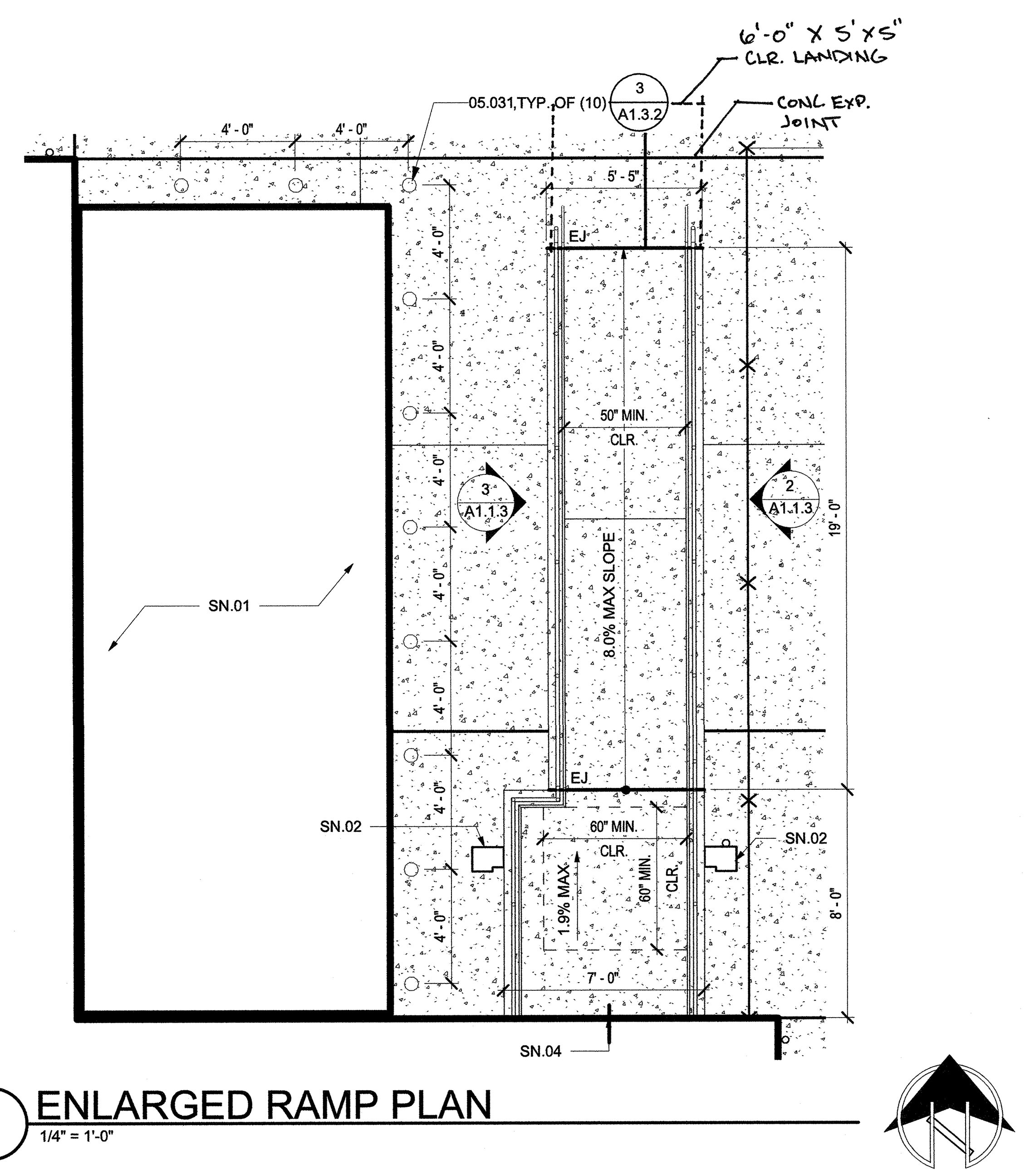
PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	A1.1.2



2 EXTERIOR RAMP 1
1/4" = 1'-0"



3 EXTERIOR RAMP 2
1/4" = 1'-0"



1 ENLARGED RAMP PLAN
1/4" = 1'-0"

LEGEND

- UNIT DESIGNATION — NEW BUILDINGS
- UNIT DESIGNATION — EXISTING BUILDINGS
- EXPANSION JOINT (20'-0" MAX. SPACING) — CONCRETE WALK / PAVING — CONTROL JOINT (10'-0" MAX. SPACING)
- EXPOSED AGGREGATE CONCRETE PAVING
- INTEGRAL COLORED CONCRETE PAVING COLOR (1)
- INTEGRAL COLORED CONCRETE PAVING COLOR (2)
- ASPHALT CONCRETE PAVING
- CHAIN LINK FENCE
- X' — FENCE OR WALL HEIGHT
- TRUNCATED DOMES
- FH — FIRE HYDRANT (NTS)
- FDC — FIRE DEPARTMENT CONNECTION (NTS)
- PIV — POST INDICATOR VALVE (NTS)

GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING DURING CONSTRUCTION TO SECURE ENTIRE AREA OF WORK.
2. TEMPORARY CONSTRUCTION FENCING IDENTIFIED IS FOR SPECIFIC SITE LOCATION REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE REMAINDER OF THE PROJECT'S TEMPORARY CONSTRUCTION FENCING PER SPECIFICATIONS.
3. CONTRACTOR SHALL COMPLY WITH THE 2016 CALIFORNIA FIRE CODE CHAPTER 33, FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION, THROUGHOUT THE ENTIRE PROJECT.
4. FENCE GRAPHICS AS SHOWN IN THE LEGEND ARE SCHEMATIC. ACTUAL FENCE POST LOCATIONS ARE TO BE COORDINATED BY THE CONTRACTOR.
5. WHERE WALKS CONNECT TO DOOR OPENINGS, SEE 6/A1.3.3
6. PARKING STALLS SHALL BE STRIPED USING WHITE PAINT (U.O.N.). STRIPES SHALL BE 4" WIDE.
7. PROVIDE 3/4" CHAMFER AT EXPOSED EDGES OF CONCRETE, UNLESS OTHERWISE INDICATED.

SHEET NOTES

- SN.01 EXTERIOR WALK-IN COOLER, PER INC. 3
- SN.02 BUILDING OVERHANG COLUMNS, PER INC. 3
- SN.03 FACE OF BUILDING, PER INC. 3
- SN.04 CONCRETE LANDING TO BUILDING CONNECTION TO BE COORDINATED IN INC. 3 WITH BUILDING MANUFACTURER
- SN.05 HANDRAIL POST PATTERN CENTERED

KEYNOTES

05.031 PIPE BOLLARD

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
02 118063
DATE 12-19-19

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STATE OF CALIFORNIA

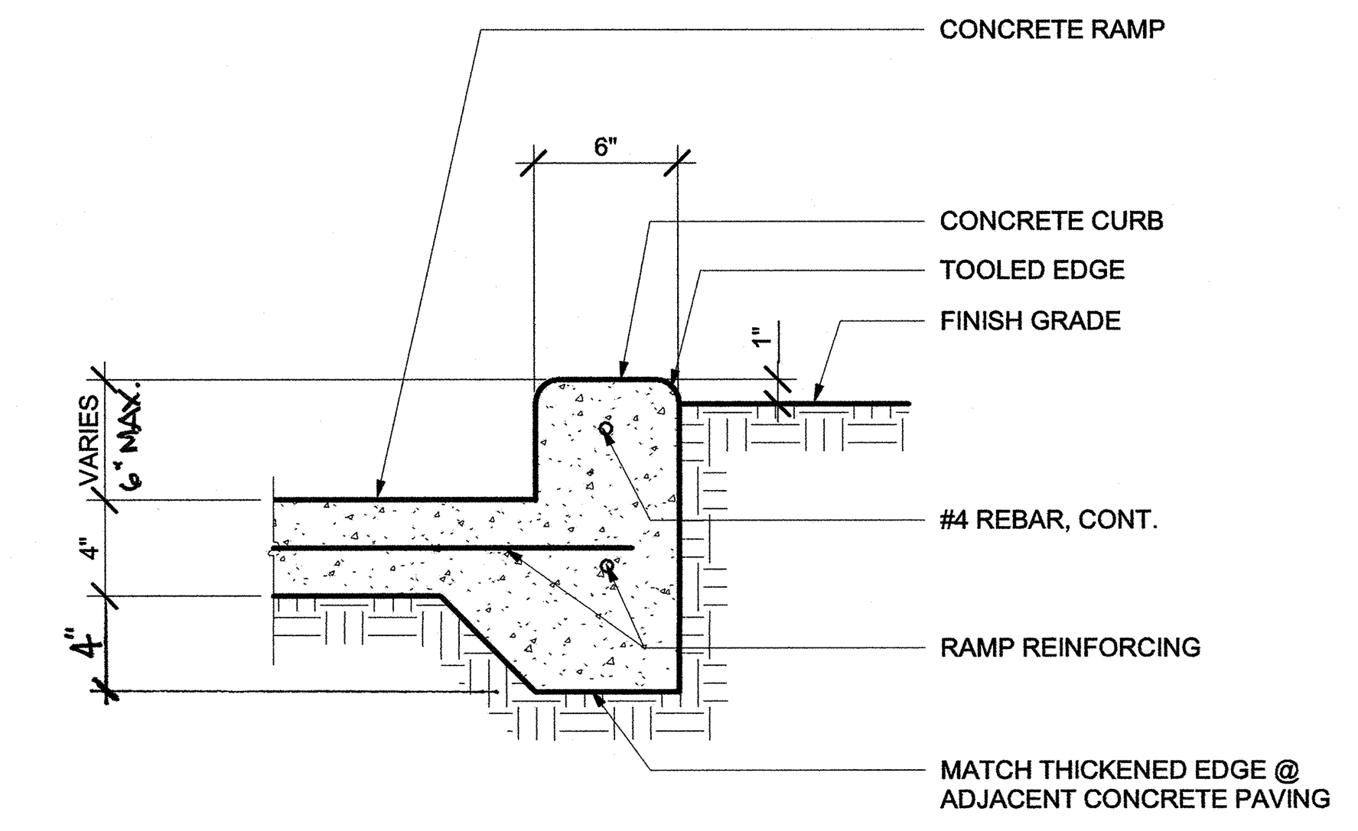
NEEDHAM ELEMENTARY SCHOOL - ADDITIONS
INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT
LODI, CA

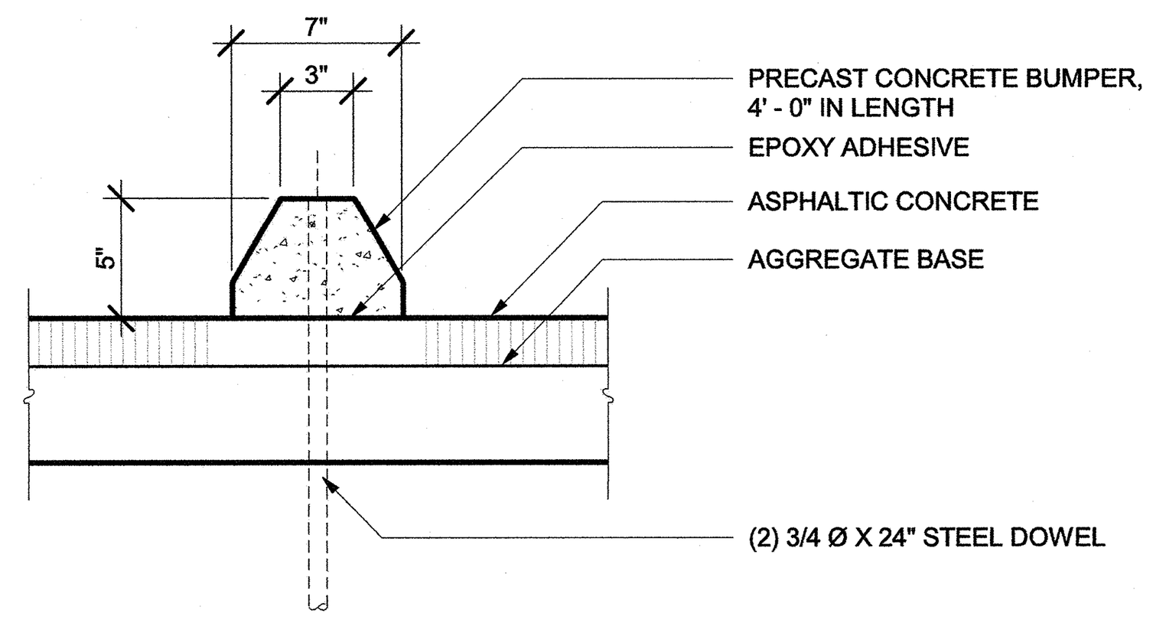
Revision

ENLARGED RAMP PLANS AND ELEVATIONS

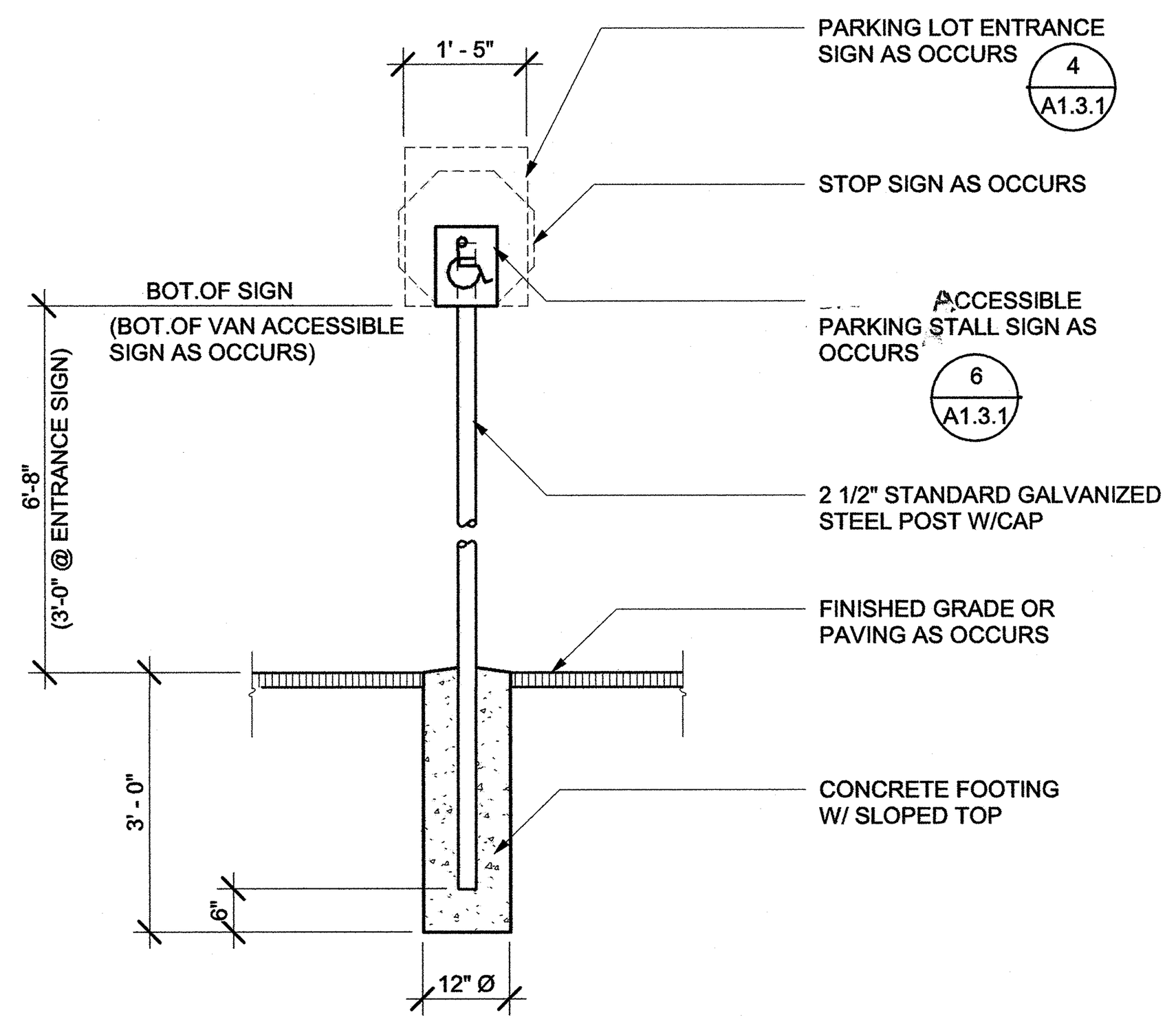
PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	A1.1.3



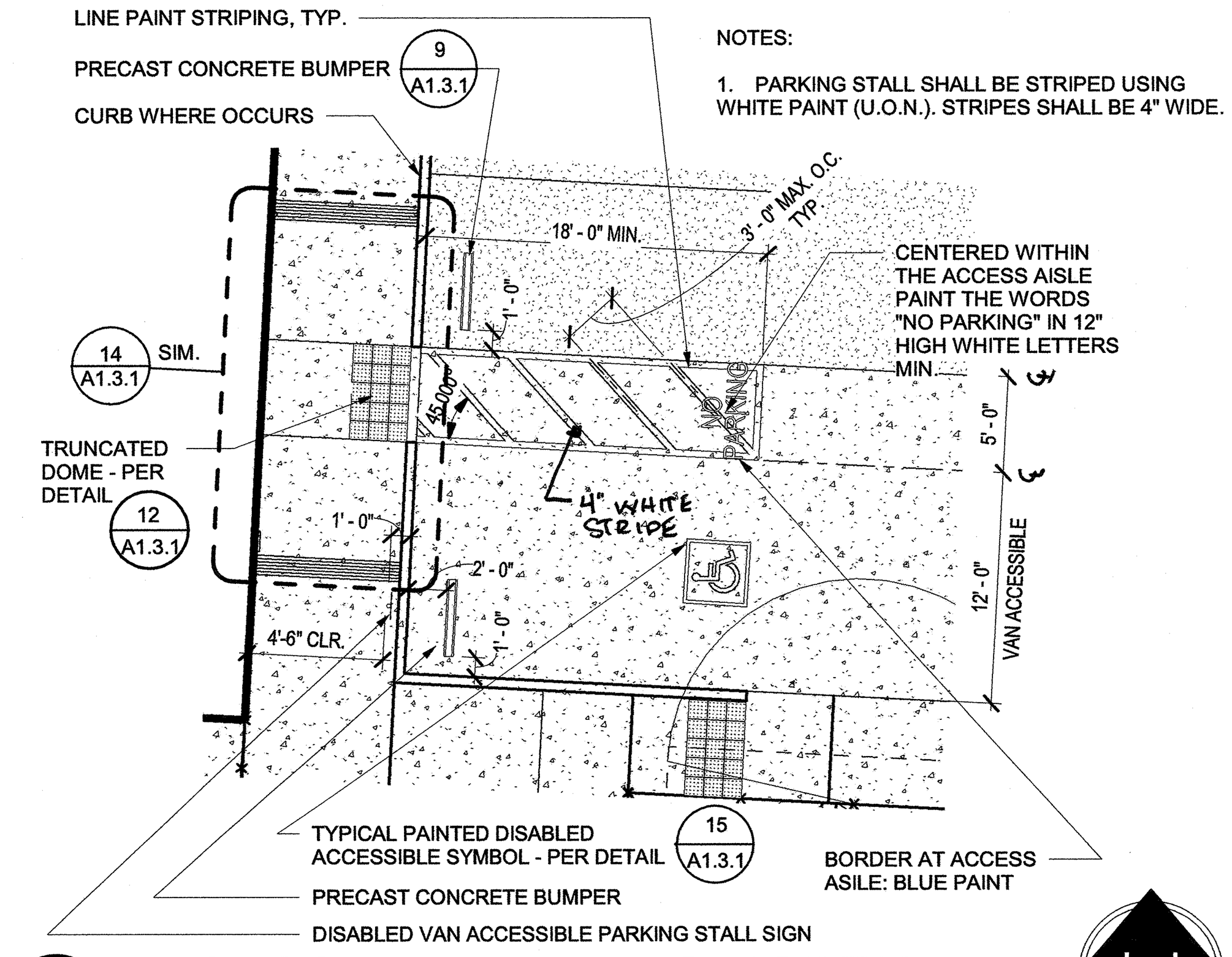
13 RETAINING CURB
1 1/2" = 1'-0"
32210



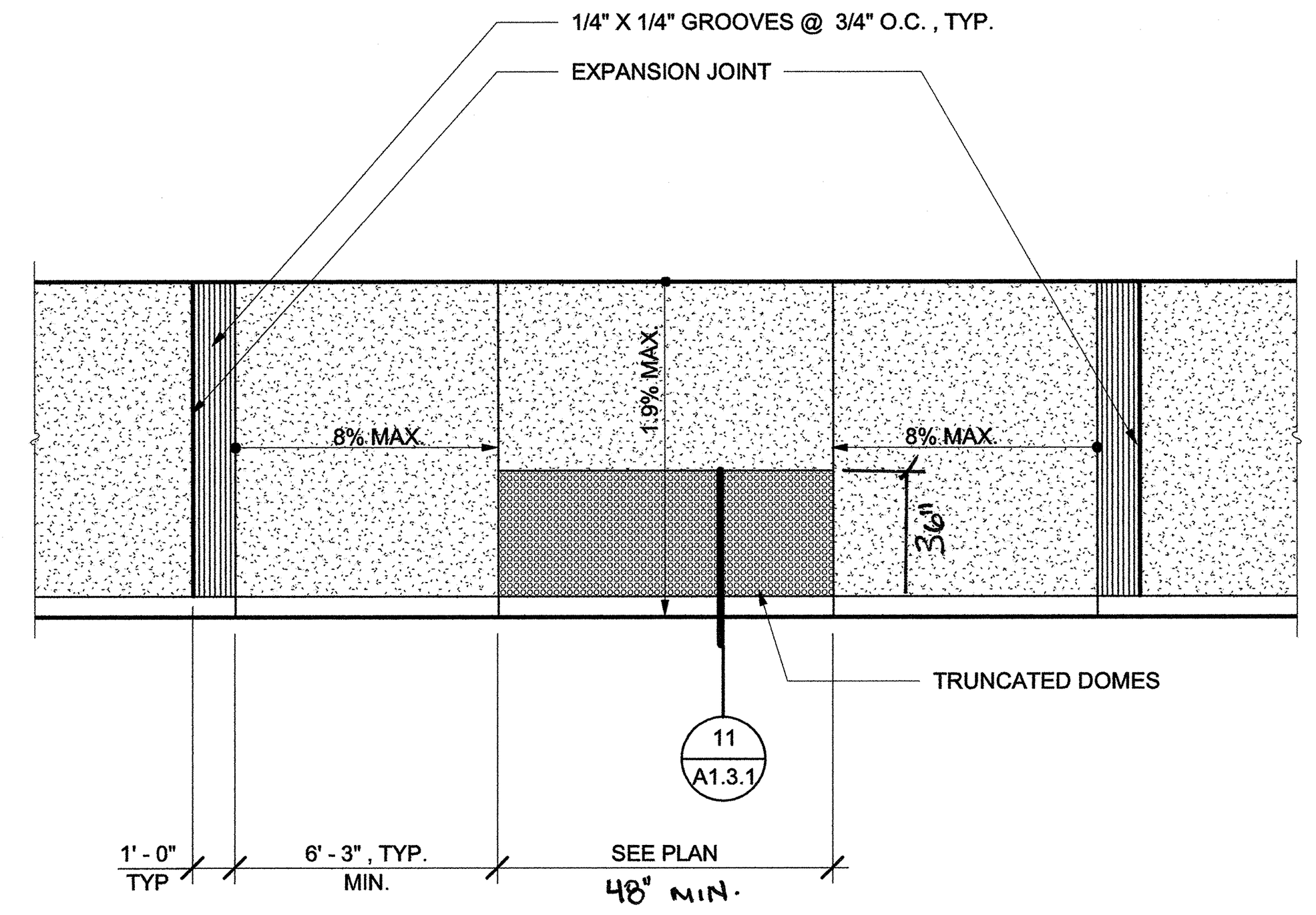
9 PRECAST CONCRETE BUMPER
1 1/2" = 1'-0"
32100



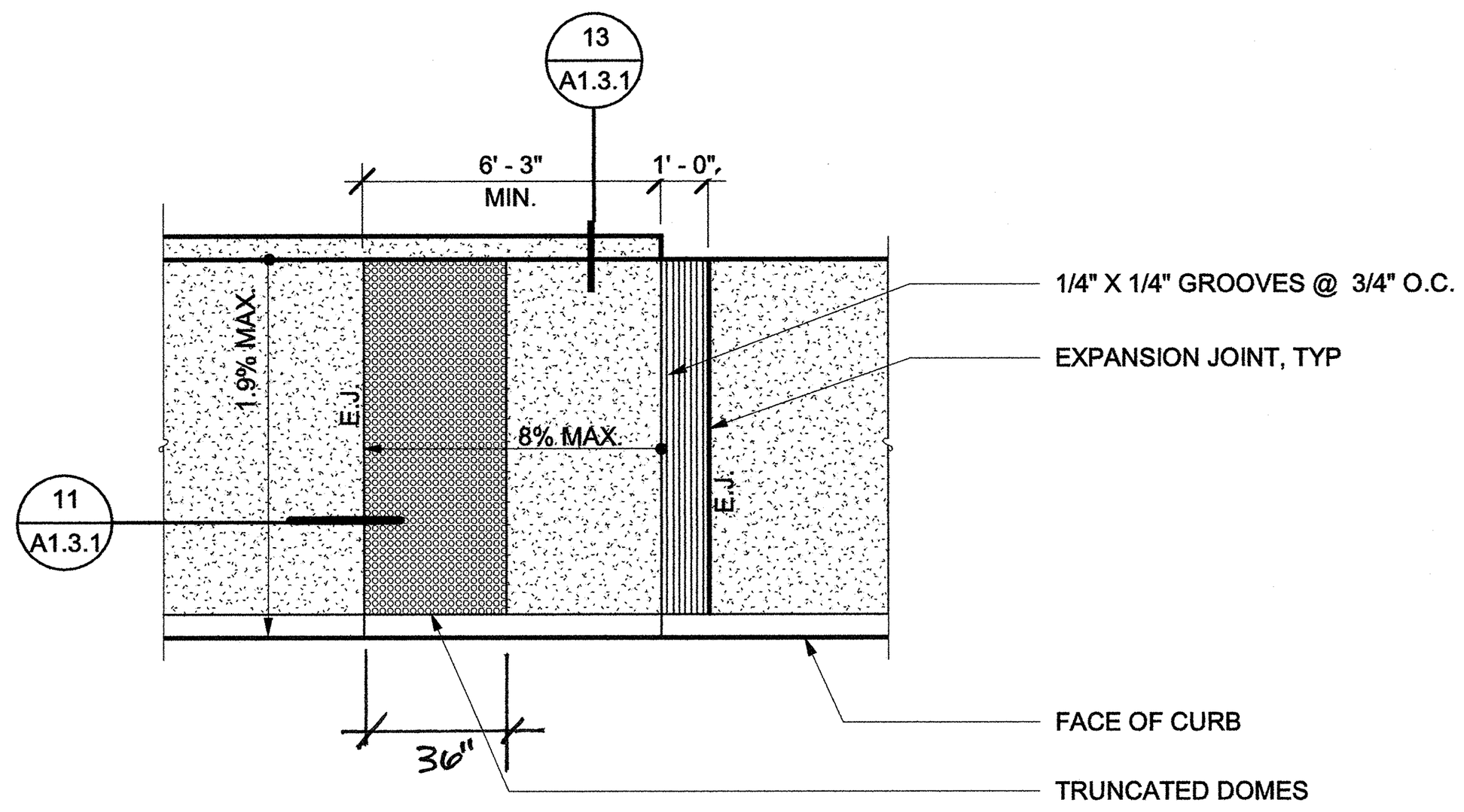
5 METAL SIGNS
1/2" = 1'-0"
10100



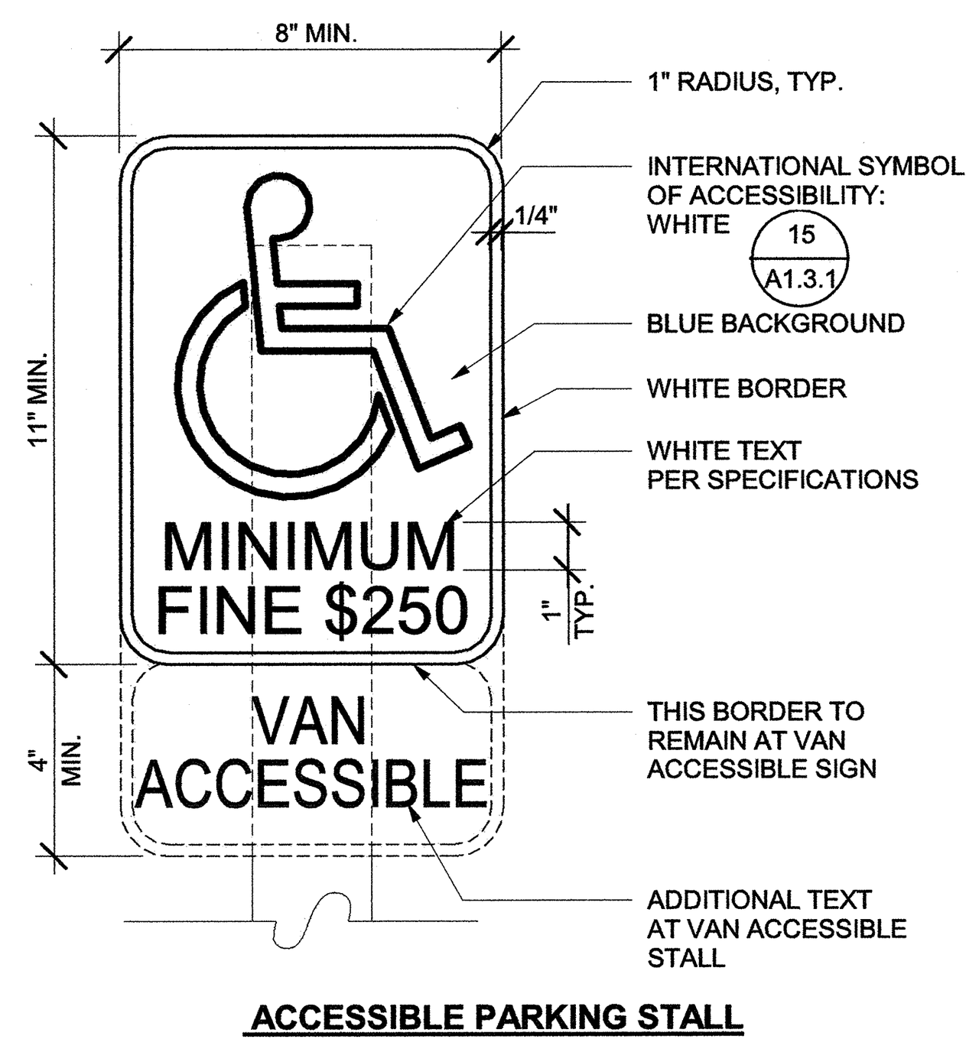
1 ACCESSIBLE PARKING NORTH
1/8" = 1'-0"



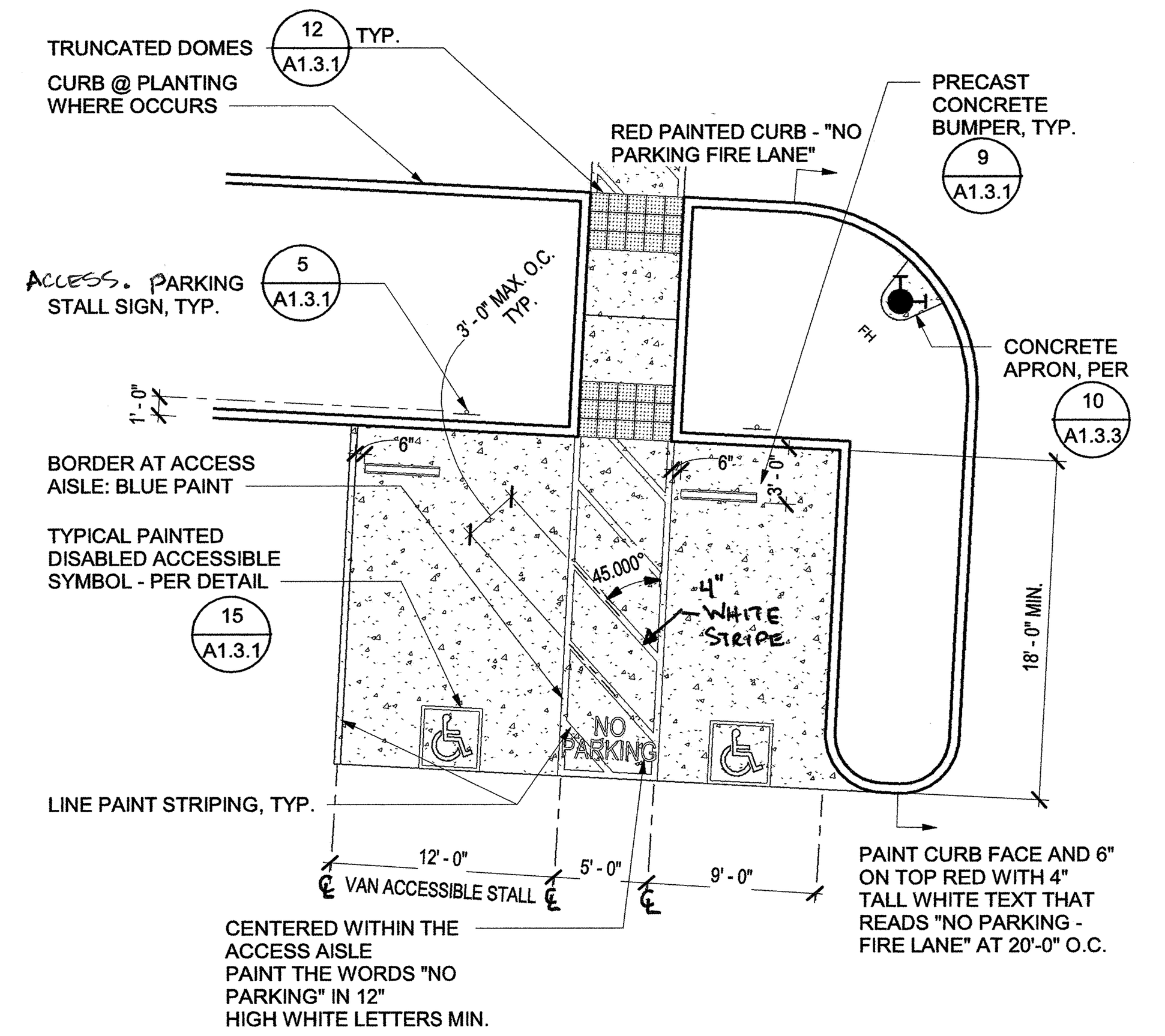
14 CURB RAMP
1/4" = 1'-0"
32204



10 CURB RAMP
1/4" = 1'-0"
32203



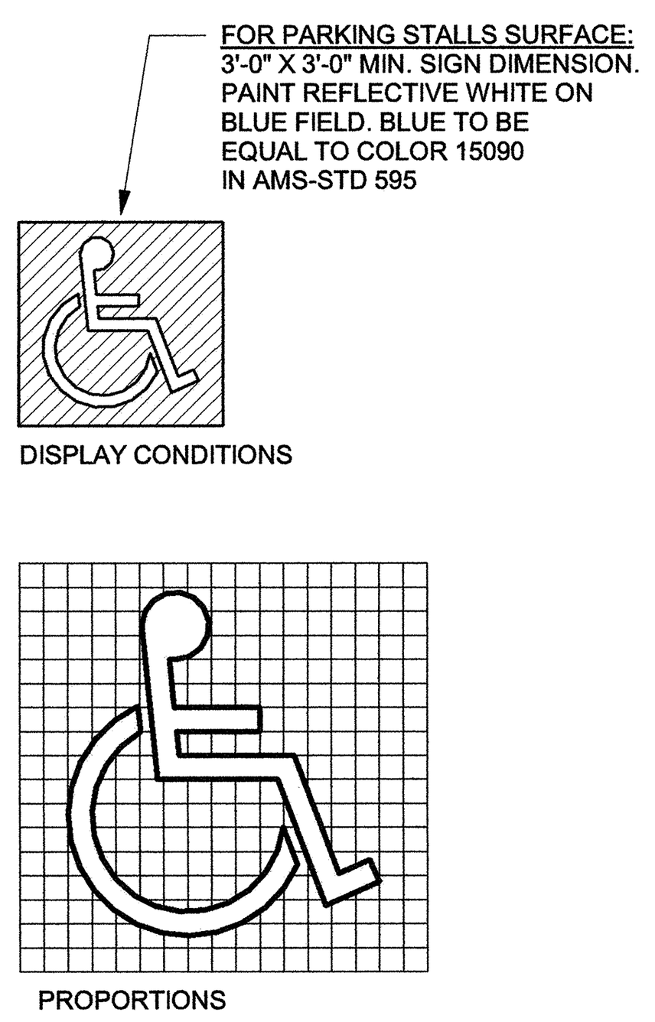
6 PARKING SIGNAGE
3" = 1'-0"



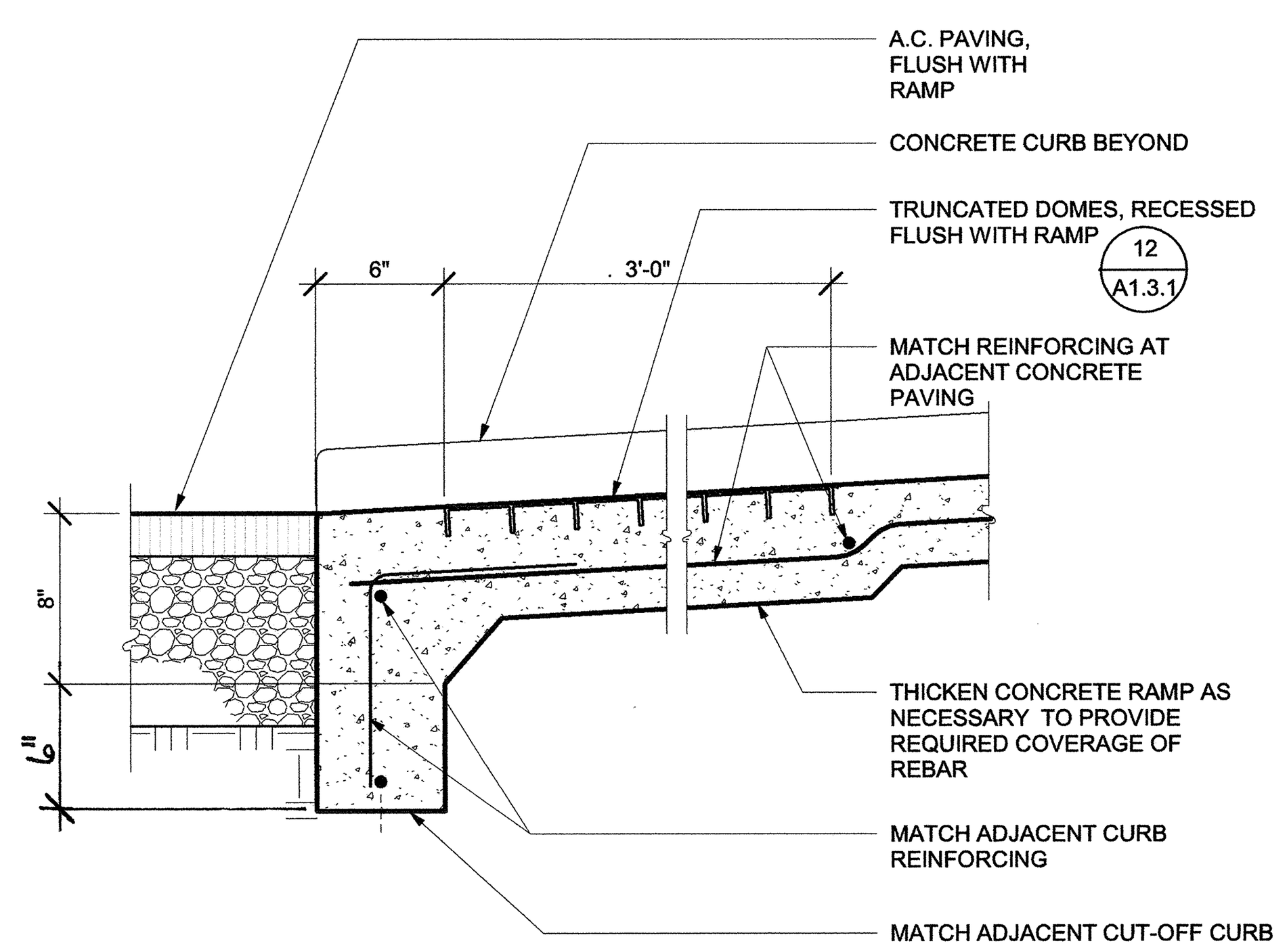
NOTES:

1. PARKING STALL SHALL BE STRIPED USING WHITE PAINT (U.O.N.). STRIPES SHALL BE 4" WIDE.

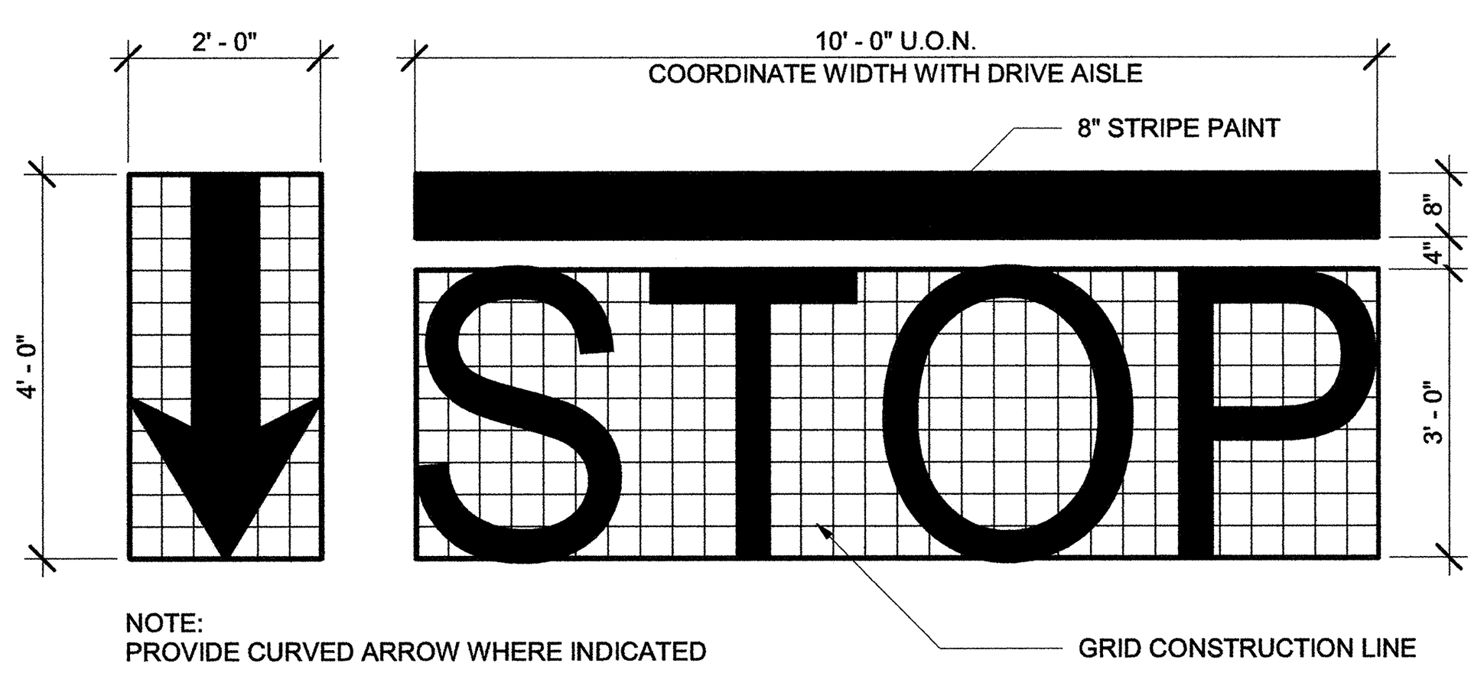
3 ACCESSIBLE PARKING SOUTH
1/8" = 1'-0"



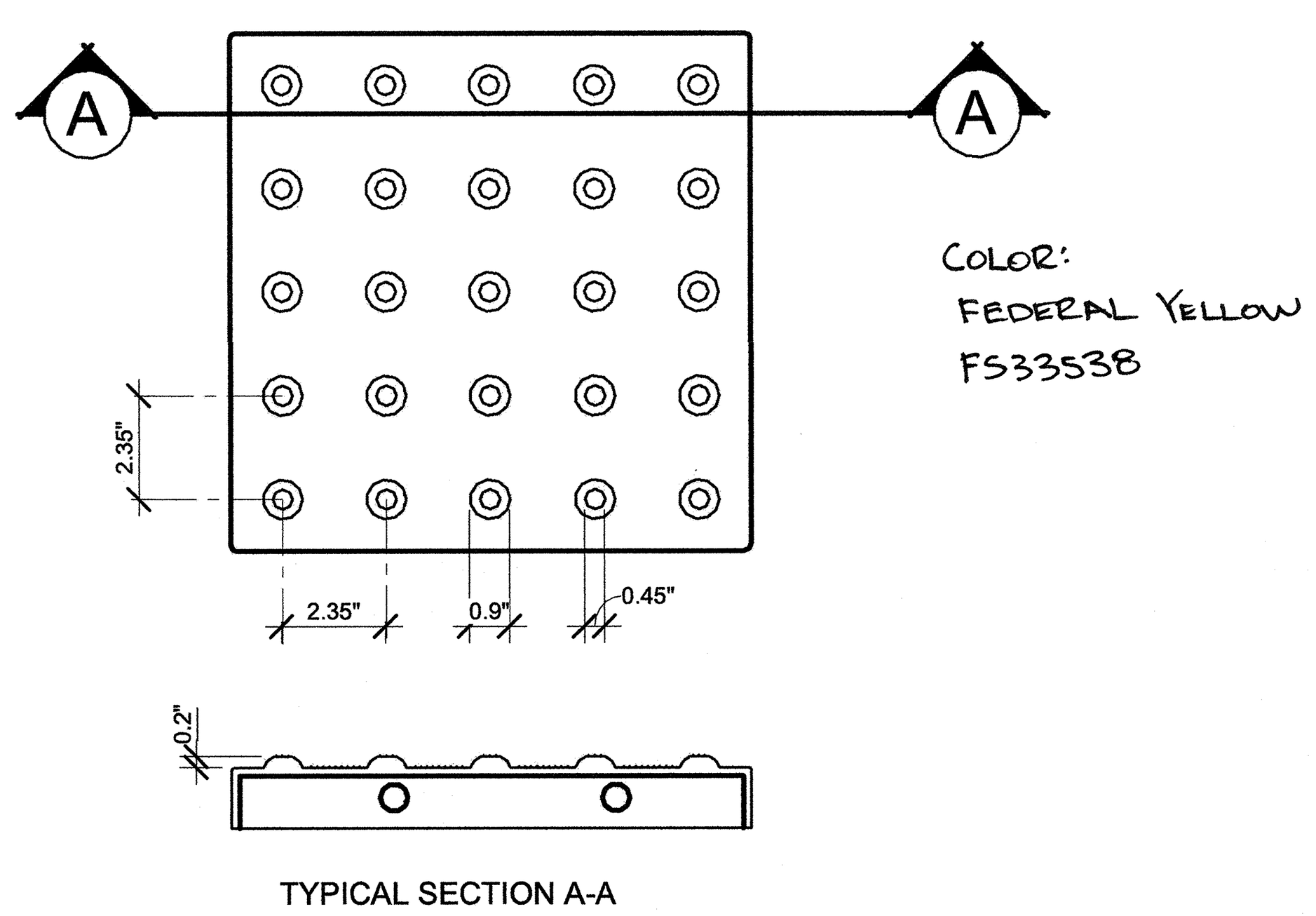
15 SYMBOL OF ACCESSIBILITY
1 : 1



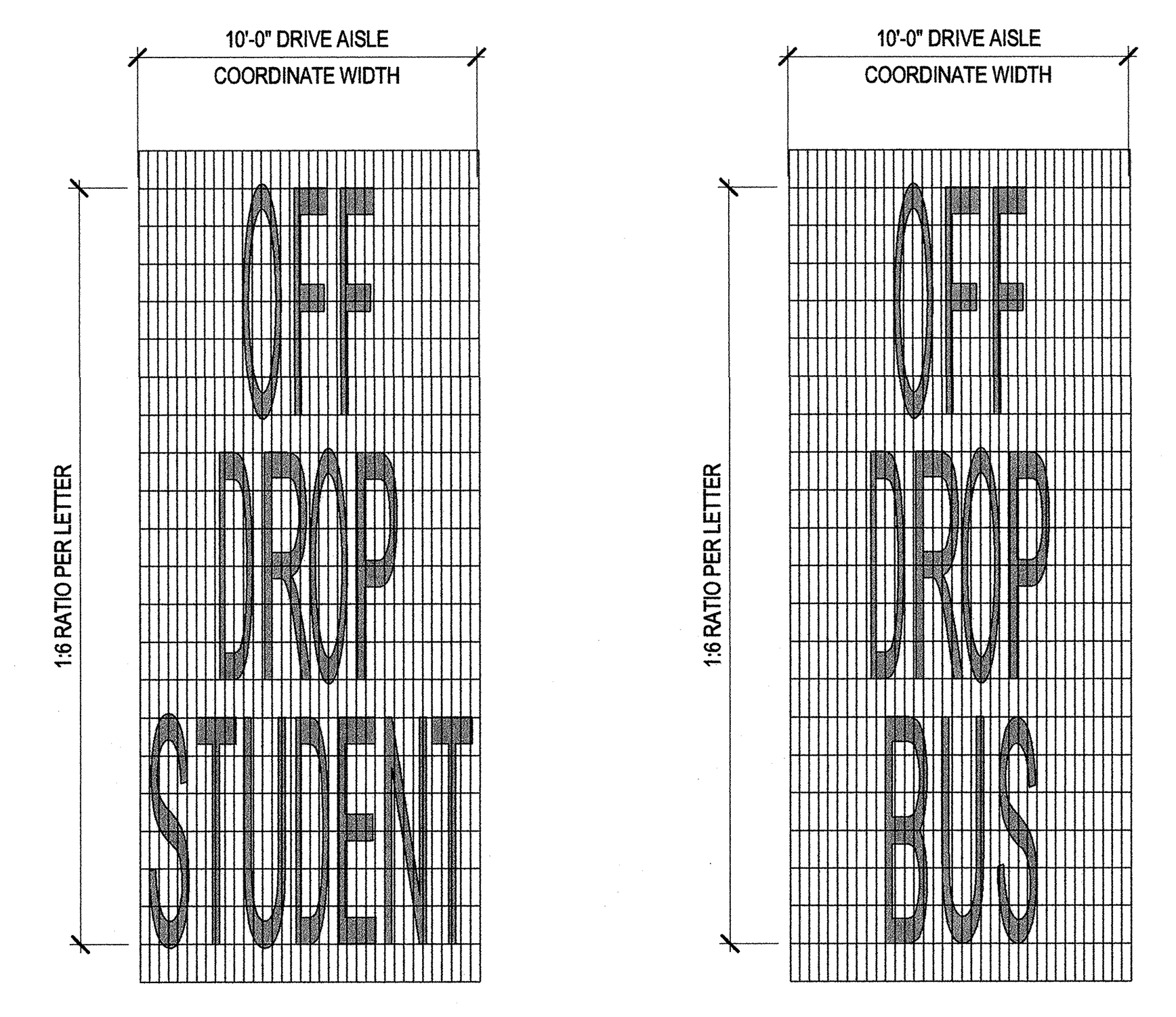
11 CURB RAMP
1 1/2" = 1'-0"
32201



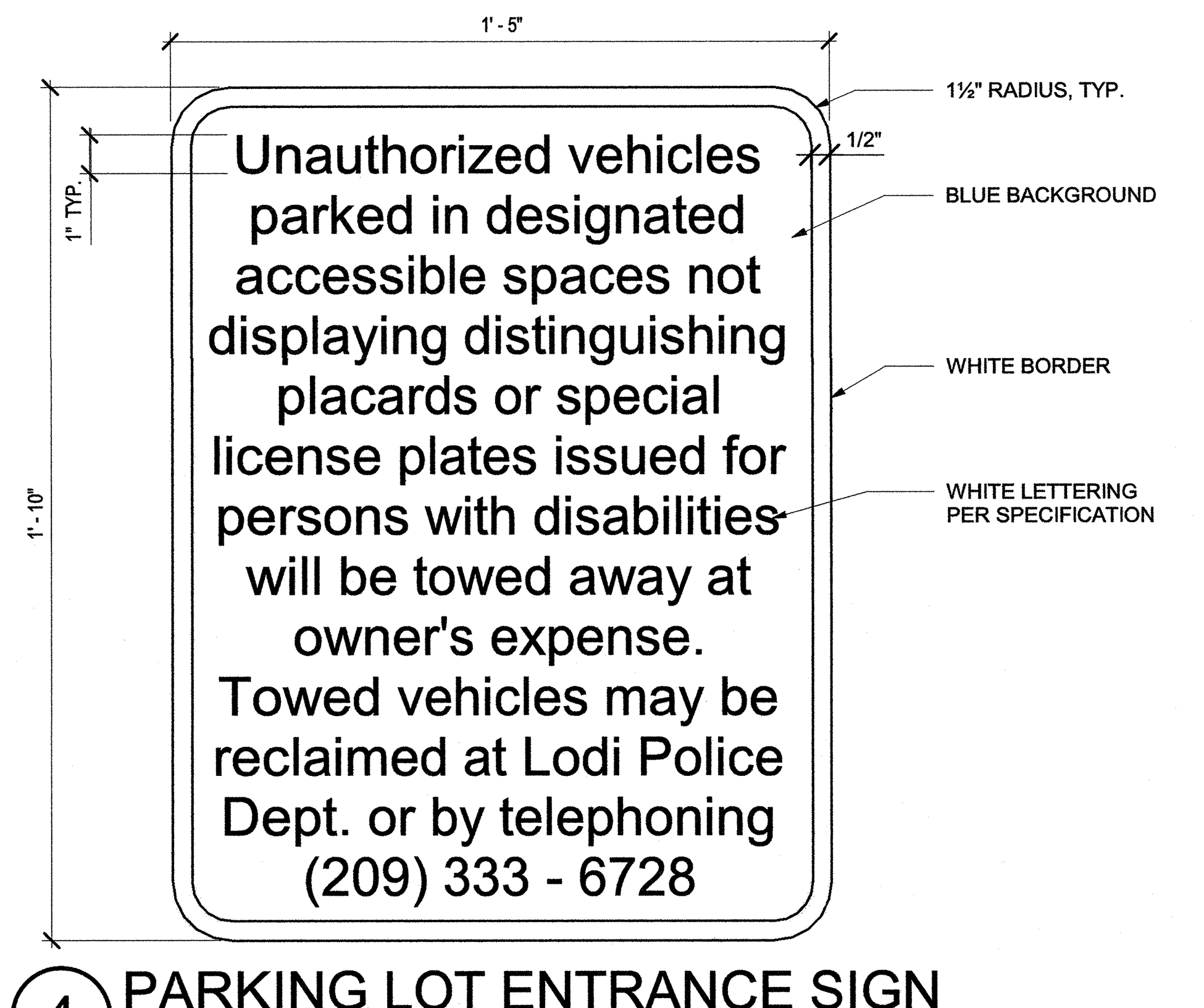
7 DIRECTIONAL ARROW & STOP MARKING
1/2" = 1'-0"
32005



12 TRUNCATED DOMES
3" = 1'-0"
32220



8 DROP-OFF MARKINGS
1/4" = 1'-0"



4 PARKING LOT ENTRANCE SIGN
3" = 1'-0"

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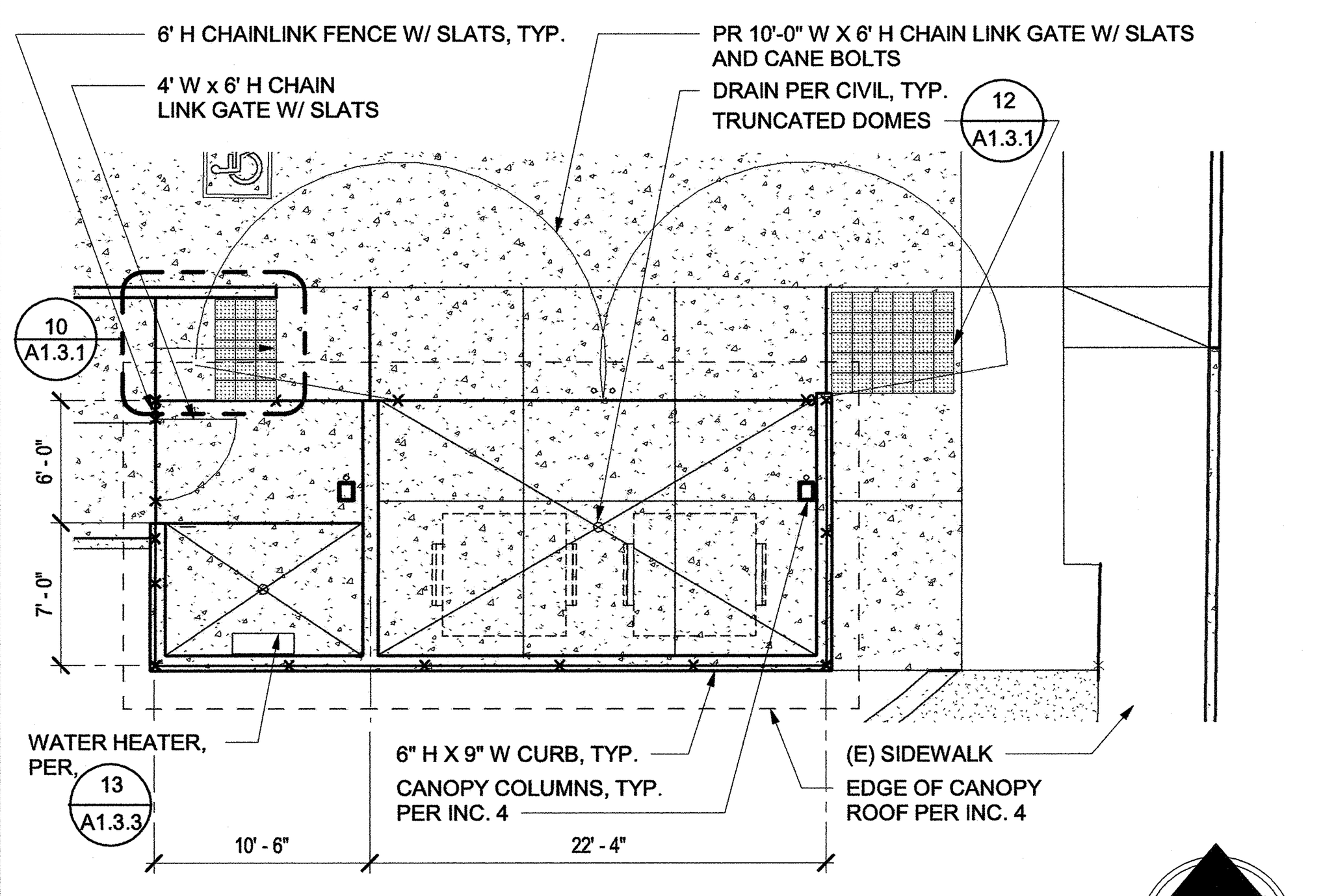
NEEDHAM ELEMENTARY SCHOOL - ADDITIONS
INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT
LODI, CA

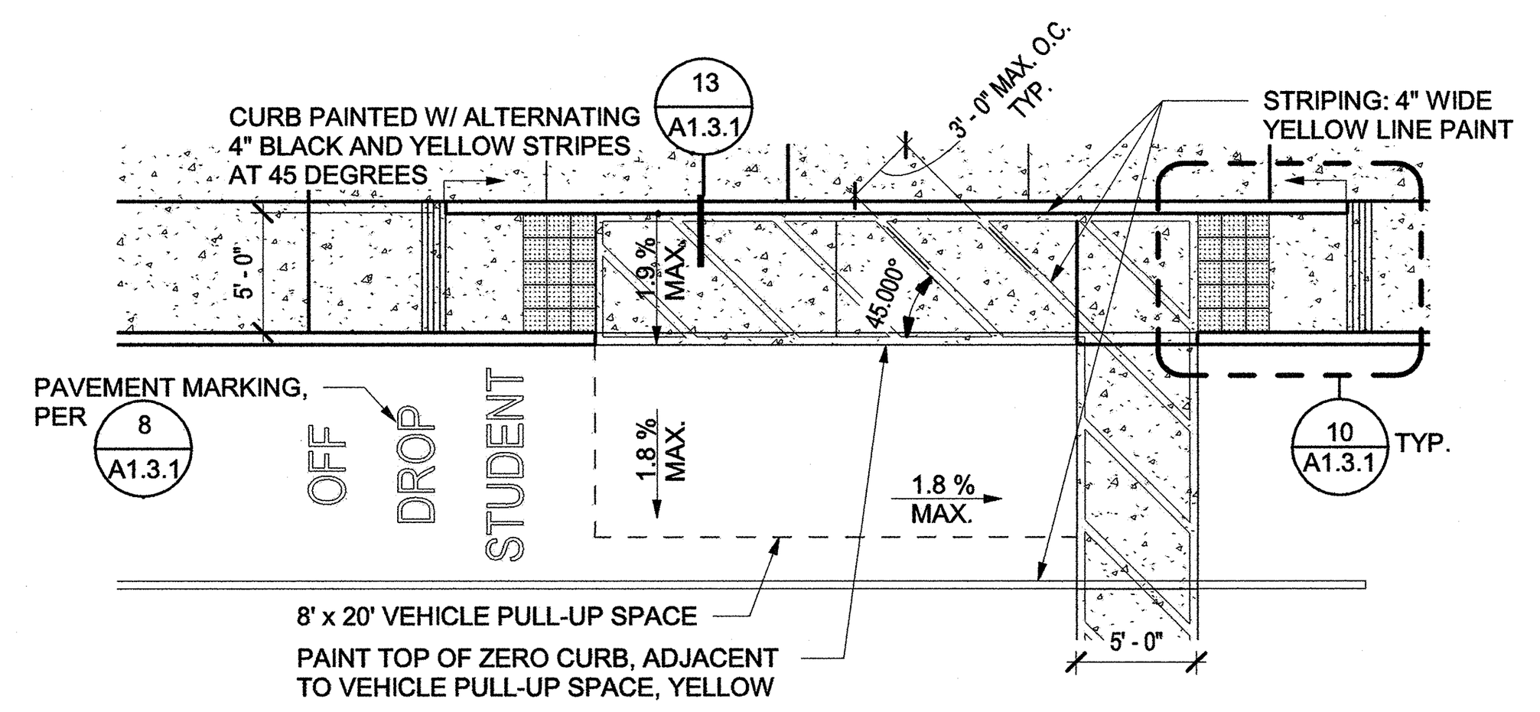
Revision

SITE DETAILS

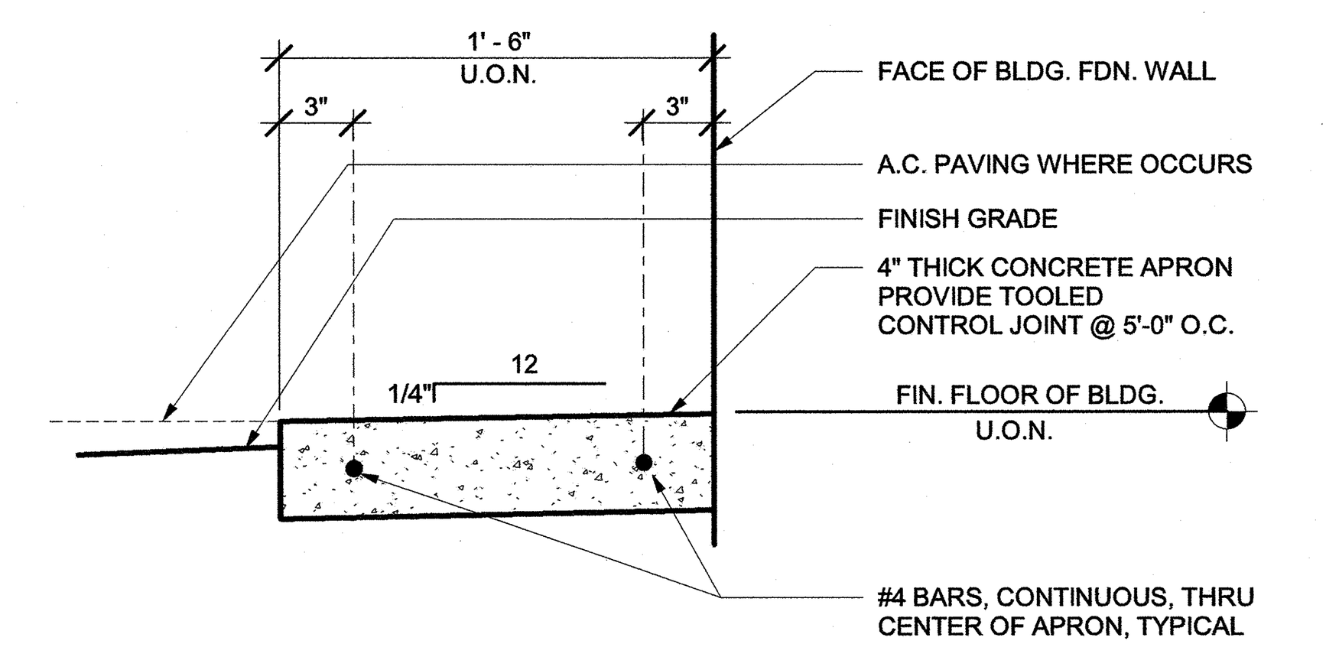
PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	A1.3.1



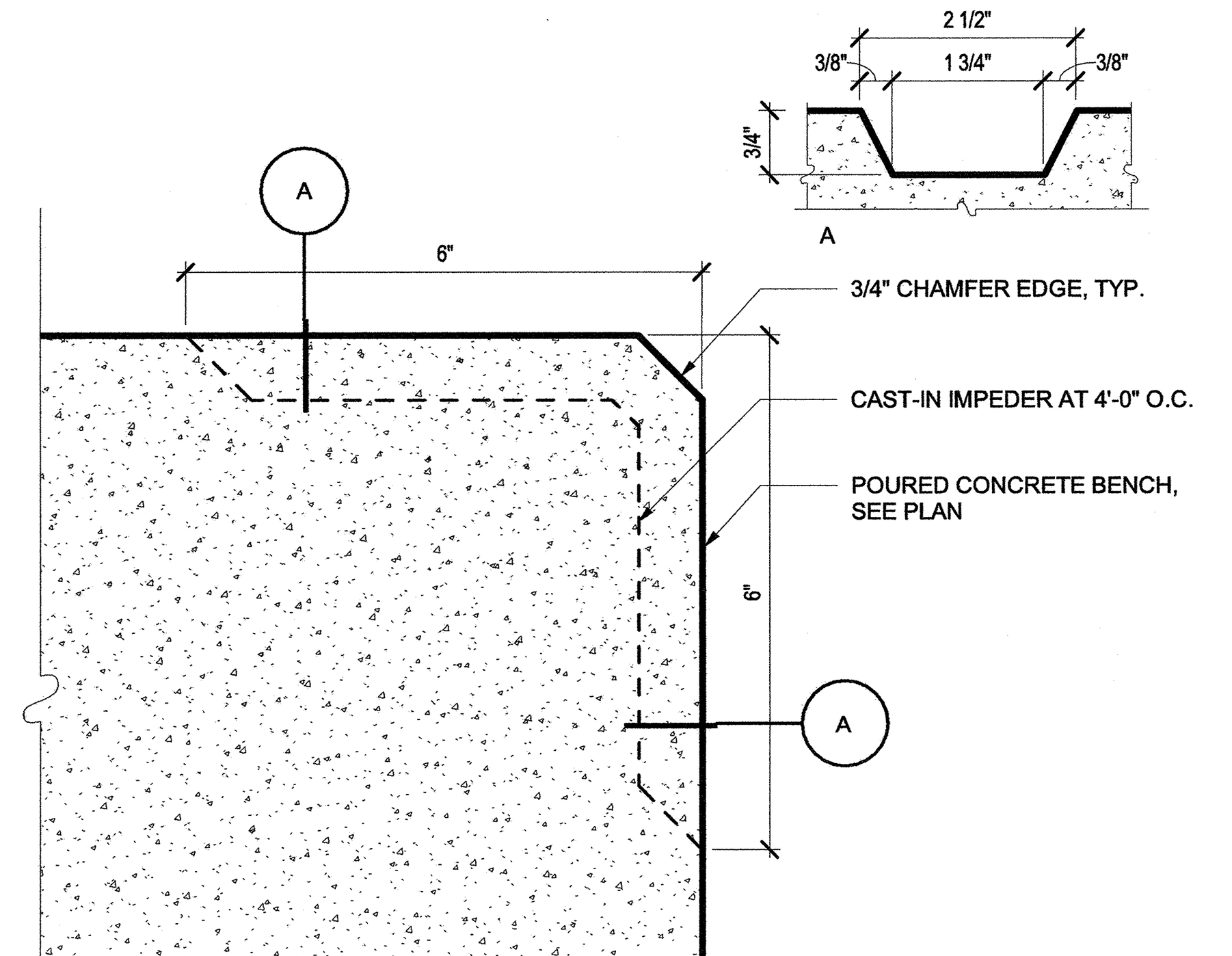
13 TRASH ENCLOSURE PLAN
1/8" = 1'-0"



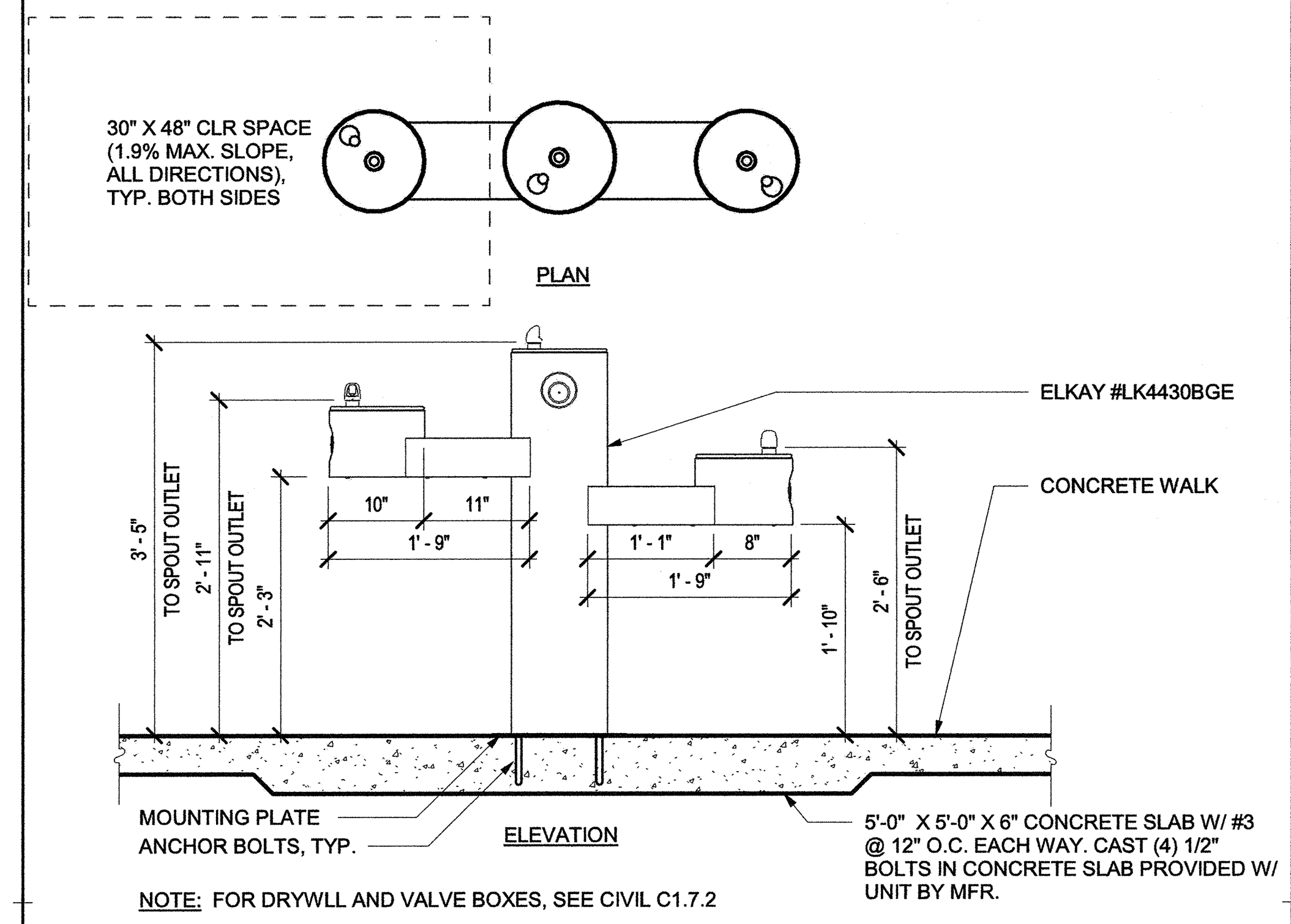
9 PARKING DROP OFF - NORTH
1/8" = 1'-0"



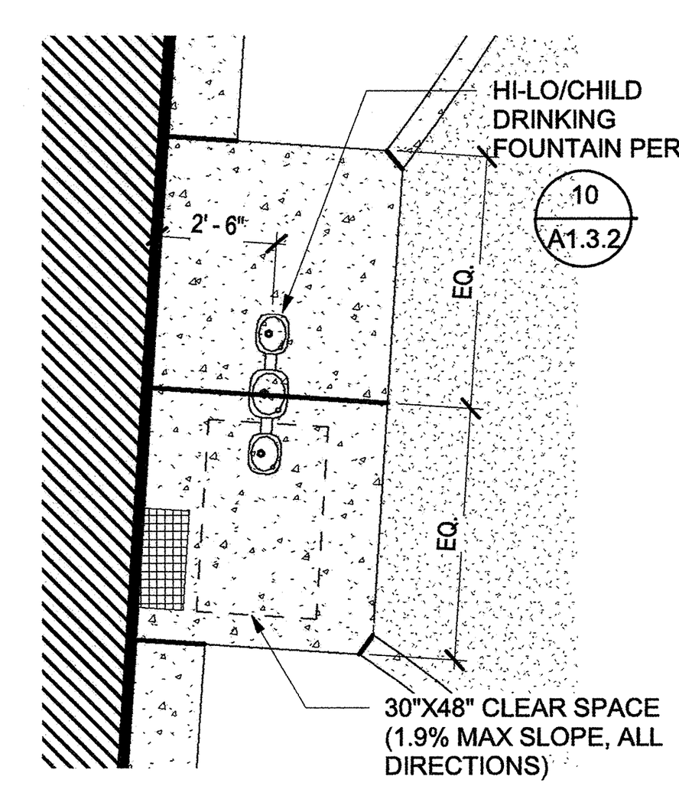
1 APRON
1 1/2" = 1'-0"
32108



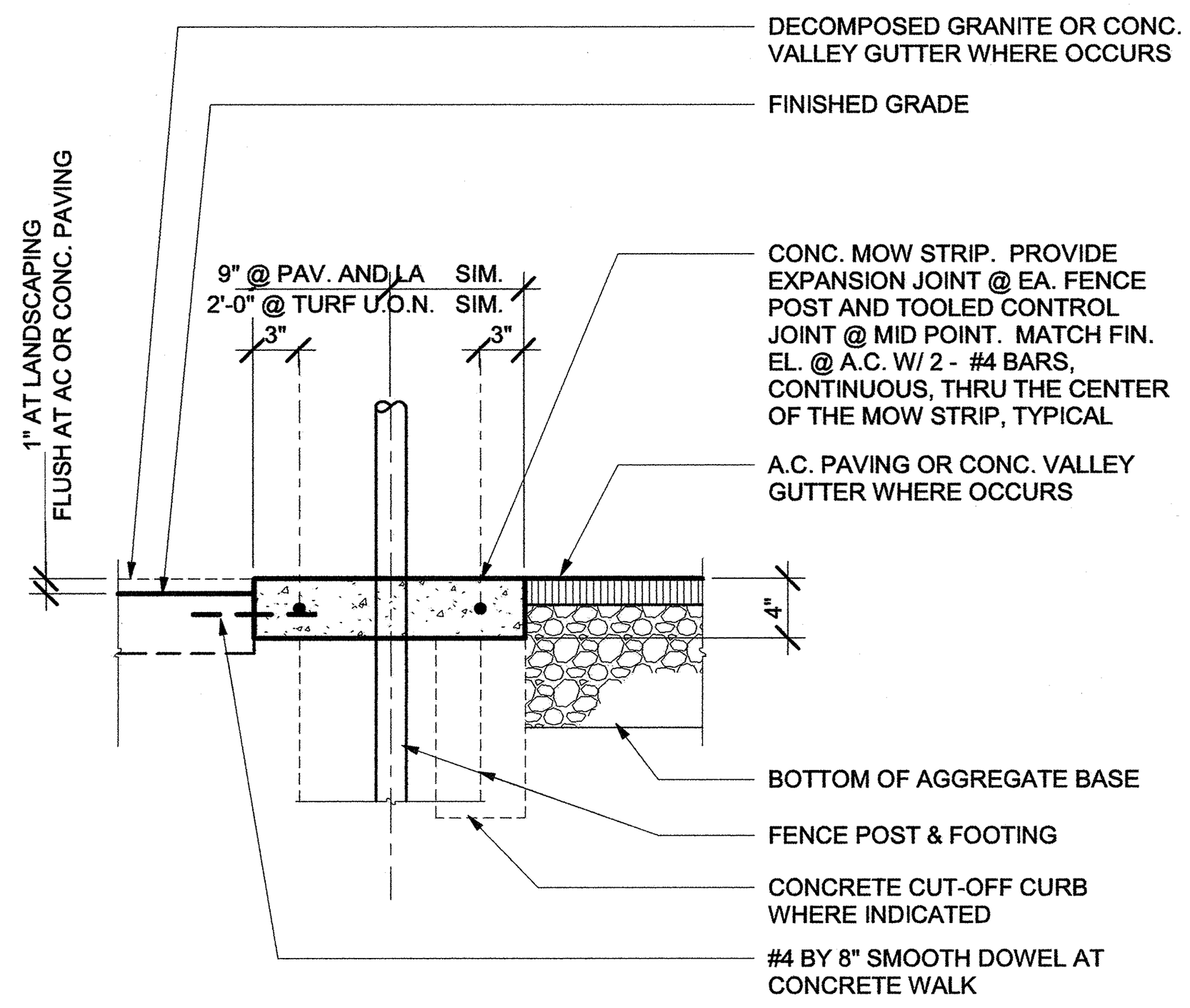
14 CONCRETE SKATEBOARD IMPEDER
6" = 1'-0"
03101



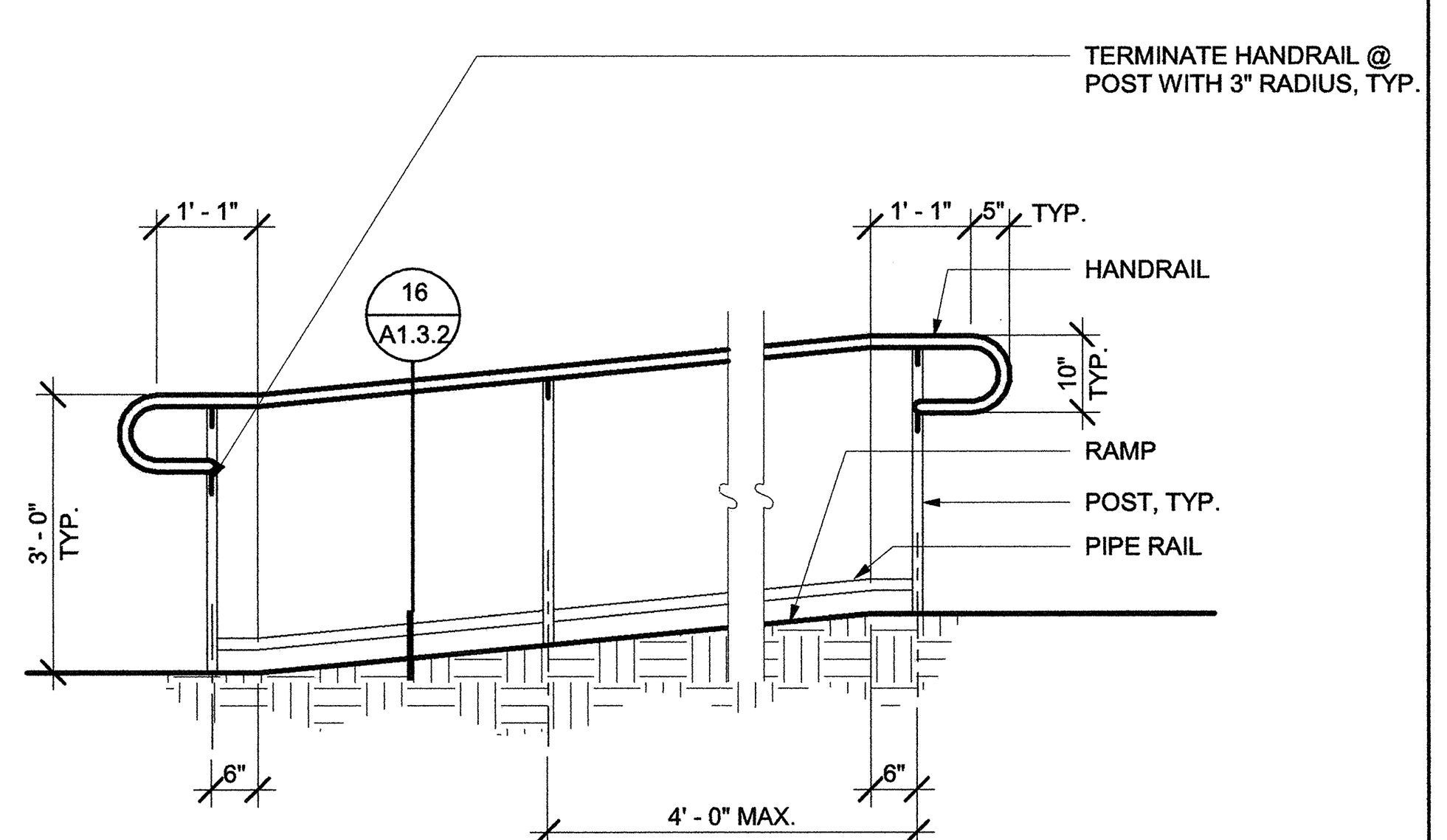
10 HI-LO 3 SPOUT DRINKING FOUNTAIN
3/4" = 1'-0"
22000



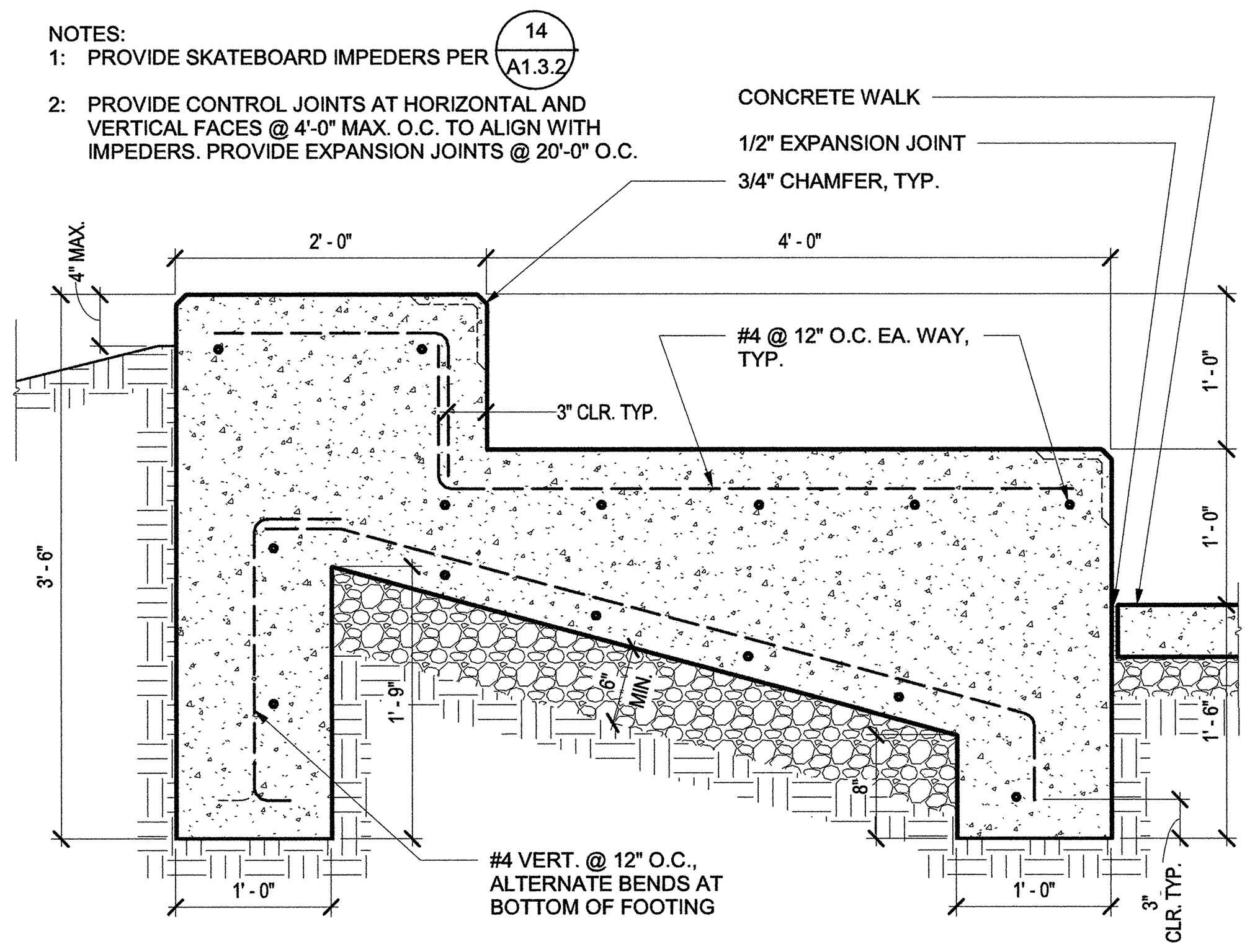
6 KINDER YARD FOUNTAIN PLAN
1/4" = 1'-0"



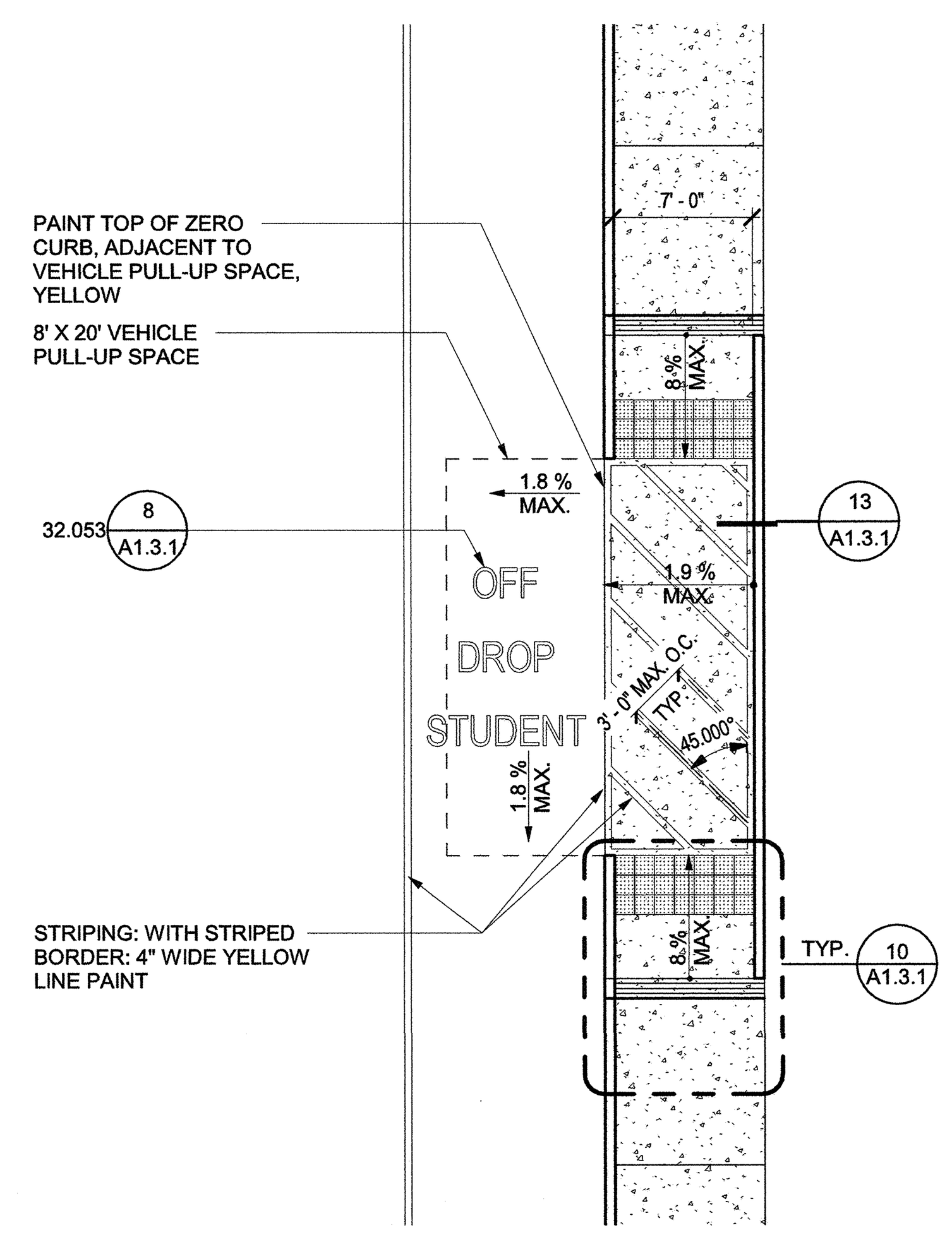
2 MOW STRIP
1" = 1'-0"



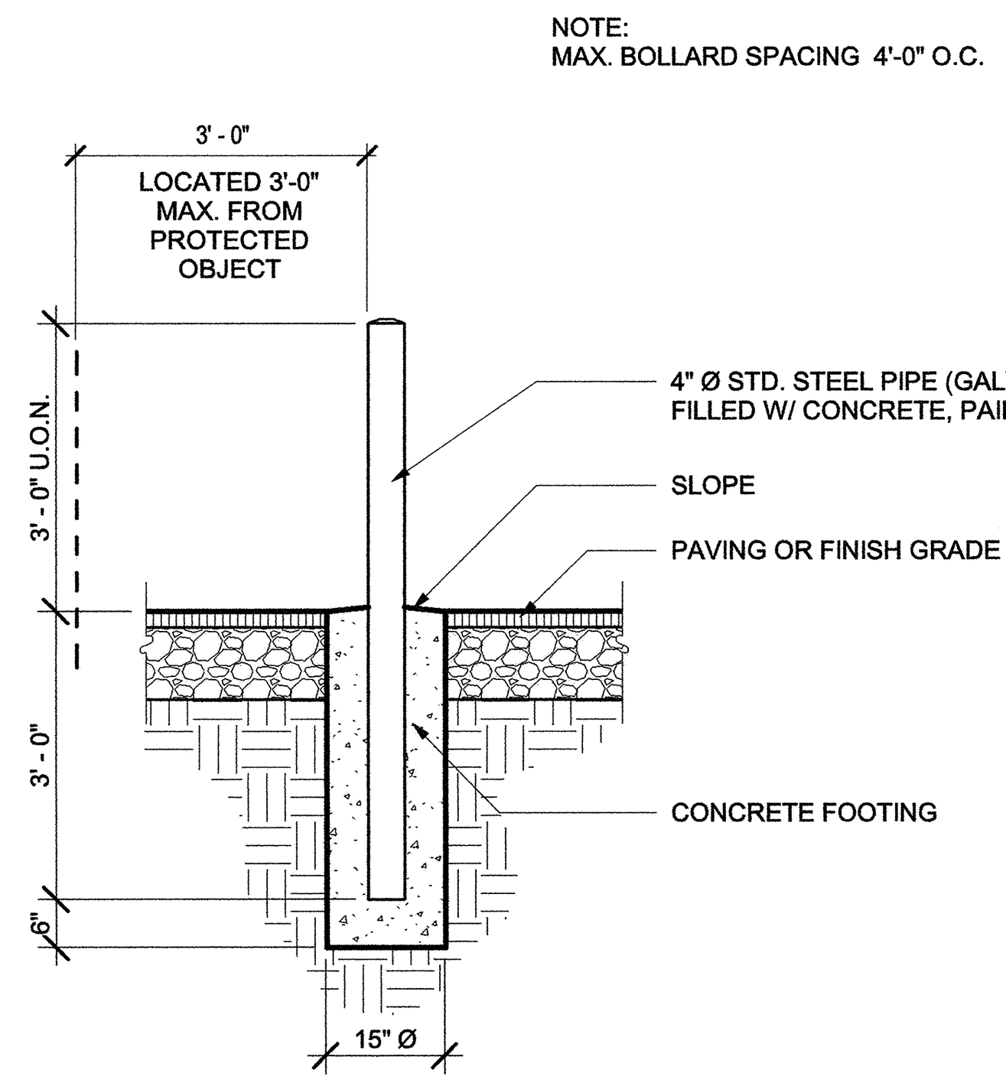
15 RAMP ELEVATION
1/2" = 1'-0"
32700



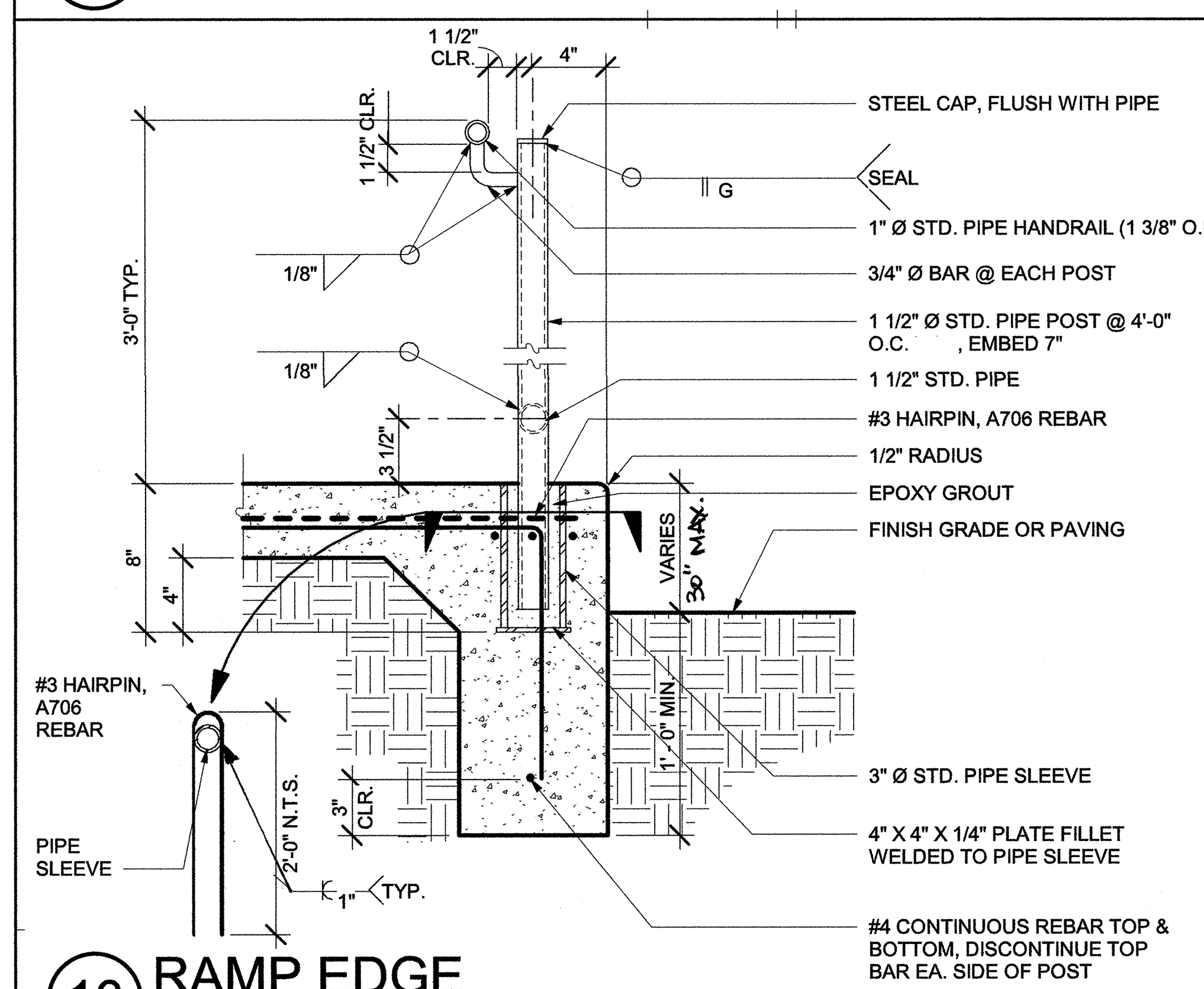
11 CONCRETE BENCH
1" = 1'-0"



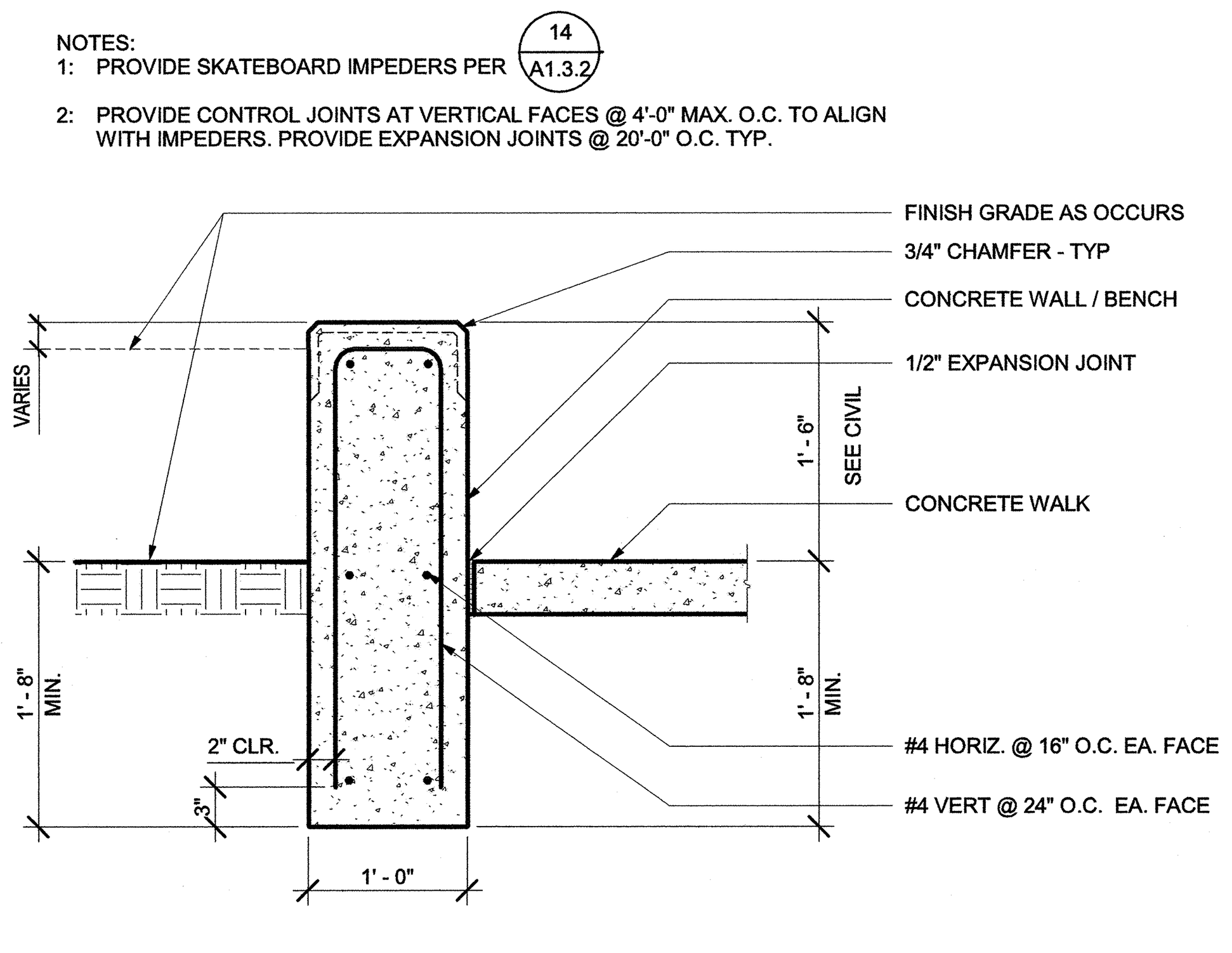
8 PARKING DROP OFF - SOUTH
1/8" = 1'-0"



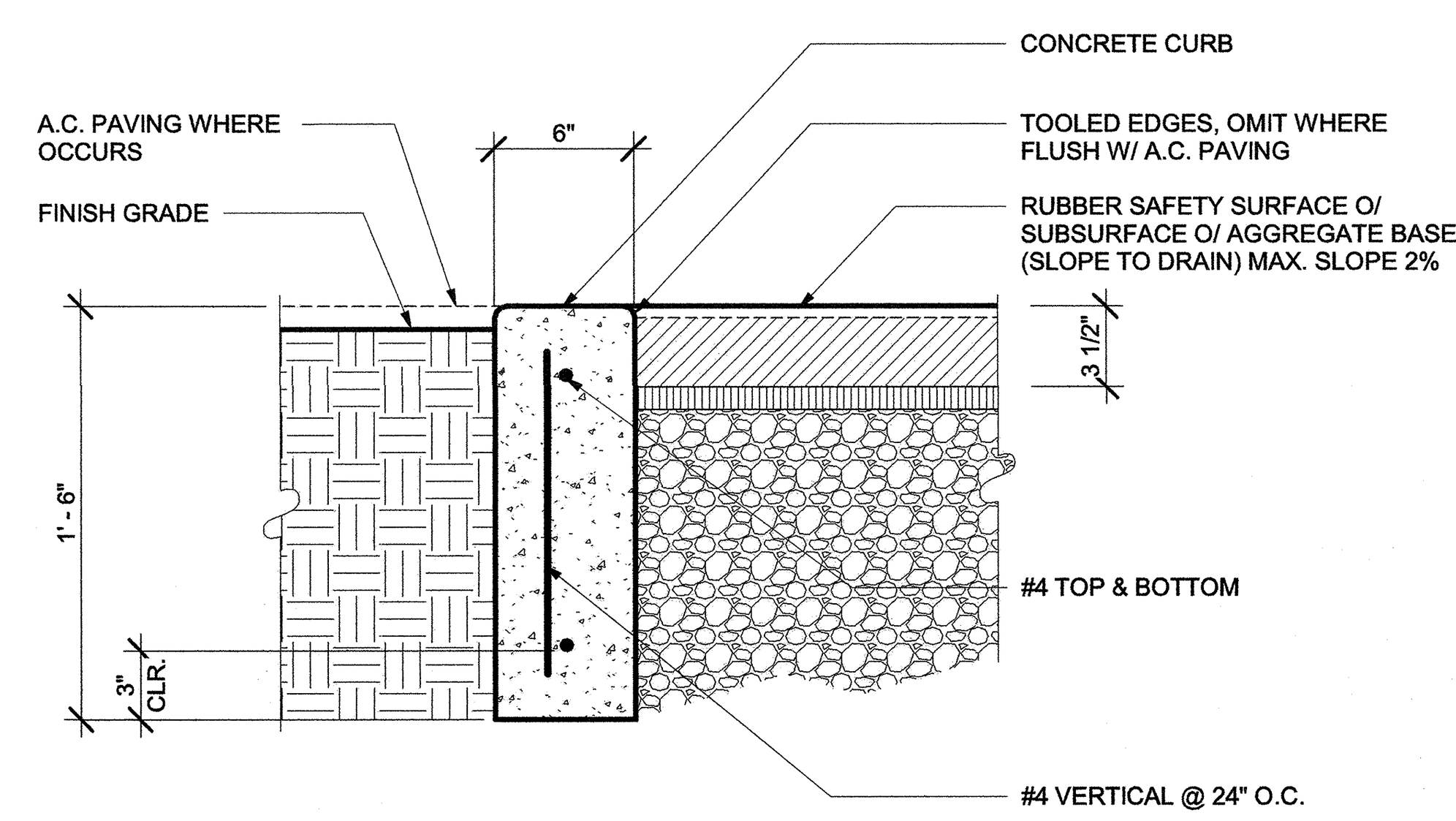
3 FIXED PIPE BOLLARD
1/2" = 1'-0"
05050



16 RAMP EDGE
1 1/2" = 1'-0"
32708



12 SEAT WALL
1" = 1'-0"
32740



4 APPARATUS CURB
1 1/2" = 1'-0"

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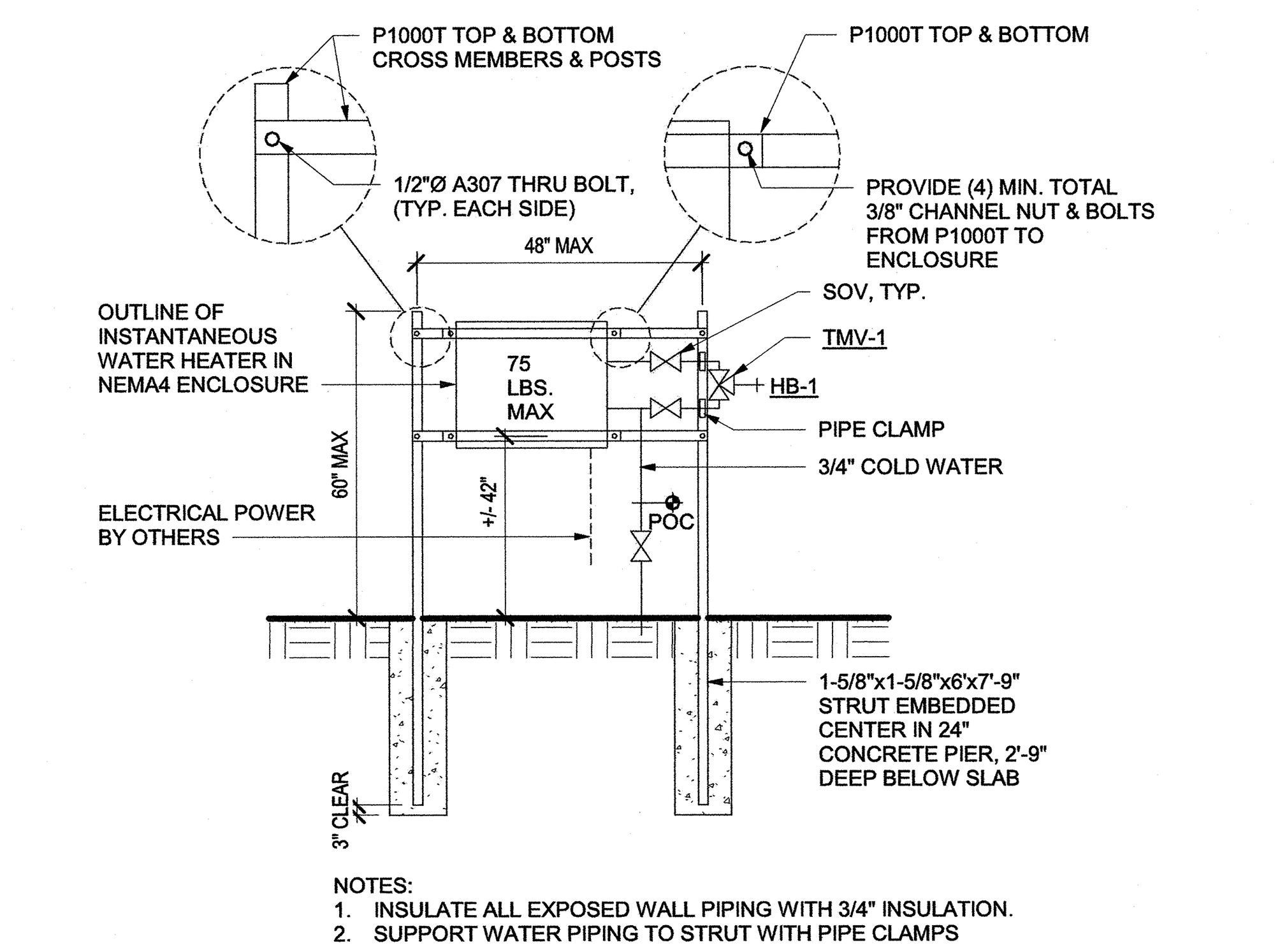
NEEDHAM ELEMENTARY SCHOOL - ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT
LODI, CA

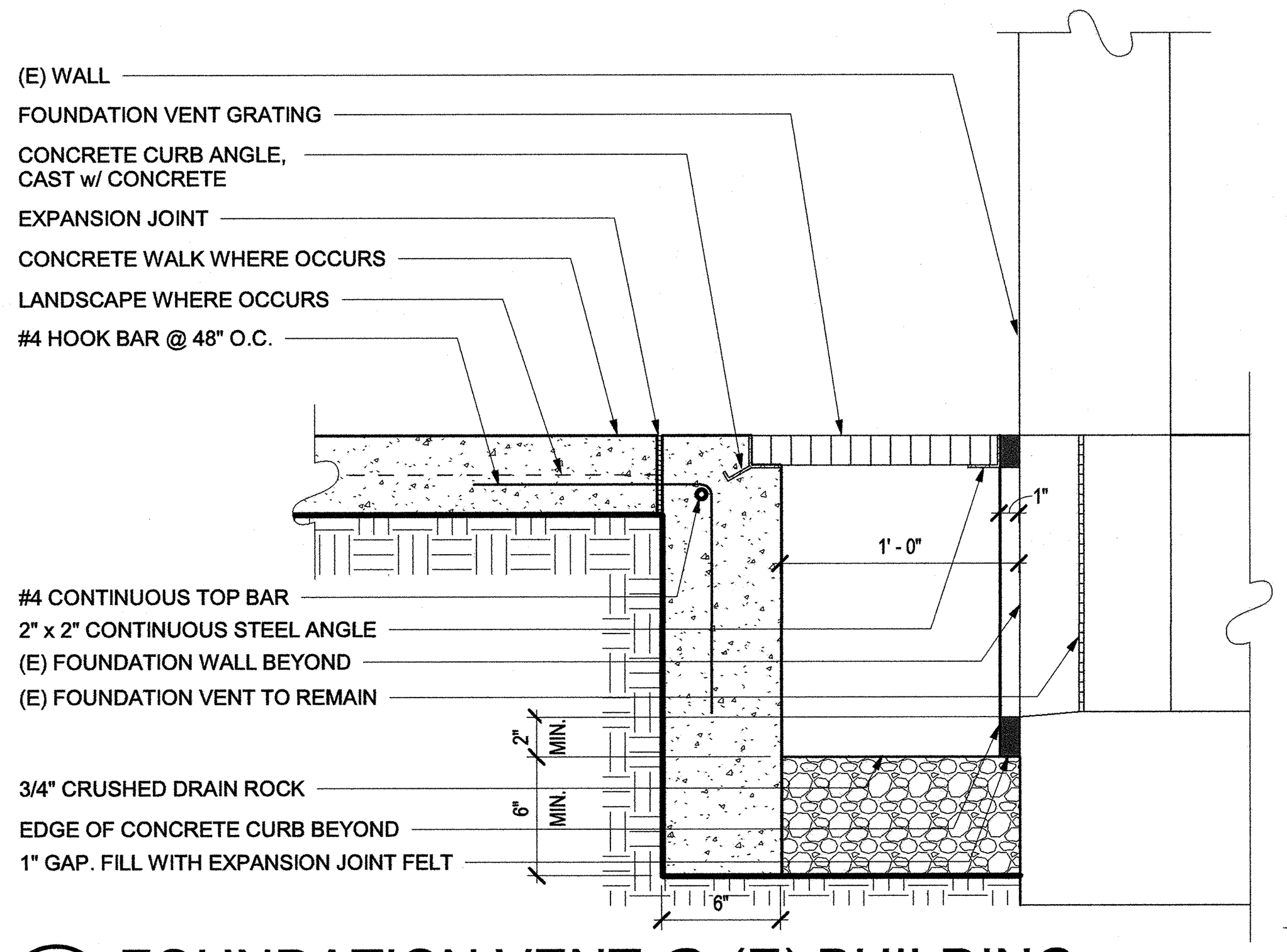
Revision

SITE DETAILS

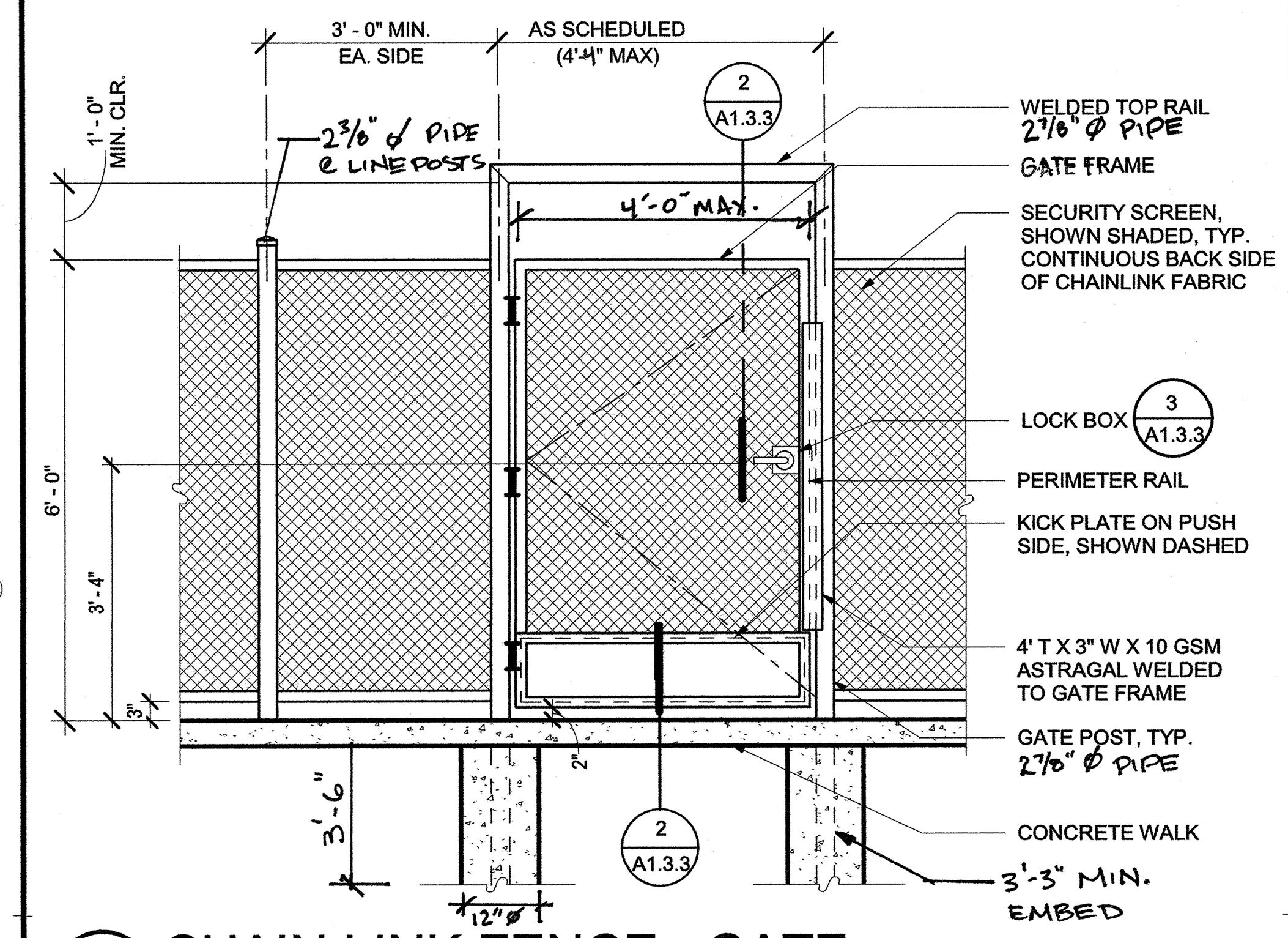
PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	A1.3.2



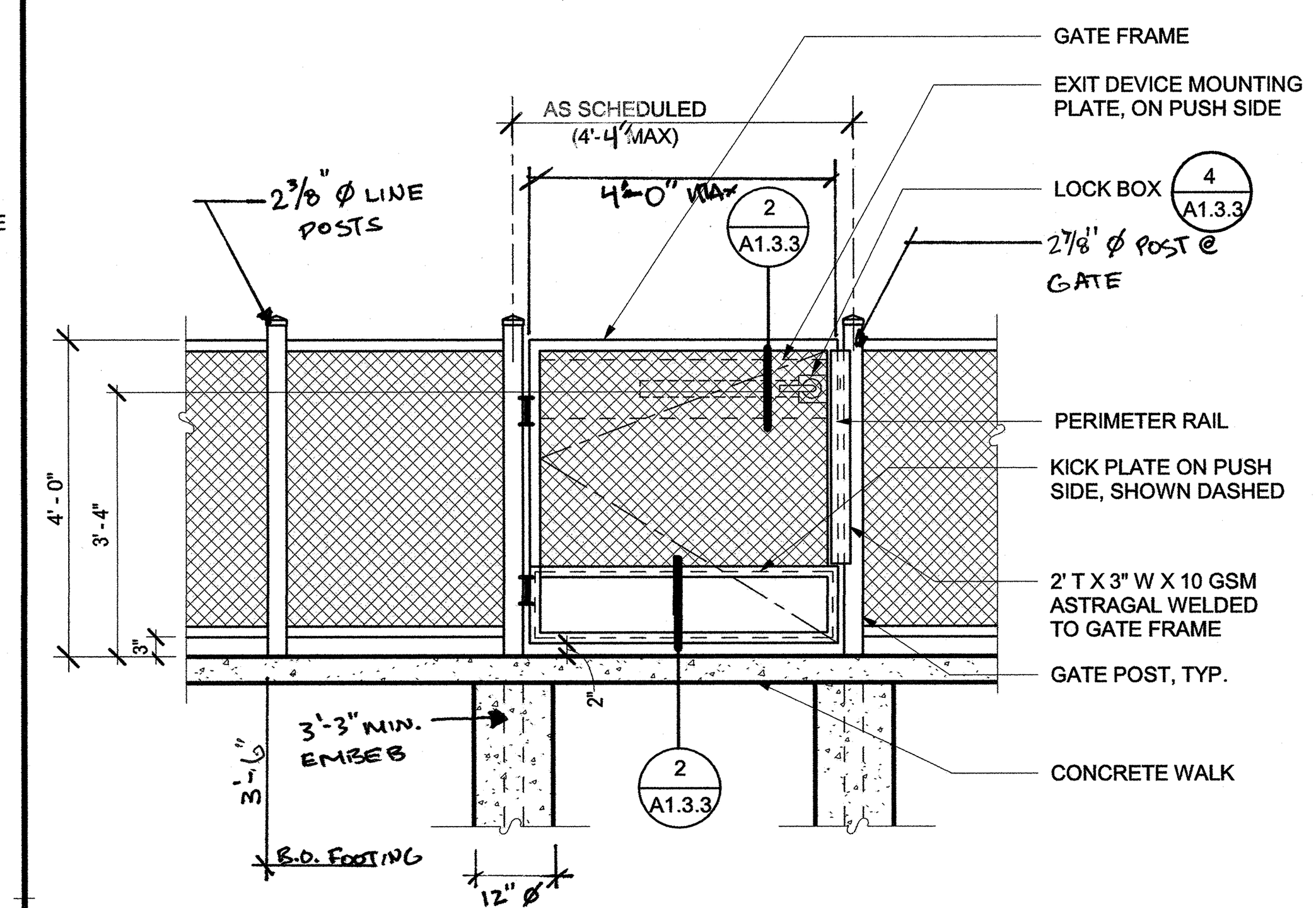
13 IWH MOUNTING DETAIL
1" = 1'-0"



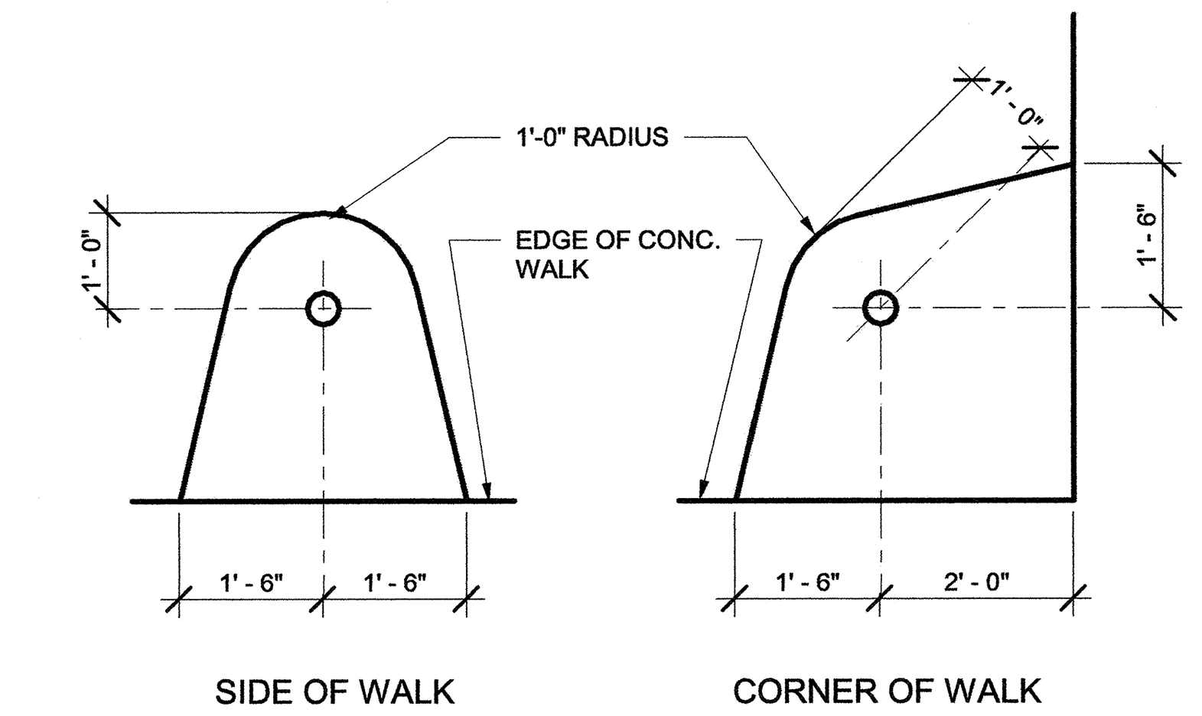
9 FOUNDATION VENT @ (E) BUILDING
1 1/2" = 1'-0"



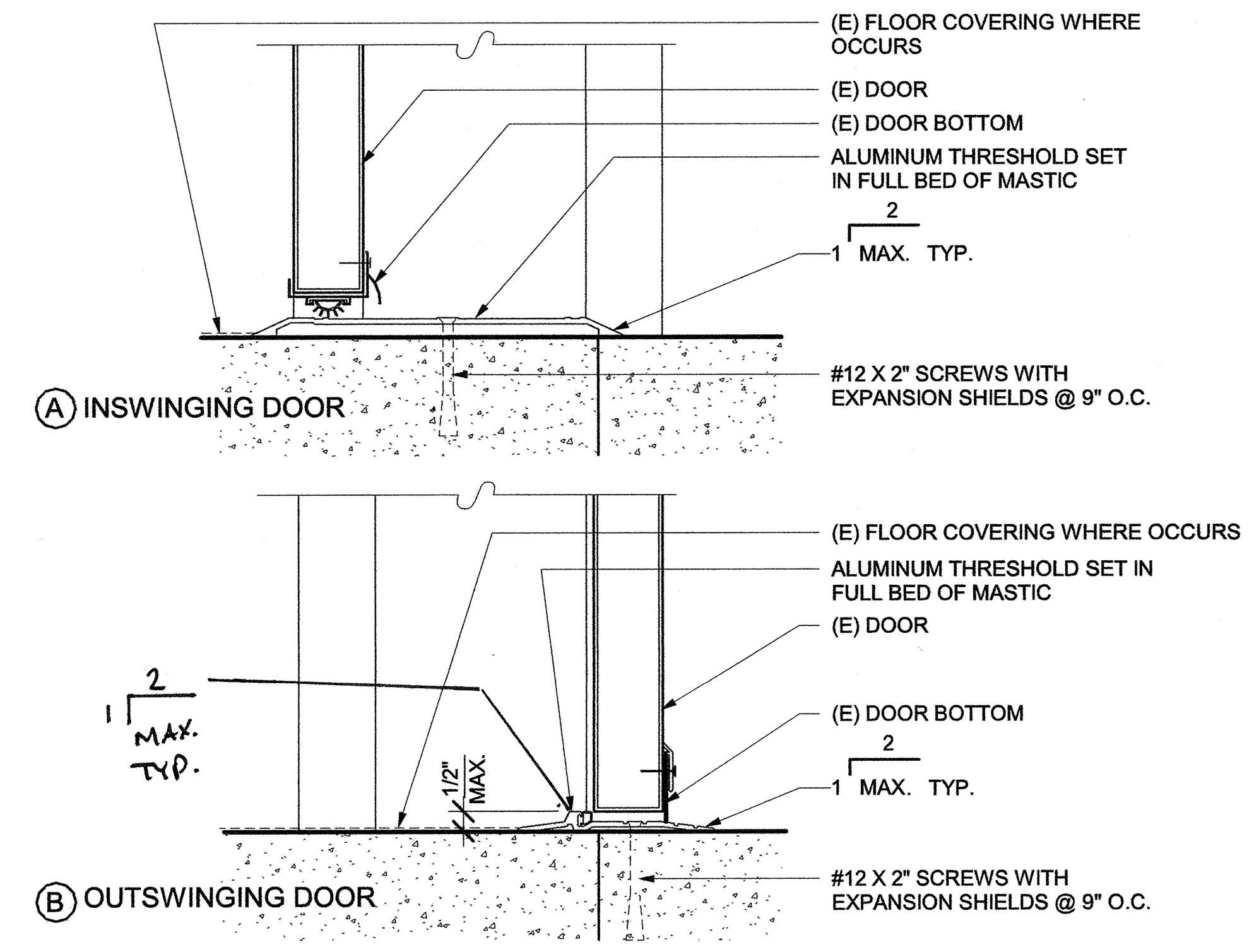
5 CHAIN LINK FENCE - GATE
1/2" = 1'-0"
32510



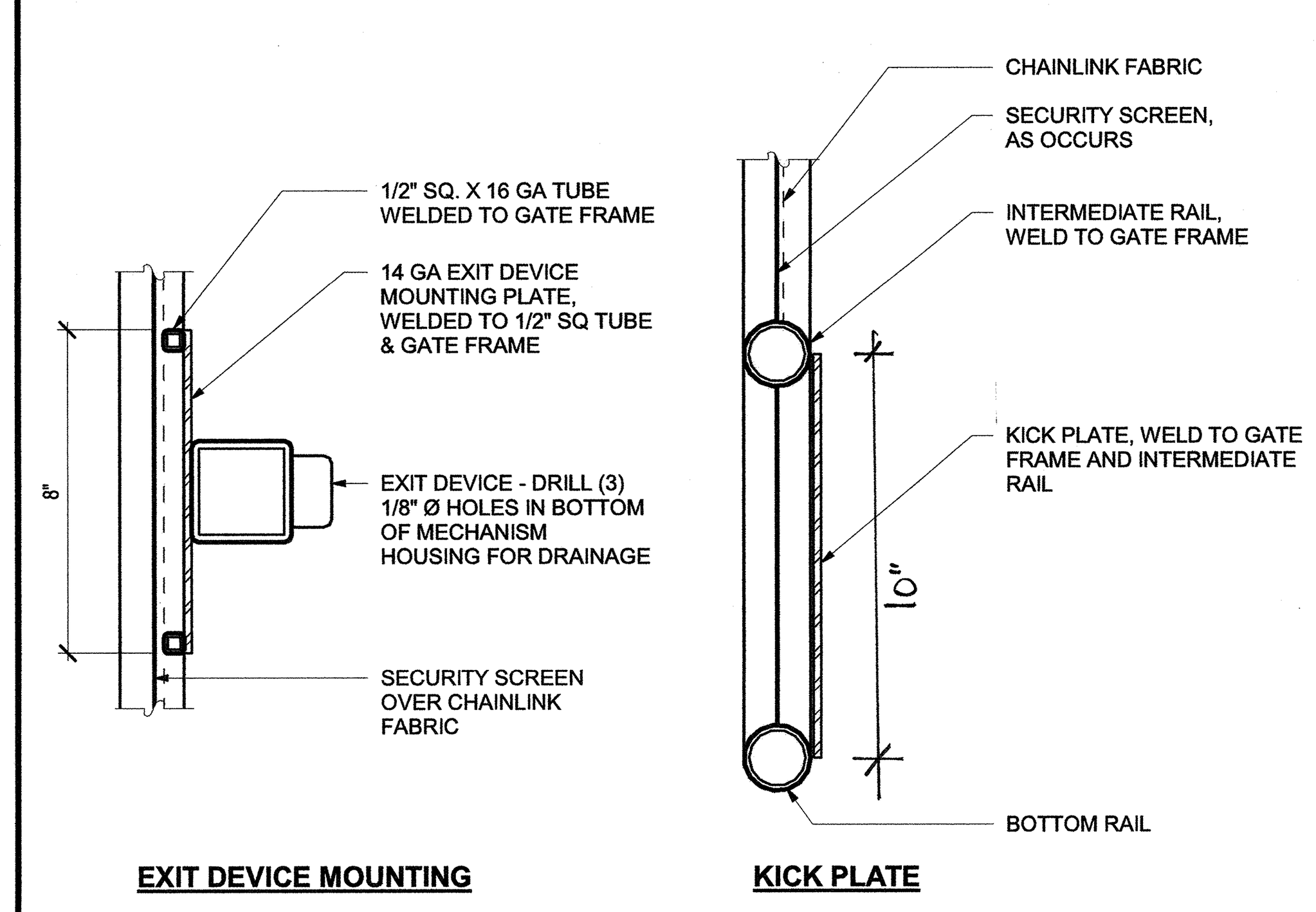
1 CHAIN LINK FENCE - EXIT GATE
1/2" = 1'-0"
32510



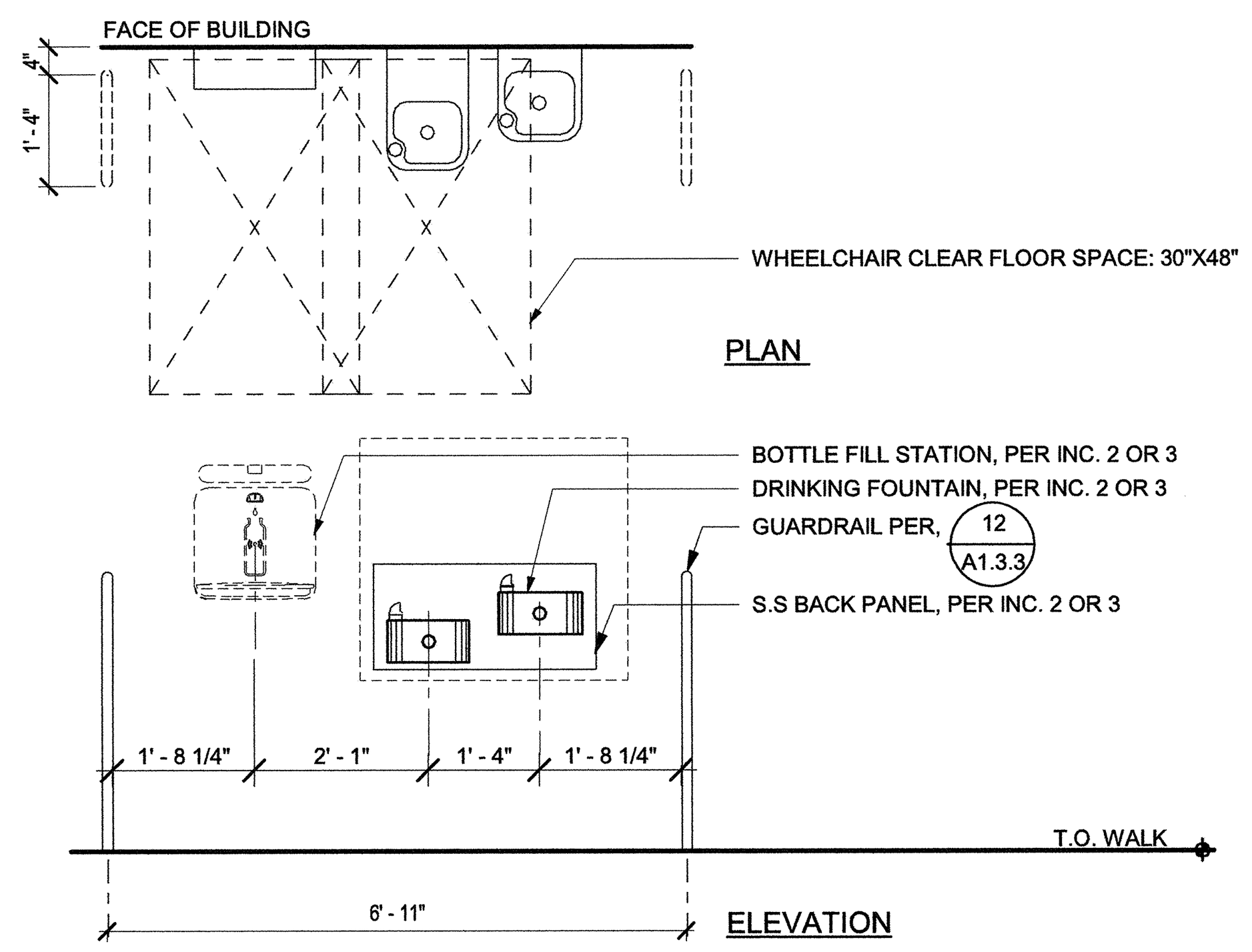
10 CONCRETE APRON
1/2" = 1'-0"
32112



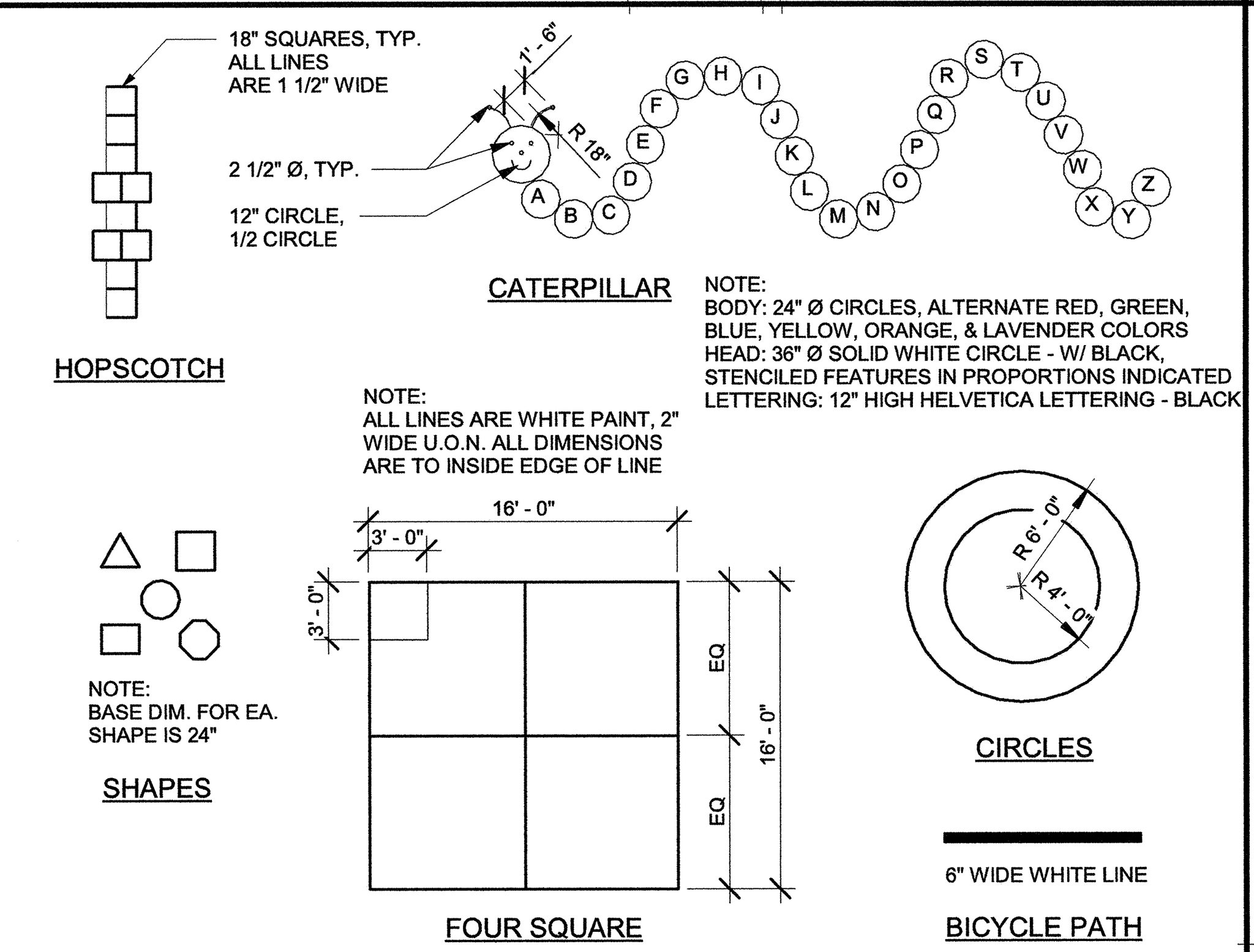
6 EXTERIOR DOOR THRESHOLD
3" = 1'-0"
08030



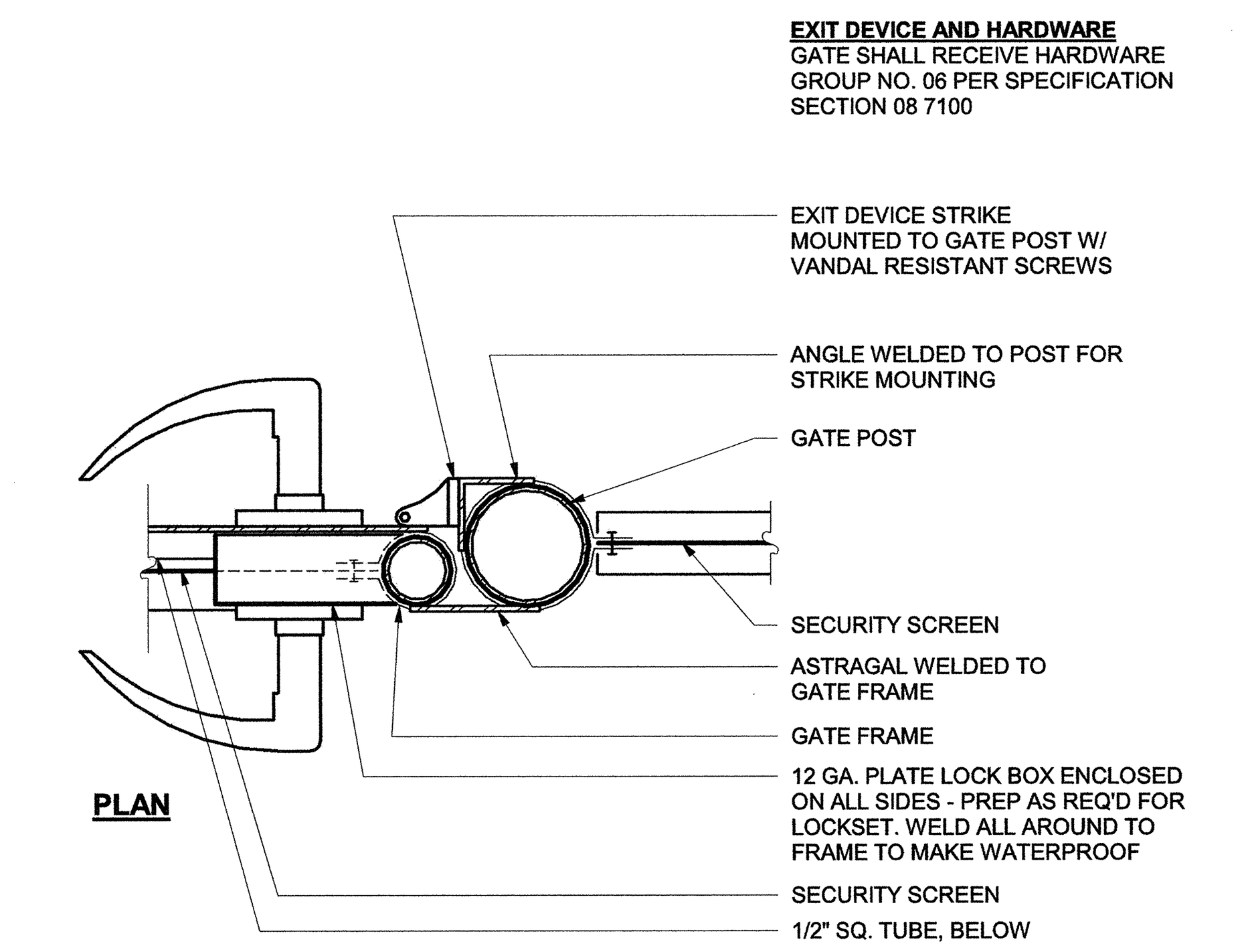
2 MOUNTING PLATE / KICK PLATE
3" = 1'-0"
32511



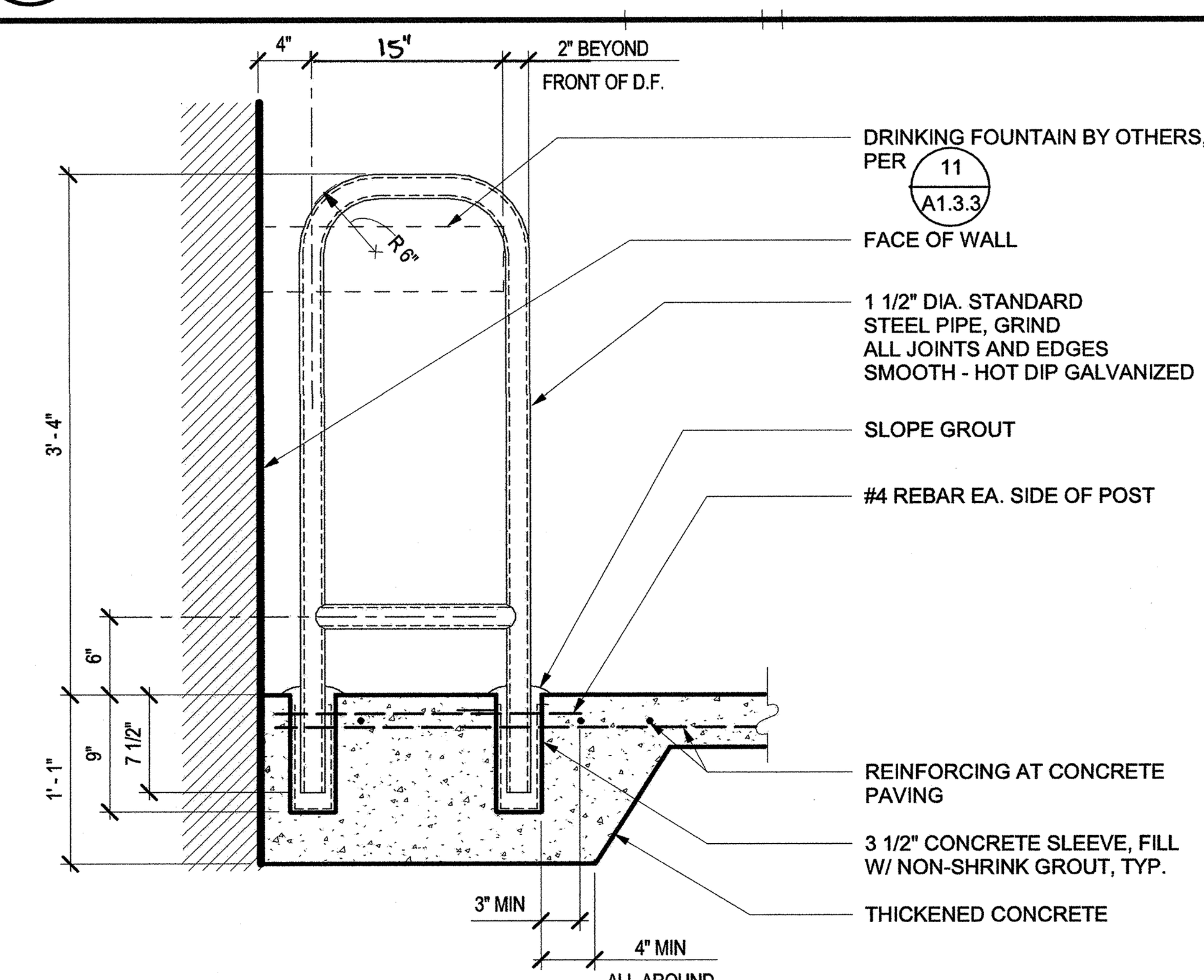
11 DRINKING FOUNTAIN REFERENCE
1/2" = 1'-0"



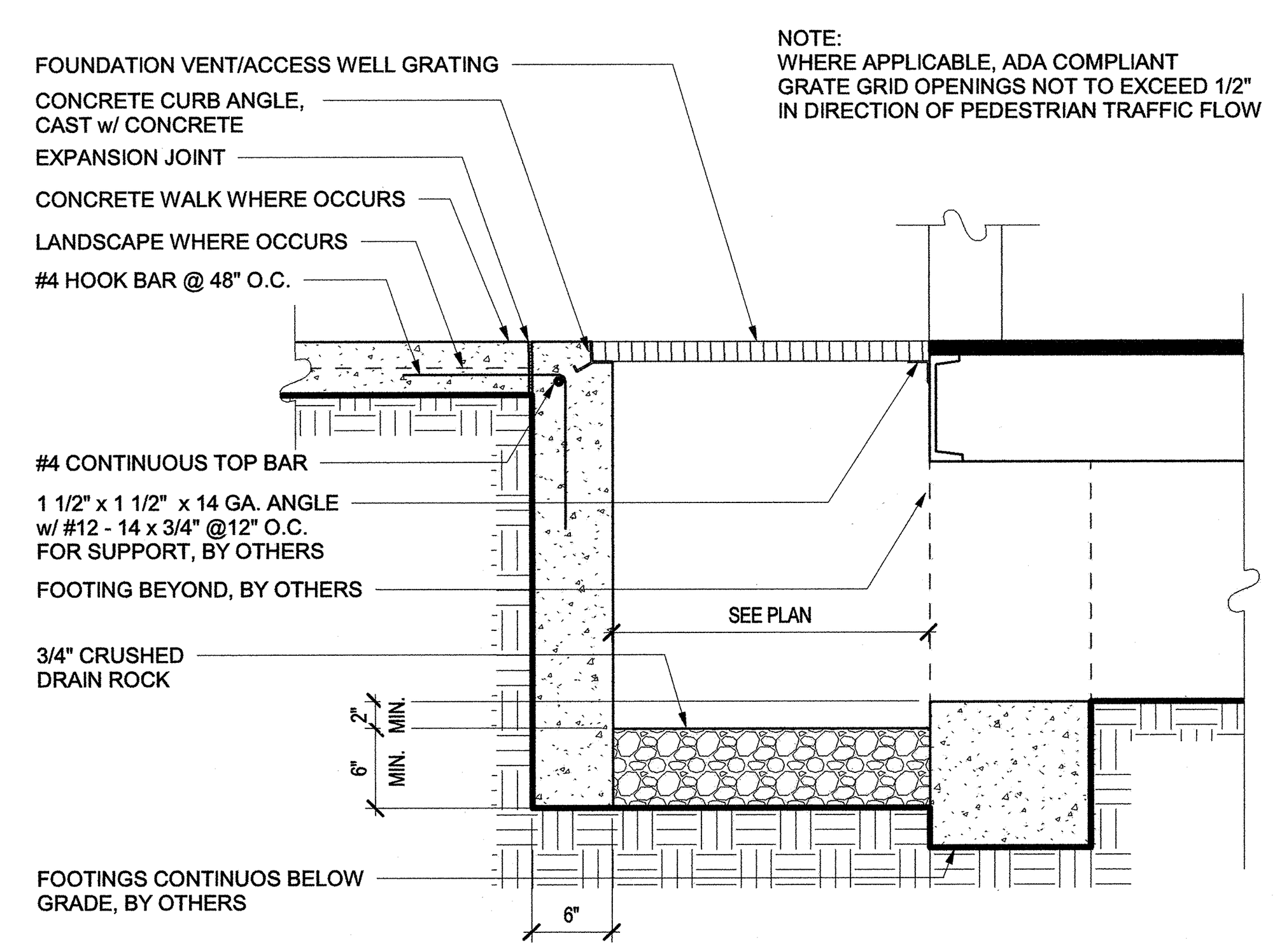
7 KINDERGARTEN STRIPING
1/8" = 1'-0"
32412



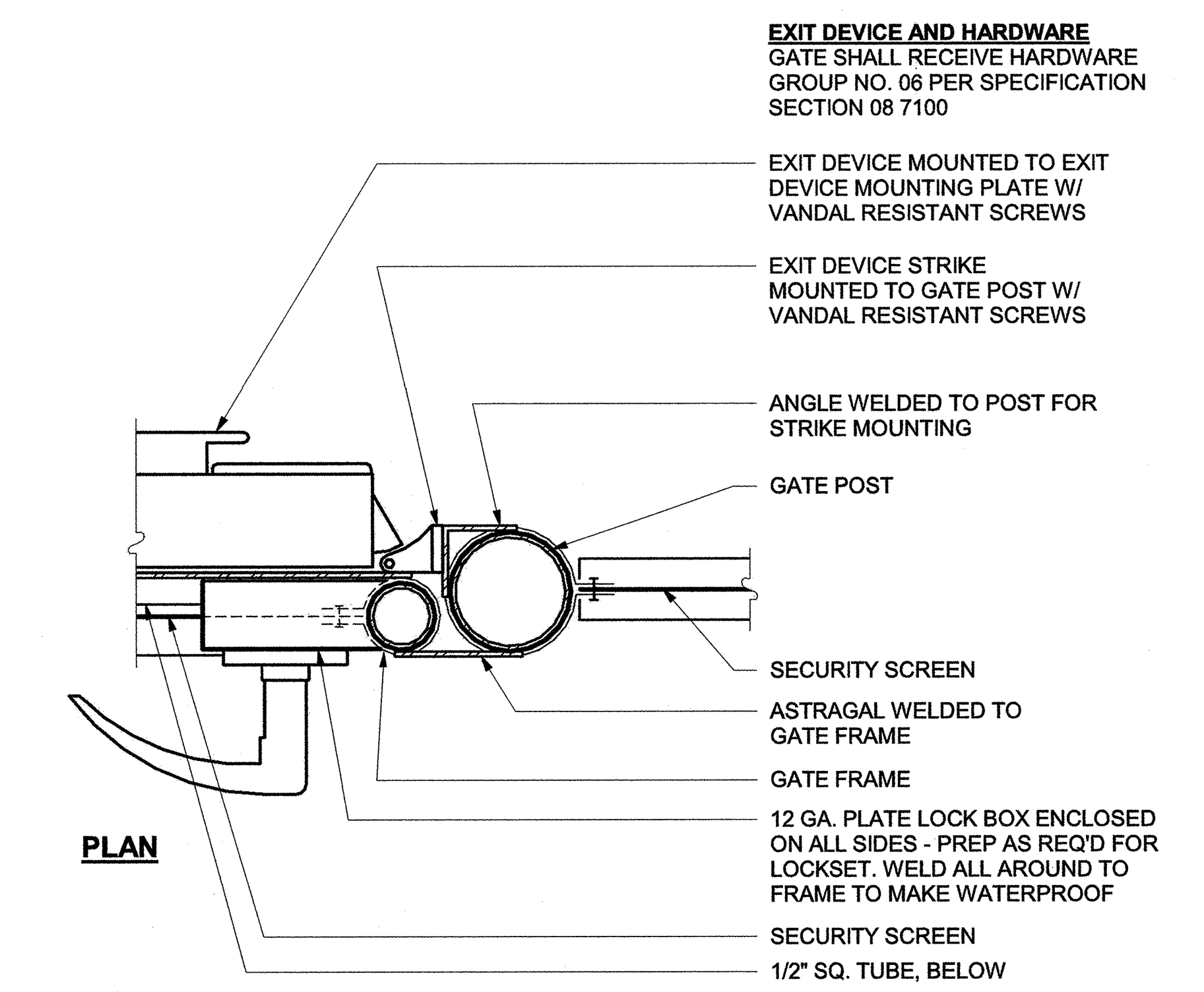
3 GATE LOCK BOX
3" = 1'-0"
32512



12 DRINKING FOUNTAIN GUARDRAIL
1" = 1'-0"
05051



8 FOUNDATION VENT/ACCESS VENT
1" = 1'-0"



4 GATE LOCK BOX
3" = 1'-0"
32512

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NEEDHAM ELEMENTARY SCHOOL - ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT
LODI, CA

Revision

SITE DETAILS

PROJECT NO.	18-1366
DATE:	12/19/19
SHEET	A1.3.3

GAS PIPE SIZING CALCULATIONS

GAS PIPE SIZING BASED ON THE 2016 CALIFORNIA PLUMBING CODE TABLE 1216.2(1). RUNOUTS TO APPLIANCES LESS THAN 6' SHALL BE SAME SIZE AS APPLIANCE CONNECTION. CONTRACTOR SHALL PROVIDE A SHUT-OFF VALVE AHEAD OF UNION AND WITHIN 3'-0" OF APPLIANCE CONNECTOR.

INLET GAS PRESSURE = 7" W.C.

EQUIPMENT	(E) GAS DEMAND (MBH)	GAS DEMAND REMOVED (MBH)	GAS DEMAND ADDED (MBH)	TOTAL GAS DEMAND (MBH)	DEVELOPED LENGTH	BRANCH PIPE SIZE
(E) CAMPUS	1395	150	-	1245	(E)	(E)
NEW BUILDING B (MPR)	-	-	809	809	-	-
TOTAL CAMPUS GAS DEMAND	1395	150	809	2054	-	-

PLUMBING SYMBOLS

- A — COMPRESSED AIR PIPING
- CL — CLEANOUT
- CD — CONDENSATE DRAIN
- CONTINUATION LINE
- DIRECTION OF FLOW ARROW
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- DOMESTIC HOT WATER RETURN
- EXISTING TO BE REMOVED
- FLOOR CLEANOUT
- FLOOR DRAIN
- FLOOR SINK
- F — FIRE WATER
- G — GAS, NATURAL or PROPANE (LOW PRESSURE)
- GAUGE: PRESSURE GAUGE
- GAUGE: TEMPERATURE GAUGE
- GRADE CLEANOUT
- GAS PRESSURE REGULATOR
- HEAT TRACE TAPE OVER PIPE
- HOSE BIBB
- LPG — LIQUIFIED PETROLEUM GAS
- MPG — MEDIUM PRESSURE GAS
- OF — OVERFLOW PIPING
- PIPE BRANCH DOWN
- PIPE BRANCH UP
- PIPE CAP
- PIPE ELBOW DOWN
- PIPE ELBOW UP
- PITCH DOWN IN DIRECTION OF FLOW
- POINT OF CONNECTION
- PUMP
- RWL — RAIN WATER LEADER PIPING
- SD — STORM DRAIN PIPING
- STRAINER WITH VALVED DRAIN
- TRAP PRIMER
- TP — TRAP PRIMER PIPING
- UNION
- V — VACUUM PIPING
- VALVE: 2-WAY MOTORIZED CONTROL VALVE
- VALVE: 3-WAY MOTORIZED CONTROL VALVE
- VALVE: CALIBRATED BALANCE VALVE
- VALVE: CHECK VALVE
- VALVE: GAS COCK
- VALVE: GAS SEISMIC VALVE
- VALVE: ISOLATION VALVE
- VALVE: PRESSURE REDUCING VALVE
- VALVE: RELIEF VALVE
- VALVE: THROTTLING (BALL) VALVE
- VALVE IN RISE or DROP
- VENT PIPING
- WALL CLEANOUT
- WASTE PIPING
- WASTE PIPING BELOW FLOOR
- WATER HAMMER ARRESTER

NOTE: NOT ALL SYMBOLS MAY BE USED.

PLUMBING ABBREVIATIONS

ø	DIAMETER or PHASE
ABC	ABOVE CEILING
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AP	ACCESS PANEL
ARCH	ARCHITECT
BF	BELOW FLOOR
BG	BELOW GRADE
CD	CONDENSATE DRAIN
CFH	CUBIC FEET OF GAS PER HOUR
CLG	CEILING
CO	CLEANOUT
CONT	CONTINUATION
CW	DOMESTIC COLD WATER
(D)	DROP
DR	DRAIN
DWG	DRAWING
(E)	EXISTING
EA	EACH
ELEC	ELECTRICAL
EWT	ENTERING WATER TEMPERATURE
FA	FROM ABOVE
FB	FROM BELOW
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FLA	FULL LOAD AMPS
FLR	FLOOR
FPM	FEET PER MINUTE
FS	FLOOR SINK
G	GAS
GA	GAUGE
GAL	GALLONS
GCO	GRADE CLEANOUT
GPM	GALLONS PER MINUTE
GPR	GAS PRESSURE REGULATOR
GSH	GALVANIZED SHEET METAL
GSV	GAS SEISMIC VALVE
HB	HOSE BIBB
HD	HEAD
HP	HORSEPOWER
HR	HOUR
HT	HEIGHT
HW	DOMESTIC HOT WATER
HWR	DOMESTIC HOT WATER RETURN
IE	INVERT ELEVATION
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MECH	MECHANICAL
MFR	MANUFACTURER
MPG	MEDIUM PRESSURE GAS
(N)	NEW
NTS	NOT TO SCALE
OC	ON CENTER
OF	OVERFLOW
OH	OVERHEAD
P&TRV	PRESSURE & TEMPERATURE RELIEF VALVE
PD	PRESSURE DROP
PLMB	PLUMBING
POC	POINT OF CONNECTION
PRV	PRESSURE REDUCING VALVE
PSI(G)	POUNDS PER SQUARE INCH (GAUGE)
(R)	RISE
RV	RELIEF VALVE
RWL	RAINWATER LEADER
PSI(G)	POUNDS PER SQUARE INCH (GAUGE)
SD	STORM DRAIN
SF	SQUARE FEET
SIM	SIMILAR
SP	STATIC PRESSURE
SPEC	SPECIFICATIONS
SS	SANITARY SEWER or STAINLESS STEEL
~~STD~~	~~STANDARD~~
TB	TO BELOW
TEMP	TEMPERATURE
TP	TRAP PRIMER
TYP	TYPICAL
UD	UNDERDRAIN
UF	UNDER FLOOR
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VENT or VOLTS
VTR	VENT THROUGH ROOF
W	WASTE or WATTS
WCO	WALL CLEANOUT
WT	WEIGHT

NOTE: NOT ALL ABBREVIATIONS MAY BE USED.

CODE REQUIREMENTS

2016 CALIFORNIA BUILDING CODE
2016 CALIFORNIA PLUMBING CODE
2016 CALIFORNIA TITLE-24

SHEET INDEX

P0.1 PLUMBING LEGEND, SCHDULES & NOTES
P1.1.1 PLUMBING SITE PLAN

PLUMBING GENERAL NOTES

1. ALL WORK SHOWN IS NEW UNLESS OTHERWISE NOTED. CAREFULLY COORDINATE CONNECTION OF NEW WORK TO EXISTING WORK.
2. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLING PIPING AND APPURTENANCES.
3. THE DRAWINGS SHALL BE CONSIDERED DIAGRAMMATIC ONLY AND ARE NOT INTENDED TO SHOW EVERY OFFSET OR FITTING. LOCATIONS OF ITEMS NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. EXACT LOCATIONS NECESSARY TO SECURE BEST CONDITIONS AND RESULTS MUST BE DETERMINED AT THE JOB SITE AND SHALL HAVE THE APPROVAL OF THE ARCHITECT BEFORE BEING INSTALLED.
4. ALL VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.

PIPE HANGER AND SUPPORT SPACING

LOCATE HANGERS AND SUPPORTS AT EACH CHANGE OF DIRECTION, WITHIN ONE FOOT OF ELBOW, AND SPACE AT OR WITHIN THE FOLLOWING MAXIMUM LIMITS. NOTE THAT SPACING LISTED ARE RECOMMENDED MAXIMUMS. INCREASING SPACING REQUIREMENTS DUE TO CBC REQUIREMENTS OR OTHER REGULATIONS IN FORCE AND APPLICABLE FOR THIS CONTRACT SHALL BE ADHERED TO.

PIPE DIAMETER	STEEL FLUID	COPPER VAPOR	COPPER FLUID	CPVC VAPOR	PVC
1/2" - 1"	6	6	5	6	3
1-1/4" - 2"	7	10	6	6	4
2-1/2" - 3"	10	10	10	10	4
OVER 3"	10	10	10	10	4

PLUMBING EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION
GI 1	GREASE INTERCEPTOR "JENSEN" MODEL JP750EPE-G, 750 GALLON BATTERY GREASE INTERCEPTOR, TWO (2) 24"ø STANDARD MANHOLES, 4" INLET & OUTLET CONNECTIONS. PROVIDE 24"ø CAST IRON FRAMES AND COVERS WITH GASKETS AND TWO (2) RISERS AS NECESSARY, H-20 TRAFFIC RATED MANHOLES. DIMENSIONS: 8'-1" L x 6'-3" W x 6'-3" HT. PROVIDE COAL-TAR EPOXY EXTERIOR COATING, 15 MILLIMETER THICKNESS.
WH 1	TANKLESS WATER HEATER "TAKAGI" OUTDOOR RATED MODEL, ULTRA LOW-NOX, GAS FIRED TANKLESS WATER HEATER, 5.5 GPM HOT WATER AT 70°F RISE, 0.4 GPM MIN FLOW, 199 MBH INPUT, 93% THERMAL EFFICIENCY, MIN 4" WC INLET GAS PRESSURE, 3/4" WATER CONNECTIONS, 3/4" GAS CONNECTION. INSTALL PER MFR INSTALLATION INSTRUCTIONS. ELECTRICAL: 120V/1Ø/60Hz. WEIGHT: 75 LBS

PIPING, DUCTWORK & ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTES

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616A.1.24, 1616A.1.25 AND 1616A.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 PREAPPROVED INSTALLATION GUIDE (E.G., SMACNA OR OSHPD OPM), 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 THE APPROVED DRAWINGS WITH THE PROJECT SPECIFIC NOTES AND DETAILS.

MP☐ MD☐ PP☐ E☐ - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) #_____.

MP☐ MD☐ PP☐ - OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA. FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL _____ AND CONNECTION LEVEL _____ FOR THE PROJECT AND CONDITIONS.

MEP COMPONENT ANCHORAGE NOTES

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS. TEMPORARY OR MOVABLE
2. EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS, OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND 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 ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

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.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE (HARGE OR STRUCTURAL ENGINEER DELEGATED REPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
02 121863
APP'D FLS SS
DATE 12-19-19

rga rainforth grau architects

REGISTERED PROFESSIONAL ENGINEER
MARK A. NEELEY
M 32315
EXP. 08/31/21
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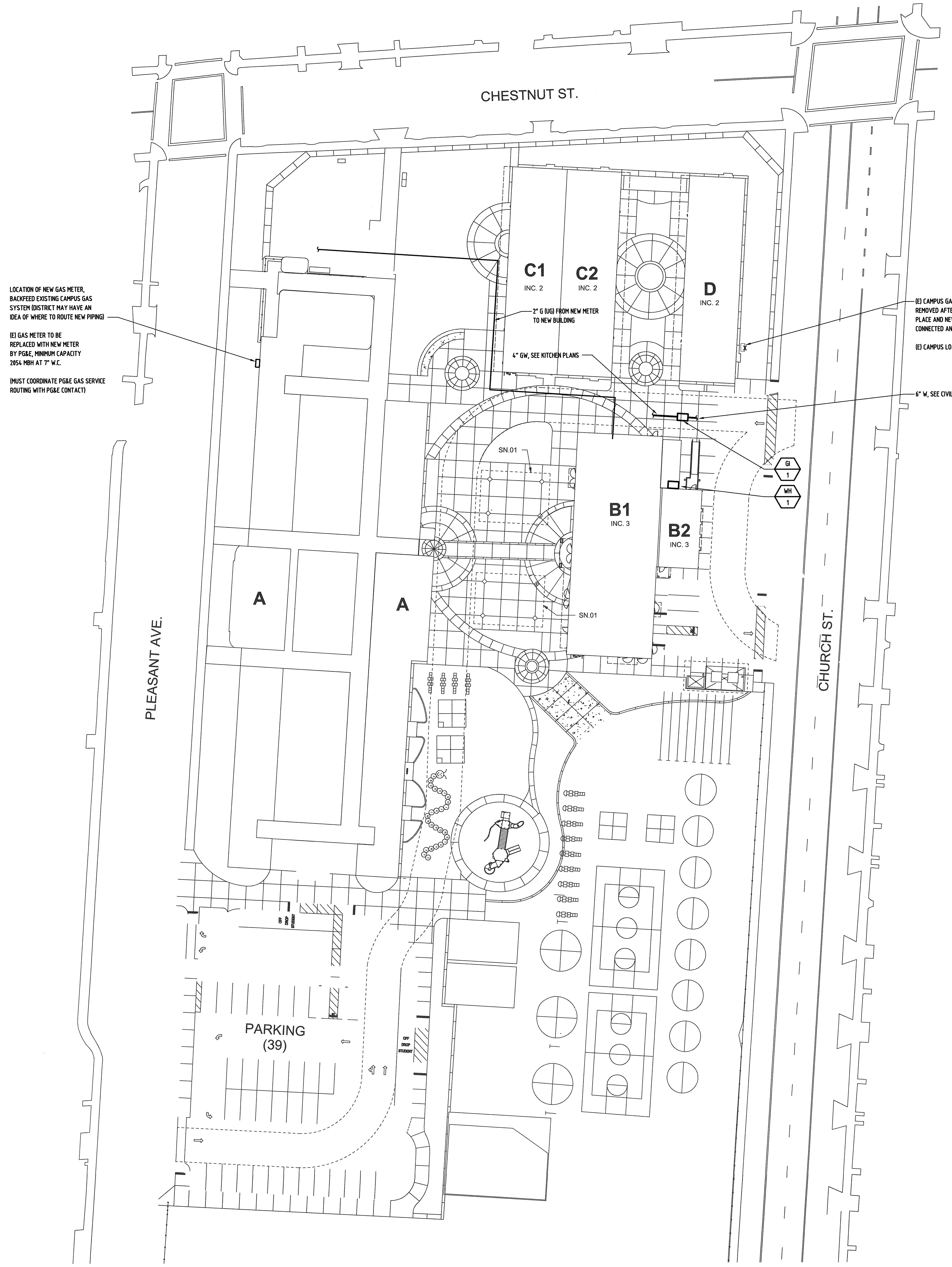
project #19027

NEEDHAM ELEMENTARY SCHOOL - ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT
LODI, CA

PLUMBING SCHEDULES

PROJECT NO. 18-1366
DATE: 12/13/2019
SHEET P0.1



PLUMBING SITE PLAN
SCALE: 1" = 30'-0"

1

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PLUMBING SITE PLAN

PROJECT NO.	18-1366
DATE:	12/13/2019
SHEET	P1.1.1

SYMBOLS LIST

SOME OF THESE SYMBOLS SHOWN MAY NOT BE USED ON THIS PROJECT

POWER DISTRIBUTION

- SWITCHBOARD, DISTRIBUTION BOARD, SUBSTATION OR MOTOR CONTROL CENTER, FLOOR MOUNTED.
- PANELBOARD, 277/480V, SURFACE MOUNTED ON WALL.
- PANELBOARD, 277/480V, FLUSH MOUNTED IN WALL.
- PANELBOARD, 120/208V, SURFACE MOUNTED ON WALL.
- PANELBOARD, 120/208V, FLUSH MOUNTED IN WALL.
- DRY-TYPE STEP-DOWN TRANSFORMER, FLOOR MOUNTED 30,480-120/208V, UON.
- ELECTRIC MOTOR, NIEC. MAKE POWER CONNECTIONS ONLY AS NOTED ON PLANS.
- INDOOR EXHAUST FAN MOTOR, SINGLE PHASE, MAKE POWER CONNECTIONS TO INCLUDE JUNCTION BOX MOUNTED MANUAL MOTOR STARTER AND DISCONNECT ADJACENT TO FAN WITH 2 #12 CONDUCTORS PLUS GROUND IN 1/2" FLEXIBLE CONDUIT BETWEEN STARTER AND MOTOR.
- INDOOR FAN POWERED VAV BOX MOTOR, SINGLE PHASE, MOUNTED FROM STRUCTURE ABOVE, NIEC. MAKE POWER CONNECTIONS TO INCLUDE JUNCTION BOX MOUNTED MANUAL MOTOR STARTER AND DISCONNECT ADJACENT TO VAV BOX WITH 2 #12 CONDUCTORS PLUS GROUND IN 1/2" FLEXIBLE CONDUIT BETWEEN STARTER AND MOTOR.
- PULLBOX OR HANDHOLE, SIZE AND TYPE AS NOTED ON PLANS.
- SAFETY DISCONNECT SWITCH, 3 POLE, UON. ADJACENT NUMBER INDICATES FUSE SIZE WHEN APPLICABLE. LABELING CONVENTION AS FOLLOWS:
  - A: 30A, NON-FUSED — AF: 30A, FUSED
  - B: 60A, NON-FUSED — BF: 60A, FUSED
  - C: 100A, NON-FUSED — CF: 100A, FUSED
  - D: 200A, NON-FUSED — DF: 200A, FUSED
  - E: 400A, NON-FUSED — EF: 400A, FUSED
  - F: 600A, NON-FUSED — FF: 600A, FUSED
  - G: 800A, NON-FUSED — GF: 800A, FUSED
- MAGNETIC MOTOR STARTER. ADJACENT NUMBER INDICATES NEMA SIZE OF STARTER.
- COMBINATION MAGNETIC MOTOR STARTER/SAFETY DISCONNECT SWITCH. ADJACENT NUMBER INDICATES NEMA SIZE OF STARTER.
- PACKAGE MOTOR CONTROLLER OR STARTER FURNISHED AND INSTALLED UNDER ANOTHER DIVISION WITH EQUIPMENT CONTROLLED. PROVIDE SINGLE-POINT POWER SERVICE CONNECTION UNDER THIS DIVISION AS NOTED ON PLANS.
- VFD — VARIABLE FREQUENCY DRIVE FURNISHED AND INSTALLED UNDER ANOTHER DIVISION. PROVIDE POWER SERVICE CONNECTION UNDER THIS DIVISION AS NOTED ON PLANS.
- VFD — VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECT FURNISHED AND INSTALLED UNDER ANOTHER DIVISION. PROVIDE POWER SERVICE CONNECTION UNDER THIS DIVISION AS NOTED ON PLANS.
- DRIVEN GROUND ROD.
- DRIVEN GROUND ROD IN GROUND WELL WITH COVER.
- ELECTRICAL VEHICLE CHARGING STATION, WALL MOUNTED.
- ELECTRICAL VEHICLE CHARGING STATION, PEDESTAL MOUNTED.
- 2,4,6 — BRANCH CIRCUIT POWER DISTRIBUTION BOX OF MANUFACTURED WIRING SYSTEM WITH MODULAR CONNECTORS FOR INTERFACE TO BRANCH CIRCUIT MODULAR CABLE SETS AND CABLE OR CONDUIT HOMERUN. BOX MOUNTED FROM STRUCTURE ABOVE IN ACCESSIBLE CEILING SPACE. ADJACENT NUMBERS INDICATE CIRCUITS AVAILABLE AT BOX.
- 2,4,6 — DEVICE BRANCH CIRCUIT POWER DISTRIBUTION BOX FOR INTERFACE BETWEEN MULTI-CIRCUIT HOMERUN AND MC CABLE BRANCH CIRCUITING. MINIMUM BOX SIZE IS 10"X10"X4" DEEP. BOX MOUNTED FROM STRUCTURE ABOVE IN ACCESSIBLE CEILING SPACE. ADJACENT NUMBERS INDICATE CIRCUITS AVAILABLE AT BOX.
- INDICATES CABLE TERMINATION LUGS AT EQUIPMENT BUS.
- BOLTED PRESSURE OR HIGH PRESSURE CONTACT SWITCH.
- FUSED SWITCH.
- MEDIUM-VOLTAGE LOAD INTERRUPTER SWITCH.
- GROUP MOUNTED MOLDED CASE CIRCUIT BREAKER.
- INDIVIDUALLY FIXED MOUNTED INSULATED-CASE OR POWER CIRCUIT BREAKER.
- INDIVIDUALLY DRAW-OUT MOUNTED INSULATED-CASE OR POWER CIRCUIT BREAKER.
- MV — MEDIUM-VOLTAGE, INDIVIDUALLY DRAW-OUT MOUNTED VACUUM CIRCUIT BREAKER.
- G — INDICATES INTEGRAL GROUND FAULT RELAY WHEN ASSOCIATED WITH CIRCUIT BREAKER.
- C — INDICATES COMMUNICATION NETWORK WIRING WHEN ASSOCIATED WITH CIRCUIT BREAKER.
- EO — INDICATES ELECTRICALLY OPERATED WHEN ASSOCIATED WITH CIRCUIT BREAKER.
- ST — INDICATES SHUNT TRIP WHEN ASSOCIATED WITH OVERCURRENT PROTECTION DEVICES.
- K1 — INDICATES KIRK-KEY INTERLOCK WHEN ASSOCIATES WITH OVERCURRENT PROTECTION DEVICES. ADJACENT NUMBER CORRESPONDS WITH DEVICE INTERLOCK.
- GFR — GROUND FAULT RELAY WITH SHUNT TRIP.
- GFA — GROUND FAULT ALARM, NO SHUNT TRIP.
- M — UTILITY METER.
- TRANSFORMER.
- CONNECTION TO GROUND.
- NORMALLY OPEN CONTACT.
- NORMALLY CLOSED CONTACT.
- DMU — DIGITAL METERING UNIT.
- WHM — WATT HOUR METER.
- GND — GROUND BUS.
- NEU — NEUTRAL BUS.

WIRING DEVICES

- J — JUNCTION BOX, WALL MOUNTED, +18" UON.
- J — JUNCTION BOX, MOUNTED IN FLUSH FLOOR BOX.
- J — JUNCTION BOX, MOUNTED FLUSH IN CEILING.
- J — JUNCTION BOX, SURFACE OR PENDANT MOUNTED TO STRUCTURE IN ACCESSIBLE CEILING SPACE.
- J — JUNCTION BOX, MOUNTED ON CONDUIT STANCHION FLOOR PENETRATION, +12" UON.
- SINGLE-PLEX CONVENIENCE RECEPTACLE DEVICE, WALL MOUNTED, +18" UON.
- USB — 'USB' DENOTES DUPLEX CONVENIENCE RECEPTACLE DWBICE WITH INTERGRAL USB POWER OUTLETS, WALL MOUNTED, +18" UON.
- IG — 'IG' DENOTES ISOLATED GROUND. DUPLEX CONVENIENCE RECEPTACLE DEVICE, WALL MOUNTED, +18" UON.
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE DEVICE, WALL MOUNTED, +18" UON.
- DENOTES WALL MOUNTED OVER COUNTER, 6" ABOVE BACK SPLASH UON.
- G — 'G' DENOTES GROUND FAULT CURRENT INTERRUPTER (GFCI), 'A' DENOTES ARC FAULT CURRENT INTERRUPTER (AFCI).
- WP — DUPLEX RECEPTACLE, WEATHER RESISTANT WITH GROUND FAULT CURRENT INTERRUPTER 'GFCI', WITH WEATHERPROOF COVER, WALL MOUNTED, +18" UON.
- SHADING DENOTES SPLIT WIRED DEVICE.
- SHADING DENOTES DEVICE CONNECTED TO EMERGENCY POWER CIRCUIT.
- SHADING DENOTES CONTROLLED RECEPTACLE.
- SHADING DENOTES SPECIALTY DEVICE, TYPE AS NOTED ON PLANS.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED IN FLUSH FLOOR BOX.
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED IN FLUSH FLOOR BOX.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED IN FIRE-RATED POKE-THRU FLOOR FITTING.
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED IN FIRE-RATED POKE-THRU FLOOR FITTING.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED FLUSH IN CEILING.
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED FLUSH IN CEILING.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED ON CONDUIT STANCHION FLOOR PENETRATION, +12" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED IN FLOOR MONUMENT.
- COMBINATION POWER/TELECOMMUNICATION DEVICE, MOUNTED IN FLUSH FLOOR BOX. TYPE AS NOTED ON PLANS OR IN SPECIFICATIONS.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, CORD OR REEL HUNG FROM STRUCTURE ABOVE. TYPE AS NOTED ON PLANS.
- ELECTRIFIED FURNITURE PARTITION POWER FEED, WALL MOUNTED, +18" UON. CONSISTS OF 4 11/16" SQ. X 2 1/8" DEEP JUNCTION BOX, SINGLE GANG RING, AND STAINLESS STEEL COVER PLATE WITH KO TO ACCEPT FURNITURE WHIP.
- EXO — ELECTRIFIED FURNITURE PARTITION COMBINATION POWER/TELECOMMUNICATION FEEDS, MOUNTED IN FLUSH FLOOR BOX WITH KO'S IN COVER TO ACCEPT FURNITURE WHIPS
- ELECTRIFIED FURNITURE PARTITION POWER FEED, MOUNTED IN FIRE-RATED POKE-THRU FLOOR FITTING WITH KO IN COVER TO ACCEPT FURNITURE WHIP.
- POWER/TELECOMMUNICATION POLE, MOUNTED TO EXTEND FROM FLOOR TO CEILING. TYPE AS NOTED ON PLANS.
- S — SINGLE-POLE, SINGLE-THROW SWITCH, WALL MOUNTED, +42" UON.
- S^3 — THREE-WAY SWITCH, WALL MOUNTED, +42" UON.
- S^4 — FOUR-WAY SWITCH, WALL MOUNTED, +42" UON.
- S^K — KEY-OPERATED, SINGLE-POLE, SINGLE-THROW SWITCH, WALL MOUNTED, +42" UON.
- S^P — PILOT LIGHT, SINGLE-POLE, SINGLE-THROW SWITCH, WALL MOUNTED, +42" UON.
- S^T — MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD ELEMENT, MOUNTED ADJACENT TO MOTOR.
- S^M — MANUAL MOTOR STARTER/DISCONNECT SWITCH, MOUNTED ADJACENT TO MOTOR.
- S^F — SWITCH FURNISHED UNDER ANOTHER DIVISION, BUT INSTALLED AND WIRED UNDER THIS DIVISION, WALL MOUNTED, +42" UON.
- S^D — WALL BOX DIMMER SWITCH, +42" UON. SIZED PER CONNECTED LOAD ON PLANS AND FURNISHED FOR LAMP SOURCE SERVED. PROVIDED FOR DE-RATING WHEN INSTALLED GANGED LOCATIONS.
- S^{TC} — SINGLE-POLE, TIMER CONTROLLED SWITCH, WALL MOUNTED, +42" UON.
- S^{EP} — SINGLE-POLE, SINGLE-THROW, EXPLOSION PROOF SWITCH, WALL MOUNTED, +42" UON.
- SH — LINE-VOLTAGE MULTIPLE GANG SWITCHING STATION, WALL MOUNTED, 42" UON. REFER TO PLANS FOR DEVICE QUANTITIES AND TYPES.
- LH — LOW-VOLTAGE LIGHTING CONTROL SWITCHING STATION, WALL MOUNTED, +42" UON. REFER TO PLANS AND SCHEDULES FOR DEVICE QUANTITIES AND RELAYS CONTROLLED
- MH — LIGHTING CONTROL OCCUPANCY SENSOR WITH DUAL LEVEL SWITCHING, WALL MOUNTED, +42" UON.
- MH — LIGHTING CONTROL OCCUPANCY SENSOR WITH SINGLE LEVEL SWITCHING, WALL MOUNTED, +42" UON.
- M — LIGHTING CONTROL OCCUPANCY SENSOR, CEILING MOUNTED FOR AREA COVERAGE.
- DH — PRESET SCENE CONTROL LIGHTING STATION WITH DIMMING CAPABILITIES, WALL MOUNTED, +42" UON. REFER TO PLANS AND SCHEDULES FOR CONTROL.
- DMH — COMBINATION LIGHTING CONTROL DIMMER/MOTION SENSOR, WALL MOUNTED, +42", UON.
- ETD — EGRESS LIGHTING TRANSFER DEVICE
- CONTROL STATION, WALL MOUNTED, +42" UON.
- PC — PHOTOELECTRIC CELL
- DS — DAYLIGHT SENSOR

LIGHTING

- LIGHT FIXTURE, RECESSED IN CEILING.
- LIGHT FIXTURE, SURFACE OR PENDANT MOUNTED.
- LIGHT FIXTURE, WALL MOUNTED.
- STRIP LIGHT FIXTURE, SURFACE OR PENDANT MOUNTED.
- STRIP LIGHT FIXTURE, SURFACE MOUNTED IN ARCHITECTURAL CEILING COVE.
- STRIP LIGHT FIXTURE, SURFACE MOUNTED VERTICALLY ON WALL OR IN COVE.
- DOWNLIGHT FIXTURE, RECESSED IN CEILING.
- DOWNLIGHT/INDUSTRIAL FIXTURE, SURFACE OR PENDANT MOUNTED.
- SINGLE DIRECTIONAL, WALLWASH LIGHT FIXTURE, RECESSED IN CEILING.
- DUAL DIRECTIONAL, WALLWASH LIGHT FIXTURE, RECESSED IN CEILING.
- SINGLE DIRECTIONAL, WALLWASH LIGHT FIXTURE, SURFACE OR PENDANT MOUNTED.
- DUAL DIRECTIONAL, WALLWASH LIGHT FIXTURE, SURFACE OR PENDANT MOUNTED.
- ADJUSTABLE ACCENT LIGHT FIXTURE, RECESSED IN CEILING.
- ADJUSTABLE ACCENT LIGHT FIXTURE, SURFACE OR PENDANT MOUNTED.
- LINEAR WALLWASH LIGHT FIXTURE, RECESSED IN CEILING.
- LINEAR WALLWASH LIGHT FIXTURE, SURFACE OR PENDANT MOUNTED.
- LINEAR, MULTI-HEAD, ADJUSTABLE ACCENT LIGHT FIXTURES, RECESSED IN CEILING.
- SCONCE LIGHT FIXTURE, WALL MOUNTED.
- DECORATIVE CHANDELIER OR BOWL TYPE FIXTURE, PENDANT MOUNTED.
- LINEAR TRACK SYSTEM WITH PLUG-IN ADJUSTABLE LIGHT FIXTURE HEADS. TRACK SHALL BE EITHER RECESSED, SURFACE OR PENDANT MOUNTED TO CEILING AS NOTED IN FIXTURE SCHEDULE.
- EXIT SIGN LIGHT FIXTURE, CEILING OR WALL MOUNTED WITH DIRECTIONAL ARROWS AS NOTED ON PLANS. WORD 'EXIT' TO BE LOCATED IN SHADED FACE(S).
- COMBO EXIT SIGN AND EGRESS LIGHTING FIXTURE, CEILING OR WALL MOUNTED WITH ARROWS AS NOTED ON PLANS OR IN FIXTURE SCHEDULE.
- EMERGENCY SELF-POWERED BATTERY PACK WITH LIGHT FIXTURE HEADS AS NOTED ON PLANS OR IN FIXTURE SCHEDULE.
- HALF SHADING OF ANY FIXTURE INDICATES LIFE SAFETY/EGRESS LIGHTING.
- FULL SHADING OF ANY FIXTURE INDICATES STANDBY/CRITICAL LIGHTING.

EXTERIOR:

- SINGLE-HEAD AREA LIGHT FIXTURE WITH BRACKET ARM AND POLE, MOUNTED TO CONCRETE BASE.
- TWO-HEAD AREA LIGHT FIXTURES WITH BRACKET ARMS AND POLE, MOUNTED TO CONCRETE BASE.
- SINGLE-HEAD AREA POST-TOP LIGHT FIXTURE WITH POLE, MOUNTED TO CONCRETE BASE.
- AREA LIGHT FIXTURE, SURFACE OR RECESSED MOUNTED TO WALL.
- LIGHT FIXTURE BOLLARD, MOUNTED TO CONCRETE BASE.
- GROUND WELL MOUNTED FLUSH IN FINISHED GRADE.
- FLOODLIGHT FIXTURE, STANCHION MOUNTED ABOVE GRADE.
- LINEAR SIGN LIGHT FIXTURE, STANCHION MOUNTED ABOVE GRADE.
- STEPLIGHT FIXTURE, WALL MOUNTED.

RACEWAYS

- CONDUIT RUN EXPOSED ON WALL OR CEILING.
- CONDUIT RUN CONCEALED IN SLAB, UNDER SLAB OR UNDERGROUND.
- CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING.
- CONDUIT HOMERUN, CONTINUOUS RUN TO PANEL OR EQUIPMENT CABINET.
- FLEXIBLE METALLIC CONDUIT.
- CONDUIT TURNED UP
- CONDUIT TURNED DOWN.
- CONDUIT CAPPED OR STUBBED WITH INSULATED BUSHINGS.
- CONDUIT SLEEVE, WITH INSULATING BUSHINGS.
- CROSSMARKS ON BRANCH CIRCUIT CONDUIT RUNS INDICATE THE QUANTITY OF CONDUCTORS AS FOLLOWS (GROUND CONDUCTORS ARE NOT NOTED, BUT SHOULD BE INCLUDED IN EVERY CONDUIT WITH POWER CONDUCTORS):
  1. NO CROSSMARKS INDICATES TWO #12 AWG CONDUCTORS, UON.
  2. THREE TO SIX CROSSMARKS INDICATES THE QUANTITY OF #12 AWG CONDUCTORS, UON.
  3. SEVEN OR MORE CROSSMARKS INDICATES THE QUANTITY OF #10 AWG CONDUCTORS, UON.
- MULTI-OUTLET TWO PIECE SURFACE RACEWAY; TYPE, DEVICE SPACING AND MOUNTING AS NOTED ON PLANS.
- TWO PIECE SURFACE METAL RACEWAY, MOUNTED AS NOTED IN PLANS.
- CABLE TRAY, CABLE RUNWAY OR LADDER RACK SUSPENDED FROM STRUCTURE ABOVE. REFER TO PLANS FOR SIZE AND MOUNTING.

PROJECT NOTES

1. THE CONTRACTOR SHALL VISIT THE JOBSITE AND VERIFY ALL EXISTING CONDITIONS BEFORE BIDDING AND SHALL INCLUDE IN THE BID THE NECESSARY COSTS TO CONSTRUCT THIS PROJECT IN ACCORDANCE WITH THE ELECTRICAL DRAWINGS, SPECIFICATIONS AND ALL APPLICABLE CODES.
2. CONTRACTOR SHALL REMOVE ALL LEFT OVER CONDUIT, WIRE, SCRAPS, ETC. AND LEAVE PREMISES CLEAN AND FREE OF TRASH OR DEBRIS RESULTING FROM HIS WORK.
3. CONTRACTOR SHALL REPORT TO THE OWNER'S ENGINEER ANY OBSERVATIONS OF CONDITIONS WHICH ARE DISCOVERED IN THE BUILDING WHICH WOULD PREVENT THE CORRECT INSTALLATION OF THE ELECTRICAL SYSTEM.
4. CONDUIT ROUTING (WHERE SHOWN) IS ESSENTIALLY DIAGRAMMATIC. CONTRACTOR SHALL LAYOUT RUNS TO SUIT FILED CONDITIONS AND THE COORDINATION REQUIREMENTS OF OTHER TRADES.
5. PROVIDE A 3/4", 2500# POLYESTER PULL TAPE IN ALL EMPTY CONDUITS.

CONVENTIONS

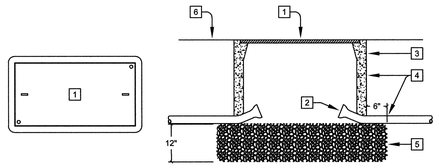
- (1) — NUMBERED NOTE, APPLIES TO ALL DRAWINGS.
- [1] — NUMBERED SHEET NOTE, APPLIES TO DRAWING CONTAINING NOTES ONLY.
- (1) — OVERCURRENT PROTECTIVE DEVICE SPACE IDENTIFICATION TAG. REFERS TO LOCATION OF PROTECTIVE OR CONTROL DEVICE WITHIN SWITCHBOARDS, DISTRIBUTION BOARDS, MOTOR CONTROL CENTERS, ETC.
- NAME — EQUIPMENT IDENTIFICATION TAG: ITEM FURNISHED AND INSTALLED UNDER ANOTHER SECTION AND WIRED UNDER THIS SECTION.
- P2 — CABLE AND/OR RACEWAY TAG, FUNCTION AS NOTED BELOW:
  P = POWER T = TELEPHONE C = COMMUNICATION
- 2004 — FEEDER SIZE. REFER TO FEEDER SCHEDULE.
- A / EXX.XX — DETAIL REFERENCE: SHEET NUMBER / DETAIL DESIGNATION
- 2-F3 — FIXTURE IDENTIFICATION TAG: FIXTURE TYPE / QUANTITY

ABBREVIATIONS

A	AMPERES
AFC	ABOVE FINISHED CEILING
AFI	ARC FAULT CIRCUIT INTERRUPTER
AF	AMPERE OVERCURRENT FRAME SIZE (WHEN APPLIED TO CIRCUIT BREAKERS) OR AMPERE FUSE SIZE (WHEN APPLIED TO FUSES)
AFF	ABOVE FINISHED FLOOR
AIC	ASYMMETRIC INTERRUPTING CURRENT
AL	ALUMINUM
AT	AMPERE OVERCURRENT TRIP (WHEN APPLIED TO CIRCUIT BREAKERS)
ATS	AUTOMATIC TRANSFER SWITCH
BAS	BUILDING AUTOMATION SYSTEM
BFC	BELOW FINISHED CEILING
BOC	BACK OF CURB
BPS	BOLTED PRESSURE CONTACT SWITCH
C	CONDUIT
CCTV	CLOSED CIRCUIT TELEVISION
CL	CURRENT LIMITING CIRCUIT BREAKER OR FUSE
CP	CIRCULATION PUMP
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
DF	DRINKING FOUNTAIN
DW	DISH WASHER
(E)	EXISTING TO REMAIN
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EP	EXPLOSION PROOF
EPO	EMERGENCY POWER OFF
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
EMT	ELECTRICAL METALLIC TUBING
ETD	EMERGENCY TRANSFER DEVICE
EVSE	ELECTRIC VEHICLE SUPPLY EQUIPMENT
EVCS	ELECTRIC VEHICLE CHARGING STATION
EWH	ELECTRIC WATER HEATER
F	FUSED
(F)	FUTURE
FACP	FIRE ALARM CONTROL PANEL
FAJB	FIRE ALARM JUNCTION BOX
FFCP	FIREMAN'S FAN CONTROL PANEL
FLA	FULL LOAD AMPERES
FMC	FLEXIBLE METAL CONDUIT
FSD	FIRE/SMOKE DAMPER
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR
FRAP	FIREMAN'S REMOTE ANNUNCIATOR PANEL
G	GROUND
GB	GROUND BUS
GD	GARBAGE DISPOSAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRAP	GENERATOR REMOTE ANNUNCIATOR PANEL
GWH	GAS WATER HEATER
HPC	HIGH PRESSURE CONTACT SWITCH
HVAC	HEATING,VENTING AND AIR CONDITIONING
IMC	INTERMEDIATE METAL CONDUIT
IWH	INSTANTANEOUS OR POINT OF USE WATER HEATER
JB	JUNCTION BOX
LFSB	LOW FREQUENCY SOUNDER BASE
LSCP	LIFE SAFETY CONTROL PANEL
LCP	LIGHTING CONTROL PANEL
MBGB	MAIN BUILDING GROUND BUS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MLO	MAIN LUGS ONLY
MT	EMPTY
MTC	EMPTY CONDUIT
MTGB	MAIN TELECOM GROUND BUS
MTS	MANUAL TRANSFER SWITCH
MW	MICROWAVE
(N)	NEW
NC	NORMALLY CLOSED
NF	NON-FUSED
NIEC	NOT IN ELECTRICAL CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
PDU	POWER DISTRIBUTION UNIT
PIV	POST INDICATING VALVE
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RF	REFRIGERATOR
(R)	EXISTING TO BE REMOVED
(RL)	RELOCATED
(RR)	REMOVE AND RELOCATE
RSC	RIGID STEEL CONDUIT
SAD	SEE ARCHITECTURAL DRAWINGS
SPD	SURGE PROTECTION DEVICE
TC	TIME CLOCK
TGB	TELECOMMUNICATIONS GROUND BUS
TP	TWISTED-PAIR
TX	TRANSFORMER
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
URAP	UPS REMOTE ANNUNCIATOR PANEL
UR	UNDERCOUNTER REFRIGERATOR
V	VOLTS
VA	VOLTS-AMPS
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VM	VENDING MACHINE
W	WATTS
WAP	WIRELESS ACCESS POINT
WH	WATER HEATER
WP	WEATHERPROOF
2SP	TWO SPEED
1Ø	1 PHASE
3Ø	3 PHASE
1P	1 POLE
2P	2 POLE
3P	3 POLE
3W	3 WIRE
4W	4 WIRE

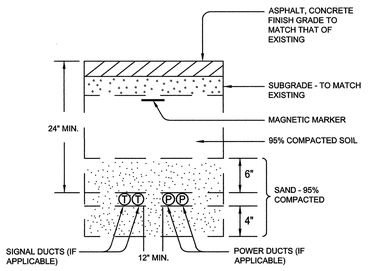
DRAWING INDEX

DWG. NO.	TITLE
E0.1	SYMBOLS LIST, DETAILS, & DRAWING INDEX
E1.0	ELECTRICAL SITE DEMOLITION PLAN
E1.1	ELECTRICAL SITE PLAN



1. CONCRETE COVER (TO SUIT APPLICATION) WITH HOLD DOWN BOLTS. LABEL COVER AS REQUIRED.
2. BELL ENDS TYP.
3. PRE CAST REINFORCED CONCRETE BOX, SIZE PER CEC. INSTALL FLUSH WITH GRADE.
4. SEAL AROUND CONDUIT, BOX & JUNCTION OF EXTENSION(S) WITH MORTAR.
5. CRUSHED ROCK
6. FINISHED GRADE

B / E0.1 SITE PULLBOX INSTALLATION DETAIL — NTS



A / E0.1 JOINT TRENCH DETAIL — NTS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
02 11 8063
AC RS SS
DATE 12-19-19

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REGISTERED PROFESSIONAL ENGINEER
SCOTT WHEELER
No. E015491
Exp. 06/30/21
STATE OF CALIFORNIA

NEEDHAM ELEMENTARY SCHOOL - ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT
LODI, CA

SYMBOLS LIST, DETAILS, & DRAWING INDEX

PROJECT NO. 18-1366
DATE: 12/13/2019
SHEET **E0.1**

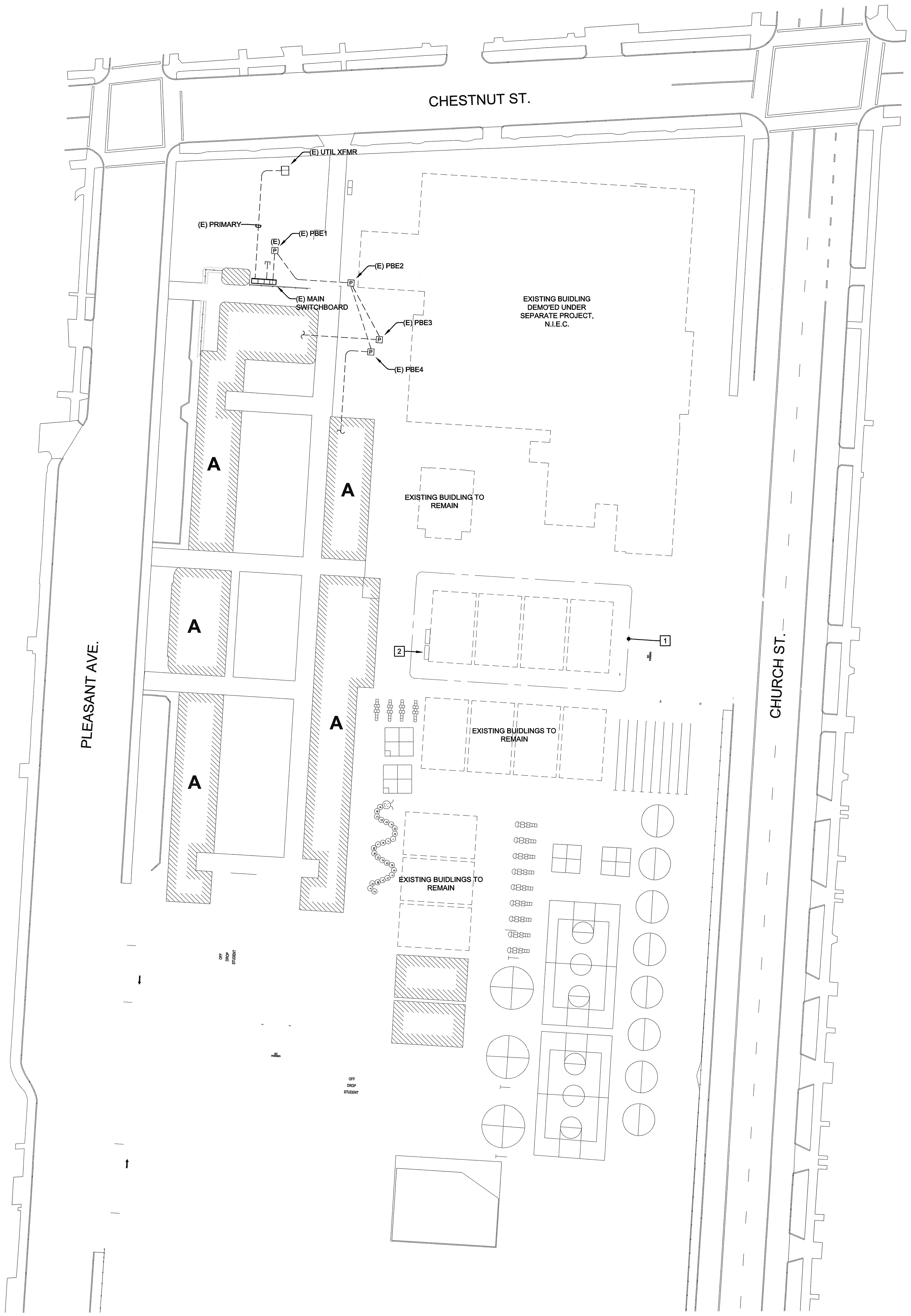
GENERAL SHEET NOTES

A. COORDINATE SCOPE OF DEMOLITION WITH OTHER TRADES, REFER TO ARCHITECTURAL AND CIVIL SITE DEMOLITION PLANS.

NUMBERED SHEET NOTES

1. EXISTING PORTABLE BUILDINGS TO BE REMOVED. DISCONNECT ALL EXISTING LOW VOLTAGE CABLING AT THE POINT OF CONNECTION AND PULL BACK TO SOURCE HEAD-END EQUIPMENT. AT OWNER'S DISCRETION, RETURN ANY EQUIPMENT OR DEVICES TO THE DISTRICT, INCLUDING IDF CABINET & EQUIPMENT, ACCESS POINTS, FIRE ALARM AND INTRUSION SYSTEM DEVICES, AV EQUIPMENT, ETC. ANY UNWANTED EQUIPMENT AND DEVICES SHALL BE DISCARDED WITH THE PORTABLE BUILDINGS. DISCONNECT POWER FEEDERS FROM BUILDING LOAD CENTERS / PANEL AND REMOVE FEEDERS BACK TO SWITCHBOARDS, REFER TO FOLLOWING NOTE.

2. EXISTING POWER DISTRIBUTION EQUIPMENT TO REMAIN AS CONNECTED TO MAINTAIN SERVICE TO EXISTING PORTABLE BUILDINGS THROUGHOUT FUTURE INCREMENTS OF WORK. DISCONNECT AND REMOVE FEEDERS TO DEMO'ED BUILDINGS, LABEL EXISTING BREAKERS AS 'SPARE'.



A / E1.0 ELECTRICAL SITE DEMOLITION PLAN

SCALE: 1" = 30'-0"

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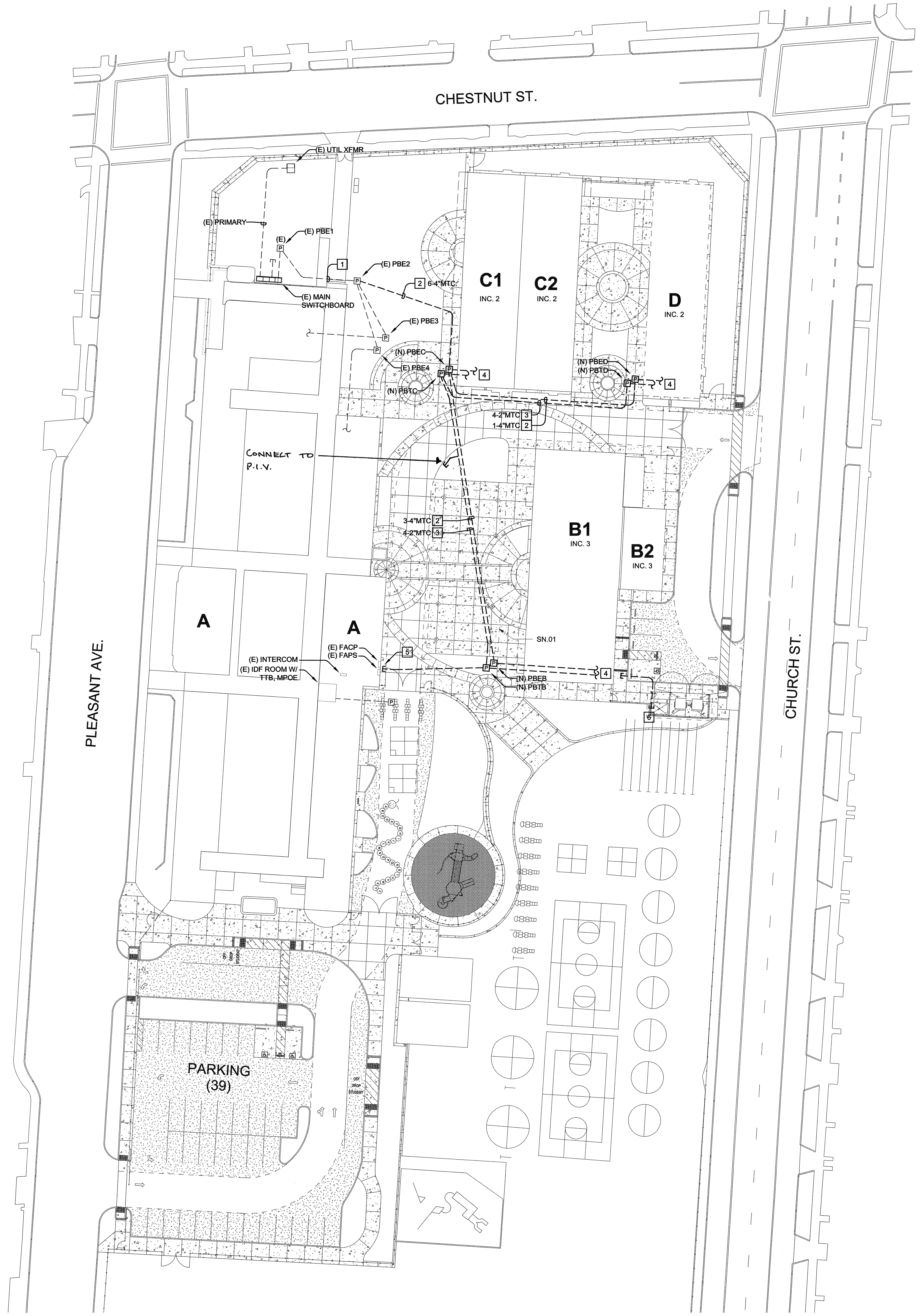
NEEDHAM ELEMENTARY SCHOOL - ADDITIONS INCREMENT 1

LODI UNIFIED SCHOOL DISTRICT
LODI, CA

ELECTRICAL SITE DEMOLITION PLAN

PROJECT NO.	18-1366
DATE:	12/13/2019
SHEET	E1.0



A
E1.1
ELECTRICAL SITE PLAN
SCALE: 1" = 30'-0"

GENERAL SHEET NOTES

A. HANDHOLE LOCATIONS ARE DIAGRAMMATIC AND NOT DIMENSIONED. LOCATE NEW HANDHOLES IN CLOSEST LANDSCAPED AREA WHEREVER POSSIBLE, COORDINATE WITH LANDSCAPE ARCHITECT. PROVIDE WITH STEEL TRAFFIC RATED LID IN ANY AREA SUBJECT TO VEHICULAR TRAFFIC. REFER B B/E0.1 FOR TYPICAL PULLBOX INSTALLATION.

B. HANDHOLES FOR POWER DISTRIBUTION SHALL BE TYPE N36 MIN., LID SHALL BE ENGRAVED "POWER", UON. REFER TO POWER ONE-LINE DIAGRAM FOR FEEDER REQUIREMENTS.

C. HANDHOLES FOR SIGNAL SYSTEMS DUCT BANK SHALL BE MIN. N48. LID SHALL BE ENGRAVED "SIGNAL".

D. HANDHOLES DEDICATED TO FIRE ALARM SHALL BE N16. LID SHALL BE ENGRAVED "FIRE ALARM". PROVIDE 1.25" C. MIN. U.O.N. WHERE ROUTED WITH THE CAMPUS LOW VOLTAGE DUCT BANK, FIRE ALARM MAY UTILIZE THE SIGNAL HANDHOLES/PULLBOXES.

E. REFER TO A/E0.1 FOR TYPICAL JOINT TRENCH INSTALLATION.

F. EXISTING LOW VOLTAGE FACILITIES AND EQUIPMENT SHOWN FOR REFERENCE ONLY, NOT IN SCOPE.

NUMBERED SHEET NOTES

1. EXISTING 7-4" MTC.

2. PROVIDE MTC. FOR FUTURE POWER FEEDERS.

3. PROVIDE MTC. FOR FUTURE LOW VOLTAGE CABLE DISTRIBUTION.

4. FEEDERS EXTENDED TO BUILDING ELECTRICAL/IDF ROOM SHOWN FOR COORDINATION PURPOSES ONLY.

5. STUB UP AT BUILDING AND CAP, FOR FUTURE EXTENSION INTO BUILDING FOR CONNECTION TO LOW VOLTAGE HEAD-END EQUIPMENT, I.E. TELECOMMUNICATIONS, CLOCK/INTERCOM, FIRE ALARM, ETC.

6. STUB UP 1.25"C. FOR FUTURE POWER CONNECTION TO INSTANTANEOUS WATER HEATER. COORDINATION EXACT LOCATION OF CONDUIT STUB-UP IN THE FIELD, CAP CONDUIT AT PENETRATION AT SLAB. EXTEND TOWARD PAD FOR FUTURE BUILDING B FOR FUTURE EXTENSION INTO ELECTRICAL ROOM AND MARK LOCATION.

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