darden
architects

6790 N. West Avenue
Fresno, California 93711
Tel: 559.448.8051
Fax: 559.446.1765
www.dardenarchitects.com

ADDENDUM NO. 2 DATE: 01/20/23

PROJECT:
McKinley/ Fowler Elementary School- Increment 1
Fresno, CA
CUSD Bid No.: 2922

OWNER:
Clovis Unified School District
1450 E. Herndon Ave.
Clovis, CA 93611

ARCHITECT:
DARDEN ARCHITECTS, INC.
Attention: Andrew Corral/ Mike Fennacy
6790 N. West Avenue
Fresno, California 93711
T. (559) 448-8051
F. (559) 446-1765

DARDEN PROJECT NO. 2116
DSA File Nos. 10-48
DSA APPL. NO. 02-120543

It will be the responsibility of the General Contractor to submit the information contained in this addendum to all its subcontractors and suppliers. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

The following additions, deletions, and revisions to the SHEETS and Project Manual are hereby made and do become a part of these Contract Documents.

PROJECT:

ADDENDUM NO. ..... DATE: 01/20/23
PAGE 2

INDEX OF ADDENDA TRANSMITTED HEREWITH

PROJECT MANUAL:

BIDDING AND CONTRACT REQUIREMENTS:

CHANGES TO BIDDING REQUIREMENTS AD2-CBR01

CHANGES TO CONDITIONS OF THE CONTRACT..... AD2-CCC01

SPECIFICATIONS:

CHANGES TO SPECIFICATIONS ..... AD2-SP01 THRU AD2-SP06

SHEETS:

CHANGES TO SHEETS:

CIVIL ..... AD2-C01 THRU C20
LANDSCAPE / IRRIGATION .....AD2-L01 THRU L21
ARCHITECTURAL..... AD2-A01 THRU A10
PLUMBING .....AD2-P01 THRU P02
MECHANICAL..... AD2-M01
FIRE PROTECTION..... AD2-FP01

ATTACHMENTS:

DOCUMENTS OR SPECIFICATIONS:

BID PACKAGES .....(Pages 1 thru 33)
01 29 73.01 SCHEDULE OF VALUES .....(Pages 1 thru 9)
11 68 13 PLAY EQUIPMENT .....(Pages 1 thru 2)
32 18 16 PLAYGROUND SURFACING.....(Pages 1 thru 4)
32 84 00 LANDSCAPE IRRIGATION SYSTEM.....(Pages 1 thru 14)
32 90 00 LANDSCAPE CONSTRUCTION.....(Pages 1 thru 15)

PROJECT:

SHEETS:

CIVIL ..... AD2--CX01 thru AD2_-CX20.
LANDSCAPE / IRRIGATION ..... AD2-LX01 thru AD2-LX021.
ARCHITECTURAL ..... AD2-AX01 thru AD2-AX10.
STRUCTURAL ..... AD2-SX01 thru AD2-SX07.
MECHANICAL ..... AD2-MX01.
PLUMBING ..... AD2-PX01 thru AD2-PX02.
FIRE PROTECTION ..... AD2-FPX01.

PROJECT MANUAL:

BIDDING AND CONTRACT REQUIREMENTS:

CHANGES TO BIDDING REQUIREMENTS:

AD2-CBR01 Refer to Specification Section NOTICE TO CONTRACTORS:

1. Refer to Bid Opening Section and replace it with the following
   a. Bids will be sealed and filed at the following address: Bids will NOT be accepted at the bid opening location.

Clovis Unified School District
PURCHASING
1450 Herndon Avenue
Clovis, California 93611

   before **2:00 PM** on **FEBRUARY 01, 2023**.
2. The Final day for Pre-Bid RFI' s will be January 25, 2023.

AD2-CBR02 Refer to Specification Section DECLARATION OF GOOD FAITH EFFORTS TO USE DISABLED VETERAN BUSINESS ENTERPRISES (DVBE:

1. Insert the following additional Public contract code information as identified with an AD-2 in the upper-right-hand corner.

CHANGES TO CONDITIONS OF THE CONTRACT:

AD2-CCC01 An Owner Controlled Insurance Program (OCIP) will be a requirement of this project. Additional information and specific criteria will be provided in a future addendum.

SPECIFICATIONS:

CHANGES TO SPECIFICATIONS:

AD2-SP01 Refer to Specification Section 01 11 13, SUMMARY OF WORK:

1. Remove and Replace the BID PACKAGES document with the attached as indicated with an AD-2 in the upper right-hand corner.
2. Refer to the Attached ELECTRICAL EXHIBIT for the extent of work required for PG& E service.

AD2-SP01 Refer to Specification Section 01 29 73 .01, SCHEDULE OF VALUES:

1. Add the attached section 01 29 73 .01, SCHEDULE OF VALUES identified with an AD-2 in the upper right-hand corner.

AD2-SP02 Refer to Specification Section 04 22 00, CONCRETE MASONRY UNITS:

1. Refer to Section 2.2 Materials A. Block and insert the following:
   a. FINISHES:
      1. Precision Cut (CB-1) Nat-Grey (T)
      2. Split-Face (CB-2)- Color A-705 (R)
      3. As available from the Selma Plant

AD2-SP03 Refer to Specification Section 11 68 13, PLAY EQUIPMENT:

1. Add the attached section 11 68 13- PLAY EQUIPMENT identified with an AD-2 in the upper right-hand corner.

AD2-SP04 Refer to Specification Section 31 31 00 SOIL TREATMENT:

1. Omit the requirement for the application of Termiticide.
2. Herbicide will still be required where identified in this section and 32 12 16 SOIL STERILIZATION.

PROJECT:

AD2-SP05 Refer to Specification Section 31 20 00 EARTHWORK:

1. Refer to section 2.1.C Imported Fill item G, remove and replace with the following:
    a. g. The Contractor shall be responsible for transporting the source import material from the location secured by the Owner. Said material will be tested by the Owner prior to transport to the site. Import Soil will be available from the ponding basin located Between N. De Wolf and N. Leonard on E. Clinton Ave. Prior to the start of excavation and transporting, a preconstruction meeting will be held with CES-01, CUSD, RMA, and Bush Construction
    b. See the attached EXHIBIT #1- Which highlights the extent of the ponding basin to be utilized.
2. Refer to Section 2.1.C Imported Fill, Insert the following:
    a. i. Approximately 35,000 Cubic Yards of Import will be required for this project.

AD2-SP06 Refer to Specification Section 32 18 16, PLAYGROUND SURFACING:

1. Add the attached section 32 18 16- PLAYGROUND SURFACING identified with an AD-2 in the upper right-hand corner.

AD2-SP06 Refer to Specification Section 32 84 00, LANDSCAPE IRRIGATION SYSTEM:

1. Add the attached section 32 84 00- LANDSCAPE IRRIGATION SYSTEM identified with an AD-2 in the upper right-hand corner.

AD2-SP06 Refer to Specification Section 32 90 00, LANDSCAPE CONSTRUCTION:

1. Add the attached section 32 84 00- LANDSCAPE IRRIGATION SYSTEM identified with an AD-2 in the upper right-hand corner.

SHEETS:

CHANGES TO SHEETS:

CIVIL:

AD2-C01 Refer to Sheet SD/C201, GRADING AND DRAINAGE PLAN:

1. Remove Sheet SD/C201, GRADING AND DRAINAGE PLANS, and replace with the attached Sheet AD2-CX01.

AD2-C02 Add Sheet SD/C201.1, GRADING AND DRAINAGE PLAN- ADDITIVE ALTERNATE 1:

1. Add Sheet SD/C201.1, GRADING AND DRAINAGE PLAN- ADDITIVE ALTERNATE 1, as indicated with the attached Sheet AD2-CX02.

AD2-C03 **Refer to Sheet SD/C202, GRADING AND DRAINAGE PLAN:**

1. Remove Sheet SD/C201, GRADING AND DRAINAGE PLAN, and replace with the attached Sheet AD2-CX03.

AD2-C04 **Refer to Sheet SD/C203, GRADING AND DRAINAGE PLAN:**

1. Remove Sheet SD/C203, GRADING AND DRAINAGE PLAN, and replace with the attached Sheet AD2-CX04.

AD2-C05 **Refer to Sheet SD/C204, GRADING AND DRAINAGE PLAN:**

1. Remove Sheet SD/C204, GRADING AND DRAINAGE PLAN, and replace with the attached Sheet AD2-CX05.

AD2-C06 **Refer to Sheet SD/C205, GRADING AND DRAINAGE PLAN:**

1. Remove Sheet SD/C205, GRADING AND DRAINAGE PLAN, and replace with the attached Sheet AD2-CX06.

AD2-C07 **Refer to Sheet SD/C301, UTILITY PLAN:**

1. Remove Sheet SD/C301, UTILITY PLAN, and replace with the attached Sheet AD2-CX07.

AD2-C08 **Add Sheet SD/C301, UTILITY PLAN - ADDITIVE ALTERNATE 1:**

1. Add Sheet SD/C301, UTILITY PLAN - ADDITIVE ALTERNATE 1, as indicated with the attached Sheet AD2-CX08.

AD2-C09 **Refer to Sheet SD/C302, UTILITY PLAN:**

1. Remove Sheet SD/C302, UTILITY PLAN, and replace with the attached Sheet AD2-CX09.

AD2-C10 **Refer to Sheet SD/C303, UTILITY PLAN:**

1. Remove Sheet SD/C303, UTILITY PLAN, and replace with the attached Sheet AD2-CX10.

AD2-C11 **Refer to Sheet SD/C304, UTILITY PLAN:**

1. Remove Sheet SD/C304, UTILITY PLAN, and replace with the attached Sheet AD2-CX11.

AD2-C12 **Refer to Sheet SD/C305, UTILITY PLAN:**

1. Remove Sheet SD/C305, UTILITY PLAN, and replace with the attached Sheet AD2-CX12.

AD2-C13 Refer to Sheet SD/X101, DETAILS:

1. Remove Sheet SD/X101, DETAILS, and replace with the attached Sheet AD2-CX13.

AD2-C14 Refer to Sheet SD/X102, UTILITY DETAILS:

1. Remove Sheet SD/X102, UTILITY DETAILS, and replace with the attached Sheet AD2-CX14.

AD2-C15 Refer to Sheet SD/X104, BALLFIELD DETAILS:

1. Remove Sheet SD/X104, BALLFIELD DETAILS, and replace with the attached Sheet AD2-CX15.

AD2-C16 Refer to Sheet SD/X105, BALLFIELD DETAILS:

1. Remove Sheet SD/X105, BALLFIELD DETAILS, and replace with the attached Sheet AD2-CX016.

AD2-C17 Refer to Sheet SD/X106, PLAY COURT DETAILS:

1. Remove Sheet SD/X106, PLAY COURT DETAILS, and replace with the attached Sheet AD2-CX17.

AD2-C18 Refer to Sheet SD/X107, PLAY STRUCTURE DETAILS:

1. Remove Sheet SD/X107, PLAY STRUCTURE DETAILS, and replace with the attached Sheet AD2-CX18.

AD2-C19 Refer to Sheet SD/X108, PLAY COURT DETAILS:

1. Remove Sheet SD/X108, PLAY COURT DETAILS, and replace with the attached Sheet AD2-CX19.

AD2-C20 Refer to Sheet SD/X109, BALLFIELD DETAILS:

1. Remove Sheet SD/X109, BALLFIELD DETAILS, and replace with the attached Sheet AD2-CX20.

LANDSCAPE / IRRIGATION:

AD2-L01 Refer to Sheet SD/L100, LANDSCAPE PLAN LAYOUT:

1. Remove Sheet SD/L100, LANDSCAPE PLAN LAYOUT, and replace with the attached Sheet AD2-LX01.

AD2-L02 Refer to Sheet SD/L101, LANDSCAPE MULCHING PLAN:

1. Remove Sheet SD/L101, LANDSCAPE MULCHING PLAN, and replace with the attached Sheet AD2-LX02.

AD2-L03 **Refer to Sheet SD/L101.1, LANDSCAPE MULCHING PLAN- ADD ALT:**

1. Remove Sheet SD/L101.1, LANDSCAPE MULCHING PLAN- ADD ALT, and replace with the attached Sheet AD2-LX03.

AD2-L04 **Refer to Sheet SD/L102, LANDSCAPE MULCHING PLAN:**

1. Remove Sheet SD/L102, LANDSCAPE MULCHING PLAN, and replace with the attached Sheet AD2-LX04.

AD2-L05 **Refer to Sheet SD/L103, LANDSCAPE MULCHING PLAN:**

1. Remove Sheet SD/L103, LANDSCAPE MULCHING PLAN, and replace with the attached Sheet AD2-LX05.

AD2-L06 **Refer to Sheet SD/L104, LANDSCAPE MULCHING PLAN:**

1. Remove Sheet SD/L104, LANDSCAPE MULCHING PLAN, and replace with the attached Sheet AD2-LX06.

AD2-L07 **Refer to Sheet SD/L105, LANDSCAPE MULCHING PLAN:**

1. Remove Sheet SD/L105, LANDSCAPE MULCHING PLAN, and replace with the attached Sheet AD2-LX07.

AD2-L08 **Refer to Sheet SD/L201, LANDSCAPE PLANTING PLAN:**

1. Remove Sheet SD/L201, LANDSCAPE PLANTING PLAN, and replace with the attached Sheet AD2-LX08.

AD2-L09 **Refer to Sheet SD/L201.1, LANDSCAPE PLANTING PLAN- ADD ALT:**

1. Remove Sheet SD/L201.1, LANDSCAPE PLANTING PLAN-ADD ALT, and replace with the attached Sheet AD2-LX09.

AD2-L10 **Refer to Sheet SD/L202, LANDSCAPE PLANTING PLAN:**

1. Remove Sheet SD/L202, LANDSCAPE PLANTING PLAN, and replace with the attached Sheet AD2-LX10.

AD2-L11 **Refer to Sheet SD/L203, LANDSCAPE PLANTING PLAN:**

1. Remove Sheet SD/L203, LANDSCAPE PLANTING PLAN, and replace with the attached Sheet AD2-LX11.

AD2-L12 **Refer to Sheet SD/L204, LANDSCAPE PLANTING PLAN:**

1. Remove Sheet SD/L204, LANDSCAPE PLANTING PLAN, and replace with the attached Sheet AD2-LX12.

AD2-L13 Refer to Sheet SD/L205, LANDSCAPE PLANTING PLAN:

1. Remove Sheet SD/L205, LANDSCAPE PLANTING PLAN, and replace with the attached Sheet AD2-LX13.

AD2-L14 Refer to Sheet SD/L301, LANDSCAPE IRRIGATION PLAN:

1. Remove Sheet SD/L301, LANDSCAPE IRRIGATION PLAN, and replace with the attached Sheet AD2-LX14.

AD2-L15 Refer to Sheet SD/L301.1, LANDSCAPE IRRIGATION PLAN- ADD ALT:

1. Remove Sheet SD/L301.1, LANDSCAPE IRRIGATION PLAN- ADD ALT, and replace with the attached Sheet AD2-LX15.

AD2-L16 Refer to Sheet SD/L302, LANDSCAPE IRRIGATION PLAN:

1. Remove Sheet SD/L302, LANDSCAPE IRRIGATION PLAN, and replace with the attached Sheet AD2-LX16.

AD2-L17 Refer to Sheet SD/L303, LANDSCAPE IRRIGATION PLAN:

1. Remove Sheet SD/L303, LANDSCAPE IRRIGATION PLAN, and replace with the attached Sheet AD2-LX17.

AD2-L18 Refer to Sheet SD/L304, LANDSCAPE IRRIGATION PLAN:

1. Remove Sheet SD/L304, LANDSCAPE IRRIGATION PLAN, and replace with the attached Sheet AD2-LX18.

AD2-L19 Refer to Sheet SD/L305, LANDSCAPE IRRIGATION PLAN:

1. Remove Sheet SD/L305, LANDSCAPE IRRIGATION PLAN, and replace with the attached Sheet AD2-LX19.

AD2-L20 Refer to Sheet SD/L306, LANDSCAPE IRRIGATION LEGEND:

1. Remove Sheet SD/L306, LANDSCAPE IRRIGATION LEGEND, and replace with the attached Sheet AD2-LX20.

AD2-L21 Refer to Sheet SD/L401, LANDSCAPE & IRRIGATION DETAILS:

1. Remove Sheet SD/L401, LANDSCAPE & IRRIGATION DETAILS, and replace with the attached Sheet AD2-LX21.

ARCHITECTURAL:

AD2-A01 Refer to Sheet G000 -COVER SHEET:

1. Remove Sheet G000 – COVER SHEET and replace with attached Sheet AD2-AX01.

PROJECT:

AD2-A02 Refer to Sheet G100 -REGULATORY COMPLIANCE SITE PLAN:

1. Remove Sheet G100 – REGULATORY COMPLIANCE SITE PLAN and replace with attached Sheet AD2-AX02.

AD2-A03 Refer to Sheet SD/A100 -OVERALL SITE PLAN:

2. Remove Sheet SD/A100- OVERALL SITE PLAN and replace with attached Sheet AD2-AX03.

AD2-A04 Refer to Sheet SD/A101 -PARTIAL SITE PLAN-AREA 1:

1. Remove Sheet SD/A101- PARTIAL SITE PLAN- AREA 1 and replace with attached Sheet AD2-AX04.

AD2-A05 Refer to Sheet SD/A101.1 -PARTIAL SITE PLAN-AREA 1- ADD ALTERNATE:

1. Add Sheet SD/A101.1- PARTIAL SITE PLAN- AREA 1- ADD ALTERNATE Indicated as AD2-AX05.

AD2-A06 Refer to Sheet SD/A102 -PARTIAL SITE PLAN-AREA 2:

1. Remove Sheet SD/A102- PARTIAL SITE PLAN- AREA 2 and replace with attached Sheet AD2-AX06.

AD2-A07 Refer to Sheet SD/A103 -PARTIAL SITE PLAN-AREA 3:

2. Remove Sheet SD/A103- PARTIAL SITE PLAN- AREA 3 and replace with attached Sheet AD2-AX07.

AD2-A08 Refer to Sheet SD/A302 -SITE DETAILS:

1. Remove Sheet SD/A302- SITE DETAILS and replace with attached Sheet AD2-AX08.

AD2-A09 Refer to Sheet SD/A304 -ENLARGED SITE PLANS AND CMU DETAILS:

1. Remove Sheet SD/A304- ENLARGED SITE PLAN AND CMU DETAILS and replace with attached Sheet AD2-AX09.
2. Refer to Detail J7 CONCRETE MASONRY UNIST, CMU CORNER DETAILS:
   a. A 4" Block is acceptable in Lieu of the inverted Lintel units indicated.

AD2-A10 Refer to Sheet SD/A402 -CHAIN LINK FENCING DETAILS:

1. Remove Sheet SD/A402- CHAIN LINK FENCING DETAILS and replace with attached Sheet AD2-AX10.

STRUCTURAL:

AD2-S01 Refer to Sheet A/S201, FOUNDATION PLAN:

1. The Attached Sheet is for reference only for Over excavation requirements.

AD2-S02 Refer to Sheet B/S201, FOUNDATION PLAN:

1. The Attached Sheet is for reference only for Over excavation requirements.

AD2-S03 Refer to Sheet C/S201, FOUNDATION PLAN:

1. The Attached Sheet is for reference only for Over excavation requirements.

AD2-S04 Refer to Sheet D/S201, FOUNDATION PLAN:

1. The Attached Sheet is for reference only for Over excavation requirements.

AD2-S05 Refer to Sheet E/S201, FOUNDATION PLAN:

1. The Attached Sheet is for reference only for Over excavation requirements.

AD2-S06 Refer to Sheet K/S201, FOUNDATION PLAN:

1. The Attached Sheet is for reference only for Over excavation requirements.

MECHANICAL:

AD2-M01 Add Sheet SD/M101, MECHANICAL SITE PLAN:

1. Add Sheet SD/M101 MECHANICAL SITE PLAN indicated as AD2-MX01.

PLUMBING:

AD2-P01 Refer to Sheet SD/P101- PLUMBING SITE PLAN:

1. Remove Sheet SD/P101- PLUMBING SITE PLAN and replace with attached Sheet AD2-PX01.

AD2-P02 Refer to Sheet X/P101- PLUMBING LEGEND, NOTES AND DETAILS:

1. Remove Sheet X/P101- PLUMBING LEGEND, SITE PLAN and replace with attached Sheet AD2-PX02.

FIRE PROTECTION:

AD2-FP01 Refer to Sheet SD/F002- SITE PLAN:

1. Remove Sheet SD/F002- SITE PLAN and replace with attached Sheet AD2-FPX01.

END OF ADDENDUM NO. 2

PUBLIC CONTRACT CODE - PCC

DIVISION 2. GENERAL PROVISIONS [1100 - 22355]

(Division 2 enacted by Stats. 1981, Ch. 306.)

PART 2. CONTRACTING BY STATE AGENCIES [10100 - 19150]

(Heading of Part 2 added by Stats. 1982, Ch. 1120, Sec. 6.)

CHAPTER 1. State Contract Act [10100 - 10285.5]

(Chapter 1 enacted by Stats. 1981, Ch. 306.)

ARTICLE 1.5. Minority and Women Business Participation Goals for State Contracts [10115 - 10115.15]

(Article 1.5 added by Stats. 1988, Ch. 61, Sec. 3.)

10115.

(a) The Legislature finds and declares all of the following:

(1) The essence of the American economic system of private enterprise is free competition. Only through full and free competition can free markets, reasonable and just prices, free entry into business, and opportunities for the expression and growth of personal initiative and individual judgment be assured. The preservation and expansion of that competition is basic to the economic well-being of this state and that well-being cannot be realized unless the actual and potential capacity of minority, women, and disabled veteran business enterprises is encouraged and developed. Therefore, it is the declared policy of the state to aid the interests of minority, women, and disabled veteran business enterprises in order to preserve reasonable and just prices and a free competitive enterprise, to ensure that a fair proportion of the total number of contracts or subcontracts for commodities, supplies, technology, property, and services are awarded to minority, women, and disabled veteran business enterprises, and to maintain and strengthen the overall economy of the state.

(2) The opportunity for full participation in our free enterprise system by minority, women, and disabled veteran business enterprises is essential if this state is to attain social and economic equality for those businesses and improve the functioning of the state economy.

(3) State agencies which have established short- and long-range minority, women, and disabled veteran participation goals are awarding 23 percent or more of their contracts to these business enterprises.

(4) It is in the state's interest to expeditiously improve the economically disadvantaged position of minority, women, and disabled veteran business enterprises.

(5) The economic position of these businesses can be improved by providing long-range substantial goals for procurement by state agencies of commodities, professional services, and construction work from minority, women, and disabled veteran businesses.

(6) Procurement by state agencies of goods and services from these businesses also benefits the state agencies and the citizens of the state by encouraging the expansion of the number of vendors for procurements, thereby encouraging competition among the vendors and promoting economic efficiency in the process.

(b) It is the purpose of this article to do all of the following:

(1) Encourage greater economic opportunity for minority, women, and disabled veteran business enterprises.

(2) Promote competition among state agencies in order to enhance long-term economic efficiency in the procurement of construction, commodities, and professional services contracts.

(3) Clarify and expand the program for the procurement by state agencies of commodities, professional services, and construction work from minority, women, and disabled veteran business enterprises.

(c) Notwithstanding any other provision of law, contracts awarded by any state agency, department, officer, or other state governmental entity for construction, professional services (except those subject to Chapter 6 (commencing with Section 16850) of Part 3 of Division 4 of Title 2 of the Government Code), materials, supplies, equipment, alteration, repair, or improvement shall have statewide participation goals of not less than 15 percent for minority business enterprises, not less than 5 percent for women business enterprises and 3 percent for disabled veteran business enterprises. These goals apply to the overall dollar amount expended each year by the awarding department, as defined by Section 10115.1, pursuant to this article.

(Amended by Stats. 1992, Ch. 1330, Sec. 6. Effective January 1, 1993.)

PUBLIC CONTRACT CODE - PCC

DIVISION 2. GENERAL PROVISIONS [1100 - 22355]

(Division 2 enacted by Stats. 1981, Ch. 306.)

PART 2. CONTRACTING BY STATE AGENCIES [10100 - 19150]

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CHAPTER 1. State Contract Act [10100 - 10285.5]

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ARTICLE 1.5. Minority and Women Business Participation Goals for State Contracts [10115 - 10115.15]

(Article 1.5 added by Stats. 1988, Ch. 61, Sec. 3.)

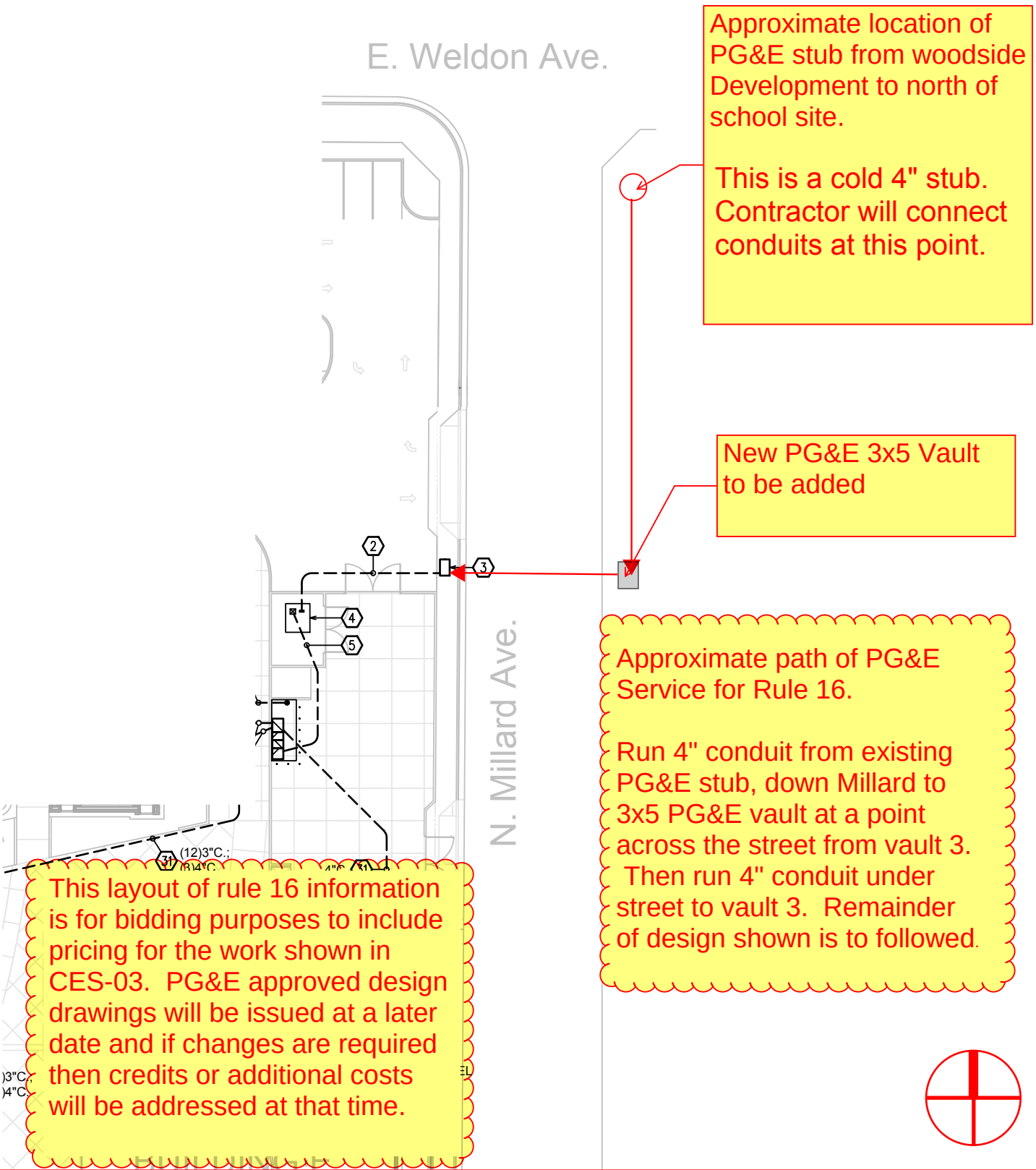
10115.2.

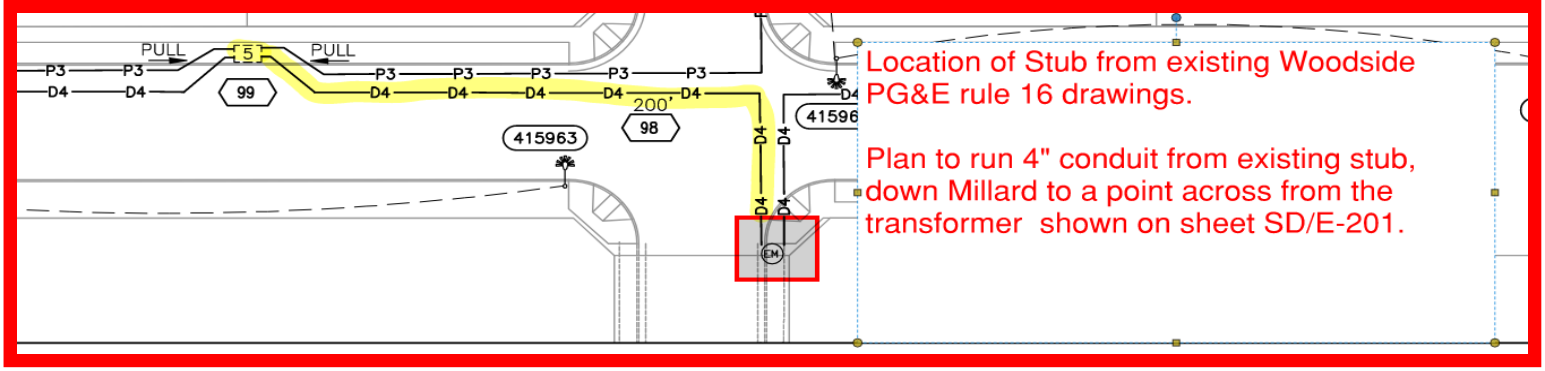
In awarding contracts to the lowest responsible bidder, the awarding department shall consider the efforts of a bidder to meet minority business enterprise, women business enterprise, and disabled veteran business enterprise goals set forth in this article. The awarding department shall award the contract to the lowest responsible bidder meeting these goals.

(Amended by Stats. 2009, 4th Ex. Sess., Ch. 19, Sec. 1. Effective July 28, 2009.)

ELECTRICAL EXHIBIT

AD-2





INCREMENT NO. 1
BID PACKAGES

Bid Package #	Bid Package Description	Contractor License Requirement (, = or)
CES-01	EARTHWORK, CONCRETE, & CMU	A, B, C-8, C-12
CES-02	SITE UTILITIES **PLUMBING**: DOMESTIC, SANITARY, STORM, FIRE, & GAS **(ADDENDA #2)**	A, C-36
CES-03	SITE ELECTRICAL & LOW VOLTAGE	C-10
CES-04	LANDSCAPE	C-27

THIS PROJECT WILL BE BID IN TWO INCREMENTS. INCREMENT NO. 2 WILL BID AT A FUTURE DATE.

B · U · S · H
CONSTRUCTION

FOWLER MCKINLEY ELEMENTARY SCHOOL

CES-01 EARTHWORK, SITE CONCRETE, & CMU

Section 01 57 23 Storm Water Pollution Prevention Plan
~~Section 01 71 23 Field Engineering~~ **(ADDENDA #2)**
Section 03 11 01 Concrete Formwork
Section 03 15 14 Drilled Anchors
Section 03 20 00 Reinforcement
Section 03 30 00 Cast-In-Place Concrete
Section 04 22 00 Concrete Masonry Units (CMU)
Section 07 92 00 Sealants
Section 08 70 00 Hardware
Section 08 70 00.01 Hardware schedule
Section 10 05 00 Miscellaneous Specialties (Stair Striping)
Section 10 14 53 Road and Parking Signage
Section 10 75 00 Flagpoles
Section 11 68 13 Play Equipment
Section 12 93 13 Bicycle Racks
Section 31 00 00 Offsite Development
Section 31 10 00 Site Clearing
Section 31 11 00 Clearing and Demolition
Section 31 20 00 Earthwork
Section 31 22 ~~00~~ **22** Soil Materials **(ADDENDA #2)**
Section 31 23 ~~00~~ **33** Trench Excavation and Backfill **(ADDENDA #2)**
Section 31 31 00 Soil Treatment
Section 32 12 00 Pavement
Section 32 12 16 Soil Sterilization (Weed Control)
Section 32 18 16 Playground Surfacing (ADDENDA #2)
Section 32 19 19 Ornamental Metal
Section 32 31 13 Chain Link

CES-02 SITE UTILITIES PLUMBING: DOMESTIC, SANITARY, STORM, FIRE, & GAS (ADDENDA #2)

Section 03 30 00 Cast in place Concrete (As applicable to storm, sewer, manholes, thrust blocks, etc.)
Section 21 05 23 General Duty Valves for Fire Protection
Section 21 05 53 Identification for Fire Protection
Section 21 11 00 Facility Fire Suppression Water Service Piping
Section 21 11 19 Fire Department Connections
Section 22 00 00 General Plumbing Provisions (Gas, Water, Fire Water, Storm, Sewer)
Section 22 00 50 Plumbing (Gas, Water, Fire Water, Storm, Sewer)
Section 23 01 00 General Mechanical Provisions (As Applicable)
Section 31 23 33 Trench Excavation and Backfill
~~Section 32 84 00 Landscape Irrigation System (For Backflow Preventor and installation)~~ **(ADDENDA #2)**
Section 33 12 00 Water Utilities
Section 33 30 00 Site Sewer Systems
Section 33 40 00 Storm Drainage

B · U · S · H
CONSTRUCTION

CES-03 SITE ELECTRICAL & LOW VOLTAGE (ADDENDA #2)

Section 03 15 14 Drilled Anchors
Section 03 30 00 Cast in place Concrete (As applicable to slurry, and light pole bases, and grouting)
Section 26 05 00 Common Work Results for Electrical
Section 26 05 26 Grounding
Section 26 05 53 Electrical Identification
Section 26 20 00 Low Voltage Electrical Transmission
Section 27 00 00 Telecommunication Systems
Section 27 05 28 Communications Infrastructure System
Section 27 10 00 Structured Cabling System

CES-04 LANDSCAPE

Section 03 15 14 Drilled Anchors
Section 32 84 00 Landscape Irrigation System
Section 32 90 00 Landscape Construction

David A. Bush, Inc. ▪ State License No. 492686
518 North Redington Street ▪ Hanford, California 93230 ▪ Telephone 559.584.1575 ▪ Fax 559.584.1591

SUMMARY OF WORK FOR FOWLER MCKINLEY ELEMENTARY SCHOOL

PART 1 – GENERAL

As the Construction Manager (CM) for this project, David A Bush, Inc. (CM) reserves the right to publish Contractor Information Memos (CIM) prior to bid modifying the contract documents, as necessary. Please acknowledge all CIM on your proposal.

The following bidding instructions shall be adhered to by ALL BIDDERS and all bids shall include cost and time to incorporate all of the instructions noted below.

Please note this is a CM Multiple Prime project with all trades contracted to Clovis Unified School District as in a normal lump sum public works contract. All normal aspects of school construction will apply. All Prime Contracts shall be on the District's form which is included in the Contract Documents. Failure to adhere to these contract requirements and instructions may be grounds for rejection of proposal.

1. All bidders must submit proposals on the form provided in the contract documents.
2. All prime contractors will be responsible for paying the non-refundable fees associated with the use of the Architects project CAD files. Fees, forms, and limitations can be found in the project specifications, 01 33 00.
3. In all cases where the plans and specifications are unclear or conflicting it shall be the responsibility of those submitting a bid to EITHER provide a proposal which includes the greater scope or most expensive option or choice at the time of bid OR provide a timely pre-bid RFI that addresses the question in detail.
4. All salvaged items shall be relocated per the contract documents direction and in the absence of direction to the Owners main yard.
5. Any and all miscellaneous or incidental materials or work normally provided by industry standard shall be provided by the Prime Contractor for their Bid Package.
6. Each Prime Contractor shall be responsible for the Safe performance of all of their work and adhere to all safety requirements required by the contract documents and by law.
7. Proposals will be evaluated first on their conformance to the contract documents as a complete bid. Proposals may be rejected as non-responsive if determined to be inconsistent with the bid documents requirements.
8. All Prime Contractors shall provide insurance in a form and limits as required by the contract documents. Prime Contractors shall require their Subcontractors of every tier to carry insurance in a form and limits as required by the contract documents.
9. If a tentative project construction schedule is published prior to bid, it shall become part of the contract documents.
10. If a RFI LOG and/or responses are published prior to bid it shall become part of the contract documents.
11. If a soils report is published prior to bid it shall become part of the contract documents with limitations as stated therein.
12. If a SWPPP is published prior to bid it shall become part of the project and each Prime Contractor, whose work is affected by the implementation shall be responsible for that cost.
13. Each Prime Contractor shall be responsible for locating roof jacks for their scope of work.
14. Any repairs (if required, due to damage by a Prime Contractor) to existing finishes such as plaster, sheetrock, paint, or concrete must be done between natural breaks such as corner to corner or score line to score line.

15. All Prime Contractors shall provide a contact cell phone number to the Construction Manager for contact.
16. Fire watch, if required, shall be provided by the Electrical Bid Package Prime Contractor.

1.01 SUMMARY

A. General: Construction of BASE BID and Alternate portions of the work for this project, **Clovis Unified School District, Elementary School #35, Increment 1 and 2.** BASE BID and Alternate portions of the work is defined as all material, labor, equipment, and services necessary to do all work shown on the drawings and called for in the Specifications. The following specific trade requirements shall not be excluded from their proposal. Exclusion of any required scope specified shall be grounds for rejection. The scope of work for each trade shall remain as required by the Contract Documents. The specific list of scope herein shall be minimum and shall not limit the scope of that trade where required otherwise.

General Summary of the Project
The following information applies to all Bid Packages and shall be reviewed carefully for inclusion in each bid. Following are critical logistics related to the Project:

1. Hazardous Abatement is required if Hazardous Abatement Report is included in Contract Documents.
2. All work for the project will be performed during the hours of 7:00 a.m. to 3:30 p.m.
3. Submittals and material procurement shall begin immediately upon award or letter of intent from the CM.
4. Material procurement is critical and shall be diligently pursued to meet the contract schedule.
5. Prime Contractors shall review the project completely prior to bidding the work.
6. Coordination of work during the preconstruction period is equally as critical to resolving all issues prior to the start of work. Prime Contractor shall review the project, coordinate, and question any issues to allow resolution prior to the start of work.

In addition to the work noted in each package, the following will apply and become a part of the contract with each respective Prime Contractor.

Contract
All successful bidders will be required to enter into a Prime Contract Agreement with Clovis Unified School District.

Contractor Information Memos
All Addendums and Contractor Information Memo's issued during bidding will be incorporated into the Contract Documents by reference. Submission of proposal shall acknowledge that Prime Contractor has reviewed and accepts these documents as part of the Contract Documents.

Submittals and Material Procurement
1. Submittals and material procurement shall begin immediately upon award or letter of intent from the District.
2. Material procurement is critical and shall be diligently pursued to meet the contract schedule.
3. Substitutions must be noted in each bid with all costs for the specified product included in the bid and the substitution cost noted separately.

Alternates

Additive Alternates for the work are as follows. Please provide a base bid for the project then list all alternates:

1. As shown in the plans and specifications and clarified in any Addendum.

Crew Sizes

Given the tight schedule for the project, it will be necessary to have larger than normal crew sizes to meet the schedule. This is inclusive of all trades. All Prime Contractors shall review the schedule and confirm that they can crew the project accordingly prior to submitting a bid. Include with each bid minimum and maximum crew sizes projected for the project.

Schedule

1. Prime Contractors shall review the project and schedule completely prior to bidding the work.
2. Prime Contractor will be required to provide a schedule and crew sizing showing how the work will be accomplished within the given time frame.

State Agency Requirements

1. Work under each contract shall comply with the Storm Water Pollution Prevention Plan (SWPPP) standards and as set forth in the Contract Documents.
2. All work under each contract shall comply with San Joaquin Air Pollution Control District standards. Provide dust control for own work.
3. All work shall comply with OSHA requirements.

Access Plan

If an access and site logistics plan is included in the Contract Documents, access and restriction shall be enforced as a part of the project. Please advise of any questions regarding the plan prior to bid.

Site Logistics, Work and Coordination (applies to each Prime Contractor):

1. Fingerprinting will be required as called for in the contract documents when contact with students may occur.
2. Review and verify all existing conditions.
3. Power will be provided to within 100’-0” of all buildings. Each Prime will be required to provide all necessary temporary utility distribution from services provided.
4. All Prime Contractors shall attend coordination meetings and provide coordination drawings for underground and above ceiling work for work related to its Bid Package and scope for coordination of utilities, openings and other areas that require interface between trades. Coordinate all drawings with the drawings of this bid package. Note conflicts and provide potential solutions to the CM for Architect review. Coordination and drawing approval must occur prior to excavation and/or overhead work. Prime Contractors shall attend a pre-installation meeting prior to the start of its work onsite. All Prime contractors shall be available for pre-installation meetings of other Bid Packages for coordination of related work.
5. Only company vehicles are allowed onsite. Personal vehicles will not be allowed on-site except for in identified locations shown in contract documents. Prime Contractor to make provisions for transport or tool distribution needs.
6. Lunch and breaks shall be at designated areas. No other areas will be allowed.
7. Protect all work, new and existing from damage until acceptance by owner.

8. Storage areas will be confined to the areas designated by CM. Staging areas around the building shall be coordinated with the CM.
9. Provide written request for information through the CM for layout information from related Bid Packages for all rough-in, embedded items, openings, and block-outs, etc.
10. Request and review all associated shop drawings for coordination and layout purposes prior to installation of related materials.
11. Furnish and install all trims, escutcheons, and sealant for own work abutting other materials.
12. Furnish and install protection of all roofing for own work.
13. Furnish and install all physical layout for own work.
14. There will be one wash out area as designated by the CM. Each Prime Contractor will be responsible for removal from the site of all debris and spoils generated by their scope. All spoils are to be moved to the dedicated location on site.
15. Coordinate all work with mechanical, plumbing, fire sprinkler, and electrical Bid Packages for shut down of services as needed. 48-hour notice is required prior to all shut down activities.
16. Review as-builts and underground locator survey and pothole utilities prior to starting work.
17. All Bid Packages are responsible for cleaning of the street, due to tracking out excess dirt or mud, should the preventative measures set in place in accordance with the SWPPP and Dust Control Plans fail to stop all spoils from escaping the site.
18. Secure all ladders and lifts each evening.
19. Provide caution tape and/or barriers for open area work and traffic control.
20. Protect all work, new and existing, from damage until acceptance by owner.
21. Provide water and shade for own crews.
22. Furnish access to roof for own work. Ladders are to be removed and secured at the end of each shift.
23. Provide fall protection for own work in own Bid Package unless specifically noted otherwise in each Bid Package.
24. Provide caution tape and/or barriers for open area work and traffic control. In accordance with all applicable Federal, State, Local, and District standards.
25. Provide layout and coordinate all demolition and ceiling removal required for your scope of work.
26. Coordinate extent of all demolition with related Prime Contractors prior to starting work.
27. Patch Fireproofing at all utilities for own work.
28. Protect all countertops as required by each trade.
29. Furnish and install fire stop for all required through penetrations for own work.
30. Core penetrations through walls as required for installation of own work and patch as noted on the plans.
31. Furnish and install all access doors necessary to provide access to work included in your respective scope of work.
32. Any deviation from the contract documents resulting in additional design will be at the cost of the Prime Contractor responsible for the additional design, as well as any associated cost for delay of schedule.
33. Each Prime Contractor is to provide all equipment and manpower as necessary to offload all materials required to complete their respective scope of work.
34. Monthly payment applications will not be approved if as-builts are not up to date.
35. Adequate manpower is required by Prime Contractor to maintain the posted construction schedule.
36. Prime Contractor consents to execute District's Prime Contractor Agreement as provided in the Contract documents, without modification.

37. Furnish daily cleanup of all debris generated by your respective scope of work. Prime Contractor must abide by the Waste Management Specification.
38. Water Hydrants are located in development around site. Prime Contractors are responsible for own water meters for construction water needs throughout the project. Methods of delivery and use of water for the work of each trade are the responsibility of the Prime contractor.
39. Coordinate all work to provide access to buildings for other trades as scheduled. Provide a breakout schedule of where and when work will be performed that has been coordinated with other activities in the schedule for other trades.
40. Furnish and install own floor protection (i.e., tarps, plastic, plywood, etc.)
41. Furnish and install covers at all holes in elevated decks created by your work in which debris may fall to the level below, per CAL OSHA regulations.
42. All construction equipment shall meet the requirements of the SJVAPCD ISR report (Air Impact Assessment – AIA) under the Construction Clean Fleet Summary. This shall include reporting requirement as defined within the Monitoring and Reporting Schedule within the ISR for this project.

General Items to be Provided by the CM

1. Toilet and hand wash facilities.
2. Temporary site fencing.

Drawings and Specifications

Drawings and general provisions of Contract, including General and Supplementary Conditions, and Division 00 Bidding and Contract Requirements, and Division 01 General Requirements, apply to the work of each Bid Package. The work under each Bid Package shall include the furnishing and installation of all material, equipment, procedures, methods, items, and labor as required to complete the work described in each Bid Package. The work shall be completed as shown on the Drawings and Specified in any and all applicable Specification Sections.

Completion of Work

The work of each Bid Package must be completed according to the construction schedule included with the Contract Documents.

Note: The term “provide” means to “furnish and install, complete and ready for the intended use.”

The work includes, but is not limited to, the items numerically listed in each Bid Package and in accordance with the applicable Drawings and Specification Section(s). Provide all work specified within each Bid Package and applicable Specification Section(s) with the exception of items listed as “work by others.”

While the ways, means, and methods will be the responsibility of the Prime Contractor, the items in the Bid Package Summary of Work are presented for construction clarifications.

General Items – All Prime Contractors

Furnish and install all work specifically required throughout the project documents to complete the work of this Prime Contractor that specifically includes, but is not limited to the following:

Specification Sections
Division 01
Division 00

Refer to additional related specifications sections for work specifically included in this bid package noted below.

1.03 WORK UNDER OTHER CONTRACTS:

A. General Requirements:
   1. Work under separate contracts may occur throughout the duration of the project. The work being installed under separate contracts will occur adjacent to the Contract project site including offsite work.
   2. Prime Contractor shall be responsible for coordinating access to and from the site throughout the duration of the project. Access points to and from the site may vary, based upon timing and duration of separate contracts.
   3. Prime Contractor shall cooperate and coordinate all work under this Contract with all work under separate contracts.
   4. Should the Prime Contractor damage and/or otherwise alter work installed under separate contracts, Prime Contractor shall be responsible for the correction/repair of work installed under separate contracts.
   5. Prior to the installation of the Work, coordinate the work installed or to be installed by separate contracts relative to own work.
B. Separate Contracts by Owner:
   1. Coordinate as awarded.
C. Separate Contracts by Others:
   1. Adjacent Properties: Residential.
D. Phasing:
   1. Phasing is projected to be as shown on the Bid Schedule. However, the owner reserves the right to revise start times pending the review and award of bids.

1.04 BID PACKAGE'S DUTIES:

A. Except as specifically noted, provide, and pay for:
   1. Labor, material, and equipment. **All bid packages will be required to provide full time, qualified, knowledgeable supervision for their self-performed, and sub contracted labor. See General Conditions for Contractors specification 00 07 00, and specifics of Article 4 in this reference. (ADDENDA #2)**
   2. Tools, construction equipment and machinery
   3. Other facilities and services necessary for proper execution and completion of Work.
   4. Water: See Specification Section – TEMPORARY FACILITIES AND CONTROLS.
B. Pay legally required sales, consumer and use taxes.
C. Give required notices.
D. Comply with codes, ordinances, rules, regulations, orders, and other legal requirements of public authorities which bear on performance of Work.
   1. Prime Contractor shall certify in writing that no materials containing Asbestos are incorporated in the work, in accordance with the Asbestos Hazard Emergency Regulations Act.
E. Promptly submit written notice to CM of observed variance of Contract Documents from legal requirements.

1. Appropriate modifications to Contract Documents will adjust necessary changes.
2. Assume responsibility for work known to be contrary to such requirements and without written notice to Architect of observed variance.

F. Enforce strict discipline and good order among employees. Do not employ on Work:
1. Unfit persons.
2. Persons not skilled in assigned task.

G. Provide material, equipment, and manpower to meet Construction Schedule provided in Contract Documents.

H. All Prime Contractors will be responsible for paying the non-refundable fees associated with the use of the Architects project CAD files. Fees, forms, and limitations can be found in the project specifications, 01 33 00.

1.05 BID PACKAGE USE OF PREMISES:

A. Confine operations at sites to areas permitted by:
1. Laws.
2. Ordinances.
3. Permits.
4. Contract Documents.

B. Do not unreasonably encumber site with materials or equipment.

C. Do not load structure with weight that will endanger structure.

D. Assume full responsibility for protection and safekeeping of Prime Contractor's and Owner's material stored on premises and keep the site and building secure at all times.

E. Obtain and pay for use of additional storage or Work areas needed for operations.

F. Limit use of site for work and storage.

End of Section

CES-01 – EARTHWORK, SITE CONCRETE & CMU

~~Survey,~~ Earthwork, Grading, Paving, Soil Treatment, Site Concrete, Rebar, Misc. Specialties (Stair Stripping), Flag Pole, CMU, Fencing, Playground Equipment, Site Furnishings. (ADDENDA #2)

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

Specification Sections

Refer to additional related specifications sections for work specifically included in this bid package noted below.

Division 00
Division 01
Section 01 57 23 Storm Water Pollution Prevention Plan
~~Section 01 71 23 Field Engineering~~ **(ADDENDA #2)**
Section 03 11 01 Concrete Formwork
Section 03 15 14 Drilled Anchors
Section 03 20 00 Reinforcement
Section 03 30 00 Cast-In-Place Concrete
Section 04 22 00 Concrete Masonry Units (CMU)
Section 07 92 00 Sealants
Section 08 70 00 Hardware
Section 08 70 00.01 Hardware schedule
Section 10 05 00 Miscellaneous Specialties (Stair Striping)
Section 10 14 53 Road and Parking Signage
Section 10 75 00 Flagpoles
Section 11 68 13 Play Equipment
Section 12 93 13 Bicycle Racks
Section 31 00 00 Offsite Development
Section 31 10 00 Site Clearing
Section 31 11 00 Clearing and Demolition
Section 31 20 00 Earthwork
Section 31 22 ~~00~~ **22** Soil Materials **(ADDENDA #2)**
Section 31 23 ~~00~~ **33** Trench Excavation and Backfill **(ADDENDA #2)**
Section 31 31 00 Soil Treatment
Section 32 12 00 Pavement
Section 32 12 16 Soil Sterilization (Weed Control)
Section 32 18 16 Playground Surfacing (ADDENDA #2)
Section 32 19 19 Ornamental Metal
Section 32 31 13 Chain Link

General Items

1. See General Notes at the beginning of the Summary of Work Specification Section for other items to be included in this Bid Package.
2. Furnish and install all layout for own work from survey provided. Prime Contractor will be responsible for all additional layout not performed by the survey contractor. Prime Contractors

are responsible for protection of all requested survey. Any needed re-staking of already provided points will be subject to deductive change order.

3. Provide all backfill of excavations to original sub-grade for work included in this bid package.
4. Obtain all permits required to perform the work specified in the bid package. CM will submit the Dust Control plan to the Air Board. Prime Contractor will be responsible for all other permits required to perform the work identified. Prime Contractor will be responsible for dust control for their own work.
5. Provide daily cleanup to keep site clean and orderly.
6. Protect identified improvements to remain on civil plan sheets.
7. Should the Prime Contractor damage and/or otherwise alter work installed under separate contracts, Prime Contractor shall be responsible for the correction/repair of work installed under separate contracts.
8. Prime Contractor is required to attend all coordination meetings as required by CM
9. Phasing is projected to be as shown on the Bid Schedule. However, the Construction Manager reserves the right to revise the schedule, as necessary.
10. Promptly submit written notice to CM of observed variance of Contract Documents from legal requirements.
    a. Appropriate modifications to Contract Documents will adjust necessary changes.
    b. Assume responsibility for work known to be contrary to such requirements and without written notice to Architect of observed variance.
11. Provide material, equipment, mobilizations, and manpower to meet Construction Schedule provided in Contract Documents.
12. Each bid package is responsible for dewatering as it pertains to their scope of work.
13. Provide trenching plan and permits for excavations over 5’ per OSHA requirements to the Construction Manager.
14. Each Prime Contractor is to provide all equipment and manpower as necessary to offload all materials required to complete their respective scope of work.
15. Monthly pay apps will not be approved if as-builts are not updated monthly.
16. Furnish clean up daily and off-haul of all debris generated by this contract. Prime Contractor must abide by the Waste Management specification. This includes, but is not limited to, providing recycling tags for each haul off removed from the project site.
17. Provide daily cleanup to keep site clean and orderly.
18. There will be one wash out area as designated by CM. Bid package will be responsible for removal from the site of all construction debris generated by Prime Contractor’s work. Extra spoils to be stockpiled at the direction of CM.
19. All construction equipment shall meet the requirements of the SJVAPCD ISR Report (Air Impact Assessment- AIA) under the Construction Fleet Summary. This shall include reporting requirements as defined within the Monitoring and Reporting Schedule within the ISR for this project.
20. This contract is to provide temporary power for own work until such time as building temporary power is established.

Coordination with Other Trades

1. This Prime Contractor will be responsible for the initial setup of SWPPP BMP’s, as shown in the SWPPP plan drawings, including but not limited to, silt fencing, track outs and fiber rolls surrounding existing drain inlets.

2. Allow for two additional mobilizations for movement or relocation of track outs as required during construction.
3. Hold all turf areas down 2" at concrete walks and mow strips for turf, 1" at planters.
4. Location for trades to stockpile their spoils will be established with CM, and this CES-01 Prime Contractor.
5. Any survey requests require a minimum of 48-hour notice.
6. Coordinate dimensions with other related Prime Contractors of all equipment and housekeeping pads. Pad sizes shall be provided by other Prime Contractors and physically laid out and installed by this contract.
7. Coordinate installation of all sleeves for work passing through concrete work with respective Prime Contractors prior to excavation.
8. Electrical and site utility Prime Contractors shall furnish and install all concrete required for installation of thrust blocks, manholes, vaults, boxes, underground structures for work related to their contract. This contract shall furnish and install all other concrete shown including aprons mow strips and collars.
9. Install and coordinate block-outs at the site concrete to facilitate installation of fine grading by Earthwork Prime contractor and to protect concrete until fine grading is complete. Complete site concrete block-outs once fine grading is complete. Backfill and fine grade once block-outs have been poured.
10. Install and physically layout all embedded items (as provided by other Prime Contractors), holes, sleeves and block outs in concrete as shown in the contract documents, related shop drawings or provided written layout. Coordinate locations with related Prime Contractors prior to installation.
11. Provide layout drawings for all site concrete joints for approval prior to installation of site concrete.
12. Review as-builts prior to starting work.

Furnish and Install Items

~~SURVEY~~ (ADDENDA #2)

1. ~~Provide adequate move-ins for each section of work as listed on the attached Preliminary Construction Schedule.~~
2. ~~Establish a minimum of three permanent horizontal and vertical control points on the site, remote from the building area referenced to data established by survey control points.~~
3. ~~Provide all project surveying, marking to include all new utilities, storm, fire, sewer, electrical pads for power, pumps, controls, etc. Provide staking for all site grading, curbs, site concrete, building pads, building grid lines, column, and anchor bolt verification.~~
4. ~~Provide review of all grades and slopes to confirm they flow to drain and are in accordance with ADA code.~~
5. ~~Provide staking for over-excavation of building pads.~~
6. ~~Provide staking of building corner grids, for building pads, for rough grading.~~
7. ~~Provide staking of parking lot curbs with 3' off set.~~
8. ~~Provide elevation certifications per contract documents.~~

~~9. Staking for underground utilities.~~
~~10. Provide staking of all electrical vaults and boxes horizontal and vertical.~~
~~11. Provide staking of all storm drain lines and drain inlets, drain boxes, and trench drains, sewer lines and cleanouts (100'), domestic water, fire water, gas lines, and vaults (as required for excavation and installation horizontal and vertical) at the site.~~
~~12. Provide staking of all valve locations. (Fire, Water, Gas, and back flow preventors)~~
~~13. Provide staking for all site lighting.~~
~~14. Provide staking of all irrigation main lines.~~
~~15. Provide staking for all concrete walks, curbs, gutters, signs, walls, fencing, etc.~~
~~16. Provide staking for building corners.~~
~~17. Provide survey for every building grid line at building pad, reference points and radiuses as required.~~
~~18. Certify Building Pads.~~
~~19. Provide cut sheets and reference drawings for all staked items.~~
~~20. Certify site grades when site concrete and landscaping is complete.~~
~~21. Stake all planters, and steps.~~
~~22. Stake for flagpole~~
~~23. Stake play structure areas. Play structure layout to be provided from district, survey to be included in this package.~~
~~24. Stake for basketball, tetherball, and volleyball equipment~~
~~25. Staking of chain link and ornamental fences and gates.~~
~~26. Stake for all backstop fencing and drinking fountains.~~
~~27. Staking of fence mow strips – horizontal and vertical.~~
~~28. Stake for all CMU.~~

DEMOLITION – SITE CLEARING

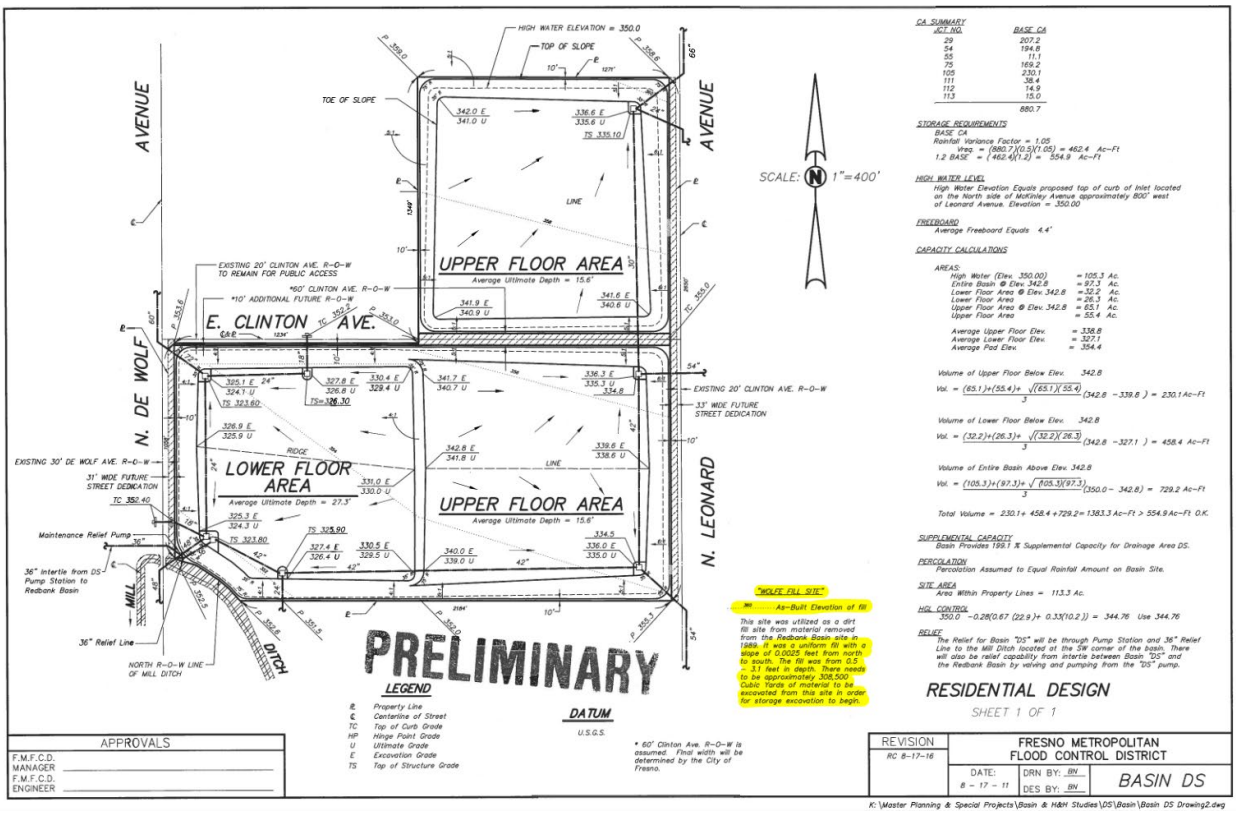
1. Provide all cut, demolition, removal, and off-haul of all items noted to be removed as shown on contract documents.
2. For site clearing and demolition follow recommendations as outlined within the soils report prepared by RMA Geoscience included in the project documents, in association with the contract documents.
3. Investigate and remove the existing 3" steel post that stands approx. 100 feet south of Weldon, and 300 feet east of Fowler. It is believed to be an abandoned fence post.
4. Make provisions to obtain water for own work. Dust control, excavations, backfills, compactions, etc. There are fire hydrants on two sides of the project. Make necessary arrangements with the city of Fresno to acquire a meter and pay for own water usages until such time that the site water has been installed and approved for site usage.

EARTHWORK AND GRADING

1. Grade all earthwork to within +/-0.05' from a planned elevation.
2. Furnish and install all cut and fill necessary to perform work. Sand to be furnished and installed by the concrete bid package at the buildings only. ~~Import soil will be provided to the site by the owner's separate contract.~~ All other materials shall be provided by this bid package. **(ADDENDA #2)**
3. **Clarification: This will be an "Import" project. This bid package will provide and incorporate approximately 35,000 cu yds of soil to the site. The material will be obtained from the CUSD Terry Bradly Ed Center ponding basin, located between DeWolf and Leonard Ave, at East Clinton Ave, where the soils has been previously tested for toxicity and suitability. Provide a per cubic yard Schedule of Values for these import soils, should additional soils, or a reduction of soils be**

required, other than the estimated 35,000 cu yds. Provide for All loading, hauling, street cleaning, dust controls, or traffic managements required will be provided under this CES-01 Earthwork and Grading bid package. Prior to starting this scope, there will be a required coordination meeting with CES-01 contractor, CUSD, RMA, and Bush Construction to discuss plan, routing, and execution. (ADDENDA #2)

4. All areas of planters, or turf are to have a minimum top layer of 1' from existing native soil. **(ADDENDA #2)**
5. ~~Furnish and install all DG where shown.~~ **(ADDENDA #2)**

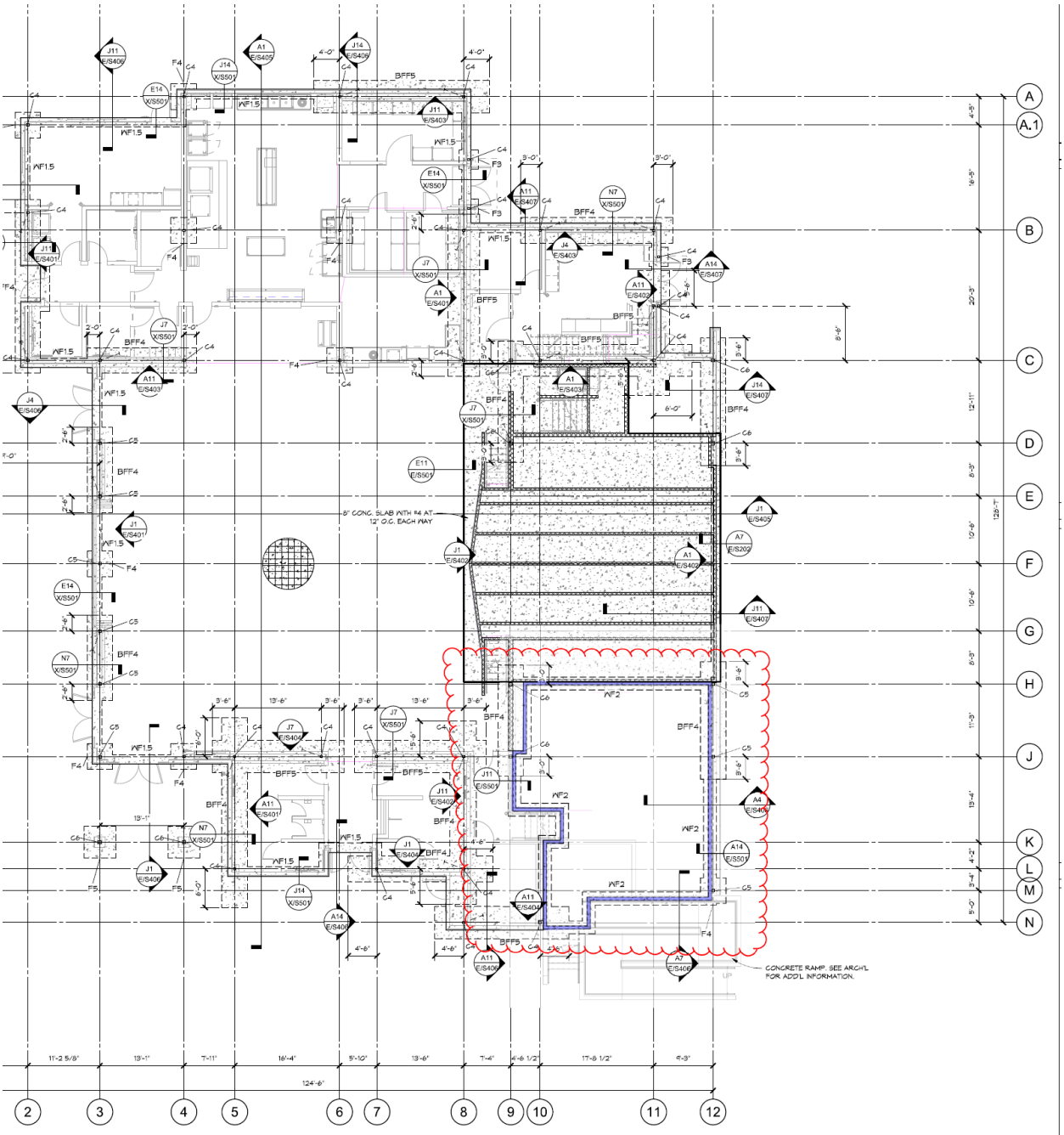


6. Furnish and install all grading of the site on separate move-ins (as scheduled by the CM) to accommodate the site concrete and mow strips installation. Coordinate backfill and final fine grading activities to eliminate damage to new site concrete***.*** **Consult, and coordinate all elevations with the Landscape bid package where applicable. (ADDENDA #2)**

7. Furnish and install over excavations and building pads. **(ADDENDA #2)**
8. Specific to building E, from grid lines H to N, and 9 to 12, the slab is 3'-7" higher than the overall building slab. The earthwork Prime Contractor will build this up as required, then cut the material back to allow adequate work space for the structural concrete ***bid package to install*** footings, pour footings, build formwork, pour walls, strip, clean, and install fluid applied waterproofing. Once cured, the earthwork Prime Contractor will return to backfill and compact up against new walls and fine grade in preparation for elevated slab pour. See plan detail at end of this section for additional reference. **(ADDENDA #2)**
9. Furnish and install temporary ag base roadway on site for construction use, including base at laydown area. After the threat of rain, towards the end of the project, the base will need to be scraped off, final grading established per plans, and the base is to be hauled off under this contract

bid package. (See temporary access and yard plan for extent) **CLARIFICATION: The depth of the ag base may vary but must be thick enough to hold up during the rains and site traffic. If repairs need to be made to maintain an adequate roadway, it will be performed under this bid package. Spray on dust control/soil stabilizer will also be a suitable alternative for the roadways but may require more frequent maintenance and product applications. (ADDENDA #2)**

10. Maintain and protect building pads to within tolerance, elevation, moisture, weed free and compaction until accepted/received by the concrete contractor as noted in the schedule. **(ADDENDA #2)**
11. Furnish and install all soil Sterilization as per the contract documents. **(ADDENDA #2)**
12. Furnish and install backfill of mow strips, walks, curb, curb & gutter, planter, and turf areas. **(ADDENDA #2)**
13. Furnish, install, and maintain traffic control for work included in this bid package. **(ADDENDA #2)**
14. Furnish and install engineered shoring at all locations as required. **(ADDENDA #2)**
15. For excavation, backfill and compaction efforts, follow recommendations as outlined within the soils report prepared by RMA Geoscience included in the project documents, in association with the contract documents. **(ADDENDA #2)**
16. Make provisions to obtain water for own work. Dust control, excavations, backfills, compactions, etc. There are fire hydrants on two sides of the project. Make necessary arrangements with the city of Fresno to acquire a meter and pay for own water usages until such time that the site water has been installed and approved for site usage. **(ADDENDA #2)**
17. Furnish and install all SWPPP items as outlined in the SWPPP plan and in spec section 01 50 00. **CLARIFICATION: SWPPP installation is to be at and within the perimeter of the project site. All "Off Site" SWPPP to and along the west side of Fowler, and south of McKinley will be bid separately. (ADDENDA #2)**
18. This package is responsible for setup and implementation of SWPPP plan. This package is also responsible for monitoring, documentation, reporting, teardown and final cleanup of SWPPP items at completion of the project. **(ADDENDA #2)**



PAVING

1. Furnish and install all **On Site** paving base rock as identified on plans, including but not limited to under parking areas, basketball courts and drives**. CLARIFICATION: All grading, paving associated with the Off-Site improvements will be furnished and installed with that bid package. (ADDENDA #2)**
2. Furnish and install all compacted base rock as identified in contract documents.
3. Furnish and install parking bumpers and wheel stops where shown.
4. Furnish and install parking striping and/or accessible symbols as shown on contract documents.
5. Furnish and install all parking and road signage as indicated in contract documents, including

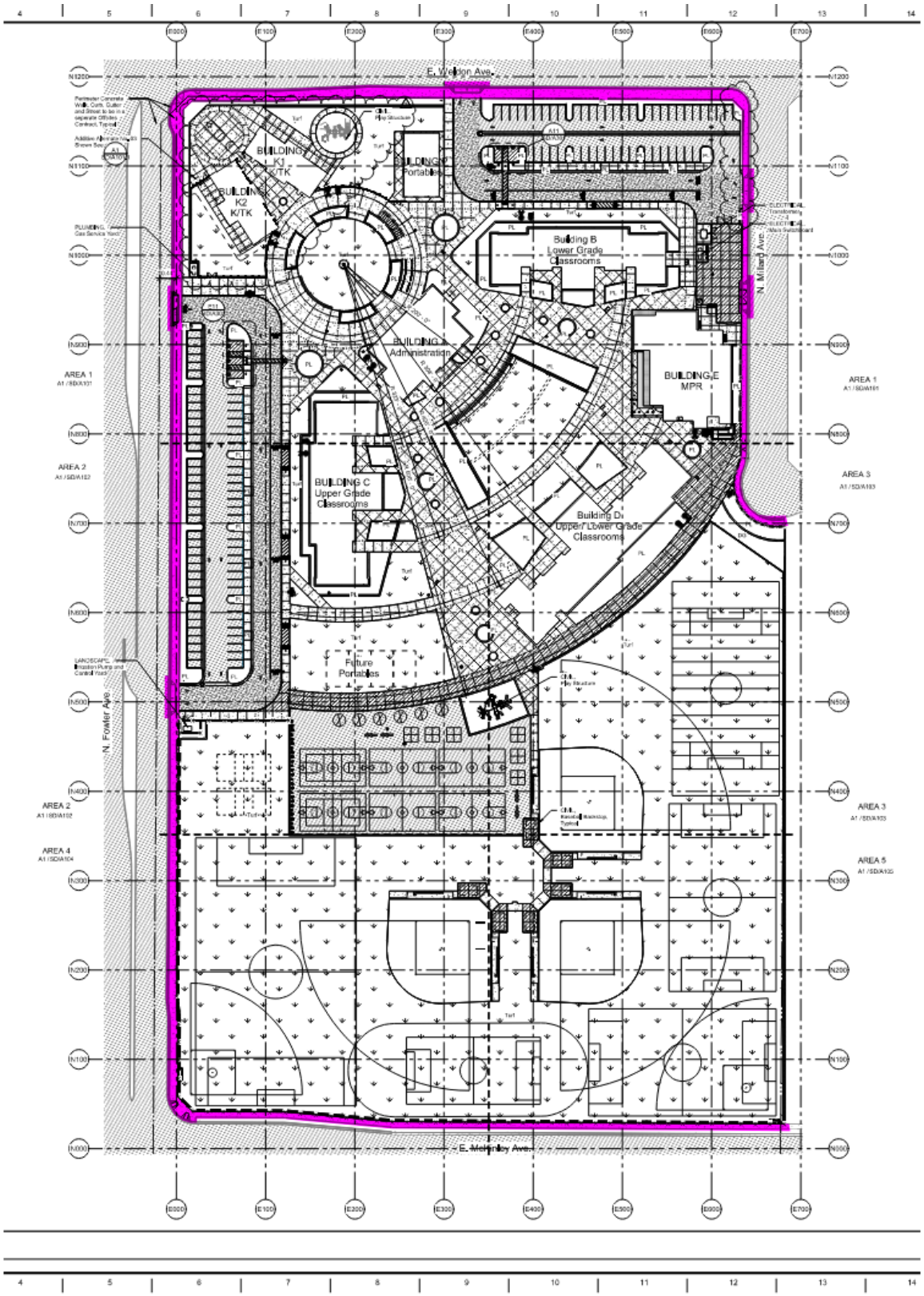
concrete at posts where indicated.

6. Furnish and install all asphalt paving and patch backs.
7. All parking areas are to be scheduled for two separate mobilizations, as the first 1 ½" lift will be placed, and the areas utilized for parking and staging during construction. At a later scheduled time in the project, this package will clean, prep, install tack, remobilize, and place the final finish section of the parking lots and entrance access points.
8. Furnish and install all slurry seal.
9. Furnish and install all play court striping as indicated in the contract documents.
10. Furnish and install pressure treated/redwood 2x4 header form at asphalt edge where unsupported unless noted otherwise.
11. Make provisions to obtain water for own work. Dust control, excavations, backfills, compactions, etc. There are fire hydrants on two sides of the project. Make necessary arrangements with the city of Fresno to acquire a meter and pay for own water usages until such time that the site water has been installed and approved for site usage.

SITE CONCRETE

1. Furnish and install all site concrete, including but not limited to, flatwork, curbs, curb and gutter, planter curbs, planter walls, gutters, valley gutters, mow strips, seat walls, all CMU footings (Site & Maintenance Yard), and amphitheater walls. **Clarification of scope limits of work boundaries. See attached sketch at the end of this section. (ADDENDA #2)**
2. Furnish and install all reinforcing as required for all site concrete per contract documents. Including but not limited to CMU footings, seat walls, fire lane, etc.
3. Furnish and install rebar caps per OSHA for all rebar associated with this contract's scope of work, installed by the reinforcement contractor. Furnish and install concrete stake caps associated with this contract's scope of work. Maintaining of Caps is the responsibility of this Prime Contractor. Safety walks at end of day required to ensure caps are in place, and any missing caps replaced.
4. Furnish any and all excavation necessary for work included in this contract.
5. Furnish and install all mow strips in site and around buildings, including at chain link, and ornamental fencing.
6. Furnish and install all sealants at all site concrete. This includes all sealant where site concrete abuts all buildings and structural concrete or CMU.
7. Furnish and install amphitheater steps, with reinforcing and stair nosing. (N1/SD/A302 & P11/SD/A302)
8. Install bollards (a.k.a. drinking fountain rails - furnished by others) in concrete footing. (J7/X/A531)
9. Furnish and install all parking and walkway accessible concrete ramps per contract documents.
10. Furnish and install all truncated domes.
11. Furnish and install all play access and play access perimeter curbs (B/SD/X107, C/SD/X107)
12. Install steel anchor plates, steel keeper plates and welded straps at thickened concrete walk at cane bolt locations. (N13/SD/A402) – Steel anchor plates, keeper plates and welded straps to be provided by fencing contractor F.O.B.
13. Install Flagpole in concrete base with reinforcing – see detail (A1/SD/A301)
14. Furnish and Install Concrete Monument Sign with reinforcing, V groove, chamfer, etc. Refer to details
15. Furnish and install footings and sleeves/inserts for volleyball, tetherball, and basketball posts.
16. Furnish and install footings and sleeves/inserts for bicycle racks and any hand railing. Rails and racks to be supplied by others. Note: Bike racks provided by this bid package, Bike Lockers are owner furnished, owner installed.
17. Furnish and install fibrous expansion joint, and sealant where required.
18. Install three sets of handrails at amphitheater.

19. Furnish and install concrete for all site housekeeping pads. Including but not limited to, transformer, and electrical pads. Coordinate dimensions and layout with Prime Contractors.
20. Furnish and install concrete for all irrigation equipment/devices. Including, but not limited to, backflow pad, and booster pump pad. Coordinate dimensions and layout with site plumber and site landscape Prime Contractors.
21. Physically layout and install all block outs, openings, backing, etc. from written layout provided by other Prime Contractors for installation of their work.
22. This contract is to provide temporary power for own work until such time as building temporary power is established.
23. Make provisions to obtain water for own work. Dust control, excavations, backfills, compactions, etc. There are fire hydrants on two sides of the project. Make necessary arrangements with the city of Fresno to acquire a meter and pay for own water usages until such time that the site water has been installed and approved for site usage.
24. Install steel angles, and vent grating at portables, as supplied by Struct Steel bid package. See P/a101
25. **CLARIFICATION: The perimeter sidewalks, including all drive access approaches are to be furnished and installed by the "Off-Site" bid package as highlighted site sketch below. Sidewalks will pour to the CMU, and chain link fence mow strip poured within this CES-01 bid package. (ADDENDA #2)**
26. **Furnish and install removable bollards for vehicular access per plans. (ADDENDA #2)**


E. Weldon Ave.
N. Millard Ave.
N. Fowler Ave.
E. Mehrtoby Ave.
BUILDING K1 K/TK
BUILDING K2 K/TK
BUILDING C Portables
Building B Lower Grade Classrooms
BUILDING A Administration
BUILDING E MPR
BUILDING C Upper Grade Classrooms
Building D Upper/ Lower Grade Classrooms
Future Portables
AREA 1
AREA 2
AREA 3
AREA 4
AREA 5

FENCING

1. Furnish and install all chain link fences, gates, and hardware, including those embedded or attached to CMU.
2. Furnish and install all backstop fencing including any horizontal backboards
3. Furnish and install all ornamental iron fence, gates, and hardware, including those embedded or attached to CMU.
4. Provide Steel Anchor Plate, Steel Welded Straps and Steel Keeper plate F.O.B. jobsite (N13/SD/A402) for placement with site concrete.
5. Make provisions to obtain water for own work. Dust control, excavations, backfills, compactions, etc. There are fire hydrants on two sides of the project. Make necessary arrangements with the city of Fresno to acquire a meter and pay for own water usages until such time that the site water has been installed and approved for site usage.

CONCRETE MASONRY UNIT (CMU)

1. Provide and install all CMU block walls as identified in contract documents.
2. Furnish and install all rebar associated and shown to be installed in CMU, with exception of the rebar which is to be installed with the CMU footings.
3. Provide and install all smooth dowels, or other reinforcement and expansion components associated with CMU installation.
4. Coordinate and confirm reinforcement layout in footings with concrete contractor.
5. Make provisions to obtain water for own work. Dust control, excavations, backfills, compactions, etc. There are fire hydrants on two sides of the project. Make necessary arrangements with the city of Fresno to acquire a meter and pay for own water usages until such time that the site water has been installed and approved for site usage.

PLAY EQUIPMENT AND SITE FURNISHINGS

1. Play Structures are Owner Furnished, Owner Supplied (Kindergarten Structure & Upper Grades Structure)
2. Bike lockers are Owner Furnished, Owner Supplied.
3. Provide and install all playfield and court equipment as shown in contract documents. Including, but not limited to; basketball backboards (single & double), volleyball posts, volleyball nets, tether balls and tetherball posts, dugout benches etc. Furnish all sleeves as required for proper installation of equipment.
4. Provide and install EPDM wearing surface and SBR Rubber over concrete at play structure basins.
5. Provide and install loose engineered wood fiber at play structure basins.
6. Furnish and install bicycle racks per contract documents (six total).
7. Furnish and install flagpole per detail A1/SD/A301.
8. Make provisions to obtain water for own work. Dust control, excavations, backfills, compactions, etc. There are fire hydrants on two sides of the project. Make necessary arrangements with the city of Fresno to acquire a meter and pay for own water usages until such time that the site water has been installed and approved for site usage.

9. **Furnish and install all drainage fabric, felt, and drainage matrix material, to storm drain pipe stub, that will be coordinated and provided by the site utilities contractor. (ADDENDA #2)**

FOB Items

Installation of FOB Items
Note: Coordinate all deliveries to jobsite with CM. Prime Contractor to Unload, inventory, store and notify CM of any deficiencies for all items delivered to the jobsite FOB.

1. Install all items embedded in concrete provided FOB Jobsite by other Prime Contractors from written layout provided by those Prime Contractors.
2. Install all bolt templates provided by other trades.
3. Install angle iron embeds at rolling gates.

End of Bid Package

CES-02 SITE UTILITIES PLUMBING: DOMESTIC, SANITARY, STORM, FIRE, & GAS (ADDENDA #2)
Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

Specification Sections
Division 00
Division 01
Section 03 30 00 Cast in place Concrete (As applicable to storm, sewer, manholes, thrust blocks, etc.)
Section 21 05 23 General Duty Valves for Fire Protection
Section 21 05 53 Identification for Fire Protection
Section 21 11 00 Facility Fire Suppression Water Service Piping
Section 21 11 19 Fire Department Connections
Section 22 00 00 General Plumbing Provisions (Gas, Water, Fire Water, Storm, Sewer)
Section 22 00 50 Plumbing (Gas, Water, Fire Water, Storm, Sewer)
Section 23 01 00 General Mechanical Provisions (As Applicable)
Section 31 23 33 Trench Excavation and Backfill
~~Section 32 84 00 Landscape Irrigation System (For Backflow Preventor and installation)~~ **(ADDENDA #2)**
Section 33 12 00 Water Utilities
Section 33 30 00 Site Sewer Systems
Section 33 40 00 Storm Drainage

Refer to additional related specifications sections for work specifically included in this bid package noted below.

General Items
1. See General Notes at the beginning of the Summary of Work Specification Section for other items to be included in this Bid Package.
2. Furnish and install all layout for own work from survey provided. Prime Contractor will be responsible for all additional layout not performed by the survey contractor. Prime Contractors are responsible for protection of all requested survey. Any needed re-staking of already provided points will be subject to deductive change order.
3. Provide all backfill of excavations to original sub-grade for work included in this bid package.
4. Obtain all permits required to perform the work specified in the bid package. CM will submit the Dust Control plan to the Air Board. Prime Contractor will be responsible for all other permits required to perform the work identified. Prime Contractor will be responsible for dust control for their own work.
5. Provide daily cleanup to keep site clean and orderly.
6. Protect identified improvements to remain on civil plan sheets.
7. Should the Prime Contractor damage and/or otherwise alter work installed under separate contracts, Prime Contractor shall be responsible for the correction/repair of work installed under separate contracts.
8. Prime Contractor is required to attend all coordination meetings as required by CM
9. Phasing is projected to be as shown on the Bid Schedule. However, the Construction Manager reserves the right to revise the schedule, as necessary.

10. Promptly submit written notice to CM of observed variance of Contract Documents from legal requirements.
    a. Appropriate modifications to Contract Documents will adjust necessary changes.
    b. Assume responsibility for work known to be contrary to such requirements and without written notice to Architect of observed variance.
11. Provide material, equipment, mobilizations, and manpower to meet Construction Schedule provided in Contract Documents.
12. Each bid package is responsible for dewatering as it pertains to their scope of work.
13. Provide trenching plan and permits for excavations over 5' per OSHA requirements to the Construction Manager.
14. Each Prime Contractor is to provide all equipment and manpower as necessary to offload all materials required to complete their respective scope of work.
15. Monthly pay apps will not be approved if as-builts are not updated monthly.
16. Furnish clean up daily and off-haul of all debris generated by this contract. Prime Contractor must abide by the Waste Management specification. This includes, but is not limited to, providing recycling tags for each haul off removed from the project site.
17. Provide daily cleanup to keep site clean and orderly.
18. There will be one wash out area as designated by CM. Bid package will be responsible for removal from the site of all construction debris generated by Prime Contractor's work. Extra spoils to be stockpiled at the direction of CM.
19. All construction equipment shall meet the requirements of the SJVAPCD ISR Report (Air Impact Assessment- AIA) under the Construction Fleet Summary. This shall include reporting requirements as defined within the Monitoring and Reporting Schedule within the ISR for this project.
20. This contract is to provide temporary power for own work until such time as building temporary power is established.

Coordination with Other Trades

1. Provide coordination drawings for underground work related to this bid package. Coordinate all drawings (Plumbing, Electrical, site, Off Site, and Landscape) with the drawings of this bid package. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to excavation and/or installation of the work. Attend all coordination meetings required to coordinate all underground.
2. Coordinate routing of underground utilities miss foundations.
3. Coordinate alignment of all utilities between plumbing and civil drawings prior to excavation.
4. All underground utilities (Gas/DCW/Fire) are to be a minimum of 3' below finish grade.
5. ~~Coordinate the installation of the backflow preventer shown in the Landscape drawings, identified on L/403, L/306, and specifications, as supplied and installed under this, Site Plumbing bid package, for alignment and further connections to the booster pump to be installed by the Irrigation Prime Contractor.~~ **(ADDENDA #2)**

Furnish and Install Items

1. Furnish and install all site utilities and fixtures complete. Water, Fire, Sewer, Storm.
2. Make provisions to obtain water for own work. Dust control, excavations, backfills, compactions, etc. There are fire hydrants on two sides of the project. Make necessary arrangements with the city of Fresno to acquire a meter and pay for own water usages until such time that the site water has been installed and approved for site usage.

3. Provide all backfill of excavations to original subgrade for work included in this bid package.
4. Stockpile extra spoils from excavations in location to be determined by CM
5. Furnish and install all attachment of all equipment related to this scope of work.
6. Furnish and install all excavation for own work.
7. Furnish and install all concrete required for installation of thrust blocks, manholes, vaults, boxes, underground structures, mow strips and collars for work related to this bid package.
8. Furnish and install asphalt patch back related to own work as required.
9. Adjust all utility boxes to finish grade.
10. Clean and disinfect all site piping required for this project to subsequent point of connection.
11. Furnish and install all piping required to accommodate new work.
12. Furnish, install, and maintain traffic control for work included in this package.
13. Furnish and install all site fire water, sewer systems, storm systems, domestic water & gas.
14. Furnish and install all dry wells, drainage, water and drinking fountains.
15. Furnish and install all site trench drains and piping (If shown)
16. Furnish and install all site Fire, all fire line piping, and stub in to building per plans to above finished floor with a capped flanged fitting, as the POC for the fire sprinkler contractor. Furnish and install all site check valves, Christy vaults, PIV's, FDC's, Hydrants, Backflow Preventors, and Bollards per plans at fire equipment per plans.
17. Furnish and install all site domestic water complete~~, including all~~ **from POC at** back flow preventors, check valves, SOV's, etc. to within 5' of buildings. **(ADDENDA #2)**
18. F&I complete storm to within 5'.
19. F&I complete gas to within 5' of where pressure regulators are shown for each building.
20. ~~Furnish and install all offsite connections to water, sewer, storm, and gas, including water and backflow preventor for irrigation. Extend irrigation pipe 5' beyond back flow. See Detail 25/SD/L403.~~ **(ADDENDA #2)**

FOB Items

1. None

Installation of FOB Items

Note: Coordinate all deliveries to jobsite with CM. Prime Contractor to Unload, inventory, store and notify CM of any deficiencies for all items delivered to the jobsite FOB.

1. Not Applicable.

End of Bid package

CES-03 SITE ELECTRICAL & LOW VOLTAGE (ADDENDA #2)

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

Specification Sections

Refer to additional related specifications sections for work specifically included in this bid package noted below.

Division 00
Division 01
Section 03 15 14 Drilled Anchors
Section 03 30 00 Cast in place Concrete (As applicable to slurry, and light pole bases, and grouting)
Section 26 05 00 Common Work Results for Electrical
Section 26 05 26 Grounding
Section 26 05 53 Electrical Identification
Section 26 20 00 Low Voltage Electrical Transmission
Section 27 00 00 Telecommunication Systems
Section 27 05 28 Communications Infrastructure System
Section 27 10 00 Structured Cabling System

General Items

1. See General Notes at the beginning of the Summary of Work Specification Section for other items to be included in this Bid Package.
2. Furnish and install all layout for own work from survey provided. Prime Contractor will be responsible for all additional layout not performed by the survey contractor. Prime Contractors are responsible for protection of all requested survey. Any needed re-staking of already provided points will be subject to deductive change order.
3. Provide all backfill of excavations to original sub-grade for work included in this bid package.
4. Obtain all permits required to perform the work specified in the bid package. CM will submit the Dust Control plan to the Air Board. Prime Contractor will be responsible for all other permits required to perform the work identified. Prime Contractor will be responsible for dust control for their own work.
5. Provide daily cleanup to keep site clean and orderly.
6. Protect identified improvements to remain on civil plan sheets.
7. Should the Prime Contractor damage and/or otherwise alter work installed under separate contracts, Prime Contractor shall be responsible for the correction/repair of work installed under separate contracts.
8. Prime Contractor is required to attend all coordination meetings as required by CM
9. Phasing is projected to be as shown on the Bid Schedule. However, the Construction Manager reserves the right to revise the schedule, as necessary.
10. Promptly submit written notice to CM of observed variance of Contract Documents from legal requirements.
    a. Appropriate modifications to Contract Documents will adjust necessary changes.
    b. Assume responsibility for work known to be contrary to such requirements and without written notice to Architect of observed variance.
11. Provide material, equipment, mobilizations, and manpower to meet Construction Schedule provided in Contract Documents.

12. Each bid package is responsible for dewatering as it pertains to their scope of work.
13. Provide trenching plan and permits for excavations over 5' per OSHA requirements to the Construction Manager.
14. Each Prime Contractor is to provide all equipment and manpower as necessary to offload all materials required to complete their respective scope of work.
15. Monthly pay apps will not be approved if as-builts are not updated monthly.
16. Furnish clean up daily and off-haul of all debris generated by this contract. Prime Contractor must abide by the Waste Management specification. This includes, but is not limited to, providing recycling tags for each haul off removed from the project site.
17. Provide daily cleanup to keep site clean and orderly.
18. There will be one wash out area as designated by CM. Bid package will be responsible for removal from the site of all construction debris generated by Prime Contractor's work. Extra spoils to be stockpiled at the direction of CM.
19. All construction equipment shall meet the requirements of the SJVAPCD ISR Report (Air Impact Assessment- AIA) under the Construction Fleet Summary. This shall include reporting requirements as defined within the Monitoring and Reporting Schedule within the ISR for this project.
20. This contract is to provide temporary power for own work until such time as building temporary power is established.

Coordination with Other Trades

1. Provide coordination drawings for underground work for work related to this bid package. Coordination must occur prior to excavation and/or installation of the work. Attend all coordination meetings required to coordinate all underground.
2. Coordinate all work to provide access to buildings for other trades as scheduled. Provide an underground utility schedule of where and when piping operations will be performed.
3. Coordinate location of UG utilities to be out of angle of repose of foundations.
4. Poured in place housekeeping and equipment pads to be supplied by concrete team. Precast housekeeping and equipment pads to be supplied and installed by this package
5. Review as-builts and pothole existing utilities prior to starting work.
6. Verify continuity of electrical and low voltage conduits for work in this contract.
7. ~~This contract will provide all PG&E electrical requirements as outlined in the off-site connection to/for PG&E Rule 16, rule 20 drawings. This Prime Contractor will run all conduits, proof, and mandrel all conduits for the new PG&E feeders from the POC, to the transformer, then to the Switchgear.~~ **(ADDENDA #2)**
8. ~~Coordinate all meetings with PG&E, obtain permits, and provide all services required to facilitate and install the main power distribution on to the site.~~ **(ADDENDA #2)**
9. Provide shop drawings for equipment layout in electrical rooms & yards to confirm that dimensions are adequate prior to rough in and pouring of footings and curbs.
10. ~~Provide short circuit study as applicable to the installation of the main switchgear and transformer.~~ **(ADDENDA #2)**
11. Coordinate all underground utilities to miss foundation.
12. ~~Coordinate with PG&E, ATT, and Comcast for service requirements to the site.~~ **(ADDENDA #2)**
13. Provide Safe off of all electrical equipment as required for trade work.
14. Provide an underground utility schedule of where and when piping operations will be Installed.

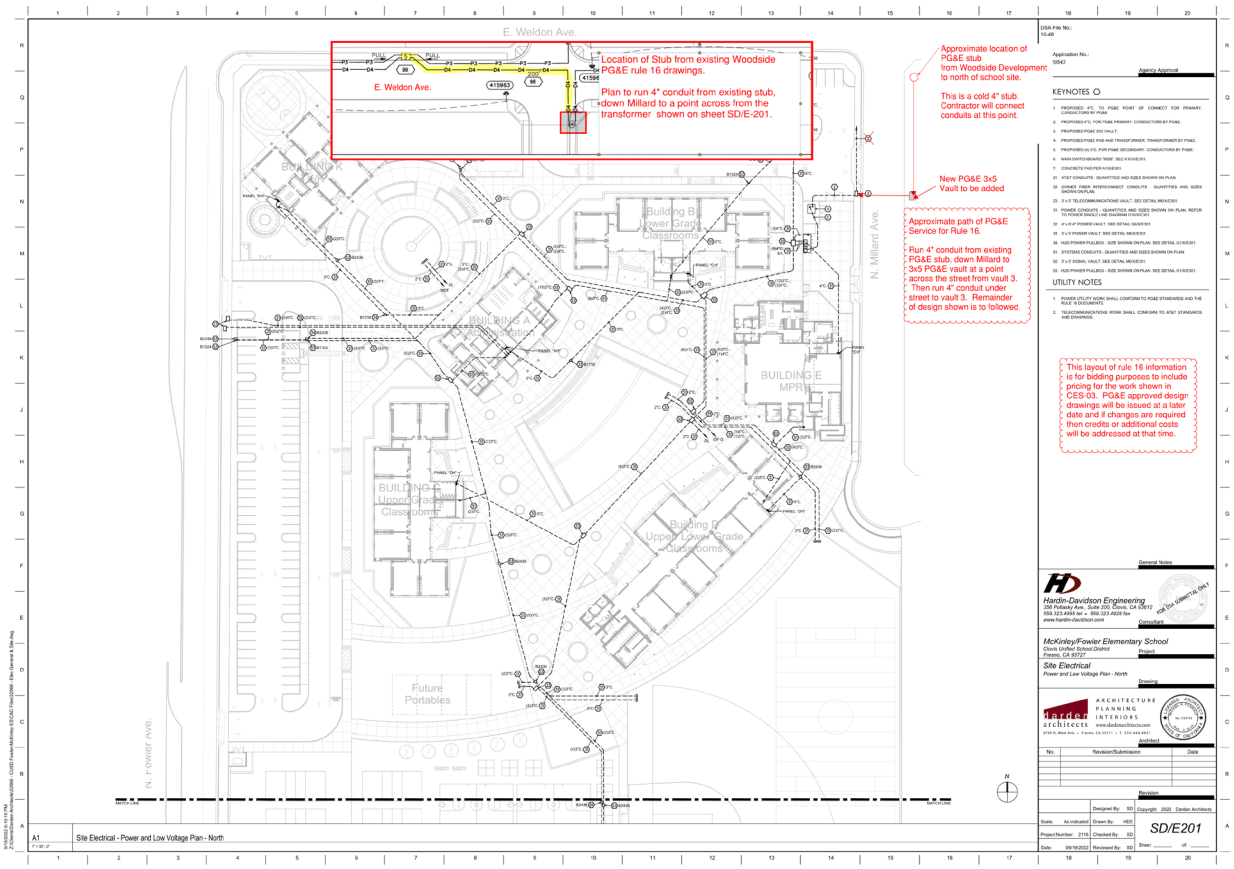
Furnish and Install Items

1. Furnish and install all site utilities conduit and infrastructure complete for all Power, Data, Fire Alarm, Security, Irrigation line voltage (pumps/time clocks), and EMS. All conduits are to be brought to within 10' of the buildings. All stopping points are to be flagged, swing tied if possible, and recorded on the As-Builts for Increment 2 continuation. Conduits are to stop within 5' of pumps and time clocks if specific layout cannot be determined during the time of installation., and 5' for fire sprinkler components where alarm is required. **CLARIFICATION: This includes power conduit for "Coach control switches", as described in the Landscape plans. Building electrical contractor will provide and install the housing, wiring, receptacle. (ADDENDA #2)**
2. Site lighting conduit is to stop approximately 5' from the flagpole, all light pole bases, and first light of radiused (T-2's) at the concrete monument wall.
3. Make provisions to obtain water for own work. Dust control, excavations, backfills, compactions, etc. There are fire hydrants on two sides of the project. Make necessary arrangements with the city of Fresno to acquire a meter and pay for own water usages until such time that the site water has been installed and approved for site usage.
4. Furnish and install physical layouts for all deepened foundations at utilities prior to excavation.
5. All excavation spoils to be deposited at one location on site as determined by CM.
6. Furnish and install all sleeves for work passing through masonry and concrete work. Coordinate with respective bid packages.
7. Provide all backfill of excavations to original subgrade for work included in this bid package.
8. Furnish and install fire stopping and fire caulking of own penetrations for own work.
9. Furnish and install pull strings/rope in all empty or future conduits.
10. Furnish and install all concrete required for installation of vaults, boxes, underground structures for work related to this bid package.
11. Furnish and install all site conduit required for Owner furnished equipment hook up as required.
12. Furnish and install all rough-in for all equipment of other bid packages as required by the related specification sections and drawings. Connect and or stub as described.
13. Furnish and install all conduit and sleeves for future low voltage and telecommunications wiring. Install fire stopping as required.
14. Furnish and install all attachment of all equipment related to this scope of work.
15. Furnish and install all supports and bracing required for electrical work.
16. Furnish and install all identification and lettering called for in the contract documents related to the work of this bid package.
17. Adjust all electrical and low voltage boxes in new landscape and concrete areas as needed.
18. Furnish and install all physical layout for your own work.
19. Furnish and install all site conduits, including vaults and boxes for all electrical and low voltage systems.
20. Provide all power/Breaker testing for own work.
21. Chase and prove all electrical site pathways as required to complete work.
22. Furnish and install electrical equipment, ~~switchgear~~, conduit, pre cast pads required for the utility provider (Rule 16 and similar for site power connections). **Switchgear will be Owner Furnished, Contractor Installed. (ADDENDA #2)**
23. Furnish and install all site rough-in conduit for all equipment of other trade as required by the related specification sections and drawings. Connect and or stub as described.

24. Furnish and install all site lighting conduits including vaults / boxes. Bring all conduits to withing 5' of light pole locations and buildings. Cap and flag each end, (swing tie if possible) for subsequent connection by the building electrical contractor. Coordinate the location of the conduit at the building end to the point of entry established by the building electrician.
25. Furnish and install disconnects and associated supports as applicable to increment 1.
26. Furnish and install sealant system as required to provide watertight condition at devices mounted on masonry units.
27. Furnish and install PG&E, ATT, and Comcast conduit ~~/ wiring~~ for onsite as shown on the drawings. **(ADDENDA #2)**
28. Furnish and install all colored concrete cap over all required duct banks.
29. Furnish and install conduits for all landscape equipment such as controllers, pumps, etc. as required by the landscape drawings.
30. Furnish and install all backfill of excavations to original subgrade for work included in this contract.
31. Provide Dust Control for own work.
32. This contract will adhere to guidelines for all work per the requirements of the Dust Control Plan and SWPPP Plan.
33. All construction equipment shall meet the requirements of the SJVAPCD ISR Report (Air Impact Assessment- AIA) under the Construction Fleet Summary. This shall include reporting requirements as defined within the Monitoring and Reporting Schedule within the ISR for this Project.
34. ~~Furnish and install all work relating to all PG&E rule drawings, off-site plans and equipment complete. Electrical Prime Contractor to pull cable for PG&E work, however final connections to be made by PG&E~~ **(ADDENDA #2)**
35. Electrical Prime Contractor responsible for any and all patch back and finishing for any trenching made in roadways, for work performed under this bid package.
36. All excavation spoils to be deposited at one location on site as determined by CM.
37. Furnish and install all sleeves for work passing through masonry and concrete work. Coordinate with respective bid packages.
38. Provide all backfill of excavations to original subgrade for work included in this bid package.
39. Furnish and install drilling of holes for work performed in this bid package.
40. Furnish and install pull strings/rope in all empty or future conduits.
41. Furnish and install all concrete required for installation of vaults, boxes, underground structures for work related to this bid package.
42. Furnish and install all conduit and sleeves for future low voltage and telecommunications wiring. Install fire stopping as required.
43. Furnish and install all attachment of all equipment related to this scope of work.
44. Furnish and install all identification and lettering called for in the contract documents related to the work of this bid package.
45. Furnish and install all physical layout for your own work. Same as 18
46. ~~Chase and prove all electrical off-site pathways as required to complete work.~~ **(ADDENDA #2)**
47. ~~Furnish and install disconnects and associated supports.~~ **(ADDENDA #2)**
48. ~~Furnish and install PG&E, ATT, Comcast, and Vast conduit / wiring for onsite and off-site as shown on the drawings.~~ **(ADDENDA #2)**
49. This contract shall be responsible for holes at metal deck for installation of hanger wires for own work.

For Rule 16, and associated PG&E work. (ADDENDA #2)

1. **This contract will provide all PG&E electrical requirements as outlined for connection to/for PG&E Rule 16 work in conjunction with the project drawings. This Prime Contractor will run all conduits, proof, and mandrel all conduits for the new PG&E feeders from the POC shown in the attached marked up site plan for reference, then to the transformer, then to the Switchgear. (ADDENDA #2)**
2. **Coordinate all meetings with PG&E, obtain permits, and provide all services required to facilitate and install the main power distribution on to the site. (ADDENDA #2)**
3. **Furnish and install all work relating to PG&E rule drawings, off-site plans of existing conduit pathway, to connect to new conduit and vault on site, and leading to the switchgear. (ADDENDA #2)**
4. **Furnish and install all excavations, and patch back to road crossing. CLARIFICATION: Millard street is not currently paved, nor have the sidewalks been installed on either side. The curbs and gutters are already installed. If damaged during installation, these repairs would also be included in this package responsibility. (ADDENDA #2)**



FOB Items

Installation of FOB Items

Note: Coordinate all deliveries to jobsite with CM. Prime Contractor to Unload, inventory, store and notify CM of any deficiencies for all items delivered to the jobsite FOB.

End of Bid package

CES-04 LANDSCAPE

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

Specification Sections

Division 00
Division 01
Section 03 15 14 Drilled Anchors
Section 32 84 00 Landscape Irrigation System
Section 32 90 00 Landscape Construction

Refer to additional related specifications sections for work specifically included in this bid package noted below.

General Items

1. See General Notes at the beginning of the Summary of Work Specification Section for other items to be included in this Bid Package.
2. Furnish and install all layout for own work from survey provided. Prime Contractor will be responsible for all additional layout not performed by the survey contractor. Prime Contractors are responsible for protection of all requested survey. Any needed re-staking of already provided points will be subject to deductive change order.
3. Provide all backfill of excavations to original sub-grade for work included in this bid package.
4. Obtain all permits required to perform the work specified in the bid package. CM will submit the Dust Control plan to the Air Board. Prime Contractor will be responsible for all other permits required to perform the work identified. Prime Contractor will be responsible for dust control for their own work.
5. Provide daily cleanup to keep site clean and orderly.
6. Protect identified improvements to remain on civil plan sheets.
7. Should the Prime Contractor damage and/or otherwise alter work installed under separate contracts, Prime Contractor shall be responsible for the correction/repair of work installed under separate contracts.
8. Prime Contractor is required to attend all coordination meetings as required by CM
9. Phasing is projected to be as shown on the Bid Schedule. However, the Construction Manager reserves the right to revise the schedule, as necessary.
10. Promptly submit written notice to CM of observed variance of Contract Documents from legal requirements.
    a. Appropriate modifications to Contract Documents will adjust necessary changes.
    b. Assume responsibility for work known to be contrary to such requirements and without written notice to Architect of observed variance.
11. Provide material, equipment, mobilizations, and manpower to meet Construction Schedule provided in Contract Documents.
12. Each bid package is responsible for dewatering as it pertains to their scope of work.
13. Provide trenching plan and permits for excavations over 5’ per OSHA requirements to the Construction Manager.
14. Each Prime Contractor is to provide all equipment and manpower as necessary to offload all materials required to complete their respective scope of work.
15. Monthly pay apps will not be approved if as-builts are not updated monthly.

16. Furnish clean up daily and off-haul of all debris generated by this contract. Prime Contractor must abide by the Waste Management specification. This includes, but is not limited to, providing recycling tags for each haul off removed from the project site.
17. Provide daily cleanup to keep site clean and orderly.
18. There will be one wash out area as designated by CM. Bid package will be responsible for removal from the site of all construction debris generated by Prime Contractor's work. Extra spoils to be stockpiled at the direction of CM.
19. All construction equipment shall meet the requirements of the SJVAPCD ISR Report (Air Impact Assessment- AIA) under the Construction Fleet Summary. This shall include reporting requirements as defined within the Monitoring and Reporting Schedule within the ISR for this project.
20. This contract is to provide temporary power for own work until such time as building temporary power is established.

Coordination with Other Trades

1. Coordinate sleeve installations with site concrete.
2. Coordinate pump location, house pad, layout and elevation with electrical, plumbing, and concrete packages.
3. Coordinate all valve boxes, quick connects, with concrete, planters, and elevations.

Furnish and Install Items

1. Furnish and install all irrigation and landscaping complete. Connect to existing power, wiring and controls where required at existing landscape areas.
2. Make provisions to obtain water for own work. Dust control, excavations, backfills, compactions, etc. There are fire hydrants on two sides of the project. Make necessary arrangements with the city of Fresno to acquire a meter and pay for own water usages until such time that the site water has been installed and approved for site usage.
3. Provide and install new irrigation, controls, wiring, pumps, pre manufactured concrete pads, etc. for own work. Main power supply and connection to pumps or equipment (Line voltage), will be supplied by the electrical Prime Contractor.
4. Furnish and install all thrust blocks for own work.
5. Furnish and install grading and top soil.
6. Provide water test of turf and planter areas prior to planting to confirm proper drainage and coverage.
7. Furnish and install all irrigation sleeves.
8. Furnish and install backfill all planters.
9. Furnish and install all fine grading of planter areas prior to planting.
10. Furnish and install all irrigation pipe system from POC at main backflow preventor, installed by the site plumbing Prime Contractor per spec.
11. Furnish and install irrigation pump(s), controls, secondary backflow preventer if applicable, valves, etc. associated with the irrigation system, complete ready for electrical connection where applicable.
12. Furnish and install all new irrigation and drip irrigation complete.

13. Furnish and install all new planter dressings, bark, mulches, and all landscape materials. **CLARIFICATION: This Landscape package will be responsible to supply and install all materials as noted within the landscape plans, including screened infield top soil materials, DG, sod, Stolens, Mulches, etc. unless specifically noted otherwise. (ADDENDA #2)**
~~14. Furnish and install all specialty play bark at play structure yards.~~ **(ADDENDA #2)**
15. Furnish and install all baseball bases and pitching blocks per plans.
16. Furnish and provide weed control and clean up of grasses/weeds for the project site, and associated off site locations for the duration of the project, until such time that the district takes possession and acceptance of the new facility.
17. **This Landscape contractor is responsible for all the final elevations of Turf, infields, including pitchers mounds, DG, planters, tree wells, and mulches. Coordinate subgrades with Earthwork Contractor, as they will be responsible for the subgrades. (ADDENDA #2)**
18. **Furnish and install all coaches boxes/switches as shown in the Landscape plans, including valves, conduit, control wiring and connections. Coordinate locations with the Site electrical contractor for AC power conduit. Building electrical contractor to install wiring, housing for controller, and receptacle. (ADDENDA #2)**

FOB Items

1. Provide remote controllers and extra materials to the district through close out procedures with CM Construction Management process

Installation of FOB Items

Note: Coordinate all deliveries to jobsite with CM. Prime Contractor to Unload, inventory, store and notify CM of any deficiencies for all items delivered to the jobsite FOB.

End of Bid package

SECTION 012973.01 – SCHEDULE OF VALUES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This section includes the administrative and procedural requirements necessary to prepare and process the following:
   1. Schedule of Values
   2. Application for Payment with Certification.

B. Related Requirements: The following Project Manual Sections contain requirements that relate to this section:

1.	01 11 13	SUMMARY OF WORK.
2.	01 21 13	ALLOWANCES.
3.	01 23 00	ALTERNATES.
4.	01 32 16	CONSTRUCTION SCHEDULE.
5.	01 32 36	FORMS AND REPORTS.
6.	01 33 00	SUBMITTAL PROCEDURES.
7.	01 41 00	REGULATORY REQUIREMENTS.

1.3 DEFINITIONS

A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring and controlling the construction project. Activities included in a Schedule of Values and Payment Request consume cost for time and resources.

B. Activity Code: Identifies each activity so as to be organized, group and sorted into Sub-Schedules, Areas of Work, and Reports.

C. Allowances: Contract amounts allocated for specific activities of the project as identified in the contract documents.

D. Application for Payments: A statement furnished by the Contractor allocating portions of the Contract Sum to various portions of the Work stipulating the amount of work that has been completed to date.

E. Contingency: Contract amounts allocated for non-specific activities, to cover changes in the contract document work, unforeseen conditions and added scope of work to the project.

F. Major Scope: Significant portions of work identified as, but not limited to, Base Bid, Alternate Bids, and Construction Phases, and Funding Criteria.

G. Responsible Party: Entity that is responsible for performing the work of each activity as identified, but not limited to, General Contractor, and Sub-Contractor, second and tertiary tier Sub-Contractors, Manufacturers, Fabricators and Vendors.

H. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

I. Scope Type: Segments of work identified as, but not limited to, Building ID, On-Site, and Off-Site.

J. Sub-Schedules: Separated activities identified as part of the same element of work and arranged to show correlation with related elements.

1.4 SUBMITTALS

A. General:
1. Submit in accordance with Specification Section - SUBMITTAL PROCEDURES.

B. Format for Submittals: A tabular form type schedules.
1. Provide a working electronic copy of schedule file.
2. Provide PDF copy of schedule file.

C. Assurance/Control Submittals:
1. Schedule of Values.
   a. Submit at the earliest possible date, but no later than fifteen (15) days prior to the date scheduled for submittal of initial Application for Payment.
2. Application for Payment and Certification.
   a. Application for Payment and Certification Forms.
      1) Submit along with the Schedule of Values submittal.
   b. Initial Application for Payment.
      1) Submit seven (7) prior to due date.
   c. Application for Payment for Progress of Work.
      1) Submit monthly by the date directed by Owner.
   d. Application for Payment at Substantial Completion.
      1) Submit after Architect issues the Certificate of Substantial Completion.
   e. Final Application for Payment.
      1) Submit after competing Project Closeout requirements.

1.5 SYSTEM DESCRIPTION

A. General:
1. The Architect considers the project Schedule of Values requirements to be significant to both the Contractor and the Owner. The development, submittal, and acceptance of the Schedule of Values, (Bid and Complete), and subsequent development and maintenance of the Application for Payments must be given high priority.
   a. No payment will be made without the Architect's review and acceptance of the Schedule of Values.
   b. Progress payments may be withheld in whole or part should the Contractor fail to comply with the requirements of this section.

c. No separate payment will be made to the Contractor for any of the requirements of this section. All such costs shall be part of the Contractor's planned project overhead costs included in its bid.

B. Performance Requirements:
1. Schedule of Bid Values: The Schedule of Bid Values shall be a breakdown of the Bid(s) submitted in the Bid Proposal and shall include all work that was bid on, regardless the scope of work awarded for construction. The breakdown shall be sufficient for the use by the Owner and Owner's Consultants to evaluate and determine cost of major scopes of work and the value of other owner agreements that are associated with the dollar value of the bid proposal.
   a. Refer to Specification Section - SUMMARY OF WORK.
   b. Refer to Specification Section - ALTERNATES.
2. Schedule of Values: Breakdown of the Contract Sum by specific line-item values, based on the individual activities in the Baseline Project Construction Schedules and to be the basis for the development of the Application for Payment.
   a. Refer to Specification Section - CONSTRUCTION SCHEDULES.
3. Application for Payments: Shall be derived from Baseline Project Construction Schedule utilizing the costs in the Schedule of Values, and from subsequent Project Construction Schedule Updates, reflecting the Work performed as of planned and actual dates.
   a. Refer to Specification Section - CONSTRUCTION SCHEDULES.

1.6 QUALITY ASSURANCE

A. Qualifications:
1. The Contractor must have the capacity and capability of supporting the project by producing schedule-related data within two (2) days of request by the Architect, or Owner.

B. Regulatory Requirements:
1. In accordance with Specification Section - REGULATORY REQUIREMENTS.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS

A. Coordination:
1. Coordinate preparation of the Schedule of Values with the preparation of the Baseline Project Construction Schedule. Refer to Specification Section -- CONSTRUCTION SCHEDULES.
2. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including, but not limited to, the following:
   a. Application for Payment forms with continuation sheets.
   b. Submittals Schedule.
   c. Items required to be indicated as separate activities in the Baseline Project Construction Schedule.

B. Project Information:

1. Identification: Include the following Project Identification on all Schedule of Values and Application for Payment.
   a. Project Name and Location.
   b. Name of Owner and Address.
   c. Name of Architect and Address.
   d. Architect's Project Number.
   e. Contractor's Name and Address.
   f. Submittal Date.

2.2 SCHEDULE OF VALUES

A. Format and content: Arrange the schedule of values in tabular form, with separate columns to indicate the following for each item listed:

1. SPECIFICATION SECTION: Use the specification section number in the Project Manual Table of Contents to identify and establish each line-item.
2. ACTIVITY CODE: Provide the Activity Identification Code for each line-item indicated as separate activities in the Baseline Project Construction Schedule.
3. DESCRIPTION: Provide a description of the work for each line-item associated with the specification section and responsible party.
4. RESPONSIBLE PARTY: Identify the responsible party for performing the work of each line-item associated with the specification section and description.
5. MAJOR SCOPE: Designate Major scope of work as identified and itemized in BID PROPOSAL.
   a. Provide separate columns for each Major Scope of Work identified.
6. SCOPE TYPE: Identify each line-item that is associated with a segment of work.
7. DOLLAR VALUE: Sub-Total of the cost for each activity line-item, with the amounts rounded to the nearest dollar.
   a. Assign a dollar value for each line-item to each Major Scope of the project excluding General Conditions, General Requirements and General Contractor’s Overhead and Profit.
8. Activity: Provide separate activity line items for each Contractor or Subcontractor providing work under the same specification section.
   a. Include responsible party performing the work of each activity, identified as, but not limited to, General Contractor, and Sub-Contractor, second and tertiary tier Sub-Contractors, Manufacturers, Fabricators and Vendors.
   b. Include separate activity line-items for cost items that are directly related to Division 01 - GENERAL REQUIREMENTS and are direct cost of actual work-in-place. Such items shall be, but not limited to, the following;
      1) Submittals,
      2) Field Engineering,
      3) Operation and Maintenance Manuals.
      4) Demonstration and Training.
9. Sub-Schedules:
   a. Major Scope of Work: Provide Sub-Schedules for line-items that are associated with each designated major scope of work as identified in Bid Proposal, and defined in Specification Section -- SUMMARY OF WORK and Specification Section -- ALTERNATES that requires itemization of each line-item value.
   b. Scope Type: Provide Sub-Schedules for line-items that are associated with each specific scope type.

1) Building Costs: Detailed cost breakdown of all cost items that are directly related to the Project per Building.
   a) When the Project Building(s) is of sufficient size to warrant, break the building costs down into areas of work compatible with the Contractor's Means and Methods for construction sequences.
   b) Building areas may consist of floor and roof levels and partial floor and roof levels.
2) Project Site Costs: Detailed cost breakdown of all cost items that are directly related to the Project Site.
   a) When the Project Site is of sufficient size to warrant, break the site costs down into areas of work compatible with the Contractor's Means and Methods for construction sequences.

10. Contract Conditions:
    a. Include separate activity line-item for cost items that are directly related to Division 00 - CONDITIONS OF THE CONTRACT REQUIREMENTS and are not direct cost of actual work-in-place. Such items shall be, but not limited to, the following;
       1) On-Site Facilities and Supervision.
       2) General Contractor's Overhead and Profit.
       3) Performance and Labor and Material Bonds.
    b. Include separate activity line-items for cost items that are directly related to Division 01 - GENERAL REQUIREMENTS and are not direct cost of actual work-in-place. Such items shall be, but not limited to, the following;
       1) Temporary Facilities.
       2) Field Supervision.
       3) Project Identification Sign.
       4) Project Closeout Requirements.
          a) Punch List Activities, and Project Record Documents.
11. Allowances: Provide separate activity line-item for each Allowance that is assigned for specific work in any specification section. Dollar value to exclude General Contractor's Overhead and Profit.
12. Purchase Contracts: Provide separate line-item in the Schedule of Values for each Purchase Contract, showing the value of the Purchase Contract.
13. Contingencies: Provide separate activity line-item for each Contingency that is not assigned to specific work in any specification section. Dollar value to exclude General Contractor's Overhead and Profit.
    a. Provide separate line items for Owner Contingency and Contractor Contingency.
14. Grand Total: Summation of dollar value for each column equal to the Bids received.

2.3 SCHEDULE OF VALUES – OFF-SITE COSTS

A. Format and content: Provide the Off-Site Schedule of Values in tabular form broken down into units, unit costs, and extensions. The District requires and needs this information for both State and City Funding.

B. Costs for general requirements and conditions, bonds, insurance, overhead, and profit, permit /fees, and testings shall be separated out from the buildings and on-site development costs.

C. Provide a separate line item in the schedule of values for each part of the Work as follows:
1. Curb, Gutters, & Paving
2. Sidewalks
3. Street Lighting,
4. Landscaping & Irrigation

5. Signage
6. Special District Fees
7. Utilities, beyond the property lines.
8. Storm Drain Costs
9. Water
10. Sewer
11. Gas
12. Electrical
13. Communications
14. Concrete Walks and Safety Paths

2.4 SCHEDULE OF VALUES – ON-SITE COSTS

A. Format and content: Provide the On-Site Schedule of Values in tabular form broken down for Site Development and per Building. The District requires and needs this information for both State and City Funding.

B. Costs for general requirements and conditions, bonds, insurance, overhead, and profit, permit /fees, and testings shall be separated out from the buildings and on-site development costs.

C. Provide a separate line item in the schedule of values for each part of the Work as follows:
1. General Site Development:
    a. Finish Grading
    b. Pavement, Roads, and Driveways
    c. Parking lot pavement
    d. Curbs and gutters
    e. Paved play courts
    f. Play court equipment
    g. Playfield backstops and equipment
    h. Playfield electrical power, communications, and security
    i. Sidewalks
    j. Steps and Ramps
    k. Above-grade valley gutters and drainage systems
    l. Grounds, Landscaping and Irrigation
    m. Turfed playfields, Landscaping and Irrigation
    n. Site Lighting and Pole bases
    o. Chain Link Fencing
    p. Ornamental Fencing
    q. CMU Fencing
    r. Temporary Facilities
2. Service Site Development:
    a. Site Clearing and Grubbing
    b. Site Demolition
    c. Rerouting any Utility Line
    d. Rough Grading
    e. Soil Compaction and engineered building pads.
    f. Storm Drain Utility Improvements
    g. Erosion Control (Storm Water Pollution Prevention Plan, SWPPP)
    h. Stairs, Steps, Ramps, & Retaining Walls
    i. Work required for site improvements at the Portables
    j. Fire Water Utility Service; including hydrants, FDC, PIV and related costs
3. Utility Services:
    a. Water

b. Sewer
c. Gas
d. Electrical
e. Communication

4. Building costs, per each building:
   a. Foundations, by material
   b. Structure, by material
   c. Exterior Finishes, by material
   d. Roofing systems, by material
   e. Openings, by material, interior and exterior.
   f. Metal Framing, exterior walls and interior walls
   g. Interior Finishes, by material
   h. Plumbing,
   i. Mechanical
   j. Mechanical Controls
   k. Electrical Power, Lighting, Controls
   l. Fire Alarm System
   m. Fire Sprinkler System
   n. ERRCS system

2.5 APPLICATION AND CERTIFICATION FOR PAYMENT

A. General Requirements:
   1. Coordination: Coordinate the preparation of the Application for Payment with the preparation of the Schedule of Values and Project Construction Schedule.
      a. Entries shall match data on the Schedule of Values and Project Construction Schedule and Project Schedule Updates, if revisions were made.
   2. Application and Certification for Payment Forms: Use forms accepted by the Architect and Owner for Applications for Payment.
      a. Form shall be based on AIA Document G702 Application and Certification for Payment and AIA Document G703 Continuation Sheets.
      b. Submit form for acceptance with initial submittal of Schedule of Values.
   3. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of the Contractor. Project Inspector or Architect will return incomplete applications without action.
      a. Use signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt. One copy shall include Waivers of Lien and similar attachments if required.
   4. Identification: Include the following Project Identification on all Application for Payment:
      a. Project Name and Location.
      b. Owner Name.
      c. Architect's Project Number.
      d. Contractor Name and Address.
      e. Application Number.
      f. Application Date.
      g. Period To.

B. Supplemental Information:
   1. Materials Stored: Include in Application for Payment the amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed.

a. Differentiate between items stored on-site and items stored off-site.
b. Provide certificate of insurance or Bonded Warehousing, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
c. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
d. Provide summary documentation for stored materials indicating the following:
   1) Materials previously stored and included in previous Applications for Payment.
   2) Work completed for this Application utilizing previously stored materials.
   3) Additional materials stored with this Application.
   4) Total materials remaining stored, including materials with this Application.

2. Waivers of Mechanic's Lien: With each Application for Payment, submit Waivers of Mechanic's Liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
   a. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
   b. When an Application shows completion of an item, submit conditional final or full waivers.
   c. Owner reserves the right to designate which entities involved in the Work must submit waivers.
   d. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
   e. Waiver Forms: Submit waivers of lien on forms executed in a manner acceptable to Owner.

C. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for payment include the following:
1. List of Subcontractors.
2. Schedule of Values.
3. Contractor's Construction Schedule (preliminary if not final).
4. Products List (preliminary if not final).
5. Submittal Schedule (preliminary if not final).
6. List of Contractor's Staff Assignments.
7. List of Contractor's Principal Consultants.
8. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
9. Initial Progress Report.
10. Report of Preconstruction Conference.

D. Application for Payment for Progress of Work:
1. Each Application for Payment shall be consistent with previous applications and payments as certified by the Project Inspector, Architect, and paid for by the Owner.
2. Payment Applications shall be submitted to the Architect by the date established by the Owner. The maximum period of time covered by each Application for Payment is for one month.
3. Payments Applications shall be updated to reflect any revised activity in the Project Schedule Updates.

E. Application for Payment at Substantial Completion: After the issuing of the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portions of the Work claimed as substantially complete.
   1. Include documentation supporting the claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
   2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

F. Final Application for Payment: Submit Final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
   1. Evidence of completion of Project closeout requirements.
   2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
   3. Updated final statement accounting for final changes to the Contract Sum.
   4. "Contractor's Affidavit of Payment of Debts and Claims."
   5. "Contractor's Affidavit of Release of Liens."
   6. "Consent of Surety to Final Payment."
   7. Evidence that claims have been settled.
   8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
   9. Final liquidated damages settlement statement.

PART 3 - EXECUTION

NOT USED

END OF SECTION

SECTION 11 68 13 – PLAY EQUIPMENT

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included in this section:
   1. Installation of play court furnishings and equipment as specified herein and as indicated on the construction drawings.

1.2 RELATED SECTIONS

A. Section 32 31 13 - Chain Link Fencing

B. Section 32 12 16 - Asphaltic-Concrete Paving

PART 2 - PRODUCTS

2.1 MATERIALS:

A. Play Field and Court Equipment

1. Basketball Backboards

   a. L.A. Steelcraft Products, Inc., Model 01, extra heavy unit with 5-9/16" O.D. Galvanized Post and 6' offset, 1/4" thick steel fan shaped backboard with white powder coat finish and No. SD 4 "Hercules" goal and net on each backboard. The single backboard shall be Model 1256X and Model 12056X for double backboards.
2. Volleyball Posts

   a. L.A. Steelcraft Products, Inc., Model VBP25-BG with Model NRG-25 net tighteners and 2 7/8" O.D. Galvanized Post.
3. Volleyball Nets

   a. L.A. Steelcraft Products, Inc., Model NVC-32
4. Volleyball Ground Sleeves

   a. L.A. Steelcraft Products, Inc., Model 278-E, with compression cover.
5. Tetherball and Post

   a. L.A. Steelcraft Model No. TBPC and Ground Sleeve Model No. 238-E.
6. Playstructures

   a. Playcraft Systems Structure #’s R35CEB77A and RH5A1279A or approved equal. Install per manufacturer’s recommendations. Structures to comply with 2016 CBC 11B-1008.

PART 3 - EXECUTION

3.1 COORDINATION OF WORK

A. Fence Post Footings

1. Fence post footings within the paved play court area may be set one of two ways. If posts are installed prior to paving operations, the top of the concrete footings shall be 2" below the proposed finished asphalt surface and shall receive a 2" asphalt overlay.
2. If posts are installed subsequent to play court paving operations, the following conditions must be met:

a. Fence post holes must be drilled so as to provide a clean hole with a smooth circular outline at the paved surface.

b. The top of the concrete footing shall be troweled smooth and shall be flush with the finished asphalt surface.

END OF SECTION

SECTION 32 18 16 – PLAYGROUND SURFACING

PART 1 - GENERAL

1.1 SUMMARY

A. Provide playground surface and related materials as indicated on the Drawings, specified herein, and needed for a complete and proper installation.

1.2 RELATED SECTIONS

A. Section 31 20 00 - Earthwork

B. Section 31 23 33 – Trench Excavation and Backfill

C. Section 32 13 13 - Cast In-Place Concrete

1.3 SUBMITTALS

A. See Administrative Requirements, for general submittal requirements.

B. Product Data: Submit manufacturer's descriptive literature and product specifications for each product. Include data to indicate compliance with the specified requirements.

C. Installation Procedures: Submit manufacturer's recommended installation procedures which, when approved by the Engineer, will become the basis for accepting or rejecting actual installation procedures used on the Work.

D. Contract Closeout Submittals: Comply with requirements under closeout.

E. Maintenance manuals.

1.4 QUALITY ASSURANCE

A. Standards:

1. For safety, and in accordance with the U.S. Consumer Product Safety Commission (CPSC) guidelines, the surface attenuation shall not exceed 200g and 1000 HIC (Head Injury Criteria). The 200g are determined per ASTM Standard F1292, latest edition. Surfacing shall comply with CBC 11B-1008.2.6.2, latest edition.
2. Finish surface shall comply with Title 24 Access Compliance and the ADA, being firm enough to support persons in wheel chairs, and using walkers and crutches. Accessibility shall comply with CBC 11B-1008.2.6.1 and ASTM 1951, latest edition.

B. Certifications: Prior to installation, provide a certificate from the products supplier stating that the installer is qualified for the work specified herein, and that the supplier will warrant the installation.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Products specified are for establishing the type, design, and quality required. Products of equal or better type, design, and quality produced by other manufacturers will be considered provided the request for substitution is submitted in accordance with Section 01 6000.

2.2 WOOD SURFACING

A. Wood fiber surfacing shall be a mix of random-sized wood fibers. Standard wood chips or bark mulch will not be acceptable.

B. To allow for compaction, the following formulas shall be used to determine the correct number of cubic yards, for 12" deep: Square feet of playground x 0.05.

C. Sieve analysis of wood fiber: Greater than 85% passing 3/8" sieve, less than 50% passing #60 sieve.

D. Wood fiber shall have no twigs, bark, leaf debris or other organic material incorporated within.

E. Acceptable Products: Fibar wood fibre, by ROBERT GODFREY, LTD. Or approved equal.

2.3 DRAINAGE FELT

A. 100% polyester nonwoven engineering geotextile fabric.

B. Dimensions:

1. Width (ft.), 6.25.
2. Roll length (ft.) 400.00.
3. Weight (oz./sq. yd.), min. 3.5.

C. Provide enough material to allow for 12" overlap on all seams.

D. Acceptable Products: Fibar Felt by ROBERT GODFREY, LTD. or approved equal.

2.4 DRAINAGE MATRIX

A. Drainage core of fused, entangled nylon filaments and drainage felt, fully encapsulating the core.

B. Dimensions:

1. Core width (inches): 6.00.
2. Roll length (feet): 50.00.
3. Thickness (inches) .80.

C. Acceptable Products: FibarFelt by ROBERT GODFREY, LTD. or approved equal.

2.5 WEAR MATS

A. Rubber matting meeting ASTM F1292-91 playground surfacing standard for a drop height not to exceed 3.5 feet installed under all swings. Acceptable Products: "FibarMat by ROBERT GODFREY, LTD. or approved equal.

2.6 BORDER SYSTEM

A. Cast-in-place concrete border, as specified in Specifications Section 321313. Installed condition shall be approved by this Contractor prior to the beginning of the installation of the specified playground surfacing. The commencement of work will constitute acceptance of the work under this General Contract.

2.7 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Engineer.

2.8 RESILIENT SURFACING

A. As shown on plans and shall meet IPEMA and ASTM standards. After installation, provide testing results to confirm fall height compliance per ASTM standards.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 DRAINAGE FELT

A. Subgrade will be performed under Section 312000 Earthwork. Soils to be compacted to 95% of the dry density.

B. Cover subgrade with drainage felt, overlapping all seams at least 12".

3.3 WEAR MAT

A. Provide Wear Mat at all swing and slide locations.

B. Install the Wear Mat on the top of the finish graded Wood Fiber Surface as specified by the manufacturer.

3.4 WOOD FIBER SURFACING

A. Spread wood fiber surfacing to a uniform depth. All material supplied by the manufacturer shall be installed to allow for settling and natural compaction.

3.5 PROTECTION

A. Protect installation against damage, including erosion and trespassing, providing and maintaining proper safeguards.

3.6 INSPECTION

A. The product manufacturer's representative shall inspect the installation and certify that all work is in compliance with their established standards.

END OF SECTION

SECTION 32 84 00 LANDSCAPE IRRIGATION SYSTEM

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. Provide all materials, labor, equipment and services necessary to furnish and install Landscape Irrigation System, accessories and other related items necessary to complete the Project as indicated by the Contract Documents unless specifically excluded. The extent of the underground landscape irrigation system is shown on the drawings. The Contractor shall carefully review the plans and specifications and if they feel that more equipment is needed, they shall include that in the bid. All extra work to achieve full coverage shall be at the Contractors expense. Sprinkler systems shall be complete, operative, automatic and provide full coverage of the planted areas.

B. Irrigation systems shall be constructed to the sizes, grades and locations shown on the plans. Irrigation pipelines shown on the plans are essentially diagrammatic. Locations of all irrigation improvements shall be established by the Contractor at the time of construction. Typical spacing of the sprinklers are shown on the plans and shall not be exceeded, except by written permission of the Owner's authorized representative.

C. The system has been designed to a pressure as indicated in these specifications. The Contractor shall test the mainline prior to starting any work and verify that such pressure does exist. If it does not, the Contractor shall notify the Owner at once for a ruling before starting work. If the Contractor does not test prior to starting work, all corrective work shall be at the Contractors expense.

1.2 RELATED SPECIFICATION SECTIONS

A. Division 31 EARTHWORK

B. 32 90 00 LANDSCAPE CONSTRUCTION

C. Division 03 CONCRETE

D. Division 26 ELECTRICAL

1.3 STANDARDS

A. Materials and installation shall conform with all State and Local codes and regulations governing the trades included in this work. Requirements of these plans and specifications not conforming therewith, but exceeding code requirements, then the plans and specifications shall govern.

1.4 EXPLANATION AND EXAMINATION OF SPECIFICATIONS AND PLANS

A. Due to the scale of the Drawings, it is not possible to indicate offsets, fittings, etc. which may be required. The Contractor shall carefully investigate the structural and finished conditions affecting all of their work and plan their work accordingly, furnishing such fittings, etc. as may be required to meet such conditions. Drawings are generally diagrammatic and indicative of the work to be installed in the most direct and workmanlike manner so that conflicts between irrigation systems, planting, utilities, and architectural features will be avoided.

B. Notes on Drawings: Work called for on the Drawings by notes shall be furnished and installed whether or not specifically mentioned in the Specifications.

C. It shall be the responsibility of the Contractor to carefully examine the site, plans and specifications relating to this work for completeness, accuracy and clarity. Any conflict, error, or clarification shall be immediately brought to the attention of the Owner's authorized representative in writing to obtain a ruling. Failure to do so prior to bidding shall result in any corrective work necessary shall be completed at the Contractor's expense.

D. It is the intent of these specifications and plans to form a guide to accomplish the work of installing a complete sprinkler system which will operate in an efficient and satisfactory manner according to the workmanlike standards established for the irrigation industry. Therefore, any items not specifically noted, but necessary for a complete installation, shall be furnished and installed under this contract.

E. Manufacturer printed instructions shall also be a part of these specifications and shall prevail over these specifications. The Contractor shall be responsible to provide such details and instructions to the inspecting person for approval or rulings.

F. All general and specific notes shown on the drawings and details herein shall take precedence over these specifications. All work designated on the drawings by notes shall be furnished and installed.

1.5 PERMITS AND INSPECTIONS

A. The Contractor shall obtain and pay required fees to any governmental or public agency. Permits for the installation or construction or the work included under this Contract, which are required by legally constituted authorities having jurisdiction, shall be obtained and paid for by the Contractor, each at the proper time. Contractor shall also arrange for and pay costs in connection with inspections and examination required by these authorities.

1.6 GUARANTEE

A. Irrigation system shall be guaranteed for a period of one year from the date of final acceptance. Any repairs required are to be completed by the Contractor in a timely manner at no additional cost to the Owner.

1.7 OPERATIONS AND MAINTENANCE INSTRUCTIONS / RECORD DOCUMENTS

A. Two copies of equipment operations, maintenance instructions, and wire diagrams shall be

furnished to the Owner prior to final acceptance. Two copies of control valve station charts (color coded reduced Irrigation Plan with plastic waterproof lamination) showing watering zones and stationing shall be provided and mounted in the controller pedestal.

B. The Contractor shall furnish PDF copy and one set of reproducible Record Documents (As-Built drawings) in form of 24 lb bright white bond paper.
   1. Label first page of each document, or set of documents, "RECORD DRAWINGS" in neat large printed letters on lower right hand corner. Record information concurrently with construction progress. Do not conceal any work until required information is recorded on a daily basis.
   2. Drawings: Legibly mark to record actual construction:
      a. Horizontal and vertical locations of underground utilities and appurtenances referenced to permanent surface improvements. Give sufficient horizontal and vertical dimensions to accurately trace route and invert of each concealed line or item. Accurately locate each capped, plugged, or stubbed line.
      b. Field changes of dimension and detail.
      c. Changes made by Field Order, by Addenda, or by Change Order.
      d. Details not on original Contract Drawings
   3. Deliver all Record Documents (As-Builts) to Landscape Architect. Accompany submittal with transmittal letter in duplicate, containing:
      a. Date.
      b. Project title.
      c. Contractor's name and address.
      d. Title and number of each Record Document (As-Built).
      e. Signature of Contractor or his authorized representative.

1.8 SUBMITTALS

A. Within the required time period stated, the Contractor shall submit PDF copy of complete lists of proposed materials to Landscape Architect including source, manufacturers name and catalog numbers.

B. Shop drawings shall follow (PDF) for equipment including dimensions, capacities, and other characteristics listed in product specifications. Materials and equipment shall not be ordered until given written approval by Landscape Architect.

C. The specified irrigation booster pump has a long lead time (approximately sixteen weeks) and the irrigation booster pump submittal is to be submitted in a timely manner after the contract award and ordered to avoid project delays.

1.9 DEFINITIONS

A. Piping: All pipe fittings, valves, and accessories as required for a complete piping system.

B. PVC: Polyvinyl Chloride.

C. Agencies and Organizations:
   1. ASTM American Society for Testing and Materials
   2. AWWA American Water Works Association
   3. IAPMO International Association of Plumbing and Mechanical Officials

4. CEC California Electrical Code
5. UL Underwriter's Laboratories

1.10 UNDERGROUND OBSTRUCTION

A. The Contractor shall verify all underground obstructions, and / or utilities, existing or proposed, prior to trenching. Contractor shall avail themselves of any "as built" drawings of the site, Underground Service Alert (USA) 1-800-227-2600 and records of existing and proposed site work. This shall also include verifying between proposed irrigation work and existing / proposed underground utilities. Contractor shall call for a ruling by the Owner's Authorized Representative prior to work to obtain a ruling in the event of a conflict.

B. The Contractor, after availing themselves to the existing record drawings, Underground Service Alert and coordination with other trades installing underground utilities and excavation operations incurs and damages any existing utility not identified, the Contractor shall stop work and notify the inspector on site, obtain a ruling and repair the damage.

1.11 WORKMANSHIP

A. The Contractor shall have experience and demonstrated ability in the installation of landscapes of this type. No work shall be completed without supervision by a qualified foreman. All work shall be installed by skilled persons proficient in the trades required, in a neat, orderly and organized manner, with the recognized standards of craftsmanship developed for the industry and as described in the plans, specifications and manufacturers installation instructions.

1.12 CONSTRUCTION OBSERVATION

A. The Contractor is to coordinate construction observation site visits with the Landscape Architect and District Maintenance Department during the appropriate phases of construction, or as required by the Landscape Architect. The Contractor is to schedule site visits a minimum of one week in advance at the required phases of construction. The following outlines the phases of construction which require a site visit, however it is not limited to the following construction phases:

1. Preconstruction meeting
2. Staking of plant and tree locations prior to irrigation installation.
3. Staking of sprinklers and mainline routing.
4. Mainlines, wiring, lateral pipes, & valve manifolds prior to backfill.
5. Irrigation coverage test and rough grading.
6. Trees & plants prior to installation, still in containers.
7. Fine grading of turf areas prior to sod and stolon installation.
8. Substantial completion to start maintenance.
9. Final acceptance after successful maintenance period.

B. The Owner will pay for initial construction observation visits, however, any additional visits required due to non-compliance, incomplete work, or substandard performance will be paid by the contractor at a cost of $500.00 per extra visit.

1.13 PROTECTION TO THE PUBLIC HEALTH AND WELFARE

A. The Contractor in the course of their work shall make every effort to guard the public health, safety and welfare during construction. This shall include erection of barricades, night warning lights and all necessary devices required to protect the public health and welfare or as required by existing governmental codes. The Contractor shall accept any and all liabilities arising from accident or injury on the job and after construction. All equipment which protrudes above grade shall be installed against a structure or an appropriate barricade shall be erected to protect public safety.

PART 2 - PRODUCTS

2.1 MATERIALS

A. All materials and equipment to be used shall be as outlined on the irrigation legend, or as described in the irrigation notes and irrigation specifications. All materials shall be new and unused.

B. All specified materials, products and manufacturers are relevant to describe the required quality and features of a particular component of the irrigation system, however, the specific product or manufacturer noted is to be construed to be followed by the words, “or approved equal."

2.2 PIPELINES / SLEEVES

A. Irrigation Piping:
1. 2" thru 3": Pressure pipe / upstream of control valve (mainline pipe): PVC Schedule 40 solvent weld pipe, PVC Material ASTM D1784, Cell Class 12454B, Pipe Design ASTM D1785 & compliance with all NSF & IAPMO (UPC) requirements.
2. 4” thru 10”: Pressure pipe / upstream of control valve (mainline pipe): PVC Class 200 gasketed pipe, pressure rating 200 psi, SDR 21, PVC Material ASTM D1784, Cell Class 12454B, Pipe Design ASTM D2241 & Gasket Material ASTM F477.
3. 1" thru 21/2": Circuit pipe / downstream of control valve (lateral pipe): PVC Class 200 solvent weld pipe, pressure rating 200 psi, SDR 21, PVC Material ASTM D1784, Cell Class 12454B & Pipe Design ASTM D2241.
4. 2" thru 3”: Sleeving under paving: PVC Schedule 40 solvent weld pipe, PVC Material ASTM D1784, Cell Class 12454B, Pipe Design ASTM D1785 & compliance with all NSF & IAPMO (UPC) requirements.
5. 4” and Larger: Sleeving under paving: PVC Class 200 solvent weld pipe, pressure rating 200 psi, SDR 21, PVC Material ASTM D1784, Cell Class 12454B & Pipe Design ASTM D2241.
6. Pipe shall be continuously and permanently marked with the following information: Manufacturer's name or trademark, nominal pipe size, schedule and type of pipe, pressure rating in PSI and (NSF, IAPMO & AWWA) seals of approval.

B. Plastic pipe shall be as called for on the plan and extruded from PVC 1120/1220 and shall meet commercial standards CS 256-63. Class and schedule of pipe shall be as called for in the plans. Strict conformance with the manufacturers recommended installation instructions is required. Painted galvanized steel (schedule 40), threaded bronze nipples, copper or painted ductile iron pipe is to be used for any pipe installed above grade. Fittings for above grade

piping are to be consistent with pipeline material. Sun burned pipe or pipe that has been abused in shipping and handling is not to be used.

C. The Contractor is to install concrete thrust blocks as outlined in the thrust block detail and as recommended by the pipe & fitting manufacturers to secure all changes in direction or dead ends of all mainline pipe. The Contractor is to use rebar as needed if necessary to insure the stability of the pipe. Where concrete thrust blocks cannot be installed against continuous native subgrade, the Contractor is to install ductile iron mechanical joint restraints. No bending, or curving of pipe will be allowed, except as permitted by the pipe manufacturer. Pipe manufacturer must be approved prior to ordering materials.

D. Where piping on the plans is shown under paved areas, but is running parallel and adjacent to planted areas, the intent of the plans is to install the piping in the planted area. PVC Schedule 40 / Class 200 sleeves are to be used with all pipe and wire installed under hardscaped surfaces over six feet (6'-0") wide or wider.

E. Where pipeline routing changes occur in the field, the Contractor is to size the pipe so that a flow velocity of 5.0 feet per second is NOT exceeded. The minimum pipe size is 1" and 11/4" pipe is not used due to its limited flow range. The following is a basic guide for sizing lateral pipes in the field:

1. 3/4" Pipe – Not Used
2. 1" Pipe - 0 gpm thru 16.0 gpm
3. 11/2" Pipe - 16.1 gpm thru 36.0 gpm
4. 2" Pipe - 36.1 gpm thru 55.0 gpm
5. 21/2" Pipe - 55.1 gpm thru 85 gpm.

2.3 PIPELINE FITTINGS

A. Fittings:

1. For PVC solvent weld plastic pipe, 2" thru 3" mainline fittings: PVC Schedule 80 socket fittings (ASTM A2564, D2466, D2464 & D2467), Type 1, Grade 1. All mainline fittings are to be PVC Schedule 80 type with solvent weld or threaded connections.
2. For PVC class 200 gasketed pipe, 4” thru 6” mainline fittings: Ductile iron deep bell gasketed fittings as manufactured by LEEMCO, or approved equal. See manufacturers instructions and recommendations. No angular deflection of mainline pipe at the fitting bell end is allowed. For automatic valve connections to large mainline (4” thru 6”) pipe, Romac 202N ductile iron service saddle with double stainless steel straps may be used.
3. For PVC solvent weld plastic pipe, 1" thru 2 1/2" lateral fittings: PVC Schedule 40 socket fittings (ASTM A2564, D2466, D2464 & D2467), Type 1, Grade 1. All lateral fittings (downstream remote control valve) not specifically noted as PVC Schedule 80 type in the specifications or irrigation details are to be PVC schedule 40 type with solvent weld or threaded connections.
4. For connections between main lines and remote control valves: Schedule 80 PVC fittings and nipples (threaded both ends), see Irrigation Details. Do not use PVC male adaptors on the project. Use PVC Schedule 80 TOE nipple with coupler.
5. When connection is plastic to metal, Schedule 80 TOE nipple shall be used.
6. Teflon tape shall be used on all small diameter (½" to 3") threaded connections. No liquid or paste pipe thread sealants are allowed.

B. Risers to irrigation heads: Shall be as noted on Irrigation Details.

C. Solvent Weld Adhesive: Weld-On cement & primer appropriate for size & type of pipe and fittings. See manufacturers instructions and recommendations. Note weather and temperature limitations for use. Use primer for all joints, mainline and lateral pipe connections.

2.4 VALVES / CONTROL WIRE

A. Automatic Control Valves: Globe / Angle valves operated by low-power solenoid, normally closed, with manual flow adjustment. Sizes and types as shown on drawings. Low voltage electrical connections to valves shall have a minimum 24" coiled loop to each valve in valve box, see details. Valves shall be installed in a heavy duty plastic valve box with bolt down lid. Install one valve per valve box, no exceptions.

B. Control Wire – Traditional Low Voltage Control Wiring: Single strand Copper, UL approved for direct burial, minimum size #14-1 (hot wires) & #12-1 (common wires) rated for 600 volts as manufactured by Paige Electric, or approved equal. Common wire to be white/green, control wire to be red/yellow, spare hot to be black, spare common to be blue. All low voltage valve wiring is to be installed adjacent to pipe and taped into bundles at ten (10'-0") foot intervals. Wiring is to be neatly organized and loosely laid in trench and not stretched or pulled tight with expansion coils (24") at all changes in direction. All low voltage “hot” wiring is to be continuous, between the valve location and the designated controller. Low voltage wire shall be color coded by each controller. Contractor is to install a minimum of one spare hot wire and one spare common wire per controller looped to all remote control valves. Spare wires are to be color coded per controllers adjacent to each other.

C. Control Wire Connectors – Traditional Wired Stations: Valve wire connectors to be 3M DBY / DBR Direct Bury splice kits are to be used for all wire connections and spare wire ends. All splices are to be located in a valve box and no direct bury splices are allowed.

D. Control Wire Marking: T. Christy Enterprise, Inc. Waterproof Irrigation I.D. Tag or approved equal (714) 771-4172.

E. Control Valve Boxes: Applied Engineering heavy duty plastic valve boxes with heavy duty bolt down lids, or approved equal. See Irrigation Details for model numbers and sizes.

F. Control Valve Box Marking: Heat imprinting (3” min. height) with appropriate controller and station number.

2.5 IRRIGATION HEADS

A. Spray Head: Molded plastic body with plastic nozzles. Refer to schedule on drawings. Manufacturer's numbers are listed with description.

B. Rotor Head: Molded plastic and stainless steel construction. Gear driven with lockable arc adjustment and matched precipitation rate nozzles. Refer to schedule on drawings. Manufacturer's numbers are listed with description.

C. Irrigation heads adjacent to concrete walks, mow strips or other paved areas shall be offset 3" to permit edging without damage to irrigation equipment. Irrigation heads are to be set at grade. Irrigation heads are to be adjusted so that no spray hits buildings, fences, walls, or hardscaped surfaces. Install anti-drain check valves under all irrigation heads.

2.6 GATE VALVES

A. 1" thru 3" Size: Class 125 bronze gate valve, 200 psi WOG, manufactured domestically made of cast bronze material and cross handle with non rising stem as manufactured by NIBCO, or approved equal. Solid wedge with screw in bonnet gate valve with threaded connections resistant to dezincification. Contractor is to provide Owner with two (2) “T” handle operation keys.

B. 4" thru 6” Size: Resilient seat ductile iron gasketed joint gate valve rated for a minimum of 200 psi, manufactured domestically by NIBCO, Waterous or approved equal. Contractor is to provide Owner with two (2) “T” handle operation keys.

2.7 QUICK COUPLER VALVES

A. Two piece valve with heavy duty brass construction with vinyl cover and single lug operation. Contractor is to supply Owner with five (5) quick coupler keys and five (5) hose swivels. See Irrigation Legend and Details for detailed descriptions.

2.8 CENTRAL CONTROL SYSTEM

A. Rainmaster WMS Central System with ten (10) years of premium service access provided as part of the bid. Contractor is to provide all data input and programming required for a complete automatic control system on District provided computer. Contractor is responsible for training up to 4 persons appointed by the District in the use of this central system with remote internet access and smart phone application.

2.9 HAND HELD RADIO SYSTEM

A. The irrigation controller is to be capable of communicating with a Rain Master PRO MAX hand held maintenance radio for the purpose of remote activation of the irrigation system. Contractor is to provide two (2) PRO MAX remote radio kits (#PROMAX) to the District complete with charger, transmitter, receiver and carrying case with all cables and appurtenances required. Contractor is to program both the remotes to work with project irrigation controllers.

2.10 FIELD SATELLITE CONTROLLER

A. Irrigation controller shall be as specified on the plans. Pedestal mount shall have a concrete base. The installation shall be in accordance with the manufacturers instructions and recommendations. All electrical connections to the controller shall be the responsibility of the Contractor and shall be UL approved and meet all applicable codes and regulations. All wiring from the electrical source to controller shall be installed in UL approved electrical conduit. Contractor is responsible for training up to four persons appointed by the Owner in the operation of the field satellite controllers.

B. Contractor is to install Campus network cable with internet access to the irrigation controllers. Irrigation controllers are to be ethernet ready.

2.11 IRRIGATION BOOSTER PUMP STATION

A. Contractor is to supply and install a Watertronics skid mounted booster pump station capable of supplying 425 gpm with 60 - 70 psi boost and a constant discharge pressure set point of 75 psi. Set point is to be user adjustable within 10 psi higher or lower than 75 psi. The pump station is to feature VFD pressure regulation and have a marine grade aluminum unpainted enclosure with inlet and discharge drop pipes supplied by the manufacturer. Contractor is to install a 8" thick concrete base with #4 rebar installed in a 12" square grid. Contractor is to fasten the pump station skid to the concrete slab per the manufacturer's recommendations. Contractor is responsible for all electrical connections and other appurtenances required for a complete and operational installation. See Irrigation Legend and Details for additional information.

B. Pump station has a long lead time and Contractor is responsible to submit product submittals and order the pump station in a timely manner to insure installation within the time constraints of the project. Typical lead time is sixteen weeks from the date of order with retainer to the time of delivery.

2.12 VALVE BOXES

A. All valves, manual or automatic shall have a valve box, set flush with grade. All valve boxes shall be of heavy-duty plastic construction with heavy duty bolt down lids. Valve boxes are to be manufactured by Applied Engineering or approved equal. Maximum of one (1) valve per valve box, no exceptions. Placement of the valves within the valve boxes shall allow for proper servicing and maintenance space, or the installation will be rejected.

2.13 AIR RELIEF VALVES

A. Air relief valves shall be installed at high elevation areas of the mainline pipe and at dead end runs. Air relief valves are to be located in the field where high elevation points can be determined. Contractor is to submit a shop drawing showing the proposed installation locations for review and approval.

2.14 BACKFLOW PREVENTION DEVICES

A. The backflow prevention device shall be as called for on the Civil Site Plans and shall be acceptable to all applicable codes and regulations. Installation is to be by Site Plumbing Contractor. Contractor is to coordinate all work in the field with other trades.

2.15 OTHER MATERIALS

A. Materials not specifically indicated but necessary for proper execution of this work shall be of the first quality as selected by the Contractor subject to the acceptance of Architect.

B. All materials appearing in the legend and details of the irrigation drawings are part of this job. Contractor is responsible for installation according to drawings and details. The system shall efficiently and uniformly irrigate all areas and perform as required by these plans and specifications.

PART 3 - EXECUTION

3.1 IRRIGATION SYSTEM DESIGN

A. Irrigation system is designed for a minimum water pressure of 75 psi at the discharge of the irrigation booster pump.

B. Verify the design pressure provided at P.O.C. prior to system installation and report any discrepancies in writing to the Architect. Failure to inform the Architect of any discrepancy in design pressure seven working days prior to installation of the irrigation system shall institute the responsibility of corrective action to the Contractor, at no expense to the Owner.

3.2 IRRIGATION STAKING

A. The location of all sprinklers, valves, piping and other irrigation improvements shall be staked out by the Contractor. All staking and measurements shall be taken from permanent objects, buildings, or other permanent hardscape features including survey bench markers, and are NOT to be taken from non-permanent boundaries such as turf boundaries which are subject to modification. All measurements shall be made in feet and inches, rounding to the nearest inch. All variations from the plans are to be continuously updated on a daily basis on the record (as built) drawings. The Contractor is to present the areas staked to the Landscape Architect for review and approval prior to starting work. The Contractor is to make the adjustments in staking requested by the Landscape Architect at no additional cost to the Owner.

B. In turf and planter areas, the Contractor is to stake the tree and shrub locations prior to layout of the irrigation system to get approval from the Landscape Architect and District in the field prior to trenching. Contractor is to use color coded flags to stake plant materials by variety. Landscape Architect or District may move plants, delete or add plants during the staking review process. Contractor is to make changes in the field and on the as built plans at no additional cost to the Owner. After the plant layout has been staked, reviewed, adjusted and approved, the Contractor is to stake the bubbler locations for each plant or tree. Bubblers are to be located within the plant water basin on the uphill side of the plant or tree. Bubblers that are too far from the plant or tree will need to be relocated within an acceptable difference. The plant or tree rootball is to have direct access to irrigation water from the intended bubbler. Sloppy or non-compliant work will be rejected.

3.3 EXCAVATION, BACKFILL

A. Trenches for irrigation pipelines and sleeves shall be excavated either by hand or machine and shall be of sufficient width to permit proper handling and installation of the pipe and fittings. The backfill shall be compacted and evened off with the adjacent soil level. Select fill material or sand shall be used if soil conditions are rocky, or have debris. No material over 3/8" shall be allowed near the pipe, 6" below it, or 6" above the pipe. Backfill shall be made early in the morning when the soil and pipe temperatures are the same. Pipe to be installed with a minimum cover of 18" for mainline pipe and 12" for lateral pipe with spray heads and 18" for lateral pipe with rotors. Backfill shall be in 6" (lifts) increments. Each (lift) increment shall be compacted as needed to prevent settlement with tamping machine. Backfill material is to be brought to the optimum moisture content prior to starting compaction operations.

B. Contractor shall compact trench fill material as required to prevent settling of trenches. Contractor is to guarantee trenches against settling for a period of one year from the date of final acceptance by the Owner. Contractor is to fill, compact and plant settled trenches during this time at no additional cost to the Owner.

C. All pipe in the same trench shall have a minimum clearance of 4" from each other. Pipelines are not to be stacked vertically in the same trench. Pipes and wires or conduit are to have a minimum clearance of 6" from each other. Final fill over trenches shall be compacted to a level grade with no depressions.

3.4 ROAD, DRIVEWAY, PARKING LOT AND SIDEWALK PIPELINE CROSSINGS

A. Any pipe, wire or communication cable that crosses any hardscaped surface six feet (6'-0") or wider, shall be installed in a PVC schedule 40 / class 200 sleeve that is a minimum of two times larger than the pipe or wire bundle being sleeved. Sleeves are to have a minimum trench cover of 18" deep. Pipelines and wires that are to be installed below existing hardscaped improvements are to be installed in a sleeve as noted above, by horizontal directional boring. No cutting and patching of any hardscaped surface will be permitted without written permission of the Owner’s authorized representative. Newly paved areas are to be protected and preserved from construction damage. Jacking and hydraulic (water jet) driving are not permitted. The minimum sleeve size is two (2") inch. The Contractor is to verify the inside and outside diameters of pipes and wire bundles being sleeved to insure proper fit and installation. Irrigation pipelines and wires are to be installed in separate sleeves. No more than one (1) irrigation pipeline is allowed per pipe sleeve. Low voltage wires may be bundled with communication cable and installed in an appropriate size wire sleeve in conformance with NEC requirements for wires installed in conduit.

B. If approval to cut and patch a hardscaped surface has been obtained, the Contractor shall make cuts by a pavement / concrete saw or other approved means. Where any cutting or breaking of hardscaped surface work is necessary, it shall be removed and replaced by the Contractor conforming to all prevailing project specifications and requirements. Cuts are to be made along existing scoring lines or other markings to minimize negative visual aesthetics. Barriers and night lighting shall be erected to protect the public health welfare and safety. If approval to cut and patch a hardscaped surface is denied, the Contractor shall make the crossing by using horizontal directional boring. All materials and labor for all sleeves and crossings, whatever method, are to be supplied by the Contractor at no additional cost to the Owner.

C. Backfill shall be compacted to 95%. The Owner reserves the right to test such backfill. If the backfill does not meet the required 95% compaction, the Contractor shall recompact the trench. The Contractor shall pay for all additional testing until the work meets the specifications.

3.5 PIPING INSTALLATION

A. General: Support piping without strain on joints or fittings and allow for piping expansion and contraction. "Snake" pipe into trench in accordance with manufacturer's recommendations to allow for expansion. Lay on solid sub-base, uniformly sloped.

B. The Contractor shall examine all other portions of working drawing and plan trenching and pipe routing and depth so that no conflicts will arise between irrigation and any other work. Any corrective action will be the Contractor's responsibility at no further expense to the Owner.

Contractor is to endeavor to route mainline pipes a minimum of fifteen feet (15'-0") from trees and is to get permission to install mainline pipe closer in tight locations from the Owners Authorized Representative.

In playfields where irrigation mainline fence is shown adjacent to the perimeter fencing, the mainline is to be installed outside the fields of play and generally four to six feet from the perimeter fence, whichever is less pending field constraints.

C. Joints:
1. PVC Solvent Weld: Pipe shall be cut square and reamed to full size. Check for assembly prior to solvent weld. Remove excess solvent. All assembly shall be in accordance with manufacturer's recommendations, including use of primer on 1" pipe or larger.
2. Steel or PVC Schedule 40 Threaded: Pipe shall be cut square and reamed to full size. Threads shall be full cut, true and tapered. Teflon tape suitable for conveyed fluid shall be applied to male thread only.
3. Open Ends: Open ends of piping shall be capped during progress to preclude foreign matter. All pipe shall be assembled free from dirt and pipe scale.

D. The Contractor shall thoroughly flush all mainline and lateral piping prior to the installation of irrigation heads. Flush entire piping system of all debris.

3.6 IRRIGATION HEAD INSTALLATION

A. Head spacing on drawings is diagrammatic. Head spacing and patterns shall be adjusted to provide complete and adequate coverage without overspray on non-planted areas. Thoroughly flush all lines prior to installation of the sprinkler heads.

3.7 CONTROL WIRE

A. Traditional low voltage control wiring: Protect wire by running along side mainline piping, maintain 6" separation to mainline. Bundle wires together and tape at intervals of ten (10') feet. Do not tape wire together when encased in sleeve. Minimum cover shall be 18 inches. Connect wires together at valve manifold with Scotchlok connector. Seal splice with 3M DBR splice kit. Tag all control wire splices with approved control wire marker at splices in valve box and in controller.

3.8 CONTROL VALVE BOX MARKING

A. Imprint valve box lid by heat imprinting with appropriate controller and station number.

3.9 TESTING

A. General: Unless otherwise directed, tests shall be witnessed by a representative of the Owner. Mainlines are to be center loaded with the joints exposed. Should any joints be covered before such tests, the Contractor shall, at their expense, uncover, test, and repair the work and that of other contractors to original conditions. Leaks and defects shown by tests shall be repaired and entire work re-tested. Tests may be made in sections, however, all connections between

sections previously tested and new section must be included in the test.

B. Piping Upstream of control valves (Mainline): Maintain 100 PSI water pressure for a duration of four (4) hours. There shall be no drop in pressure during test except that due to ambient temperature changes. Perform test with control valves installed.

3.10 CONSTRUCTION OBSERVATION

A. Observation of Work:
1. Installation and operations must be approved by the Landscape Architect.
2. In no event shall the Contractor cover up or otherwise remove from view any work under this contract without prior approval of the Landscape Architect. Any work covered prior to inspection shall be opened to view by the Contractor at their expense.

B. Construction Observation: Periodic site visits shall be required for basic operations and installations during progression of the project. Such site visits will include, but not necessarily be limited to, the following items:
1. Preconstruction meeting.
2. Staking of plant and tree locations prior to irrigation installation.
3. Staking of sprinklers and mainline routing.
4. Mainline, wiring, lateral pipes & valve manifolds prior to backfill.
5. Irrigation coverage test and rough grading.
6. Trees & plants prior to installation, still in containers.
7. Fine grading of turf areas prior to installing sod and stolons.
8. Substantial completion to start maintenance.
9. Final acceptance after successful maintenance period.
10. The Owner will pay for initial construction observation visits, however, any additional visits required due to non-compliance, incomplete work, or substandard performance will be paid by the contractor at a cost of $600.00 per extra visit.

C. Coverage Test: When the irrigation system is completed, the Contractor in the presence of the Landscape Architect shall perform a coverage test of water afforded in the planting areas. The Contractor shall furnish all materials and labor required to correct any inadequacies of coverage disclosed. The Contractor shall inform the Landscape Architect of any deviation from the plan required due to wind, planting, soil, or site conditions that bear on proper coverage. If such corrections or additions are required in the irrigation system, the Contractor shall make all adjustments and corrections without any extra cost to the Owner.

D. Completion of Work: Prior to substantial completion and the start of the maintenance period, the Contractor shall deliver to the Owner a complete set of as built drawings as PDF and on 24 lbs bright white bond paper, two (2) sets of manuals covering all materials in the irrigation system with a list of local vendors, two (2) keys to each controller, two (2) Rain Master #PROMAX Remote Radio Kits, two (2) sets of all tools required to maintain system in tool boxes, five (5) quick coupler keys, five (5) hose swivels, two (2) mainline gate valve “T” wrenches for each type required, waterproof color coded controller diagrams and extra equipment listed below not installed as part of the project. Irrigation system shall be fully automatic, operable and provide full coverage of the planting areas. In judging the work, no allowance for deviation from the original plans and specifications will be made unless already approved in writing at proper time. Should it become necessary, due to developed conditions, to occupy any portion of the work before the Contract is fully completed, such occupancy shall not constitute acceptance. The Contractor will not be responsible for any damage caused by

the Owner's work forces.

3.11 EXTRA IRRIGATION EQUIPMENT

A. The Contractor shall supply the following extra equipment to be installed at the direction of the Landscape Architect during the project. Each item is to include all piping, wiring, fittings, appurtenances, labor and equipment costs for a complete installation at no additional cost to the Owner. Should any items not be installed as part of the project, the remaining items are to be delivered to Owner as part of project completion documentation.
1. Ten (10): Four inch pop up bubblers.
2. Ten (10): Six inch pop up spray sprinklers.
3. Five (5): Large pop up rotor sprinklers.
4. Five (5): Large pop up high speed rotor sprinklers.
5. One (1): 1" electric valve.
6. One (1): 11/2" electric valve.
7. Two (2): 2" electric valves.
8. Two (2): Quick coupler valves.
9. One (1): Air relief valve.

B. All work is to be in compliance with all project specifications and construction details at no additional cost to the Owner. Items not installed as part of the project are to be delivered to the Owner as part of project close out procedures (turn over items).

3.12 MAINTENANCE

A. Adjustments: Irrigation system shall be maintained and adjusted as required to provide proper coverage throughout the 120 day maintenance period. Irrigation system maintenance shall commence upon approval of substantial completion following irrigation installation, planting operations, and general site clean up. Maintenance shall be continued until final acceptance.

B. Irrigation controller shall be set during this time with Owner. Training for persons appointed by the Owner is to be completed during this time. Final acceptance of the project will NOT occur until all training of Owner’s personnel is completed.

END OF SECTION

SECTION 32 90 00 LANDSCAPE CONSTRUCTION

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. Provide all material, labor, equipment and services necessary to do all Landscape Construction work and other related items necessary to complete the Project as indicated by the Contract Documents unless specifically excluded. Work is to include, but is not limited to, the following:
1. Soil Testing
2. Clearing, Ripping and Grading
3. Cultivation, Soil Amending and Leaching
4. Furnish and Plant Plants and Trees
5. Fertilization & Mulching
6. Turfgrass Sod & Stolon Installation
7. Weeding
8. Staking
9. Clean-up and Maintenance

1.2 RELATED SPECIFICATION SECTIONS

A. Division 31 EARTHWORK

B. 32 8400 LANDSCAPE IRRIGATION

C. Division 03 CONCRETE

D. Division 26 ELECTRICAL

1.3 STANDARDS

A. Materials and installation shall conform with all State and Local codes and regulations governing the trades included in this work. Requirements of these plans and specifications not conforming therewith, but exceeding code requirements, then the plans and specifications shall govern.

1.4 DEFINITIONS

A. The term approved shall mean by the Architect, and only in writing.

1.5 EXAMINATION OF SPECIFICATIONS, PLANS AND SITE

A. It shall be the responsibility of the Contractor to carefully examine the site, plans and specifications relating to this work for completeness, accuracy and clarity. Any conflict, error,

or clarification shall be immediately brought to the attention of the Owner's authorized representative in writing to obtain a ruling. Failure to do so prior to bidding shall result in any corrective work necessary shall be completed at the Contractor's expense.

1.6 PERMITS AND INSPECTIONS

A. The Contractor shall obtain and pay required fees to any governmental or public agency. Permits for the installation or construction or the work included under this Contract, which are required by legally constituted authorities having jurisdiction, shall be obtained and paid for by the Contractor, each at the proper time. Contractor shall also arrange for and pay costs in connection with inspections and examination required by these authorities.

1.7 GUARANTEE

A. Guarantee shrubs, ground covers, and lawn as to growth and health for one (1) year after final acceptance by Owner. The contractor is responsible for replacement of plant materials due to theft and vandalism until final acceptance of the project by the Owner after completion of the specified maintenance period.

B. Guarantee trees to live and grow upright for a period of one (1) year after completion and final acceptance by the Owner. The contractor is responsible for replacement of trees due to theft and vandalism until final acceptance of the project by the Owner after completion of the specified maintenance period.

C. Replace plants which lose more than 30% of their original leaves within the below described time limits.

D. Remove and replace plants within 15 days of notification which fail to conform. Replace with materials as originally specified. Guarantee for replaced materials shall begin with date of replanting and shall be as previously described.

1.8 SUBMITTALS

A. Within the required time period stated, the Contractor shall submit PDF copy of complete lists of proposed materials to Landscape Architect including source, manufacturers name and catalog numbers.

B. Materials and equipment shall not be ordered until given written approval by Landscape Architect.

C. The Contractor shall confirm availability of plant material, supplies and materials for inclusion in the submittal. If a plant is found not to be suitable or available, the Contractor is to submit a list of three to five appropriate substitutions that are available for selection by the Landscape Architect. Plants and trees to be supplied by Mountain States Wholesale Nursery may not be available locally and are to be secured well in advance and substitutions for these plants may not be allowed.

1.9 UNDERGROUND OBSTRUCTION

A. The Contractor shall verify all underground obstructions and / or utilities, existing or proposed prior to making landscape excavations or installing tree stakes. Contractor shall avail themselves of any as built drawings of the site, Underground Service Alert (USA) 1-800-227-2600 and records of existing and proposed site work.

B. If there is a conflict with the utilities and the planting, notify the Landscape Architect for a ruling prior to planting.

1.10 PROJECT CONDITIONS

A. No plants shall be planted in situations that show obvious poor drainage. Such situations shall be brought to the attention of the Landscape Architect and Owner's authorized representative. Generally, the drainage problem is to be corrected prior to installing plant material.

B. All landscape areas are to be deep ripped to a depth of twelve inches (12") below finish grade in two directions. All trees are to have 18" diameter drainage holes that are 10' deep.

C. The Contractor shall guarantee repair of damage to any part of the premises resulting from leaks, defects in materials, equipment or workmanship. The Contractor shall be liable for any and all accidents resulting from their work, including open holes and trenches during construction.

D. During landscape construction operations keep hardscaped surfaces clean and work areas organized.

E. Landscape concrete mow strips are to be installed so that they do not conflict with site drainage or impede drainage away from buildings. Generally, a minimum 2% slope away from buildings is to be maintained for positive site drainage. Concrete mow strips are not to trap water or cause puddling.

1.11 WORKMANSHIP

A. The Contractor shall have experience and demonstrated ability in the installation of landscapes of this type. No work shall be completed without supervision by a qualified foreman. All work shall be installed by skilled persons proficient in the trades required, in a neat, orderly and organized manner, with the recognized standards of craftsmanship developed for the industry and as described in the plans, specifications and manufacturers installation instructions.

1.12 SOIL & WATER TESTING

A. An independent soil testing laboratory, Dellavalle Laboratory, contact Chad Reenders (559) 922-9299, is to test the existing soil after rough grading operations are completed with a complete fertility assay to evaluate the soils ability to maintain and support the ornamental landscaping. Samples from eight (8) locations on the site are to be taken, with two samples from each location, one at four (4") inches in depth, and the second at sixteen (16") inches in depth (sixteen samples). The soil testing laboratory is also to complete a preliminary screening for detrimental agricultural chemical residue that may be present on site, if these results are

positive, notify the Owners authorized representative for a ruling. The contractor is to pay for all required soil tests and consulting time with the soil scientist for detailed recommendations to be submitted to the Owners authorized representative for evaluation.

B. After the soil amending and leaching process has been completed, the Contractor is to take additional samples from the eight (8) locations on the site, with two samples from each location, one at four (4") inches in depth, and the second at sixteen (16") inches in depth (sixteen samples) to evaluate the progress and effectiveness of the soil amending and leaching work. The contractor is to pay for all required soil tests and consulting time with the soil scientist for detailed recommendations to be submitted to the Owners authorized representative for evaluation. If leaching is not required because no detrimental salts are present in the soil, then the second round of testing is required after the installation of the specified amendments to verify the progress of the soil reclamation process. Testing locations are to be determined by the Landscape Architect.

C. Contractor is to get one (1) irrigation water test with an agricultural suitability analysis by Dellavalle Laboratories and submit the results for review.

1.13 CONSTRUCTION OBSERVATION

A. The Contractor is to coordinate construction observation site visits with the Landscape Architect and District Maintenance Department during the appropriate phases of construction, or as required by the Landscape Architect. The Contractor is to schedule site visits a minimum of one week in advance at the required phases of construction. The following outlines the phases of construction which require a site visit, however it is not limited to the following construction phases:

1. Preconstruction meeting
2. Staking of plant and tree locations prior to irrigation installation.
3. Staking of sprinklers and mainline routing.
4. Mainlines, wiring, lateral pipes, & valve manifolds prior to backfill.
5. Irrigation coverage test and rough grading.
6. Trees & plants prior to installation, still in containers.
7. Fine grading of turf areas prior to sod and stolon installation.
8. Substantial completion to start maintenance.
9. Final acceptance after successful maintenance period.

B. The Owner will pay for initial construction observation visits, however, any additional visits required due to non-compliance, incomplete work, or substandard performance will be paid by the contractor at a cost of $600.00 per extra visit.

1.14 PROTECTION TO THE PUBLIC HEALTH AND WELFARE

A. The Contractor in the course of their work shall make every effort to guard the public health, safety and welfare during construction. This shall include erection of barricades, night warning lights and all necessary devices required to protect the public health and welfare or as required by existing governmental codes. The Contractor shall accept any and all liabilities arising from accident or injury on the job and after construction. All equipment which protrudes above grade shall be installed against a structure or an appropriate barricade shall be erected to protect public safety.

PART 2 - MATERIALS

2.1 PLANTS

A. Conform to list of plant materials on drawings. Contractor is to provide digital photos of representative example of each plant and tree type to be used and submit to Landscape Architect and District for review and comment. Plants and trees are also to be inspected by Landscape Architect and District when delivered to the site, prior to planting, so non-conforming materials can be identified and rejected prior to planting.

B. Plants shall be the best of their kind and class, and of optimum age, and in conformance with the standards of the American Society of Nurserymen.

C. Plants shall have normal, well-developed branch systems and shall not be root or pot-bound. Do not prune or top trees prior to delivery.

D. Delivery to be made not more than 2 days prior to installation unless nursery area approved by landscape architect is established with an automatic irrigation system.

E. It will be the responsibility of the contractor to place material order(s) sufficiently in advance of planting to assure availability of plants in species and size specified. Plant varieties noted to be available from Mountain States Wholesale Nursery may not be available locally. Contact Mountain States Wholesale Nursery, Wendy Proud at (626) 274-1956 to arrange for plant availability and delivery. Substitutions for these plants and trees will not be made due to lack of advance planning.

F. No substitutions will be made without approval of the Landscape Architect or authorized representative.

2.2 SOIL AMENDMENTS AND TOPDRESSING MULCHES

A. Soil amendments (type and quantity) are to be based on the soil test results and recommendations by the soil testing laboratory. The contractor is to include the amendments outlined in part 3.03 of this Section in the bid price. Prices for the soil amendments are to be quoted as unit prices to be adjusted based upon the recommendation of the testing lab. The contractor is to pay for all required soil tests and consulting time with the soil scientist for detailed recommendations.

B. Organic topdressing mulch: Walk on bark as supplied by Superior Soil Supplements, Hanford, CA (559) 904-3372, contact Andrea Fike. Organic topdressing mulch is to be installed in a 3” compacted layer. Mulch depth is to be evaluated at the beginning and at the end of the maintenance period for compliance with the 3” compacted layer requirement. Contractor is to continuously supplement the topdressing mulch as it settles throughout the specified maintenance period to achieve the specified 3” compacted depth in all designated landscape planter areas at the end of the maintenance period. This is essential to suppress weed growth and will be closely evaluated for compliance.

C. Inorganic topdressing mulch: Gray decomposed granite as supplied by Rosenbalms Rockery, Fresno, CA. Inorganic topdressing mulch is to be installed in a 4” compacted thickness and is to be brought to an optimum moisture content and compacted with a water filled drum roller to

85% - 90% relative density. Prior to placement of the decomposed granite, Contractor is to compact subgrade to similar relative density. Contractor is to continuously supplement and compact the inorganic topdressing mulch as it settles throughout the specified maintenance period to achieve the specified 4" compacted depth in all designated areas at the end of the maintenance period. This is essential to suppress weed growth and will be closely evaluated for compliance.

D. Commercial fertilizer (15-15-15), Best Pre-plant fertilizer (6-24-24 XB), slow release fertilizer Best All Season (19-6-12) with Polyon 43.

E. Gypsum (100% purity) and Elemental Soil Sulfur (100% purity) as supplied by Superior Soil Supplements, Hanford, California, (559) 904-3372.

F. Plant fertilizer tabs: Agriform, Best-Tabs or approved equal, quantities as shown below: 1 gallon plant (2 tabs), 5 gallon plant (4 tabs), 15 gallon plant (6 tabs) & box size tree (8 tabs).

G. Terra C Premium Humate as supplied by Superior Soil Supplements, Hanford, California, (559) 904-3372.

H. Certificates: In addition to any certificates specified, the Contractor shall furnish a certificate with each delivery of bulk material stating the source, quantity, date, and type of material. All certificates shall be delivered to the Owners authorized representative at the time of each delivery.

I. Samples and delivery tags: The contractor is to submit samples of the materials to be used for inspection and approval. Contractor is to submit all soil amendment delivery tags to the DSA Inspector. Delivery tags are to itemize delivered materials with weights and quantities and Supplier name and contact information. Quantities of all soil amendments to be installed are to be verified as being in compliance with the approved soil amendments to be installed on the project. Soil amendments not verified by delivery slips or other reliable manner are to be verified with additional soil testing as outlined in part 1.12 at the Contractors expense, in addition to the specified soil testing.

2.3 ACCESSORIES

A. Tree Stakes: 2 inches by 2 inches by 10 feet long treated lodgepole or natural redwood. Use two stakes per tree. See the tree installation detail.

B. Tree Ties: flexible vinyl "Cinch-Tie", manufactured by V.I.T. Products, San Diego, California, (619) 673-1760, and distributed by Horizon Sales, Pleasanton, California, (510) 462-6602. Use a minimum of four 24" ties per tree. See the tree installation detail.

C. Tree String Trimmer Guard: polyethylene "Trim Guard", manufactured by V.I.T. Products, San Diego, California, (619) 673-1760, and distributed by Horizon Sales, Pleasanton, California, (510) 462-6602. Use one Trim Guard per tree in the lawn areas only.

D. Tree Root Barriers: All trees within ten (10'-0") feet of a hardscaped surface, perimeter fence or building are to have root barriers installed and all trees in raised planters are to have root barriers installed that are 24" deep by 24" wide as manufactured by Root Solutions, Inc. and distributed by Vespro Inc., San Rafael, California, (415) 434-3072. Each tree up to 24" box size is to have up to 30 panels and larger box size trees are to have additional panels as

required, up to 45 panels. If the concrete is only on one side of the tree, then 10 panels (centered on the tree) are to be installed in a straight line along the concrete or boundary as recommended by the manufacturer, or if the concrete is on two sides of the tree, then install 10 panels (centered on the tree) on two sides or up to 30 panels are to be installed around the perimeter concrete, if concrete is on more than two sides of the tree as recommended by the manufacturer.

E. Top Soil: If required, imported topsoil shall be natural, fertile, friable loam, capable of sustaining vigorous plant growth, free of subsoil, roots, grass, excessive amount of weeds, salt, stone and foreign matter; acidity range of pH 5.5 to 7.5; containing a minimum of 4% and a maximum of 20% organic matter. Obtain approval of the Landscape Architect or Authorized representative for placement. The contractor is to submit a topsoil sample to an approved testing lab for a complete fertility assay for approval prior to importing the material on-site.

F. Import Soil: If required, imported fill dirt shall be tested with a fertility assay from Dellavalle Laboratories to certify that the fill dirt is free of salt, boron or other deleterious minerals or matter prior to delivery and placement on the site. Contractor is responsible for all remediation required for the placement of substandard fill dirt containing salt, boron or other deleterious minerals or matter that may require the installation of additional soil amendments, leaching, additional soil testing, replacement of failed plant materials to bring the non-conforming soil into compliance at the Contractors sole expense.

G. Other Materials: Materials not specifically indicated, but necessary for the proper execution of the work, shall be of first quality as selected by the Contractor subject to approval of the Landscape Architect.

2.4 WEED CONTROL

A. Methods and chemicals shall be suitable with regard to season and shall control weeds and shall be approved by all governing agencies.

B. Treatment shall not damage or impede growth of trees, shrubs, and ground covers to be planted, nor kill or damage any existing plant material specified to remain.

C. Applicator shall be a licensed State of California Agricultural Pest Control Operator, Category E, or as required by all governing agencies.

D. Contractor shall obtain required permits from County Agricultural Commissioner. Weed control treatment shall be in accordance with Federal, State of California, County and local codes and regulations, and shall be safe, not cause a health hazard, nor disrupt or inconvenience continuing business operations of the Owner and neighbors, public street, parking lot and sidewalk use or construction activities.

E. Method of treatment shall be strictly in accordance with manufacturer's recommendations.

F. Method of application and chemicals to be reviewed and approved by the Owners representative.

G. Contractor shall ascertain and insure that all planted areas are weed-free prior to planting and maintain the site weed free during construction and maintenance periods.

PART 3 - EXECUTION

3.1 SITE INSPECTION

A. Locate cables, conduit, piping, and other obstacles prior to beginning excavation. Notify Owners representative of obstacles requiring relocation.

B. Remove rocks and other similar underground obstructions to depths necessary to permit proper installation of lawns and planting. This includes gravel and road base from adjacent construction or stock piles.

C. Verify that landscape irrigation system has been properly installed and is fully operational.

D. Verify dimensions shown on plan and notify Owners representative of any discrepancy.

E. Review plant list and consult Owners representative with any questions or concerns.

3.2 GRADING

A. Contractor is to remove weeds and debris from site prior to starting grading operations and is to maintain the site weed free throughout the progress of construction.

B. Contractor is to work soil in a manner which does not cause excessive compaction or clods which will not break easily. Apply water as necessary to obtain optimum moisture content for tilling and planting. The Contractor is to coordinate deep ripping of all landscape areas to a depth of twelve inches (12") to break up compacted areas to improve drainage.

C. After the grades have been reestablished after irrigation trench backfill and prior to planting, the Contractor is to heavily irrigate the site to the point of producing runoff to verify that the site is free draining without puddles or low spots. Contractor is to address grading problems and repeat the test until all puddles and areas of standing water drain within one half hour (1/2 hr). Contractor is to fill settled areas as required. Planting shall not proceed until all grading corrections have been completed and the areas have been retested to confirm conformance.

D. The contractor is responsible for the grading of all planting areas. The grades shall be gently flowing with no abrupt changes. The contractor is responsible to ensure that the planting areas have adequate soil and is to fill low areas as needed. The contractor is to grade the areas to drain as intended by the site grading plan by the Project Civil Engineer. Typically, the planter areas are to be slightly crowned or cross sloped to insure positive drainage away from planted areas to the perimeter to drain as intended by the Site Drainage Plan. No standing water will be permitted in planter areas where plants and trees are located. Slope surfaces away from buildings at a 2% slope with no pockets of standing water. The contractor is responsible for all import or export of soil and removal of debris, trash, or other elements off site at Contractors expense to provide the Owner with a completed landscape project at no additional cost to the Owner.

E. Provide neat, smooth, and uniform finish grade. Final soil elevations in perimeter areas are to be as noted below. Grades may taper from perimeter areas over a smooth gradual transition.
1. Sodded Turf Areas: 3/4" below the adjacent sidewalks or other hardscape features.
2. Stolon Turf Areas: ½” below the adjacent sidewalks or other hardscape features.

3. Planter Areas: 3" below the adjacent sidewalks or other hardscape features.

F. Notify Owners representative upon completion of grading for approval and to verify the smoothness and accuracy of fine grading and clod-free condition of planting surface. No planting is to be started prior to obtaining the approval of the fine grading from the Owners authorized representative.

G. Install concrete mow strips between all turf and planter boundaries. Install the mow strips as shown in the Concrete Mow Strip Detail and as outlined in the project plans and specifications. Contractor is to insure that concrete mow strips do not interfere with site drainage and do not trap water or cause puddling.

3.3 SOIL PREPARATION

A. Soil Amendments, Cultivation and Weed Control:

1. The contractor is to cultivate the soil amendments into the top eight (8") inches of soil. The following soil amendment types and quantities are to be included in the bid. Pending the results of the soil tests, and recommendations of the soil testing laboratory, adjustments to the types and quantities of soil amendments to be used may be necessary. The contract price will be adjusted according to the actual soil amendments installed on the project. The contractor is to include the following soil amendments as part of the bid:
   a. Lawn Areas:
      1) Gypsum (100% purity) (Preplant), (4 tons per acre).
      2) Soil Sulfur (100% purity) (Preplant), (1/2 ton per acre).
      3) Best Triple Pro Fertilizer (Preplant) - (15-15-15), (500 lbs per acre).
      4) Best Preplant Fertilizer (Preplant) - (6-24-24 XB), (500 lbs per acre).
      5) Terra C Premium Humate (Preplant), (250 lbs per acre).
      6) Best All Season Fertilizer with Polyon 43 (Maintenance) - (19-6-12), maintenance applications and rates as follows:

         Sodded Turf Areas: (200 lbs per acre) per maintenance application. Minimum of four maintenance applications required for bid. Fertilize sodded areas monthly. Actual application will conform to soil test results.

         Stolon Turf Areas: (130 lbs per acre) per maintenance application. Minimum of eight maintenance applications required for bid. Fertilize stolon areas every other week. Actual application will conform to soil test results.
      7) Pelletized Gypsum, (Maintenance) - (1 tons per acre). One maintenance application required for bid. Actual application will conform to soil test results.
      8) Terra C Premium Humate, (Maintenance) - (250 lbs per acre). One maintenance application required for bid. Actual application will conform to soil test results.
   b. Planter Areas:
      1) Nitrified Aged Fir Humus (forest product) (Preplant), (4 cu. yds. per 1000 sq. ft.).
      2) Gypsum (100% purity) (Preplant), (4 tons per acre).
      3) Soil Sulfur (100% purity) (Preplant), (1/2 ton per acre).

4) Best Triple Pro Fertilizer (Preplant), (15-15-15), 500 lbs per acre.
5) Best Preplant Fertilizer (Preplant), (6-24-24 XB), (500 lbs per acre).
6) Terra C Premium Humate (Preplant), (250 lbs per acre).
7) Best All Season Fertilizer with Polyon 43 (Maintenance) - (19-6-12), maintenance applications and rates as follows:

Planter Areas: (200 lbs per acre) per maintenance application. Minimum of four maintenance applications required for bid. Fertilize planter areas monthly. Actual application will conform to soil test results.

8) Pelletized Gypsum, (Maintenance) - (1 tons per acre). One maintenance application required for bid. Actual application will conform with soil test results.
9) Terra C Premium Humate, (Maintenance) - (250 lbs per acre). One maintenance application required for bid. Actual application will conform to soil test results.

2. The Owners authorized representative and Contractor shall negotiate the differences in costs according to the materials required based upon the recommendations of the soil testing laboratory. No labor difference in cost will be allowed for application of the corrected materials to be used.
3. Soil Amending – Application #1: If salt is present in the soil test results, Contractor is to apply and incorporate the following soil amendments into the soil – Gypsum, Soil Sulfur and Nitrified Aged Fir Humus (planter areas only). Contractor is to reestablish site grades (smooth areas without displacing amendments) and leach the soils for four to six weeks.
4. Contractor is to retest the site soils as noted in 1.12 (B) above, if salt is present in the soil test results and leaching is required.
5. Soil Amending – Application #2: Contractor is to apply and incorporate the following soil amendments into the soil – Preplant Fertilizers and Humate amendments. Contractor is to reestablish site grades (smooth areas without displacing amendments) and leach the soils for one to two weeks.
6. If there are no or low salts in the soil test reports and leaching is not required, then the Contractor can combine Preplant Soil Amendment Applications #1 & #2 and delete the leaching requirement and issue a credit to the District.
7. After cultivation, water the site until the first weed crop is established. Cultivate or treat with chemicals to assure a weed-free condition.
8. Planting beds may be established after the second cultivation and final fine grading has been inspected and approved.

B. Planting holes:
1. All 15 gallon size trees or larger, are to have one 18” diameter hole drilled up to ten (10’) deep to insure proper drainage. Holes are to be off set with tree root balls “benched” into the top of the hole to prevent the tree against settlement.
2. Holes are to be excavated two to three times the size of the rootball. The contractor is to slightly off-set the drainage holes to prevent settling of plants after installation. The contractor is to guarantee that the trees and shrubs will not settle below grade. Trees in turf grass areas are to be planted after the stolons and sod has become established and no longer requires excessive irrigation, which may cause undue stress to the trees.
3. Holes are to be in damp (but not saturated) and friable condition with all hidden obstructions removed before planting. The backfill is to be mixed thoroughly as specified adjacent to the planting hole prior to planting.

C. Leaching: Leaching of the soils is a critical element in how fast the soils will be reclaimed. The Contractor is to expedite the irrigation installation during the early stages of the project to allow leaching operations with the irrigation system at the earliest possible time in the project schedule. The Contractor is to provide labor and materials as needed to leach soils with irrigation water in areas that will not delay the progress of other site improvements. During leaching operations, the Contractor is to maintain the soil saturated while limiting runoff. Contractor is to monitor depth of soil saturation to plan periods of drying appropriately.

D. Contractor is responsible for temporary measures required to retrofit the planter area irrigation system for leaching by installing spray nozzles on bubbler pop ups, installing temporary sprinklers, temporary lateral pipes or relocating sprinkler or other improvements required to insure good coverage of all planter areas for the purposes of leaching. Once leaching has been completed, contractor is to remove temporary improvements and restore the system to conform to the project documents.

3.4 PLANTING

A. Water plants immediately upon delivery to site. Maintain in moist condition until planted.

B. Space plants uniformly as shown on plans. The Contractor is to stake the locations of plants and tree locations prior to layout of irrigation system for review and approval by the Landscape Architect and District in the field prior to trenching. Contractor is to use color coded flags to stake trees and plant materials by variety. After the plant layout has been approved, the Contractor is to stake the bubbler locations for each plant and tree. Bubblers are to be located on the uphill side of the plant within the plant basin. Landscape Architect or District may move, add or delete plants or trees in the field and the Contractor is to adjust the work as required at no additional cost to the District. Contractor is not to proceed with irrigation or planting operations, until the planting locations have been approved by the Landscape Architect and District in the field.

C. Cut cans by cutting vertically on two opposite sides of can with can cutter, or as recommended by the nursery for the type and size of containers supplied with the plant materials. Do not damage plant.

D. Plant immediately after removal from the can or flat. Position the top of the plant root ball 1" above finish grade. Backfill as follows:
1. (85%) native soil.
2. (15%) nitrified humus.
3. Azaleas and camellias are to have an additional 2 cu. ft. Camellia Mix in backfill.
4. Agriform / Best plant tabs as indicated on plans. Place plant tabs beside root ball as recommended by the fertilizer manufacturer. Construct a watering well one foot radius from stem or trunk that will allow water to fill well at least 3" deep for shrubs and two foot radius from trunk that will allow water to fill well at least 4" deep for trees. Fill water well at least six times by hand after planting.

E. Fertilize all ground cover areas with post-plant commercial slow release fertilizer 19-6-12 upon completion of planting, and every 30 days through the first growing season at a rate of 5 lbs per 1000 square feet, or as recommended by the soil test results.

F. At completion of planting, all non-turf planted areas are to receive a three inch (3") compacted layer of organic or inorganic topdressing mulch as designated on the Mulching Plan. Wash

excess bark or decomposed granite off leaves and do not engulf stems of trees, plants and ground cover.

G. Lawn Installation (Stolons):

1. The turf areas, as indicated on the plans, shall be mechanically stolonized (400 bushels per acre) in one operation after all weed removal, soil preparation, grading and irrigation system have been completely installed and approved. Trees are to be installed after the turf has been established. Stake tree locations during turf establishment.
2. Mechanical stolonizing refers to a process where shredded vegetative sprigs of the specified type of grass (1 ½" – 3" long) are uniformly spread and sowed into a prepared planting bed with a stolon planting machine that is specially designed for this purpose. Bermuda King Sprig Planting machine with crimping wheels spaced 3" to 4", maximum spacing is to be used to plant stolons, or approved equal. Soil must be kept continually moist until the stolons are rooted, but puddling is not tolerated. Stolons are perishable and may die if not kept moist during this critical establishment period. It is the Contractors responsibility to carefully monitor the irrigation cycles on a daily basis to insure the success of the planting. Contractor is to continuously install new stolons in weak areas as required.
3. The allowable planting window for Bermudagrass stolons starts on May 1st and extends thru May 30th annually. Planting after May 30th or before May 1st is not permitted. Contractor is to schedule the work to insure that the planting is completed within this planting window.
4. The area to receive stolons shall be smooth, even, friable and slightly moist after the last watering and final weeding operations. The grading must be approved prior to planting.
5. The turf area establishment work is to proceed as follows. Time periods noted are from the date of stolon planting.
   a. *Weeks 1 thru 4:* Fertilize twice (week 2 and week 4) with Best 19-6-12 with polyon 43 at a rate of 3.0 lbs per 1,000 sq ft (130 lbs per acre) to keep stolons in a healthy growth state and mow once (week 4) with reel mower with roller (Toro 5210, or approved equal) to stimulate the lateral turf growth and increase density.
   b. *Weeks 5 thru 15:* Fertilize every other week (weeks 6, 8, 10, 12 & 14) with Best 19-6-12 with polyon 43 at a rate of 3.0 lbs per 1,000 sq ft (130 lbs per acre). Mow 2 times weekly with reel mower with roller (Toro 5210, or approved equal) to stimulate the lateral turf growth and increase density. Mowing height to be 5/8" to 3/4" of an inch.
   c. *Weeks 16 thru 17:* Fertilize as required to keep turfgrass in a healthy condition. Mow 1-2 times weekly with reel mower with roller (Toro 5210, or approved equal) and raise turfgrass mowing height to 1" to complete the maintenance period.
6. A minimum of one trained workman shall be on the site 8 hrs per day after planting the stolons and through the maintenance period. The stolonized areas shall be watered immediately and kept damp during the entire establishment period. Areas that are drying out too soon due to wind or other causes shall be watered by hand until the whole grass area comes up in a uniform and even covering of grass. Care shall be used to not overwater, which would create erosion. All erosion scars are to be repaired the same day.
7. The contractor is to carefully observe the newly planted grass to keep moist and in a healthy growing condition. The contractor is to water and fertilize as needed to keep the turf in a vigorous healthy condition.
8. The contractor is to protect the newly planted turf areas from foot traffic as needed. The contractor is to continuously replant and repair damaged and weak areas.

H. Lawn Installation (Sod):

1. The turf areas, as indicated on the plans, shall be sodded (use big roll sod in larger areas) in one operation after all weed removal, soil preparation, grading and irrigation system have been completely installed and approved. Trees are to be installed after the turf has been established. Stake tree locations during turf establishment.
2. The allowable planting window for sod starts on April 1st and extends thru June 30th annually. Planting after June 30th or before April 1st is not permitted. Contractor is to schedule the work to insure that the planting is completed within this planting window. Do not plant in excessively hot weather or when unseasonably hot weather is forecast in the near future.
3. Finish grade is to be smooth and firm to prevent differential settlement. Sod is to be laid in staggered rows (brick like pattern). Edges are to be firmly butted together to insure soil to soil contact between sod pieces. Sodded areas are to be rolled (water roller) to remove air pockets and insure good soil contact.
4. The area to be sodded shall be slightly moist after the last watering and final weeding operations. The grading must be approved prior to sodding. The site must be free draining prior to sodding.
5. The turf area establishment work is to proceed as follows. Time periods noted are from the date of sod planting.
   a. *Weeks 1 thru 4:* Fertilize once (week 2 or week 3) with Best 19-6-12 with polyon 43 at a rate of 4.6 lbs per 1,000 sq ft (200 lbs per acre) to keep sod in a healthy growth state and mow once per week with reel mower with roller (Toro 5210, or approved equal) to stimulate the lateral turf growth and increase density.
   b. *Weeks 5 thru 12:* Fertilize twice (weeks 7 & 12) with Best 19-6-12 with polyon 43 at a rate of 4.6 lbs per 1,000 sq ft (200 lbs per acre). Mow 2 times weekly with reel mower with roller (Toro 5210, or approved equal) to stimulate the lateral turf growth and increase density. Mowing height to be 5/8" to 3/4" of an inch.
   c. *Weeks 13 thru 17:* Fertilize once (week 16 or week 17) to keep turfgrass in a healthy condition. Mow 1-2 times weekly with reel mower with roller (Toro 5210, or approved equal) and raise turfgrass mowing height to 1" to complete the maintenance period.
6. A minimum of one trained workman shall be on the site 8 hrs per day after sodding and through the maintenance period. The sodded areas shall be watered immediately and kept damp during the entire establishment period. Areas that are drying out too soon due to wind or other causes shall be watered by hand until the whole grass area is established in a uniform manner. Care shall be used to not overwater, which would create erosion and fungus. All erosion scars are to be repaired the same day.
7. The contractor is to carefully observe the newly planted grass to keep moist and in a healthy growing condition. The contractor is to water and fertilize as needed to keep the turf in a vigorous healthy condition.
8. The contractor is to protect the newly sodded area from foot traffic as needed. The contractor is to continuously resod and repair damaged areas as required.

3.5 STAKING AND TYING

A. Remove nursery stakes and ties.

B. Install tree stakes 18" deep on windward and leeward sides of tree and tie to tree with 4 ties. Install ties loose enough to avoid injuring cambium layer of tree and to allow limited movement.

C. Remove nursery ties from shrubs and espaliered plants and install new plastic ties in a loose manner so new plant growth will not girdle the branch or stem.

3.6 MAINTENANCE

A. Maintain planted areas during the progress of the work and through the maintenance period. A minimum of one trained workman shall be on the site 8 hrs per day after planting the stolon's until the fourth mowing and as needed through the maintenance period.

B. The maintenance period begins when the work is substantially completed and accepted by the Owner and the first mowing has occurred. The turf areas are to be completely planted and show active growth and reasonable coverage before the specified maintenance period can begin. The maintenance period shall be for one hundred twenty days (120) days, after substantial completion by the Owner. The Owner and Landscape Architect shall be notified a minimum of 10 days prior to the time that the work is ready for final inspection. This final inspection is required before the maintenance period can begin. The contractor is responsible to provide all materials and labor to maintain the site for the maintenance period at no cost to the Owner. The maintenance period may be extended at no cost to the Owner should prevailing site conditions not warrant final acceptance by the Owner. The site should be in a weed free condition, the lawns should be established, vigorous, have minimum 99% coverage, be weed free, and fertilized, and all plants and trees are to be in good condition. The maintenance period will be extended in one month increments until the Contractor brings the site into compliance at no additional cost to the Owner.

C. During the maintenance period the contractor shall provide the following services, but is not limited to the services outlined below.
   1. Maintain surfaces and supply additional top soil where necessary, including areas affected by erosion.
   2. Water to ensure uniform stolon growth and to keep surface of soil damp. Fertilize as specified on a monthly, or as needed basis.
   3. Apply water slowly so that surface of soil will not puddle and crust.
   4. Maintain turf & planted areas weed free. Hand weed or use chemicals at the Contractor's option.
   5. Mow and maintain the turf areas, and pick up grass clippings to be hauled off site at the Contractors expense.

3.7 CLEAN-UP

A. Remove rubbish, trash, and debris resulting from the operation at the end of each working day.

B. Clean, sweep or wash paved surfaces clean.

C. Maintenance period will begin with acceptance of installation by the Owner and will continue as noted in article 3.06.

3.8 EXTRA LANDSCAPE MATERIALS

A. Contractor shall supply the following extra materials to be installed at the direction of the Landscape Architect during the project at any time. Each item is to include all associated

materials (landscape and irrigation) and all appurtenances associated with the item, including material, labor and equipment costs for a complete installation in accordance with the project documents at no additional cost to the Owner. Should any items not be installed as part of the project, the remaining items are to be delivered to Owner or a credit issued at the Owner's option as part of the project completion documentation.

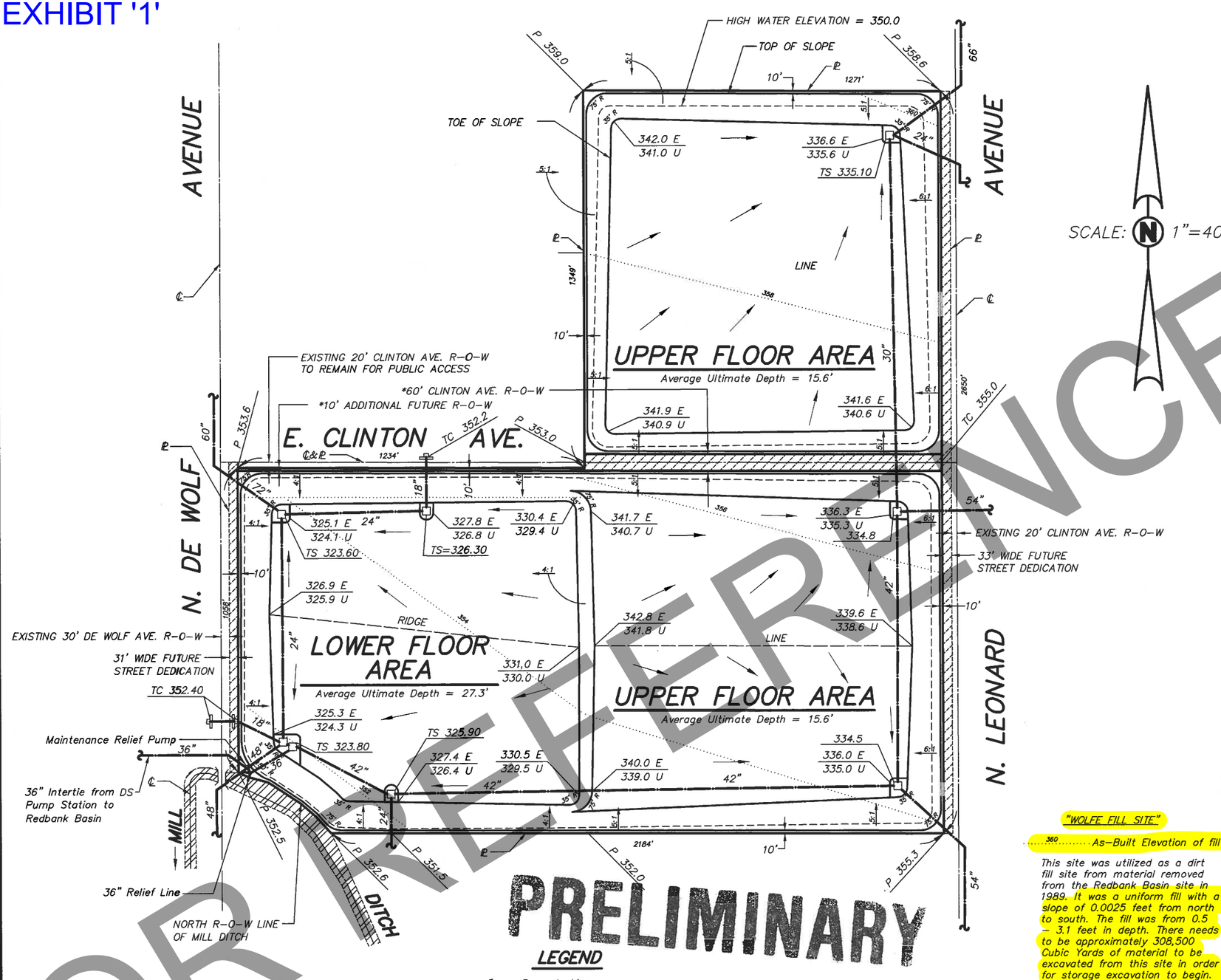
1. Ten (10): One gallon size plants (Planting Plan varieties)
2. Twenty (20): Five gallon size plants (Planting Plan varieties)
3. Five (5): Fifteen gallon size plants (Planting Plan varieties)
4. Five (5): Fifteen gallon size trees (Planting Plan varieties)
5. Three (3): 36" box size trees (Planting Plan varieties)

B. All work is to be in compliance with all project specifications and construction details at no additional cost to the Owner.

END OF SECTION

EXHIBIT '1'

AD-2



CA SUMMARY JCT NO.	BASE CA
29	207.2
54	194.8
55	11.1
75	169.2
105	230.1
111	38.4
112	14.9
113	15.0
	880.7

STORAGE REQUIREMENTS

BASE CA

Rainfall Variance Factor = 1.05

Vreq. = (880.7)(0.5)(1.05) = 462.4 Ac-Ft

1.2 BASE = (462.4)(1.2) = 554.9 Ac-Ft

HIGH WATER LEVEL

High Water Elevation Equals proposed top of curb of inlet located on the North side of McKinley Avenue approximately 800' west of Leonard Avenue. Elevation = 350.00

FREEBOARD

Average Freeboard Equals 4.4'

CAPACITY CALCULATIONS

AREAS:

High Water (Elev. 350.00)	= 105.3 Ac.
Entire Basin @ Elev. 342.8	= 97.3 Ac.
Lower Floor Area @ Elev. 342.8	= 32.2 Ac.
Lower Floor Area	= 26.3 Ac.
Upper Floor Area @ Elev. 342.8	= 65.1 Ac.
Upper Floor Area	= 55.4 Ac.
Average Upper Floor Elev.	= 338.8
Average Lower Floor Elev.	= 327.1
Average Pad Elev.	= 354.4

Volume of Upper Floor Below Elev. 342.8

$$\text{Vol.} = \frac{(65.1)+(55.4)+\sqrt{(65.1)(55.4)}}{3}(342.8 - 339.8) = 230.1 \text{ Ac-Ft}$$

Volume of Lower Floor Below Elev. 342.8

$$\text{Vol.} = \frac{(32.2)+(26.3)+\sqrt{(32.2)(26.3)}}{3}(342.8 - 327.1) = 458.4 \text{ Ac-Ft}$$

Volume of Entire Basin Above Elev. 342.8

$$\text{Vol.} = \frac{(105.3)+(97.3)+\sqrt{(105.3)(97.3)}}{3}(350.0 - 342.8) = 729.2 \text{ Ac-Ft}$$

Total Volume = 230.1+ 458.4 +729.2= 1383.3 Ac-Ft > 554.9 Ac-Ft O.K.

SUPPLEMENTAL CAPACITY

Basin Provides 199.1 % Supplemental Capacity for Drainage Area DS.

PERCOLATION

Percolation Assumed to Equal Rainfall Amount on Basin Site.

SITE AREA

Area Within Property Lines = 113.3 Ac.

HGL CONTROL

350.0 -0.28(0.67 (22.9)+ 0.33(10.2)) = 344.76 Use 344.76

RELIEF

The Relief for Basin "DS" will be through Pump Station and 36" Relief Line to the Mill Ditch located at the SW corner of the basin. There will also be relief capability from intertie between Basin "DS" and the Redbank Basin by valving and pumping from the "DS" pump.

"WOLFE FILL SITE"

360 ..... As-Built Elevation of fill

This site was utilized as a dirt fill site from material removed from the Redbank Basin site in 1989. It was a uniform fill with a slope of 0.0025 feet from north to south. The fill was from 0.5 – 3.1 feet in depth. There needs to be approximately 308,500 Cubic Yards of material to be excavated from this site in order for storage excavation to begin.

LEGEND

℄	Property Line
℄	Centerline of Street
TC	Top of Curb Grade
HP	Hinge Point Grade
U	Ultimate Grade
E	Excavation Grade
TS	Top of Structure Grade

DATUM

U.S.G.S.

* 60' Clinton Ave. R-O-W is assumed. Final width will be determined by the City of Fresno.

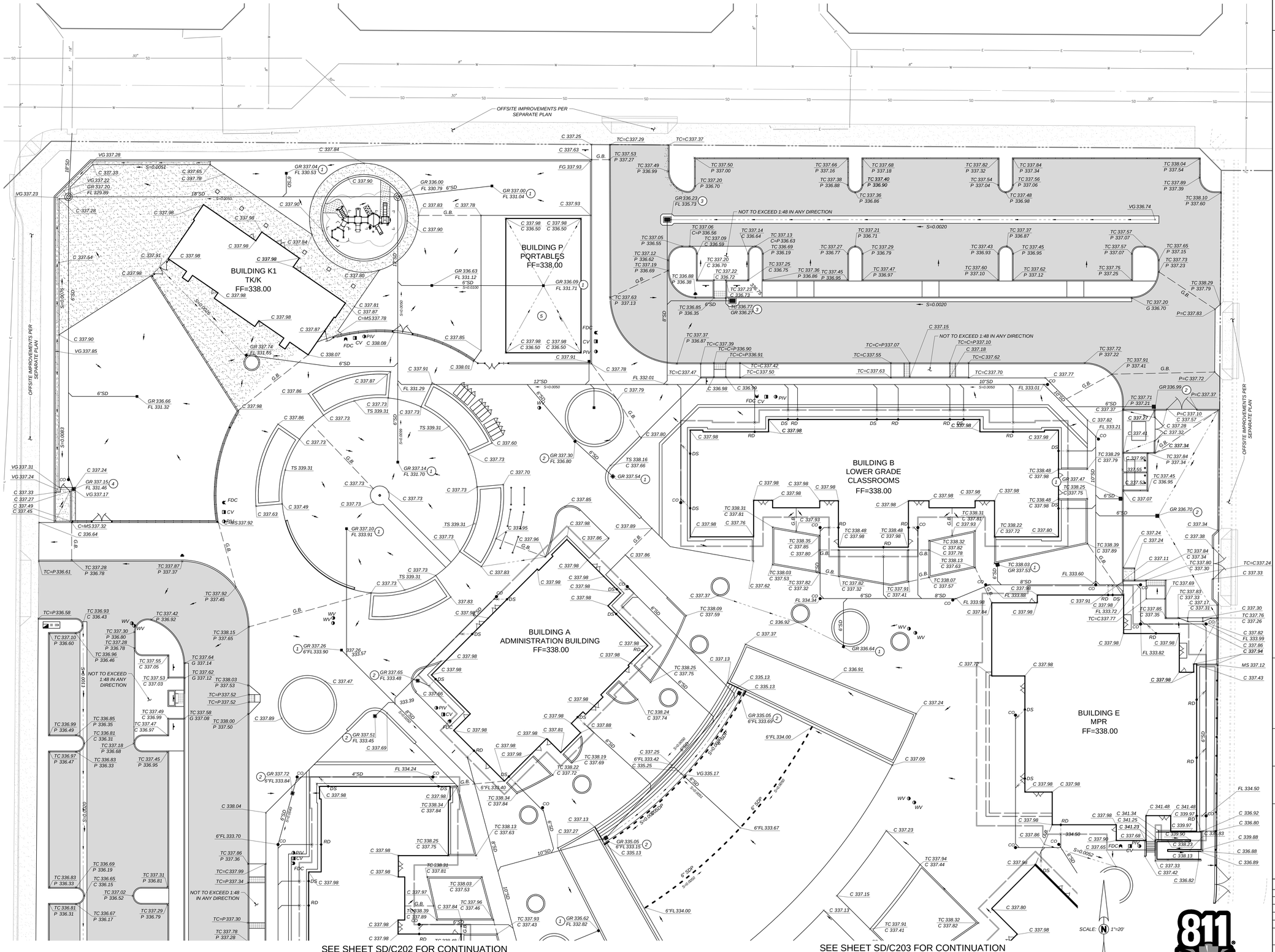
RESIDENTIAL DESIGN

SHEET 1 OF 1

APPROVALS	
F.M.F.C.D. MANAGER	
F.M.F.C.D. ENGINEER	

REVISION	FRESNO METROPOLITAN FLOOD CONTROL DISTRICT		
RC 8-17-16	DATE: 8 - 17 - 11	DRN BY: BN DES BY: BN	BASIN DS

K:\Master Planning & Special Projects\Basin & H&H Studies\DS\Basin\Basin DS Drawing2.dwg



DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval

SEE SHEET SD/C302 FOR LEGEND

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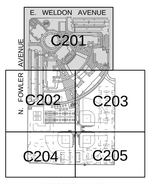


KEYMAP

General Notes

Blair, Church & Flynn CONSULTING ENGINEERS
Blair, Church & Flynn Consulting Engineers
451 Clovis Avenue, Suite 200
Clovis, California 93612
Tel (559) 326-1400
Fax (559) 326-1500

REGISTERED PROFESSIONAL ENGINEER — ANE R. B. FLYNN — PLAN REVIEW ONLY — NOT FOR CONSTRUCTION — STATE OF CALIFORNIA

Consultant — Date Signed:

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

GRADING AND DRAINAGE PLAN

Drawing

darden architects
ARCHITECTURE PLANNING INTERIORS
www.dardenarchitects.com
6790 N. West Ave. • Fresno, CA 93711 • T. 559.448.8051

LICENSED ARCHITECT — ANDREW K. PFENNIG — No. C23724 — Exp. 4-30-23 — STATE OF CALIFORNIA

Architect

No.	Revison/Submission	Date
2	Addendum #2	01/20/23

Revision

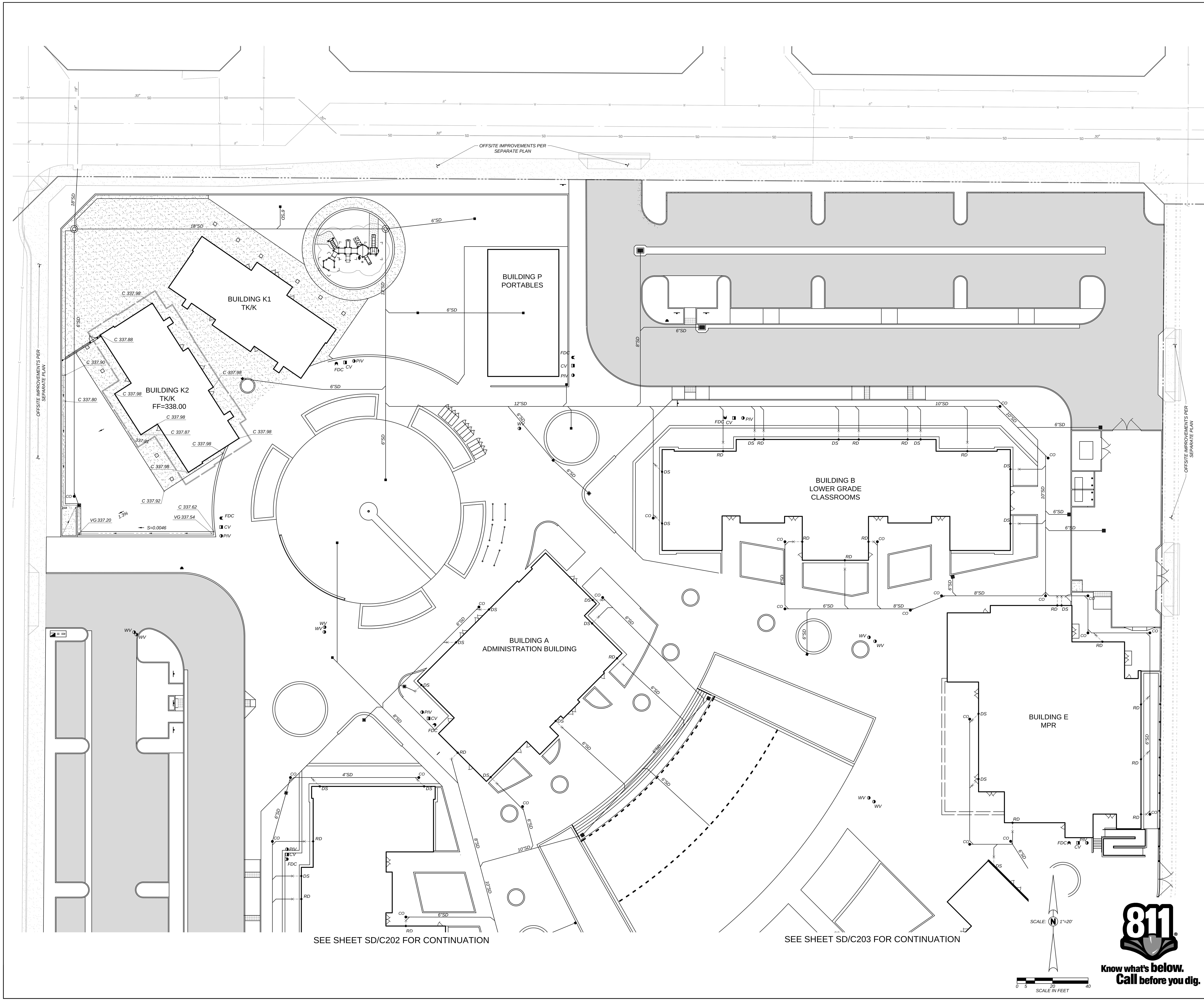
Designed By: LRB
Drawn By: SAD
Checked By: JDB
Reviewed By: JDB

Scale: AS NOTED
Project Number: 2116
Date: 9/20/2022

SD/C201

Sheet: _____ of: _____

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



DSA File No.:
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DSA Application No.:
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Agency Approval

SEE SHEET SD/C202 FOR LEGEND

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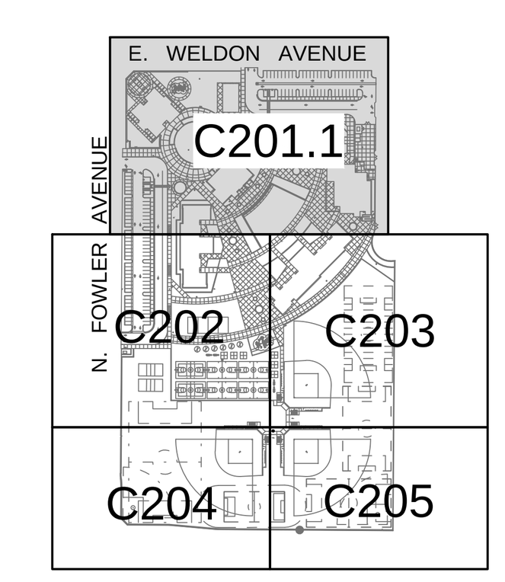

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ADDITIVE ALTERNATE 1

Drawing

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LICENSED ARCHITECT
MICHAEL K. FENNACY
No. C23724
Ren. 4-30-23
STATE OF CALIFORNIA

Architect

No.	Revison/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: LRB	Copyright 2022 Darden Architects
Scale: AS NOTED	Drawn By: SAD	SD/C201.1
Project Number: 2116	Checked By: JDB	
Date: 9/20/2022	Reviewed By: JDB	Sheet: ________ of: ________

Drawing: P:\221-0312\Site\productiondrawings\221312_GR01.dv
Plot by: rvang

AD2- CX02

SEE SHEET SD/C201 FOR CONTINUATION

GRADING AND DRAINAGE LEGEND:

C	CONCRETE
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOWLINE
G	GUTTER
GR	STORM DRAIN GRATE
L	LIP OF GUTTER
MS	MOWSTRIP
P	PAVEMENT
RA	RAMP
SW	SWALE
TC	TOP OF CURB
TST	TOP OF STEP
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VG	VALLEY GUTTER
(344.9)	EXISTING ELEVATION
328.78	NEW FINISHED GRADE
	DIRECTION OF SURFACE DRAINAGE
	BUILDING OVER-EXCAVATION LIMITS; SEE DETAIL [B/SD/X101]
G.B.	GRADE BREAK
S=0.0050	PIPE SLOPE AND DIRECTION OF FLOW
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SDP	PERFORATED STORM DRAIN PIPE PER DETAIL [F/SD/X101]
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2	V12 STORM DRAIN INLET PER DETAIL [D/SD/X101]
3	U32 STORM DRAIN INLET PER DETAIL [A/SD/X101]
4	3 - 3"x6" STEEL DRAIN TUBES PER CITY OF FRESNO STD. DWG. P-23
5	BUILDING AND PITSET ELEVATIONS SHOWN FOR REFERENCE. REFER TO BUILDING MANUFACTURES PLANS FOR DETAILS AND SECTIONS
6	U23 STORM DRAIN INLET PER DETAIL [A/SD/X101]
	STORM DRAIN MANHOLE PER DETAIL [G/SD/X101]
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6"SD	STORM DRAIN PIPELINE; SIZE AS NOTED. TRENCH AND BACKFILL PER DETAIL [F/SD/X102]
S=0.0020	FLOWLINE SLOPE AND DIRECTION OF FLOW
DS	DOWNSPOUT
RD	ROOF DRAIN

GENERAL GRADING AND DRAINAGE NOTES:

THE REQUIREMENTS AND INFORMATION SET OUT BELOW ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE AND DO NOT ENCOMPASS ALL PROJECT REQUIREMENTS DESCRIBED BY THE PROJECT PLANS AND SPECIFICATIONS AND/OR APPLICABLE LAWS, REGULATIONS AND/OR BUILDING CODES.

1. *CONSTRUCTION OF ALL PROJECT SITE IMPROVEMENTS SUBJECT TO ADA ACCESS COMPLIANCE, INCLUDING ACCESSIBLE PATH OF TRAVEL, CURB RETURNS, PARKING STALL(S) AND UNLOADING AREAS, BARRIER FREE AMENITIES AND/OR OTHER APPLICABLE SITE IMPROVEMENTS SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT, CALIFORNIA TITLE 24, THE CALIFORNIA BUILDING CODE, CURRENT EDITION(S).*
2. *CONTRACTOR SHALL FIELD VERIFY ALL GRADES AND SLOPES PRIOR TO THE PLACEMENT OF CONCRETE AND/OR PAVEMENT FOR CONFORMANCE WITH ADA ACCESS COMPLIANCE REQUIREMENTS. EXAMPLES OF MINIMUM AND MAXIMUM LIMITS RELATED TO ADA ACCESS COMPLIANCE INCLUDE, BUT ARE NOT LIMITED TO:*
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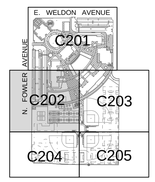
   b) *ACCESSIBLE PATH OF TRAVEL LONGITUDINAL SLOPES SHALL NOT EXCEED 5%*
   c) *RAMP LONGITUDINAL SLOPES SHALL NOT EXCEED 8.33%*
   d) *ACCESSIBLE WALKS SHALL NOT HAVE LESS THAN 48 INCHES IN UNOBSTRUCTED WIDTH*
   e) *ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION*
   f) *LANDINGS AT THE TOP AND BOTTOM OF ACCESSIBLE RAMPS SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION*
   g) *GUTTERS AND ROAD SURFACES DIRECTLY ADJACENT TO AND WITHIN 2 FEET OF A CURB RAMP SHALL HAVE A COUNTER SLOPE NOT TO EXCEED 5%*
3. *CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IDENTIFIED BY THE PROFESSIONAL ENGINEERING SEAL AND SIGNATURE ON THESE PLANS, OF ANY SITE CONDITION(S) AND/OR DESIGN INFORMATION THAT PREVENTS THE CONTRACTOR FROM COMPLYING WITH THE LAWS, REGULATIONS AND/OR BUILDING CODES GOVERNING ADA ACCESS COMPLIANCE.*
4. *GROUND SLOPES AWAY FROM BUILDING PADS IN LANDSCAPED OR DIRT AREAS SHALL BE NO LESS THAN 5% FOR AT LEAST TEN (10) FEET, OR AS OTHERWISE NOTED ON THE PLANS.*
5. *DRAINAGE SHALL NOT BE ALLOWED ONTO ADJACENT PROPERTY.*
6. *ALL FILL MATERIAL USED TO SUPPORT THE FOUNDATIONS OF ANY BUILDING OR STRUCTURE SHALL BE PLACED UNDER THE DIRECTION OF A LICENSED GEOTECHNICAL ENGINEER, AND IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS. A SOILS COMPACTION REPORT SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AS REQUIRED BY THE PROJECT SPECIFICATIONS.*
7. *THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES AS REQUIRED BY THE PROJECT SPECIFICATIONS, AND BY GOVERNING PUBLIC AGENCIES.*
8. *THE CONTRACTOR SHALL IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE PROJECT SPECIFICATIONS AND THE STATE WATER RESOURCES CONTROL BOARD'S CONSTRUCTION GENERAL PERMIT. IMPLEMENT BEST MANAGEMENT PRACTICES WITHIN PUBLIC RIGHT OF WAY PER LOCAL JURISDICTION REQUIREMENTS.*
9. *AS A FIRST ORDER OF WORK, THE CONTRACTOR SHALL POT HOLE THE EXISTING UTILITY LINES AT THE POINT OF CONNECTION TO VERIFY THE LOCATION, SIZE, PIPE MATERIAL AND ELEVATION SO THAT THE ENGINEER CAN MAKE ELEVATION AND/OR ALIGNMENT ADJUSTMENTS IF NECESSARY. SHOULD POT HOLING DISCOVER ANY DISCREPANCIES, CONTACT THE ENGINEER AND OBTAIN WRITTEN DIRECTION BEFORE PROCEEDING.*
10. *ADJUST UTILITY LIDS WITHIN NEW CONSTRUCTION AREA TO FINISHED GRADE PER DETAIL [J/SD/X102]. REPLACE ALL BROKEN LIDS WITH NEW. PROVIDE TRAFFIC RATED LIDS WITHIN VEHICLE LOADING AREAS.*
11. *WATER TEST PAVEMENT WITHIN NEW IMPROVEMENT AREA. REPLACE PAVEMENT WHERE BIRD BATHS OCCUR AFTER TEST AS DIRECTED BY THE INSPECTOR OR ENGINEER.*
12. *MINIMUM SLOPE ON IMPERVIOUS SURFACES PERPENDICULAR TO ADJACENT STRUCTURE(S), WITHIN ADA PATH, SHALL BE 1% MINIMUM AND 2% MAXIMUM. WHERE DOOR AND GATE LANDINGS OCCUR THE CROSS SLOPE SHALL BE 2% MAXIMUM IN ALL DIRECTIONS*



KEYMAP

SCALE: N 1"=20'

SCALE IN FEET 0 5 10 20 40

Know what's below. Call before you dig.

DSA File No.: 10-48

DSA Application No.: 02-120543

Agency Approval

General Notes

Blair, Church & Flynn CONSULTING ENGINEERS
Blair, Church & Flynn Consulting Engineers
451 Clovis Avenue, Suite 200
Clovis, California 93612
Tel (559) 326-1400
Fax (559) 326-1500

REGISTERED PROFESSIONAL ENGINEER R. B. FLYNN PLAN REVIEW ONLY NOT FOR CONSTRUCTION STATE OF CALIFORNIA Civil Date Signed:

Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

GRADING AND DRAINAGE PLAN

Drawing

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LICENSED ARCHITECT RODNEY K. FERRO No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revison/Submission	Date
2	Addendum #2	01/20/23

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Drawn By: SAD
Checked By: JDB
Reviewed By: JDB

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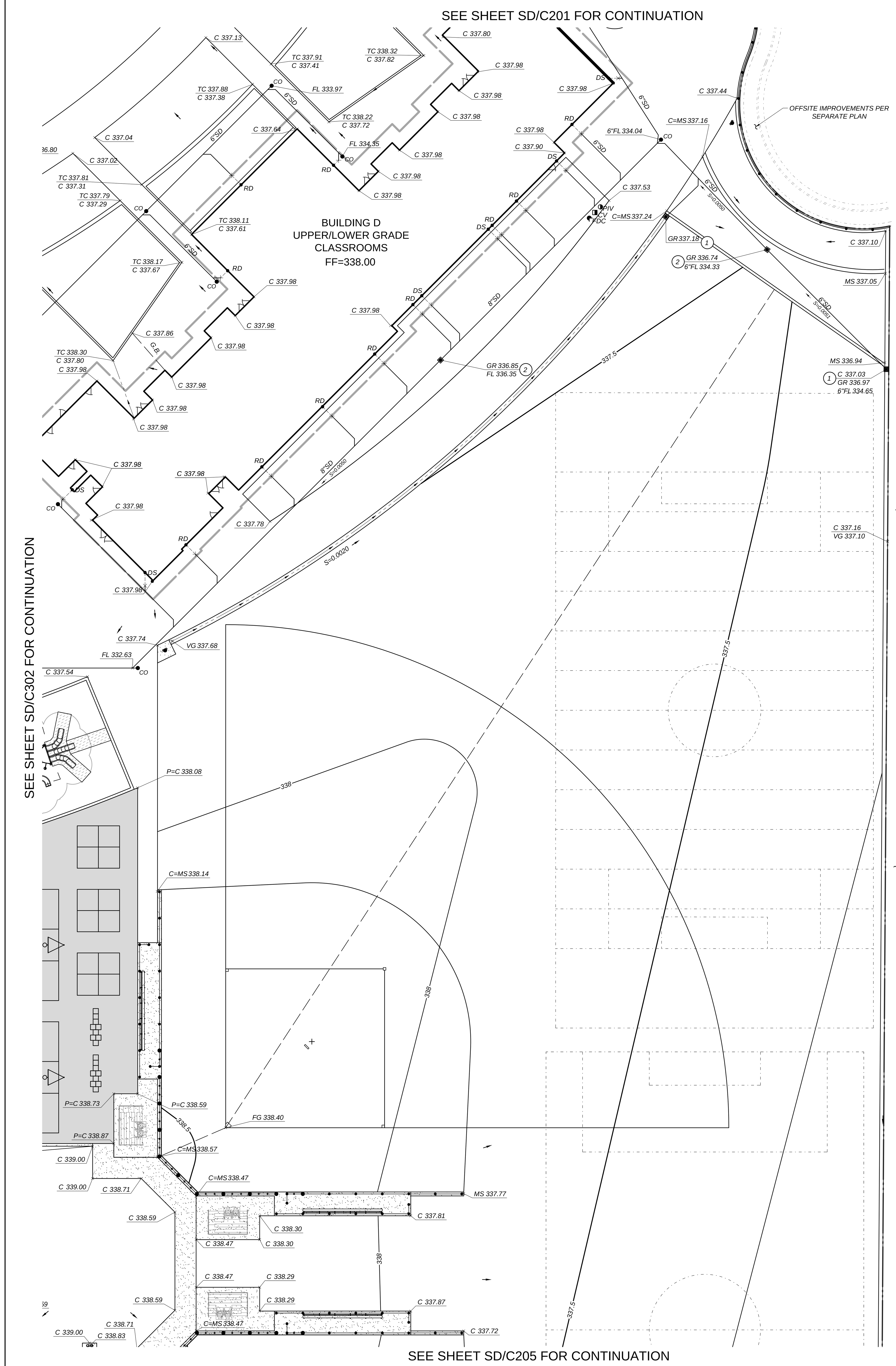
Scale: AS NOTED
Project Number: 2116
Date: 9/20/2022

SD/C202

Sheet: _____ of: _____

Drawing: P:\221-0312\Site\productiondrawings\221312_GR.
Plot by: rvang

AD2- CX03



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811
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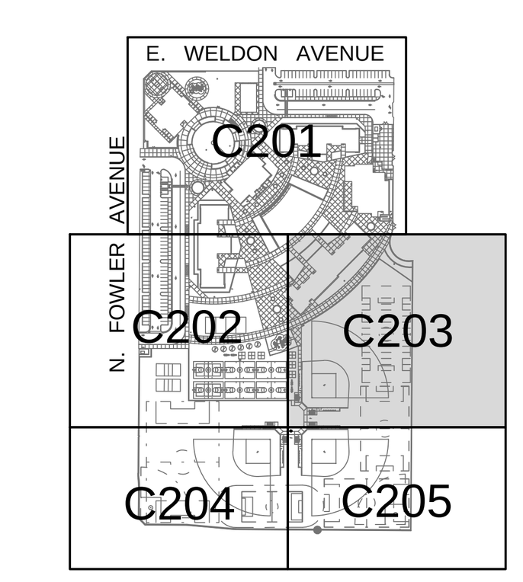

KEYMAP

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LICENSED ARCHITECT, MICHAEL K. FENNESY, No. C23724, STATE OF CALIFORNIA

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AD2- CX04

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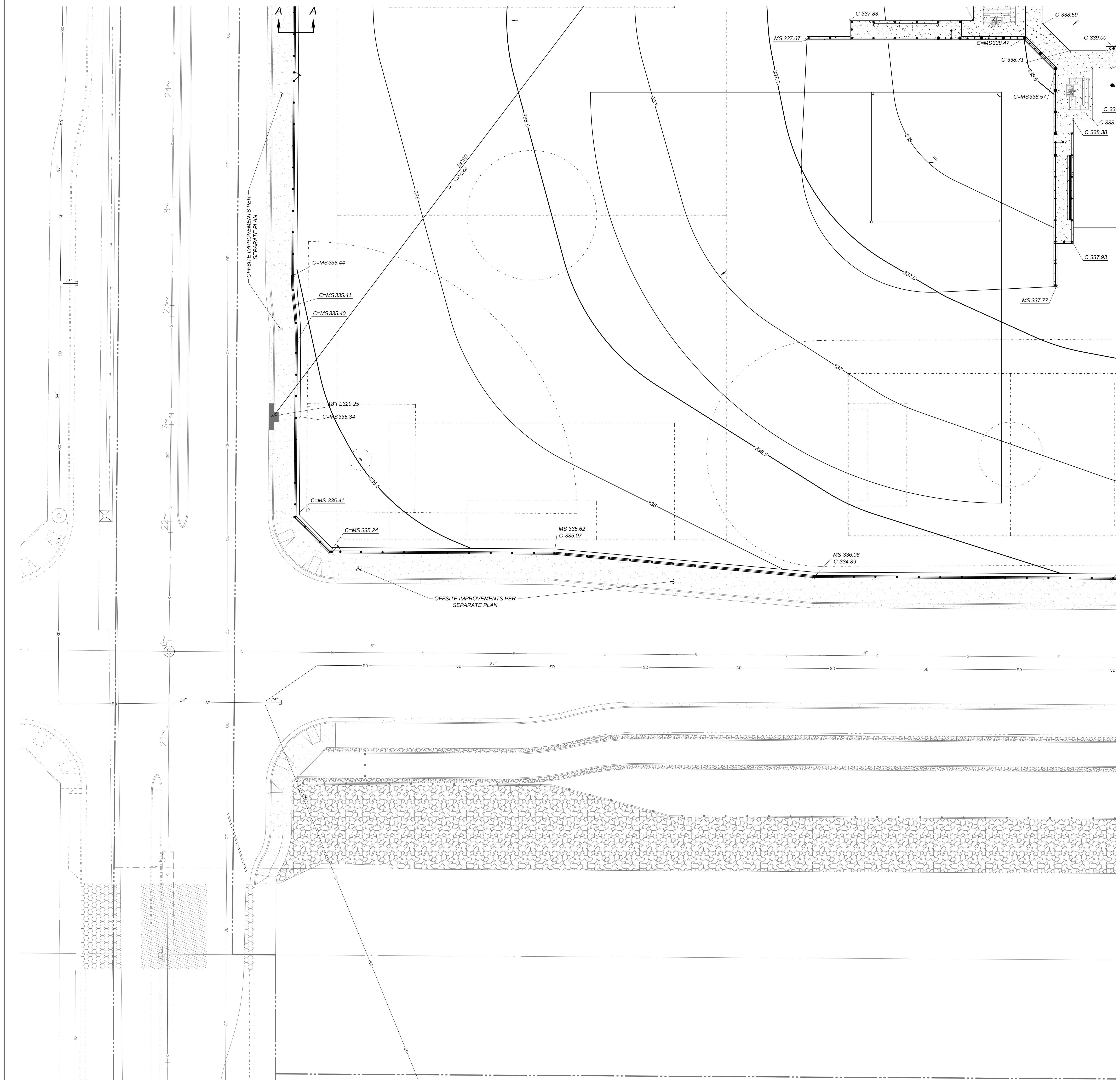

SEE SHEET SD/C205 FOR CONTINUATION

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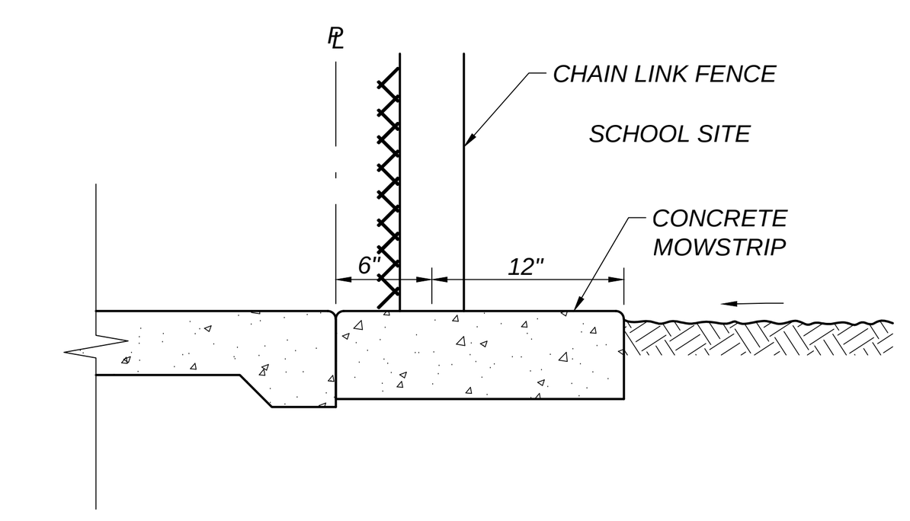
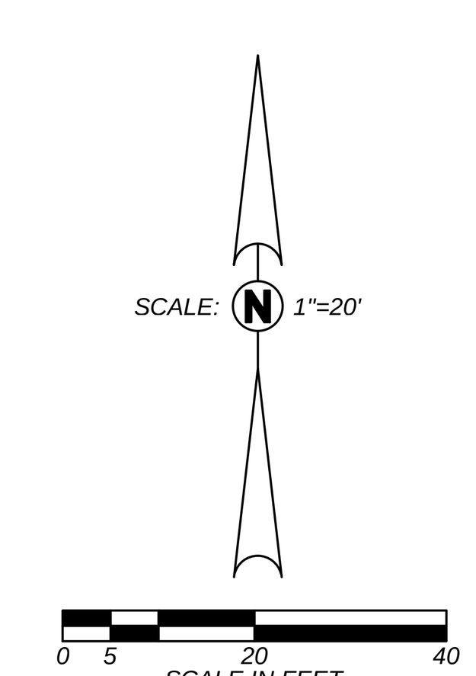


SECTION A-A



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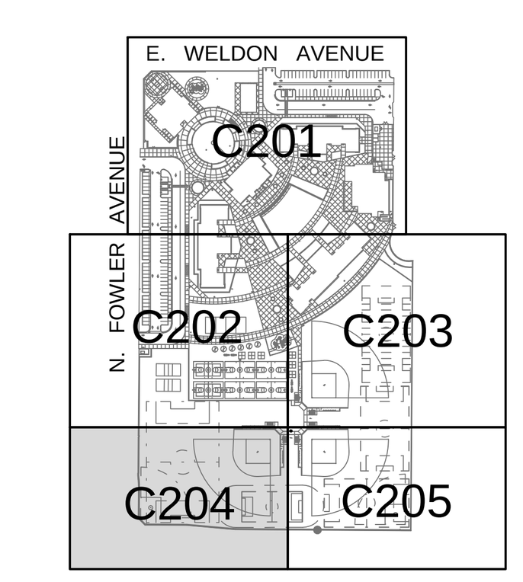

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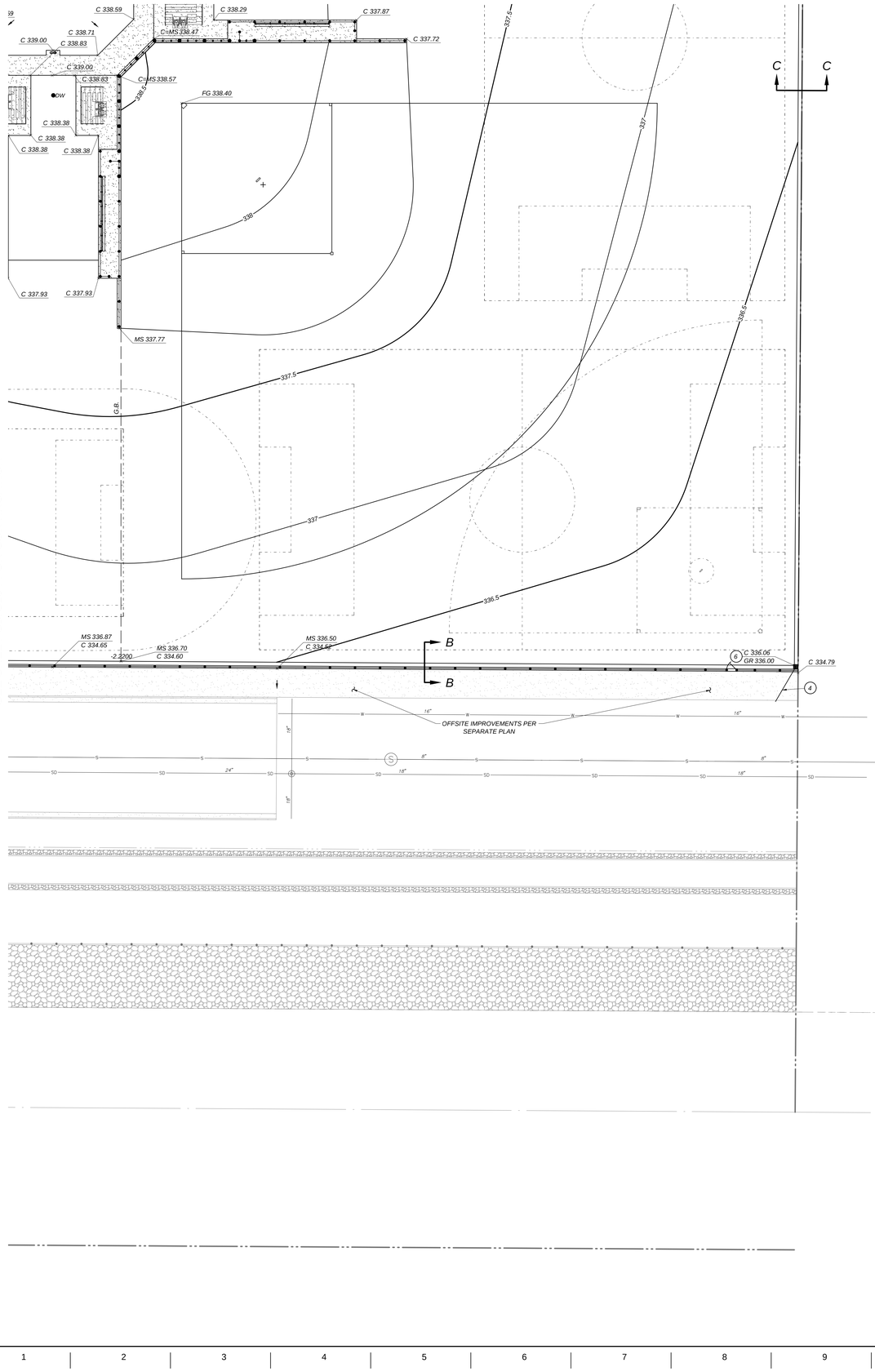

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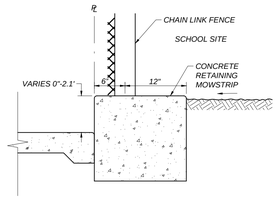
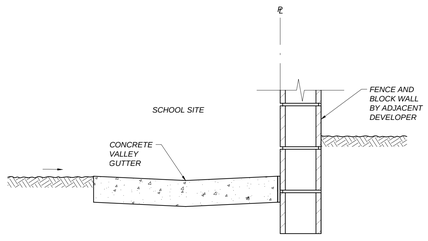
1	P6 STORM DRAIN INLET PER DETAIL [C/SD/X101]
2	V12 STORM DRAIN INLET PER DETAIL [D/SD/X101]
3	U32 STORM DRAIN INLET PER DETAIL [A/SD/X101]
4	3 - 3'x6" STEEL DRAIN TUBES PER CITY OF FRESNO STD. DWG. P-23
5	BUILDING AND PITSET ELEVATIONS SHOWN FOR REFERENCE. REFER TO BUILDING MANUFACTURES PLANS FOR DETAILS AND SECTIONS
6	U23 STORM DRAIN INLET PER DETAIL [A/SD/X101]
	STORM DRAIN MANHOLE PER DETAIL [G/SD/X101]
CO	SURFACE CLEANOUT PER DETAIL [I/SD/X101]
6"SD	STORM DRAIN PIPELINE; SIZE AS NOTED. TRENCH AND BACKFILL PER DETAIL [F/SD/X102]
S=0.0020	FLOWLINE SLOPE AND DIRECTION OF FLOW
DS	DOWNSPOUT
RD	ROOF DRAIN



SECTION B-B



SECTION C-C

SCALE: N 1"=20'

0 5 20 40
SCALE IN FEET

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

GENERAL GRADING AND DRAINAGE NOTES:

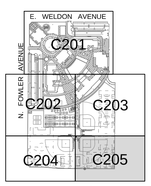
THE REQUIREMENTS AND INFORMATION SET OUT BELOW ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE AND DO NOT ENCOMPASS ALL PROJECT REQUIREMENTS DESCRIBED BY THE PROJECT PLANS AND SPECIFICATIONS AND/OR APPLICABLE LAWS, REGULATIONS AND/OR BUILDING CODES.

1. *CONSTRUCTION OF ALL PROJECT SITE IMPROVEMENTS SUBJECT TO ADA ACCESS COMPLIANCE, INCLUDING ACCESSIBLE PATH OF TRAVEL, CURB RETURNS, PARKING STALL(S) AND UNLOADING AREAS, BARRIER FREE AMENITIES AND/OR OTHER APPLICABLE SITE IMPROVEMENTS SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT, CALIFORNIA TITLE 24, THE CALIFORNIA BUILDING CODE, CURRENT EDITION(S).*
2. *CONTRACTOR SHALL FIELD VERIFY ALL GRADES AND SLOPES PRIOR TO THE PLACEMENT OF CONCRETE AND/OR PAVEMENT FOR CONFORMANCE WITH ADA ACCESS COMPLIANCE REQUIREMENTS. EXAMPLES OF MINIMUM AND MAXIMUM LIMITS RELATED TO ADA ACCESS COMPLIANCE INCLUDE, BUT ARE NOT LIMITED TO:*
   - *a) ACCESSIBLE PATH OF TRAVEL CROSS-SLOPE SHALL NOT EXCEED 2%*
   - *b) ACCESSIBLE PATH OF TRAVEL LONGITUDINAL SLOPES SHALL NOT EXCEED 5%*
   - *c) RAMP LONGITUDINAL SLOPES SHALL NOT EXCEED 8.33%*
   - *d) ACCESSIBLE WALKS SHALL NOT HAVE LESS THAN 48 INCHES IN UNOBSTRUCTED WIDTH*
   - *e) ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION*
   - *f) LANDINGS AT THE TOP AND BOTTOM OF ACCESSIBLE RAMPS SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION*
   - *g) GUTTERS AND ROAD SURFACES DIRECTLY ADJACENT TO AND WITHIN 2 FEET OF A CURB RAMP SHALL HAVE A COUNTER SLOPE NOT TO EXCEED 5%*
3. *CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IDENTIFIED BY THE PROFESSIONAL ENGINEERING SEAL AND SIGNATURE ON THESE PLANS, OF ANY SITE CONDITION(S) AND/OR DESIGN INFORMATION THAT PREVENTS THE CONTRACTOR FROM COMPLYING WITH THE LAWS, REGULATIONS AND/OR BUILDING CODES GOVERNING ADA ACCESS COMPLIANCE.*
4. *GROUND SLOPES AWAY FROM BUILDING PADS IN LANDSCAPED OR DIRT AREAS SHALL BE NO LESS THAN 5% FOR AT LEAST TEN (10) FEET, OR AS OTHERWISE NOTED ON THE PLANS.*
5. *DRAINAGE SHALL NOT BE ALLOWED ONTO ADJACENT PROPERTY.*
6. *ALL FILL MATERIAL USED TO SUPPORT THE FOUNDATIONS OF ANY BUILDING OR STRUCTURE SHALL BE PLACED UNDER THE DIRECTION OF A LICENSED GEOTECHNICAL ENGINEER, AND IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS. A SOILS COMPACTION REPORT SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AS REQUIRED BY THE PROJECT SPECIFICATIONS.*
7. *THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES AS REQUIRED BY THE PROJECT SPECIFICATIONS, AND BY GOVERNING PUBLIC AGENCIES.*
8. *THE CONTRACTOR SHALL IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE PROJECT SPECIFICATIONS AND THE STATE WATER RESOURCES CONTROL BOARD'S CONSTRUCTION GENERAL PERMIT. IMPLEMENT BEST MANAGEMENT PRACTICES WITHIN PUBLIC RIGHT OF WAY PER LOCAL JURISDICTION REQUIREMENTS.*
9. *AS A FIRST ORDER OF WORK, THE CONTRACTOR SHALL POT HOLE THE EXISTING UTILITY LINES AT THE POINT OF CONNECTION TO VERIFY THE LOCATION, SIZE, PIPE MATERIAL AND ELEVATION SO THAT THE ENGINEER CAN MAKE ELEVATION AND/OR ALIGNMENT ADJUSTMENTS IF NECESSARY. SHOULD POT HOLING DISCOVER ANY DISCREPANCIES, CONTACT THE ENGINEER AND OBTAIN WRITTEN DIRECTION BEFORE PROCEEDING.*
10. *ADJUST UTILITY LIDS WITHIN NEW CONSTRUCTION AREA TO FINISHED GRADE PER DETAIL [/SD/X102]. REPLACE ALL BROKEN LIDS WITH NEW. PROVIDE TRAFFIC RATED LIDS WITHIN VEHICLE LOADING AREAS.*
11. *WATER TEST PAVEMENT WITHIN NEW IMPROVEMENT AREA. REPLACE PAVEMENT WHERE BIRD BATHS OCCUR AFTER TEST AS DIRECTED BY THE INSPECTOR OR ENGINEER.*
12. *MINIMUM SLOPE ON IMPERVIOUS SURFACES PERPENDICULAR TO ADJACENT STRUCTURE(S), WITHIN ADA PATH, SHALL BE 1% MINIMUM AND 2% MAXIMUM. WHERE DOOR AND GATE LANDINGS OCCUR THE CROSS SLOPE SHALL BE 2% MAXIMUM IN ALL DIRECTIONS*

DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval



KEYMAP

General Notes

Blair, Church & Flynn CONSULTING ENGINEERS
Blair, Church & Flynn Consulting Engineers
451 Clovis Avenue, Suite 200
Clovis, California 93612
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Fax (559) 326-1500

REGISTERED PROFESSIONAL ENGINEER CLAIRE R. ZAYAS PLAN REVIEW ONLY NOT FOR CONSTRUCTION CIVIL STATE OF CALIFORNIA
Date Signed:

Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

GRADING AND DRAINAGE PLAN

Drawing

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INTERIORS
www.dardenarchitects.com
6790 N. West Ave. • Fresno, CA 93711 • T. 559.448.8051

LICENSED ARCHITECT WHITNEY K. FERRARO No. C23724 Exp. 4.30.23 STATE OF CALIFORNIA

Architect

No.	Revison/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: LRB
Drawn By: SAD
Checked By: JDB
Reviewed By: JDB

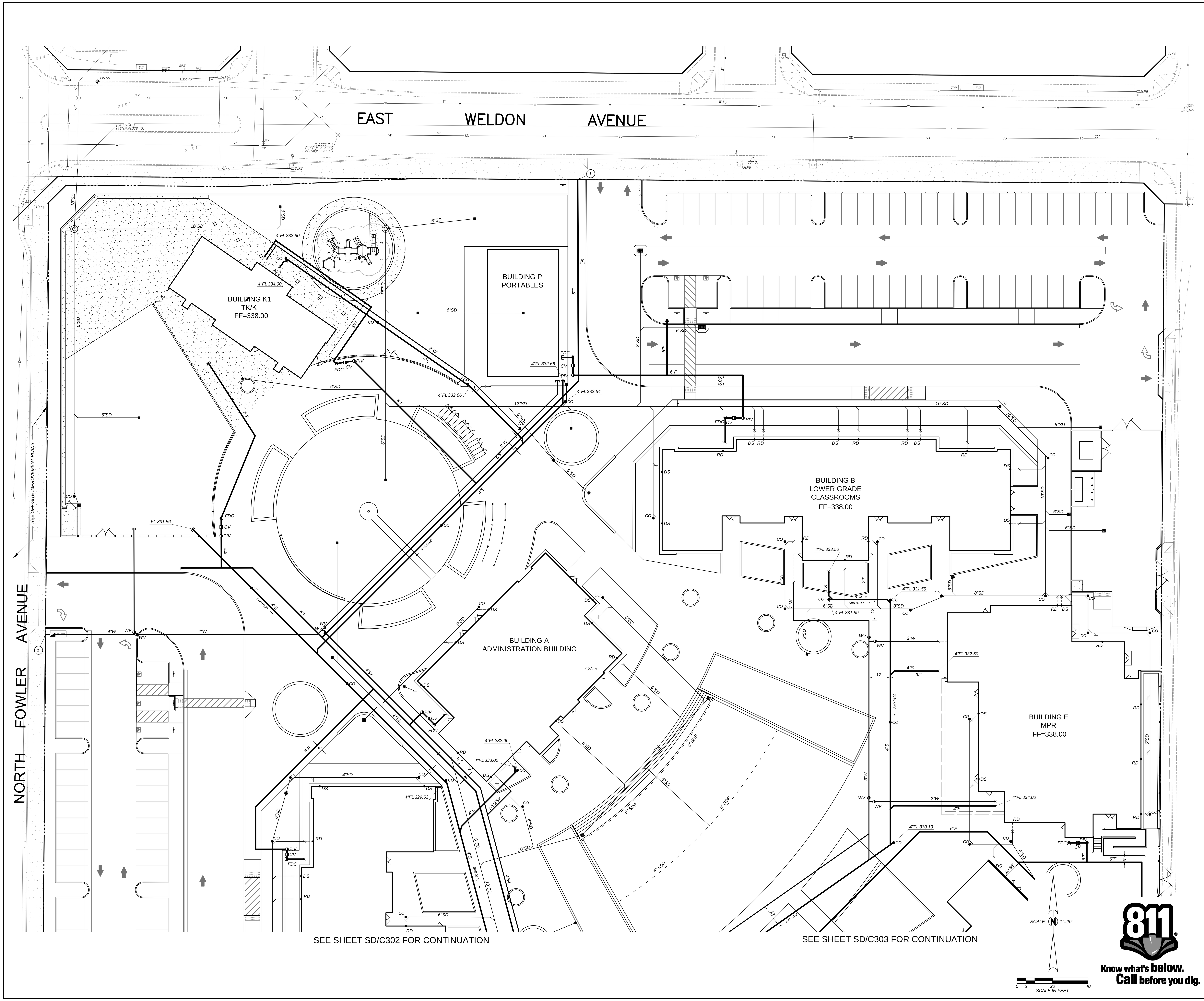
Scale: AS NOTED
Project Number: 2116
Date: 9/20/2022

SD/C205

Sheet: _____ of: _____

Drawing: P:\221-0312\Site\productiondrawings\221312_GR.dwt by: rvang

AD2- CX06



DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval

SEE SHEET SD/C402 FOR LEGEND

GENERAL SITE UTILITY NOTES:

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2. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION, SIZE, DEPTH, AND TYPE OF ALL EXISTING UTILITIES AND INTERFERENCES SITUATED ALONG THE ROUTE OF THE PROPOSED CONSTRUCTION PRIOR TO COMMENCEMENT OF EXCAVATION, FABRICATION, AND INSTALLATION. THE CONTRACTOR SHALL CONSTRUCT ALL IMPROVEMENTS IN SUCH A MANNER AS WILL PROTECT ALL EXISTING UNDERGROUND UTILITIES AND, IN THE EVENT OF ANY CONFLICTS, SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING.
3. SEE IRRIGATION PLANS FOR PROPOSED IRRIGATION PIPE ALIGNMENT.
4. COORDINATE EXACT POINTS OF CONNECTION TO BUILDING PLUMBING AND NOTIFY THE ENGINEER OF ANY CONFLICT SO THAT ADJUSTMENTS CAN BE MADE IF NEEDED.
5. SAWCUT EXISTING CONCRETE IMPROVEMENTS AS NECESSARY TO INSTALL NEW WATER OR SEWER IMPROVEMENTS. CONSTRUCT NEW CONCRETE IMPROVEMENTS TO MATCH ADJACENT CONCRETE IMPROVEMENTS AND JOIN TOGETHER WITH DOWEL BARS PER DETAIL [A/SD/X102]
6. INSTALLATION, TYPE, AND MANUFACTURER'S MODELS OF DOMESTIC WATER METERS, DRAIN INLETS/OUTLETS AND OTHER APPURTENANCES OF SITE UTILITY SYSTEMS SHALL BE DONE IN STRICT ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
7. LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. THE ACTUAL LOCATIONS OF ALL MATERIALS, PIPING, FIXTURES, EQUIPMENT, SUPPORTS, ETC., SHALL BE CAREFULLY PLANNED PRIOR TO INSTALLATION OF ANY WORK TO AVOID ALL INTERFERENCES WITH EACH OTHER OR WITH STRUCTURAL, ELECTRICAL, PLUMBING AND MECHANICAL, ARCHITECTURAL OR ANY OTHER ELEMENTS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO THE INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.
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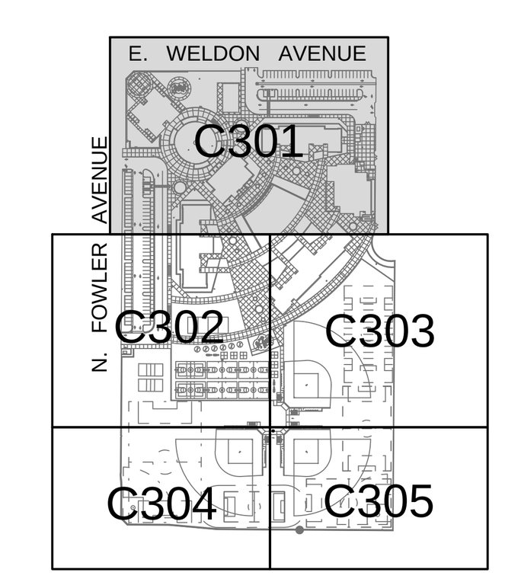
11. BACKFILL UTILITY TRENCHES PER DETAIL [F/SD/X102]
12. ADJUST EXISTING UTILITY LIDS TO FINISHED GRADE PER UTILITY COMPANY STANDARDS AND DETAIL [J/SD/X102] AND INSTALL TRAFFIC RATED LIDS WHERE LOCATED IN A TRAFFIC AREA.



KEYMAP

General Notes

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Fax (559) 326-1500

REGISTERED PROFESSIONAL ENGINEER LANE R. BA... CIVIL STATE OF CALIFORNIA
PLAN REVIEW ONLY
NOT FOR CONSTRUCTION

Date Signed:

Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

UTILITY PLAN

Drawing

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LICENSED ARCHITECT
MICHAEL K. FENNACY
No. C23724
Ren. 4-30-23
STATE OF CALIFORNIA

Architect

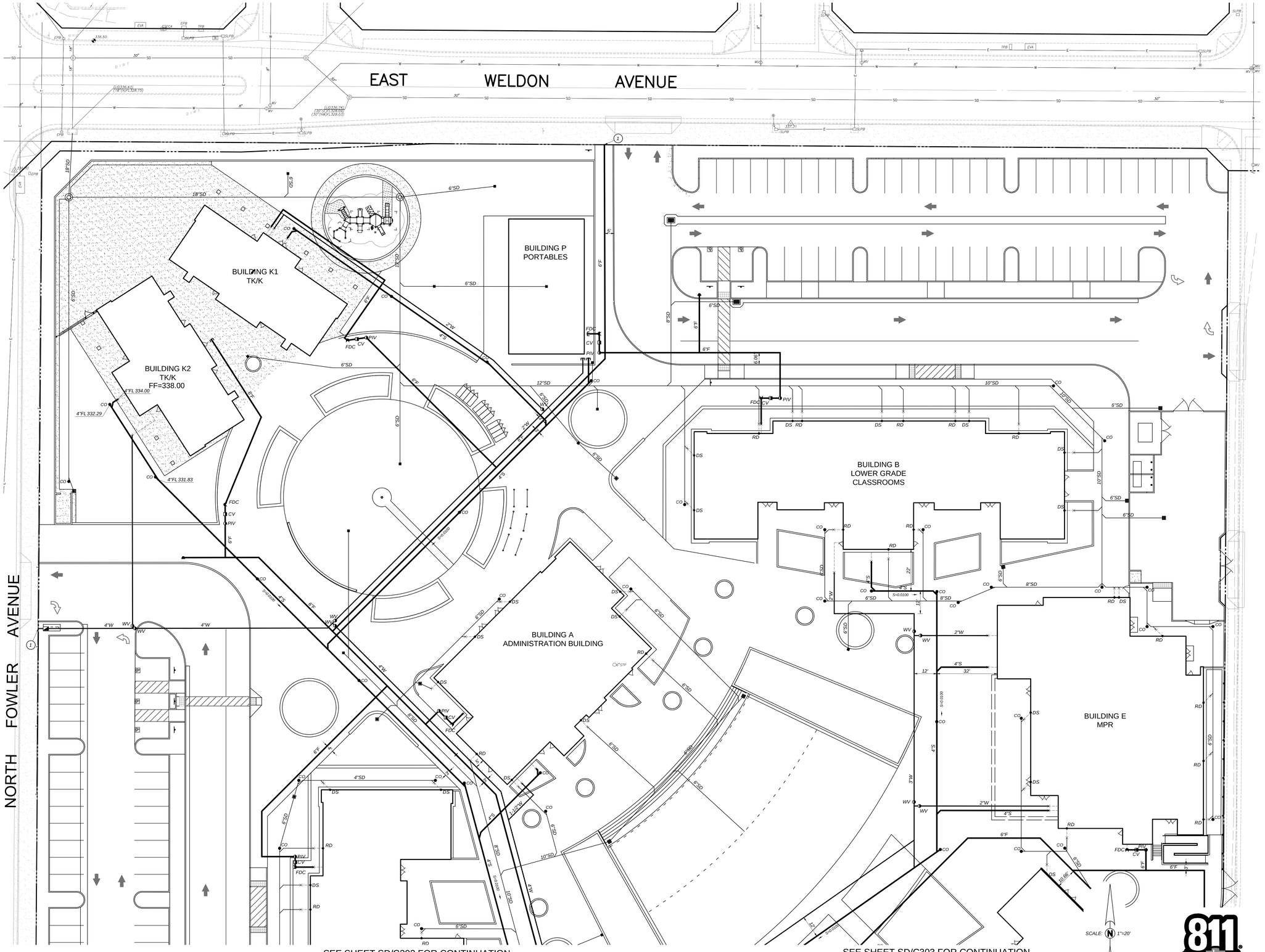
No.	Revison/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: LRB	
Scale: AS NOTED	Drawn By: SAD	SD/C301
Project Number: 2116	Checked By: JDB	
Date: 9/20/2022	Reviewed By: JDB	Sheet: ______ of: ______

Drawing: P:\221-0312\Site\productiondrawings\221312_UT
Plot by: rvang

AD2- CX07



DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval

SEE SHEET SD/C302 FOR LEGEND

GENERAL SITE UTILITY NOTES:

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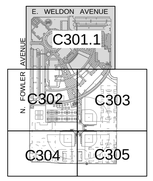
11. *BACKFILL UTILITY TRENCHES PER DETAIL [F/SD/X102]*
12. *ADJUST EXISTING UTILITY LIDS TO FINISHED GRADE PER UTILITY COMPANY STANDARDS AND DETAIL [J/SD/X102] AND INSTALL TRAFFIC RATED LIDS WHERE LOCATED IN A TRAFFIC AREA.*



KEYMAP

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Clovis, California 93612
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Fax (559) 326-1500

REGISTERED PROFESSIONAL ENGINEER JAMES R. BLAIR CIVIL STATE OF CALIFORNIA — PLAN REVIEW ONLY NOT FOR CONSTRUCTION

Consultant Date Signed:

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

ADDITIVE ALTERNATE 1

Drawing

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LICENSED ARCHITECT RODNEY K. YEROUT No. C23724 Exp. 4-30-24 STATE OF CALIFORNIA

Architect

No.	Revison/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: LRB
Drawn By: SAD
Checked By: JDB
Reviewed By: JDB

Scale: AS NOTED
Project Number: 2116
Date: 9/20/2022

SD/C301.1

Sheet: _____ of: _____

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

Drawing: P:\221-0312\Site\productiondrawings\221312_U701.dwg
Plot By: rvang

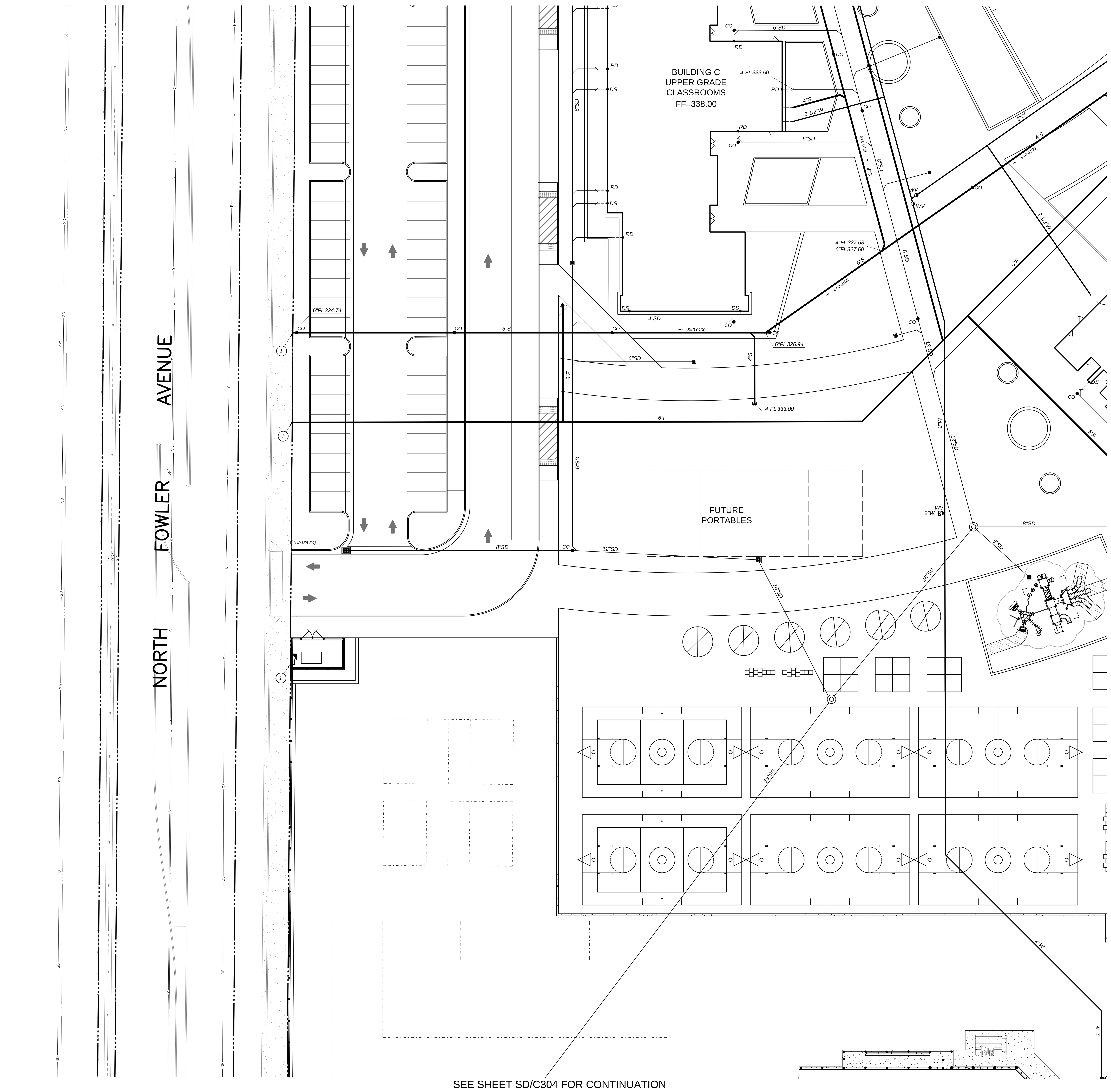
AD2- CX08

DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval

SEE SHEET SD/C301 FOR CONTINUATION



SEE SHEET SD/C303 FOR CONTINUATION

SEE SHEET SD/C304 FOR CONTINUATION

UTILITY LEGEND:

6"S	SEWER MAIN, SIZE AS NOTED ON PLANS. PIPE BEDDING AND BACKFILL PER DETAIL [F/SD/X102]
6"W	WATER MAIN, SIZE AS NOTED ON PLANS, MIN. 30" COVER. THRUST BLOCKS PER DETAIL [A/SD/X102]. PIPE BEDDING AND BACKFILL PER DETAIL [F/SD/X102]
8"F	FIRE MAIN, SIZE AS NOTED ON PLANS, MIN. 42" COVER. THRUST BLOCKS PER DETAIL [A/SD/X102]. PIPE BEDDING AND BACKFILL PER [F/SD/X102]
6"SD	STORM DRAIN PIPE, SEE GRADING PLAN
1-1/2"DL	SCHEDULE 40 PVC DRAIN LINE, SIZE AS NOTED
FF	FINISHED FLOOR
FL	FLOWLINE
	BACKFLOW PREVENTER PER [B/SD/X102]
CO	SEWER CLEANOUT PER DETAIL [I/SD/X102]
CV	CHECK VALVE PER [E/SD/X102]
DW	DRYWELL PER DETAIL [G/SD/X102]
	DRINKING FOUNTAIN; SEE PLUMBING PLANS
FDC	FIRE DEPARTMENT CONNECTION PER [E/SD/X102]
FH	FIRE HYDRANT ASSEMBLY PER [D/SD/X102]
PIV	POST INDICATOR VALVE PER [E/SD/X102]
RD	ROOF DRAIN; SEE PLUMBING PLANS
WV	WATER VALVE PER [C/SD/X102]
	CAP END OF UTILITY LINE.
	POINT OF CONNECTION TO EXISTING OR PROPOSED UTILITY, COORDINATE WITH PLUMBING PLANS PRIOR TO CONNECTION.
S=0.0100	FLOWLINE SLOPE AND DIRECTION OF FLOW
1	SEE OFF-SITE UTILITY PLANS FOR CONTINUATION

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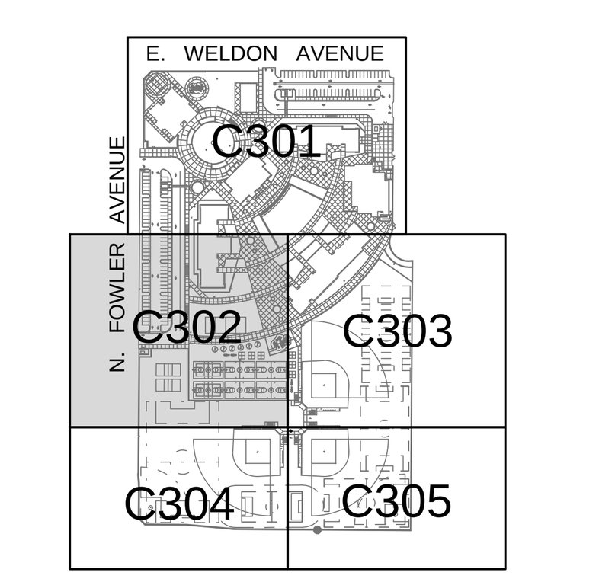

KEYMAP

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Fax (559) 326-1500

PLAN REVIEW ONLY
NOT FOR CONSTRUCTION

Consultant
Date Signed:

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

UTILITY PLAN

Drawing

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LICENSED ARCHITECT
MICHAEL K. FERESEY
No. C23724
STATE OF CALIFORNIA

Architect

No.	Revison/Submission	Date
2	Addendum #2	01/20/23

Revision

SCALE: 1"=20'
0 5 20 40
SCALE IN FEET

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

	Designed By: LRB	Copyright 2022 Darden Architects
Scale: AS NOTED	Drawn By: SAD	SD/C302
Project Number: 2116	Checked By: JDB	
Date: 9/20/2022	Reviewed By: JDB	Sheet: ________ of: ________

DSA File No.:
10-48

DSA Application No.:
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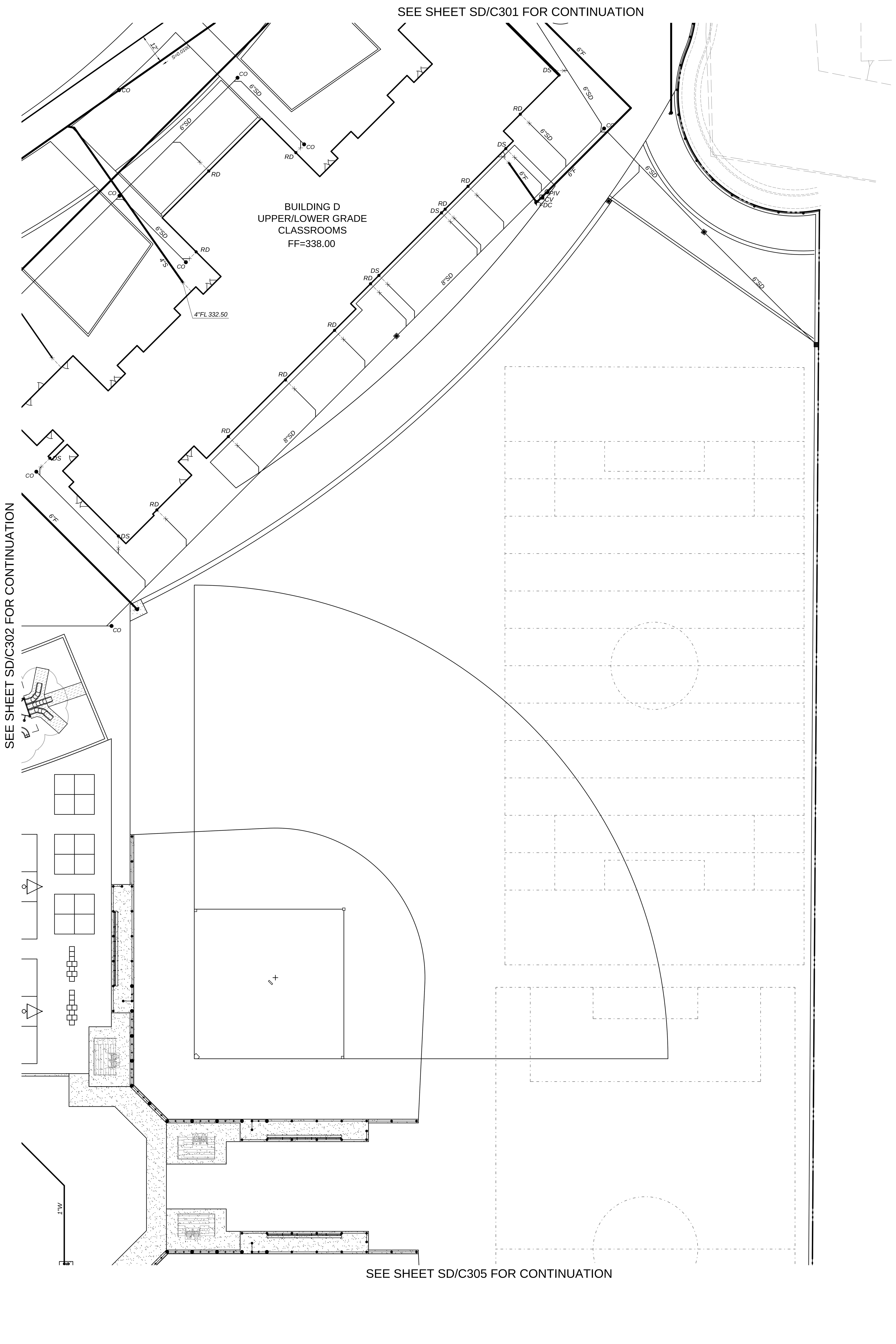
Agency Approval



UTILITY LEGEND:

6"S	SEWER MAIN, SIZE AS NOTED ON PLANS. PIPE BEDDING AND BACKFILL PER DETAIL [F/SD/X102]
6"W	WATER MAIN, SIZE AS NOTED ON PLANS, MIN. 30" COVER. THRUST BLOCKS PER DETAIL [A/SD/X102]. PIPE BEDDING AND BACKFILL PER DETAIL [F/SD/X102]
8"F	FIRE MAIN, SIZE AS NOTED ON PLANS, MIN. 42" COVER. THRUST BLOCKS PER DETAIL [A/SD/X102]. PIPE BEDDING AND BACKFILL PER [F/SD/X102]
6"SD	STORM DRAIN PIPE, SEE GRADING PLAN
1-1/2"DL	SCHEDULE 40 PVC DRAIN LINE, SIZE AS NOTED
FF	FINISHED FLOOR
FL	FLOWLINE
	BACKFLOW PREVENTER PER [B/SD/X102]
CO	SEWER CLEANOUT PER DETAIL [I/SD/X102]
CV	CHECK VALVE PER [E/SD/X102]
DW	DRYWELL PER DETAIL [G/SD/X102]
	DRINKING FOUNTAIN; SEE PLUMBING PLANS
FDC	FIRE DEPARTMENT CONNECTION PER [E/SD/X102]
FH	FIRE HYDRANT ASSEMBLY PER [D/SD/X102]
PIV	POST INDICATOR VALVE PER [E/SD/X102]
RD	ROOF DRAIN; SEE PLUMBING PLANS
WV	WATER VALVE PER [C/SD/X102]
	CAP END OF UTILITY LINE.
	POINT OF CONNECTION TO EXISTING OR PROPOSED UTILITY, COORDINATE WITH PLUMBING PLANS PRIOR TO CONNECTION.
S=0.0100	FLOWLINE SLOPE AND DIRECTION OF FLOW
1	SEE OFF-SITE UTILITY PLANS FOR CONTINUATION

GENERAL SITE UTILITY NOTES:

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3. SEE IRRIGATION PLANS FOR PROPOSED IRRIGATION PIPE ALIGNMENT.
4. COORDINATE EXACT POINTS OF CONNECTION TO BUILDING PLUMBING AND NOTIFY THE ENGINEER OF ANY CONFLICT SO THAT ADJUSTMENTS CAN BE MADE IF NEEDED.
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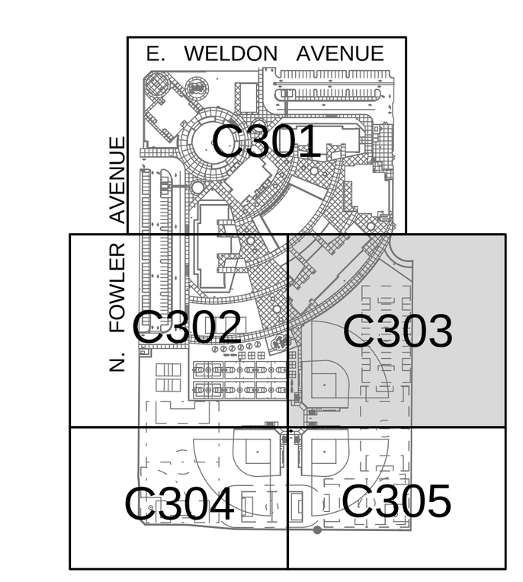

KEYMAP

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REGISTERED PROFESSIONAL ENGINEER LANE R. B... CIVIL STATE OF CALIFORNIA
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LICENSED ARCHITECT
MICHAEL K. FENNACY
No. C23724
Ren. 4-30-23
STATE OF CALIFORNIA

Architect

No.	Revison/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: LRB	
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Project Number: 2116	Checked By: JDB	
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DSA File No.:
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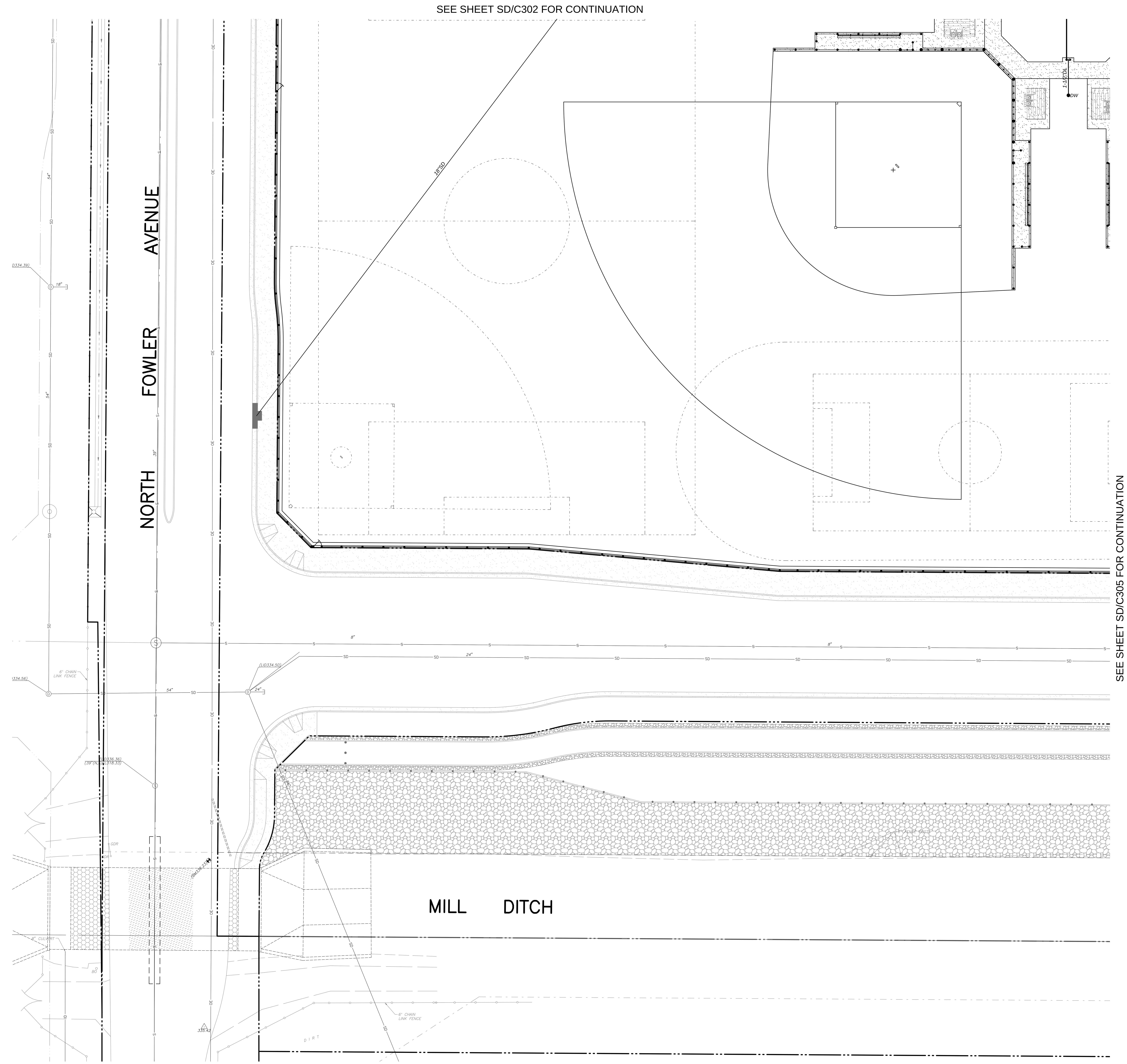

UTILITY LEGEND:

6"S	SEWER MAIN, SIZE AS NOTED ON PLANS. PIPE BEDDING AND BACKFILL PER DETAIL [F/SD/X102]
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6"SD	STORM DRAIN PIPE, SEE GRADING PLAN
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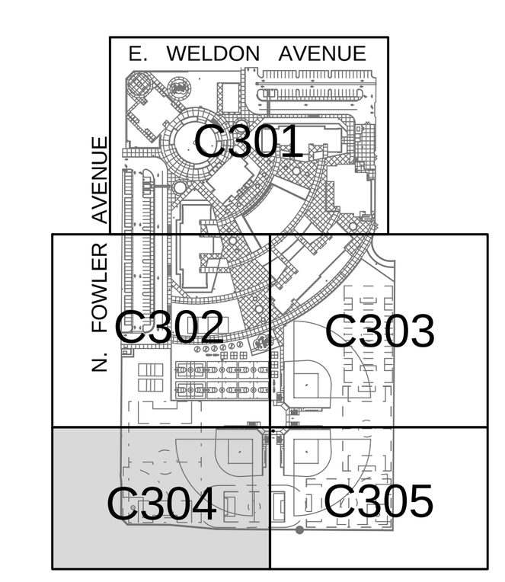

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0 5 20 40
SCALE IN FEET

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Consulting Engineers
451 Clovis Avenue,
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LICENSED ARCHITECT MICHAEL K. FENNACY No. C23724 Ren. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revison/Submission	Date
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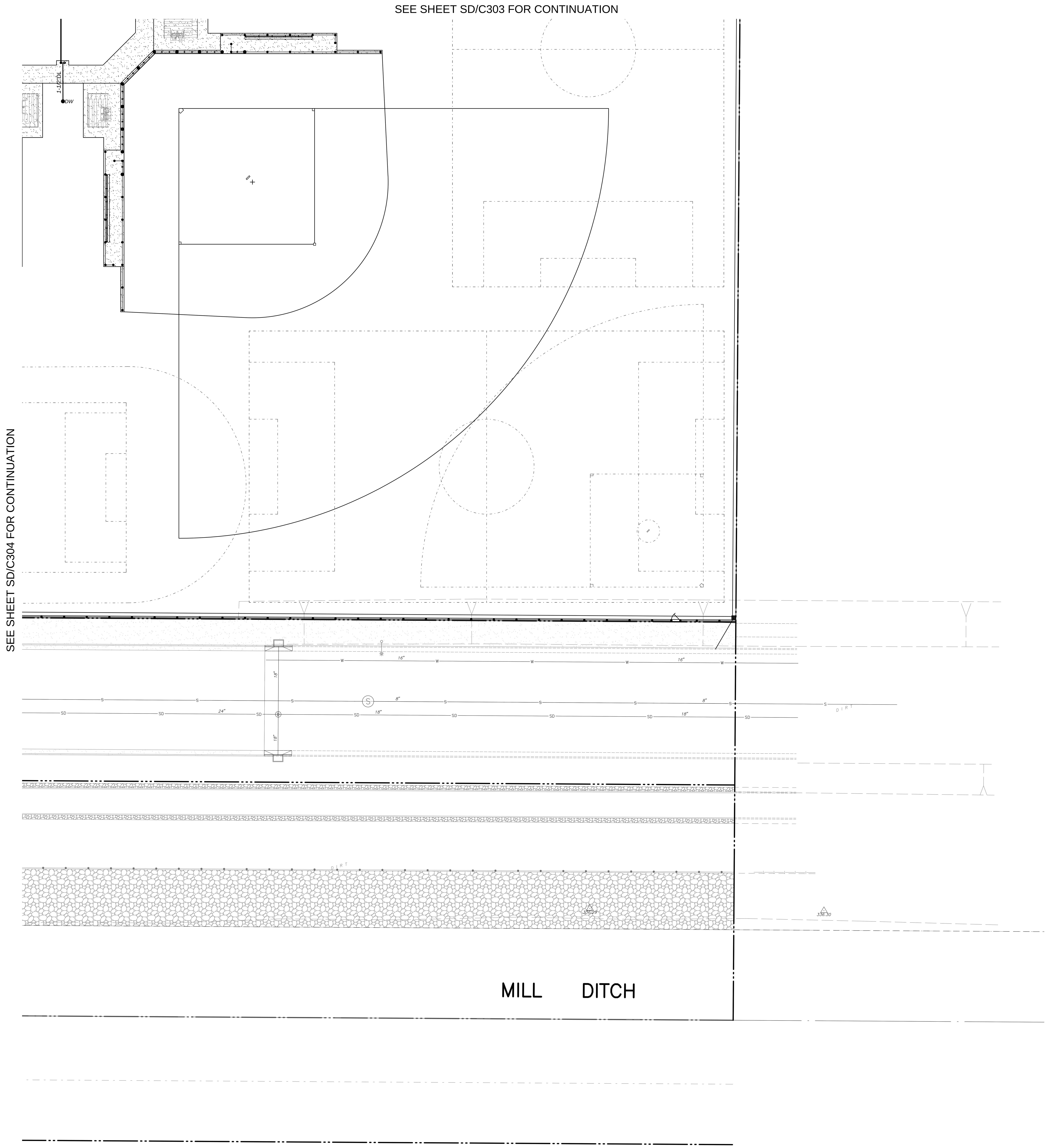
	Designed By: LRB	
Scale: AS NOTED	Drawn By: SAD	SD/C304
Project Number: 2116	Checked By: JDB	
Date: 9/20/2022	Reviewed By: JDB	Sheet: ____ of: ____

Drawing: P:\221-0312\Site\productiondrawings\221312_UT
Plot by: rvang

AD2- CX11

SEE SHEET SD/C303 FOR CONTINUATION

SEE SHEET SD/C304 FOR CONTINUATION



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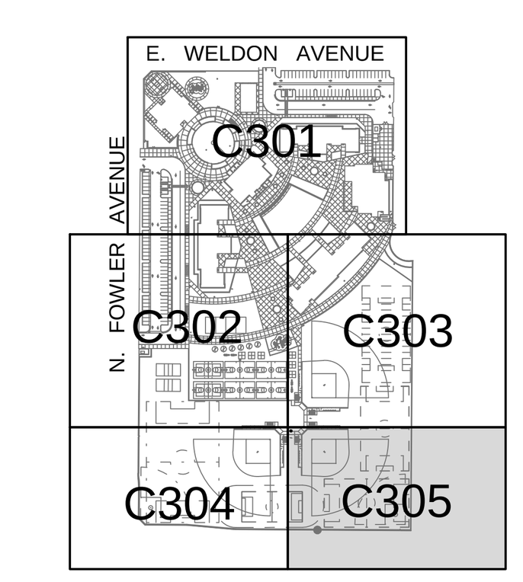

KEYMAP

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451 Clovis Avenue,
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Clovis, California 93612
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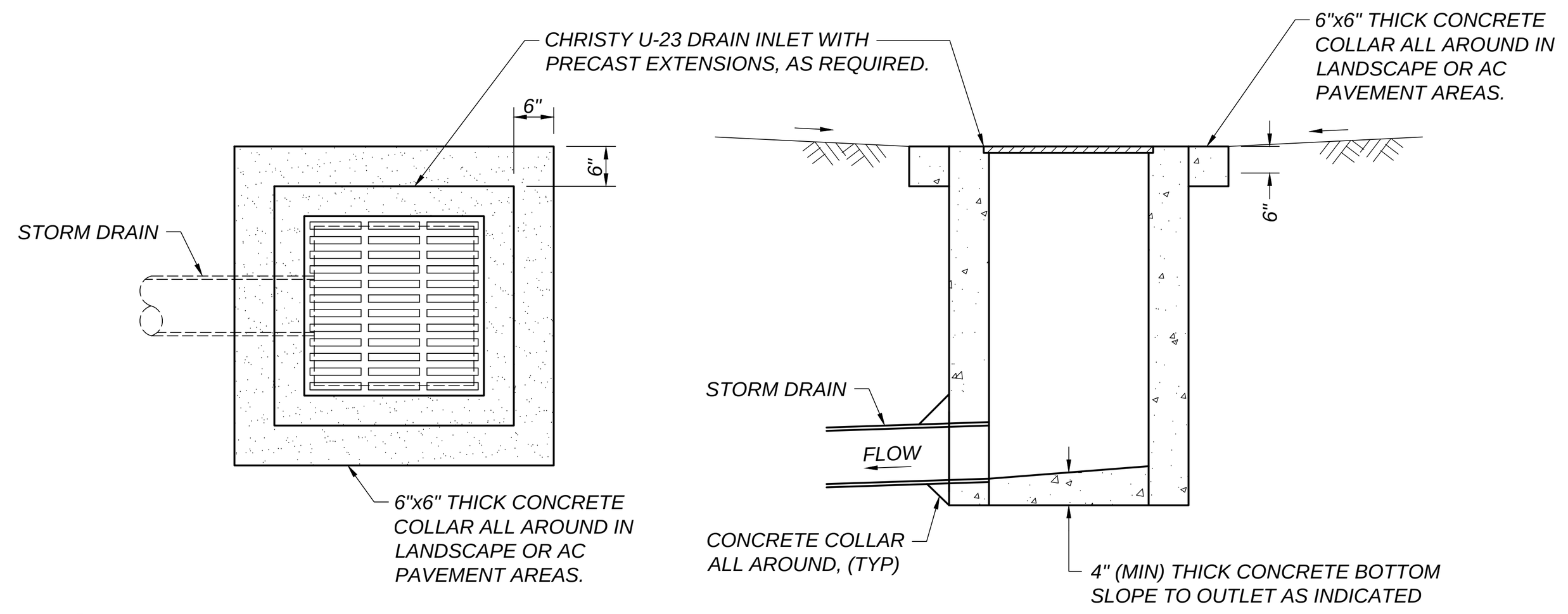
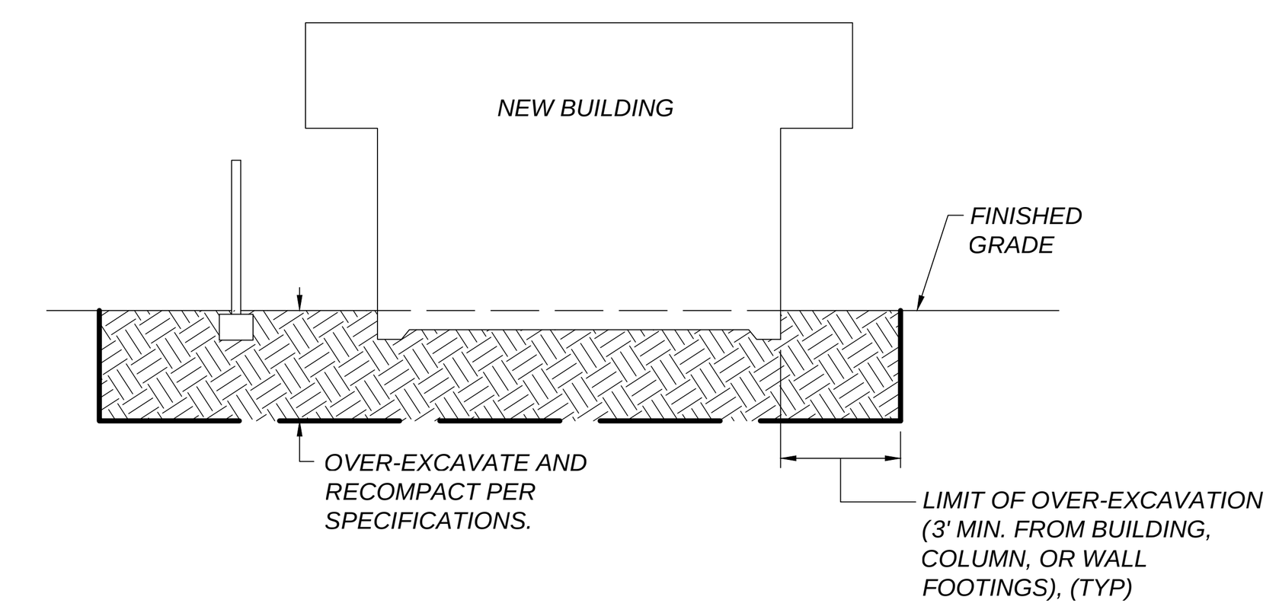
Revision

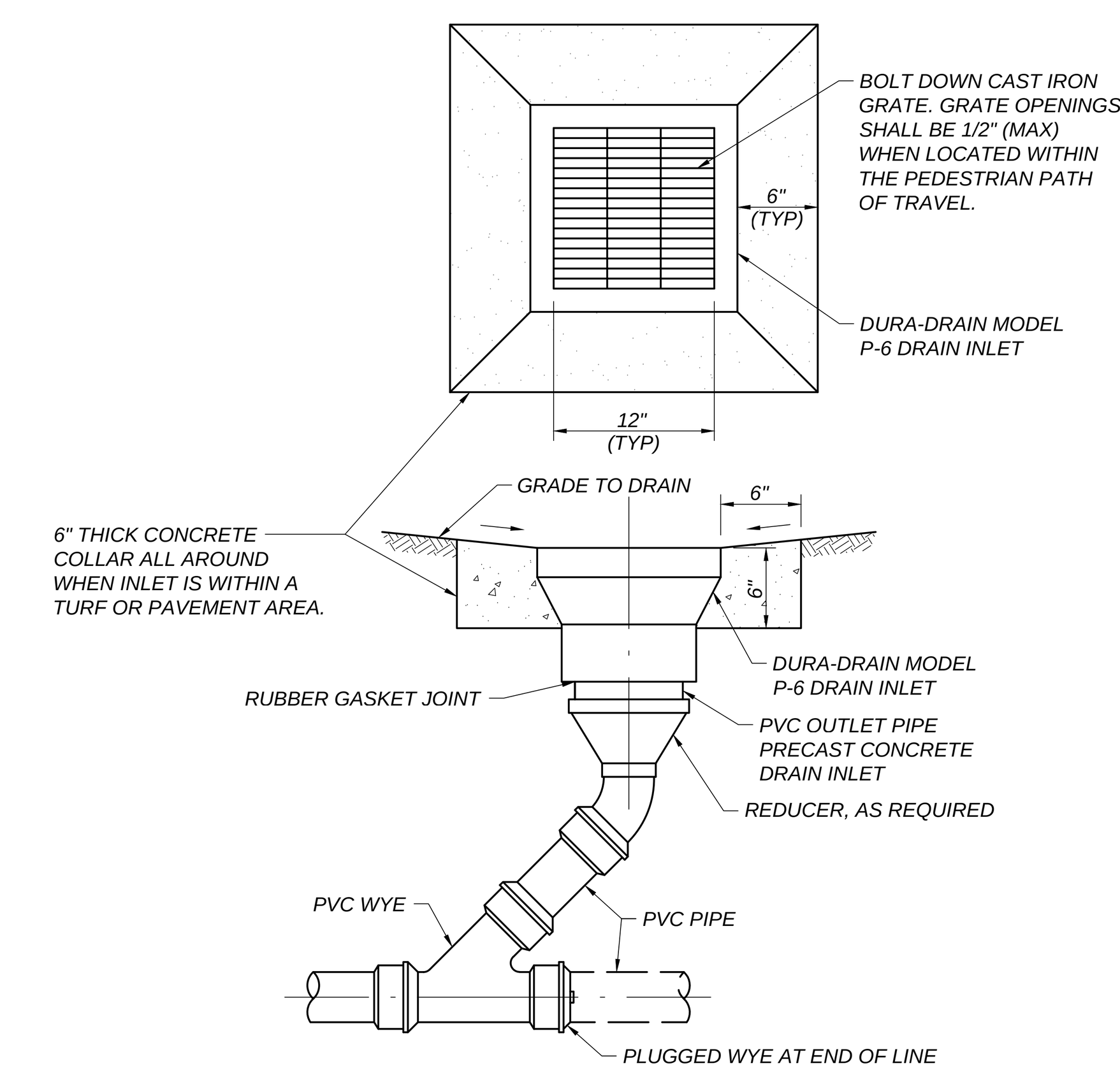
	Designed By: LRB	Copyright 2022 Darden Architects
Scale: AS NOTED	Drawn By: SAD	SD/C305
Project Number: 2116	Checked By: JDB	
Date: 9/20/2022	Reviewed By: JDB	Sheet: ______ of: ______



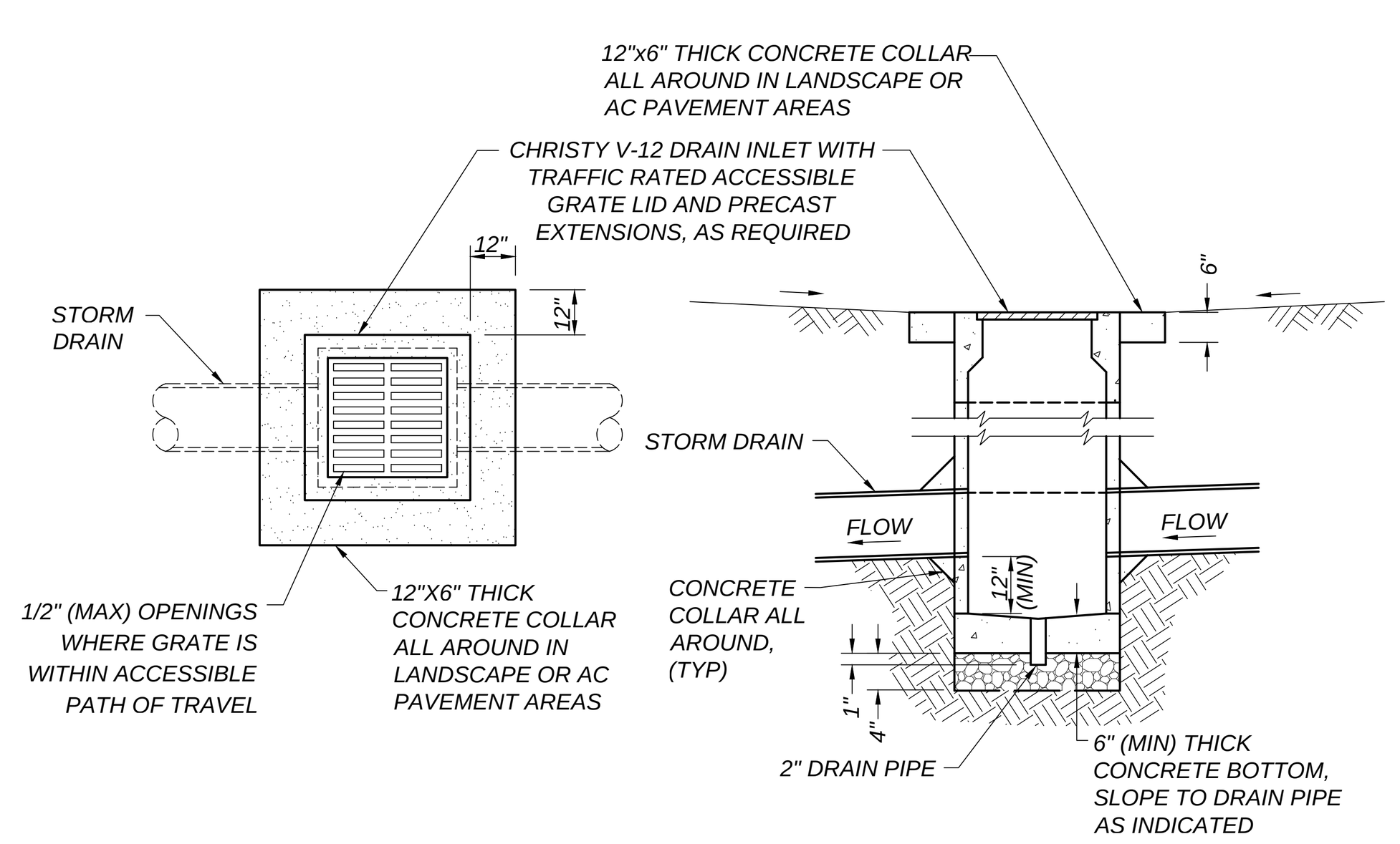
A SD/X101 U-23 DRAIN INLET WITH CONCRETE COLLAR
NOT TO SCALE



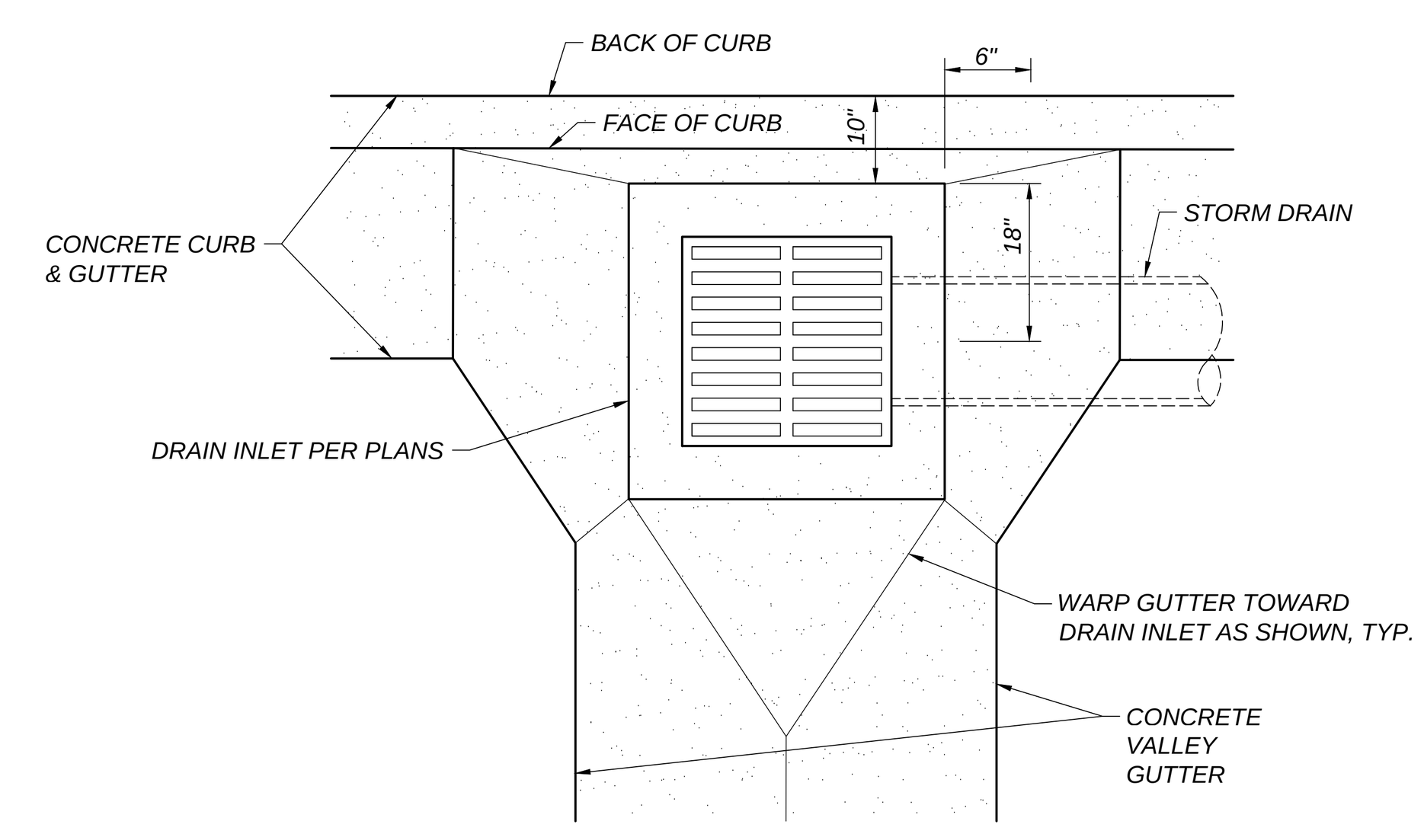
B SD/X101 OVER-EXCAVATION DETAIL
NOT TO SCALE



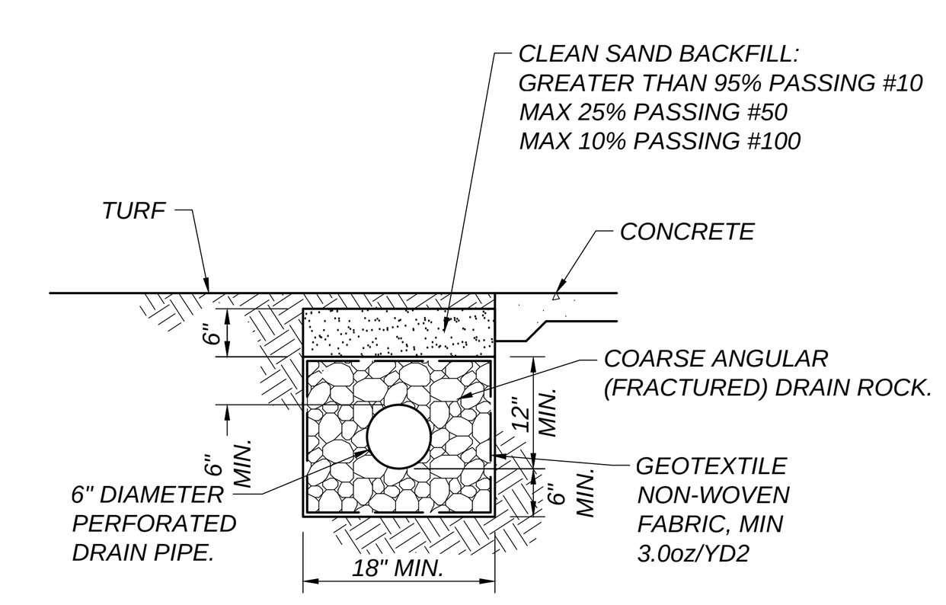
C SD/X101 P-6 OR P-8 DRAIN INLET
NOT TO SCALE



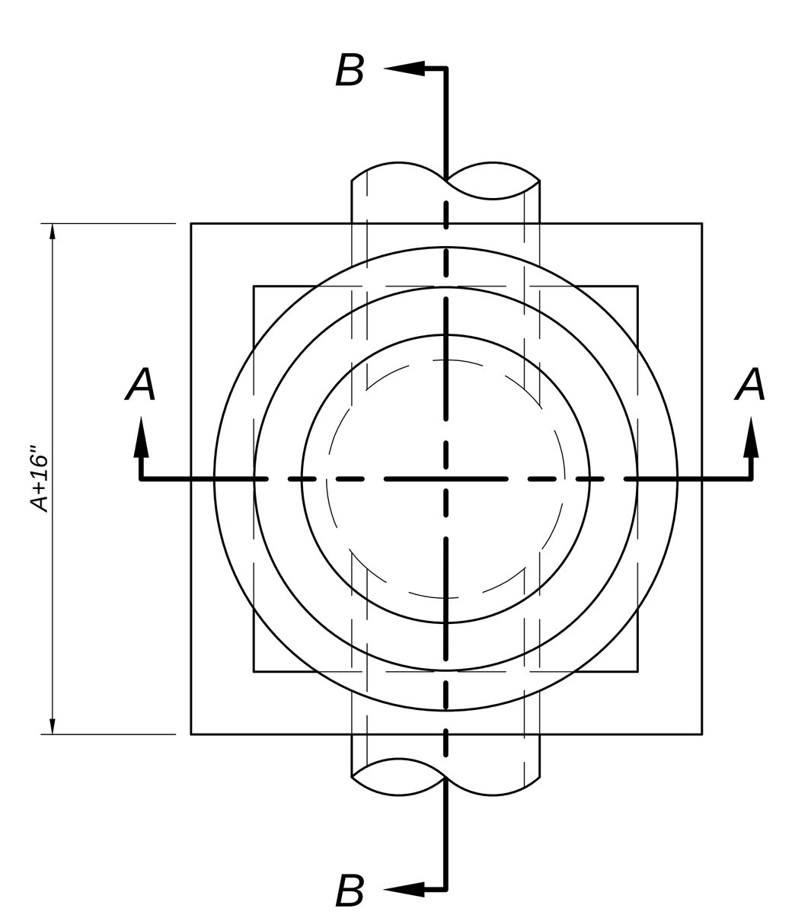
D SD/X101 V-12 OR V-64 DRAIN INLET WITH CONCRETE COLLAR
NOT TO SCALE



E SD/X101 GUTTER TRANSITION AT DRAIN INLET
NOT TO SCALE



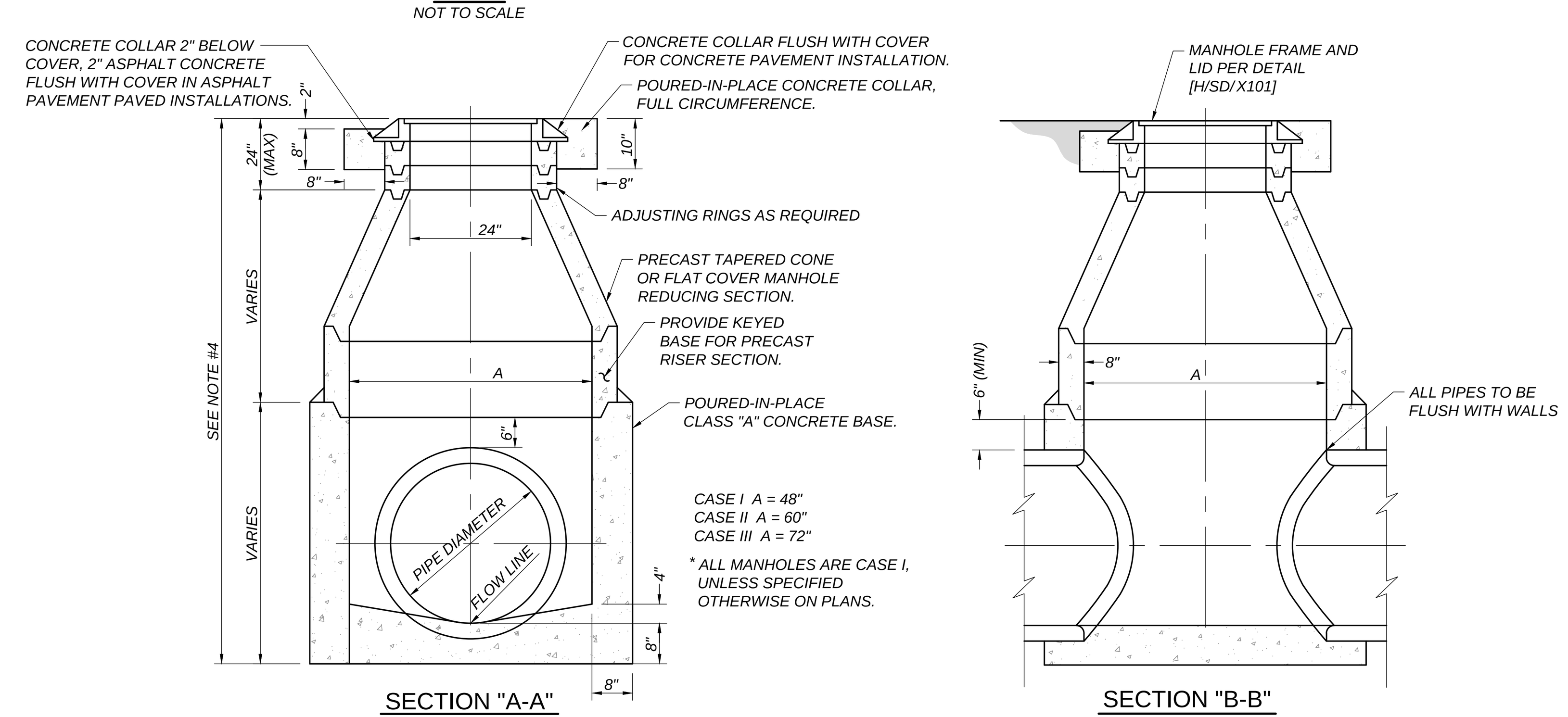
F SD/X101 FRENCH DRAIN
NOT TO SCALE



PLAN
NOT TO SCALE

NOTES:

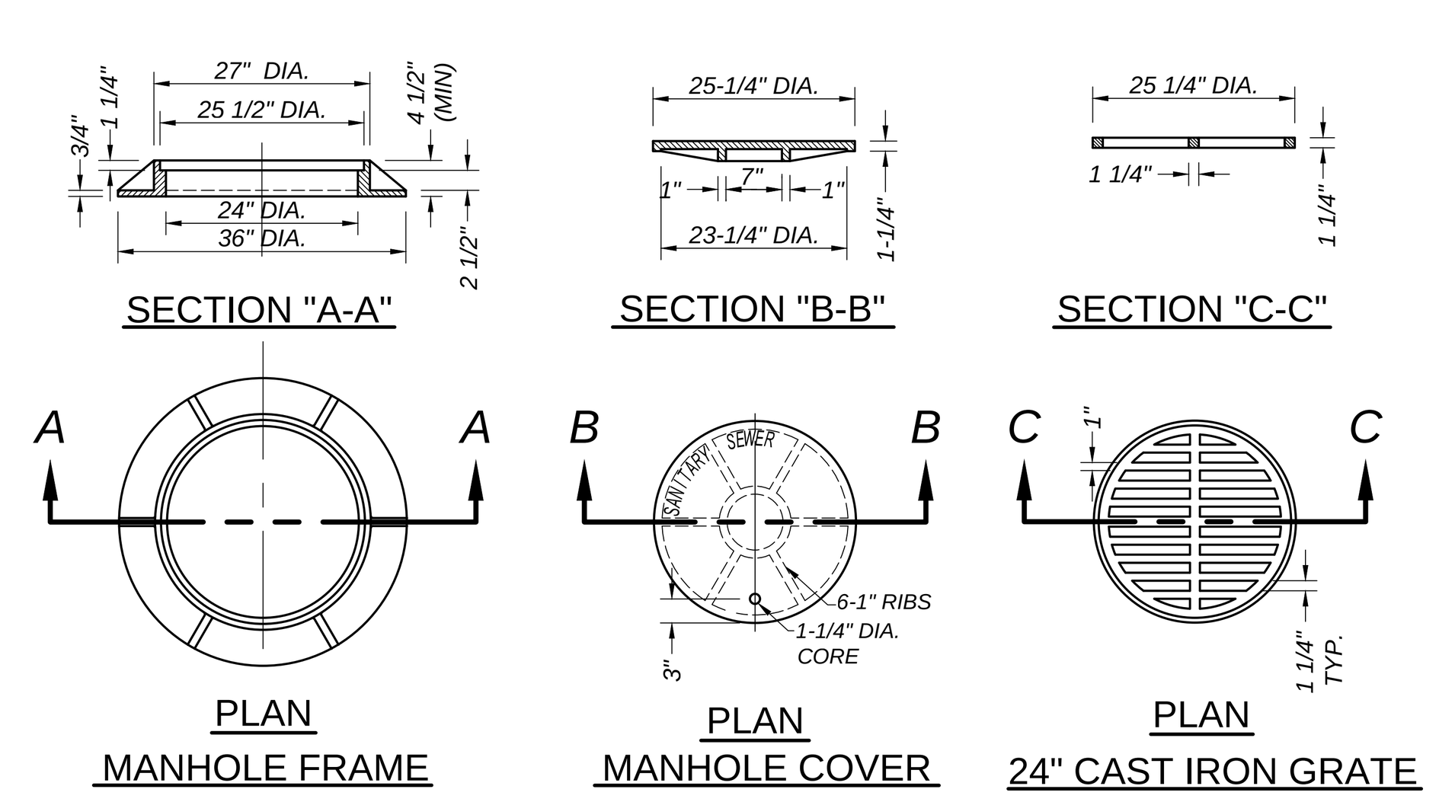
1. PRECAST PIPE, ADJUSTING RINGS AND TAPERED SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH A.S.T.M. C-478, USING TYPE II CEMENT.
2. ALL JOINTS BETWEEN PRECAST SECTIONS SHALL BE MORTARED.
3. INTERIOR OF THE MANHOLE SHALL HAVE A SMOOTH TROWELED SURFACE, (WOOD TROWEL).
4. IF THE DISTANCE BETWEEN THE FLOW LINE OF THE MANHOLE AND THE FINISH GRADE OF THE LID IS GREATER THAN OR EQUAL TO 12 FEET, THE MANHOLE IS TO BE CONSTRUCTED WITH STEPS.



SECTION "A-A"
NOT TO SCALE

SECTION "B-B"
NOT TO SCALE

G SD/X101 STORM DRAIN MANHOLE
NOT TO SCALE



NOTES:

1. ALL DIMENSIONS ARE FINISHED DIMENSIONS.
2. MATERIAL SHALL BE CAST IRON.
3. FRAME AND COVER TO BE CONSTRUCTED IN ACCORDANCE WITH A.S.T.M. DESIGNATION A48, CLASS 25.
4. MANHOLE COVER DESIGN, AS A MINIMUM, IS TO HAVE THE WORDS "STORM SEWER" OR "STORM DRAIN" MOLDED INTO THE COVER, AS APPROPRIATE.
5. GRATE OPENINGS SHALL BE 1/2" MAXIMUM WHERE LOCATED WITHIN THE PEDESTRIAN PATH OF TRAVEL.
6. INSTALL SLOTTED GRATE SO SLOTS ARE PARALLEL WITH THE DIRECTION OF SURFACE DRAINAGE FLOW.

H SD/X101 MANHOLE FRAME AND LID
NOT TO SCALE

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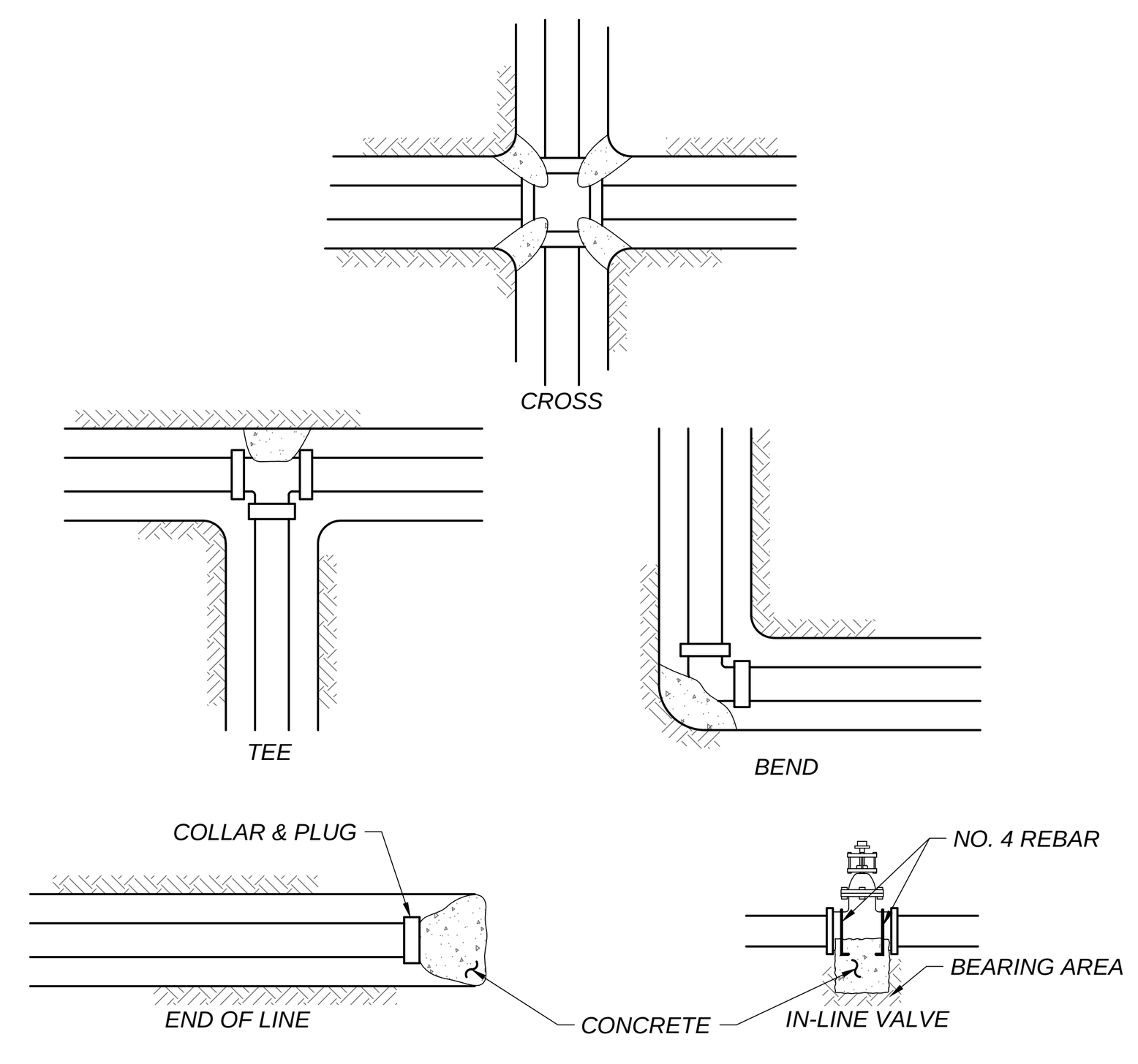
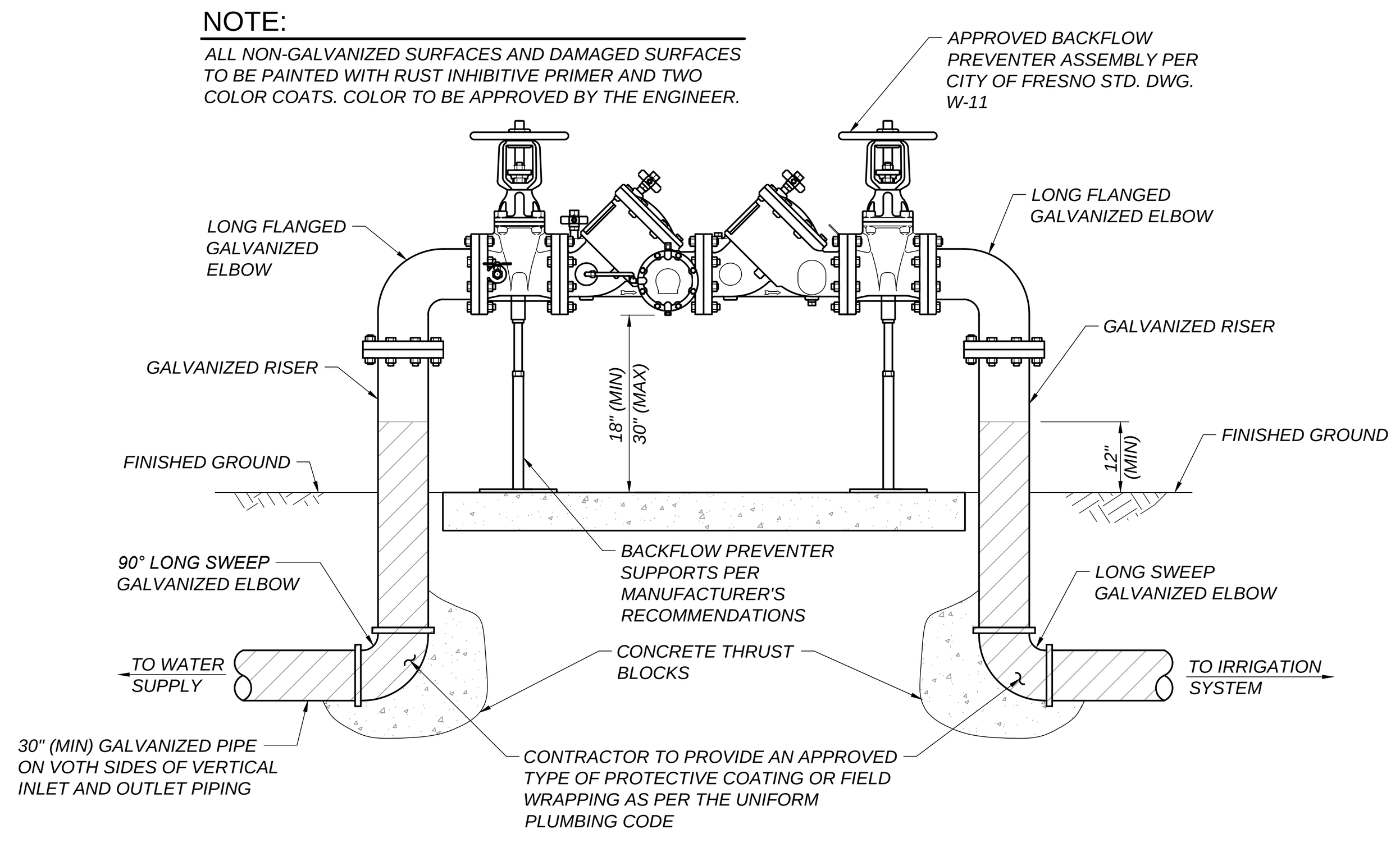


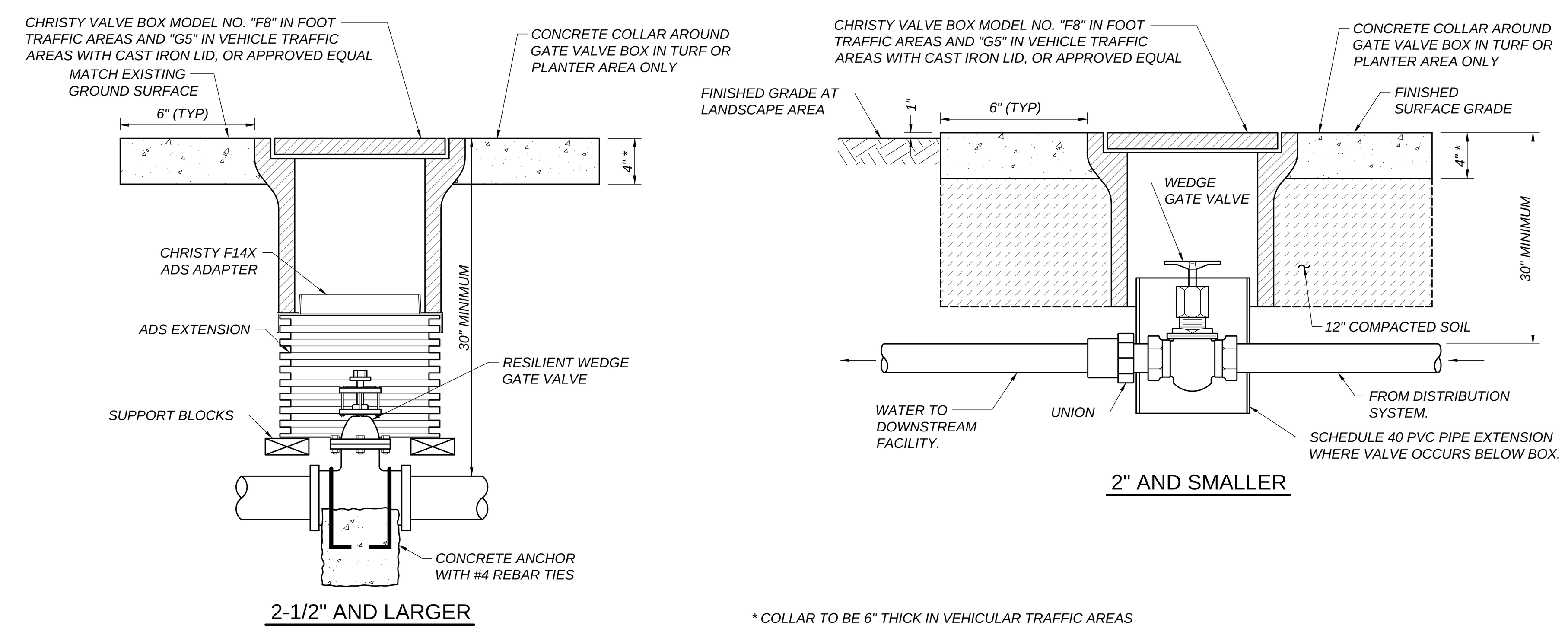
Table Of Bearing Areas Required (In Square Feet)*					
Pipe Diameter	4" Or Smaller	6"	8"	10"	12"
Cross, Tee, 90° Bend, Plug, Hydrant, Valve	6.3	13.2	22.7	34.2	48.3
45° Bend	3.4	7.1	12.3	18.5	26.1
22 1/2° Bend	1.7	3.6	9.4	9.4	13.3
11 1/4° Bend	0.9	1.8	4.7	4.7	6.7

* TABLE CALCULATED BASED ON NFPA 24, CURRENT EDITION TABLE A.10.8.2(b), WITH 250 PSI WATER PRESSURE AND 1500 PSF SOIL BEARING PRESSURE.

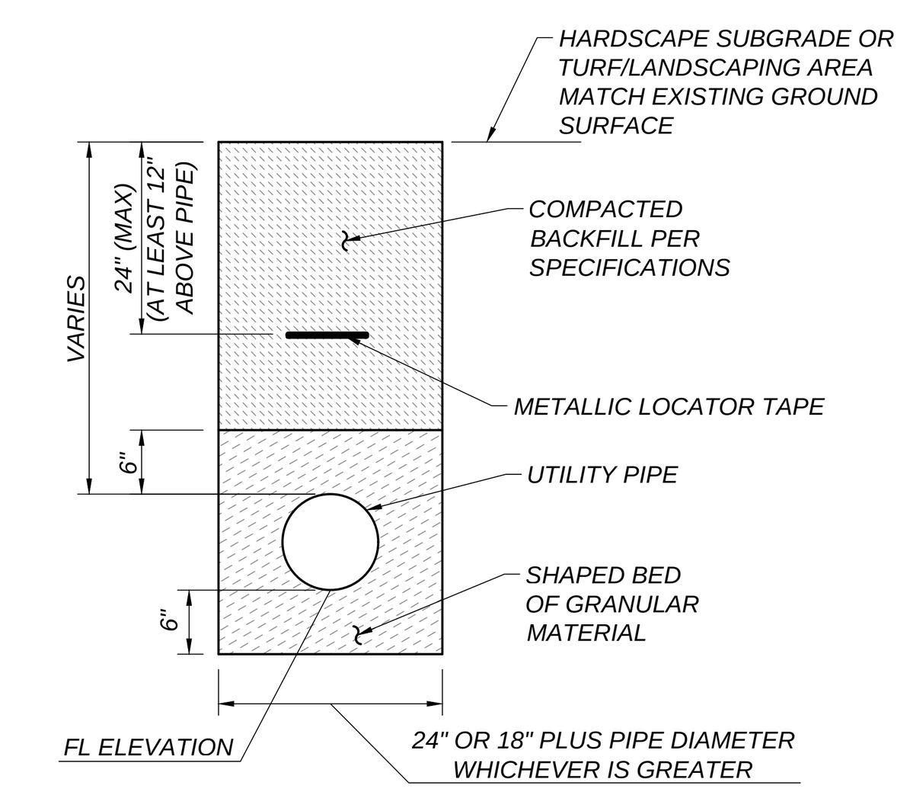
A SD/X102 CONCRETE THRUST BLOCKS
NOT TO SCALE



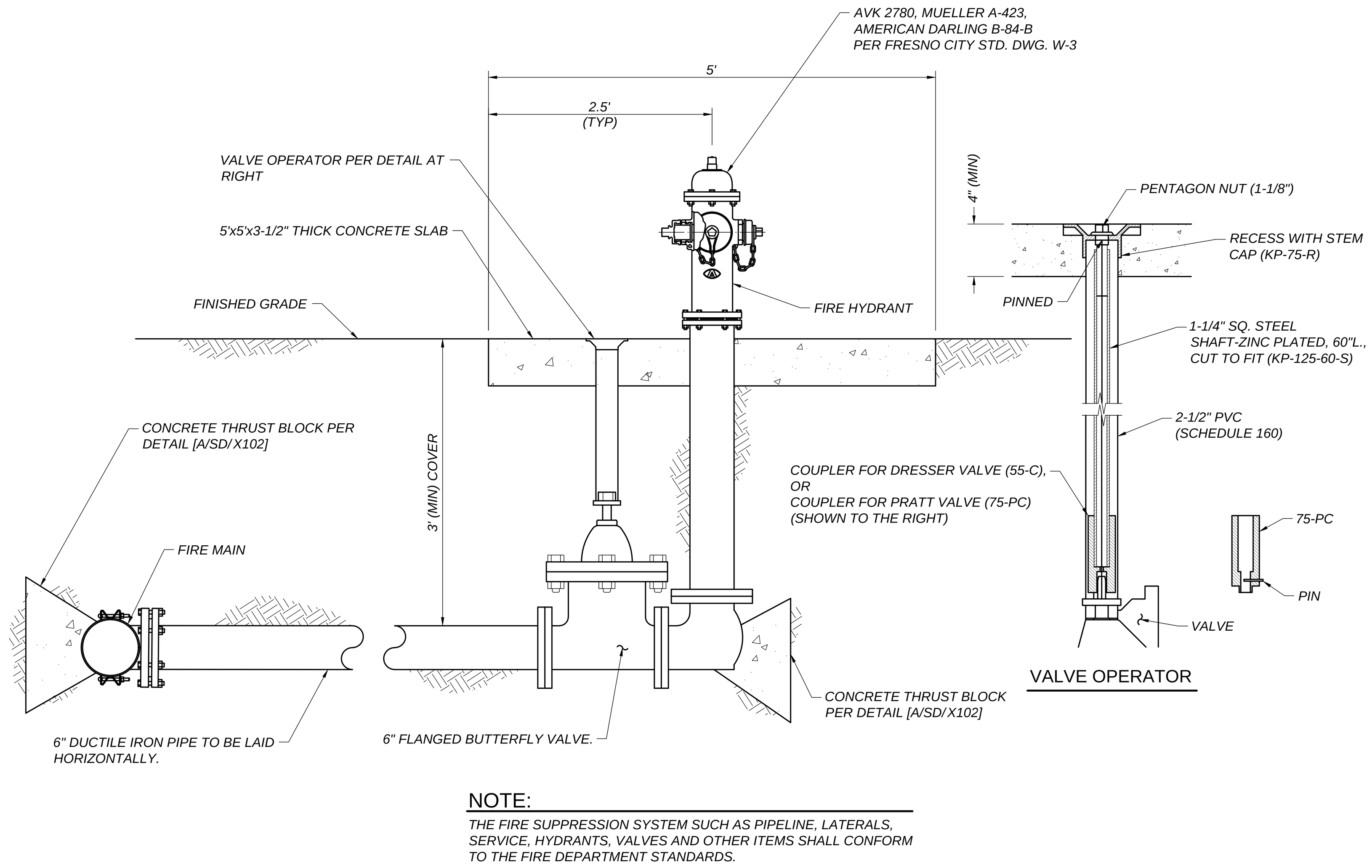
B SD/X102 BACKFLOW PREVENTER
NOT TO SCALE



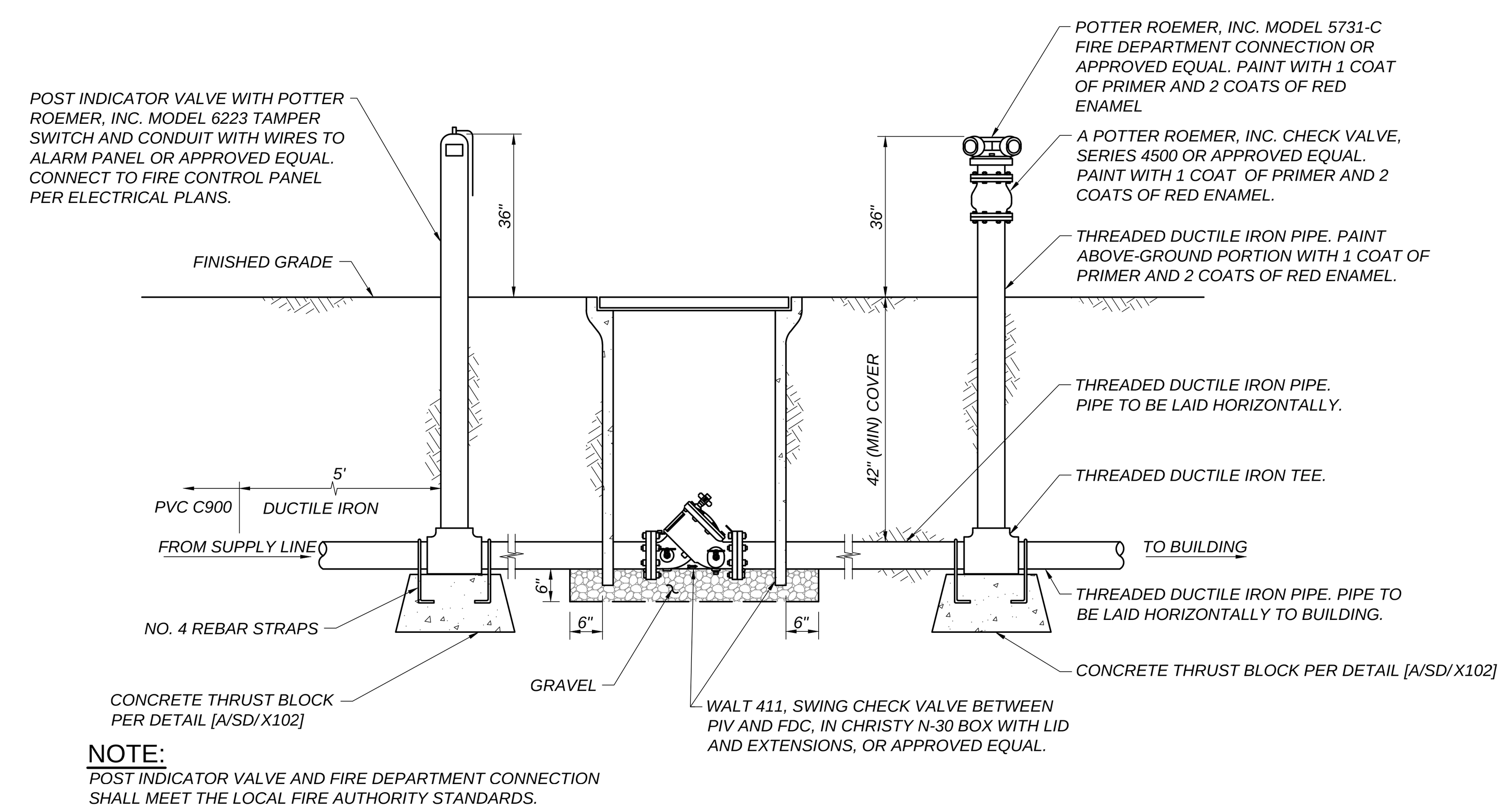
C SD/X102 GATE VALVE AND LID
NOT TO SCALE



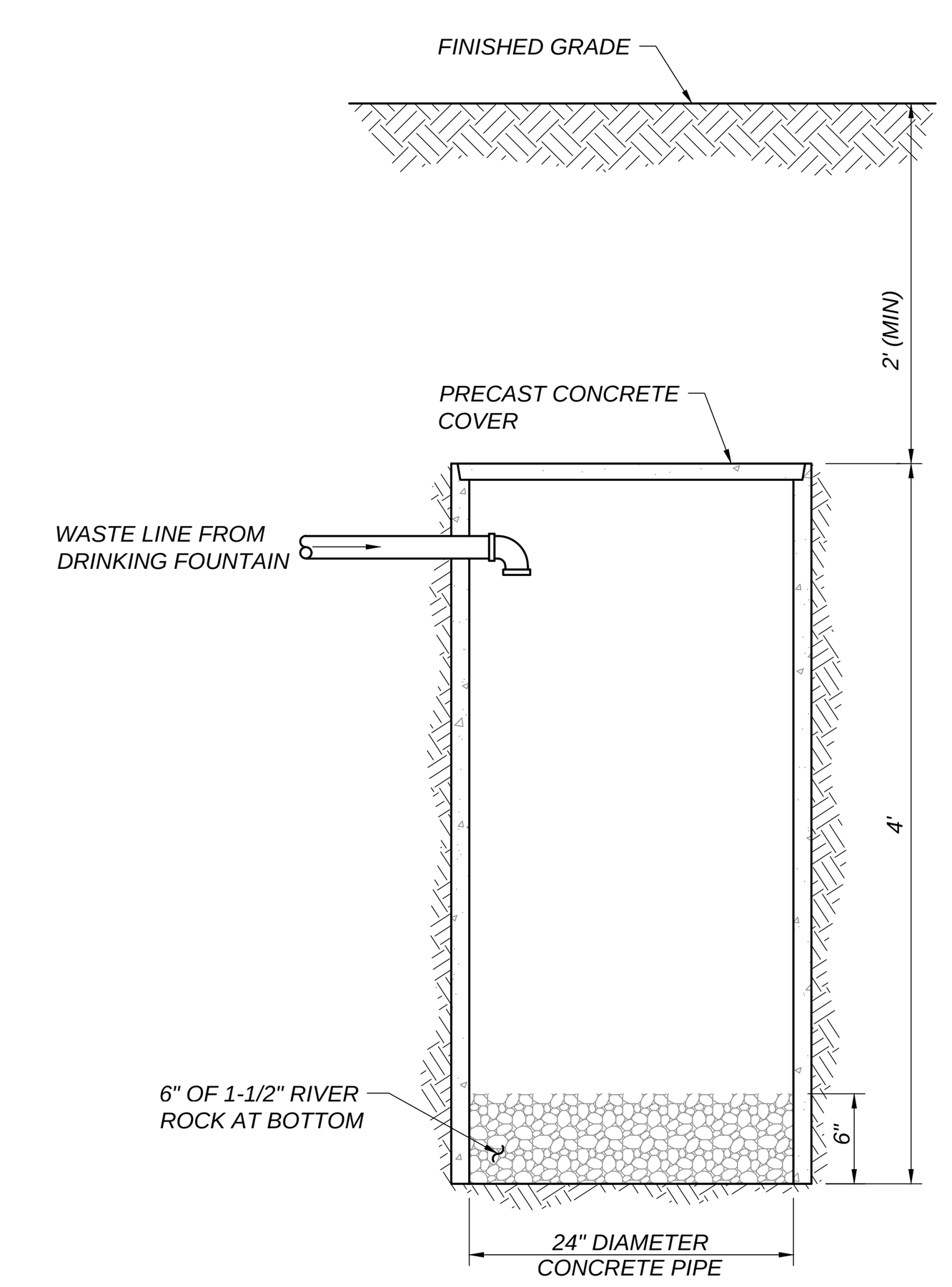
F SD/X102 TRENCH DETAIL FOR UTILITY LINES
NOT TO SCALE



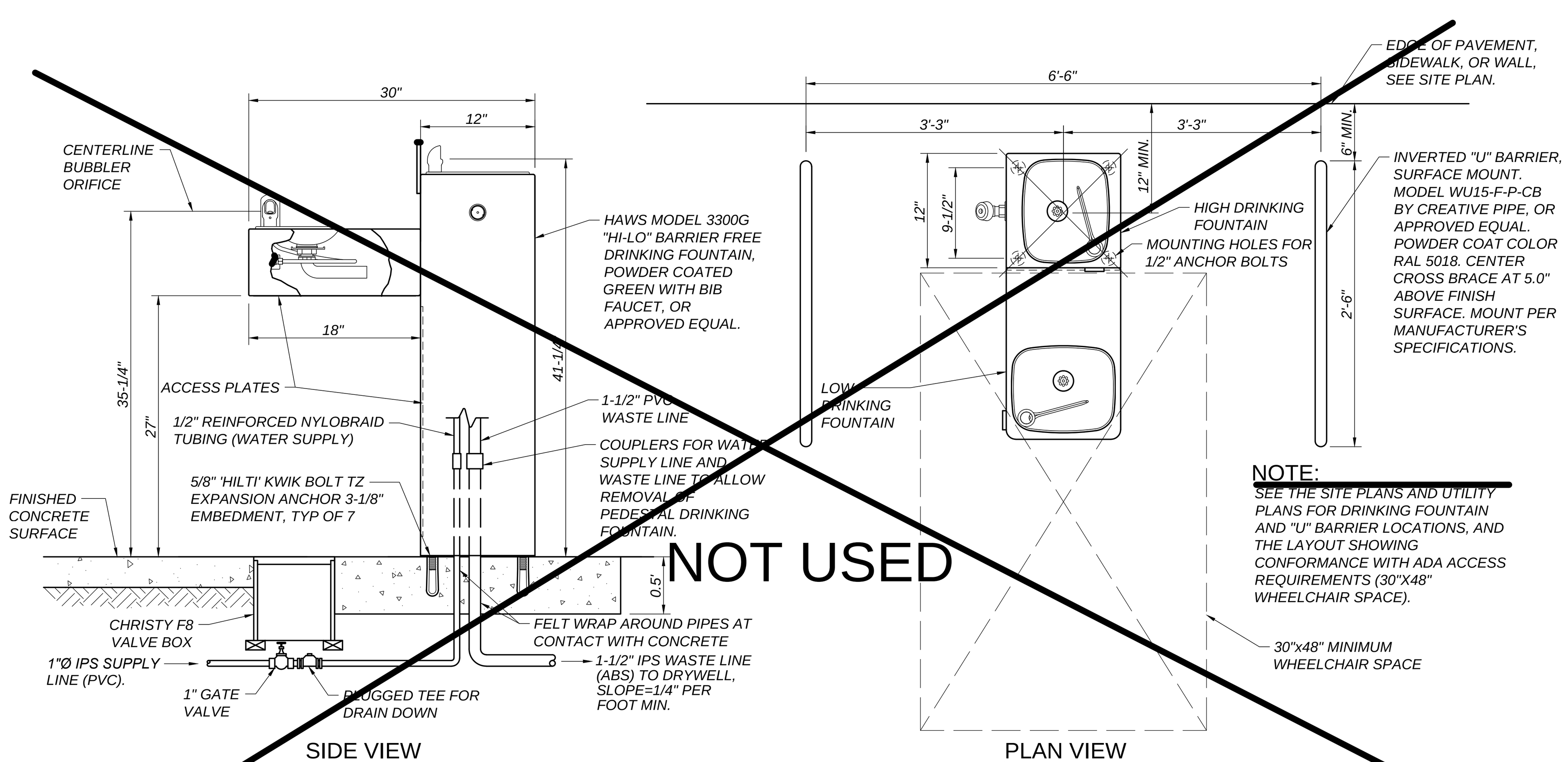
D SD/X102 FIRE HYDRANT INSTALLATION
NOT TO SCALE



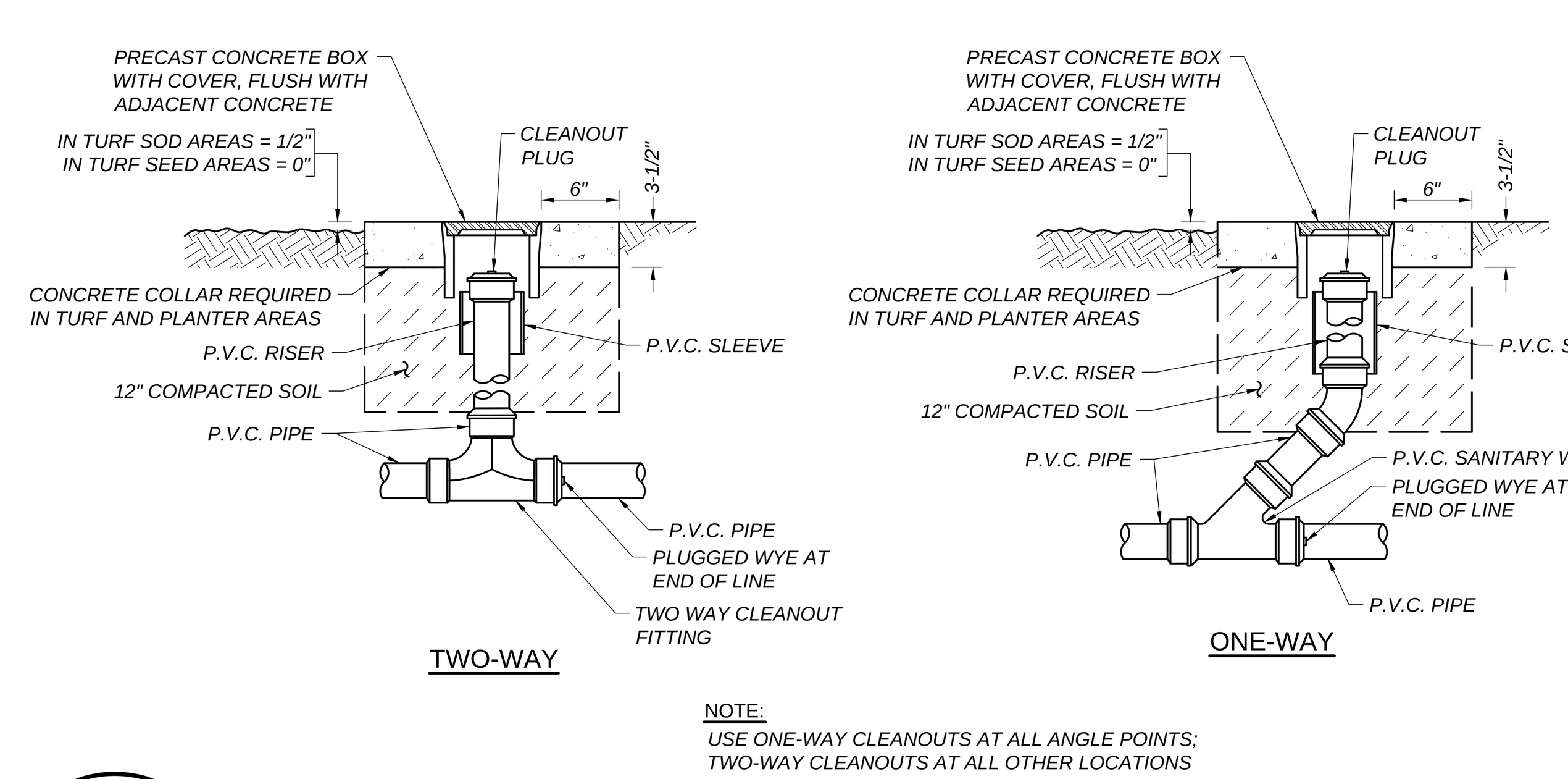
E SD/X102 POST INDICATOR VALVE, CHECK VALVE, AND FIRE DEPARTMENT CONNECTION
NOT TO SCALE



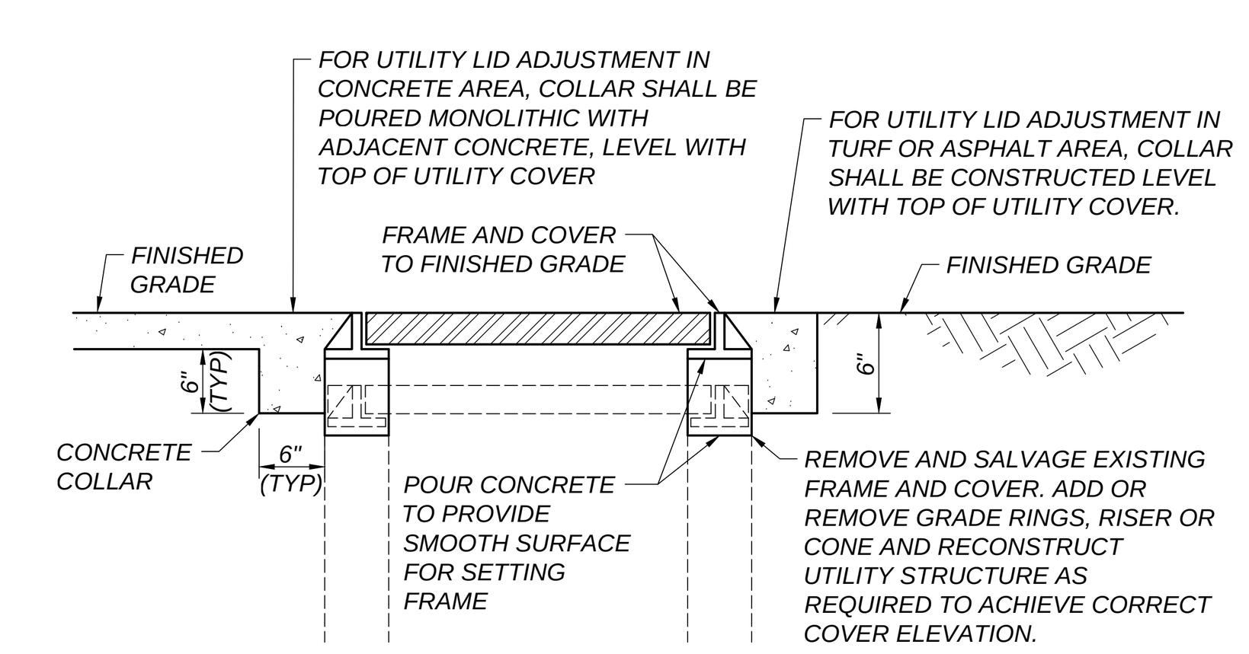
G SD/X102 DRY WELL
NOT TO SCALE



H SD/X102 DRINKING FOUNTAIN
NOT TO SCALE



I SD/X102 SURFACE CLEANOUT
NOT TO SCALE



J SD/X102 ADJUST UTILITY LID
NOT TO SCALE

General Notes

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451 Clovis Avenue, Suite 200
Clovis, California 93612
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Fax (559) 326-1500

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Consultant
Date Signed:

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Clovis Unified School District
Fresno, CA 93727

Project

UTILITY DETAILS

Drawing

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LICENSED ARCHITECT MICHAEL K. FENOCCHIO No. C23724 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: LRB
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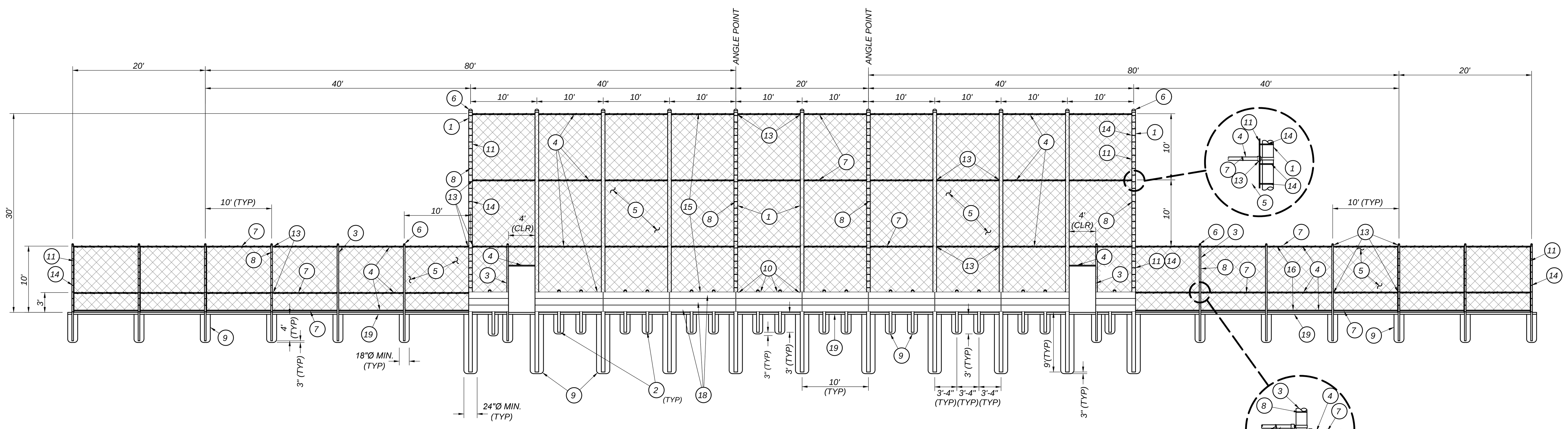
Scale: AS NOTED
Drawn By: SAD
Project Number: 2116
Checked By: JDB
Date: 9/20/2022
Reviewed By: JDB

SD/X102

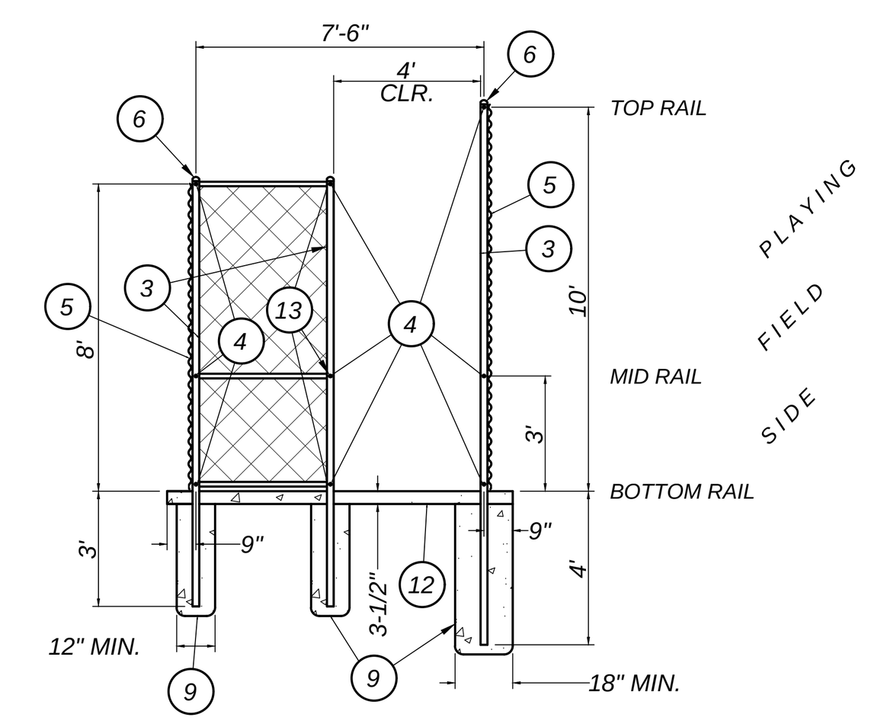
Sheet: ______ of: ______

AD2- CX14



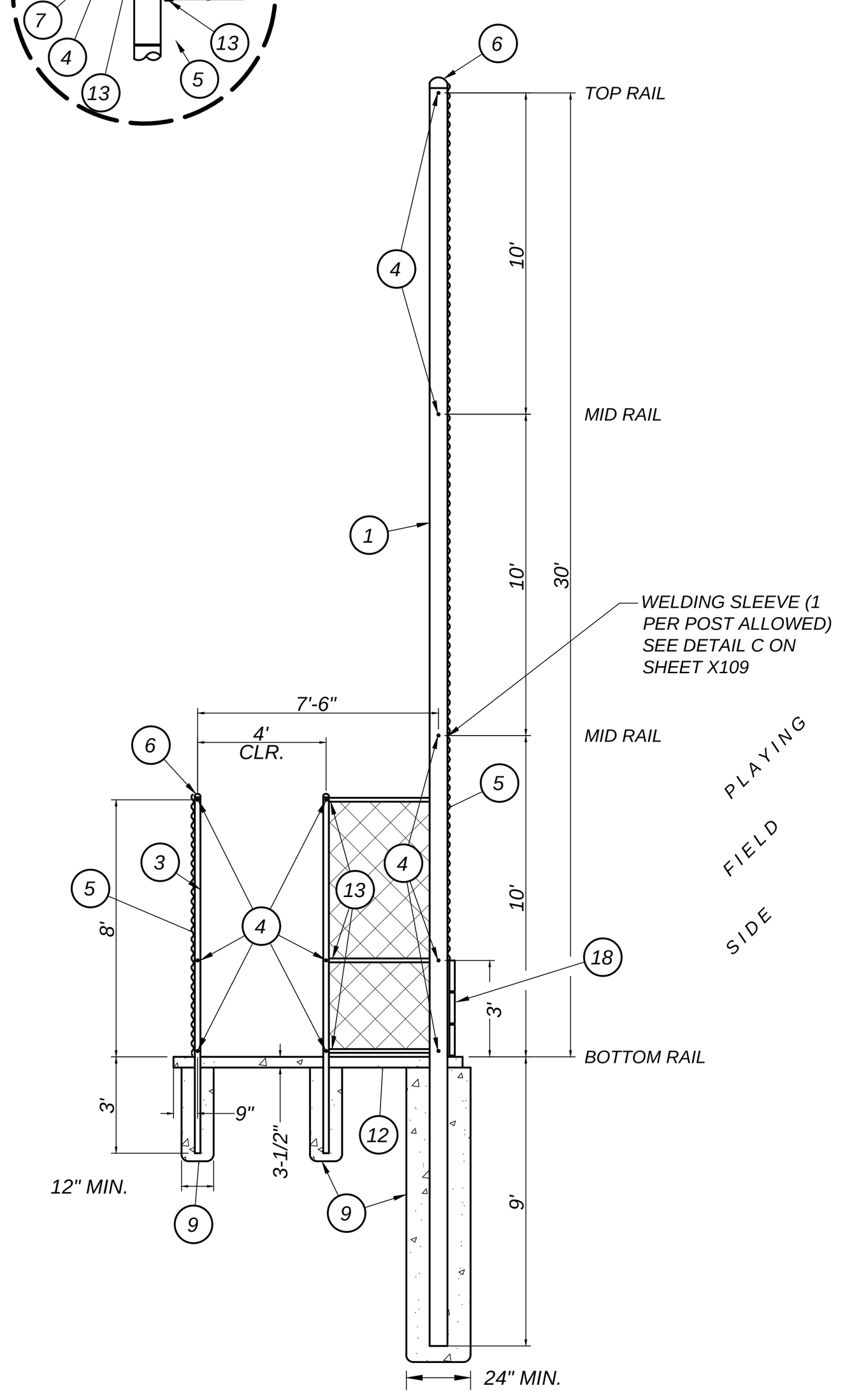
ELEVATION VIEW OF BACKSTOP

SCALE: 1"=10'



SECTION A-A

NOT TO SCALE



SECTION B-B

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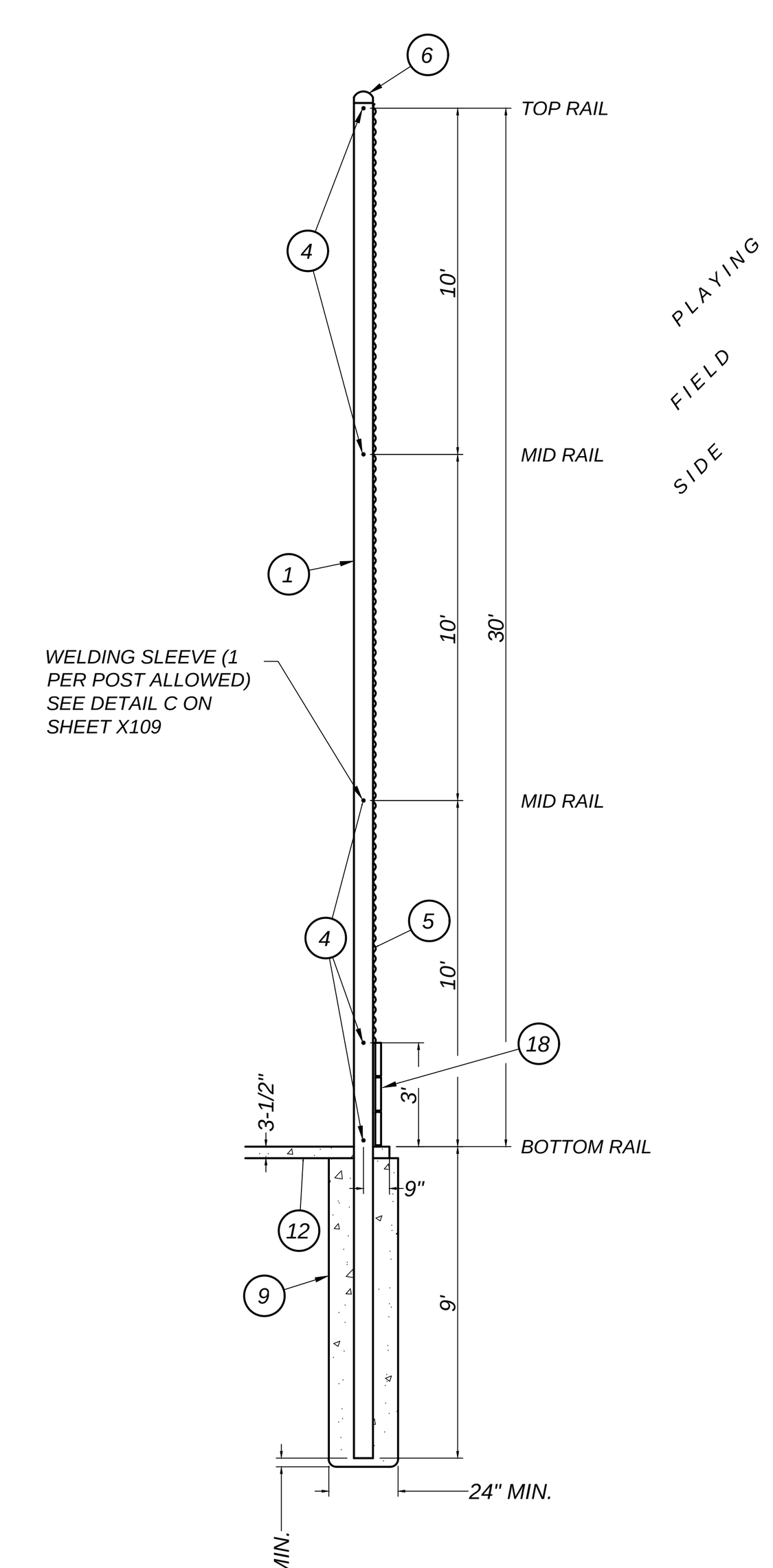


SECTION C-C

NOT TO SCALE

LEGEND:

FENCING ITEMS TO BE FURNISHED AND INSTALLED:

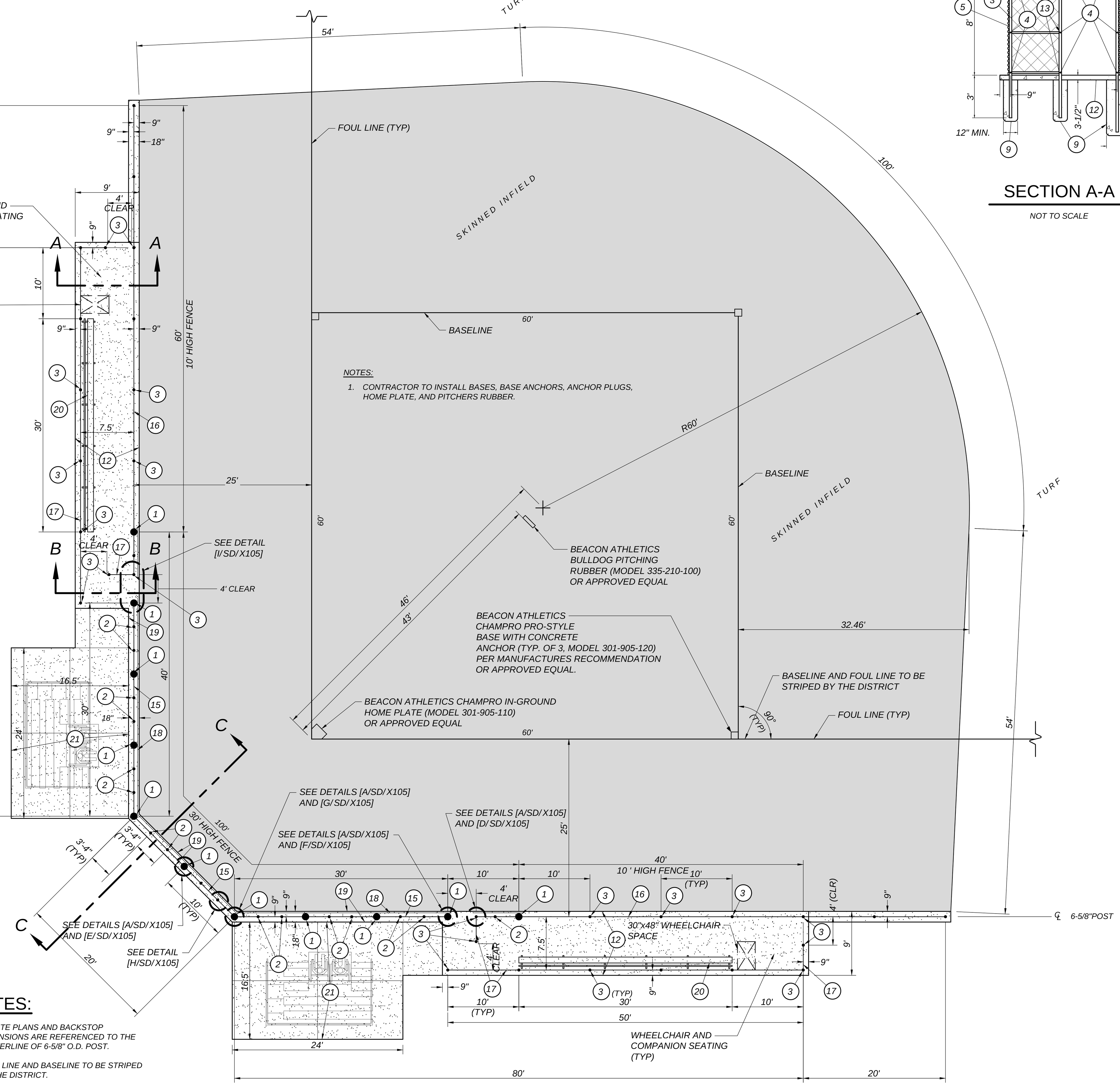
1	6-5/8" O.D. GALVANIZED STEEL POST (18.97 LB/FT).
2	2-3/8" O.D. GALVANIZED STEEL MID-BRACE POST (3.65 LB/FT).
3	2-3/8" O.D. GALVANIZED STEEL POST (3.65 LB/FT).
4	1-5/8" O.D. GALVANIZED HORIZONTAL RAIL (2.27 LB/FT).
5	2" MESH X 9 GAUGE GALVANIZED FABRIC WITH KNUCKLED TOP AND BOTTOM SELVAGE. FABRIC TO BE GALVANIZED BEFORE WEAVING (GBW).
6	RAIN-PROOF POST CAP.
7	9 GAUGE (0.148" DIAMETER) GALVANIZED STEEL TIE WIRES AT 14" MAXIMUM SPACING (MINIMUM OF 9 TIES BETWEEN 10' SPACED POST).
8	9 GAUGE (0.148" DIAMETER) GALVANIZED STEEL POST CLIPS AT 14" MAXIMUM SPACING (MINIMUM OF 7 CLIPS PER EACH 8' POST SECTIONS, 9 CLIPS FOR 10')
9	9 GAUGE (0.148" DIAMETER) GALVANIZED STEEL POST CLIPS AT 14" MAXIMUM SPACING (MINIMUM OF 7 CLIPS PER EACH 8' POST SECTIONS, 9 CLIPS FOR 10')
10	CONCRETE POST FOOTING. POUR AGAINST UNDISTURBED SOIL.
11	CONTINUOUS ANGLE BRACE, SEE DETAILS ON SHEET X105.
12	1/4" X 3/4" GALVANIZED STEEL STRETCHER BAR.
13	CONCRETE SLAB, SEE DETAIL [B/SD/X105].
14	GALVANIZED RAIL END.
15	GALVANIZED STRETCHER BAR BANDS AT 12" MAXIMUM SPACING (MINIMUM OF 7 BANDS PER EACH 8' POST SECTIONS, 9 BANDS FOR 10', 28 BANDS FOR 30' POST SECTIONS).
15	30' HIGH CHAIN LINK FENCE (3-10' HIGH PANELS).
16	10' HIGH CHAIN LINK FENCE (1-10' HIGH PANEL).
17	8' HIGH CHAIN LINK FENCE (1-8' HIGH PANEL).
18	2" X 12" (1-1/2" X 11-1/2") HDPE HORIZONTAL BACKBOARDS, SEE NOTE 2.
19	3-1/2" THICK CONCRETE MOWSTRIP (SEE SOFTBALL FIELD LAYOUT FOR WIDTH).
20	BENCH
21	6" THICK REINFORCED CONCRETE BLEACHER PAD (HEAVY DUTY CONCRETE) PER ARCHITECTURAL DETAILS .

NOTES:

1. 30 FT. HIGH FENCE SHALL BE CONSTRUCTED WITH MINIMUM 39 FT. LONG GALVANIZED STEEL POST WITH WELDING SLEEVE INSERT. ONE SLEEVE PER POST ALLOWED. SEE DETAIL [C/SD/X105] FOR WELD SLEEVE DETAIL. (POST MAY BE IN ONE PIECE.)
2. BACKBOARDS SHALL BE TANGENT WOOD HIGH DENSITY POLYETHYLENE (HDPE) RECYCLED GREEN DURAWOOD PLASTIC BOARD REPRESENTED. CONTACT STEVE ANDERSON AT TANGENT TECHNOLOGIES FOR LOCAL DISTRIBUTOR, 1001 SULLIVAN ROAD, AURORA, ILLINOIS, 60506, PHONE (630)264-1110, FAX (630)264-6881.
3. ALL SCREWS, NUTS, AND WASHERS SHALL BE GALVANIZED STEEL.
4. ALL DAMAGED GALVANIZED SURFACES AND WELDED AREAS SHALL BE CLEANED AND PAINTED WITH A MINIMUM OF TWO (2) COATS OF ZINC OXIDE PER THE REQUIREMENTS OF FEDERAL SPECIFICATION MIL-P-15145 AND TWO ALUMINUM COLOR COATS.
5. ALL STEEL ANGLES FOR BACKBOARDS TO BE GALVANIZED STEEL.
6. SEE DETAIL [C/SD/X105] FOR POST WELDING DETAILS.
7. FACE OF ALL BACKSTOPS POSTS ARE TO ALIGN WITH THE FACE OF 6-5/8" O.D. POSTS. THE CENTER OF 6-5/8" O.D. POST TO BE 9" FROM EDGE OF CONCRETE.
8. ALL EXPOSED EDGES OF GALVANIZED ANGLE IRON SHALL BE ROUNDED SMOOTH OR GROUND SMOOTH.
9. MINIMUM LENGTH OF BACKSTOP BACKBOARDS TO BE 7'± OR 10'± (POST TO POST). MAXIMUM LENGTH TO BE 10'± OR AS REQUIRED.
10. PROVIDE 3/8" GAP BETWEEN HDPE BOARDS. BOARDS NOT TO BE BUTTED TOGETHER.
11. ALL CONCRETE TO BE IN CONFORMANCE TO SECTION 90 OF STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS, LATEST EDITION.
12. AFTER INSTALLATION, CUT END OF SCREWS SO THAT MAXIMUM EXTRUSION BEYOND NUT IS NO MORE THAN 1/4".
13. DRILL 3/4"Ø MINIMUM HOLES THROUGH PLASTIC BOARDS AND ANGLES FOR 1/2"Ø GALVANIZED STEEL SCREWS. CONTINUOUS ANGLES SHALL HAVE ELONGATED HOLES, SEE DETAIL [J/SD/X105]
14. ALL CONCRETE SHALL BE CALTRANS CLASS II UNLESS NOTED OTHERWISE IN THE PLANS OR SPECIFICATIONS.
15. ALL EXPOSED ENDS OF THE BACKSTOP BACKBOARDS TO BE ROUNDED SMOOTH WITH 3/16" QUARTER ROUND ROUTER BIT.
16. TACK WELD ALL NUTS ONTO BOLTS BELOW 8' IN HEIGHT.
17. NO WINDSCREENS, SLATS, SIGNS, OR SIMILAR ATTACHMENTS SHALL BE ATTACHED TO BACKSTOP FENCING.

WHEELCHAIR AND COMPANION SEATING (TYP)

30"x48" WHEELCHAIR SPACE



NOTES:

1. ON-SITE PLANS AND BACKSTOP DIMENSIONS ARE REFERENCED TO THE CENTERLINE OF 6-5/8" O.D. POST.
2. FOUL LINE AND BASELINE TO BE STRIPED BY THE DISTRICT.

A SD/X104 TYPICAL FIELD LAYOUT

SCALE: 1"=10'

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

DSA File No.: 10-48

DSA Application No.: 02-120543

Agency Approval

General Notes

Blair, Church & Flynn CONSULTING ENGINEERS
Blair, Church & Flynn Consulting Engineers
451 Clovis Avenue, Suite 200
Clovis, California 93612
Tel (559) 326-1400
Fax (559) 326-1500

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Date Signed:

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Project

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LICENSED ARCHITECT MICHAEL K. FENENGA No. C23724 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

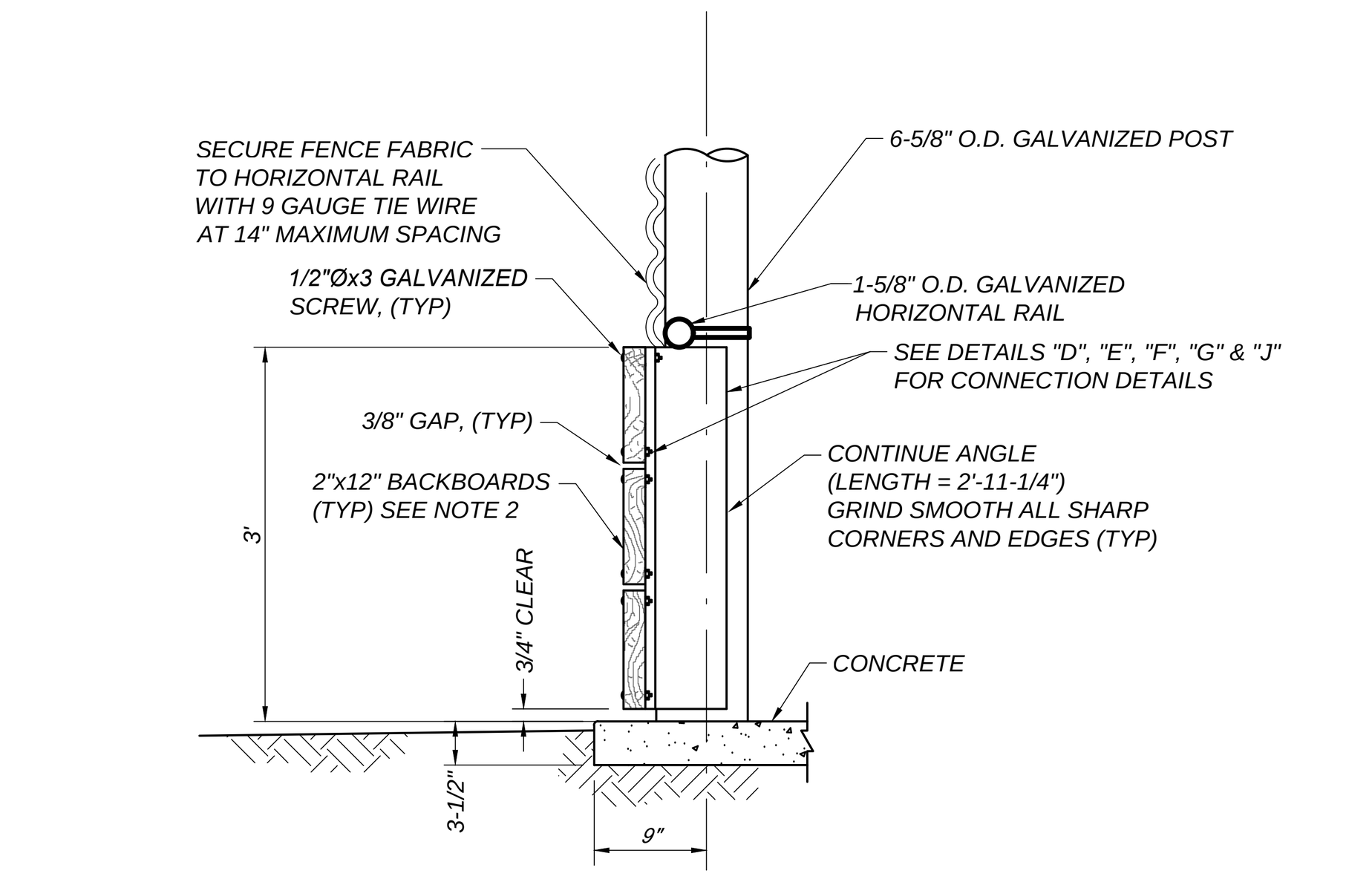
Revision

	Designed By: LRB	
Scale: AS NOTED	Drawn By: SAD	SD/X104
Project Number: 2116	Checked By: JDB	
Date: 9/20/2022	Reviewed By: JDB	Sheet: ________ of: ________

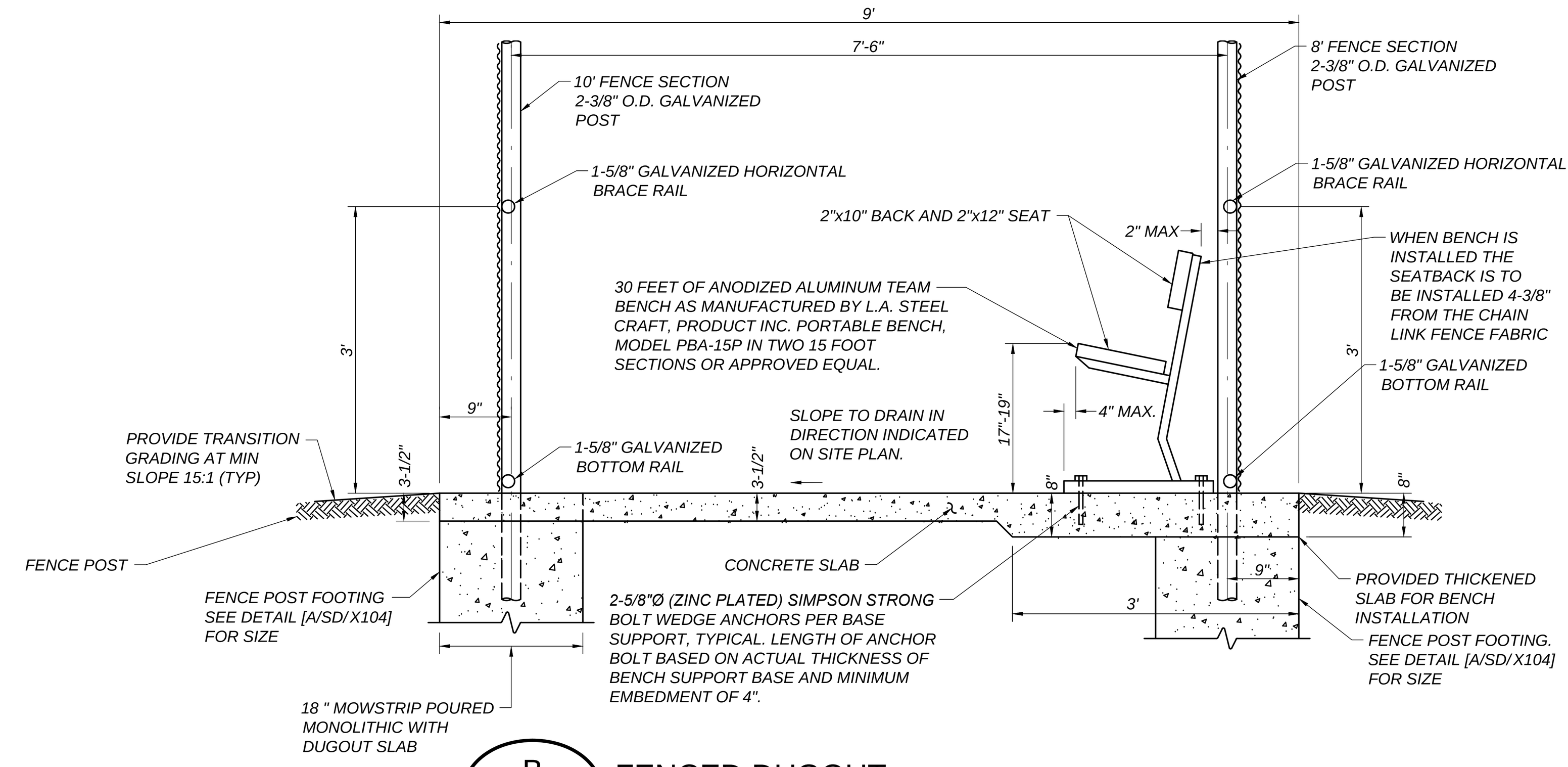
AD2 - CX15

DSA File No.:	DSA Application No.:
10-48	02-120543

Agency Approval



A SD/X105 CHAIN LINK BACKSTOP
NOT TO SCALE



B SD/X105 FENCED DUGOUT
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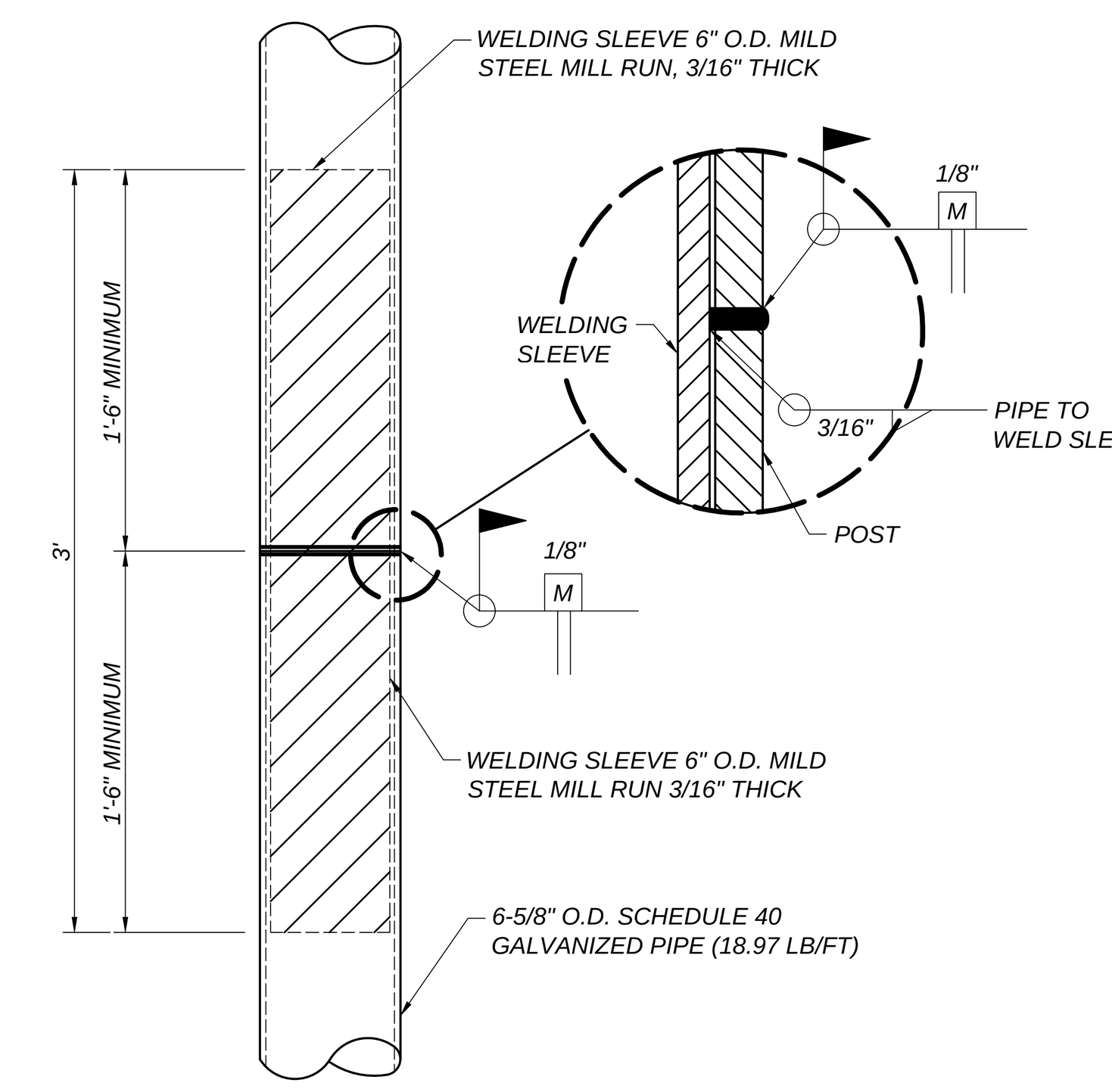

C SD/X105 DETAIL C
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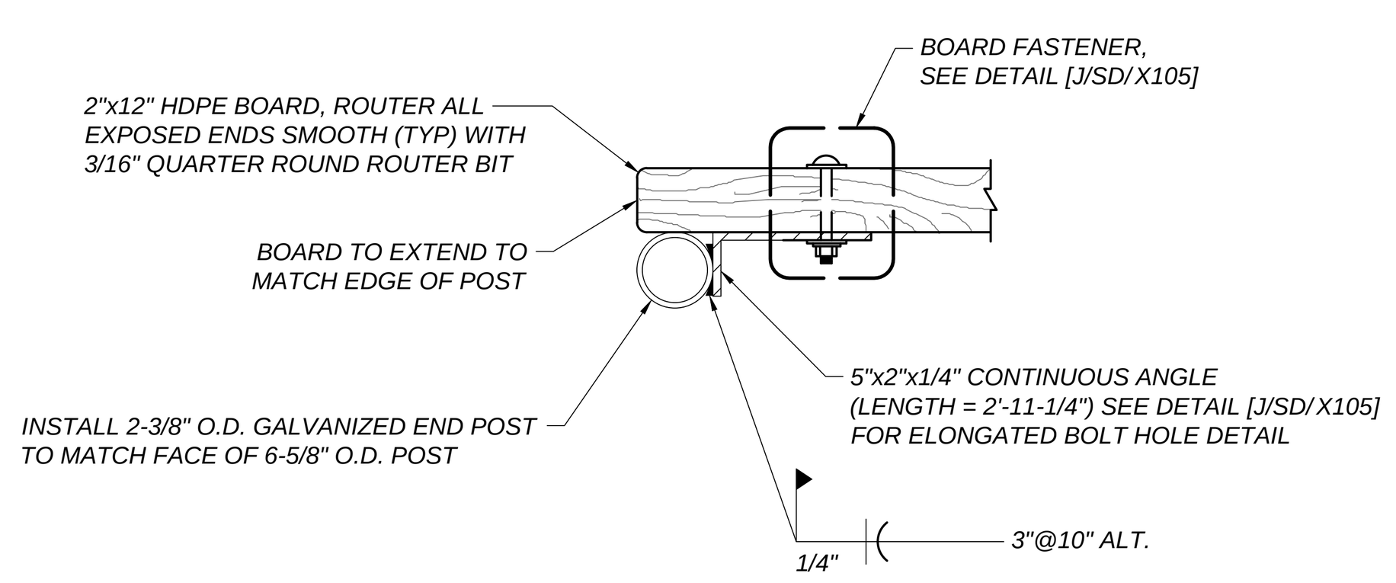

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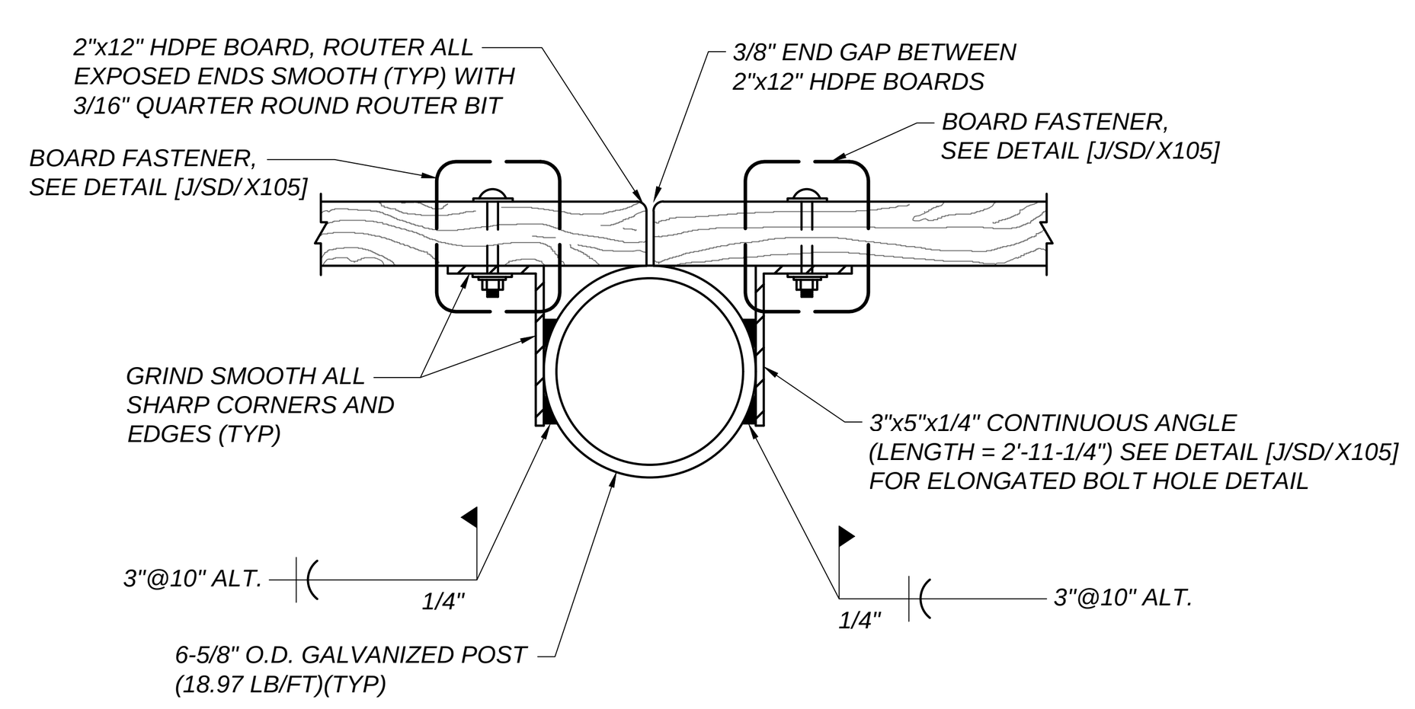

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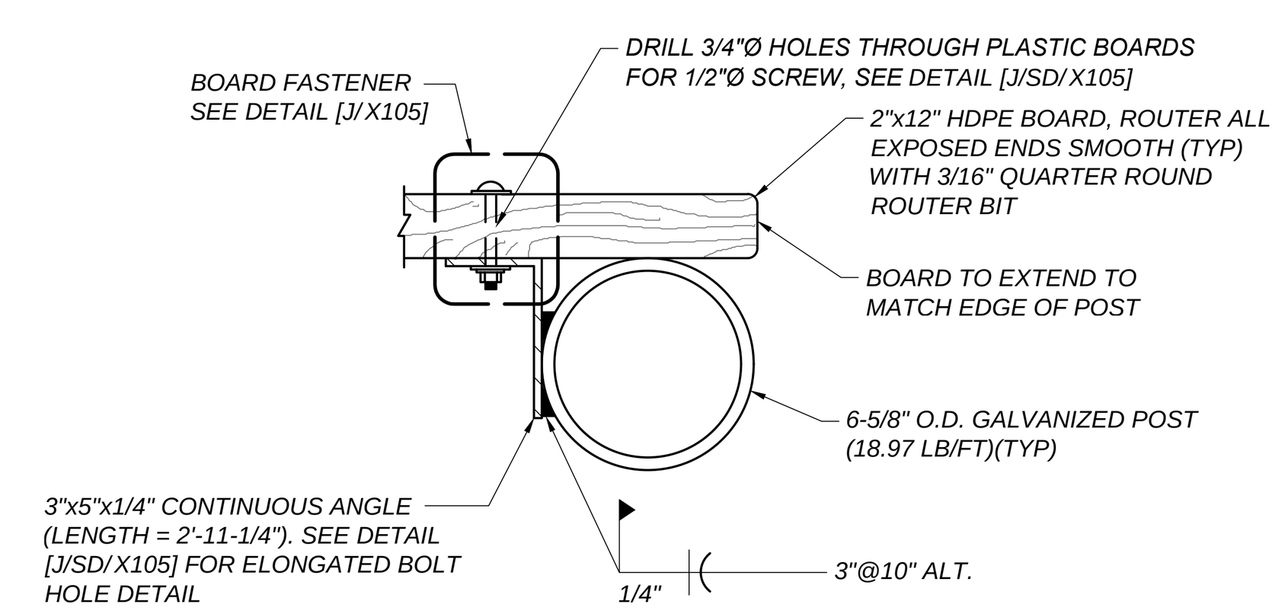

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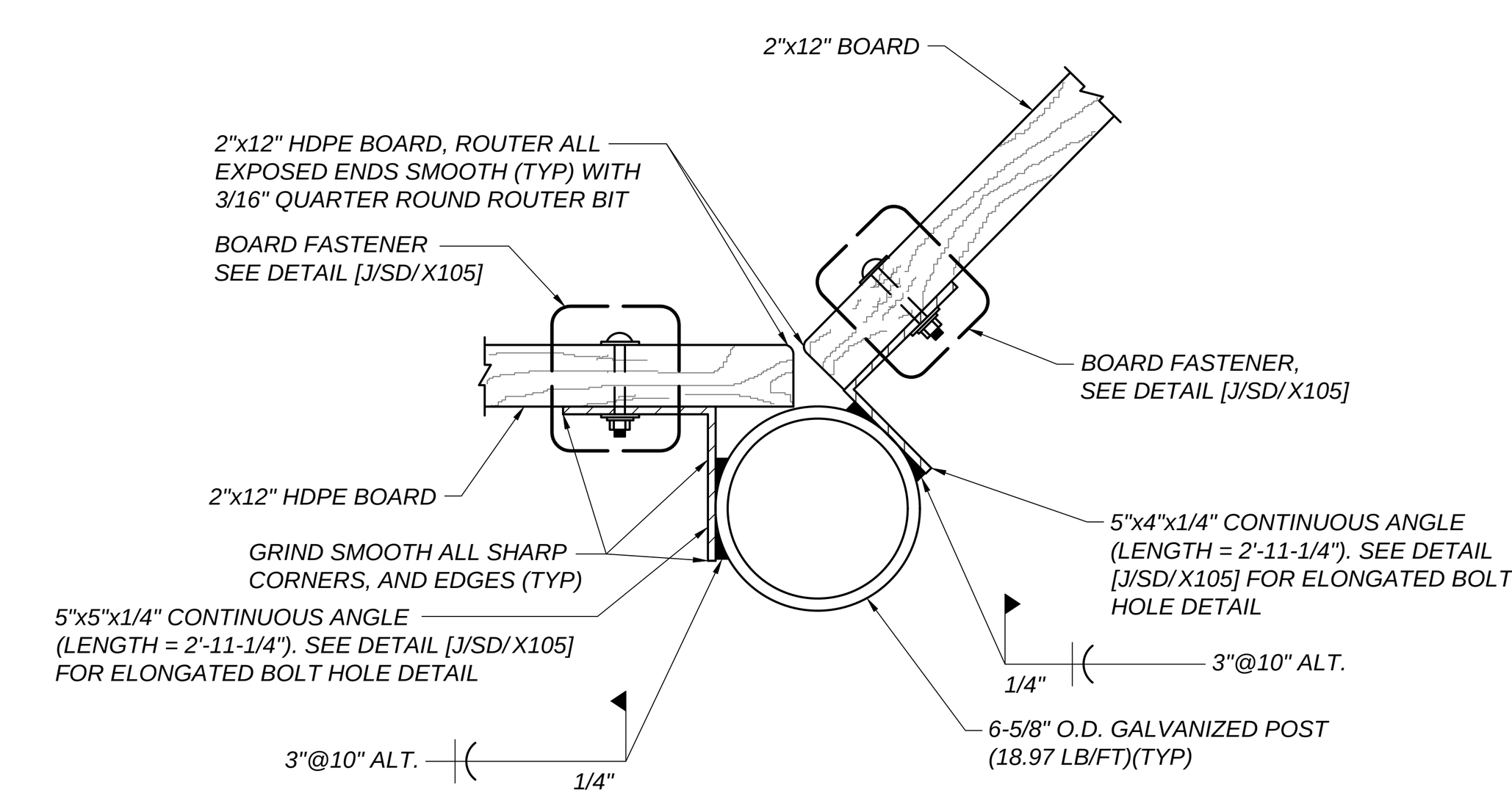

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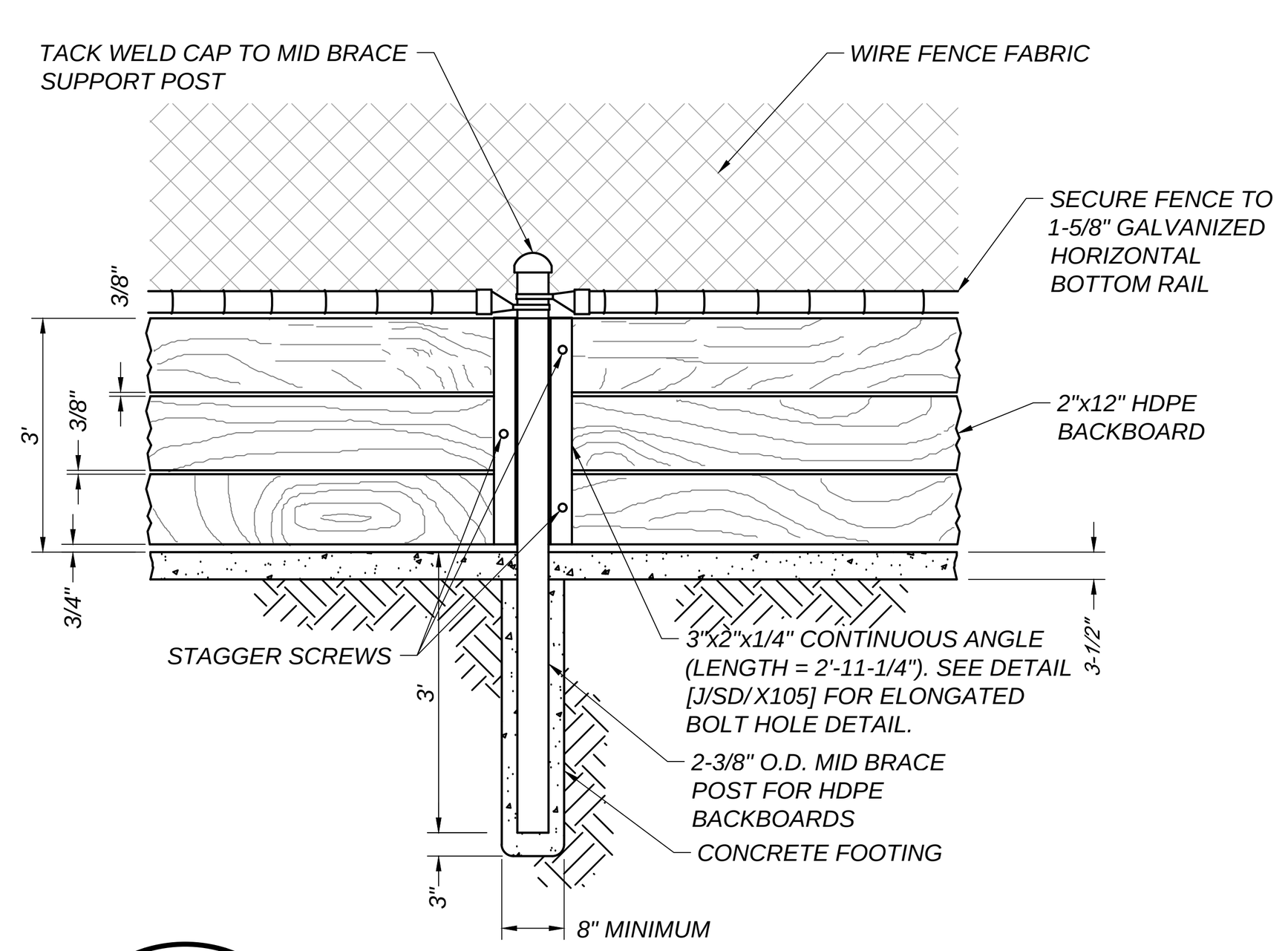

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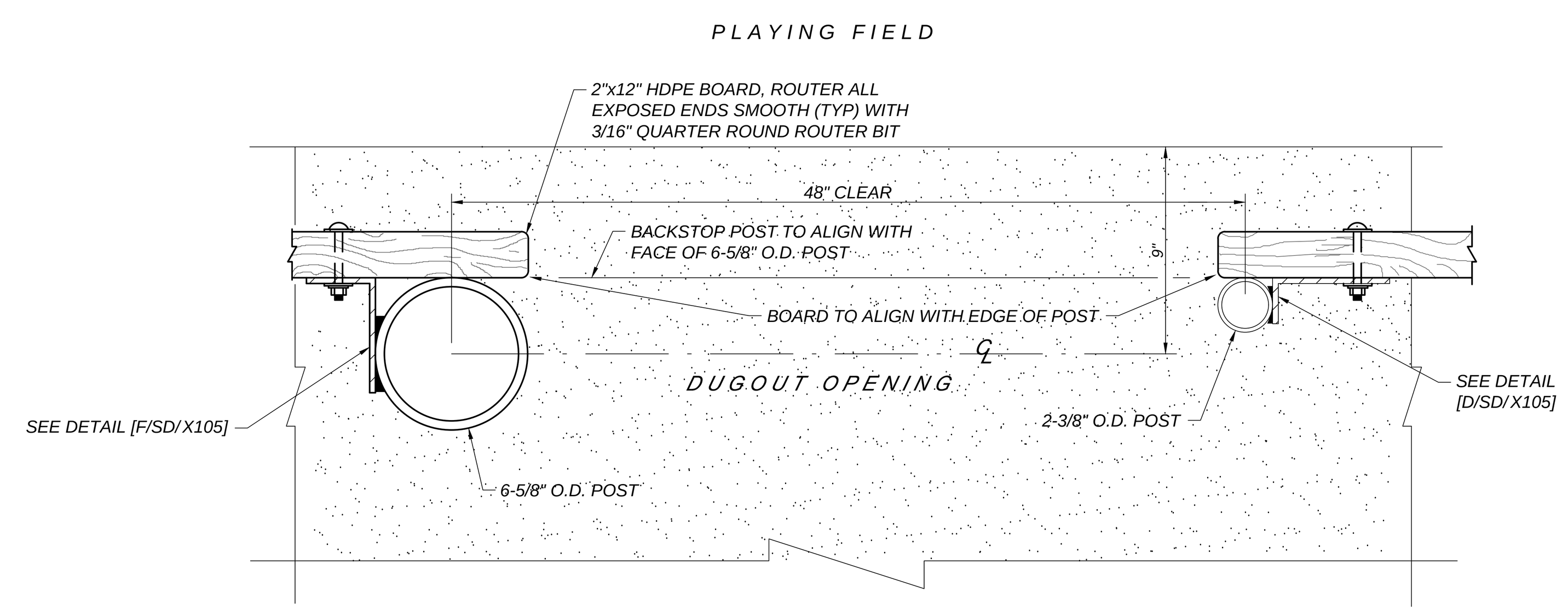

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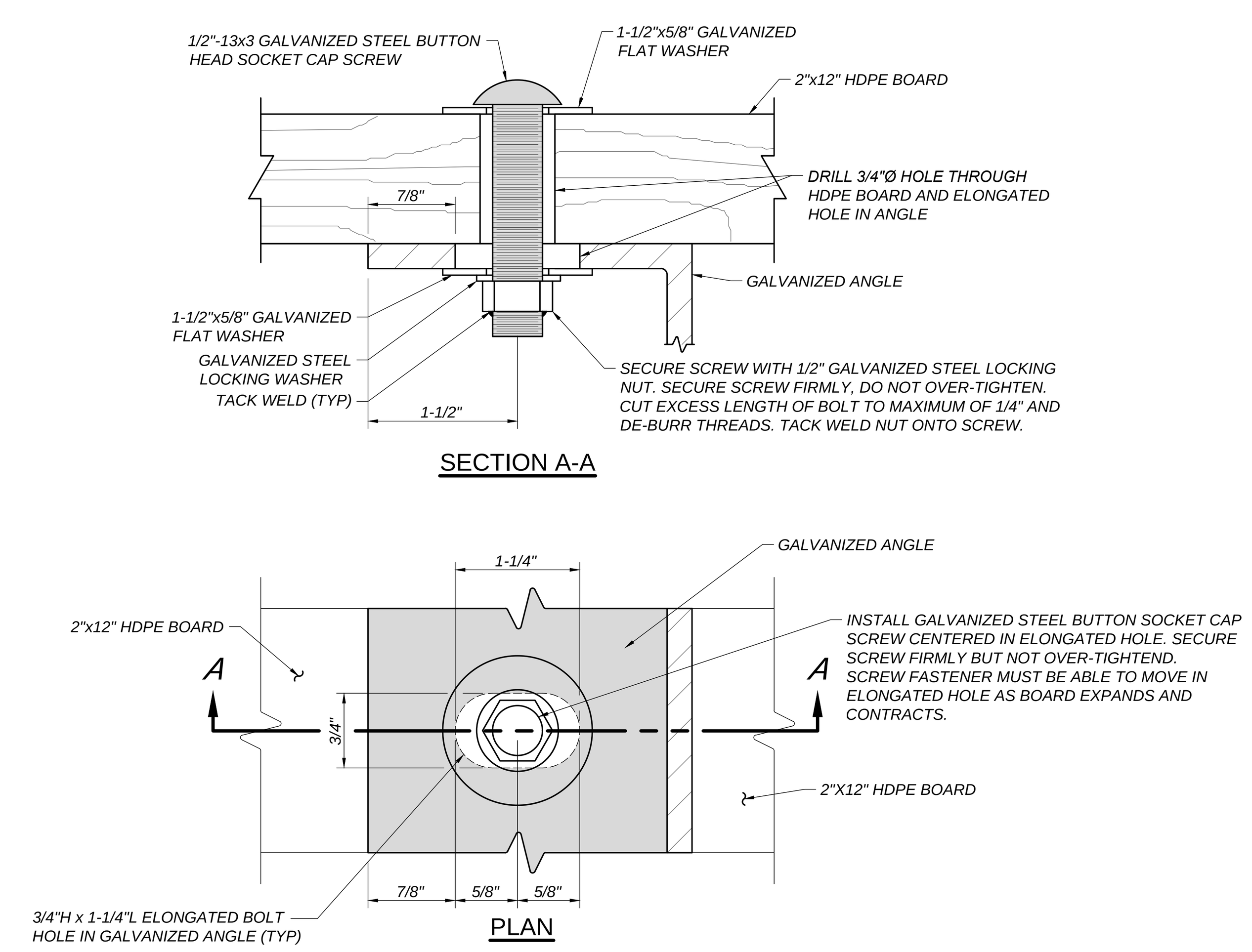

J SD/X105 DETAIL J
NOT TO SCALE

NOTES:

1. 30 FT. HIGH FENCE SHALL BE CONSTRUCTED WITH MINIMUM 39 FT. LONG GALVANIZED STEEL POST WITH WELDING SLEEVE INSERT. ONE SLEEVE PER POST ALLOWED. SEE DETAIL [C/SD/ X105] FOR WELD SLEEVE DETAIL. (POST MAY BE IN ONE PIECE.)
2. BACKBOARDS SHALL BE TANGENT WOOD HIGH DENSITY POLYETHYLENE (HDPE) RECYCLED GREEN DURAWOOD PLASTIC BOARD REPRESENTED. CONTACT STEVE ANDERSON AT TANGENT TECHNOLOGIES FOR LOCAL DISTRIBUTOR, 1001 SULLIVAN ROAD, AURORA, ILLINOIS, 60506, PHONE (630)264-1110, FAX (630)264-6881.
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5. ALL STEEL ANGLES FOR BACKBOARDS TO BE GALVANIZED STEEL.
6. SEE DETAIL [C/SD/ X105] FOR POST WELDING DETAILS.
7. FACE OF ALL BACKSTOPS POSTS ARE TO ALIGN WITH THE FACE OF 6-5/8" O.D. POSTS. THE CENTER OF 6-5/8" O.D. POST TO BE 9" FROM EDGE OF CONCRETE.
8. ALL EXPOSED EDGES OF GALVANIZED ANGLE IRON SHALL BE ROUNDED SMOOTH OR GROUND SMOOTH.
9. MINIMUM LENGTH OF BACKSTOP BACKBOARDS TO BE 7'± OR 10'± (POST TO POST). MAXIMUM LENGTH TO BE 10'± OR AS REQUIRED.
10. PROVIDE 3/8" GAP BETWEEN HDPE BOARDS. BOARDS NOT TO BE BUTTED TOGETHER.
11. ALL CONCRETE TO BE IN CONFORMANCE TO SECTION 90 OF STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS, LATEST EDITION.
12. AFTER INSTALLATION, CUT END OF SCREWS SO THAT MAXIMUM EXTRUSION BEYOND NUT IS NO MORE THAN 1/4".
13. DRILL 3/4"Ø MINIMUM HOLES THROUGH PLASTIC BOARDS AND ANGLES FOR 1/2"Ø GALVANIZED STEEL SCREWS. CONTINUOUS ANGLES SHALL HAVE ELONGATED HOLES, SEE DETAIL [J/SD/ X105]
14. ALL CONCRETE SHALL BE CALTRANS CLASS II UNLESS NOTED OTHERWISE IN THE PLANS OR SPECIFICATIONS.
15. ALL EXPOSED ENDS OF THE BACKSTOP BACKBOARDS TO BE ROUNDED SMOOTH WITH 3/16" QUARTER ROUND ROUTER BIT.
16. TACK WELD ALL NUTS ONTO BOLTS BELOW 8' IN HEIGHT.
17. NO WINDSCREENS, SLATS, SIGNS, OR SIMILAR ATTACHMENTS SHALL BE ATTACHED TO BACKSTOP FENCING.

General Notes

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LICENSED ARCHITECT MICHAEL K. FENERTY No. C23724 STATE OF CALIFORNIA

Architect

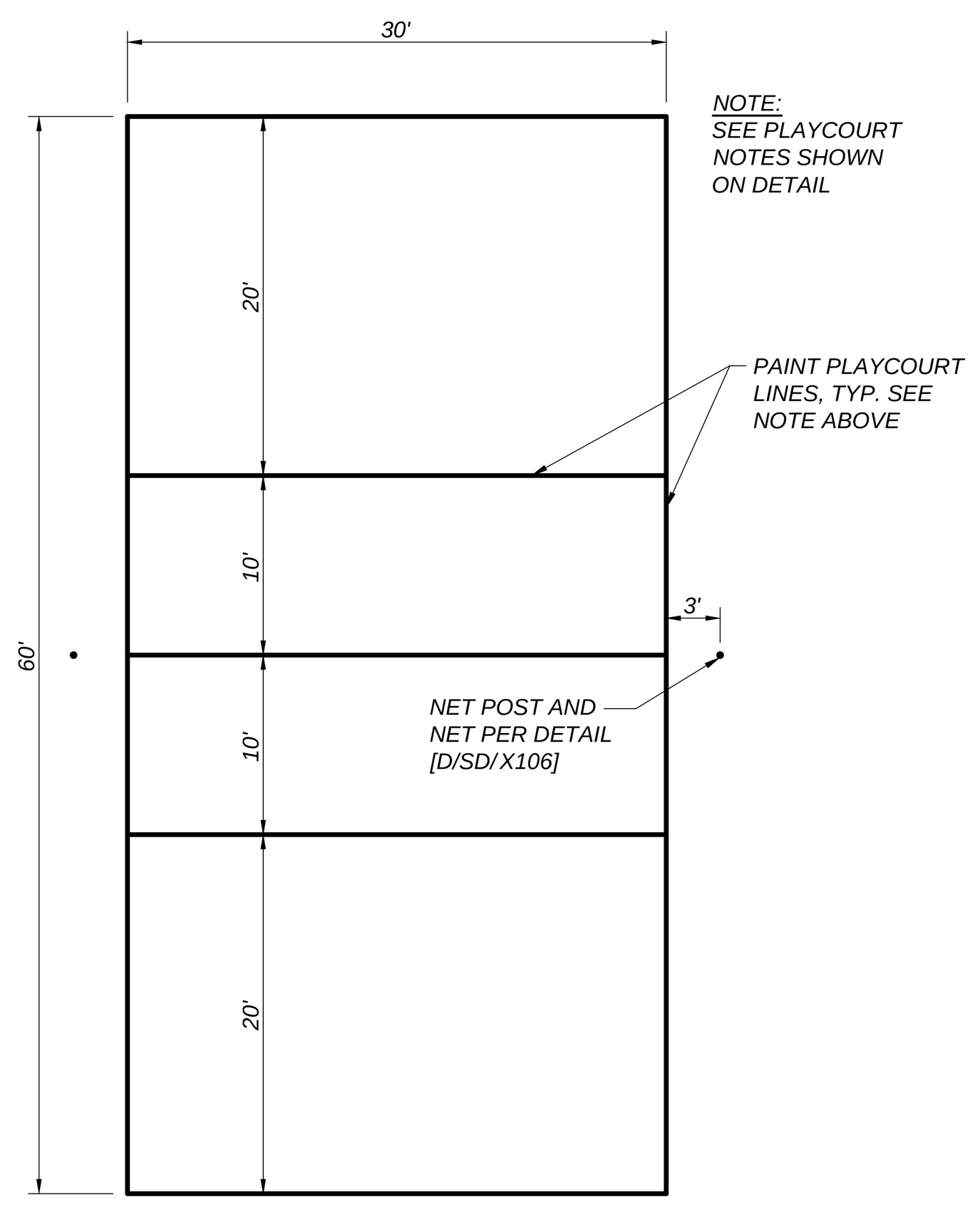
No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

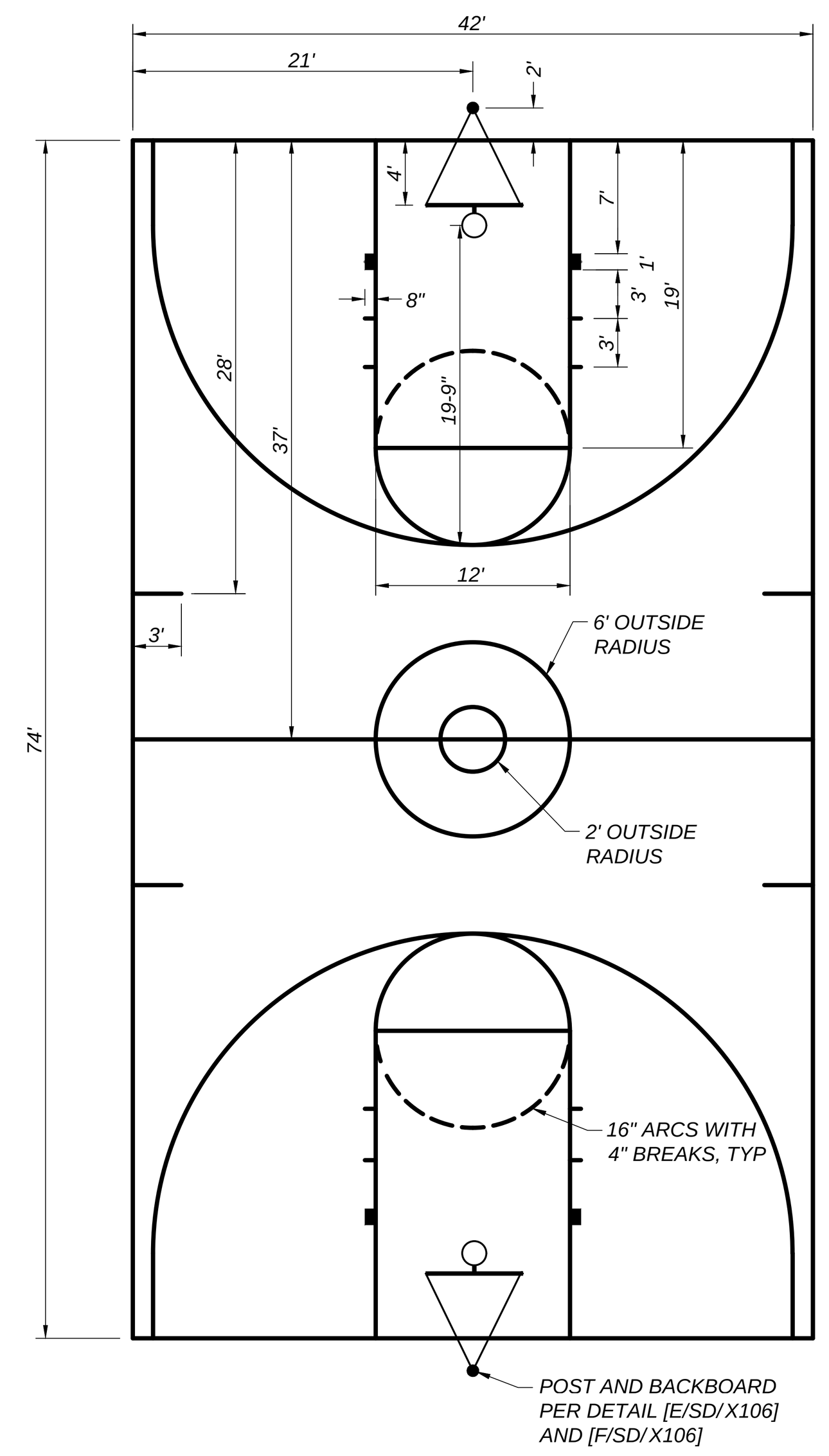
	Designed By: LRB	Copyright 2022 Darden Architects
Scale: AS NOTED	Drawn By: SAD	SD/ X105
Project Number: 2116	Checked By: JDB	
Date: 9/20/2022	Reviewed By: JDB	Sheet: ______ of: ______

AD2 - CX16

A — VOLLEYBALL COURT
SD/X106 — NOT TO SCALE



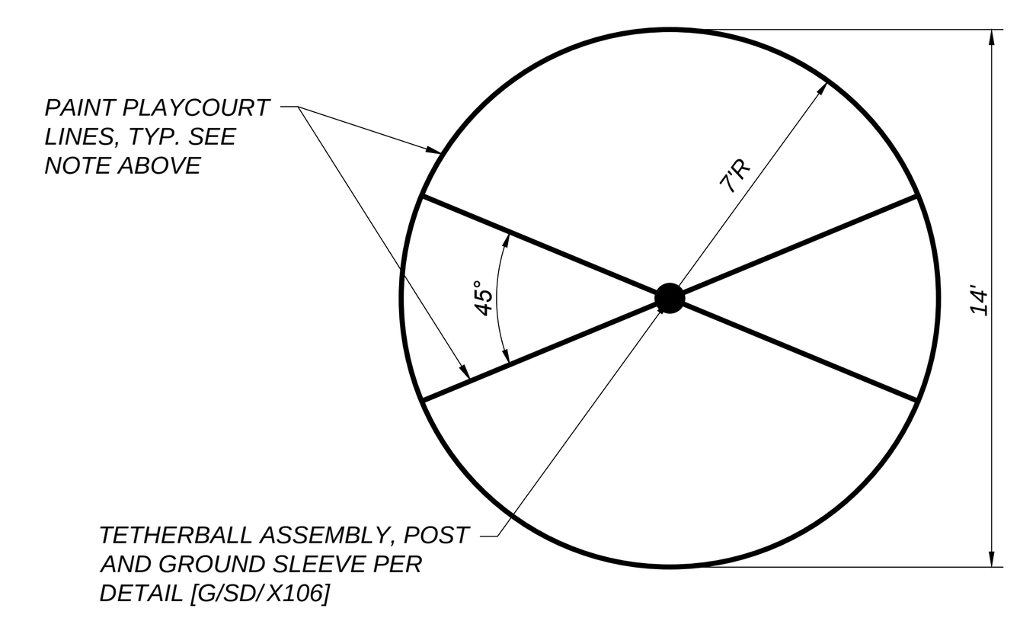
B — BASKETBALL COURT
SD/X106 — NOT TO SCALE



PLAYCOURT NOTES:
1. ALL COURT LINES ARE TO BE 2" IN WIDTH.
2. BASKETBALL COURTS SHALL BE STRIPED YELLOW, VOLLEYBALL COURTS SHALL BE STRIPED ORANGE, ALL OTHER PLAYCOURTS SHALL BE STRIPED WHITE.
3. ALL GAME COURT DIMENSIONS ARE TO THE INSIDE OF COURT LINES, WITH THE EXCEPTION OF THE CENTERLINES.
4. CONTRACTOR IS RESPONSIBLE FOR GAME COURT LAYOUTS AND LOCATING POSTS, AS NEEDED.

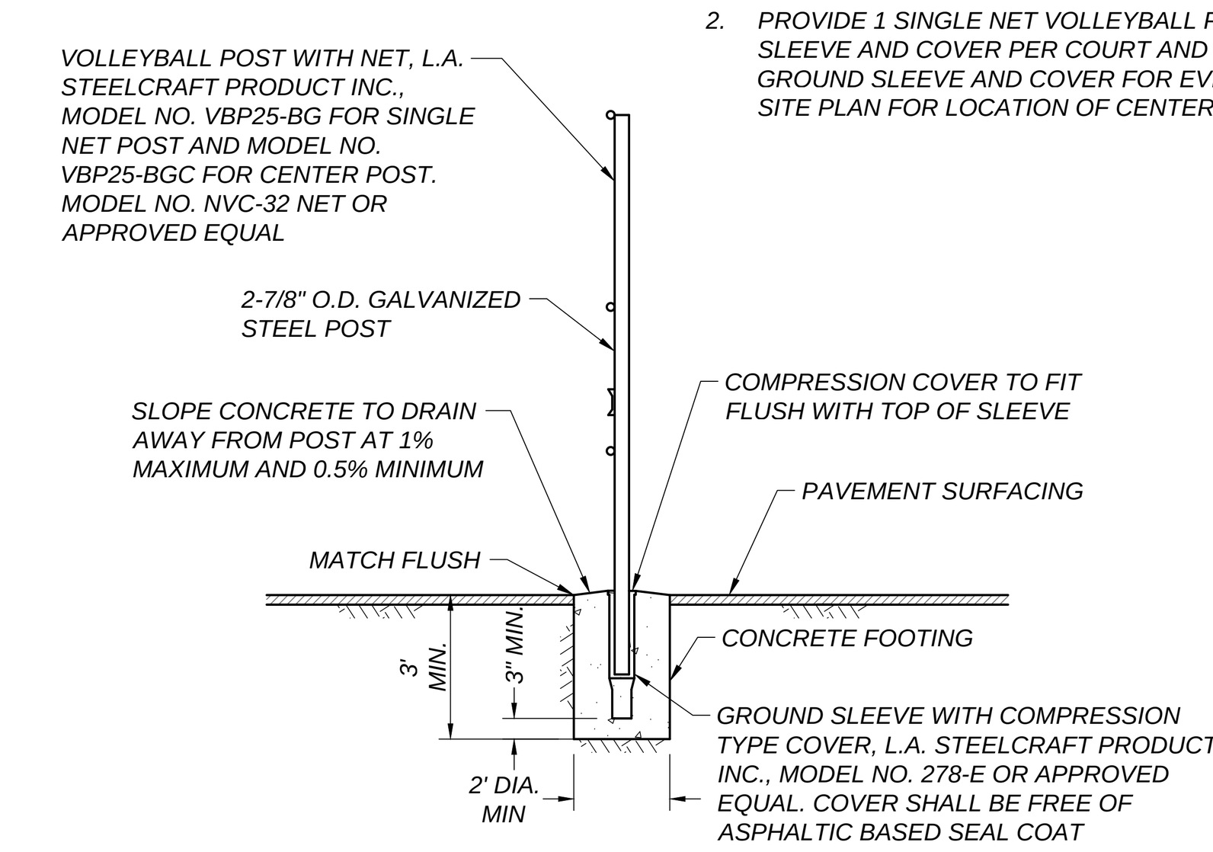
C — TETHERBALL COURT
SD/X106 — NOT TO SCALE

NOTE:
SEE PLAYCOURT NOTES SHOWN ON DETAIL

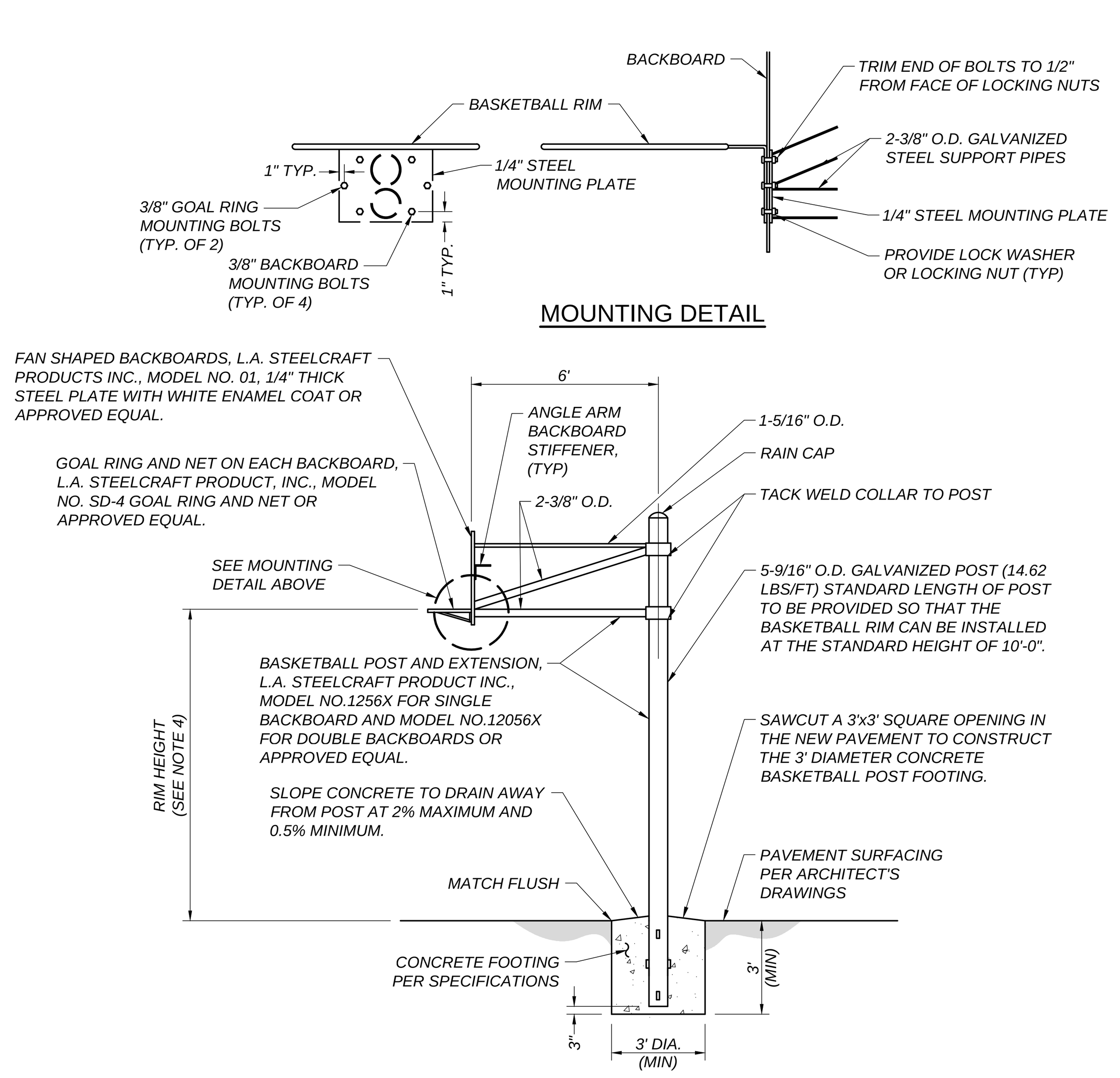


D — VOLLEYBALL POST
SD/X106 — NOT TO SCALE

VOLLEYBALL NOTES:
1. PROVIDE 1 VOLLEYBALL NET PER COURT.
2. PROVIDE 1 SINGLE NET VOLLEYBALL POST WITH GROUND SLEEVE AND COVER PER COURT AND 1 CENTER POST WITH GROUND SLEEVE AND COVER FOR EVERY 2 COURTS. SEE SITE PLAN FOR LOCATION OF CENTER POST.

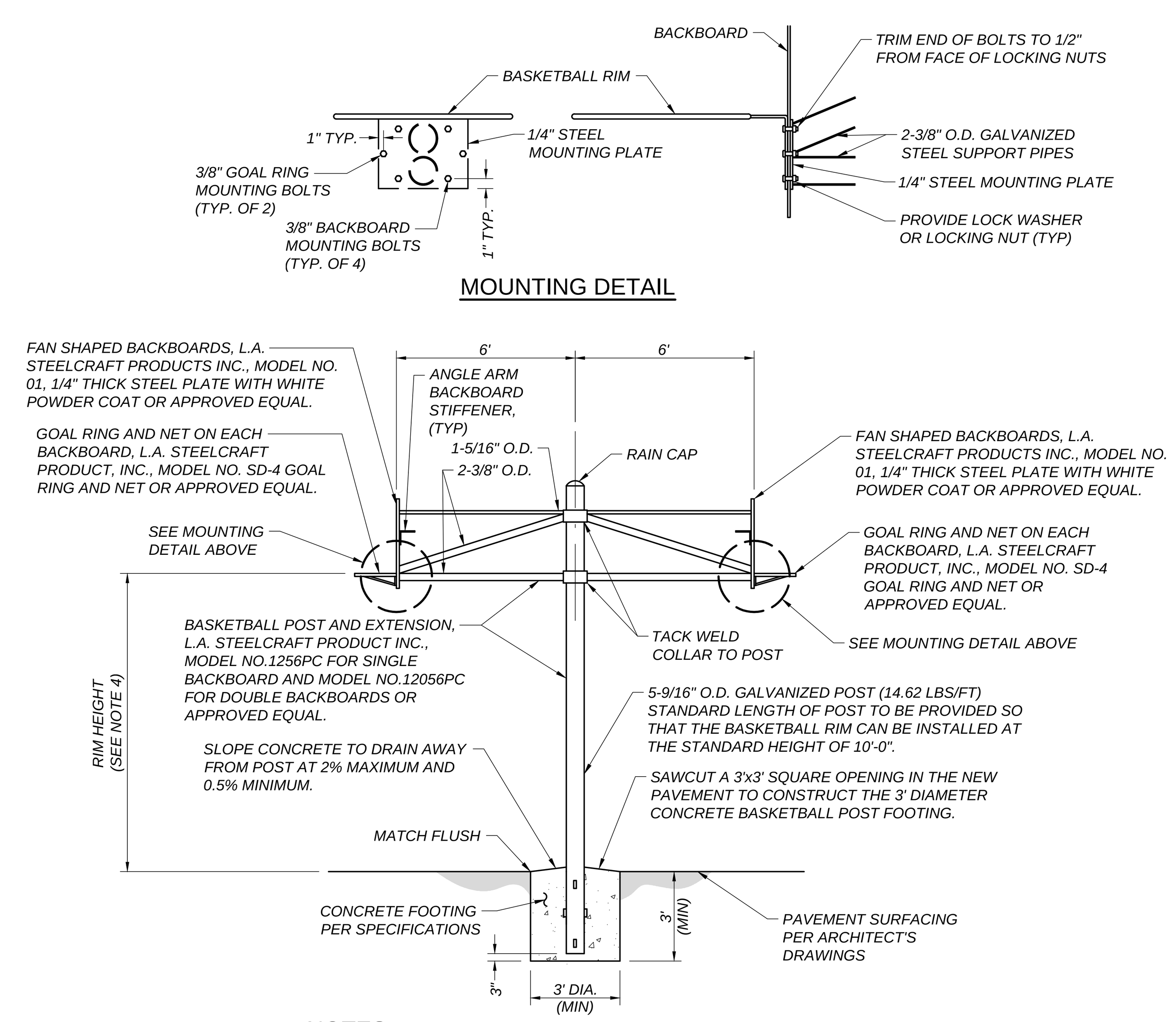


E — BASKETBALL SINGLE BACKBOARDS
SD/X106 — NOT TO SCALE



NOTES:
1. ALL MOUNTING BOLTS AND NUTS SHALL HAVE THE BOLTS TRIMMED TO WITHIN A MAXIMUM OF 1/2" BEYOND FACE OF NUT WITH BOLT END BURRED.
2. MANUFACTURER'S STANDARD INSTALLATION SYSTEM SHALL BE MODIFIED AS REQUIRED TO ALLOW FOR THE INSTALLATION OF THE BACKBOARD AND SUPPORT SUCH THAT THE RIM CAN BE REMOVED AND REPLACED WITHOUT AFFECTING THE STRUCTURAL SUPPORT OF THE BACKBOARD.
3. ALL AREAS AFFECTED BY WELDING OR TRIMMED ENDS OF BOLTS SHALL BE PAINTED PER "SECTION 80 - CHAIN LINK FENCING" IN THE TECHNICAL SPECIFICATION PORTION OF THE SPECIFICATIONS.
4. SET RIM HEIGHT TO: 9' FOR ELEMENTARY SCHOOL; 10' FOR INTERMEDIATE AND HIGH SCHOOL

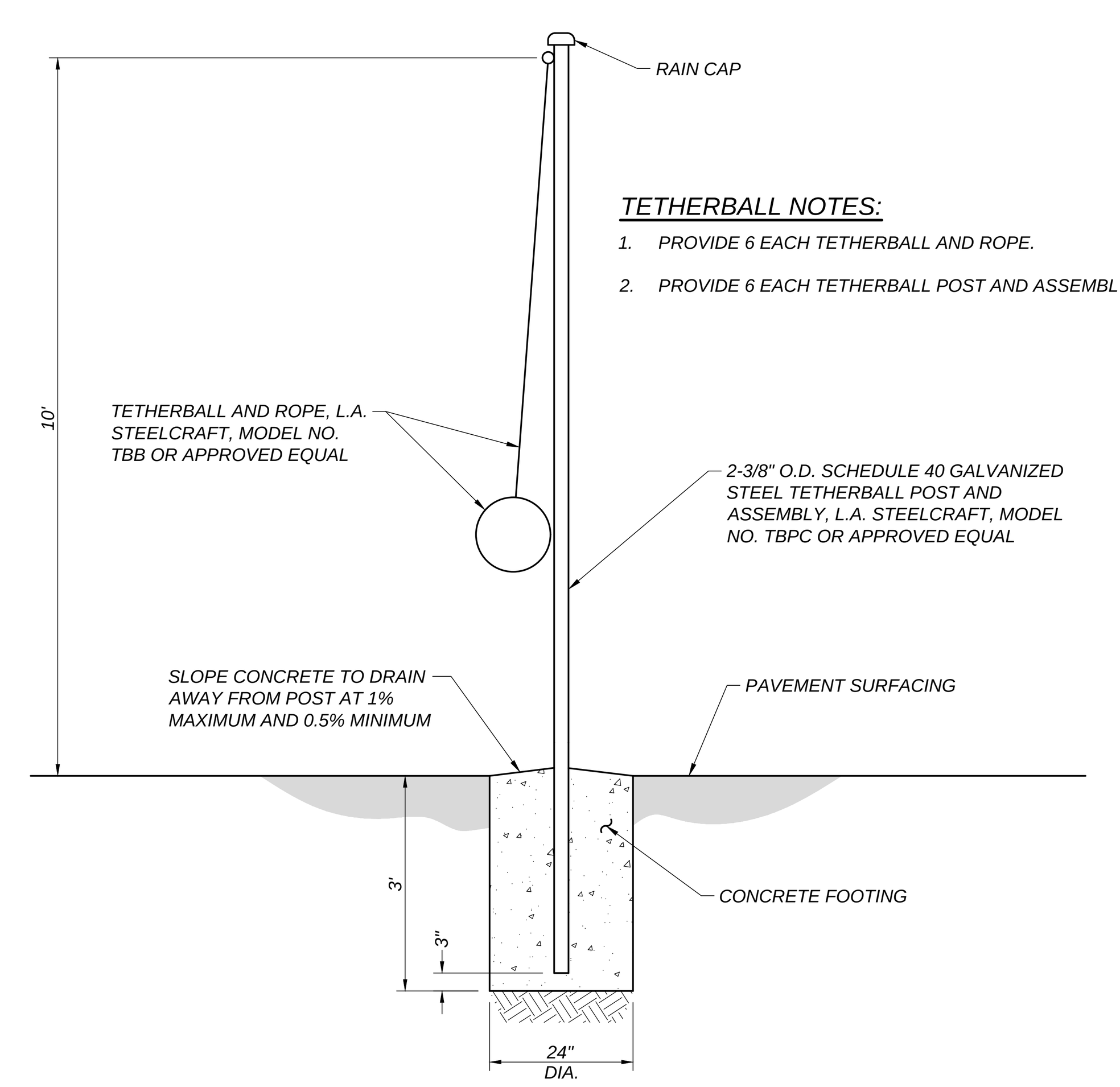
F — BASKETBALL DOUBLE BACKBOARDS
SD/X106 — NOT TO SCALE



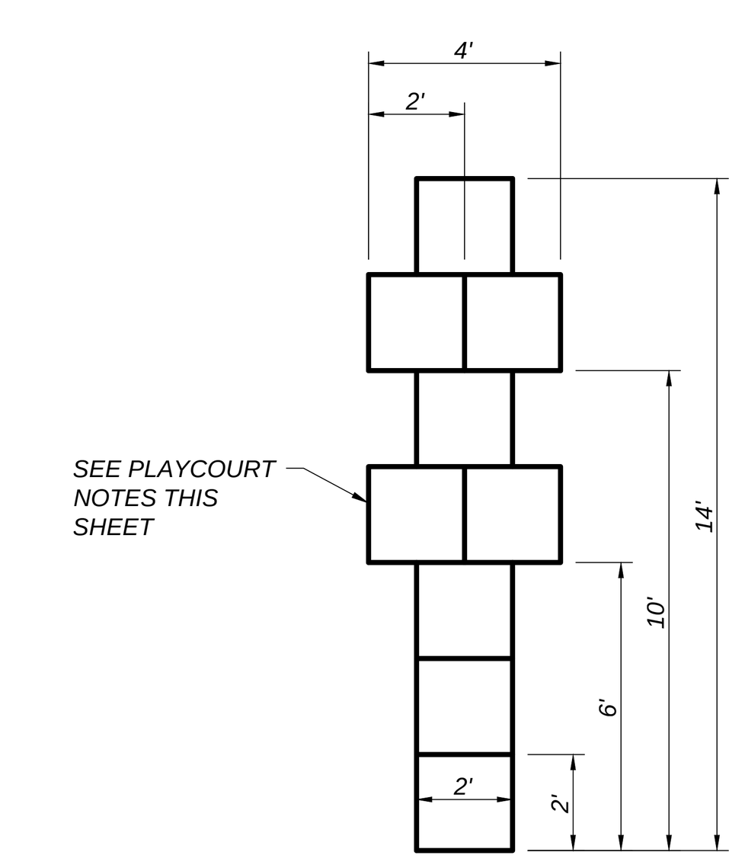
NOTES:
1. ALL MOUNTING BOLTS AND NUTS SHALL HAVE THE BOLTS TRIMMED TO WITHIN A MAXIMUM OF 1/2" BEYOND FACE OF NUT, WITH BOLT END BURRED.
2. MANUFACTURE'S STANDARD INSTALLATION SYSTEM SHALL BE MODIFIED AS REQUIRED TO ALLOW FOR THE INSTALLATION OF THE BACKBOARD AND SUPPORT SUCH THAT THE RIM CAN BE REMOVED AND REPLACED WITHOUT AFFECTING THE STRUCTURAL SUPPORT OF THE BACKBOARD.
3. ALL AREAS AFFECTED BY WELDING OR TRIMMED ENDS OF BOLTS SHALL BE PAINTED PER "SECTION 80 - CHAIN LINK FENCING" IN THE TECHNICAL SPECIFICATION PORTION OF THE SPECIFICATIONS.
4. SET RIM HEIGHT TO: 9' FOR ELEMENTARY SCHOOL; 10' FOR INTERMEDIATE AND HIGH SCHOOL

G — TETHERBALL POSTS
SD/X106 — NOT TO SCALE

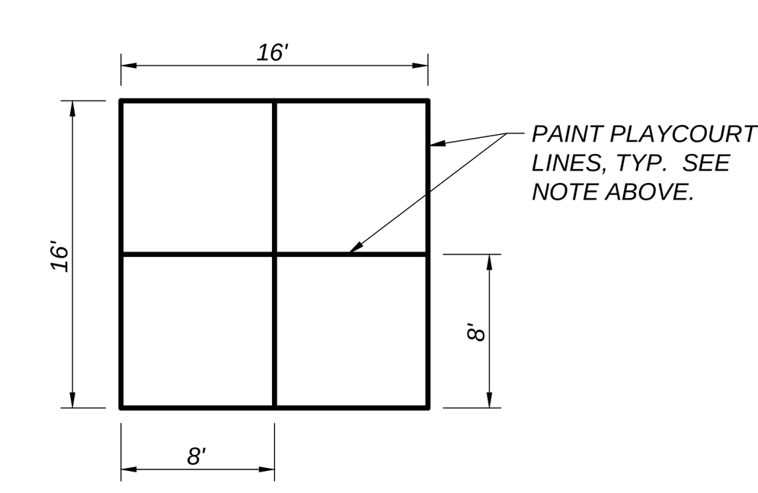
TETHERBALL NOTES:
1. PROVIDE 6 EACH TETHERBALL AND ROPE.
2. PROVIDE 6 EACH TETHERBALL POST AND ASSEMBLY



H — HOPSCOTCH
SD/X106 — NOT TO SCALE



I — FOURSQUARE COURT
SD/X106 — NOT TO SCALE



DSA File No.: 10-48

DSA Application No.: 02-120543

Agency Approval

General Notes

Blair, Church & Flynn CONSULTING ENGINEERS
Blair, Church & Flynn Consulting Engineers
451 Clovis Avenue, Suite 200
Clovis, California 93612
Tel (559) 326-1400
Fax (559) 326-1500

PLAN REVIEW ONLY NOT FOR CONSTRUCTION

Consultant — Date Signed:

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

PLAYCOURT DETAILS

Drawing

darden architects — ARCHITECTURE PLANNING INTERIORS
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6790 N. West Ave. • Fresno, CA 93711 • T. 559.448.8051

LICENSED ARCHITECT — MICHAEL K. FENNESY — No. C23724 — Ren. 4-30-25 — STATE OF CALIFORNIA

Architect

No.	Revison/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: LRB	Copyright 2022 Darden Architects
Scale: AS NOTED	Drawn By: SAD	SD/X106
Project Number: 2116	Checked By: JDB	
Date: 9/20/2022	Reviewed By: JDB	Sheet: ______ of: ______

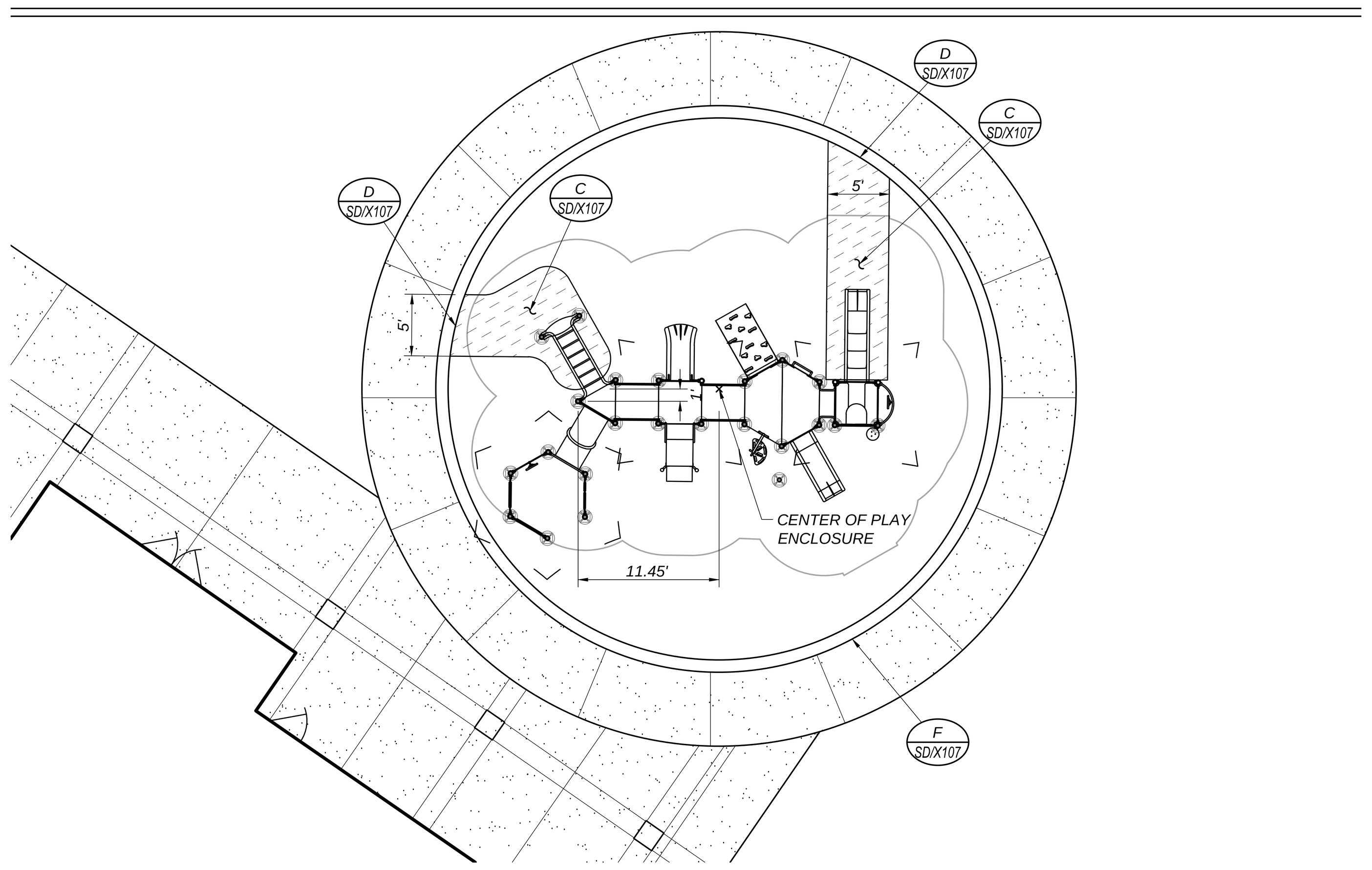
AD2 - CX17

DSA File No.: 10-48

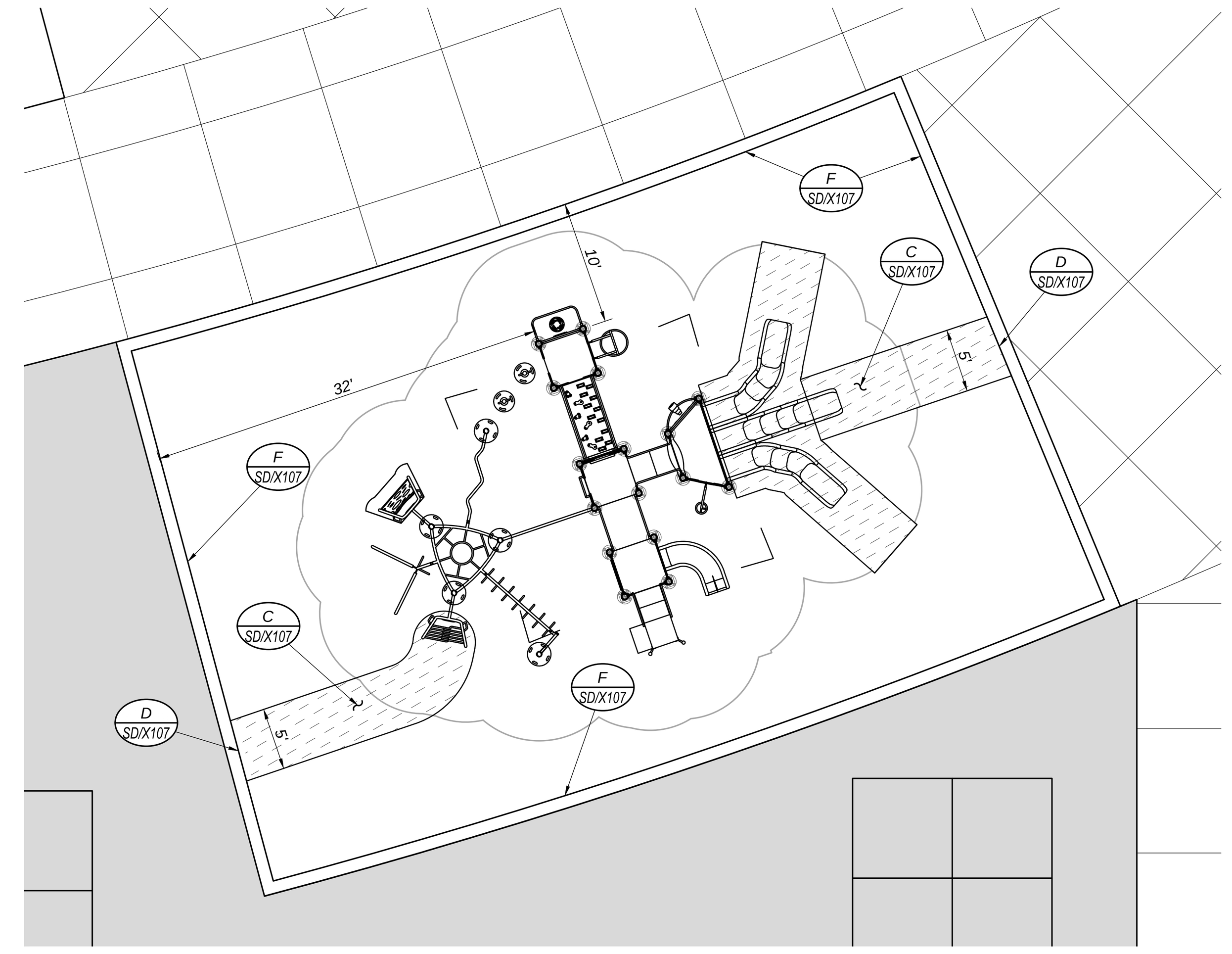
DSA Application No.: 02-120543

Agency Approval

NOTE:
PLAY STRUCTURE(S) SHALL COMPLY WITH CBC 11B-1008.
PLAY SURFACING SHALL COMPLY WITH CBC 11B-1008.2.6.

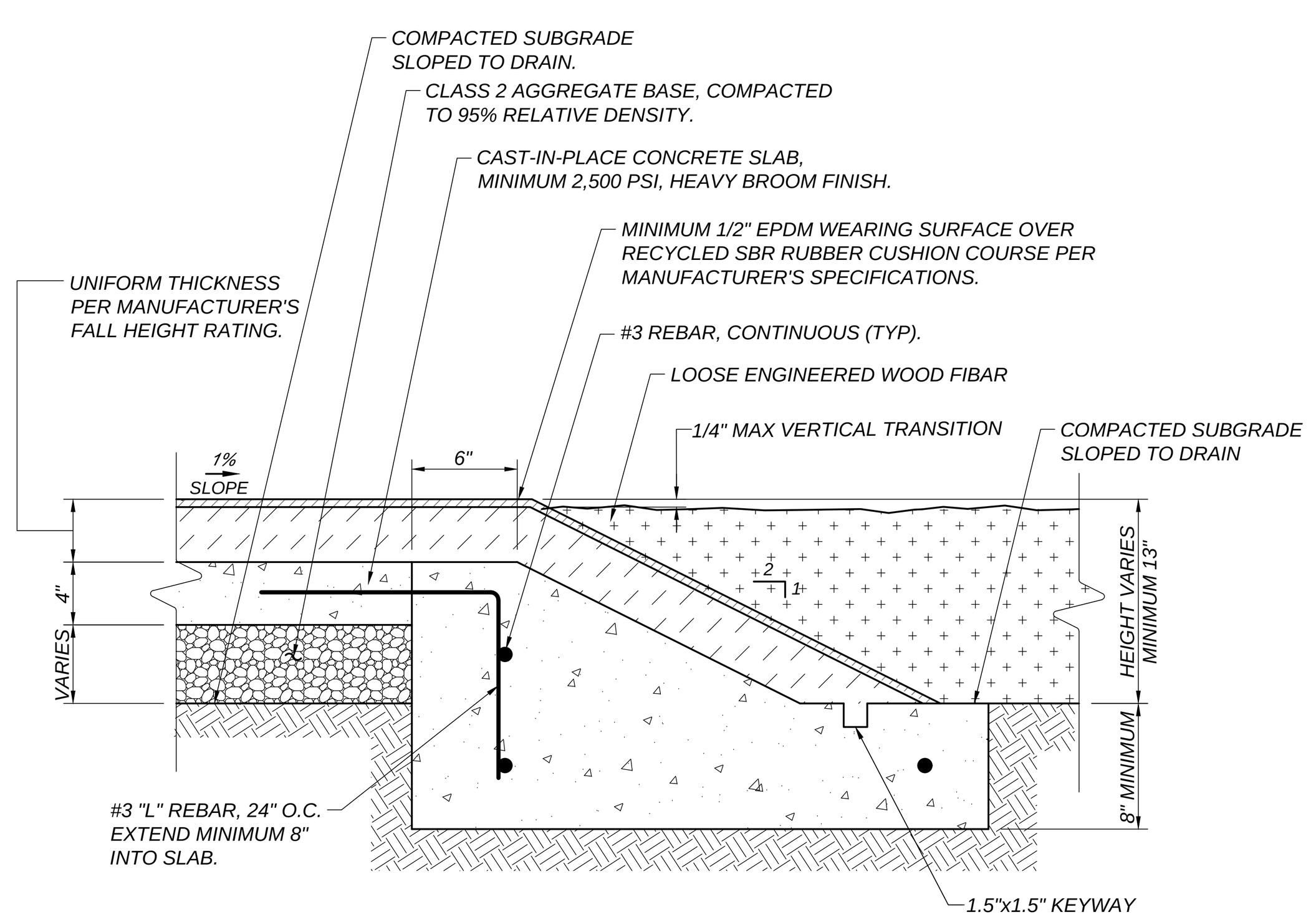


A SD/X107 KINDERGARTEN PLAY STRUCTURE
SCALE: 1"=10'

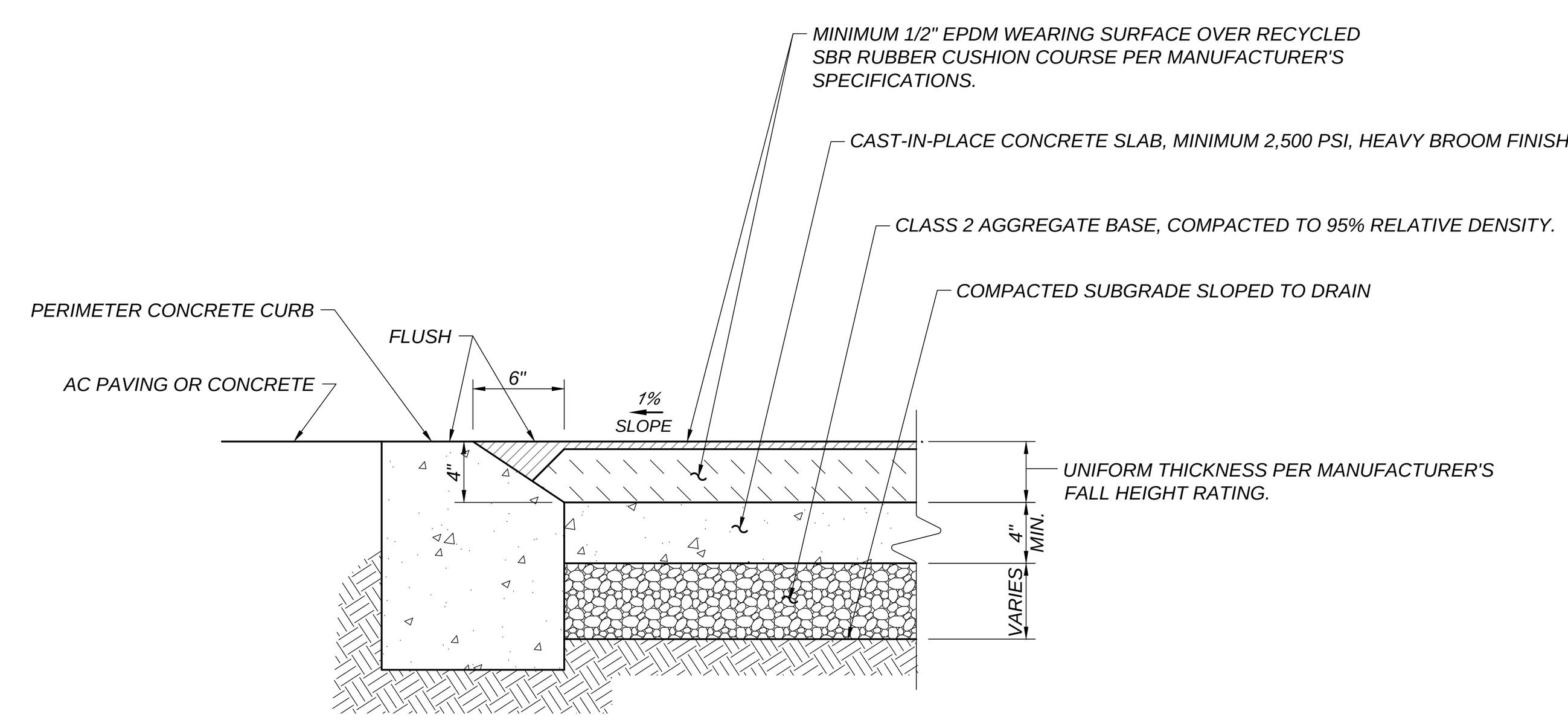


NOTE:
SEE BELOW FOR DETAILS

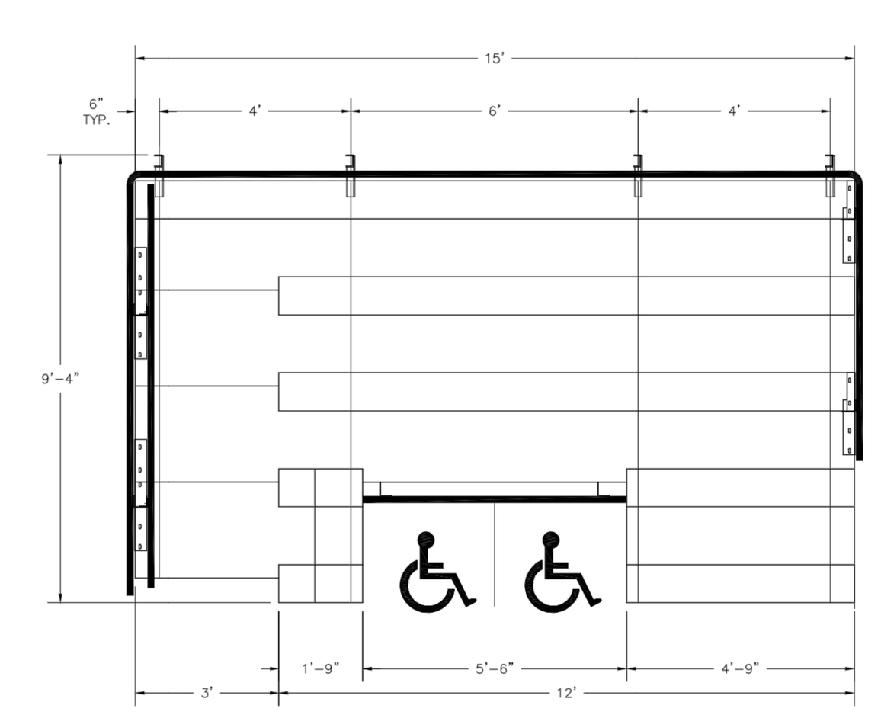
B SD/X107 PRIMARY PLAY STRUCTURE
SCALE: 1"=10'



C SD/X107 PLAY ACCESS - RESILENT SURFACING SECTION
NOT TO SCALE



D SD/X107 PLAY ACCESS - RESILENT SURFACING AT PERIMETER CURB
NOT TO SCALE

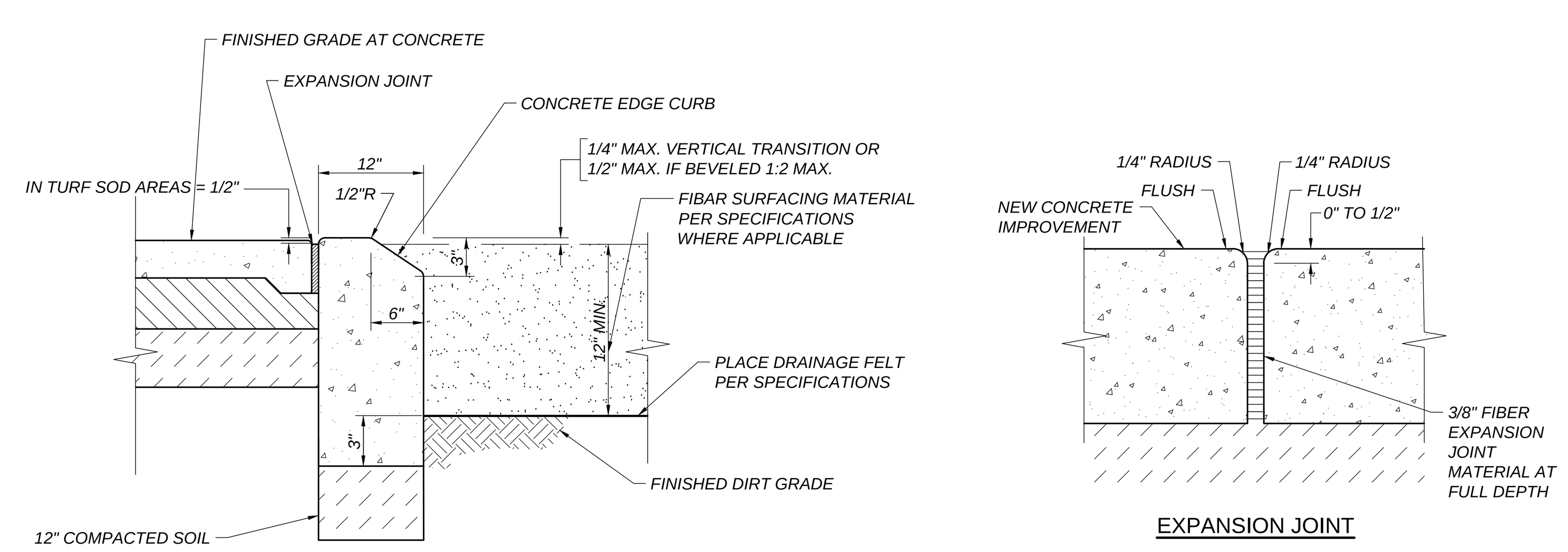


SECTION LENGTH	GROSS SEATS	ACTUAL SEATS	NO. OF ROWS	NET SEATS
15	10.00	10.00	1	10
12	8.00	8.00	2	16
1.75	1.17	1.00	2	2
4.75	3.17	3.00	2	6
			NET SEATS	34
			WHEELCHAIR SPACES	2
			TOTAL NET SEATING CAPACITY (BASED ON 18" PER SEAT)	36

builtriteBLEACHERS.com
866-281-5337
builtriteBLEACHERS.com
67 Canterbury Ln - Southington CT 06489

SCALE: N.T.S.	APPROVED BY:	DRAWN BY: NLN
DATE: 9/24/10		
TITLE: NON-ELEV. 5 ROW x 15'-0" BLEACHER SEATING PLAN		
CUSTOMER:		DRAWING NUMBER: NE050150002B1

E SD/X107 BUILT-RITE-BLEACHERS MODEL BRB-0515AADA
NOT TO SCALE



F SD/X107 CONCRETE CURB & FIBAR AT PLAY ENCLOSURE
NOT TO SCALE

General Notes

Blair, Church & Flynn
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PLAN REVIEW ONLY NOT FOR CONSTRUCTION

Consultant | Date Signed:

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

PLAY STRUCTURE DETAILS

Drawing

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LICENSED ARCHITECT MICHAEL K. FENNESY No. C23724 STATE OF CALIFORNIA

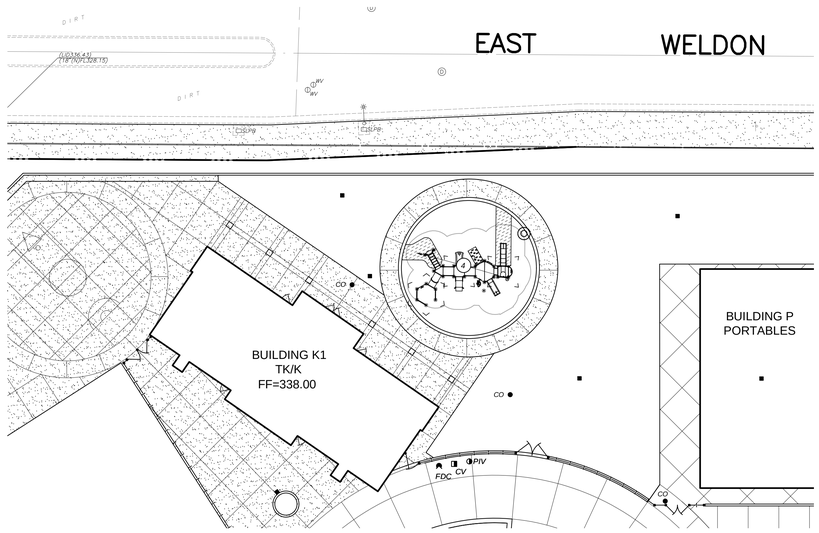
Architect

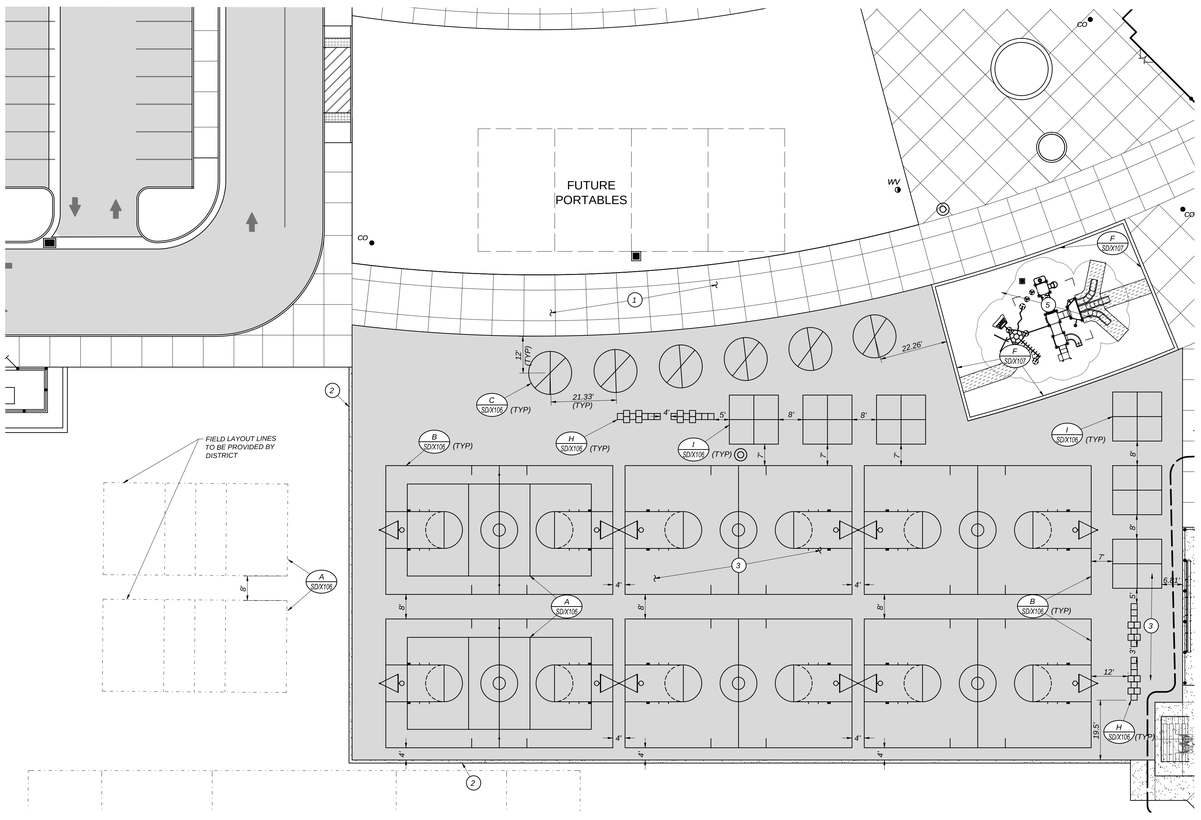
No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: LRB	Copyright 2022 Darden Architects
Scale: AS NOTED	Drawn By: SAD	SD/X107
Project Number: 2116	Checked By: JDB	
Date: 9/20/2022	Reviewed By: JDB	Sheet: ______ of: ______

AD2 - CX18





SITE LEGEND:

- A / X101 — DETAIL DESIGNATION, DETAIL REFERENCE, SHEET LOCATION
- [A/SD/X101] — [DETAIL DESIGNATION / SHEET LOCATION]
- LIMITS OF CONCRETE IMPROVEMENTS, SEE ARCHITECT'S PLANS
- LIMITS OF ASPHALTIC CONCRETE PAVEMENT STRUCTURAL SECTION, SEE ARCHITECT'S PLANS
- PL — PLANTER, SEE LANDSCAPE ARCHITECT'S PLANS
- (1) CONCRETE SIDEWALK. SEE LANDSCAPE ARCHITECT'S PLANS
- (2) CONCRETE MOWSTRIP , SEE ARCHITECT'S PLANS
- (3) ASPHALTIC CONCRETE PAVEMENT, SEE ARCHITECT'S PLANS
- (4) SEE LANDSCAPE AND IRRIGATION PLANS
- (5) DRAINAGE SWALE

GENERAL SITE NOTES:

1. ALL CONCRETE MOWSTRIPS, RAMPS AND SIDEWALKS SHALL HAVE WEAKENED PLANE JOINTS AT 10 FEET MAXIMUM ON CENTER AND EXPANSION JOINTS AT 30 FEET MAXIMUM ON CENTER.
2. INSTALL DOWELED CONNECTION AT JOINT OF NEW CONCRETE TO EXISTING CONCRETE
3. NO CONCRETE MAY BE POURED UNTIL THE FORMS HAVE BEEN REVIEWED AND APPROVED BY THE PROJECT INSPECTOR.
4. ALL BURIED METALLIC OBJECTS SHALL HAVE A PROTECTIVE COATING OR BE WRAPPED WITH APPROVED PROTECTIVE WRAP.
5. 2 WORKING DAYS BEFORE COMMENCING EXCAVATION OPERATIONS WITHIN THE STREET RIGHT-OF-WAY AND/OR UTILITY EASEMENTS, ALL EXISTING UNDERGROUND FACILITIES SHALL HAVE BEEN LOCATED BY UNDERGROUND SERVICES ALERT (USA). CALL 1-800-642-2444
6. ANY SURVEY MONUMENTS WITHIN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A PERSON LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA. REPLACEMENT TO BE AT CONTRACTOR'S SOLE EXPENSE.
7. OBTAIN ALL REQUIRED PERMITS AND APPROVALS FROM AGENCY HAVING JURISDICTION FOR WORK WITHIN THE PUBLIC RIGHT OF WAY

SCALE: N 1"=20'

0 5 20 40
SCALE IN FEET

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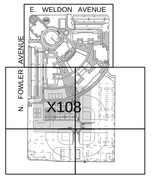
DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval



KEYMAP

General Notes

Blair, Church & Flynn CONSULTING ENGINEERS
Blair, Church & Flynn Consulting Engineers
451 Clovis Avenue, Suite 200
Clovis, California 93612
Tel (559) 326-1400
Fax (559) 326-1500

REGISTERED PROFESSIONAL ENGINEER R. B. CHURCH PLAN REVIEW ONLY NOT FOR CONSTRUCTION STATE OF CALIFORNIA Civil

Consultant

Date Signed:

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

PLAYCOURT DETAILS

Drawing

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LICENSED ARCHITECT RUDOLF K. FERNANDEZ No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revison/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: LRB
Drawn By: SAD
Checked By: JDB
Reviewed By: JDB

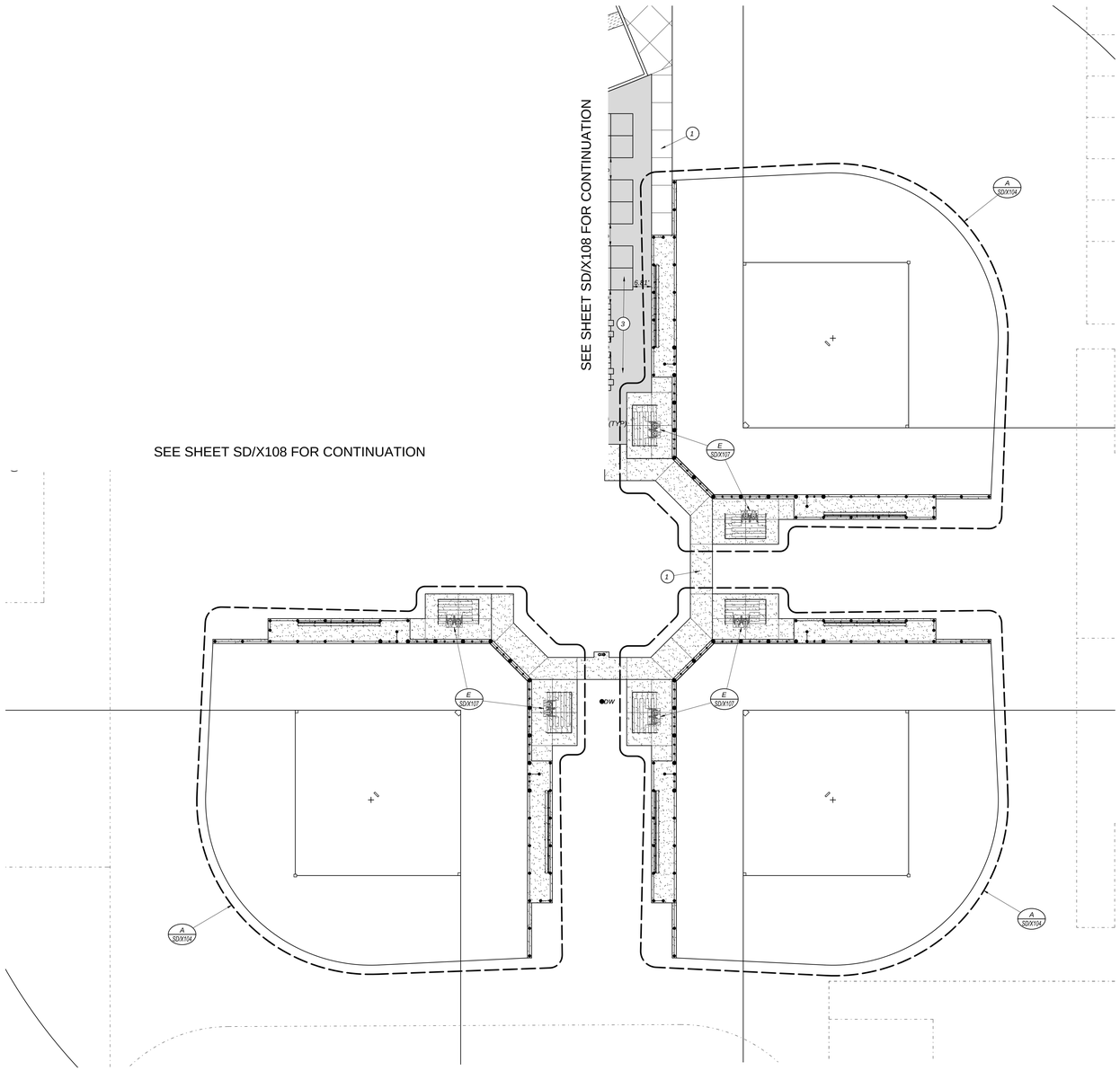
Scale: AS NOTED
Project Number: 2116
Date: 9/20/2022

SD/X108

Sheet: _____ of: _____

Drawing: P:\221-031\Sln\productiondrawings\221312_S...
Plot by: rvang

AD2 - CX19



DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval

SITE LEGEND:

A / X101	DETAIL DESIGNATION DETAIL REFERENCE SHEET LOCATION
[A/SD/X101]	[DETAIL DESIGNATION / SHEET LOCATION]
▨	LIMITS OF CONCRETE IMPROVEMENTS, SEE ARCHITECT'S PLANS
▩	LIMITS OF ASPHALTIC CONCRETE PAVEMENT STRUCTURAL SECTION, SEE ARCHITECT'S PLANS
PL	PLANTER, SEE LANDSCAPE ARCHITECT'S PLANS
①	CONCRETE SIDEWALK. SEE LANDSCAPE ARCHITECT'S PLANS
②	CONCRETE MOWSTRIP , SEE ARCHITECT'S PLANS
③	ASPHALTIC CONCRETE PAVEMENT , SEE ARCHITECT'S PLANS
④	SEE LANDSCAPE AND IRRIGATION PLANS
⑤	DRAINAGE SWALE

GENERAL SITE NOTES:

1. *ALL CONCRETE MOWSTRIPS, RAMPS AND SIDEWALKS SHALL HAVE WEAKENED PLANE JOINTS AT 10 FEET MAXIMUM ON CENTER AND EXPANSION JOINTS AT 30 FEET MAXIMUM ON CENTER.*
2. *INSTALL DOWELED CONNECTION AT JOINT OF NEW CONCRETE TO EXISTING CONCRETE*
3. *NO CONCRETE MAY BE POURED UNTIL THE FORMS HAVE BEEN REVIEWED AND APPROVED BY THE PROJECT INSPECTOR.*
4. *ALL BURIED METALLIC OBJECTS SHALL HAVE A PROTECTIVE COATING OR BE WRAPPED WITH APPROVED PROTECTIVE WRAP.*
5. *2 WORKING DAYS BEFORE COMMENCING EXCAVATION OPERATIONS WITHIN THE STREET RIGHT-OF-WAY AND/OR UTILITY EASEMENTS, ALL EXISTING UNDERGROUND FACILITIES SHALL HAVE BEEN LOCATED BY UNDERGROUND SERVICES ALERT (USA). CALL 1-800-642-2444*
6. *ANY SURVEY MONUMENTS WITHIN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A PERSON LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA. REPLACEMENT TO BE AT CONTRACTOR'S SOLE EXPENSE.*
7. *OBTAIN ALL REQUIRED PERMITS AND APPROVALS FROM AGENCY HAVING JURISDICTION FOR WORK WITHIN THE PUBLIC RIGHT OF WAY*

KEYMAP

General Notes

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

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LANE R. BA
CIVIL

Date Signed:

Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

BALLFIELD DETAILS

Drawing

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MICHAEL K. FENNACY
No. C23724
Ren. 4-30-23

Architect

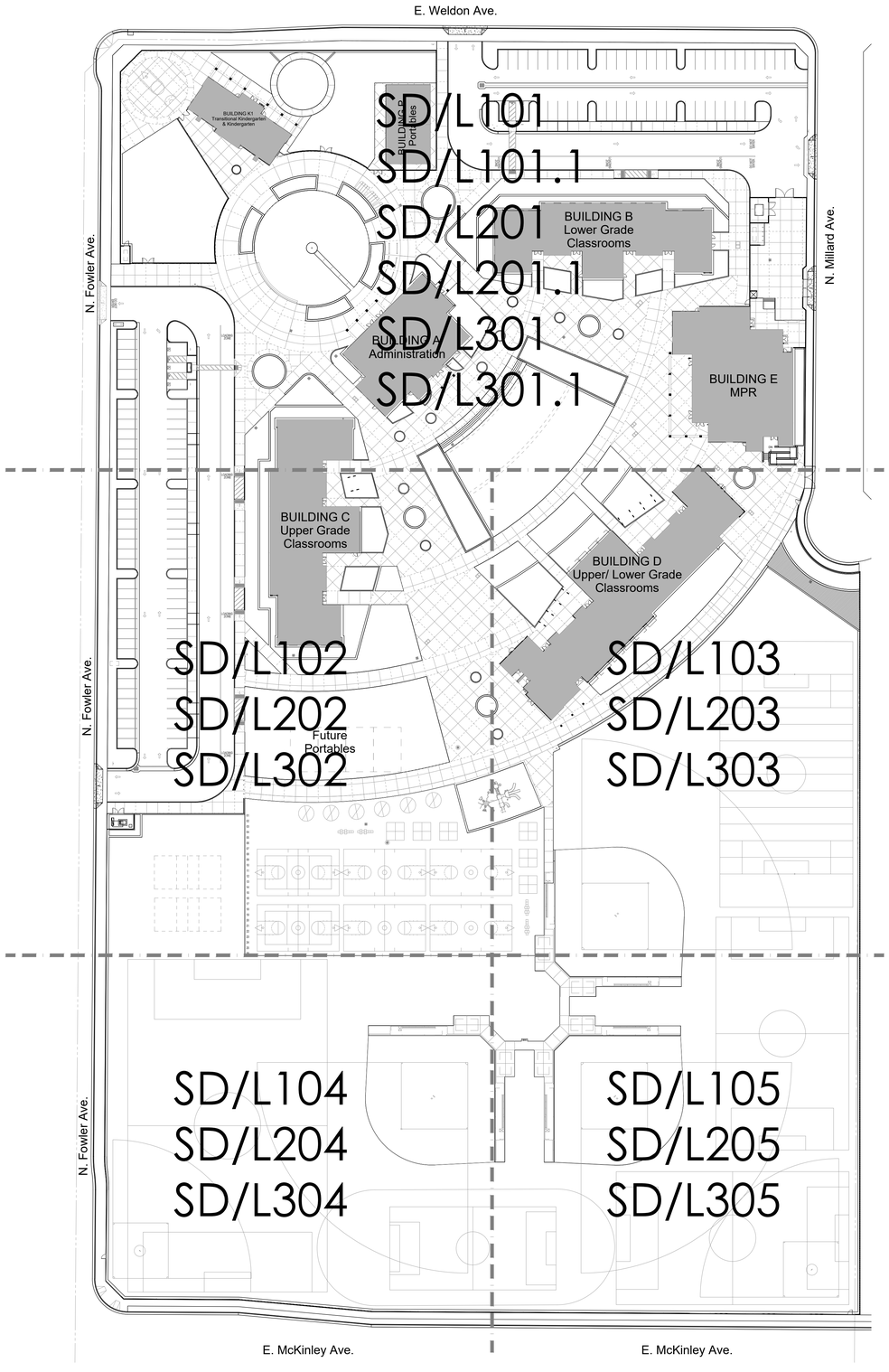
No.	Revison/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: LRB	
Scale: AS NOTED	Drawn By: SAD	*SD/ X109*
Project Number: 2116	Checked By: JDB	
Date: 9/20/2022	Reviewed By: JDB	Sheet: ________ of: ________

Drawing: P:\221-0312\Site\productiondrawings\221312_Si
Plot by: rvang

AD2 - CX20



DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

General Notes

NOT FOR CONSTRUCTION
RLA # 3887
31 JULY 24
RENEWAL DATE

David Bigler Associates
Landscape Architect #3887
516 W. Shaw Avenue, #101
Fresno, California 93704
E Mail: davebigler @aol.com
Tel: (559) 276-9495
Fax: (559) 276-9497

Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

LANDSCAPE PLAN LAYOUT
OVERALL SITE PLAN

Drawing

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LICENSED ARCHITECT
MICHAEL K. FERRACI
No. C23724
Exp. 4-30-23
STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

N

	Designed By: DB	Copyright 2022 Darden Architects
Scale:	Drawn By: SV	*SD/L100*
Project Number: 2116	Checked By: DB	
Date: 09/21/22	Reviewed By: DB	

L1 | Overall Landscape Plan Layout
1" = 50'-0"

8/1/2022 1:38:23 PM
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AD2- L0X01

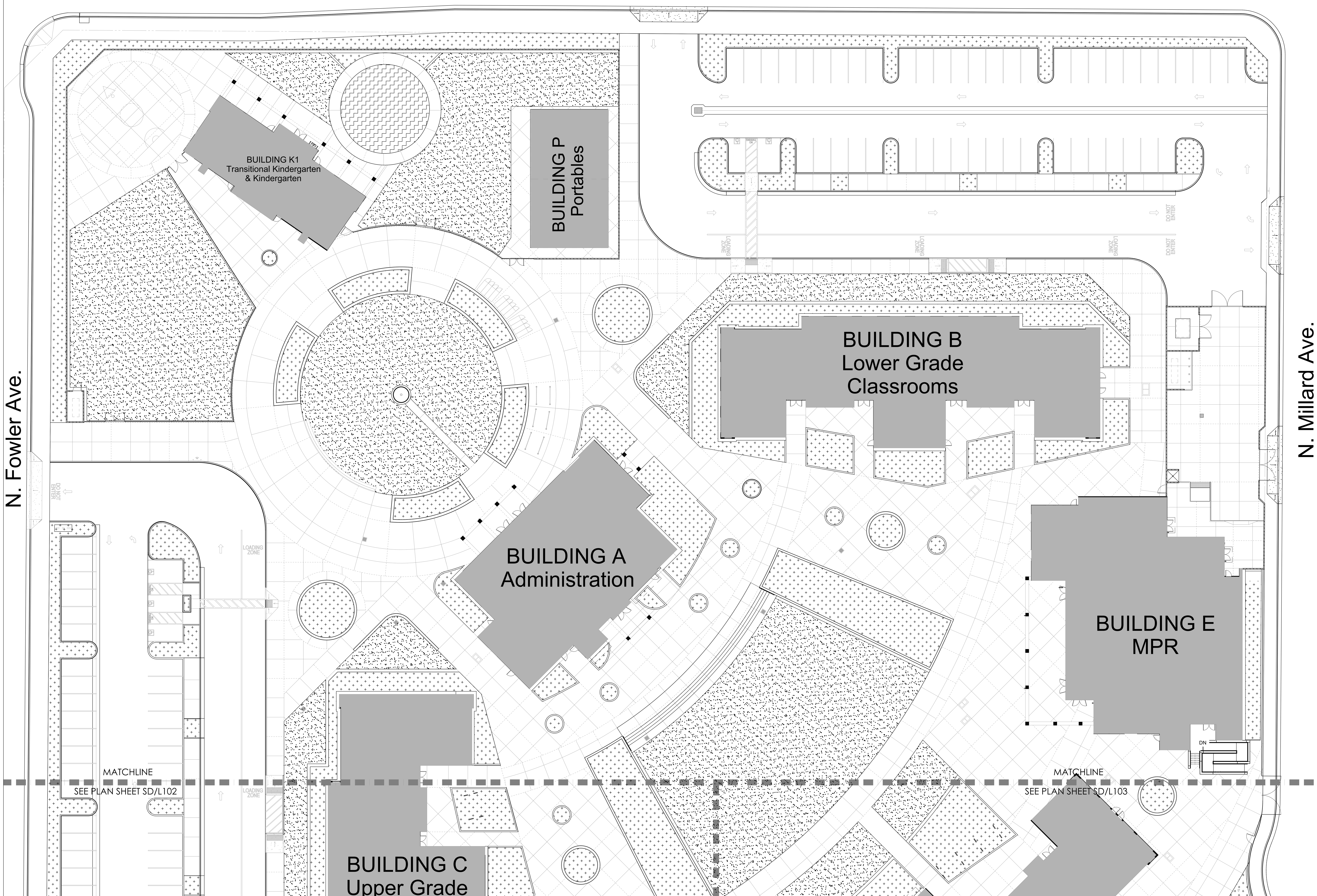
DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

ATHLETIC BALLFIELD NOTE

1. ALL BALLFIELDS: CONTRACTOR IS TO INSTALL NEW HOME PLATES, BASES AND PITCHING RUBBERS FOR ALL THREE (3) BALLFIELDS. SEE SITE CIVIL PLANS FOR ADDITIONAL INFORMATION.



SEE LANDSCAPE MULCHING LEGEND ON PLAN SHEET SD/L102

General Notes

NOT FOR CONSTRUCTION

LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER RLA # 3887 31 JULY 24 RENEWAL DATE STATE OF CALIFORNIA

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Consultant

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Clovis Unified School District
Fresno, CA 93727

Project

LANDSCAPE MULCHING PLAN
PARTIAL SITE PLAN

Drawing

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LICENSED ARCHITECT MICHAEL K. FENNACY No. C23724 Ren. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: DB	Copyright 2022 Darden Architects
Scale:	Drawn By: SV	SD/L101
Project Number: 2116	Checked By: DB	
Date: 09/21/22	Reviewed By: DB	

L2 — Partial Site Plan - Area 1

1" = 20'-0"

8/1/2022 1:38:23 PM
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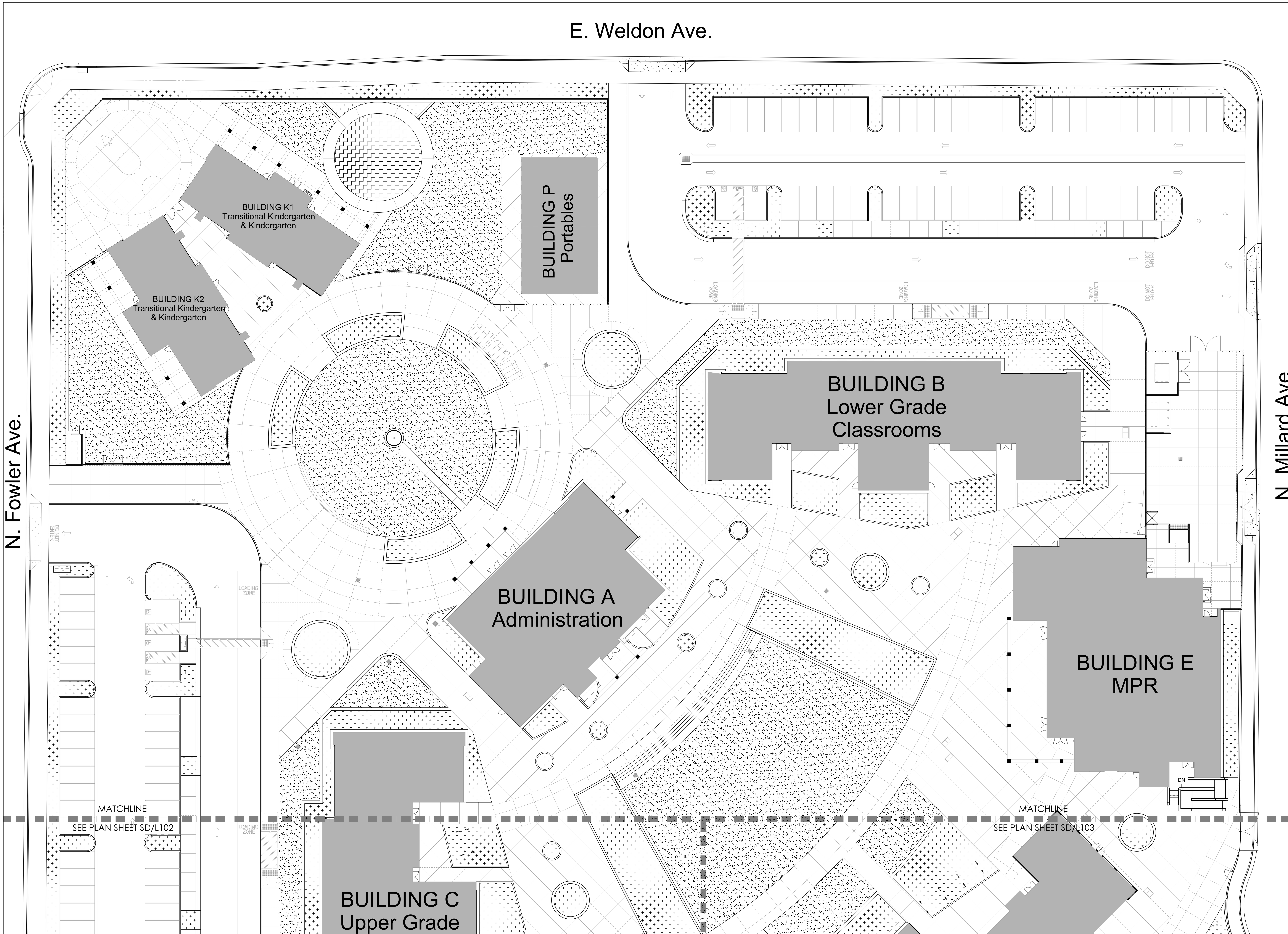

SEE LANDSCAPE MULCHING LEGEND ON PLAN SHEET SD/L102

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

ATHLETIC BALLFIELD NOTE

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General Notes

NOT FOR CONSTRUCTION

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Landscape Architect #3887
516 W. Shaw Avenue, #101
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Tel: (559) 276-9495
Fax: (559) 276-9497

Consultant

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Clovis Unified School District
Fresno, CA 93727

Project

LANDSCAPE MULCHING PLAN
PARTIAL SITE PLAN

Drawing

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Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: DB	Copyright 2022 Darden Architects
Scale:	Drawn By: SV	
Project Number: 2116	Checked By: DB	SD/L101.1
Date: 09/21/22	Reviewed By: DB	

L2 Partial Site Plan - Area 1 - Additive Alternate

1" = 20'-0"

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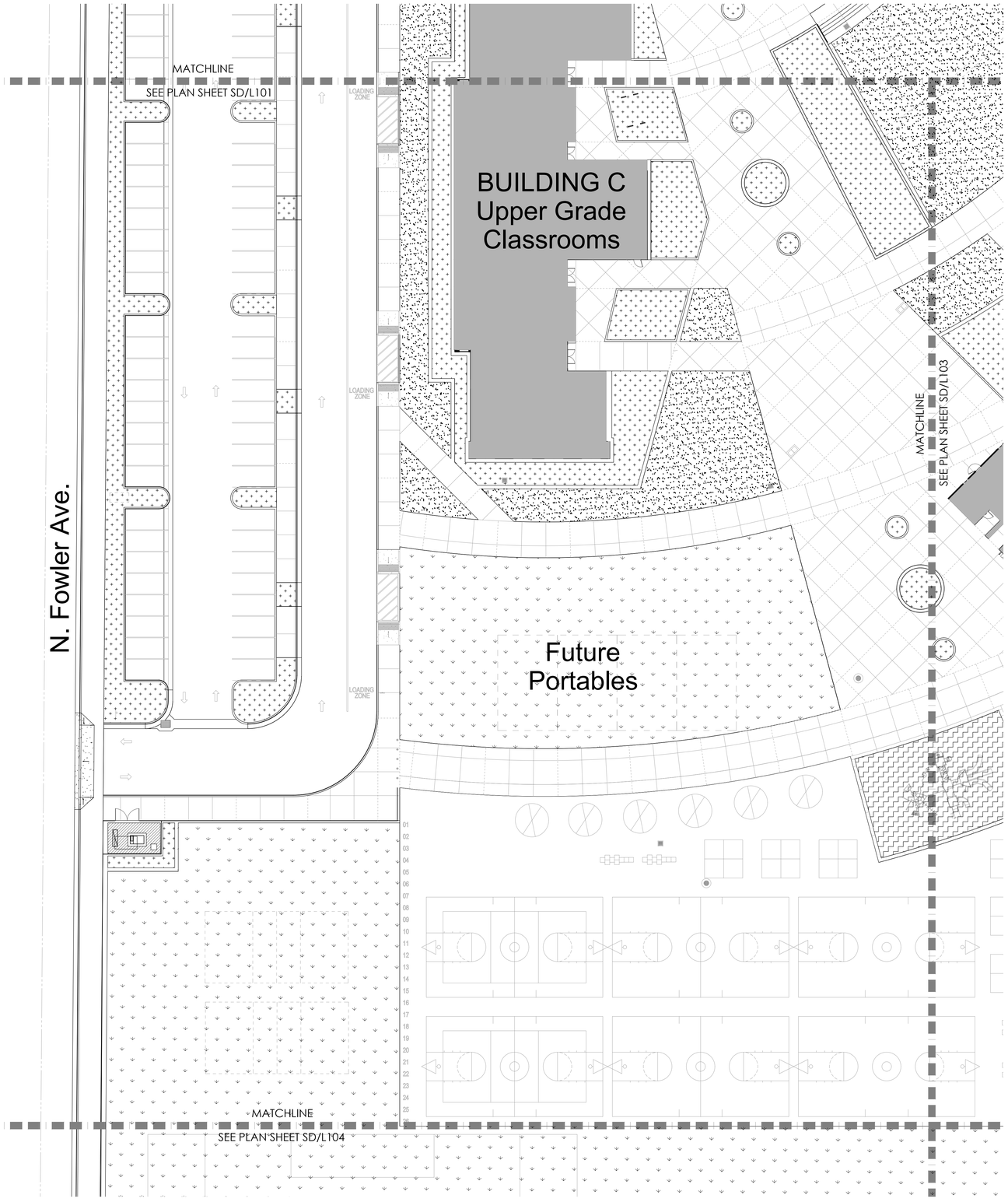
AD2- L0X03



LANDSCAPE MULCHING LEGEND

SYMBOL	DESCRIPTION
	THREE INCH (3") COMPACTED LAYER OF WALK ON BARK TOPDRESSING MULCH TO BE SUPPLIED BY SUPERIOR SOIL SUPPLEMENTS. CONTACT ANDREA FIKE (559) 904-3372, OR APPROVED EQUAL. TOPDRESSING MULCH TO BE PLACED IN ALL NON TURF LANDSCAPE AREAS. TOPDRESSING MULCH THICKNESS IS TO BE EVALUATED AT THE END OF MAINTENANCE PERIOD AND AREAS THAT DO NOT HAVE 3" COMPACTED THICKNESS ARE TO HAVE ADDITIONAL MULCH ADDED TO HAVE SPECIFIED DEPTH PRIOR TO PROJECT CLOSEOUT.
	TURFGRASS - TIFWAY 419 HYBRID BERMUDAGRASS SOD AS SUPPLIED BY AG SOD, ALEC LEMAY, (559) 289-6381, OR APPROVED EQUAL. SEE LANDSCAPE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
	TURF GRASS - TIFWAY 419 HYBRID BERMUDAGRASS STOLENS (400 BUSHELS/ACRE) AS SUPPLIED BY AG SOD, ALEC LEMAY, (559) 289-6381, OR APPROVED EQUAL. INSTALL STOLENS WITH BERMUDA KING SPRIG PLANTER WITH CRIMPING WHEELS SPACED 3"-4" MAXIMUM. SEE LANDSCAPE SPECIFICATIONS.
	BASEBALL FIELD SKINNED INFIELD AREAS: FOUR INCH (4") LAYER OF CLEAN SCREENED TOPSOIL, COMPACTED THICKNESS AS SUPPLIED BY ROSENBALM ROCKERY, OR APPROVED EQUAL. SUBMIT SAMPLES TO DISTRICT TO APPROVE MATERIAL TO BE INSTALLED. CLEAN SCREENED TOPSOIL IS TO BE TOP QUALITY AND OF THE HIGHEST GRADE. CLEAN SCREENED TOPSOIL AREAS ARE TO BE FINISH GRADED WITH NATIVE MATERIAL, THEN IN DESIGNATED CLEAN SCREENED TOPSOIL AREAS HAVE NATIVE MATERIAL REMOVED (CORED OUT) TO A 4" DEPTH AND THE SUB GRADE IS TO BE COMPACTED TO 90% RELATIVE DENSITY WITH OPTIMUM MOISTURE CONTENT. CONTRACTOR IS TO INSTALL TWO (2) - 2" LIFTS OF CLEAN SCREENED TOPSOIL TO EACH BE COMPACTED USING A 1-TON SMOOTH DOUBLE-DRUM ROLLER FOR THE INFIELD AND BASELINES WITH OPTIMUM MOISTURE CONTENT AND LASER-GRADED PER THE SITE GRADING PLAN. 4" LAYER OF CLEAN SCREENED TOPSOIL IS TO BE AT OPTIMUM MOISTURE CONTENT FOR COMPACTION WORK. SLOPPY OR LOOSE / LIGHTLY COMPACTED AREAS WILL BE REJECTED. TRANSITIONS BETWEEN TURF AND SKINNED AREAS ARE TO BE SMOOTH AND LEVEL WITHOUT "STEP UP" OR "STEP DOWN" OR LIPS / BERMS OF ANY KIND. NATIVE SOIL REMOVED FOR THE PLACEMENT OF THE CLEAN SCREENED TOPSOIL IS TO BE INCORPORATED INTO THE OVERALL GRADING SCHEME OF THE SITE OR REMOVED FROM THE SITE AT THE CONTRACTORS EXPENSE.
	PUMP YARD AREAS AND DESIGNATED MAINTENANCE AREAS: FOUR INCH (4") LAYER OF GREY DECOMPOSED GRANITE TOPDRESSING MULCH, COMPACTED THICKNESS AS SUPPLIED BY ROSENBALM ROCKERY, OR APPROVED EQUAL. SUBMIT SAMPLES TO DISTRICT TO APPROVE MATERIAL TO BE INSTALLED. DECOMPOSED GRANITE IS TO BE TOP QUALITY AND OF THE HIGHEST GRADE. DECOMPOSED GRANITE AREAS ARE TO BE FINISH GRADED WITH NATIVE MATERIAL, THEN IN DESIGNATED DECOMPOSED GRANITE AREAS HAVE NATIVE MATERIAL REMOVED (CORED OUT) TO A 4" DEPTH AND THE SUB GRADE IS TO BE COMPACTED TO 90% RELATIVE DENSITY WITH OPTIMUM MOISTURE CONTENT. CONTRACTOR IS TO INSTALL TWO (2) - 2" LIFTS OF DECOMPOSED GRANITE TO EACH BE COMPACTED TO 90% RELATIVE DENSITY WITH OPTIMUM MOISTURE CONTENT AND FINISH GRADED PER THE SITE GRADING PLAN. 4" LAYER OF DECOMPOSED GRANITE IS TO BE AT OPTIMUM MOISTURE CONTENT FOR COMPACTION WORK. SLOPPY OR LOOSE / LIGHTLY COMPACTED AREAS WILL BE REJECTED. NATIVE SOIL REMOVED FOR THE PLACEMENT OF THE DECOMPOSED GRANITE IS TO BE INCORPORATED INTO THE OVERALL GRADING SCHEME OF THE SITE OR REMOVED FROM THE SITE AT THE CONTRACTORS EXPENSE. SEE INSTALLATION DETAIL #18 ON PLAN SHEET SD/L402 FOR ADDITIONAL INFORMATION.
	PLAYGROUND AREA WITH FALL SURFACE. SEE CIVIL PLANS FOR ADDITIONAL INFORMATION.

N

L3 — Partial Site Plan - Area 2

1" = 20'-0"

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

ATHLETIC BALLFIELD NOTE

1. ALL BALLFIELDS: CONTRACTOR IS TO INSTALL NEW HOME PLATES, BASES AND PITCHING RUBBERS FOR ALL THREE (3) BALLFIELDS. SEE SITE CIVIL PLANS FOR ADDITIONAL INFORMATION.

General Notes

LICENSED LANDSCAPE ARCHITECT — DAVID B. BIGLER — 31 JULY 24 — RENEWAL DATE — STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

Landscape Architect #3887 — DB Associates

David Bigler Associates
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Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

LANDSCAPE MULCHING PLAN
PARTIAL SITE PLAN

Drawing

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ARCHITECTURE
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INTERIORS
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6790 N. West Ave. • Fresno, CA 93711 • T. 559.448.8051

LICENSED ARCHITECT — MICHAEL K. FERNANDES — No. C23724 — Exp. 4-30-25 — STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: DB	Copyright 2022 Darden Architects
Scale:	Drawn By: SV	
Project Number: 2116	Checked By: DB	SD/L102
Date: 09/21/22	Reviewed By: DB	

8/1/2022 1:38:23 PM
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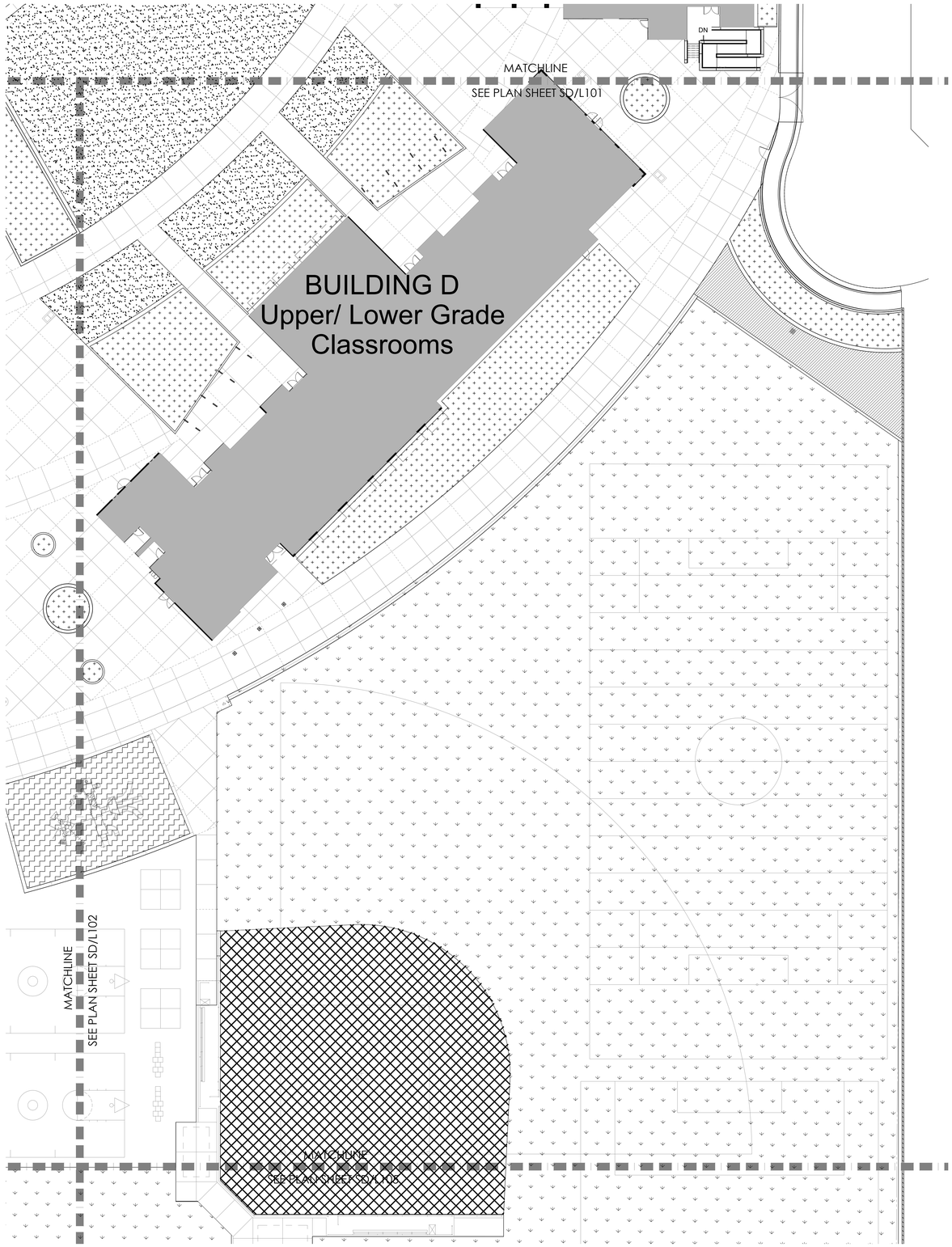
AD2- L0X04



LANDSCAPE MULCHING LEGEND

SYMBOL	DESCRIPTION
	THREE INCH (3") COMPACTED LAYER OF WALK ON BARK TOPDRESSING MULCH TO BE SUPPLIED BY SUPERIOR SOIL SUPPLEMENTS. CONTACT ANDREA FIKE (559) 904-3372, OR APPROVED EQUAL. TOPDRESSING MULCH TO BE PLACED IN ALL NON TURF LANDSCAPE AREAS. TOPDRESSING MULCH THICKNESS IS TO BE EVALUATED AT THE END OF MAINTENANCE PERIOD AND AREAS THAT DO NOT HAVE 3" COMPACTED THICKNESS ARE TO HAVE ADDITIONAL MULCH ADDED TO HAVE SPECIFIED DEPTH PRIOR TO PROJECT CLOSEOUT.
	TURFGRASS - TIFWAY 419 HYBRID BERMUDAGRASS SOD AS SUPPLIED BY AG SOD, ALEC LEMAY, (559) 289-6381, OR APPROVED EQUAL. SEE LANDSCAPE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
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	PLAYGROUND AREA WITH FALL SURFACE. SEE CIVIL PLANS FOR ADDITIONAL INFORMATION.

N

L4 | Partial Site Plan - Area 3

1" = 20'-0"

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

ATHLETIC BALLFIELD NOTE

1. ALL BALLFIELDS: CONTRACTOR IS TO INSTALL NEW HOME PLATES, BASES AND PITCHING RUBBERS FOR ALL THREE (3) BALLFIELDS. SEE SITE CIVIL PLANS FOR ADDITIONAL INFORMATION.

General Notes

LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER STATE OF CALIFORNIA

NOT FOR CONSTRUCTION
PLA # 3887
31 JULY 24
REGISTERED PROFESSIONAL

David Bigler Associates
Landscape Architect #3887
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Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

LANDSCAPE MULCHING PLAN
PARTIAL SITE PLAN

Drawing

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LICENSED ARCHITECT REGINALD K. PARROTT No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L103

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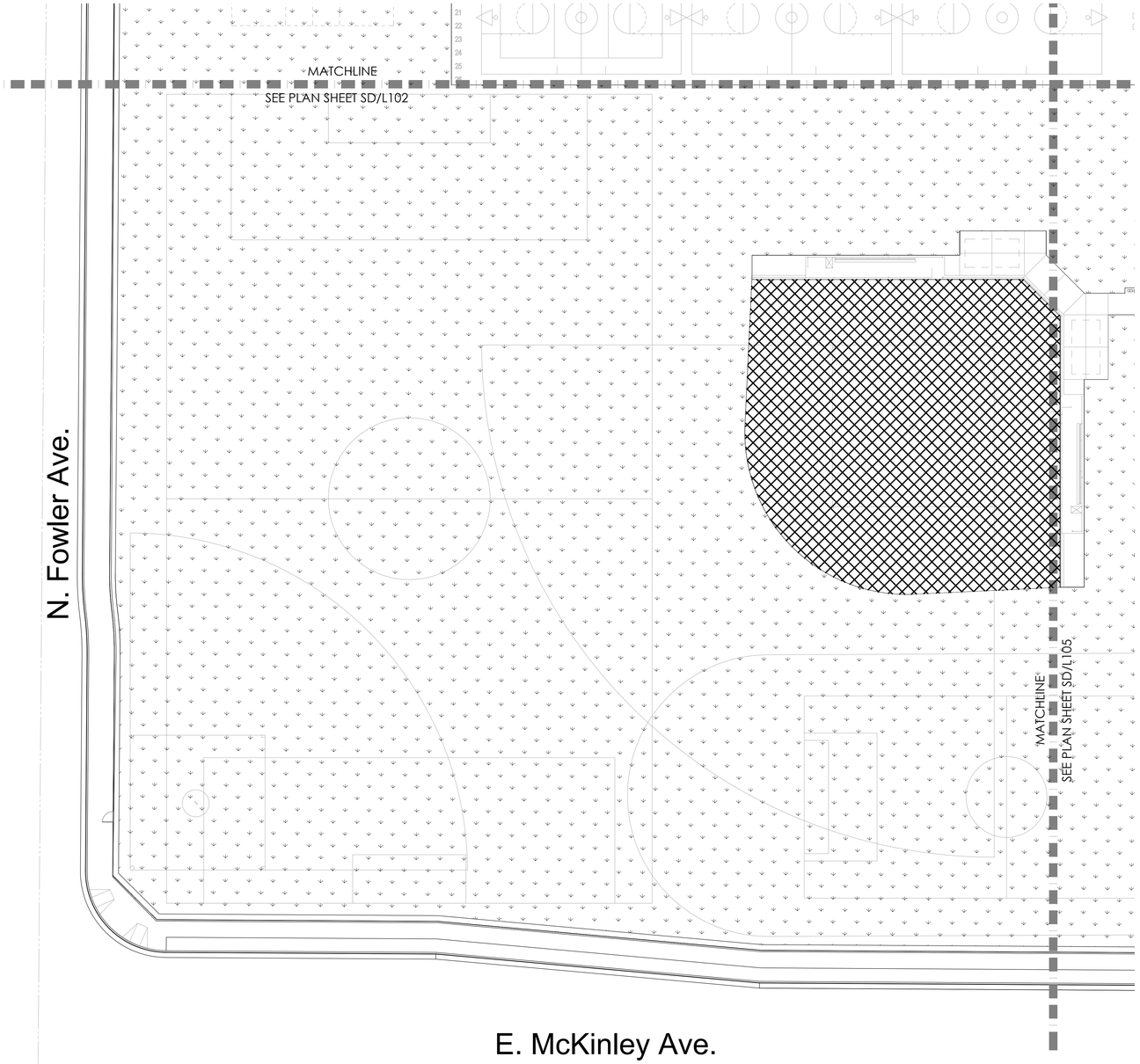

LANDSCAPE MULCHING LEGEND

SYMBOL	DESCRIPTION
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	PLAYGROUND AREA WITH FALL SURFACE. SEE CIVIL PLANS FOR ADDITIONAL INFORMATION.

N

L5	Partial Site Plan - Area 4
1" = 20'-0"	

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

ATHLETIC BALLFIELD NOTE

1. ALL BALLFIELDS: CONTRACTOR IS TO INSTALL NEW HOME PLATES, BASES AND PITCHING RUBBERS FOR ALL THREE (3) BALLFIELDS. SEE SITE CIVIL PLANS FOR ADDITIONAL INFORMATION.

General Notes

LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER RLA # 3887 31 JULY 24 RENEWAL DATE STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

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Fax: (559) 276-9497

Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

LANDSCAPE MULCHING PLAN
PARTIAL SITE PLAN

Drawing

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LICENSED ARCHITECT MEGHREE K. PARNOW No. C23724 Exp. 4-30-25 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: DB	Copyright 2022 Darden Architects
Scale:	Drawn By: SV	
Project Number: 2116	Checked By: DB	*SD/L104*
Date: 09/21/22	Reviewed By: DB	

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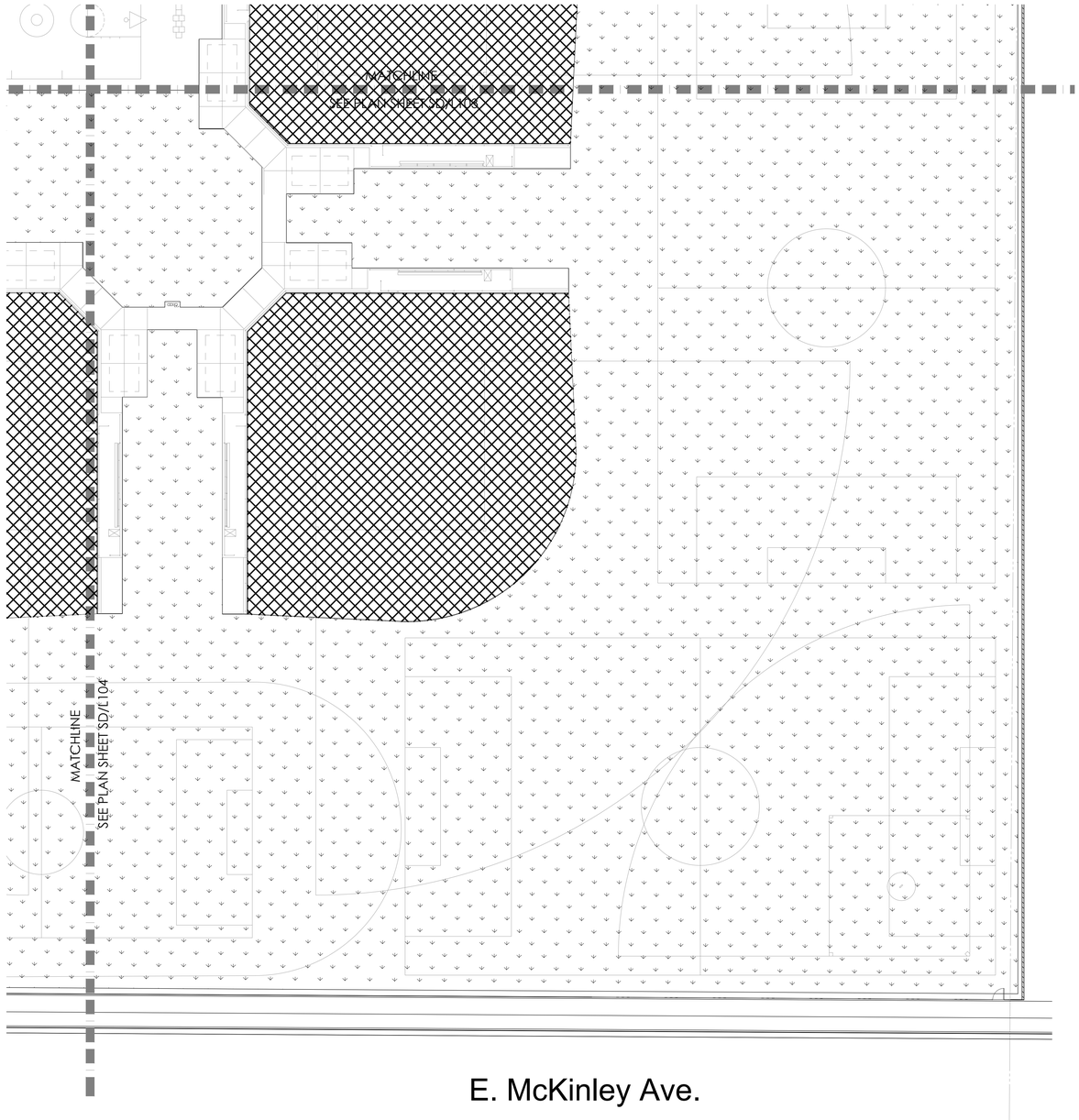
AD2- L0X06



LANDSCAPE MULCHING LEGEND

SYMBOL	DESCRIPTION
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	PLAYGROUND AREA WITH FALL SURFACE. SEE CIVIL PLANS FOR ADDITIONAL INFORMATION.

N

L6 | Partial Site Plan - Area 5

1" = 20'-0"

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

ATHLETIC BALLFIELD NOTE

1. ALL BALLFIELDS: CONTRACTOR IS TO INSTALL NEW HOME PLATES, BASES AND PITCHING RUBBERS FOR ALL THREE (3) BALLFIELDS. SEE SITE CIVIL PLANS FOR ADDITIONAL INFORMATION.

General Notes

NOT FOR CONSTRUCTION

David Bigler Associates
Landscape Architect #3887
516 W. Shaw Avenue, #101
Fresno, California 93704
E Mail: davebigler @aol.com
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Fax: (559) 276-9497

Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

LANDSCAPE MULCHING PLAN
PARTIAL SITE PLAN

Drawing

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www.dardenarchitects.com
6790 N. West Ave. • Fresno, CA 93711 • T. 559.448.8051

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L105

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E. Weldon Ave.

N. Fowler Ave.

N. Millard Ave.

BUILDING K1
Transitional Kindergarten
& Kindergarten

BUILDING P
Portables

BUILDING B
Lower Grade
Classrooms

BUILDING A
Administration

BUILDING E
MPR

BUILDING C
Upper Grade

LOADING ZONE

DO NOT ENTER

DN

MATCHLINE
SEE PLAN SHEET SD/L202

MATCHLINE
SEE PLAN SHEET SD/L203

SEE LANDSCAPE PLANTING LEGEND ON PLAN SHEET SD/L202

N

L7 | Partial Site Plan - Area 1

1" = 20'-0"

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DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

General Notes

LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER RLA # 3887 31 JULY 24 DATE STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

David Bigler Associates
Landscape Architect #3887
516 W. Shaw Avenue, #101
Fresno, California 93704
E Mail: davebigler @aol.com
Tel: (559) 276-9495
Fax: (559) 276-9497

Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

LANDSCAPE PLANTING PLAN
PARTIAL SITE PLAN

Drawing

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6790 N. West Ave. • Fresno, CA 93711 • T. 559.448.8051

LICENSED ARCHITECT MEDHAT K. FAHMY No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L201

AD2- L0X08

E. Weldon Ave.

N. Fowler Ave.

N. Millard Ave.

BUILDING K1
Transitional Kindergarten
& Kindergarten

BUILDING K2
Transitional Kindergarten
& Kindergarten

BUILDING P
Portables

BUILDING B
Lower Grade
Classrooms

BUILDING A
Administration

BUILDING E
MPR

BUILDING C
Upper Grade

LOADING ZONE

DO NOT ENTER

DN

MATCHLINE
SEE PLAN SHEET SD/L202

MATCHLINE
SEE PLAN SHEET SD/L203

SEE LANDSCAPE PLANTING LEGEND ON PLAN SHEET SD/L202

N

L7 | Partial Site Plan - Area 1 - Additive Alternate

1" = 20'-0"

8/1/2022 1:38:23 PM
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DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

General Notes

NOT FOR CONSTRUCTION
LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER RLA # 3887 31 JULY 24 DATE STATE OF CALIFORNIA

David Bigler Associates
Landscape Architect #3887
516 W. Shaw Avenue, #101
Fresno, California 93704
E Mail: davebigler @aol.com
Tel: (559) 276-9495
Fax: (559) 276-9497

Consultant

McKinley/Fowler Elementary School
Clovis Unified School District
Fresno, CA 93727

Project

LANDSCAPE PLANTING PLAN
PARTIAL SITE PLAN

Drawing

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6790 N. West Ave. • Fresno, CA 93711 • T. 559.448.8051
LICENSED ARCHITECT MEDDEE K. PERRY No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

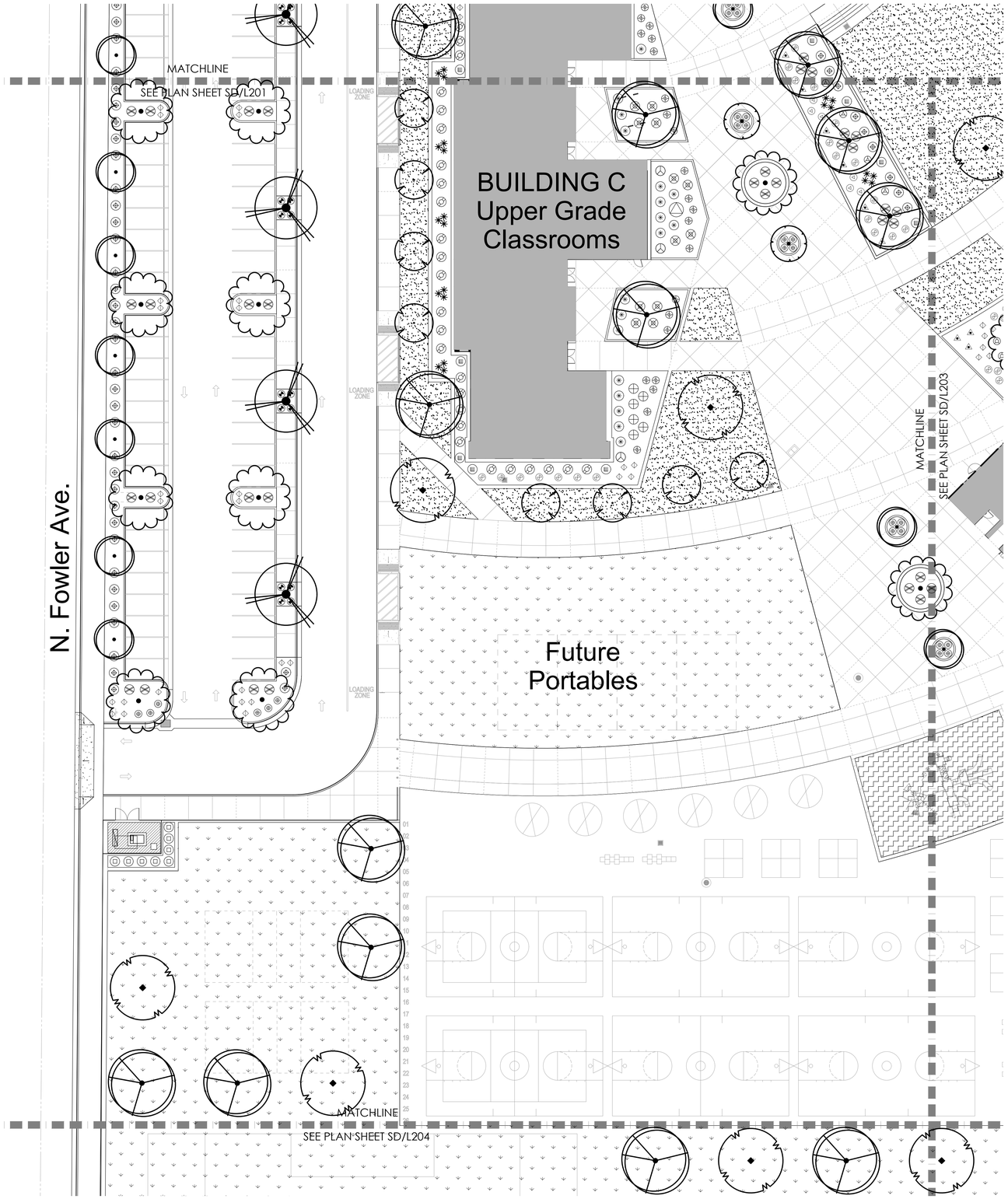
Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L201.1

AD2- L0X09



LANDSCAPE PLANTING LEGEND - PLANTS

SYMBOL	WATER USE	SIZE	DESCRIPTION
	LOW	1 Gal	LANTANA camara 'Bandana Rose', Rose Bandana Lantana.
	LOW	5 Gal	HESPERALOE parviflora 'Desert Flamenco', Desert Flamenco Red Yucca.
	LOW	1 Gal	LANTANA camara 'Bandana Pink', Pink Bandana Lantana.
	LOW	5 Gal	WEDELIA texana 'Devil's River', Devil River Wedelia.
	LOW	1 Gal	TEUCRIUM cossoni, Gray Creeping Germander.
	LOW	5 Gal	LEUCOPHYLLUM zygophyllum 'Cimarron', Blue Ranger.
	LOW	1 Gal	LANTANA camara 'Bandana Lemon Zest', Lemon Zest Bandana Lantana.
	LOW	1 Gal	DIETES iridioides 'Lemon Drops', Hybrid Fortnight Lily.
	LOW	5 Gal	NANDINA domestica 'Gulf Stream', Heavenly Bamboo.
	LOW	5 Gal	DIANELLA revoluta 'Little Rev', Little Rev Flax.
	MOD	5 Gal	DIANELLA caerulea 'Cassa Blue', Cassa Blue Flax.
	LOW	5 Gal	MUHLENBERGIA capillaris 'Regal Mist', Regal Mist Grass.
	MOD	5 Gal	LANTANA 'Radiation', Orange Lantana Bush.
	LOW	5 Gal	CAESALPINIA pulcherrima, Mexican Red Bird of Paradise.
	MOD	5 Gal	SPIRAEA japonica 'Anthony Waterer', Anthony Waterer Spiraea.
	MOD	5 Gal	COLEONEMA pulchellum 'Sunset Gold', Sunset Gold Breath of Heaven.
	MOD	5 Gal	PITTOSPORUM tobira 'Varigata', Variagated Tobira.
	LOW	5 Gal	RHAPHIOLEPIS umbellata 'Minor', Yeddo Hawthorn.
	MOD	5 Gal	LOROPETALUM chinense 'Burgundy', Loropetelum.
	MOD	5 Gal	RHAPHIOLEPIS indica 'Enchantress', Indian Hawthorn.
	LOW	5 Gal	CEANOTHUS griseus 'Yankee Point', Yankee Point Ceanothus.
	LOW	5 Gal	CALLISTEMON viminalis 'Little John', Dwarf Bottle Brush.
	LOW	5 Gal	TECOMA x 'Solar Flare', Solar Flare Tecoma.
	LOW	5 Gal	RUSSELIA x 'St. Elmo's Fire', Red Russelia.
	LOW	15 Gal	COTINUS coggygria 'Royal Purple', Smoke Tree, multi trunk form.
	MOD	15 Gal	MAGNOLIA soulagiana 'Alexandrina', Saucer Magnolia, Multi Trunk Form.
	LOW	15 Gal	CERCIS occidentalis, Western Redbud, multi trunk/low branching form.

LANDSCAPE PLANTING LEGEND - TREES

SYMBOL	WATER USE	SIZE	DESCRIPTION
	LOW	15 Gal	CERCIS occidentalis, Western Redbud Tree, Standard Form.
	MOD	15 Gal	CERCIS canadensis texensis 'Oklahoma', Oklahoma Red Bud, Standard Form.
	LOW	15 Gal	LAGERSTROEMIA indica 'Tuscarora', Pink Crape Myrtle, Standard form.
	MOD	15 Gal	PRUNUS cerasifera 'Krauter Vesuvius', Purple Leaf Plum Tree.
	LOW	15 Gal	LAURUS nobilis 'Saratoga', Bay Tree.
	LOW	15 Gal	PISTACIA chinensis 'Keith Davey', Chinese Pistache Tree.
	MOD	15 Gal	QUERCUS virginiana, Southern Live Oak Tree.
	LOW	36" Box	QUERCUS suber, Cork Oak Tree, Standard Form (Evergreen).
	MOD	15 Gal	ACER rubrum 'October Glory', October Glory Maple Tree.

SEE TREE AND SHRUB PLANTING DETAIL #23
ON PLAN SHEET SD/L402

N

L8 | Partial Site Plan - Area 2

1" = 20'-0"

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

General Notes

NOT FOR CONSTRUCTION
DAVID S. BIGLER — LICENSED LANDSCAPE ARCHITECT — STATE OF CALIFORNIA
REG. # 3887 — 31 JULY 24 — RENEWAL DATE

David Bigler Associates
Landscape Architect #3887
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Fresno, California 93704
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Tel: (559) 276-9495
Fax: (559) 276-9497

Consultant

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Clovis Unified School District
Fresno, CA 93727

Project

LANDSCAPE PLANTING PLAN
PARTIAL SITE PLAN

Drawing

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LICENSED ARCHITECT — MICHAEL K. PERKINS — No. C23724 — Exp. 4-30-23 — STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

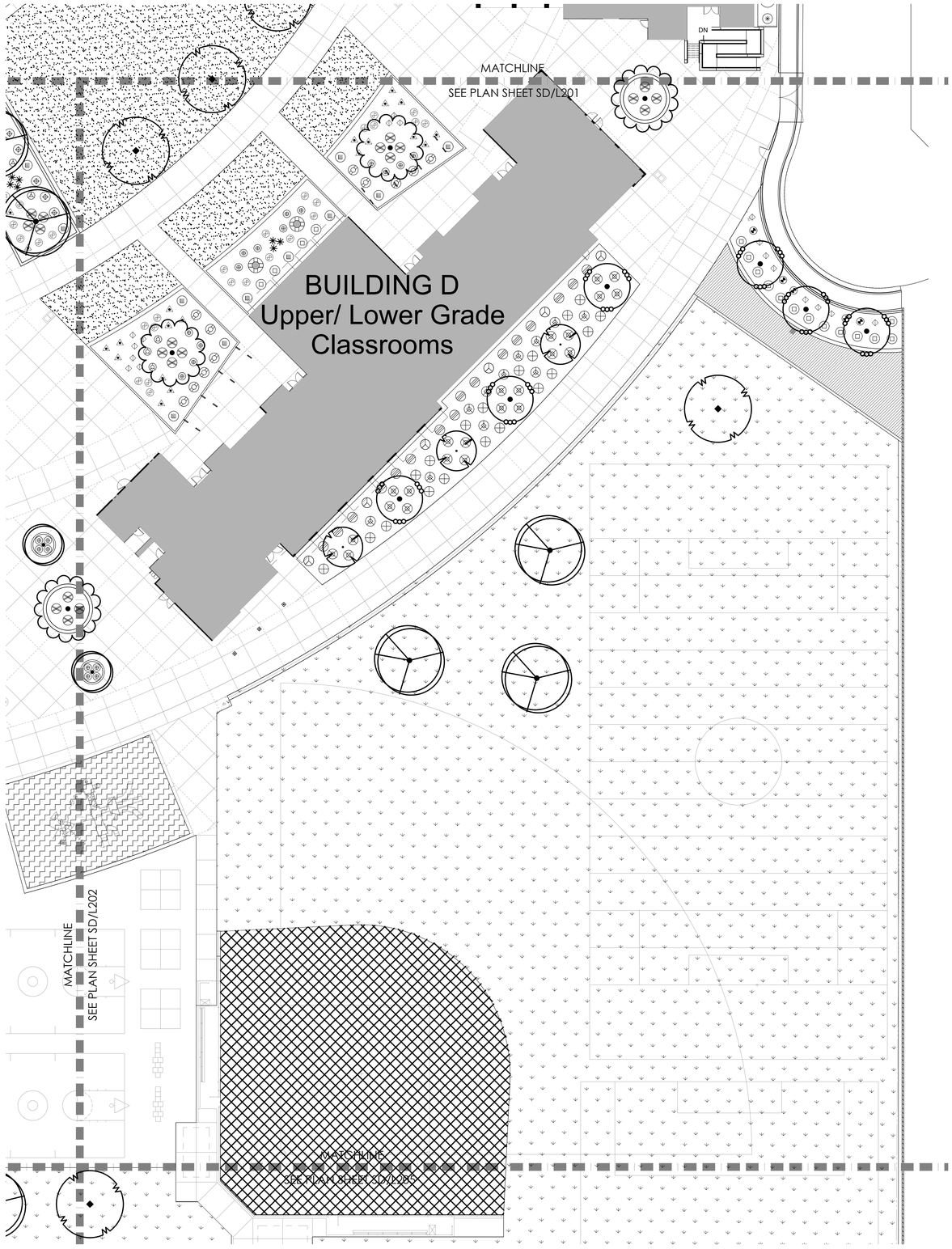
Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L202

8/1/2022 1:38:23 PM
D:\Revit-Schools\CUSD\2116- New ES 35\2116_CUSD ES 35_MASTER_and_SITE_AC_V18.rvt

AD2- L0X10



LANDSCAPE PLANTING LEGEND - PLANTS

SYMBOL	WATER USE	SIZE	DESCRIPTION
	LOW	1 Gal	LANTANA camara 'Bandana Rose', Rose Bandana Lantana.
	LOW	5 Gal	HESPERALOE parviflora 'Desert Flamenco', Desert Flamenco Red Yucca.
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	LOW	5 Gal	LEUCOPHYLLUM zygophyllum 'Cimarron', Blue Ranger.
	LOW	1 Gal	LANTANA camara 'Bandana Lemon Zest', Lemon Zest Bandana Lantana.
	LOW	1 Gal	DIETES iridioides 'Lemon Drops', Hybrid Fortnight Lily.
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	LOW	5 Gal	DIANELLA revoluta 'Little Rev', Little Rev Flax.
	MOD	5 Gal	DIANELLA caerulea 'Cassa Blue', Cassa Blue Flax.
	LOW	5 Gal	MUHLENBERGIA capillaris 'Regal Mist', Regal Mist Grass.
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	MOD	5 Gal	PITTOSPORUM tobira 'Varigata', Variagated Tobira.
	LOW	5 Gal	RHAPHIOLEPIS umbellata 'Minor', Yeddo Hawthorn.
	MOD	5 Gal	LOROPETALUM chinense 'Burgundy', Loropetelum.
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	LOW	5 Gal	CEANOTHUS griseus 'Yankee Point', Yankee Point Ceanothus.
	LOW	5 Gal	CALLISTEMON viminalis 'Little John', Dwarf Bottle Brush.
	LOW	5 Gal	TECOMA x 'Solar Flare', Solar Flare Tecoma.
	LOW	5 Gal	RUSSELIA x 'St. Elmo's Fire', Red Russelia.
	LOW	15 Gal	COTINUS coggygria 'Royal Purple', Smoke Tree, multi trunk form.
	MOD	15 Gal	MAGNOLIA soulagiana 'Alexandrina', Saucer Magnolia, Multi Trunk Form.
	LOW	15 Gal	CERCIS occidentalis, Western Redbud, multi trunk/low branching form.

LANDSCAPE PLANTING LEGEND - TREES

SYMBOL	WATER USE	SIZE	DESCRIPTION
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	MOD	15 Gal	PRUNUS cerasifera 'Krauter Vesuvius', Purple Leaf Plum Tree.
	LOW	15 Gal	LAURUS nobilis 'Saratoga', Bay Tree.
	LOW	15 Gal	PISTACIA chinensis 'Keith Davey', Chinese Pistache Tree.
	MOD	15 Gal	QUERCUS virginiana, Southern Live Oak Tree.
	LOW	36" Box	QUERCUS suber, Cork Oak Tree, Standard Form (Evergreen).
	MOD	15 Gal	ACER rubrum 'October Glory', October Glory Maple Tree.

SEE TREE AND SHRUB PLANTING DETAIL #23
ON PLAN SHEET SD/L402

N

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

Consultant Notes

NOT FOR CONSTRUCTION
31 JULY 24
REVISION DATE

David Bigler Associates
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Consultant

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Clovis Unified School District
Fresno, CA 93727

Project

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PARTIAL SITE PLAN

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Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L203

L9 | Partial Site Plan - Area 3
1" = 20'-0"

8/1/2022 1:38:23 PM
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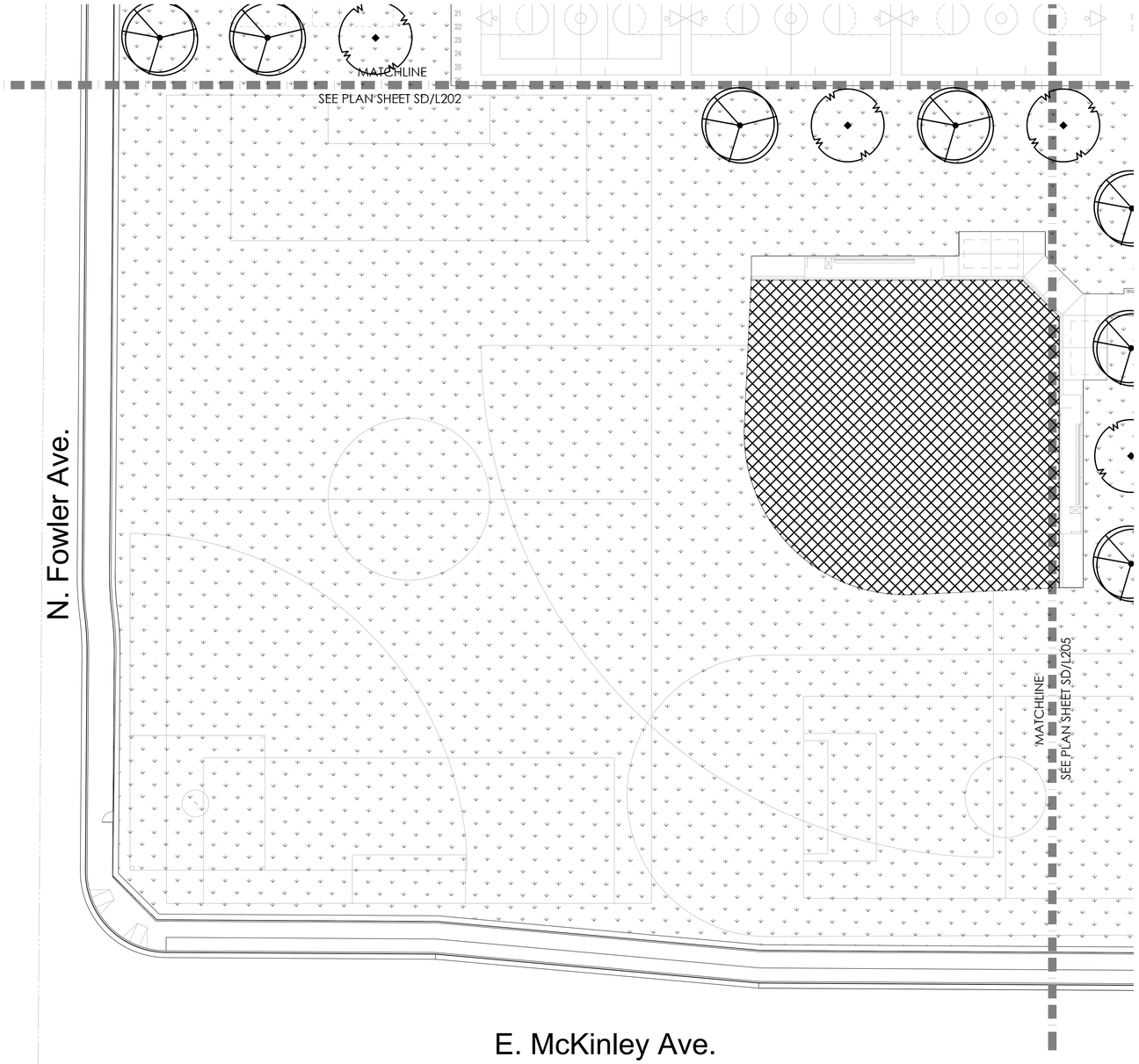

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	MOD	15 Gal	ACER rubrum 'October Glory', October Glory Maple Tree.

SEE TREE AND SHRUB PLANTING DETAIL #23
ON PLAN SHEET SD/L402

N

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

Consultant Notes

NOT FOR CONSTRUCTION
LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER RLA # 3887 31 JULY 24 RENEWAL DATE STATE OF CALIFORNIA

David Bigler Associates
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Consultant

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Fresno, CA 93727

Project

LANDSCAPE PLANTING PLAN
PARTIAL SITE PLAN

Drawing

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LICENSED ARCHITECT MEREDITH K. PERRY No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

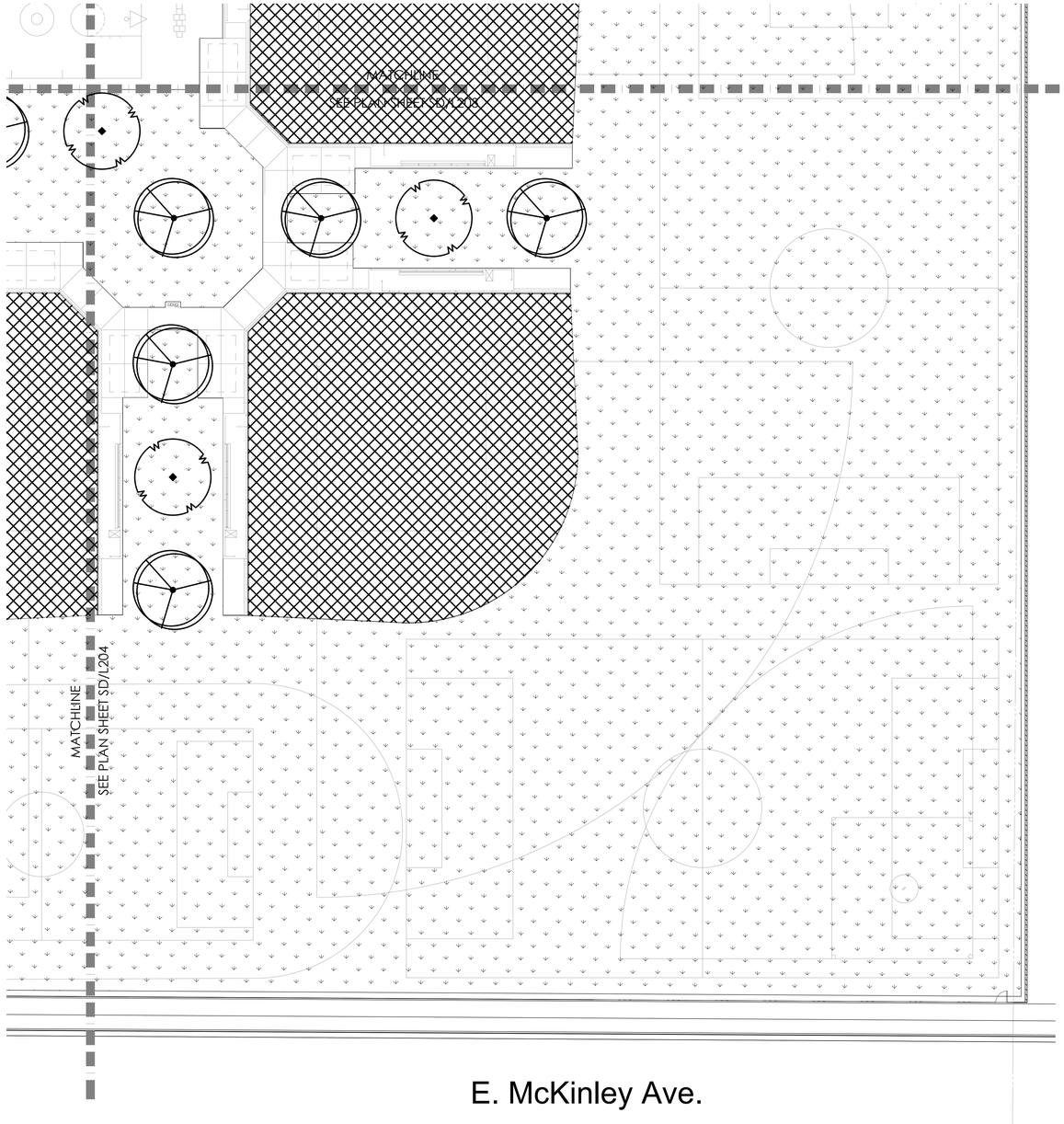
Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L204

L10 | Partial Site Plan - Area 4
1" = 20'-0"

8/1/2022 1:38:23 PM
D:\Revit-Schools\CUSD\2116- New ES 35\2116_CUSD ES 35_MASTER_and_SITE_AC_V18.rvt



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LANDSCAPE PLANTING LEGEND - TREES

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	MOD	15 Gal	ACER rubrum 'October Glory', October Glory Maple Tree.

SEE TREE AND SHRUB PLANTING DETAIL #23
ON PLAN SHEET SD/L402

N

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

General Notes

NOT FOR CONSTRUCTION
31 JULY 24
RENEWAL DATE

David Bigler Associates
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Consultant

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Project

LANDSCAPE PLANTING PLAN
PARTIAL SITE PLAN

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Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L205

L11 | Partial Site Plan - Area 5
1" = 20'-0"

8/1/2022 1:38:23 PM
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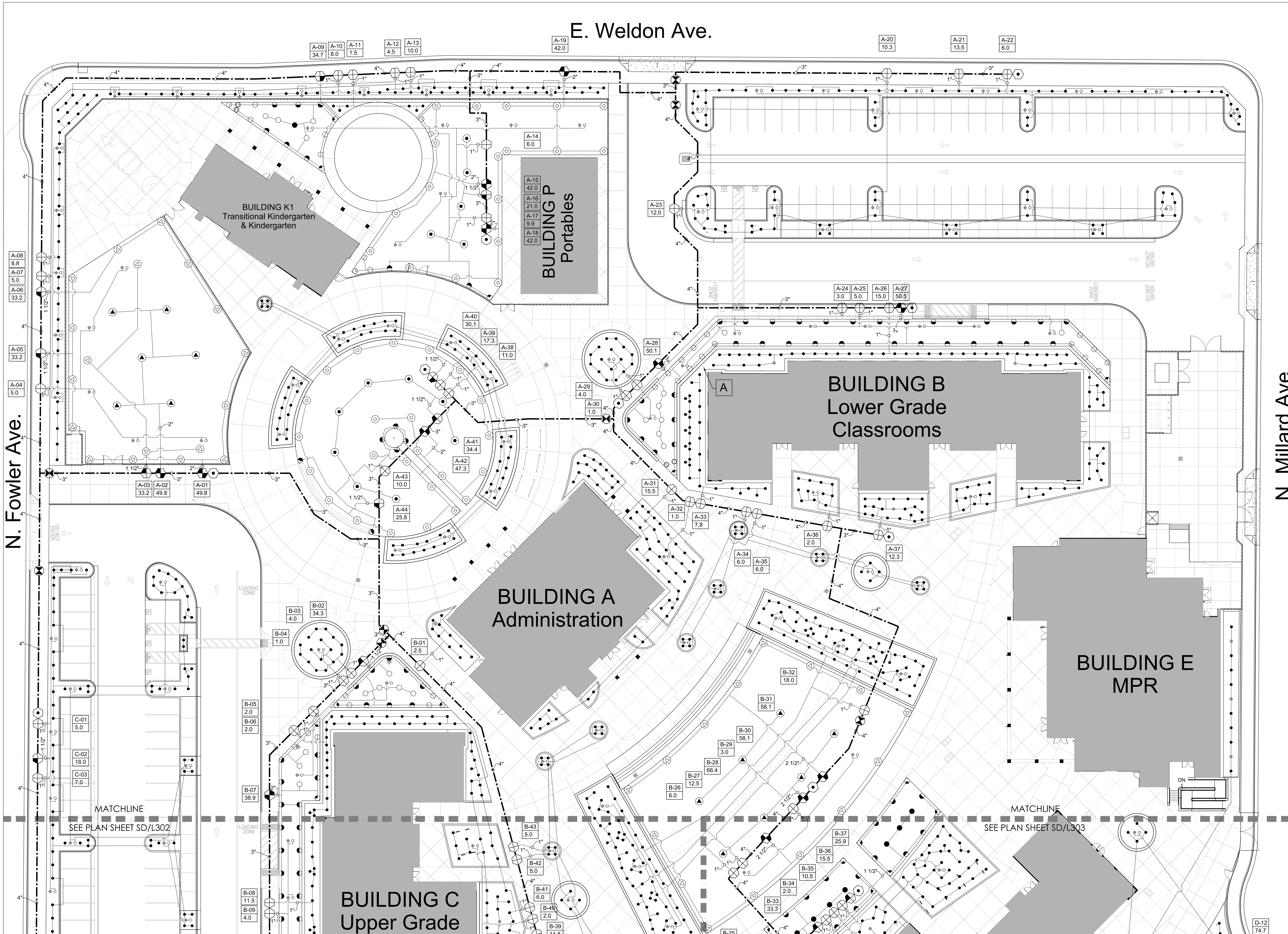

SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET SD/L306

L12 Partial Site Plan - Area 1

1" = 20'-0"

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

LANDSCAPE IRRIGATION NOTES

1. CONTRACTOR TO INSTALL IRRIGATION MAINLINE ALONG THE PERIMETER AREA ADJACENT TO CONCRETE SIDEWALKS TO AVOID CONFLICTS IN THE AREA WITH FUTURE PORTABLE CLASSROOMS NEAR REMOTE CONTROL VALVES B-13 THRU B-18.

2. INSTALL IRRIGATION MAINLINE ON DISTRICT PROPERTY. MAINLINE SHOWN IS DIAGRAMMATIC FOR CLARITY.

3. CONTRACTOR IS TO INSTALL IRRIGATION MAINLINE IN PERIMETER PLAYFIELD AREAS WITHIN FOUR FEET (4'-0") OF THE PERIMETER FENCE OR WALL. ALL VALVE BOXES ARE TO BE LOCATED OUTSIDE THE FIELD OF PLAY FOR ANY OF THE ATHLETIC FIELDS INDICATED ON THE PLAN.

4. CONTRACTOR TO INSTALL IRRIGATION MAINLINE ALONG THE PERIMETER AREA ADJACENT TO CONCRETE SIDEWALKS ON THE SOUTH SIDE OF THE AMPHITHEATER NEAR REMOTE CONTROL VALVES B-26 THRU B-32. INSTALL MAINLINE WITHIN FOUR FEET (4'-0") OF SOUTH SIDEWALK.

5. CONTRACTOR IS TO INSTALL FIVE (5) EXTRA HOT WIRES AND ONE (1) EXTRA COMMON WIRE FROM CONTROLLER 'B' TO REMOTE CONTROL VALVE B-13 FOR FUTURE USE. COIL EXTRA WIRES IN BASE OF CONTROLLER PEDESTAL AND INSTALL WATERPROOF SPLICE KITS (3M DBY) ON ENDS OF ALL SPARE WIRES IN REMOTE CONTROL VALVE BOX FOR B-13. COLOR CODE EXTRA WIRES TO BE DIFFERENT COLOR FROM CONTROLLER 'B' LOW VOLTAGE CONTROL WIRING.

6. CONTRACTOR IS TO INSTALL FIVE (5) EXTRA HOT WIRES AND ONE (1) EXTRA COMMON WIRE FROM CONTROLLER 'C' TO REMOTE CONTROL VALVE C-41 FOR FUTURE USE. COIL EXTRA WIRES IN BASE OF CONTROLLER PEDESTAL AND INSTALL WATERPROOF SPLICE KITS (3M DBY) ON ENDS OF ALL SPARE WIRES IN REMOTE CONTROL VALVE BOX FOR C-41. COLOR CODE EXTRA WIRES TO BE DIFFERENT COLOR FROM CONTROLLER 'C' LOW VOLTAGE CONTROL WIRING.

7. CONTRACTOR IS TO INSTALL FIVE (5) EXTRA HOT WIRES AND ONE (1) EXTRA COMMON WIRE FROM CONTROLLER 'D' TO REMOTE CONTROL VALVE D-40 FOR FUTURE USE. COIL EXTRA WIRES IN BASE OF CONTROLLER PEDESTAL AND INSTALL WATERPROOF SPLICE KITS (3M DBY) ON ENDS OF ALL SPARE WIRES IN REMOTE CONTROL VALVE BOX FOR D-40. COLOR CODE EXTRA WIRES TO BE DIFFERENT COLOR FROM CONTROLLER 'D' LOW VOLTAGE CONTROL WIRING.

General Notes

NOT FOR CONSTRUCTION

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LANDSCAPE IRRIGATION PLAN
PARTIAL SITE PLAN

Drawing

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Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: DB	
Scale:	Drawn By: SV	
Project Number: 2116	Checked By: DB	SD/L301
Date: 09/21/22	Reviewed By: DB	

AD2- L0X13

8/1/2022 1:38:23 PM
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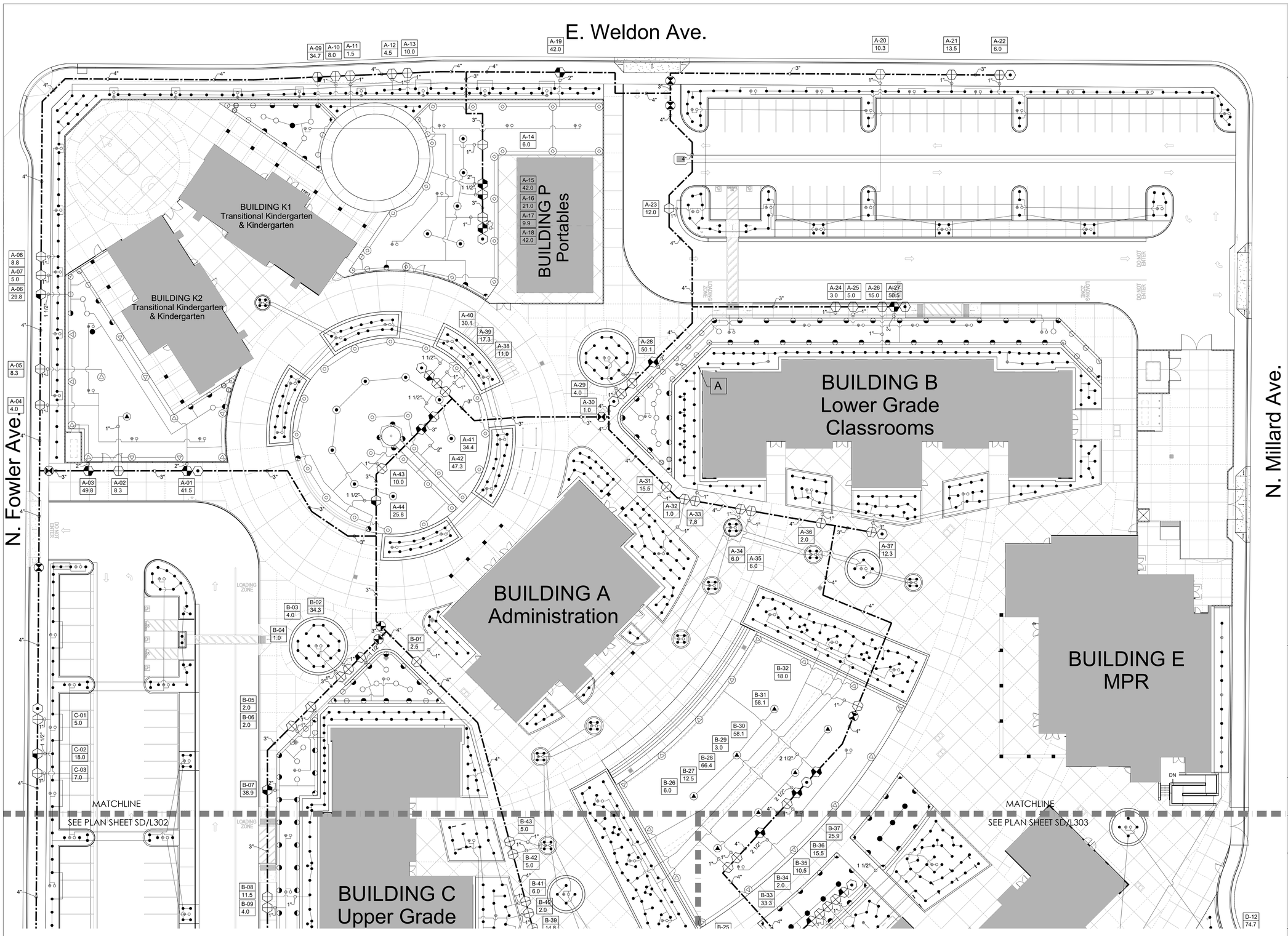

SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET SD/L306

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L12 | Partial Site Plan - Area 1 - Additive Alternate

1" = 20'-0"

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DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

LANDSCAPE IRRIGATION NOTES

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General Notes

LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER RLA # 3887 REGISTERED 31 JULY 24 RENEWAL STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

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Consultant

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Clovis Unified School District
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LICENSED ARCHITECT MICHAEL K. PERRY No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

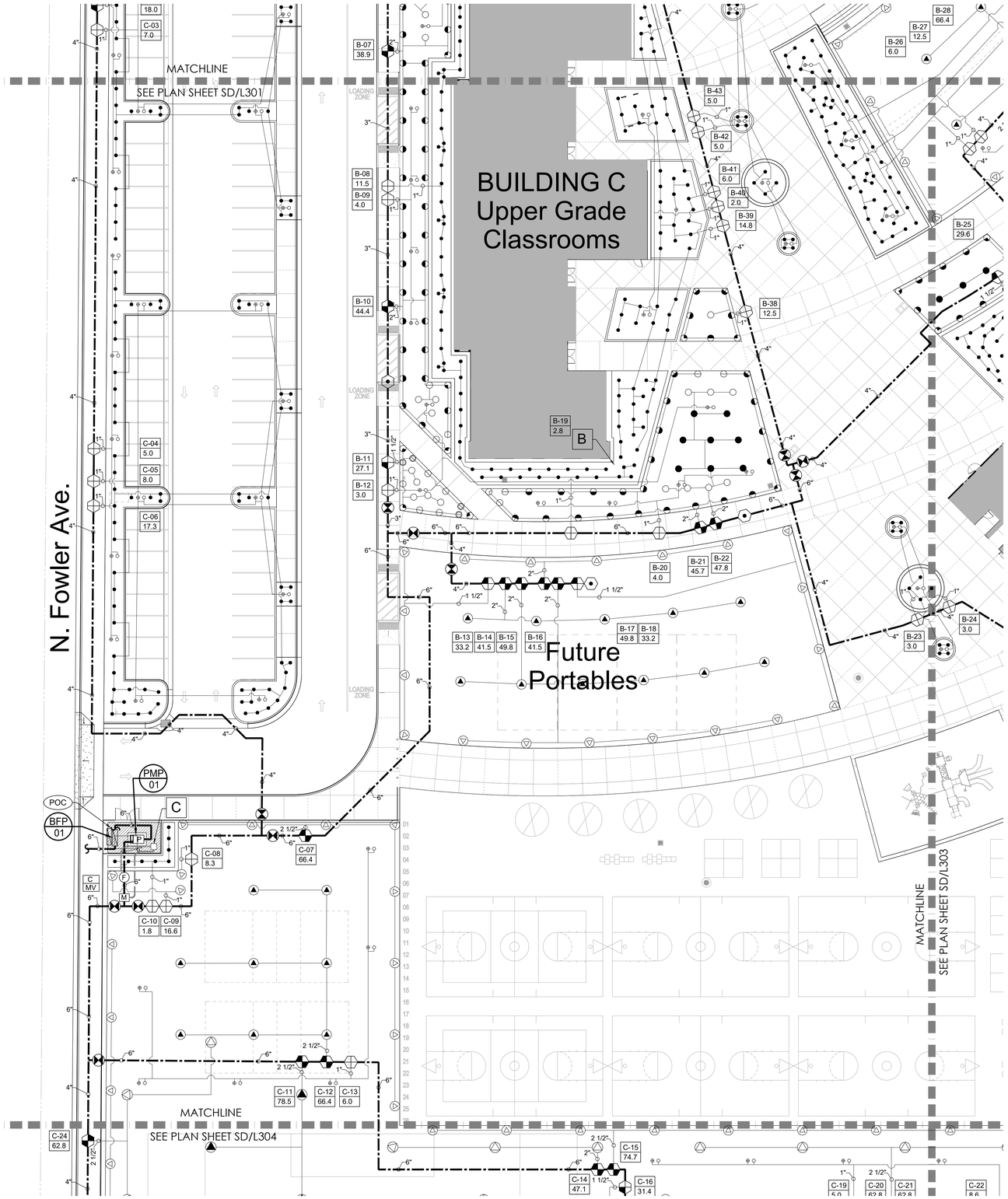
Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L301.1

AD2- L0X15



SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET SD/L306

N

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DSA File

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Agency Approval

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RLA # 3887
31 JULY 24
RENEWAL DATE
LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER STATE OF CALIFORNIA

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LICENSED ARCHITECT MICHAEL K. FERRARO No. C23724 Exp. 4-30-25 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: DB	Copyright 2022 Darden Architects
Scale:	Drawn By: SV	
Project Number: 2116	Checked By: DB	*SD/L302*
Date: 09/21/22	Reviewed By: DB	

L13 Partial Site Plan - Area 2

1" = 20'-0"

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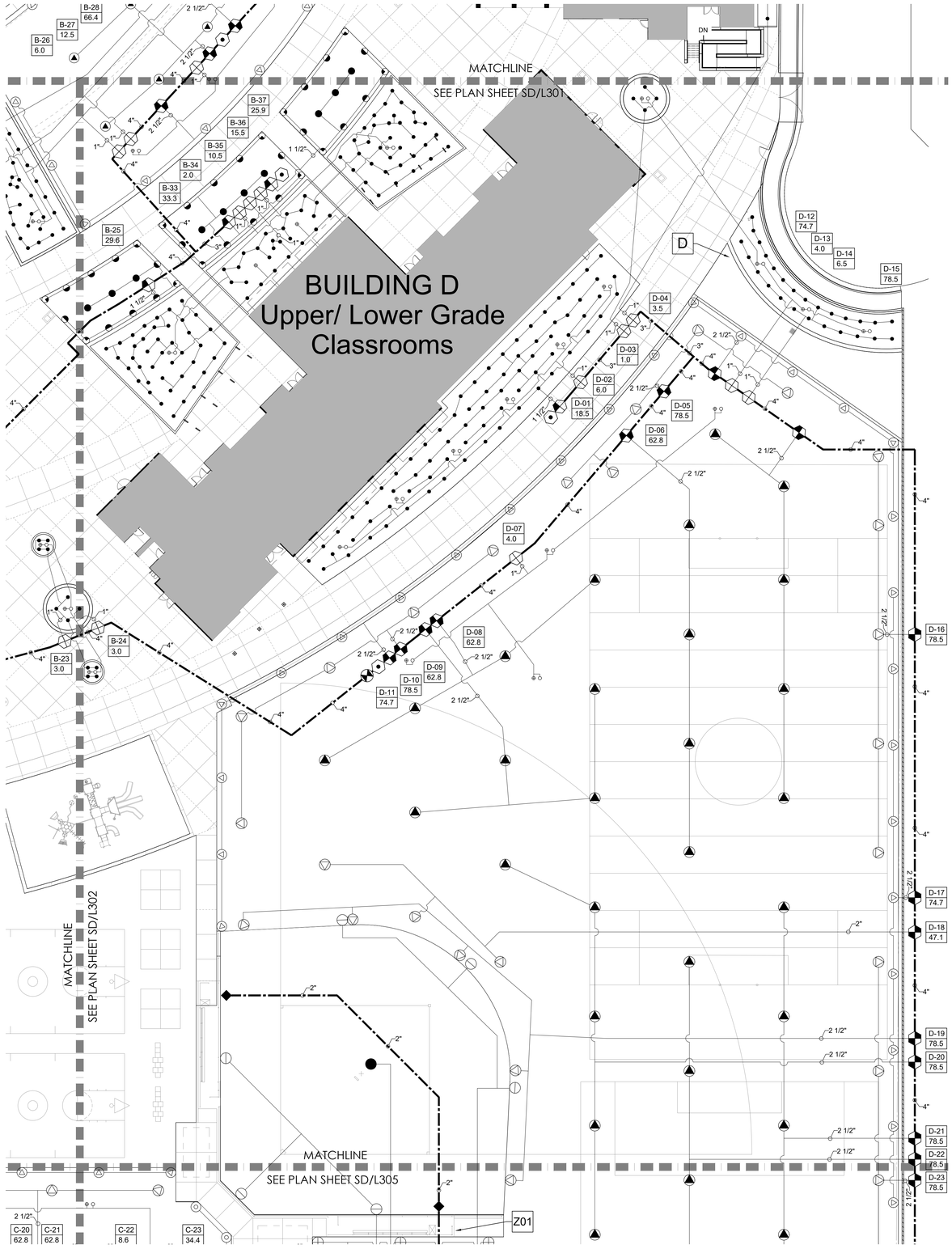

SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET SD/L306

N

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

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Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB
Scale:
Project Number: 2116
Date: 09/21/22

SD/L303

L14 | Partial Site Plan - Area 3

1" = 20'-0"

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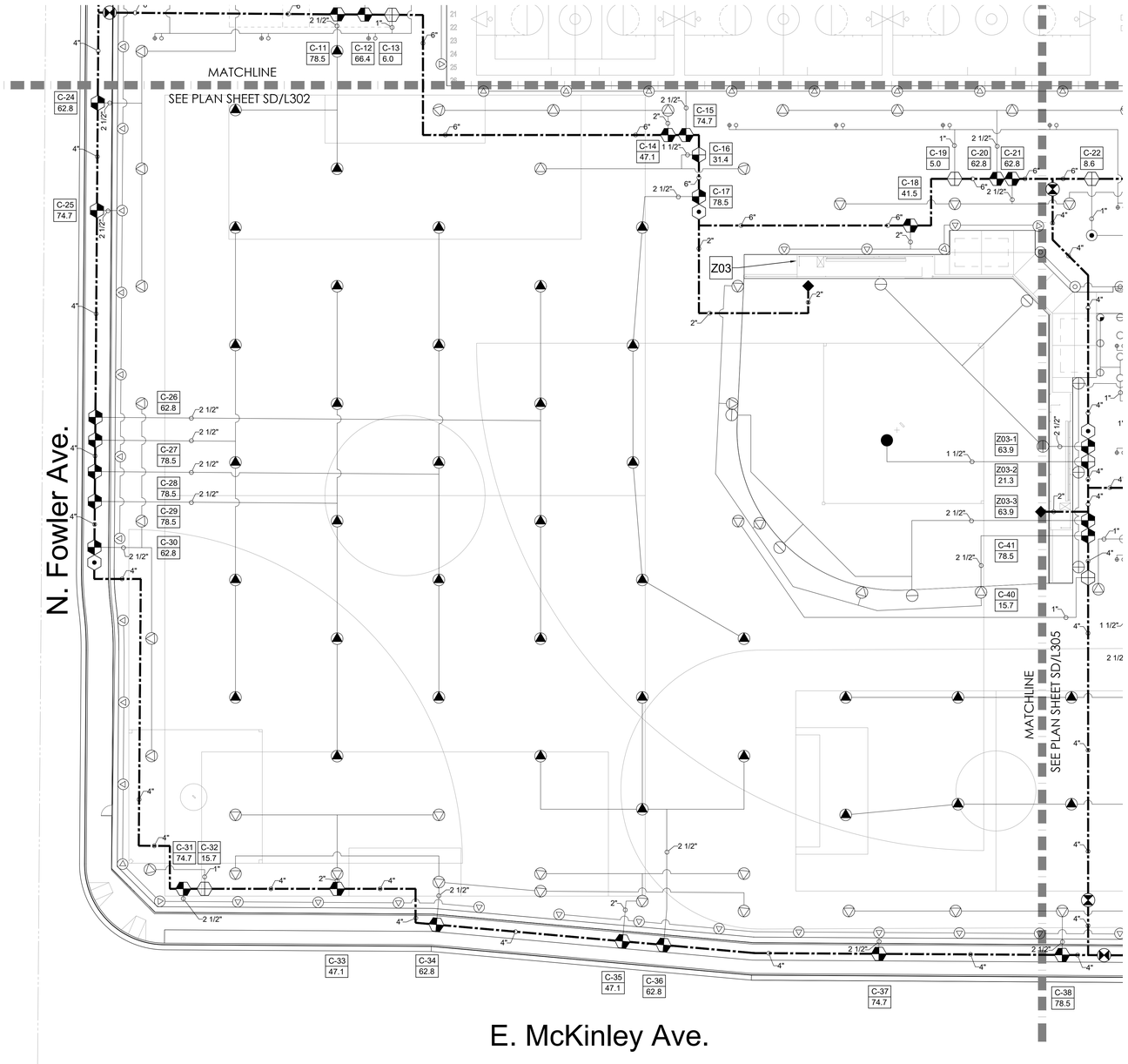

SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET SD/L306

N

L15 | Partial Site Plan - Area 4

1" = 20'-0"

DSA File No.:
DSA File

DSA Application No.:
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Agency Approval

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Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L304

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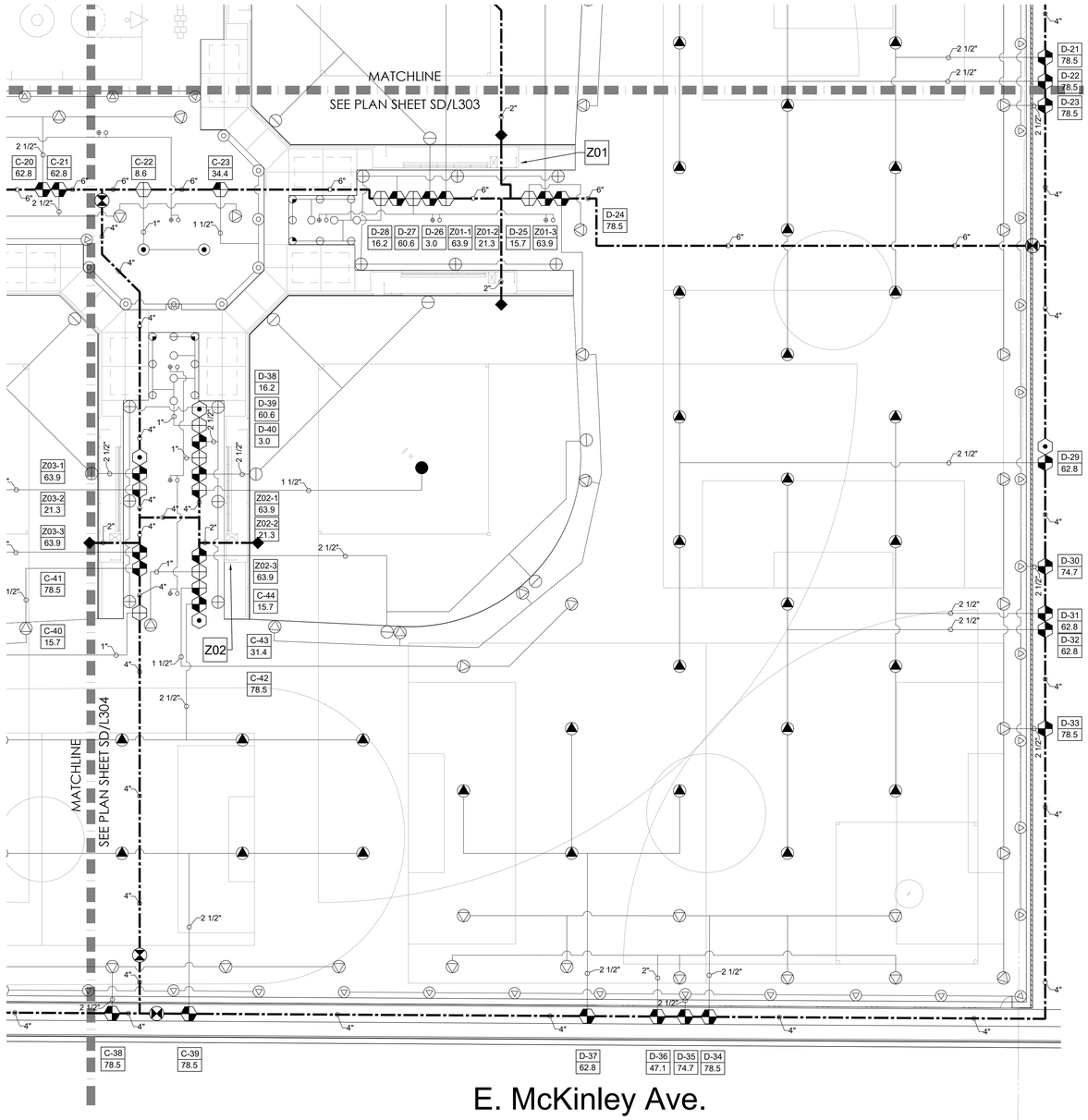
AD2- L0X18



E. McKinley Ave.

SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET SD/L306

N

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Scale:
Project Number: 2116
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SD/L305

L16 — Partial Site Plan - Area 5
1" = 20'-0"

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AD2- L0X19

LANDSCAPE IRRIGATION LEGEND

Water Usage Chart - MAWA vs. ETWU	
MAWA= (Et_o) x (0.62) x [(0.45 x LA) + (1.0 - 0.45) x SLA)] = (51.1) x (0.62) x [(0.45 x 392,710) + (1.0 - 0.45) x 339,550)] = 11,515,520 gallons per year	
ETWU (**Hydrozone #1 - Low- Bubblers**) ETWU= (Et_o) x (0.62) x [((PF) x (HA)) / (IE)] = (51.1) x (0.62) x [((0.2) x (39,636)) / (0.81)] = 310,061 gallons per year	ETWU (**Hydrozone #2 - Moderate - Bubblers**) ETWU= (Et_o) x (0.62) x [((PF) x (HA)) / (IE)] = (51.1) x (0.62) x [((0.5) x (13,524)) / (0.81)] = 264,486 gallons per year
Hydrozone #3 - SLA MAWA= (Et_o) x (0.62) x (SLA) = (51.1) x (0.62) x (339,550) = 10,757,623 gallons per year	
TOTAL ETWU (Sum of Hydrozones 1, 2 & 3) = 11,332,170 gallons per year	
MAWA > ETWU 11,515,520 gallons > 11,332,170 gallons ✓	

Hydrozone (HZ)	Plant Water Use Req.	Plant Factor (PF)	Hydrozone Area (sq ft) (HA)	Zone or Valve Numbers	Irrigation Method	Percent of Landscape Area	Irrigation Efficiency (IE)
1	Low	0.2	39,636	SEE PLANS	Bubblers	10%	0.81
2	Moderate	0.5	13,524	SEE PLANS	Bubblers	3%	0.81
3	SLA	N/A	339,550	SEE PLANS	Sprays & Rotors	87%	N/A
		Sum	392,710				

SYMBOL	DESCRIPTION
○	Rainbird #1804-SAM-PRS, 4" Pop-up Sprinkler with pressure regulation and check valve with Hunter PC Multi Stream Bubbler Nozzle (½" inlet: 0.5 gpm @ 30 psi). Install on uphill side of plant or tree. Install 24 inches from center of tree location. See Installation Detail #01 on Plan Sheet SD/L401 for additional information.
●	Rainbird #1804-SAM-PRS, 4" Pop-up Sprinkler with pressure regulation and check valve with Hunter PC Multi Stream Bubbler Nozzle (½" inlet: 0.25 gpm @ 30 psi). Install on uphill side of plant or tree. See Installation Detail #01 on Plan Sheet SD/L401 for additional information.
⊕	Rainbird #RWS-B-C-1402 with #1402 (0.5 gpm) bubbler Root Watering System. Install on uphill side of plant or tree. Install 24 inches from center of tree location. See Installation Detail #07 on Plan Sheet SD/L401 for additional information.
⊖	Rainbird #1806-SAM-PRS, 6" Pop-up Sprinkler with pressure regulation and check valve with special pattern nozzle, 15SST strip series pattern (½" inlet: 1.21 gpm @ 30 psi). Contractor is to adjust radius to prevent overspray onto buildings and other hardscaped surfaces. See Installation Detail #02 on Plan Sheet SD/L401 for additional information.
⊖⊖⊖⊖⊖	Rainbird #1806-SAM-PRS, 6" Pop-up Sprinkler with pressure regulation and check valve with Rainbird U-Series 12' radius nozzles, U-12Q, U-12H and U-12F for 90, 180 & 360 arcs and Rainbird HE-VAN Series 12' radius nozzles, HE-VAN-12 for 120, 240 & 270 arcs. Contractor is to use as few HE-VAN nozzles as possible. Contractor is to adjust arc and radius to prevent overspray onto buildings and other hardscaped surfaces. If nozzle radius adjustment required is greater than 25% of nozzle rating, the Contractor is to substitute nozzle with 8', 10' or specialty pattern nozzle as required at no additional cost to Owner. Contractor is to review nozzle substitutions with Landscape Architect for comment, prior to installation. See Installation Detail #02 on Plan Sheet SD/L401 for additional information.
●●●●●●	Rainbird #1806-SAM-PRS, 6" Pop-up Sprinkler with pressure regulation and check valve with Rainbird U-Series 15' radius nozzles, U-15Q, U-15H and U-15F for 90, 180 & 360 arcs and Rainbird HE-VAN Series 15' radius nozzles, HE-VAN-15 for 120, 240 & 270 arcs. Contractor is to use as few HE-VAN nozzles as possible. Contractor is to adjust arc and radius to prevent overspray onto buildings and other hardscaped surfaces. If nozzle radius adjustment required is greater than 25% of nozzle rating, the Contractor is to substitute nozzle with 8', 10' or specialty pattern nozzle as required at no additional cost to Owner. Contractor is to review nozzle substitutions with Landscape Architect for comment, prior to installation. See Installation Detail #02 on Plan Sheet SD/L401 for additional information.
○●	Hunter # I-25-06-SS-04, 6" pop up I-25 Series Rotor Sprinkler with part / full circle arcs, stainless steel riser and check valve with #4.0 nozzle. (1" inlet: 4.3 gpm @ 50 psi). See Installation Detail #03 on plan sheet SD/L401 for additional information.
◇◆	Hunter # I-25-06-SS-07, 6" pop up I-25 Series Rotor Sprinkler with part / full circle arcs, stainless steel riser and check valve with #7.0 nozzle. (1" inlet: 7.0 gpm @ 50 psi). See Installation Detail #03 on plan sheet SD/L401 for additional information.
△▲	Hunter # I-25-06-SS-08, 6" pop up I-25 Series Rotor Sprinkler with part / full circle arcs, stainless steel riser and check valve with #8.0 nozzle. (1" inlet: 8.3 gpm @ 50 psi). See Installation Detail #03 on plan sheet SD/L401 for additional information.
⊕	Hunter # I-25-06-SS-10, 6" pop up I-25 Series Rotor Sprinkler with part / full circle arcs, stainless steel riser and check valve with #10.0 nozzle. (1" inlet: 10.1 gpm @ 50 psi). See Installation Detail #03 on plan sheet SD/L401 for additional information.
△▲	Hunter # I-25-06-SS-18, 6" pop up I-25 Series Rotor Sprinkler with part / full circle arcs, stainless steel riser and check valve with #18.0 nozzle. (1" inlet: 15.7 gpm @ 60 psi). See Installation Detail #03 on plan sheet SD/L401 for additional information.
○●	Hunter # I-40-06-SS-HS-23.0, 6" pop up I-40 Series high speed skinned infield rotor sprinkler with part circle and full circle arcs, stainless steel riser and check valve with #23.0 nozzle. (1" inlet: 21.3 gpm @ 60 psi). See Installation Detail #04 on plan sheet SD/L401 for additional information.
⬡	1" Irritrol # 100P1.0, 100 Plus Series Electric Remote Control Valve. Contractor is to install a maximum of one valve per valve box. Inlet pipe is to be the same size as the outlet pipe noted on the plan. Contractor is to install line size filter on all pop up spray sprinkler and low flow pop up bubbler valves in separate valve box adjacent to each other. Filters are to be installed on discharge side of valve. See Installation Details #05 & #11 on Plan Sheet SD/L401 for additional information.
◔◆	1 1/2" Irritrol # 100P1.5, 100 Plus Series Electric Remote Control Valve. Contractor is to install a maximum of one valve per valve box. Inlet pipe is to be the same size as the outlet pipe noted on the plan. Contractor is to install line size filter on all pop up spray sprinkler and low flow pop up bubbler valves in separate valve box adjacent to each other. Filters are to be installed on discharge side of valve. See Installation Details #06 & #11 on Plan Sheet SD/L401 for additional information.
◔◆	2" Irritrol # 100P2.0, 100 Plus Series Electric Remote Control Valve. Contractor is to install a maximum of one valve per valve box. Inlet pipe is to be the same size as the outlet pipe noted on the plan. Contractor is to install line size filter on all pop up spray sprinkler and low flow pop up bubbler valves in separate valve box adjacent to each other. Filters are to be installed on discharge side of valve. See Installation Details #08, #09 and #11 on Plan Sheet SD/L401 for additional information.
◆	Rainbird 44LRC, Quick Coupling Valve. Provide District with five (5) quick coupler keys with hose swivels. Install in separate 10" round valve box. See Installation Detail #10 on Plan Sheet SD/L401 for additional information.
⬡●	1" Crispin #IC-10, Air and Vacuum Release Valve to be installed at high points and dead end runs of the mainline piping system. Install in a standard rectangular valve box. Contractor to field locate. See Installation Detail #13 on Plan Sheet SD/L401 for additional information.
⋈	2" thru 3": Nibco #T-113 IRR BHW, Bronze Gate Valve with Non-Rising Stem. 4" thru 6": Nibco # P619-RW, Resilient Seat Gasketed Joint Gate Valve, 200 psi. Gate Valves are to be line size and installed in a 10" round valve box. Provide two (2) square operating nut handles (4' min. length) or each type required to the District. See Installation Details #12 & #15 on Plan Sheet SD/L401 for additional information.
———	1" thru 2 1/2": PVC Class 200 Solvent Weld lateral pipe. Sleeve all pipe under paved surfaces over six feet wide with PVC Schedule 40 pipe for 2" thru 3" sleeves and with PVC Class 200 pipe for 4" and larger sleeves. Size sleeves a minimum of two times larger than the pipe being sleeved. One pipe per sleeve only. Minimum sleeve size is 2". Low voltage control wiring is to be sleeved separately from irrigation pipes. Size lateral pipes as noted on the plan and as outlined in the Lateral Pipe Sizing Chart, Detail #14 on Plan Sheet SD/L401 . Pipe sizes shall not exceed a velocity of 5.0 feet per second. Install all PVC pipe in strict accordance with the manufacturers recommendations. See Installation Details #20 & #21 on Plan Sheet SD/L402 for additional information.

SYMBOL	DESCRIPTION
——·——·——	2" thru 3" PVC Schedule 40 SW Mainline Pipe. Mainline pipe fittings are to be PVC Schedule 80 solvent weld or threaded fittings or nipples. 4" thru 6" PVC Class 200 Gasketed Mainline Pipe. Mainline pipe fittings are to be ductile iron Leemco gasketed fittings or Romac #202NS service saddle with double stainless steel straps, except where the irrigation details call for a specific fitting. Size Mainline Piping as noted on the plan. Install all pipe in strict accordance with manufacturers instructions. For mainlines 3" and larger install concrete thrust blocks at all changes in direction. No bending, or curving of the pipe will be allowed, except as permitted by the pipe manufacturer. Pipe manufacturer must be approved prior to installation. Use mechanical joint restraints where concrete thrust blocks are not applicable, such as vertical changes in direction, or when two pipelines are side by side. See Installation Details #20, #21 and #22 on Plan Sheet SD/L402 for additional information.
POC	POC - Point of Connection: 6" PVC Mainline Pipe Stub at discharge side of Reduced Pressure Backflow Prevention Device to be installed by Site Utility Contractor, see Site Civil / Utility Plan. Landscape Contractor to coordinate all work as required. See Site Civil Plans.
C	Rainmaster DXi #DXi-SPED-48E-WMS with locking Stainless Steel Pedestal DXi conventional Master Controller with ethernet and WOB ready. 48 station controller that is network ready via ethernet card. Campus network connection for internet access is via (CAT-6) network cable installed to irrigation controller location by Site Electrical / Data Contractor, see Electrical Plans. Communication with the Slave Controllers is via 900MHZ XTND Radios to be provided with the controllers. Contractor to assist Rainmaster Technician in conducting radio survey for all locations. See Installation Details #17 and #19 on Plan Sheet SD/L402 and Installation Detail #27 on Plan Sheet SD/L403 for additional information.
A B D	Three (3): Rainmaster DXi #DXi-SPED-W481-XT-WMS 48 station controller with locking Stainless Steel Pedestal, DXi conventional Slave Controller that is WOB ready. Communication with the Master Controller is via 900MHZ XTND Radios to be provided with the controllers. Contractor to assist Rainmaster Technician in conducting radio survey for all locations. See Installation Details #25, #26 and #27 on Plan Sheet SD/L403 for additional information.
NOT SHOWN	Rainmaster WMS Central Control System: Contractor is responsible for all data collection, data input and programming for a complete installation in compliance with the manufacturers recommendations for active weather control of the irrigation system on District computer. Contractor is to assist and train up to four (4) designated District Maintenance staff in the programming and operation of the irrigation controller and Rainmaster WMS Central Control System with remote maintenance access from the PROMAX remote radio system and from the existing cellular smart phones of the District Maintenance Staff.
NOT SHOWN	Provide two (2) Rainmaster #PROMAX remote radio kits for remote access to the irrigation controllers and WMS Central Irrigation Controller system to the District.
Z01 Z02 Z03	Three (3) Site One Green Tech #SFB(3)-PWM, Sports Field Bypass Switch (Coach's Switch Box) each with three (3) coaches on/off toggle switches, one per designated valve for manual activation of the infield sprinklers for ballfields with skinned infields. Contractor to install standard 14 AWG solid copper irrigation wiring rated for direct burial from designated remote control valves to each of the Coaches Box (coach on/off switches) as required. See Installation Detail #16 on Plan Sheet SD/L402 for additional information.
PMP 01 P	Irrigation Booster Pump: Watertronics #WMBV-7000-7A-30/3VMS-480-3-425-75, Irrigation booster pump capable of 425 gpm at 60 - 70 psi boost with a minimum dynamic inlet pressure of 15 psi. Pump station is to feature VFD controls with a regulated set point discharge pressure of 75 psi. Pressure set point may be adjusted within a 10 psi range by user input. Pump station is to have a marine grade aluminum enclosure and base, unpainted painted installed on a 8" thick concrete slab with #4 rebar reinforcement installed in a 12 inch (12") square grid. Pump station concrete slab is to be a minimum of 12" larger than the pump station enclosure footprint on each side. See Installation Detail #24 on Plan Sheet SD/L403 for additional information.
BFP 01	6" Irrigation Reduced Pressure Backflow Prevention Device to be installed by Site Utility Contractor, see Site Civil / Utility Plan. Landscape Contractor to coordinate all work as required. See Site Civil Plans.
F	4" FLOMEC #QS200-40 Ultra Sonic Flowmeter with PVC Tee. Contractor is to install Rainmaster Flowmeter Communication Cable #EV-CAB-SEN communication cable installed in 1" PVC electrical conduit betweeen the Flowmeter vault and the Irrigation Controller 'C'. Install per manufacturers recommendations and make all wire splices with DBY-6/DBR-6 splice kits. Flowmeter is to have a output signal compatible with DXi Irrigation Controller System. See Installation Detail #29 on Plan Sheet SD/L403 for additional information.
·····	Flow Sensor Communication Cable: Rainmaster #EV-CAB-SEN, #20/1 pair shielded cable installed in 1" electrical conduit to Controller 'C'. Flow sensor communication cable is to be continuous between the flow sensor and Controller 'C'. All flow sensor wire splices are to be made with DBY-6/DBR-6 splice kits. See Installation Detail #29 on plan sheet SD/L403 for additional information.
M	6" Bermad #IR-6"-410-G-I-A1-PG-4RO-CB-XZ, Solenoid Controlled Irrigation Master Valve with flange ends, normally open. Contractor is to install low voltage control wiring with #14 AWG Hot Wire and #12 AWG Common wire between master valve and Controller 'C'. Contractor is to color code master valve low voltage control wiring a different color. Master Valve low voltage control wiring is to be installed in 1" PVC electrical conduit between the Master Valve vault and the Irrigation Controller 'C'. Install per manufacturers recommendations and make all wire splices with DBY-6/DBR-6 splice kits. Master Valve is to have a solenoid compatible with DXi Irrigation Controller System. See Installation Detail #28 on Plan Sheet SD/L403 for additional information.
— — — — —	Master Valve Low Voltage Control Wire: Contractor is to install low voltage control wiring with #14 AWG Hot Wire and #12 AWG Common wire between master valve and Controller 'C'. Contractor is to color code master valve low voltage control wiring a different color. Master Valve low voltage control wiring is to be installed in 1" PVC electrical conduit between the Master Valve vault and the Irrigation Controller 'C'. Install per manufacturers recommendations and make all wire splices with DBY-6/DBR-6 splice kits. See Installation Detail #28 on Plan Sheet SD/L403 for additional information.
C MV	Irrigation Controller Designation Master Valve Input
A-42 10.0	Controller # / Station # Gallons per minute

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

General Notes

NOT FOR CONSTRUCTION
SLA # 3887
31 JULY 24
RENEWAL DATE
LICENSED LANDSCAPE ARCHITECT
DAVID S. BIGLER
STATE OF CALIFORNIA

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Consultant

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Clovis Unified School District
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Project

LANDSCAPE IRRIGATION LEGEND

Drawing

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LICENSED ARCHITECT MICHAEL K. FERRARO No. C23724 Exp. 4-30-25 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L306

L17 | Landscape Irrigation Legend
NTS

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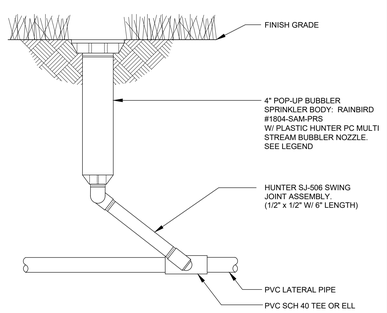
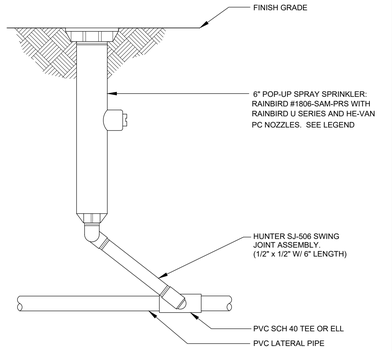


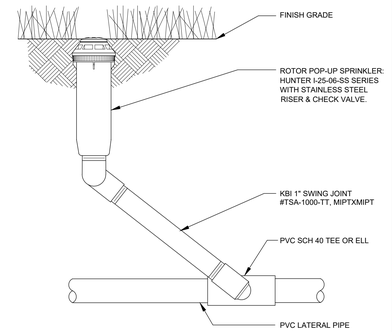
NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

01 4" POP-UP LOW FLOW BUBBLER : NTS



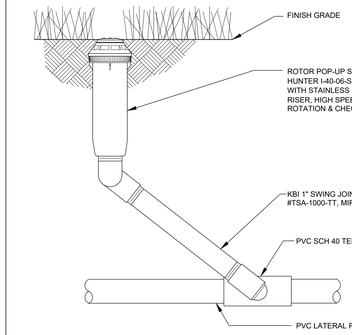
NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

02 6" POP-UP SPRAY SPRINKLER : NTS



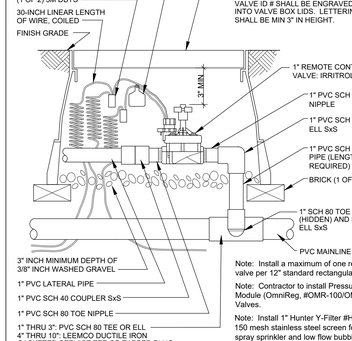
NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

03 6" POP-UP ROTOR SPRINKLER : NTS



NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

04 6" POP-UP HS ROTOR SPRINKLER : NTS



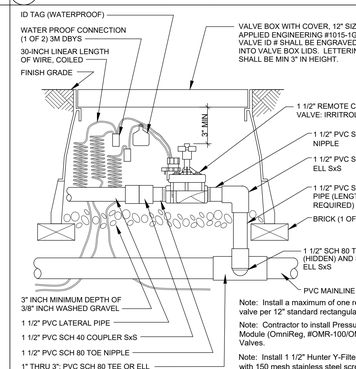
Note: Install a maximum of one remote control valve per 12" standard rectangular valve box.

Note: Contractor to install Pressure Regulating Module (OmniReg, #OMR-100/OMR-30) for all Valves.

Note: Install 1" Hunter Y-Filter #HY-100 with 150 mesh stainless steel screen for all pop up spray sprinkler and low flow bubbler valves in separate adjacent valve box. See Detail #11.

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

05 1" REMOTE CONTROL VALVE : NTS



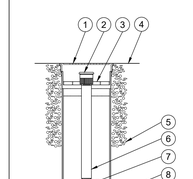
Note: Install a maximum of one remote control valve per 12" standard rectangular valve box.

Note: Contractor to install Pressure Regulating Module (OmniReg, #OMR-100/OMR-30) for all Valves.

Note: Install 1 1/2" Hunter Y-Filter #HY-151 with 150 mesh stainless steel screen for all pop up spray sprinkler and low flow bubbler valves in separate adjacent valve box. See Detail #11.

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

06 1 1/2" REMOTE CONTROL VALVE : NTS



1. 4-INCH GRATE
2. BUBBLER: RAIN BIRD 1402 - 0.5 GPM
3. ROOT WATERING SYSTEM: RAIN BIRD RWS-B-C-1402 (INCLUDES 1402 0.5 GPM BUBBLER WITH RISER, GRATE, SWING ASSEMBLY, 1/2" MALE NPT INLET, AND BASKET CANISTER)
4. FINISH GRADE
5. PEA GRAVEL - 1.0 cu. ft.
6. 1/2-INCH PVC SCH 80 NIPPLE
7. 1/2-INCH 90-DEGREE ELBOW
8. 12-INCH SWING ASSEMBLY
9. 1/2-INCH MALE NPT INLET
10. PVC SCH 40 TEE OR EL
11. LATERAL PIPE
12. 4-INCH BASKET WEAVE CANISTER

NOTE: INSTALL ROOT WATERING SYSTEM WITH BUBBLER INSIDE THE TREE WATERING BASIN AND INSIDE THE TREE ROOT BARRIER ON THE UPHILL SIDE OF TREE, IF FINISH GRADE IS SLOPED INSTALL RWS-90CK IN SANDY SOILS.

07 ROOT WATERING TREE BUBBLER : NTS

Note: Install a maximum of one remote control valve per 12" standard rectangular valve box.

Note: Contractor to install Pressure Regulating Module (OmniReg, #OMR-100/OMR-30) for all Valves.

Note: Install 2" Hunter Y-Filter #HY-201 with 150 mesh stainless steel screen for all pop up spray sprinkler and low flow bubbler valves in separate adjacent valve box. See Detail #11.

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

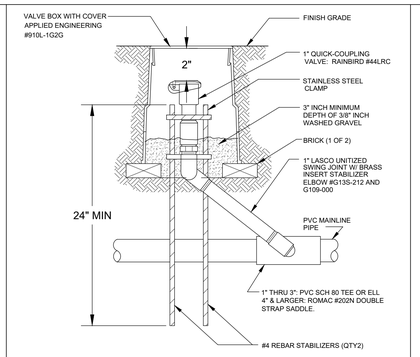
08 2" REMOTE CONTROL VALVE : NTS

Note: Install a maximum of one remote control valve per 12" standard rectangular valve box.

Note: Contractor to install Pressure Regulating Module (OmniReg, #OMR-100/OMR-30) for all Valves.

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

09 2" REMOTE CONTROL VALVE W/ 2 1/2" LATERAL PIPE; NTS

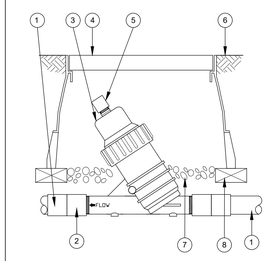


NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

NOTE: DISTRICT MAINT. DEPARTMENT TO APPROVE ALL QUICK COUPLER VALVE LOCATIONS PRIOR TO INSTALLATION.

10 QUICK-COUPLING VALVE : NTS

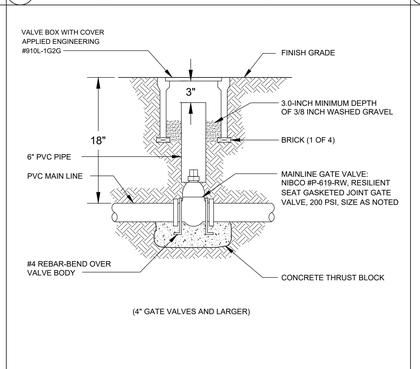
FILTER SIZE CHART		
VALVE SIZE	FILTER SIZE	FILTER MODEL
1"	1"	HY-100
1 1/2"	1 1/2"	HY-151
2"	2"	HY-201



1. PVC LATERAL PIPE
2. PVC SCH 40 FEMALE ADAPTER (1 OF 2), LINE SIZE
3. HUNTER Y-FILTER WITH 150 MESH FILTER ELEMENT, SAME SIZE AS VALVE.
4. VALVE BOX W/ COVER: 12" SIZE
5. 3/4" PVC CAP
6. FINISH GRADE
7. 3" MIN DEPTH OF 3/8" WASHED GRAVEL
8. BRICK (1 OF 4)

NOTE: INSTALL LINE SIZE FILTER (SEE FILTER SIZE CHART) ON LOW FLOW POP UP BUBBLER AND POP UP SPRAY SPRINKLER VALVES IN SEPARATE VALVE BOXES - ADJACENT TO REMOTE CONTROL VALVE. FILTERS ARE TO BE INSTALLED ON DISCHARGE SIDE OF VALVE.

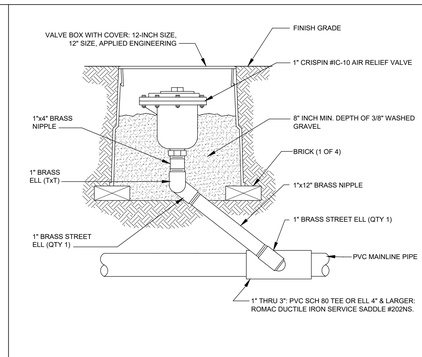
11 1" THRU 2" Y FILTER DETAIL : NTS



(4" GATE VALVES AND LARGER)

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

12 MAINLINE GATE VALVE : NTS



NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

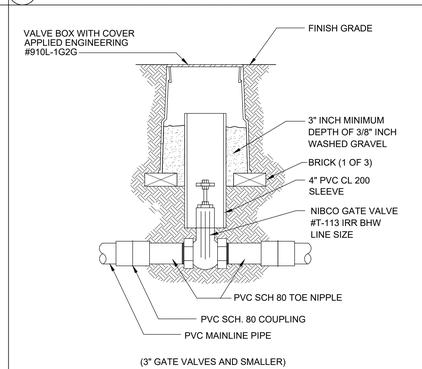
NOTE: INSTALL AT HIGH ELEVATION POINTS & MAINLINE DEAD END RUNS. SEE PLAN SHEETS.

13 AIR RELIEF VALVE DETAIL : NTS

SPRINKLER FLOW RATE CHART		
	SYMBOL	RESPECTIVE FLOW RATE (GPM)
	● ○ ⊕	0.25 GPM, 0.5 GPM, 0.5 GPM
	⊖	1.21 GPM
	⊕ ⊖ ⊕ ⊖ ⊕	0.65 GPM, 0.79 GPM, 1.3 GPM, 1.58 GPM, 1.77 GPM, 2.6 GPM
	◔ ◔ ◔ ◔ ●	0.92 GPM, 1.24 GPM, 1.85 GPM, 2.48 GPM, 2.79 GPM, 3.7 GPM
	○ ●	4.3 GPM, 4.3 GPM
	◇ ◆	7.0 GPM, 7.0 GPM
	△ ▲	8.3 GPM, 8.3 GPM
	⊕	10.1 GPM
	△ ▲	15.7 GPM, 15.7 GPM
	○ ○	21.3 GPM, 21.3 GPM
LATERAL PIPE SIZING CHART	PIPE SIZE	ALLOWABLE FLOW (GPM)
	3/4"	NOT USED
	1"	0 - 16.0
	1 1/2"	16.1 - 36.0
	2"	36.1 - 55.0
	2 1/2"	55.1 - 80.0

LATERAL PIPE SIZING NOTE: CONTRACTOR TO USE SPECIFIED NOZZLE RATING (GPM) FOR LATERAL PIPE SIZE CALCULATIONS AS SHOWN IN THE SPRINKLER FLOW RATE CHART. FLOW RATINGS (GPM) ARE TO BE USED AT THE 50-60 PSI PRESSURE. FLOW VELOCITIES OF FIVE FEET PER SECOND SHALL NOT BE EXCEEDED. PIPE SIZES NOTED ON THE PLAN SHALL SUPERCEDE CALCULATED PIPE SIZES BY THE CONTRACTOR. LANDSCAPE ARCHITECT TO REVIEW ALL PIPE SIZING IN THE FIELD PRIOR TO BACKFILL OF ANY TRENCHES. CONTRACTOR TO SUBMIT A SHOP DRAWING FOR REVIEW AND APPROVAL PRIOR TO TRENCHING.

14 LATERAL PIPE SIZING CHART : NTS



(3" GATE VALVES AND SMALLER)

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

15 MAINLINE GATE VALVE : NTS

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

Consultant Notes

LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER STATE OF CALIFORNIA
NOT FOR CONSTRUCTION
RLA # 3887
31 JULY 24
RENEWAL DATE

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Consultant

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Fresno, CA 93727

Project

LANDSCAPE & IRRIGATION DETAILS

Drawing

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LICENSED ARCHITECT MEREDEL K. FERRIS No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L401

L18 | Landscape & Irrigation Details

NTS

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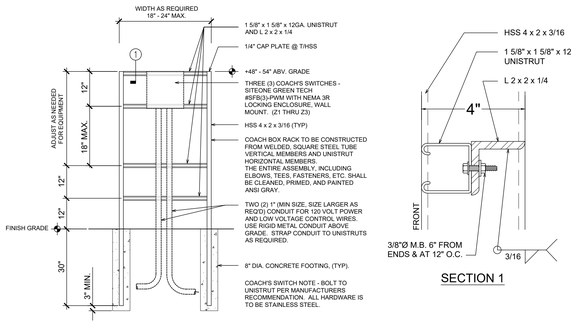
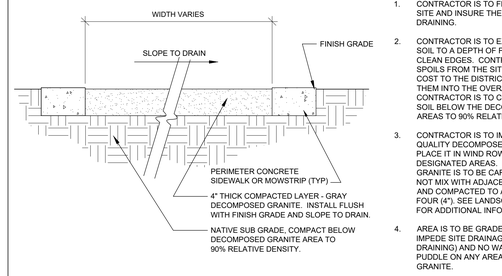
AD2- L0X21



NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

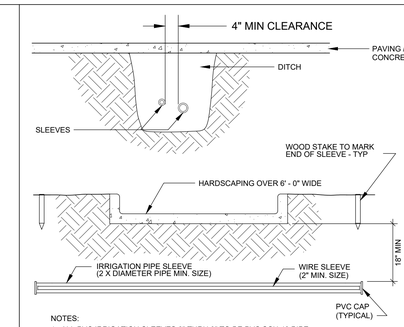
16 SPORTS FIELD BYPASS SWITCH (COACH'S SWITCH) : NTS



INSTALLATION NOTES:

1. CONTRACTOR IS TO FINE GRADE THE ENTIRE SITE AND INSURE THE SITE IS FREE DRAINING.
2. CONTRACTOR IS TO EXCAVATE THE NATIVE SOIL TO A DEPTH OF FOUR (4") INCHES WITH CLEAN EDGES. CONTRACTOR IS TO REMOVE SPOILS FROM THE SITE AT NO ADDITIONAL COST TO THE DISTRICT, OR INCORPORATE THEM INTO THE OVERALL GRADING SCHEME. CONTRACTOR IS TO COMPACT THE NATIVE SOIL BELOW THE DECOMPOSED GRANITE AREAS TO 90% RELATIVE DENSITY.
3. CONTRACTOR IS TO IMPORT CLEAN HIGH QUALITY DECOMPOSED GRANITE (GRAY) AND PLACE IT IN WIND ROWS WITHIN THE DESIGNATED AREAS. THE DECOMPOSED GRANITE IS TO BE CAREFULLY SPREAD (DO NOT MIX WITH ADJACENT SOILS), GRADED AND COMPACTED TO A FINAL THICKNESS OF FOUR (4"). SEE LANDSCAPE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. AREA IS TO BE GRADED SO IT DOES NOT IMPEDE SITE DRAINAGE (SITE IS TO BE FREE DRAINING) AND NO WATER IS TO COLLECT OR PUDDLE ON ANY AREA OF THE DECOMPOSED GRANITE.

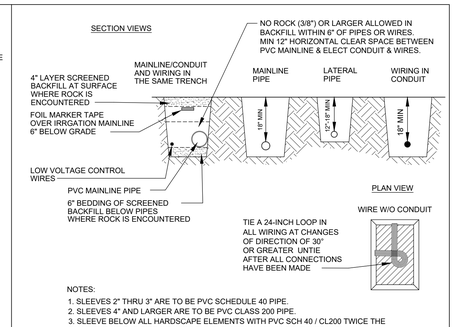
18 COMPACTED DECOMPOSED GRANITE AREAS : NTS



NOTES:
1. ALL PVC IRRIGATION SLEEVES 2" THRU 3" TO BE PVC SCH 40 PIPE.
2. ALL PVC IRRIGATION SLEEVES 4" AND LARGER TO BE PVC CL 200 PIPE.
3. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
4. IRRIGATION PIPES AND LOW VOLTAGE WIRES ARE TO BE SLEEVED SEPARATELY.
5. ALL PIPES & WIRES ARE TO BE SLEEVED UNDER PAVED/CONC. 6'-0" WIDE OR WIDER. MECHANICALLY COMPACT TO 95% PROCTOR.

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

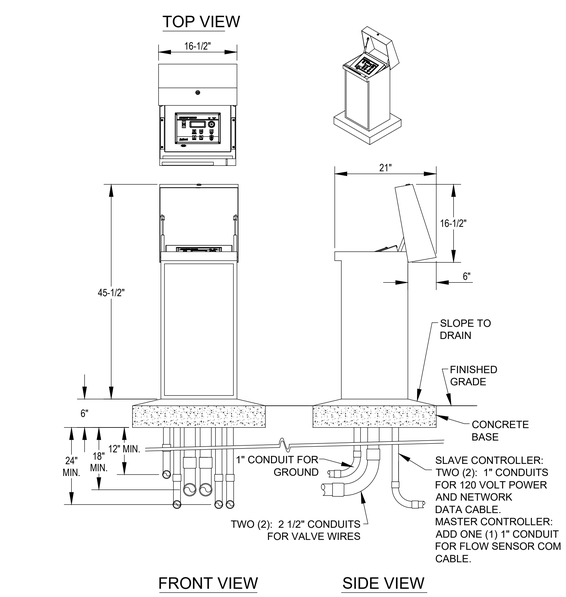
20 SLEEVING : NTS



NOTES:
1. SLEEVES 2" THRU 3" ARE TO BE PVC SCHEDULE 40 PIPE.
2. SLEEVES 4" AND LARGER ARE TO BE PVC CLASS 200 PIPE.
3. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH PVC SCH 40 / CL200 TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN, MIN SLEEVE SIZE IS 2".
4. INSTALL ALL PIPE AND WIRE IN STRICT CONFORMANCE WITH MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS
5. ALL IRRIGATION IMPROVEMENTS ARE TO BE INSTALLED WITHIN THE IRRIGATION UTILITY (DEPTH) ZONE (0" THRU 30"). CONTRACTOR MAY NOT EXCEED MAX. 30" DEPTH WITHOUT WRITTEN APPROVAL BY OWNERS REPRESENTATIVE.

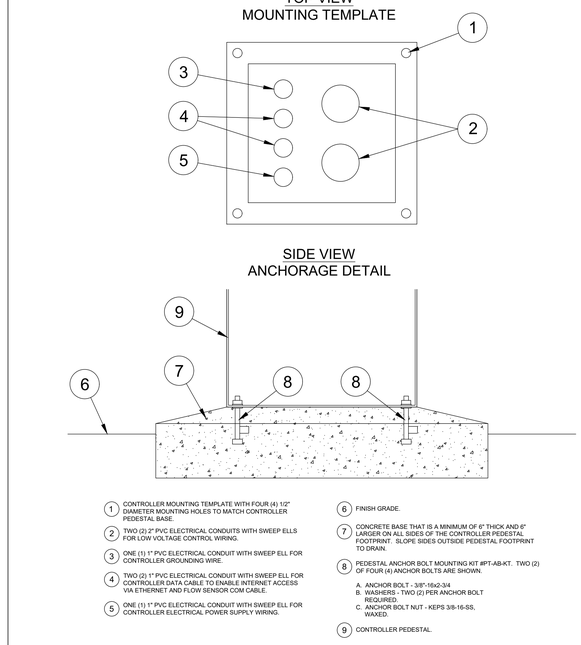
NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

21 TRENCHING DETAIL : NTS



NOTES:
1. EQUIPMENT IS SUPPORTED ON GRADE AND IS LESS THAN 400 LBS AND LESS THAN FOUR (4'-0") FEET ABOVE FINISH GRADE. NOT PART OF DSA APPROVAL.
2. SEE DETAIL #19 MASTER CONTROLLER ANCHORAGE DETAIL FOR ADDITIONAL INFORMATION.
3. SEE DETAIL #27 MASTER AND SLAVE CONTROLLER GROUNDING DETAIL FOR ADDITIONAL INFORMATION.

17 IRRIGATION MASTER CONTROLLER 'C' DETAIL : NTS

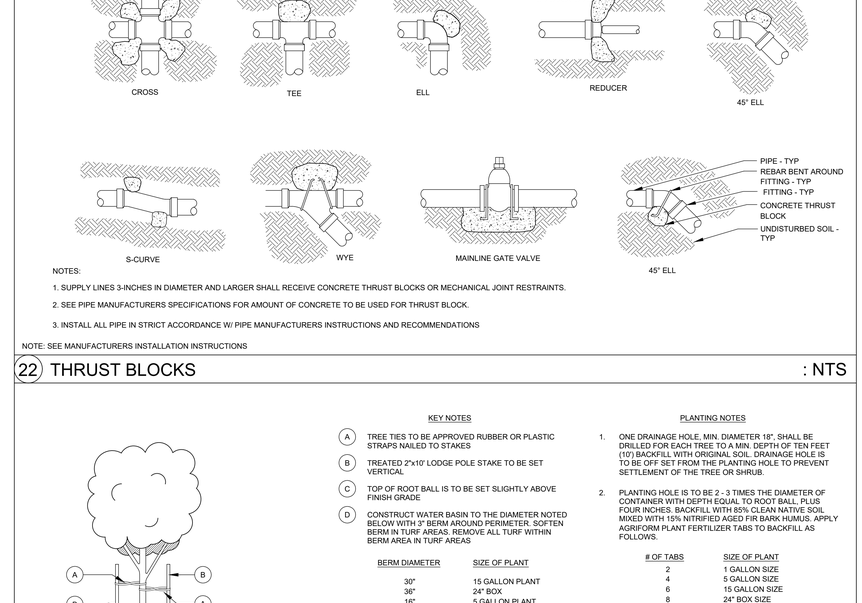


1. CONTROLLER MOUNTING TEMPLATE WITH FOUR (4) 1/2" DIAMETER MOUNTING HOLES TO MATCH CONTROLLER PEDESTAL BASE.
2. TWO (2) 2" PVC ELECTRICAL CONDUITS WITH SWEEP ELLS FOR LOW VOLTAGE CONTROL WIRING.
3. ONE (1) 1" PVC ELECTRICAL CONDUIT WITH SWEEP ELL FOR CONTROLLER GROUNDING WIRE.
4. TWO (2) 1" PVC ELECTRICAL CONDUIT WITH SWEEP ELL FOR CONTROLLER DATA CABLE TO ENABLE INTERNET ACCESS VIA ETHERNET AND FLOW SENSOR COM CABLE.
5. ONE (1) 1" PVC ELECTRICAL CONDUIT WITH SWEEP ELL FOR CONTROLLER ELECTRICAL POWER SUPPLY WIRING.
6. FINISH GRADE.
7. CONCRETE BASE THAT IS A MINIMUM OF 6" THICK AND 6" LARGER ON ALL SIDES OF THE CONTROLLER PEDESTAL FOOTPRINT. SLOPE SIDES OUTSIDE PEDESTAL FOOTPRINT TO DRAIN.
8. PEDESTAL ANCHOR BOLT MOUNTING KIT #PT-AB-KT. TWO (2) OF FOUR (4) ANCHOR BOLTS ARE SHOWN.
   A. ANCHOR BOLT - 3/8"-16x2-3/4
   B. WASHERS - TWO (2) PER ANCHOR BOLT REQUIRED
   C. ANCHOR BOLT NUT - KEPS 3/8-16-SS, WAXED.
9. CONTROLLER PEDESTAL.

REMOVE TEMPLATE FROM THE BOTTOM OF ENCLOSURE BY REMOVING THE FOUR STAINLESS STEEL ANCHOR BOLTS, WASHERS AND NUTS. REATTACH THE FOUR ANCHOR BOLTS TO THE BOTTOM SIDE OF TEMPLATE. THE TEMPLATE IS THEN USED TO PUSH THE ANCHORS INTO FORMED CONCRETE. TEMPLATE SHOULD BE FLUSH TO TOP OF CONCRETE. ONCE CONCRETE HAS HARDENED LOOSEN NUTS FORM ANCHORS AND REMOVE TEMPLATE. TEMPLATE MAY BE USED TO SET OTHER ANCHORS BUT ONCE THE ANCHORS ARE SET THE TEMPLATE MAY BE DISCARDED.

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

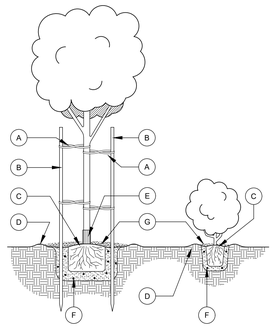
19 IRRIGATION MASTER CONTROLLER 'C' ANCHORAGE DETAIL : NTS



NOTES:
1. SUPPLY LINES 3-INCHES IN DIAMETER AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS OR MECHANICAL JOINT RESTRAINTS.
2. SEE PIPE MANUFACTURERS SPECIFICATIONS FOR AMOUNT OF CONCRETE TO BE USED FOR THRUST BLOCK.
3. INSTALL ALL PIPE IN STRICT ACCORDANCE W/ PIPE MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

22 THRUST BLOCKS : NTS



KEY NOTES

- (A) TREE TIES TO BE APPROVED RUBBER OR PLASTIC STRAPS NAILED TO STAKES
- (B) TREATED 2"x10' LODGE POLE STAKE TO BE SET VERTICAL
- (C) TOP OF ROOT BALL IS TO BE SET SLIGHTLY ABOVE FINISH GRADE
- (D) CONSTRUCT WATER BASIN TO THE DIAMETER NOTED BELOW WITH 3" BERM AROUND PERIMETER. SOFTEN BERM IN TURF AREAS. REMOVE ALL TURF WITHIN BERM AREA IN TURF AREAS

BERM DIAMETER	SIZE OF PLANT
30"	15 GALLON PLANT
36"	24" BOX
16"	5 GALLON PLANT
12"	1 GALLON PLANT

- (E) EXPANDIBLE STRING TRIMMER TREE BOOT. USE ON TREES INSTALLED IN TURF AREAS ONLY
- (F) AGRIFORM PLANT FERTILIZER TABLETS
- (G) MULCH AS TOP DRESSING ALL NON TURF LANDSCAPE AREAS WITH WALK ON BARK AS SUPPLIED BY SUPERIOR SOIL SUPPLIMENTS OR APPROVED EQUAL. SEE LANDSCAPE MULCHING PLANS. INSTALL TO A COMPACTED DEPTH OF THREE INCHES (3"). DO NOT ENGULF THE STEMS OR TRUNKS OF SHRUBS AND TREES.

PLANTING NOTES

1. ONE DRAINAGE HOLE, MIN. DIAMETER 18", SHALL BE DRILLED FOR EACH TREE TO A MIN. DEPTH OF TEN FEET (10') BACKFILL WITH ORIGINAL SOIL. DRAINAGE HOLE IS TO BE OFF SET FROM THE PLANTING HOLE TO PREVENT SETTLEMENT OF THE TREE OR SHRUB.
2. PLANTING HOLE IS TO BE 2 - 3 TIMES THE DIAMETER OF CONTAINER WITH DEPTH EQUAL TO ROOT BALL, PLUS FOUR INCHES. BACKFILL WITH 85% CLEAN NATIVE SOIL MIXED WITH 15% NITRIFIED AGED FIR BARK HUMUS. APPLY AGRIFORM PLANT FERTILIZER TABS TO BACKFILL AS FOLLOWS.

# OF TABS	SIZE OF PLANT
2	1 GALLON SIZE
4	5 GALLON SIZE
6	15 GALLON SIZE
8	24" BOX SIZE
10	36" BOX SIZE

3. PLACE TREE OR SHRUB IN CENTER OF PLANTING HOLE.
4. TAMP BACKFILL TO FORCE OUT ALL AIR POCKETS. FOOT TAMP BACKFILL BELOW ROOT BALL TO PREVENT SETTLEMENT.
5. WATER TREE OR SHRUB IMMEDIATELY AFTER PLANTING
6. DOUBLE STAKE, WITH ONE STAKE TO BE PLACED ON THE WINDWARD SIDE AND THE OTHER PLACED ON THE LEEWARD SIDE OF THE TYPICAL PREVAILING WIND. TOP OF STAKE IS TO BE SIX INCHES BELOW THE BRANCHING POINT OF THE CROWN.

23 TREE AND SHRUB PLANTING DETAIL : NTS

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

Consultants

NOT FOR CONSTRUCTION
RLA # 3887
31 JULY 24
DATE

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Consultant

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Clovis Unified School District
Fresno, CA 93727

Project

LANDSCAPE & IRRIGATION DETAILS

Drawing

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ARCHITECTURE
PLANNING
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www.dardenarchitects.com
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Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L402

L19 | Landscape & Irrigation Details
NTS

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AD2- L0X22

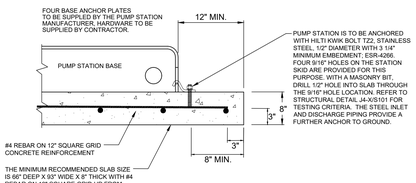
PUMP STATION SPECIFICATIONS:
NAME: FOWLER & MCKINLEY ELEMENTARY SCHOOL
MODEL: WMBV-7000-7A-30/3VMS-480-3-425-75
STATION TOTAL PERFORMANCE:
425 GPM @ 75 PSI REGULATED DISCHARGE PRESSURE
DYNAMIC INLET PRESSURE: 15 PSI
BOOST PRESSURE: 60 PSI - 70 PSI
PUMP HORSEPOWER:
SUSTAIN PUMP: 3HP (3600RPM)
PUMP NO. 1: 30HP (3600RPM)
CHECK VALVE SIZES:
SUSTAIN PUMP: 2"
PUMP NO. 1: 4"
ISOLATION VALVE SIZES:
SUSTAIN PUMP: 2"
PUMP NO. 1: 4"
DISCHARGE ISOLATION VALVE SIZE: 4"
DISCHARGE MANIFOLD SIZE: 4"

POWER REQUIREMENTS: 480V, 60Hz, 3PHz, 42 FLA (EST)
EXHAUST FAN REQUIREMENTS: 480CFM

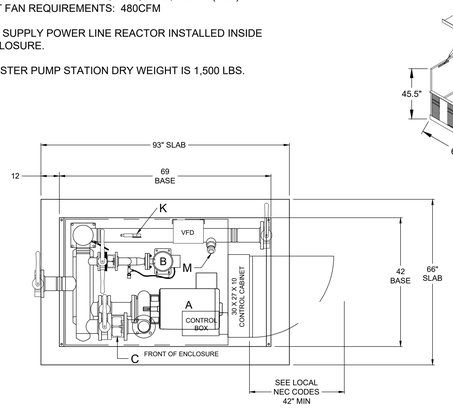
PROVIDE SUPPLY POWER LINE REACTOR INSTALLED INSIDE THE ENCLOSURE.

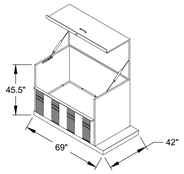
THE BOOSTER PUMP STATION DRY WEIGHT IS 1,500 LBS.

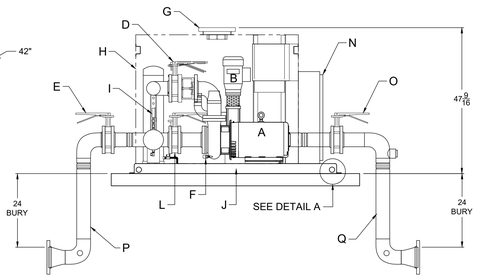
DETAIL "A"
CONCRETE ANCHOR
REQUIRED AT 4 LOCATIONS



STATION COMPONENTS:
A 30HP MAIN PUMP AND MOTOR
B 3HP VERTICAL MULTI-STAGE SUSTAIN PUMP
C CHECK VALVE
D PUMP DISCHARGE ISOLATION VALVE
E STATION INTAKE ISOLATION VALVE
F TEMP SENSOR
G STATION FAN HOOD MOUNTED
H MARINE GRADE ALUMINUN ENCLOSURE, UNPAINTED
I INLET PRESSURE GAUGE
J MARINE GRADE ALUMINUM BASE, UNPAINTED
K PRESSURE TRANSDUCER W/ GAUGE
L PUMP INTAKE ISOLATION VALVE
M FLOW SENSOR
N DEAD-FRONT DISCONNECT PANEL
O DISCHARGE ISOLATION VALVE
P INTAKE DROP PIPE W/ 6" FLG CONNECTION
Q DISCHARGE DROP PIPE W/ 6" FLG CONNECTION

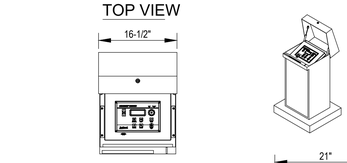


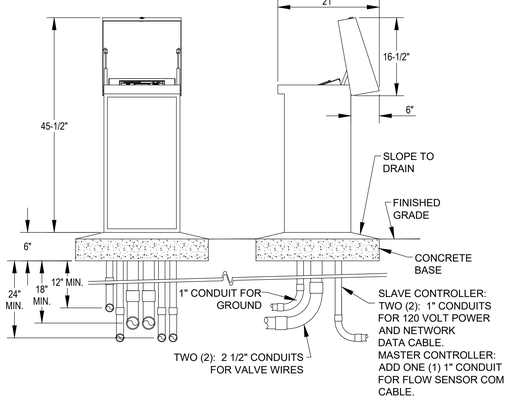




24 IRRIGATION BOOSTER PUMP DETAIL : NTS

TOP VIEW



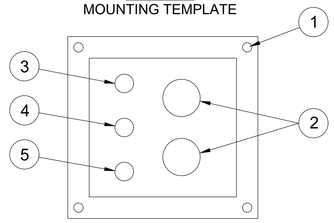


FRONT VIEW SIDE VIEW

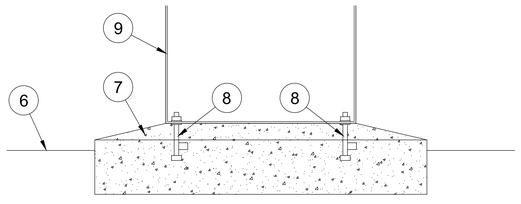
NOTES:
1. EQUIPMENT IS SUPPORTED ON GRADE AND IS LESS THAN 400 LBS AND LESS THAN FOUR (4'-0") FEET ABOVE FINISH GRADE. NOT PART OF DSA APPROVAL.
2. SEE DETAIL #26 SLAVE CONTROLLER ANCHORAGE DETAIL FOR ADDITIONAL INFORMATION.
3. SEE DETAIL #27 MASTER AND SLAVE CONTROLLER GROUNDING DETAIL FOR ADDITIONAL INFORMATION.

25 SLAVE CONTROLLER 'A', 'B' AND 'D' DETAIL : NTS

TOP VIEW
MOUNTING TEMPLATE



SIDE VIEW
ANCHORAGE DETAIL



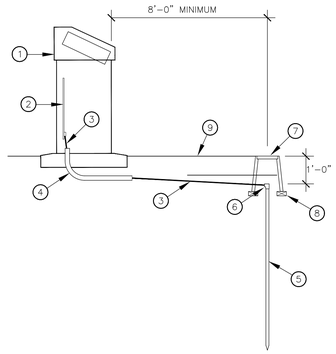
1. CONTROLLER MOUNTING TEMPLATE WITH FOUR (4) 1/2" DIAMETER MOUNTING HOLES TO MATCH CONTROLLER PEDESTAL BASE.
2. TWO (2) 2 1/2" PVC ELECTRICAL CONDUITS WITH SWEEP ELLS FOR LOW VOLTAGE CONTROL WIRING.
3. ONE (1) 1" PVC ELECTRICAL CONDUIT WITH SWEEP ELL FOR CONTROLLER GROUNDING WIRE.
4. ONE (1) 1" PVC ELECTRICAL CONDUIT WITH SWEEP ELL FOR CONTROLLER DATA CABLE TO ENABLE INTERNET ACCESS VIA ETHERNET.
5. ONE (1) 1" PVC ELECTRICAL CONDUIT WITH SWEEP ELL FOR CONTROLLER ELECTRICAL POWER SUPPLY WIRING.
6. FINISH GRADE.
7. CONCRETE BASE THAT IS A MINIMUM OF 6" THICK AND 6" LARGER ON ALL SIDES OF THE CONTROLLER PEDESTAL FOOTPRINT. SLOPE SIDES OUTSIDE PEDESTAL FOOTPRINT TO DRAIN.
8. PEDESTAL ANCHOR BOLT MOUNTING KIT #PT-AB-KT. TWO (2) OF FOUR (4) ANCHOR BOLTS ARE SHOWN.
   A. ANCHOR BOLT - 3/8"-16x2-3/4
   B. WASHERS - TWO (2) PER ANCHOR BOLT REQUIRED.
   C. ANCHOR BOLT NUT - KEPS 3/8-16-SS, WAXED.
9. CONTROLLER PEDESTAL.

REMOVE TEMPLATE FROM THE BOTTOM OF ENCLOSURE BY REMOVING THE FOUR STAINLESS STEEL ANCHOR BOLTS, WASHERS AND NUTS. REATTACH THE FOUR ANCHOR BOLTS TO THE BOTTOM SIDE OF TEMPLATE. THE TEMPLATE IS THEN USED TO PUSH THE ANCHORS INTO FORMED CONCRETE. TEMPLATE SHOULD BE FLUSH TO TOP OF CONCRETE. ONCE CONCRETE HAS HARDENED LOOSEN NUTS FORM ANCHORS AND REMOVE TEMPLATE. TEMPLATE MAY BE USED TO SET OTHER ANCHORS BUT ONCE THE ANCHORS ARE SET THE TEMPLATE MAY BE DISCARDED.

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

26 SLAVE CONTROLLER 'A', 'B' AND 'D' ANCHORAGE DETAIL : NTS

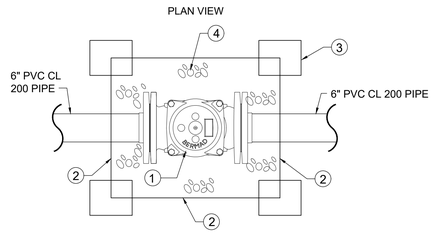
LEGEND



1. CONTROLLER ASSEMBLY
2. CONTROLLER BACK BOARD OR CONTROLLER SUB ASSEMBLY
3. SOLID BARE COPPER GROUNDING WIRE (#6 AWG) FROM CONTROLLER TO GROUNDING ROD. MAKE WIRE RUNS AS STRAIGHT AS POSSIBLE.
4. 1" ELECTRICAL CONDUIT LONG SWEEP ELL
5. 5/8" X 8' LONG COPPER CLAD GROUNDING ROD.
6. CADWELD PLUS "ONE SHOT" - CADWELD CONNECTION # GT1161GPLUS, PERMANENT WELD OF BARE COPPER WIRES TO GROUNDING ROD.
7. 10" ROUND VALVE BOX WITH LID.
8. BRICKS, THREE (3) REQUIRED PER VALVE BOX.
9. FINISH GRADE

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

27 MASTER AND SLAVE CONTROLLER GROUNDING DETAIL NTS

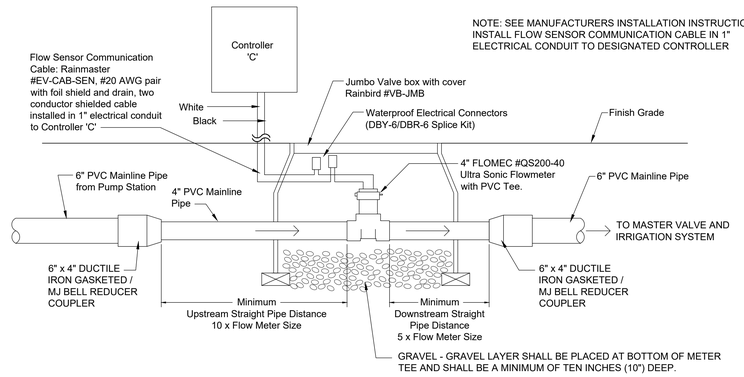


KEYNOTES

1. 6" Bermad #IR-6"-410-G-I-A1-PG-4RO-CB-XZ, Solenoid Controlled Irrigation Master Valve with iron flange, normally open. Contractor is to install low voltage control wiring with #14 AWG Hot Wire and #12 AWG Common wire between master valve and Controller 'C'. Contractor is to color code master valve low voltage control wiring a different color. Master Valve low voltage control wiring is to be installed in 1" PVC electrical conduit between the Master Valve vault and the Irrigation Controller 'C'. Install per manufacturers recommendations and make all wire splices with DBY-6/DBR-6 splice kits.
2. Christy #B48 Utility Box, 30" x 48" (B48 Box) reinforced concrete vault with 2 piece reinforced concrete cover (B48D2), or approved equal.
3. 16" x 8" CMU Support Block (1 of 4)
4. 6" Layer 1 1/2" Gravel in bottom of vault.

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

28 6" MASTER VALVE DETAIL NTS



NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

29 4" FLOW METER DETAIL NTS

LANDSCAPE & IRRIGATION NOTES

1. PRODUCT "OR APPROVED EQUAL" SPECIFICATION NOTE: ALL SPECIFIED MATERIALS, PRODUCTS AND MANUFACTURERS ARE RELEVANT TO DESCRIBE THE REQUIRED QUALITY AND FEATURES OF A PARTICULAR COMPONENT OF THE PROJECT, HOWEVER, THE SPECIFIC PRODUCT OR MANUFACTURER NOTED IS TO BE CONSTRUED TO BE FOLLOWED BY THE WORDS, "OR APPROVED EQUAL".

2. GENERAL NOTE: THE CONTRACTOR IS TO SUPPLY ALL EQUIPMENT, MATERIALS AND LABOR TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM. ADDITIONAL EQUIPMENT AND MATERIALS IN ADDITION TO THE SYSTEM COMPONENTS LISTED IN THE LEGEND MAY BE REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.

3. SPRINKLER ADJUSTMENT NOTE: CONTRACTOR SHALL MAKE ANY ADJUSTMENTS OR CHANGES TO SPRINKLERS, NOZZLES, RADIUS AND ARCS AS REQUIRED TO PROVIDE 100% COVERAGE TO ALL LANDSCAPE AREAS AND PREVENT OVER SPRAY ONTO BUILDINGS OR HARDSCAPED SURFACES.

DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

General Notes

NOT FOR CONSTRUCTION

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Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: DB
Drawn By: SV
Checked By: DB
Reviewed By: DB

Scale:
Project Number: 2116
Date: 09/21/22

SD/L403

L20 | Landscape & Irrigation Details
NTS

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AD2- L0X23

INCREMENT ONE- PART ONE- GENERAL INFORMATION, CIVIL, LANDSCAPE, ARCHITECTURAL, STRUCTURAL, PLUMBING, AND MECHANICAL

GENERAL INFORMATION

G000	COVER SHEET
G001	COVER SHEET
G100	REGULATORY COMPLIANCE SITE PLAN
G101	REGULATORY COMPLIANCE FLOOR PLAN- BUILDING A
G102	REGULATORY COMPLIANCE FLOOR PLAN- BUILDING B
G103	REGULATORY COMPLIANCE FLOOR PLAN- BUILDING C
G104	REGULATORY COMPLIANCE FLOOR PLAN- BUILDING D
G105	REGULATORY COMPLIANCE FLOOR PLAN- BUILDING E
G106	REGULATORY COMPLIANCE FLOOR PLAN- BUILDING K & P

INC. 2

CIVIL

TYPICAL INFORMATION

SD/X101	DETAILS
SD/X102	UTILITY DETAILS
SD/X104	BALLFIELD DETAILS
SD/X105	BALLFIELD DETAILS
SD/X106	PLAYCOURT DETAILS
SD/X107	PLAY STRUCTURE DETAILS

SITE DEVELOPMENT

SD/C100	TOPOGRAPHIC SURVEY LEGEND
SD/C101	TOPOGRAPHIC SURVEY AND DEMOLITION PLAN
SD/C102	TOPOGRAPHIC SURVEY AND DEMOLITION PLAN
SD/C103	TOPOGRAPHIC SURVEY AND DEMOLITION PLAN
SD/C104	TOPOGRAPHIC SURVEY AND DEMOLITION PLAN
SD/C105	TOPOGRAPHIC SURVEY AND DEMOLITION PLAN
SD/C201	GRADING AND DRAINAGE PLAN
SD/C201.1	GRADING AND DRAINAGE PLAN- ADD ALT
SD/C202	GRADING AND DRAINAGE PLAN
SD/C203	GRADING AND DRAINAGE PLAN
SD/C204	GRADING AND DRAINAGE PLAN
SD/C205	GRADING AND DRAINAGE PLAN
SD/C301	UTILITY PLAN
SD/C301.1	UTILITY PLAN- ADD ALT
SD/C302	UTILITY PLAN
SD/C303	UTILITY PLAN
SD/C304	UTILITY PLAN
SD/C305	UTILITY PLAN

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LANDSCAPE

L100	LANDSCAPE PLAN LAYOUT
L101	LANDSCAPE MULCHING PLAN
L101.1	LANDSCAPE MULCHING PLAN- ADD ALT
L102	LANDSCAPE MULCHING PLAN
L103	LANDSCAPE MULCHING PLAN
L104	LANDSCAPE MULCHING PLAN
L105	LANDSCAPE MULCHING PLAN
L201	LANDSCAPE PLANTING PLAN
L201.1	LANDSCAPE PLANTING PLAN- ADD ALT
L202	LANDSCAPE PLANTING PLAN
L203	LANDSCAPE PLANTING PLAN
L204	LANDSCAPE PLANTING PLAN
L205	LANDSCAPE PLANTING PLAN
L301	LANDSCAPE IRRIGATION PLAN
L301.1	LANDSCAPE IRRIGATION PLAN- ADD ALT
L302	LANDSCAPE IRRIGATION PLAN
L303	LANDSCAPE IRRIGATION PLAN
L304	LANDSCAPE IRRIGATION PLAN
L305	LANDSCAPE IRRIGATION PLAN
L306	LANDSCAPE IRRIGATION LEGEND
L401	LANDSCAPE & IRRIGATION DETAILS
L402	LANDSCAPE & IRRIGATION DETAILS
L403	LANDSCAPE & IRRIGATION DETAILS

ARCHITECTURAL

SITE DEVELOPMENT

SD/A100	OVERALL SITE PLAN
SD/A101	PARTIAL SITE PLAN- AREA 1
SD/A101.1	PARTIAL SITE PLAN- AREA 1- ADD ALTERNATE
SD/A102	PARTIAL SITE PLAN- AREA 2
SD/A103	PARTIAL SITE PLAN- AREA 3
SD/A104	PARTIAL SITE PLAN- AREA 4
SD/A105	PARTIAL SITE PLAN- AREA 5
SD/A301	ENLARGED ACCESSIBLE PARKING PLANS / DETAILS
SD/A302	SITE DETAILS
SD/A303	SITE DETAILS AND GATE SCHEDULE
SD/A304	ENLARGED SITE PLANS, AND CMU DETAILS
SD/A401	ORNAMENTAL METAL DETAILS
SD/A402	CHAINLINK FENCING AND SITE DETAILS

TYPICAL INFORMATION

INCREMENT 2

X/A101	WALL ASSEMBLIES
X/A201	INTERIOR FINISH SCHEDULE- BUILDING A, B, C & D
X/A202	INTERIOR FINISH SCHEDULE- BUILDING E, K & P
X/A203	EXTERIOR FINISH SCHEDULE
X/A301	MODULAR CASEWORK SCHEDULE- BUILDING A & B
X/A302	MODULAR CASEWORK SCHEDULES- BUILDING C
X/A303	MODULAR CASEWORK SCHEDULE- BUILDING D
X/A304	MODULAR CASEWORK SCHEDULE- BUILDING E, K & P
X/A310	MODULAR CASEWORK DETAILS
X/A311	CUSTOM CASEWORK DETAILS
X/A312	CUSTOM CASEWORK- BUILDING A- a 100
X/A313	CUSTOM CASEWORK- BUILDING A- a 100
X/A314	CUSTOM CASEWORK- BUILDING A- e 113
X/A315	CUSTOM CASWORK- BUILDING A- a 113a and e 110
X/A316	CUSTOM CASEWORK- BUILDING A a 113 AND BUILDING E a 100
X/A401	OPENING SCHEDULES- DOORS- BUILDINGS A-E
X/A402	OPENING SCHEDULES- DOORS- BUILDING K
X/A403	OPENING SCHEDULES- WINDOWS- BUILDINGS A-D
X/A404	OPENING SCHEDULES- WINDOWS- BUILDINGS E & K, DOOR AND FAME TYPES
X/A405	DOOR AND WINDOW FRAME ELEVATION
X/A411	OPENING DETAILS- HOLLOW METAL DOORS AND FRAMES
X/A421	OPENING DETAILS- STOREFRONT
X/A431	OPENING DETAILS- MISCELLANEOUS OPENINGS
X/A501	EXTERIOR DETAILS- CEMENT PLASTER
X/A511	EXTERIOR DETAILS- METAL WALL PANELS
X/A512	EXTERIOR DETAILS- STANDING SEAM ROOF
X/A521	EXTERIOR DETAILS- ELASTOMERIC MEMBRANE ROOFING
X/A531	EXTERIOR DETAILS- MISCELLANEOUS

TYPICAL INFORMATION (CONT.)

INCREMENT 2

X/A541	EXTERIOR DETAILS- BOOT PENETRATIONS
X/A601	INTERIOR DETAILS- MISCELLANEOUS
X/A602	INTERIOR DETAILS- ACOUSTICAL CEILINGS
X/A603	INTERIOR DETAILS- MISCELLANEOUS
X/A604	INTERIOR DETAILS- MISCELLANEOUS

BUILDING A- ADMINISTRATION

A/A101	FLOOR PLAN
A/A102	ENLARGED FLOOR PLANS
A/A201	REFLECTED CEILING PLAN
A/A301	ROOF PLAN
A/A401	EXTERIOR ELEVATIONS
A/A501	BUILDING SECTIONS
A/A504	WALL SECTIONS
A/A601	INTERIOR ELEVATIONS- ROOMS 100-104
A/A602	INTERIOR ELEVATIONS- ROOMS 105-112
A/A603	INTERIOR ELEVATIONS- ROOMS 112a-113a
A/A604	INTERIOR ELEVATIONS- ROOMS 114-116
A/A605	INTERIOR ELEVATIONS- ROOMS 117-120
A/A701	SIGNAGE PLAN AND SCHEDULE
A/A801	INTERIOR DESIGN PLAN- FLOOR PATTERN PLAN AND ACCENT PAINT PLAN
A/A802	INTERIOR DESIGN PLAN-ACCENT PAINT AND TILE PATTERNS

BUILDING B- CLASSROOMS

B/A101	FLOOR PLAN
B/A102	ENLARGED FLOOR PLANS
B/A201	REFLECTED CEILING PLAN
B/A301	ROOF PLAN
B/A401	EXTERIOR ELEVATIONS
B/A501	BUILDING SECTIONS
B/A601	INTERIOR ELEVATIONS- ROOMS 100-104
B/A602	INTERIOR ELEVATIONS- ROOMS 105-107
B/A603	INTERIOR ELEVATIONS- ROOMS 108
B/A604	INTERIOR ELEVATIONS- ROOM 108
B/A605	INTERIOR ELEVATIONS- ROOMS 108a-111
B/A606	INTERIOR ELEVATIONS- ROOMS 112-113
B/A701	SIGNAGE PLAN AND SCHEDULE
B/A801	INTERIOR DESIGN- FLOOR PATTERN PLAN AND ACCENT PAINT PLAN
B/A802	INTERIOR DESIGN- ACCENT PAINT

BUILDING C- CLASSROOMS

C/A101	FLOOR PLAN
C/A102	ENLARGED FLOOR PLANS
C/A201	REFLECTED CEILING PLAN
C/A301	ROOF PLAN
C/A401	EXTERIOR ELEVATIONS
C/A501	BUILDING SECTIONS
C/A502	BUILDING SECTIONS
C/A601	INTERIOR ELEVATIONS- ROOMS 100-102
C/A602	INTERIOR ELEVATIONS- ROOMS 103-105
C/A603	INTERIOR ELEVATIONS- ROOMS 106-108
C/A604	INTERIOR ELEVATIONS- ROOM 108
C/A605	INTERIOR ELEVATIONS- ROOMS 108a-111
C/A606	INTERIOR ELEVATIONS- ROOMS 113-114
C/A701	SIGNAGE PLAN AND SCHEDULE
C/A801	INTERIOR DESIGN- FLOOR PATTERN PLAN AND ACCENT PAINT PLAN
C/A802	INTERIOR DESIGN- ACCENT PAINT

BUILDING D- CLASSROOMS

D/A100	OVERALL FLOOR PLAN
D/A101	PARTIAL FLOOR PLAN- WEST
D/A102	PARTIAL FLOOR PLAN-EAST
D/A103	ENLARGED FLOOR PLANS
D/A200	OVERALL REFLECTED CEILING PLAN
D/A201	PARTIAL REFLECTED CEILING PLAN- WEST
D/A202	PARTIAL REFLECTED CEILING PLAN- EAST
D/A300	OVERALL ROOF PLAN
D/A301	PARTIAL ROOF PLAN- WEST
D/A302	PARTIAL ROOF PLAN- EAST
D/A401	EXTERIOR ELEVATIONS
D/A501	BUILDING SECTIONS
D/A502	BUILDING SECTIONS AND WALL SECTIONS
D/A601	INTERIOR ELEVATIONS- ROOMS 100-102
D/A602	INTERIOR ELEVATIONS- ROOMS 103-105
D/A603	INTERIOR ELEVATIONS- ROOMS 106-108
D/A604	INTERIOR ELEVATIONS- ROOMS 109-110
D/A605	INTERIOR ELEVATIONS- ROOMS 110
D/A606	INTERIOR ELEVATIONS- ROOMS 111-115
D/A607	INTERIOR ELEVATIONS- ROOMS 115a-120
D/A608	INTERIOR ELEVATIONS- ROOMS 121
D/A701	SIGNAGE PLAN AND SCHEDULE
D/A801	INTERIOR DESIGN- FLOOR PATTERN PLAN AND ACCENT PAINT PLAN
D/A802	INTERIOR DESIGN- ACCENT PAINT
D/A803	INTERIOR DESIGN- TILE PATTERN

BUILDING E- MULTIPURPOSE

E/A101	FLOOR PLAN
E/A102	ENLARGED KITCHEN FLOOR PLAN AND EQUIPMENT SCHEDULE
E/A103	KITCHEN EQUIPMENT DETAILS
E/A104	ENLARGED STAGE FLOOR PLAN AND DETAILS
E/A105	ENLARGED FLOOR PLANS
E/A201	REFLECTED CEILING PLAN
E/A301	ROOF PLAN
E/A401	EXTERIOR ELEVATIONS
E/A501	BUILDING SECTIONS
E/A504	WALL SECTIONS
E/A601	INTERIOR ELEVATIONS- ROOM 100
E/A602	INTERIOR ELEVATIONS- ROOMS 101-104
E/A603	INTERIOR ELEVATIONS- ROOMS 105-109
E/A604	INTERIOR ELEVATIONS- ROOMS 110-115b
E/A605	INTERIOR ELEVATIONS- ROOMS 116-122

BUILDING E- MULTIPURPOSE (CONT.)

INCREMENT 2

E/A606	INTERIOR ELEVATIONS- ROOMS 123-201
E/A701	SIGNAGE PLAN AND SCHEDULE
E/A801	INTERIOR DESIGN- FLOOR PATTERN PLAN AND ACCENT PAINT PLAN
E/A802	INTERIOR DESIGN- ACCENT PAINT
E/A803	INTERIOR DESIGN- TILE PATTERNS
E/A901	TYPICAL STAIR DETAILS

BUILDING K- KINDERGARTEN

K/A101	FLOOR PLAN
K/A102	ENLARGED FLOOR PLANS
K/A201	REFLECTED CEILING PLAN
K/A301	ROOF PLAN
K/A401	EXTERIOR ELEVATIONS
K/A501	BUILDING SECTIONS
K/A504	WALL SECTIONS
K/A601	INTERIOR ELEVATIONS- ROOMS 101-103
K/A602	INTERIOR ELEVATIONS- ROOMS 104-108
K/A603	INTERIOR ELEVATIONS- ROOMS 109-111
K/A604	INTERIOR ELEVATIONS- ROOMS 111-113
K/A605	INTERIOR ELEVATIONS- ROOMS 114-118
K/A701	SIGNAGE PLAN AND SCHEDULE
K/A801	INTERIOR DESIGN- FLOOR PATTERN PLAN & ACCENT PAINT PLAN
K/A802	INTERIOR DESIGN- ACCENT PAINT

BUILDING P- PORTABLES

P/A101	FLOOR PLAN AND SIGNAGE PLAN
P/A102	INTERIOR DESIGN- FLOOR PATTERN PLAN

STRUCTURAL

TYPICAL INFORMATION

X/S101	TYPICAL PROJECT NOTES
X/S102	TYPICAL CONCRETE NOTES & DETAILS
X/S103	TYPICAL CONCRETE NOTES & CMU DETAILS
X/S104	TYPICAL STEEL NOTES & DETAILS
X/S105	TYPICAL STEEL DETAILS
X/S106	TYPICAL METAL DECK NOTES & DETAILS
X/S107	TYPICAL METAL DECK DETAILS
X/S108	TYPICAL LIGHT GAUGE NOTES & DETAILS
X/S109	TYPICAL LIGHT GAUGE DETAILS
X/S501	FOUNDATION DETAILS
X/S601	FRAMING DETAILS
X/S602	FRAMING DETAILS
X/S701	BRACE FRAME DETAILS
X/S801	CANOPY FRAMING DETAILS

BUILDING A- ADMINISTRATION

A/S201	FOUNDATION PLAN
A/S301	ROOF FRAMING PLAN
A/S302	HIGH ROOF FRAMING PLAN
A/S303	SOUTH ROOF FRAMING PLAN
A/S401	BRACE FRAME ELEVATIONS
A/S402	BRACE FRAME ELEVATIONS
A/S403	WALL SECTIONS
A/S601	FRAMING DETAILS

BUILDING B- CLASSROOMS

B/S201	FOUNDATION PLAN
B/S301	LOW ROOF FRAMING PLAN
B/S302	HIGH ROOF FRAMING PLAN
B/S401	BRACE FRAME ELEVATIONS
B/S402	BRACE FRAME ELEVATIONS
B/S403	BRACE FRAME ELEVATIONS
B/S404	WALL SECTIONS
B/S405	WALL SECTIONS
B/S501	FOUNDATION DETAILS
B/S601	FRAMING DETAILS
B/S701	BRACE FRAME DETAILS

BUILDING C- CLASSROOMS

C/S201	FOUNDATION PLAN
C/S301	LOW ROOF FRAMING PLAN
C/S302	HIGH ROOF FRAMING PLAN
C/S401	BRACE FRAME ELEVATIONS
C/S402	BRACE FRAME ELEVATIONS
C/S403	BRACE FRAME ELEVATIONS
C/S404	WALL SECTIONS
C/S405	WALL SECTIONS

BUILDING D- CLASSROOMS

D/S201	FOUNDATION PLAN
D/S301	LOW ROOF FRAMING PLAN
D/S302	HIGH ROOF FRAMING PLAN
D/S401	BRACE FRAME ELEVATIONS
D/S402	BRACE FRAME ELEVATIONS
D/S403	BRACE FRAME ELEVATIONS
D/S404	TRUSS ELEVATIONS
D/S405	WALL SECTIONS
D/S406	WALL SECTIONS
D/S601	FRAMING DETAILS

BUILDING E- MULTIPURPOSE

E/S201	FOUNDATION PLAN
E/S202	STAGE FRAMING PLAN & DETAILS
E/S301	2ND FLOOR,LOW ROOF & CANOPY FRAMING PLAN
E/S302	ROOF FRAMING PLAN
E/S303	HIGH ROOF FRAMING PLAN
E/S401	BRACED FRAME ELEVATIONS
E/S402	BRACED FRAME ELEVATIONS
E/S403	BRACED FRAME ELEVATIONS
E/S404	BRACED FRAME ELEVATIONS
E/S405	BUILDING SECTIONS
E/S406	WALL SECTIONS
E/S407	WALL SECTIONS
E/S501	FOUNDATION DETAILS
E/S601	FRAMING DETAILS
E/S602	FRAMING DETAILS
E/S701	BRACED FRAME DETAILS

BUILDING K- KINDERGARTEN

K/S201	FOUNDATION PLAN
K/S301	LOW ROOF FRAMING PLAN
K/S302	HIGH ROOF FRAMING PLAN
K/S401	BRACE FRAME ELEVATIONS
K/S402	BRACE FRAME ELEVATIONS
K/S403	WALL SECTIONS
K/S601	FRAMING DETAILS

PLUMBING

SITE DEVELOPMENT

SD/P101	PLUMBING SITE PLAN

TYPICAL INFORMATION

INCREMENT 2

X/P101	PLUMBING LEGEND AND NOTES
X/P102	PLUMBING SCHEDULES
X/P800	PLUMBING DETAILS
X/P801	PLUMBING CALCULATIONS
X/P802	PLUMBING CALCULATIONS

BUILDING A- ADMINISTRATION

A/P101	PLUMBING FLOOR PLAN
A/P301	PLUMBING ROOF PLAN

BUILDING B- CLASSROOMS

B/P101	PLUMBING FLOOR PLAN
B/P102	ENLARGED PLUMBING PLANS
B/P301	PLUMBING ROOF PLAN

BUILDING C- CLASSROOMS

C/P101	PLUMBING FLOOR PLAN
C/P102	ENLARGED PLUMBING PLANS
C/P301	PLUMBING ROOF PLAN

BUILDING D- CLASSROOMS

D/P101	PLUMBING FLOOR PLAN
D/P102	ENLARGED PLUMBING PLANS
D/P301	PLUMBING ROOF PLAN

BUILDING E- MULTIPURPOSE

E/P101	PLUMBING FLOOR PLAN
E/P102	ENLARGED PLUMBING PLANS - KITCHEN
E/P103	ENLARGED PLUMBING PLANS - RESTROOMS
E/P301	PLUMBING ROOF PLAN

BUILDING K- KINDERGARTEN

K/P101	PLUMBING FLOOR PLAN
K/P301	PLUMBING ROOF PLAN

MECHANICAL

SITE DEVELOPMENT

SD/M101	MECHANICAL SITE PLAN

TYPICAL INFORMATION

INCREMENT 2

X/M101	MECHANICAL SCHEDULES, LEGEND & NOTES
X/M102	MECHANICAL SCHEDULES
X/M103	MECHANICAL SCHEDULES
X/M104	MECHANICAL SCHEDULES
X/M110	MECHANICAL SCHEDULE OF POINTS
X/M111	EMS SYSTEM ARCHITECTURE
X/M800	MECHANICAL DETAILS
X/M801	MECHANICAL DETAILS
X/M802	KITCHEN HOOD DETAILS
X/M803	VRF PIPING AND WIRING DIAGRAMS
X/M900	TITLE 24 DOCUMENTATION - BUILDING A
X/M901	TITLE 24 DOCUMENTATION - BUILDING A
X/M902	TITLE 24 DOCUMENTATION - BUILDING B
X/M903	TITLE 24 DOCUMENTATION - BUILDING B
X/M904	TITLE 24 DOCUMENTATION - BUILDING C
X/M905	TITLE 24 DOCUMENTATION - BUILDING C
X/M906	TITLE 24 DOCUMENTATION - BUILDING D
X/M907	TITLE 24 DOCUMENTATION - BUILDING D
X/M908	TITLE 24 DOCUMENTATION - BUILDING E
X/M909	TITLE 24 DOCUMENTATION - BUILDING E
X/M910	TITLE 24 DOCUMENTATION - BUILDING K
X/M911	TITLE 24 DOCUMENTATION - BUILDING K
X/M912	TITLE 24 DOCUMENTATION - COMMISSIONING

BUILDING A- ADMINISTRATION

A/M101	MECHANICAL FLOOR PLAN
A/M102	MECHANICAL ERV FLOOR PLAN
A/M103	MECHANICAL PIPING FLOOR PLAN
A/M301	MECHANICAL ROOF PLAN

BUILDING B- CLASSROOMS

B/M101	MECHANICAL FLOOR PLAN
B/M301	MECHANICAL ROOF PLAN

BUILDING C- CLASSROOMS

C/M101	MECHANICAL FLOOR PLAN
C/M301	MECHANICAL ROOF PLAN

BUILDING D- CLASSROOMS

D/M101	MECHANICAL FLOOR PLAN
D/M301	MECHANICAL ROOF PLAN

BUILDING E- MULTIPURPOSE

E/M101	MECHANICAL FLOOR PLAN
E/M301	MECHANICAL ROOF PLAN

BUILDING K- KINDERGARTEN

K/M101	MECHANICAL FLOOR PLAN
K/M301	MECHANICAL ROOF PLAN

N14 Vicinity Map

All work shall be performed in accordance with current applicable codes and standards including, but not limited to, the following:

California Code of Regulations (CCR)
CCR-T5: Title 5-Education
CCR-T8: Title 8-Industrial Safety
CCR-T19: Title 19-Public Safety
CCR-Title 24:

Building Codes and Standards:

2022 California Building Standards Administrative Code (Part 1, Title 24, CCR)

2019 California Building Code, Volumes 1 and 2 (Part 2, Title 24, CCR)

2019 California Electrical Code (Part 3, Title 24, CCR)

2019 California Mechanical Code (Part 4, Title 24, CCR)

2019 California Plumbing Code (Part 5, Title 24, CCR)

2019 California Energy Code (Part 6, Title 24, CCR)

2019 California Elevator Safety Construction Code (Part 7, Title 24, CCR)

2019 California Fire Code, Part 9, Title 24, CCR)

2019 California Referenced Standards Code (Part 12, Title 24, CCR)

2019 California Green Building Standards Code

NFPA 13, 2016 Edition, The Installation of Automatic Sprinkler Systems

NFPA 14, 2016 Edition, Installation of Standpipe

NFPA 24, 2016 Edition, Installation of Private Fire Service Mains and their Appurtenances

NFPA 72, 2016 Edition, National Fire Alarm Code

Division of the State Architect (DSA):
SSS: Structural Safety Section
ACS: Access Compliance Section
FLS: Fire Life Safety
Interpretation of Regulation Manual

J14 Applicable Codes

Notes:

1. The Contractor Shall Be Responsible For The Preparation and Submittal Of The Deferred Approval Items To The Division Of The State Architect (DSA) For Review and Approval Prior To The Installation. The Submittal Shall Comply With The Requirements Of Specification Section 013300: Submittals.

2. Installation of Deferred Approval items shall not be started until Contractor's drawing, specifications, and engineering calculations for the actual system(s) to be installed have been reviewed by the Architect and/or the Structural Engineer, and approved by the DSA.

Description of Deferred Item
None
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G14 Deferred Approval

This Facility is a new Elementary School that is made up of single story buildings which house Early Learning Classrooms, Standard Classrooms, Administration, Library, and Multipurpose Cafeteria. All Associated undergroud (Sewer, Water, electerical, ect.) and site work, including concrete walks, AC paving, Playcourts, Playgrounds and Playfields.

Increment 1: All Site Development including, underground utilities, grading and drainage, landscape and playfields, parking, site concrete and paving, power, data & signal distribution and all associated work.

Increment 2: Construction of Administration building, Multipurpose Building, Kindergarten Building, three (3) Classroom Buildings, One (1) Classroom Building (relocatable).

Changes to the approved drawings and specifications shall be made by an addendum or a construction change document (ccd) approved by the division of the state architect, as required by section 4-338, part 1, title 24, CCR.

Substitutions of products or process that affect the structural safety, fire and life-safety, or accessibility of this project shall be submitted to DSA for review and approval as an addendum or a construction change document

A "DSA certified" class 1 project inspector employed by the district (owner) and approved by the DSA shall provide continuous inspection of the work. The duties of the inspector are defined in section 4-342, part 1, title 24, CCR.

A DSA accepted testing laboratory directly employed by the district (owner) shall conduct all the required tests and inspections for the project.

The intent of these drawings and specifications is that the work of the alteration, rehabilitation or reconstruction is to be in accordance with title 24, ccr. Should any existing conditions such as deterioration or non-complying construction be discovered which is not covered by the contract documents wherein the finished work will not comply with title 24, CCR, a construction change document (CCD), or a separate set of plans and specifications, detailing and specifying the required work shall be submitted to and approved by dsa before proceeding with the work. (section 4-317(c), part 1, title 24, CCR).

Grading plans, drainage improvements, road and access requirements and environmental health considerations shall comply with all local ordinances.

Note to Contractor:
The California Energy Code Section 10-103 requires Acceptance Testing on all newly installed lighting controls, mechanical systems, envelopes, and process equipment after installation and before project completion. An Acceptance Test is a functional performance test to help ensure that newly installed equipment is operating and in compliance with the Energy Code.

Lighting controls acceptance tests must be performed by a certified lighting controls Acceptance Test Technician (ATT).

Mechanical system acceptance tests must be performed by a certified mechanical ATT for projects submitted on or after October 1, 2021.

A listing of certified ATTs can be found at: *https://www.energy.ca.gov/programs-and-topics/programs/acceptance-test-technician-certification-provider-program/acceptance*

The Acceptance Testing procedures must be repeated, and deficiencies must be corrected by the builder or installing contractor until the construction/installation of the specified systems conform and pass the required acceptance criteria.

Project inspectors will be collecting the forms to confirm that the required Acceptance Tests have been completed.

B14 Project Description

DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval

McKinley/Fowler Elementary School- Increment 1

Clovis Unified School District

Fresno, CA 93727

Darden Project Number: *2116*

Date: *12/12/22*

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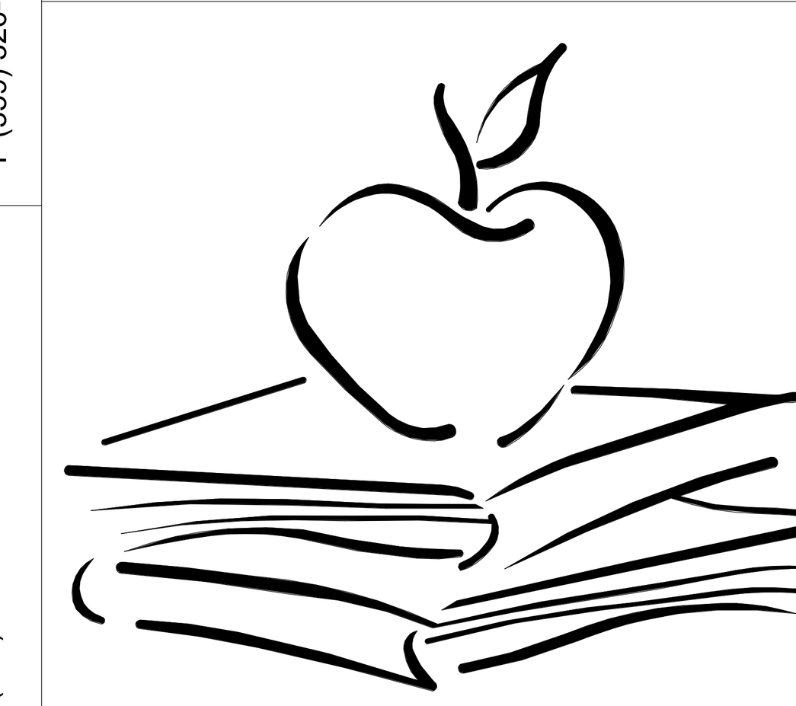

Project Information

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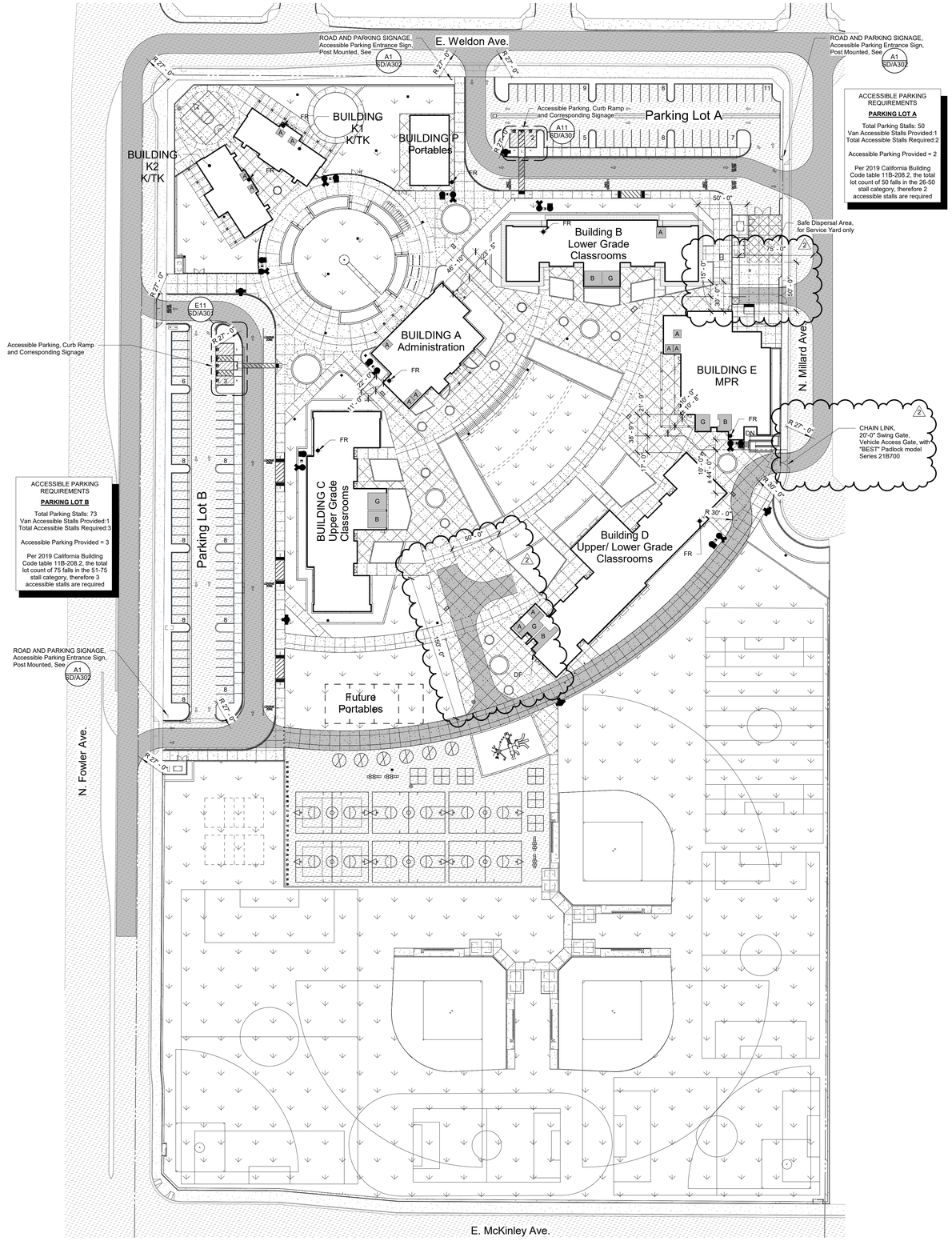
Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

G000



BLDG #	OCCUPANCY CLASSIFICATION	OCCUPANCY GROUP	CONSTRUCTION TYPE	TABULAR ALLOWABLE AREA FACTOR CBC TABLE 506.2	FRONTAGE AREA INCREASE FACTOR $I_f = (F/P - 0.25) \times W/30$ CBC 506.3	TOTAL ALLOWABLE BUILDING AREA $A_a = (A_t + (NS \times I_f))$ CBC 506.2	ACTUAL BUILDING AREA (FLOOR AREA + COVERED AREA)	APPLICABLE BUILDING CODE	REMARKS
A	Administration	B	Type II-B Fully Sprinkled Single Story	92,000 SF	N/A	N/A	**7,836 SF**	2019	
	Total: 9,335 SF	A-3					**1,499 SF** (9,335 SF)		
	Building Total:						**9,335 SF** < 92,000 SF		
B	Classroom	E	Type II-B Fully Sprinkled Single Story	58,000 SF	N/A	N/A	**11,570 SF**	2019	
	Total: 15,464 SF						**3,894 SF** (15,464 SF)		
	Building Total:						**15,464 SF** < 58,000 SF		
C	Classroom	E	Type II-B Fully Sprinkled Single Story	58,000 SF	N/A	N/A	**12,207 SF**	2019	
	Total: 15,964 SF						**3,739 SF** (15,946 SF)		
	Building Total:						**15,946 SF** < 58,000 SF		
D	Classroom	E	Type II-B Fully Sprinkled Single Story	58,000 SF	N/A	N/A	**16,637 SF**	2019	
	Total: 22,259 SF						**5,622 SF** (22,259 SF)		
	Building Total:						**22,259 SF** < 58,000 SF		
E	Multi-Purpose	A-2 & A-3	Type II-B Fully Sprinkled Single Story	38,000 SF	N/A	N/A	**11,104 SF**	2019	
	Kitchen	B		92,000 SF			**3,412 SF** (14,516 SF)		
	Total: 14,516 SF	S							
	Building Total:						**14,516 SF** < 38,000 SF		
K1 & K2	Classroom	E	Type II-B Fully Sprinkled Single Story	58,000 SF	N/A	N/A	**6,713 SF**	2019	
	Total: 10,079 SF						**1,775 SF** (8,488 SF)		
	Building Total:						**10,079 SF** < 58,000 SF		
P	Classroom (Relocatable)	E	Type V-B Fully Sprinkled Single Story	38,000 SF	N/A	N/A	**2,880 SF**	2019	
	Total: 3,280 SF						400 **SF** (3,280 SF)		
	Building Total:						**3,280 SF** < 38,000 SF		

DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval

SYMBOLS

- Assumed Property Line
- Fire Truck Access Lane
- PLUMBING, Check Valve (CV)
- FR — PLUMBING, Fire Sprinkler Riser (FR)
- FH — PLUMBING, Fire Hydrant (FH)
- FDC — PLUMBING, Fire Department Connection (FDC) (Siamese)
- PIV — PLUMBING, Post Indicator Valve (PIV),
- BUILDING OUTLINE

Accessible Restroom Location:
B = Boys
G = Girls
M = Men
W = Women
A = All-Gender
S = Staff

ABBREVIATIONS

DF ACCESSABLE DRINKING FOUNTAIN LOCATION
(-HA = High Adult)
(-LA = Low Adult)

NOTES

1. Site Gates, Site Ramps, and Site Stair locationsare indicated on Drawing REGULATORY COMPLIANCE SITE PLAN and FLOOR PLAN.
2. Walk slopes shall not exceed a running slope of 1:20 (5%) The walk slopes shall not exceed a Cross Slope of 1:50 (2%). The walks shall not have overhead obstructions within 80" above the walking surface or obstructions protruding more than 4" between 27" and 80" above the walking surface.
3. All new concrete walk surfaces shall have a non-slip medium broom finish as called for in Specification Section CAST-IN-PLACE CONCRETE. A heavy broom finish shall be used on all slopes greater than 6%.

J18 | Regulatory Compliance Site Plan Legend

McKinley/Fowler Elementary School- Increment 1
Clovis Unified School District
Fresno, CA 93727
Project

GENERAL INFORMATION
REGULATORY COMPLIANCE SITE PLAN
Drawing

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LICENSED ARCHITECT BRADLEY K. FERRON No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA
Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: AC

Scale: As indicated
Drawn By: AC
Project Number: 2116
Checked By: AC
Date: 12/12/22
Reviewed By: MF

G100

A1 | Regulatory Compliance Site Plan
1" = 50'-0"

N

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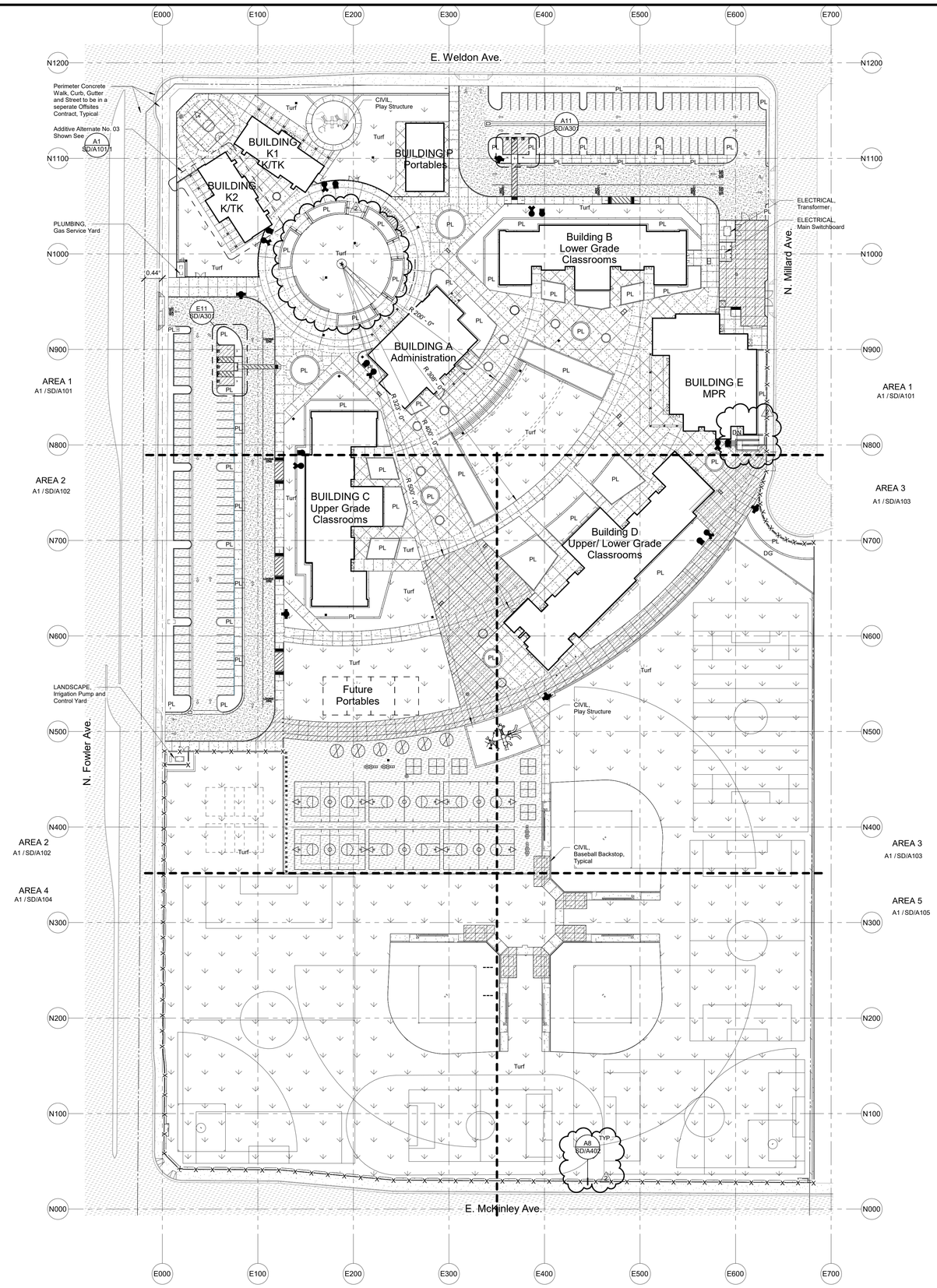

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SYMBOLS

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- PAVEMENT, Heavy Paving Section, 4" Asphalt Concrete over 13" Aggregate Base over 12" 95% Compacted Fill. A11 SD/A302
- CAST-IN-PLACE CONCRETE, 4" Concrete Walk over 6" 90% Compacted Fill. See E11 SD/A302
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- CAST-IN-PLACE CONCRETE, Dashed Lines Indicate Expansion Joints. Solid Lines Indicate Control Joints. See E11 SD/A302
- LANDSCAPE, Turf
- CONCRETE MASONRY UNITS, Block Wall, See N11 SD/A304

- SW Indicates Concrete Seat Wall A14 SD/A302
- CC Indicates Concrete Curb J14 SD/A302
- MS Indicates Mow Strip A7 SD/A307
- (SW) Indicates Concrete Seat Wall as Additive Alternate, Base Bid will be Concrete Curbs. (CC)
- (CC) Indicates Concrete Curb as Additive Alternate, Base Bid will be no curb.

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- Limits of Construction (Project Area)
- CHAIN LINK, Fencing See N4 SD/A402
- Pipe/Utility
- Covered Area
- PVC Irrigation Sleeve
- Grade Break
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- Drainage Swale
- Slope (DN) General Direction of Slope
- CB STORM DRAINAGE, Catch Basin or Drain Box
- DB STORM DRAINAGE, Drain Box
- DI STORM DRAINAGE, Drain Inlet
- TD STORM DRAINAGE, Trench Drain
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- FDC CIVIL, Fire Department Connection (Siamese)
- PIV CIVIL, Post Indicator Valve
- CO PLUMBING, Clean Out,
- CO CIVIL, Sewer Clean Out,
- SOV PLUMBING, Shut Off Valve,
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- ELECTRICAL, Bollard Light Fixture,
- ELECTRICAL, Light Fixture, Directional
- ELECTRICAL & MECHANICAL, Utility Box
- N ##.#### E ##.#### Datum Point

ABBREVIATIONS

(E)	Existing	FD	Floor Drain	PL	Planter
AC-A	Accessible Parking, Standard Accessible Stall	FDC	Fire Dept Connection	R	Radius
		FF	Finish Floor	RWL	Rain Water Leader
AC-V	Accessible Parking, Van Accessible Stall	FG	Finish Grade		
		FH	Fire Hydrant	SD	Storm Drain
AC	Air Conditioning System	FL	Flow Line	SL	Site Lighting
AD	Area Drain, (See Plumbing)	FMFCD	Fresno Metropolitan Flood Control District	S	Signal
BW	Back of Walk			SS	Sanitary Sewer
C	Concrete	FS	Floor Sink	SW	Seat Wall
CB	Catch Basin	G	Gas	TB	Top of Bench
CC	Concrete Curb	GT	Gutter	TC	Top of Curb
CJ	Control Joint	GB	Grade Break	TD	Trench Drain
CM	Communications	RG	Rough Grade	TG	Top of Grate
COB	Clean Out Box	HPG	High Pressure Gas	TF	Top of Fence
CW	Cold Water	HL	Hydronics Line	TL	Top of Lid
DB	Drain Box	INV N	Invert North	TLB	Top of Light Base
DI	Drain Inlet	INV NE	Invert Northeast		
DS	Drainage Swale	MH	Manhole	TW	Top of Wall
DG	Decomposed Granite	MS	Mow Strip	Typ.	Typical
EMS	Energy Management System	OC	On Center	UNO	Unless Noted Otherwise
E	Electrical Power	P	Pavement		
EJ	Expansion Joint, 1/2"	P1-P4	Electrical Utility Box	VG	Valley Gutter
F	Fire Protection	PIV	Post Indicator Valve	W	Waste

NOTES

1. CAST-IN-PLACE CONCRETE, All Concrete Walk Joints Shall Be Expansion Joints unless otherwise noted. Provide Expansion Joints where walk abuts other site elements. Control Joint to be spaced 10'-0" o.c Max and Expansion Joints at 30'-0" o.c . Max UNO
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7. PLUMBING, Where Gas Pressure Regulators occur provide enclosure per K18 / SD/A302

E18 — Site Plan Legend
No Scale

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LICENSED ARCHITECT MICHAEL K. PERRY No. C23724 Exp. 4-30-25 STATE OF CALIFORNIA
Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: AC
Drawn By: BP
Checked By: AC
Reviewed By: MF

Scale: As indicated
Project Number: 2116
Date: 12/12/22

SD/A100

A1 — Site Plan
1" = 50'-0"

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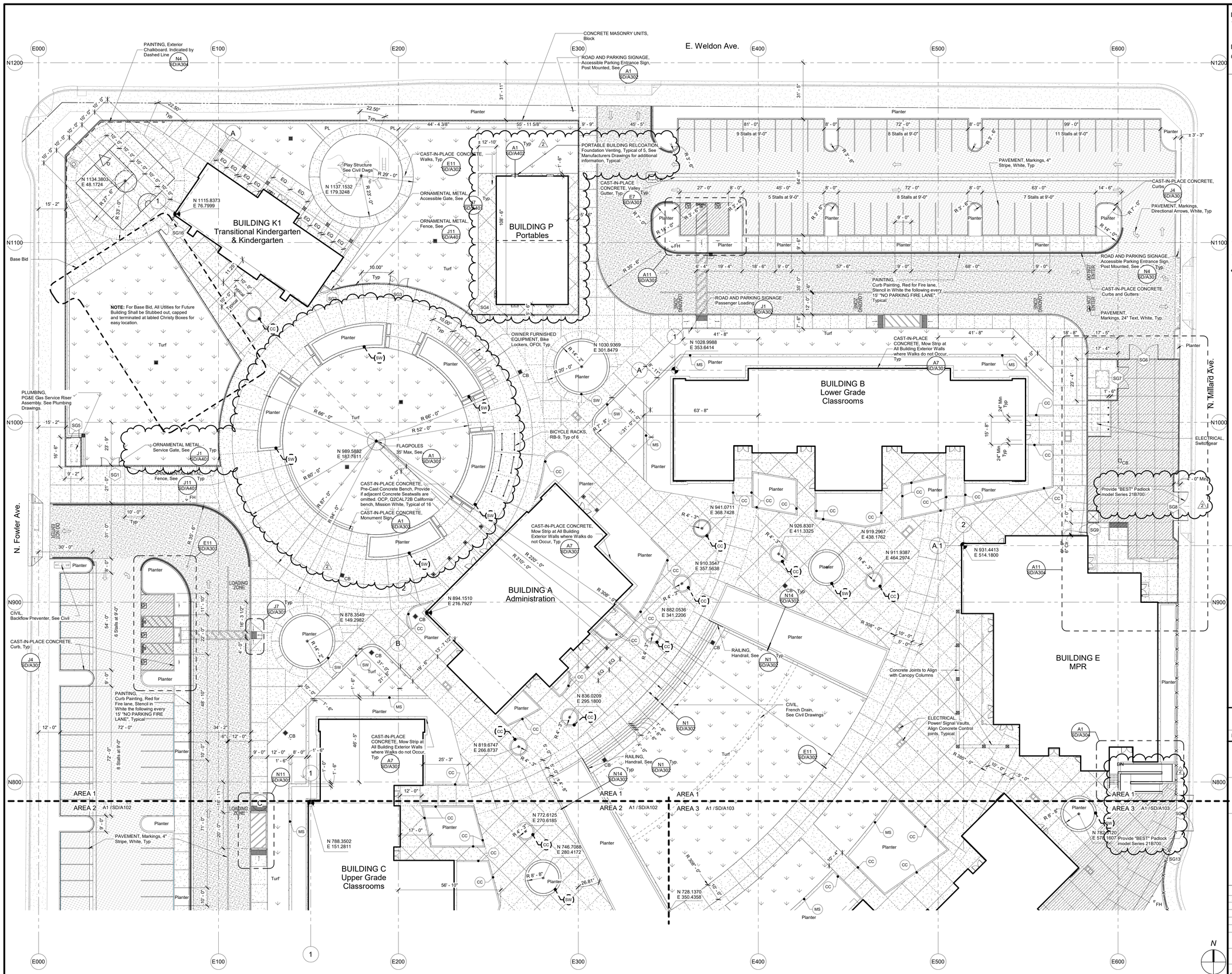

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E18 | Site Plan Legend
No Scale

McKinley/Fowler Elementary School- Increment 1
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Fresno, CA 93727
Project

SITE DEVELOPMENT
PARTIAL SITE PLAN- AREA 1
Drawing

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LICENSED ARCHITECT MICHAEL K. FERNO No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA
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2	Addendum #2	01/20/23

Revision

	Designed By: AC	Copyright 2022 Darden Architects
Scale: 1" = 20'-0"	Drawn By: BP	
Project Number: 2116	Checked By: AC	
Date: 12/12/22	Reviewed By: MF	

SD/A101

A1 | Partial Site Plan - Area 1
1" = 20'-0"

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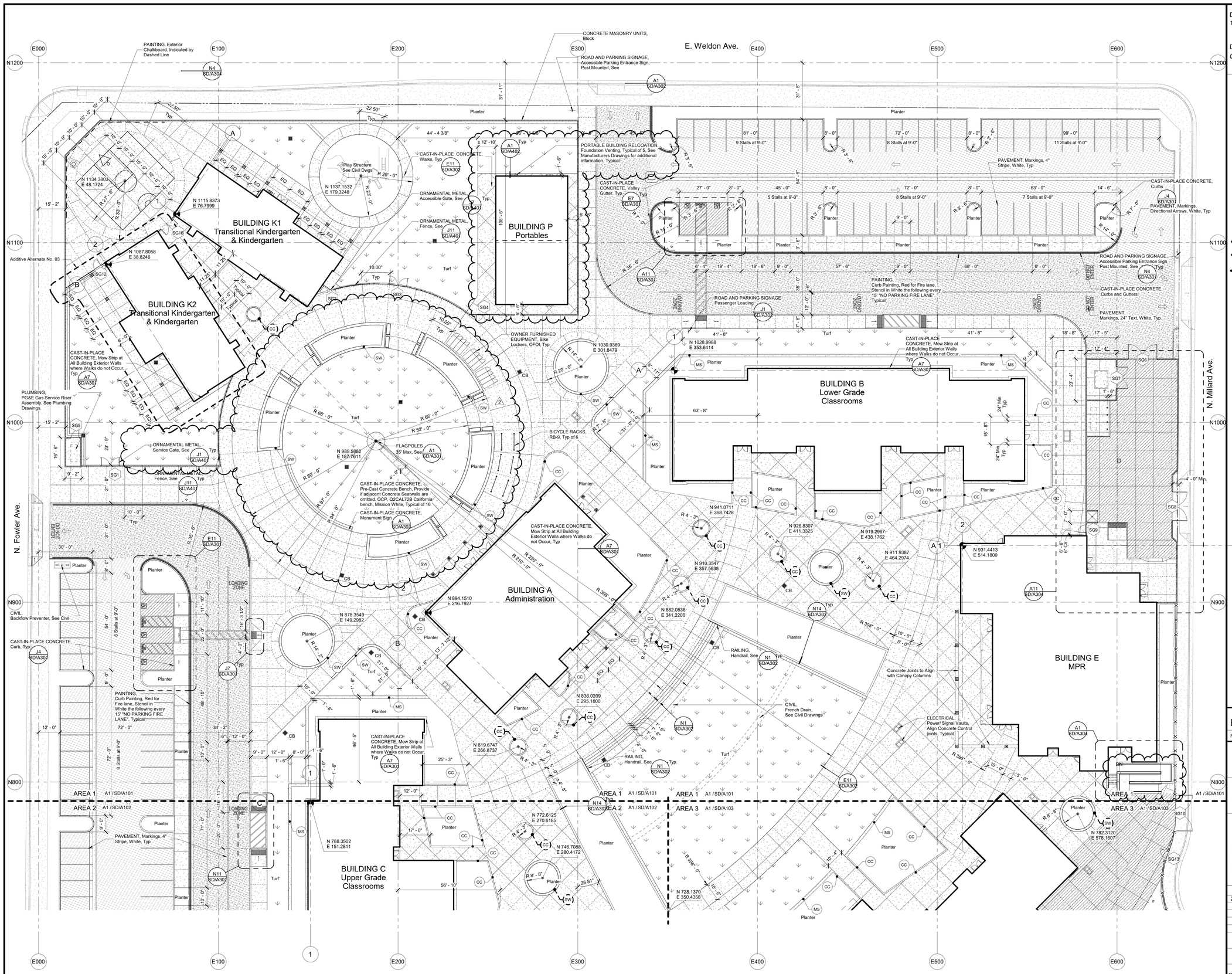

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Checked By: AC
Reviewed By: MF

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Project Number: 2116
Date: 12/12/22

SD/A101.1

A1 — Partial Site Plan - Area 1- Additive Alternate
1" = 20'-0"

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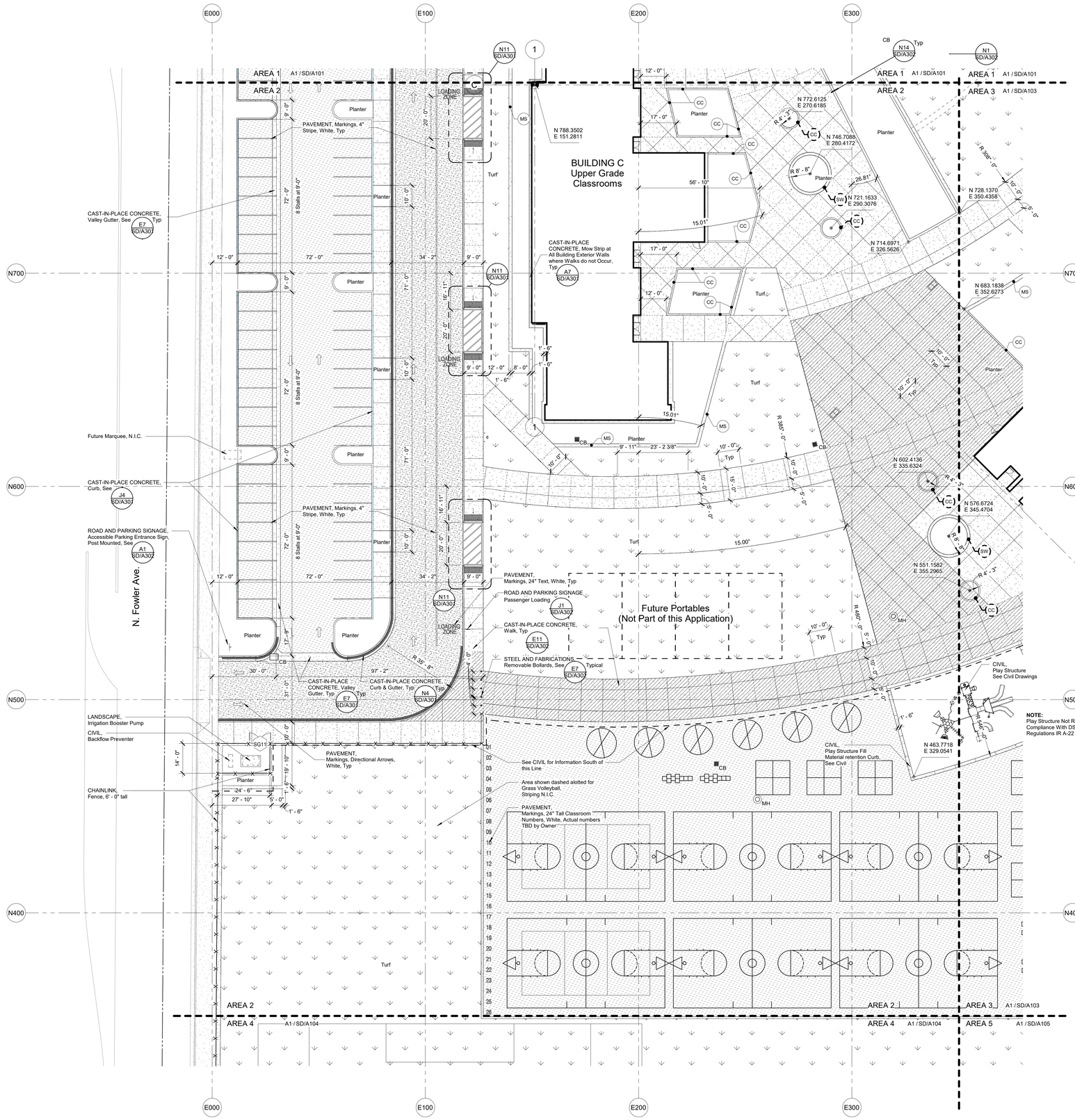
AD2- AX05



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- ELECTRICAL, Bollard Light Fixture,
- ELECTRICAL, Light Fixture, Directional
- ELECTRICAL & MECHANICAL, Utility Box
- N ##.#### E ##.#### Datum Point

ABBREVIATIONS

(E)	Existing	FD	Floor Drain	PL	Planter
AC-A	Accessible Parking, Standard Accessible Stall	FDC	Fire Dept Connection	R	Radius
		FF	Finish Floor	RWL	Rain Water Leader
AC-V	Accessible Parking, Van Accessible Stall	FG	Finish Grade		
		FH	Fire Hydrant	SD	Storm Drain
AC	Air Conditioning System	FL	Flow Line	SL	Site Lighting
AD	Area Drain, (See Plumbing)	FMFCD	Fresno Metropolitan Flood Control District	S	Signal
BW	Back of Walk			SS	Sanitary Sewer
C	Concrete	FS	Floor Sink	SW	Seat Wall
CB	Catch Basin	G	Gas	TB	Top of Bench
CC	Concrete Curb	GT	Gutter	TC	Top of Curb
CJ	Control Joint	GB	Grade Break	TD	Trench Drain
CM	Communications	RG	Rough Grade	TG	Top of Grate
COB	Clean Out Box	HPG	High Pressure Gas	TF	Top of Fence
CW	Cold Water	HL	Hydronics Line	TL	Top of Lid
DB	Drain Box	INV N	Invert North	TLB	Top of Light
DI	Drain Inlet	INV NE	Invert Northeast		Base
DS	Drainage Swale	MH	Manhole	TW	Top of Wall
DG	Decomposed Granite	MS	Mow Strip	Typ.	Typical
EMS	Energy Management System	OC	On Center	UNO	Unless Noted Otherwise
E	Electrical Power	P	Pavement		
EJ	Expansion Joint, 1/2"	P1-P4	Electrical Utility Box	VG	Valley Gutter
F	Fire Protection	PIV	Post Indicator Valve	W	Waste

NOTES

1. CAST-IN-PLACE CONCRETE, All Concrete Walk Joints Shall Be Expansion Joints unless otherwise noted. Provide Expansion Joints where walk abuts other site elements. Control Joint to be spaced 10'-0" o.c Max and Expansion Joints at 30'-0" o.c . Max UNO
2. PLUMBING, See Plumbing Drawings
3. ELECTRICAL, See Electrical Drawings
4. LANDSCAPING, See Landscape and Irrigation Drawings
5. Refer to CIVIL for Vertical Controls and Grading
6. When Adjacent to Drives or Fire Lanes, FDC, FH and PIV shall be protected by Bollards as Refer to J7 / SD/A302, Typical.
7. PLUMBING, Where Gas Pressure Regulators occur provide enclosure per K18 / SD/A302

E18 — Site Plan Legend

No Scale

McKinley/Fowler Elementary School- Increment 1
Clovis Unified School District
Fresno, CA 93727
Project

SITE DEVELOPMENT
PARTIAL SITE PLAN- AREA 2
Drawing

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LICENSED ARCHITECT MICHAEL K. FENOLIO No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA
Architect

No.	Revision/Submission	Date

Revision

Designed By: AC
Drawn By: BP
Checked By: AC
Reviewed By: MF

Scale: 1" = 20'-0"
Project Number: 2116
Date: 12/12/22

SD/A102

A1 — Partial Site Plan - Area 2
1" = 20'-0"

1/20/2023 2:53:07 PM
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DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval

SYMBOLS

- PAVEMENT, Typical Paving Section, 3" Asphalt Concrete over 9 1/2" Aggregate Base over 12" 95% Compacted Fill. A7 SD/A302
- PAVEMENT, Heavy Paving Section, 4" Asphalt Concrete over 13" Aggregate Base over 12" 95% Compacted Fill. A11 SD/A302
- CAST-IN-PLACE CONCRETE, 4" Concrete Walk over 6" 90% Compacted Fill. See E11 SD/A302
- CAST-IN-PLACE CONCRETE, Heavy Duty Concrete 6" Concrete Walk (3500 psi) w/ #3 Reinforcement Bars @ 18" o.c. Placed Over a 4" Thick Layer of Class 2 Aggregate Base. Prepare and Compact 12" Soil Layer to an R-Value = 30 E11 SD/A302
- CAST-IN-PLACE CONCRETE, Dashed Lines Indicate Expansion Joints. Solid Lines Indicate Control Joints. See E11 SD/A302
- LANDSCAPE, Turf
- CONCRETE MASONRY UNITS, Block Wall, See N11 SD/A304

- SW Indicates Concrete Seat Wall A14 SD/A302
- CC Indicates Concrete Curb J14 SD/A302
- MS Indicates Mow Strip A7 SD/A307
- (SW) Indicates Concrete Seat Wall as Additive Alternate, Base Bid will be Concrete Curbs. (CC)
- (CC) Indicates Concrete Curb as Additive Alternate, Base Bid will be no curb.

- Building Outline
- Property Line
- Limits of Construction (Project Area)
- CHAIN LINK, Fencing See N4 SD/A402
- Pipe/Utility
- Covered Area
- 1 PVC Irrigation Sleeve
- Grade Break
- Existing
- Drainage Swale
- Slope (DN) General Direction of Slope
- CB STORM DRAINAGE, Catch Basin or Drain Box
- DB STORM DRAINAGE, Drain Box
- DI STORM DRAINAGE, Drain Inlet
- TD STORM DRAINAGE, Trench Drain
- FH CIVIL, Fire Hydrant
- FDC CIVIL, Fire Department Connection (Siamese)
- PIV CIVIL, Post Indicator Valve
- CO PLUMBING, Clean Out,
- CO CIVIL, Sewer Clean Out,
- SOV PLUMBING, Shut Off Valve,
- ELECTRICAL, Pole Light Fixture,
- ELECTRICAL, Bollard Light Fixture,
- ELECTRICAL, Light Fixture, Directional
- ELECTRICAL & MECHANICAL, Utility Box
- N ##.#### E ##.#### Datum Point

ABBREVIATIONS

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CW	Cold Water	HL	Hydronics Line	TL	Top of Lid
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EMS	Energy Management System	OC	On Center	UNO	Unless Noted Otherwise
E	Electrical Power	P	Pavement		
EJ	Expansion Joint, 1/2"	P1-P4	Electrical Utility Box	VG	Valley Gutter
F	Fire Protection	PIV	Post Indicator Valve	W	Waste

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3. ELECTRICAL, See Electrical Drawings
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7. PLUMBING, Where Gas Pressure Regulators occur provide enclosure per K18 / SD/A302

E18 | Site Plan Legend

No Scale

McKinley/Fowler Elementary School- Increment 1
Clovis Unified School District
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Project

SITE DEVELOPMENT
PARTIAL SITE PLAN- AREA 3
Drawing

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LICENSED ARCHITECT — BRENT K. FERRO — No. C23724 — Ren. 4-30-24 — STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

Designed By: AC
Drawn By: BP
Checked By: AC
Reviewed By: MF

Scale: 1" = 20'-0"
Project Number: 2116
Date: 12/12/22

SD/A103

A1
Partial Site Plan - Area 3
1" = 20'-0"

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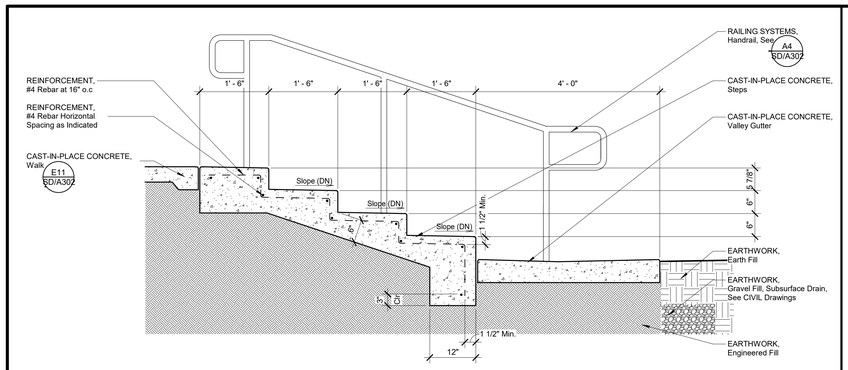
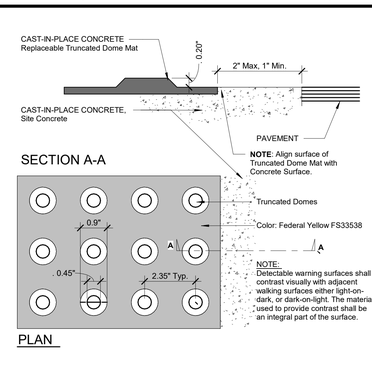


N1

3/4" = 1'-0"

CAST-IN-PLACE CONCRETE, Stairs at Grass

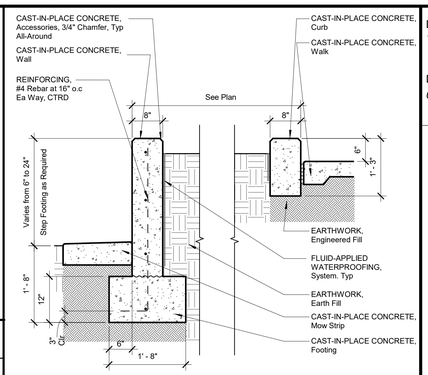


PLAN

N7

6" = 1'-0"

CAST-IN-PLACE CONCRETE, Truncated Domes



N14

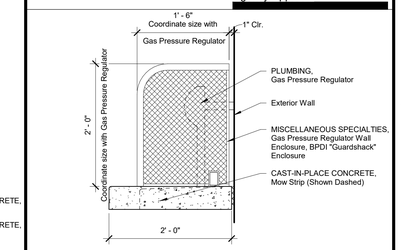
3/4" = 1'-0"

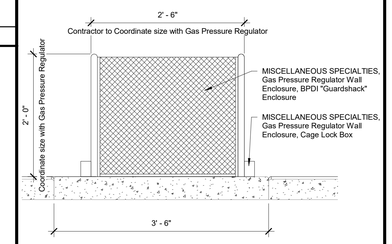
CAST-IN-PLACE CONCRETE, Planter at Amphitheater

DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval

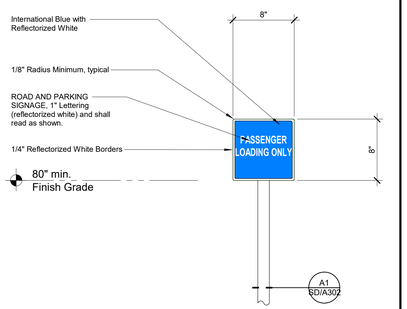




K18

1" = 1'-0"

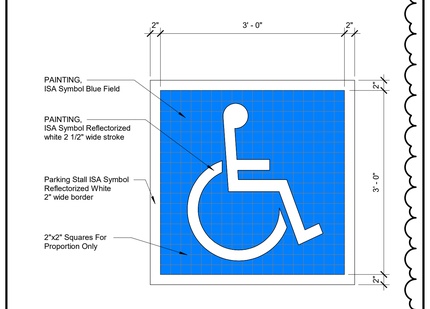
MISCELLANEOUS SPECIALTIES, Gas Pressure Regulator Cage



J1

1 1/2" = 1'-0"

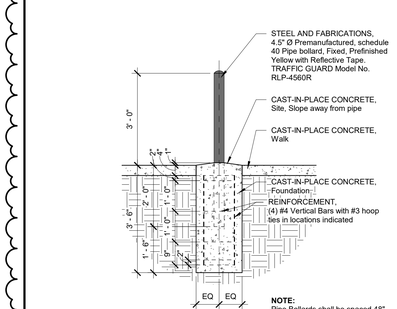
ROAD AND PARKING SIGNAGE, Passenger Loading Only



J4

1" = 1'-0"

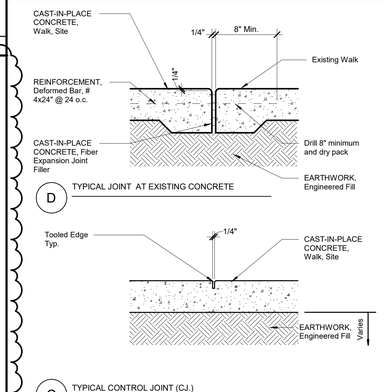
PAVMENT, ISA Symbol @ Parking Stall



J7

1/2" = 1'-0"

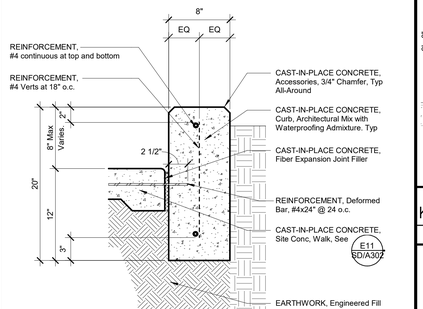
STEEL AND FABRICATIONS, Fixed Bollard



E11

1/2" = 1'-0"

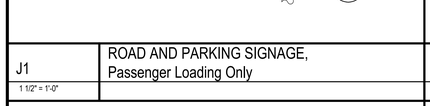
CAST-IN-PLACE CONCRETE, Walk Sections



J14

1 1/2" = 1'-0"

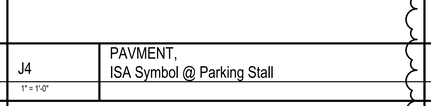
CAST-IN-PLACE CONCRETE, Concrete Planter Curb 8"



A1

1" = 1'-0"

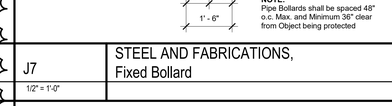
ROAD AND PARKING SIGNAGE, Accessible Parking & Entrance Sign



A4

1" = 1'-0"

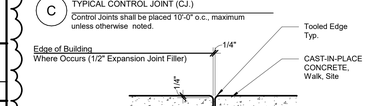
RAILING SYSTEMS, Exterior Handrail



A7

1" = 1'-0"

PAVEMENT, Typical Paving Section



A11

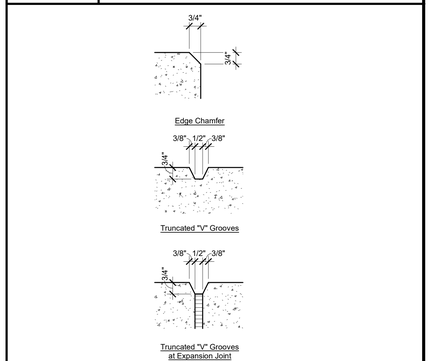
1" = 1'-0"

PAVEMENT, Heavy Traffic Paving Section

A14

1 1/2" = 1'-0"

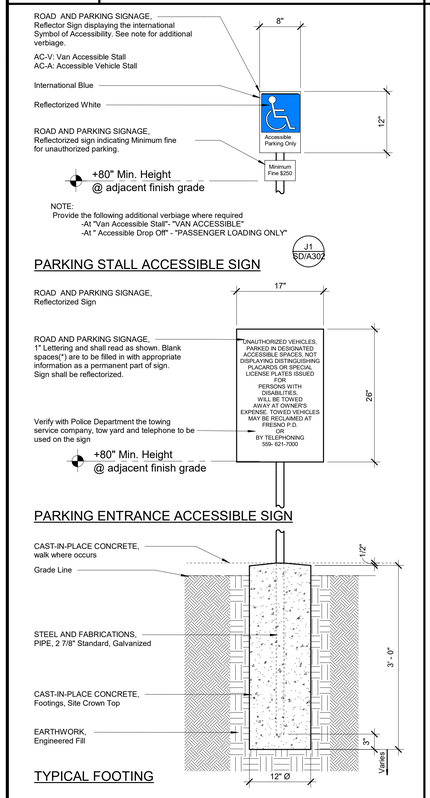
CAST-IN-PLACE CONCRETE, Seat Wall



E14

3" = 1'-0"

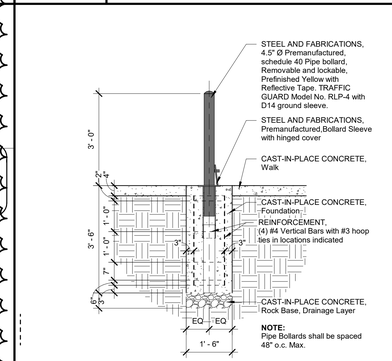
CAST-IN-PLACE CONCRETE, Chamfer and Groove



E7

1/2" = 1'-0"

STEEL AND FABRICATIONS, Removable Bollard



McKinley/Fowler Elementary School- Increment 1
Clovis Unified School District
Fresno, CA 93727

Project

SITE DEVELOPMENT
SITE DETAILS

Drawing

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LICENSED ARCHITECT ROSKEL K. FENWICK No. C23724 Exp. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: AC	Copyright 2022 Darden Architects	
Scale: As indicated	Drawn By: BP		*SD/A302*
Project Number: 2116	Checked By: AC		
Date: 12/12/22	Reviewed By: MF		

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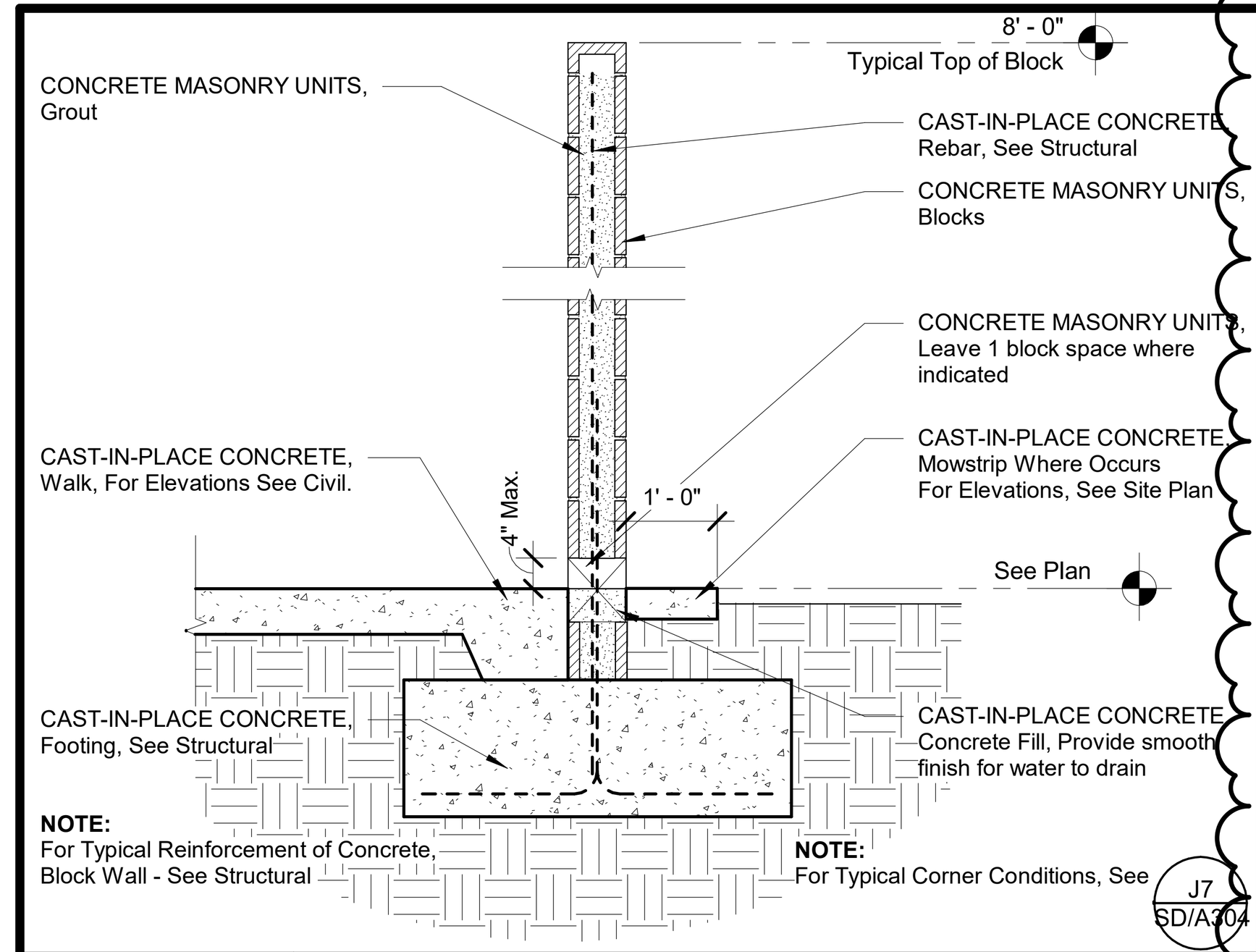
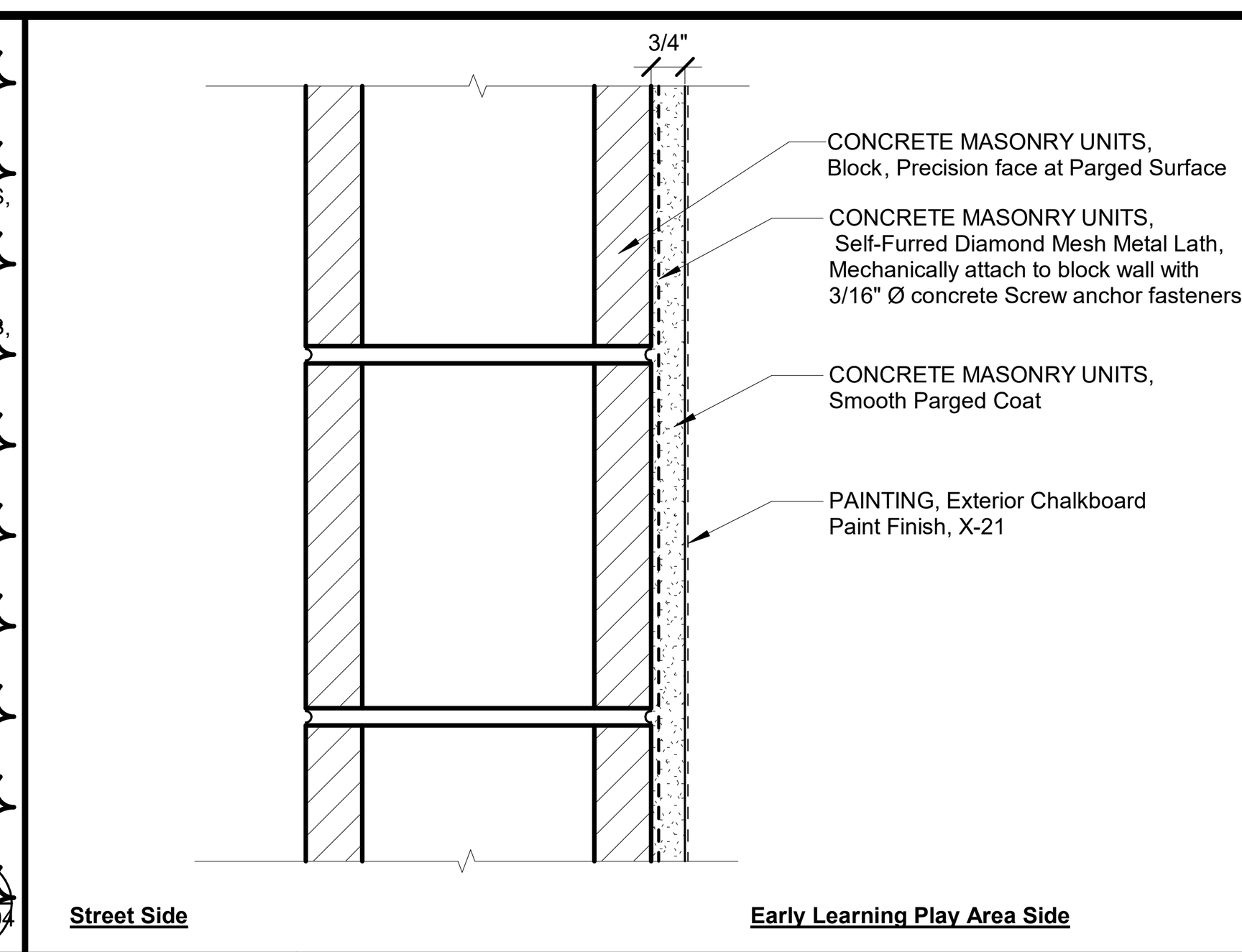
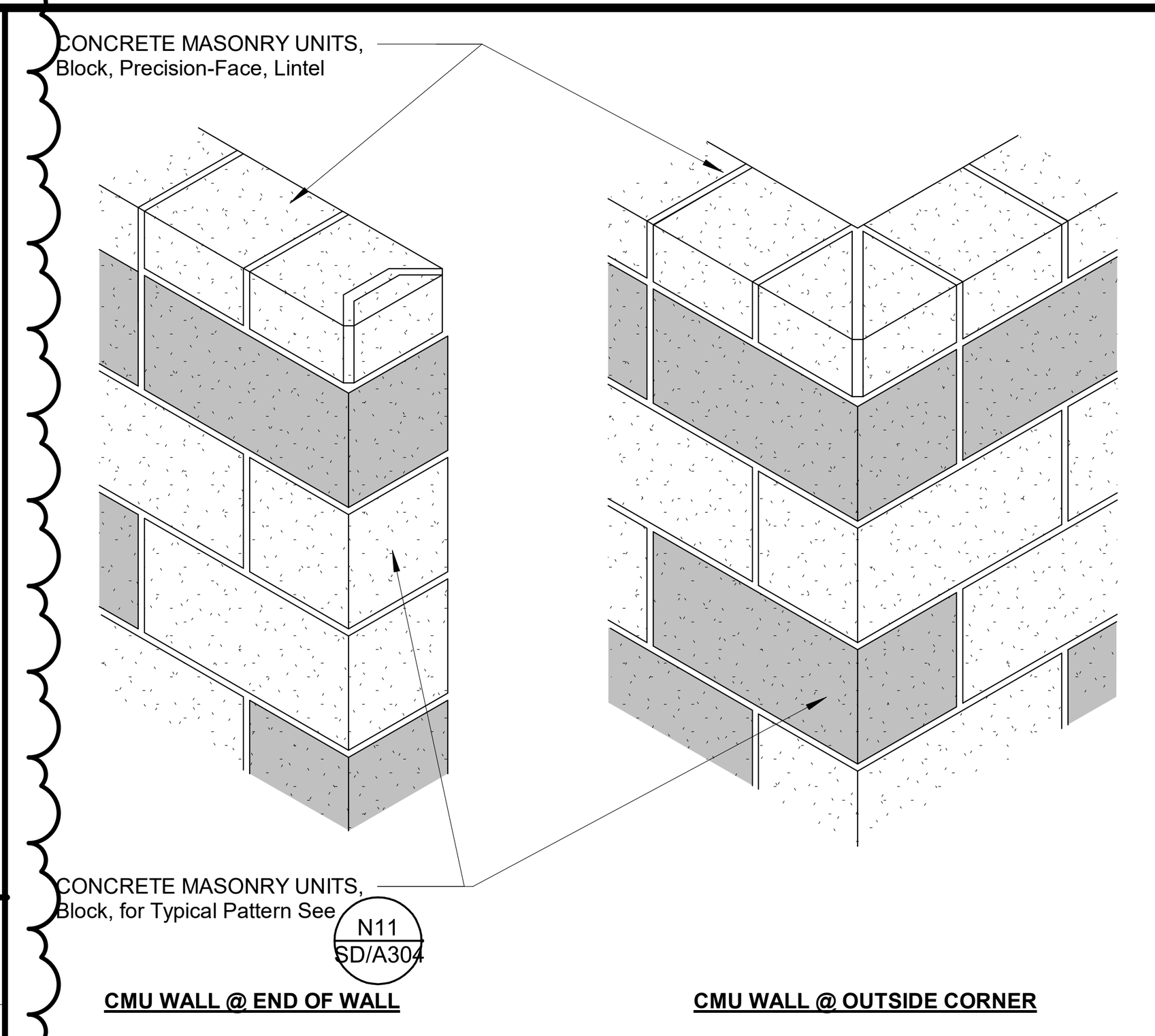
AD2- AX08

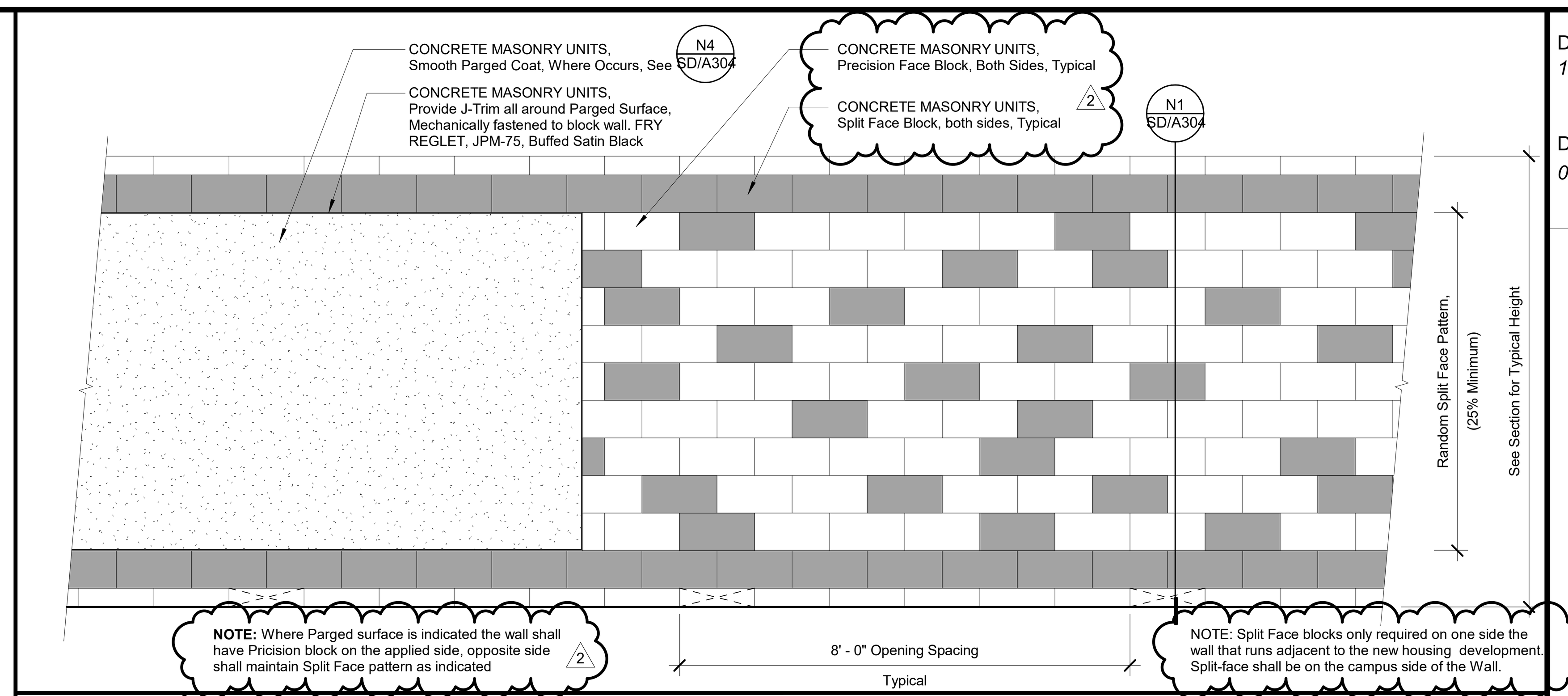


N1 — CONCRETE MASONRY UNITS, CMU Wall, Typical Section — 1/2" = 1'-0"

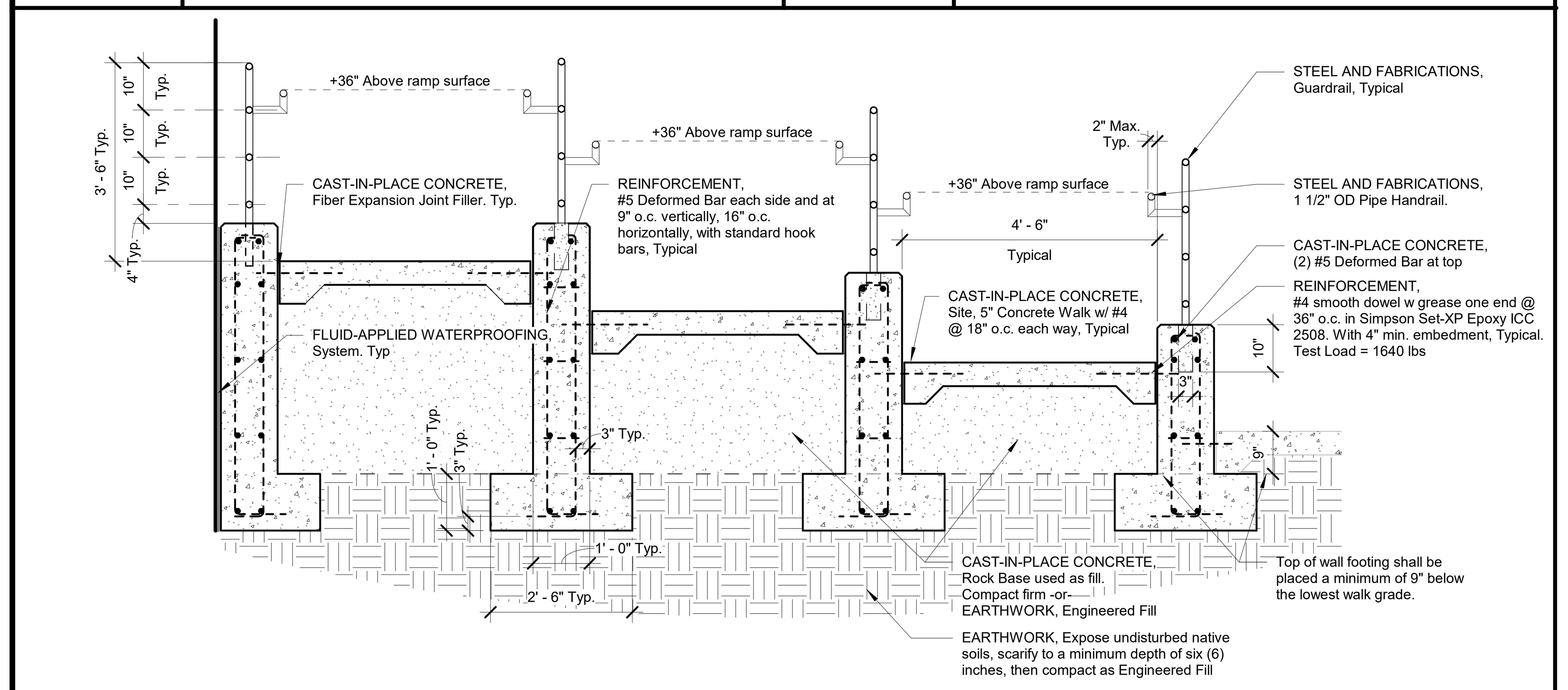


N4 — CONCRETE MASONRY UNITS, Parged Wall — 3" = 1'-0"

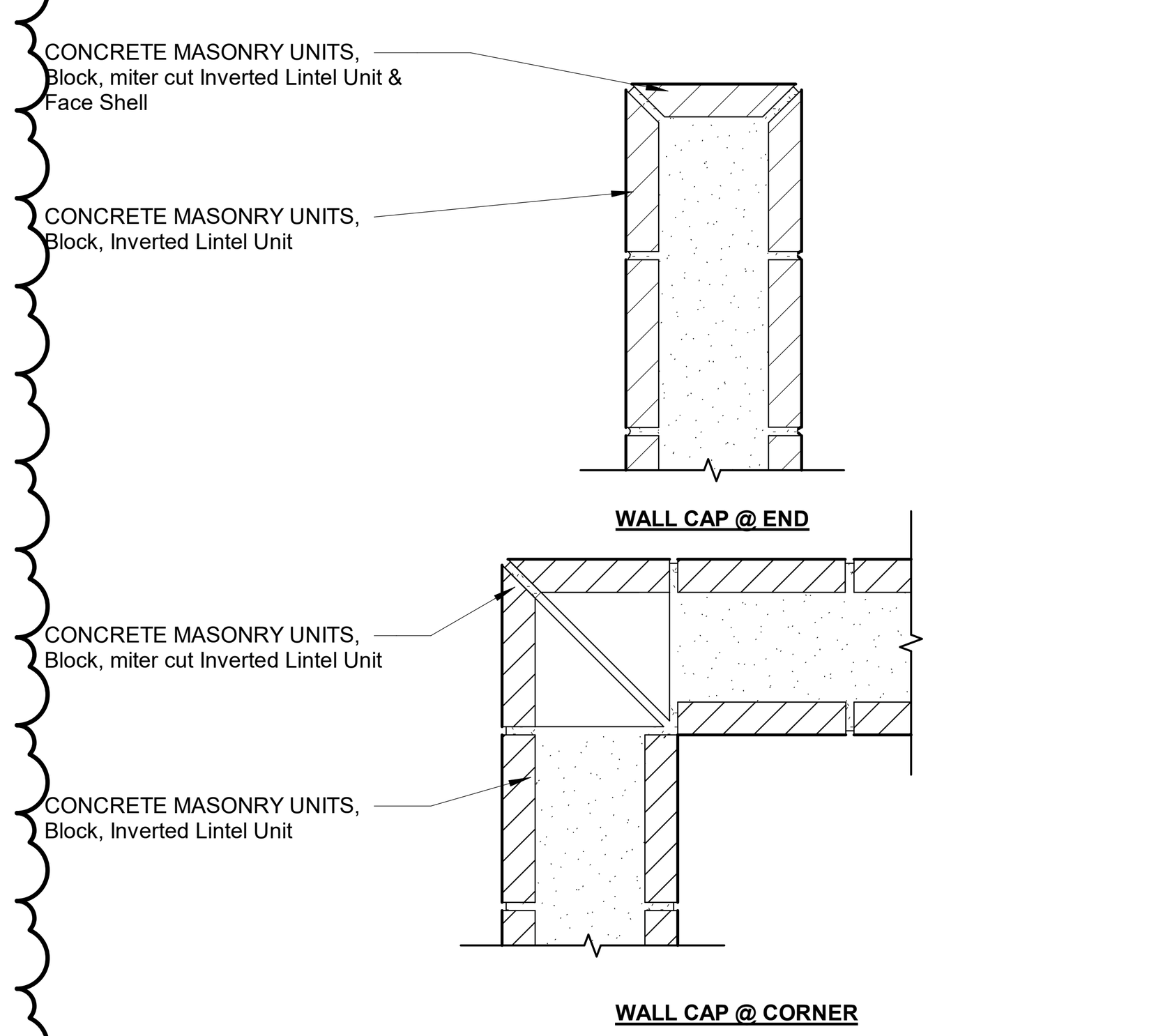




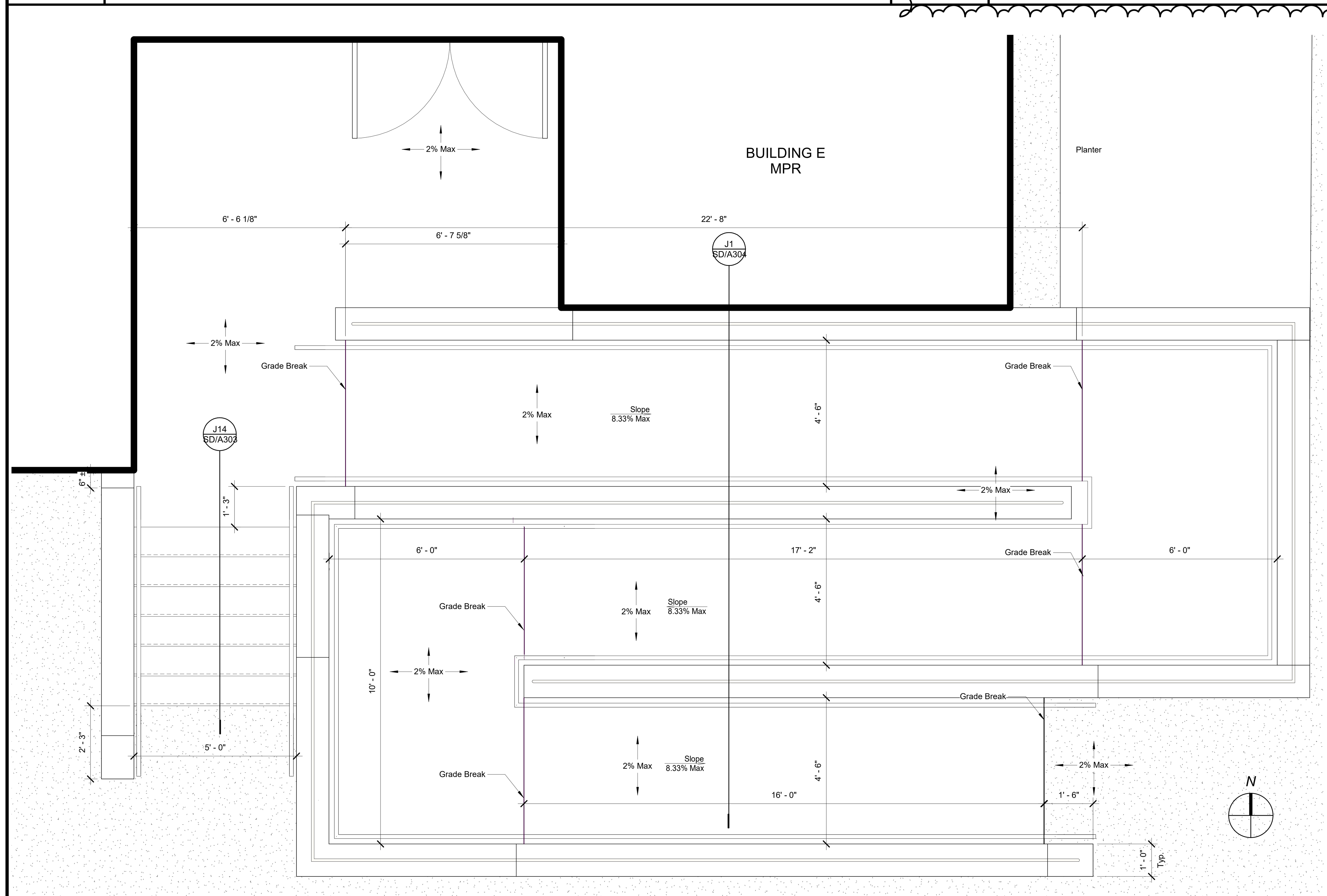
N11 — CONCRETE MASONRY UNITS, Typical Block Elevation — 1/2" = 1'-0"



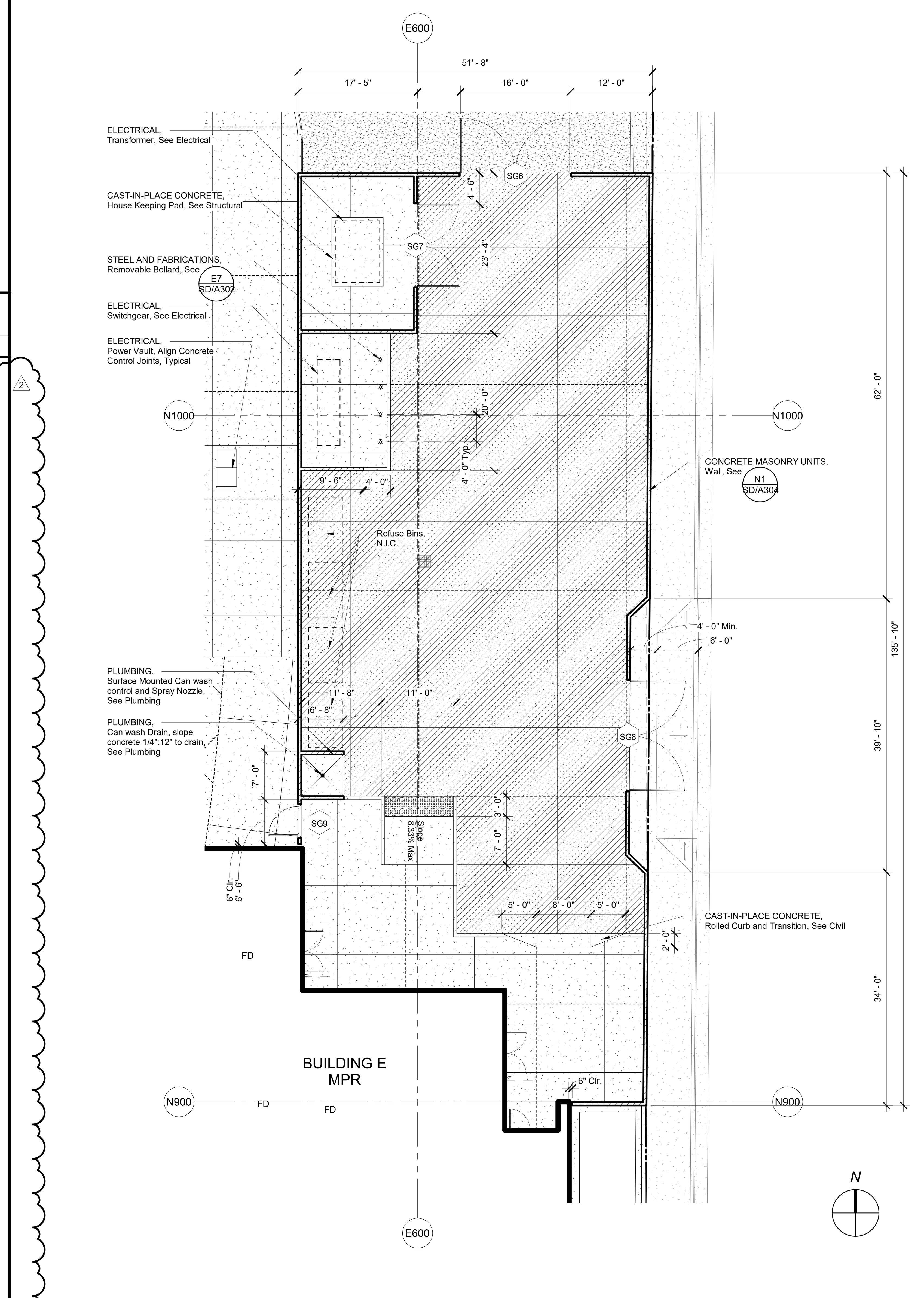
J1 — CAST-IN-PLACE CONCRETE, Ramp Detail at MPR — 1/2" = 1'-0"



J7 — CONCRETE MASONRY UNITS, CMU Corner Details — 1/2" = 1'-0"



A1 — Enlarged Site Plan, MPR Ramp Plan — 1/2" = 1'-0"



A11 — Enlarged Site Plan- Service Yard — 1" = 10'-0" — See E18- SD/A101 for Legend

DSA File No.: 10-48

DSA Application No.: 02-120543

Agency Approval

General Notes

Consultant

McKinley/Fowler Elementary School- Increment 1
Clovis Unified School District
Fresno, CA 93727

Project

SITE DEVELOPMENT
ENLARGED SITE PLANS, AND CMU DETAILS

Drawing

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LICENSED ARCHITECT — MICHAEL K. FENNER — No. C23724 — Ren. 4-30-23 — STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

		Designed By: AC	Copyright 2022 Darden Architects
Scale:	As indicated	Drawn By: BP	SD/A304
Project Number:	2116	Checked By: AC	
Date:	12/12/22	Reviewed By: MF	

1/20/2023 2:53:23 PM
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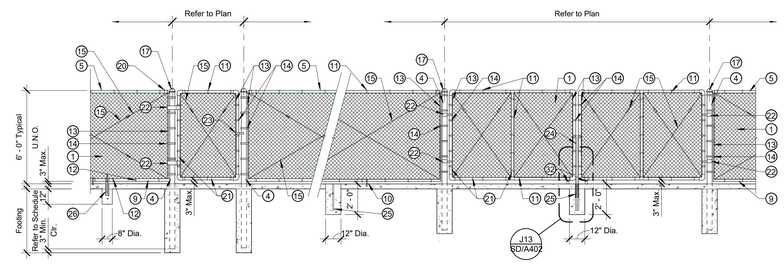
AD2- AX09



SINGLE LEAF GATE

DOUBLE LEAF GATE

NOTE: Conditions shown are considered typical for chain link fences and gates unless noted otherwise

CHAIN LINK POST AND FOOTING SCHEDULE				
MAX. FENCE HEIGHT	LINE POSTS		TERMINAL POSTS	
	POST	FOOTING	POST	FOOTING
4'-0"	2-3/8" O.D.	12" dia. x 2'-0" D.	2-7/8" O.D.	12" dia. x 2'-6" D.
6'-0"	2-7/8" O.D.	14" dia. x 2'-6" D.	3-1/2" O.D.	14" dia. x 3'-0" D.

Post and footing sizes are minimal unless specifically detailed and noted otherwise. 10' o.c. Spacing Max U.N.O.

CHAIN LINK GATE POST AND FOOTING SCHEDULE				
MAX. GATE LEAF WIDTH	6'-0" MAX. GATE HEIGHT		8'-0" MAX. GATE HEIGHT	
	GATE POST	POST FOOTINGS	GATE POST	POST FOOTINGS
4'-0"	2-3/8" O.D.	14" dia. x 2'-6" D.	2-7/8" O.D.	14" dia. x 3'-0" D.
6'-0"	2-7/8" O.D.	14" dia. x 3'-0" D.	2-7/8" O.D.	14" dia. x 3'-0" D.
8'-0"	2-7/8" O.D.	14" dia. x 3'-0" D.	4" O.D.	16" dia. x 3'-0" D.
10'-0"	2-7/8" O.D.	14" dia. x 3'-0" D.	4" O.D.	16" dia. x 3'-0" D.
12'-0"	4" O.D.	16" dia. x 3'-0" D.	4" O.D.	16" dia. x 3'-0" D.
14'-0"	4" O.D.	16" dia. x 3'-0" D.	6-5/8" O.D.	20" dia. x 3'-6" D.
16'-0"	4" O.D.	16" dia. x 3'-0" D.	6-5/8" O.D.	20" dia. x 3'-6" D.
18'-0"	4" O.D.	16" dia. x 3'-0" D.	6-5/8" O.D.	20" dia. x 3'-6" D.
20'-0"	----	----	8-5/8" O.D.	26" dia. x 4'-0" D.

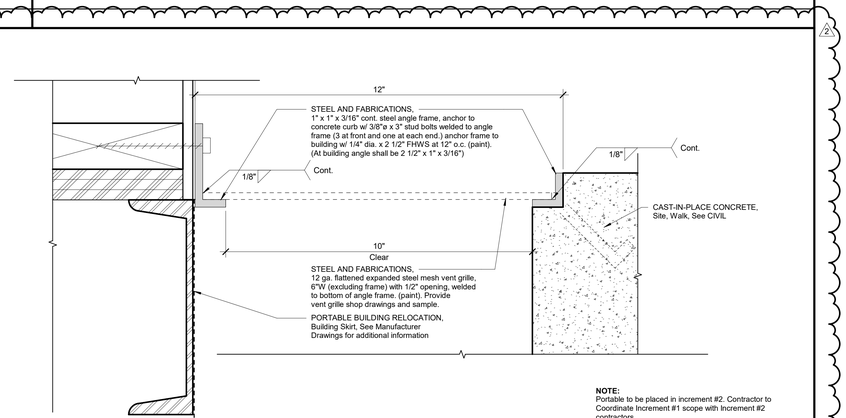
Gate posts and footing sizes are minimum. When terminal posts are greater than gate posts, use terminal post and footing sizes for gate posts

LEGEND

1. Fabric
2. Post, Line
3. Post, Terminal
4. Post, Gate
5. Rails, Top
6. Rails, Horizontal
7. Rails, Braces
8. Rails, Bottom
9. Tension Wire
10. Hook Bolts
11. Tie Wires
12. Hog Rings
13. Tension Bar
14. Tension Bands
15. Truss Rod Assembly
16. Fittings, Post Cap, Line
17. Fittings, Post Cap, Terminal
18. Fittings, Rail End
19. Fittings, Brace End
20. Fittings, Top Rail Sleeves
21. Gates, Frame
22. Gates, Hardware, Hinges
23. Gates, Hardware, Leaf Latch
24. Gates, Hardware, Double Leaf Latch
25. Gates, Hardware, Stop
26. Gates, Hardware, Keeper
27. Gates, Hardware, ADA Lock
28. Gates, Hardware, Exit Door
29. Gates, Hardware, ADA Kick Plate
30. Pipe Track and Bracket
31. Roller Assembly
32. Wheel Assembly
33. Steel Angle Track
34. Guide Post

N4 — CHAIN LINK, Typical Conditions

1/4" = 1'-0"



NOTE:
Portable to be placed in increment #2. Contractor to Coordinate Increment #1 scope with Increment #2 contractors.

E1 — PORTABLE BUILDING RELOCATION, Vent Support Detail

6" = 1'-0"

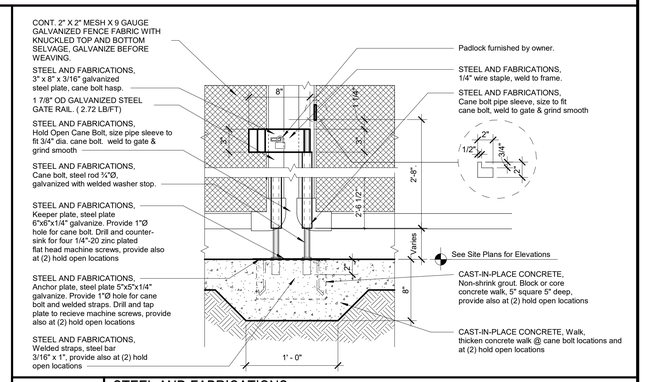
A1 — PORTABLE BUILDING RELOCATION, Site Slab, Portable Venting

1 1/2" = 1'-0"

NOTE: This condition is Typical for the Perimeter Chain Link Fence line along McKinley Avenue

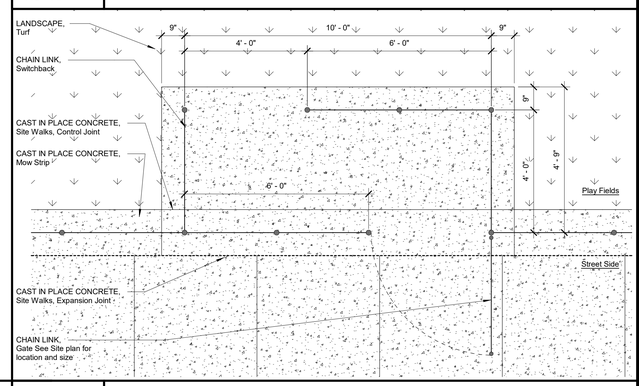
A8 — CAST-IN-PLACE CONCRETE, Concrete Curb and mowstrip at Chain Link Fence

1 1/2" = 1'-0"



J13 — STEEL AND FABRICATIONS, Double Leaf Steel Gate Latch and Cane Bolt

1 1/2" = 1'-0"



E13 — CHAIN LINK, Typical Switchback at Perimeter

1/2" = 1'-0"

DSA File No.:
10-48

DSA Application No.:
02-120543

Agency Approval

General Notes

McKinley/Fowler Elementary School- Increment 1
Clovis Unified School District
Fresno, CA 93727

Project

SITE DEVELOPMENT
CHAINLINK FENCING AND SITE DETAILS

Drawing

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LICENSED ARCHITECT MICHAEL K. FENLON No. C23724 REG. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: AC	Copyright 2022 Darden Architects	
Scale: As indicated	Drawn By: BP	*SD/A402*	
Project Number: 2116	Checked By: AC		
Date: 12/12/22	Reviewed By: MF		

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AD2- AX10

A1 | FOUNDATION PLAN
A/S401 | A/S201 | 1/8" = 1'-0"

1. SEE TYPICAL SHEETS FOR ALL GENERAL AND MATERIAL NOTES, AND ALL TYPICAL SCHEDULES AND DETAILS. THE INFORMATION ON THE TYPICAL SHEETS APPLY TO THE PROJECT AND ARE NOT SPECIFICALLY REFERENCED ON PLAN WORK, UNLESS NOTED OTHERWISE. IF TYPICAL DETAILS ARE SPECIFIED ON PLANS OR NOTES, THEY WILL BE REFERENCED WITH THE WORD "TYPICAL" FOLLOWED BY **BOLD AND UNDERLINED** TEXT STATING THE TITLE OF THE TYPICAL DETAIL OR NOTE.
2. ALL DIMENSIONS SHOWN ARE TO FACE OF EXTERIOR WALLS, CENTER OF COLUMN OR CENTER OF INTERIOR WALLS UNLESS NOTED OTHERWISE. EDGE OF SLAB AT PERIMETER OF BUILDING SHALL BE INDICATED IN SPECIFIC DETAILS AND ARCHITECTURAL. VERIFY ALL BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. NOTIFY THE ARCHITECT IMMEDIATELY IF THERE ARE ANY CONFLICTS WITH THE DIMENSIONS SHOWN.
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4. ALL PAD AND CONTINUOUS FOOTINGS ARE TO BE CENTERED ON WALLS AND COLUMNS ABOVE UNLESS NOTED OTHERWISE.
5. SEE CIVIL AND/OR ARCHITECTURAL SITE PLAN FOR LOCATION AND DIMENSIONS OF SIDEWALKS, MOW STRIPS, PLANTERS AND OTHER LANDSCAPING FEATURES.
6. SEE ARCHITECTURAL AND PLUMBING PLANS FOR LOCATION OF ALL PIPING AND DRAINS. SEE TYPICAL DETAILS FOR STRUCTURAL REQUIREMENTS AT LOCATIONS WHERE PIPES INTERSECT OR ALIGN NEXT TO FOOTINGS AND SLABS.
7. ALL EMBEDDED ITEMS SHALL BE IN PLACE AND SECURED PRIOR TO POURING OF CONCRETE.
8. ALL SILL PLATE ANCHOR BOLTS SHALL BE SIZED, SPACED, PLACED, AND HAVE THE WASHER AND MATERIAL FINISH AS SPECIFIED IN THE **LIGHT GAUGE STEEL NOTES**.
9. CONTRACTOR SHALL SUBMIT CONTROL JOINT PLAN FOR APPROVAL PRIOR TO POURING SLAB. SEE TYPICAL **CONTROL JOINT** DETAIL FOR ADDITIONAL INFORMATION.
10. ALL TOP OF FOOTINGS SHALL BE 1'-0" BELOW FINISH SLAB, UNLESS NOTED OTHERWISE.
11. ALL ITEMS ARE NEW UNLESS NOTED OTHERWISE.

N14 STEEL FOUNDATION NOTES
A/S201 NOT TO SCALE

STEEL STUDS. AT EXTERIOR WALL LOCATIONS, PROVIDE 600S162-54 @ 16" O.C., U.N.O. SEE TYPICAL **BEARING AND EXTERIOR WALL FRAMING AT OPENINGS FOR LIGHT GAUGE STEEL** DETAIL.

INTERIOR STUD WALL. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.

"XX" AS INDICATED ON PLAN. SEE TYPICAL **SCHEDULES** AS FOLLOWS:
- C# - COLUMN SCHEDULE
- P# - PILASTER SCHEDULE
- W# - WALL SCHEDULE
- F# - FOUNDATION SCHEDULE

T.O.F. +X'-X" — TOP OF FOOTING (T.O.F.). +X'-X" IS THE DISTANCE FROM FINISHED FIRST FLOOR, UNLESS NOTED OTHERWISE.

BRACE. SEE ELEVATION FOR SIZE AND ORIENTATION

CONCRETE SLAB. PROVIDE 5" THICK MINIMUM SLAB WITH #4 @ 18" O.C. EACH WAY, U.N.O. ON 2" OF SAND THAT IS PLACED ON A MINIMUM 10 MIL THICK MOISTURE VAPOR BARRIER. SEE TYPICAL **CONCRETE NOTES** FOR ADDITIONAL INFORMATION.

J14 FOUNDATION LEGEND
A/S201 NOT TO SCALE

STRUCTURAL COLUMN SCHEDULE

MARK	TYPE	COMMENTS
C4	HSS4X4X1/4	SEE TYPICAL A14-X/S104 FOR ADD'L INFORMATION, U.N.O.
C5	HSS5X5X1/4	SEE TYPICAL A14-X/S104 FOR ADD'L INFORMATION, U.N.O.
C6	HSS6X6X1/4	SEE TYPICAL A14-X/S104 FOR ADD'L INFORMATION, U.N.O.

STRUCTURAL FOUNDATION SCHEDULE

MARK	TYPE	REINFORCEMENT
BFF4	4'-0"Wx1'-6"D CONTIN. FOOTING	(4) $6 BARS T&B W/ 90° HOOKS AT END. #5 TIES AT 6" O.C.
BFF6	6'-0"Wx1'-6"D CONTIN. FOOTING	(8) $6 BARS T&B W/ 90° HOOKS AT END. #5 TIES AT 6" O.C.
F4	4'-0"SQUAREx1'-6"DEEP	(9) #5 BARS BOTTOM EACH WAY
F5	5'-0"SQUAREx1'-6"DEEP	(9) #5 BARS BOTTOM EACH WAY
WF1	1'-6"Wx1'-6"D CONTIN. FOOTING	(2) #5 BARS BOTTOM

DSA File No.:

DSA Application No.:

Agency Approval

BrooksRansom ASSOCIATES 22203

Consultant

McKinley/Fowler Elementary School - Increment 2
Clovis Unified School District
Fresno, CA 93727
Project

BUILDING A - ADMINISTRATION
FOUNDATION PLAN
Drawing

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Architect

No.	Revision/Submission	Date

Revision

	Designed By: SOC	Copyright	Darden Architects
Scale: As indicated	Drawn By: BY		
Project Number: 2116	Checked By: SOC	A/S201	
Date: 09/27/22	Reviewed By SOC		

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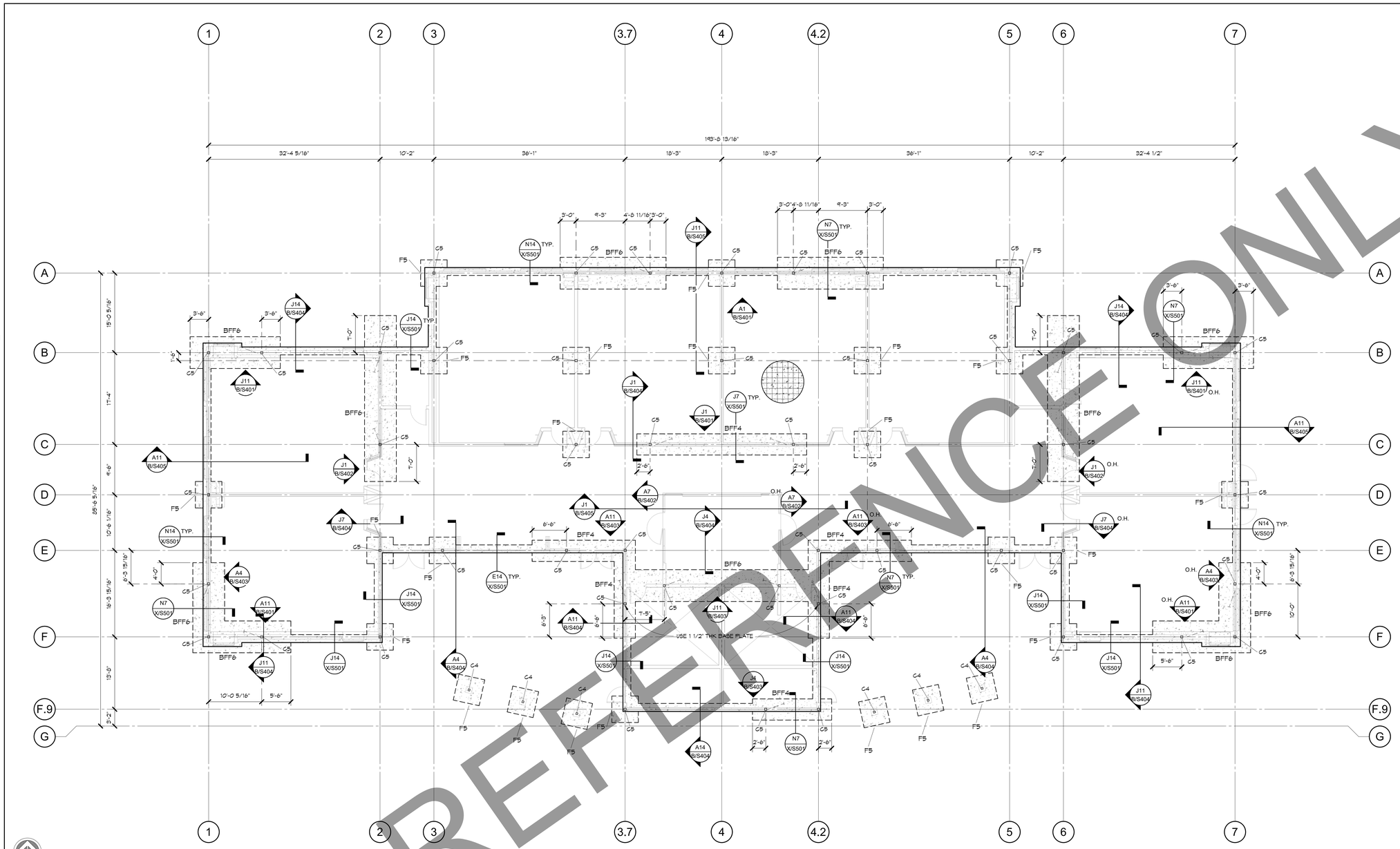

DSA File No.:

DSA Application No.:

Agency Approval

BrooksRansom ASSOCIATES
1400 N. PALM AVE, STE 102 | FRESNO, CA 93728
(559) 449-8444 OFFICE | (559) 449-8404 FAX
22203

REGISTERED PROFESSIONAL ENGINEER
LORD R. RANSOM
No. 52386
EXPIRES 3-31-24
CIVIL
STATE OF CALIFORNIA

E1 FOUNDATION PLAN

B/S401 | B/S201 | 1/8" = 1'-0"

1. SEE TYPICAL SHEETS FOR ALL GENERAL AND MATERIAL NOTES, AND ALL TYPICAL SCHEDULES AND DETAILS. THE INFORMATION ON THE TYPICAL SHEETS APPLY TO THE PROJECT AND ARE NOT SPECIFICALLY REFERENCED ON PLAN WORK, UNLESS NOTED OTHERWISE. IF TYPICAL DETAILS ARE SPECIFIED ON PLANS OR NOTES, THEY WILL BE REFERENCED WITH THE WORD "TYPICAL" FOLLOWED BY **BOLD AND UNDERLINED** TEXT STATING THE TITLE OF THE TYPICAL DETAIL OR NOTE.
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9. CONTRACTOR SHALL SUBMIT CONTROL JOINT PLAN FOR APPROVAL PRIOR TO POURING SLAB. SEE TYPICAL **CONTROL JOINT** DETAIL FOR ADDITIONAL INFORMATION.
10. ALL TOP OF FOOTINGS SHALL BE **1'-0"** BELOW FINISH SLAB, UNLESS NOTED OTHERWISE.
11. ALL ITEMS ARE NEW UNLESS NOTED OTHERWISE.

A1 STEEL FOUNDATION NOTES — B/S201 | NOT TO SCALE

STEEL STUDS. AT EXTERIOR WALL LOCATIONS, PROVIDE 600S162-54 @ 16" O.C., U.N.O. SEE TYPICAL **BEARING AND EXTERIOR WALL FRAMING AT OPENINGS FOR LIGHT GAUGE STEEL** DETAIL. AT INTERIOR WALL LOCATIONS, SEE ARCHITECTURAL AND TYPICAL **INTERIOR NON-BEARING WALL FRAMING AT OPENINGS FOR LIGHT GAUGE STEEL** DETAIL.

INTERIOR STUD WALL. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.

"XX" AS INDICATED ON PLAN. SEE TYPICAL **SCHEDULES** AS FOLLOWS:
C# - COLUMN SCHEDULE
P# - PILASTER SCHEDULE
W# - WALL SCHEDULE
F# - FOUNDATION SCHEDULE

T.O.F. "X'-X"

TOP OF FOOTING (T.O.F.). "X'-X" IS THE DISTANCE FROM FINISHED FIRST FLOOR, UNLESS NOTED OTHERWISE.

BRACE. SEE ELEVATION FOR SIZE AND ORIENTATION

CONCRETE SLAB. PROVIDE 5" THICK MINIMUM SLAB WITH #4 @ 18" O.C. EACH WAY, U.N.O. ON 2" OF SAND THAT IS PLACED ON A MINIMUM 10 MIL THICK MOISTURE VAPOR BARRIER. SEE TYPICAL **CONCRETE NOTES** FOR ADDITIONAL INFORMATION.

A4 FOUNDATION LEGEND — NOT TO SCALE

A7 COLUMN SCHEDULE — NOT TO SCALE

STRUCTURAL COLUMN SCHEDULE		
MARK	TYPE	COMMENTS
C4	HSS4X4X1/4	UNLESS DETAILED OTHERWISE, SEE DETAIL A14/X/S104 FOR BASE PLATE INFORMATION
C5	HSS5X5X1/4	UNLESS DETAILED OTHERWISE, SEE DETAIL A14/X/S104 FOR BASE PLATE INFORMATION
P4	HSS4X4X1/4	SEE DETAIL A1/B/S601 FOR ADDITIONAL INFO.
P5	HSS5X5X5/16	UNLESS DETAILED OTHERWISE, SEE DETAIL A11/X/S601

A11 FOUNDATION SCHEDULE — NOT TO SCALE

STRUCTURAL FOUNDATION SCHEDULE		
MARK	TYPE	REINFORCEMENT
BFF4	4'-0" WIDE x 1'-6" THICK CONT.	(6) #5 LONG. BARS T&B WITH 90° EACH END. #5 TIES @ 8" O.C.
BFF6	6'-0" WIDE x 1'-6" THICK CONT.	(6) #5 LONG. BARS T&B WITH 90° EACH END. #5 TIES @ 8" O.C.
F5	5'-0"SQ. x 18" THICK	(9) #5 BARS BOTTOM EACH WAY
WF1.5	1'-6" WIDE x 1'-6" DEEP CONT.	(2) #5 LONG. BARS TOP AND BOTTOM

McKinley/Fowler Elementary School - Increment 2
CLOVIS UNIFIED SCHOOL DISTRICT
FRESNO, CA 93727
Project

BUILDING B - CLASSROOMS
FOUNDATION PLAN
Drawing

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LICENSED ARCHITECT
MICHAEL K. FENLON
No. C23724
Exp. 4-30-23
STATE OF CALIFORNIA
Architect

No.	Revision/Submission	Date

Revision

Designed By: RP
Drawn By: RP
Checked By: ESB
Reviewed By SOC

Scale: As indicated
Project Number: 2116
Date: 09/27/22

B/S201

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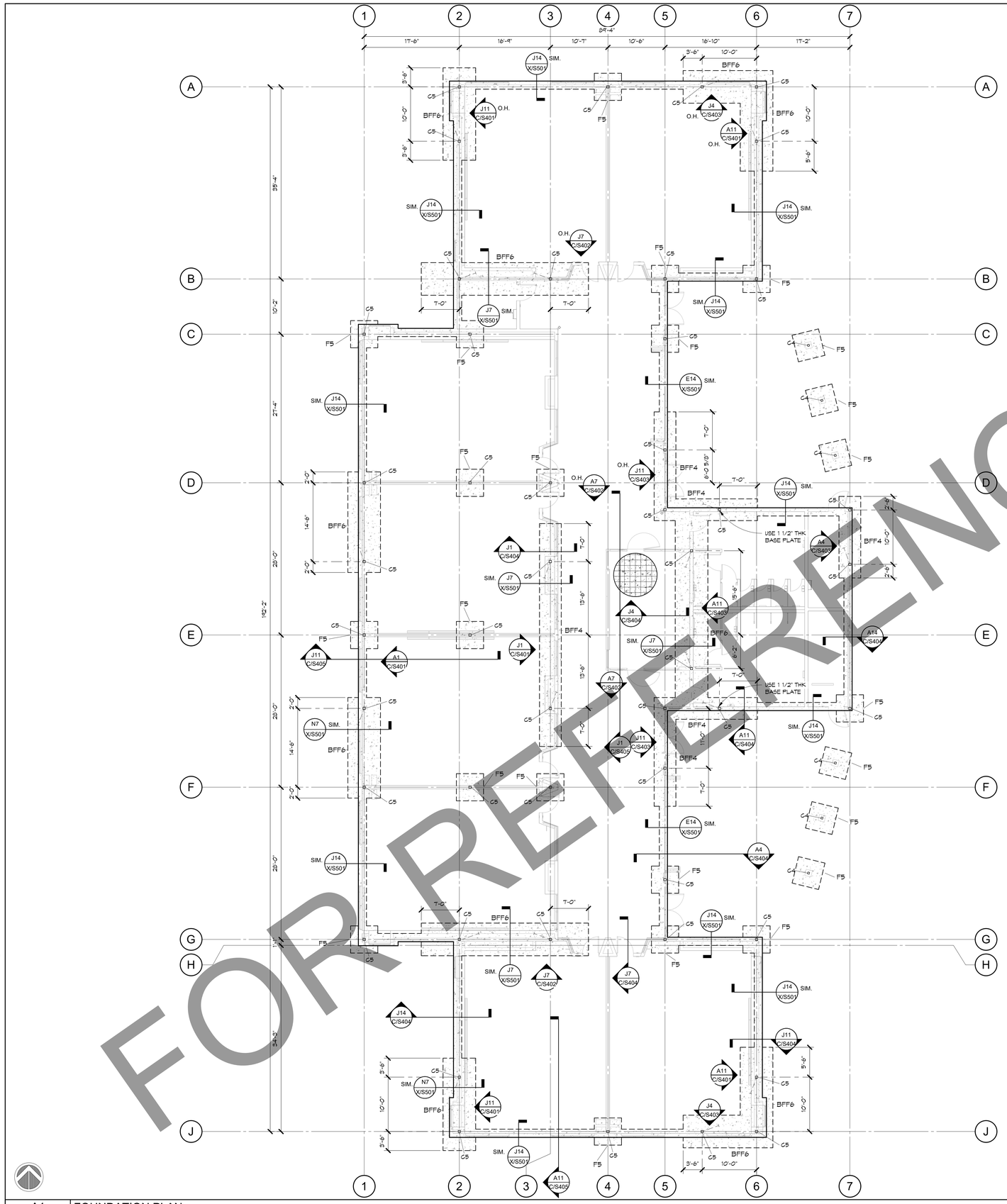

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10. ALL TOP OF FOOTINGS SHALL BE 1'-0" BELOW FINISH SLAB, UNLESS NOTED OTHERWISE.
11. ALL ITEMS ARE NEW UNLESS NOTED OTHERWISE.

N14 STEEL FOUNDATION NOTES

C/S201 NOT TO SCALE

STEEL STUDS. AT EXTERIOR WALL LOCATIONS, PROVIDE 600S162-54 @ 16" O.C., U.N.O. SEE TYPICAL **BEARING AND EXTERIOR WALL FRAMING AT OPENINGS FOR LIGHT GAUGE STEEL** DETAIL.

INTERIOR STUD WALL. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.

"XX" AS INDICATED ON PLAN. SEE TYPICAL **SCHEDULES** AS FOLLOWS:
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J14 FOUNDATION LEGEND

C/S201 NOT TO SCALE

STRUCTURAL COLUMN SCHEDULE

MARK	TYPE	COMMENTS
C4	HSS4X4X1/4	UNLESS DETAILED OTHERWISE. SEE DETAIL A14/X/S104 FOR BASE PLATE INFORMATION
C5	HSS5X5X1/4	UNLESS DETAILED OTHERWISE. SEE DETAIL A14/X/S104 FOR BASE PLATE INFORMATION
P4	HSS4X4X1/4	SEE DETAIL A1/B/S601 FOR ADDITIONAL INFORMATION
P5	HSS5X5X5/16	UNLESS DETAILED OTHERWISE. SEE DETAIL A11/X/S601

E14 COLUMN SCHEDULE

NOT TO SCALE

STRUCTURAL FOUNDATION SCHEDULE

MARK	TYPE	REINFORCEMENT
BFF4	4'-0" WIDE X 1'-6" THICK CONT.	(6) #5 LONG. BARS T&B WITH 90° EACH END, #5 TIES @ 8" O.C.
BFF6	6'-0" WIDE X 1'-6" THICK CONT.	(8) #5 LONG. BARS T&B WITH 90° EACH END, #5 TIES @ 8" O.C.
F5	5'-0"SQ x 18" THICK	(4) #5 BARS BOTTOM EACH WAY
WF1.5	1'-6" WIDE X 1'-6" DEEP CONT.	(2) #5 LONG. BARS TOP AND BOTTOM

A14 FOUNDATION SCHEDULE

NOT TO SCALE

A1 FOUNDATION PLAN

C/S401 | C/S201 — 1/8" = 1'-0"

DSA File No.:

DSA Application No.:

Agency Approval

BrooksRansom ASSOCIATES
745 N. PALM AVE, STE 100 | FRESNO, CA 93705
(559) 449-9444 OFFICE | (559) 449-9404 FAX
22203

REGISTERED PROFESSIONAL ENGINEER — RAYLAND R. RANSOM — No. 52386 — EXPIRES 3-31-24 — CIVIL — STATE OF CALIFORNIA

McKinley/Fowler Elementary School - Increment 2
Clovis Unified School District
Fresno, CA 93727
Project

Building C - Classrooms
FOUNDATION PLAN
Drawing

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6790 N. West Ave. • Fresno, CA 93711 • T. 559.448.8051

LICENSED ARCHITECT — REGINALD K. FENNOY — No. C23724 — Exp. 4-30-23 — STATE OF CALIFORNIA
Architect

No.	Revision/Submission	Date

Revision

Designed By: RP
Drawn By: RP
Checked By: ESB
Reviewed By SOC

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Scale: As indicated
Project Number: 2116
Date: 09/27/22

C/S201

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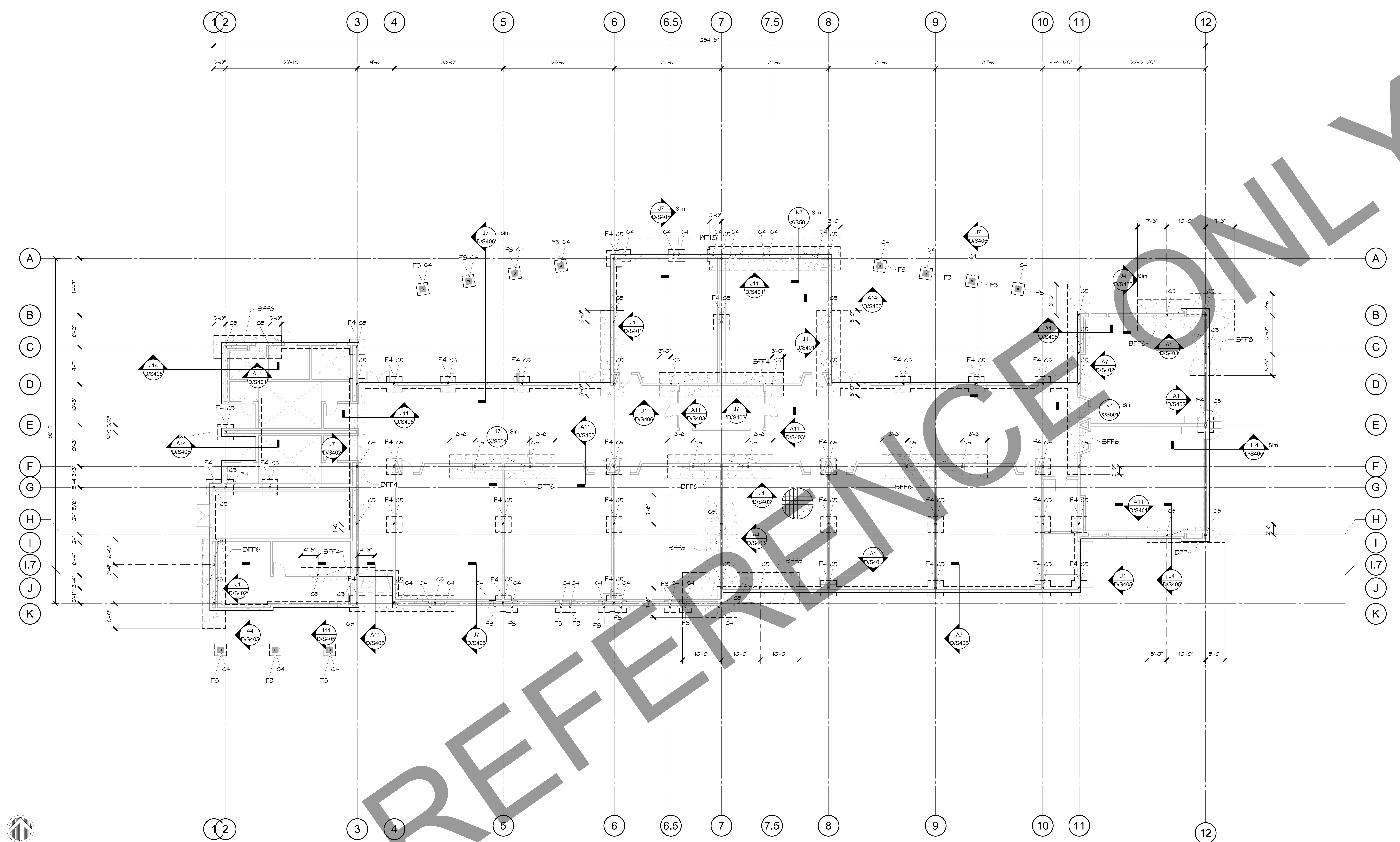
DSA File No.:

DSA Application No.:

Agency Approval



General Notes

BrooksRansom ASSOCIATES
7415 N. PALM AVE. STE 100 | FRESNO, CA 93711
(559) 449-8444 OFFICE | (559) 449-8404 FAX
22203

REGISTERED PROFESSIONAL ENGINEER GAYLORD R. RANSOM No. S2386 EXPIRES 3-31-24 STRUCTURAL STATE OF CALIFORNIA

E1 FOUNDATION PLAN

D/S401 | D/S201 | 3/32" = 1'-0"

1. SEE TYPICAL SHEETS FOR ALL GENERAL AND MATERIAL NOTES, AND ALL TYPICAL SCHEDULES AND DETAILS. THE INFORMATION ON THE TYPICAL SHEETS APPLY TO THE PROJECT AND ARE NOT SPECIFICALLY REFERENCED ON PLAN WORK, UNLESS NOTED OTHERWISE. IF TYPICAL DETAILS ARE SPECIFIED ON PLANS OR NOTES, THEY WILL BE REFERENCED WITH THE WORD "TYPICAL" FOLLOWED BY **BOLD AND UNDERLINED** TEXT STATING THE TITLE OF THE TYPICAL DETAIL OR NOTE.
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A1 STEEL FOUNDATION NOTES

D/S201 | NOT TO SCALE

STEEL STUDS. AT EXTERIOR WALL LOCATIONS, PROVIDE 600S162-54 @ 16" O.C., U.N.O. SEE TYPICAL **BEARING AND EXTERIOR WALL FRAMING AT OPENINGS FOR LIGHT GAUGE STEEL** DETAIL.

INTERIOR STUD WALL. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.

"XX" AS INDICATED ON PLAN. SEE TYPICAL **SCHEDULES** AS FOLLOWS:
- C# - COLUMN SCHEDULE
- P# - PILASTER SCHEDULE
- W# - WALL SCHEDULE
- F# - FOUNDATION SCHEDULE

T.O.F. +X'-X"

TOP OF FOOTING (T.O.F.). +X'-X" IS THE DISTANCE FROM FINISHED FIRST FLOOR, UNLESS NOTED OTHERWISE.

BRACE. SEE ELEVATION FOR SIZE AND ORIENTATION

CONCRETE SLAB. PROVIDE 5" THICK MINIMUM SLAB WITH #4 @ 18" O.C. EACH WAY, U.N.O. ON 2" OF SAND THAT IS PLACED ON A MINIMUM 10 MIL THICK MOISTURE VAPOR BARRIER. SEE TYPICAL **CONCRETE NOTES** FOR ADDITIONAL INFORMATION.

A4 FOUNDATION LEGEND

D/S201 | NOT TO SCALE

STRUCTURAL COLUMN SCHEDULE

MARK	TYPE	COMMENTS
C4	HSS4X4X1/4	
C4	HSS5X5X3/8	
C5	HSS5X5X1/4	

STRUCTURAL FOUNDATION SCHEDULE

MARK	TYPE	REINFORCEMENT
BFF4	4'-0"WIDEx1'-6"DEEP CONTIN. FOOTING	(4) #6 BARS T&B W/ 90° HOOKS AT END. #5 TIES AT 6" O.C.
BFF6	6'-0"Wx2'-0"D CONTIN. FOOTING	(8) #6 BARS T&B W/ 90° HOOKS AT END. #5 TIES AT 6" O.C.
BFF8	8'-0"Wx2'-0"D CONTIN. FOOTING	(12) #6 BARS T&B W/ 90° HOOKS AT END. #5 TIES AT 6" O.C.
F3	3'-0"SQUAREx1'-6"DEEP	(6) #5 BARS BOTTOM EACH WAY
F4	4'-0"SQUAREx1'-6"DEEP	(9) #5 BARS BOTTOM EACH WAY
WF1.5	1'-6"Wx1'-6"D CONTIN FOOTING	(2) #5 LONG. BARS BOTTOM

McKinley/Fowler Elementary School - Increment 2

Clovis Unified School District
Fresno, CA 93727

Project

BUILDING D - CLASSROOMS

FOUNDATION PLAN

Drawing

darden architects
ARCHITECTURE PLANNING INTERIORS
www.dardenarchitects.com
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LICENSED ARCHITECT MICHAEL K. FENNACY No. C23724 Ren. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date

Revision

	Designed By: SOC	Copyright Darden Architects
Scale: As indicated	Drawn By: SOC	D/S201
Project Number: XXXXX	Checked By: SOC	
Date: 2011-XX-XX	Reviewed By: SOC	

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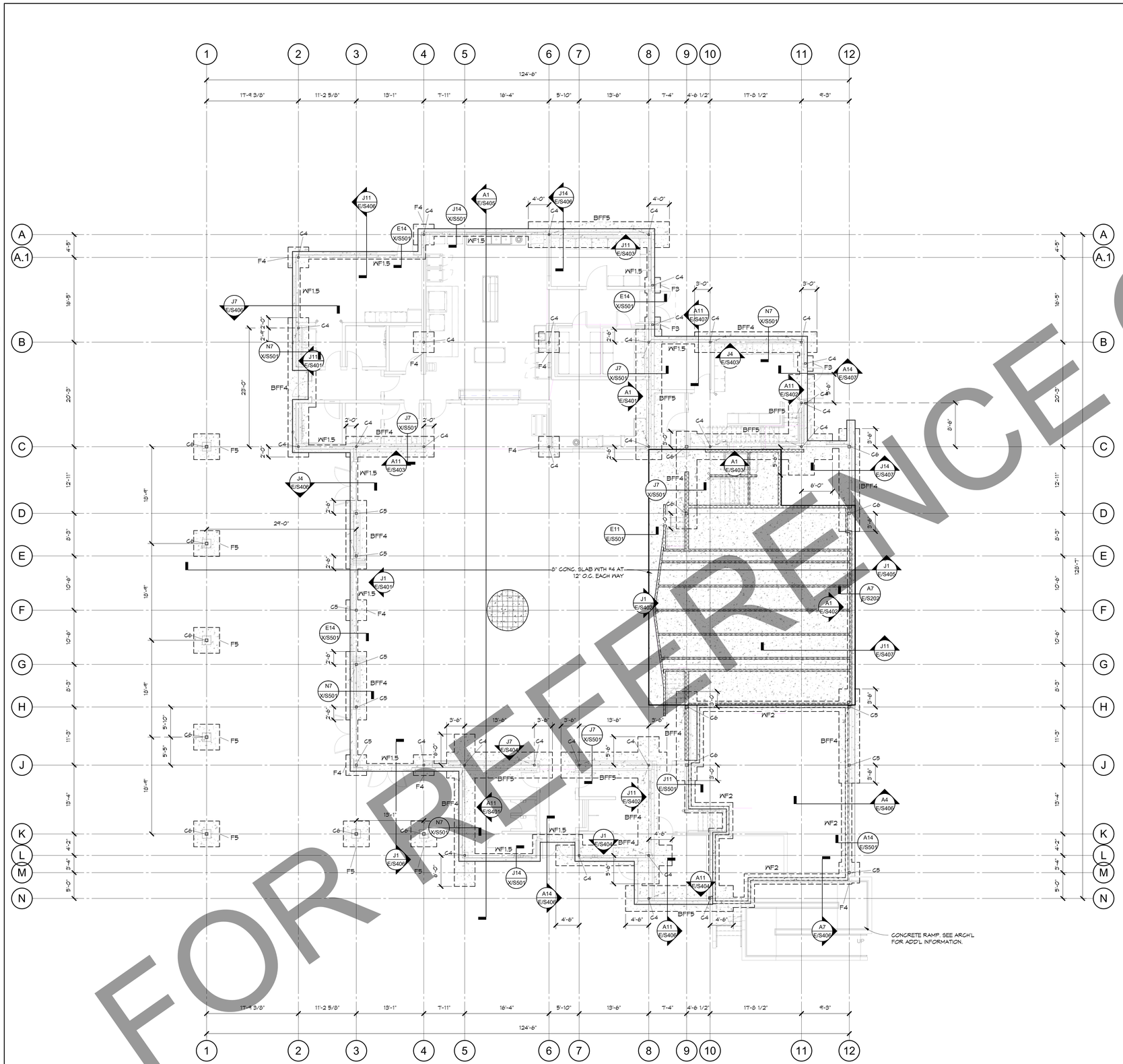

1. SEE TYPICAL SHEETS FOR ALL GENERAL AND MATERIAL NOTES, AND ALL TYPICAL SCHEDULES AND DETAILS. THE INFORMATION ON THE TYPICAL SHEETS APPLY TO THE PROJECT AND ARE NOT SPECIFICALLY REFERENCED ON PLAN WORK, UNLESS NOTED OTHERWISE. IF TYPICAL DETAILS ARE SPECIFIED ON PLANS OR NOTES, THEY WILL BE REFERENCED WITH THE WORD "TYPICAL" FOLLOWED BY **BOLD AND UNDERLINED** TEXT STATING THE TITLE OF THE TYPICAL DETAIL OR NOTE.
2. ALL DIMENSIONS SHOWN ARE TO FACE OF EXTERIOR WALLS, CENTER OF COLUMN OR CENTER OF INTERIOR WALLS UNLESS NOTED OTHERWISE. EDGE OF SLAB AT PERIMETER OF BUILDING SHALL BE INDICATED IN SPECIFIC DETAILS AND ARCHITECTURAL. VERIFY ALL BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. NOTIFY THE ARCHITECT IMMEDIATELY IF THERE ARE ANY CONFLICTS WITH THE DIMENSIONS SHOWN.
3. ALL UNCLEAR AND/OR MISSING DETAILS SHALL BE BROUGHT TO THE STRUCTURAL ENGINEER'S ATTENTION BEFORE PROCEEDING WITH CONSTRUCTION.
4. ALL PAD AND CONTINUOUS FOOTINGS ARE TO BE CENTERED ON WALLS AND COLUMNS ABOVE UNLESS NOTED OTHERWISE.
5. SEE CIVIL AND/OR ARCHITECTURAL SITE PLAN FOR LOCATION AND DIMENSIONS OF SIDEWALKS, MOW STRIPS, PLANTERS AND OTHER LANDSCAPING FEATURES.
6. SEE ARCHITECTURAL AND PLUMBING PLANS FOR LOCATION OF ALL PIPING AND DRAINS. SEE TYPICAL DETAILS FOR STRUCTURAL REQUIREMENTS AT LOCATIONS WHERE PIPES INTERSECT OR ALIGN NEXT TO FOOTINGS AND SLABS.
7. ALL EMBEDDED ITEMS SHALL BE IN PLACE AND SECURED PRIOR TO POURING OF CONCRETE.
8. ALL SILL PLATE ANCHOR BOLTS SHALL BE SIZED, SPACED, PLACED, AND HAVE THE WASHER AND MATERIAL FINISH AS SPECIFIED IN THE **LIGHT GAUGE STEEL NOTES**.
9. CONTRACTOR SHALL SUBMIT CONTROL JOINT PLAN FOR APPROVAL PRIOR TO POURING SLAB. SEE TYPICAL **CONTROL JOINT** DETAIL FOR ADDITIONAL INFORMATION.
10. ALL TOP OF FOOTINGS SHALL BE 1'-0" BELOW FINISH SLAB, UNLESS NOTED OTHERWISE.
11. ALL ITEMS ARE NEW UNLESS NOTED OTHERWISE.

N14 FOUNDATION NOTES
E/S201 NOT TO SCALE

STEEL STUDS ON CONCRETE CURB. AT EXTERIOR WALL LOCATIONS, PROVIDE 600S162-54 @ 16" O.C., U.N.O. SEE TYPICAL **BEARING AND EXTERIOR WALL FRAMING AT OPENINGS FOR LIGHT GAUGE STEEL** DETAIL.

INTERIOR STUD WALL. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.

"XX" AS INDICATED ON PLAN. SEE TYPICAL **SCHEDULES** AS FOLLOWS:
- C# - COLUMN SCHEDULE
- P# - PLASTER SCHEDULE
- W# - WALL SCHEDULE
- F# - FOUNDATION SCHEDULE

T.O.F. +X'-X" — TOP OF FOOTING (T.O.F.). +X'-X" IS THE DISTANCE FROM FINISHED FIRST FLOOR, UNLESS NOTED OTHERWISE.

BRACE. SEE ELEVATION FOR SIZE AND ORIENTATION

CONCRETE SLAB. PROVIDE 5" THICK MINIMUM SLAB WITH #4 @ 18" O.C. EACH WAY, U.N.O. ON 2" OF SAND THAT IS PLACED ON A MINIMUM 10 MIL THICK MOISTURE VAPOR BARRIER. SEE TYPICAL **CONCRETE NOTES** FOR ADDITIONAL INFORMATION.

J14 FOUNDATION LEGEND
E/S201 NOT TO SCALE

STRUCTURAL FOUNDATION SCHEDULE

MARK	TYPE	REINFORCEMENT
BFF4	4'-0" WIDE X 18" THICK CONT.	(4) #6 BARS T&B W/ 90° HOOKS AT END. #5 TIES AT 6" O.C.
BFF5	5'-0" WIDE X 18" THICK CONT.	(5) #6 BARS T&B W/ 90° HOOKS AT END. #5 TIES AT 6" O.C.
F3	3'-0"SQ. X 1'-6"THICK	(5) #5 BARS BOTTOM EACH WAY
F4	4'-0"SQ. X 18" THICK	(9) #5 BARS BOTTOM EACH WAY
F5	5'-0"SQ. X 18" THICK	(9) #5 BARS T&B EACH WAY
WF1.5	1'-6" WIDE X 18" THICK CONT.	(2) #5 LONG. BARS BOTTOM
WF2	2'-0" WIDE X 18" THICK CONT.	(2) #5 BARS LONG. TOP & BOTTOM

E14 FOUNDATION SCHEDULE
NOT TO SCALE

STRUCTURAL COLUMN SCHEDULE

MARK	TYPE	COMMENTS
C4	HSS4X4X1/4	SEE TYPICAL A14-X/S104 FOD ADD'L INFORMATION. U.N.O.
C5	HSS5X5X1/4	SEE TYPICAL A14-X/S104 FOD ADD'L INFORMATION. U.N.O.
C6	HSS6X6X1/4	SEE TYPICAL A14-X/S104 FOD ADD'L INFORMATION. U.N.O.
C6	HSS6X6X5/16	SEE TYPICAL A14-X/S104 FOD ADD'L INFORMATION. U.N.O.
P5	HSS5X5X5/16	SEE SPECIFIC DETAIL FOR ADD'L INFORMATION.

A14 COLUMN SCHEDULE
NOT TO SCALE

A1 FOUNDATION PLAN
E/S201 NOT TO SCALE

DSA File No.:

DSA Application No.:

Agency Approval

BrooksRansom ASSOCIATES
7485 N. PALM AVE. STE 103 | FRESNO, CA 93711
(559) 449-8444 OFFICE | (559) 449-8404 FAX
22203

Consultant

McKinley/Fowler Elementary School - Increment 2
Clovis Unified School District
Fresno, CA 93727
Project

BUILDING E - MPR
FOUNDATION PLAN
Drawing

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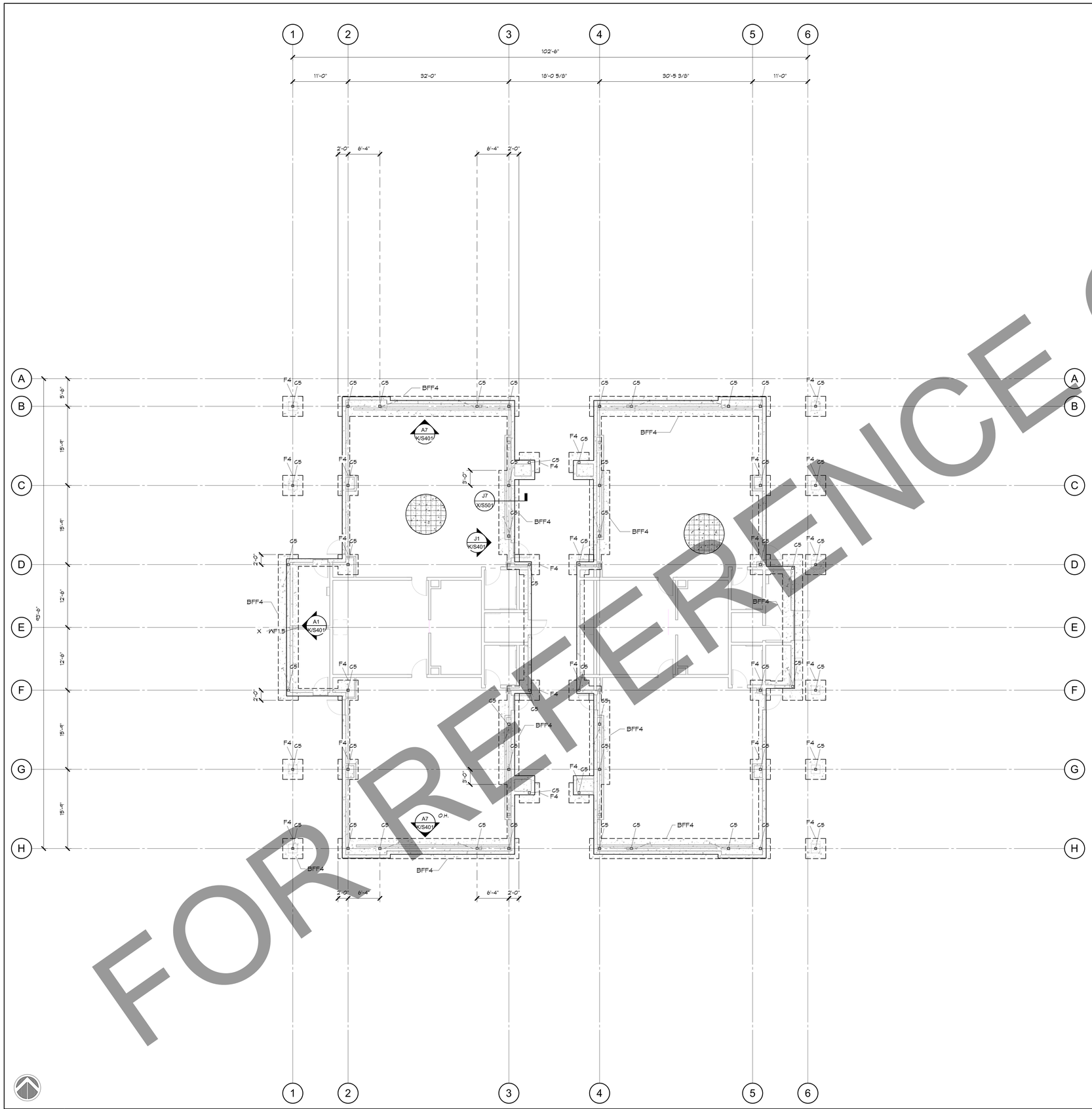
Architect

No.	Revision/Submission	Date

Revision

Designed By: ESB | Copyright Darden Architects
Scale: As indicated | Drawn By: ESB
Project Number: 2116 | Checked By: ESB
Date: 09/27/22 | Reviewed By: ESB

E/S201



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9. CONTRACTOR SHALL SUBMIT CONTROL JOINT PLAN FOR APPROVAL PRIOR TO POURING SLAB. SEE TYPICAL **CONTROL JOINT** DETAIL FOR ADDITIONAL INFORMATION.
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11. ALL ITEMS ARE NEW UNLESS NOTED OTHERWISE.

N14 STEEL FOUNDATION NOTES
K/S201 NOT TO SCALE

STEEL STUDS. AT EXTERIOR WALL LOCATIONS, PROVIDE 600S162-54 @ 16" O.C. U.N.O. SEE TYPICAL **BEARING AND EXTERIOR WALL FRAMING AT OPENINGS FOR LIGHT GAUGE STEEL** DETAIL.

INTERIOR STUD WALL. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.

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E14 FOUNDATION LEGEND
K/S201 NOT TO SCALE

STRUCTURAL COLUMN SCHEDULE

MARK	TYPE	COMMENTS
C5	HSS5X5X1/4	SEE TYPICAL A14-X/S104 DETAIL FOR ADD'L INFORMATION, U.N.O.

STRUCTURAL FOUNDATION SCHEDULE

MARK	TYPE	REINFORCEMENT
BFF4	4'-0"INDEX1'-6"DEEP CONTIN. FOOTING	(4) #6 BARS T&B W/ 90° HOOKS AT END, #5 TIES AT 6" O.C.
F4	4'-0"SQUAREX1'-6"DEEP	(9) #5 BARS BOTTOM EACH WAY
WF1.5	1'-6"WX1'-6"D CONTIN. FOOTING	(2) #5 LONG. BARS BOTTOM

A1 FOUNDATION PLAN
K/S401 | K/S201 | 1/8" = 1'-0"

DSA File No.:

DSA Application No.:

Agency Approval

BrooksRansom ASSOCIATES
1405 N. PALM AVE. STE 103 FRESNO, CA 93703
(559) 449-9444 OFFICE | (559) 449-9404 FAX
2220

REGISTERED PROFESSIONAL ENGINEER — GAYLORD R. RANSOM — No. S2386 EXPIRES 3-31-24 — STRUCTURAL — STATE OF CALIFORNIA

McKinley/Fowler Elementary School
Clovis Unified School District
PROJECT ADDRESS
Project

BUILDING K - KINDERGARTEN
FOUNDATION PLAN
Drawing

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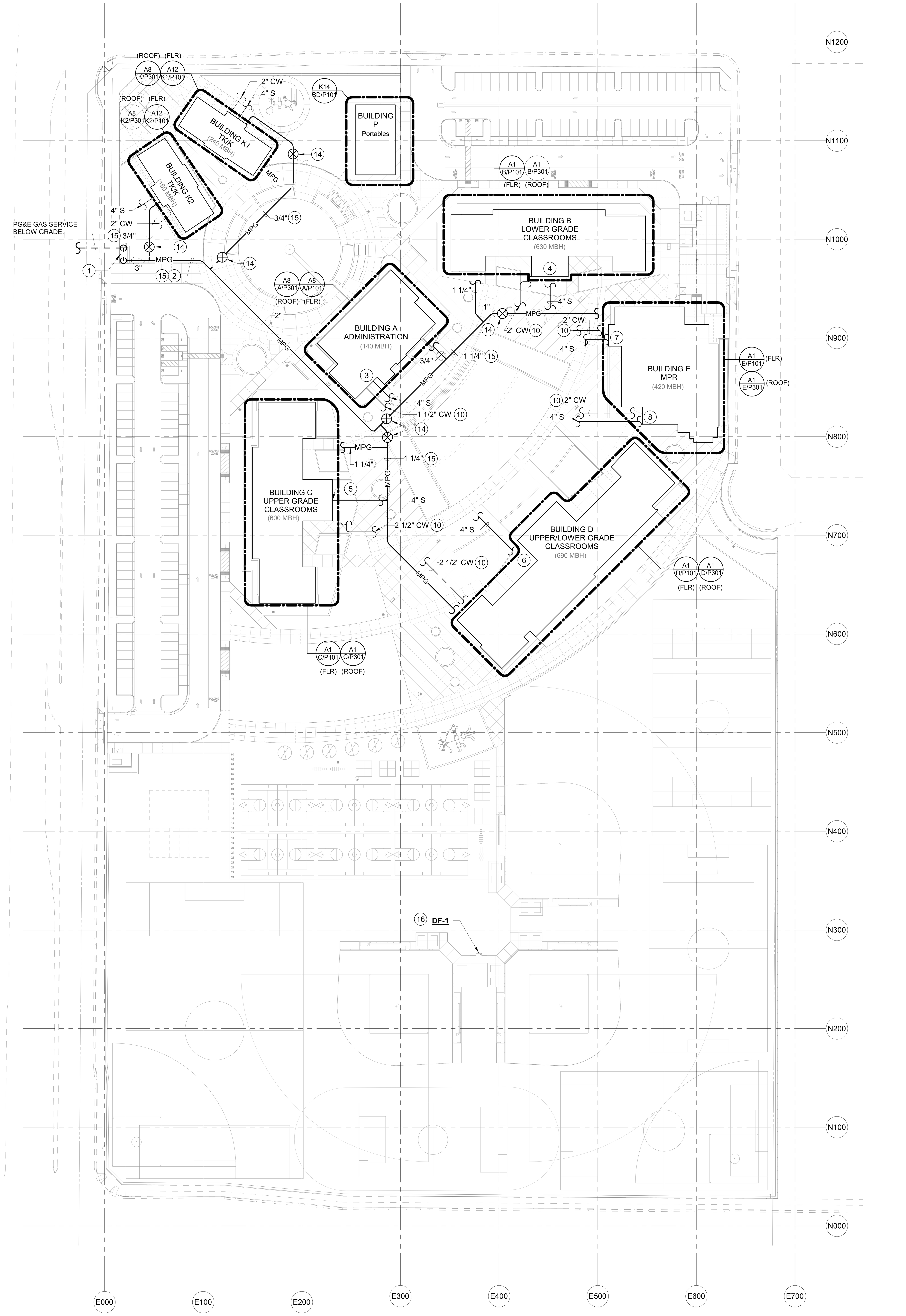
6790 N. West Ave. • Fresno, CA 93711 • T. 559.448.8051
LICENSED ARCHITECT — JEREMIE K. FENLON — No. C23724 — Exp. 4-30-23 — STATE OF CALIFORNIA
Architect

No.	Revision/Submission	Date

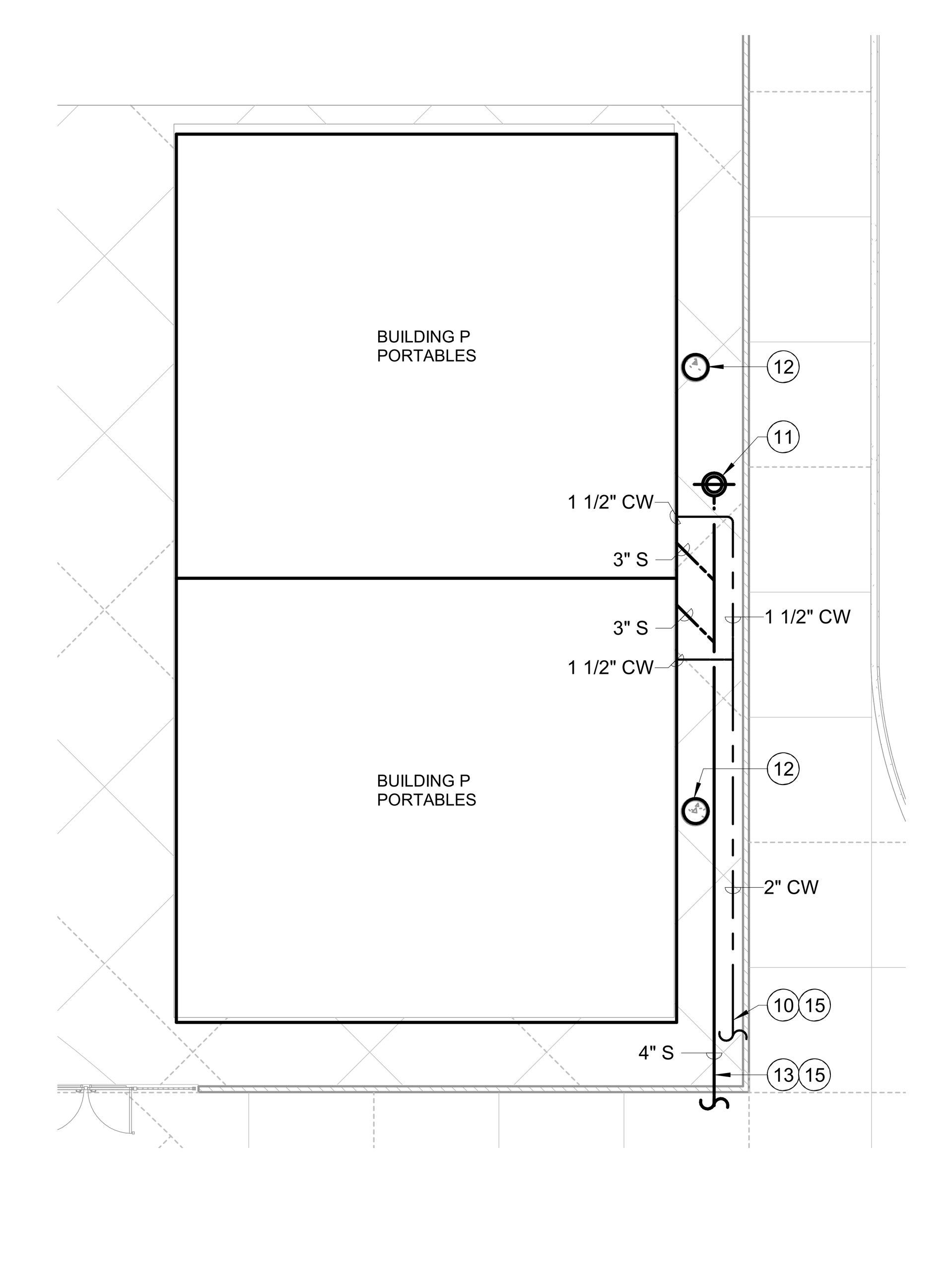
Revision

Designed By: SOC | Copyright Darden Architects
Scale: As indicated | Drawn By: SOC
Project Number: 2116 | Checked By: SOC
Date: 09/27/22 | Reviewed By SOC

K/S201



A1 PLUMBING SITE PLAN
1" = 50'-0"



K14 ENLARGED PLUMBING PLAN - BUILDING P - PORTABLE
1" = 10'-0"

FOR BIDDING ONLY
-NOT FOR CONSTRUCTION-

Agency Approval

KEYNOTES

1. GAS METER ASSEMBLY BY PG&E WITH 2 PSI OUTLET PRESSURE. SITE GAS PIPE SIZING DOWNSTREAM OF METER BASED ON 2019 CPC TABLE 1215.2(4) USING 800 FT ROW AND MAXIMUM LOAD OF 3,569 CFH.
2. MEDIUM PRESSURE GAS PIPING BELOW GRADE TO BUILDINGS. COORDINATE EXACT LOCATION WITH OTHER SITE UTILITIES.
3. 4" SEWER FROM BUILDING A. COORDINATE POC W/ CIVIL. (I.E. = 5'-0")
4. 4" SEWER FROM BUILDING B. COORDINATE POC W/ CIVIL. (I.E. = 4'-6")
5. 4" SEWER FROM BUILDING C. COORDINATE POC W/ CIVIL. (I.E. = 4'-6")
6. 4" SEWER FROM BUILDING D. COORDINATE POC W/ CIVIL. (I.E. = 5'-6")
7. 4" SEWER FROM BUILDING E KITCHEN. COORDINATE POC W/ CIVIL. (I.E. = 5'-6")
8. 4" SEWER FROM BUILDING E RESTROOMS. COORDINATE POC W/ CIVIL. (I.E. = 4'-0")
9. 4" SEWER FROM BUILDING K. COORDINATE POC W/ CIVIL. (I.E. = 4'-0")
10. COLD WATER FROM BUILDING, REFER TO CIVIL SHEETS FOR CONTINUATION.
11. 4" SEWER CLEANOUT TO GRADE PER DETAIL E4 ON SHEET X/P101.
12. DRYWELL TO SERVE PORTABLE'S OUTDOOR MECHANICAL UNIT, PER DETAIL A4 ON SHEET X/P101.
13. 4" SEWER FROM PORTABLES, REFER TO CIVIL SHEETS FOR CONTINUATION.
14. GAS SOV IN YARD BOX PER DETAIL J4 ON SHEET X/P101.
15. FOR UITLITY TRENCHING REFER TO DETAIL J4 ON SHEET X/P101.
16. PEDESTAL-MOUNTED HI-LO DRINKING FOUNTAIN WITH BOTTLE FILLER. COORDINATE SEWER AND WATER W/ CIVIL DRAWINGS.

GAS CALCULATIONS

CAMPUS GAS DEMAND		
BUILDING	REGULATOR	DEMAND (MBH)
A	1	140
B	2	630
C	3	600
D	4	745
E	5	1,054
K1	6	240
K2	7	160
TOTAL DEMAND (MBH)		3,569
CALCULATIONS BASED ON 2019 CPC TABLE 1215.2(4) 2 PSIG MPG @ 800' ROW		

General Notes

NET POSITIVE consulting engineers
www.NPCeng.com
project no. 1138

Consultant

McKinley / Fowler Elementary School- Inc. 1
Clovis Unified School District
Fresno, CA 93727

Project

SITE DEVELOPMENT
PLUMBING SITE PLAN

Drawing

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Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: HB	
Scale: As indicated	Drawn By: HB	*SD/P101*
Project Number: 2116	Checked By: JCS	
Date: 09/13/2022	Reviewed By: HB	

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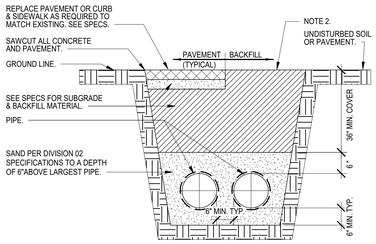
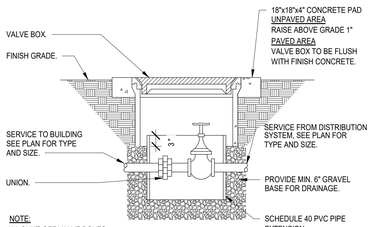
AD2- PX01



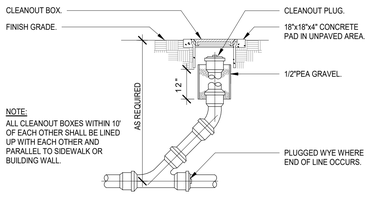
NOTES:
1. SEE PLANS FOR PIPE SIZE AND TYPE.
2. CONTRACTOR SHALL RESTRORE TO ITS ORIGINAL CONDITION ALL PAVING, CONCRETE, LANDSCAPING, IRRIGATION PIPING, OR UTILITY PIPING OR CONDUIT DAMAGED OR REMOVED DURING THE INSTALLATION OF THE UNDERGROUND BURIED PIPE.
3. PROVIDE ANSI/AWWA C105/A2.5 TUBULAR POLYETHYLENE ENCASEMENT (POLYWRAP) FOR ALL BEL. GR. PIPES. ALL JOINTS AND TRANSITIONS TO HAVE 2 LAYERS OF POLYWRAP WITH ENDS SEALED WITH ADHESIVE POLY-TAPE. PROVIDE TAPE OR PLASTIC TIE STRAPS AROUND THE POLYWRAP ENCASEMENT AT 2'-0" INTERVALS. VERTICAL RISERS TO BE WRAPPED THRU VAPOR BARRIER. SEE ARCH FOR WET SEALING WATERTIGHT.

N4	TYPICAL UTILITY TRENCH
NTS	



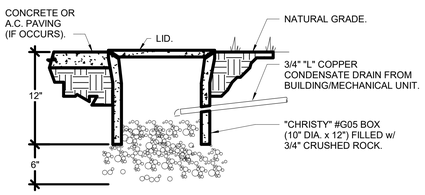
NOTE:
ALL SHUT-OFF VALVE BOXES WITHIN 10'-0" OF EACH OTHER SHALL BE LINED UP WITH EACH OTHER AND PARALLEL TO SIDE-WALK OR BUILDING WALL. DO NOT LOCATE IN SIDEWALKS.

J4	SHUT-OFF VALVE IN YARD BOX
NTS	



NOTE:
ALL CLEANOUT BOXES WITHIN 10' OF EACH OTHER SHALL BE LINED UP WITH EACH OTHER AND PARALLEL TO SIDEWALK OR BUILDING WALL.

E4	CLEANOUT TO GRADE
NTS	



A4	DRY WELL
NTS	

ANCHORAGE & BRACING NOTES

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISCPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26, AND 30:

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

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

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

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

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

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

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

MD ☐ MP ☐ PP ☐ E ☐ - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.
MD ☐ MP ☐ PP ☒ E ☐ - OPTION 2: SHALL COMPLY WITH THE APPLICABLE HCAI PRE-APPROVAL (OPM #) # 0043-13.

PLUMBING LEGEND

SYMBOL	ITEM	ABBR.
	ABOVE	ABV
	ABOVE CEILING	ABV CLG
	ABOVE FINISHED FLOOR	AFF
	ALTERNATE	ALT
&	AND	
	ARCHITECT / ARCHITECTURAL	ARCH
@	AT	
	BELOW FLOOR	BEL FLR
	BELOW GRADE	BEL GR
	CALIFORNIA MECHANICAL CODE	CMC
	CALIFORNIA PLUMBING CODE	CPC
	CEILING	CLG
℄	CENTER LINE	
≀	CONTINUATION	CONT
	CUBIC FEET PER HOUR	CFH
∅	DIAMETER	DIA
	DOWN	DN
	DRAWING	DWG
	ELBOW	ELL
	ELECTRICAL	ELEC
	EXISTING	(E)
	FEET	FT
	FLOOR	FLR
	FLOW LINE	FL
	GALLON	GAL
	GALLONS PER HOUR	GPH
	GALLONS PER MINUTE	GPM
	GAUGE	GA
	INSIDE DIAMETER	ID
	INVERT ELEVATION	I.E.
	MAXIMUM	MAX
	MINIMUM	MIN
	NEW	(N)
	NOT IN CONTRACT	NIC
	NOT TO SCALE	NTS
#	NUMBER	NO.
	OUTSIDE DIAMETER	OD
	POUNDS	LBS
	POUNDS PER SQUARE INCH	PSI
	POUNDS PER SQUARE INCH ABSOLUTE	PSIA
	POUNDS PER SQUARE INCH GAUGE	PSIG
	POLYVINYL CHLORIDE	PVC
	ROOM	RM
	SPECIFICATION	SPEC
	SQUARE FEET	SQ.FT
	STAINLESS STEEL	SS
	TEMPERATURE	TEMP
	THROUGH	THRU
	TYPICAL	(TYP)
	UNDER GROUND	U/G
	WATER COLUMN	WC
	WITH	W/
	WITHOUT	W/O
A	COMPRESSED AIR	A
AV	ACID VENT	AV
AW	ACID WASTE	AW
	ACID VENT RISER	AVR
	ACID VENT THRU ROOF	AVTR
CD	CONDENSATE DRAIN	CD
	DOMESTIC COLD WATER	CW
	DOMESTIC HOT WATER	HW
	DOMESTIC HOT WATER RETURN	HWR
G	LOW PRESSURE NATURAL GAS	G
HPG	HIGH PRESSURE GAS	HPG
ICW	INDUSTRIAL COLD WATER	ICW
LPG	LIQUIFIED PETROLEUM GAS	LPG
F	FIRE PROTECTION LINE	
RWL	RAIN WATER LEADER	RWL
OD	OVERFLOW DRAIN	OD
SD	STORM DRAIN	SD
	SOIL or WASTE	S or W
MA	MEDICAL AIR	MA
O_2	OXYGEN	O_2
VAC	VACUUM	VAC
	VENT	V
	VENT RISER	VR
	VENT THRU ROOF	VTR

SYMBOL	ITEM	ABBR.
	CLEANOUT TO GRADE	COTG
	DEMOLITION	DEMO
	EXISTING PIPING	
	FLOOR CLEANOUT	FCO
	HOSE BIBB	
	PIPING TURN UP	
	PIPING TURN DOWN	
	PIPING CAP	
	POINT OF CONNECTION TO EXISTING	POC
	ANGLE VALVE	
	BALANCE VALVE	
	BALL VALVE	
	CHECK VALVE	
	CONCENTRIC REDUCER	
	TWO-WAY CONTROL VALVE	
	PLUG VALVE	
	PRESSURE REDUCING VALVE	
	SHUT-OFF VALVE IN BOX	SOV
	SHUT-OFF VALVE	SOV
	THERMOSTATIC MIXING VALVE	
	TEMPERATURE / PRESSURE RELIEF VALVE	PRV
	UNION	
	WALL CLEANOUT	WCO
	"Y" TYPE STRAINER	
P	PRESSURE GAUGE	
T	TEMPERATURE GAUGE	
	KEYNOTE	
2 P202	DETAIL REFERENCE EXAMPLE: DETAIL 2, SHEET P202	
3 P400	SECTION REFERENCE EXAMPLE: SECTION 3, SHEET P400	

GENERAL NOTES

1. COORDINATION OF WORK: LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY.
2. THE ACTUAL LOCATION OF ALL MATERIALS, PIPING, DUCTWORK, FIXTURES, EQUIPMENT, SUPPORTS, ETC. SHALL BE CAREFULLY PLANNED, PRIOR TO INSTALLATION OF ANY WORK TO AVOID ALL INTERFERENCES WITH EACH OTHER, OR WITH STRUCTURAL, ELECTRICAL, ARCHITECTURAL OR OTHER ELEMENTS.
3. VERIFY THE PROPER VOLTAGE AND PHASE OF ALL EQUIPMENT WITH THE ELECTRICAL PLANS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO THE INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.
4. ALL DRAWINGS AND SPECIFICATIONS ARE TO BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS PRIOR TO ANY CONSTRUCTION, INCLUDING ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENT SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR THE OWNER REPRESENTATIVE.
5. MINIMUM SLOPE FOR SEWER IS 1/4"PER FT, UNLESS OTHERWISE NOTED.
6. ALL ROOF PENETRATIONS SHALL BE COMPATIBLE WITH ROOF SYSTEM WITH AS FEW PENETRATIONS AS POSSIBLE.
7. MINIMUM DOMESTIC WATER PIPE SIZE TO BE 3/4" UNLESS OTHERWISE NOTED. USE A REDUCING ELL AT FIXTURE, IF NECESSARY.
8. ALL PLUMBING FIXTURES, VALVES, FAUCETS, FIXTURE STOPS, ETC. WHICH PROVIDE WATER FOR HUMAN CONSUMPTION MUST MEET THE "LEAD FREE" REQUIREMENT FOR THE STATE OF CALIFORNIA.
9. MAXIMUM ALLOWABLE DISTANCE FOR HOT WATER LATERALS TO FIXTURES OFF OF THE CIRCULATING MAIN SHALL BE 10'-0" FOR HAND WASH SINKS AND LAVS, AND 15'-0" FOR OTHER SINKS.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	S OR W	V	CW	HW	DESCRIPTION
DF-1	DRINKING FOUNTAIN ADA (BALL FIELDS)	2"	1-1/2"	1/2"	-	HAWS MODEL #3612F HI-LO DRINKING FOUNTAIN WITH BOTTLE FILLER, OUTDOOR PEDESTAL MOUNT, HEAVY-DUTY STAINLESS STEEL CONSTRUCTION W/ POWDER-COATED MATTE FINISH (COLOR SELECTED BY ARCHITECT). CARBON FILTER, VANDAL-RESISTANT PUSH-BUTTON OPERATED STAINLESS STEEL VALVES, POLISHED CHROME-PLATED BRASS VANDAL-RESISTANT SHIELDED BUBLER HEADS, BOTTLE FILLER WITH 1 GPM FLOW, POLISHED CHROME PLATED WASTE STRAINERS, VANDAL-RESISTANT ACCESS PLATES, INTEGRAL MOUNTING FEET, AND 1-1/2" SLIP WASTE.

FOR BIDDING ONLY
-NOT FOR CONSTRUCTION-

Agency Approval

General Notes

NET POSITIVE consulting engineers
www.NPCeng.com
project no. 1138
REGISTERED PROFESSIONAL ENGINEER THANNAH G. BRYDOON M39064 EXP. 09-30-24 MECHANICAL STATE OF CALIFORNIA
Consultant

McKinley / Fowler Elementary School- Inc. 1
Clovis Unified School District
Fresno, CA 93727
Project

TYPICAL INFORMATION
PLUMBING LEGEND, NOTES AND DETAILS
Drawing

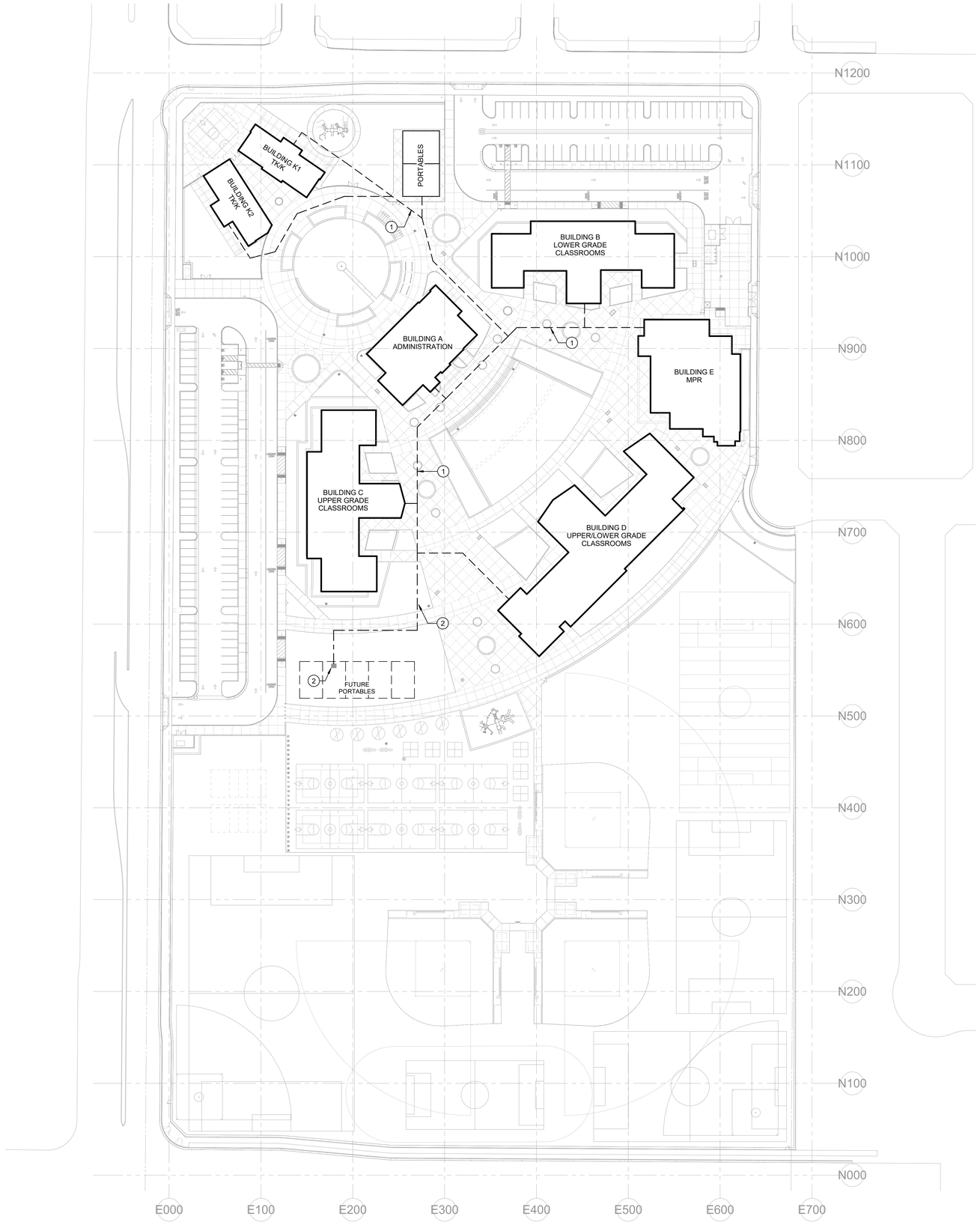
darden architects
ARCHITECTURE PLANNING INTERIORS
www.dardenarchitects.com
6790 N. West Ave. • Fresno, CA 93711 • T. 559.448.8051
LICENSED ARCHITECT MICHAEL K. FERNANDEZ No. C23724 REG. 4-30-23 STATE OF CALIFORNIA
Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed By: HB	Copyright 2022 Darden Architects
Scale: As indicated	Drawn By: HB	
Project Number: 2116	Checked By: JCS	X/P101
Date: 09/13/2022	Reviewed By: HB	

1/18/2023 2:22:20 PM



DSA File No.:
DSA File

DSA Application No.:
DSA App

Agency Approval

KEYNOTES (#)

1 PROPOSED ROUTE FOR EMS CONDUIT & WIRING BELOW GRADE IN SHARED ELECTRICAL TRENCH.

2 PROVIDE 2" EMPTY CONDUIT FOR FUTURE CONTROLS FROM BLDG C EMS PANEL TO FUTURE PORTABLE LOCATION. TERMINATE IN BG ELECTRICAL VAULT.

General Notes

NET POSITIVE
consulting
engineers
www.NPCeng.com
project no. 1138

REGISTERED PROFESSIONAL ENGINEER
HANNAH G. BIRTCHER
M39064
EXP. 09-30-24
MECHANICAL
STATE OF CALIFORNIA

Consultant

McKinley / Fowler Elementary School - Inc. 1
Clovis Unified School District
Fresno, CA 93727

Project

SITE DEVELOPMENT
MECHANICAL SITE PLAN

Drawing

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LICENSED ARCHITECT
REGINALD K. PARROTT
No. C23724
Exp. 4-30-23
STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date

Revision

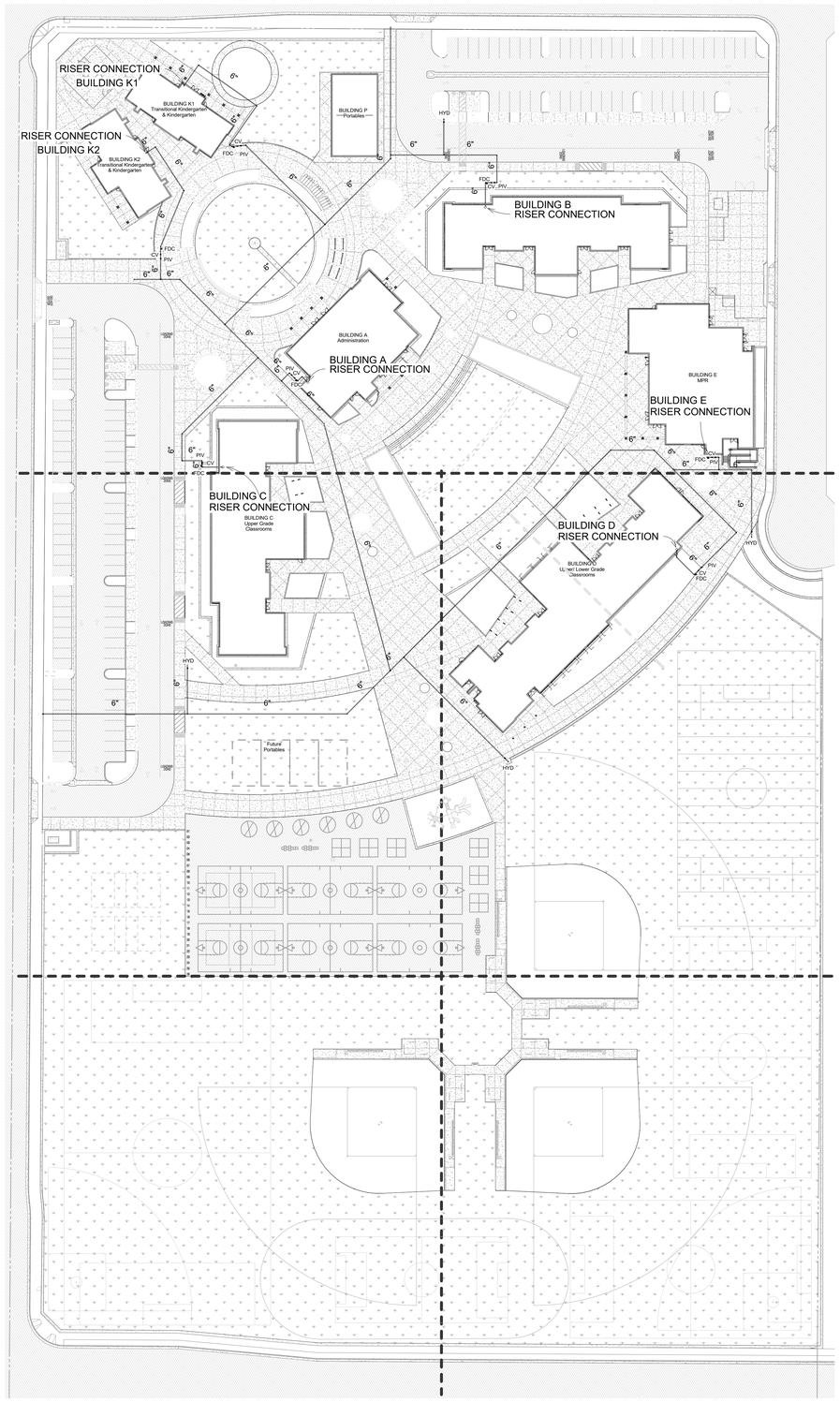
Designed By: HB
Drawn By: HB
Checked By: JCS
Reviewed By: HB

Scale: As indicated
Project Number: 2116
Date: 01/19/2023

SD/M101

A1
MECHANICAL SITE PLAN
1" = 50'-0"

1/19/2023 8:57:23 AM



SITE PLAN NOTES:

1. FIRE PROTECTION SERVICE AND ALL ITS APPURTENANCES ARE SHOWN FOR HYDRAULIC CALCULATION PURPOSES ONLY.
2. LOCATION OF LINES AND EQUIPMENT ARE FOR REFERENCE ONLY HOWEVER THE FIRE SERVICE LINE SHALL BE A MINIMUM OF 4" DIAMETER.
3. SITE CIVIL PLANS SHALL BE CONSULTED FOR ALL UNDERGROUND WORK. UNDERGROUND IS NOT IN THE FIRE PROTECTION SCOPE. FP SCOPE BEGINS 1-0" AFF IN THE RISER ROOM.
4. ANY DISCREPANCY BETWEEN THIS SITE PLAN AND THOSE OF THE SITE CIVIL DESIGN SHALL DEFER TO THE SITE CIVIL PLAN IN ALL INSTANCES.

1 FP - SITE ALT
1" = 50'-0"

DSA File No.:

DSA Application No.:

Agency Approval

General Notes

Consultant

McKinley/Fowler Elementary School- Inc. 1
Clovis Unified School District
Fresno, CA 93727

Project

SITE PLAN

Drawing

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LICENSED ARCHITECT MICHAEL K. FERNANDEZ No. C23724 REN. 4-30-23 STATE OF CALIFORNIA

Architect

No.	Revision/Submission	Date
2	Addendum #2	01/20/23

Revision

	Designed Designer	Copyright	Darden Architects
Scale: 1" = 50'-0"	Drawn By: Author		
Project Number: 2180	Checked IChecker		SD/F002
Date: 5/17/2022	ReviewedApprover		